

SERVICE MANUAL

MODEL

VPL-VW11HT

DEST.

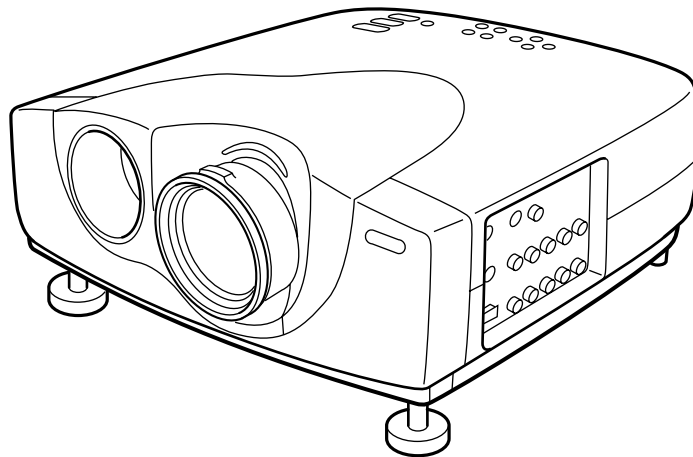
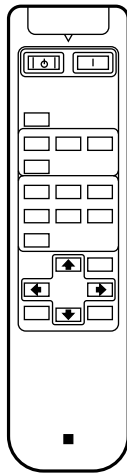
WORLD

MODEL

RM-PJVW10

DEST.

WORLD



LCD VIDEO PROJECTOR

SONY[®]

⚠ 警告

このマニュアルは、サービス専用です。

お客様が、このマニュアルに記載された設置や保守、点検、修理などを行うと感電や火災、人身事故につながる可能性があります。

危険をさけるため、サービストレーニングを受けた技術者のみご使用ください。

⚠ WARNING

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠ WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.

Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegebenen Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠ AVERTISSEMENT

Ce manuel est destiné uniquement aux personnes compétentes en charge de l'entretien. Afin de réduire les risques de décharge électrique, d'incendie ou de blessure n'effectuer que les réparations indiquées dans le mode d'emploi à moins d'être qualifié pour en effectuer d'autres. Pour toute réparation faire appel à une personne compétente uniquement.

WARNING!!

AN INSULATED TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY A ⚠ MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

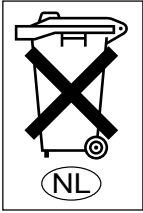
ATTENTION!!

AFIN D'ÉVITER TOUT RISQUE D'ÉLECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ÊTRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MAPQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

For the customers in the Netherlands
Voor de klanten in Nederland



- Gooi de batterij niet weg, maar lever hem in als KCA.

TABLE OF CONTENTS

1. Operating Instructions

Operating Instructions	1-1
------------------------------	-----

2. Service Informations

2-1. Circuit Boards Location	2-1
2-2. Cabinet Assy Removal	2-2
2-3. Front Panel Assy Removal	2-2
2-4. G and GA Boards Removal	2-3
2-5. C Board Removal	2-3
2-6. B and Q Boards Removal	2-4
2-7. Optical Unit Assy Removal	2-4
2-8. TH, U, BM and V Boards Removal	2-5
2-9. Power Block Removal	2-5
2-10. Lens Assy Removal	2-6
2-11. Prism Block Removal	2-6
2-12. Note on Lamp Breakage	2-7
2-13. Power Cord	2-8

3. Electrical Adjustments

3-1. Preparations	3-1
3-1-1. Equipment Required	3-1
3-1-2. Setting the Factory Mode	3-1
3-2. RGB V-COM Adjustment	3-1
3-3. Signal Level Adjustment	3-1
3-3-1. SUB-BRIGHT (NTSC) Adjustment	3-1
3-3-2. SUB-CONT, HUE and COLOR Adjustment	3-1
3-3-2-1. SUB CONT, HUE and COLOR (VIDEO) Adjustment	3-1
3-3-2-2. SUB CONT, HUE and COLOR (Component) Adjustment	3-2
3-3-2-3. SUB CONT, HUE and COLOR (DTV) Adjustment	3-2
3-3-2-4. SUB CONT, HUE and COLOR (15k RGB) Adjustment	3-2
3-3-3. Signal center and the amplitude Adjustment	3-3
3-3-4. ODD/EVEN Level Adjustment	3-3
3-3-5. RGB High Gain/Bias Adjustment	3-3
3-3-5-1. RGB High Gain/Bias Adjustment	3-3
3-3-5-2. RGB W/B Low and Custom Adjustment	3-4

3-4.	VIDEO W/B Adjustment	3-4
3-4-1.	Component W/B High Adjustment	3-4
3-4-2.	Component W/B Low Adjustment	3-4
3-4-3.	W/B Low Custom Adjustment	3-4
3-5.	Adjustments in Replacement of Prism and Optical Unit	3-5
3-5-1.	V-COM Adjustment	3-5
3-5-2.	Polarization Plate Adujustment	3-5
3-5-3.	3D GAMMA Adujustment (Outline)	3-5
3-5-4.	3D GAMMA Adujustment	3-5

4. Descriptions of Circuit Board Operations

4-1.	G/GA/F Boards	4-1
4-1-1.	Outline	4-1
4-1-2.	Detailed Explanation	4-1
4-1-2-1.	Active Filter Unit	4-1
4-1-2-2.	Main Converter Unit	4-1
4-1-2-3.	Fan Drive Unit.....	4-1
4-1-2-4.	Sub Coverter Unit	4-2
4-1-2-5.	The detection of the fan's rotation speed	4-2
4-2.	B Board	4-5
4-2-1.	Main IC Functions	4-5
4-2-1-1.	MC141627FT (IC3010), Digital Comb Filter	4-5
4-2-1-2.	uPD64081 (IC3014) ,3D Comb Filter	4-5
4-2-1-3.	CXA2123 (IC3006), Chroma Decoder & Sync Processing	4-5
4-2-2.	Signal Flows	4-5
4-2-2-1.	VIDEO Signal Flows	4-5
4-2-2-2.	15k-COMPONENT Signal/15k-RGB Signal Flows	4-6
4-3.	Q Board	4-6
4-3-1.	Outline of main ICs	4-6
4-3-1-1.	TLC5733 (IC4029), AD Converter for DRC Use	4-6
4-3-1-2.	CXD2090 Q(IC4033), DRC Processing	4-6
4-3-1-3.	CXA2101AQ (IC4013), HD Interface, RGB Matrix ...	4-6
4-3-1-4.	M52347FP (IC4006), SYNC SEPARATOR	4-7
4-3-1-5.	EL4332C (IC4007), RGB Switch, 6dB Amp, 75 Ohm Driver	4-7
4-3-2.	Video signal Flow	4-7
4-3-2-1.	VIDEO Signal Flow	4-7
4-3-2-2.	HDTV/DTV (YPbPr, RGB) Double Speed Component (YUV) Signal Flows	4-7
4-3-2-3.	Computer Signal (RGB) Flows	4-7
4-3-3.	SYNC Processing Flows	4-7
4-3-3-1.	When VIDEO Signals and 15k-COMPONENT Signals are Processed ...	4-7

4-3-3-2. When 15k-RGB Signal are Processed	4-8
4-3-3-3. When HDTV/DTV (YPbPr, GBR) Double Speed Composite Signals are Input	4-8
4-3-3-4. When Computer Signals are Processed	4-8
4-3-4. RS232C Communication Buffer	4-8
4-3-5. Reception of Remote Control Signal (SIRCS Signal)	4-9
4-3-6. Power Protector	4-9
4-3-7. B Board, Q Board Block Diagram	4-9
4-3-8. Signal Flow	4-9
4-3-8-1.C-Video (NTSC3.58)	4-9
4-3-8-2.C-Video (PAL, PAL-M, PAL-N)	4-10
4-3-8-3.C-Video (SECAM, NTSC4.43)	4-10
4-3-8-4.S-Video	4-11
4-3-8-5.15k-Component	4-11
4-3-8-6.Double Speed Component	4-12
4-3-8-7.HDTV (GBR, YPbPr)	4-12
4-3-8-8.15k-RGB	4-13
4-3-8-9.PC-RGB	4-13
4-4. C Board	4-14
4-4-1.A/D Converter Unit	4-14
4-4-2.SCAN Converter	4-14
4-4-2-1.Internal Block Diagram (Simplified diagram: Unused parts omitted)	4-14
4-4-2-2.Graphics Port Block	4-14
4-4-2-3.Display Port Block	4-15
4-4-2-4.OSD MIX Processing	4-15
4-4-2-5.Microprocessor Block	4-15
4-4-3.Functions of Main ICs	4-16
4-4-3-1.CXD9512 (IC5304), 3D GAMMA ADJ, TG	4-16
4-4-3-2.CXD3504R (IC5403), Dot-Line Inversion	4-16
4-4-3-3.ADV7123 (IC5501, 5502), D/A Converter	4-16
4-4-3-4.M52749 (IC5504, 5505), RGB Amp	4-16
4-4-3-5.CXA3512R (IC5601, 5602, 5701, 5702, 5801, 5802), LCD Driver ..	4-17
4-4-3-6.LCX037 LCD Panel	4-17
4-4-4.Signal Flow	4-18
4-4-4-1.Between CXD9512 to LCD Panel	4-18
4-4-4-2.LCD Panel Write Sequence	4-19
4-4-5.C Board Block Diagram	4-20
4-4-6.Memory Composition	4-20
4-4-6-1.Memory Composition	4-20
4-4-6-2.Memory Struction and Data Access	4-22
4-4-6-3.Data Access when VIDEO MEM OFF is Selected (When Status Memory No.1 is Selected)	4-24
4-4-6-4.VIDEO MEM Data Access when 1 to 6 is Selected (When Status Memory No.1 is Selectsd)	4-25
4-4-6-5.CPU Peripheral	4-26

5. Semiconductors5-1

6. Spare Parts

6-1.Notes on Repair Parts 6-1
6-2.Exploded Views 6-2
6-3.Electrical Parts List for Boards 6-6
6-4.Packing Materials 6-30

7. Block Diagrams

Overall 7-1
Q 7-2
BM 7-3
B 7-3
C 7-4
TH 7-5
V 7-5
U 7-5
NF 7-6
NR 7-6
H 7-6
F 7-7
G 7-7
GA 7-7

8. Diagrams

8-1. Frame Schematic Diagram 8-1
8-2. Schematic Diagrams and Printed Wiring Boards 8-2
Schematic Diagrams
Q (1/6) 8-4
Q (2/6) 8-5
Q (3/6) 8-6
Q (4/6) 8-7
Q (5/6) 8-8
Q (6/6) 8-9
B (1/3) 8-12
B (2/3) 8-13
B (3/3) 8-14
H 8-16
NF 8-17
NR 8-17

TH	8-17
U	8-17
V	8-17
C (1/9)	8-20
C (2/9)	8-21
C (3/9)	8-22
C (4/9)	8-23
C (5/9)	8-24
C (6/9)	8-25
C (7/9)	8-26
C (8/9)	8-27
C (9/9)	8-28
BM	8-31
F	8-33
G (1/3)	8-33
G (2/3)	8-34
G (3/3)	8-35
GA	8-36

Printed Wiring Boards

Q	8-3
B	8-11
H	8-15
NF	8-17
NR	8-17
TH	8-17
U	8-17
V	8-17
C	8-18, 19
BM	8-30
F	8-32
G	8-32
GA	8-36

Section 1 Operating Instructions

This section is extracted
from operation manual.

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SONY®

SONY

VPL-VW11HT

LCD Video Projector

Operating Instructions _____ **GB**

Mode d'emploi _____ **FR**

Manual de instrucciones _____ **ES**

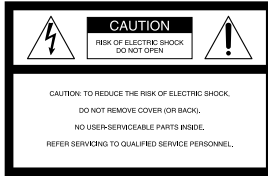
VPL-VW11HT

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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Europe

This product with the CE marking complies with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European standards:

- EN60950: Product Safety
- EN55103-1: Electromagnetic Interference (Emission)
- EN55103-2: Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environment(s):

E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors) and E4 (controlled EMC environment, ex. TV studio).

For the customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

For the customers in the United Kingdom

WARNING

THIS APPARATUS MUST BE EARTHED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-Yellow: Earth
Blue: Neutral
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \perp or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Voor de klanten in Nederland



Bij dit product zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

Warning on power connection

Use the proper power cord for your local power supply.

	The United States, Canada		Continental Europe		UK, Ireland, Australia, New Zealand	Japan
Plug type	VM0233	290B	YP-12A	COX-07	— ¹⁾	YP332
Female end	VM0089	386A	YC-13B	COX-02	VM0310B	YC-13
Cord type	SJT	SJT	H05VV-F	H05VV-F	N13237/CO-228	VCTF
Rated Voltage & Current	10A/125V	10A/125V	10A/250V	10A/250V	10A/250V	7A/125V
Safety approval	UL/CSA	UL/CSA	VDE	VDE	VDE	DENAN

1) Use the correct plug for your country.

Table of Contents

Overview

Precautions	7(GB)
Features	8(GB)
Location and Function of Controls	9(GB)
Front/Left Side	9(GB)
Rear/Right Side/Bottom	9(GB)
Control panel	11(GB)
Connector panel	12(GB)
Remote Commander	13(GB)

Setting up and projecting

Installing the Projector	14(GB)
Connecting	15(GB)
Connecting with a VCR/15k RGB/Component/ Progressive Component Equipment	15(GB)
Connecting with a Computer	16(GB)
Selecting the Menu Language	17(GB)
Projecting	18(GB)

Adjustments and settings using the menu

Using the MENU	21(GB)
The PICTURE CTRL Menu	22(GB)
The INPUT SETTING Menu	23(GB)
The SET SETTING Menu	27(GB)
The INSTALL SETTING Menu	28(GB)

Installation

Installation Examples	29(GB)
Floor Installation	29(GB)
Ceiling Installation	30(GB)
Notes for Installation	32(GB)
Unsuitable Installation	32(GB)
Unsuitable Conditions for Use	32(GB)

Maintenance

Maintenance	34(GB)
Replacing the Lamp	34(GB)
Replacing the Air Filter	35(GB)
Troubleshooting	36(GB)

Other

Specifications	38(GB)
Index	42(GB)

Precautions**On safety**

- Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it further.
- Unplug the unit from the wall outlet if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected to the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Be careful not to catch your fingers by the adjuster when you lift up the projector. Do not push hard on the top of the projector with the adjuster out.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

After you turn off the power with the \odot key on the Remote Commander or the I / \odot key on the control panel, do not disconnect the unit from the wall outlet while the cooling fan is still running.

Caution

The projector is equipped with ventilation holes (intake) on the bottom and ventilation holes (exhaust) on the front. Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.

On repacking

Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

On LCD projector

The LCD projector is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD projector. This is a normal result of the manufacturing process and does not indicate a malfunction.

Features

High brightness, high picture quality

• New, wide LCD panel

The newly developed high-resolution wide LCD panel (1366 × 768 dots) provides higher uniformity and reduced ghosts.

• High-contrast

The improvement in the LCD panel and the optical system has provided a high-contrast.

• High-brightness – 1000 ANSI lumens

The LCD panel with its newly developed 200W UHP lamp, optical unit and lens achieves a high brightness of 1000 ANSI lumens (16:9 projection), allowing for improved home viewing.

• High-quality image

In addition to the new wide LCD panel, a variety of functions are now available in the projector. These include DRC-MF (Digital Reality Creation Multifunction) (Sony's proprietary high-quality image technology); CINE MOTION; 3-D Gamma Correction, providing excellent uniformity; Cinema Black Mode, a mode that reduces the black level according to the input source/projection environment; and 3-D YC Separation/DNR (NTSC), a feature that reproduces a clear image without noise.

High-adaptability in the home environment

• Reduced noise

The exhaust opening at the front is connected to an internal fan and air duct. This means the distance from the fan to the exhaust opening is long, significantly reducing fan noise.

• Flexible setup

The projection lens has a short focus (90 inches with 2.9m (9.5 feet) (16:9)). The digital keystone correction function allows projection at a wide angle. The projector's white color goes with any color (ceilings, walls, etc.).

• Detection of clogs in the air filter

This projector uses the air filter which allows microcomputer to detect the condition of clogs according to the environment of use.

To detect clogs accurately, reset the air filter the first time you use the projector, and every time when you replace the air filter.

For details, see "To Reset the Air Filter" on page 35 (GB).

1) Compatible with specified signals only.

2) NTSC4.43 is the color system used when playing back a video recorded in the NTSC format on an NTSC4.43 system VCR.

Wide Screen/DTV/High Definition Television

• Wide Screen

This projector utilizes a 16:9 aspect ratio LCD panel, allowing seven screen modes (ZOOM, FULL, SUBTITLE, WIDE ZOOM, etc.) using all panel pixels (1366 × 768).

It allows NORMAL THROUGH mode and FULL THROUGH mode as the through mode that reproduces a sharp image with one-to-one mapping.

• DVD, DTV, High-Definition Television

The projector's super-precise image exceeds 3.14 million pixels. It is also compatible with next-generation DTV (digital TV) and high-definition television signals. Combined with a tuner or a MUSE decoder (optional), you can enjoy DTV, high-definition television, high-definition LD, etc.

Video Memory

The projector has a video memory function. The user can store up to 6 settings (image quality, aspect, temperature color, DRC-MF, etc.) according to the input source. The user can directly recall any setting from the Remote Commander.

Multi scan compatibility

• Scan converter built-in

This projector has a built-in scan converter which converts the input signal within 1366 × 768 pixels.

• Compatible with 16:9 RGB¹⁾

This projector is compatible with 16:9 aspect ratio RGB signals.

• Input signals

The projector can accept the following video signals: Composite, S-video, Component, Progressive component, DTV (480i/p, 720p/1080i), HDTV, 15k RGB, VGA, SVGA, XGA and SXGA.

• Compatible with six color systems

NTSC^{3.58}, PAL, SECAM, NTSC^{4.43}²⁾, PAL-M or PAL-N color system can be selected automatically or manually.

• VGA, SVGA, XGA and SXGA are registered trademarks of the International Business Machines Corporation, U.S.A.

• VESA is a registered trademark of the Video Electronics Standard Association.

• IBM and PC/AT are a trademark and a registered trademark of the International Business Machines Corporation, U.S.A.

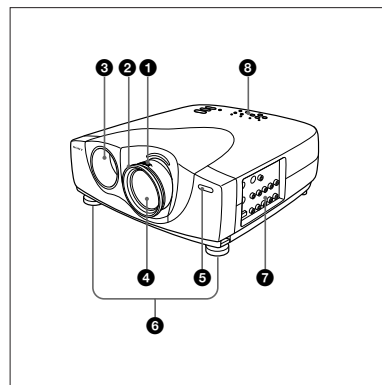
• Macintosh is a registered trademark of Apple Computer, Inc.

• NEC is a registered trademark of NEC Corporation.

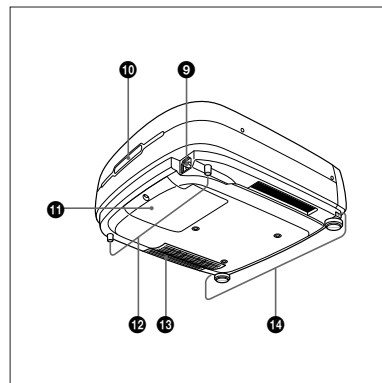
• PC-98 is a trademark of NEC Corporation.

Location and Function of Controls

Front/Left Side



Rear/Right Side/Bottom



1 Zoom ring

Adjusts the size of the picture.

2 Focus ring

Adjusts the picture focus.

3 Ventilation holes (exhaust)

4 Lens

Remove the lens cap before projection.

5 Front remote control detector (SIRCS receiver)

6 Adjusters

When a picture is projected on the out of the screen, adjust the picture using these adjusters.

For details on how to use the adjusters, see "How to use the adjuster" on page 10 (GB).

7 Connector panel

For details, see page 12 (GB).

8 Control panel

For details, see "Control panel" on page 11 (GB).

9 AC IN socket

Connects the supplied AC power cord.

10 Rear remote control detector (SIRCS receiver)

11 Lamp cover

12 Rear adjusters

13 Ventilation holes (intake)/air filter

About ventilation holes

Notes

- Do not place anything near the ventilation holes as it may cause internal heat build-up. Do not put your hand near the ventilation holes, or you may be burned.
- To detect clogs accurately, reset the air filter the first time you use the projector, and every time when you replace the air filter.
- **Replace and reset the air filter when a warning message is displayed on the screen to ensure optimal performance. This air filter cannot be cleaned. You should also reset the air filter when you use the projector for the first time.**

For details, see "Replacing the Air Filter" on page 35 (GB).

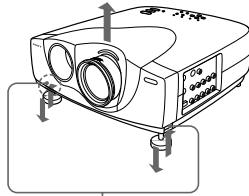
14 Adjuster buttons

How to use the adjuster

To adjust the height

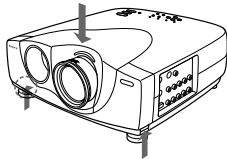
Adjust the height of the projector as follows:

- 1 Lift the projector and press the adjuster buttons. The adjusters will extend from the projector.

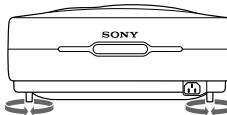


Adjuster buttons

- 2 While pressing the buttons, lower the projector. Then, release the buttons. The adjuster will be locked, then the height of the projector will be fixed. For fine adjustment, turn the adjusters to the right and the left.



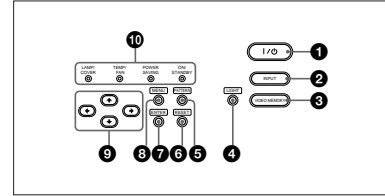
- 3 If necessary, turn the rear adjusters to the right and the left to adjust the height of the projector.



Notes

- Be careful not to let the projector down on your fingers.
- Do not push hard on the top of the projector with the adjusters out.
- When the adjusters are not extending from the projector, loosen the screws by hand.

Control panel



1 I / ⏻ (on / standby) key

Turns the projector on and off when the projector is in the standby mode. The ON/STANDBY indicator lights in green when the power is turned on.

When turning off the power, press the I / ⏻ key twice following the message on the screen, or press and hold the key for about one second.

For details on steps for turning off the power, see "To turn off the power" on page 20 (GB).

2 INPUT key

Selects the input signal. Each time you press the key, the input signal switches as follows:



3 VIDEO MEMORY key

You can adjust the image in advance and store the setting in the VIDEO MEMORY 1 to 6. You can recall the setting by pressing this key. Pressing this key selects memory numbers 1 through 6. When you keep on pressing, it selects OFF, and then starts again with 1. You can easily set, change, and view the image in a suitable setting.

For more details on how to set the video memory, see the VIDEO MEMORY of the INPUT SETTING menu on page 25 (GB).

4 LIGHT key

If you press this key while the power is on, the keys on the control panel will be displayed in orange. Press this key again to turn off the light. The light will turn off automatically if no keys are operated for 30 seconds.

5 PATTERN key

Displays the test pattern on the screen for focus adjustment. Press again to clear the test pattern.

6 RESET key

Resets the value of an item back to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

7 ENTER key

Enters the settings of items in the menu system.

8 MENU key

Displays the on-screen menu. Press again to clear the menu.

9 Arrow keys (↑/↓/←/→)

Used to select the menu or to make various adjustments.

10 Indicators

LAMP/COVER: Lights up or flashes under the following conditions:

- Lights up when the lamp has reached the end of its life or the lamp does not turn on as a result of high lamp temperature.
- Flashes when the lamp cover or air filter is not secured firmly.

TEMP (Temperature)/FAN: Lights up or flashes under the following conditions:

- Lights up when temperature inside the projector becomes unusually high.
- Flashes when the fan is broken.

POWER SAVING: Lights up when the projector is in the power saving mode. When POWER SAVING in the SET SETTING menu is set to ON, the projector goes into the power saving mode if no signal is input or no keys are operated for 10 minutes. Although the lamp goes out, the cooling fan keeps running. In the power saving mode, no key functions for the first 40 seconds. The power saving mode is canceled when a signal is input or any key is pressed.

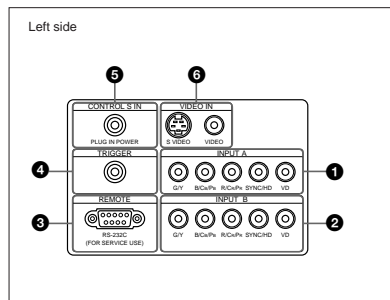
ON/STANDBY: Lights up or flashes under the following conditions:

- Lights in red when the AC power cord is plugged into the wall outlet. Once in the standby mode, you can turn on the projector with the I / ⏻ key.
- Lights in green when the power is turned on.
- Flashes in green while the cooling fan runs after turning off the power with the I / ⏻ key. The fan runs for about 120 seconds after turning off the power. The ON/STANDBY indicator flashes quickly for the first 40 seconds. During this time, you cannot turn the power back on with the I / ⏻ key.

For details on the LAMP/COVER and the TEMP/FAN indicators, see page 37 (GB).

Location and Function of Controls

Connector panel

**1 INPUT A connectors**

G/Y, B/Cb/Pb, R/Cr/Pr, SYNC/HD, VD connectors (phono type):

Connect to the RGB output of the equipment. According to the connected equipment, computer, component (Y/Cb/Cr), HDTV or DTV (DTV GBR, DTV YPbPr) signal is selected.

2 INPUT B connectors

G/Y, B/Cb/Pb, R/Cr/Pr, SYNC/HD, VD connectors (phono type):

Connect to the RGB output of the equipment. According to the connected equipment, computer, component (Y/Cb/Cr), HDTV or DTV (DTV GBR, DTV YPbPr) signal is selected.

3 RS-232C connector (D-sub 9-pin, female)

This is a service connector.

4 TRIGGER connector (minijack)

Outputs the ON or OFF condition of the unit to the external equipment.

When the unit is turned off, 0 V is output and when the unit is turned on, 12 V is output. However, as power is not output, you cannot use the connector as a power source.

5 CONTROL S IN/PLUG IN POWER (DC 5V output) jack

Connects to the control S out jacks of the Sony equipment. Connects to the CONTROL S OUT jack on the supplied Remote Commander when using it as a wired Remote Commander. In this case, you do not need to install the batteries in the Remote Commander, since power is supplied from this jack.

If this connector is used, the Remote Commander key lamp is not turned on.

6 VIDEO IN jacks

Connect to external video equipment such as a VCR.

S VIDEO (mini DIN 4-pin): Connects to the S video output (Y/C video output) of video equipment.

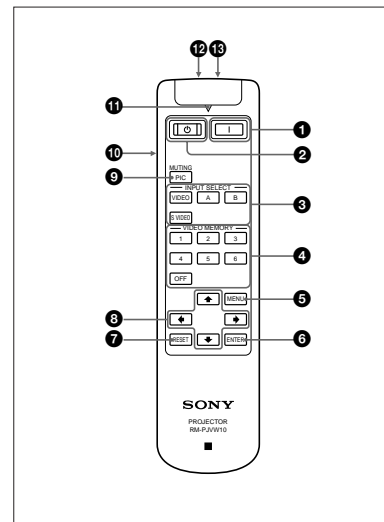
VIDEO (phono type): Connects to the composite video output of video equipment.

Remote Commander

The keys which have the same names as on the control panel function identically.

You can control a connected computer using the Remote Commander.

For details, see "Connecting with a Computer" on page 16 (GB).

**1 (ON) key**

Press this key to turn on the projector. (It is assumed that the projector is in the Stand-by state.)

2 (OFF) key

Press this key to turn off the power immediately.

3 INPUT SELECT keys

Select the input signal.

VIDEO: Selects the signal of equipment connected to the projector's VIDEO connector.

S VIDEO: Selects the signal of equipment connected to the projector's S VIDEO connector.

A: Selects the video signal of equipment connected to the INPUT A connectors.

B: Selects the video signal of equipment connected to the INPUT B connectors.

4 VIDEO MEMORY keys

You can store an image setting to one of the VIDEO MEMORY keys (1 – 6), and you can directly recall the setting by pressing the appropriate key.

For more details on how to set the video memory, see the VIDEO MEMORY of the INPUT SETTING menu on page 25 (GB).

5 MENU key**6 ENTER key****7 RESET key****8 Arrow keys (↑/↓/←/→)****9 MUTING PIC key**

Cuts off the picture. Press again to restore the picture.

10 LIGHT switch

Pressing this switch turns on the key light on the Remote Commander. Pressing this switch again turns off the key light. If no keys are operated, the lights will automatically turn off in 30 seconds.

Install the two batteries in the Remote Commander when you use the key light.

11 Transmission indicator

Lights up when you press a key on the Remote Commander.

12 CONTROL S OUT jack (stereo minijack)

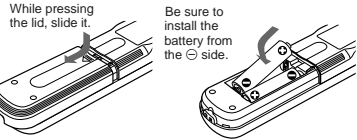
Connects to the CONTROL S IN jack on the projector with the connecting cable (not supplied) when using the Remote Commander as a wired one. In this case, you do not need to install the batteries since the power is supplied via the CONTROL S IN jack on the projector.

If the batteries are not installed, the Remote Commander key light is not turned on.

13 Infrared transmitter

Battery installation

- 1 Push and slide to open the lid, then install the two size AA (R6) batteries (supplied) with the correct polarity.



- 2 Replace the lid.

Notes on batteries

- Make sure that the battery orientation is correct when inserting batteries.
- Do not mix an old battery with a new one, or different types of batteries.
- If you will not use the Remote Commander for a long time, remove the batteries to avoid damage from battery leakage. If batteries have leaked, remove them, wipe the battery compartment dry and replace the batteries with new ones.

Notes on Remote Commander operation

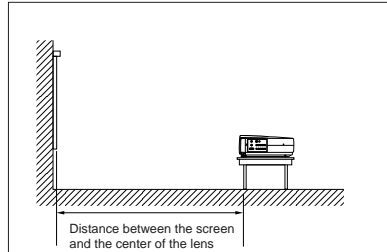
- Make sure that there is nothing to obstruct the infrared beam between the Remote Commander and the remote control detector on the projector.
- The operation range is limited. The shorter the distance between the Remote Commander and the projector is, the wider the angle within which the commander can control the projector.
- To turn on the key light when using as a wired Remote Commander, install the batteries.

Note

When the Remote Commander causes malfunction, consult with qualified Sony personnel. We change the Remote Commander as new one according to the guarantee.

Installing the Projector

This section describes the installation arrangements for installing the projector.



The distance between the lens and the screen varies depending on the size of the screen. Use the following table as a guide.

Unit: m (feet)

16:9 screen size (inches)	40	60	80	100	120	150	200	300
Minimum Distance	1.3 (4.1)	1.9 (6.3)	2.6 (8.5)	3.3 (10.7)	3.9 (12.9)	4.9 (16.2)	6.6 (21.7)	9.9 (32.6)
Maximum Distance	1.5 (4.8)	2.2 (7.4)	3.0 (9.8)	3.8 (12.4)	4.6 (14.9)	5.7 (18.7)	7.6 (25.0)	11.5 (37.7)

4:3 screen size (inches)	40	60	80	100	120	150	200	300
Minimum Distance	1.6 (5.1)	2.4 (7.8)	3.2 (10.5)	4.0 (13.2)	4.8 (15.9)	6.1 (19.9)	8.1 (26.6)	12.2 (40.0)
Maximum Distance	1.8 (6.0)	2.8 (9.1)	3.7 (12.3)	4.7 (15.4)	5.6 (18.3)	7.0 (23.0)	9.4 (30.8)	14.1 (46.2)

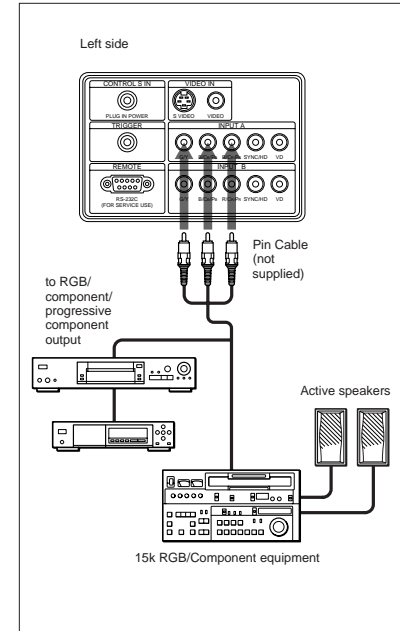
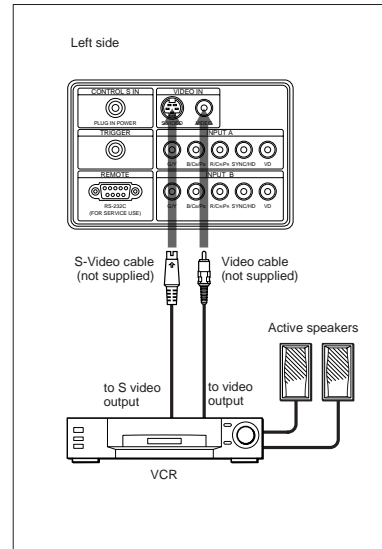
Connecting

When making connections, be sure to:

- turn off all equipment before making any connections.
- use the proper cables for each connection.
- insert the plugs of the cables properly; plugs that are not fully inserted often generate noise. When pulling out a cable, be sure to pull it out by the plug, not the cable itself.

Connecting with a VCR/15k RGB/Component/Progressive Component Equipment

This section describes how to connect the projector with a VCR, external active speakers, and 15k RGB/component/progressive component equipment. Also refer to the instruction manuals of the equipment to be connected.



Notes

- Set the aspect ratio using ASPECT in the INPUT SETTING menu according to the input signal.
- To connect a 15k RGB/component/progressive component equipment, select the COMPUTER/COMPONENT/DTV YPbPr/DTV GBR in the INPUT-A or INPUT-B in the SET SETTING menu according to the input signal.
- For details on setting, see page 27 (GB).
- You can connect a high definition equipment. The connection method is the same as above.

Connecting

Connecting with a Computer

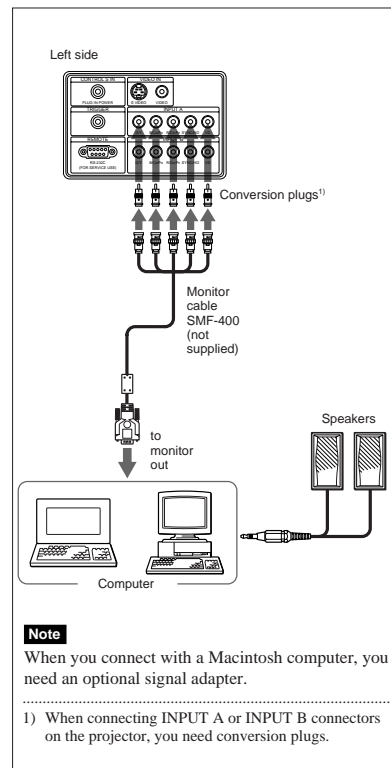
This section describes how to connect the projector to a computer.

Select the "COMPUTER" in the INPUT-A or INPUT-B of the SET SETTING menu.

Notes

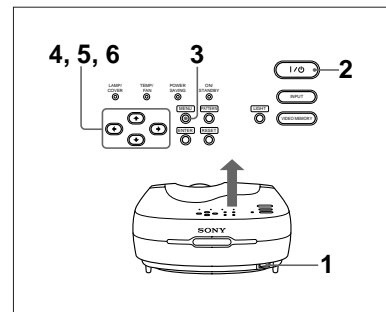
- This unit accepts the VGA, SVGA, XGA or SXGA signals. However, we recommend you to set the output signal of your computer to the XGA.
 - If you set your computer, such as a notebook type IBM PC/AT compatible, to output the signal to both the display of your computer and the external monitor, the picture of the external monitor may not appear properly. In such cases, set the output mode of your computer to output the signal only to the external monitor.
- For details, refer to the operating instructions supplied with your computer.
- Connect all the connecting cables to the INPUT A connector when you input a signal from the INPUT A connector.
 - Connect all the connecting cables to the INPUT B connector when you input a signal from the INPUT B connector as well.

When connecting with a computer



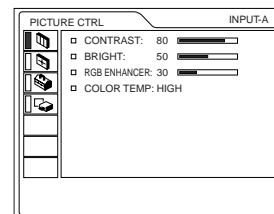
Selecting the Menu Language

You can select the language for displaying in the menu and other on screen display. The factory setting is ENGLISH.



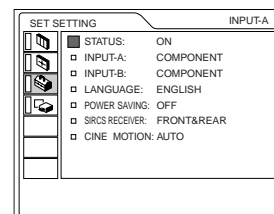
- 1 Plug the AC power cord into the wall outlet.
- 2 Press the I/O key to turn on the power.
- 3 Press the MENU key.

The menu display appears.



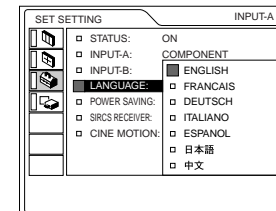
- 4 Select the icon of SET SETTING Menu, the third one, by using the ↑ or ↓ key, then press the → or ENTER key.

The SET SETTING Menu appears.



Selecting the Menu Language

- 5 Select LANGUAGE with the ↑ or ↓ key, then press the → or ENTER key.



- 6 Select the language desired with the ↑ or ↓ key, then press the ← or ENTER key.

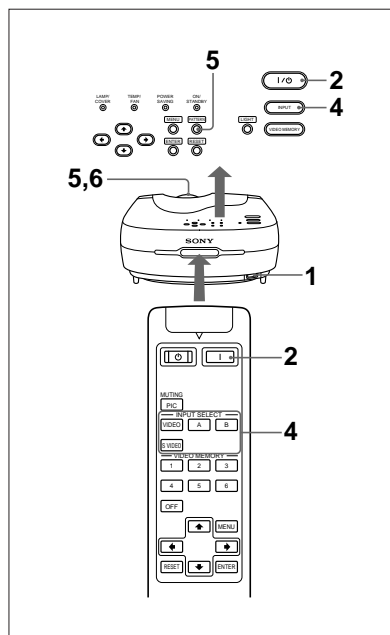
The menu changes into the selected language .

To clear the menu display

Press the MENU key.

The menu display disappears automatically if no key is pressed for one minute.

Projecting



- 1 After all equipment is completely connected, plug the AC power cord into the wall outlet.
The ON/STANDBY indicator lights in red and the projector goes into the standby mode.
- 2 Press the I / key on the control panel or the I key on the Remote Commander.
The ON/STANDBY indicator lights in green.
- 3 Turn on equipment connected to the projector.

- 4 Press the INPUT key to select the input source.

INPUT-A: Selects video signal input from the INPUT A connector, such as component equipment.

INPUT-B: Selects video signal input from the INPUT B connector, such as component equipment.

VIDEO: Selects video signal input from the VIDEO (VIDEO IN) jack.

S-VIDEO: Selects video signal input from the S VIDEO (VIDEO IN) jack.

- 5 Press the PATTERN key on the control panel to display the test pattern, and turn the focus ring to adjust the focus.
Press the PATTERN key again to clear the test pattern.

- 6 Turn the zoom ring to adjust the size of the picture.

Note

Looking into the lens when projecting may cause injury to your eyes.

To **Press**
Cut off the picture the MUTING PIC key on the remote commander. To restore the picture, press the MUTING PIC key again.

To correct the trapezoid

When the projecting image is a trapezoid, change the projector's position/height by moving the adjuster.
For details on "How to use the adjuster", see page 10 (GB).

If the image is still a trapezoid, correct it in DIGIT KEYSTONE in the INSTALL SETTING menu.

When the base edge is longer than the upper edge as shown in the figure below:



Set the value to negative.

When the upper edge is longer than the base edge as shown in the figure below:



Set the value to positive.

Note

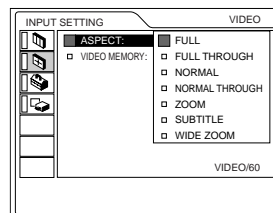
If "ZOOM", "FULL" or "NORMAL" have been selected in the ASPECT of the INPUT SETTING menu, you can change the trapezoid.

For details on "DIGIT KEYSTONE", see page 28 (GB).

Changing the aspect

You can change the aspect according to the video signal. For details on the menu screen operation, see "Using the Menu" on page 21 (GB).

- 1 Press the MENU key to display the menu.
- 2 Press the or key to select INPUT SETTING menu, then press the or ENTER key.
- 3 Press the or key to select ASPECT, then press the or ENTER key.



- 4 Make setting or adjustment on an item.

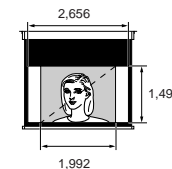
For details on setting individual items, see page 24 (GB).

The picture size for the screen size

Refer to the following for selecting the aspect.

When the 4:3 picture is displayed on the 16:9 screen

Example: The 120 inch screen is used.



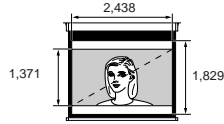
The 98 inch picture is displayed

Size (Inch)	16:9 screen	4:3 picture	
	Unit (mm)	Unit (mm)	Size (Inch)
90			73
110			90
120			98

Projecting

When the 16 : 9 picture is displayed on the 4 : 3 screen

Example: The 120 inch screen is used.



The 110 inch picture is displayed.

4:3 screen		16:9 picture	
Size (Inch)	Unit (mm)	Unit (mm)	Size (Inch)
80			73
100			91
120			110

Notes on changing the aspect

This projector provides you with the various choices of aspects. When changing the aspect, check the following:

- Select an aspect taking into account that one which changes the aspect ratio of the original picture will provide a different look from that of the original image.
- Also note that if the projector is used for profit or for public viewing, modifying the original picture by switching aspects may constitute an infringement of the rights of authors or producers which are legally protected by laws.

20 (GB)

To turn off the power**To turn off the power from the control panel**

- 1 Press the I / ⏻ key on the control panel.
“Power OFF?” appears on the screen.

Note

The message will disappear if you press any key except the I / ⏻ key, or if you do not press any key for five seconds.

- 2 Press the I / ⏻ key.

The ON/STANDBY indicator flashes in green and the fan continues to run for about 120 seconds to reduce the internal heat. Also, the ON/STANDBY indicator flashes quickly for the first 40 seconds. During this time, you will not be able to turn the power back on with the I / ⏻ key.

- 3 Unplug the AC power cord from the wall outlet after the fan stops running and the ON/STANDBY indicator lights in red.

When you cannot confirm the on-screen message

When you cannot confirm the on-screen message in a certain condition, you can turn off the power by holding the I / ⏻ key for about one second.

To turn off the power from the Remote Commander

- 1 Press the ⏻ key on the Remote Commander.
- 2 Unplug the AC power cord from the wall outlet after the fan stops running and the ON/STANDBY indicator lights in red.

Note

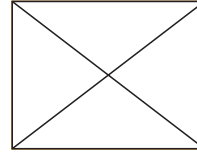
Do not unplug the AC power cord while the fan is still running; otherwise, the fan will stop although the internal heat is still high, leading to breakdown of the projector.

Using the MENU

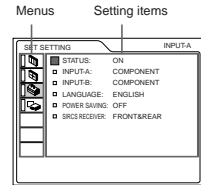
The projector is equipped with an on-screen menu for making various adjustments and settings. You can select the language for displaying in the menu.

For details on the selecting the language used in the menu, see page 17 (GB).

- 1 Press the MENU key.
The menu display appears.
The menu presently selected is shown as a yellow button.



- 2 Use the ↑ or ↓ key to select a menu, then press the → or ENTER key.
The selected menu appears.



- 3 Select an item.
Use the ↑ or ↓ key to select the item, then press the → or ENTER key.
- 4 Adjust an item.
 - When changing the adjustment level:
To increase the number, press the ↑ or → key.
To decrease the number, press the ↓ or ← key.
Press the ENTER key to restore the original screen.
 - When changing the setting:
Press the ↑ or ↓ key to change the setting.
Press the ← or ENTER key to restore the original screen.

For details on setting individual items, see the relevant menu pages.

Using the MENU

To clear the menu display

Press the MENU key.
The menu display disappears automatically if no key is pressed for one minute.

To reset items that have been adjusted

Press the RESET key.
“Complete!” appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

- Items which can be reset are:
- “CONTRAST”, “BRIGHT”, “COLOR”, “HUE”, “SHARP” and “RGB ENHANCER” in the PICTURE CTRL menu.
 - “DOT PHASE”, “SIZE H” and “SHIFT” in the INPUT SETTING menu.

About the memory of the settings

The settings are automatically stored in the projector memory.

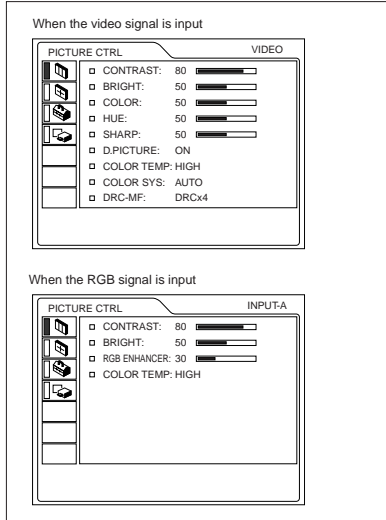
When no signal is input

When there is no input signal, “NO INPUT—Cannot adjust this item.” appears on the screen, and each item cannot be adjusted.

21 (GB)

The PICTURE CTRL Menu

The PICTURE CTRL (control) menu is used for adjusting the picture.
Unadjustable items depending on the input signal are not displayed in the menu.



CONTRAST

Adjusts the picture contrast.
The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT

Adjusts the picture brightness.
The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

COLOR

Adjusts color intensity.
The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

Adjusts color tones.
The higher the setting, the picture becomes greenish.
The lower the setting, the picture becomes purplish.

SHARP

Adjusts the picture sharpness.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

RGB ENHANCER

Adjusts the picture sharpness when the computer signals are input.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (Dynamic) PICTURE

Emphasizes the black color.
ON: Emphasizes the black color to produce a bolder "dynamic" picture.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.

COLOR TEMP

Adjusts the color temperature.
HIGH: Makes the white color bluish.
LOW: Makes the white color reddish.

COLOR SYS (System)

Selects the color system of the input signal.
AUTO: Automatically selects one of the following signals: NTSC_{3.58}, PAL, SECAM, NTSC_{4.43}.
PAL-M/N: Automatically selects one of the following signals: PAL-M/PAL-N, NTSC_{3.58}.
Normally, set to AUTO.
If the picture is distorted or colorless, select the color system according to the input signal.

DRC-MF

Smooths out a large size video image.
DRC × 4: Doubles the number of the video signal scanning lines and the number of horizontal pixels, resulting in quadrupled image quality.
DRC PROGRESSIVE: Displays a clear line or characters without line flickering.

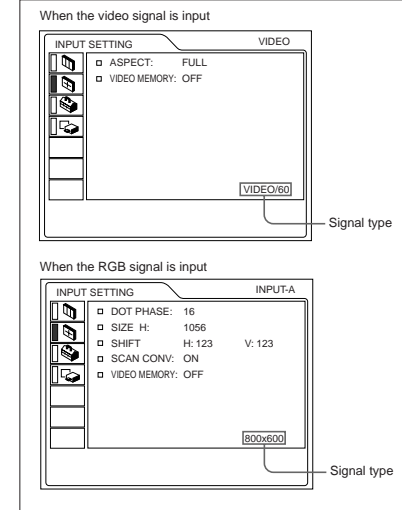
Input signals and adjustable/setting items

Item	Input signal				
	Video or S video (Y/C)	Component/15k RGB	Progressive Component/HDTV/DTV	RGB ¹⁾	B&W
CONTRAST	●	●	●	●	●
BRIGHT	●	●	●	●	●
COLOR	●	●	●	-	-
HUE	●	●	●	-	-
SHARP	●	●	●	-	●
RGB ENHANCER	-	-	-	●	-
D. PICTURE	●	●	-	-	●
COLOR TEMP	●	●	●	●	●
COLOR SYS	●	-	-	-	●
DRC-MF	●	●	-	-	●

● : Adjustable/can be set
- : Not adjustable/can not be set

The INPUT SETTING Menu

The INPUT SETTING menu is used to adjust the input signal.
Unadjustable items depending on the input signal are not displayed in the menu.



DOT PHASE

Adjusts the phase of the LCD dots and the computer signal input from the INPUT A/B connector.
Adjust the picture to where it looks clearest.

SIZE H

Adjusts the horizontal size of the picture input from the INPUT A/B connector.
The higher the setting, the larger the horizontal size of the picture. The lower the setting, the smaller the horizontal size of the picture. Adjust the setting according to the dots of the input signal. For details on the suitable value for the preset signals, see page 26 (GB).

1) The RGB signals of a computer

SHIFT

Adjusts the position of the picture input from the INPUT A/B connectors.

H adjusts the horizontal position of the picture.

V adjusts the vertical position of the picture.

As the setting for H increases, the picture moves to the right, and as the setting decreases, the picture moves to the left.

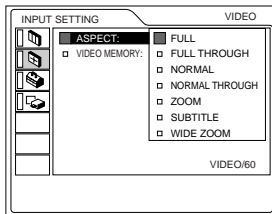
As the setting for V increases, the picture moves up, and as the setting decreases, the picture moves down. Use the **←** or **→** key to adjust the horizontal position and the **↑** and **↓** key for the vertical position.

ASPECT

Sets the following aspect setting:

4:3 NORMAL, NORMAL THROUGH

16:9 FULL, FULL THROUGH, ZOOM, SUBTITLE, WIDE ZOOM.



FULL: The 16:9 squeezed image is displayed with the correct aspect. The 4:3 image is enlarged horizontally.



FULL THROUGH: One-to-one mapping is done on a squeezed 16:9 image. The image is displayed at the center of the screen.



NORMAL: The picture with normal ratio 4:3 is displayed.



NORMAL THROUGH: One-to-one mapping is done on the picture with a normal ratio of 4:3. The picture is displayed at the center of the screen.



ZOOM: The picture with normal ratio 4:3 is enlarged vertically and horizontally (with same ratio) to the screen size. This mode is ideal for capturing the full-screen drama of wide-format movies.



SUBTITLE: The subtitle area is compressed. This mode leaves the subtitles on the lower part of the screen.



WIDE ZOOM: The picture with normal ratio 4:3 is enlarged and the upper and lower portions of the picture are compressed. This is ideal for general programs, such as news or variety shows.

**Note**

You cannot change the image mode while the projector is projecting a high definition image or DTV signal.

The adjustable/unadjustable items depending on the aspect setting

Items	V SCROLL	TITLE AREA	DIGIT KEYSTONE
FULL	–	–	●
FULL THROUGH	–	–	–
NORMAL	–	–	●
NORMAL THROUGH	–	–	–
ZOOM	●	–	●
SUBTITLE	●	●	–
WIDE ZOOM	–	–	–

● : Adjustable – : Unadjustable

SCAN CONV (Scan converter)

Converts the signal to display the picture according to the screen size.

ON: Enlarges the picture according to the screen aspect. The picture will lose some clarity.

OFF: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.

Note

When the XGA or SXGA signal is input, this item will not be displayed.

V SCROLL

Adjusts the vertical position of the picture.

Adjustable range is 0 to +7.

As the setting increases, the picture moves up, and as the setting decreases, the picture moves down. To resume the normal position, press the RESET key.

TITLE AREA

Adjusts the subtitle area.

Adjustable range is 0 to +7.

As the setting increases, the subtitle area becomes wide, and as the setting decreases, the subtitle area becomes narrow.

To resume the normal area, press the RESET key.

Note

Although the adjustable range displayed is 0 to +7, the actual range may be limited depending on the V SCROLL setting.

VIDEO MEMORY

Displays the selected video memory number. There are 6 memory settings. If you select OFF, the image is displayed according to the settings stored in each channel memory.

How to set the VIDEO MEMORY**Using the Remote Commander**

1 Press the desired number (1 – 6) of the VIDEO MEMORY keys.

The selected memory number is displayed in the menu.

2 From an appropriate menu, select an item to be adjusted and adjust the setting using the **↑**, **↓**, **←** or **→** keys.

3 Press the **←** or ENTER key.

The adjusted item (setting) is stored in the selected memory number. The screen returns to the previous screen.

1) The RGB signals of a computer

Using the Control Panel

1 Select a VIDEO MEMORY number (1 – 6) by pressing the VIDEO MEMORY key.
(You can also set the VIDEO MEMORY with the menu operation.)

2 From an appropriate menu, select an item to be adjusted and adjust the setting using the **↑**, **↓**, **←** or **→** keys.

3 Press the **←** or ENTER key.

The adjusted item (setting) is stored in the selected memory number. The screen returns to the previous screen.

Input signals and adjustable/setting items

Item	Input signal				
	Video or S video (Y/C)	15k RGB/ Progressive Component	HDTV/ DTV	RGB ¹⁾	B&W
DOT PHASE	–	–	●	●	–
SIZE H	–	●	●	●	–
SHIFT	–	●	●	●	–
ASPECT	●	●	–	–	●
SCAN CONV	–	–	–	● (lower than SVGA only)	–
V SCROLL	○	○	–	–	○
TITLE AREA	○	○	–	–	○
VIDEO MEMORY	●	●	●	●	●

● : Adjustable/can be set

– : Not adjustable/can not be set

○ : Aspect ratio dependent item

About the preset memory

This projector has 45 kinds of preset data for input signals (the preset memory). When the preset signal is input, this projector automatically detects the signal type. When the signal is registered to the preset memory, a suitable picture is displayed on the screen according to the signal type. The type of input signal is displayed in the INPUT SETTING menu. You can adjust the preset data through the INPUT SETTING menu.

This projector also has 20 kinds of user memories for each INPUT-A/B. You can register a new type of signal that is not preset. When an unregistered signal is input for the first time, the setting via INPUT-A/B adjusted in the INPUT SETTING menu is stored. When more than 20 user memories are registered for each INPUT-A/B, the newest memory is automatically stored over the oldest one.

Preset signals

Memory No.	Preset signal	fH (kHz)	fV (Hz)	Sync	SIZE H
1	Video 60 Hz	15.734	59.940	H-neg V-neg	1050
2	Video 50 Hz	15.625	50.000	H-neg V-neg	1072
3	15k RGB/Component 60 Hz	15.734	59.940	SonG/Y or	1050
4	15k RGB/Component 50 Hz	15.625	50.000	composite	1072
5	HDTV(1080/60i)	33.750	60.000	sync	2200
6	640 × 350 VGA mode 1	31.469	70.086	H-pos V-neg	800
7	VGA VESA 85 Hz	37.861	85.080	H-pos V-neg	832
8	640 × 400 PC-9801 Normal	24.823	56.416	H-neg V-neg	848
9	VGA mode 2	31.469	70.086	H-neg V-pos	800
10	VGA VESA 85 Hz	37.861	85.080	H-neg V-pos	832
11	640 × 480 VGA mode 3	31.469	59.940	H-neg V-neg	800
12	Macintosh 13"	35.000	66.667	SonG	864
13	VGA VESA 72 Hz	37.861	72.809	H-neg V-neg	832
14	VGA VESA 75 Hz	37.500	75.000	H-neg V-neg	840
15	VGA VESA 85 Hz	43.269	85.008	H-neg V-neg	832
16	800 × 600 SVGA VESA 56 Hz	35.156	56.250	H-pos V-pos	1024
17	SVGA VESA 60 Hz	37.879	60.317	H-pos V-pos	1056
18	SVGA VESA 72 Hz	48.077	72.188	H-pos V-pos	1040
19	SVGA VESA 75 Hz	46.875	75.000	H-pos V-pos	1056
20	SVGA VESA 85 Hz	53.674	85.061	H-pos V-pos	1048
21	832 × 624 Macintosh 16"	49.724	74.550	H-neg V-neg	1152
22	1024 × 768 XGA VESA 43 Hz	35.524	43.479	H-pos V-pos	1264
23	XGA VESA 60 Hz	48.363	60.004	H-neg V-neg	1344
24	XGA VESA 70 Hz	56.476	69.955	H-neg V-neg	1328
25	XGA VESA 75 Hz	60.023	75.029	H-pos V-pos	1312
26	XGA VESA 85 Hz	68.677	84.997	H-pos V-pos	1376
27	1152 × 864 SXGA VESA 70 Hz	63.995	70.019	H-pos V-pos	1472
28	SXGA VESA 75 Hz	67.500	75.000	H-pos V-pos	1600
29	SXGA VESA 85 Hz	77.487	85.057	H-pos V-pos	1568
30	1152 × 900 Sunmicro LO	61.795	65.960	H-neg V-neg	1504
31	Sunmicro HI	71.713	76.047	C-neg	1472
32	1280 × 960 SXGA VESA 60 Hz	60.000	60.000	H-pos V-pos	1800
33	SXGA VESA 75 Hz	75.000	75.000	H-pos V-pos	1728
34	1280 × 1024 SXGA VESA 43 Hz	46.433	43.436	H-pos V-pos	1696
35	SGI-5	53.316	50.062	SonG	1680
36	SXGA VESA 60 Hz	63.974	60.013	H-pos V-pos	1696
37	SXGA VESA 75 Hz	79.976	75.025	H-pos V-pos	1688

43	480/60p	480/60p (Progressive)	31.470	60.000	1050
44	575/50p	575/50p (Progressive)	31.250	50.000	SonG/Y
45	1080/50i	1080/50i	28.130	50.000	or 2640
47	720/60p	720/60p	45.000	60.000	composite 1650
48	720/50p	720/50p	37.500	50.000	sync 1980
49	1080/24PsF	1080/24PsF	27.000	48.000	2750
50	HDTV	540/60p	33.750	60.000	H-pos V-pos 2200
51	1366 × 768	16:9 RGB	45.000	56.000	H-neg V-neg 1768

After the data has been recalled from the preset memory about the following signals, you can use these preset data by adjusting SIZE H. Make fine adjustment by adjusting SHIFT.

Signal	Memory No.	SIZE H
Super Mac-2	23	1312
SGI-1	23	1320
Macintosh 19"	25	1328
Macintosh 21"	28	1456
Sony News	36	1708
PC-9821 1280 × 1024	36	1600
WS Sunmicro	37	1664

Notes

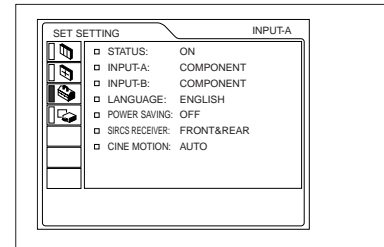
- A part of the screen is displayed in black depending on the aspect ratio of the input signal.
- Use the following signals to input the sync signal externally from the SYNC/HD connector.
 - 15k RGB signal: Composite sync signal or composite video signal
 - Component signal(15K): Cannot externally input sync signal.
 - Progressive component signal or DTV (Preset No. 3 – 5 or No. 43 – 49): Composite sync signal

The adjustable items in the VIDEO MEMORY

- Items which can set in the VIDEO MEMORY are:
- “CONTRAST”, “BRIGHT”, “COLOR”, “HUE”, “SHARP”, “RGB ENHANCER”, “D.PICTURE”, “COLOR TEMP”, “COLOR SYS” and “DRC-MF” in the PICTURE CTRL menu.
 - “ASPECT”, “SCAN CONV”, “V SCROLL” and “TITLE AREA” in the INPUT SETTING menu.

The SET SETTING Menu

The SET SETTING menu is used for changing the settings of the projector.



STATUS (on-screen display)

- Sets up the on-screen display.
- ON:** Shows all of the on-screen displays.
 - OFF:** Turns off the on-screen displays except for the menus, a message when turning off the power, and warning messages.

INPUT-A

Selects the computer, component, DTV YPbPr or DTV GBR signal input from the INPUT A connectors.

Note

If the setting is not correct, “Please check INPUT-A setting.” appears on the screen and the color of the picture becomes strange or the picture is not displayed.

INPUT-B

Selects the computer, component, DTV YPbPr or DTV GBR signal input from the INPUT-B connectors.

Notes

- If the setting is not correct, “Please check INPUT-B setting.” appears on the screen and the color of the picture becomes strange or the picture is not displayed.
- Set the progressive component signal, e.g. DVD, to “COMPONENT”; 15k RGB signal, e.g. game machines, to “DTV GBR.”

The signals that can be output for each setting of INPUT-A and -B are as shown below.

Signal	Setting of INPUT -A and -B			
	COMPUTER	COMPONENT	DTV YPbPr	DTV GBR
15k RGB (DVD output in PAL system, etc.)	-	-	-	●
Component	-	●	●	-
Progressive Component (Progressive DVD output etc.)	-	●	●	-
DTV (Digital BS output, etc.)	-	-	●	●
Computer	●	-	-	-

● : can be output - : cannot be output

LANGUAGE

Selects the language used in the menu and on-screen displays.
Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

POWER SAVING

When set to ON, the projector goes into the power saving mode if no signal is input for 10 minutes.
The power saving mode is canceled when a signal is input or any key is pressed.

SIRCS RECEIVER

Selects the remote control detectors (SIRCS receiver) on the front and rear of the projector.

- FRONT & REAR:** Activates both the front and rear detectors.
- FRONT:** Activates the front detector only.
- REAR:** Activates the rear detector only.

CINE MOTION

Selects either position according to the signal source for the NTSC_{3.58/4.43}, 15k RGB (60 Hz) or 525/60 signal.

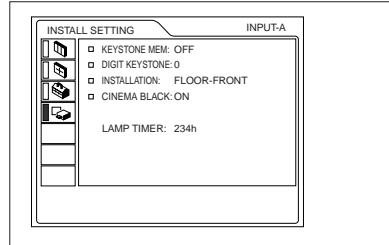
- AUTO:** Set to AUTO when the input signal is from a film-originated material. 2-3 pull down is applied.
- OFF:** 2-3 pull down is not applied.

Note

This function will not operate for signals of 50Hz.

The INSTALL SETTING Menu

The INSTALL SETTING menu is used for changing the settings of the projector.



KEYSTONE MEM

ON: DIGIT KEYSTONE setting is stored.

The data is retrieved when the projector power is turned on. The setting will remain the same every time.

OFF: DIGIT KEYSTONE is reset to 0 when the power is turned on the next time.

DIGIT KEYSTONE

Corrects the trapezoid caused by the projection angle. If the base edge is longer, set a negative value; if the upper edge is longer, set a positive value to square the image.

Note

If "ZOOM", "FULL" or "NORMAL" have been selected in the ASPECT of the INPUT SETTING, you can change the trapezoid.

INSTALLATION

Sets to reverse the picture horizontally or vertically.

FLOOR-FRONT: The picture is not reversed.

CEILING-FRONT: The picture is reversed horizontally and vertically.

FLOOR-REAR: The picture is reversed horizontally.

CEILING-REAR: The picture is reversed vertically.

Note

In case of using a mirror, be careful of installation since the picture may be reversed.

CINEMA BLACK

Switches the lamp wattage during projection.

OFF: Normal wattage.

ON: Enhances the black by reducing the lamp wattage.

If the CINEMA BLACK is set to ON, the next time the power is turned on, the lamp will use the OFF setting for the first minute, and then go to ON. It will take 2 - 3 seconds to change the wattage.

LAMP TIMER

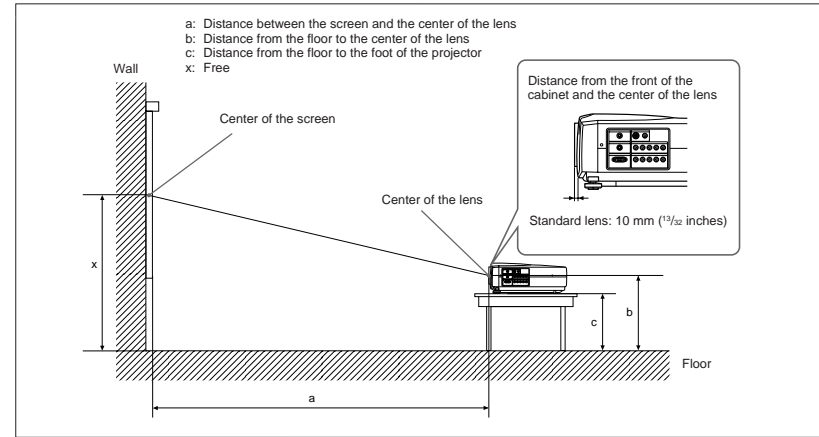
Indicates how long the lamp has been turned on.

Note

This only displays the time. You cannot alter the display.

Installation Examples

Floor Installation



		Unit: mm (inches)									
16:9 Screen size (inches)		40	60	80	100	120	150	180	200	250	300
a	Minimum	1260 (49 7/8)	1930 (76)	2600 (102 1/2)	3270 (128 7/8)	3930 (154 7/8)	4940 (194 1/8)	5940 (234)	6610 (260 7/8)	8270 (325 7/8)	9940 (391 1/2)
	Maximum	1470 (58)	2240 (88 1/4)	3010 (118 1/2)	3780 (148 7/8)	4550 (179 1/4)	5710 (224 7/8)	6860 (270 1/4)	7630 (300 1/2)	9560 (376 1/2)	11480 (452 1/2)
b		x-249 (9 7/8)	x-374 (14 1/2)	x-498 (19 3/4)	x-623 (24 1/2)	x-747 (29 1/2)	x-934 (36 3/4)	x-1121 (44 1/4)	x-1245 (49 3/4)	x-1556 (61 3/4)	x-1868 (73 3/4)
c		x-349 (13 3/4)	x-473 (18 5/8)	x-598 (23 3/4)	x-722 (28 1/2)	x-847 (33 3/4)	x-1033 (40 3/4)	x-1220 (48 1/4)	x-1345 (53)	x-1656 (65 1/4)	x-1967 (77 1/2)

To calculate the installation measurement (unit: mm)

SS: screen size diagonal (inches)

$$a \text{ (minimum)} = \{(SS \times 44.22/1.3573) - 70.76208\} \times 1.025$$

$$a \text{ (maximum)} = \{(SS \times 53.599173/1.3573) - 70.17171\} \times 0.975$$

$$b = x - (SS/1.3573 \times 8.45)$$

$$c = x - (SS/1.3573 \times 8.45 + 99.5)$$

		Unit: mm (inches)									
4:3 Screen size (inches)		40	60	80	100	120	150	180	200	250	300
a	Minimum	1560 (61 1/2)	2380 (93 3/4)	3200 (126)	4020 (158 1/4)	4830 (190 1/4)	6060 (238 3/4)	7290 (287 1/4)	8100 (319)	10150 (399 3/4)	12190 (480)
	Maximum	1820 (71 3/4)	2760 (108 3/4)	3700 (145 3/4)	4650 (183 1/4)	5590 (220 1/4)	7000 (275 1/4)	8420 (331 1/4)	9360 (368 3/4)	11720 (461 1/2)	14070 (554 1/4)
b		x-305 (12)	x-457 (18 1/4)	x-610 (24 1/4)	x-762 (30 1/4)	x-915 (36 1/4)	x-1143 (45 1/4)	x-1372 (54 1/4)	x-1524 (60 1/4)	x-1905 (75 1/4)	x-2287 (90 1/4)
c		x-404 (16)	x-557 (22)	x-709 (28)	x-862 (34)	x-1014 (40)	x-1243 (49)	x-1471 (58)	x-1624 (64)	x-2005 (78 3/4)	x-2386 (94)

To calculate the installation measurement (unit: mm)

SS: screen size diagonal (inches)

$$a \text{ (minimum)} = \{(SS \times 44.22/1.1087) - 70.76208\} \times 1.025$$

$$a \text{ (maximum)} = \{(SS \times 53.597384/1.1087) - 70.27214\} \times 0.975$$

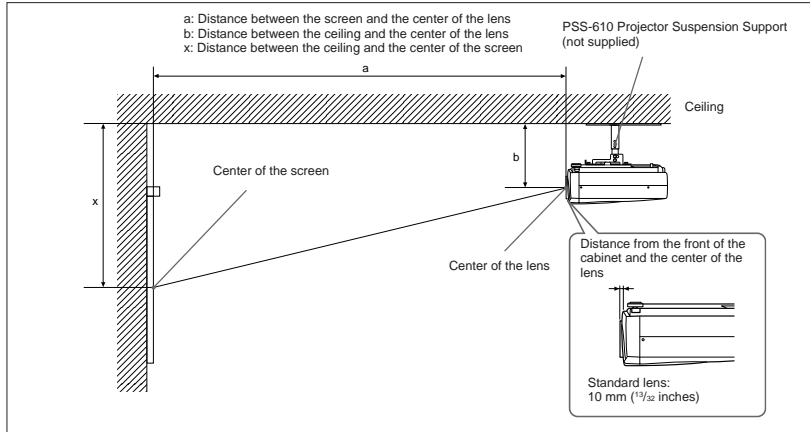
$$b = x - (SS/1.1087 \times 8.45)$$

$$c = x - (SS/1.1087 \times 8.45 + 99.5)$$

Ceiling Installation

When installing the projector on the ceiling, use the PSS-610 Projector Suspension Support.

