

EIKI

FILE NO.

SERVICE MANUAL

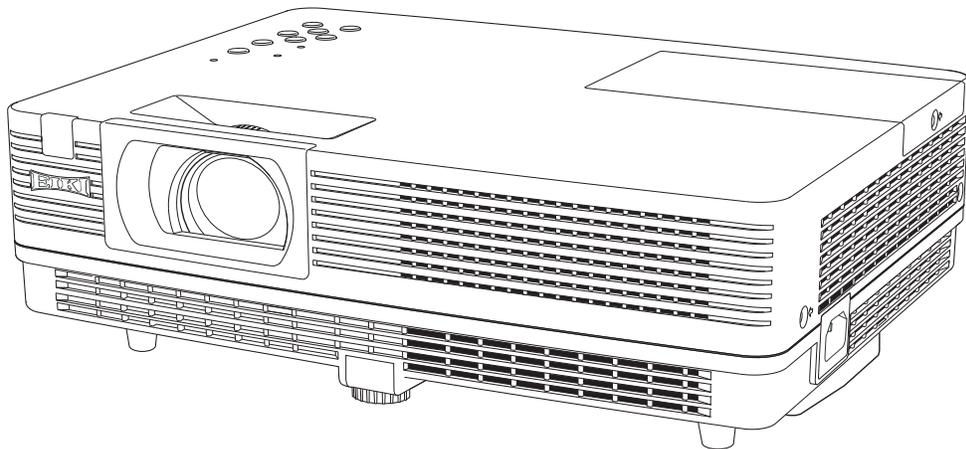
Multimedia Projector

Model No. LC-XBM31

U.S.A, Canada,
Europe, Hong Kong

Original Version

Chassis No. KT8-XBM3100



Give complete " Chassis No." for parts order or servicing, it is shown on the rating sheet on the cabinet on the projector.

FOREWORD

For your convenience, all service parts, identified in this manual are available through Eiki's normal distribution channels.

In addition to service part number, the generic descriptions have been given, where possible, to allow your service technicians to substitute equivalent components which might be available from other sources.

All orders for service parts will be honored. However, in instances where generic components are considered to be available from several common sources, as would be the case with an industry standard fuse, resistor, or semiconductor, it may be more economical and expeditious to purchase the part locally.

PRODUCT CODE

LC-XBM31

1 122 523 41 (KT8BE)

1 122 524 41 (LT8BE)

1 122 524 46 (LT8GE)

REFERENCE NO. SM5111295-00

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Safety Instructions

Safety Precautions

WARNING:

The chassis of this projector is isolated (COLD) from AC line by using the converter transformer. Primary side of the converter and lamp power supply unit circuit is connected to the AC line and it is hot, which hot circuit is identified with the line () in the schematic diagram. For continued product safety and protection of personnel injury, servicing should be made with qualified personnel.

The following precautions must be observed.

1: An isolation transformer should be connected in the power line between the projector and the AC line before any service is performed on the projector.

2: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis.

3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, etc.

DO NOT OPERATE THIS PROJECTOR WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED.

4: Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside.

Before returning any projector to the customer, the service personnel must be sure it is completely safe to operate without danger of electric shock.

Product Safety Notice

Product safety should be considered when a component replacement is made in any area of the projector. Components indicated by mark  in the parts list and the schematic diagram designate components in which safety can be of special significance. It is, therefore, particularly recommended that the replacement of these parts must be made by exactly the same parts.

Service Personnel Warning

Eye damage may result from directly viewing the light produced by the Lamp used in this equipment. Always turn off Lamp before opening cover. The Ultraviolet radiation eye protection required during this servicing. Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages (15kV - 25kV) at its starts.

Since the lamp is very high temperature during units operation replacement of the lamp should be done at least 45 minutes after the power has been turned off, to allow the lamp cool-off.

Specifications

Mechanical Information

Projector Type	Multi-media Projector
Dimensions (W x H x D)	13.13" x 3.98" x 9.72" (333.5mm x 101.0mm x 247.0mm) (Not including protrusions)
Net Weight	6.4 lbs (2.9 kg)
Foot Adjustment	0° to 10°

Panel Resolution

LCD Panel System	0.63" TFT Active Matrix type, 3 panels
Panel Resolution	1,024 x 768 dots
Number of Pixels	2,359,296 (1,024 x 768 x 3 panels)
Signal Compatibility	
Color System	PAL, SECAM, NTSC, NTSC4.43, PAL-M, and PAL-N
SD/HD TV Signal	480i, 480p, 575i, 575p, 720p, 1035i, and 1080i
Input Scanning Frequency	H-sync. 15 kHz–100 kHz, V-sync. 50–100 Hz

Optical Information

Projection Image Size (Diagonal)	Adjustable from 40" to 300"
Throw Distance	3.6' - 34.4' (1.1m - 10.5m)
Projection Lens	F 2.0 ~ 2.15 lens with f 18.38 mm ~ 22.06 mm with manual zoom and focus
Projection Lamp	215 W

Interface

Video Input Jack	RCA Type x 1
Audio Input Jack	RCA Type x 2
Computer In 1/S-video In/Component In	Mini Jack (stereo) x 1
/Computer In 2/Monitor Out/MIC Audio Input Jack	
Computer In 1/S-video In	Mini D-sub 15 pin x 1
/Component Input Jack	
Computer In 2 / Monitor Out Terminal	Mini D-sub 15 pin x 1
Control port	D-sub 9 pin x 1
Audio Output Jack	Mini Jack (stereo) x 1 (variable)
LAN Connection Terminal	RJ-45

Audio

Internal Audio Amp	10 W RMS
Built-in Speaker	1 speaker, ø1.6" (40mm)

Power

Voltage and Power Consumption	AC 100–120 V (3.6A Max. Ampere), 50/60 Hz (The U.S.A and Canada) AC 100–240 V (3.6A -2.0A Max. Ampere), 50/60 Hz (For other countries)
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Operating Environment

Operating Temperature	41°F–95°F (5 °C–35 °C)
Storage Temperature	14°F–140°F (-10°C–60 °C)

Remote Control

Battery	AAA or LR03 1.5V ALKALINE TYPE x 2
Operating Range	16.4' (5 m)/±30°
Dimensions	2.0" (W) x 0.7" (H) x 4.3" (D) (52 mm x 18 mm x 110 mm)
Net Weight	2.37 oz (67 g) (including batteries)

- The specifications are subject to change without notice.
- LCD panels are manufactured to the highest possible standards. Even though 99.99% of the pixels are effective, a tiny fraction of the pixels (0.01 % or less) may be ineffective by the characteristics of the LCD panels.



This symbol on the nameplate means the product is Listed by Underwriters Laboratories Inc. It is designed and manufactured to meet rigid U.L. safety standards against risk of fire, casualty and electrical hazards.

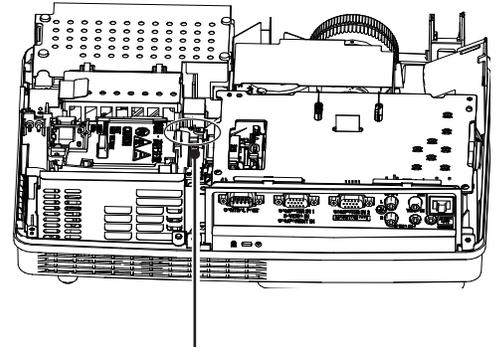
Circuit Protections

This projector provides the following circuit protections to operate in safety. If the abnormality occurs inside the projector, it will automatically turn off by operating one of the following protection circuits.

Thermal switch

There is the thermal switch (SW601) inside of the projector to detect the internal temperature rising abnormally. When the internal temperature reaches near 85°C, the thermal switch opens to stop the operation of the power supply circuit.

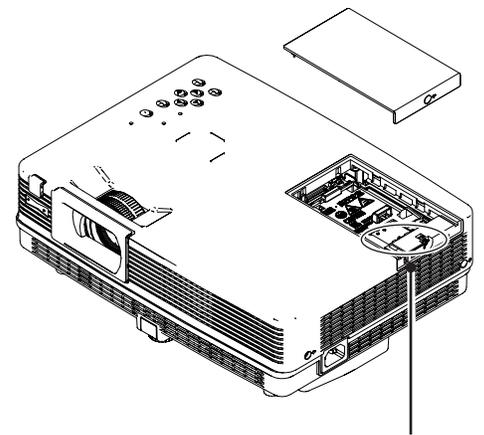
When the internal temperature reaches near 55°C, the thermal switch returns automatically.



Thermal switch (SW601)

Lamp cover switch

The lamp cover switch (SW902) cuts off the drive signal to the lamp circuit when the lamp cover is removed or not closed completely. After opening the lamp cover for replacing the lamp ass'y, place the lamp cover correctly otherwise the projector can not turn on.



Lamp cover switch (SW902)

Fuse

A fuse is located inside of the projector. When the POWER indicator is not lighting, the fuse may be opened. Check the fuse as following steps.

The fuse should be used with the following type;

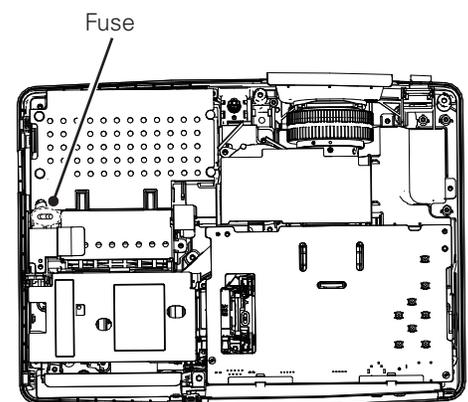
Fuse Part No, : 323 021 7804
TYPE T6.3AH 250V FUSE
LITTLE FUSE INC. TYPE 21506.3

or

Fuse Part No, : 423 034 4101
TYPE T6.3AH 250V FUSE
Hollyland Co, Ltd. TYPE 50CT063H

How to replace the fuse

1. The fuse is placed on the power board. Remove the cabinet top, main board, optical engine and the fan (FN001).
2. Take the fuse off, and replace the new one with the specified type.



Circuit Protections

Warning temperature and power failure protection

The projector will be automatically turned off when the internal temperature of the projector is abnormally high, or the cooling fans stop spinning, or the power supplies in the projector are failed.

- If the WARNING indicator is flashing, it may detect the abnormal temperature inside the projector. Check the following possible causes and wait until the POWER indicator stops flashing, and then try to turn on the projector.
- If the WARNING indicator lights red, it may defect the cooling fans or power supply circuits. Check fans operation and power supply lines referring to the chapter "Power supply & protection circuit" in the Chassis Block Diagram section.

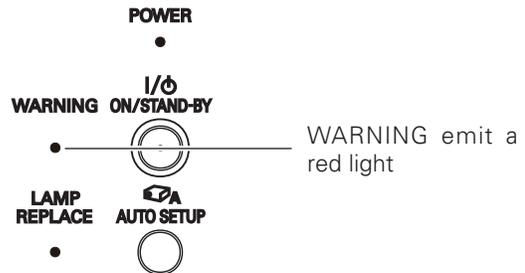
Possible causes

- Air filters are clogged with dust particles. Remove dust from the air filters by following instructions in the "Air filter care and cleaning" below.
- Ventilation slots of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- Check if projector is used at higher temperature place (Normal operating temperature is 5 to 35 °C or 41 to 95°F)

The projector is shut down and the WARNING indicator lights red.

When the projector detects an abnormal condition, it is automatically shut down to protect the inside of the projector and the WARNING indicator lights red. In this case, unplug the AC power cord and reconnect it, and then turn the projector on once again to verify operation. If the projector cannot be turned on and the WARNING indicator still lights red, unplug the AC power cord and contact the service station.

Top Control



CAUTION

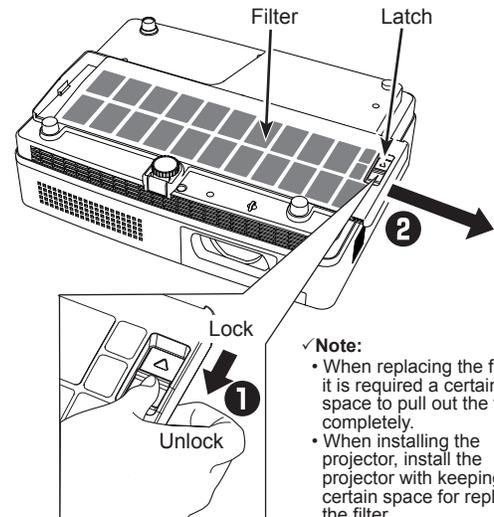
DO NOT LEAVE THE PROJECTOR WITH THE AC POWER CORD CONNECTED UNDER AN ABNORMAL CONDITION. IT MAY RESULT IN FIRE OR ELECTRIC SHOCK.