For ceiling installation, consult with qualified Sony personnel.



Unit: mm (inches)

16:9 Screen size (inches)		80	100	120	150	180	200	250	300
a	Minimum	2600 (102 3/4)	3270 (128 7/8)	3930 (154 3/4)	4940 (194 3/4)	5940 (234)	6610 (260 3/4)	8270 (325 3/4)	9940 (391 1/2)
	Maximum	3010 (118 1/2)	3780 (148 7/8)	4550 (179 1/4)	5710 (224 3/4)	6860 (270 3/4)	7630 (300 3/4)	9560 (376 1/2)	11480 (452 1/4)
x		b+498 (19 3/4)	b+623 (24 3/4)	b+747 (29 1/2)	b+934 (36 3/4)	b+1121 (44 1/4)	b+1245 (49 1/4)	b+1556 (61 3/4)	b+1868 (73 3/4)
b		247/272/297/347/372/397 mm (9 3/4/10 3/4/11 3/4/13 3/4/14 3/4/15 3/4 inches) adjustable when using PSS-610							

To calculate the installation measurement (unit: mm)

SS: screen size diagonal (inches)

$$a \text{ (minimum)} = \{(SS \times 44.22/1.3573) - 70.76208\} \times 1.025$$

$$a \text{ (maximum)} = \{(SS \times 53.599173/1.3573) - 70.17171\} \times 0.975$$

$$x = b + (SS/1.3573 \times 8.45)$$

Unit: mm (inches)

4:3 Screen size (inches)		80	100	120	150	180	200	250	300
a	Minimum	3200 (126)	4020 (158 1/4)	4830 (190 1/4)	6060 (238 3/4)	7290 (287 1/4)	8100 (319)	10150 (399 1/4)	12190 (480)
	Maximum	3700 (145 3/4)	4650 (183 1/4)	5590 (220 1/4)	7000 (275 3/4)	8420 (331 3/4)	9360 (368 3/4)	11720 (461 1/2)	14070 (554 1/4)
x		b+610 (24 3/4)	b+762 (30 3/4)	b+915 (36 3/4)	b+1143 (45 1/4)	b+1372 (54 1/4)	b+1524 (60 3/4)	b+1905 (75 3/4)	b+2287 (90 3/4)
b		247/272/297/347/372/397 mm (9 3/4/10 3/4/11 3/4/13 3/4/14 3/4/15 3/4 inches) adjustable when using PSS-610							

To calculate the installation measurement (unit: mm)

SS: screen size diagonal (inches)

$$a \text{ (minimum)} = \{(SS \times 44.22/1.1087) - 70.76208\} \times 1.025$$

$$a \text{ (maximum)} = \{(SS \times 53.597384/1.1087) - 70.27214\} \times 0.975$$

$$x = b + (SS/1.1087 \times 8.45)$$

30 (GB)

Attaching the projector suspension support PSS-610

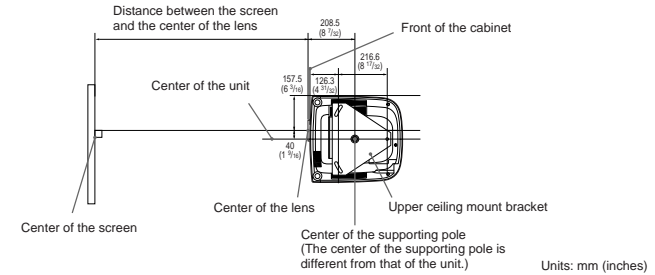
When installing the projector on the ceiling, use the PSS-610 Projector Suspension Support. For more details on the ceiling installation, refer to the

Installation manual for Dealers of the PSS-610. The installation measurements are shown below when you install the projector on the ceiling.

Installation Diagram

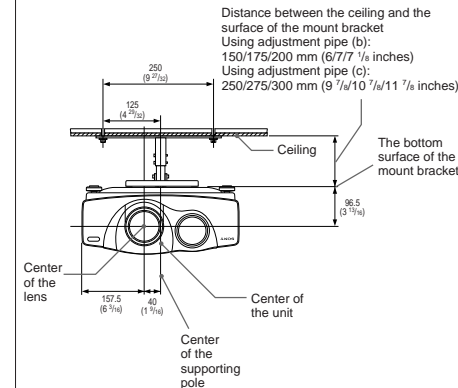
Top view

Align the center of the lens with the center of the screen.

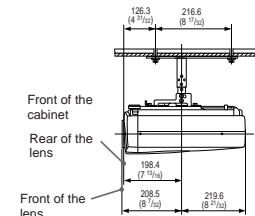


Front view

The lens is offset 40 mm (1 9/16 inch) to the right from the center of the supporting pole. When mounting, take care to align the center of the lens with the center of the screen; not the center of the supporting pole.



Side view



Units: mm (inches)

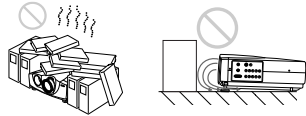
31 (GB)

Notes for Installation

Unsuitable Installation

Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Poorly ventilated



- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. When the internal heat builds up due to the block-up, the temperature sensor will function with the message "High Temp.! Lamp off in 1 min." The power will be turned off automatically after one minute.
- Leave space of more than 30 cm (11 7/8 inches) around the unit.
- Be careful that the ventilation holes may inhale tininess such as a piece of paper.
- If you put something in front of the front ventilation holes, the exhaust may be inhaled into the projector through the ventilation holes at the bottom, causing the internal temperature to rise, which activates the protection circuit. Install the projector so that the exhaust is not blocked.

Highly heated and humid



- Avoid installing the unit in a location where the temperature or humidity is very high, or temperature is very low.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.

Very dusty

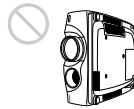


Avoid installing the unit in a location where there is a lot of dust; otherwise, the air filter will be obstructed. The dust blocking the air through the filter may cause raising the internal heat of the projector. Replace it with a new one periodically.

Unsuitable Conditions for Use

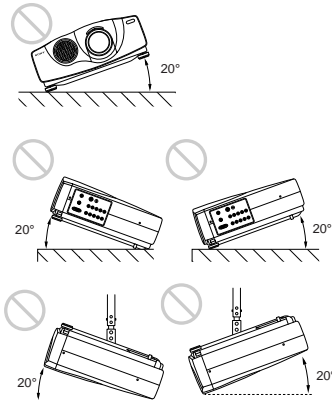
Do not do any of the following.

Topping of the unit



Avoid using as the unit topples over on its side. It may cause malfunction.

Tilting front/rear and right/left



Avoid using as the unit tilts more than 20 degrees. Do not install the unit other than on the floor or ceiling. These installation may cause malfunction.

Blocking the ventilation holes



Avoid using something to cover over the ventilation holes; otherwise, the internal heat may build up.

Maintenance

Notes

- If the lamp breaks, consult with qualified Sony personnel.
- Pull out the lamp unit by holding the handle. If you touch the lamp unit, you may be burned or injured.
- When removing the lamp unit, make sure it remains horizontal, then pull straight up. Do not tilt the lamp unit. If you pull out the lamp unit while tilted and if the lamp breaks, the pieces may scatter, causing injury.

Replacing the Lamp

When the lamp becomes darker, replace the lamp promptly with a new LMP-P201 Projector Lamp (not supplied).

It is recommended to replace the lamp with a new one after about 1500 hours for the OFF setting, or about 3000 hours for the ON setting in the CINEMA BLACK.

When it is time to change the lamp, a message which says, "Please replace the LAMP." will be displayed.

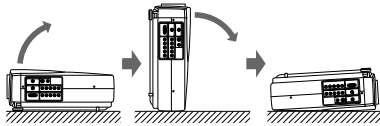
When replacing the lamp after using the projector

Turn off the projector, then unplug the power cord. Wait for at least an hour for the lamp to cool.

Note

The lamp becomes a high temperature after turning off the projector with the I / ⏻ key. If you touch the lamp, you may scald your finger. When you replace the lamp, wait for at least an hour for the lamp to cool.

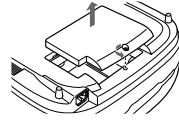
- 1 Place a protective sheet (cloth) beneath the projector. Hold the projector and turn the projector toward the back as shown below.



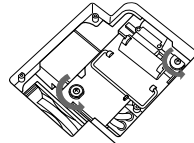
Note

When replacing the lamp, be sure the unit is on a flat and stable surface.

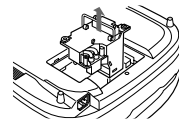
- 2 Open the lamp cover by loosening one screw with the Philips screwdriver (supplied with the LMP-P201 Projector Lamp).



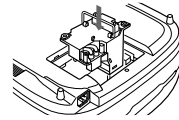
- 3 Loosen two screws on the lamp unit with the Philips screwdriver.



- 4 While holding the handle and keeping the lamp unit horizontal, pull straight up.



- 5 Insert the new lamp all the way in until it is securely in place. Tighten the screws. Fold down the handle.



Notes

- Be careful not to touch the glass surface of the lamp.
- The power will not turn on if the lamp is not secured properly.
- LMP-P200 cannot be used with this projector.

- 6 Close the lamp cover and tighten the screw.
- 7 Turn the projector back over.
- 8 Connect the power cord and turn the projector to the standby mode.
- 9 Press the following keys on the control panel in the following order for less than in five seconds each: RESET, ←, →, ENTER.

Notes

- Do not put your hands into the lamp replacement spot, or not fall any liquid or object into it to avoid electrical shock or fire.
- Be sure to use the LMP-P201 Projector Lamp for replacement. If you use lamps other than LMP-P201, the projector may cause a malfunction.
- Be sure to turn off the projector and unplug the power cord before replacing the lamp.

Disposal of used projector lamp

As the materials used in this lamp are similar to those of a fluorescent lamp, you should dispose of a used projector lamp in the same way as a fluorescent lamp.

Replacing the Air Filter

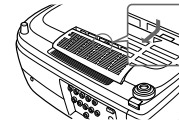
The air filter should be replaced when a warning message is displayed on the screen.

To replace the air filter, follow the steps below:

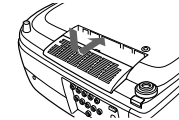
Note

If you keep on using this unit without replacing the air filter, the filter may start to clog with dust. If this happens and the internal temperature of the unit rises, the heat protection function may prevent the use of the projector for a short time. This filter cannot be cleaned; please replace it on a regular basis. You may need to replace the filter earlier than suggested, depending on the environment of use.

- 1 Turn off the power and unplug the power cord.
- 2 While pressing the triangle mark on the air filter, slide and remove the air filter (at the bottom of the projector).



- 3 Attach the new air filter aligning with the guides on the projector. Slide the air filter until it clicks.



Notes

- Be sure to attach the air filter firmly; the power will not be turned on if it is not closed securely.
- Time for the replacement of the air filter depends on the environment in which the projector is being used.
- When the air filter clogs with dust, a message which says, "Please replace the filter." will be displayed.

To reset the air filter

After replacing the air filter, follow the steps below to reset the air filter. When you are using the projector for the first time, you should also reset the air filter for the clog detection function to operate correctly.

- 1 Connect the power cord and turn the projector to the standby mode.
- 2 Press the following keys on the control panel in the following order for less than in five seconds each: RESET, MENU, ↓, ENTER.
- 3 Turn the power on by pressing the I / ⏻ key on the control panel or the I key on the Remote Commander.


Note

Be sure to follow the operations described above. The clog detection function for the filter will not operate correctly if you do not follow these steps.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Power

Symptom	Cause	Remedy
The power is not turned on.	The power has been turned off and on with the I /  key at a short interval.	Wait for about 120 seconds before turning on the power (see page 20 (GB)).
	The lamp cover is detached.	Close the lamp cover securely (see page 34 (GB)).
	The air filter is detached.	Close the air filter securely (see page 35(GB)).

Image

Symptom	Cause	Remedy
No picture.	Cable is disconnected or not connected properly.	Check that the proper connections have been made (see pages 15 (GB) and 16 (GB)).
	Invalid input setting.	Set the INPUT-A/B setting according to the input signal.
	Input selection is incorrect.	Select the input source correctly using the INPUT key (see page 18 (GB)).
	Picture is cut off.	Press the MUTING PIC key to release the muting function (see page 18 (GB)).
	The computer output signals are not set to output from an external monitor.	Set the computer signal to output to external monitor (see page 16 (GB)).
The picture is noisy.	The computer signal is set to output to both the LCD of the computer and external monitor.	Set the computer signal to output only to external monitor (see page 16 (GB)).
	If you input computer signals, some noise will appear in the background on certain screens depending on the number of dots in the input signals and LCD pixels.	Change the desktop pattern on the connected computer.
On-screen display does not appear.	STATUS in the SET SETTING menu has been set to OFF.	Set STATUS in the SET SETTING menu to ON (see page 27 (GB)).

Remote Commander

Symptom	Cause	Remedy
The Remote Commander does not work.	The Remote Commander batteries are dead.	Replace with new batteries (see page 14 (GB)).
	The remote control cable is not connected to the CONTROL S IN connector (projector) or CONTROL S OUT (Remote Commander).	Connect the remote control cable to both the projector and Remote Commander, or disconnect the cable. (see page 13 (GB)).
	The front/rear remote control detector is near the fluorescent lamp.	Change the setting of SIRCS RECEIVER in the SET SETTING menu (see page 27 (GB)).
	The Remote Commander is used as wired without batteries.	Install batteries (see page 14 (GB)).

Others

Symptom	Cause	Remedy
The LAMP/COVER indicator flashes.	The lamp cover or the air filter is detached.	Attach the lamp cover or the air filter securely (see pages 34 (GB) and 35 (GB)).
The LAMP/COVER indicator lights up.	The lamp has reached the end of its life.	Replace the lamp (see page 34 (GB)).
	The lamp becomes a high temperature.	Wait for 120 seconds to cool down the lamp and turn on the power again (see page 20 (GB)).
The TEMP/FAN indicator flashes.	The fan is broken.	Consult with qualified Sony personnel.
The TEMP/FAN indicator lights up.	The internal temperature is unusually high.	Check to see if nothing is blocking the ventilation holes. Check to see if the air filter has been used over 500 hours. Check to see if the air filter is clogged with dust.
Both LAMP/COVER and TEMP/FAN indicators light up.	The electric system failed.	Consult with qualified Sony personnel.

Warning messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
High temp! Lamp off in 1 min.	Internal temperature is too high.	Turn off the power. Check to see if nothing is blocking the ventilation holes. Check to see if the air filter has been used over 500 hours. Check to see if the air filter is clogged with dust.
Frequency is out of range!	This input signal cannot be projected as the frequency is out of the acceptable range of the projector.	Input a signal that is within the range of the frequency.
	The resolution setting of the output signal of a computer is too high.	Set the setting of output to the XGA (see page 16 (GB)).
Please check INPUT-A setting.	You have input RGB signal from the computer when INPUT-A in the SET SETTING menu is set to COMPONENT, DTV YPaPr or DTV GBR.	Set INPUT-A correctly (see page 27 (GB)).
Please check INPUT-B setting.	You have input RGB signal from the computer when INPUT-B in the SET SETTING menu is set to COMPONENT, DTV YPaPr or DTV GBR.	Set INPUT-B correctly (see page 27 (GB)).
Please replace the LAMP.	It is time to replace the lamp.	Please replace the lamp.
Please replace the filter.	The air filter is clogged with dust.	Please replace the air filter.

Caution messages

Use the list below to check the meaning of the messages displayed on the screen.

Message	Meaning	Remedy
NO INPUT	No input signal	Check connections (see page 15 (GB) and 16 (GB)).
Not applicable!	You have pressed the wrong key.	Press the appropriate key.

Specifications

Optical characteristics

Projection system	3 LCD panels, 1 lens, projection system
LCD panel	1.35-inch p-Si TFT LCD panel 3,147,264 pixels (1,049,088 pixels × 3)
Lens	Approx. 1.2 times zoom lens f 44.6 to 53.6 mm/F 2.2 to 2.5
Lamp	200 W UHP
Projection picture size	Range: 40 to 300 inches (diagonal measure)
Light output	ANSI lumen ¹⁾ 1000 lm
Throwing distance	<16:9> 40-inch: 1260 to 1470 mm (49 3/8 to 58 inches) 60-inch: 1930 to 2240 mm (76 to 88 1/4 inches) 80-inch: 2600 to 3010 mm (102 3/8 to 118 3/8 inches) 100-inch: 3270 to 3780 mm (128 7/8 to 148 7/8 inches) 120-inch: 3930 to 4550 mm (154 3/4 to 179 1/4 inches) 150-inch: 4940 to 5710 mm (194 3/8 to 224 7/8 inches) 180-inch: 5940 to 6860 mm (234 to 270 1/8 inches) 200-inch: 6610 to 7630 mm (260 3/8 to 300 1/2 inches) 250-inch: 8270 to 9560 mm (325 3/4 to 376 1/2 inches) 300-inch: 9940 to 11480 mm (391 1/2 to 452 1/8 inches) <4:3> 40-inch: 1560 to 1820 mm (61 1/2 to 71 3/4 inches) 60-inch: 2380 to 2760 mm (93 3/4 to 108 3/4 inches) 80-inch: 3200 to 3700 mm (126 to 145 3/4 inches) 100-inch: 4020 to 4650 mm (158 5/16 to 183 1/8 inches) 120-inch: 4830 to 5590 mm (190 1/4 to 220 1/8 inches) 150-inch: 6060 to 7000 mm (238 3/8 to 275 3/8 inches) 180-inch: 7290 to 8420 mm (287 1/8 to 331 3/8 inches)

200-inch: 8100 to 9360 mm (319 to 368 5/8 inches)
250-inch: 10150 to 11720 mm (399 3/4 to 461 1/2 inches)
300-inch: 12190 to 14070 mm (480 to 554 1/8 inches)

Electrical characteristics

Color system	NTSC _{3.58} /PAL/SECAM/NTSC _{4.43} /PAL-M/PAL-N system, switched automatically/manually
Resolution	750 horizontal TV lines (Video input) 1366 × 768 pixels (RGB input)
Acceptable computer signals	fH: 15 to 80 kHz fV: 50 to 85 Hz

Input/Output

VIDEO IN	VIDEO: RCA type Composite video: 1 Vp-p ±2 dB sync negative (75 ohms terminated) S VIDEO: Y/C mini DIN 4-pin type (female) Y (luminance): 1 Vp-p ±2 dB sync negative (75 ohms terminated) C (chrominance): burst 0.286 Vp-p ±2 dB (NTSC) (75 ohms terminated), burst 0.3 Vp-p ±2 dB (PAL) (75 ohms terminated)
INPUT A/B	Component/Progressive component/HDTV/RGB: RCA type (female) G: 0.7 Vp-p ±2 dB (75 ohms terminated) G with sync/Y: 1 Vp-p ±2 dB sync negative (75 ohms terminated) B/Cb/Pb: 0.7 Vp-p ±2 dB R/Cr/Pr: 0.7 Vp-p ±2 dB (75 ohms terminated) SYNC/HD: Composite sync input: 1-5 Vp-p high impedance, positive/negative Horizontal sync input: 1-5 Vp-p high impedance, positive/negative

REMOTE CONTROL S IN/PLUG IN POWER	VD: Vertical sync input: 1-5 Vp-p high impedance, positive/negative D-sub 9-pin (female)
TRIGGER	Stereo minijack 5Vp-p, plug in power, DCSV Power on: DC 12V 4.7k ohm output impedance Power off: 0 V
Safety regulations:	UL, cUL, FCC Class B, IC Class B, NEMKO, CE(LVD/EMC), C-Tick

General

Dimensions	395 × 168 × 427 mm (13 3/8 × 5 5/8 × 13 1/4 inches) (w/h/d)
Mass	Approx. 8 kg (17 lb 10 oz)
Power requirements	AC 100 to 240 V, 50/60 Hz
Power consumption	Max. 300 W (Standby mode: 6 W)
Peak inrush current	(1) Power ON, current probe method: 58.0A (240V) (2) Hot switching inrush current, measured in accordance with European standard EN55103-1: 24.3A (230V)
Operating temperature	0°C to 40°C (32°F to 104°F)
Operating humidity	35% to 85% (no condensation)
Storage temperature	-20°C to 60°C (-4°F to 140°F)
Storage humidity	10% to 90%
Supplied accessories	Remote Commander RM-PJW10 (1) Size AA (R6) batteries (2) Lens Cap (1) AC power cord (1) Air filter (for replacement) (3) Operating Instructions (1)
Design and specifications are subject to change without notice.	

Optional accessories

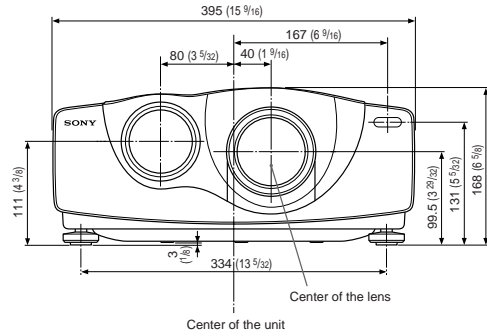
Projector Lamp LMP-P201 (for replacement)
Projector Suspension Support PSS-610
Air Filter PK-VW11FL

Some of the items may not be available in some areas. For details, please consult your nearest Sony office.

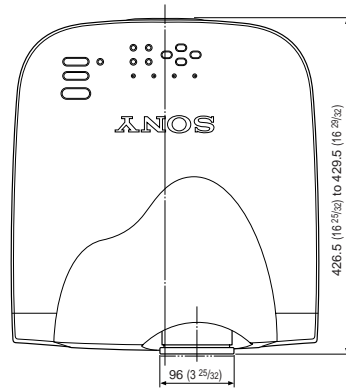
1) ANSI lumen is a measuring method of American National Standard IT 7.228.

Dimensions

Front

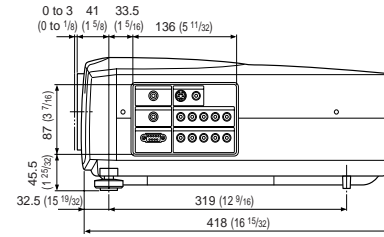


Top

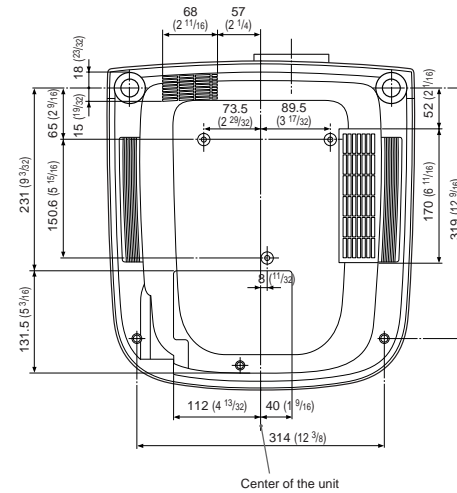


Unit: mm (inches)

Side



Bottom



Unit: mm (inches)

Index

A

- Adjuster 10 (GB), 22 (GB)
- Adjusting
 - memory of the settings 21 (GB)
 - the picture 21 (GB), 22 (GB)
 - the picture size/shift 23 (GB), 24 (GB)
- Adjusting the size of the picture 18 (GB)
- Air filter 35 (GB)
- ASPECT 24 (GB)

B

- Battery
 - installation 14 (GB)
 - notes 14 (GB)
- BRIGHT 22 (GB)

C

- CINE MOTION 27 (GB)
- CINEMA BLACK 28 (GB)
- COLOR 22 (GB)
- COLOR SYS (System) 22 (GB)
- COLOR TEMP 22 (GB)
- Condensation 32 (GB)
- Connections
 - component equipment 15 (GB)
 - computer 16 (GB)
 - VCR 15 (GB)
- CONTRAST 22 (GB)
- Cut off the picture 18 (GB)

D, E, F, G

- DIGIT KEYSTONE 28 (GB)
- Dimensions 40 (GB)
- D. (Dynamic) PICTURE 22 (GB)
- DOT PHASE 23 (GB)
- DRC-MF 22 (GB)

H

- HUE 22 (GB)

I, J, K

- INPUT-A 27 (GB)
- INPUT-B 27 (GB)
- INPUT SETTING menu 23 (GB)
- INSTALL SETTING menu 28 (GB)
- INSTALLATION 28 (GB)
- Installation examples 29 (GB)
 - on a ceiling 30 (GB)
 - on a floor 29 (GB)
- KEYSTONE MEM 28 (GB)

L

- Lamp replacement 34 (GB)
- LAMP TIMER 28 (GB)
- LANGUAGE 27 (GB)
- Location and function of controls
 - connector panel 12 (GB)
 - control panel 11 (GB)
 - front/left side 9 (GB)
 - rear/right side/bottom 9 (GB)
 - Remote Commander 13 (GB)

M, N

Menu

- clearing the menu display 17 (GB)
- INPUT SETTING menu 23 (GB)
- INSTALL SETTING menu 28 (GB)
- PICTURE CTRL menu 22 (GB)
- SET SETTING menu 27 (GB)
- using the menu 21 (GB)

Messages

- cautions 37 (GB)
- warnings 37 (GB)
- Notes for Installation 32 (GB)
 - Unsuitable Conditions for Use 32 (GB)
 - Unsuitable Installation 32 (GB)

O

- Optional accessories 39 (GB)

P, Q

- PICTURE CTRL menu 22 (GB)
- Power
 - turn off 20 (GB)
 - turn on 18 (GB)
- POWER SAVING 11 (GB), 27 (GB)
- Precautions 7 (GB)
- Projecting 18 (GB)
- PSS-610 Projector Suspension
 - Support 30 (GB)

R

- Remote Commander
 - battery installation 14 (GB)
 - location and function of
 - controls 13 (GB)
- Remote control detector
 - front 9 (GB)
 - rear 9 (GB)
- Reset
 - resettable items 21 (GB)
 - resetting the air filter 35 (GB)
 - resetting the item 21 (GB)
- RGB ENHANCER 22 (GB)
- RS-232C connector 12 (GB)

S

- SCAN CONV
 - (Scan converter) 25 (GB)
- Screen size
 - 14 (GB), 29 (GB), 30 (GB), 38 (GB)
- SET SETTING menu 27 (GB)
- SHARP 22 (GB)
- SHIFT 24 (GB)
- SIRCS RECEIVER 9 (GB), 27 (GB)
- SIZE H 23 (GB)
- Specifications 38 (GB)
- STATUS (on-screen display) 27 (GB)
- Supplied accessories 39 (GB)

T, U

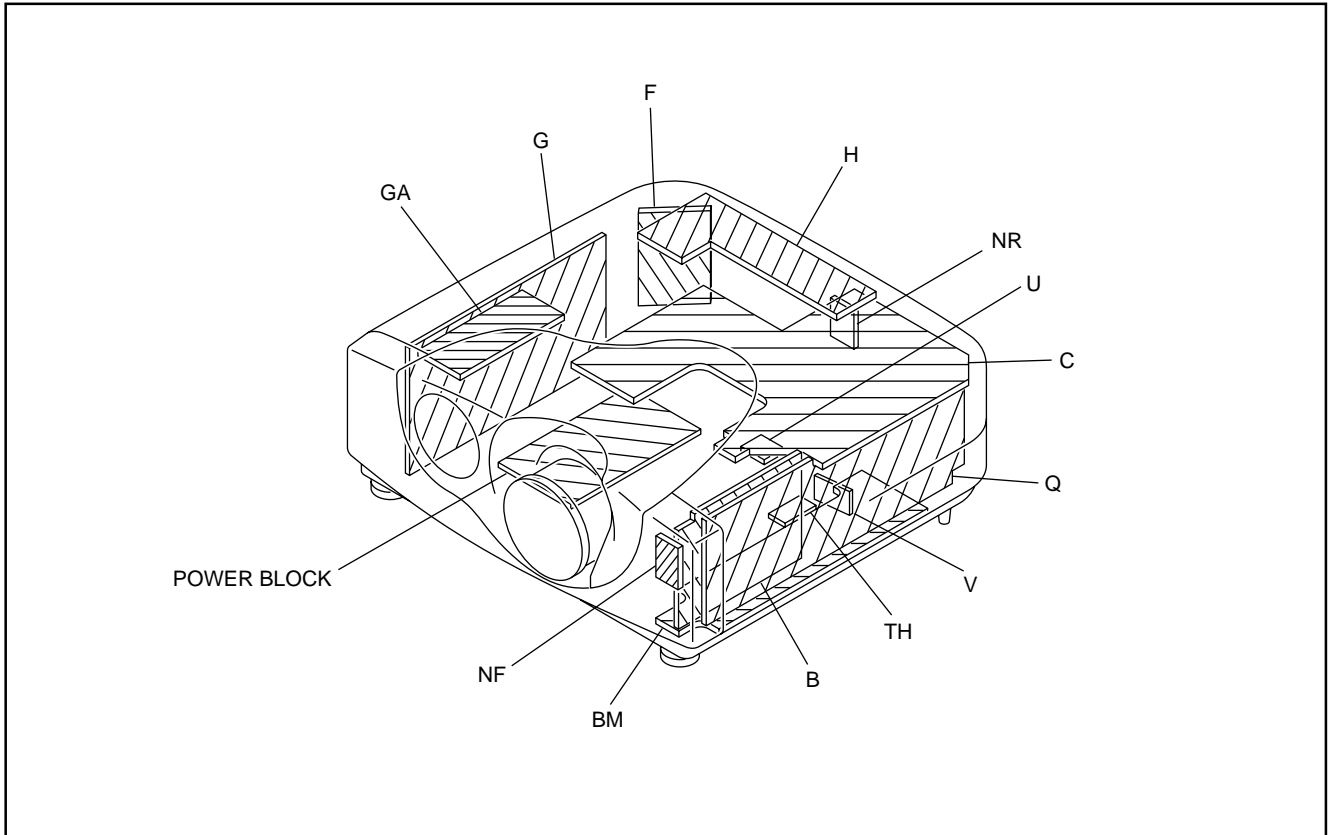
- TITLE AREA 25 (GB)
- Troubleshooting 36 (GB)

V, W, X, Y, Z

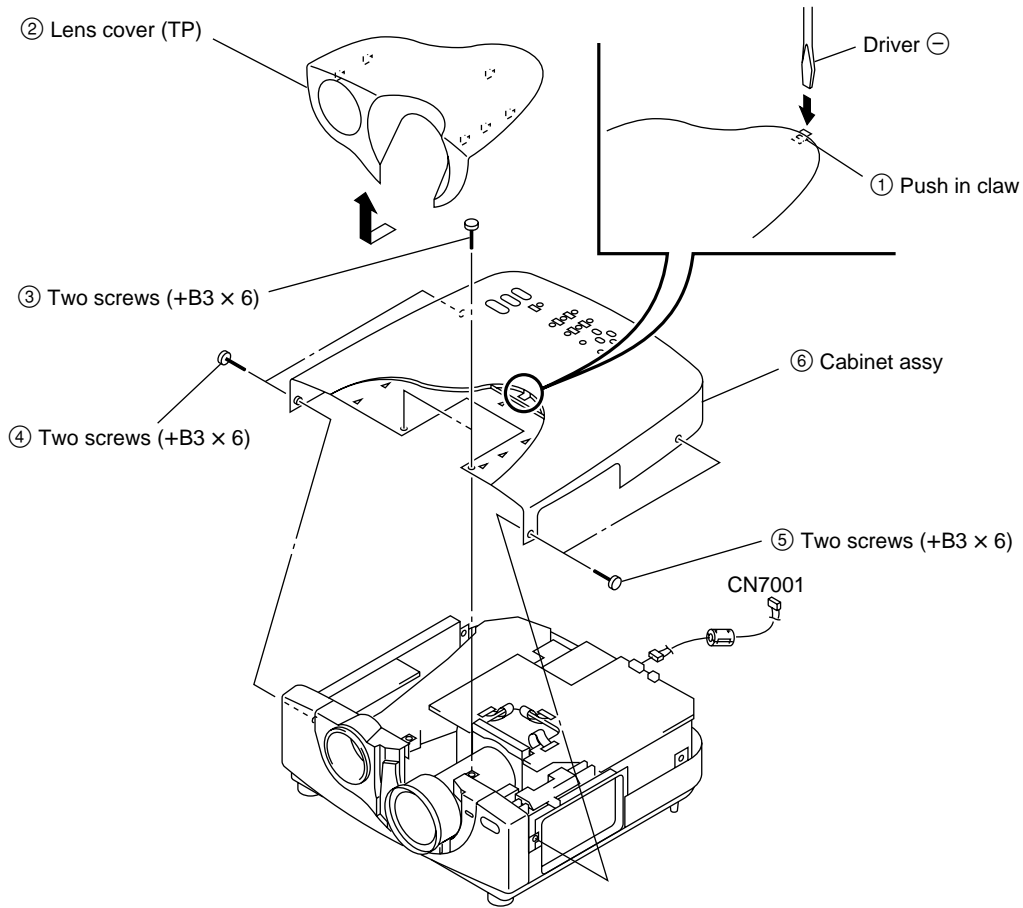
- Ventilation holes
 - exhaust 9 (GB)
 - intake 9 (GB)
- VIDEO MEMORY 25 (GB)
- V SCROLL 25 (GB)

Section 2 Service Informations

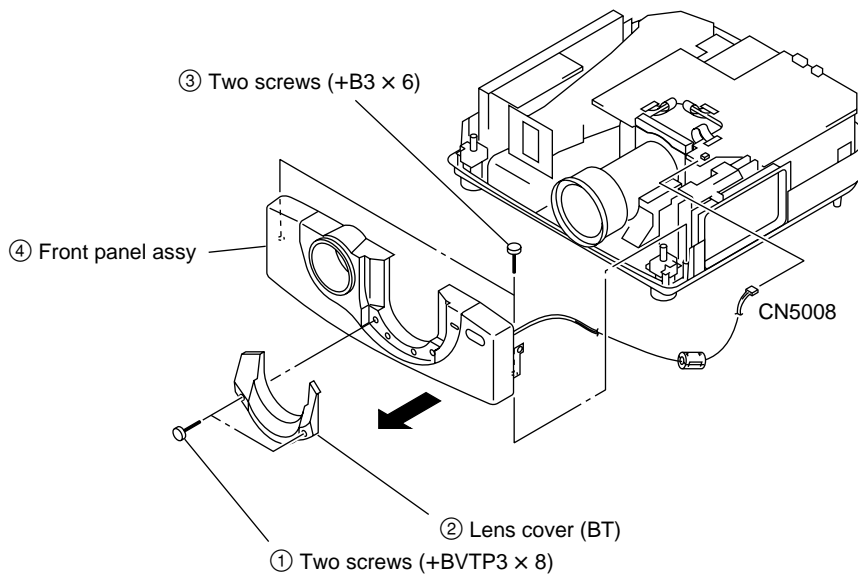
2-1. Circuit Boards Location



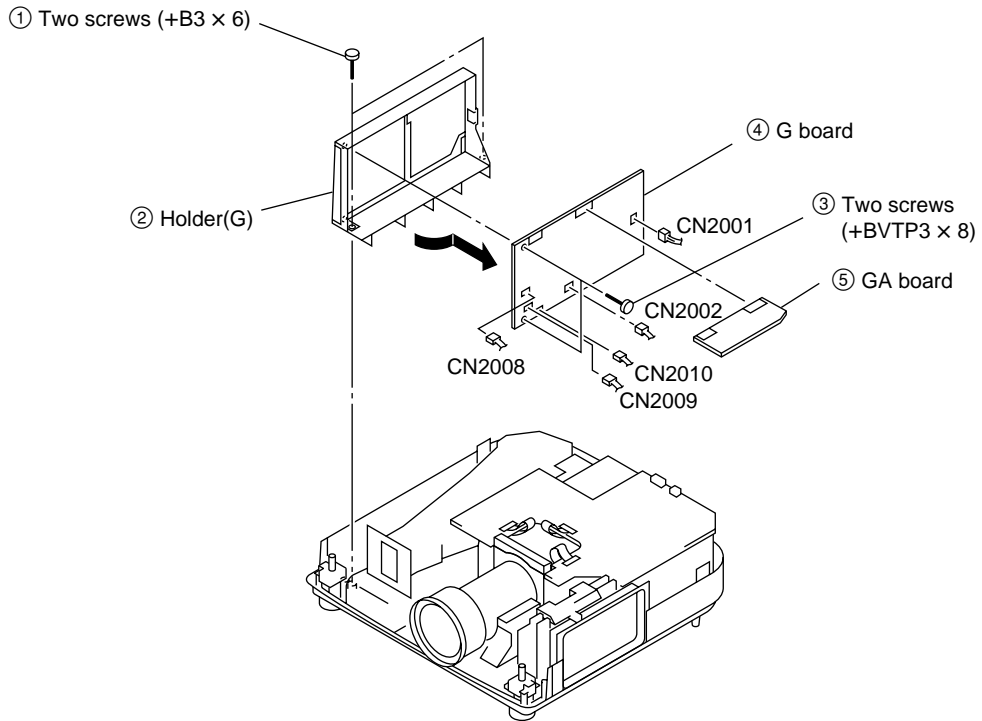
2-2. Cabinet Assy Removal



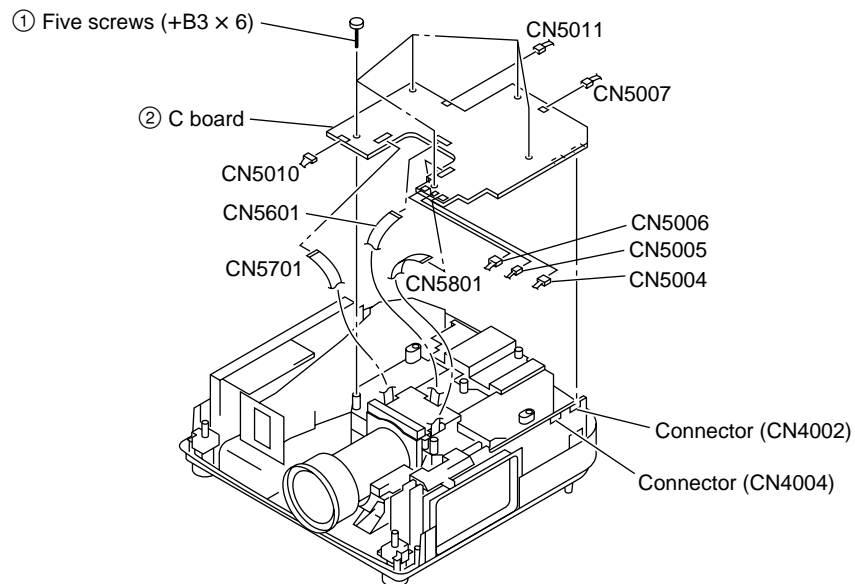
2-3. Front Panel Assy Removal



2-4. G and GA Boards Removal

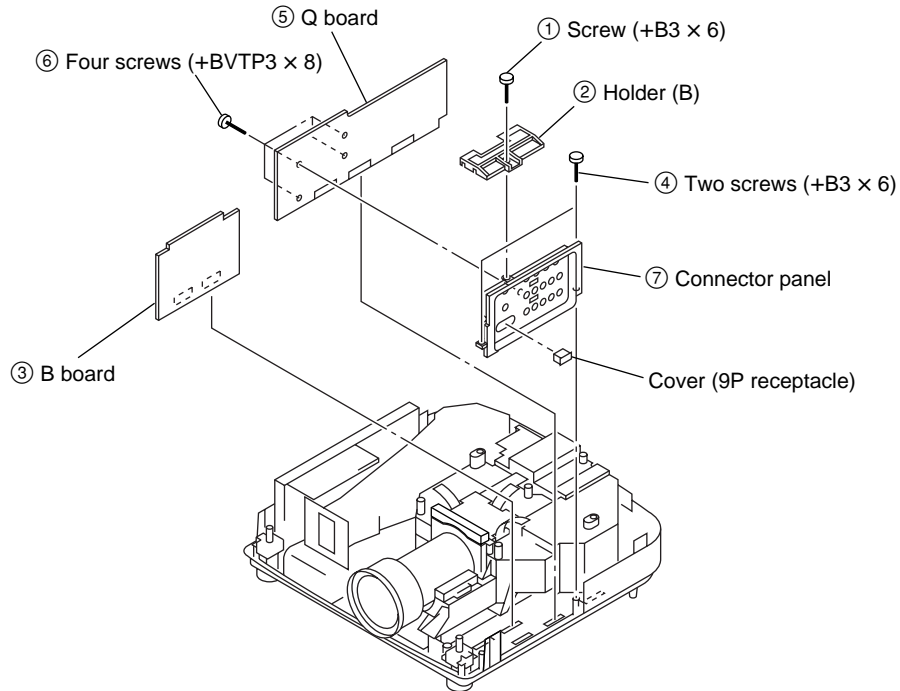


2-5. C Board Removal



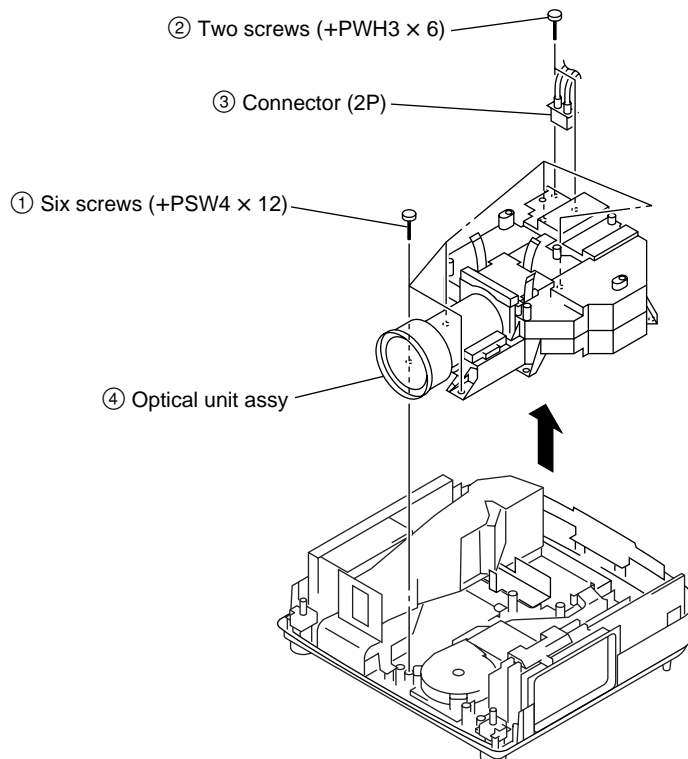
2-6. B and Q Boards Removal

- Remove the C Board (Refer to 2-5.).



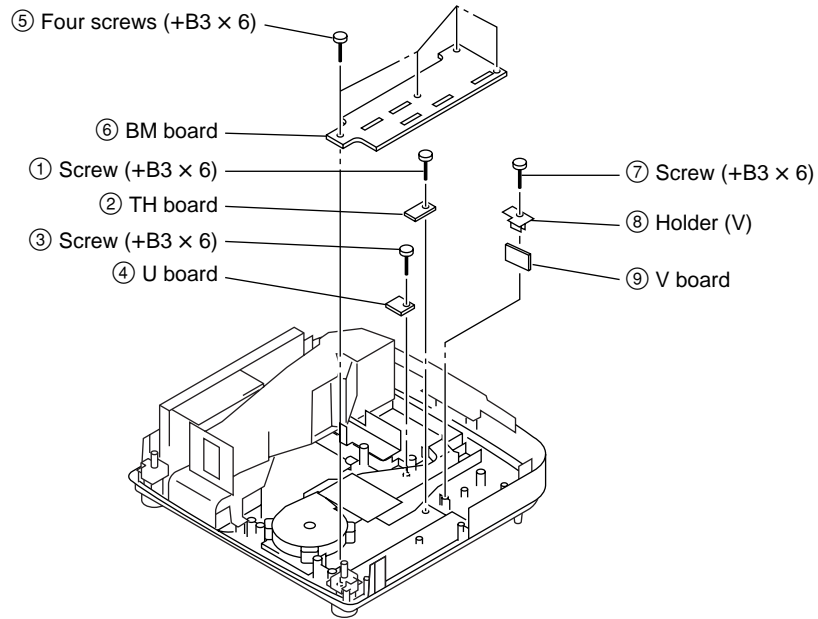
2-7. Optical Unit Assy Removal

- Remove the C Board (Refer to 2-5.).



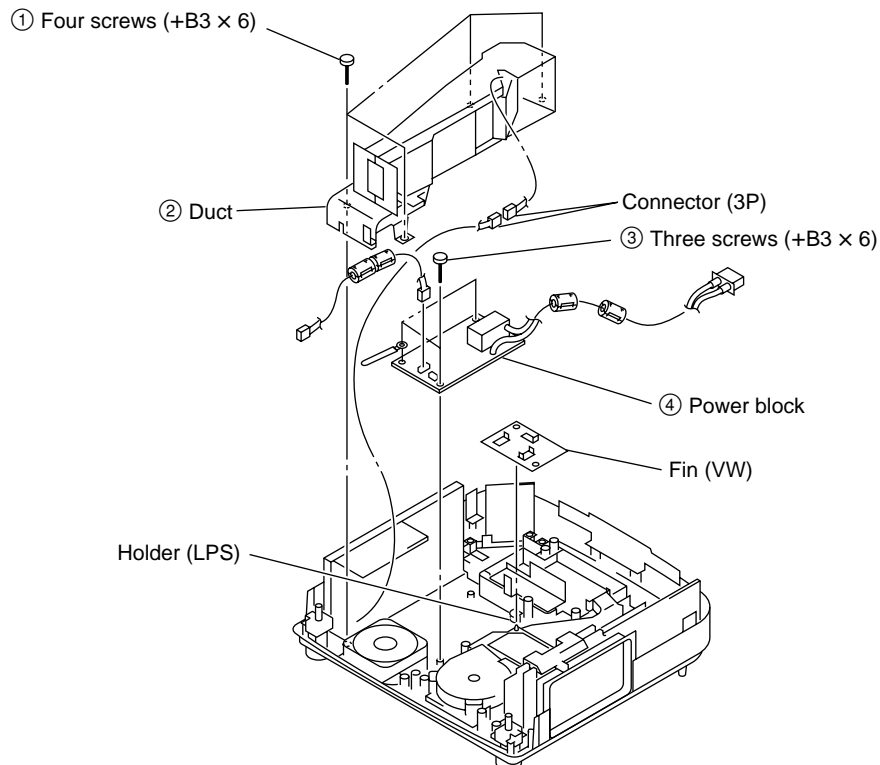
2-8. TH, U, BM and V Boards Removal

- Remove the B and Q Boards (Refer to 2-6.).
- Remove the optical unit assy (Refer to 2-7.).



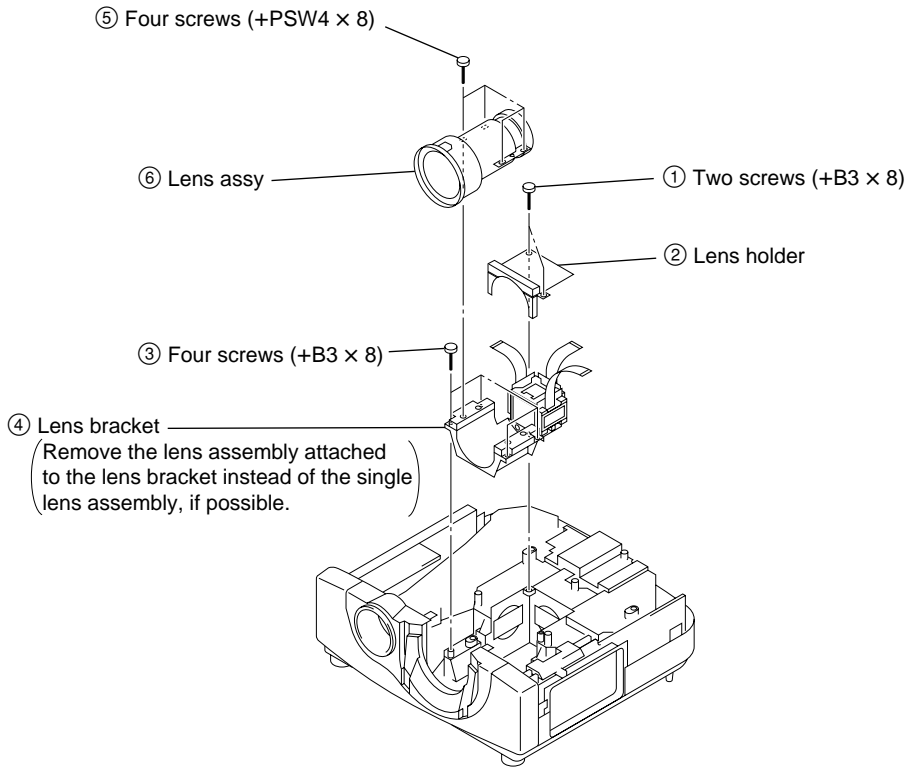
2-9. Power Block Removal

- Remove the optical unit assy (Refer to 2-7.).



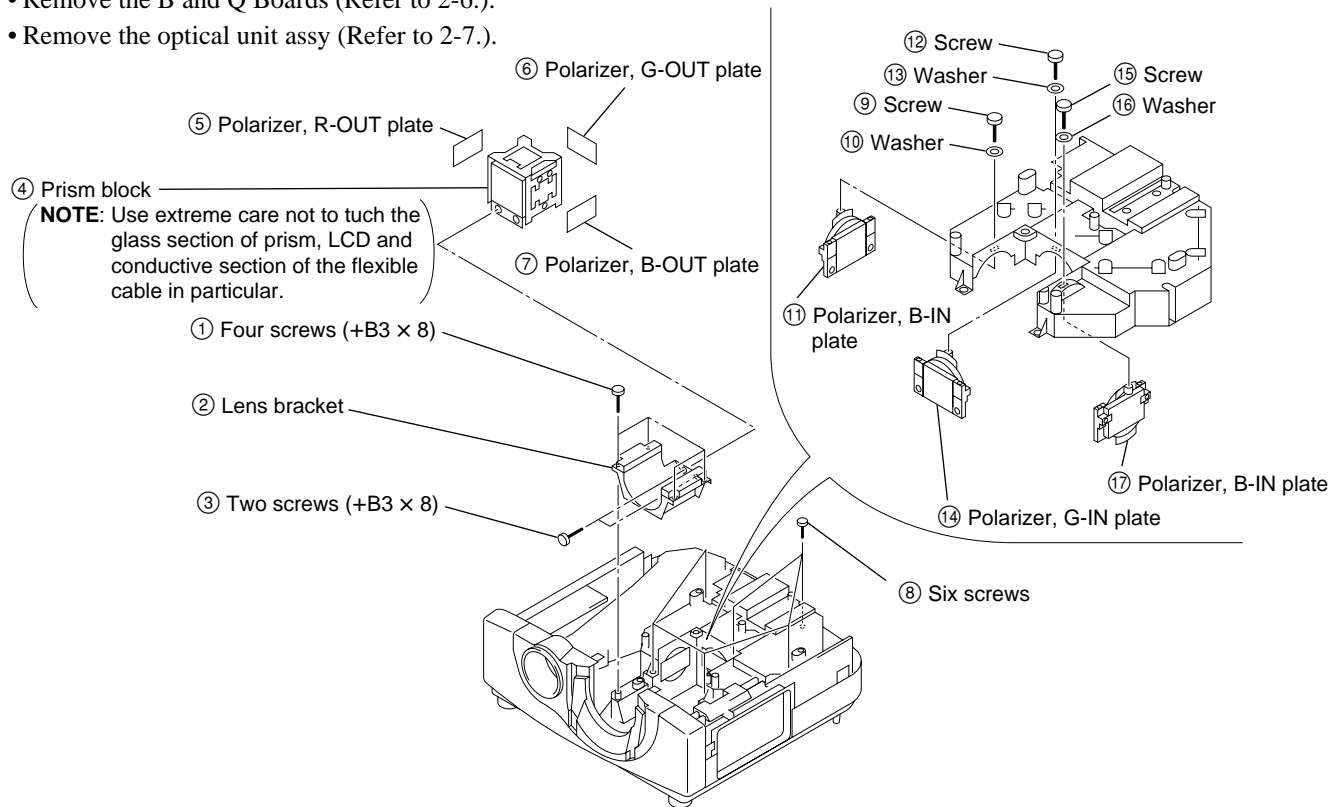
2-10. Lens Assy Removal

- Remove the C Board (Refer to 2-5.).



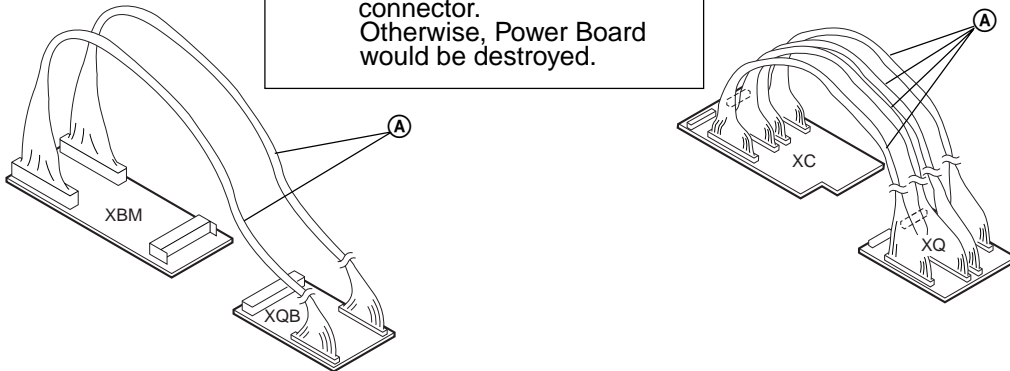
2-11. Prism Block Removal

- Remove the B and Q Boards (Refer to 2-6.).
- Remove the optical unit assy (Refer to 2-7.).



2-12. Extension Boards

NOTE: Please fit it correctly into the connector. Otherwise, Power Board would be destroyed.



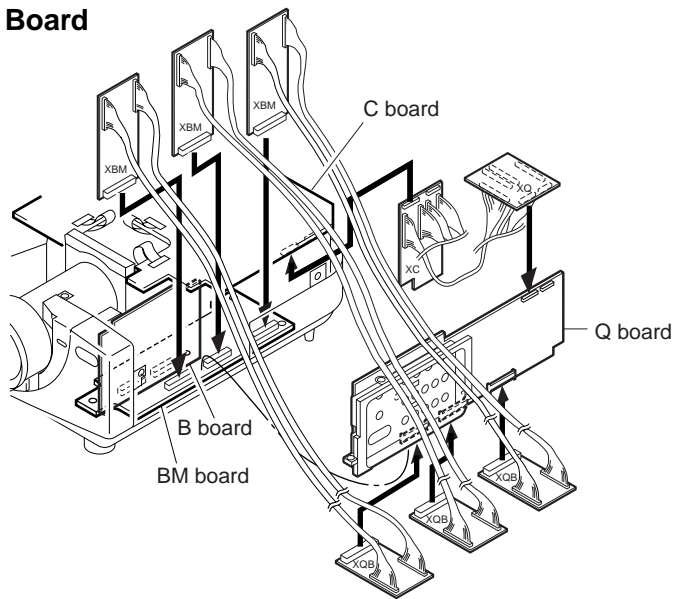
XQB Board : A-1391-180-A
 XBM Board : A-1391-181-A
 External Cable Ⓐ : 1-900-262-34

XC Board : A-1391-182-A
 XQ Board : A-1391-183-A
 External Cable Ⓐ : 1-900-262-34

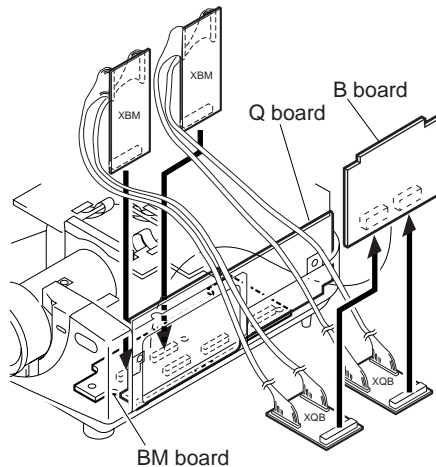
Q ⇔ BM----used to three extension board
 B ⇔ BM ----used to two extension board

Q ⇔ C----used to one extension board

(1)Extension of Q Board



(2)Extension of B Board



2-13. Power Cord

Use a proper power cord for your local power supply.

	The United States, Canada		Continental Europe		UK, Ireland, Australia, New Zealand	Japan
Plug type	VM0233	290B	YP-12A	COX-07	— ¹⁾	YP332
Female end	VM0089	386A	YC-13B	COX-02	VM0310B	YC-13
Cord type	SJT	SJT	H05VV-F	H05VV-F	N13237/CO-228	VCTF
Rated Voltage & Current	10A/125V	10A/125V	10A/250V	10A/250V	10A/250V	7A/125V
Safety approval	UL/CSA	UL/CSA	VDE	VDE	VDE	DENAN

1) Use the correct Plug for your country.

Section 3

Electrical Adjustments

3-1. Preparations

3-1-1. Equipment Required

- Oscilloscope
Tektronix 2465 or equivalent
(Bandwidth: 350 MHz or more)
- NTSC, PAL, SECAM component signal generator
Tektronix TG2000 + AVG1 (Optional module) +
AWVG1 (Optional module) or equivalent
- VG (Programmable video signal generator)
VG814 or equivalent
- Digital voltmeter
Advantest TR6845 or equivalent
- Luminance meter

Note: Perform the following adjustment at least five minutes after turning on the power.

3-1-2. Reset the air filter

1. Insert the Power Cord and let it standby.
2. Press the keys in the following ORDER:
“RESET” → “MENU” → “DOWN” → “ENTER”
3. Turn the Power ON.
4. Please confirm that the message of “Please exchange the air filter” does not appear in the picture.

3-1-3. Setting the Factory Mode

1. Make sure that the STATUS in the menu is ON.
2. Exit the menu.
3. Press the keys in the following ORDER:
“ENTER” → “ENTER” → “LEFT” → “ENTER”
4. The message “Do you wish to enter into the FACTORY MODE?” will be displayed.
5. Select YES.

3-2. RGB VCOM Adjustment

1. Enter the P.DRV of the Device adjust with Factory mode.
2. Enter the item of 01 VCOM G, and check the 1 line ON/OFF signal.

3. Adjust the ← and → keys to minimize the flicker. Similarly, and perform Red and Blue adjustment similarly.
(02 VCOM R, 03 VCOM B)
4. Select the SAVE TO MEMORY on the Device adjust page of the menu. Press the ENTER to save the data.

3-3. Signal Level Adjustment

Perform the following settings:

W/B:	LOW mode
INPUT-A:	10 steps
VIDEO:	100% COLOR BARS
CONTRAST:	80
BRIGHT:	50 (Initial value)

3-3-1. SUB-BRIGHT (NTSC) Adjustment

1. Input the NTSC 100% color bars signal to the VIDEO input.
2. Connect oscilloscope to TP5023 on the C board.
3. Set the COLOR to 0.
3. Enter the RGB-MTRX on the Device adjust of the menu.
4. Select the item of 03 SU BRT. Adjust the ← or → key so that the two bars at the center become flat.

3-3-2. SUB-CONT, HUE and COLOR Adjustment

3-3-2-1. SUB-CONT. HUE and COLOR (VIDEO) Adjustment

1. Input the NTSC 100% color bars signal to the VIDEO input.
2. Connect oscilloscope to TP5024 on the C board.
3. Set the COLOR to 0.
4. Enter the RGB-MTRX on the Device adjust of the menu.
5. Select the item of 08 YUV CONT, and adjust the amplitude of the following waveform for 0.63 Vp-p.
6. Set the COLOR to 50.
7. Select the item of 09 YUV COL. Adjust the ← or → key so that the right and left bars are equal in level (A portion).
8. Select the item of 02 SUB HUE. Adjust the ← or → key so that the two bars in the middle are equal in level (B portion).



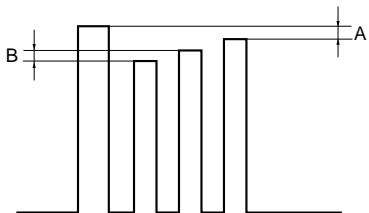
* Be sure to set the GND level to bottom with DC 0.5V range.

9. Press the MEMORY key to save the data.
10. Similarly, perform steps 1 to 8 with PAL (100% Color Bars signal) system.
11. Press the MEMORY key to save the data.

3-3-2-2. SUB-CONT, HUE and COLOR (Component) Adjustment

1. Input the 15k Component 100% Color Bars signal to INPUT-A (pin 5), and select the COMPONENT by the INPUT-A of the SET SETTING.
2. Connect an oscilloscope to TP5024 on the C board.
3. Set the COLOR to 0.
4. Enter the RGB-MTRX on the Device adjust of the menu.
5. Select the item of 08 YUV CONT. Adjust the amplitude for 0.63 Vp-p.
6. Set the COLOR to 50.
7. Select the item of 09 YUV COL. Adjust the ← or → key so that the right and left bars are equal in level (A portion).
8. Select the item of 02 SUB HUE. Adjust the ← or → key so that the two bars in the middle are equal in level (B portion).
9. Press the MEMORY key to save the data.

<15k Component 100% Color Bars Signal>

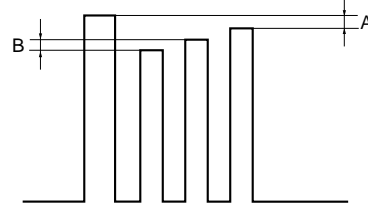


3-3-2-3. SUB-CONT, HUE and COLOR (DTV) Adjustment

1. Input the 1080/60i 100% Color Bars signal to INPUT-A (pin 5), and select the DTV-YPbPr by the INPUT-A of the SET SETTING.

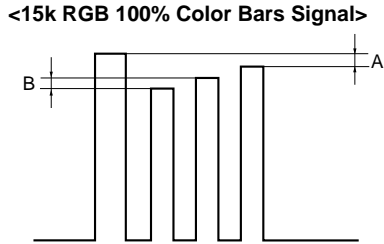
2. Connect an oscilloscope to TP5024 on the C board.
3. Set the COLOR to 0.
4. Enter the RGB-MTRX on the Device adjust of the menu.
5. Select the item of 08 YUV CONT. Adjust the amplitude for 0.63 Vp-p.
6. Set the COLOR to 50.
7. Select the item of 09 YUV COL. Adjust the ← or → key so that the right and left bars are equal in level (A portion).
8. Select the item of 02 SUB HUE. Adjust the ← or → key so that the two bars in the middle are equal in level (B portion).
9. Press the MEMORY key to save the data.
10. Switch the format of 1080/60i to GRB output. Select the DTV-GBR by the INPUT-A of the SET SETTING. Similarly, perform steps 2 to 9.

<1080/60i 100% Color Bars Signal>



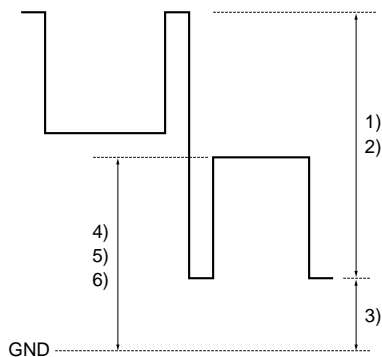
3-3-2-4. SUB-CONT, HUE and COLOR (15k RGB) Adjustment

1. Input the 15k RGB 100% Color Bars signal to INPUT-A (pin 5), and select the DTV-GBR by the INPUT-A of the SET SETTING.
2. Connect an oscilloscope to TP5024 on the C board.
3. Set the COLOR to 0.
4. Enter the RGB-MTRX on the Device adjust of the menu.
5. Select the item of 08 YUV CONT. Adjust the amplitude for 0.63 Vp-p.
6. Set the COLOR to 50.
7. Select the item of 09 YUV COL. Adjust the ← or → key so that the right and left bars are equal in level (A portion).
8. Select the item of 02 SUB HUE. Adjust the ← or → key so that the two bars in the middle are equal in level (B portion).
9. Press the MEMORY key to save the data.



3-3-3. Signal center and the amplitude Adjustment

1. Set the Device Adjust / Other 07 3D GAMMA SW of the menu into 0.
2. Enter Device Adjust / GAMMA and display Level 7.
3. Install S5202 and 5301 to the sides of SG and W respectively.
4. Make the following adjustments by using Device Adjust / P.DRV.
 - 1) 18 VAMP/BRT TP5604 10.60 ± 0.02 V_{p-p}
 - 2) 23 VAMP2/BRT TP5704 10.60 ± 0.02 V_{p-p}
 - 3) 04 SIG CEN TP5704 Set the DC level under the signal to $2.20V_{DC}$
 - 4) 20 VAMP2/SUB CON R0 TP5704 6.80 ± 0.01 V_{DC}
 - 5) 16 VAMP/SUB CON G0 TP5604 6.70 ± 0.01 V_{DC}
 - 6) 22 VAMP2/SUB CON B0 TP5804 6.60 ± 0.01 V_{DC}



5. After the adjustment, turn S5202 and 5301 back to N side.
6. Let the picture turn upside down in the INSTALL SETTING menu, and copy the adjustment value of 4 1) and 2).
7. After Device Adjust / Other 07 30GAMMA SW is resumed to 1, store the adjustment data into the memory.

3-3-4. ODD/EVEN Level Adjustment

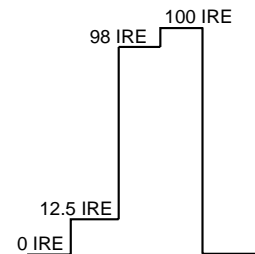
1. Input the 50 IRE Flat XGA signal to INPUT-A.

2. Set the unit in Green-only. Adjust so that the vertical line on every other dot become thinner by the P.DRV/SUB CON G E on the Device adjust.
3. Set the unit in Red-only. Adjust so that the vertical line on every other dot become thinner by the P.DRV/SUB CON R E on the Device adjust.
4. Set the unit in Blue-only. Adjust so that the vertical line on every other dot become thinner by the P.DRV/SUB CON B E on the Device adjust.
5. Let the picture turn upside down in the INSTALL SETTING menu. First copy the value of SUB CON G E, R E, B adjusted within 2 to 4, and then repeat the adjustment within 2 to 4. Next time, adjust to P.DRV/SUB CON G O, R O, B O.
6. Press the MEMORY key to save the data.

3-3-5. RGB High Gain/Bias Adjustment

3-3-5-1. RGB High Gain/Bias Adjustment

1. Input the W/B HIGH adjusting signal to INPUT-A, and select the COMPUTER by the INPUT-A of the SET SETTING.

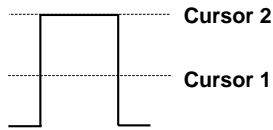


2. Set the CONTRAST to 80, BRIGHT to 50, and COL TEMP to HIGH respectively.
3. Enter the OTHER on the Device adjust of the menu.
4. Set the 06 3D GAMMA/THROUGH from 0 to 1.
5. Set the 07 3D GAMMA/SW from 1 to 0.
6. Connect an oscilloscope to TP5604 on the C board.
7. Enter the 3D GAMMA on the Device adjust of the menu, display the Level 0, and put the cursor 1 on the position shown in the figure below.



8. Display the Level 7.

- The same way as in step 7, put the cursor 2 on the position shown in the figure below.



- Press the GAIN key to enter the GAIN ADJUST MODE from the 3D GAMMA. Adjust the G GAIN so that the 100 IRE level of the W/B HIGH adjusting signal is equal to cursor 2.
- Press the BIAS key to enter the BIAS ADJUST. Adjust the G BIAS so that the 12.5 IRE level of the W/B HIGH adjusting signal is equal to cursor 1.
- Repeat steps 10 and 11 several times.
- Connect an oscilloscope to TP5704 on the C board. Perform the same adjustments as in steps 7 to 12 using R G GAIN/BIAS.
Note: When you adjust GAIN, please be careful not to destroy 98IRE.
- Connect an oscilloscope to TP5804 on the C board. Perform the same adjustments as in steps 7 to 12 using B GAIN/BIAS.
- Press the MEMORY key to save the data.
- Enter the OTHER on the Device adjust of the menu.
- Set the 06 3D GAMMA/THROUGH from 1 to 0.
- Set the 07 3D GAMMA/SW from 0 to 1.
- Press the MEMORY key to save the data.

3-3-5-2.RGB W/B Low and Custom Adjustment

- Enter the W/B ADJUST LOW from the PIC. CTRL menu.
- Copy the adjusted value of the HIGH mode in the R/G/B BIAS.
- Write the following values in the R/G/B GAIN.
R GAIN: adjusted value of HIGH mode
G GAIN: adjusted value of HIGH mode -30
B GAIN: adjusted value of HIGH mode -30
- Press the MEMORY key to save the data.
- Write the following values in the WB ADJUST CUSTOM 1 to 4.
CUSTOM 1: B/G GAIN -10
CUSTOM 2: B/G GAIN -20
CUSTOM 3: B/G GAIN -40
CUSTOM 4: B/G GAIN -50
- Press the MEMORY key to save the data.

3-4. VIDEO W/B Adjustment

3-4-1. Component W/B High Adjustment

Note: Set the COL to 50.

- Input the Component Flat Field signal to INPUT-A, and select the COMPONENT by the INPUT-A of the SET SETTING.
- Set the 06 3D GAMMA/THROUGH to 0.
- Set the 07 3D GAMMA/SW to 1 (3D Gamma: ON).
- Enter the W/B ADJUST HIGH from the menu.
- Input the 80 IRE Component Flat Field signal to INPUT-A.
- Adjust the chromaticity (x, y) to the values shown below by the G GAIN and B GAIN of the W/B HIGH.
- Input the 20 IRE Component Flat Field signal to INPUT-A.
- Adjust the chromaticity (x, y) to the values shown below by the R GAIN and B GAIN of the W/B HIGH.
- Repeat steps 5 to 8 until the chromaticity meets the below specifications.
- Press the MEMORY key to save the data.

Specification:

Chromaticity (x) = 0.284 ± 0.005

Chromaticity (y) = 0.297 ± 0.005

3-4-2. Component W/B Low Adjustment

- Enter the W/B ADJUST LOW from the menu.
- Input the 80 IRE Component Flat Field signal to INPUT-A.
- Adjust the chromaticity (x, y) to the values shown below by the G GAIN and B GAIN of the W/B LOW.
- Input the 20 IRE Component Flat Field signal to INPUT-A.
- Adjust the chromaticity (x, y) to the values shown below by the R GAIN and B GAIN of the W/B LOW.
- Repeat steps 2 to 5 until the chromaticity meets the below specifications.
- Press the MEMORY key to save the data.

Specification:

Chromaticity (x) = 0.313 ± 0.005

Chromaticity (y) = 0.329 ± 0.005

3-4-3. W/B Low Custom Adjustment

1. Copy the data in the CUSTOM 1 to 4 using the menu.

CUSTOM 1: GAIN = RGB/HIGH
BIAS = VIDEO/HIGH

CUSTOM 2: GAIN = RGB/HIGH + 40
BIAS = VIDEO/HIGH

CUSTOM 3: GAIN = VIDEO/LOW + 40
BIAS = VIDEO/LOW
(R GAIN is + 0)

CUSTOM 4: GAIN = VIDEO/LOW -20
BIAS = VIDEO/LOW
(R GAIN is + 0)

2. Press the MEMORY key to save the data.

3-5. Adjustments in Replacement of Prism and Optical Unit

After replacement of the prism, set the factory mode, and perform the following adjustment.

3-5-1. V-COM Adjustment

1. Enter the P.DRV of the Device adjust with Factory mode.
2. Enter the item of 01 VCOM G, and check the 1 line ON/OFF signal.
3. Adjust the ← and → keys to minimize the flicker. Similarly, and perform Red and Blue adjustment similarly.
(02 VCOM R, 03 VCOM B)
4. Select the SAVE TO MEMORY on the Device adjust page of the menu. Press the ENTER to save the data.

3-5-2. Polarization Plate Adjustment

Press the “PIC MUTE” button and the whole screen will become black. In this state, adjust the respective polarization plate until the black becomes the darkest.

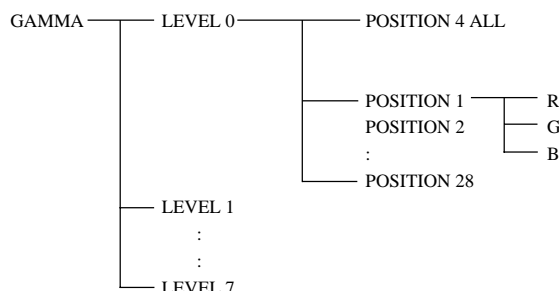
3-5-3. 3D GAMMA Adjustment (Outline)

The principle of 3D GAMMA is described before the adjustment of 3D GAMMA.

3D GAMMA is like a function which can individually adjust W/B at a total of 180 points brightness 8 levels, horizontal direction 7 points, vertical direction 4 points (8*7*4=224 points).

So altogether 672 adjustments (224*3 (RGB)=672) will be required, which is in practice not possible. The following describes a simpler method.

First the “GAMMA” menu consists of the following hierarchy.



When adjusting a certain LEVEL, automatically the internal signal (flat field) of that level will be displayed.

3-5-4. 3D GAMMA Adjustments

1. First input “GAMMA.”
2. Set LEVEL to 1.
3. Study the uniformity of the whole screen, and locate the areas where uniformity is poor.
4. Changing “POSITION” to 1, 2, or 3 will display the cursor. The position of the cursor is the position which will be adjusted.
Move the cursor to the area with poor uniformity.
5. Move “R” and “B” up and down, and adjust so that the uniformity is the same as the other areas.
6. Set LEVEL 2.
7. Like steps 3, 4, and 5, adjust the areas with poor uniformity.
8. Adjust up to LEVEL 6.
9. Study the test pattern from LEVEL 1 to LEVEL 6, and if no problems, return to the first hierarchy, adjust the device, and save the data in SAVE TO MEMORY.

Precautions:

1. Basically adjust RED and BLUE only without changing GREEN.
2. Do not adjust LEVEL 7.
3. To set back factory settings should adjustments fail, skip “SAVE TO MEMORY,” and turn off the power. All the adjusted data will be set back to factory settings.
Factory settings cannot be set back however if “SAVE TO MEMORY” has already been implemented. So check the picture quality carefully prior to implementing “SAVE TO MEMORY.”

4. For zoom lens, the uniformity will change slightly according to the zoom position.
As uniformity will change slightly according to the F number of the lens, perform the adjustments on the projection system under the normal using conditions.
5. Do not change other items in the Device Adjust Menu.
The device adjust menu contains important parameters for machine operations.
Unnecessary operations will result in “no image” and “abnormal image.”
“Factory reset” cannot be performed on device adjust menu items.
(Implementing SAVE TO MEMORY will completely overwrite the data.)
Do not change data unnecessarily.

Section 4

Descriptions of Circuit Board Operations

4-1. G/GA/F Boards

4-1-1. Outline

The G/GA/F boards make up the power supply unit.

- **F board**
EMI filter for AC power supply line
- **G board**
Comprises Active filter for improved power efficiency
Main converter for the secondary circuit power supply
Fan controller and power supply
- **GA board**
Sub converter for the standby power supply.

4-1-2. Detailed Explanation

4-1-2-1. Active Filter Unit

This is an active filter using a current critical type rising voltage chopper system.

Custom IC (IC2001) contains the active filter control unit, chopper switching FET and the rectification diode components.

L2003 is the chopper choke coil and C2013/2014 are smoothing capacitors.

The output of the active filter is DC375V which is conducted via the secondary power supply converter and CN2002 to the lamp power supply board. IC2001 contains an OVP circuit which latches any oscillation that might occur if an abnormal rise in output voltage occurs and an OCP circuit which prevents flow of excess current.

IC2001 also contains heat protection functions that cut in if an abnormal rise of temperature occurs.

4-1-2-2. Main Converter Unit

This uses a compound current resonance unit.

Custom IC (IC2101) contains a converter control unit and a transdrive FET.

T2101 is a converter transformer and outputs +4.5V/ +6.0V/ +17.0V/ -6.0V/ FAN+B (13.0V).

These outputs are subjected to full wave rectification in the rectification circuits (D2201 to 2205 / C2202 to 2206), and are then output through line filters (L2201 to 2205/C2210 to 2214).

Stabilization of the output voltage is achieved by modulating the oscillation frequency and varying the resonance

current in the primary coil.

Frequency modulation is achieved by detecting the +4.5V voltage variations with IC2201 and varying the oscillation frequency.

The control signal is passed via an isolating photocoupler (PH2102) to the controller IC where it is frequency modulated.

The primary drive circuit comprises a series resonance circuit formed by the primary coil of the converter transformer and the resonance capacitors (C2109/2110). When the load current through the secondary coil changes, the resonance point (frequency) of this resonant circuit is moved and the current which flows through the primary coil also changes. Owing to this characteristic, an increase in output load causes the current flowing in the primary coil to also increase so that the output voltage is stabilized. IC2202 is an OVP circuit which latches the oscillation of the converter if the output voltage rises abnormally.

Actually it stops the oscillator by turning the PowerCont signal off. IC2101 also contains an over current protection circuit (OCP) which latches if it detects an increase in primary coil resonance current due to shorting of the output etc.

4-1-2-3. Fan Drive Unit

The four fans inside the set are made to turn at high speed when the ambient temperature of the set is high and rotate at low speed when the temperature is low.

The rotation speed of the fan makes is controlled by varying the supply voltage of the fan. The actual control signal is sent from the CPU of the C board through CN2005. The input control signal is sent to regulator IC2302/2303 through the buffer of IC2301.

This regulator is a variable type series regulator. It subjects the input power supply (preceding FAN+B) to a voltage drop in accordance with the amplitude of the control signal, and then outputs it.

There are 2 output lines. The power supply for the Shirok fan in the center of the set is output from IC2302. All the other fans are driven by the output from IC2303.

Also, the circuit consisting of Q2301 to 2304 makes up a fan protection circuit that stops set operation if a fan stops due to some abnormality. When a fan stops, Q2301 switches off (opens) and the CPU turns off the set.

4-1-2-4. Sub Converter Unit

This uses a current resonance type converter using an DC/AC ferrite transformer.

The resonance circuit consists of T2602 sub converter transformer and orthogonal transformer T2601 and C2611.

The output from the secondary side of T2602 consists of sub 5V only, and after full wave rectification by the rectification circuit consisting of D2602/C2613 this is output through line filter (L2601/C2615).

The output from the primary side consists of Vcc (19.5V) only and is output through the rectification circuit of D2601/C2606.

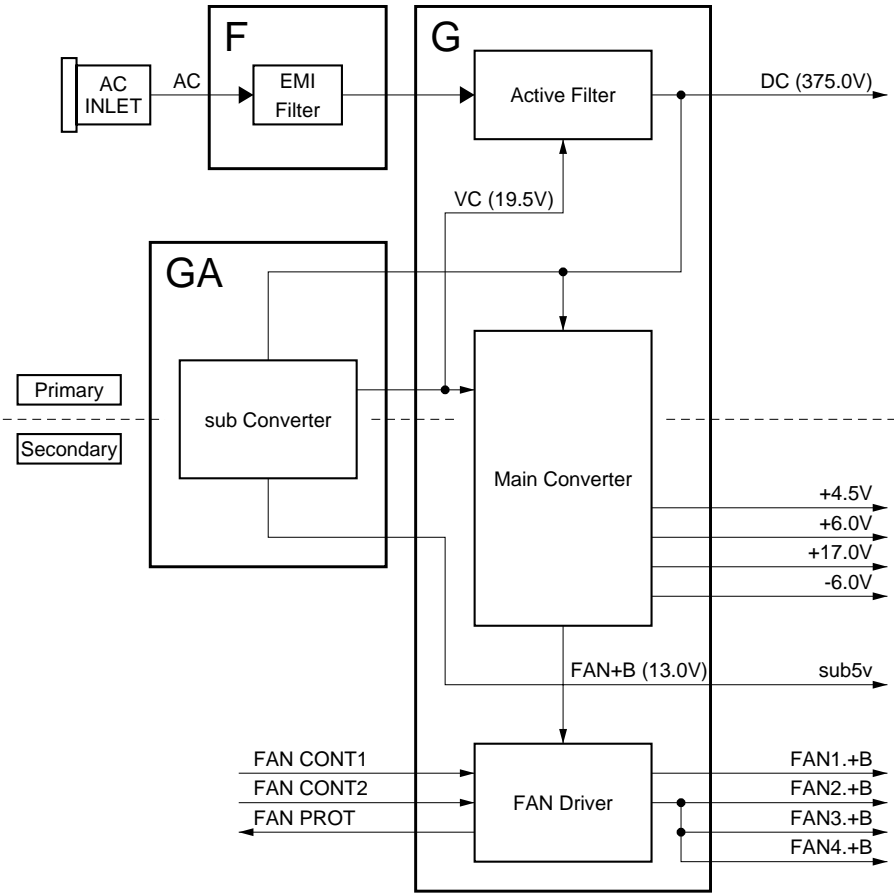
Stabilization of the output voltage is achieved by detection of changes in the sub5V voltage by IC2602 and varying of the oscillation frequency. In reality, this is implemented by varying the current flowing in the secondary coil of the orthogonal transformer so as to move the resonance point (frequency) of the preceding resonance circuit.

IC2603 latches the sub5V output to about 2V by setting the control current of the secondary coil of the orthogonal transformer to its maximum value with the sub5V over voltage protection circuit (OVP).

4-1-2-5. The detection of the fan's rotation speed

Input the detection pulse of the fan's rotation speed from CN2008(pin 4). Input the IC5005(pin 28) of C Board through BM Board. The detection of the fan's rotation speed is performed when the power is on. The change (of the fan's rotation speed) is measured when the clogging of air filter is detected and alarmed.

Power Supply Block Diagram



List of Power Supply System Protectors

PROTECTOR NAME	ACTIVE CONDITIONS	ACTIVATION DETAILS	CIRCUIT LOCATION
Power Prot	TEMP/LAMP LED lights	Activates when the secondary output voltage is less than half. Activates when the 5V inside C board becomes less than 4.5V.	Q board IC4021 to IC4023
Mainconverter OVP	Same as P.Prot	Activates when the output voltage of the secondary rises abnormally. Stops the oscillation of the converter,so the output voltage becomes zero. P.Prot activates.	G board IC2202,Q2202 to 2204
Mainconverter OCP	Same as P.Prot	Activates when the output current of the secondary rises abnormary. Stops the oscillation of the converter,so the output voltage becomes zero. P.Prot activates.	G board IC2101,R2102
Subconverter OVP1	Control panel not effective	Activates when the sub5V voltage rises abnormally. The voltage becomes approximately 2.3V. The micro CPU operation latches and the control panel becomes ineffective.	GA board IC2603,Q2603 to 2605
Subconverter OVP2	LED does not light	Activates when the primary Vcc rises abnormally. The standby power supply stops completely.	GA board D2605 When this activates, D2605 becomes deadshort.
Subconverter OCP	LED does not light	Activates when the sub5V current rises abnormally. The standby power supply stops completely.	GA board R2604 to 2605 When this activates, R2604 to 2605 opens.
PFC OVP	Same as P.Prot	When the PFC output voltage rises abnormally the PFC stops. At the same time the secondary converter stops, so the secondary output also becomes zero and P.Prot activates.	G board IC2001.
PFC OCP	Same as P.Prot	When the PFC output current rises abnormally the PFC stops. At the same time the secondary converter stops, so the secondary output also becomes zero and P.Prot activates.	G board IC2001.

- Most power supply system failures are detected by P. Prot.
- In addition to the protector activations described above, P. Prot is also likely to activate in response to power supply harness disconnection, BM board failures (BM has no adjustable) and converter circuit failures (not operational).
- If the F board fuse (F2500), R2003 on the G board opens, the cause is an abnormal PFC circuit or abnormal lamp power supply. There is little possibility of this being caused by the secondary side power supply.

4-2. B Board

This board mainly performs the following processing.

- VIDEO (C-VIDEO, Y/C, 15k-COMPONENT, 15k-RGB), video processing.
- Sync separation processing

4-2-1. Main IC Functions

4-2-1-1. MC141627FT (IC3010), Digital Comb Filter

Performs PAL443, PAL-M, PAL-N 3 line adaptation type digital Y/C separation.

For the operation clock, the clock (fsc) output from pin 46 of CXA2123 (IC3006) is fed in via pin 45 (IC3010).

The video signal fed in via pin 15 (IC3010) is digitally processed with this clock.

The resulting Y signal is output from pin 6, and the C signal from pin 8.

4-2-1-2. uPD64082 (IC3014), 3D Comb Filter

Performs NTSC 3.58 3 dimensional processing digital Y/C separation.

The reference clock uses the crystal (X3002) connected between pins 30 & 31, generates fsc and is output from the FSCO terminal (pin 47). It is then passed through a buffer into the FSCI terminal (pin 50). As the internal Y-ADC circuit cannot be used in this IC, the VIDEO signal subjected to A/D conversion by external A/D converter uP659AGS (IC3013) to give an 8 bit signal, is fed into pins 74 to 67. The Y signal is output from pin 84 and the C signal from pin 83.

4-2-1-3. CXA2123 (IC3006), Chroma Decoder & Sync Processing

This is a chroma decoder/sync processing IC controlled by the I²C bus. It can process the C-VIDEO signal and the Y/C signal.

The C-VIDEO signal is fed into pin 1, the Y signal into pin 44 and the C signal into pin 43.

This allows automatic discrimination between NTSC 3.58, NTSC 4.43, PAL, PAL-M, PAL-N, SECAM and B/W.

When NTSC 3.58 is discriminated Y/C separation is performed by IC3014 (uPD64081).

When PAL, PAL-M or PAL-N are discriminated

IC3010 (MC141627) is driven by a clock and performs Y/C separation.

They are respectively fed in via pin 5 and pin 7. In the case of other signals, this IC performs Y/C separation.

When NTSC4.43, SECAM or B/W are discriminated Y/C separation is performed by IC3006 (CXA2123).

Following this Y/U/V signal conversion is performed with Y being output from pin 21, U from pin 22 and V from pin 23.

Sync processing is performed by separating H and V from the input C-VIDEO/Y signal. H-sync is output from pin 9 and V-sync from pin 4.

In the case of 15k-COMPONENT, Y is input from pin 19, U from pin 18 and V from pin 17. Then Y is output from pin 21, U from pin 22 and V from pin 23. Sync processing is performed by separating H and V from the Y signal.

In the case of 15k-RGB, R is input from pin 27, G from pin 26 and B from pin 25. After conversion to Y/U/V, Y is output from pin 21, U from pin 22 and V from pin 23.

Sync processing is performed by separating H and V from the C.SYNC signal fed into pin 41.

In each case the H-sync signal output from pin 9 has been processed by a PLL so the equalizing pulse is removed.

This IC also controls DYNAMIC PICTURE ON/OFF.

4-2-2. Signal Flows

4-2-2-1. VIDEO Signal Flows

The VIDEO, Y/C signals input from CN3001 are fed into pins 1, 44 and 43 of IC3006.

In the case of PAL, PAL-M, PAL-N and NTSC 3.58, a signal amplified by a factor of 2 by IC3001 is output from pin 3.

PAL signals pass through the low pass filter consisting of Q3022, L3012, L3011, C3086, 3085 and 3084 and are fed to pin 15 of IC3010 (Comb Filter). Here Y/C separation is performed with Y being output from pin 6 and C from pin 8. These are passed through the low pass filters consisting of L3009, C3078, L3010 and C3079 then Y is fed to pin 3 of IC3007 and C is fed to pin 3 of IC3008.

NTSC 3.58 signals pass through low pass filter FL3009 and are fed to pin 4 of A/D converter IC3013.

The digitized signal is fed to 3D comb filter IC3014, then following Y/C separation Y is output from pin 84 and C from pin 83. After passing through low pass filters FL3008 and 3007, Y is fed to pin 1 of IC3007 and C to pin 1 of IC3008.

IC3007 and IC3008 switch between PAL/NTSC 3.58 and respectively output Y and C signals from their pin 7. This Y signal is fed to pin 5 of IC3006 while the C signal is fed to pin 7.

The remaining signals are all processed in IC3006 and converted to Y, U and V signals. Y is output from pin 21, U from pin 22 and V from pin 23. The signals are then output from the B board via buffers Q3009 (Y), Q3008 (U) and Q3007(V).

4-2-2-2. 15k-COMPONENT Signal/15k-RGB Signal Flows

The Y, Cb and Cr signals input from CN3001 pass through buffers Q3004, Q3003 and Q3002 and are fed to pin 19 (Y), pin 18 (Cb) and pin 17 (Cr) of IC3006. The signals fed in as Y, Cb and Cr are output unchanged from pins 21, 22 and 23. 15k-RGB signals likewise pass through buffers and are then fed to pin 27 (R), pin 26 (G) and pin 25 (B). The signals fed in as R, G and B signals are converted to Y, Cb and Cr signals which are output from pins 21, 22 and 23.

4-3. Q Board

The processing performed on this board is mainly as follows:

- Switching of the video signal
- Video signal input
- Sync separation processing
- Video, HDTV, DTV system image processing
- RS232C communication buffer
- Reception of remote control signal (SIRCS signal)
- Power protector

4-3-1. Outline of main ICs

4-3-1-1. TLC5733 (IC4029), AD Converter for DRC Use

This is an AD converter for DRC processing. It inputs the Y/U/V signals output from the B board, and passes them as digital signals to CXD2090Q (IC433).

4-3-1-2. CXD2095AQ (IC4033), DRC Processing

CXD2095AQ(IC433) performs DRC (Digital Reality Creation) processing. It processes the digital signal passed from TLC5733 (IC4029) and outputs a D/A converted double frequency color difference signal.

4-3-1-3. CXA2101AQ (IC4013), HD Interface, RGB Matrix

This is controlled with the I²C bus. The input signals to this IC are the 2Y/2R-Y/2B-Y DRC outputs, the Y/Cb/Cr double speed component signals, the HDTV, DTV system RGB signals or the YPbPr signals. The DRC output signals are fed into pin 23 (2Y), pin 22 (2B-Y) and pin 21 (2R-Y). The other signals are fed into pin 11 (Y or G), pin 10 (Pb or B) and pin 9 (Pr or R). After these signals have been input, they are internally switched and all are converted to Y/Cb/Cr. These are output from pins 76, 77 and 78, but are then fed back into the IC via coupling capacitors into pins 75, 74 and 73. The signals input in this way are subjected to COLOR, HUE and SHARPNESS user control adjustments. Other processing includes detection axis adjustment, chroma transient improvement and conversion and output as RGB signals. Sync separation for HDTV etc. (including 3 value sync) is also performed by this IC.

4-3-1-4. M52347FP (IC4006), SYNC SEPARATOR

This IC performs sync separation mainly for computer system signals and for signals other than those of the VIDEO, HDTV and DTV systems.

4-3-1-5. EL4332C (IC4007), RGB Switch, 6dB Amp, 75 Ohm Driver

Switches the video system, HDTV and DTV system signals that have been converted to RGB and the computer system RGB signals and outputs them to the C board.

4-3-2. Video signal Flow

4-3-2-1. VIDEO Signal Flow

The VIDEO and Y/C signals are fed respectively into pin 3 of NJM2533M (IC4022, IC4024 and IC4025). The selected VIDEO/S-VIDEO signal passes through the IC (switch) so that C-VIDEO emerges from CN406 (11), Y from (13) and C from (15). (These are sent to the B board via the BM board.)

The 15k-COMPONENT signal and 15k-RGB signal are input from INPUT-A or INPUT-B, and after selection by RY4001, RY4002 and RY4003 are output from CN4006 (19), (21) and (23). (These are sent to the B board via the BM board.) Of the signals processed on the B board, Y is input from CN4005 pin 25, U from pin 23 and V from pin 21. These signals pass through DRC pre-filters FL4006 (Y), FL4005 (U) and FL4004 (V) and are then fed into pins 63, 31 and 50 of AD converter TLC5733A (IC4029). Following this, they are subjected to algorithm processing in CXD20900 (IC4033), D/A conversion and then output as double speed frequency color difference signals from pin 105 (Y), pin 113 (U) and pin 109 (V).

After passing through post filters FL4003 (Y), FL4002 (U) and FL4001 (V) these signals are fed into pin 23 (Y), pin 22 (U) and pin 21 (V) of RGB matrix CXA2101 (IC4013). CXA2101 (3-1-3.) converts the signals to RGB signals and outputs R from pin 35, G from pin 37 and B from pin 39. These output RGB signals pass through buffers Q4021, Q4022 and Q4023 and are then selected by EL4332C (IC4007) which serves as a switch and 75 ohm driver IC. R is then output from CN4004 (A1, B1), G from (A3, B3) and B from (A5, B5).

4-3-2-2. HDTV/DTV (YPbPr, RGB) Double Speed Component (YUV) Signal Flows

The double speed component signals are input from INPUT-A or INPUT-B and after selection by RY4001, RY4002 and RY4003 pass through buffers Q4015, Q4016 and Q4017 before being fed to pins 11, 10 and 9 of RGB matrix CXA2101 (IC4013). CXA2101 (3-1-3.) converts the signals to RGB signals and outputs R from pin 35, G from pin 37 and B from pin 39. These output RGB signals pass through buffers Q4021, Q4022 and Q4023 and are then selected by EL4332C (IC4007) which serves as a switch and 75 ohm driver IC. R is then output from CN4004 (A1, B1), G from (A3, B3) and B from (A5, B5).

4-3-2-3. Computer Signal (RGB) Flows

The computer system signals (RGB) are input from INPUT-A or INPUT-B and after selection by RY4001, RY4002 and RY4003 are fed to EL4332C (IC4007) which serves as a switch and 75 ohm driver IC. After being selected by this IC, R is output from CN4004 (A1, B1), G from (A3, B3) and B from (A5, B5).

4-3-3. SYNC Processing Flows

4-3-3-1. When VIDEO Signals and 15k COMPONENT Signals are Processed

The H/V SYNC processed and output from the B board is passed via the BM board to CN4005 from which it is input from pin 19 (H) and pin 17 (V). The H/V SYNC is then passed through buffers Q4033 and Q4032 and fed to the DRC block.

CXD2095AQ (IC4033) outputs double speed processed H SYNC from pin 98 and V SYNC from pin 99. Following this, the sync is fed into CXA2101 (IC4013) via pin 7 (H) and pin 8 (V) and is then output from pins 29 and 28. The output H-SYNC is inverted by IC4014 and is then fed to IC4012. Here noise is removed before it is output from pin 7. It is then fed to IC4011 for wave shaping and then to pin 17 of IC4009. Here CLP pulses are output from pin 5 of IC4012, inverted by IC4014, wave shaped by IC4011 and input to pin 15 of IC4009.

The V-SYNC is wave shaped by IC4014, then after inversion by IC4039 it is fed to pin 13 of IC4009. In IC4009 switching is performed with SYNC from the computer system and 3.3 V level conversion is performed. H is then output from CN4004 (A7, B7), V from (A9, B9) and CLP from (A11, B11).

4-3-3-2. When 15k-RGB Signal are Processed

COMPOSITE-SYNC is first subjected to sync separation in IC4003, then passed through relay RY4004 and subjected to wave shaping by Q4045 to Q4047 and IC4036 and IC4038, and is then fed to IC4006 (M52347FP). From here the COMPOSITE-SYNC is output as is, passes through buffer BUFF (IC4009) and after level matching is fed to pin 3 of switch C4027. It is then output from pin 7 of this IC and output as COMPOSITE-SYNC from pin 25 of CN4006. (It is then sent to the B board via the BM board.) It is then input from CN4005 in the form of H/V separate SYNC from the B board. Further processing is as for VIDEO.

4-3-3-3. When HDTV/DTV (YPbPr, GBR) Double Speed Composite Signals are Input

The H/C and V signals input from INPUT-A and INPUT-B are selected by relays RY4001 and RY4003. Following this H/C signals are switched by RY4004 and each signal is then passed through wave shaping circuits (Q4045 to Q4050, IC4036, IC4038). Then, after passing through BUFF (IC4010), H/C is fed to pin 7 of CXA2101 (IC4013) and V is fed to pin 8. Y/G is fed to pin 11. In IC4013, SonG (SonY) automatically determines if it is dealing with C. SYNC or HV separate provides outputs from pin 29 and pin 28. Further processing is as for VIDEO.

4-3-3-4. When Computer Signals are Processed

The H/C and V signals input from INPUT-A and INPUT-B are selected by relays RY4001 and RY4003. Following this H/C signals are switched by RY4004 and each signal is then passed through wave shaping circuits (Q4045 to Q4050, IC4036, IC4038). Then, H/C is fed to pin 6 of IC4006 (M52347) V to pin 8 and the G signal to pin 4. This IC performs sync separation and outputs H from pin 15, V from pin 13 and CLP from pin 17. These outputs are fed to IC4009. Here switching is performed with sync signals other than those of the computer system and 3.3 V level conversion is performed. H is then output from CN4004 (A7, B7), V from (A9, B9) and CLP from (A11, B11).

4-3-4. RS232C Communication Buffer

RS232C communication uses IC4002 (MAX202CSE) as a buffer. CN4001 allows connection to a computer.

The signals then pass through IC4002 and flow to the C board via CN4004 (A25, B25) and (A26, B26) to allow communication with the CPU on the C board.

4-3-5. Reception of Remote Control Signal (SIRCS Signal)

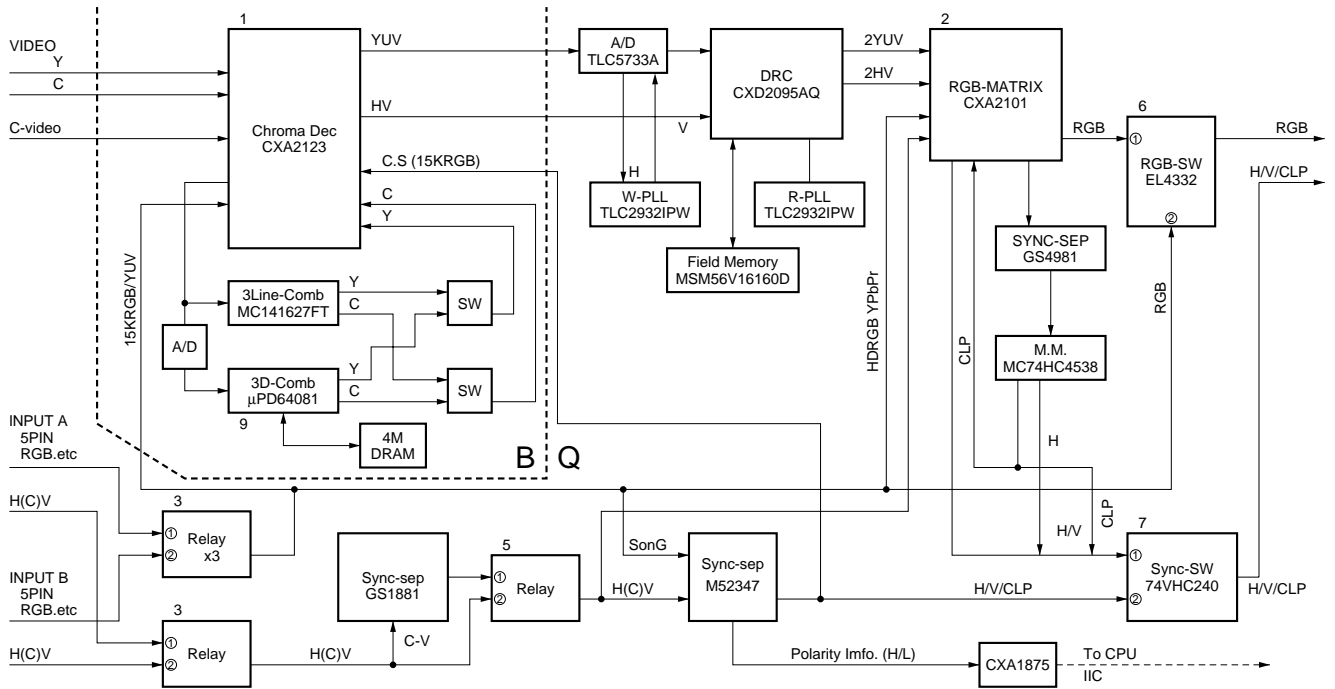
Signals from a remote control unit connected with a cable are input via J4002. Following this, they are inverted by Q4003 and output to the C board via CN4004 (A21, B21). When a remote control unit is not connected, signals received by the NF, NR boards are input via CN4004 (A22, B22), pass through J4002 and are output to the C board via CN4004 (A21, B21).

4-3-6. Power Protector

IC4021, IC4023 and IC4026 make up a protective circuit for the power supply lines.

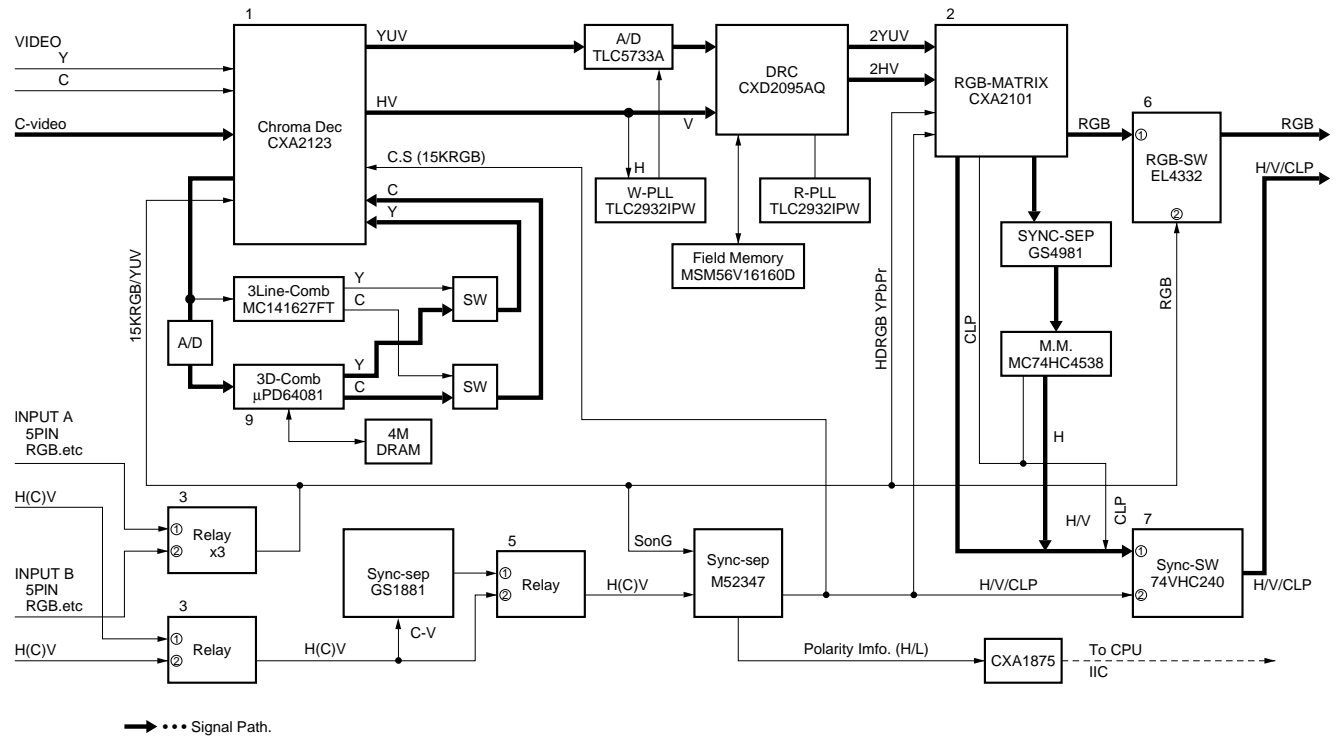
If any of the -6V, +17V, +6V or +4.5V lines short to ground this circuit activates, outputs a high level (+5V) from pin 1 of IC4026 which is sent via CN4002 (A24, B24) to the microprocessor on the C board.

4-3-7. B Board, Q Board Block Diagram

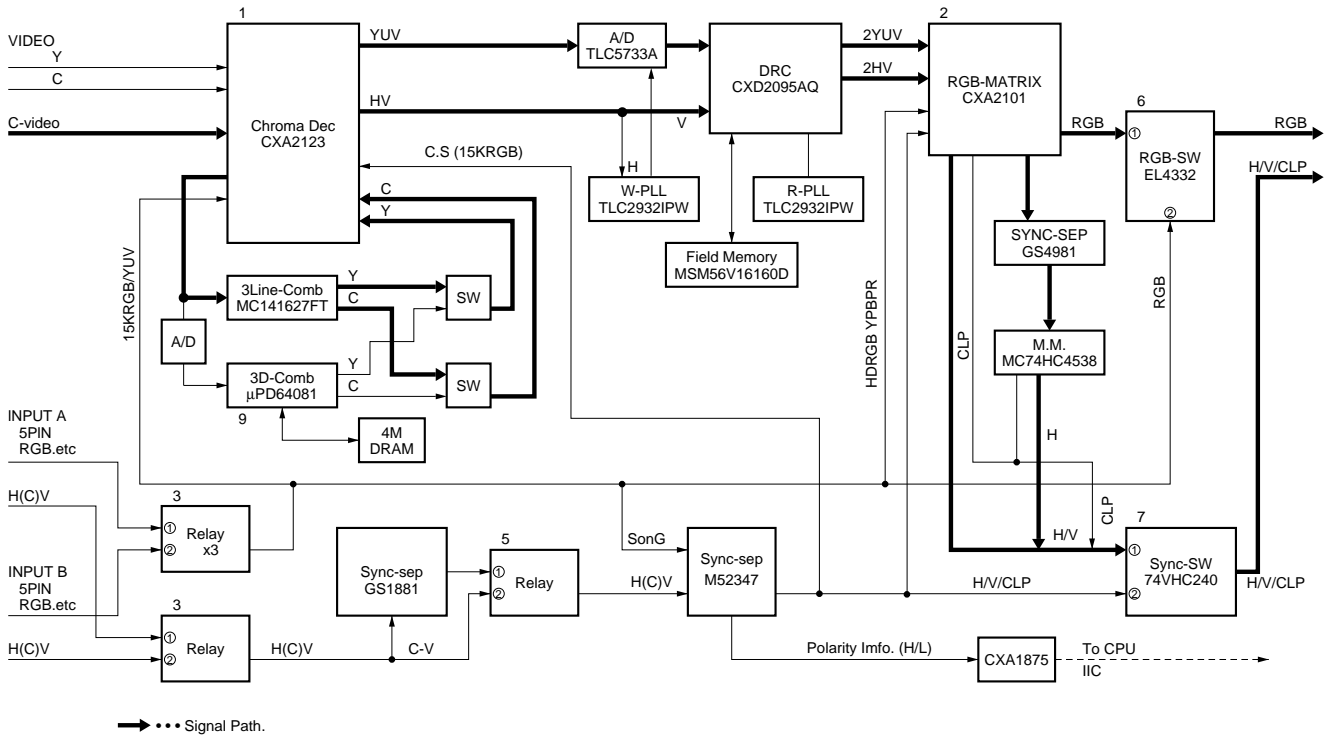


4-3-8. Signal Flow

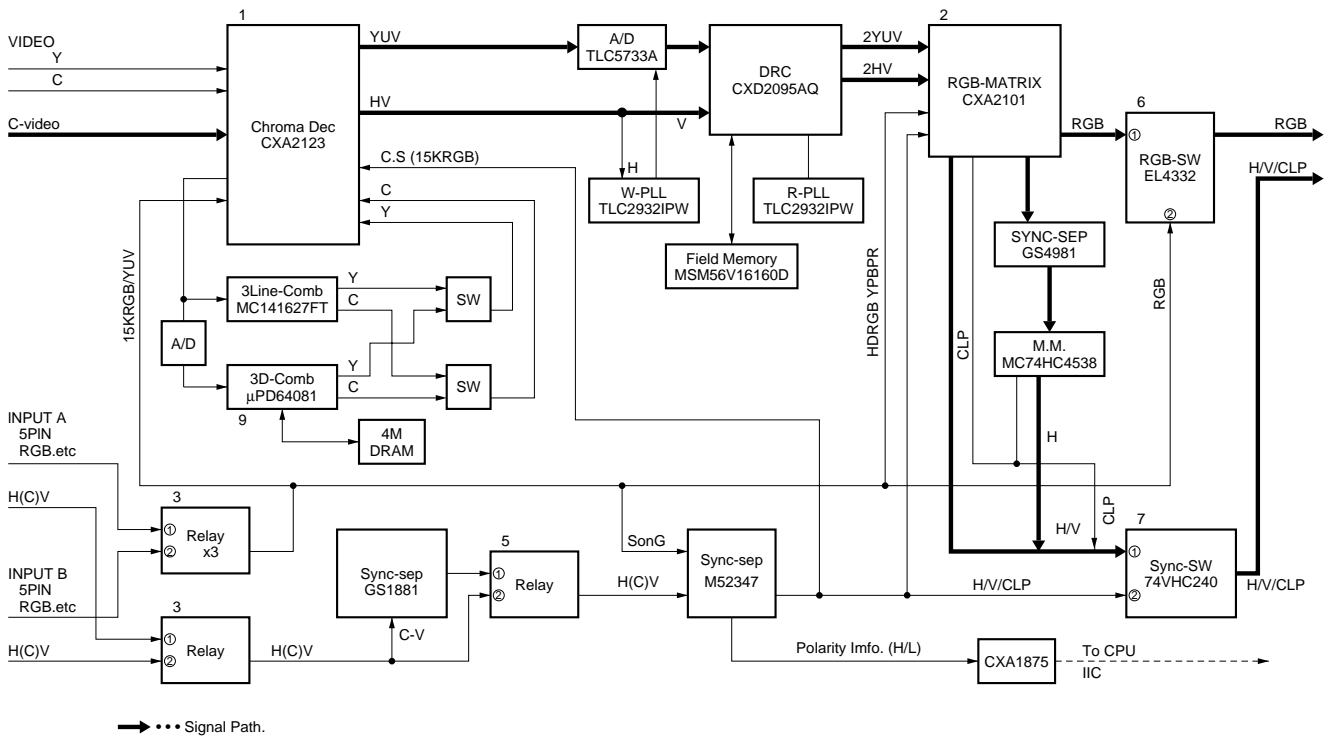
4-3-8-1. C-Video (NTSC3.58)



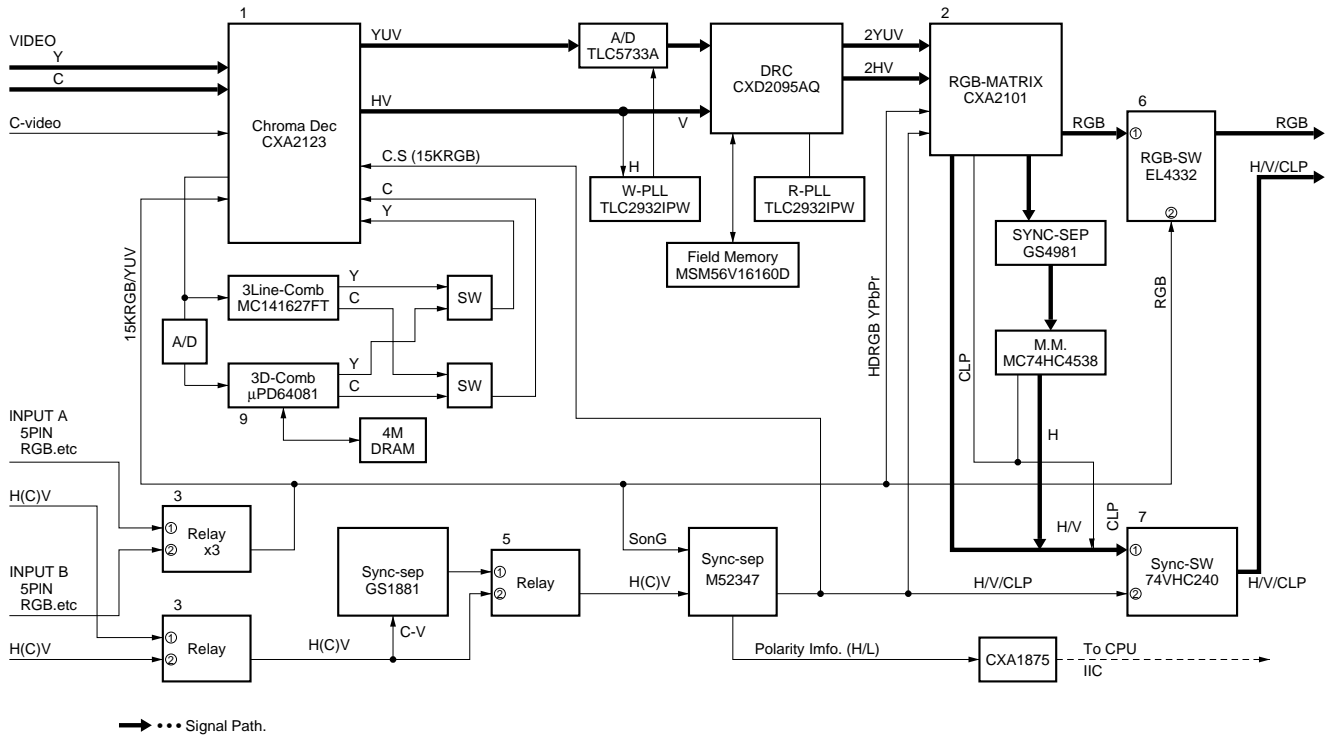
4-3-8-2. C-Video (PAL, PAL-M, PAL-N)



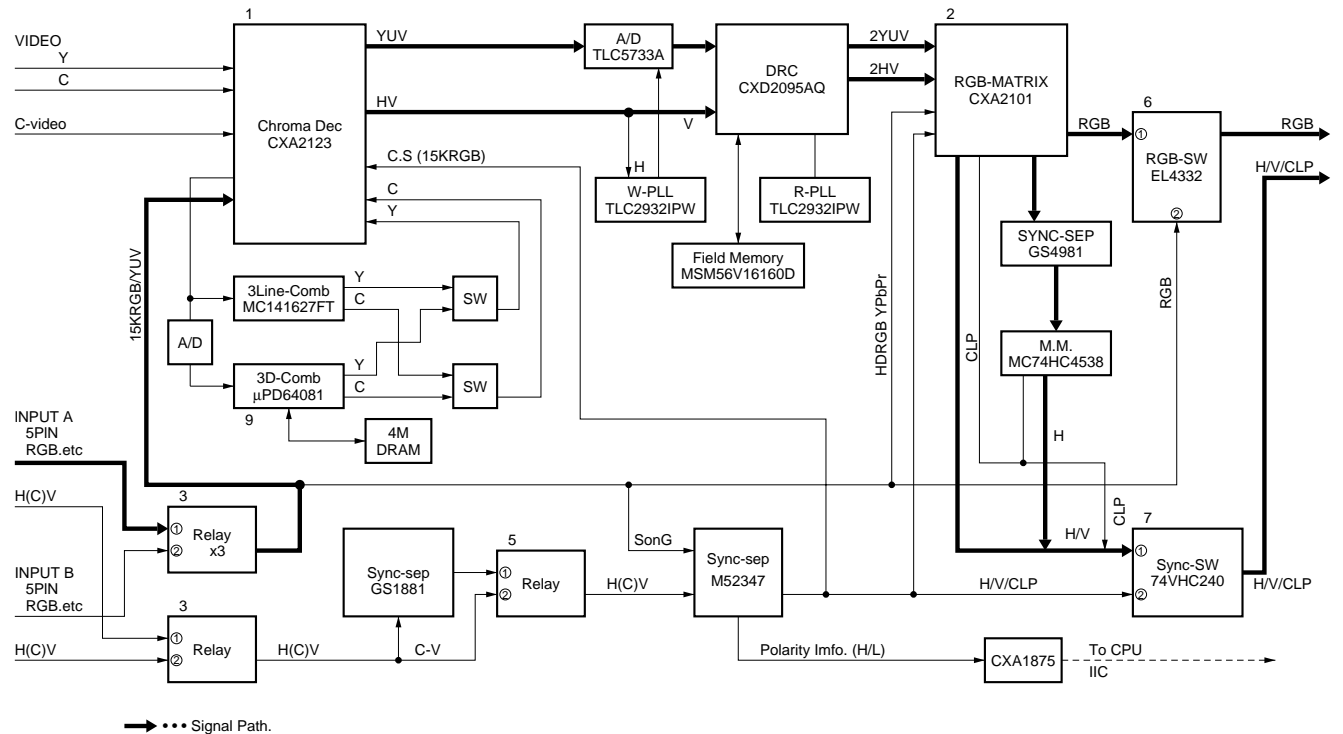
4-3-8-3. C-Video (SECAM, NTSC4.43)



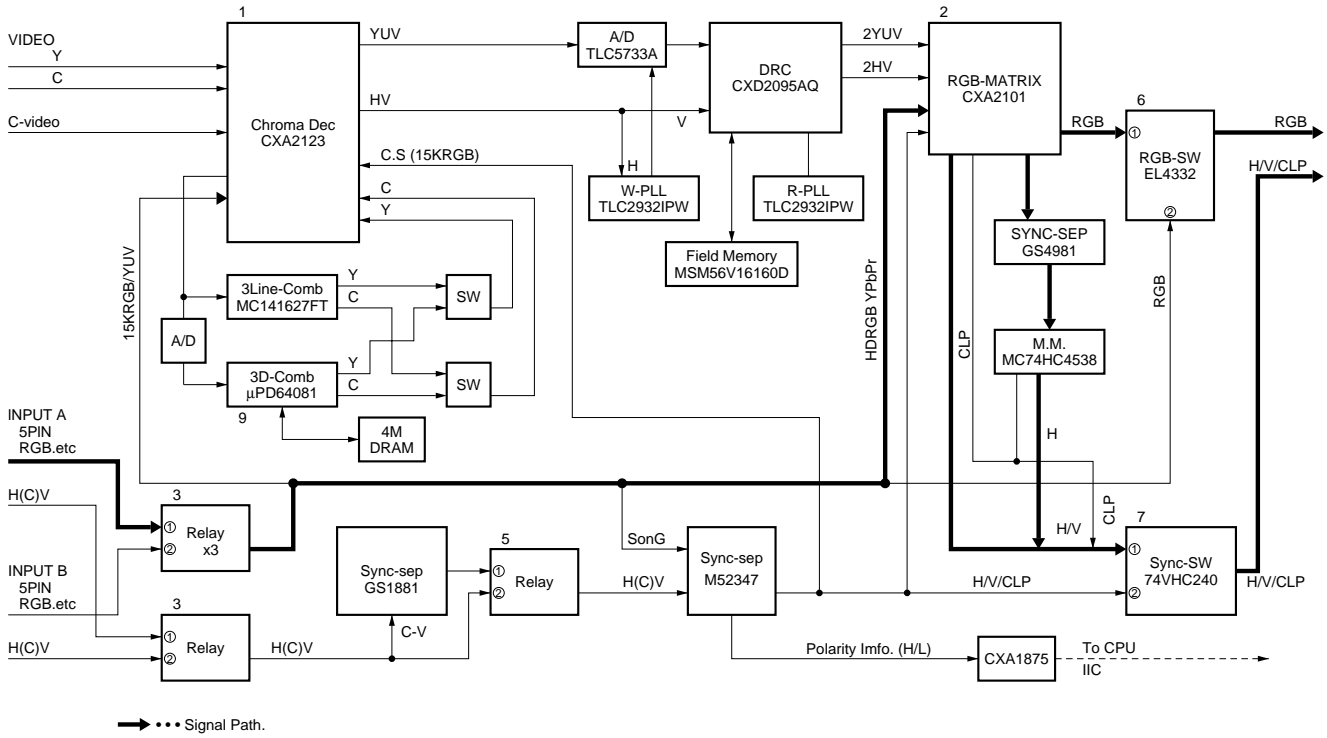
4-3-8-4. S-Video



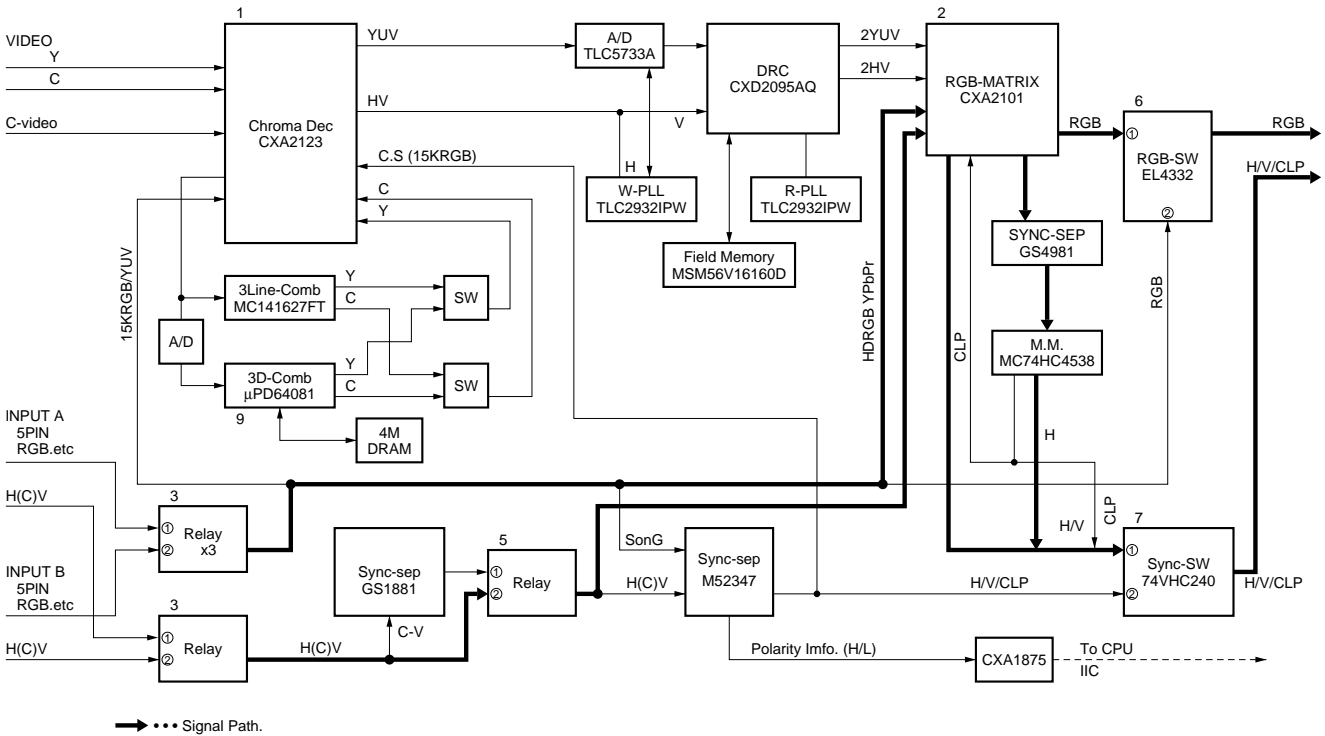
4-3-8-5. 15k-Component



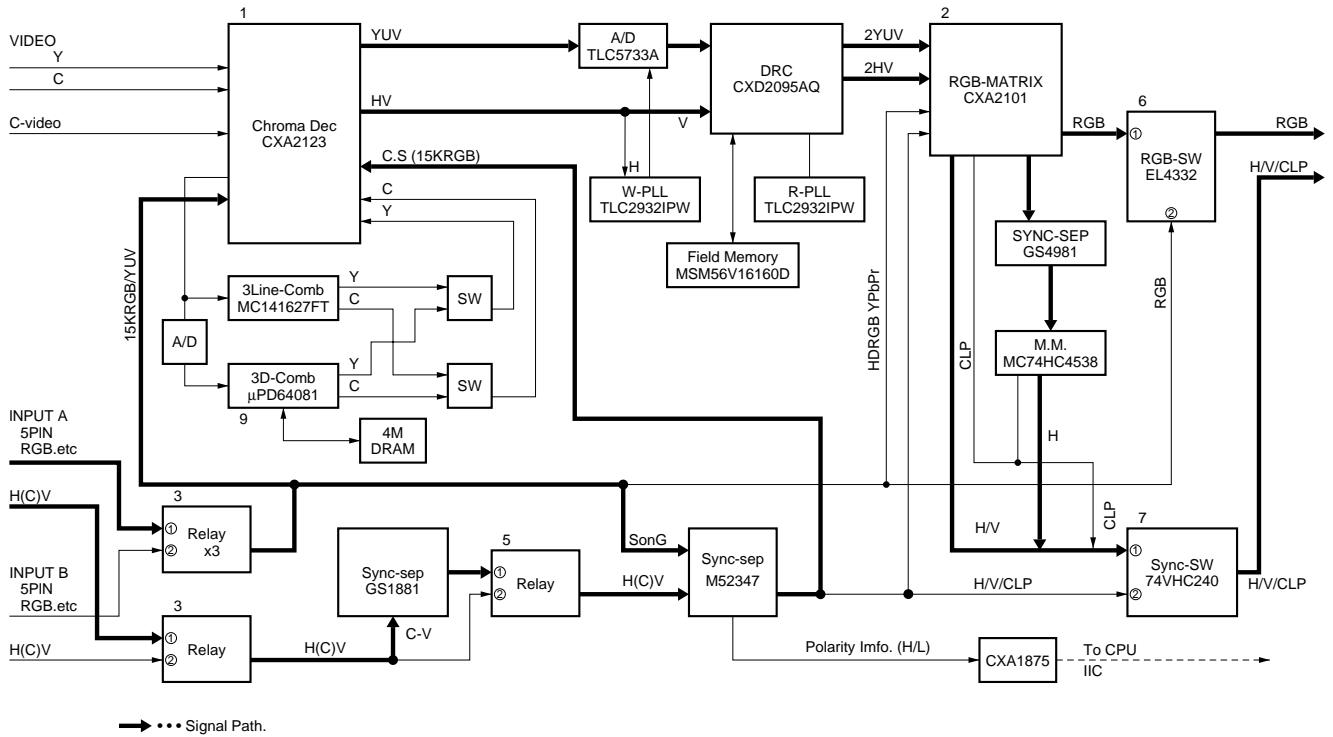
4-3-8-6. Double Speed Component



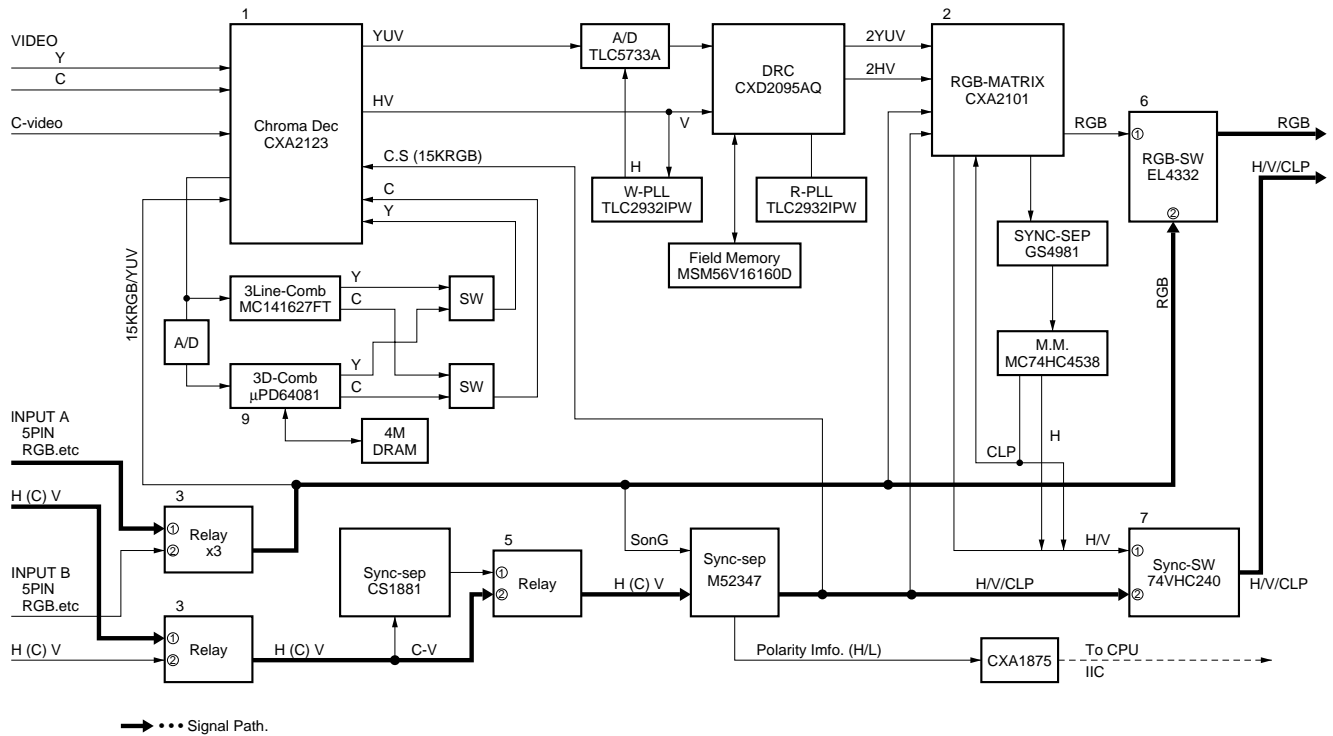
4-3-8-7. HDTV (GBR, YPbPr)



4-3-8-8. 15k-RGB



4-3-8-9. PC-RGB



4-4. C Board

4-4-1. A/D Converter Unit

IC5108 (AD9884A) is a maximum 140MS/s 8 bit x 3 color A/D converter containing a PLL and clamp amplifier.

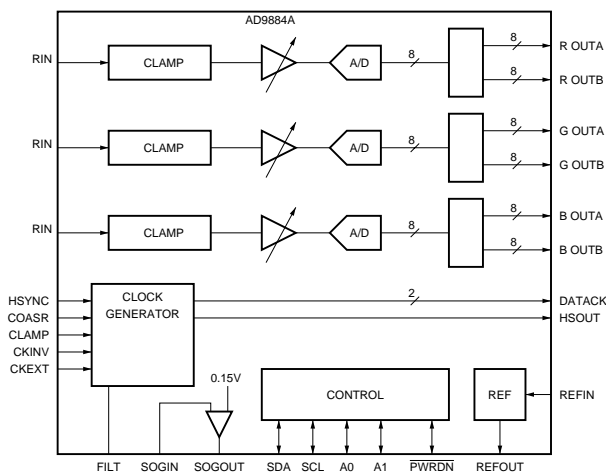
It is controlled by an I2C signal (SDA, SCL: Slave address 98HEX) from PW264.

Control of dot phase and H size is obtained by controlling the clock generator via the I2C line, in accordance with settings appropriate for the input signal.

The CLAMP and VSYNC (COAST) from the Q board are input as pulses of positive polarity, while HSYNC is input as pulses of negative polarity.

Digital OUT is demultiplexed so ODD/EVEN pixel data are output in parallel.

At this time a _sampling clock is also output for DATAACK.



To reduce noise, the analog power supply VD of IC5108 (AD9884A) is stabilized and supplied by IC5101.

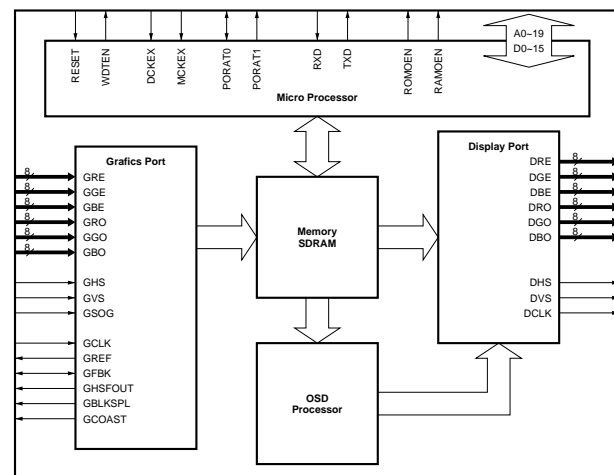
To further stabilize the PLL power supply (PVD), it is supplied from IC5120 LP2985-3 with which use can be made of a ceramic capacitor as the output capacitor.

4-4-2. SCAN Converter

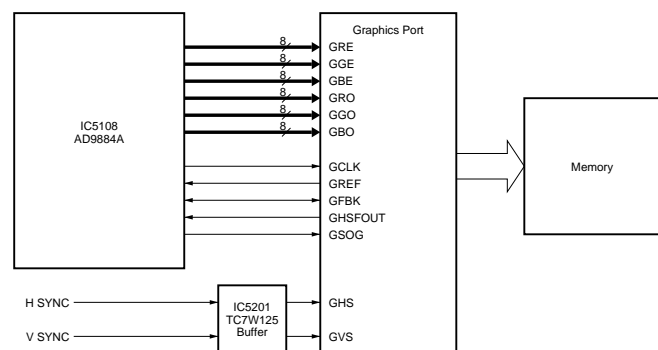
IC5202 (SCAN CONVERTER) inputs the RGB signals produced through digital conversion by IC5108 (AD9884A), converts them to signals appropriate for the panel resolution (WXGA: 1366 x 768) which it then outputs.

The OSD signals are also overlaid in this IC.

4-4-2-1. Internal Block Diagram (Simplified diagram: Unused parts omitted)



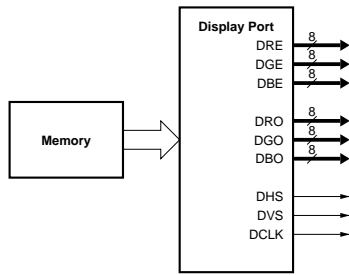
4-4-2-2. Graphics Port Block



The graphics port subjects digital signals input in parallel from IC5108 (AD9884A) to multiprocessing then sends the data to internal SDRAM. It also generates pulses etc. that control the IC5108 (AD9884A) PLL section using the H,V sync input from the Q board.

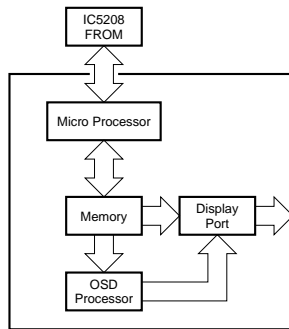
The graphics port phase compares the H,V Sync and discriminates between interlaced and non-interlaced sync.

4-4-2-3. Display Port Block



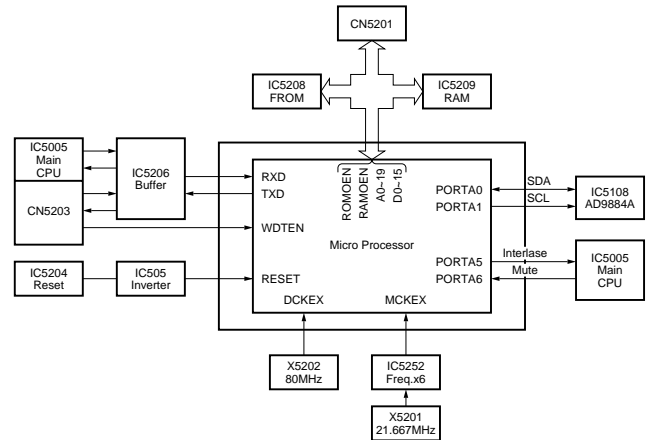
- Subjects data read from memory to enlargement and reduction processing so as to suit the resolution specified by output settings and outputs it according to the timing appropriate for the panel (ODD/EVEN parallel output).
- To read data from memory uses and processes MCKEXT (130MHz).
- Sets DHS, DVS and outputs at a frequency appropriate for the panel. However, for the moving image system DVS is synchronized with GVS, so their frequencies are the same (DVS=GVS(Hz)).
- DCLK is output at $\frac{1}{2} \times \text{DCKEXT}$ (40MHz = 1/2 x 80 MHz).