Maintenance

Replacing the Filters

Filter prevents dust from accumulating on the optical elements inside the projector. Should the Filter become clogged with dust particles, it will reduce cooling fans' effectiveness and may result in internal heat buildup and adversely affect the life of the projector. If a "Filter warning" icon appears on the screen, replace the Filter immediately. Replace the filter by following the steps below.

- 1 Turn off the projector, and unplug the AC power cord from the AC outlet.
- 2 Set the latch to "OPEN" position and slide the filter to the arrow direction to remove.
- 3 Put the new one back into the position. Set the latch to "LOCK" position.
- 4 Connect the AC power cord to the projector and turn on the projector.
- 5 Reset the filter counter.



✓ **Note:**

- When replacing the filter, it is required a certain space to pull out the filter completely.
- When installing the projector, install the projector with keeping a certain space for replacing the filter.

- CAUTION**
- Do not operate the projector with the filters removed. Dust may accumulate on the optical elements degrading picture quality.
 - Do not put anything into the air vents. Doing so may result in malfunction of the projector.
 - Do not wash the filter with water or any other liquid Matter. Otherwise the filter may be damaged.

RECOMMENDATION

We recommend avoiding dusty/smoky environments when you operate the projector. Usage in these environments may cause poor image quality.

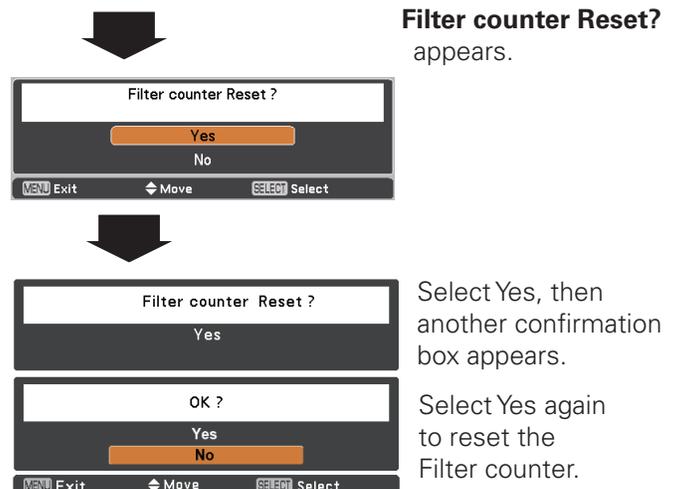
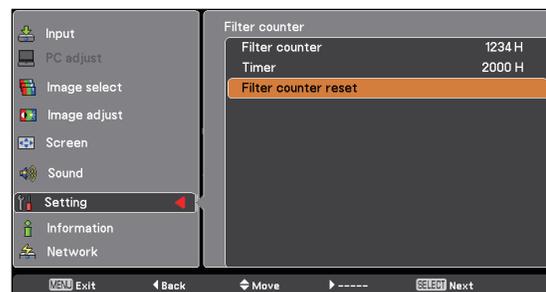
When using the projector under dusty or smoky conditions, dust may accumulate on a lens, LCD panels, or optical elements inside the projector degrading the quality of a projected image. When the symptoms above are noticed, contact your authorized dealer or service center for proper cleaning.

Resetting the Filter Counter

Be sure to reset the Filter counter after cleaning or replacing the filters.

- 1 Press the MENU button to display the On-Screen Menu. Use the Point ▲▼ buttons to select Setting and then press the Point ► or the SELECT button.
- 2 Use the Point ▲▼ buttons to select **Filter counter** and then press the Point ► or the SELECT button. Use the Point ▲▼ buttons to select **Filter counter reset** and then press the SELECT button. **Filter counter Reset?** appears. Select **Yes** to continue.
- 3 Another confirmation dialog box appears, select **Yes** to reset the Filter counter.

Filter counter reset

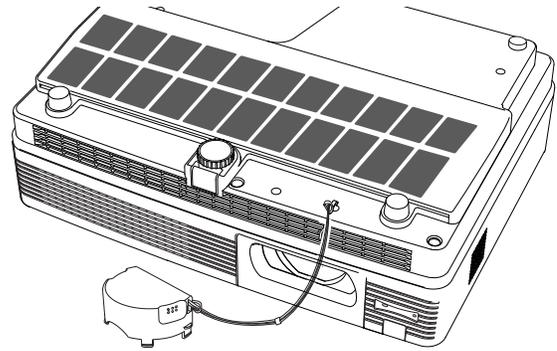


Attaching the Lens Cap

When moving this projector or while not using it over an extended period of time, replace the lens cap.

Attach the lens cap according to the following procedures.

- 1 Thread the string through the hole on the lens cap and then tie a knot in the string to secure it in place.
- 2 To pass the other end of the string into the hole on the bottom of the projector and pull at it.

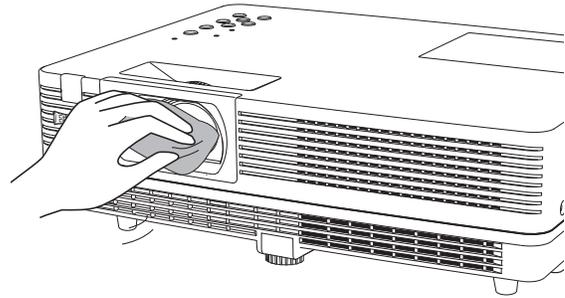


Cleaning the Projection Lens

Unplug the AC power cord before cleaning.

Gently wipe the projection lens with a cleaning cloth that contains a small amount of non-abrasive camera lens cleaner, or use a lens cleaning paper or commercially available air blower to clean the lens.

Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the lens.

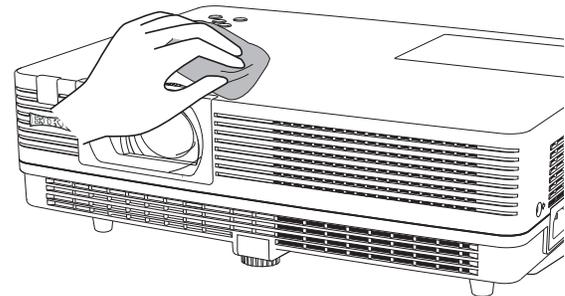


Cleaning the Projector Cabinet

Unplug the AC power cord before cleaning.

Gently wipe the projector body with a soft dry cleaning cloth. When the cabinet is heavily soiled, use a small amount of mild detergent and finish with a soft dry cleaning cloth. Avoid using an excessive amount of cleaner. Abrasive cleaners, solvents, or other harsh chemicals might scratch the surface of the cabinet.

When the projector is not in use, put the projector in an appropriate carrying case to protect it from dust and scratches.



Lamp Replacement

Lamp replacement

WARNING:

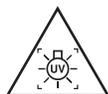
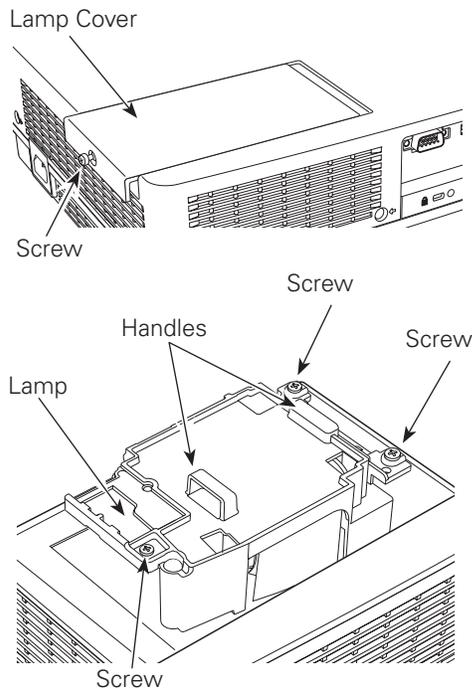
- For continued safety, replace with a lamp assembly of the same type.
- Allow the projector to cool for at least 45 minutes before you open the lamp cover. The inside of the projector can become very hot.
- Do not drop the lamp module or touch the glass bulb! The glass can shatter and cause injury.

Follow these steps to replace the lamp.

- 1** Unplug the AC power cord. Let the projector cool for at least 45 minutes.
- 2** Loosen the screw and open the lamp cover.
- 3** Loosen the three (3) screws that secure the lamp. Lift the lamp out of the projector by using the handles.
- 4** Replace the lamp with a new one and secure the three (3) screws. Make sure that the lamp is set properly. Close the lamp cover and secure the screw.
- 5** Connect the AC power cord to the projector and turn on the projector.
- 6** Reset the Lamp Replace Counter. Refer to the next page for details.

ORDER REPLACEMENT LAMP

Type No.	POA-LMP142
Service Parts No.	610 349 7518



**WARNING : TURN OFF THE UV LAMP BEFORE OPENING THE LAMP COVER.
USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING.**



CAUTION

Allow a projector to cool for at least 45 minutes before you open the Lamp Cover. The inside of the projector can become very hot.



CAUTION

When replacing the lamp because it has stopped illuminating, there is a possibility that the lamp may be broken.

If replacing the lamp of a projector which has been installed on the ceiling, you should always assume that the lamp is broken, and you should stand to the side of the lamp cover, not underneath it. Remove the lamp cover gently. Small pieces of glass may fall out when the lamp cover is opened. If pieces of glass get into your eyes or mouth, seek medical advice immediately.



CAUTION

For continued safety, replace with a lamp of the same type. Do not drop a lamp or touch a glass bulb! The glass can shatter and may cause injury.

Resetting the Lamp Counter

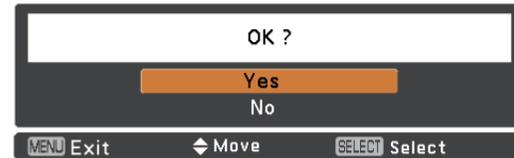
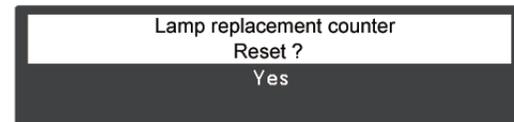
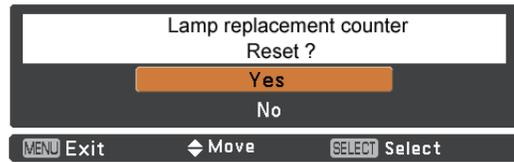
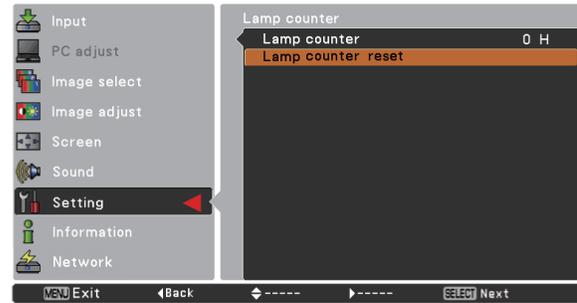
Be sure to reset the Lamp replacement counter after the lamp is replaced.

Press the Point ▲▼ buttons to choose the Lamp counter function and then press the Point ► or the SELECT button to access the submenu items.

Lamp counter.....This item shows the total accumulated time of the lamp usage.

Lamp counter reset.....Press the the SELECT button to choose **Lamp counter reset**. Select **Yes** in the confirmation box if you want to reset the lamp counter, and then choose **Yes** in the second confirmation box to reset lamp counter.

Lamp counter reset



How to check Lamp Used Time

The LAMP REPLACE indicator will light yellow when the total lamp used time (Corresponding value) reaches 6,000 hours. This is to indicate that lamp replacement is required.

The total lamp used time is calculated by using the below expression,

$$\text{Total lamp used time} = T_{\text{eco}} + T_{\text{high/normal}} \times 1.5$$

T_{eco} : used time in the Eco mode

$T_{\text{high/normal}}$: used time in the Normal mode and High mode

You can check the lamp used time following to the below procedure.

- 1 Press and hold the **ON/STAND-BY** button on the projector or on the remote control for more than 20 seconds.
- 2 The projector used time and lamp used time will be displayed on the screen briefly as follows.

Projector used time	
Counter	
Projector	500H
Lamp	
High/Normal	200 H
Eco	300 H
Corresponding value	600 H

Total lamp used time

Security Function Notice

This projector provides security functions such as "Key lock", "PIN code lock" and "Logo PIN code lock". When the projector has set these security function on, you are required to enter correct PIN code to use the projector. If you do not know the correct PIN code to the projector, the projector can no longer be operated or started. In this case, you must reset those function first according to the resetting procedure described below and then check up on the projector.