4-4-2-4. OSD MIX Processing



OSD data is stored IC5208 (MBM29LV400T) external memory. In response to commands from the Main CPU, PW264 selects and overlays display details.

4-4-2-5. Microprocessor Block



- The PROM in this block is externally connected and consists of 4Mbit (512KByte) of flash ROM (IC5208) and, for use as CPU RAM, 1Mbit (128KByte) of SRAM (IC5209). The external data bus is 16 bit and the CPU operates at 43.333 MHz obtained by dividing the 130MHz memory clock by 3.
- Connection of an RS232C level conversion board to CN5203 allows programs to be written into the external flash ROM. To do this, EXTSW must be connected to ground so as to switch the communication line, and WDTEN must be connected to ground to disable operation of the WATCH DOG TIMER.
- PW264 normally operates as a sub CPU obeying commands from the Main CPU. The commands are transmitted using asynchronous serial communication using TXD/RXD.
- To increase the speed of signal switching operation, the MUTE signal is directly transmitted from the Main CPU to PW264. Also, the INTERLACE detection signal is directly transmitted from PW264 to the Main CPU.
- Because PW264 is an X86 based CPU, the RESET signal must be input at a HIGH level. For this reason, the open drain RESET signal from IC5204 (S-8028AMNP) is connected via an inverter.
- The 130MHz memory clock signal is obtained by multiplying the X300 21.667MHz signal by 6. The internal SDRAM operates at this frequency. Because the internal core operates at 2.5V, IC5103 (PQ20VZ1U) is used to drop the D3 3V to 2.5V.

4-4-3. Functions of Main ICs

4-4-3-1. CXD9512 (IC5304), 3D GAMMA ADJ, TG

This IC has 8bit x 6ch inputs and 10bit x 6ch outputs and is controlled by the CPU via the I2C bus.

Using g curve data (LUT) stored in an external EEPROM (IC5305) as reference data, it applies correction processing to a total of 28 points in rectangle measuring 7 points horizontally and 4 vertically. To allow 7 levels from 12.5IRE to 87.5IRE to be separately applied to R, G and B, it performs a total of 588 (28 x 7 x 3) adjustments.

To ensure an image data value of 0x3FF is equivalent to an RGB signal for 100% white, the 3D gamma gain needs to be adjusted.

Normal memory refresh is performed one word at a time by using the fall of V sync during each V sync cycle as a trigger. However when writing to E2PROM refresh is forcibly disabled.

A signal generator in the IC can generate test patterns such as hatch patterns, dot patterns and flat fields etc., but direct control by the I²C bus allows stripes, gray scales and 9 steps etc. to also be output.

As contrast and brightness are varied with the GAIN and BIAS controls in the IC, these are varied for common use of images and OSD. However when the internal signal generator is operating, the OSD is generated inside the IC and does not depend on contrast or brightness.

The IC also generates the timing pulses required by the LCD driver and LCD panel.

The timing can be modified from the exterior via direct control of the I2C bus. The timing pulses output from the IC are 3.3Vp-p, so are converted to 5V by the externally connected VHCT541.

4-4-3-2. CXD3504R (IC5403), Dot-Line Inversion

The inputs and outputs of the IC have a 10bit x 2ch bus switch and 1H delay line (FIFO) for each separate RGB signal, which perform signal processing for a dot line inversion drive panel.

The bus switches switch between the odd and even lines so that one is alternately delayed by 1H, while the other is passed through. They also determine whether the output should be fed to an even pixel driver or an odd pixel driver.

This switching is controlled by feeding RGT, RGT and DWN into the SELAR, SELAG, SELAB and SELB terminals.

For timing pulses a half dot clock (40MHz) HD is input. Also, to provide a line memory reset signal, a low signal is fed to pin 11 for approximately 10msec after the power on TG operation has stabilized.

4-4-3-3. ADV7123 (IC5501, 5502), D/A Converter

Use is made of two 10bit x 3ch D/A converters which convert the GAMMA corrected signal to analog form.

For the range 0x000 to 0x3FF, they output approximately 0.88Vp-p.

For timing pulses they are fed a half dot clock (40MHz).

4-4-3-4. M52749 (IC5504, 5505), RGB Amp

By adjusting the BIAS and GAIN this circuit determines the pure white level and pure black level (dynamic range) of the analog signals fed to the panel drivers.

The adjustment parameters include main BIAS, main GAIN and sub GAIN. Main is a common adjustment for the 3 channels, sub has separate settings for each channel.

Also, using the internal DAC, DLY-CNT, CAL_R and SID_IN (DC voltage) can be fed to the LCD drivers.

The respective parameters settings are controlled from the microprocessor via I²C.

Because the slave addresses of IC5504 and IC5505 overlap (at 0x88) separate I²C buses are used.

To reduce the noise generated by this IC, the signals are amplified somewhat more than necessary by the amplifier section, and attenuators are connected to the outputs for each channel to improve the S/N ratio. Because the temperature drift of these attenuators (buffers) are a problem, the DC fed to the MBRT terminal is passed through the same transistor used in the buffers so that the temperature drift of VBE can be used for correction.

Further, differences in brightness between odd pixels and even pixels (appearing as stripes) generated by the LCD panel and variations in the LCD drivers, are eliminated by adjustment of the sub GAIN of the IC. These brightness variations appear differently during scanning in the upward and downward direction, so adjustments are made for both the upward and downward directions, and stored separately in memory.

4-4-3-5. CXA3512R (IC5601, 5602, 5701, 5702, 5801, 5802), LCD Driver

To draw the odd pixels and even pixels, each RGB channel has 2 LCD panel drivers.

The signal input by VIDEO_I is amplified by a factor of about 2 by an inverting amplifier, and is sampled and held by the S/H pulse generated by the internal TG. Following this it is further amplified by about 1.5 times and is output to the panel with separate timings SH1 to 3 and SH4 to 6.

Centered on the SIGCEN voltage, the signal is folded with FRP timing so as to give a signal which is inverted every 1H. CAL_R is an input terminal for a refresh signal used to cancel the offset between output channels, and is set by the DAC.

MCLK and $\overline{\text{MCLK}}$ are dot clock inputs and because this system is 2 para, input 40MHz.

They can input either PECL or TTL signals.

Control of sample and hold phase is performed by POSCTR1, POSCTR2 and DLYCTR.

POSCTR used 4 value discrimination, so two ports allow 4 x 4 (i.e. 16) settings.

Control of POSCTR allows 16 dot variation but the dot lineinversion panel can operate correctly only every other time, so actually only 8 settings are possible.

Input of 3 to 5V to DLYCTR allows phase to be continuously varied within one dot by up to 360°.

DIRCTR is a terminal for setting the left/right scan direction and inputs either RGT or $\overline{\text{RGT}}$.

SID_IN is an input terminal for the pre-charge signal waveform. As the input waveform for the panel a single step is suitable, so a DC value is input under DAC control. The signal input from SID_IN is folded with FRP or $\overline{\text{FRP}}$ and output from SID_O.

In the case of the pre-charge signal, a certain current flow is required, so rather than connect SID_O directly to the panel, it is connected via a push-pull buffer.

When VCOMOFF is at 0 volts, VCOMOUT outputs a potential equal to the voltage input to SIGCNT.

Furthermore, when the voltage at VCOMOFF is raised to 10V, VCOMOUT outputs approximately SIGCNT - 3V.

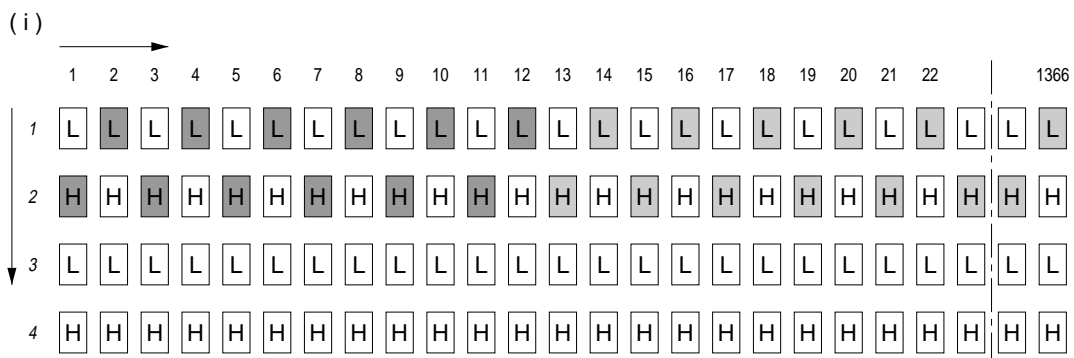
4-4-3-6. LCX037 LCD Panel

This LCD panel uses the dot-line inversion drive method and dramatically reduces cross talk (window bands) in the H direction.

The effective pixel area measures 768 pixels vertically by

1366 horizontally, but in addition the panel has margins 4 pixels wide on the left and right, and 2 pixels wide at the top and bottom containing dummy pixels.

1. Dot-line Inversion Panel Write



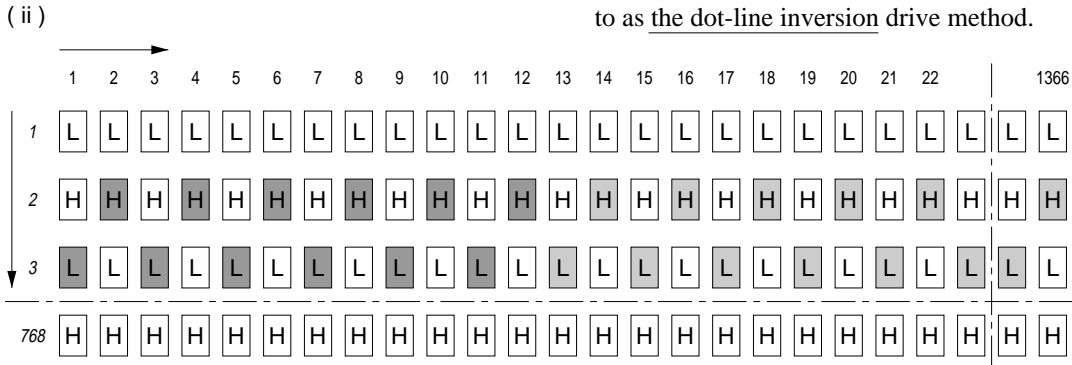
When scanning in the direction of the arrow. Dots 2, 4, 6, 8, 10 and 12 of the line 1 and dots 1, 3, 5, 7, 9 and 11 of line 2 are written simultaneously. During the next timing period dots 14, 16, 18, 20 and 24 of line 1 and dots 13, 15, 17, 19, 21 and 23 of line 2 are simultaneously written. After writing dot 1366, a start is made on writing lines 2 and

3. L and H indicate polarity. Inspection of the two lines which are simultaneously written reveals that though the lines do not match, the dots written are of opposite polarity (dot inversion).

Owing to use of the CXD3504R (IC5403) line memory, the first line is delayed by 1H relative to the second line.

Because of this, even though the two lines are written simultaneously, the picture is correctly displayed.

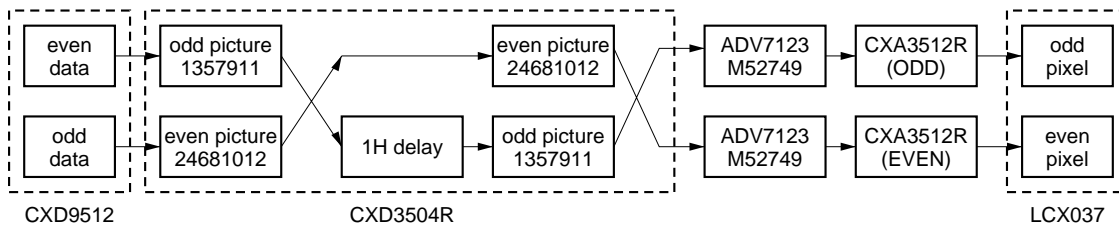
Lines 2 and 3 are written in the same way as lines 1 and 2, and this process is repeated until 768 lines have been written. When line 768 is filled in, line 769 (a dummy line) is simultaneously written. Also, when line 1 is filled in, line 0 (a dummy line) is filled in. Since polarity is inverted on adjacent lines (line inversion), the above system is referred to as the dot-line inversion drive method.



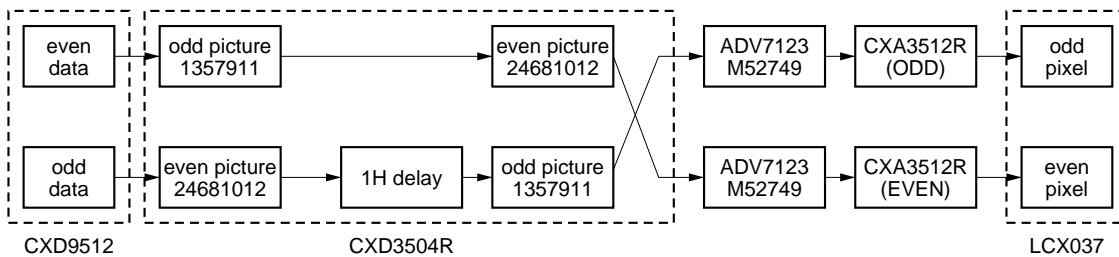
4-4-4. Signal Flow

4-4-4-1. Between CXD9512 to LCD Panel

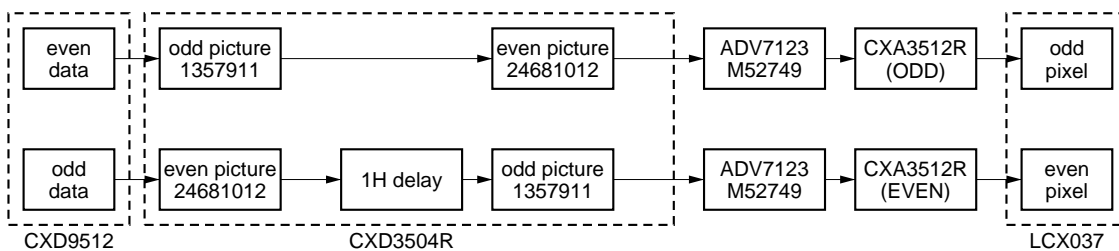
1. Floor-Front (R/B), Floor-Rear (G)



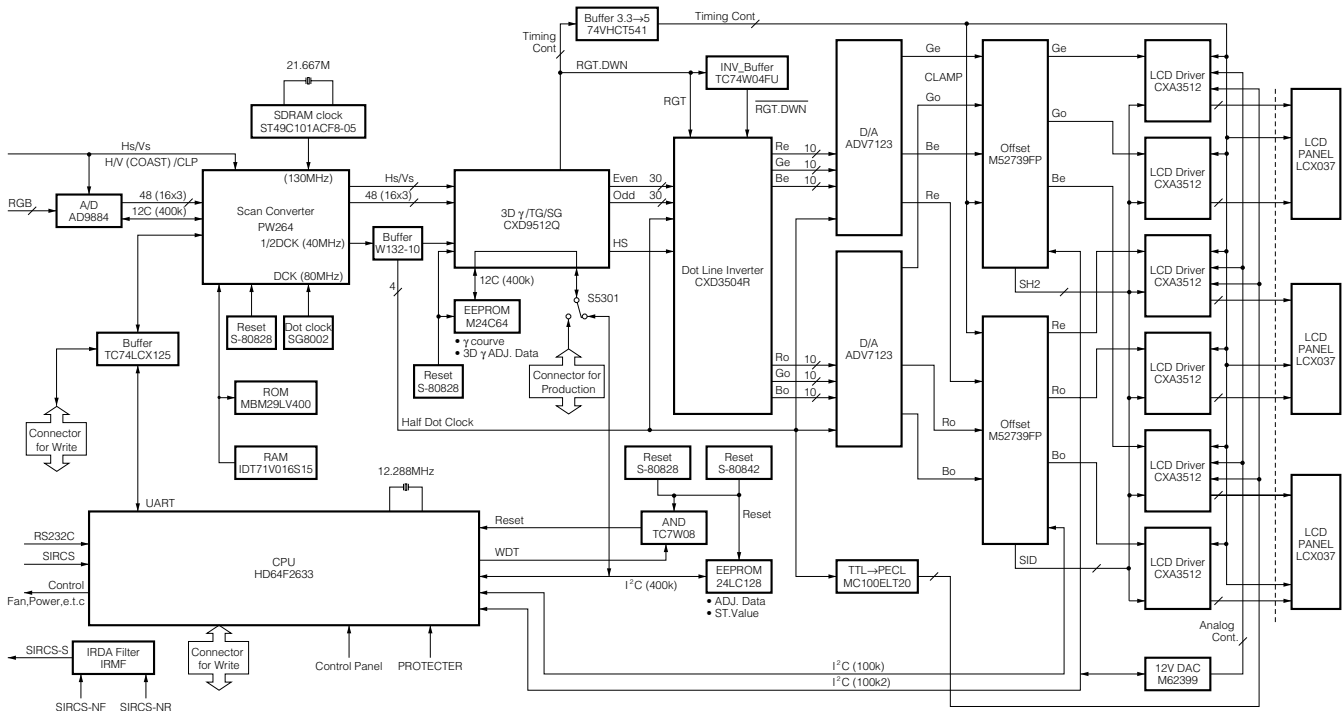
2. Floor-Rear(R/B), Floor-Front (G)



3. Ceiling-Front (R/B), Ceiling--Rear (G)



4-4-5. C Board Block Diagram

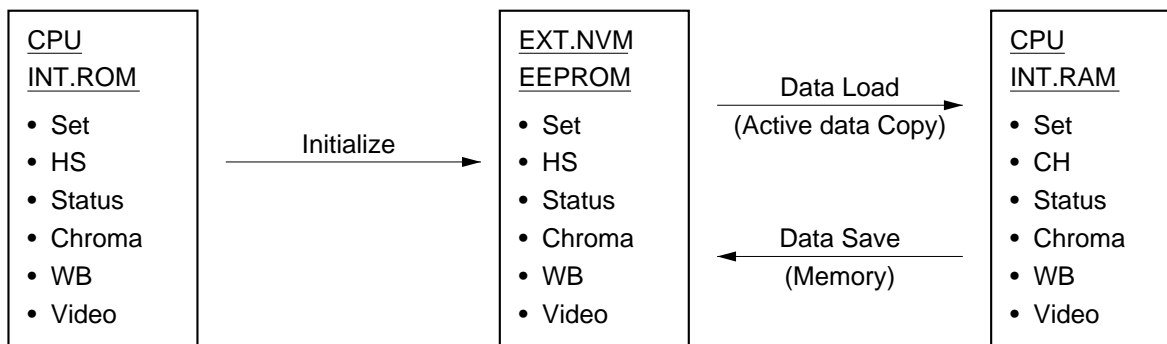


4-4-6. Memory Composition

4-4-6-1. Memory Composition

Device Name	Device Type	Ref. No.	Data Content
CPU Internal ROM	256kbyte Flash Memory	C Board IC	Initialization values
CPU Internal RAM	16kbyte RAM	C Board IC	Active data (Data that can be set or adjusted)
External NVM Memory	16kbyte EEPROM	C Board IC	Saved data (Values of settings and adjustments)

Basic Memory Data Access



The memory structure of the VW11HT is based on earlier models in the VPL-X600 series, with part of the structure following the memory structure adapted to the home theater VPH-D50HT series.

The memory devices are distributed into three areas as shown in the table above.

Each memory device contains only one kind of memory, which is divided into 6 blocks as shown below, but some memory blocks (Staus, Chroma, WB) contain different amounts of memory.

- SET memory
- CH memory
- STATUS memory
- CHROMA memory
- W/B memory
- VIDEO memory

A simple explanation of the data flow is as follows.

When the power plug is first plugged in when the set is in the Factory Standby state, all the data in the internal ROM is copied into the external NVM memory (non-volatile memory: EEPROM).

When Power ON occurs, the memory data required by the current input signals and set state is selected from the above mentioned blocks and expanded into internal RAM.

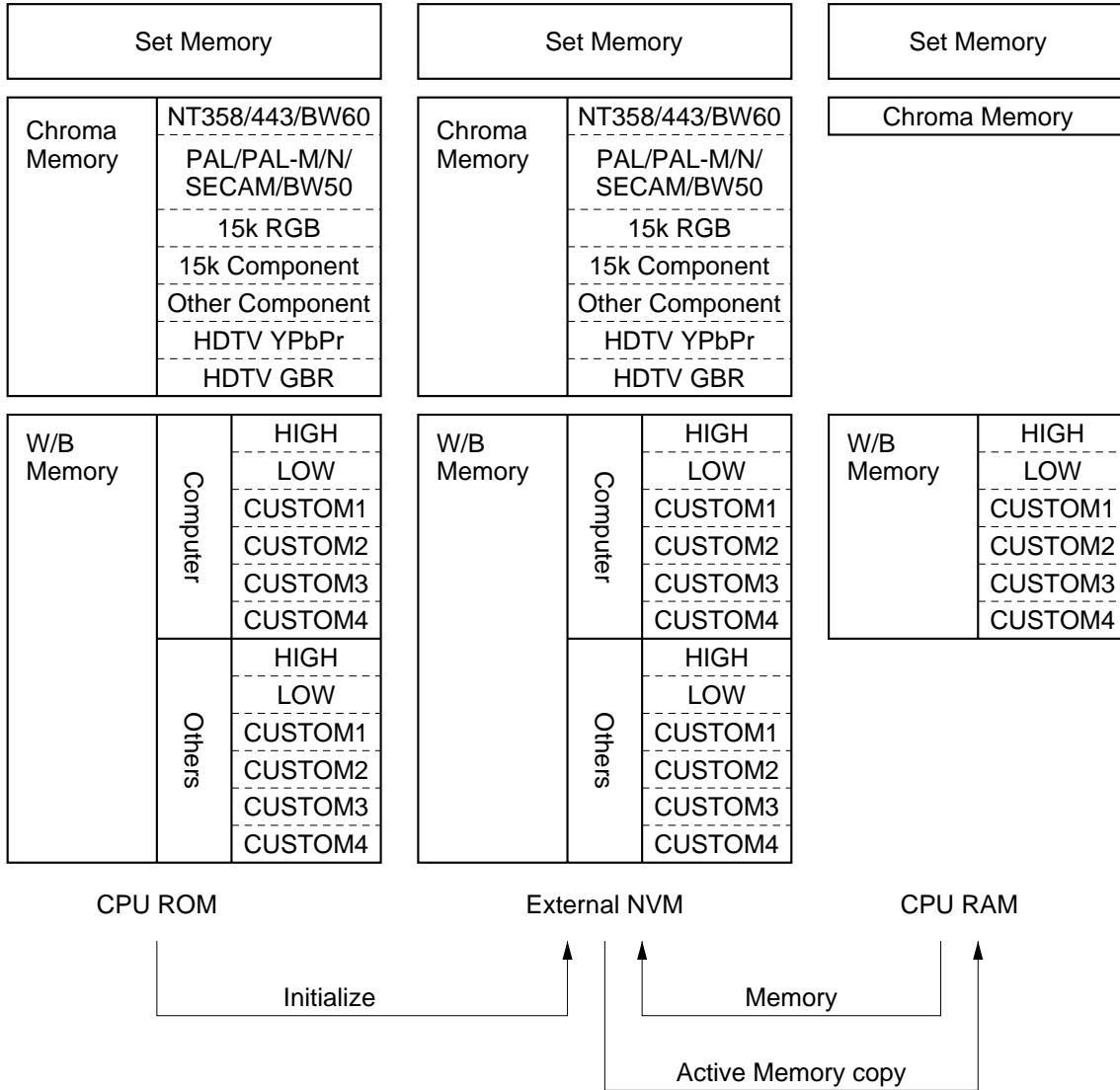
When selection settings and adjustments are performed here, those settings and adjustment data items that are effective in User mode or effective in Service/Factory mode (W/B, Device Adjust) automatically trigger memory operation (when "Save To Memory" is selected on the Menu screen) so that they are written into and stored in non-volatile memory.

In User mode, Reset is an effective adjustment item. When Reset is performed the system returns to the initialization values in internal ROM. These are the values set when the set is shipped from the factory.

In Service/Factory mode, Reset is not effective and as adjustment of various items and memory operations are stored at this time in the NVM memory, care must be taken not to lose either the factory adjustment data provided when the set was shipped from the factory, or any previously saved data.

4-4-6-2. Memory Structure and Data Access

1.Set • Chroma • WB Memory



SET MEMORY

Last CH
 STATUS ON/OFF
 INPUT-A Setting
 INPUT-B Setting
 LANGUAGE Setting
 POWER SAVING ON/OFF
 SIRCS RECEIVE Setting
 CINE MOTION Setting
 KEYSTONE MEMORY ON/OFF
 DIGITAL KEYSTONE
 INSTALLATION Setting
 CINEMA BLACK ON/OFF
 LAMP TIMER
 OPERATION TIMER
 PREVIOUS LAMP TIMER
 DEVICE Data
 FORIGINAL Data
 (Filter Cloggy Data)
 Etc

CHROMA MEMORY

CHROMA Device Data
 Etc

W/B MEMORY

R/G/B GAIN
 R/G/B BIAS

Obtain the set value of the warning of the clogging of the filter

Under the condition of STANDBY, press the set command (RESET + MENU + ↓ + ENTER) of the clogging of the filter to make it POWER ON. In this condition, set Authe FAN's maximum rotation speed + correcting value as the reference value FORIGINAL of justifying the warning of the clogging of the filter.

2. CH• Status• Video Memory

Channel Memory	Video
	S Video
	Input-A
	Input-B

Channel Memory	Video
	S Video
	Input-A
	Input-B

Channel Memory

Status Memory	No.01	
	No.02	
	INPUT-A Preset	No.03
		...
		...
		No.50
		No.03
	INPUT-B Preset	...
		...
		No.50

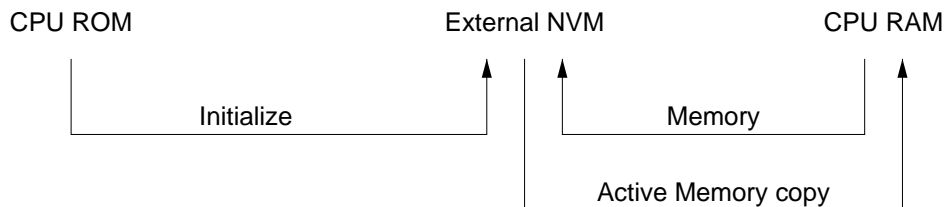
Status Memory	No.01	
	No.02	
	INPUT-A Preset	No.03
		...
		...
		No.50
		No.03
	INPUT-B Preset	...
		...
		No.50
No.71		
...		
INPUT-A User	No.90	
	No.91	
INPUT-B User	...	
	No.110	

Status Memory

VIDEO Memory	No.1
	No.2
	No.3
	No.4
	No.5
	No.6

VIDEO Memory	No.1
	No.2
	No.3
	No.4
	No.5
	No.6

VIDEO Memory



CH MEMORY

CONTRAST
BRIGHT
COLOR
HUE
SHARPNESS
RGB ENHANCER
DYNAMIC PIC
COLOR TEMPRATURE
COLOR SYSTEM

STATUS MEMORY

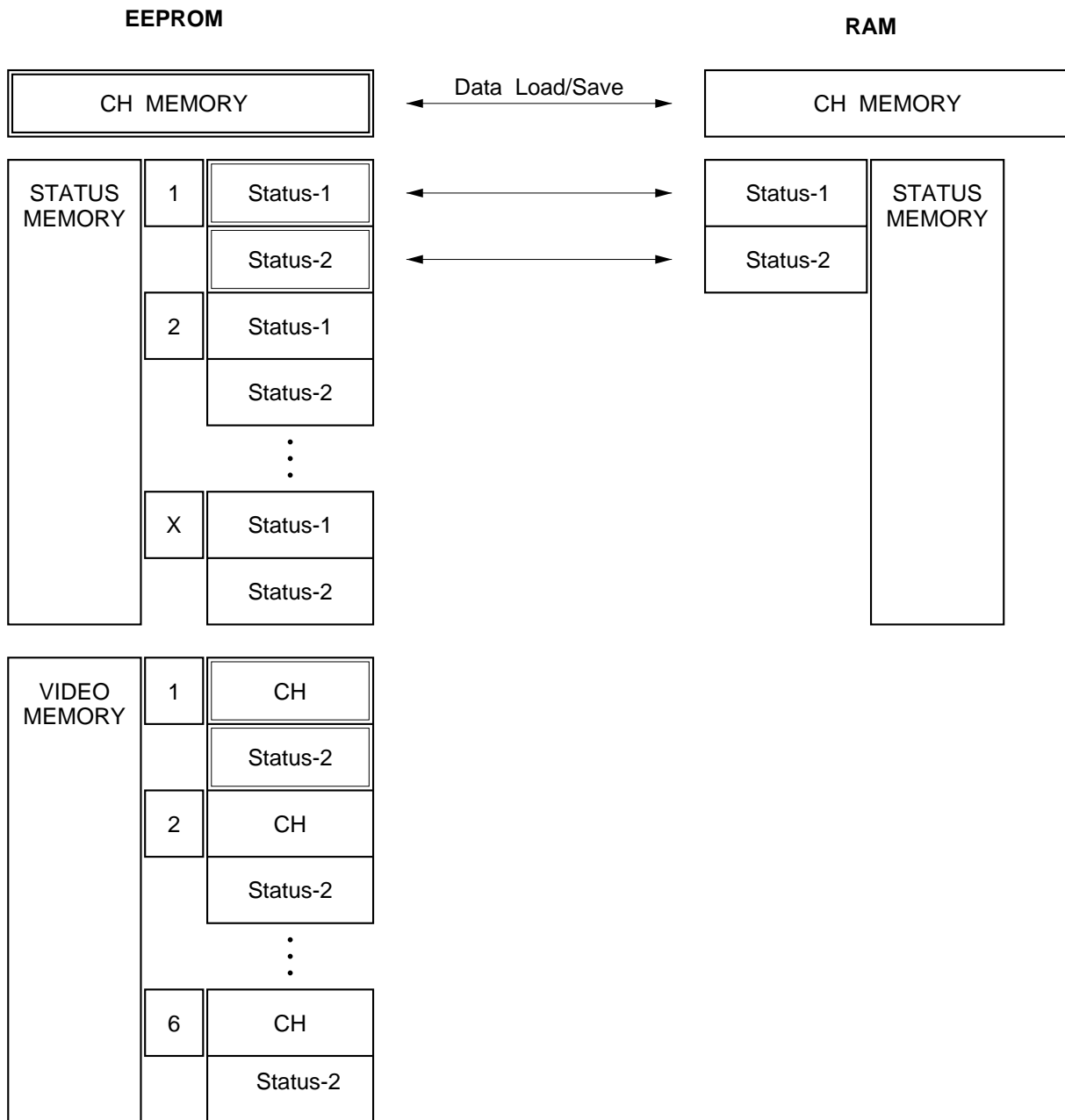
STATUS MEMORY-1
DOT PHASE
H SIZE
H/V SHIFT
VIDEO MEMORY No.
STATUS MEMORY-2
SCAN CONVERT ON/OFF
ASPECT Setting
V SCROLL
TITLE AREA

BLKG

VIDEO MEMORY

CHMEMORY+STATUS MEMORY-2

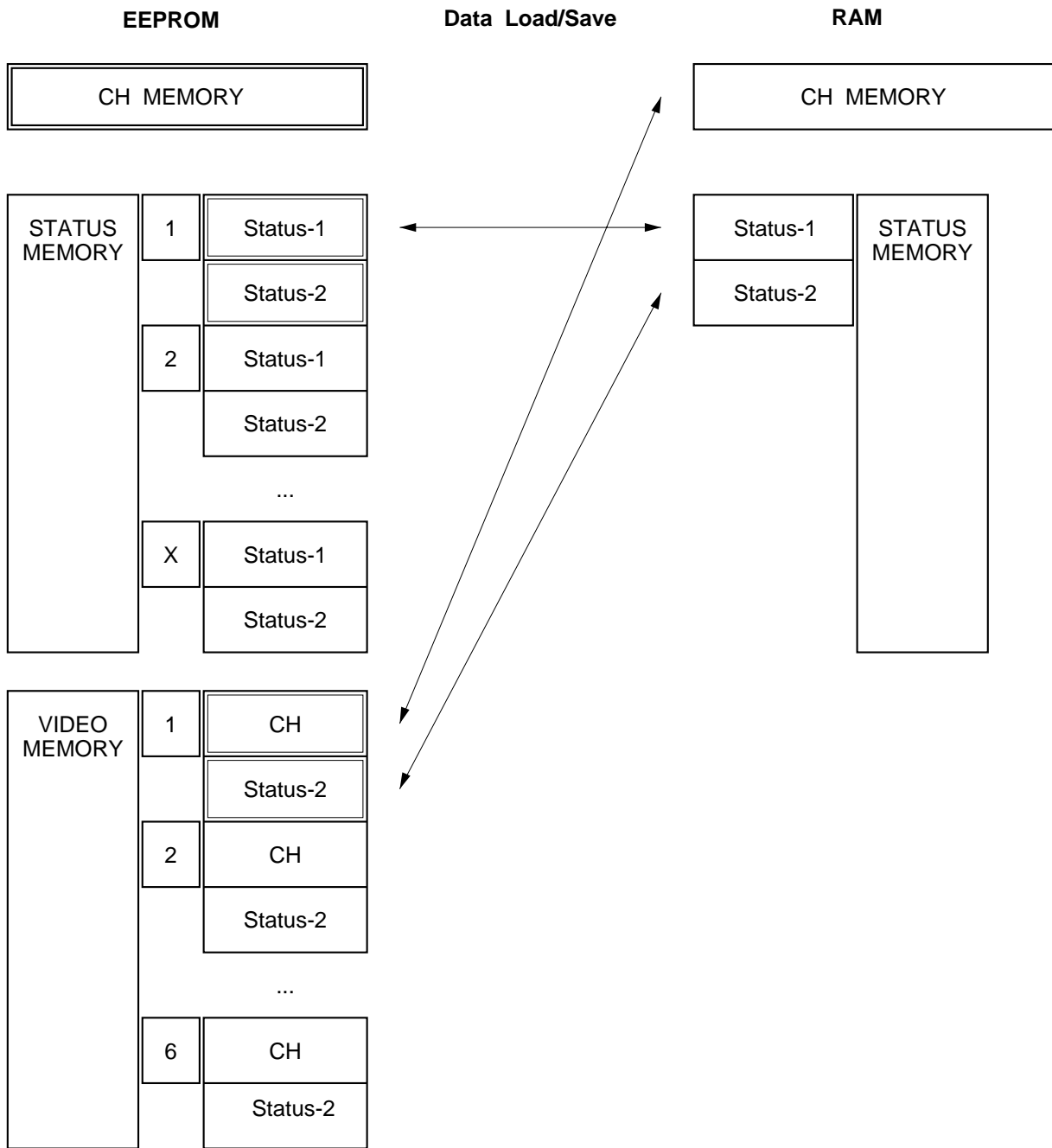
**4-4-6-3. Data Access when VIDEO MEM OFF is Selected
(When Status Memory No.1 is Selected)**



After selection of VIDEO MEM OFF,
CH memory data is loaded into RAM from the EEPROM
CH memory block.
STATUS memory data is loaded into RAM from the
EEPROM STATUS memory block.

Conversely, when data is saved from RAM into EEPROM
the data is saved into the blocks from which the respective
type of data was loaded.

**4-4-6-4. VIDEO MEM Data Access when 1 to 6 is Selected
(When Status Memory No. 1, VIDEO MEMORY No. 1 is Selected)**



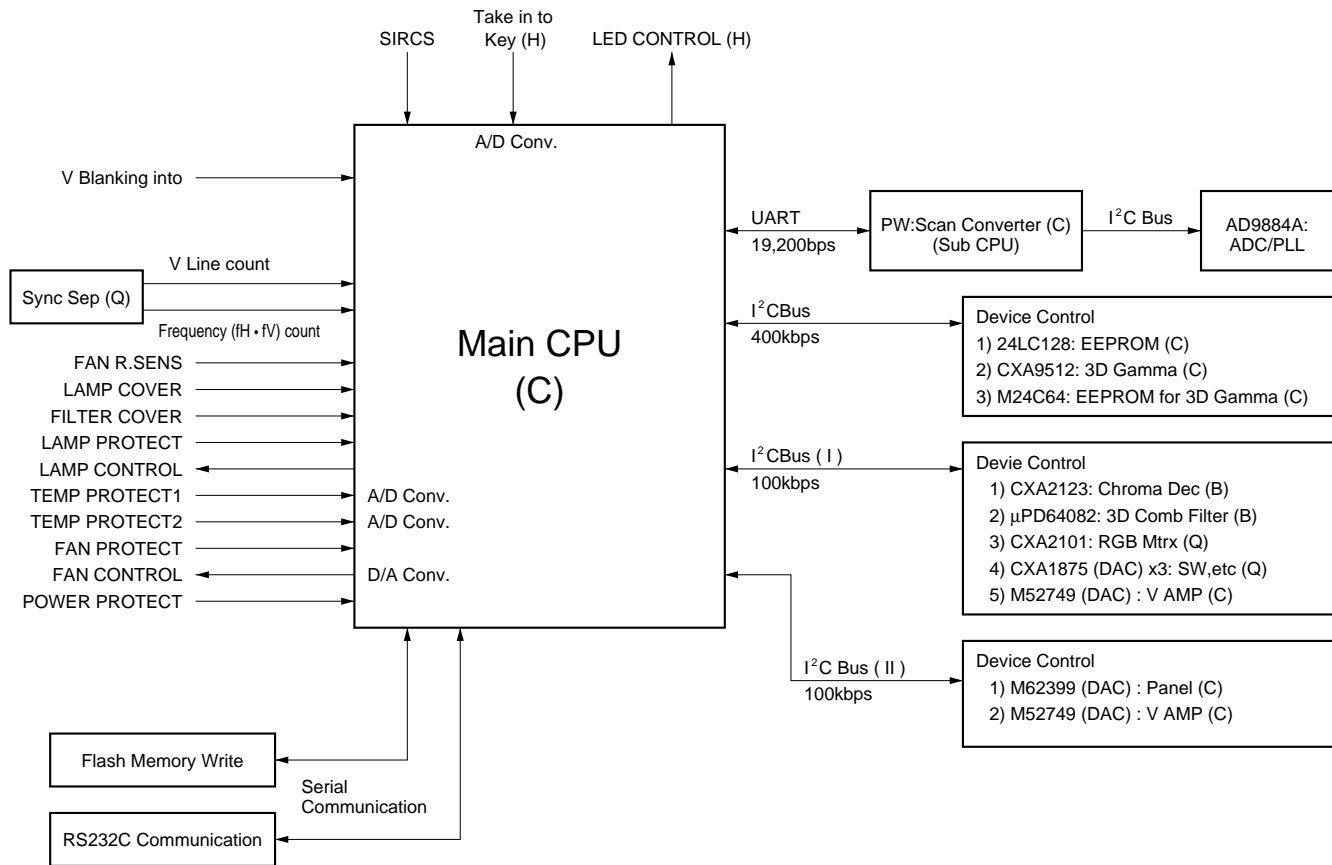
When VIDEO MEMORY 1 to 6 is selected. CH memory data is loaded into RAM from the EEPROM VIDEO memory block.

The STATUS data loaded into RAM is obtained in part from the EEPROM STATUS memory block with the remainder from the VIDEO memory block.

Conversely, when data is saved from RAM into EEPROM

the data is saved into the blocks from which the respective type of data is loaded.

4-4-6-5. CPU Peripheral



Adjustment Item Initialaze Data

MenuTitle	ItemName	SET MEMORY	CH MEMORY				STATUS MEMORY	VIDEO-HIGH
			VIDEO	S Video	INPUT-A	INPUT-B		
			PICTURE CTRL	CONTRAST		80		
	BRIGHT		50	50	50	50		
	COLOR		50	50	50	50		
	HUE		50	50	50	50		
	SHARP		50	50	50	50		
	RGB ENHANCER		-	-	0	0		
	D.PICTURE		OFF	OFF	OFF	OFF		
	COLOR TEMP		LOW	LOW	LOW	LOW		
	COLOR SYS		AUTO	AUTO	AUTO	AUTO		
	DRC-MF		DRCX4	DRCX4	DRCX4	DRCX4		
INPUT SETTING	DOT PHASE						*	
	SIZE H						*	
	SHIFT						*	
	SCAN CONV						ON (*)	
	ASPECT						FULL (*)	
	V SCROLL						4	
	TITLE AREA						0	
	BLANKING						0 (*)	
	VIDEO MEMORY						OFF (*)	
SET SETTING	STATUS	ON						
	INPUT-A	COMPONENT						
	INPUT-B	COMPONENT						
	LANGUAGE	ENGLISH						
	POWER SAVING	OFF						
	SIRCS RECEIVER	FRONT&REAR						
INSTALL SETTING	KEYSTONE MEM.	ON						
	DIGIT KEYSTONE	0						
	INSTALLATION	FLOOR-FRONT						
	CINEMA BLACK	ON						
	LAMP TIMER	indication only						
INFORMATION	fH	indication only						
	fV	indication only						
	ROM Ver	indication only						
	OPERATION TIMER	indication only						
	PREVIOUS LAMP TIMER	indication only						
	TL	indication only						
	TP	indication only						
W/B ADJUST	GAIN R						193	
	GAIN G						86	
	GAIN B						103	
	BIAS R						90	
	BIAS G						109	
	BIAS B						109	

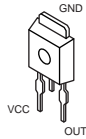
Adjustment Item	VIDEO MEMORY						Remark
	1	2	3	4	5	6	
CONTRAST	80	80	80	80	80	80	
BRIGHT	50	50	50	50	50	50	
COLOR	50	50	50	50	50	50	
HUE	50	50	50	50	50	50	
SHARPNESS	50	50	50	50	50	50	
D.PICTURE	OFF	OFF	OFF	OFF	OFF	OFF	
COLOR TEMP	LOW	LOW	LOW	LOW	LOW	LOW	
COLOR SYS	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	
RGB ENHANCER	0	0	0	0	0	0	
DRC-MF	DRCX4	DRCX4	DRCX4	DRCX4	DRCX4	DRCX4	
ASPECT	FULL	FULL	FULL	FULL	FULL	FULL	
SCAN CONV	ON	ON	ON	ON	ON	ON	
V SCROLL	4	4	4	4	4	4	
TITLE AREA	0	0	0	0	0	0	
BLANKING	0	0	0	0	0	0	

DeviceName	ItemName	SET MEMORY	Status Memory	MemoryName				
				CHROMA MEMORY				
				NT358/NT433 /BW60	PAL/PAL-M/N/ SECAM/BW50	15kRGB	YCbCr (15k)	
RGB MTRX/	CONTRAST	16						
	SUB HUE			7	7	8	8	
	SUB BRT	55						
	R-Y/R			11	11	11	11	
	R-Y/B			15	14	14	15	
	G-Y/R			5	6	5	6	
	G-Y/B			5	5	5	5	
	YUV CON			7	7	5	6	
	YUV COL			5	5	8	10	
	SUB SHP			2	2	3	3	
	SHP F0			2	2	2	2	
	PRE OVER			1	1	1	1	
	CTI LVL			2	2	1	1	
LTI LVL			0	0	0	0		
DCOM/	VENH	4						
DRC/	GAME		0 (Normal)					
CHROMA/	Y-OUT LVL			50	53	54	55	
	C-OUT LVL			44	50	51	50	
	Y-DL							
	S B-Y ADJ	8						
	S R-Y ADJ	8						
	S-INHBT	0						
	S-ID	0						
	S GP	0						
	S V-ID	0						
	BELL f0	0						
	BELL/HP	0						
	SHP GAIN			11	11	9	9	
	SHP EQ			1	1	1	1	
	SHP F0			2	2	2	2	
BS POINT	3							
P.DRV/	VCOM G	59						
	VCOM R	49						
	VCOM B	54						
	SIG CEN	155						
	INV CONT	1						
	SID GRY RB	147						
	SID GRY G	147						
	SID BLK	95						
CALIB	135							
SH/	SH1	4						
	SH2R	190						
	SH2G	190						
	SH2B	180						
VAMP/	CONT	110						
	SUB CON G E	165						
	SUB CON G O	165						
	SUB CON B E	160						
	BRT	145						
VAMP2/	CONT	110						
	SUB CON R O	170						
	SUB CON R E	170						
	SUB CON B O	160						
	BRT	145						
3D GAMMA/	SUB CONT	-20						
	SUB BRT	0						
	R OSD LVL	16						
	G OSD LVL	16						
	B OSD LVL	16						
	THROUGH	0						
	SW	1						
	APC THRES	10						
	APC LIMIT	32						
OTHER/	H START	100						
	V START	15						
	TEMP LAMP	Nonadjustable						
	TEMP PANEL	Nonadjustable						
	LAMP FAN 1	Nonadjustable						
	PANEL FAN 1	Nonadjustable						
	LAMP FAN 2	Nonadjustable						
PANEL FAN 2	Nonadjustable							
GAMMA		Standard						

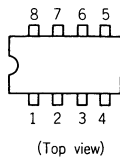
Note : There are nonadjustable items in accordance with the input signal.

Section 5 Semiconductors

**BA05FP-E2
BA09FP-E2
BA12FP-E2**

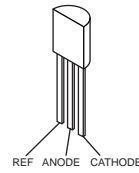


LM393PS-E20

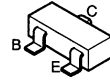


**M24C64-WMN6T
ST49C101ACF8-05-TR
TC7W14F
TC7WFU
TC7WH241FU
TC7WT241FU
TC7W125FU-TE12R
TC7W14F
TL082CPS-E20
TL431BCDR2**

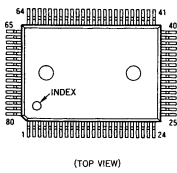
UPC1093J-1-T



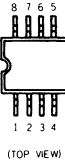
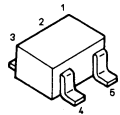
**DTA144EKA-T146
DTC144EKA-T146
2SA1037AK-T146-QR
2SA1462-Y33
2SC2412K-T-146-QR
2SC2712-YG-TE85L
2SC3545-T144**



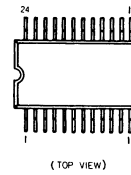
CXA2101AG



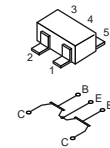
**LP29851M5X
TC7S04FU
TC7S08FU**



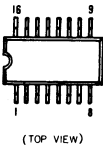
UPC659AGS-E2



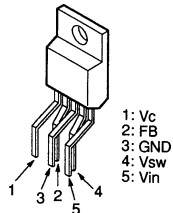
FMS1-T-148



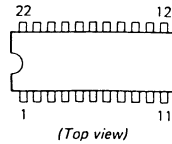
**EL4332CS-TE2
MAX202CSE-T
MC74HC4538AF-T2
PC74HC123D-T
SN74HCU04ANSR
TC74VHC123F (EL)**



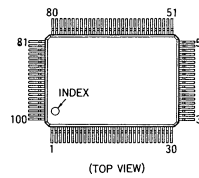
MBM29LV002T-SX1647



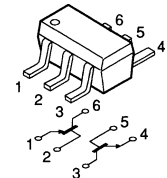
M52749FP-TP



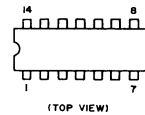
UPD64082BGF-3BA



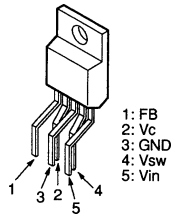
HN1B01FU-TE85R



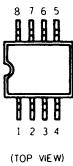
**MC100ELT20DR2
TC74LCX125FT (EL)
TC74VHCT04AFT (EL)
TC74VHC02FT (EL)
TLC2932IPW-E20
TLC2933IPW-E20**



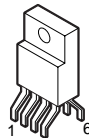
PQ20VZ1U



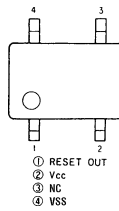
**GS4981CTA
NJM2533M (TE2)
SN75157PS-ELL2000
TC7W00 (TE12R)**



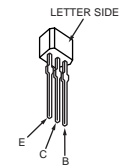
MX0341B-F



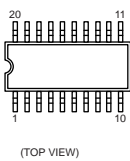
**S-80828ANNP-EDR-T2
S-80842ANNP-ED6-T2**



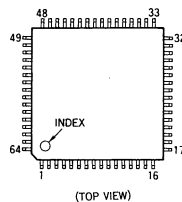
2SA1039A-QRSTA



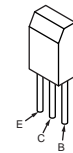
**IMISM530AYB-D
M62399FP-TE2
TC74VHCT541AFT
TC74VHC244F**



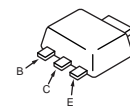
TLC5733AIPM



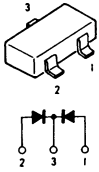
2SB734-T-2



**2SB798-DL
2SB798-T1-DLDK**



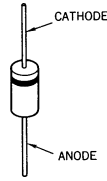
DAN202K-T-146



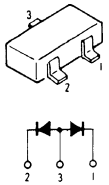
D10SC4M



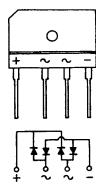
RD30FB1
UF4005PKG23



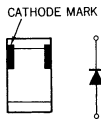
DAP202K-T-146



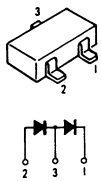
D6SB80



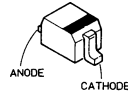
SEC1801C
SEC2422C



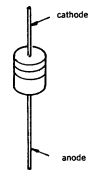
DA204K-T-146



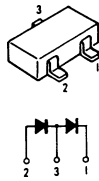
MA111
RD27SB-T1
RD5.1SB-T1
RD9.1SB2-T1
UDZ-TE-17-3.9B



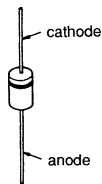
D1NS4-TA
D1NS4-TR2
RD12SB-T1
RD13ES-T1B2
1SS119-25TD



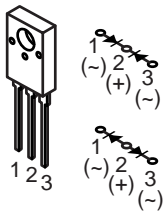
MA157-TX



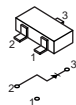
RM11C



D10LC20U



RD15M-T1B1



Section 6

Spare Parts

6-1. Notes on Repair Parts

1. Safety Related Components Warning

WARNING

Components marked \triangle are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

2. Standardization of Parts

Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement.

Parts list has the present standardized repair parts.

3. Stock of Parts

Parts marked with "o" at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

4. Units for Capacitors, Inductors and Resistors

The following units are assumed in Schematic diagrams, Electrical Parts List and Exploded Views unless otherwise specified.

Capacitors : μF

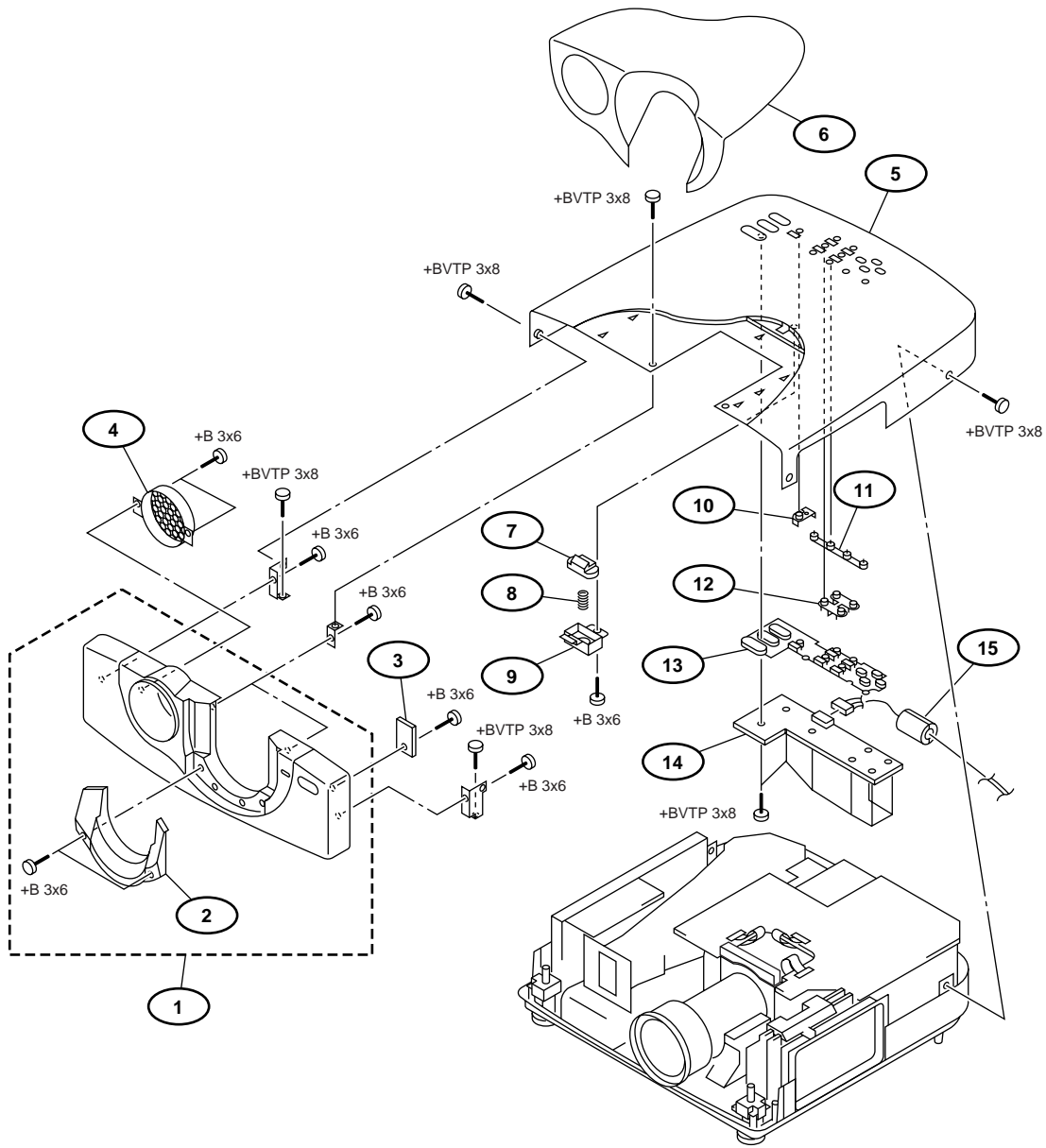
Inductors : μH

Resistors : Ω

CABINET

6-2. Exploded Views

1. Cabinet

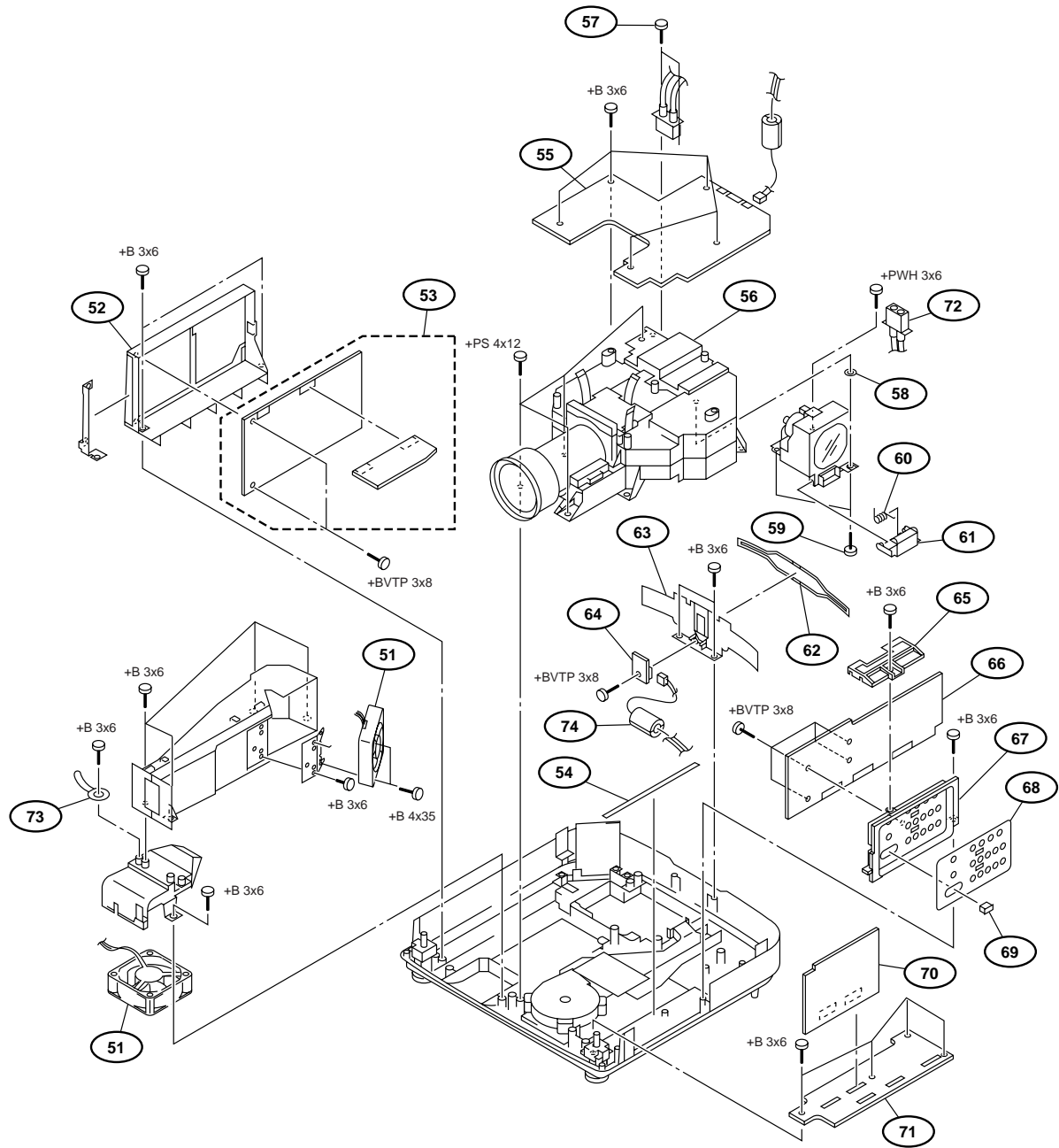


No.	Part No.	SP Description
1	X-4037-544-1	o PANEL ASSY, FRONT
2	4-074-465-01	o COVER (BT), LENS
3	1-675-776-11	o PRINTED WIRING BOARD, NF
4	4-074-860-01	o DUCT (KM)
5	4-074-461-11	o HOOD
6	4-074-463-02	o COVER (TP), LENS
7	4-063-672-01	s STOPPER (LCT)
8	4-063-686-01	s SPRING, COMPRESSION
9	4-063-673-01	s HOLDER (LCT)
10	4-074-846-01	o GUIDE (A), LED

No.	Part No.	SP Description
11	4-074-845-01	o GUIDE (C), LED
12	4-074-844-01	o GUIDE (B), LED
13	4-074-876-01	o BUTTON, CONTROL
14	A-1375-227-A	s MOUNTED CIRCUIT BOARD, H
15	1-500-082-11	s CLAMP, SLEEVE FERRITE

7-682-547-04	s SCREW +B3X6
7-685-646-79	s SCREW +BVTP 3X8

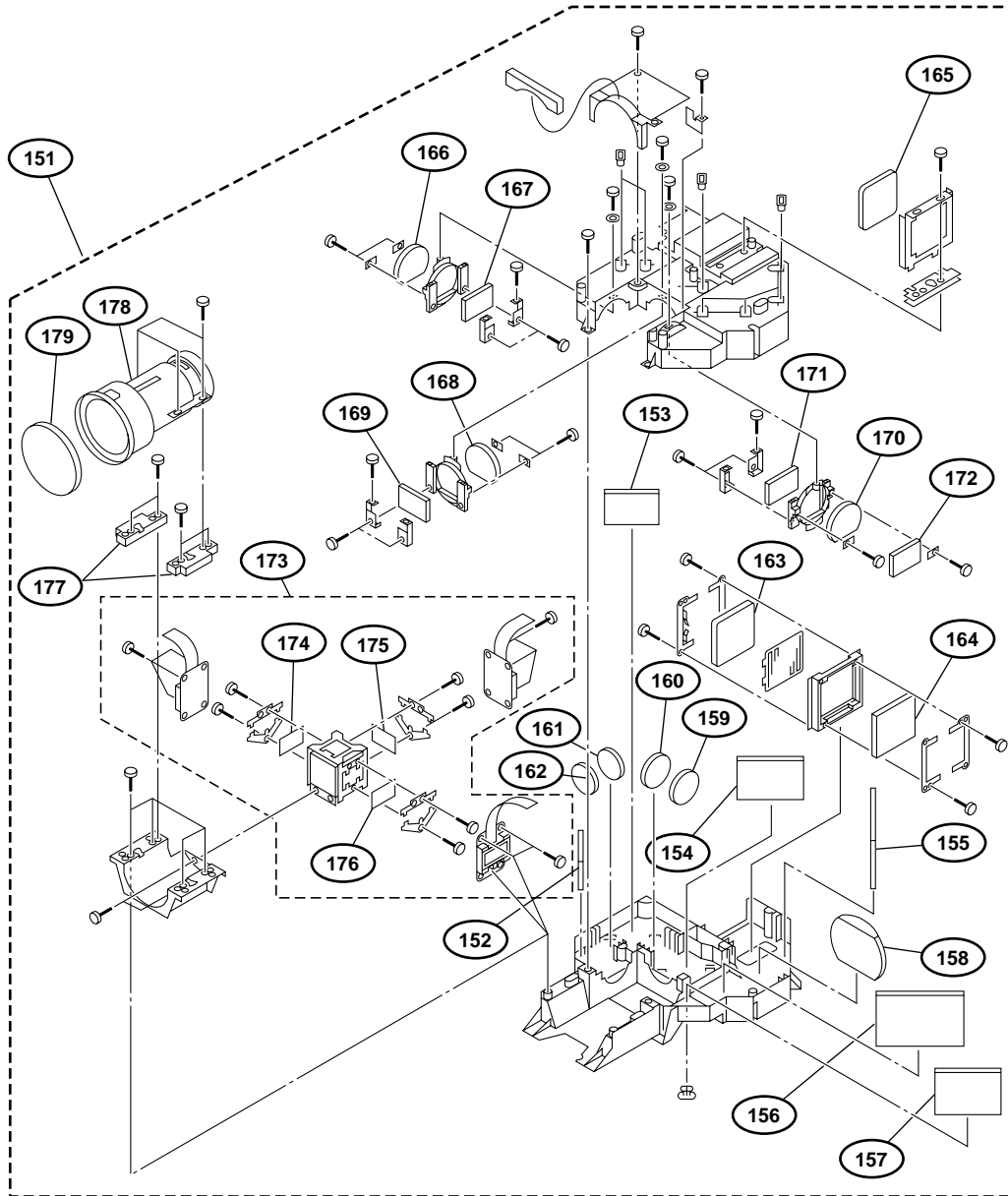
2. Chassis



No.	Part No.	SP Description
51	1-763-070-11	s FAN, DC
52	4-074-870-01	o HOLDER (G)
53	A-1316-583-A	s MOUNTED CIRCUIT BOARD, G
54	4-080-495-01	s PACKING (DU)
55	A-1335-144-A	s MOUNTED CIRCUIT BOARD, C
56	A-1485-446-A	s OPTICAL UNIT
57	3-701-809-31	s SCREW, TERMINAL (M3X8)
58	3-715-526-01	o WASHER (M3) (PLA)
59	4-066-202-01	s SCREW, M3
60	4-073-788-01	o SPRING, DOOR
61	4-073-787-01	o DOOR, DUCT
62	4-074-866-02	o WINDOW (RE), RE
63	4-074-869-01	o HOLDER (RE)
64	1-675-771-11	o PRINTED WIRING BOARD, NR
65	4-074-863-01	o HOLDER (B)

No.	Part No.	SP Description
66	A-1275-206-A	s MOUNTED CIRCUIT BOARD, Q
67	4-074-460-01	o PANEL, CONNECTOR
68	4-074-865-02	o LABEL, CONNECTOR NAME
69	4-957-207-01	o COVER (9P RECEPTACLE)
70	A-1136-209-A	s MOUNTED CIRCUIT BOARD, B
71	A-1131-792-A	s MOUNTED CIRCUIT BOARD, BM
72	1-900-222-47	s CONNECTOR ASSY, FUSE 2P
73	3-701-822-00	s HOLDER, WIRE
74	1-500-082-11	s CLAMP, SLEEVE FERRITE
	7-682-547-04	s SCREW +B3X6
	7-682-552-09	s SCREW +B3X16
	7-682-569-09	s SCREW +B4X35 (EP-FE/ZNBK/CM2)
	7-682-903-11	s SCREW +PWH 3X6
	7-685-646-79	s SCREW +BVTP 3X8
	7-682-663-09	s SCREW +PS 4X12 (EP-FE/ZNBK/CM2)

4. Optical Unit



No.	Part No.	SP Description	No.	Part No.	SP Description
151	A-1485-446-A	S OPTICAL UNIT	166	9-885-000-30	S POLARIZER, R/CONDENSOR LENS
152	9-885-000-35	S MIRROR D	167	9-885-013-98	S POLARIZER, R-IN PLATE
153	9-885-000-34	S MIRROR B	168	9-885-000-28	S POLARIZER, G/CONDENSOR LENS
154	9-885-000-32	S MIRROR, G REFLECTION	169	9-885-013-94	S POLARIZER, G-IN PLATE
155	9-885-000-33	S MIRROR A	170	9-885-000-29	S POLARIZER, B/CONDENSOR LENS
156	9-885-000-31	S MIRROR, B LIGHT TRANSMISSION	171	9-885-013-96	S POLARIZER, B-IN PLATE
157	9-885-000-36	S MIRROR C	172	9-885-000-43	S UV PROOF GLASS
158	9-885-000-38	S MAIN CONDENSOR LENS	173	A-1485-445-A	S PRISM BLOCK ASSY
159	9-885-000-39	S LENS A, RELAY	174	9-885-013-99	S POLARIZER, R-OUT PLATE
160	9-885-000-40	S LENS B, RELAY	175	9-885-013-95	S POLARIZER, G-OUT PLATE
161	9-885-000-41	S LENS C, RELAY	176	9-885-013-97	S POLARIZER, B-OUT PLATE
162	9-885-000-42	S LENS D, RELAY	177	9-885-000-37	S SPACER, COMPLETE
163	9-885-014-00	S FLYEYE LENS B	178	9-885-000-24	S PROJECTION LENS
164	9-885-000-27	S FLYEYE/PS CONVERTER	179	9-885-000-44	S LENS CAP
165	9-885-000-25	S FLYEYE LENS A			

174-176

6-3. Electrical Parts List for Boards

H BOARD		
Ref. No. or Q'ty	Part No.	SP Description
1pc	A-1375-227-A	s MOUNTED CIRCUIT BOARD, H
C7001	1-164-004-11	s CAPACITOR,CERAMIC 0.1MF/25V
C7002	1-164-004-11	s CAPACITOR,CERAMIC 0.1MF/25V
CN7001	1-764-007-11	o PIN, CONNECTOR (SMD) 12P
D7001	8-719-080-04	s DIODE CL-190UB-X-T
D7002	8-719-080-04	s DIODE CL-190UB-X-T
D7003	8-719-080-04	s DIODE CL-190UB-X-T
D7004	8-719-045-61	s DIODE SEC1901C
D7005	8-719-080-04	s DIODE CL-190UB-X-T
D7006	8-719-045-61	s DIODE SEC1901C
D7007	8-719-080-04	s DIODE CL-190UB-X-T
D7008	8-719-080-04	s DIODE CL-190UB-X-T
D7009	8-719-045-53	s DIODE SEC1801C
D7010	8-719-080-04	s DIODE CL-190UB-X-T
D7011	8-719-045-60	s DIODE SEC1401C
D7012	8-719-080-04	s DIODE CL-190UB-X-T
D7013	8-719-080-04	s DIODE CL-190UB-X-T
D7014	8-719-080-04	s DIODE CL-190UB-X-T
D7015	8-719-045-51	s DIODE SEC2422C
D7016	8-719-914-43	s DIODE DAN202K
D7017	8-719-914-44	s DIODE DAP202K (DUAL)
D7018	8-719-914-43	s DIODE DAN202K
D7019	8-719-914-44	s DIODE DAP202K (DUAL)
D7020	8-719-914-43	s DIODE DAN202K
D7021	8-719-914-44	s DIODE DAP202K (DUAL)
D7022	8-719-080-04	s DIODE CL-190UB-X-T
D7023	8-719-914-43	s DIODE DAN202K
D7024	8-719-914-44	s DIODE DAP202K (DUAL)
D7025	8-719-080-04	s DIODE CL-190UB-X-T
D7026	8-719-080-04	s DIODE CL-190UB-X-T
D7027	8-719-080-04	s DIODE CL-190UB-X-T
D7028	8-719-080-04	s DIODE CL-190UB-X-T
D7029	8-719-080-04	s DIODE CL-190UB-X-T
D7030	8-719-080-04	s DIODE CL-190UB-X-T
D7031	8-719-080-04	s DIODE CL-190UB-X-T
D7032	8-719-080-04	s DIODE CL-190UB-X-T
D7033	8-719-080-04	s DIODE CL-190UB-X-T
D7034	8-719-080-04	s DIODE CL-190UB-X-T
FB7001	1-414-235-22	s INDUCTOR, FERRITE BEAD
FB7002	1-414-235-22	s INDUCTOR, FERRITE BEAD
Q7001	8-729-230-49	s TRANSISTOR 2SC2712-YG
Q7002	8-729-230-49	s TRANSISTOR 2SC2712-YG
Q7003	8-729-230-49	s TRANSISTOR 2SC2712-YG
Q7004	8-729-027-38	s TRANSISTOR DTA144EKA-T146
Q7005	8-729-230-49	s TRANSISTOR 2SC2712-YG
Q7006	8-729-230-49	s TRANSISTOR 2SC2712-YG
Q7007	8-729-230-49	s TRANSISTOR 2SC2712-YG
R7001	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7002	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7003	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7004	1-216-075-00	s RESISTOR CHIP 12K 1/10W(2012)
R7005	1-216-069-00	s RESISTOR,CHIP 6.8K 1/10W(2012)
R7006	1-216-063-91	s RESISTOR,CHIP 3.9K 1/10W(2125)
R7007	1-216-059-00	s RESISTOR,CHIP 2.7K 1/10W(2012)
R7008	1-216-057-00	s RESISTOR CHIP 2.2K 1/10W(2012)
R7009	1-216-053-00	s RESISTOR CHIP 1.5K 1/10W(2012)

(H BOARD)		
Ref. No. or Q'ty	Part No.	SP Description
R7010	1-216-055-00	s RESISTOR CHIP 1.8K 1/10W(2012)
R7011	1-216-073-00	s RESISTOR,CHIP 10K 1/10W(2012)
R7012	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7013	1-216-061-00	s RESISTOR CHIP 3.3K 1/10W(2012)
R7014	1-216-083-00	s RESISTOR CHIP 27K 1/10W(2012)
R7015	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7016	1-216-069-00	s RESISTOR,CHIP 6.8K 1/10W(2012)
R7017	1-216-075-00	s RESISTOR CHIP 12K 1/10W(2012)
R7018	1-216-063-91	s RESISTOR,CHIP 3.9K 1/10W(2125)
R7019	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7020	1-216-061-00	s RESISTOR CHIP 3.3K 1/10W(2012)
R7021	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7022	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7023	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7024	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7025	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7026	1-216-061-00	s RESISTOR CHIP 3.3K 1/10W(2012)
R7027	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7028	1-216-055-00	s RESISTOR CHIP 1.8K 1/10W(2012)
R7029	1-216-053-00	s RESISTOR CHIP 1.5K 1/10W(2012)
R7030	1-216-057-00	s RESISTOR CHIP 2.2K 1/10W(2012)
R7031	1-216-059-00	s RESISTOR,CHIP 2.7K 1/10W(2012)
R7032	1-216-049-11	s RESISTOR, CHIP 1K 1/10W(2012)
R7033	1-216-073-00	s RESISTOR,CHIP 10K 1/10W(2012)
R7034	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7035	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7036	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7038	1-216-061-00	s RESISTOR CHIP 3.3K 1/10W(2012)
R7039	1-216-061-00	s RESISTOR CHIP 3.3K 1/10W(2012)
R7040	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7041	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7042	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7043	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7044	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7045	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7046	1-216-061-00	s RESISTOR CHIP 3.3K 1/10W(2012)
R7047	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
R7048	1-216-037-00	s RESISTOR,CHIP 330 1/10W(2012)
S7001	1-771-105-11	s SWITCH, TACTILE
S7002	1-771-105-11	s SWITCH, TACTILE
S7003	1-771-105-11	s SWITCH, TACTILE
S7004	1-771-105-11	s SWITCH, TACTILE
S7005	1-771-105-11	s SWITCH, TACTILE
S7006	1-771-105-11	s SWITCH, TACTILE
S7007	1-771-105-11	s SWITCH, TACTILE
S7008	1-771-105-11	s SWITCH, TACTILE
S7009	1-771-105-11	s SWITCH, TACTILE
S7010	1-771-105-11	s SWITCH, TACTILE
S7011	1-771-105-11	s SWITCH, TACTILE
S7012	1-771-105-11	s SWITCH, TACTILE

GA BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-675-779-11		PRINTED WIRING BOARD, GA
C2602	1-136-209-11	s	CAPACITOR,FILM 0.1MF/630V
C2604	1-164-644-11	s	CAPACITOR,CERAMIC 330PF/500VDC
C2605	1-164-644-11	s	CAPACITOR,CERAMIC 330PF/500VDC
C2606	1-107-911-11	s	CAPACITOR,ELECT 220MF/50V
C2607	1-136-167-00	s	CAPACITOR,FILM 0.15MF/50V
C2608	1-136-162-00	s	CAPACITOR,FILM 0.056MF/50V
C2609	1-136-167-00	s	CAPACITOR,FILM 0.15MF/50V
C2610	1-136-162-00	s	CAPACITOR,FILM 0.056MF/50V
C2611	1-117-827-11	s	CAP, METALIZED PP FILM 3000PF
C2613	1-107-879-11	s	CAPACITOR,ELECT 3300MF/10V
C2614	1-107-905-11	s	CAPACITOR,ELECT 4.7MF/50V
C2615	1-107-909-11	s	CAPACITOR,ELECT 47MF/50V
C2616	1-110-501-11	s	CAPACITOR CERAMIC 0.33MF/16V
C2617	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V
C2619	1-109-994-11	s	CAPACITOR,CHIP CERAMIC 2.2MF B
CN2011	1-785-517-11	o	CONNECTOR, BOARD TO BOARD
CN2012	1-774-245-11	o	CONNECTOR, BOARD TO BOARD 8P
D2601	8-719-510-39	s	DIODE D10LC20U
D2602	8-719-510-12	s	DIODE D10SC4M
D2603	8-719-073-01	s	DIODE MA111-(K8).S0
D2605	8-719-160-83	s	DIODE RD30FB1
IC2602	8-759-198-31	s	IC UPC1093J-1-T
IC2603	8-759-388-23	s	IC TL431BCDR2
L2601	1-406-659-11	s	COIL CHOKE 10UH
Q2601	8-729-041-18	s	TRANSISTOR MXO341B-F
Q2602	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q2603	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q2604	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q2605	8-729-230-49	s	TRANSISTOR 2SC2712-YG
R2604	1-260-288-11	s	RESISTOR,CARBON 0.47 1/2W
R2605	1-260-288-11	s	RESISTOR,CARBON 0.47 1/2W
R2608	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2609	1-247-887-00	s	RESISTOR,CARBON 220K 1/4W
R2610	1-247-887-00	s	RESISTOR,CARBON 220K 1/4W
R2611	1-247-887-00	s	RESISTOR,CARBON 220K 1/4W
R2612	1-247-887-00	s	RESISTOR,CARBON 220K 1/4W
R2613	1-249-381-11	s	RES,CARBON 1 (1/4W)
R2614	1-249-381-11	s	RES,CARBON 1 (1/4W)
R2615	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2616	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R2617	1-216-658-11	s	RESISTOR,CHIP 2.0K 1/10W(2012)
R2618	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R2620	1-215-909-11	s	RESISTOR,METAL FILM 47/3W
R2621	1-215-909-11	s	RESISTOR,METAL FILM 47/3W
R2623	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R2624	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R2625	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R2626	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R2627	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R2628	1-216-097-00	s	RESISTOR CHIP 100K 1/10W(2012)
R2629	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R2630	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2631	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
T2601	1-429-987-11	s	TRANSFORMER, POWER INSULATED
T2602	△ 1-429-992-11	s	TRANSFORMER, POWER REGULATION

C BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1335-144-A	s	MOUNTED CIRCUIT BOARD, C
C5001	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5002	1-109-982-11	s	CAPACITOR,CHIP CERAMIC 1MF/10V
C5003	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5004	1-109-982-11	s	CAPACITOR,CHIP CERAMIC 1MF/10V
C5005	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5006	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5007	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5008	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5009	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5010	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5011	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5012	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5013	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5014	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5015	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5016	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5017	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5018	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C5019	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5020	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5021	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5022	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5023	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C5024	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5025	1-162-915-11	s	CAPACITOR,CERAMIC 10PF/50V CH
C5026	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C5027	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5028	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5029	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5030	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5031	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5032	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5034	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5035	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5036	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5037	1-127-692-11	s	CAP, CHIP CERAMIC 10MF B 3216
C5038	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5039	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C5040	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5041	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5101	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5102	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5103	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5104	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5105	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5109	1-110-648-11	s	CAPACITOR,CAPACITOR 220MF/25V
C5111	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5112	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5113	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5114	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5115	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C5116	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5117	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5118	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5119	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5120	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5121	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C5332	1-128-394-11	s	CAPACITOR,ELECT 220MF/10V
C5333	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5334	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5335	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5402	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5403	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5406	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5407	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5408	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5409	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5410	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5412	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5413	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5414	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5415	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5416	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5417	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5418	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5419	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5420	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5421	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5422	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5507	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5508	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5509	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5510	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5516	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5517	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5522	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5523	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5525	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5526	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5528	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5529	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5534	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5535	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5537	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5538	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5539	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5540	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5541	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5542	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5543	1-135-347-11	s	CAP, SOLID ELECT 82MF
C5544	1-135-347-11	s	CAP, SOLID ELECT 82MF
C5545	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5546	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5547	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5548	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5549	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5550	1-126-602-11	s	CAPACITOR,ELECT 3.3MF/50V(CHIP
C5551	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C5552	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C5553	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C5554	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C5555	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C5556	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C5563	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5567	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C5579	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5580	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5581	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C5582	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C5583	1-164-299-11	s	CAPACITOR,CHIP CERAMIC 0.22MF
C5584	1-164-299-11	s	CAPACITOR,CHIP CERAMIC 0.22MF
C5585	1-164-299-11	s	CAPACITOR,CHIP CERAMIC 0.22MF
C5586	1-164-299-11	s	CAPACITOR,CHIP CERAMIC 0.22MF
C5587	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5588	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5589	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5590	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5591	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5592	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5593	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5601	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5602	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5603	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5604	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5605	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5606	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5607	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C5608	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C5609	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C5610	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C5612	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5613	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5614	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5615	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5616	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5617	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5618	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5619	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5620	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5621	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5622	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5624	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5625	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5626	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5627	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5628	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5629	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C5630	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5631	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5632	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5633	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5636	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5637	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5638	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5639	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5640	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5641	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5690	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5701	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5702	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5703	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5704	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5705	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5706	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C5707	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C5708	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C5709	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C5710	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C5712	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5713	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5714	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5715	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5716	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5717	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5718	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5719	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5720	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5721	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5722	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5724	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5725	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5726	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5727	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5728	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5729	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C5730	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5731	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5732	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5733	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5736	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5737	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5738	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5739	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5740	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5741	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5790	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5801	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5802	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5803	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5804	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5805	1-126-206-11	s	CAPACITOR, ELECT 100MF/6.3V
C5806	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5807	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C5808	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C5809	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C5810	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C5812	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5813	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5814	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5815	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5816	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5817	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5818	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5819	1-128-400-11	s	CAPACITOR, ELECT 47MF/25V
C5820	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5821	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5822	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C5824	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5825	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5826	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5827	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5828	1-162-970-11	s	CAPACITOR CERAMIC 0.01MF/25V B
C5829	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C5830	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5831	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5832	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5833	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5836	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5837	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C5838	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5839	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5840	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5841	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C5890	1-128-401-11	s	CAPACITOR,ELECT100MF/25V(CHIP)
C6511	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C6512	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
C6513	1-164-315-11	s	CAPACITOR,CERAMIC 470PF/50V CH
CN5001	1-785-306-21	o	CONNECTOR, BOARD TO BOARD
CN5002	1-691-591-11	o	PIN,CONNECTOR (8P)(SMD)(1.5MM)
CN5003	1-793-798-21	o	CONNECTOR, BOARD TO BOARD
CN5004	1-580-057-11	o	PIN,CONNECTOR 4P
CN5005	1-580-055-21	o	PIN, CONNECTOR 2P
CN5006	1-580-055-21	s	PIN, CONNECTOR 2P
CN5007	1-580-056-21	o	PIN,CONNECTOR 3P
CN5008	1-580-056-21	o	PIN,CONNECTOR 3P
CN5009	1-764-007-11	o	PIN, CONNECTOR (SMD) 12P
CN5010	1-580-057-11	o	PIN,CONNECTOR 4P
CN5011	1-580-055-21	o	PIN, CONNECTOR 2P
CN5201	1-785-306-21	o	CONNECTOR, BOARD TO BOARD
CN5203	1-764-177-11	o	PIN,CONNECTOR (7P)(SMD)(1.5MM)
CN5301	1-573-290-21	s	PIN,CONNECTOR (4P)(SMD)(1.5MM)
CN5601	1-793-812-21	s	CONNECTOR, FFC/FPC
CN5701	1-793-812-21	s	CONNECTOR, FFC/FPC
CN5801	1-793-812-21	s	CONNECTOR, FFC/FPC
D5001	8-719-914-43	s	DIODE DAN202K
D5002	8-719-914-43	s	DIODE DAN202K
D5003	8-719-159-10	s	DIODE RD5.1SB-T2
D5004	8-719-159-10	s	DIODE RD5.1SB-T2
D5005	8-719-159-10	s	DIODE RD5.1SB-T2
D5006	8-719-159-10	s	DIODE RD5.1SB-T2
D5007	8-719-159-10	s	DIODE RD5.1SB-T2
D5008	8-719-159-10	s	DIODE RD5.1SB-T2
D5009	8-719-159-10	s	DIODE RD5.1SB-T2
D5010	8-719-159-10	s	DIODE RD5.1SB-T2
D5011	8-719-159-10	s	DIODE RD5.1SB-T2
D5012	8-719-159-10	s	DIODE RD5.1SB-T2
D5013	8-719-159-10	s	DIODE RD5.1SB-T2
D5014	8-719-159-10	s	DIODE RD5.1SB-T2
D5015	8-719-159-10	s	DIODE RD5.1SB-T2
D5016	8-719-159-10	s	DIODE RD5.1SB-T2
D5017	8-719-159-10	s	DIODE RD5.1SB-T2
D5018	8-719-914-43	s	DIODE DAN202K
D5202	8-719-914-43	s	DIODE DAN202K
D5301	8-719-914-43	s	DIODE DAN202K
FB5001	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5002	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5003	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5004	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5005	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5006	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5007	1-414-921-11	s	INDUCTOR, FERRITE BEAD

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
FB5008	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5009	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5010	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5011	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5012	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5071	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5209	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5210	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5211	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5212	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5262	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5301	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5302	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FB5338	1-414-921-11	s	INDUCTOR, FERRITE BEAD
FL5010	1-239-899-21	s	FILTER, CHIP EMI
FL5020	1-239-899-21	s	FILTER, CHIP EMI
FL5030	1-239-899-21	s	FILTER, CHIP EMI
FL5101	1-234-011-11	s	FILTER, EMI
FL5102	1-234-011-11	s	FILTER, EMI
FL5103	1-234-011-11	s	FILTER, EMI
FL5601	1-234-011-11	s	FILTER, EMI
FL5602	1-234-011-11	s	FILTER, EMI
FL5701	1-234-011-11	s	FILTER, EMI
FL5702	1-234-011-11	s	FILTER, EMI
FL5801	1-234-011-11	s	FILTER, EMI
FL5802	1-234-011-11	s	FILTER, EMI
IC5001	8-759-582-91	s	IC S-80842ANNP-ED6-T2
IC5002	8-759-544-01	s	IC S-80828ANNP-EDR-T2
IC5003	8-759-058-62	s	IC TC7S08FU-TE85R
IC5004	8-759-681-47	s	IC IRMF-A0T-QTP
IC5005	8-759-648-10	s	IC HD64F2633TE
IC5006	8-759-658-90	s	IC 24LC128T-I/SN
IC5007	8-759-327-60	s	IC TC7W125FU-TE12R
IC5008	8-759-277-63	s	IC TC7W14FU (TE12R)
IC5101	8-759-460-72	s	IC BA033FP
IC5102	8-759-460-72	s	IC BA033FP
IC5103	8-759-582-37	s	IC PQ2TZ15U
IC5104	8-759-533-85	s	IC L88M05T-FA-TL
IC5106	8-759-388-31	s	IC PQ20VZ1U
IC5107	8-759-460-72	s	IC BA033FP
IC5108	8-759-645-12	s	IC AD9884AKS-140
IC5109	8-759-460-81	s	IC BA12FP-E2
IC5110	8-759-058-62	s	IC TC7S08FU-TE85R
IC5120	8-759-598-12	s	IC LP2985IM5X-3.5
IC5122	8-759-388-31	s	IC PQ20VZ1U
IC5201	8-759-327-60	s	IC TC7W125FU-TE12R
IC5204	8-759-544-01	s	IC S-80828ANNP-EDR-T2
IC5205	8-759-082-57	s	IC TC7W04FU
IC5206	8-759-475-43	s	IC TC74LCX125FT(EL)
IC5207	8-759-327-60	s	IC TC7W125FU-TE12R
IC5208	8-759-664-83	o	IC MBM29LV400TC-70PFTN-SX1701
IC5209	8-759-645-48	s	IC IDT71V016S15PH-TL
IC5210	8-759-523-79	s	IC TC74VHC02FT
IC5252	8-759-646-15	s	IC ST49C101ACF8-05-TR
IC5301	8-759-491-46	s	IC TC74VHCT04AFT (EL)
IC5302	8-759-490-41	s	IC TC74VHCT541AFT(EL)
IC5303	8-759-490-41	s	IC TC74VHCT541AFT(EL)
IC5304	8-759-592-38	s	IC CXD9512Q

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
IC5305	8-759-684-72	s	IC M24C64-WMN6T(A)
IC5306	8-759-475-43	s	IC TC74LCX125FT(EL)
IC5307	8-759-649-91	s	IC W132-10B-E2
IC5308	8-759-544-01	s	IC S-80828ANNP-EDR-T2
IC5309	8-759-460-72	s	IC BA033FP
IC5310	8-759-490-41	s	IC TC74VHCT541AFT(EL)
IC5311	8-759-195-81	s	IC TC7S86FU
IC5401	8-759-482-47	s	IC M62399FP (TE2)
IC5403	8-752-401-90	s	IC CXD3504R
IC5404	8-759-082-57	s	IC TC7W04FU
IC5501	8-759-645-13	s	IC ADV7123KST140
IC5502	8-759-645-13	s	IC ADV7123KST140
IC5504	8-759-584-86	s	IC M52749FP-TP
IC5505	8-759-584-86	s	IC M52749FP-TP
IC5601	8-752-093-18	s	IC CXA3512R-T6
IC5602	8-752-093-18	s	IC CXA3512R-T6
IC5701	8-752-093-18	s	IC CXA3512R-T6
IC5702	8-752-093-18	s	IC CXA3512R-T6
IC5801	8-752-093-18	s	IC CXA3512R-T6
IC5802	8-752-093-18	s	IC CXA3512R-T6
L5001	1-416-606-11	s	COIL, CHOKE (SMD)
L5101	1-416-606-11	s	COIL, CHOKE (SMD)
L5102	1-416-606-11	s	COIL, CHOKE (SMD)
L5103	1-416-606-11	s	COIL, CHOKE (SMD)
L5104	1-416-606-11	s	COIL, CHOKE (SMD)
L5105	1-416-606-11	s	COIL, CHOKE (SMD)
L5106	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L5107	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L5201	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L5202	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L5203	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L5204	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L5301	1-416-606-11	s	COIL, CHOKE (SMD)
L5302	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L5303	1-412-030-11	s	INDUCTOR,CHIP 22UH (3225)
L5304	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5401	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5402	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5504	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5505	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5507	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5508	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5509	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5510	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5511	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5512	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5601	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5602	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5701	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5702	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5801	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
L5802	1-469-525-91	s	INDUCTOR 10UH (NLFV25)
Q5001	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5002	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q5003	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5004	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5101	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5102	8-729-230-49	s	TRANSISTOR 2SC2712-YG

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q5301	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5302	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q5303	8-729-202-38	s	TRANSISTOR 2SC3326N-A
Q5304	8-729-202-38	s	TRANSISTOR 2SC3326N-A
Q5401	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q5501	8-729-112-65	s	TRANSISTOR 2SA1462
Q5502	8-729-112-65	s	TRANSISTOR 2SA1462
Q5503	8-729-112-65	s	TRANSISTOR 2SA1462
Q5504	8-729-112-65	s	TRANSISTOR 2SA1462
Q5505	8-729-112-65	s	TRANSISTOR 2SA1462
Q5506	8-729-112-65	s	TRANSISTOR 2SA1462
Q5507	8-729-112-65	s	TRANSISTOR 2SA1462
Q5508	8-729-112-65	s	TRANSISTOR 2SA1462
Q5601	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5602	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5603	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5604	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5701	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5702	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5703	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5704	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5801	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5802	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5803	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
Q5804	8-729-013-28	s	TRANSISTOR HN1B01FU-TE85R
R5001	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5002	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R5003	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5004	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5005	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5006	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5007	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5008	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R5010	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5011	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R5012	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5013	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5014	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5015	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5016	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5017	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5018	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5019	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5020	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5021	1-216-826-11	s	RESISTOR,CHIP 2.7K 1/16W(1608)
R5022	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5023	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5026	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5027	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5028	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5029	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5030	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5032	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5033	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5034	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5035	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5036	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5037	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5038	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5039	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5040	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5041	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5042	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5044	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5045	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5047	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5048	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5049	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5050	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5051	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5052	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5053	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5054	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5055	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5056	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5057	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5058	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5059	1-218-703-11	s	RESISTOR,CHIP 3.0K 1/16(1608)
R5060	1-218-675-11	s	RESISTOR,CHIP 200 1/16W (1608)
R5061	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5062	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5063	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5064	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5065	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5066	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5067	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5068	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5069	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5070	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5072	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5073	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5074	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5075	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5076	1-216-815-11	s	RESISTOR,CHIP 330 1/16W 1608
R5077	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5078	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5081	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5082	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5083	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5084	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5085	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5086	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5087	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5088	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5089	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5090	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5091	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5092	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5093	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5094	1-216-848-11	s	RESISTOR,CHIP 180K 1/16 (1608)
R5095	1-216-797-11	s	RESISTOR,CHIP 10 1/16W 1608
R5096	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5097	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R5101	1-220-248-11	s	RESISTOR, CHIP 6.8 1/2W (4532)
R5102	1-220-248-11	s	RESISTOR, CHIP 6.8 1/2W (4532)
R5103	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5104	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5105	1-220-248-11	s	RESISTOR, CHIP 6.8 1/2W (4532)

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5108	1-218-723-11	s	RESISTOR,CHIP 20K 1/16W(1608)
R5109	1-218-714-11	s	RESISTOR,CHIP 8.2K 1/16W(1608)
R5110	1-218-685-11	s	RESISTOR,CHIP 510 1/16W
R5111	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5112	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5113	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5114	1-220-250-11	s	RESISTOR,CHIP 10 1/2W (4532)
R5115	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5117	1-220-250-11	s	RESISTOR,CHIP 10 1/2W (4532)
R5119	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5120	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5121	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5122	1-218-696-11	s	RESISTOR,CHIP 1.5K 1/16W(1608)
R5123	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5124	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5125	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5126	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R5127	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R5128	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R5129	1-216-851-11	s	RESISTOR,CHIP 330K 1/16W 1608
R5130	1-216-845-11	s	RESISTOR,CHIP 100K 1/16W(1608)
R5131	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5132	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5135	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5136	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5137	1-218-714-11	s	RESISTOR,CHIP 8.2K 1/16W(1608)
R5138	1-218-723-11	s	RESISTOR,CHIP 20K 1/16W(1608)
R5139	1-218-685-11	s	RESISTOR,CHIP 510 1/16W
R5140	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5201	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5204	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5205	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5206	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5207	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5208	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5209	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5210	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5211	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5214	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5215	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R5216	1-216-827-11	s	RESISTOR, CHIP 3.3K 1/16W 1608
R5217	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R5218	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5219	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5220	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5221	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5222	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5223	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5224	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5225	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5226	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5227	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5230	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5231	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R5235	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5236	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5241	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5242	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5265	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)

(C BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R5303	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5304	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5305	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5308	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5310	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5312	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5313	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5314	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5315	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5316	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5320	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5321	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5322	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5323	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5324	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5325	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5326	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5327	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5328	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5330	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5331	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5334	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R5337	1-218-686-11	s	RESISTOR CHIP 560 1/16W (1608)
R5338	1-218-686-11	s	RESISTOR CHIP 560 1/16W (1608)
R5342	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R5344	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5345	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5346	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5347	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5348	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5361	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5362	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5363	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5364	1-216-841-11	s	RESISTOR, CHIP 47K 1/16W 1608
R5365	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5366	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5368	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R5369	1-216-831-11	s	RESISTOR,CHIP 6.8K 1/16W(1608)
R5370	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5371	1-216-805-11	s	RESISTOR,CHIP 47 1/16W 1608
R5372	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5373	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5374	1-216-829-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R5375	1-216-825-11	s	RESISTOR,CHIP 2.2K 1/16W 1608
R5377	1-216-839-11	s	RESISTOR,CHIP 33K 1/16W 1608
R5378	1-216-833-11	s	RESISTOR,CHIP 10K 1/16W (1608)
R5379	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5380	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5381	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5382	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5383	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5384	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5387	1-216-801-11	s	RESISTOR,CHIP 22 1/16W (1608)
R5401	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R5404	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5405	1-216-809-11	s	RESISTOR,CHIP 100 1/16W 1608
R5406	1-216-821-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R5408	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R5409	1-216-864-11	s	CONDUCTOR, CHIP (1608)

(C BOARD)

Ref. No. or Q'ty	Part No.	SP Description
RB5703	1-233-574-11	s RESISTOR,CHIP NETWORK 10
RB5704	1-233-574-11	s RESISTOR,CHIP NETWORK 10
RB5801	1-233-574-11	s RESISTOR,CHIP NETWORK 10
RB5802	1-233-574-11	s RESISTOR,CHIP NETWORK 10
RB5803	1-233-574-11	s RESISTOR,CHIP NETWORK 10
RB5804	1-233-574-11	s RESISTOR,CHIP NETWORK 10
S5202	1-571-674-11	s SWITCH,SLIDE (2-2-2)
S5301	1-571-674-11	s SWITCH,SLIDE (2-2-2)
TH5001	1-808-656-11	s THERMISTOR
X5063	1-781-659-11	s VIBRATOR, CRYSTAL
X5201	1-781-774-11	s VIBRATOR, CRYSTAL
X5202	1-781-354-11	s OSCILLATOR, CRYSTAL

TH BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-675-920-11	o PRINTED WIRING BOARD, TH
CN8400	1-580-057-11	o PIN,CONNECTOR 4P
TH8400	1-808-656-11	s THERMISTOR

NF BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-675-776-11	o PRINTED WIRING BOARD, NF
C8000	1-124-589-11	s CAPACITOR,ELECT 47MF/16V
CN8000	1-564-518-11	o PLUG,CONNECTOR 3P
IC8000	8-749-011-03	s IC GP1U26X
R8000	1-216-017-91	s RESISTOR, CHIP 47 1/10W(2012)
R8001	1-216-025-00	s RESISTOR,CHIP 100 1/10W(2012)

NR BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-675-771-11	o PRINTED WIRING BOARD, NR
C8100	1-124-589-11	s CAPACITOR,ELECT 47MF/16V
CN8100	1-564-518-11	o PLUG,CONNECTOR 3P
IC8100	8-749-011-03	s IC GP1U26X
R8100	1-216-017-91	s RESISTOR, CHIP 47 1/10W(2012)
R8101	1-216-025-00	s RESISTOR,CHIP 100 1/10W(2012)

U BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-675-772-11	o PRINTED WIRING BOARD, U
CN8200	1-564-517-11	o PLUG,CONNECTOR (2P)(L-TYPE)
S8200	1-570-245-11	s SWITCH,MICRO

V BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-675-773-11	o PRINTED WIRING BOARD, V
CN8300	1-564-517-11	o PLUG,CONNECTOR (2P)(L-TYPE)
S8300	1-570-245-11	s SWITCH,MICRO

G BOARD

Ref. No. or Q'ty	Part No.	SP	Description
2pcs	7-682-647-09	s	SCREW +PS 3X6 (EP-FE/ZNBK/CM2)
2pcs	7-682-648-09	s	SCREW +PS 3X8 (EP-FE/ZNBK/CM2)
2pcs	7-682-650-09	s	SCREW +PS 3X12 (EP-FE/ZNBK/CM2)
C2002	△ 1-137-477-11	s	CAPCITOR, FILM 0.47MF/400V
C2003	△ 1-161-964-11	s	CAPACITOR CERAMIC 4700PF F
C2004	△ 1-161-964-11	s	CAPACITOR CERAMIC 4700PF F
C2005	△ 1-161-964-11	s	CAPACITOR CERAMIC 4700PF F
C2007	1-117-228-11	s	CAPACITOR, FILM 2.2MF/450V
C2008	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C2009	1-115-340-11	s	CAPACITOR CERAMIC 0.22MF/25V B
C2010	1-107-909-11	s	CAPACITOR, ELECT 47MF/50V
C2013	1-135-449-11	s	CAPCITOR ELECT 220MF/450V
C2014	1-135-449-11	s	CAPCITOR ELECT 220MF/450V
C2015	1-117-227-11	s	CAPACITOR, PE FILM 1.0MF/450V
C2016	1-115-339-11	s	CAPACITOR, CERAMIC 0.1MF/50V
C2101	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C2103	1-126-163-11	s	CAPACITOR, ELECT 4.7MF/50V
C2104	1-104-830-11	s	CAPACITOR, ELECT 10MF/50V(AU)
C2105	1-130-495-00	s	CAPACITOR FILM 0.1MF/50V PETP
C2106	1-130-029-00	s	CAPACITOR, FILM 0.0082MF/50V
C2107	1-104-830-11	s	CAPACITOR, ELECT 10MF/50V(AU)
C2108	1-107-909-11	s	CAPACITOR, ELECT 47MF/50V
C2109	1-131-974-11	s	CAP, METALIZED PP FILM / 16 V
C2110	1-131-974-11	s	CAP, METALIZED PP FILM / 16 V
C2111	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C2112	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C2201	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C2202	1-115-743-11	s	CAPACITOR ELECT 3300MF/10V 105
C2203	1-115-737-11	s	CAPACITOR, ELECT 1000MF/10V
C2204	1-115-743-11	s	CAPACITOR ELECT 3300MF/10V 105
C2205	1-115-792-11	s	CAPACITOR ELECT 2200MF/25V 105
C2206	1-115-792-11	s	CAPACITOR ELECT 2200MF/25V 105
C2207	1-115-339-11	s	CAPACITOR, CERAMIC 0.1MF/50V
C2209	1-115-339-11	s	CAPACITOR, CERAMIC 0.1MF/50V
C2210	1-107-888-11	s	CAPACITOR, ELECT 47MF/25V(105)
C2211	1-107-888-11	s	CAPACITOR, ELECT 47MF/25V(105)
C2212	1-107-909-11	s	CAPACITOR, ELECT 47MF/50V
C2213	1-107-909-11	s	CAPACITOR, ELECT 47MF/50V
C2214	1-107-909-11	s	CAPACITOR, ELECT 47MF/50V
C2216	1-109-994-11	s	CAPACITOR, CHIP CERAMIC 2.2MF B
C2301	1-115-339-11	s	CAPACITOR, CERAMIC 0.1MF/50V
C2302	1-115-339-11	s	CAPACITOR, CERAMIC 0.1MF/50V
C2303	1-107-888-11	s	CAPACITOR, ELECT 47MF/25V(105)
C2304	1-107-888-11	s	CAPACITOR, ELECT 47MF/25V(105)
C2305	1-115-339-11	s	CAPACITOR, CERAMIC 0.1MF/50V
C2306	1-115-339-11	s	CAPACITOR, CERAMIC 0.1MF/50V
C2307	1-107-882-11	s	CAPACITOR, ELECT 100MF 16V
C2308	1-107-882-11	s	CAPACITOR, ELECT 100MF 16V
C2309	1-107-888-11	s	CAPACITOR, ELECT 47MF/25V(105)
C2310	1-107-888-11	s	CAPACITOR, ELECT 47MF/25V(105)
C2311	1-107-888-11	s	CAPACITOR, ELECT 47MF/25V(105)
CN2001	1-691-960-21	o	PIN, CONNECTOR (PC BOARD) 3P
CN2002	1-691-960-11	o	PIN, CONNECTOR (PC BOARD) 3P
CN2003	1-764-334-11	s	PIN, CONNECTOR (11P) (V-TYPE)
CN2004	1-564-511-11	o	PLUG, CONNECTOR (8P)
CN2005	1-564-509-11	o	PLUG, CONNECTOR (6P)
CN2006	1-785-518-11	o	CONNECTOR, BOARD TO BOARD (PLU)
CN2007	1-774-248-11	o	CONNECTOR, BOARD TO BOARD

(G BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
CN2008	1-564-507-11	o	PLUG, CONNECTOR (4P)
CN2009	1-564-506-11	o	PLUG, CONNECTOR (3P)
CN2010	1-564-506-11	o	PLUG, CONNECTOR (3P)
D2001	△ 8-719-911-19	s	DIODE 1SS119-25
D2002	8-719-106-88	s	DIODE RD15M-B1
D2003	△ 8-719-066-75	s	DIODE D6SB80
D2004	8-719-304-63	s	DIODE RM11C (RECTI)
D2005	8-719-510-02	s	DIODE D1NS4
D2101	8-719-510-02	s	DIODE D1NS4
D2102	8-719-979-64	s	DIODE UF4005PKG23
D2103	8-719-979-64	s	DIODE UF4005PKG23
D2104	8-719-110-36	s	DIODE RD13ES-B2
D2201	8-719-510-12	s	DIODE D10SC4M
D2202	8-719-510-12	s	DIODE D10SC4M
D2203	8-719-510-12	s	DIODE D10SC4M
D2204	8-719-510-12	s	DIODE D10SC4M
D2205	8-719-510-02	s	DIODE D1NS4
D2206	8-719-073-01	s	DIODE MA111-(K8).S0
D2301	8-719-073-01	s	DIODE MA111-(K8).S0
D2302	8-719-073-01	s	DIODE MA111-(K8).S0
IC2001	8-749-015-27	s	IC MZ1540
IC2101	8-749-013-78	s	IC MCR5102
IC2201	8-759-388-23	s	IC TL431BCDR2
IC2202	8-759-388-23	s	IC TL431BCDR2
IC2301	8-759-998-98	s	IC LM358D
IC2302	8-759-592-79	s	IC BA00AST
IC2303	8-759-592-79	s	IC BA00AST
L2001	1-419-987-11	s	COIL, CHOKE 1290UH
L2003	△ 1-419-302-11	s	COIL, CHOKE 250UH
L2201	1-412-525-31	s	MICRO INDUCTOR 10UH
L2202	1-412-525-31	s	MICRO INDUCTOR 10UH
L2203	1-406-659-11	s	COIL CHOKE 10UH
L2204	1-412-525-31	s	MICRO INDUCTOR 10UH
L2205	1-406-659-11	s	COIL CHOKE 10UH
PH2101	8-749-010-64	s	PHOTO COUPLER PC123F2
PH2102	8-749-010-64	s	PHOTO COUPLER PC123F2
Q2001	8-729-119-76	s	TRANSISTOR 2SA1175-HFE
Q2101	8-729-140-97	s	TRANSISTOR 2SB734-34
Q2103	8-729-140-97	s	TRANSISTOR 2SB734-34
Q2201	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q2202	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q2203	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q2204	8-729-216-22	s	TRANSISTOR 2SA1162-G
Q2301	1-801-806-11	s	TRANSISTOR DTC144EKA
Q2302	1-801-806-11	s	TRANSISTOR DTC144EKA
Q2303	1-801-806-11	s	TRANSISTOR DTC144EKA
Q2304	1-801-806-11	s	TRANSISTOR DTC144EKA
R2001	1-215-866-11	s	RESISTOR, METAL FILM 330/1W
R2002	1-215-866-11	s	RESISTOR, METAL FILM 330/1W
R2003	△ 1-219-363-11	s	RESISTOR, CEMENT 5.6/5W (FUSE)
R2004	1-216-063-91	s	RESISTOR, CHIP 3.9K 1/10W(2125)
R2005	1-216-065-91	s	RESISTOR, CHIP 4.7K 1/10W(2012)
R2006	1-216-073-00	s	RESISTOR, CHIP 10K 1/10W(2012)
R2007	1-219-738-11	s	RES, 0.08 (REGISTER, METAL)
R2101	1-202-933-61	s	RESISTOR, FUSE 0.1 1/2W
R2102	1-216-345-11	s	RESISTOR, METAL FILM 0.47 1W

(G BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R2103	1-216-682-11	s	RESISTOR,CHIP 20K 1/10W (2012)
R2104	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R2105	1-216-675-11	s	RESISTOR,CHIP 10K 1/10W(2012)
R2106	1-260-135-11	s	RESISTOR,CARBON 1M 1/2W
R2108	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R2109	1-260-135-11	s	RESISTOR,CARBON 1M 1/2W
R2112	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R2113	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2116	1-249-389-11	s	RES,CARBON 4.7 1/4W
R2117	1-260-135-11	s	RESISTOR,CARBON 1M 1/2W
R2118	1-260-135-11	s	RESISTOR,CARBON 1M 1/2W
R2119	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R2120	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2123	1-249-389-11	s	RES,CARBON 4.7 1/4W
R2125	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R2126	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R2127	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R2128	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R2130	1-218-759-11	s	RESISTOR,CHIP 200K 1/10W(2012)
R2131	1-218-759-11	s	RESISTOR,CHIP 200K 1/10W(2012)
R2132	1-218-759-11	s	RESISTOR,CHIP 200K 1/10W(2012)
R2133	1-218-759-11	s	RESISTOR,CHIP 200K 1/10W(2012)
R2134	1-218-759-11	s	RESISTOR,CHIP 200K 1/10W(2012)
R2135	1-218-759-11	s	RESISTOR,CHIP 200K 1/10W(2012)
R2136	1-218-760-11	s	RESISTOR,CHIP 220K 1/10W(2012)
R2201	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R2202	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R2203	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R2204	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R2205	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R2206	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R2207	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R2208	1-216-661-11	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R2209	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R2210	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2211	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R2212	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R2213	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R2214	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R2215	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2216	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R2217	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R2218	1-216-671-11	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R2219	1-216-097-00	s	RESISTOR CHIP 100K 1/10W(2012)
R2220	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R2221	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2223	1-216-864-11	s	CONDUCTOR, CHIP (1608)
R2301	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2302	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2303	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R2304	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R2305	1-216-679-11	s	RESISTOR,CHIP 15K 1/10W (2012)
R2306	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R2307	1-216-681-11	s	RESISTOR,CHIP 18K 1/10W (2012)
R2308	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R2309	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R2310	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R2311	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R2312	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)

(G BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R2313	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R2314	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2315	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2316	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R2318	1-216-295-91	s	CONDUCTOR, CHIP (2012)
RY2001	△ 1-755-275-11	s	RELAY, AC POWER (12V)
T2101	1-435-235-11	s	TRANSFORMER, CONVERTER (PIT)

Q BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1275-206-A	s	MOUNTED CIRCUIT BOARD, Q
C4001	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4002	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4003	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4004	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4005	1-163-133-00	s	CAPACITOR,CHIP CERAMIC 470PF
C4006	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4007	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4008	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4009	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4010	1-109-994-11	s	CAPACITOR,CHIP CERAMIC 2.2MF B
C4011	1-109-994-11	s	CAPACITOR,CHIP CERAMIC 2.2MF B
C4012	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C4013	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4014	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4015	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4016	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4017	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4018	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4019	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4020	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4021	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4022	1-163-245-11	s	CAPACITOR CERAMIC 56PF/50V
C4023	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4024	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4025	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4026	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4027	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4028	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4029	1-128-453-21	s	CAPACITOR,ELECT 47MF
C4030	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4031	1-128-453-21	s	CAPACITOR,ELECT 47MF
C4032	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4033	1-128-453-21	s	CAPACITOR,ELECT 47MF
C4034	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4035	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4040	1-104-601-11	s	CAP,ELECT 10MF/10V (BP)(CHIP)
C4041	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C4042	1-104-601-11	s	CAP,ELECT 10MF/10V (BP)(CHIP)
C4043	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4044	1-164-344-11	s	CAPACITOR CERAMIC 68000PF (M-)
C4045	1-124-779-00	s	CAPACITOR,ELECT 10MF/16V
C4046	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C4047	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4048	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4049	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4050	1-163-259-91	s	CAPACITOR,CHIP CERAMIC 220PF
C4051	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C4052	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C4053	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4054	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4055	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4056	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C4058	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4059	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4060	1-124-778-00	s	CAPACITOR,ELECT 22MF/6.3V
C4061	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C4062	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C4063	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C4064	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4065	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4066	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4067	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4068	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4069	1-163-131-00	s	CAPACITOR,CHIP CERAMIC 390PF
C4070	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C4071	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4072	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4073	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4074	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4075	1-128-008-11	s	CAPACITOR ERECT 3,3MF/35V
C4079	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4080	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4082	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4083	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4084	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4085	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4086	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4087	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4088	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4089	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4090	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4091	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4092	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4093	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4094	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4095	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4098	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4099	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4100	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4101	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4102	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4103	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4104	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4105	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4106	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4107	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4108	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4109	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4110	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C4111	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4112	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4113	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4114	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4115	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4116	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4117	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4118	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4119	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4120	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4121	1-126-189-11	s	CAPACITOR ERECT 0.22MF/50V
C4122	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4123	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4124	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4125	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C4126	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C4127	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C4255	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4256	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C4257	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4258	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C4259	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C4260	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C4261	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C4262	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4263	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4264	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4268	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4269	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C4270	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C4271	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C4272	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4273	1-126-395-11	s	CAPACITOR,ELECT 22MF/16V(CHIP)
C4274	1-126-395-11	s	CAPACITOR,ELECT 22MF/16V(CHIP)
C4275	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C4276	1-126-395-11	s	CAPACITOR,ELECT 22MF/16V(CHIP)
C4277	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C4278	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4281	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4282	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C4283	1-163-009-11	s	CAPACITOR,CERAMIC 1000PF/50V
C4284	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C4285	1-126-603-11	s	CAPACITOR,ELECT 4.7MF/35V
C4286	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
CN4001	1-537-797-12	s	TERMINAL BOARD ASSY, I/O
CN4002	1-793-797-21	o	CONNECTOR, BOARD TO BOARD
CN4003	1-778-373-11	o	PIN, CONNECTOR (PC BOARD)
CN4004	1-785-305-21	o	CONNECTOR, BOARD TO BOARD
CN4005	1-778-373-11	o	PIN, CONNECTOR (PC BOARD)
CN4006	1-778-373-11	o	PIN, CONNECTOR (PC BOARD)
D4001	8-719-037-22	s	DIODE RD12SB-T1
D4002	8-719-158-37	s	DIODE RD9.1SB2
D4003	8-719-914-43	s	DIODE DAN202K
D4004	8-719-914-43	s	DIODE DAN202K
D4005	8-719-914-44	s	DIODE DAP202K (DUAL)
D4006	8-719-037-53	s	DIODE RD27SB-T1
D4007	8-719-914-42	s	DIODE DA204K
D4008	8-719-037-53	s	DIODE RD27SB-T1
D4009	8-719-037-53	s	DIODE RD27SB-T1
D4010	8-719-914-42	s	DIODE DA204K
D4011	8-719-037-53	s	DIODE RD27SB-T1
D4012	8-719-158-37	s	DIODE RD9.1SB2
D4013	8-719-158-37	s	DIODE RD9.1SB2
D4014	8-719-158-37	s	DIODE RD9.1SB2
D4015	8-719-800-76	s	DIODE 1SS226
D4016	8-719-800-76	s	DIODE 1SS226
D4017	8-719-800-76	s	DIODE 1SS226
D4018	8-719-800-76	s	DIODE 1SS226
D4019	8-719-800-76	s	DIODE 1SS226
D4021	8-719-914-43	s	DIODE DAN202K
D4022	8-719-914-43	s	DIODE DAN202K
D4023	8-719-914-43	s	DIODE DAN202K
D4024	8-719-422-12	s	DIODE MA8039
D4032	8-719-914-43	s	DIODE DAN202K
D4033	8-719-914-43	s	DIODE DAN202K

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
D4034	8-719-914-43	s	DIODE DAN202K
FL4001	1-234-346-21	s	FILTER, LOW PASS
FL4002	1-234-346-21	s	FILTER, LOW PASS
FL4003	1-234-345-21	s	FILTER, LOW PASS
FL4004	1-234-344-21	s	FILTER, LOW PASS
FL4005	1-234-344-21	s	FILTER, LOW PASS
FL4006	1-234-343-21	s	FILTER, LOW PASS
IC4001	8-759-285-61	s	IC PC74HC123D-T
IC4002	8-759-252-59	s	IC MAX202CSE
IC4003	8-759-457-53	s	IC GS1881-CTA
IC4004	8-752-072-81	s	IC CXA1875AM
IC4005	8-752-072-81	s	IC CXA1875AM
IC4006	8-759-646-02	s	IC M52347FP-TE
IC4007	8-759-491-93	s	IC EL4332CS-TE2
IC4008	8-759-185-75	s	IC TC74VHC123AF (EL)
IC4009	8-759-174-16	s	IC TC74VHC244F
IC4010	8-759-524-24	o	IC TC7WT241FU(TE12R)
IC4011	8-759-038-15	s	IC MC74HC4538AF
IC4012	8-759-344-12	s	IC GS4981CTA
IC4013	8-752-086-33	s	IC CXA2101AQ-TL
IC4014	8-759-433-92	s	IC TC7W14F-TE12L
IC4015	8-759-460-72	s	IC BA033FP
IC4018	8-759-539-89	s	IC LM2990SX-5.0
IC4021	8-759-988-13	s	IC LM393PS
IC4022	8-759-353-02	s	IC NJM2533M (TE2)
IC4023	8-759-988-13	s	IC LM393PS
IC4024	8-759-353-02	s	IC NJM2533M (TE2)
IC4025	8-759-353-02	s	IC NJM2533M (TE2)
IC4026	8-759-988-13	s	IC LM393PS
IC4027	8-759-353-02	s	IC NJM2533M (TE2)
IC4028	8-759-460-72	s	IC BA033FP
IC4029	8-759-447-90	s	IC TLC5733AIPM
IC4030	8-752-072-81	s	IC CXA1875AM
IC4031	8-759-669-78	s	IC TLC2933IPWR-12
IC4032	8-749-015-18	s	IC PQ07VZ012P
IC4033	8-752-409-78	s	IC CXD2095AQ
IC4034	8-759-669-75	s	IC TLC2932IPWR
IC4035	8-759-676-70	s	IC MSM56V16160F-10TS-K
IC4036	8-759-700-78	s	IC NJM082M
IC4038	8-759-092-80	s	IC SN75157PS
IC4039	8-759-031-84	s	IC SC7S04F
J4001	1-563-935-11	s	JACK (DIA 3.5)(BLK)
J4002	1-563-935-11	s	JACK (DIA 3.5)(BLK)
J4003	1-793-742-11	s	TERMINAL BLOCK, S
J4004	1-770-146-11	s	JACK BLOCK,PIN 3P
J4005	1-793-743-11	s	JACK BLOCK, PIN
J4006	1-770-146-11	s	JACK BLOCK,PIN 3P
J4007	1-793-743-11	s	JACK BLOCK, PIN
L4001	1-412-363-11	s	FERRITE, EMI (SMD)
L4002	1-412-363-11	s	FERRITE, EMI (SMD)
L4003	1-412-363-11	s	FERRITE, EMI (SMD)
L4004	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4005	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4006	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4007	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4008	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH
L4009	1-412-058-11	s	INDUCTOR,SMALL TYPE 10UH

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
L4010	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4011	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4012	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4013	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4014	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4015	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4016	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4017	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4018	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4019	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4020	1-412-533-21	s	MICRO INDUCTOR 47UH
L4023	1-412-533-21	s	MICRO INDUCTOR 47UH
L4024	1-412-533-21	s	MICRO INDUCTOR 47UH
L4025	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4026	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4027	1-412-533-21	s	MICRO INDUCTOR 47UH
L4028	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4029	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4030	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4031	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4032	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4033	1-412-064-11	s	INDUCTOR, SMALL TYPE 100UF
L4034	1-412-064-11	s	INDUCTOR, SMALL TYPE 100UF
L4035	1-412-052-21	s	INDUCTOR, SMALL TYPE 1.00UH
L4036	1-408-595-31	s	MICRO INDUCTOR 2.2UH
L4037	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4038	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4039	1-412-064-11	s	INDUCTOR, SMALL TYPE 100UF
L4040	1-412-064-11	s	INDUCTOR, SMALL TYPE 100UF
L4041	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4042	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4043	1-408-595-31	s	MICRO INDUCTOR 2.2UH
L4044	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4045	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L4046	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
Q4001	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4002	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4003	1-801-806-11	s	TRANSISTOR DTC144EKA
Q4004	1-801-806-11	s	TRANSISTOR DTC144EKA
Q4005	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4006	8-729-900-53	s	TRANSISTOR DTC114EK
Q4007	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4008	8-729-900-53	s	TRANSISTOR DTC114EK
Q4011	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4012	8-729-900-53	s	TRANSISTOR DTC114EK
Q4013	1-801-806-11	s	TRANSISTOR DTC144EKA
Q4014	8-729-900-53	s	TRANSISTOR DTC114EK
Q4015	8-729-107-31	s	TRANSISTOR 2SC3545
Q4016	8-729-107-31	s	TRANSISTOR 2SC3545
Q4017	8-729-107-31	s	TRANSISTOR 2SC3545
Q4018	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4019	8-729-101-07	s	TRANSISTOR 2SB798
Q4020	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4021	8-729-026-57	s	TRANSISTOR FMS1A-T148
Q4022	8-729-026-57	s	TRANSISTOR FMS1A-T148
Q4023	8-729-026-57	s	TRANSISTOR FMS1A-T148
Q4024	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4025	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4026	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q4027	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4028	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4029	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4030	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4031	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4032	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4033	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4034	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4035	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4036	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4037	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4038	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4039	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4040	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4041	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4042	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4043	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4045	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4046	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4047	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4048	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4049	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4050	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q4051	1-801-806-11	s	TRANSISTOR DTC144EKA
Q4052	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q4053	1-801-806-11	s	TRANSISTOR DTC144EKA
R4001	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4002	1-216-308-00	s	RESISTOR,CHIP 4.7 1/10W(2012)
R4003	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4004	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R4005	1-216-113-00	s	RESISTOR CHIP 470K 1/10W(2012)
R4006	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4007	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4008	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R4009	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4010	1-216-148-00	s	RESISTOR,CHIP 8.2 1/8W(3216)
R4011	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4012	1-216-097-00	s	RESISTOR CHIP 100K 1/10W(2012)
R4013	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4014	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4015	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4016	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4017	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4018	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4019	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4020	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4021	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4022	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4023	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4024	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4025	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4026	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4027	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4028	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4029	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4030	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4031	1-216-641-11	s	RESISTOR,CHIP 390 1/10W(2012)
R4032	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4033	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4034	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4035	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4036	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4037	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4038	1-216-641-11	s	RESISTOR,CHIP 390 1/10W(2012)
R4039	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4040	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R4041	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4042	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4050	1-218-767-11	s	RESISTOR,CHIP 430K 1/10W(2012)
R4054	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4055	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4056	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4057	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4058	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4059	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4060	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4061	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4062	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4063	1-216-641-11	s	RESISTOR,CHIP 390 1/10W(2012)
R4064	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R4065	1-216-641-11	s	RESISTOR,CHIP 390 1/10W(2012)
R4066	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4067	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4068	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4070	1-216-091-00	s	RESISTOR CHIP 56K 1/10W(2012)
R4071	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4072	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4073	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4074	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4075	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4076	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4077	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4078	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4079	1-216-666-11	s	RESISTOR,CHIP 4.3K 1/10W(2012)
R4080	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4081	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4082	1-216-690-11	s	RESISTOR,CHIP 43K 1/10W(2012)
R4083	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4084	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4085	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4086	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4087	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4088	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4089	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4090	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R4092	1-216-631-11	s	RESISTOR,CHIP 150 1/10W (2012)
R4093	1-216-629-11	s	RESISTOR,CHIP 120 1/10W (2012)
R4094	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4096	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4097	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4098	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4100	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4101	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4103	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4105	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4106	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4107	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4108	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4109	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4110	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4111	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4112	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R4113	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4114	1-216-085-00	s	RESISTOR CHIP 33K 1/10W(2012)
R4115	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4116	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R4117	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4118	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4119	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4120	1-216-037-00	s	RESISTOR,CHIP 330 1/10W(2012)
R4121	1-216-037-00	s	RESISTOR,CHIP 330 1/10W(2012)
R4122	1-216-037-00	s	RESISTOR,CHIP 330 1/10W(2012)
R4123	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4124	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4125	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4126	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4127	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4128	1-218-762-11	s	RESISTOR,CHIP 270K 1/10W(2012)
R4129	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4130	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4131	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4132	1-216-683-11	s	RESISTOR,CHIP 22K 1/10W (2012)
R4133	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4134	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4135	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4136	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4137	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4138	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4139	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R4140	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4141	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4142	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4143	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4144	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4145	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4146	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4148	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4149	1-216-133-00	s	RESISTOR,CHIP 3.3M 1/10W(2012)
R4150	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4151	1-216-083-00	s	RESISTOR CHIP 27K 1/10W(2012)
R4152	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4153	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R4154	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4155	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4156	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4157	1-216-691-11	s	RESISTOR,CHIP 47K 1/10W(2012)
R4158	1-216-667-11	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R4159	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4160	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4161	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4162	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4164	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4165	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4166	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4168	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4169	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4170	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4171	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4173	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4174	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4175	1-216-069-00	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R4176	1-216-077-00	s	RESISTOR,CHIP 15K 1/10W(2012)
R4177	1-216-675-11	s	RESISTOR,CHIP 10K 1/10W(2012)
R4178	1-216-675-11	s	RESISTOR,CHIP 10K 1/10W(2012)
R4179	1-216-679-11	s	RESISTOR,CHIP 15K 1/10W (2012)
R4180	1-216-697-91	s	RESISTOR,CHIP 82K 1/10W
R4181	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4182	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4183	1-216-697-91	s	RESISTOR,CHIP 82K 1/10W
R4184	1-216-687-11	s	RESISTOR CHIP 33K 1/10W (2012)
R4185	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4186	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4187	1-216-685-11	s	RESISTOR,CHIP 27K 1/10W(2012)
R4188	1-216-693-11	s	RESISTOR CHIP 56K 1/10W (2012)
R4189	1-216-063-91	s	RESISTOR,CHIP 3.9K 1/10W(2125)
R4190	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4191	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4192	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4193	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4194	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4195	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4196	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4197	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4198	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4199	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4200	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4201	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4202	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4203	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R4204	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R4205	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R4206	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R4207	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R4208	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4209	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4210	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R4211	1-216-045-00	s	RESISTOR,CHIP 680 1/10W(2012)
R4212	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4213	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4214	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4215	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4216	1-216-621-11	s	RESISTOR,CHIP 56 1/10W (2012)
R4217	1-216-621-11	s	RESISTOR,CHIP 56 1/10W (2012)
R4218	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4219	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R4220	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R4221	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4222	1-216-621-11	s	RESISTOR,CHIP 56 1/10W (2012)
R4223	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4224	1-216-621-11	s	RESISTOR,CHIP 56 1/10W (2012)
R4225	1-216-077-00	s	RESISTOR,CHIP 15K 1/10W(2012)
R4226	1-216-077-00	s	RESISTOR,CHIP 15K 1/10W(2012)
R4227	1-216-077-00	s	RESISTOR,CHIP 15K 1/10W(2012)
R4228	1-216-621-11	s	RESISTOR,CHIP 56 1/10W (2012)
R4229	1-216-295-91	s	CONDUCTOR, CHIP (2012)

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4230	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4231	1-216-621-11	s	RESISTOR,CHIP 56 1/10W (2012)
R4232	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4233	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R4234	1-216-621-11	s	RESISTOR,CHIP 56 1/10W (2012)
R4235	1-216-621-11	s	RESISTOR,CHIP 56 1/10W (2012)
R4236	1-216-113-00	s	RESISTOR CHIP 470K 1/10W(2012)
R4237	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4238	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4239	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4240	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R4241	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4242	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4243	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4244	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R4245	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4246	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4247	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R4248	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4249	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4250	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4251	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4252	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4253	1-216-062-00	s	RESISTOR,CHIP 3.6K 1/10W(2012)
R4255	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4256	1-216-113-00	s	RESISTOR CHIP 470K 1/10W(2012)
R4257	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R4259	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4260	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4261	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4262	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4266	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4268	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4269	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4270	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4273	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4274	1-216-646-11	s	RESISTOR,CHIP 620 1/10W (2012)
R4275	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R4276	1-216-035-00	s	RESISTOR, CHIP 270 1/10W(2012)
R4277	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R4278	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R4279	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R4280	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4281	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R4282	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R4283	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4284	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4285	1-216-047-91	s	RESISTOR, CHIP 820 1/10W(2125)
R4286	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R4287	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4288	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R4289	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4290	1-216-117-00	s	RESISTOR,CHIP 680K 1/10W(2012)
R4291	1-216-066-00	s	RESISTOR,CHIP 5.1K 1/10W(2012)
R4292	1-216-117-00	s	RESISTOR,CHIP 680K 1/10W(2012)
R4294	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4295	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4296	1-216-037-00	s	RESISTOR,CHIP 330 1/10W(2012)
R4297	1-216-037-00	s	RESISTOR,CHIP 330 1/10W(2012)

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4298	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4299	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R4300	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4301	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R4302	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4303	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R4304	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R4305	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R4306	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R4307	1-216-645-11	s	RESISTOR,CHIP 560 1/10W(2012)
R4308	1-216-645-11	s	RESISTOR,CHIP 560 1/10W(2012)
R4309	1-216-645-11	s	RESISTOR,CHIP 560 1/10W(2012)
R4310	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4311	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4312	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4313	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R4314	1-216-037-00	s	RESISTOR,CHIP 330 1/10W(2012)
R4315	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4316	1-216-085-00	s	RESISTOR CHIP 33K 1/10W(2012)
R4317	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4318	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4319	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4320	1-216-047-91	s	RESISTOR, CHIP 820 1/10W(2125)
R4321	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4322	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4323	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4324	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4325	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4326	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4327	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4328	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4329	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4332	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4333	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4334	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R4346	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4347	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4348	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4349	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4350	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4351	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4352	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R4353	1-216-099-00	s	RESISTOR,CHIP 120K 1/10W(2012)
R4354	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4355	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4356	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4357	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R4358	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R4359	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4360	1-216-095-00	s	RESISTOR, CHIP 82K 1/10W(2012)
R4361	1-216-097-00	s	RESISTOR CHIP 100K 1/10W(2012)
R4362	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4363	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4364	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4365	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4366	1-216-653-11	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R4367	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R4368	1-216-653-11	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R4369	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)

(Q BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R4370	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4371	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R4374	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4375	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4376	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4377	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R4378	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R4379	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R4380	1-216-001-00	s	RESISTOR, CHIP 10 1/10W(2012)
R4381	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4382	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4383	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R4385	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R4387	1-216-864-11	s	CONDUCTOR, CHIP (1608)
RY4001	1-755-384-21	s	RELAY
RY4002	1-755-384-21	s	RELAY
RY4003	1-755-384-21	s	RELAY
RY4004	1-755-384-21	s	RELAY
TH4001	1-809-020-11	s	THERMISTOR

F BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1241-397-A	o	MOUNTED CIRCUIT BOARD, F
2pcs	1-533-223-11	s	CLIP,FUSE
1pc	1-801-268-11	s	VARIATOR (TNR14V471K660)
4pcs	4-374-846-01	o	COVER,CAPACITOR,CAP TYPE
C2500	△ 1-113-912-11	s	CAPACITOR,CERAMIC .0047MF/250V
C2501	△ 1-113-912-11	s	CAPACITOR,CERAMIC .0047MF/250V
C2502	△ 1-107-533-11	s	CAPASITOR FILM 1MF/250VAC
C2503	△ 1-113-512-11	s	CAPACITOR, FILM 0.68MF/275VAC
C2504	△ 1-113-912-11	s	CAPACITOR,CERAMIC .0047MF/250V
C2505	1-113-912-11	s	CAPACITOR,CERAMIC .0047MF/250V
CN2501	1-691-960-11	o	PIN,CONNECTOR (PC BOARD) 3P
CN2502	1-695-915-11	s	TAB (CONTACT)
CN2503	1-691-960-21	o	PIN, CONNECTOR (PC BOARD) 3P
F2500	△ 1-576-233-11	s	FUSE (H.B.C.) 6.3A/250V
L2500	△ 1-419-988-11	s	COIL, CHOKE
R2500	△ 1-202-847-00	s	RESISTOR,SOLID 560K 1/2W
R2501	△ 1-202-847-00	s	RESISTOR,SOLID 560K 1/2W

B BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-1136-209-A	s	MOUNTED CIRCUIT BOARD, B
C3001	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3002	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3003	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3004	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3006	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3007	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3008	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3009	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3011	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3012	1-128-008-11	s	CAPACITOR ERRECT 3,3MF/35V
C3013	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3014	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3015	1-107-823-11	s	CAPACITOR,CERAMIC 0.47MF/16V
C3016	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3017	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C3018	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C3020	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3021	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C3022	1-126-601-11	s	CAPACITOR,ELECT 2.2MF/50V
C3023	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3024	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3025	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3026	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3027	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3028	1-127-820-11	s	CAPACITOR, SQUARE CHIP 4.7MF
C3029	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3030	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3031	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C3032	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C3033	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3034	1-125-898-11	s	CAPACITOR, CERAMIC 0.22MF 50V
C3035	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3036	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3038	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3039	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C3040	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C3041	1-107-682-11	s	CAPACITOR,CHIP 1MF/16V (3216)
C3042	1-127-820-11	s	CAPACITOR, SQUARE CHIP 4.7MF
C3043	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3044	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3045	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3046	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3047	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3048	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP
C3049	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C3050	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C3051	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3052	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3053	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3054	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3055	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3056	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3057	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3059	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3060	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C3061	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3062	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)

(B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C3063	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C3064	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3065	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3066	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3067	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3068	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3069	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3070	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3071	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3072	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3073	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3074	1-126-205-11	s	CAPACITOR,ELECT 47M/6.3
C3075	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3076	1-163-237-11	s	CAPACITOR CERAMIC 27PF/50V
C3077	1-163-237-11	s	CAPACITOR CERAMIC 27PF/50V
C3078	1-163-245-11	s	CAPACITOR CERAMIC 56PF/50V
C3079	1-163-245-11	s	CAPACITOR CERAMIC 56PF/50V
C3080	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3081	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C3082	1-126-204-11	s	CAPACITOR, ELECT 47MF/16V(CHIP)
C3084	1-163-235-11	s	CAPACITOR,CHIP CERAMIC22PF/50V
C3085	1-163-245-11	s	CAPACITOR CERAMIC 56PF/50V
C3086	1-163-235-11	s	CAPACITOR,CHIP CERAMIC22PF/50V
C3087	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3088	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3089	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3090	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3091	1-163-131-00	s	CAPACITOR,CHIP CERAMIC 390PF
C3092	1-164-161-11	s	CAPACITOR, CERAMIC 2200PF/100V
C3093	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3094	1-163-229-11	s	CAPACITOR CHIP 12PF/50V(2125)
C3095	1-163-229-11	s	CAPACITOR CHIP 12PF/50V(2125)
C3096	1-163-229-11	s	CAPACITOR CHIP 12PF/50V(2125)
C3097	1-163-229-11	s	CAPACITOR CHIP 12PF/50V(2125)
C3098	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3099	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3100	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3101	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3102	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3103	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3104	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3105	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3106	1-216-295-91	s	CONDUCTOR, CHIP (2012)
C3108	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C3112	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3117	1-163-251-11	s	CAPACITOR CERAMIC 100PF/50V
C3124	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3125	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3126	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3127	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3128	1-164-161-11	s	CAPACITOR, CERAMIC 2200PF/100V
C3129	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3130	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3131	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3132	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3133	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3134	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C3135	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3136	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V

(B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C3137	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3138	1-128-396-11	s	CAPACITOR,ELECT 470MF/10V CHIP
C3140	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3141	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3142	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C3144	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3145	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3147	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
C3149	1-163-133-00	s	CAPACITOR,CHIP CERAMIC 470PF
C3150	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3151	1-128-013-11	s	CAPACITOR ERECT 1MF/50V
C3152	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3153	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C3154	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3155	1-163-231-11	s	CAPACITOR,CHIP CERAMIC15PF/50V
C3156	1-163-021-91	s	CAPACITOR, CERAMIC 0.01MF/50V
C3157	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3158	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C3159	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3160	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3161	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3162	1-117-681-11	s	CAPACITOR, ELECT 100MF/16V
C3163	1-128-004-11	s	CAPACITOR ELECT 10MF/16V(CHIP)
CN3001	1-778-373-11	o	PIN, CONNECTOR (PC BOARD)
CN3002	1-778-373-11	o	PIN, CONNECTOR (PC BOARD)
D3001	8-719-914-43	s	DIODE DAN202K
FB3001	1-414-753-91	s	INDUCTOR 4.7UH
FB3002	1-543-775-11	s	BEAD, FERRITE
FB3003	1-543-775-11	s	BEAD, FERRITE
FB3004	1-543-775-11	s	BEAD, FERRITE
FB3005	1-414-753-91	s	INDUCTOR 4.7UH
FB3006	1-414-753-91	s	INDUCTOR 4.7UH
FB3007	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3008	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3009	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FB3010	1-414-234-11	s	INDUCTOR,FERRITE BEAD
FL3001	1-233-736-21	s	FILTER, EMI
FL3002	1-233-736-21	s	FILTER, EMI
FL3003	1-233-736-21	s	FILTER, EMI
FL3004	1-233-736-21	s	FILTER, EMI
FL3005	1-233-736-21	s	FILTER, EMI
FL3006	1-233-736-21	s	FILTER, EMI
FL3007	1-239-289-11	s	FILTER, LOW PASS
FL3008	1-239-289-11	s	FILTER, LOW PASS
FL3009	1-239-847-11	s	FILTER, LOW PASS
IC3001	8-759-460-72	s	IC BA033FP
IC3002	8-759-533-85	s	IC L88M05T-FA-TL
IC3004	8-759-533-85	s	IC L88M05T-FA-TL
IC3005	8-759-524-25	o	IC TC7WH241FU(TE12R)
IC3006	8-752-094-47	s	IC CXA2123AQ-T6
IC3007	8-759-353-02	s	IC NJM2533M (TE2)
IC3008	8-759-353-02	s	IC NJM2533M (TE2)
IC3010	8-759-436-89	s	IC MC141627FT
IC3011	8-759-269-92	s	IC SN74HCU04ANS (E20)
IC3012	8-759-568-27	s	IC MSM514265C-60JSDR1
IC3014	8-759-594-44	s	IC UPD64082GF-3BA
IC3015	8-759-242-72	s	IC TC7W00F