Function	Description
Key lock	Locks operation of the top control or the remote control. If the Key lock is enabled with top control lock, the projector can no longer be started. Initial setting: Key lock function is disabled
PIN code lock	Prevents the projector from being operated by an unauthorized person. Initial code: "1234"
Logo PIN code lock	Prevents an unauthorized person for changing the start-up logo on the screen. Initial code: "4321"

Resetting procedure

1. Disconnect the AC power cord from the AC outlet.
2. As pressing the **SELECT** button, connect the AC power cord into an AC outlet again.
3. Keep pressing the **SELECT** button and then press the **ON/STAND-BY** button.
4. Release the **ON/STAND-BY** button first and then release the **SELECT** button.
- The PIN code lock and Logo PIN code lock will be reset as the initial PIN code at the factory and the key lock function is disabled.

Please refer to the owner's manual for further information of the security functions.

Standby Mode Notice

This projector provides 2 types of standby mode, Eco standby and Network standby. According to the standby mode "Eco" or "Network", several functions are restricted as shown in the table below. To change the standby mode, use the projector's menu "Setting".

Network..... Supply the power to the network function even after turning off the projector. You can turn on/ off the projector via network, modify network environment, and receive an e-mail about projector status while the projector is powered off.

Eco..... Select "Eco" when you do not use the projector via network. The projector's network function will stop when turning off the projector.

When "Eco" is selected, several functions will be restricted.

Restricted Function in the standby mode

Function	Eco	Network
Serial command control	--	✓
Network Function	--	✓
Monitor Out	--	✓
Audio Out	--	--
Mic Out (MIC Volume)	--	✓*
Direct on	✓	✓

* MIC volume can be output when the Standby MIC Out function is set to **On**.

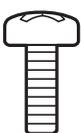
Mechanical Disassembly

Mechanical disassembly should be made following procedures in numerical order.

Following steps show the basic procedures, therefore unnecessary step may be ignored.

Caution:

The parts and screws should be placed exactly the same position as the original otherwise it may cause loss of performance and product safety.

Screws Expression (Type Diameter x Length) mm	
T type	M Type
	

1 Cabinet Top, R/C Board removal

1. Loose screw A (M3x8) to remove the Lamp Cover.
2. Remove 4 screws B (M3x8) and 2 screws C(T3x10) to remove the Cabinet top.
3. Remove the Control Buttons and Dec Inlay LED.
4. Remove 2 screws D (T2x6) to remove the Dec Ring.
5. Remove the R/C Board.

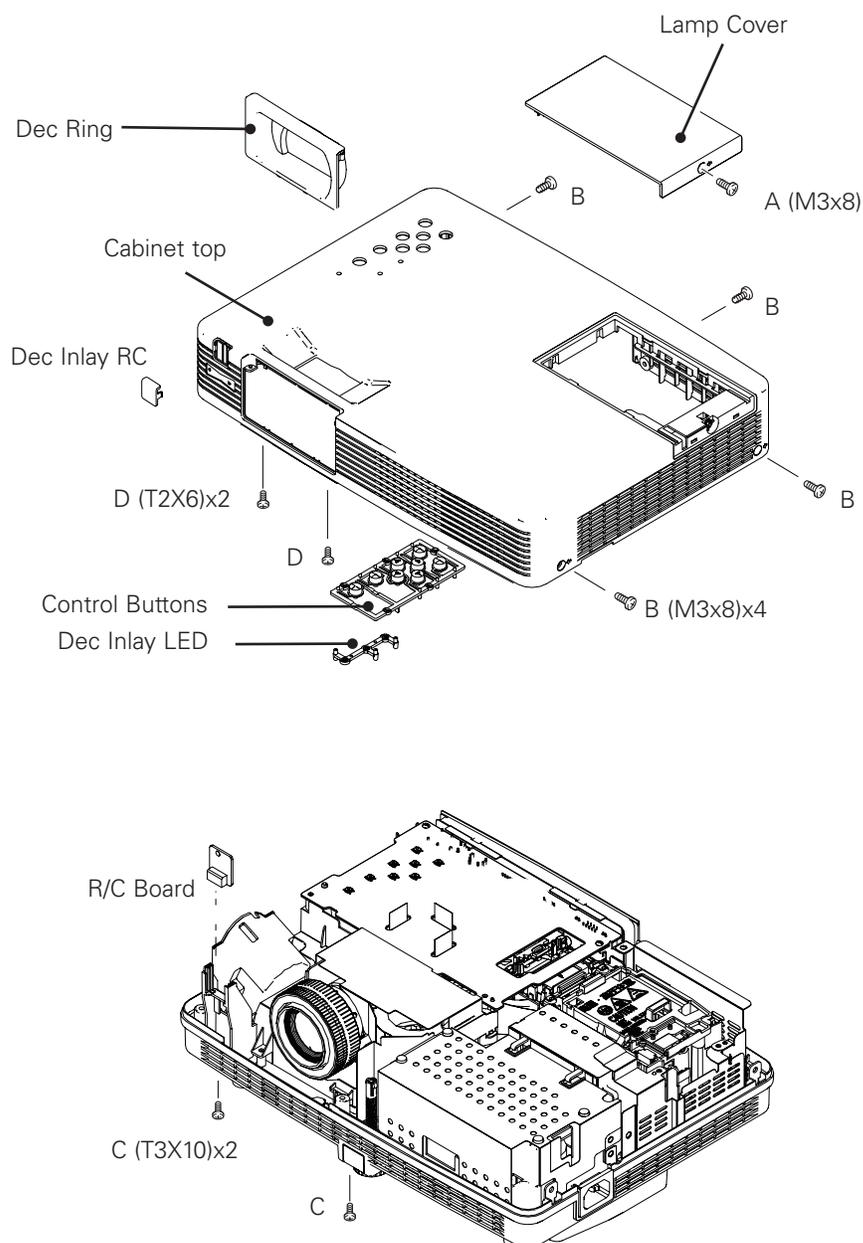


Fig.1

2 Main Board, AV Panel, Audio Jack, Audio AMP and Speaker (SP901) removal

1. Remove 4 screws A (M3x8) and 2 screws B (M4x6) to remove the Lamp back shield and the Right shield.
2. Remove 2 screws C (T3x8) and 1 screw D (M4x6) to remove the Main Board.
3. Remove 1 screw E (M2x4) and 1 screw F (T3x6), and release hooks to remove the AV Panel.
4. Remove 2 screws G (M2.5x6) to remove the Audio Jack board.
5. Remove 2 screws H (T3x8) to remove the Audio AMP board.
6. Remove 3 screws J (T3x12) to remove the Speaker box.
Remove 2 screws K (T3x8) to remove the Speaker (SP901).

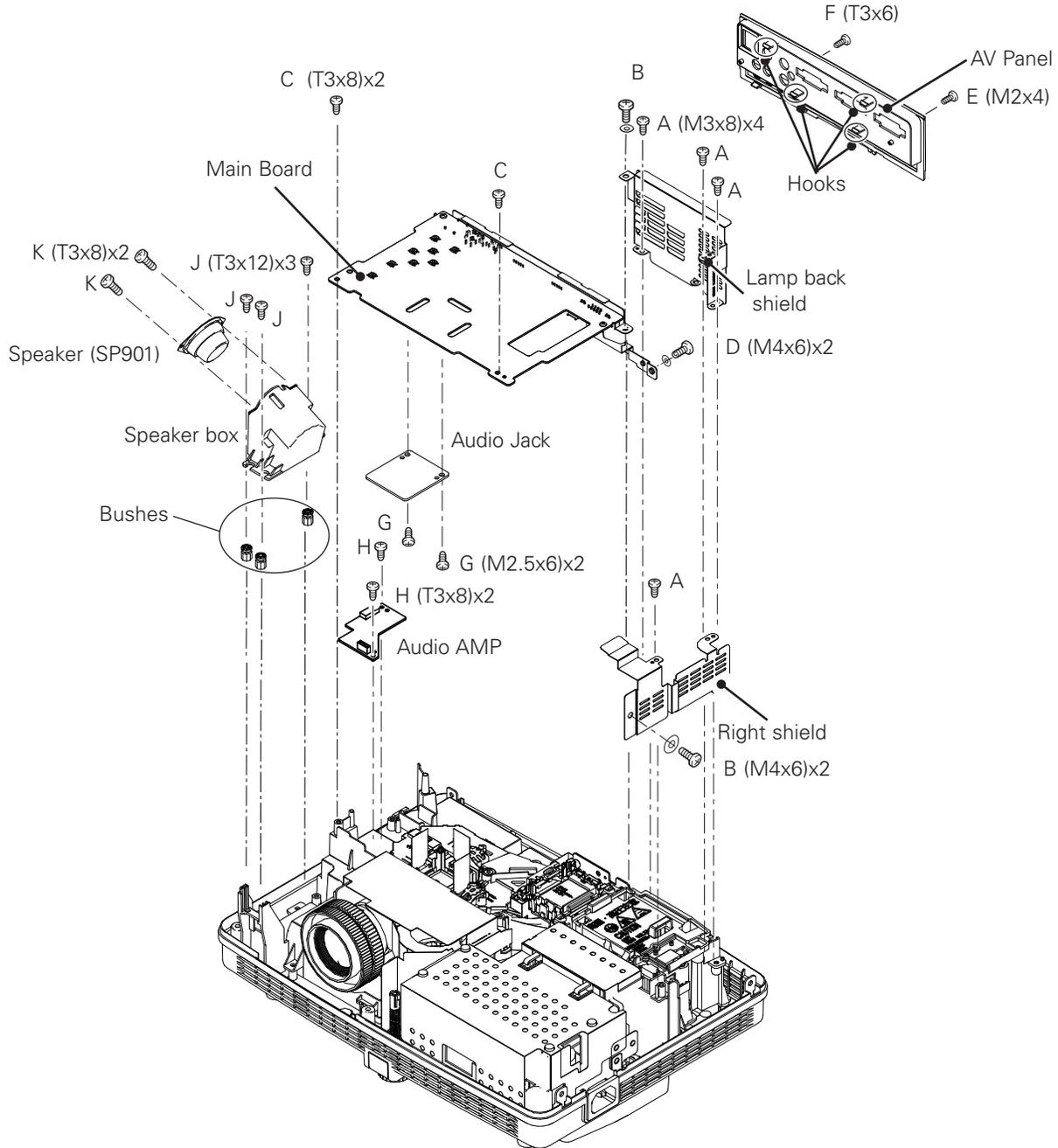


Fig.2

3 Optical Unit, Lamp Ass'y, SW902 and Iris Ass'y removal

1. Remove the Lens spacer sheet-top.
2. Loose 3 screws A(M3x7) to remove the Lamp Ass'y. Remove 5 screws B(T3x8) to remove the Optical Unit, Remove 4 screws C(T3x8) and 1 screw D(T3x8) to remove the Lamp holder and Ballast socket.
3. Remove the lamp cover switch(SW902).
4. Remove 4 screws E(T3x8) to remove the Iris Ass'y.