(B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
L3001	1-412-533-21	s	MICRO INDUCTOR 47UH
L3002	1-412-533-21	s	MICRO INDUCTOR 47UH
L3004	1-412-533-21	s	MICRO INDUCTOR 47UH
L3005	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3006	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3007	1-410-389-31	s	INDUCTOR, CHIP 47UH (3225)
L3009	1-410-383-31	s	INDUCTOR, CHIP 15UH (3225)
L3010	1-410-383-31	s	INDUCTOR, CHIP 15UH (3225)
L3011	1-410-389-31	s	INDUCTOR, CHIP 47UH (3225)
L3012	1-410-389-31	s	INDUCTOR, CHIP 47UH (3225)
L3013	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3014	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3015	1-410-200-31	s	CHIP INDUCTOR
L3016	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3019	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3020	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3021	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3022	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3023	1-412-058-11	s	INDUCTOR, SMALL TYPE 10UH
L3024	1-412-533-21	s	MICRO INDUCTOR 47UH
L3026	1-412-533-21	s	MICRO INDUCTOR 47UH
Q3001	1-801-806-11	s	TRANSISTOR DTC144EKA
Q3002	8-729-107-31	s	TRANSISTOR 2SC3545
Q3003	8-729-107-31	s	TRANSISTOR 2SC3545
Q3004	8-729-107-31	s	TRANSISTOR 2SC3545
Q3005	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3006	8-729-101-07	s	TRANSISTOR 2SB798
Q3007	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3008	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3009	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3010	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3011	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3012	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3013	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3014	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3015	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3016	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3017	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3018	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3019	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3020	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3021	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3022	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3023	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3024	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3025	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3026	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3027	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3028	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3029	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3030	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3031	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3032	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3033	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3034	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3035	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3036	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3037	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R

(B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
Q3038	8-729-026-49	s	TRANSISTOR 2SA1037AK-T146-R
Q3039	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3040	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3041	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3042	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q3043	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
R3001	1-216-073-00	s	RESISTOR, CHIP 10K 1/10W(2012)
R3002	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3003	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3004	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3005	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3006	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3007	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3008	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3009	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3010	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3011	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3012	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3013	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3014	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3015	1-216-073-00	s	RESISTOR, CHIP 10K 1/10W(2012)
R3016	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R3018	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R3019	1-216-685-11	s	RESISTOR, CHIP 27K 1/10W(2012)
R3020	1-208-796-11	s	RESISTOR, CHIP 3.9K 1/10W(2012)
R3021	1-216-651-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3022	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3023	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3024	1-216-073-00	s	RESISTOR, CHIP 10K 1/10W(2012)
R3025	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3026	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3027	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3028	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3029	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3030	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3031	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3032	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3033	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3034	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3035	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3036	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3037	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3038	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3039	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3040	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3041	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3042	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3043	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3044	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3050	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3051	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R3052	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3053	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3054	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3055	1-216-690-11	s	RESISTOR, CHIP 43K 1/10W(2012)
R3056	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3057	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)
R3058	1-216-025-00	s	RESISTOR, CHIP 100 1/10W(2012)

(B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R3059	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3060	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3061	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3062	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3063	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R3064	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3065	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3066	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R3067	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3068	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3069	1-216-051-00	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R3070	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R3071	1-216-644-11	s	RESISTOR,CHIP 510 1/10W (2012)
R3072	1-216-061-00	s	RESISTOR CHIP 3.3K 1/10W(2012)
R3073	1-216-644-11	s	RESISTOR,CHIP 510 1/10W (2012)
R3074	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R3076	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R3077	1-216-682-11	s	RESISTOR,CHIP 20K 1/10W (2012)
R3078	1-216-081-00	s	RESISTOR,CHIP 22K 1/10W(2012)
R3079	1-216-682-11	s	RESISTOR,CHIP 20K 1/10W (2012)
R3080	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3081	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3082	1-216-035-00	s	RESISTOR,CHIP 270 1/10W(2012)
R3083	1-216-035-00	s	RESISTOR, CHIP 270 1/10W(2012)
R3084	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3085	1-216-047-91	s	RESISTOR, CHIP 820 1/10W(2125)
R3086	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R3087	1-216-047-91	s	RESISTOR, CHIP 820 1/10W(2125)
R3088	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R3089	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3090	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R3091	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R3092	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3093	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3094	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3095	1-216-678-11	s	RESISTOR,CHIP 13K 1/10W(2012)
R3096	1-216-077-00	s	RESISTOR,CHIP 15K 1/10W(2012)
R3098	1-216-121-00	s	RESISTOR CHIP 1M 1/10W(2012)
R3099	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R3102	1-216-053-00	s	RESISTOR CHIP 1.5K 1/10W(2012)
R3103	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)
R3104	1-216-055-00	s	RESISTOR CHIP 1.8K 1/10W(2012)
R3105	1-216-055-00	s	RESISTOR CHIP 1.8K 1/10W(2012)
R3106	1-216-055-00	s	RESISTOR CHIP 1.8K 1/10W(2012)
R3107	1-216-055-00	s	RESISTOR CHIP 1.8K 1/10W(2012)
R3108	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R3109	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3110	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R3111	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3119	1-216-623-11	s	RESISTOR,CHIP 68 1/10W(2012)
R3121	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3128	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R3130	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3131	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R3132	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3134	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R3135	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R3136	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R3137	1-216-041-00	s	RESISTOR, CHIP 470 1/10W(2012)

(B BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R3138	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R3139	1-216-659-11	s	RESISTOR,CHIP 2.2K 1/10W(2012)
R3140	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3141	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R3142	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3143	1-216-071-00	s	RESISTOR,CHIP 8.2K 1/10W(2012)
R3144	1-216-105-91	s	RESISTOR,CHIP 220K 1/10W(2125)
R3145	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3147	1-216-033-00	s	RESISTOR,CHIP 220 1/10W(2012)
R3148	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R3149	1-216-651-11	s	RESISTOR,CHIP 1K 1/10W(2012)
R3150	1-216-666-11	s	RESISTOR,CHIP 4.3K 1/10W(2012)
R3151	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R3152	1-216-666-11	s	RESISTOR,CHIP 4.3K 1/10W(2012)
R3153	1-216-051-00	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R3154	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R3155	1-216-051-00	s	RESISTOR,CHIP 1.2K 1/10W(2012)
R3156	1-216-671-11	s	RESISTOR,CHIP 6.8K 1/10W(2012)
R3157	1-216-663-11	s	RESISTOR,CHIP 3.3K 1/10W(2012)
R3158	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3159	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R3160	1-216-645-11	s	RESISTOR,CHIP 560 1/10W(2012)
R3161	1-216-647-11	s	RESISTOR,CHIP 680 1/10W(2012)
R3162	1-216-057-00	s	RESISTOR CHIP 2.2K 1/10W(2012)
R3163	1-216-669-11	s	RESISTOR,CHIP 5.6K 1/10W(2012)
R3164	1-216-295-91	s	CONDUCTOR, CHIP (2012)
R3165	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3166	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3167	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R3168	1-216-097-00	s	RESISTOR CHIP 100K 1/10W(2012)
R3169	1-216-065-91	s	RESISTOR,CHIP 4.7K 1/10W(2012)
R3170	1-216-097-00	s	RESISTOR CHIP 100K 1/10W(2012)
R3171	1-216-645-11	s	RESISTOR,CHIP 560 1/10W(2012)
R3172	1-216-059-00	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R3173	1-216-059-00	s	RESISTOR,CHIP 2.7K 1/10W(2012)
R3174	1-216-049-11	s	RESISTOR, CHIP 1K 1/10W(2012)
R3175	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3176	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R3177	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3178	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3179	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3180	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R3181	1-216-672-11	s	RESISTOR,CHIP 7.5K 1/10W(2012)
R3182	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3183	1-216-089-91	s	RESISTOR, CHIP 47K 1/10W(2012)
R3187	1-216-117-00	s	RESISTOR,CHIP 680K 1/10W(2012)
R3188	1-216-117-00	s	RESISTOR,CHIP 680K 1/10W(2012)
X3001	1-781-612-21	s	VIBRATOR, CRYSTAL
X3002	1-767-606-11	s	VIBRATOR, CRYSTAL

 BM BOARD

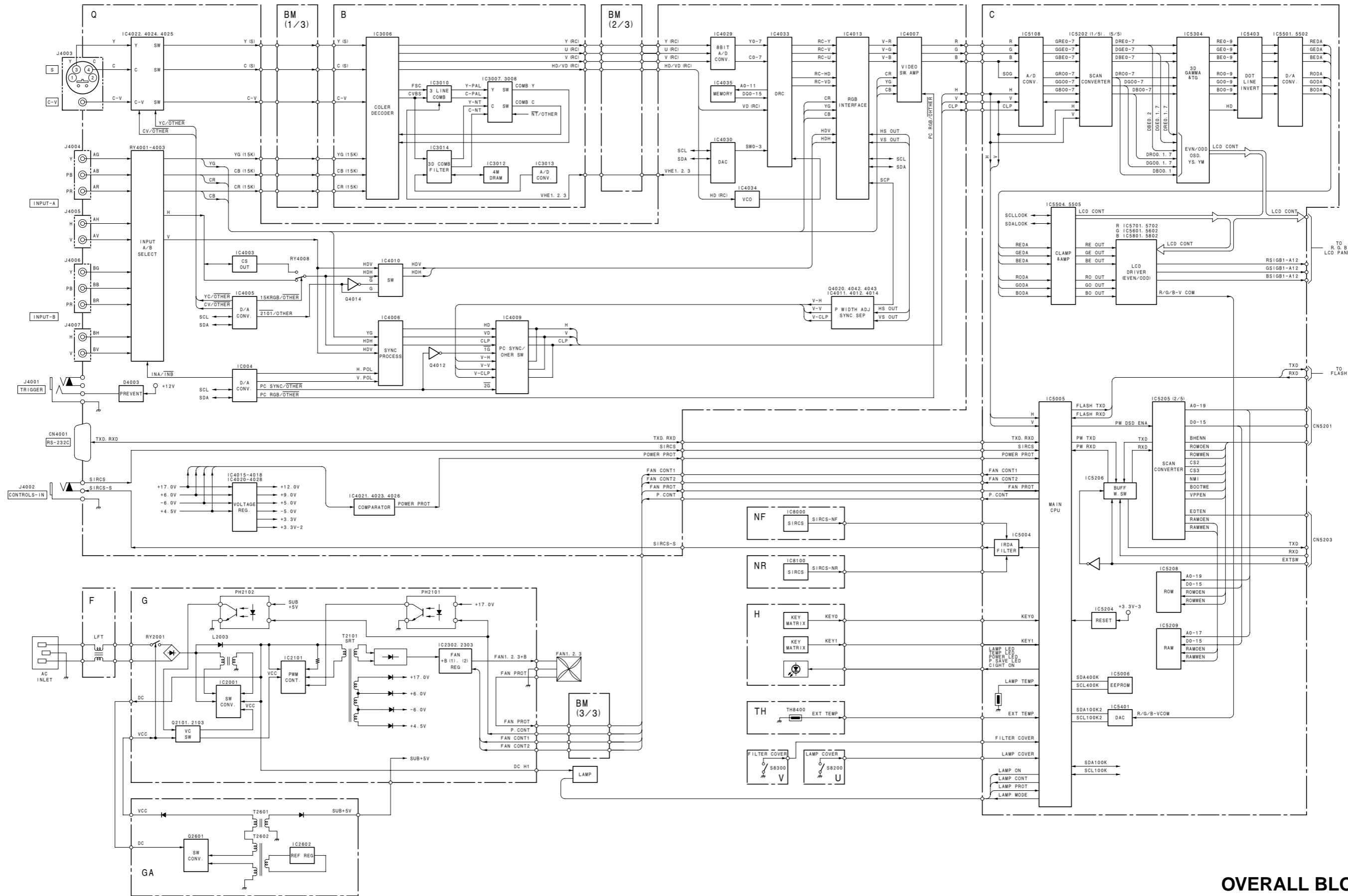
Ref. No. or Q'ty	Part No.	SP Description
1pc	A-1131-792-A	s MOUNTED CIRCUIT BOARD, BM
C1007	1-117-681-11	s CAPACITOR, ELECT 100MF/16V
C1008	1-117-681-11	s CAPACITOR, ELECT 100MF/16V
C1009	1-117-681-11	s CAPACITOR, ELECT 100MF/16V
C1010	1-117-681-11	s CAPACITOR, ELECT 100MF/16V
C1011	1-128-401-11	s CAPACITOR,ELECT100MF/25V(CHIP)
CN1001	1-779-004-11	o HOUSING, CONNECTOR
CN1002	1-779-004-11	o HOUSING, CONNECTOR
CN1003	1-779-004-11	o HOUSING, CONNECTOR
CN1004	1-779-004-11	o HOUSING, CONNECTOR
CN1005	1-779-004-11	o HOUSING, CONNECTOR
CN1006	1-564-523-11	o PLUG,CONNECTOR (8P)(L-TYPE)
CN1007	1-564-526-11	o PLUG,CONNECTOR (11P)(L-TYPE)
CN1008	1-564-521-11	s PLUG,CONNECTOR (6P)(L-TYPE)
CN1009	1-695-915-11	s TAB (CONTACT)
IC1007	8-759-460-79	s IC BA09FP-E2
IC1008	8-759-533-85	s IC L88M05T-FA-TL
IC1009	8-759-460-81	s IC BA12FP-E2
L1007	1-412-533-21	s MICRO INDUCTOR 47UH
L1008	1-412-533-21	s MICRO INDUCTOR 47UH
R1003	1-216-864-11	s CONDUCTOR, CHIP (1608)
R1004	1-216-864-11	s CONDUCTOR, CHIP (1608)
R1007	1-216-355-11	s RESISTOR,METAL FILM 3.3/1W
R1008	1-216-371-00	s RESISTOR,METAL FILM 1.5/2W
R1009	1-240-251-11	s RESISTOR,CEMENT 6.8/10W

6-4. Packing Materials

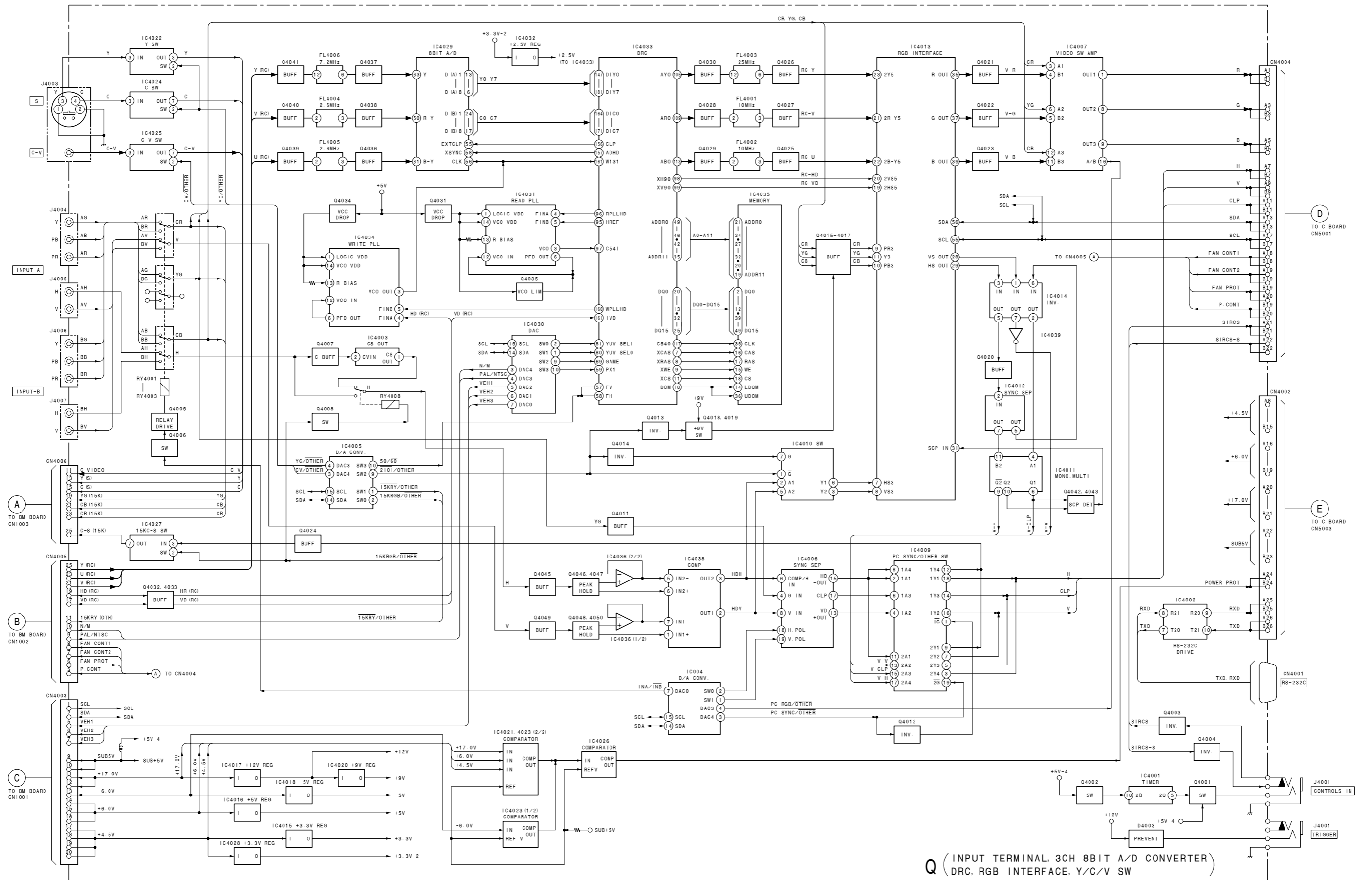
 PACKING MATERIALS & SUPPLIED ACCESSORIES

Ref. No. or Q'ty	Part No.	SP Description
1pc	3-704-356-01	o SHEET (STANDARD), PROTECTION
1pc	1-418-834-11	s REMOT COMMANDER (RM-PJVW10)
1pc	9-885-000-82	s BATTERY COVER (FOR RM-PJVW10)
1pc	4-083-929-01	s OPERATING INSTRUCTION (JAPANESE, SIMPLIFIED CHINESE)
1pc	4-083-929-11	s OPERATING INSTRUCTION (ENGLISH, FRENCH, SPANISH)
1pc	4-083-929-21	s OPERATING INSTRUCTION (GERMAN, ITALIAN)
3pcs	X-4039-313-1	s BLOCK ASSY, FILTER
1pc	X-4038-539-3	s FILTER ASSY
1pc	△	CORD, POWER (See Section 2 Service Information)

Section 7
Block Diagrams

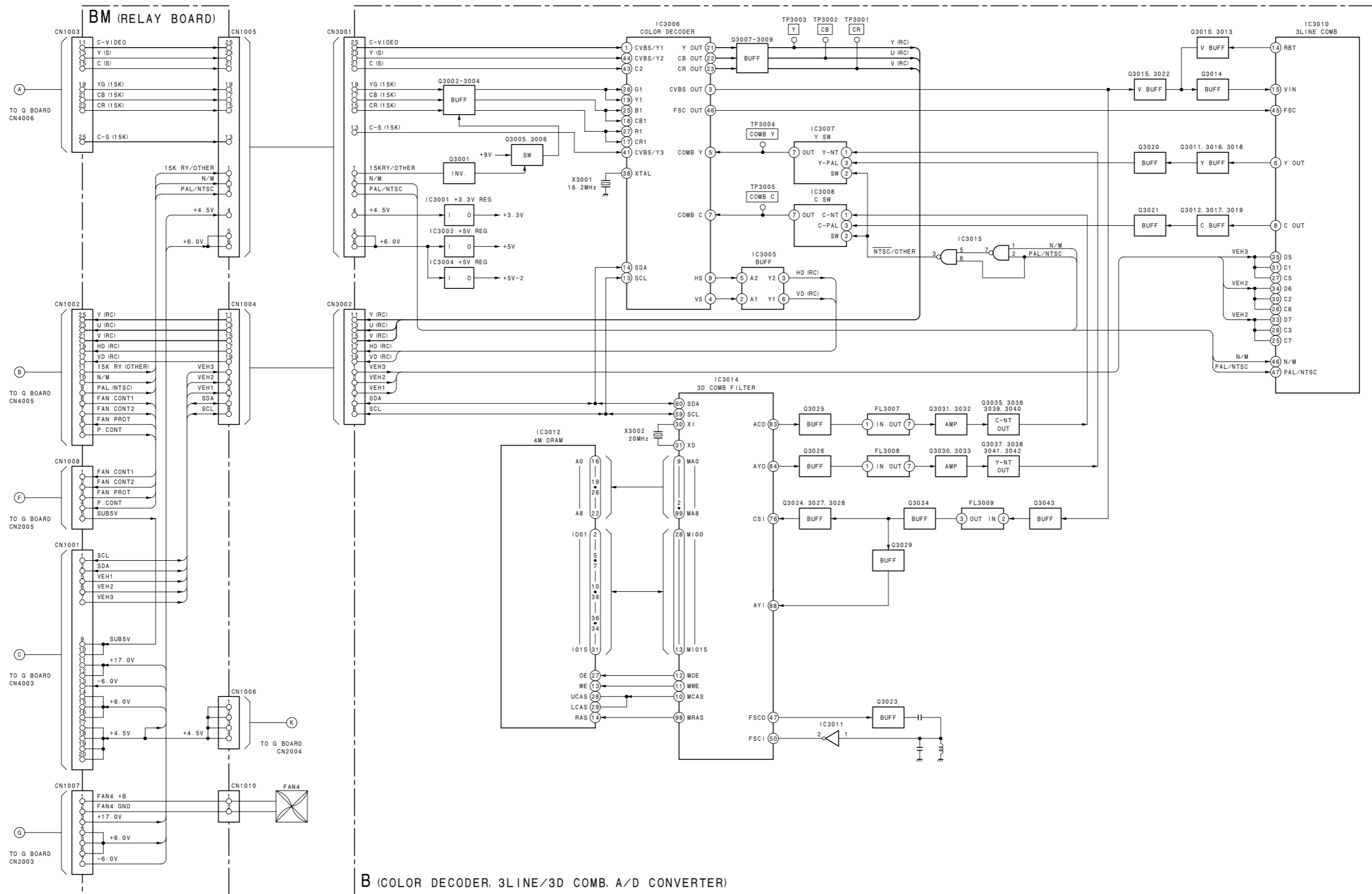


OVERALL BLOCK

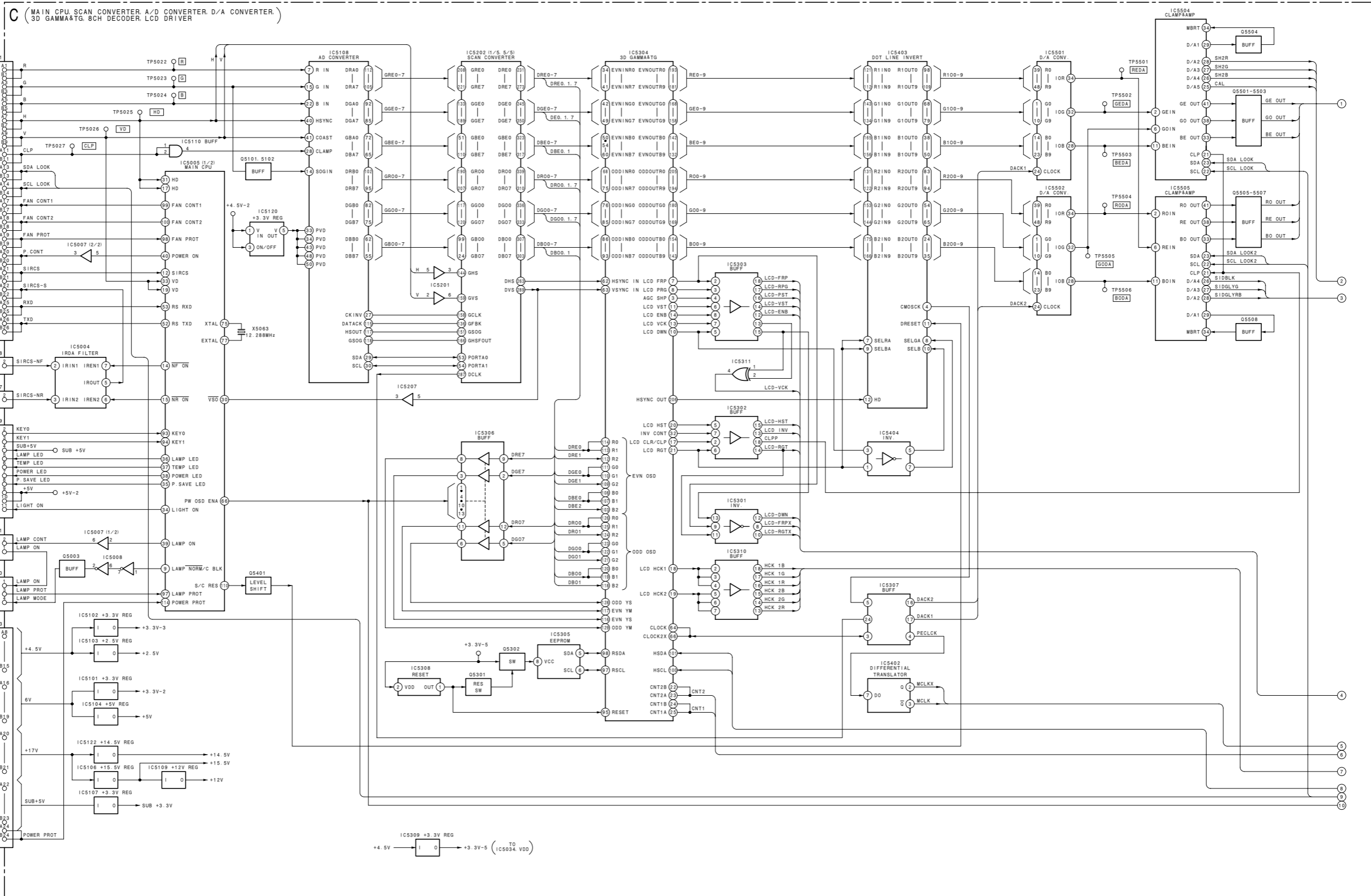


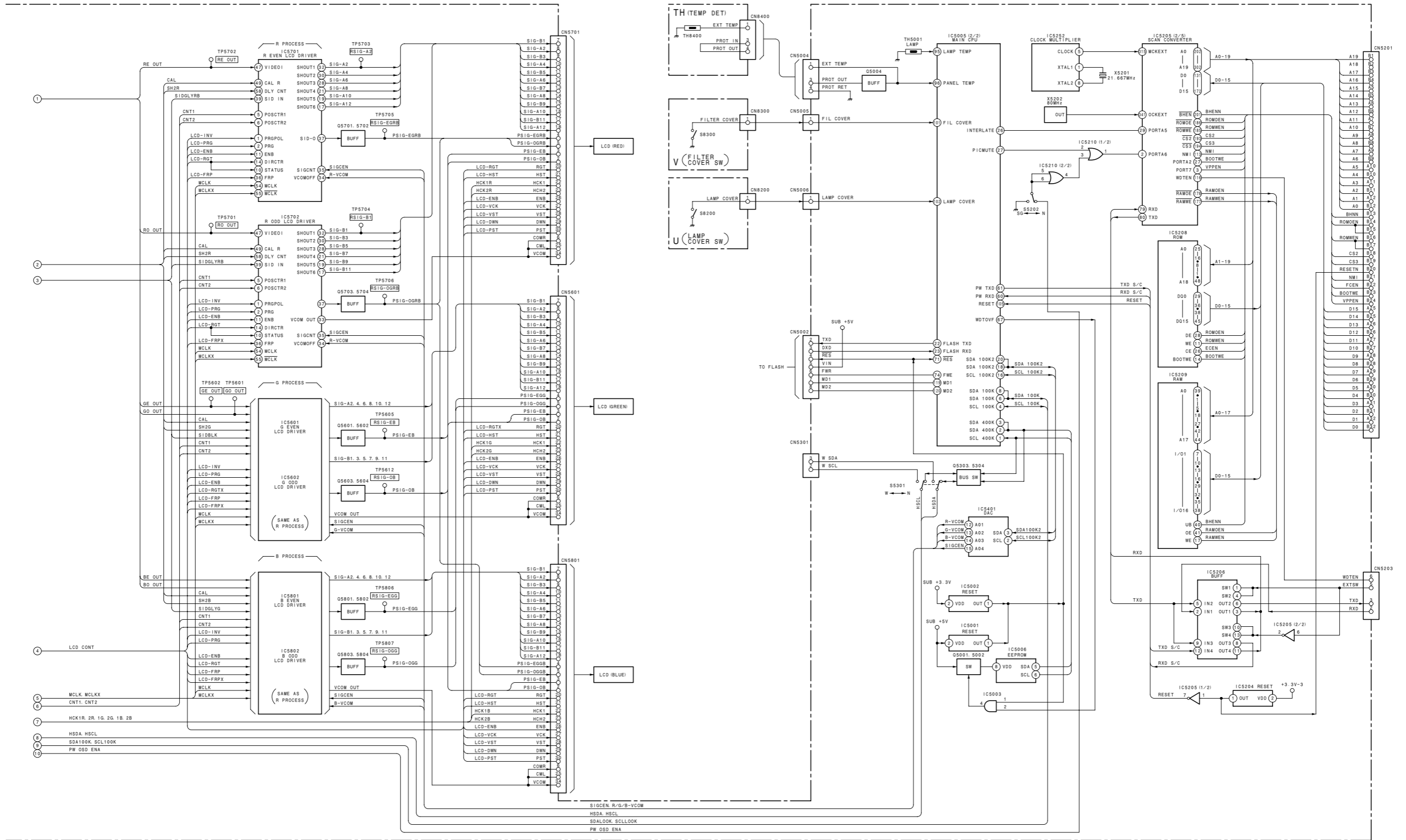
Q (INPUT TERMINAL, 3CH 8BIT A/D CONVERTER)
 DRC, RGB INTERFACE, Y/C/V SW

Q BLOCK



B (COLOR DECODER, 3LINE/3D COMB, A/D CONVERTER)





C, TH, U, V BLOCK

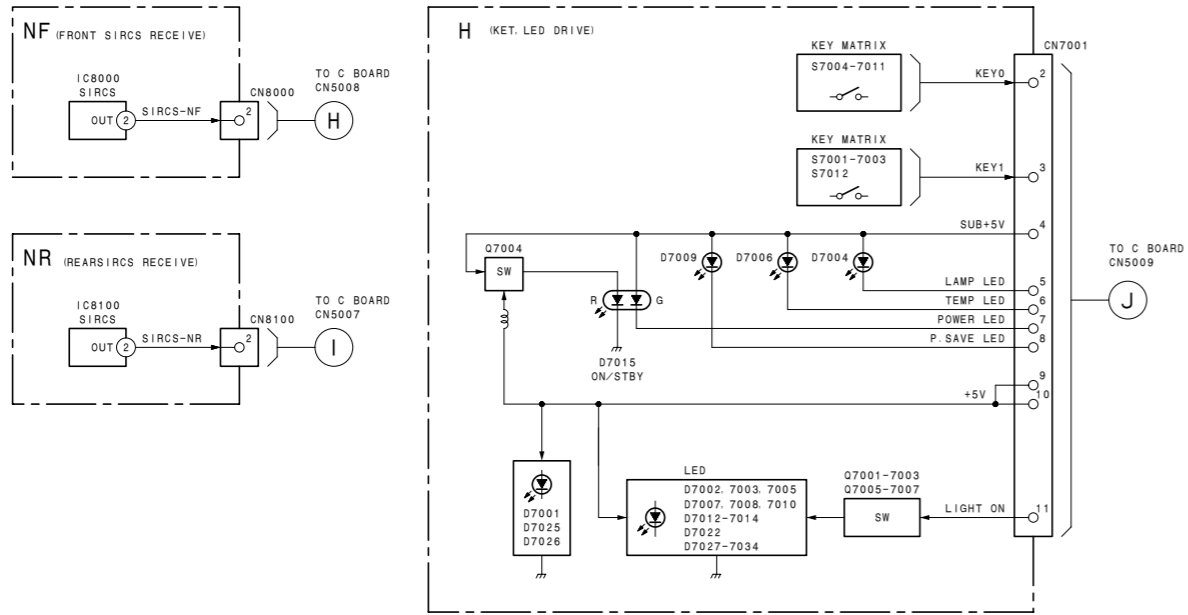
1

2

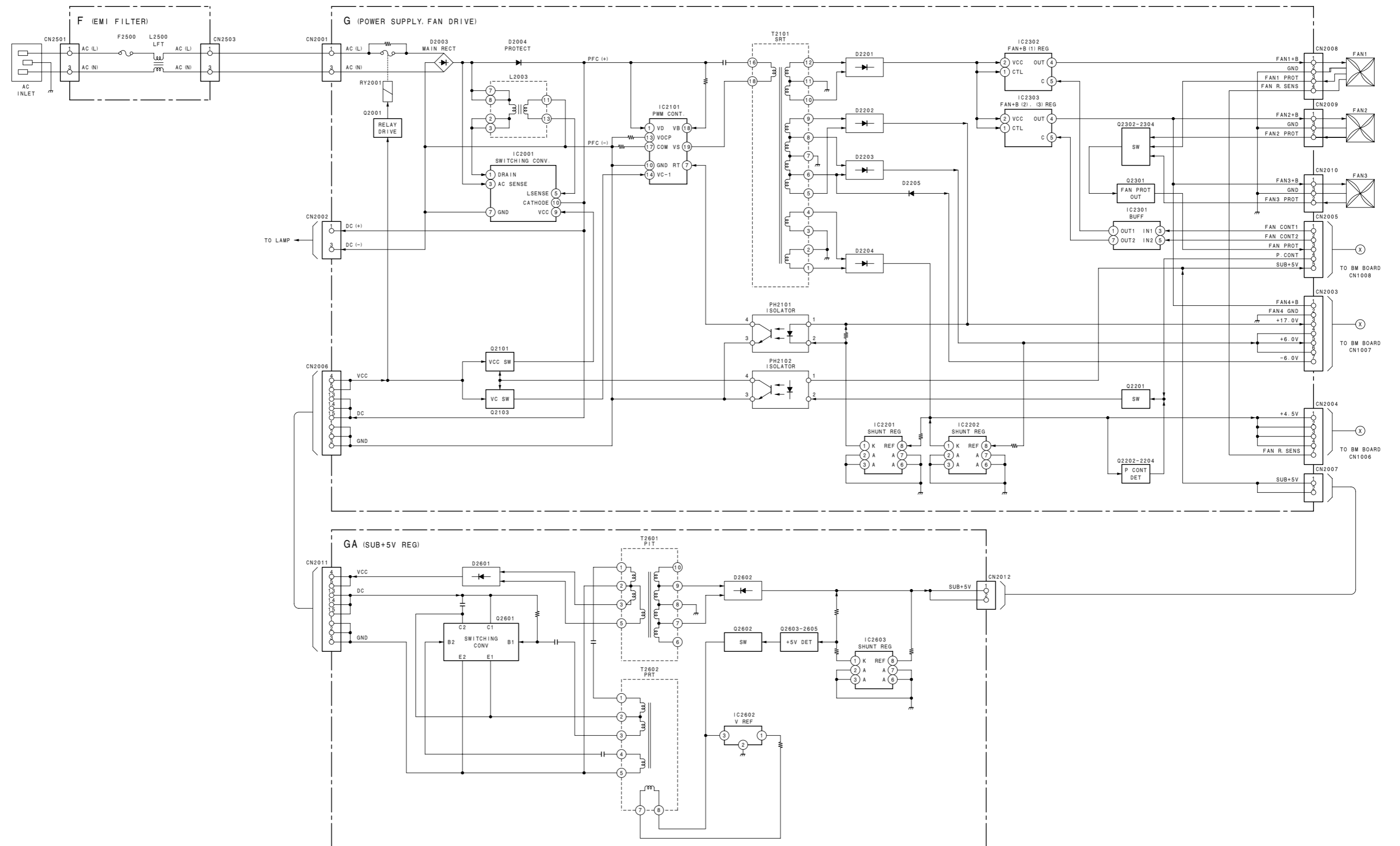
3

4

5



H, NF, NR BLOCK

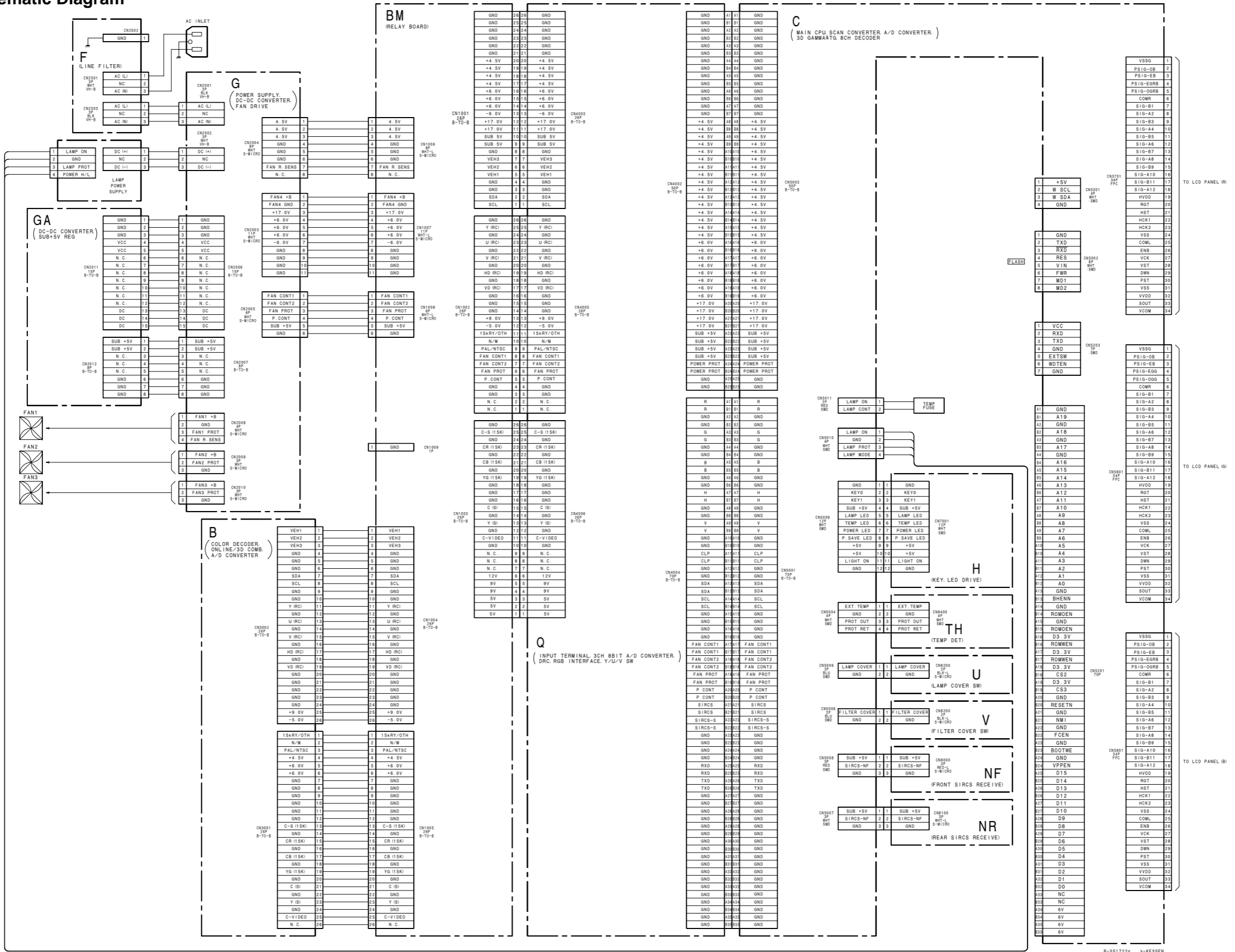


F, G, GA BLOCK

Section 8 Diagrams




FRAME FRAME

8-1. Frame Schematic Diagram



8-2. Schematic Diagrams and Printed Wiring Boards




Note:

- Parts marked “ * ” differ according to the model/destination. Refer to the mount table for each function.
- The parts marked “ # ” on schematic diagrams are not mounted.
- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50 V unless otherwise specified.
-  : fusible resistor
-  : nonflammable resistor
-  : panel designation and adjustment for repair
- Caution when replacing chip parts
New parts must be attached after removal of the chip.
Be careful not to heat the minus side of a tantalum capacitor, because it is easily damaged by the heat.

Reference information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NONFLAMMABLE CARBON
	FUSE	: NONFLAMMABLE FUSIBLE
	RS	: NONFLAMMABLE METAL OXIDE
	RB	: NONFLAMMABLE CEMENT
	RW	: NONFLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

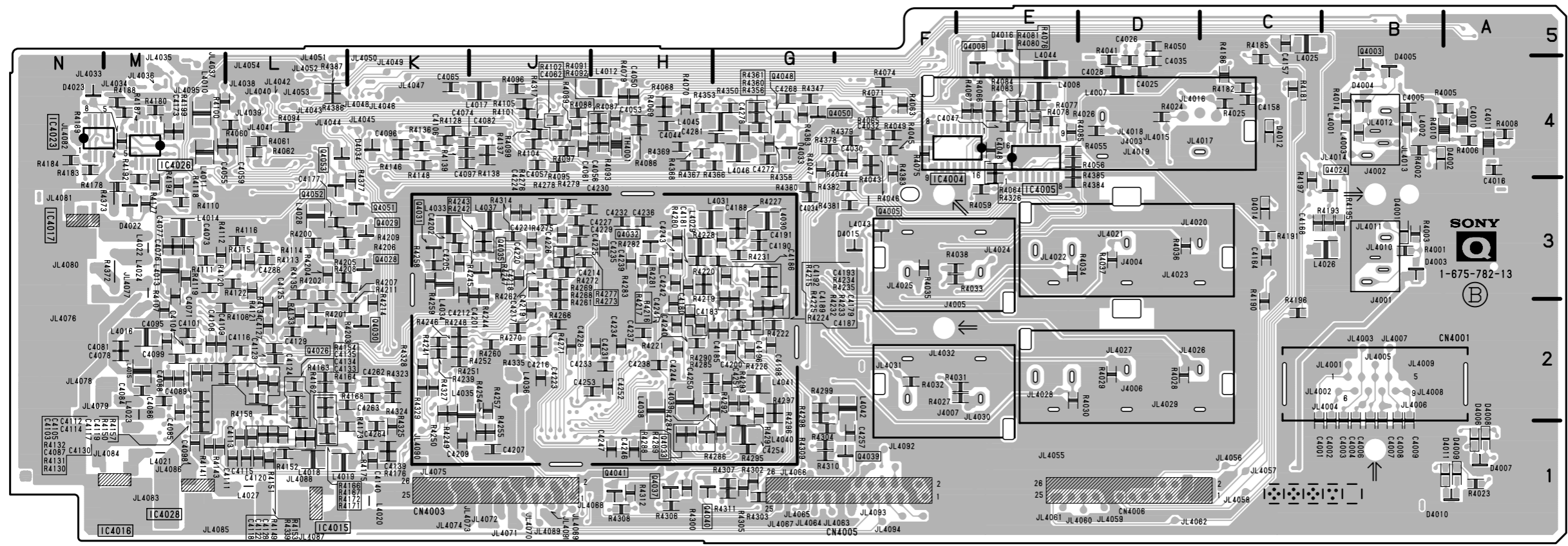
[Measuring conditions, voltage and waveform]

- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal is received from the color bar generator (digital multi-meter used: 10 M ohms/ V DC).
- A voltage value is the reference value between the measurement point and the earth, when the NTSC color bar signal and RGB color bar signal are received from the color bar generator (digital multi-meter used: 10 M ohms/V DC).
- Unit of voltage is V (volt).
-  : B+line
-  : B- line
- Voltage variations may occur due to normal production tolerances.
- No mark : NTSC (3.58 MHz) color bar signal.
- [] : RGB color bar signal is received.
- ★ : Measurement disabled.
- Circled numbers indicate the reference waveform.
-  : Signal path.

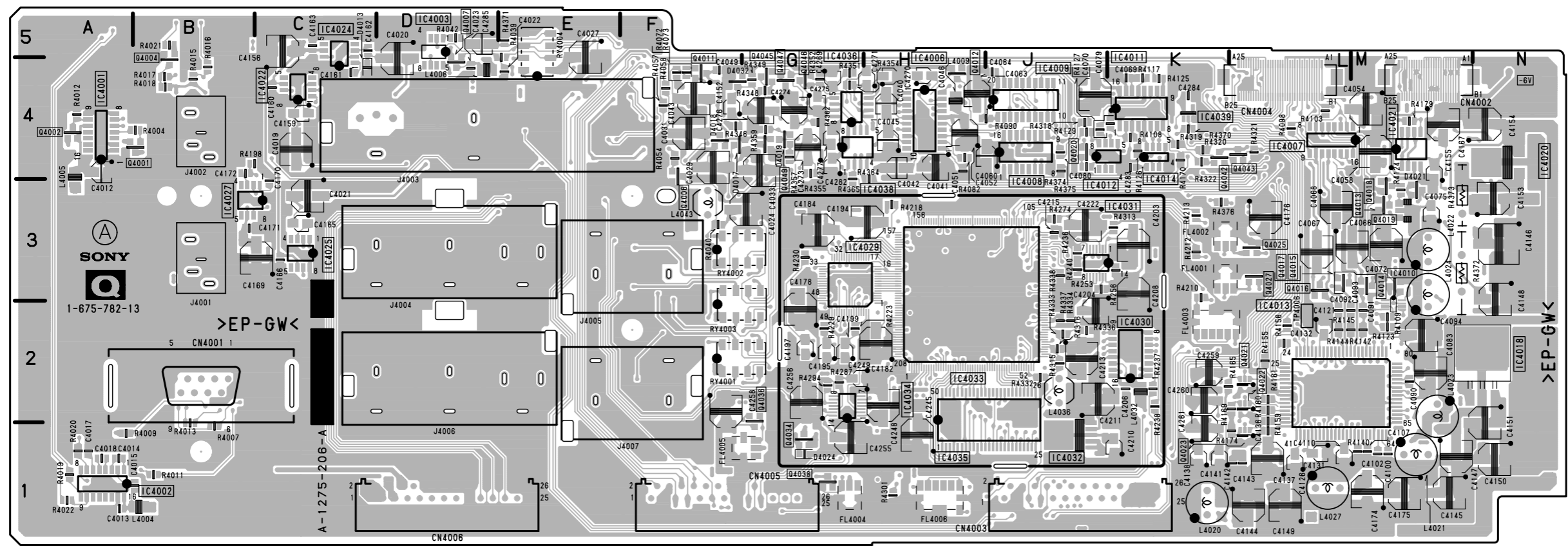
The components identified marked \triangle are critical for safety. Replace only with the part number specified.

Les composants identifiés par la marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

—			
Q			
—			
1-675-782-13			
D4001	* B-3	Q4001	A-4
D4002	* A-4	Q4002	A-1
D4003	* B-3	Q4003	* B-5
D4004	B-5	Q4005	* F-3
D4004	* B-4	Q4006	F-3
D4005	* B-4	Q4007	D-5
D4006	* A-2	Q4011	F-5
D4007	* A-1	Q4012	H-5
D4008	* A-2	Q4013	M-3
D4009	* A-1	Q4014	M-3
D4010	* A-1	Q4015	M-3
D4011	* A-1	Q4016	L-3
D4012	* C-4	Q4017	L-3
D4014	* C-3	Q4018	M-3
D4015	* F-3	Q4019	M-3
D4016	* E-5	Q4020	J-4
D4022	* M-3	Q4021	L-2
D4023	* N-4	Q4022	L-2
D4024	G-1	Q4023	L-1
D4033	* G-4	Q4024	* B-4
D4034	* K-4	Q4025	L-3
		Q4026	* L-2
IC4001	A-4	Q4027	L-3
IC4002	B-1	Q4028	* K-3
IC4003	D-5	Q4029	* K-3
IC4004	* F-4	Q4030	* K-2
IC4006	H-5	Q4032	* H-3
IC4006	* E-3	Q4033	* H-1
IC4007	L-4	Q4034	G-1
IC4008	J-4	Q4036	G-2
IC4009	J-4	Q4036	* J-3
IC4010	M-3	Q4037	* H-1
IC4011	K-5	Q4038	G-1
IC4012	J-3	Q4039	* F-1
IC4013	L-2	Q4040	* H-1
IC4014	K-4	Q4041	* H-1
IC4015	* L-1	Q4042	K-4
IC4016	* M-1	Q4043	L-4
IC4017	* N-3	Q4045	G-5
IC4018	N-2	Q4046	G-5
IC4020	N-4	Q4047	G-5
IC4021	M-4	Q4048	* G-4
IC4022	C-4	Q4050	* F-4
IC4023	* N-4	Q4051	* K-3
IC4024	C-5	Q4052	* L-3
IC4025	C-3	Q4053	* L-4
IC4026	* M-4	Q4060	* E-5
IC4027	B-3		
IC4028	* M-1		
IC4029	G-3		*:B Side mount
IC4029	G-3		
IC4030	K-2		
IC4031	K-3		
IC4032	J-1		
IC4033	H-2		
IC4034	H-2		
IC4035	H-1		
IC4036	G-5		
IC4038	H-3		
IC4039	K-4		

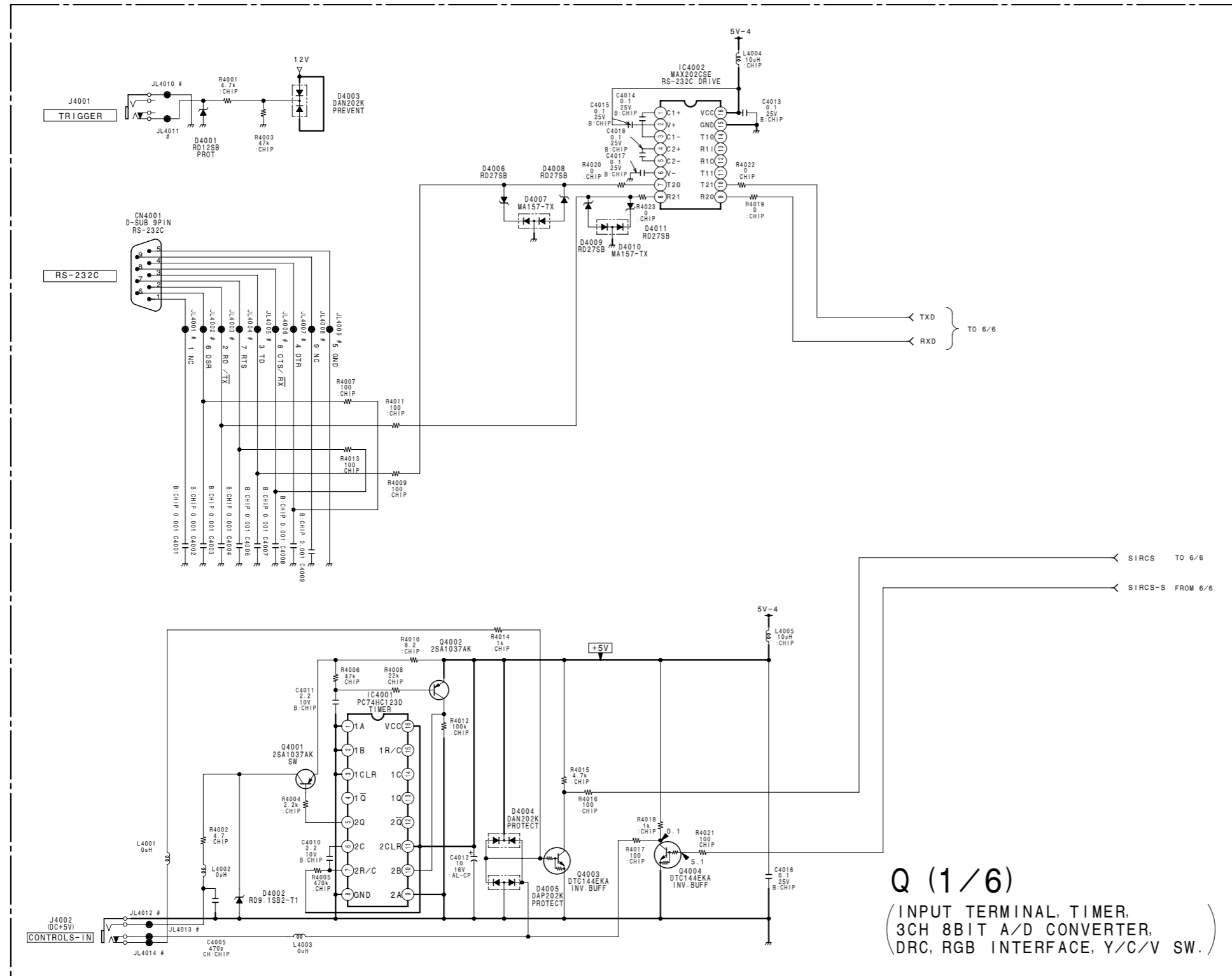


Q - B SIDE -
SUFFIX ; -13



Q - A SIDE -
SUFFIX ; -13

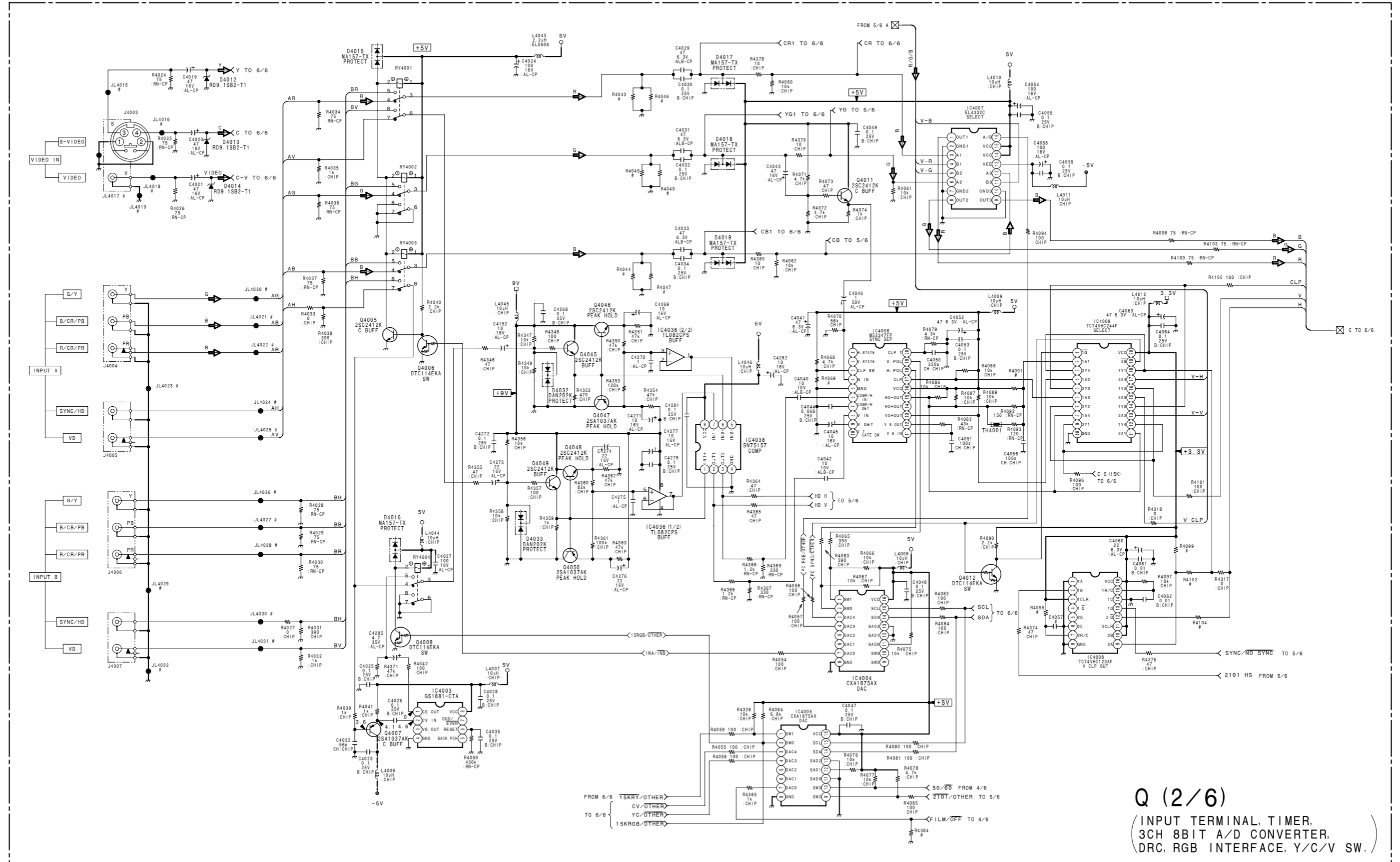
- Refer to page 8-3 for Printed Wiring Board
- Refer to page 8-10 for IC Block Diagrams



Q (1/6)
 (INPUT TERMINAL, TIMER,
 3CH 8BIT A/D CONVERTER,
 DRC, RGB INTERFACE, Y/C/V SW.)

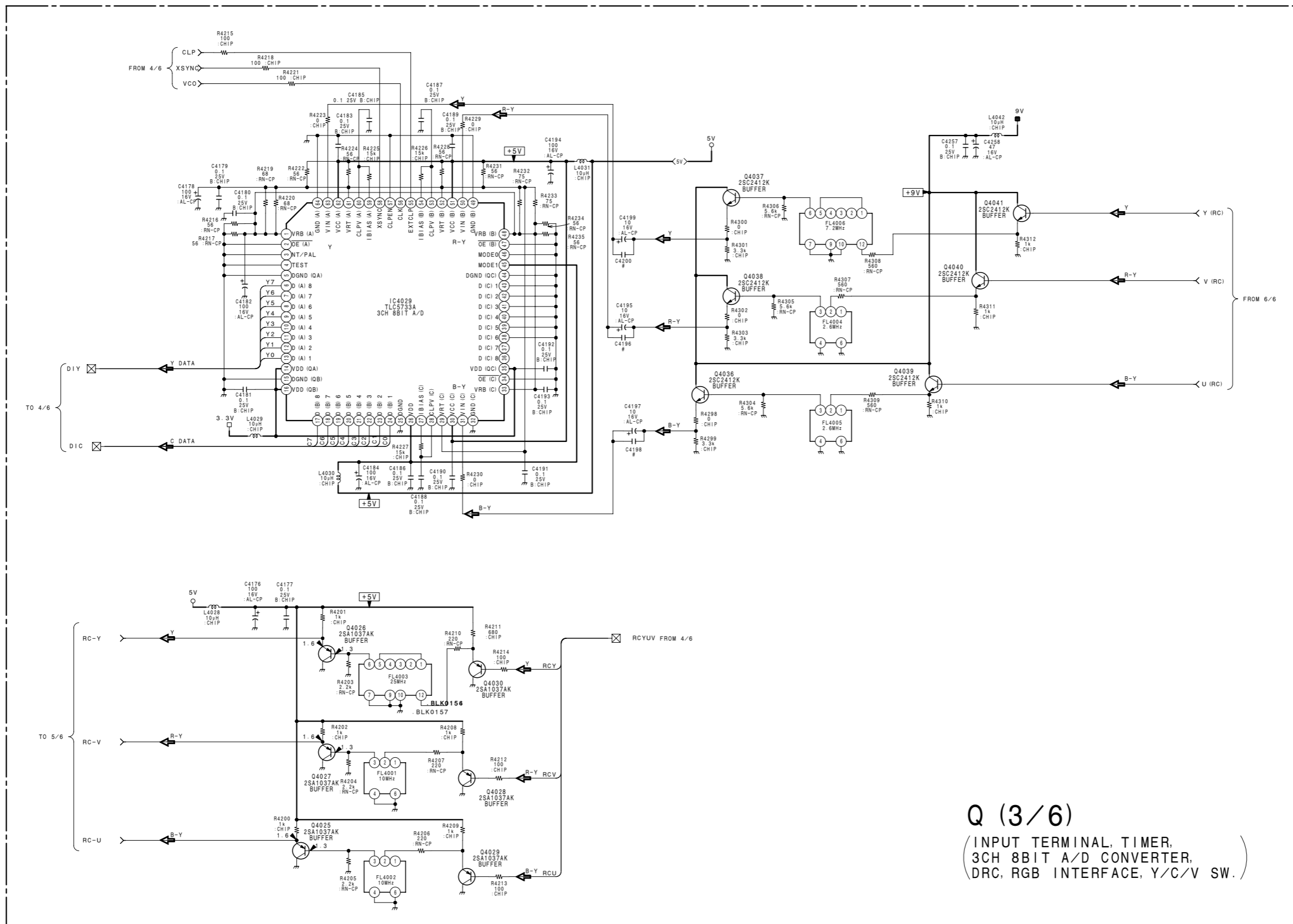
B-SS1722<...>-Q...-P1

- Refer to page 8-3 for Printed Wiring Board
- Refer to page 8-10 for IC Block Diagrams



Q (2/6)
 (INPUT TERMINAL, TIMER,
 3CH 8BIT A/D CONVERTER,
 DRC, RGB INTERFACE, Y/C/V SW.)

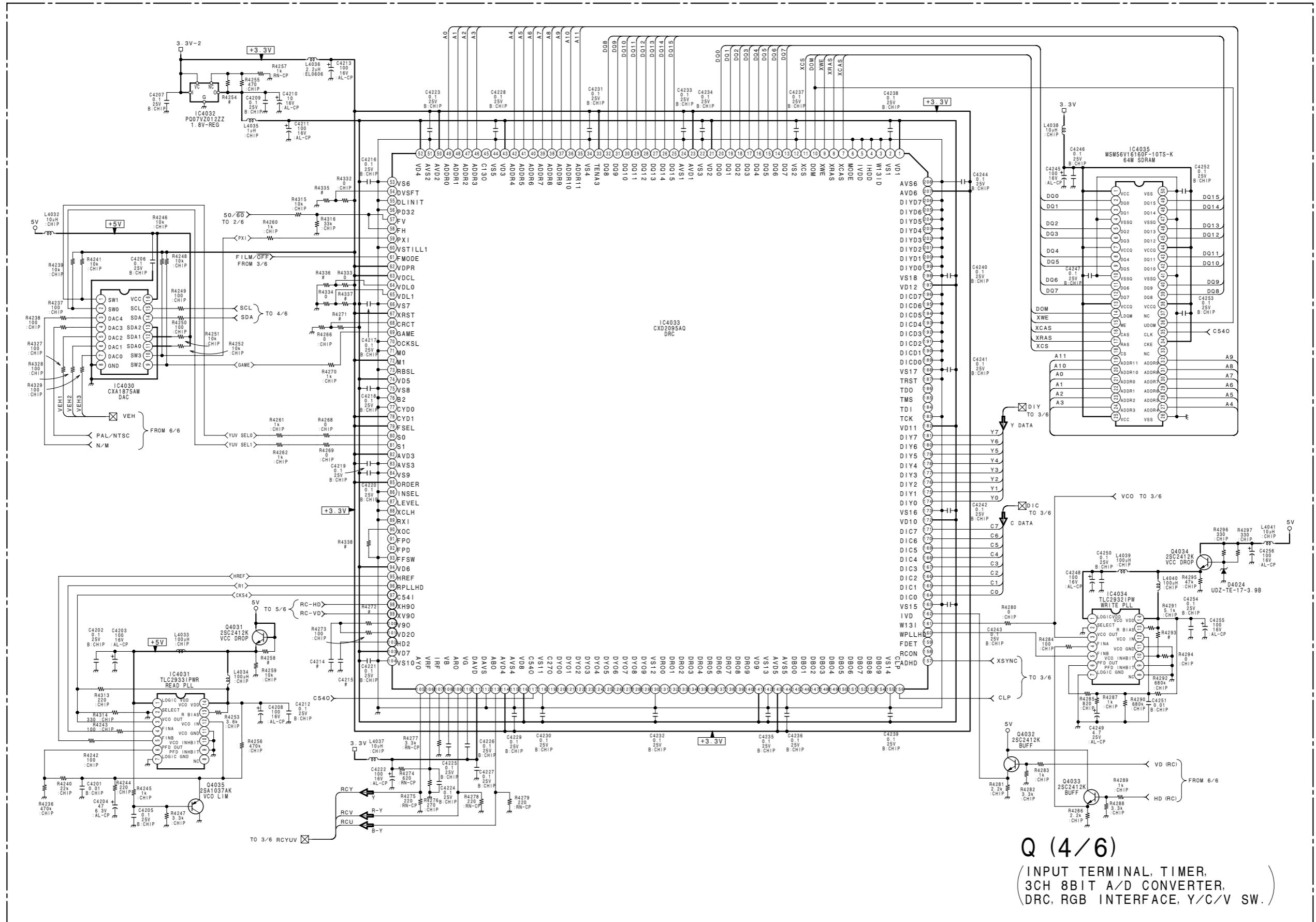
- Refer to page 8-3 for Printed Wiring Board
- Refer to page 8-10 for IC Block Diagrams



Q (3/6)
 (INPUT TERMINAL, TIMER,
 3CH 8BIT A/D CONVERTER,
 DRC, RGB INTERFACE, Y/C/V SW.)