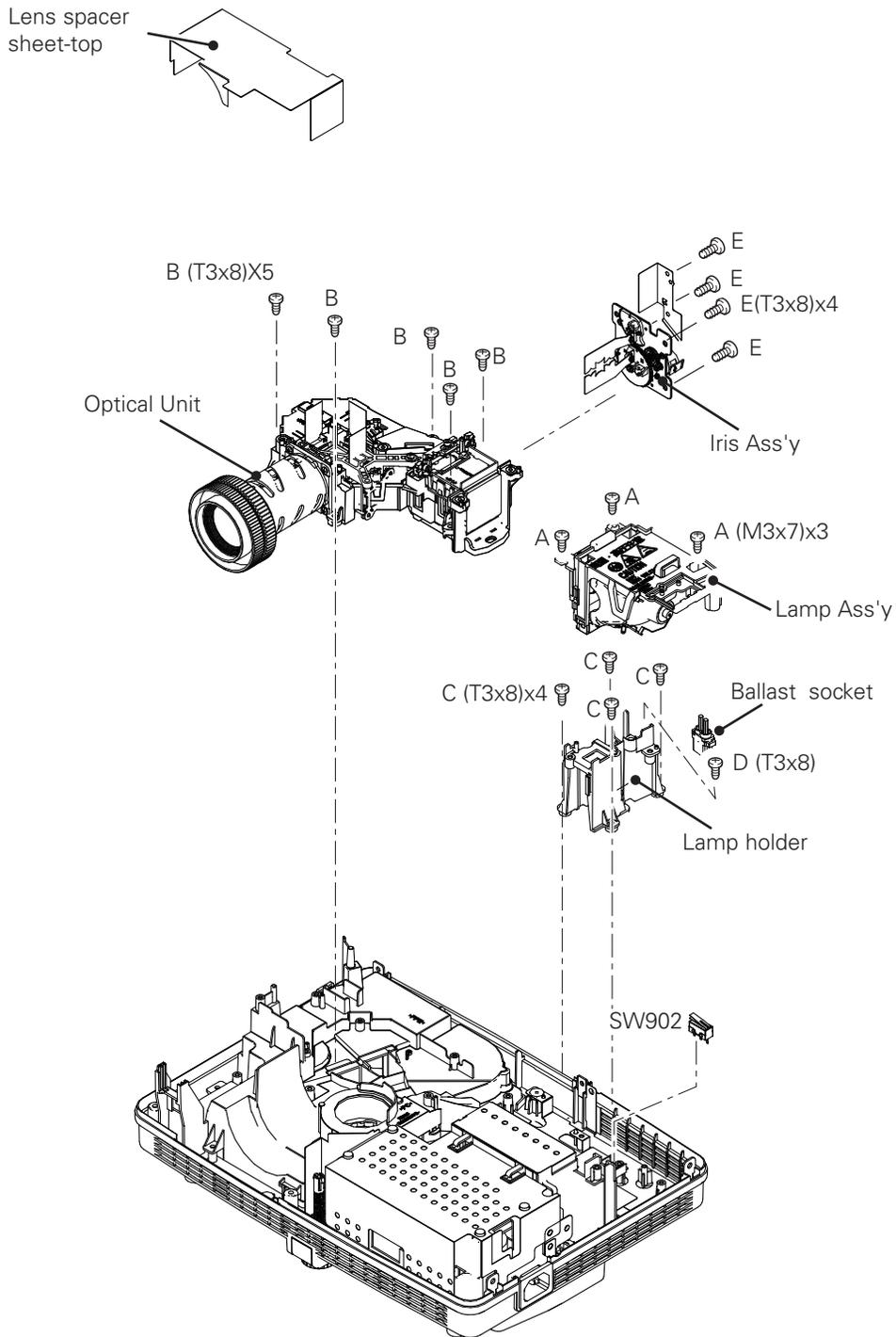


Fig.3

4 Mounting Duct and fans(FN001, FN003, FN004, FN005) removal

1. Remove 3 screws A(T3x8) and 2 screws B(T3x12) to remove the fan(FN001), fan duct top and bottom.
2. Remove 5 screws C(T3x8) and unhook 3 hooks to remove the duct top.
3. Remove the Cover duct shield, remove 2 screws D(T3x12) to remove the fan(FN005).
Remove 2 screws E(T3x12) and 2 screws F(T3x30) to remove the fans(FN003, FN004)

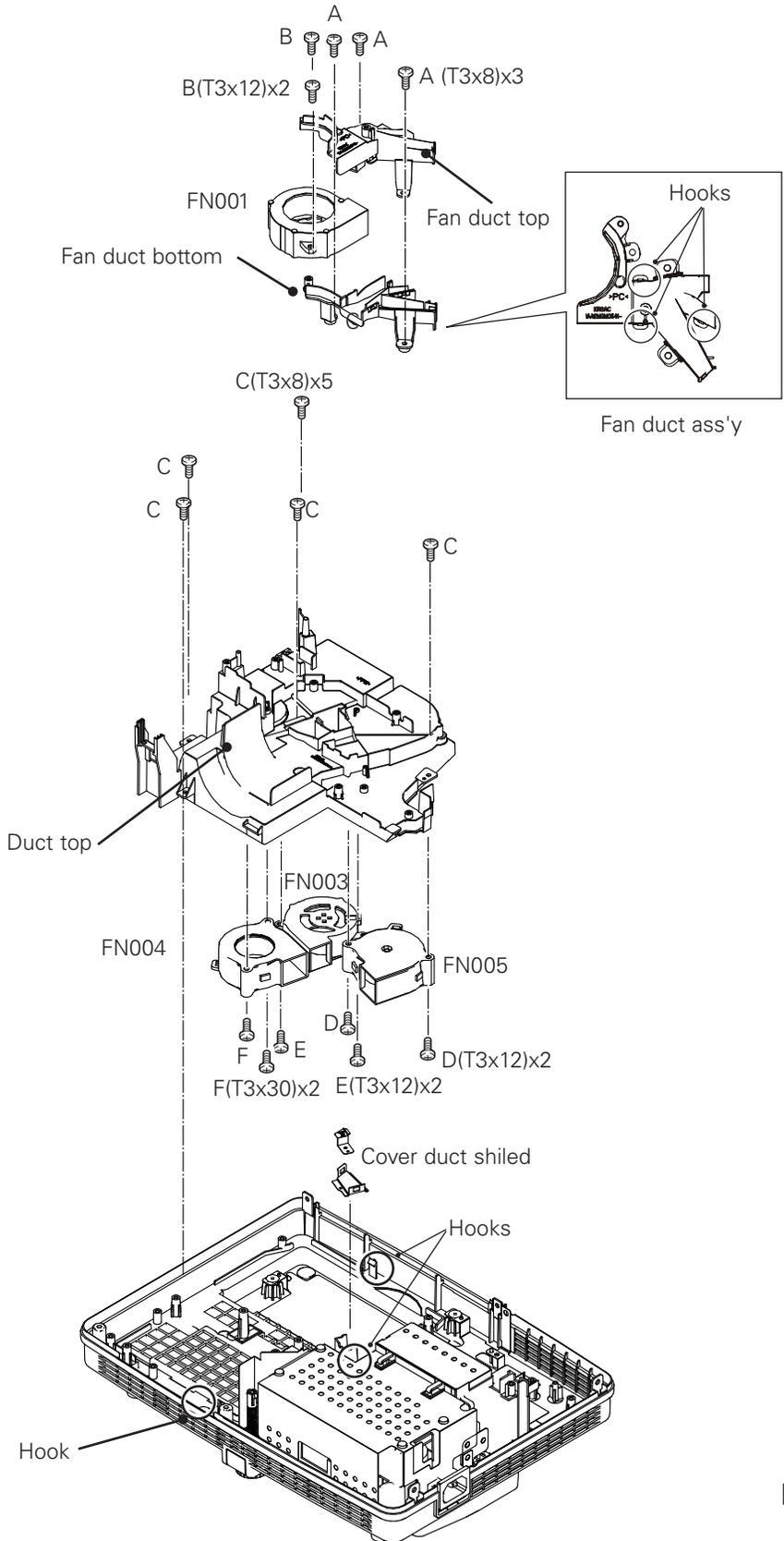
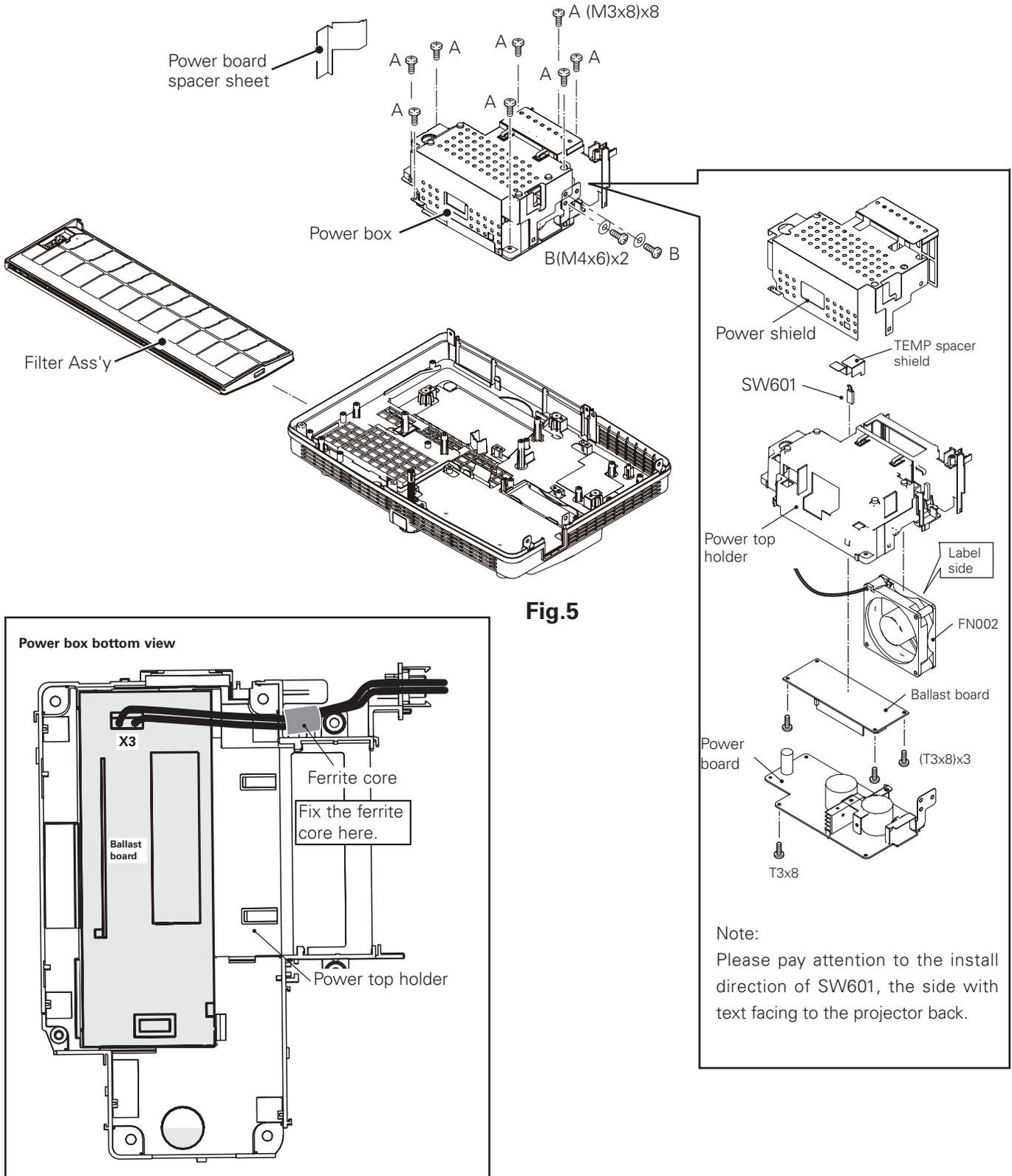


Fig.4

5 Power board, Fan(FN002) and Filter Ass'y removal

1. Remove the Power board spacer sheet.
2. Remove 8 screws A(M3x8) and 2 screws B(M4x6) to remove the Power box.
3. Remove the Filter Ass'y.



Optical Parts Disassembly

Before taking this procedure, remove Cabinet Top and Main Board following to the "Mechanical Disassembly". Disassembly requires a 2.0mm hex wrench and a screwdriver.

1 Projection lens disassembly

Note: The optical unit should be removed from the cabinet bottom before removing the projection lens.

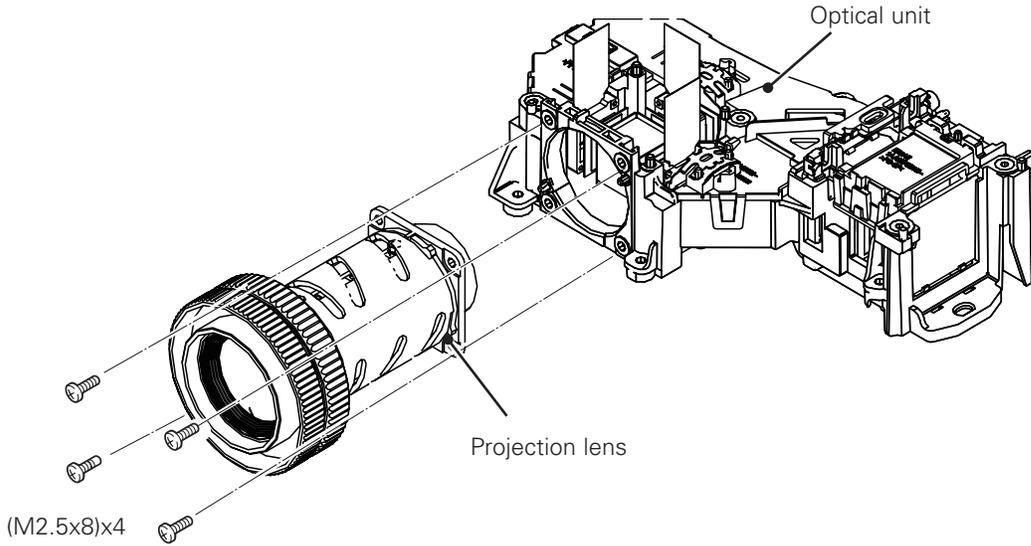


Fig.1

2 Condenser Out lens disassembly

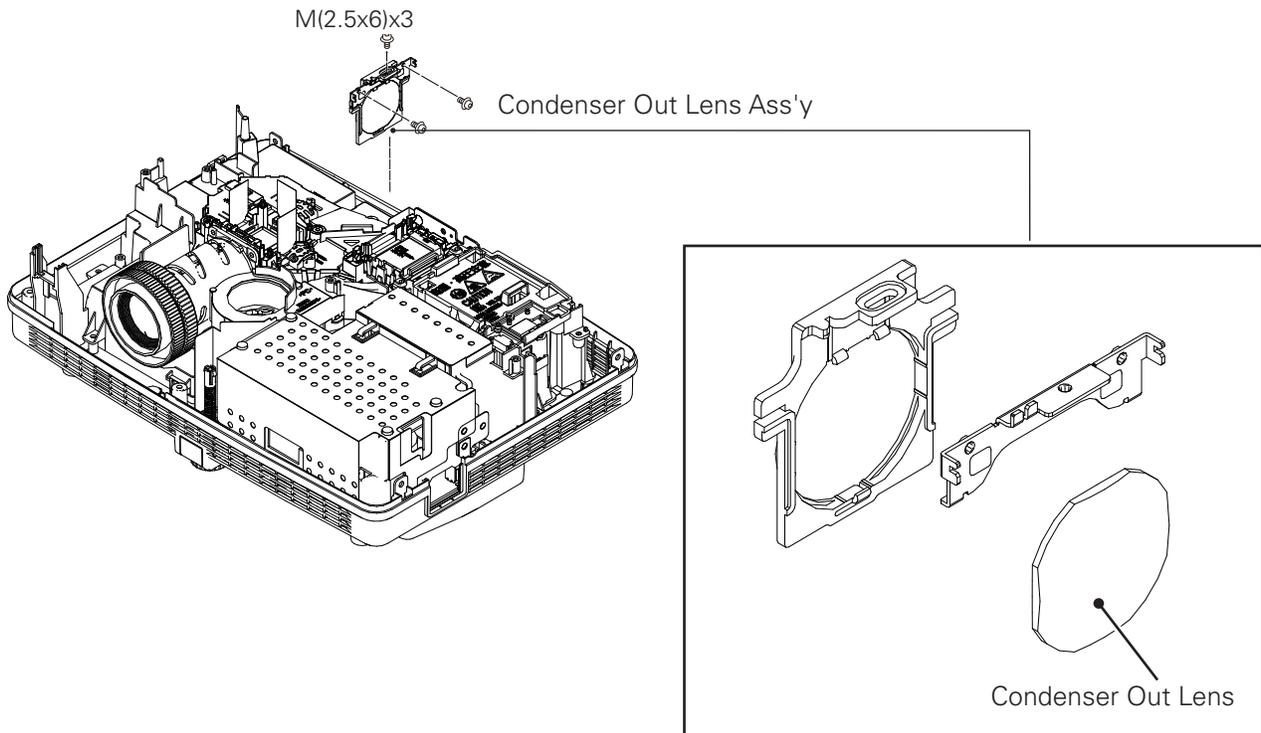


Fig.2

3 Integrator lens-in disassembly

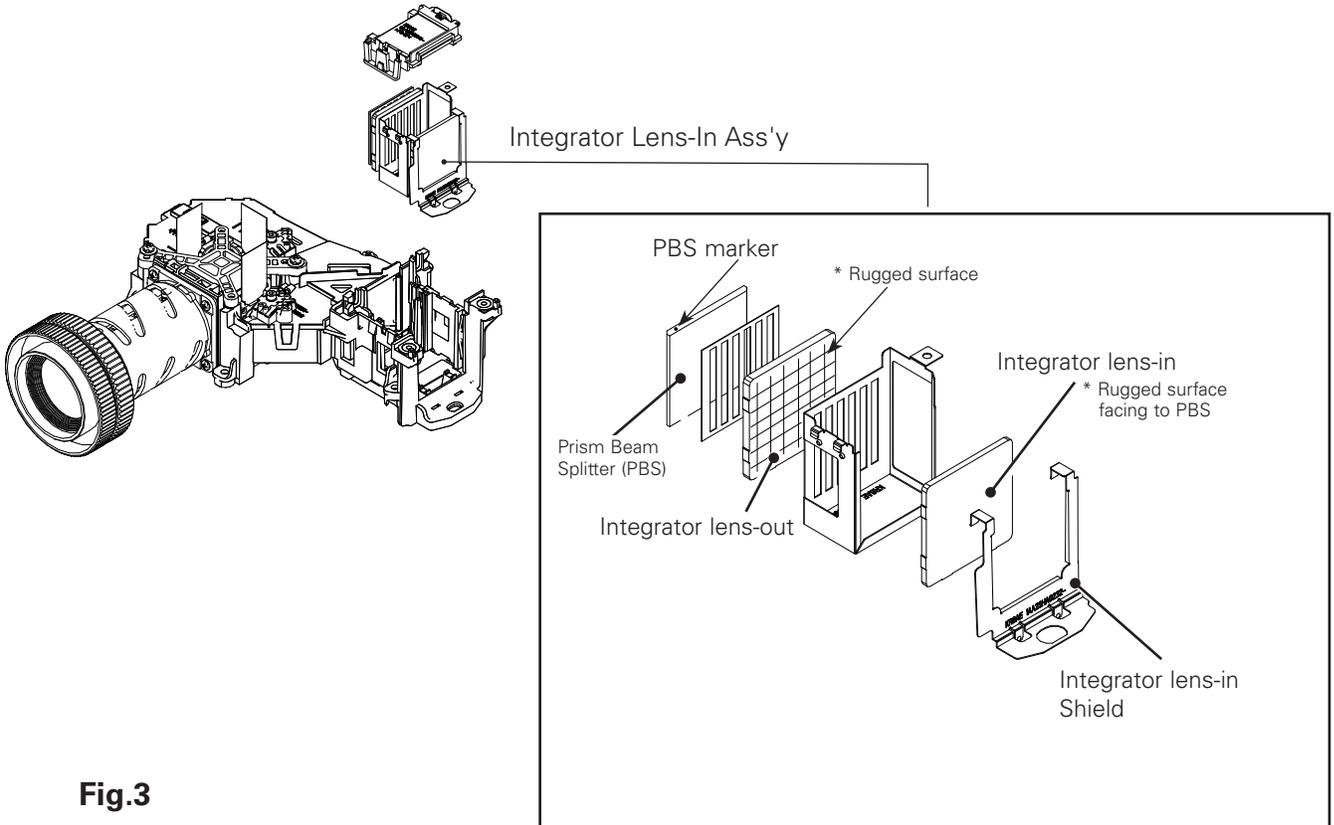


Fig.3

4 Condenser Lens Ass'y disassembly

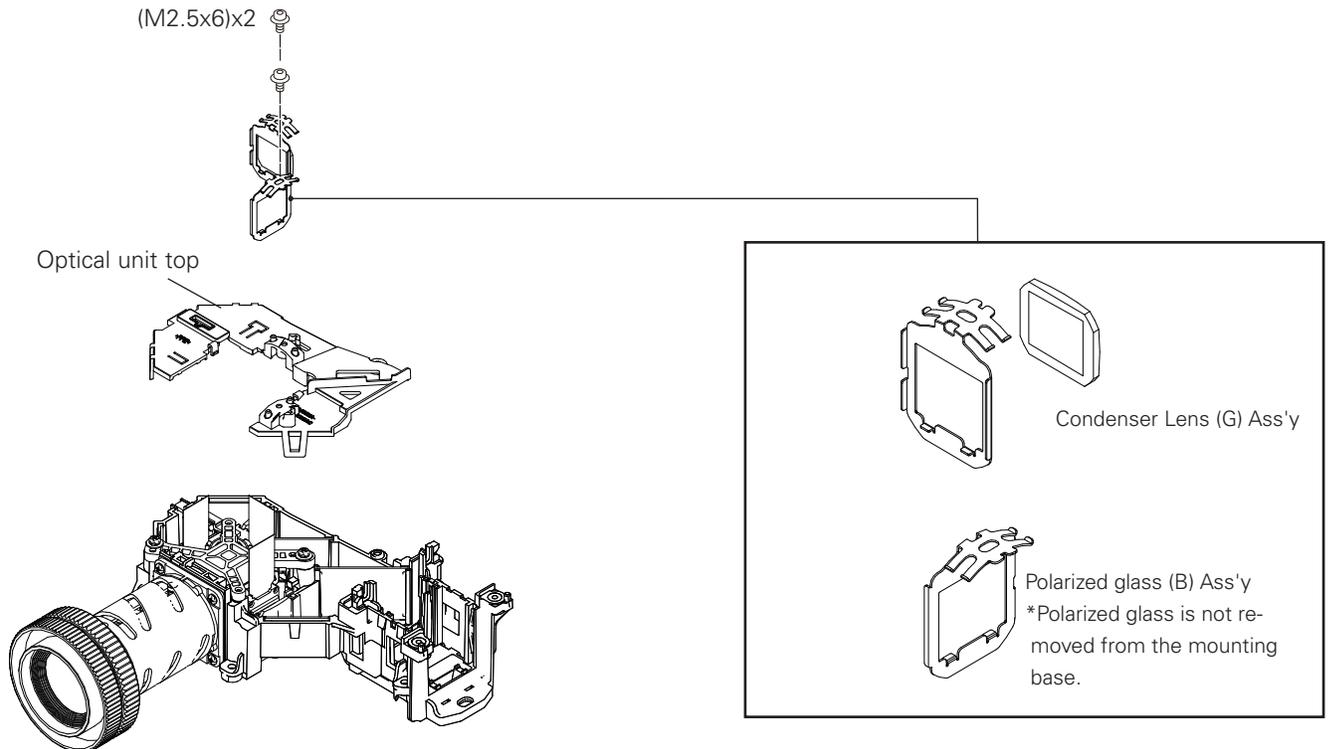


Fig.4

5 Relay Out lens disassembly

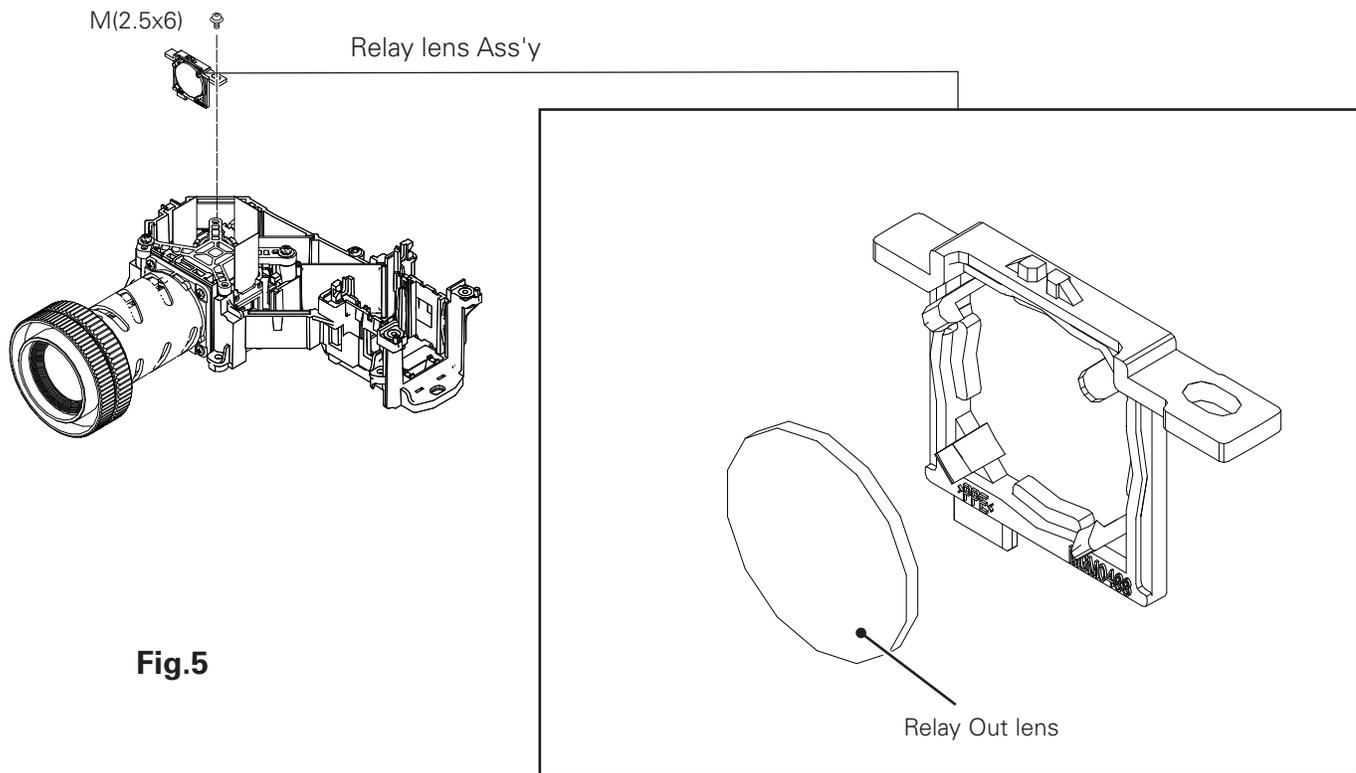


Fig.5

6 LCD Panel/Prism Ass'y removal

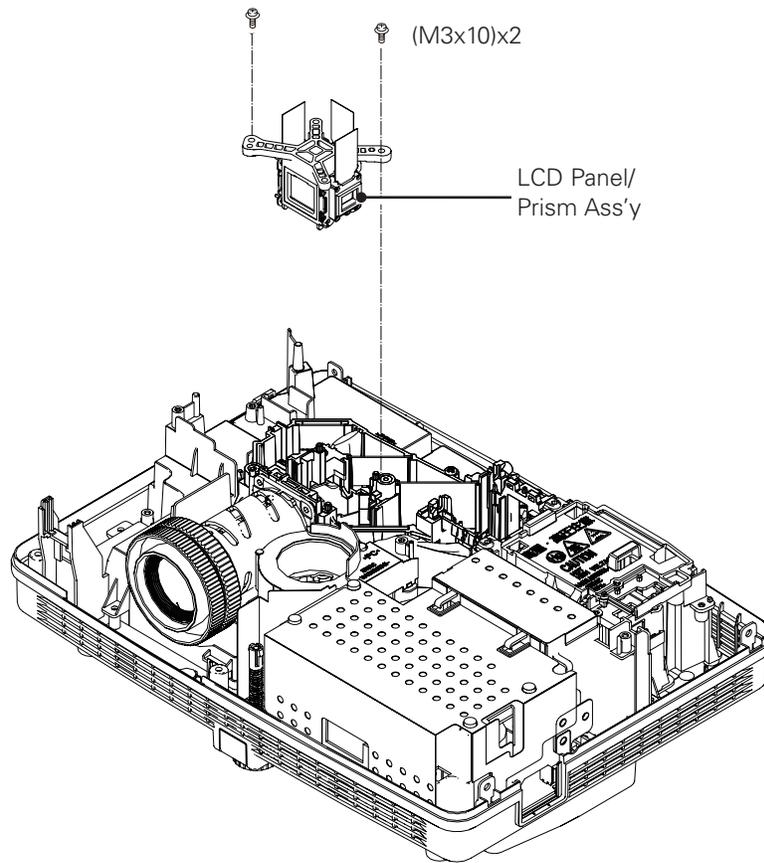


Fig.6-1

IMPORTANT NOTICE on LCD Panel/Prism Ass'y Replacement

LCD panels used for this model can not be replaced separately. Do not disassemble the LCD Panel/Prism Ass'y. These LCD panels are installed with precision at the factory. When replacing the LCD panel, should be replaced whole of the LCD panels and prism ass'y at once.

When replacing the LCD Panel/Prism ass'y, take the optical and electrical adjustments following to the chapter "Adjustment".

Panel Type Check

There are 2 types of LCD Panel/Prism Ass'y for this model. Either L-Type or R-Type LCD Panel/Prism Ass'y is used on the projector. Check which type of LCD Panel/Prism Ass'y is used with the figure below.

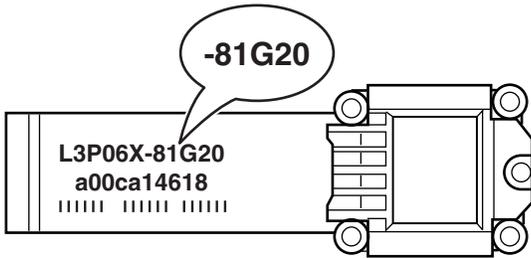
When replacing the LCD Panel/Prism Ass'y, you need to take "Panel Type Check and Setting" on the Electrical Adjustment for the replaced LCD Panel/Prism Ass'y.

The gamma-characteristics is different between L-Type and R-Type LCD Panel/Prism Ass'y.

How to check the type of LCD Panel/Prism Ass'y

Check the printed number on the flat cable of the G-LCD Panel.

L-Type LCD Panel/Prism Ass'y



R-Type LCD Panel/Prism Ass'y

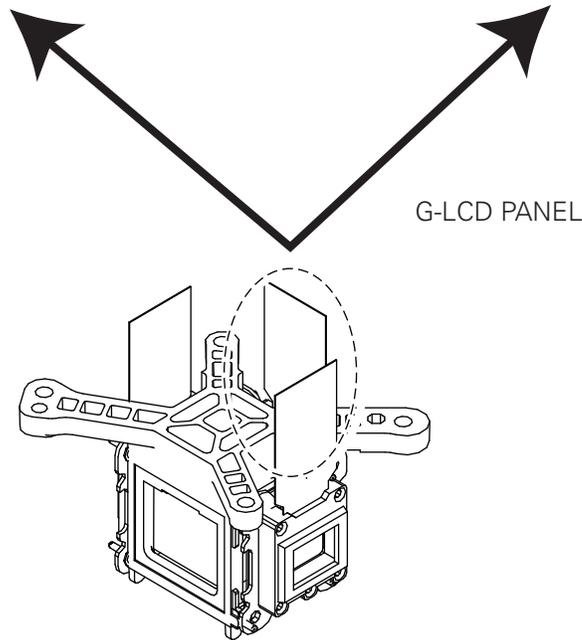
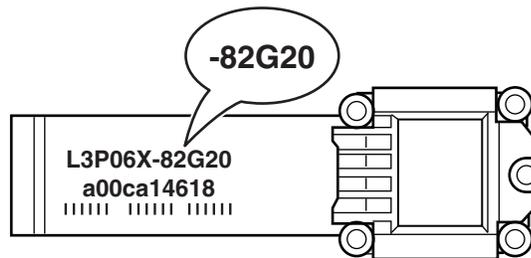


Fig.6-2

7 Locations and Directions

When mounting or assembling the optical parts in the optical unit, the parts must be mounted in the specified location and direction as shown in figure below.

No.	Parts Name
1	Dichroic mirror (B)
2	Dichroic mirror (G)
3	Relay lens (IN)
4	Mirror (R)
5	Condenser lens (R)
6	Polarized glass (IN/R)