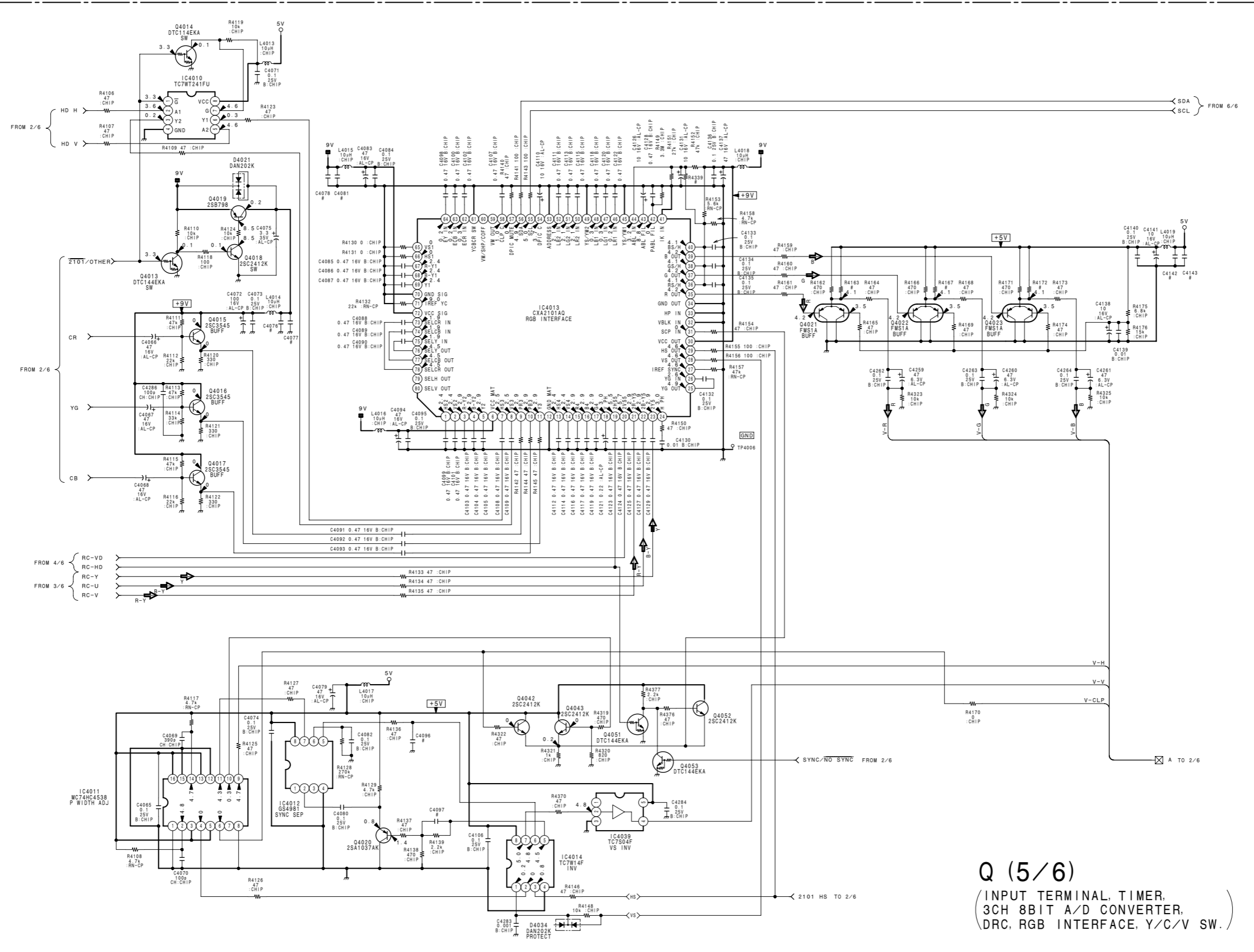
B-S1722<...>-0...-P3

- Refer to page 8-3 for Printed Wiring Board
- Refer to page 8-10 for IC Block Diagrams



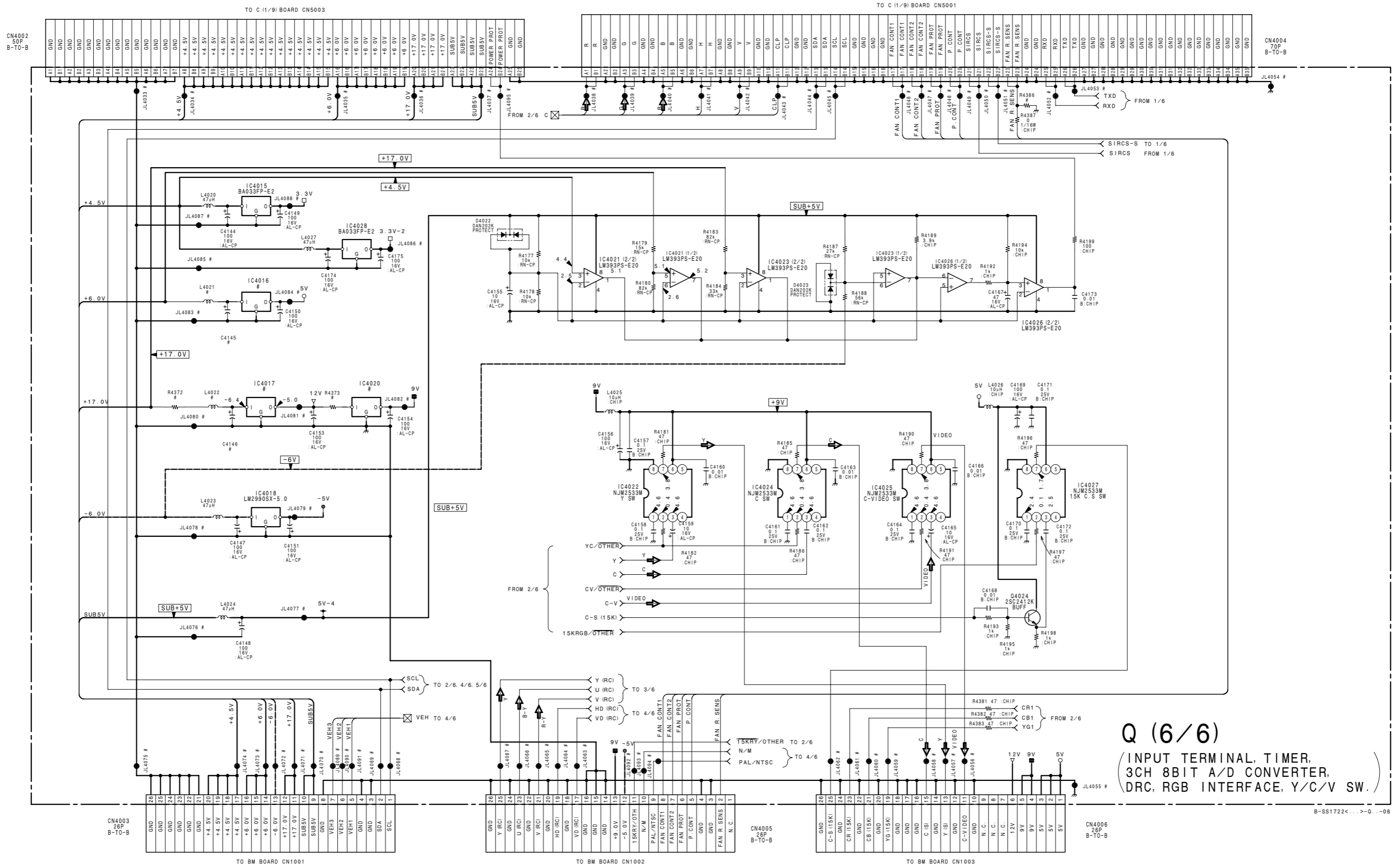
Q (4/6)
 (INPUT TERMINAL, TIMER,
 3CH 8BIT A/D CONVERTER,
 DRC, RGB INTERFACE, Y/C/V SW.)

- Refer to page 8-3 for Printed Wiring Board
- Refer to page 8-10 for IC Block Diagrams



Q (5/6)
 (INPUT TERMINAL, TIMER,
 3CH 8BIT A/D CONVERTER,
 DRC, RGB INTERFACE, Y/C/V SW.)

- Refer to page 8-3 for Printed Wiring Board
- Refer to page 8-10 for IC Block Diagrams



Q (6/6)
 (INPUT TERMINAL, TIMER,
 3CH 8BIT A/D CONVERTER,
 DRC, RGB INTERFACE, Y/C/V SW.)

B-SS1722<...>0...06

1

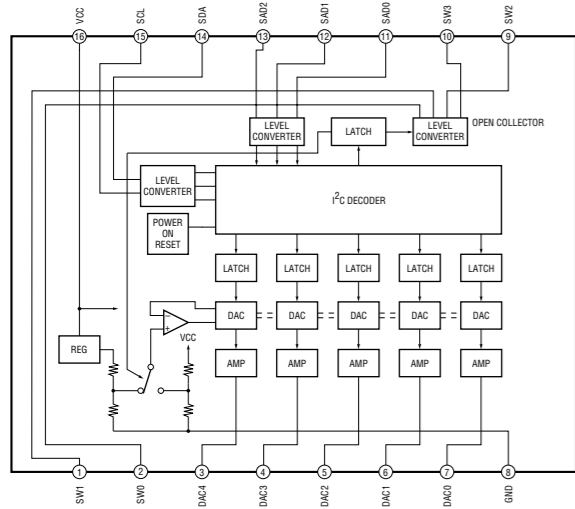
2

3

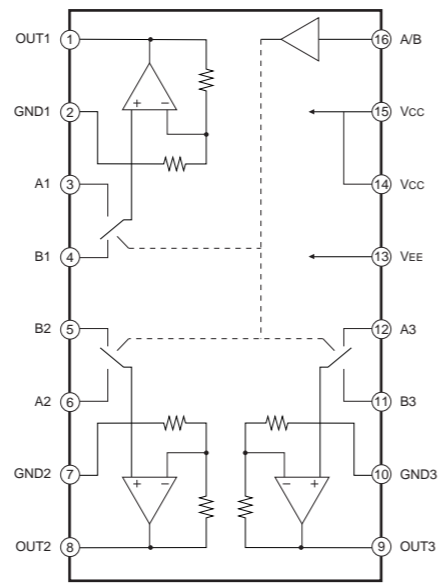
4

5

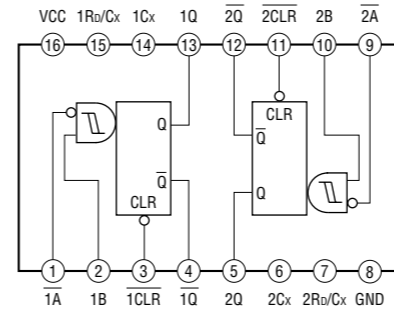
CXA1875AM-T4 (IC4004, IC4005, IC4030)



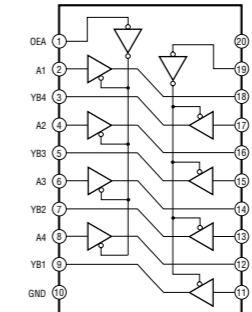
EL4332CS-TE2 (IC4007)



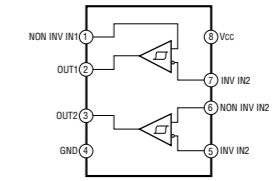
TC74 VHC123F(EL) (IC4008)



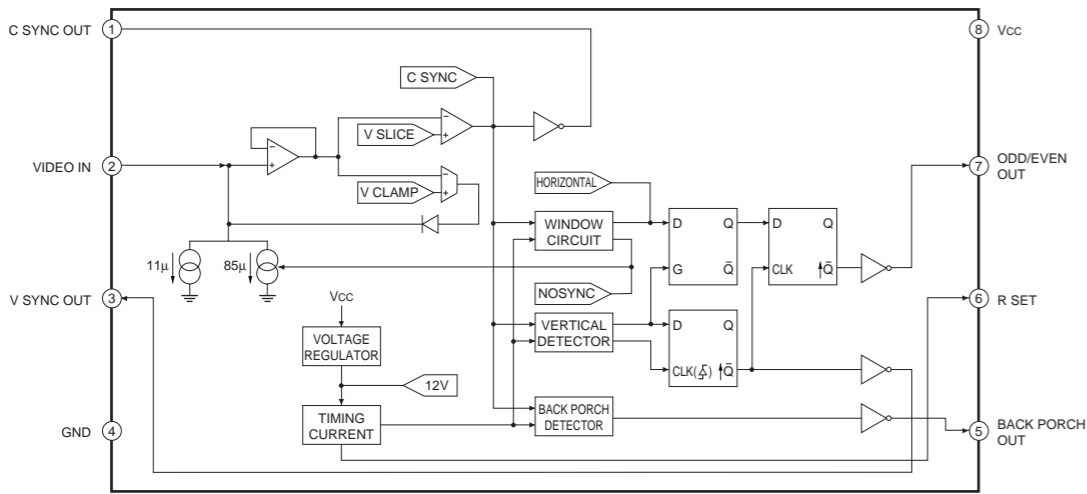
TC74VHC244F (EL) (IC4009)



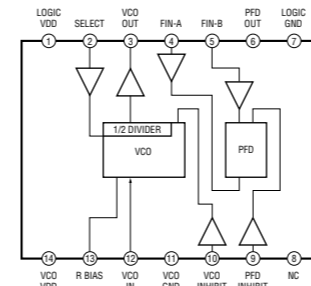
SN75157PS-ELL2000 (IC4038)



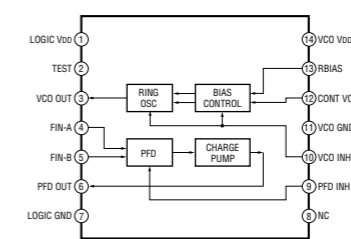
GS1881-CTA (IC4003)



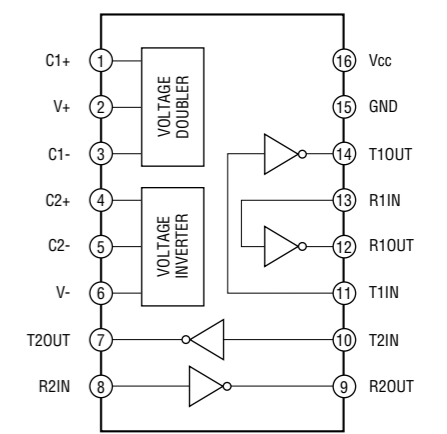
TLC2932IPW-E20 (IC4034)



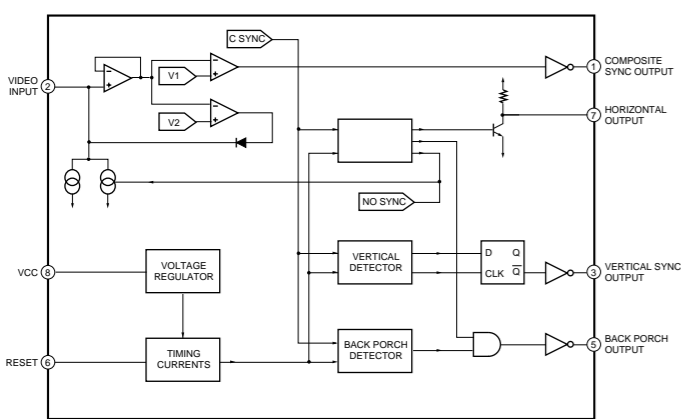
TLC2933IPWR (IC4031)



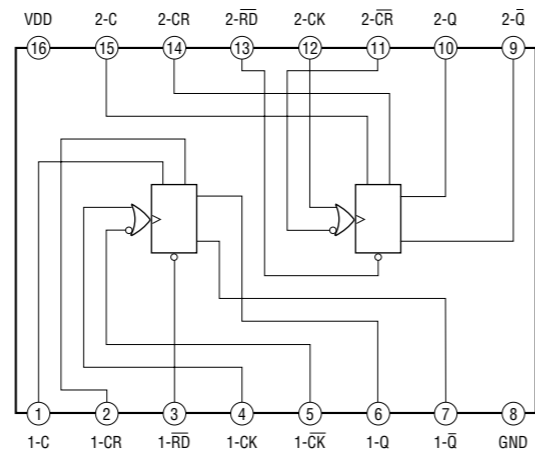
MAX202CSE-T (IC4002)



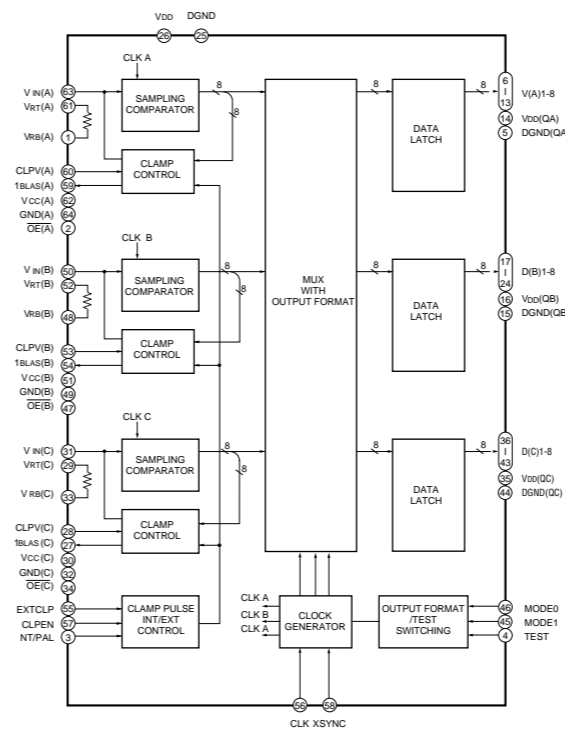
GS4981CTA (IC4012)



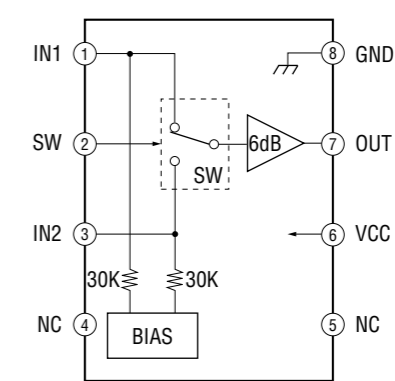
MC74HC4538AFEL (IC4011)



TLC5733AIPM (IC4029)



NJM2533M (TE2) (IC4022, IC4024, IC4025, IC4027)



8-10

8-10

1

2

3

4

5

A

B

C

D

E

F

G

H

B
1-675-781-13

- D3001 B-2
- IC3001 B-5
- IC3002 B-3
- IC3004 B-3
- IC3005 B-6
- IC3006 B-5
- IC3007 C-6
- IC3008 D-6
- IC3010 D-4
- IC3011 D-1
- IC3012 B-1
- IC3013 C-2
- IC3014 B-1

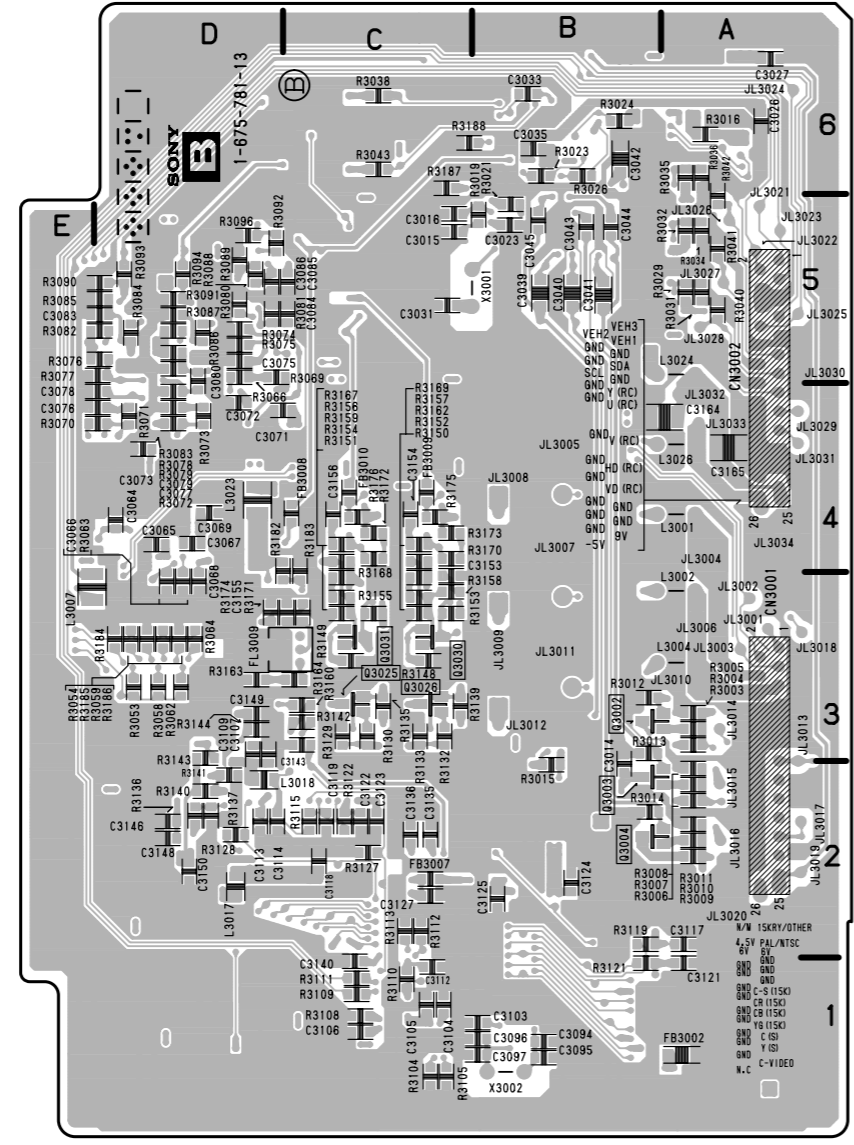
- Q3001 B-3
- Q3002 * B-3
- Q3003 * B-2
- Q3004 * B-2
- Q3005 B-3
- Q3006 B-2
- Q3007 A-5
- Q3008 A-5
- Q3009 A-6
- Q3010 D-5

- Q3011 D-4
- Q3012 D-4
- Q3013 C-5
- Q3014 C-5
- Q3015 D-5
- Q3016 C-5
- Q3017 D-5
- Q3018 D-5
- Q3019 D-5
- Q3020 D-5
- Q3021 D-5
- Q3022 D-5
- Q3023 C-1
- Q3024 D-2
- Q3025 * C-3
- Q3026 * C-3
- Q3027 D-2
- Q3029 C-3
- Q3030 * C-3
- Q3031 * C-3
- Q3032 C-3
- Q3033 B-4
- Q3034 D-3
- Q3035 C-4
- Q3036 C-4

- Q3037 C-3
- Q3038 B-5
- Q3038 C-4
- Q3040 C-4
- Q3041 C-4
- Q3042 B-5
- Q3043 D-3

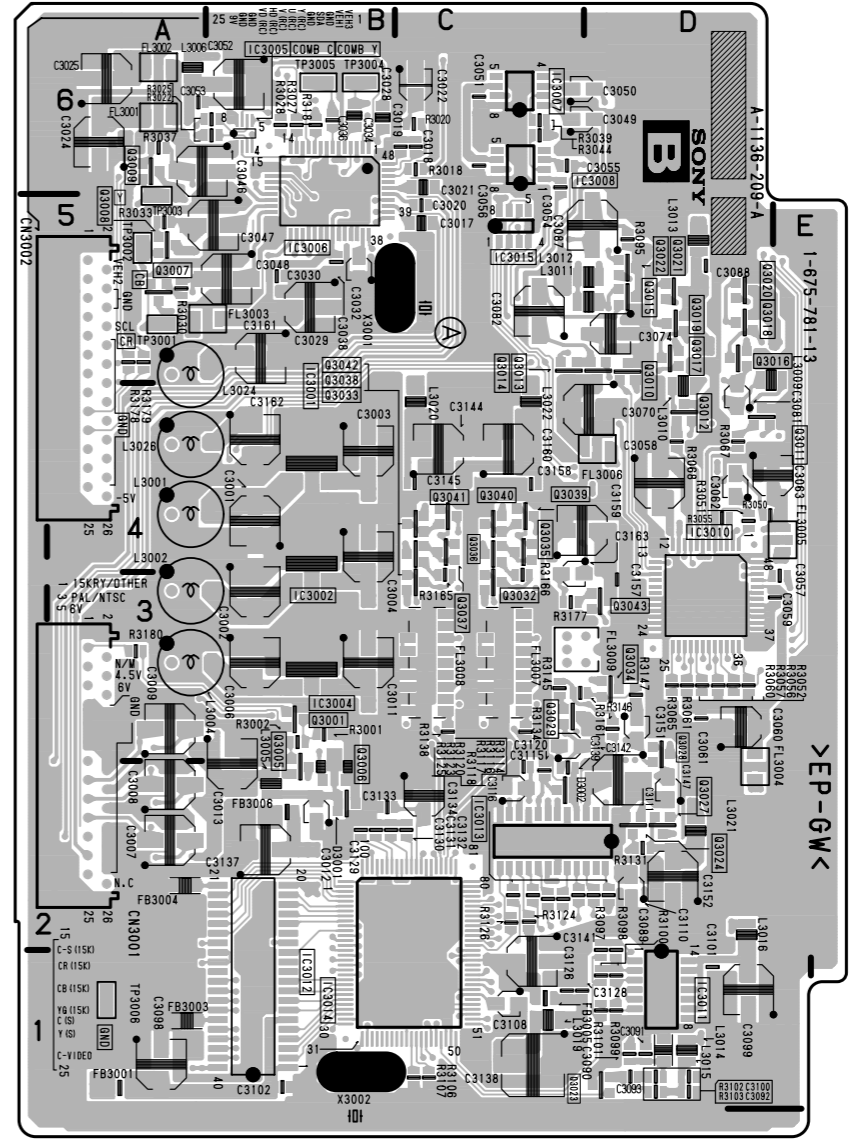
- TP3001 A-5
- TP3002 A-5
- TP3003 A-5
- TP3004 B-6
- TP3005 B-6
- TP3006 A-1

*:B Side mount



B - B SIDE -
SUFFIX ; -13

B B



B - A SIDE -
SUFFIX ; -13

- Refer to page 8-11 for Printed Wiring Board
- Refer to page 8-13 for IC Block Diagrams

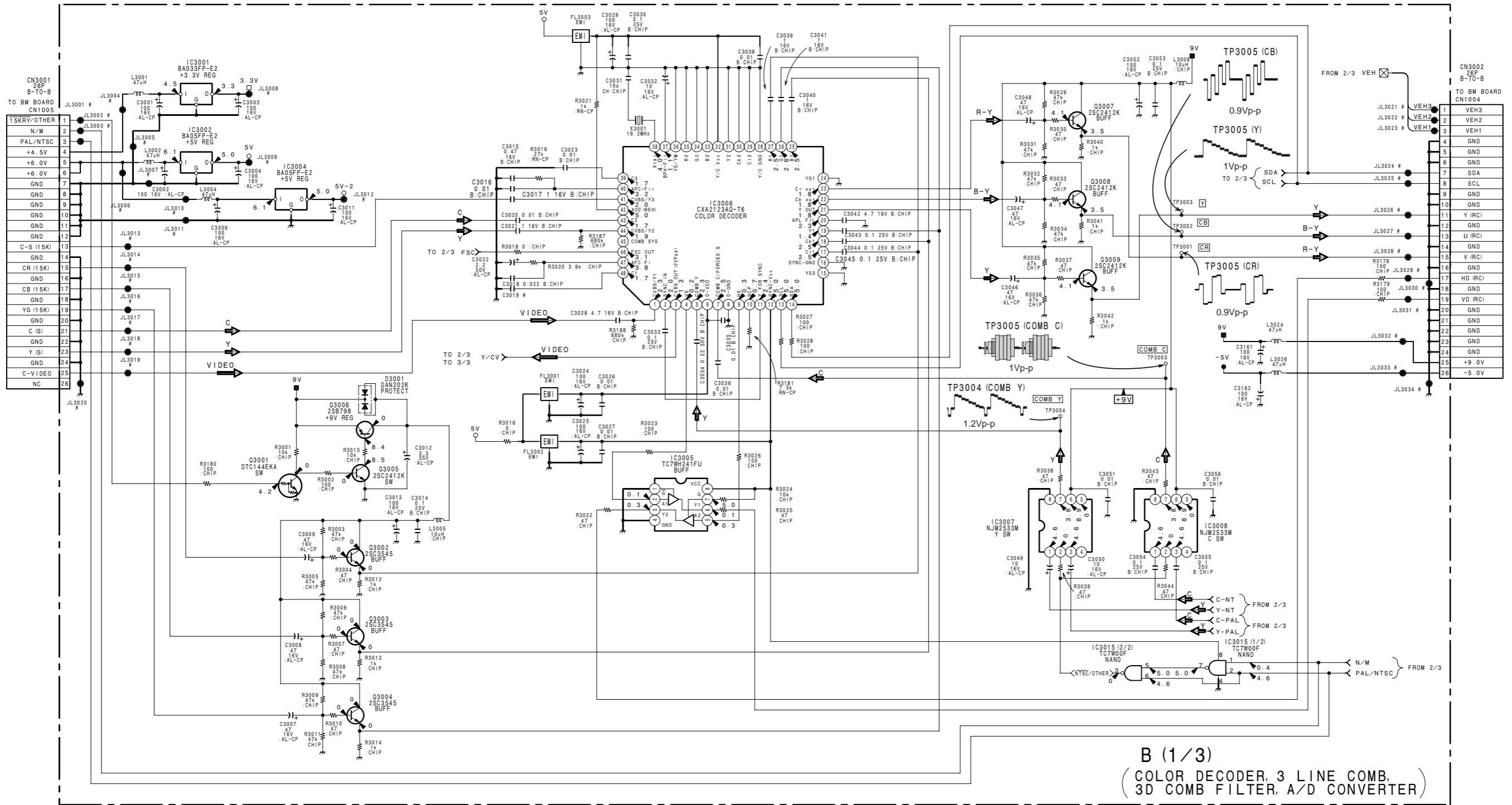
1

2

3

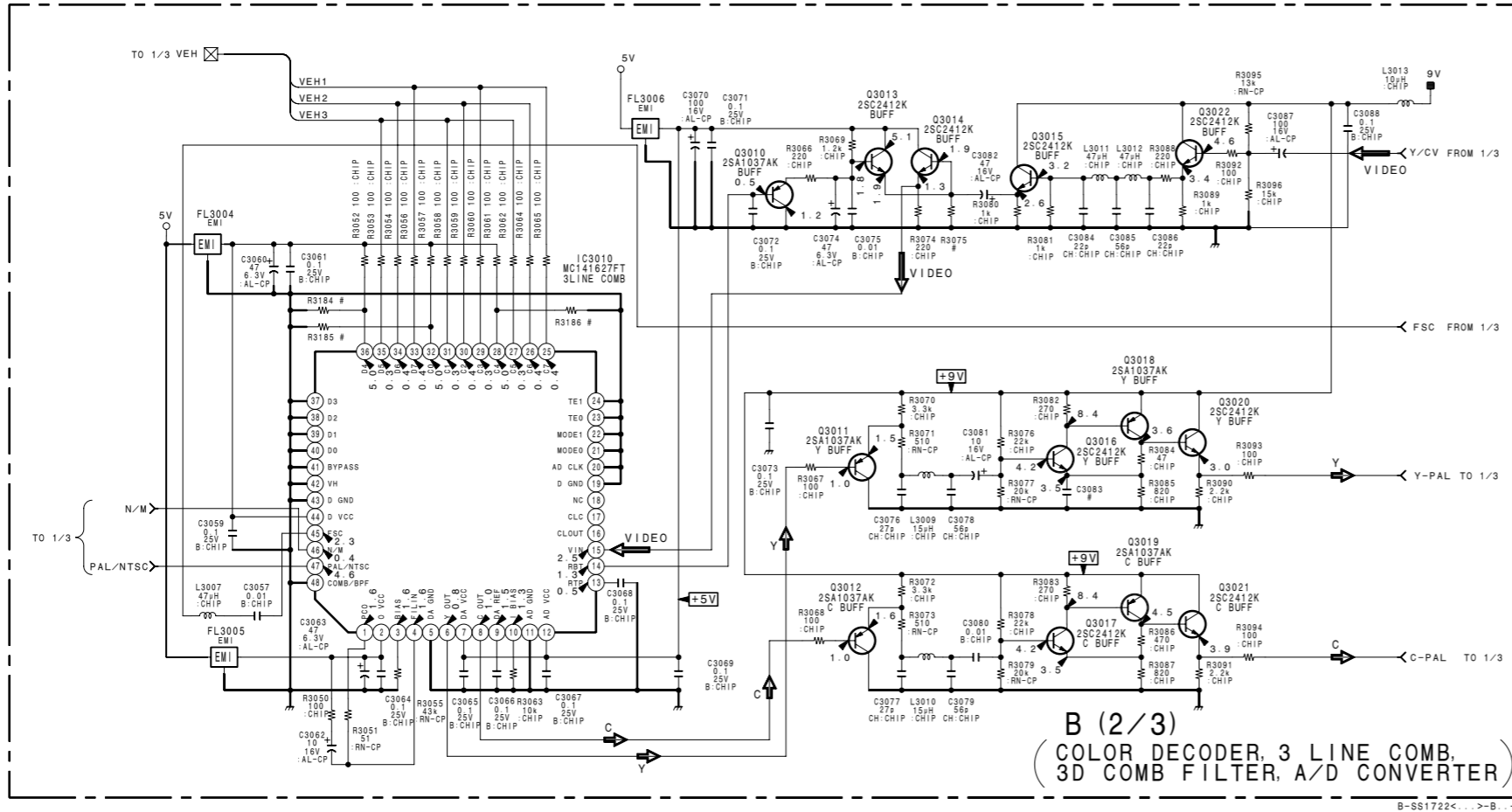
4

5

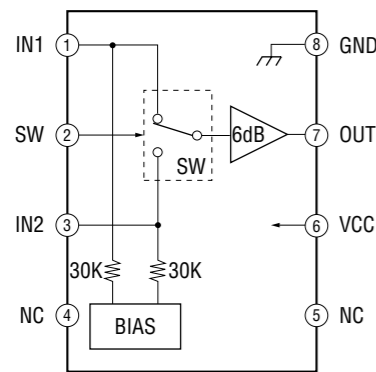


B-S1722<...>-B...-P1

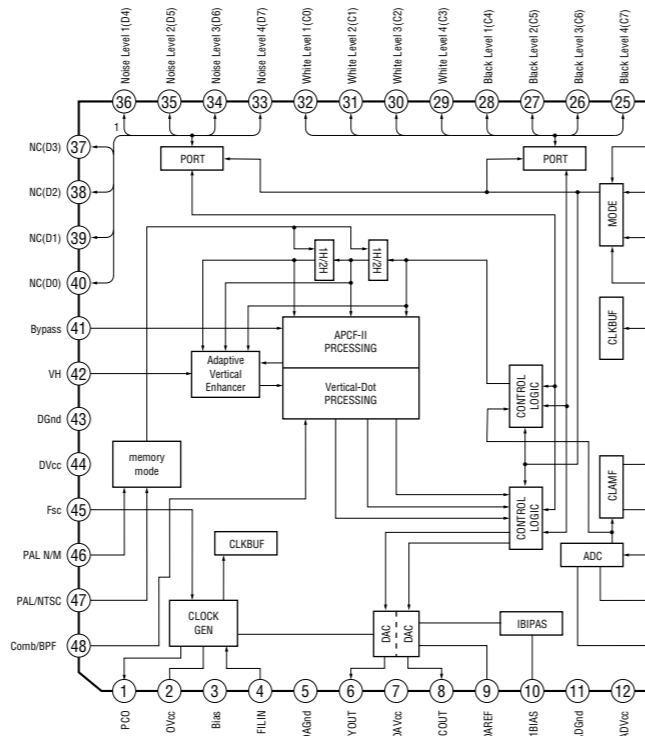
- Refer to page 8-11 for Printed Wiring Board
- Refer to page 8-13 for IC Block Diagrams



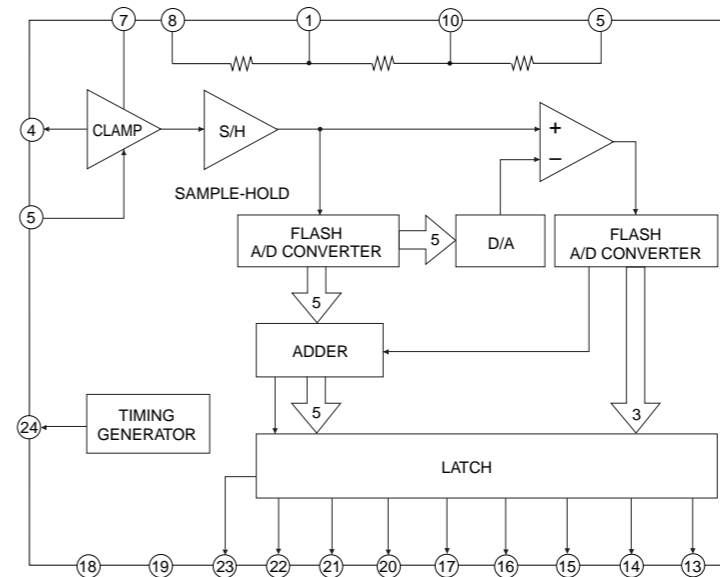
NJM2533M (TE2) (IC3007, IC3006)



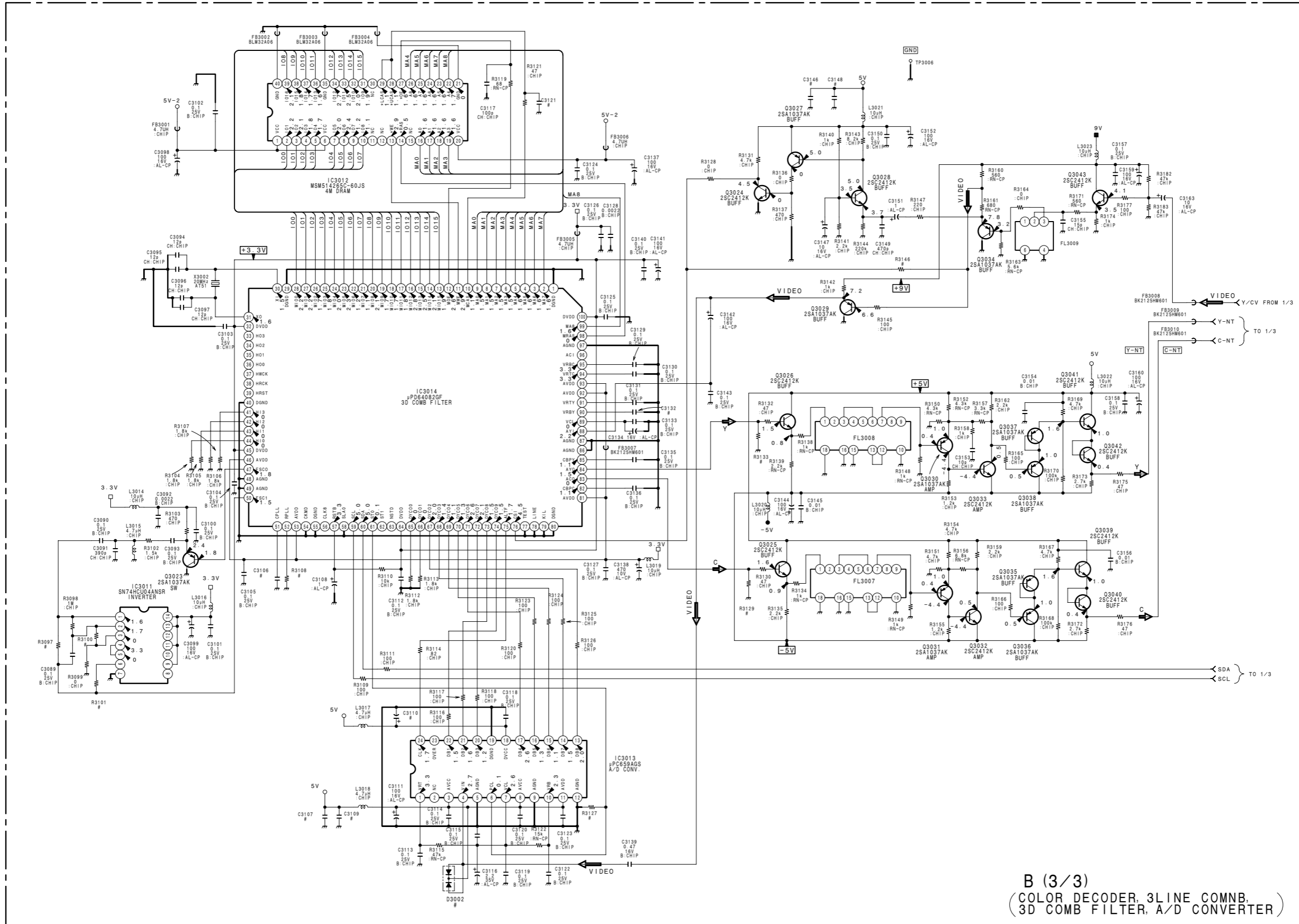
MC141627FT (IC3010)



UPC659AGS-E2 (IC3013)

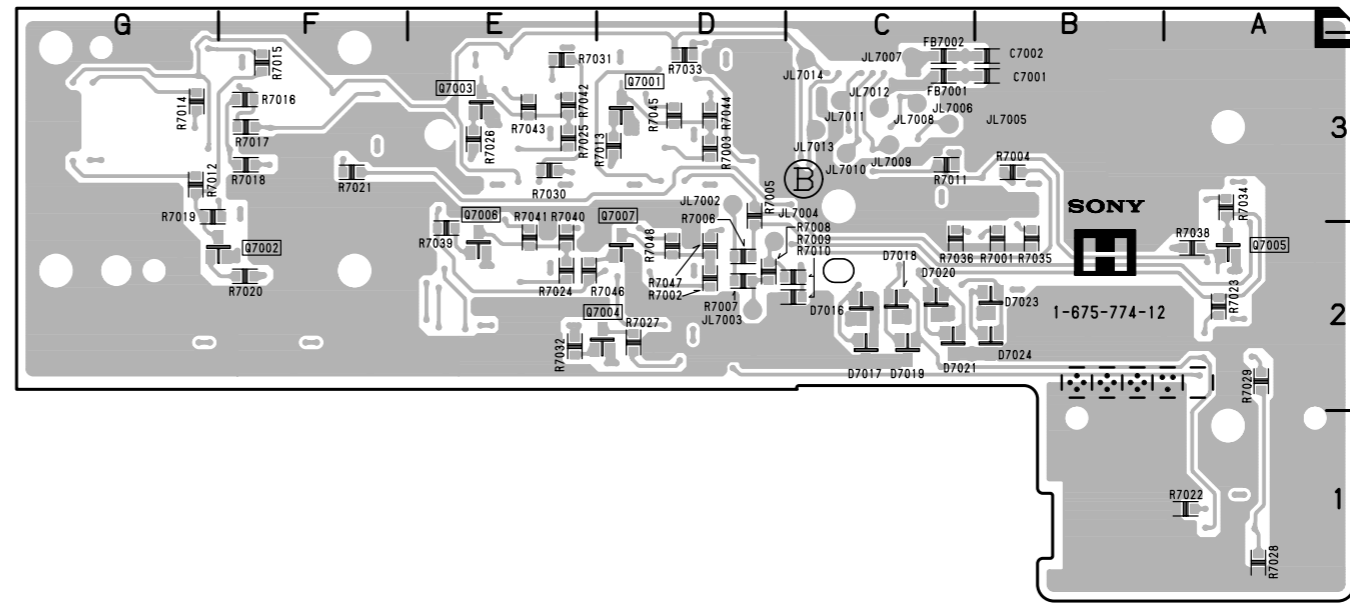


- Refer to page 8-11 for Printed Wiring Board
- Refer to page 8-13 for IC Block Diagrams

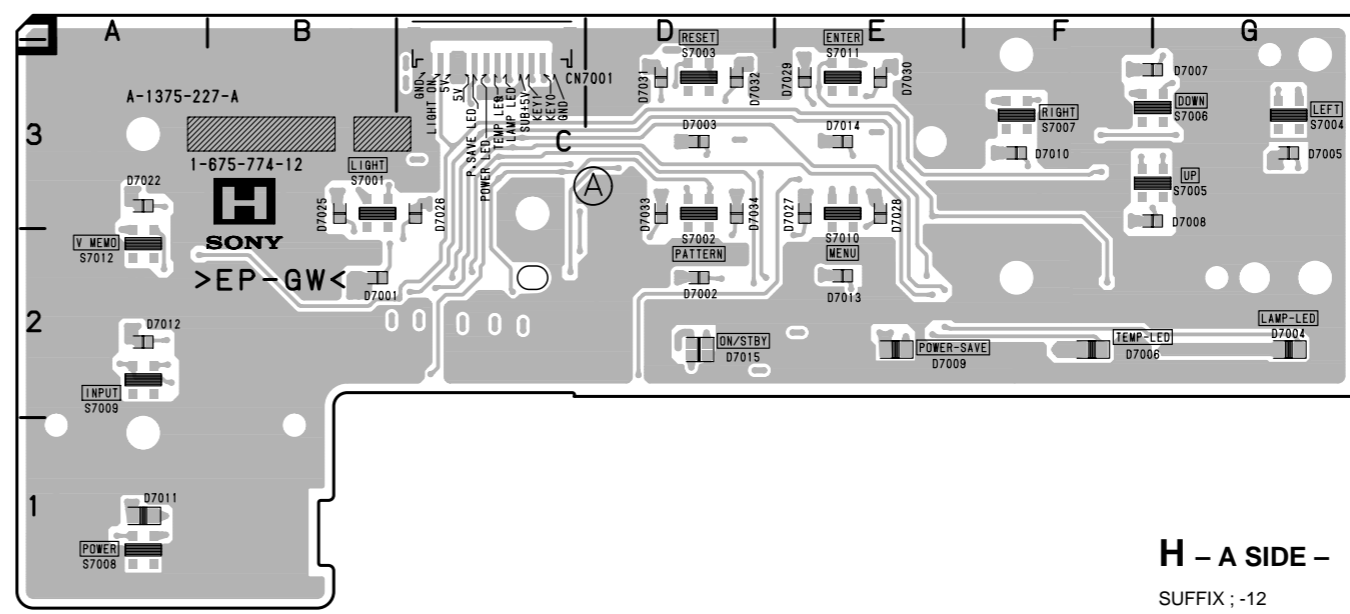


B (3/3)
 (COLOR DECODER, 3LINE COMNB,
 3D COMB FILTER, A/D CONVERTER)

B-551701<...>B...-P3

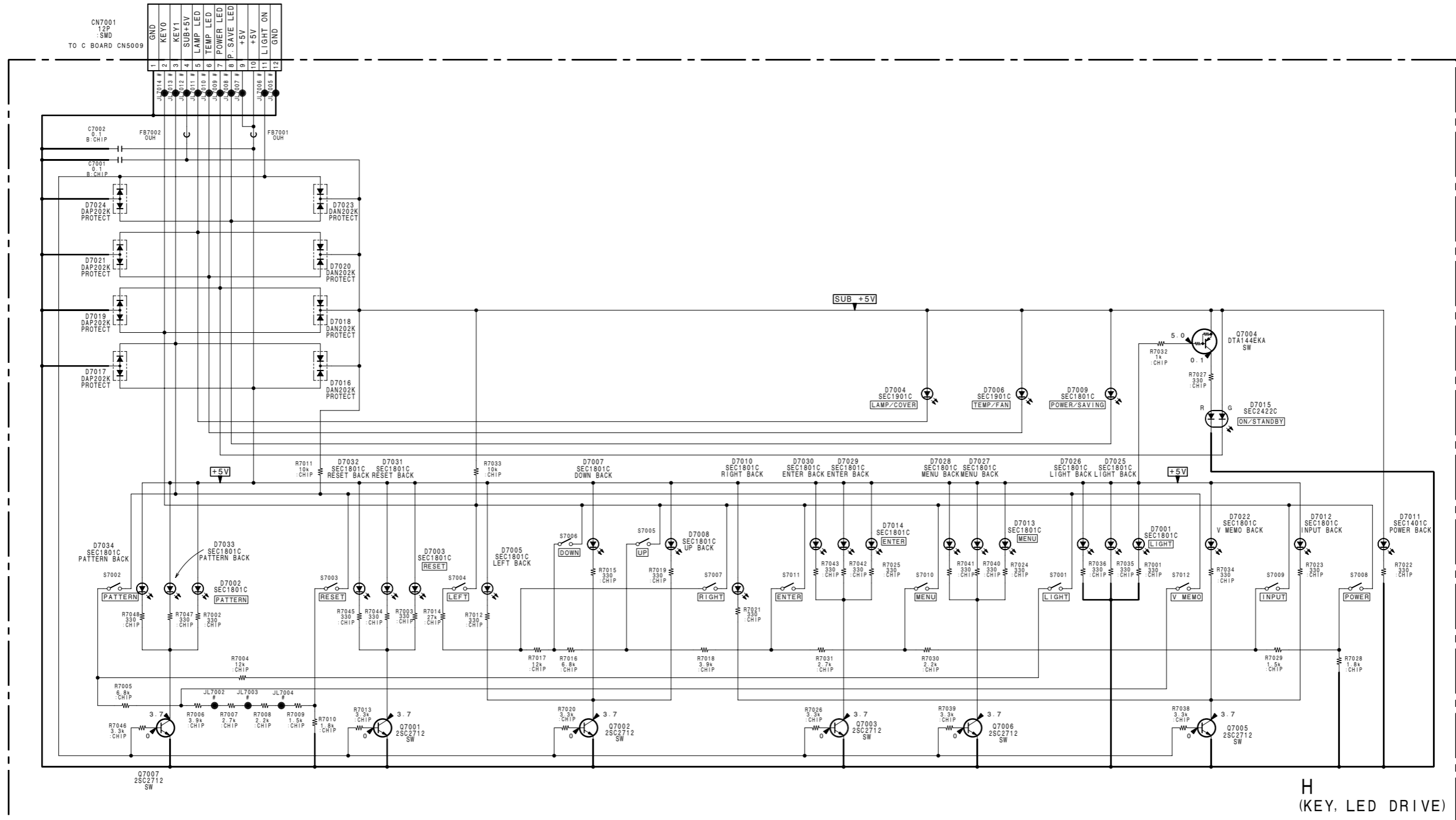


H - B SIDE -
SUFFIX ; -12



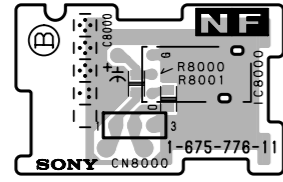
H - A SIDE -
SUFFIX ; -12

• Refer to page 8-15 for Printed Wiring Board

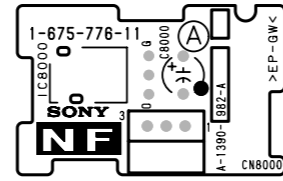


H (KEY, LED DRIVE)

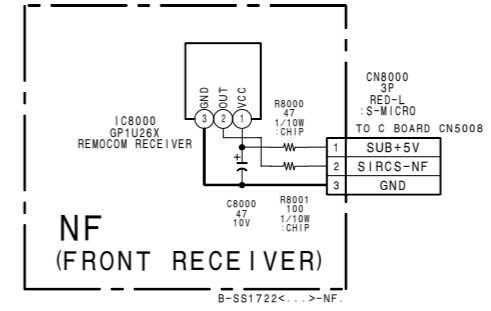
B-SS1722C...-H...



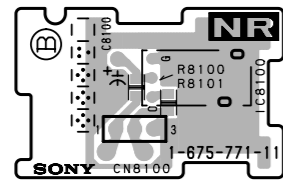
NF - B SIDE -
SUFFIX ; -11



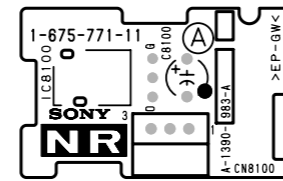
NF - A SIDE -
SUFFIX ; -11



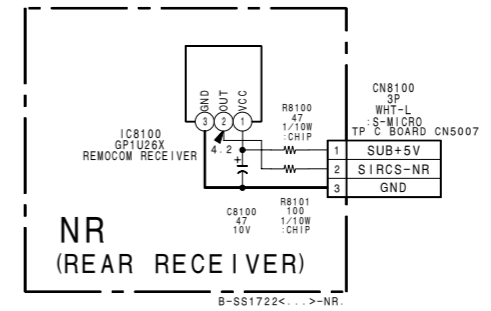
1



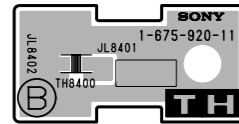
NR - B SIDE -
SUFFIX ; -11



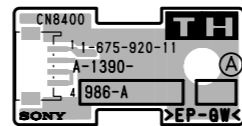
NR - A SIDE -
SUFFIX ; -11



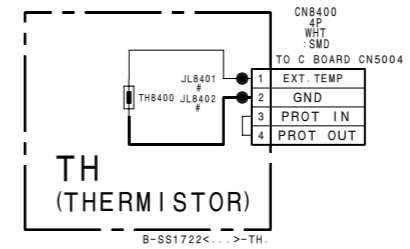
2



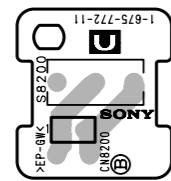
TH - B SIDE -
SUFFIX ; -11



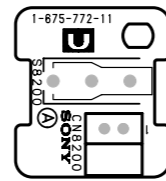
TH - A SIDE -
SUFFIX ; -11



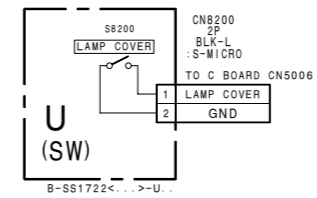
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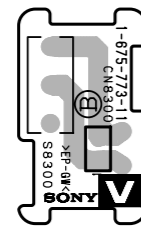
U - B SIDE -
SUFFIX ; -11



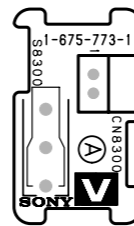
U - A SIDE -
SUFFIX ; -11



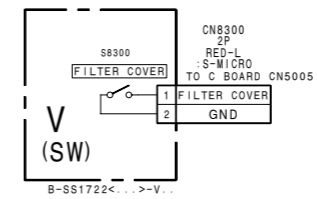
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V - B SIDE -
SUFFIX ; -11



V - A SIDE -
SUFFIX ; -11



5

C

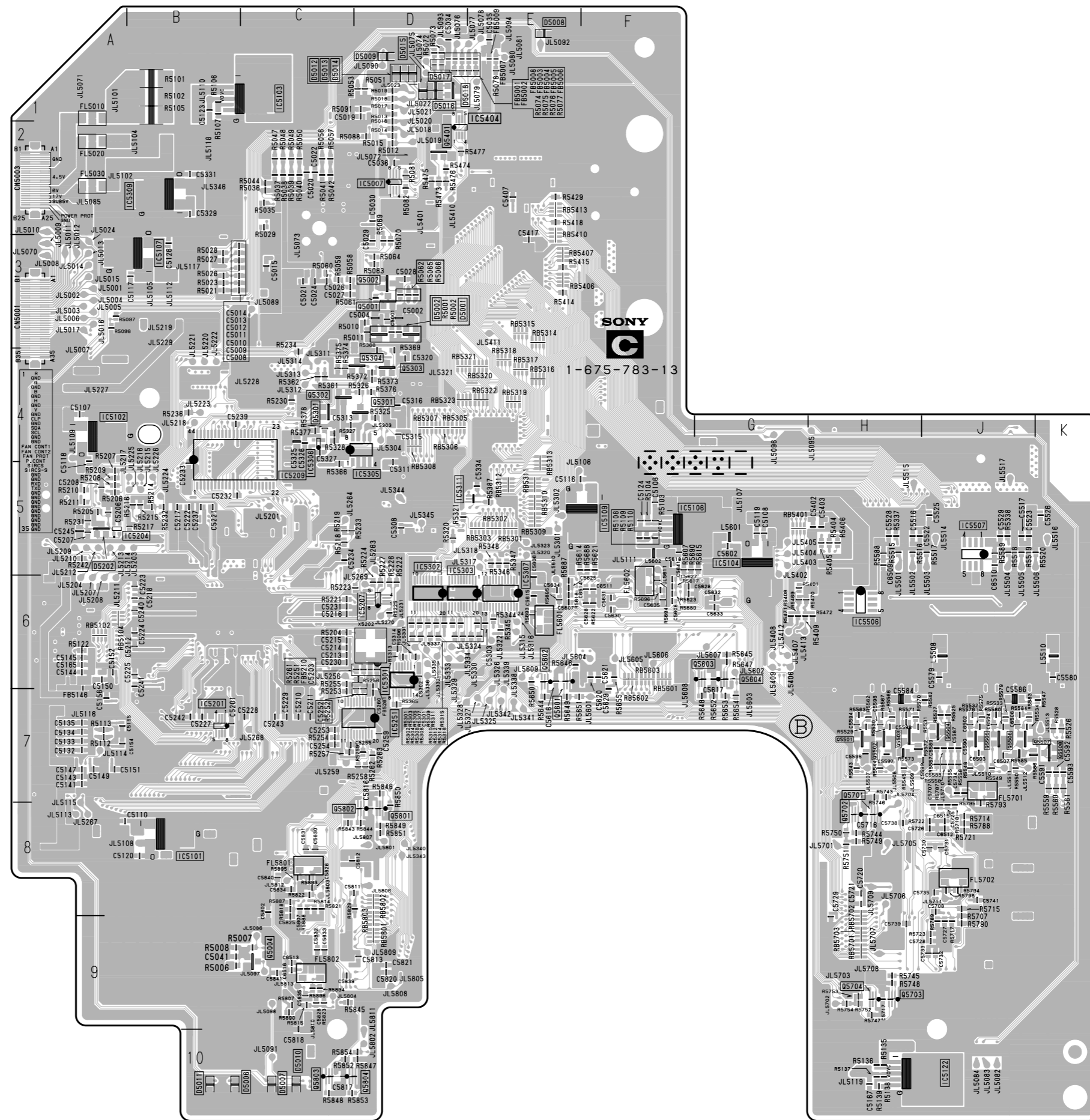
1-675-783-13

D5001	*D-3	Q5602	*E-6
D5002	*D-3	Q5603	*G-6
D5006	*B-10	Q5604	*G-6
D5009	*D-1	Q5701	*H-7
D5011	*B-10	Q5702	*H-8
D5012	*C-1	Q5703	*H-9
D5013	*C-1	Q5704	*H-9
D5014	*C-1	Q5801	*D-8
D5015	*D-1	Q5802	*C-2
D5016	*D-1		
D5018	*D-1		
D5202	*A-5		

IC5001	D-3	TP5001	F-5
IC5002	D-3	TP5013	F-4
IC5003	D-3	TP5021	F-3
IC5004	D-2	TP5022	A-3
IC5005	C-2	TP5023	A-3
IC5006	D-3	TP5024	A-2
IC5007	*D-2	TP5025	A-3
IC5008	C-1	TP5026	A-2
IC5101	*B-8	TP5027	A-3
IC5102	*A-4	TP5102	A-3
IC5102	*B-3	TP5103	A-1
IC5103	*C-1	TP5104	A-2
IC5104	*G-5	TP5105	B-2
IC5108	*F-5	TP5107	A-1
IC5109	*F-5	TP5108	A-8
IC5110	A-6	TP5303	D-7
IC5120	A-6	TP5304	D-7
IC5121	A-6	TP5305	B-8
IC5122	*J-10	TP5306	E-6
IC5201	*B-7	TP5401	E-1
IC5204	*A-5	TP5501	H-6
IC5205	A-5	TP5502	J-5
IC5206	A-5	TP5503	J-6
IC5207	B-5	TP5504	J-6
IC5207	*D-6	TP5505	J-6
IC5208	B-4	TP5506	J-6
IC5210	A-5	TP5507	J-4
IC5251	*D-7	TP5603	F-6
IC5252	D-6	TP5604	F-6
IC5301	*D-6	TP5606	D-6
IC5302	*D-6	TP5607	D-7
IC5303	*D-6	TP5608	E-7
IC5304	D-5	TP5610	D-6
IC5305	*D-5	TP5611	E-6
IC5306	D-4	TP5612	G-7
IC5307	*E-6	TP5613	E-7
IC5308	*A-2	TP5701	J-8
IC5310	D-7	TP5702	J-7
IC5311	*D-5	TP5703	H-7
IC5401	H-5	TP5704	H-8
IC5402	G-6	TP5705	H-9
IC5403	E-3	TP5706	H-10
IC5404	*E-2	TP5707	H-10
IC5501	H-5	TP5801	C-9
IC5502	J-5	TP5802	C-8
IC5504	H-6	TP5803	D-8
IC5505	K-7	TP5804	D-9
IC5507	*J-5	TP5805	D-7
IC5508	*H-6	TP5806	F-7
IC5602	G-6	TP5807	D-8
IC5701	H-7	TP5807	D-10
IC5702	J-9	TP5814	G-7
IC5801	C-8		
IC5801	F-6		
IC5802	D-9		

*:B Side mount

Q5001	*D-3
Q5002	*D-3
Q5003	C-1
Q5003	J-9
Q5004	J-9
Q5005	J-9
Q5017	*D-1
Q5101	A-8
Q5102	A-8
Q5301	*D-4
Q5303	*D-4
Q5304	*D-4
Q5401	*D-2
Q5501	*H-7
Q5502	*H-7
Q5503	*H-7
Q5504	*J-7
Q5505	*J-7
Q5506	*K-7
Q5507	*K-7
Q5508	*J-7
Q5601	*E-7



- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams

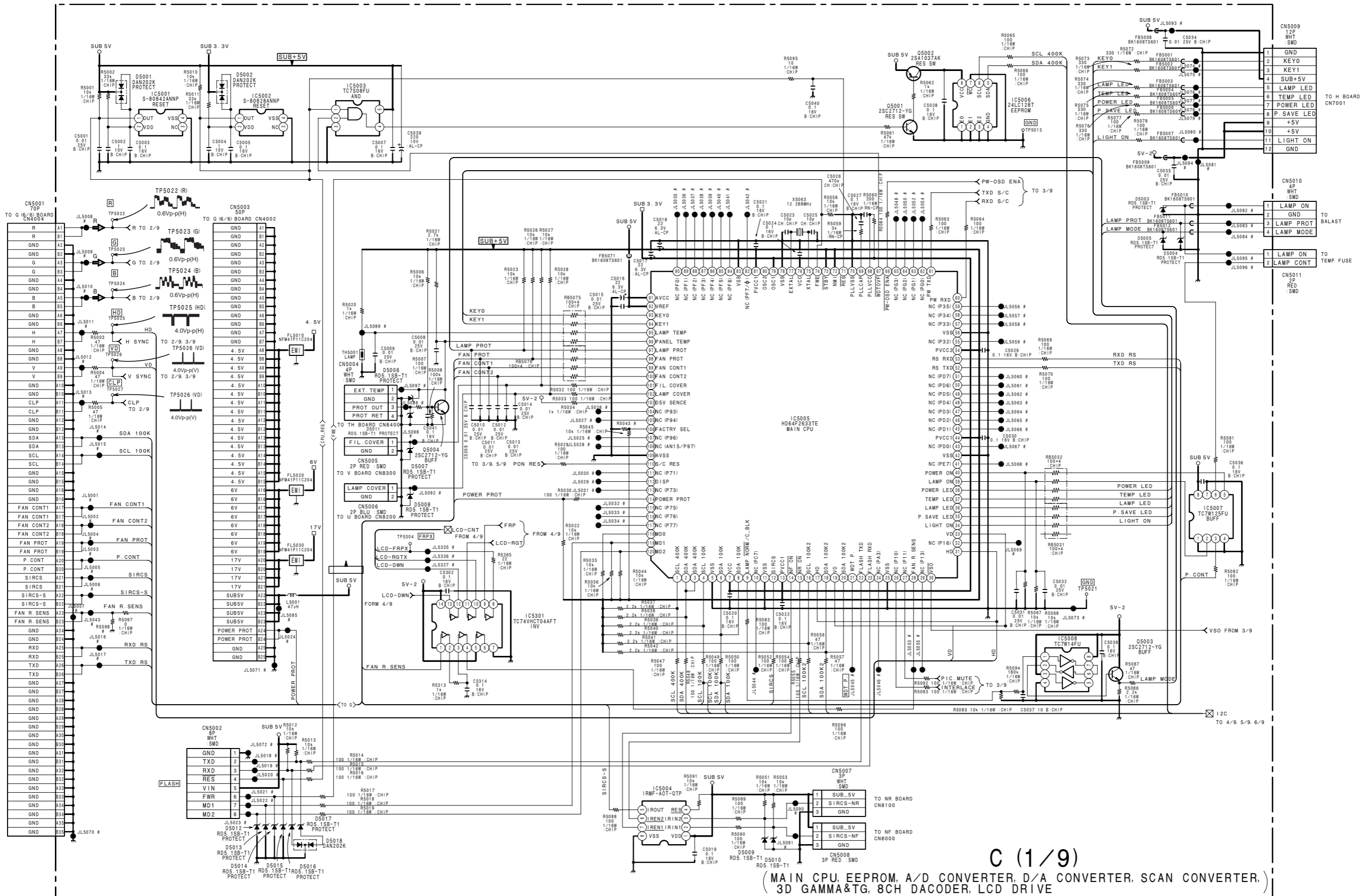
1

2

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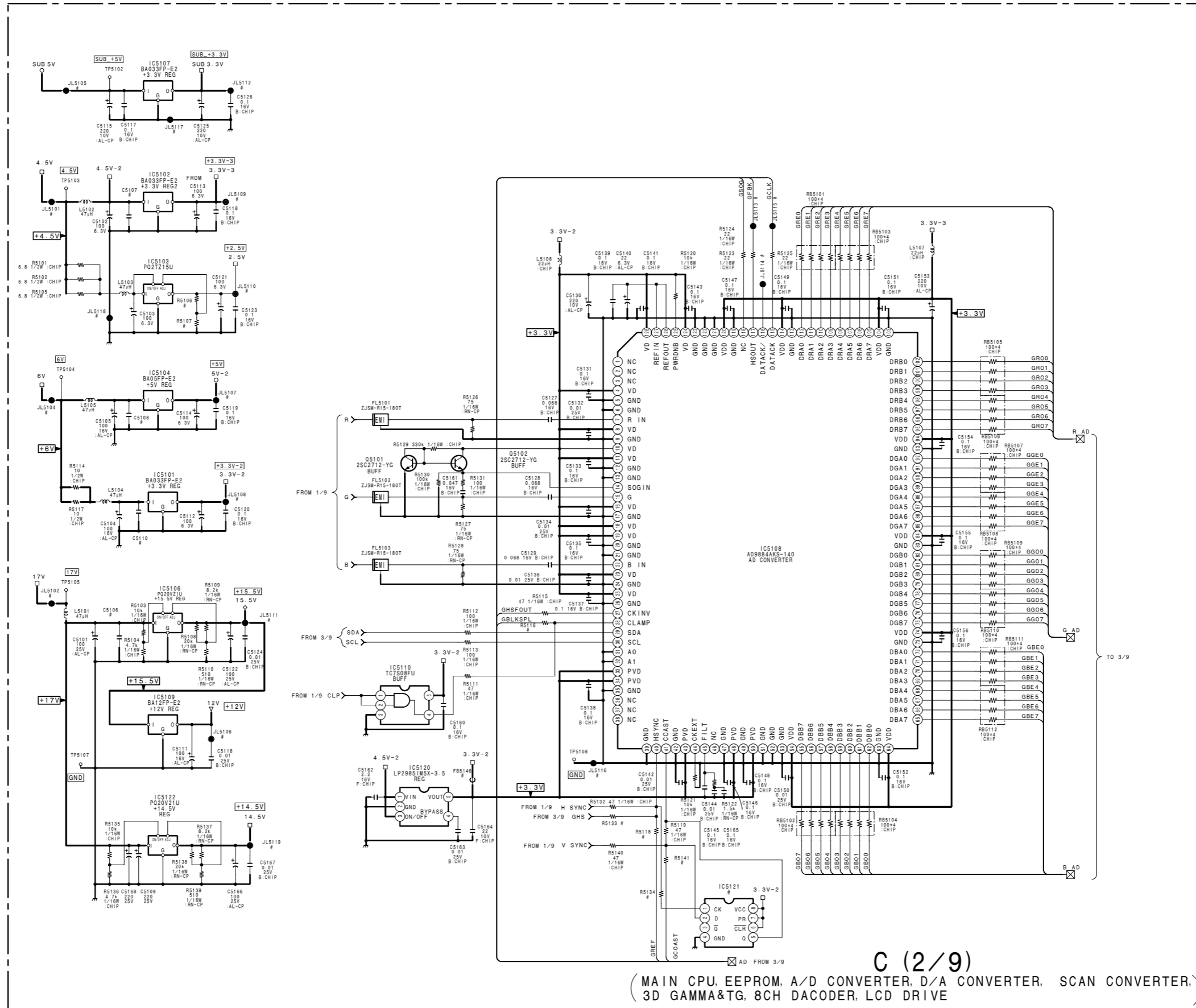
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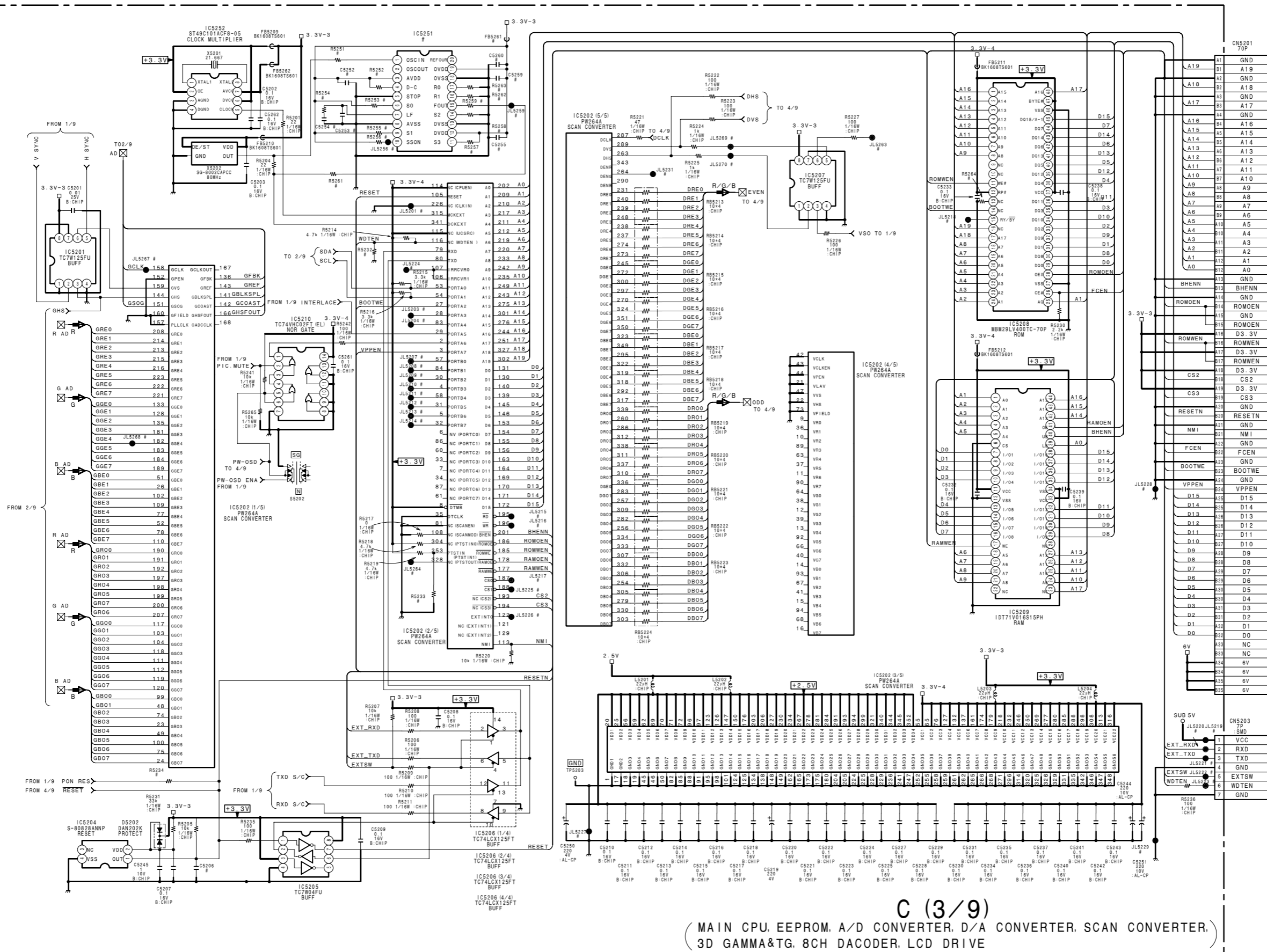
C (1/9)
 (MAIN CPU, EEPROM, A/D CONVERTER, D/A CONVERTER, SCAN CONVERTER, 3D GAMMA&TG, 8CH DACODER, LCD DRIVE)

- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams

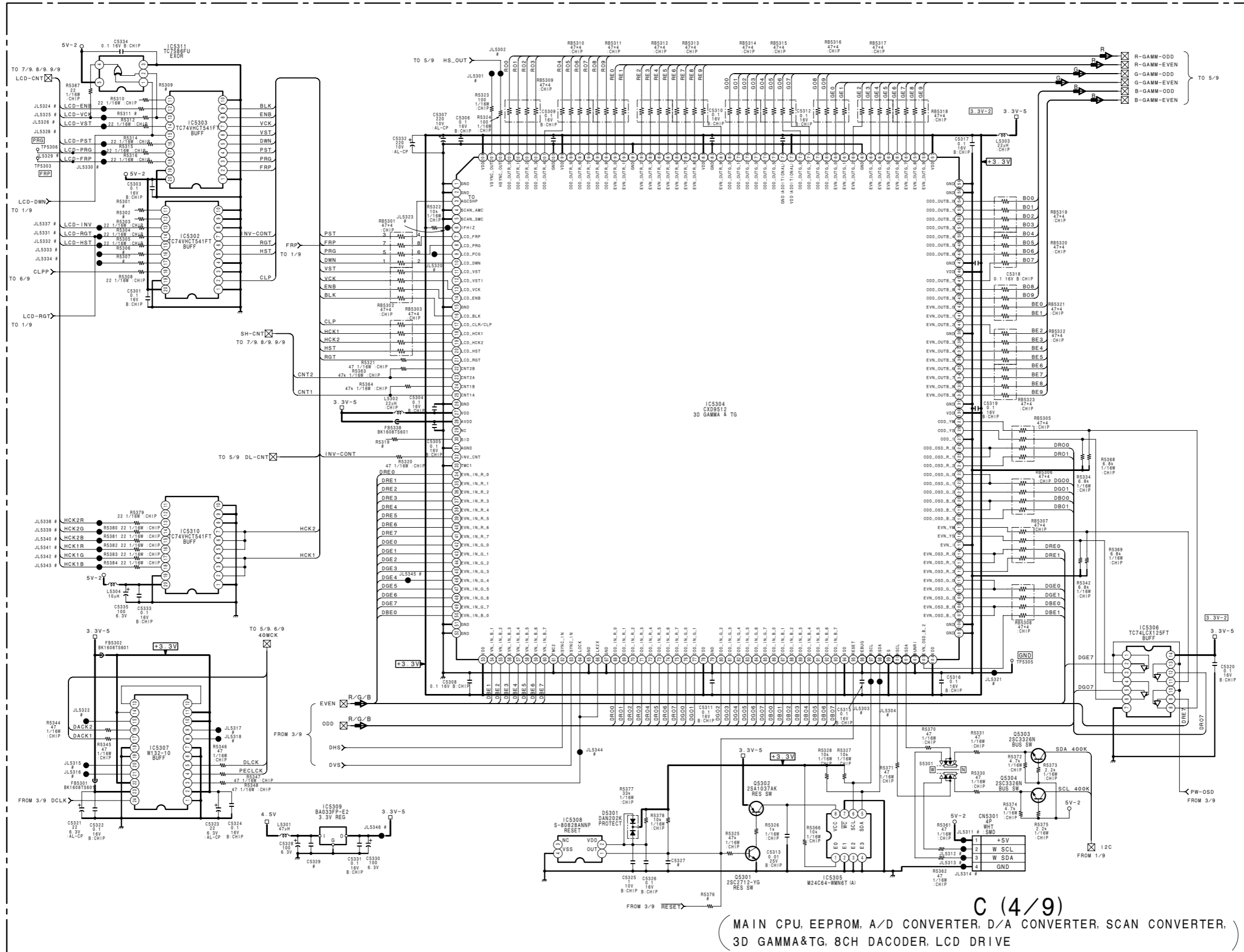


B-SS1722<...>C...P2

- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams



- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams



C (4/9)
 (MAIN CPU, EEPROM, A/D CONVERTER, D/A CONVERTER, SCAN CONVERTER,
 3D GAMMA&TG, 8CH DACODER, LCD DRIVE

- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams

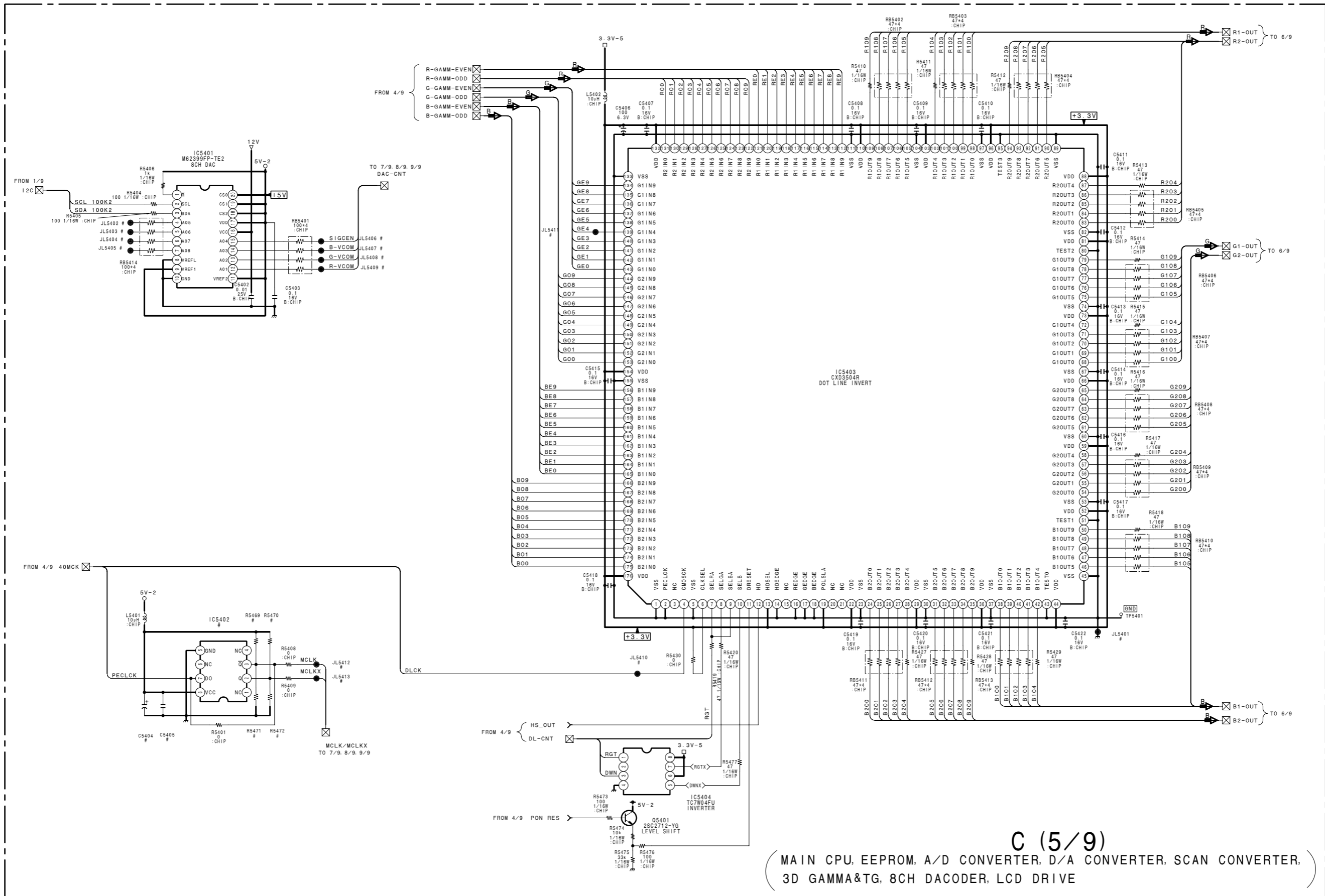
1

2

3

4

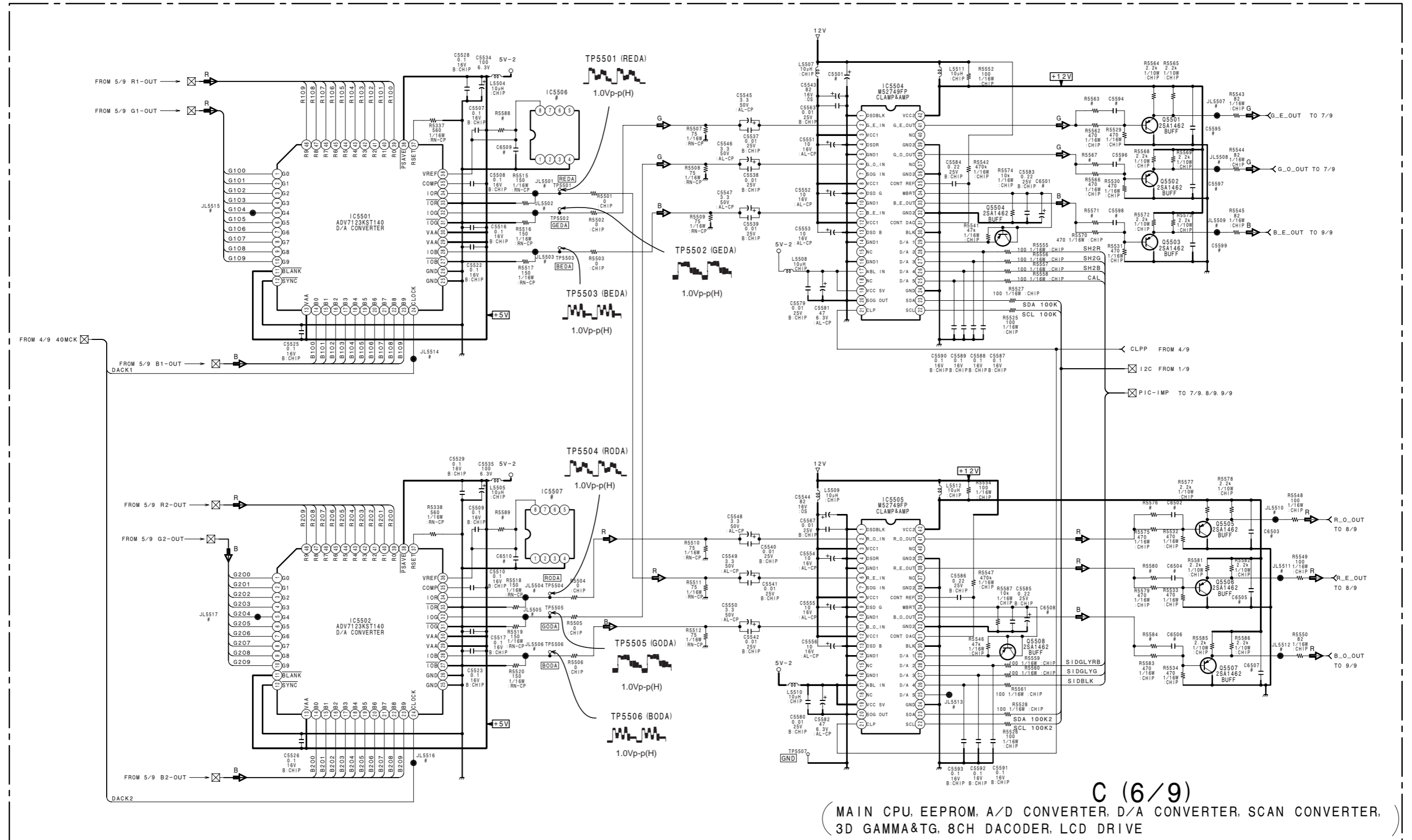
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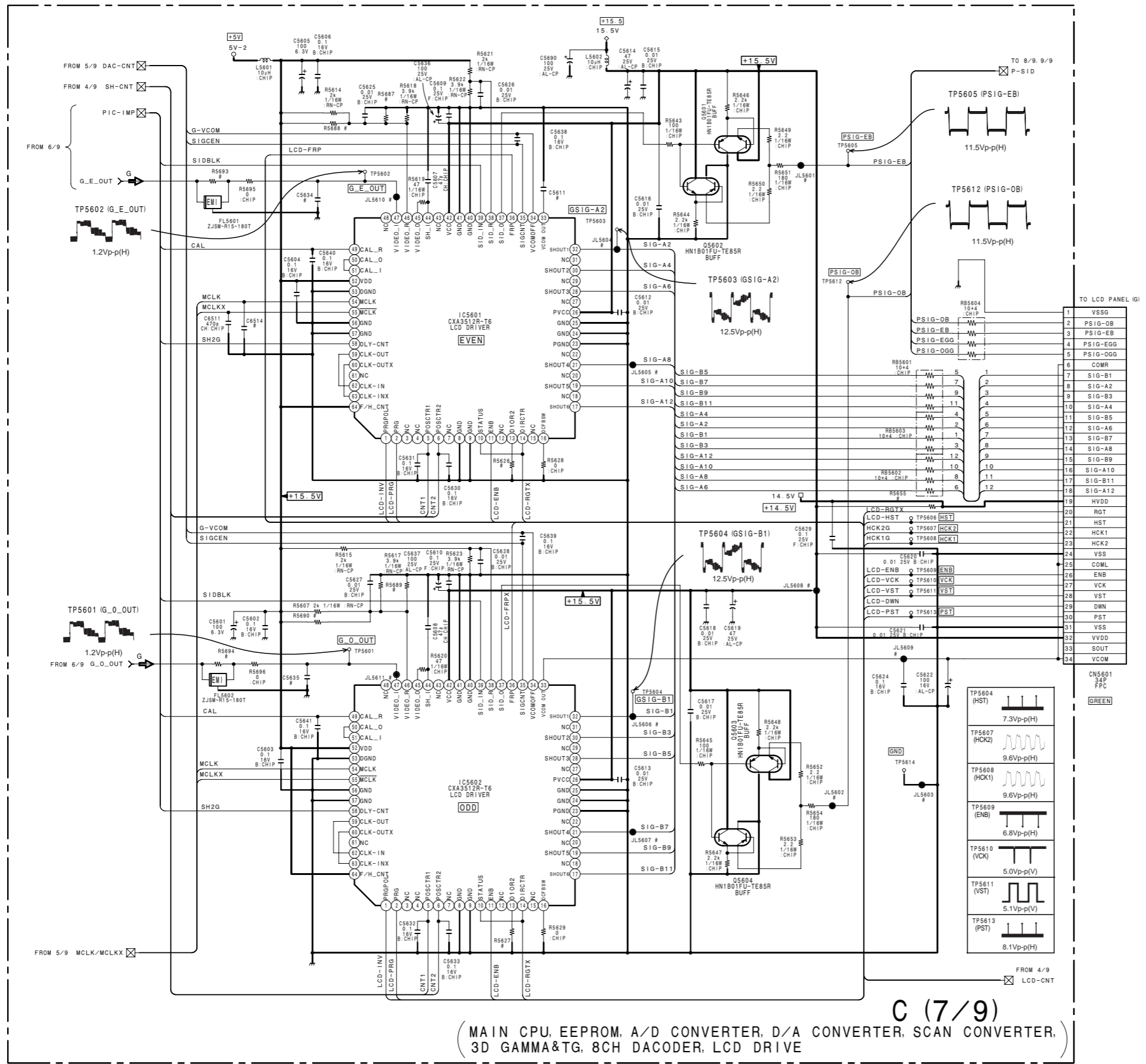
C (5/9)

(MAIN CPU, EEPROM, A/D CONVERTER, D/A CONVERTER, SCAN CONVERTER, 3D GAMMA&TG, 8CH DACODER, LCD DRIVE)

- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams



- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams



(MAIN CPU, EEPROM, A/D CONVERTER, D/A CONVERTER, SCAN CONVERTER, 3D GAMMA&TG, 8CH DACODER, LCD DRIVE)

1

2

3

4

5

A

B

C

D

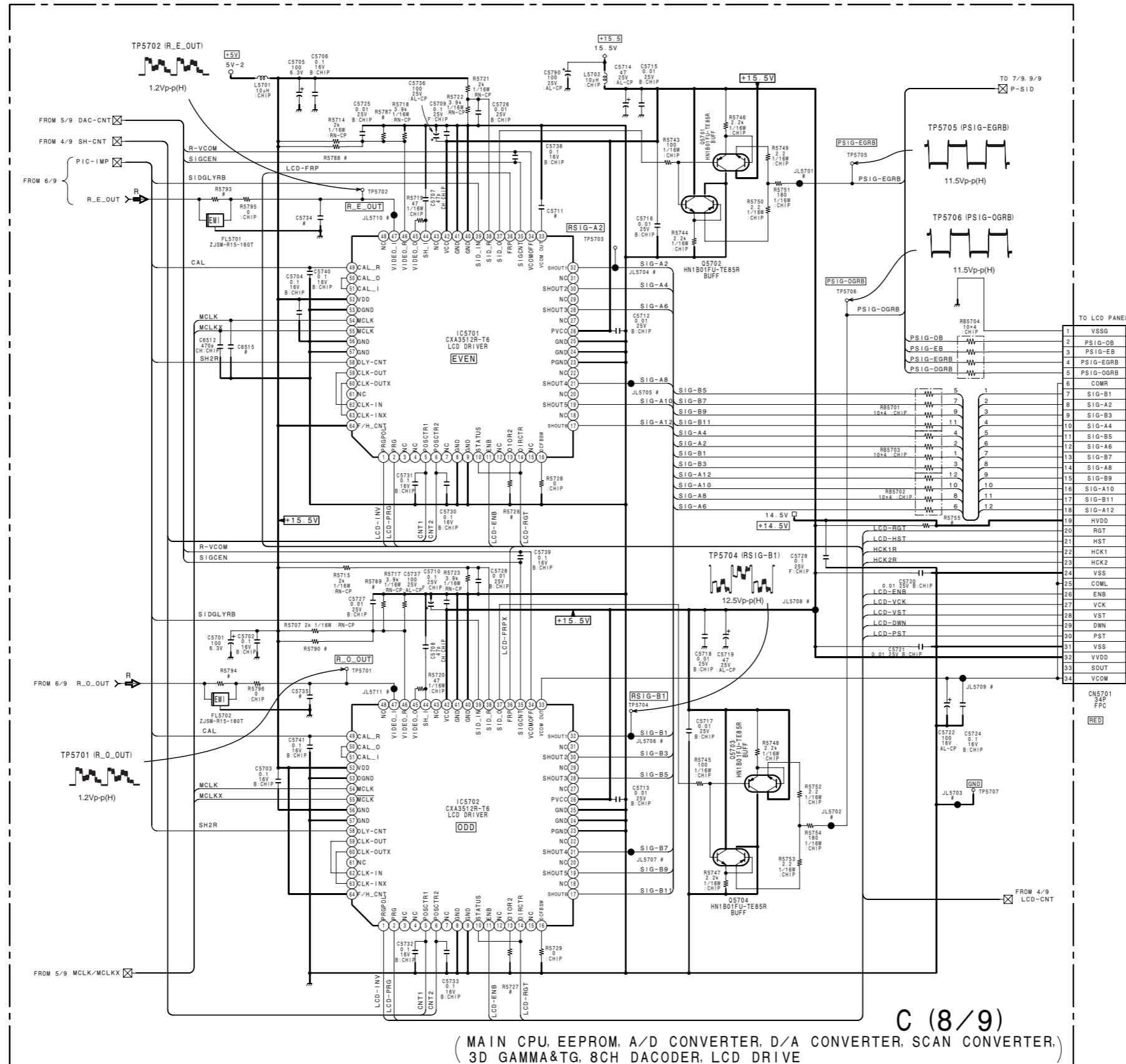
E

F

G

H

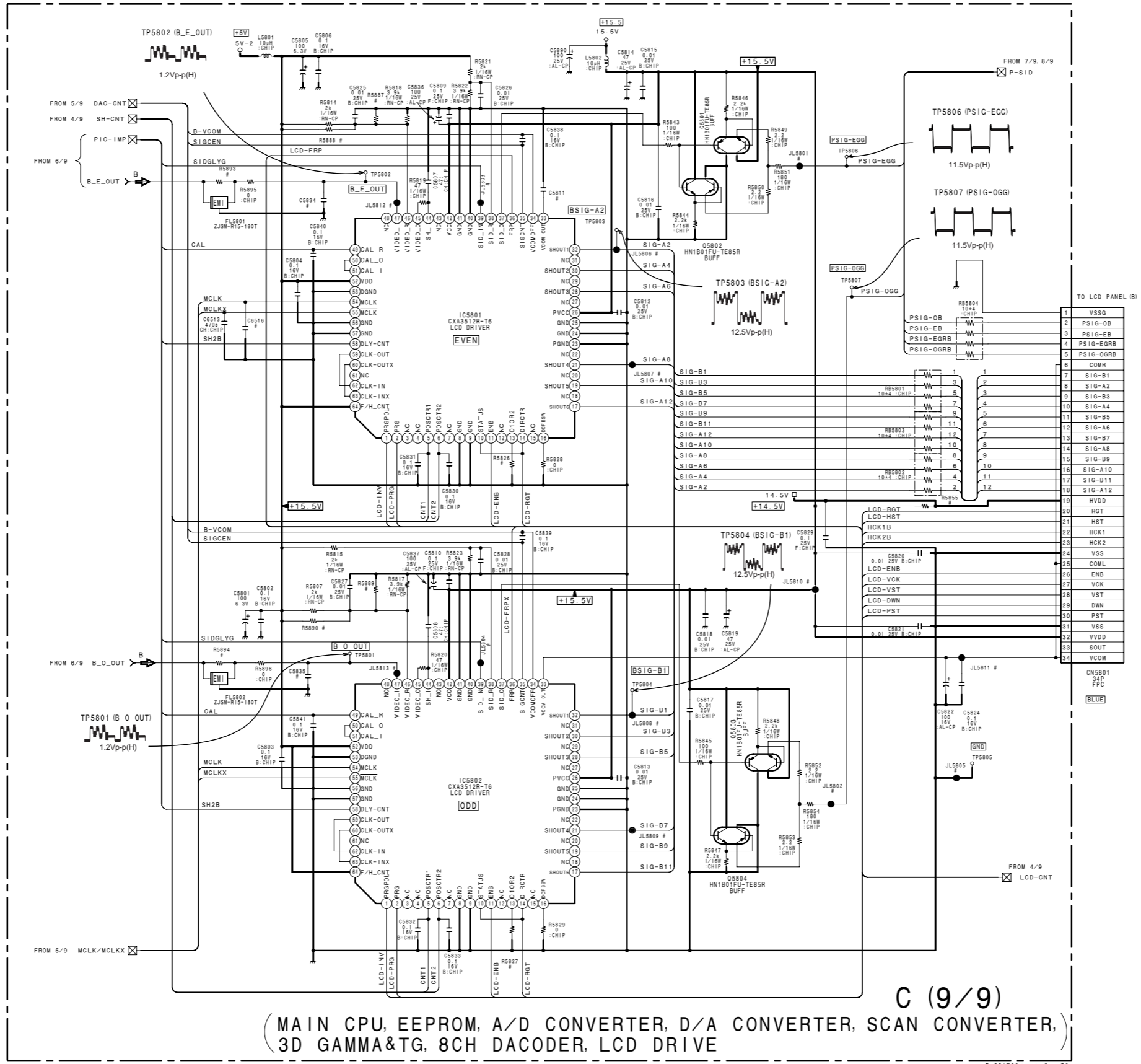
- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams



C (8/9)
 (MAIN CPU, EEPROM, A/D CONVERTER, D/A CONVERTER, SCAN CONVERTER,)
 (3D GAMMA&TG, 8CH DACODER, LCD DRIVE)

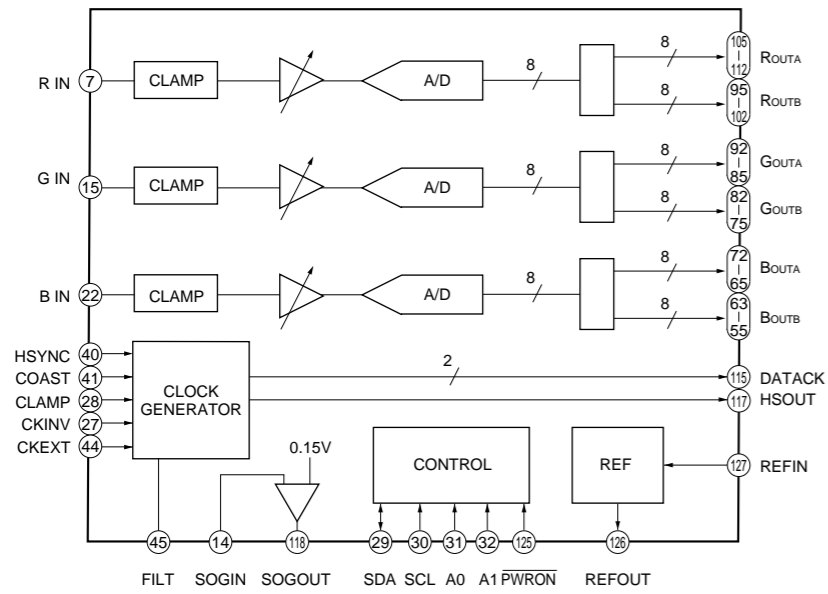
B-881722<...>C...-P8

- Refer to page 8-18 for Printed Wiring Board
- Refer to page 8-29 for IC Block Diagrams

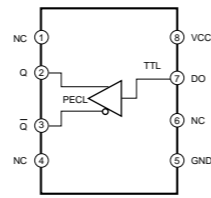


B-S1722c...-C...-P9

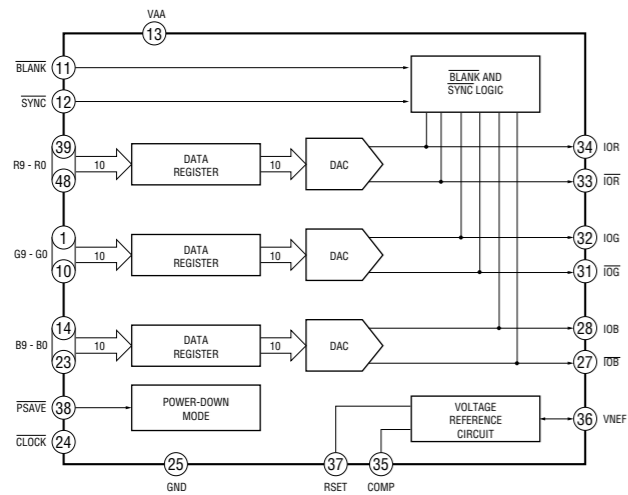
AD9884ASK-140 (IC5108)



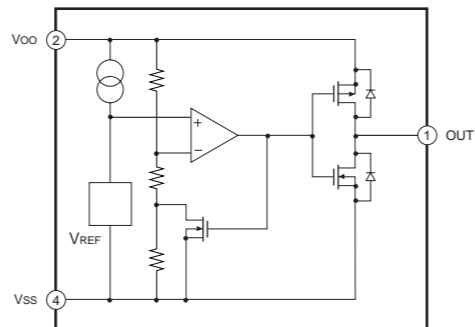
MC100ELT20DR2 (IC5402)



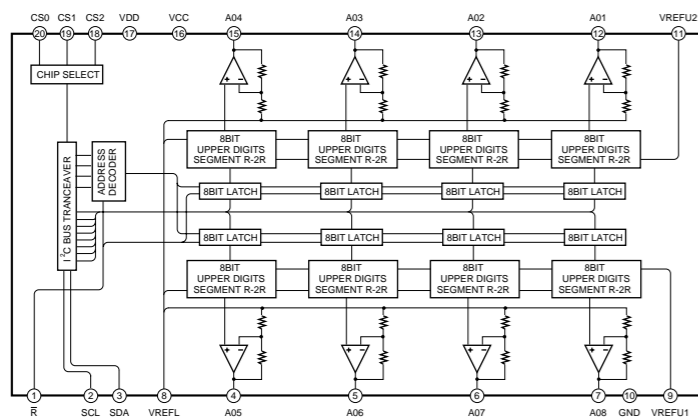
ADV7123KST140 (IC5501, IC5502)



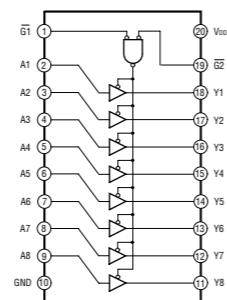
S-80828ANNP-EDR-T2 (IC5001, IC5002, IC5204, IC5308)

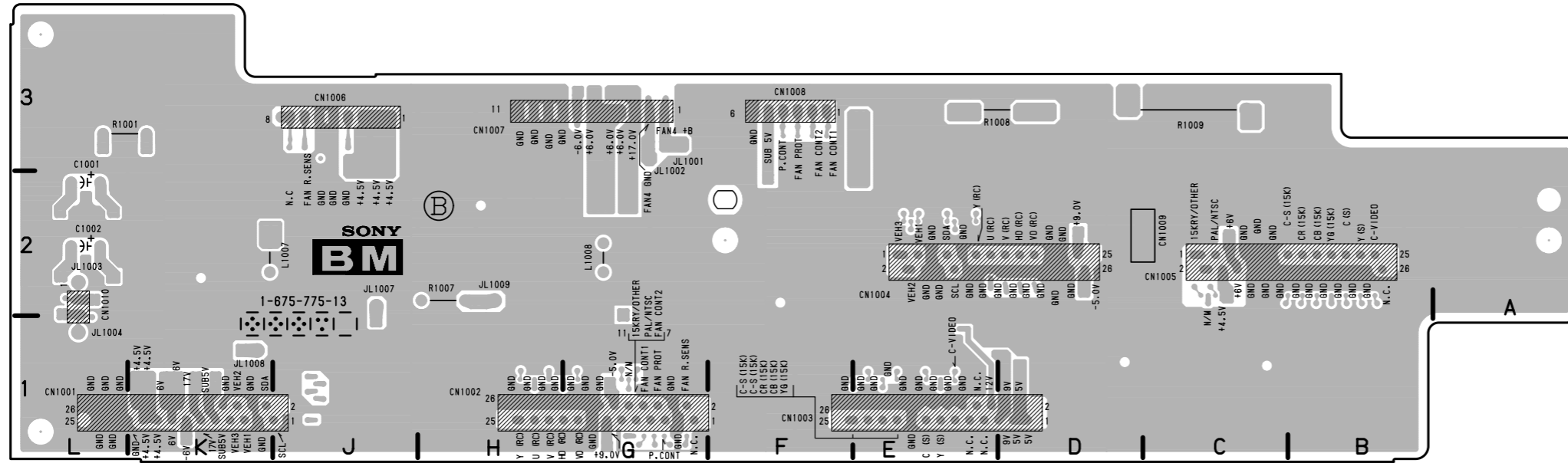


M62399FP-TE2 (IC5401)

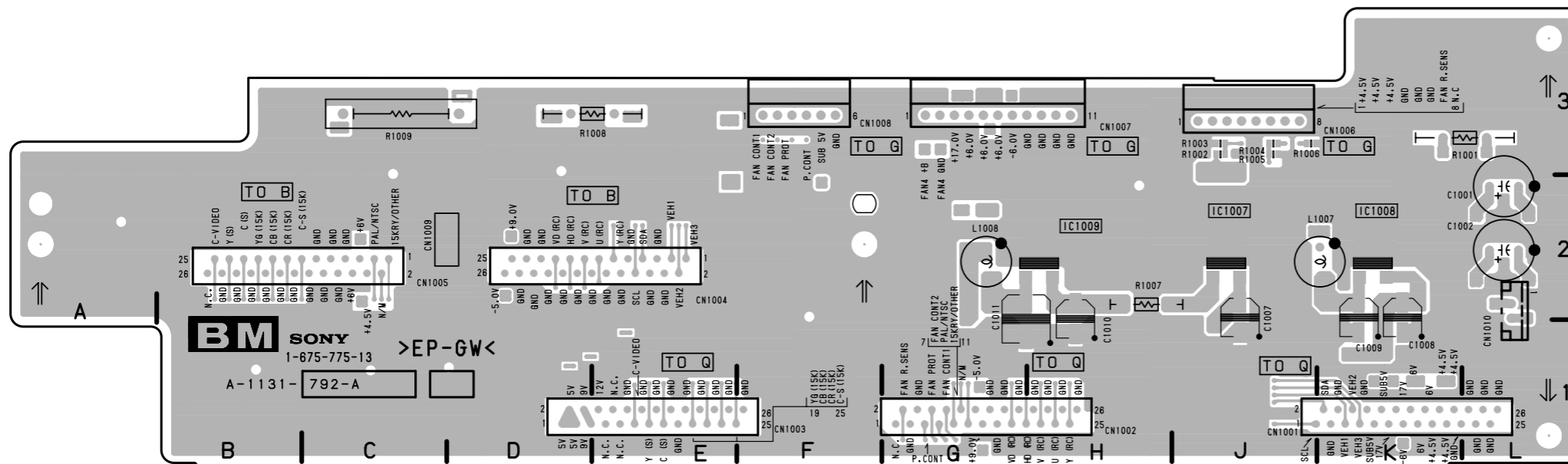


TC74VHCT541AFT (EL) (IC5302, 5303, 5310)



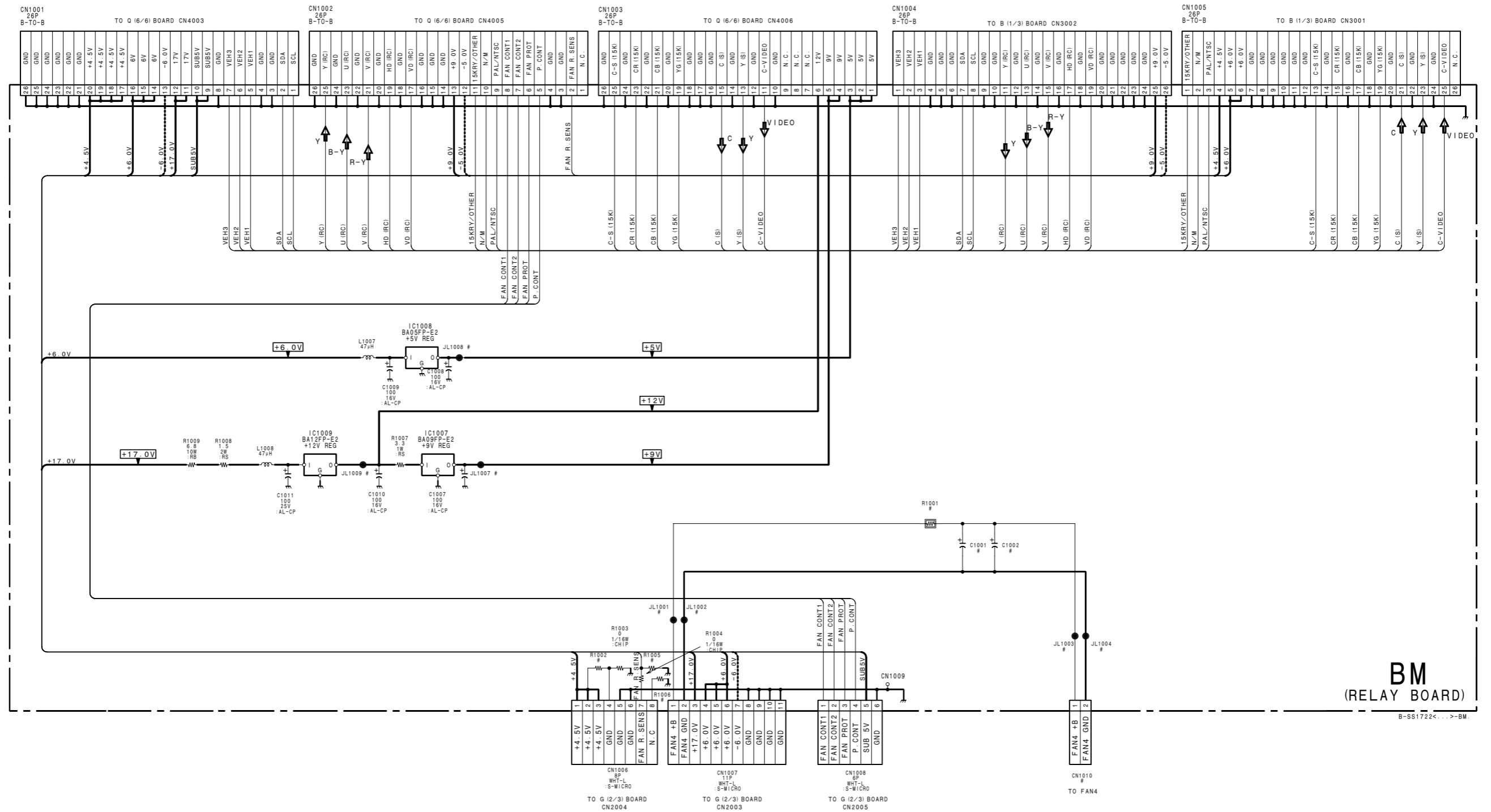


BM - B SIDE -
SUFFIX ; -13



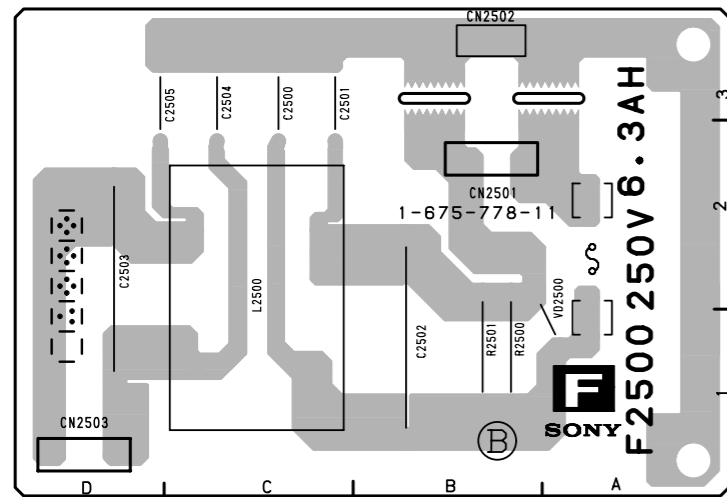
BM - A SIDE -
SUFFIX ; -13

• Refer to page 8-30 for Printed Wiring Board

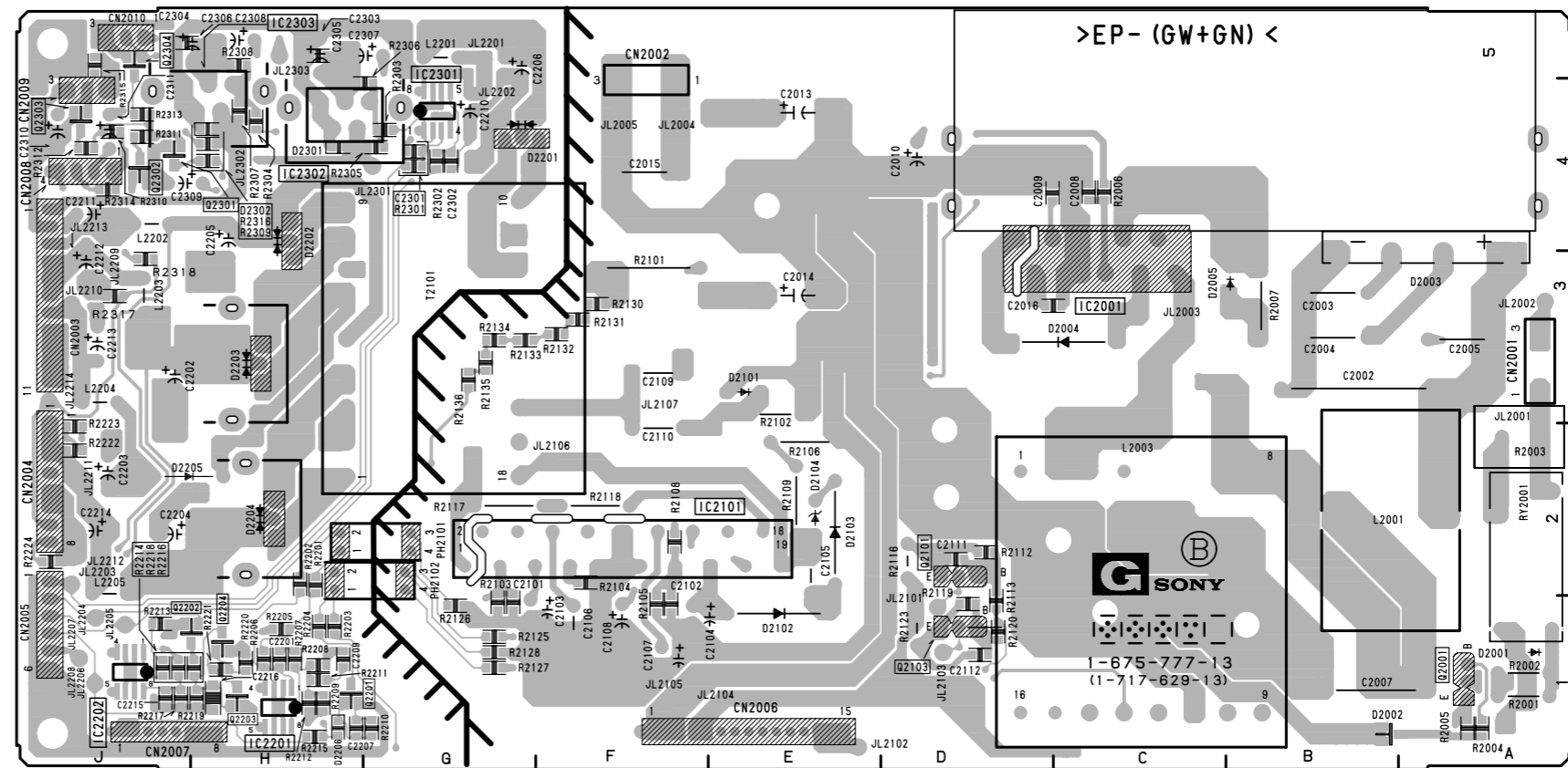


BM
(RELAY BOARD)

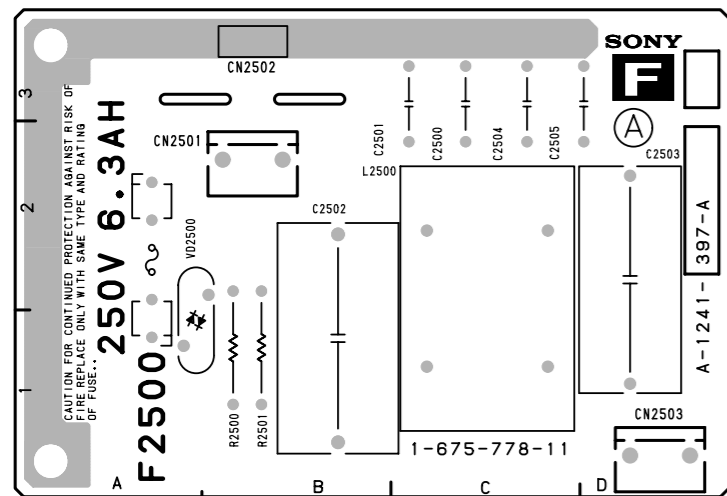
B-SS1722<...>BM



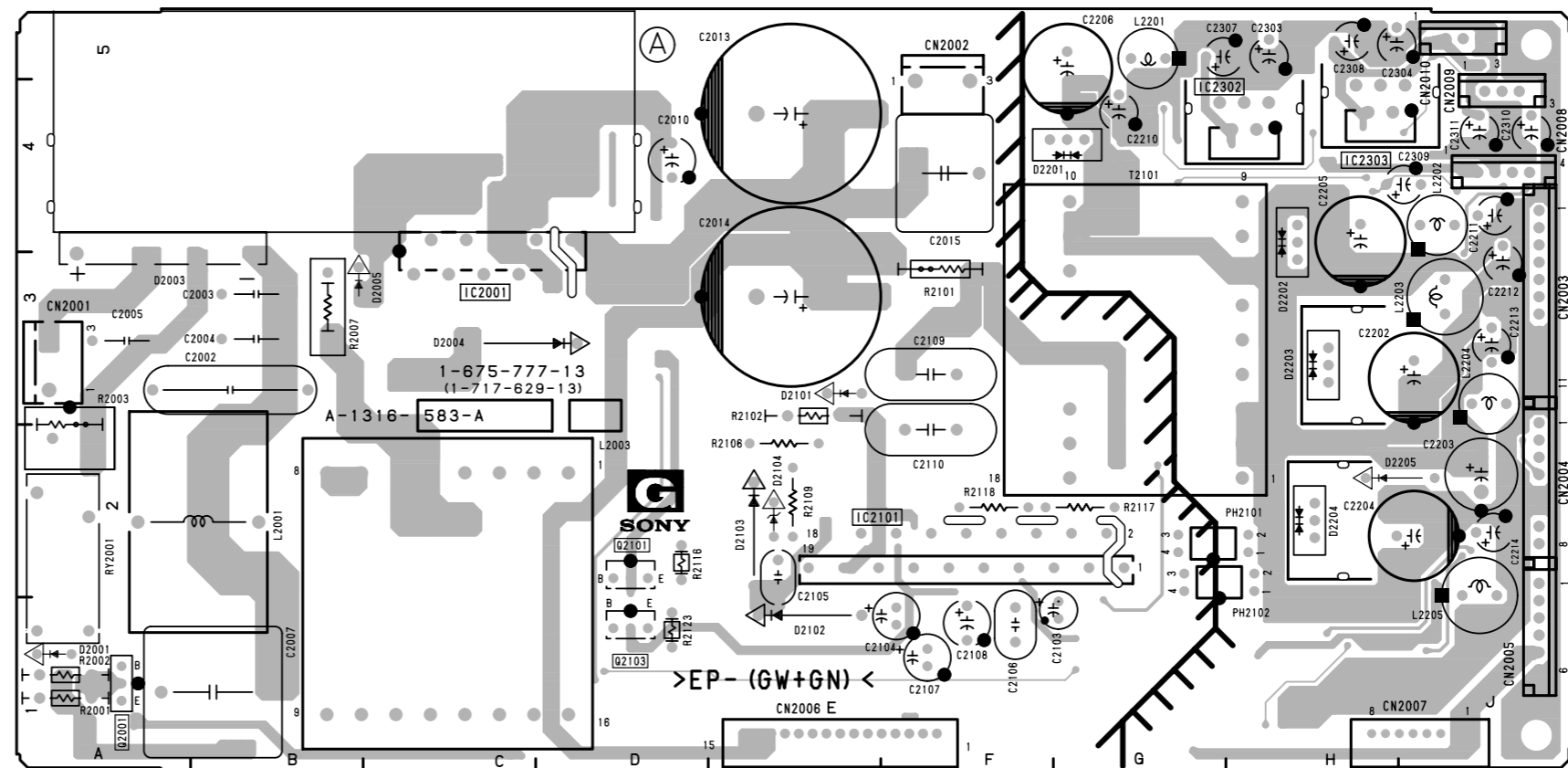
F - B SIDE -
SUFFIX ; -11



G - B SIDE -
SUFFIX ; -13



F - A SIDE -
SUFFIX ; -11



G - A SIDE -
SUFFIX ; -13

- Refer to page 8-32 for Printed Wiring Board
- Refer to page 8-35 for IC Block Diagrams

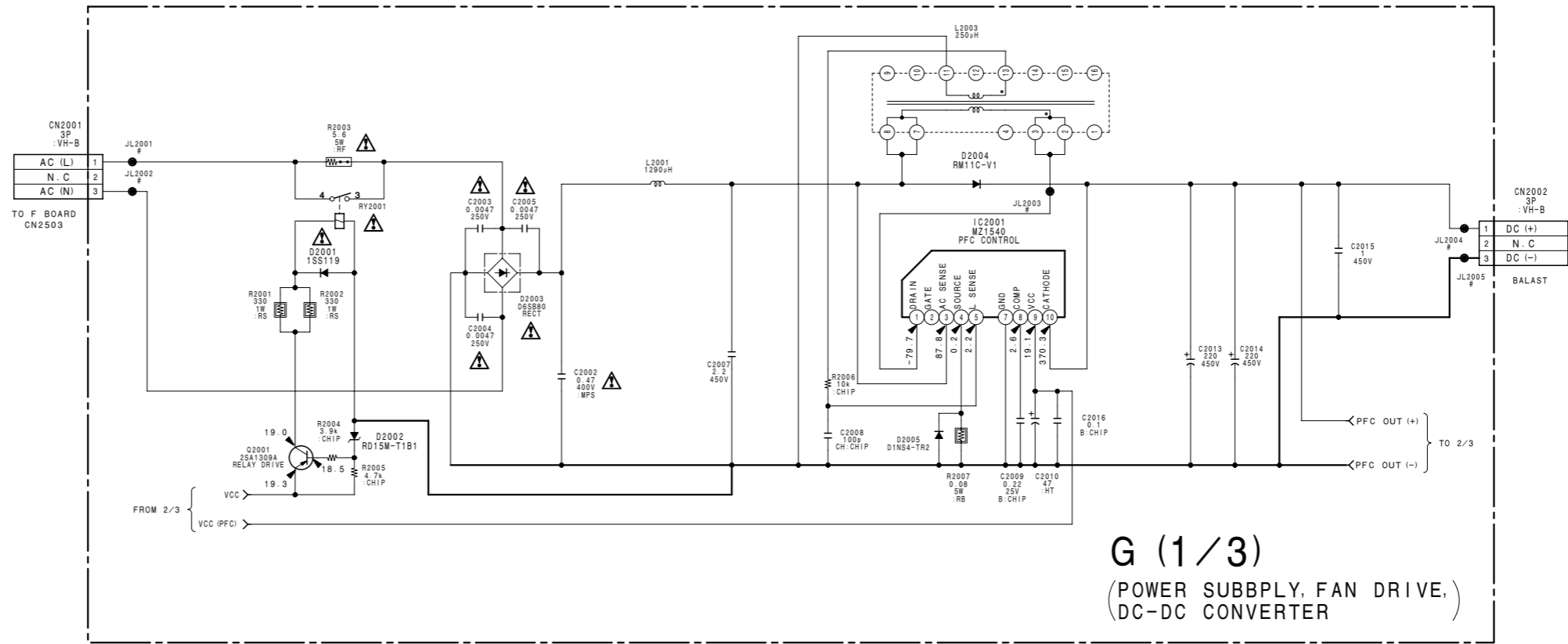
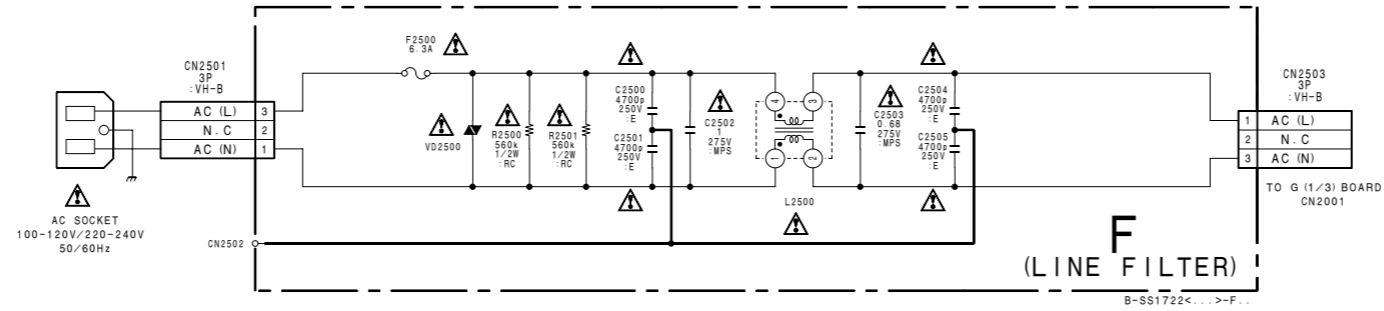
G
1-675-777-13

- D2001 * A-1
- D2002 * A-1
- D2003 A-3
- D2004 * A-3
- D2005 C-3
- D2004 * C-3
- D2005 B-3
- D2005 * C-3
- D2101 E-3
- D2101 * E-3
- D2102 E-1
- D2102 * E-2
- D2103 E-2
- D2103 * E-2
- D2104 E-2
- D2104 * E-2
- D2201 F-4
- D2201 * F-4
- D2202 H-3
- D2202 * H-3
- D2203 H-3
- D2203 * H-3
- D2204 H-2
- D2204 * H-2
- D2205 H-2
- D2205 * J-2
- D2301 * H-4

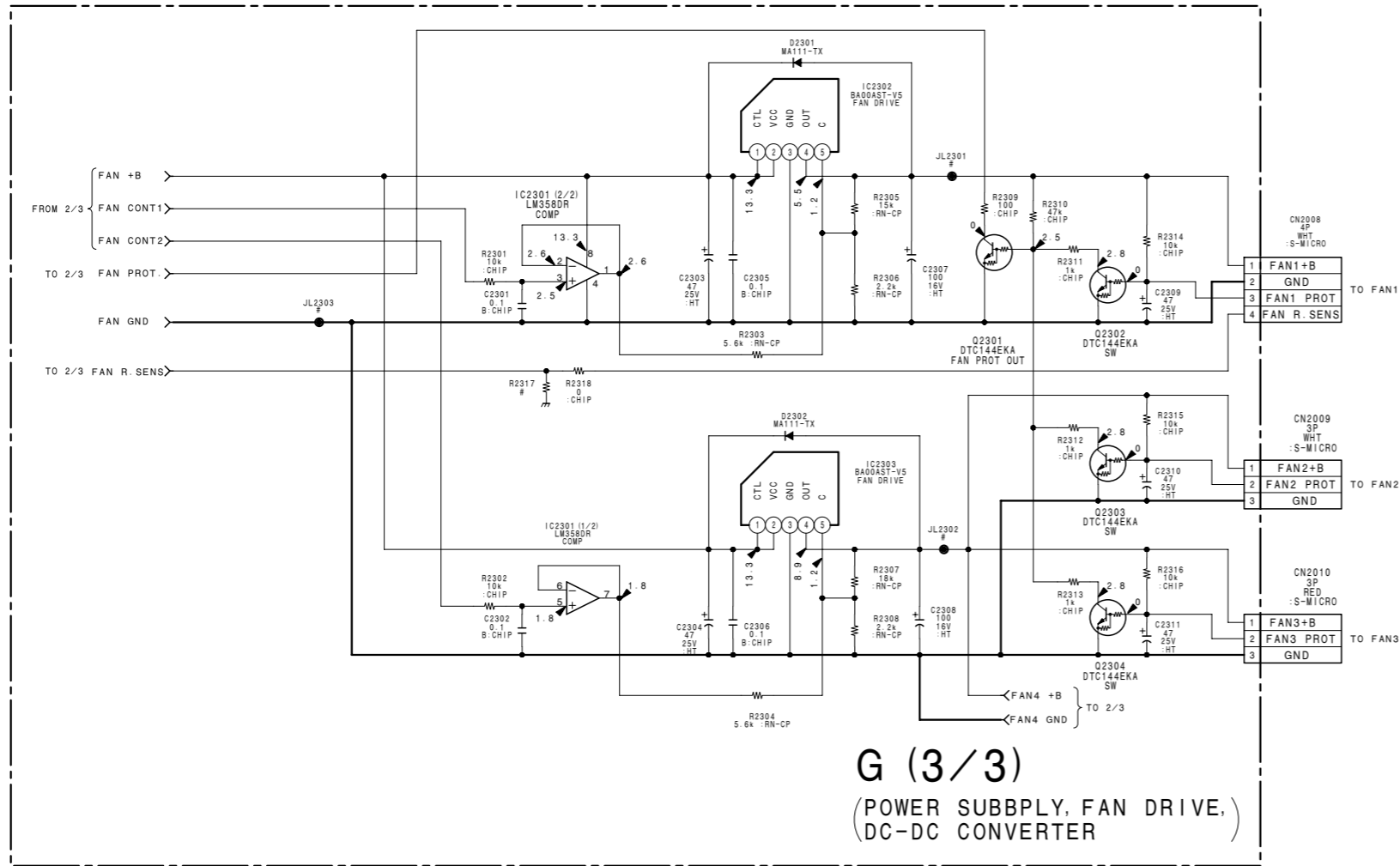
- IC2001 C-3
- IC2001 * D-3
- IC2101 E-2
- IC2101 * E-2
- IC2201 * H-1
- IC2202 * J-1
- IC2301 * G-4
- IC2302 G-5
- IC2302 * H-4
- IC2303 H-4
- IC2303 * H-5

- Q2001 A-1
- Q2001 * A-1
- Q2101 D-2
- Q2101 * D-2
- Q2103 D-1
- Q2103 * D-1
- Q2201 * G-1
- Q2202 * J-1
- Q2203 * H-1
- Q2204 * H-1
- Q2301 * J-4
- Q2302 * J-4
- Q2303 * J-4
- Q2304 * J-5

*:B Side mount

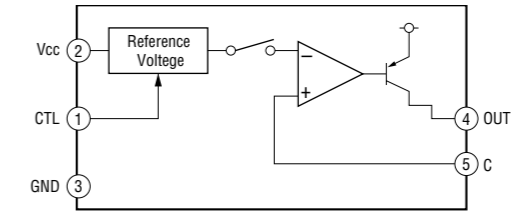


• Refer to page 8-32 for Printed Wiring Board

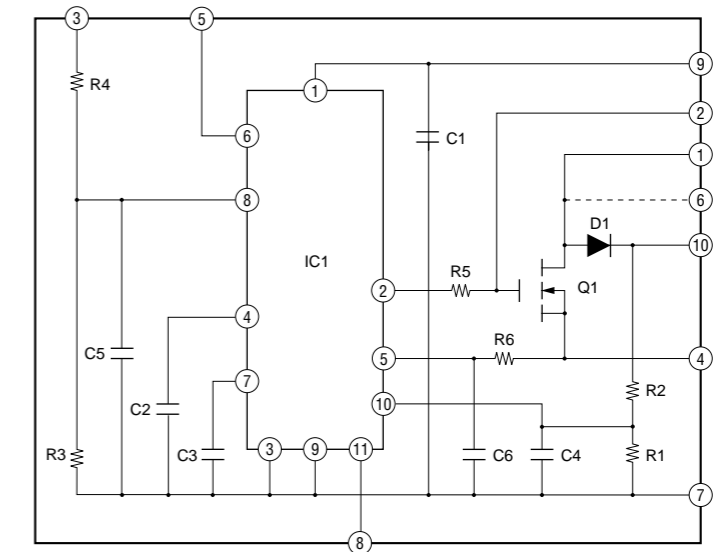


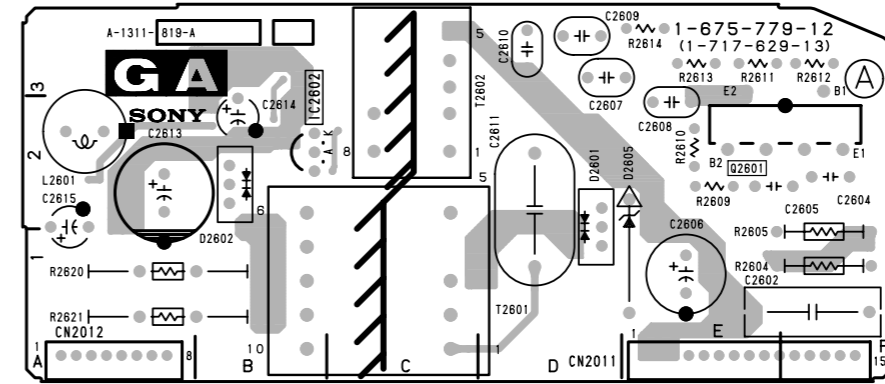
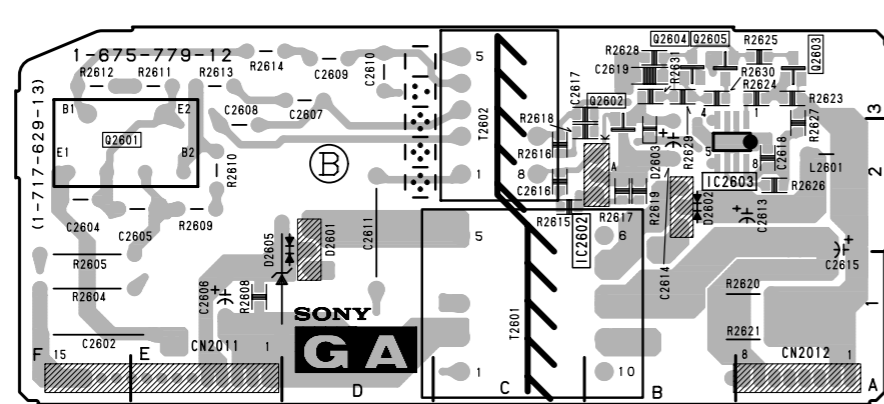
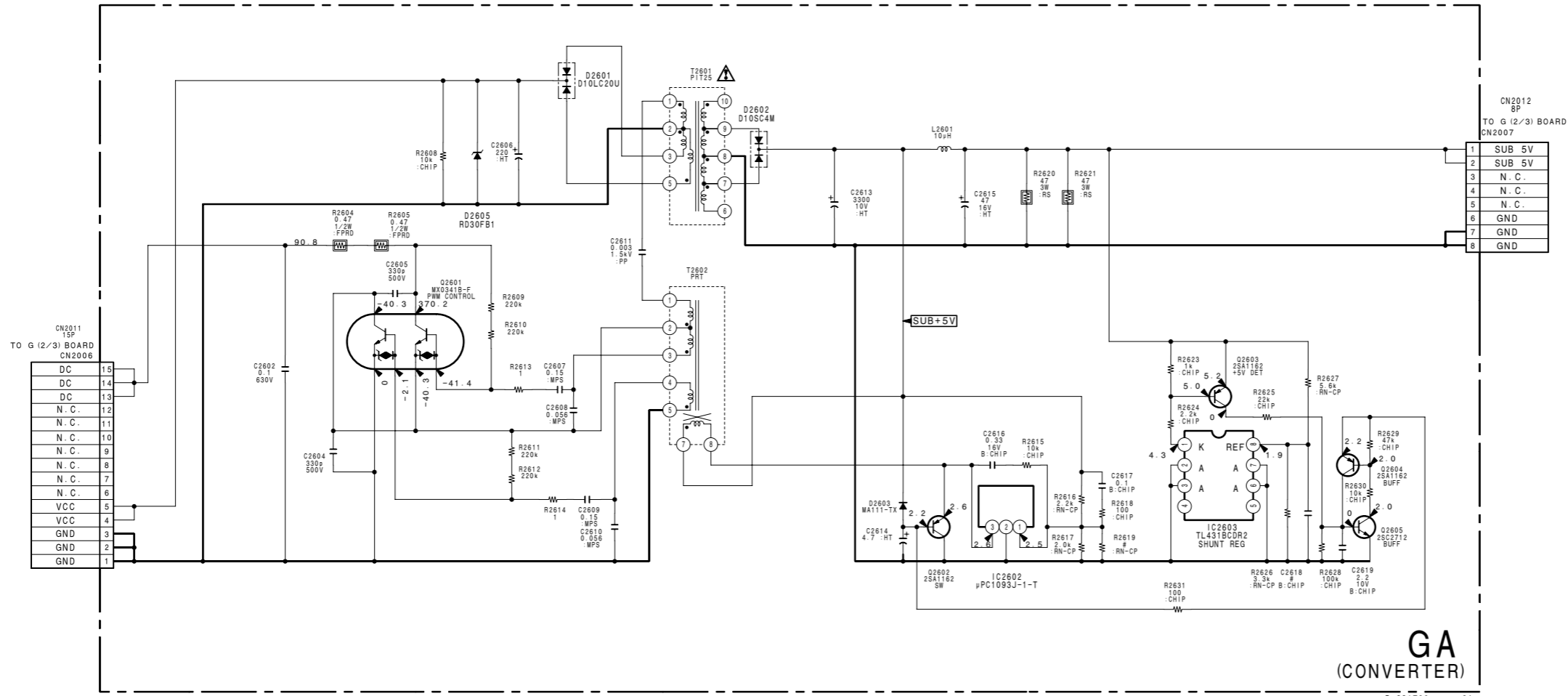
B-SS1722<...>-P3

BA00AST-V5 (IC2302, IC2303)



MZ1540 (IC2001)





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