7	Condenser lens (B)
8	Mirror (B)

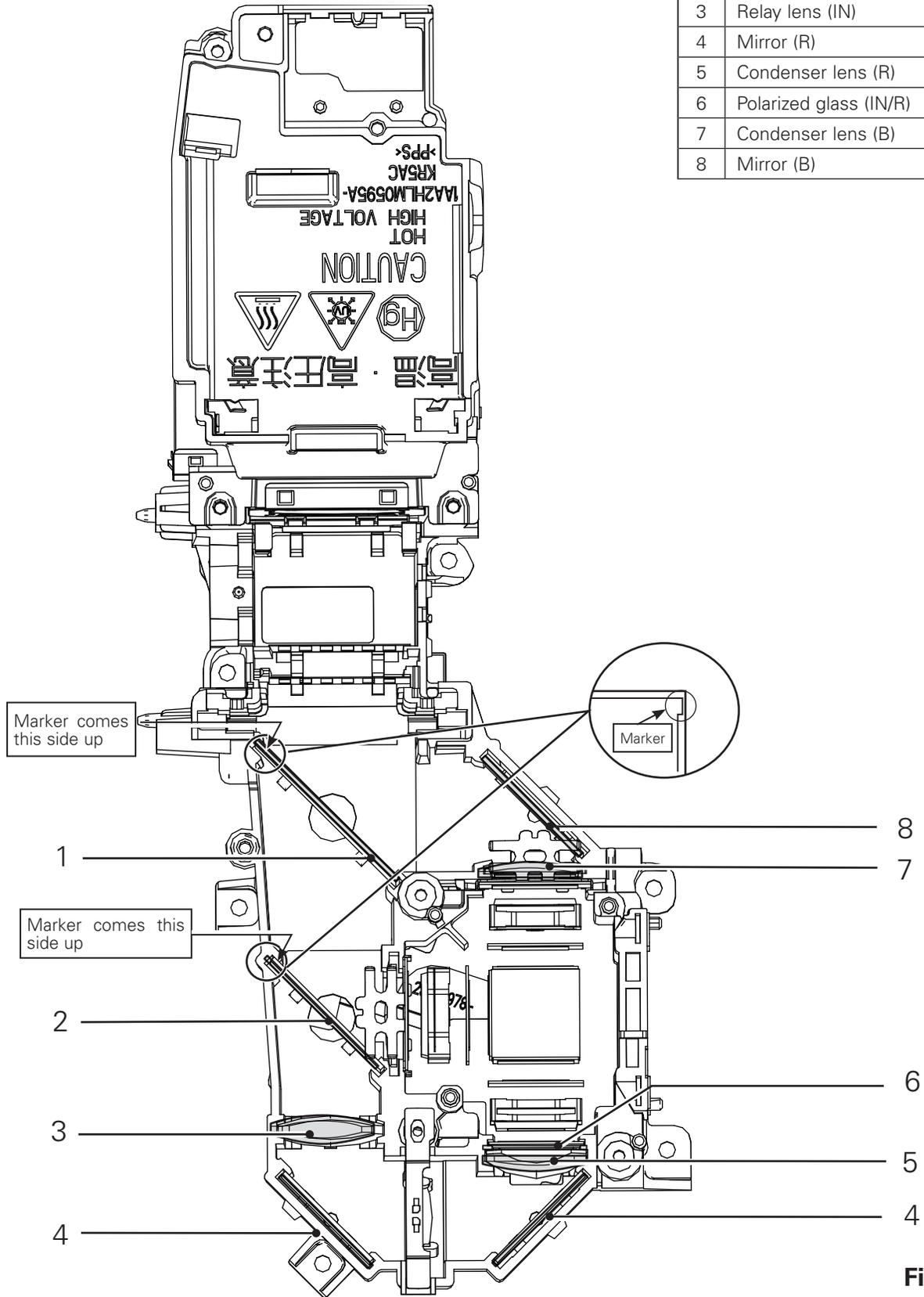


Fig.7

Adjustments

Adjustments after Parts Replacement

● : Adjustment necessary ○ : Check necessary

		Disassembly / Replaced Parts						
		LCD/ Prism Ass'y	Condenser Lens (OUT)	Relay Lens (OUT)	Condensor Glass		Power Board	Main Board
					G	B		
Optical Adjustments	Contrast Adjustment							
	G-Contrast adjustment	○			●			
	B-Contrast adjustment	○				●		
	Condenser lens adjustment	○	●					
	Relay lens-out adjustment	○		●				
Electrical Adjustments	Panel type check and setting	●					●	
	Fan control adjustment					●	●	
	Auto calibration adjustment [PC]						○	
	Auto calibration adjustment [Component]						○	
	Auto calibration adjustment [Video]						○	
	Common center adjustment	●					●	
	50% white adjustment [PC]	●					●	
	White balance adjustment [PC]	○					○	
	Keystone offset adjustment						●	
	Color shading correction adjustment	○					○	

Note on Main Board Replacement

● Memory IC replacement (IC1371)

Memory IC on the main board stores the user control value including lamp used time and product serial no. When the main board is replaced with new one, the lamp used time and serial no. have a null value. To keep the lamp use time and serial no., the memory IC should be replaced with the one on the previous main board.

● Serial No. Setting

The serial no. displayed on the on-screen menu "Information" is stored in the memory IC on the main board. After replacing the memory IC on the main board, if the serial no. on the "Information" menu is not displayed correctly, use the serial no. setting tool to write the correct serial no. referring to the serial no. printed on the rating label. For further details, refer to the operation manual of the serial no. setting tool [SST LITE v1.00]. The serial no. setting tool is included in the service CD-ROM below;

PROJECTOR SERVICE TOOL CD-ROM v4.20

SERVICE CODE: 610 343 5596

Caution:

Don't unplug the AC Cord without pressing the power button in the serving.

Optical Adjustments

Before taking optical adjustments below, remove the Cabinet Top following to the "Mechanical Disassembly". Remove the Main board and remove the AV panel. (Refer to Fig. 1)

Adjustments require a 2.0mm hex wrench and a slot screwdriver. When you adjust condenser lens (OUT) or Relay lens (OUT) adjustment, you need to disconnect FPC cables of LCD panels on the main board.

Optical adjustment requires a 2.0mm hex wrench and a slot screwdriver.

Note: Please remove connector "K8000" and "K8JB" on the main board, and do not remove other connectors, because the projector cannot turn on due to operate the power failure protection.

	WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING
	CAUTION: To prevent suffer of UV radiation, those adjustment must be completed within 25 minutes. DURING SERVICING

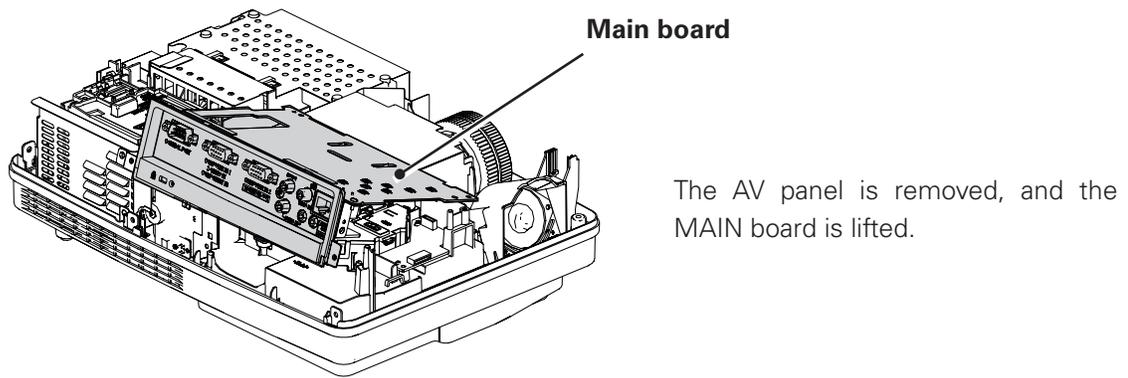
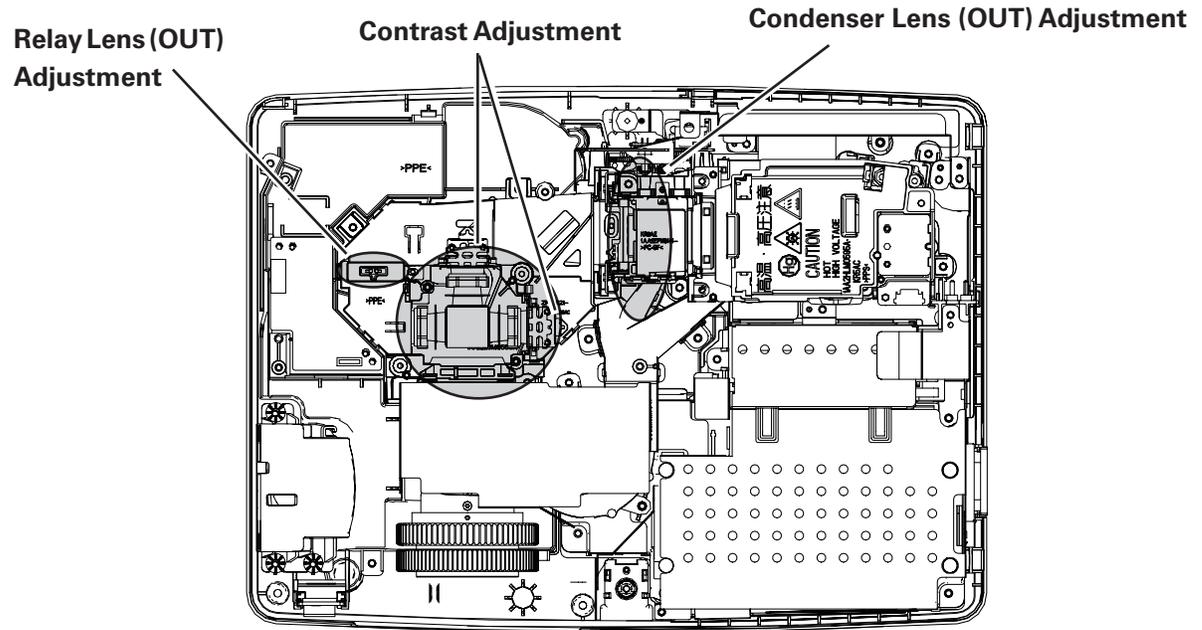


Fig. 1



Optical Adjustments

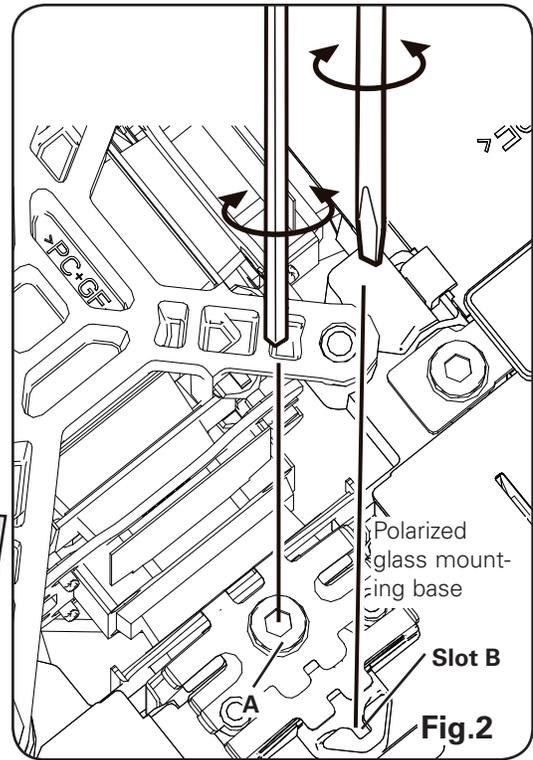
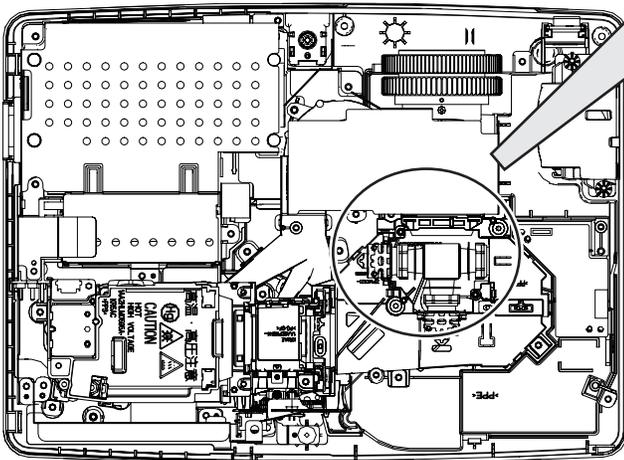
Contrast adjustment

[Before Adjustment]

- Input a 100% of black raster signal.

- 1 Loosen a screw **A** (**Fig.2**) on the polarized glass mounting base which you intend to adjust.
- 2 Adjust the slot **B** to obtain the darkest brightness on the screen by using a slot screwdriver.
- 3 Tighten the screw **A** to fix the polarized glass mounting base.

Repeat steps 1 to 3 for remaining polarized glasses.



Optical Adjustments

Condenser Out lens adjustment

- 1** Turn the projector on by a state of without FPC cables.
- 2** Project all of lights on the screen.
- 3** Adjust the adjustment base of condenser out lens assy to make color uniformity in white.
 - 1) If the shading appears on the left or right of the screen as shown in **Fig.3-1**, loosen 1 screw **A** , and adjust the slot **B** to make color uniformity in white by using a slot screwdriver.
 - 2) If the shading appears on the top or bottom of the screen as shown in **Fig.3-2**, loosen 2 screws **C**, and adjust the slots **D** to make color uniformity in white by using a slot screwdriver.
- 4** Tighten screws **A** and **C** to fix the condenser out lens unit.

Note:

The relay lens adjustment must be carried out after completing this adjustment.

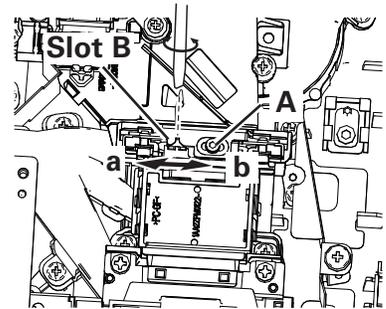
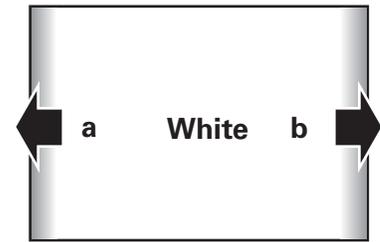
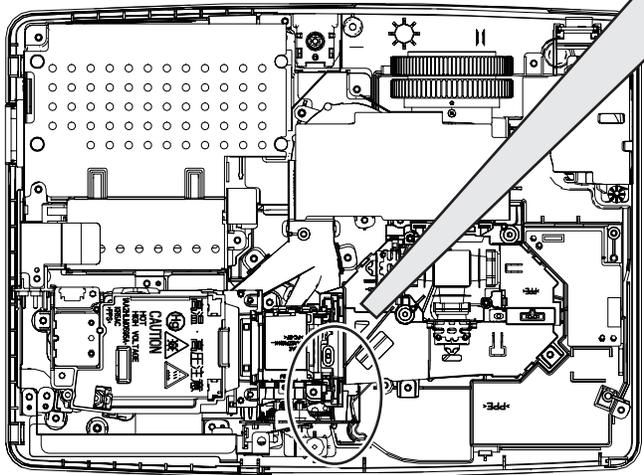


Fig.3-1
Moving of slot B

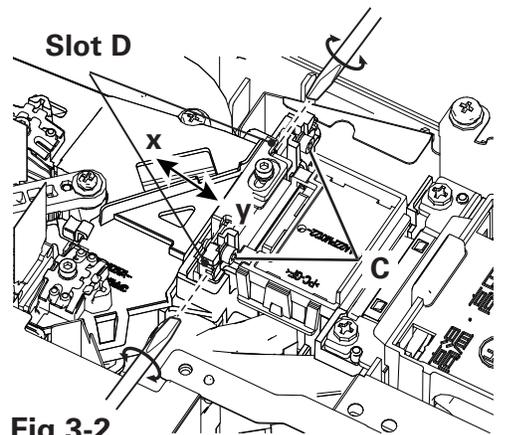
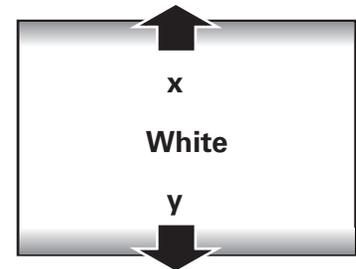
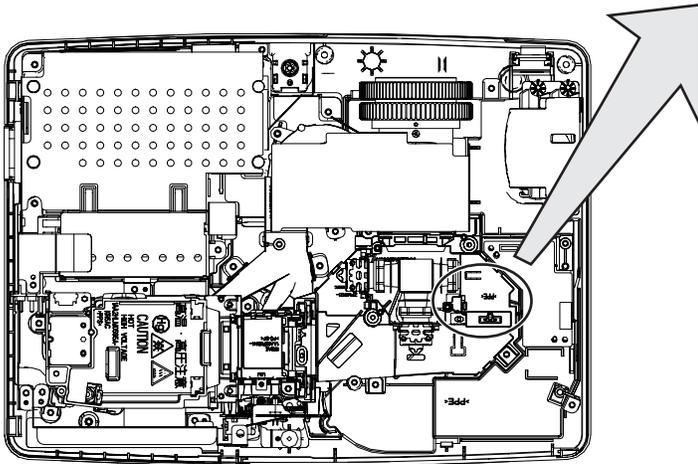
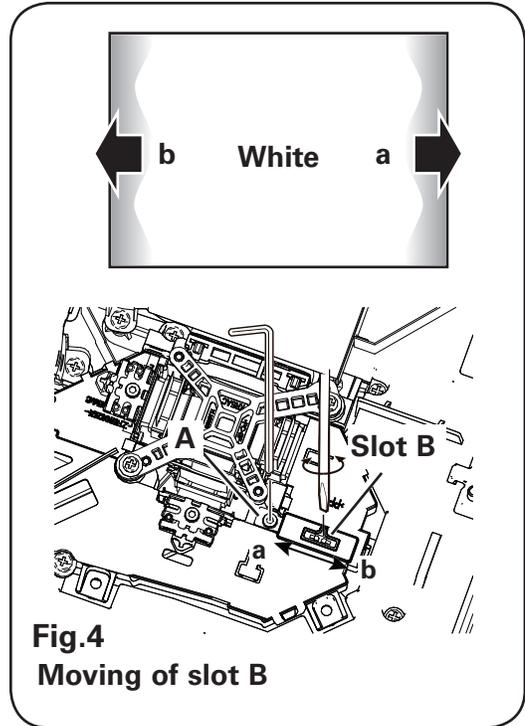


Fig.3-2
Moving of Slot D

Relay lens Out adjustment

- 1 Turn the projector on by a state of without FPC cables.
- 2 Project all of lights on the screen.
- 3 Adjust the adjustment base of relay lens assy to make color uniformity in white.
If the shading appears on the left or right of the screen as shown in **Fig.4**, loosen 1 screw **A** by using a hex screwdriver, and adjust the slot **B** to make color uniformity in white by using a slot screwdriver.
- 4 Tighten the screw **A** to fix the relay lens unit.



Electrical Adjustments

Service Adjustment Menu Operation

To enter the service mode

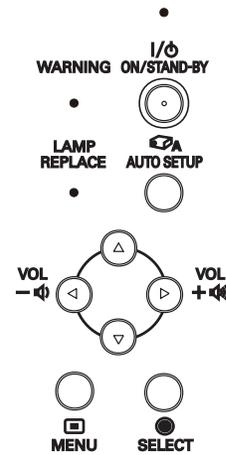
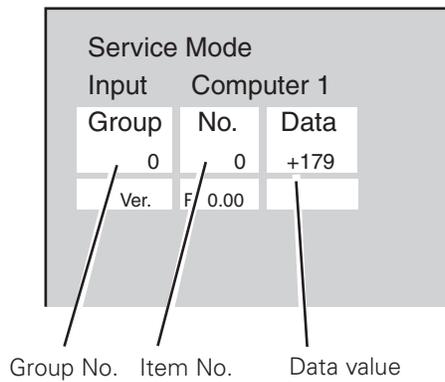
To enter the "Service Mode", press and hold the **MENU button** and **SELECT button** on the projector for more than 3 seconds or press and hold the **MENU button** on the remote control for more than 20 seconds. The service menu appears on the screen as follows.

To adjust service data

Select the adjustment Group No. by pressing the **MENU button** (increase) or **SELECT button** (decrease), and select the adjustment Item No. by pressing the pointer **▲** or **▼ button**, and change the data value by pressing the **◀** or **▶ button**. Refer to the "Service Adjustment Data Table" for further description of adjustment Group No., Item No. and data value.

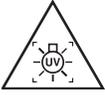
To exit the service mode

To exit the service mode, press the **ON/STAND-BY button**.



Circuit Adjustments

CAUTION: The each circuit has been made by the fine adjustment at factory. Do not attempt to adjust the following adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety. Before adjustment, please turn on the projector more than ten minutes.



WARNING : USE UV RADIATION EYE AND SKIN PROTECTION DURING SERVICING.



CAUTION:
To prevent suffer of UV radiation, those adjustments must be completed within 25 minutes.

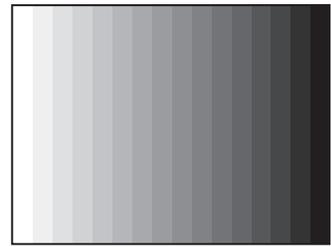
[Adjustment Condition]

- Input signal
Video signal 1.0Vp-p/75Ω terminated, 16 steps gray scale (Composite video signal)
Component Video signal 1.0Vp-p/75Ω terminated, 8 color 100% color bar or 16 step gray scale (Component video signal(480i))
Computer signal..... 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern
- Image control mode "STANDARD" mode unless otherwise noted.

Note:

* Please refer to "Service Adjustment Menu Operation" for entering the service mode and adjusting the service data.

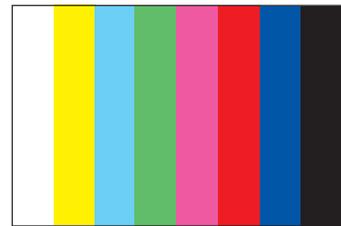
16 steps gray scale pattern



↑
White 100%

↑
Black 100%

8 color 100% color bar



W

Y

C

G

M

R

B

BLK

↑
White 100%

↑
Black 100%

1. Panel Type Check and Setting

* Before setting, you need to check which type of LCD panel is placed on the projector according to the item "LCD Panel/Prism Ass'y removal" in the chapter "Optical Parts Disassembly".

1. Enter the service mode.
2. Panel Type Check
Select Group No. "290"; Item No. "0". Check the data value as follows;
Data value: 0 For L-Type of LCD Panel
Data value: 20 For R-Type of LCD panel
3. Panel Type Setting
Select Group No. "290"; Item No. "1" and change data value from 10 to 0 or 20 depending on your LCD Panel type. When the data value reaches 0 or 20, it returns to 10 quickly. The gamma-characteristics changes according to your selection.

Note:

Be careful to take this adjustment. The value of gamma adjustment data will be reset and cannot be restored if you change the mode of LCD panel type.

2. Fan Control adjustment

1. Enter the service mode.
2. Connect a digital voltmeter to test point "TPFANA" (+) and chassis ground (-). Select Group No. "250"; Item No. "0" and change data value to adjust voltage to be **4.5 ±0.1V**.
3. Connect a digital voltmeter to test point "TPFANA" (+) and chassis ground (-). Select Item No. "1" and change data value to adjust voltage to be **13.8+0V/-0.1V**.
4. Connect a digital voltmeter to test point "TPFANB" (+) and chassis ground (-). Select Item No. "2" and change data value to adjust voltage to be **4.5 ±0.1V**.
5. Connect a digital voltmeter to test point "TPFANB" (+) and chassis ground (-). Select Item No. "3" and change data value to adjust voltage to be **13.8+0V/-0.1V**.
6. Connect a digital voltmeter to test point "TPFANC" (+) and chassis ground (-). Select Item No. "4" and change data value to adjust voltage to be **4.5 ±0.1V**.
7. Connect a digital voltmeter to test point "TPFANC" (+) and chassis ground (-). Select Item No. "5" and change data value to adjust voltage to be **13.8+0V/-0.15V**.

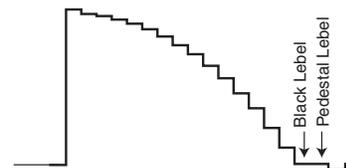
3. Auto Calibration adjustment [PC]

1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. To start the auto-calibration for PC adjustment, select Group No. "260"; Item No. "0" and then change data value from "0" to "1". After the auto-calibration completed, "OK" will appear on the screen.

Below adjustments are performed when the above auto calibration is failed.

Pedestal adjustment [PC]

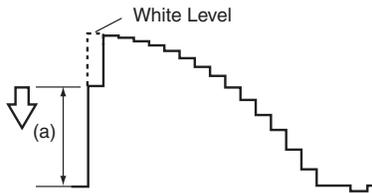
1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. Connect an oscilloscope to test point "TP35G" (+) and chassis ground (-).
4. Select Group No. "0"; Item No. "0" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "TP35R" (+) and chassis ground (-).
6. Select Item No. "1" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "TP35B" (+) and chassis ground (-).
8. Select Item No. "2" and change data value to adjust the pedestal level and black level to be the same level.



Electrical Adjustments

Gain adjustment [PC]

1. Enter the service mode.
2. Receive the 16-step grey scale computer signal with **Computer1 [RGB]** mode.
3. Connect an oscilloscope to test point "TP35G" (+) and chassis ground (-).
4. Select Group No. "0", Item No. "3" and adjust the amplitude "a" to be minimum by changing the Data value.
5. Connect an oscilloscope to test point "TP35R" (+) and chassis ground (-).
6. Select Group No. "0", Item No. "4" and adjust the amplitude "a" to be minimum by changing the Data value.
7. Connect an oscilloscope to test point "TP35B" (+) and chassis ground (-).
8. Select Group No. "0", Item No. "5" and adjust the amplitude "a" to be minimum by changing the Data value.



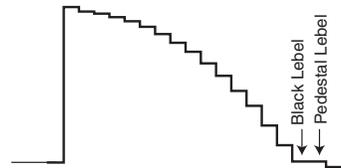
4. Auto Calibration adjustment [Component]

1. Enter the service mode.
2. Receive the 8 color 100% color bar 480i-component signal with **Computer1 [Component]** mode.
3. To start the auto-calibration for Component adjustment, select Group No. "260", Item No. "0" and then change data value from "0" to "1". After the auto-calibration completed, "OK" will appear on the screen.

Below adjustments are performed when the above auto calibration is failed.

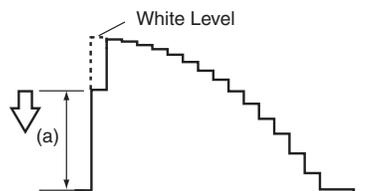
Pedestal adjustment [Component]

1. Enter the service mode.
2. Receive the 16-step grey scale 480i-component signal with **Computer1 [Component]** mode.
3. Connect an oscilloscope to test point "TP35G" (+) and chassis ground (-).
4. Select Group No. "0", Item No. "0" and change data value to adjust the pedestal level and black level to be the same level.
5. Connect an oscilloscope to test point "TP35R" (+) and chassis ground (-).
6. Select Item No. "1" and change data value to adjust the pedestal level and black level to be the same level.
7. Connect an oscilloscope to test point "TP35B" (+) and chassis ground (-).
8. Select Item No. "2" and change data value to adjust the pedestal level and black level to be the same level.



Gain adjustment [Component]

1. Enter the service mode.
2. Receive the 16-step grey scale 480i-component signal with **Computer1 [Component]** mode.
3. Connect an oscilloscope to test point "TP35G" (+) and chassis ground (-).
4. Select Group No. "0", Item No. "3" and adjust the amplitude "a" to be minimum by changing the Data value.



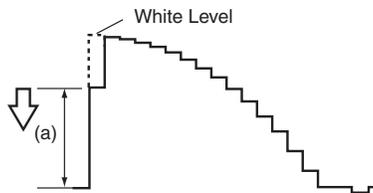
5. Auto Calibration adjustment [Video]

1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Video** mode.
3. To start the auto-calibration for Component adjustment, select Group No. "**260**"; Item No. "**0**" and then change data value from "**0**" to "**1**". After the auto-calibration completed, "OK" will appear on the screen.

below adjustment is performed when the above auto calibration is failed.

Gain adjustment [Video]

1. Enter the service mode.
2. Receive the 16-step grey scale composite video signal with **Video** mode.
3. Connect an oscilloscope to test point "**TP35G**" (+) and chassis ground (-).
4. Select Group No. "**20**"; Item No. "**0**" and adjust the amplitude "**a**" to be minimum by changing the Data value.



Adjustments item no. [3] to [5] are carried out at the spare parts shipment in the factory, therefore they are not required when the main board is replaced with new one.

6. Common Center adjustment

1. Enter the service mode.
2. Receive the 50%-Whole Gray computer signal with **Computer1 [RGB]** mode.
3. Select Group No. "**100**"; Item No. "**92**" and change data value to "**2**" to reduce the panel frequency.
4. Project only green light component to the screen.
5. Select Group No. "**101**"; Item No. "**1**" and change data value to obtain the minimum flicker on the screen.
6. Project only red light component to the screen.
7. Select Item No. "**0**" and change data value to obtain the minimum flicker on the screen.
8. Project only blue light component to the screen.
9. Select Item No. "**2**" and change data value to obtain the minimum flicker on the screen.
10. Select Group No. "**100**"; Item No. "**92**" and change data value to "**0**" to reset the panel frequency.

7. 50% White adjustment [PC]

Equipment	Luminance meter
Input mode	Computer 1 (RGB)
Input signal	100%-white and 50%-gray computer signal

1. Enter the service mode.
2. Input the 100%-white computer signal and measure luminance on the screen with the luminance meter. It is **A** for the reading of luminance meter.
3. Change the signal source to the 50%-white computer signal.
4. Select Group No. "**100**"; Item No. "**6**" and change the Data value to make the reading of luminance meter to be **A x 22%**.

8. White Balance adjustment [PC]

1. Enter the service mode,
2. Receive the 16-step gray scale computer signal with **Computer1 [RGB]** mode.
3. Select Group No. "**100**" Item No. "**7**" (Red) or "**8**" (Blue), and change Data values respectively to make a proper white balance.

9. Keystone Offset adjustment

After replacing the G-sensor circuit (IC3850) or Memory IC (IC1371), readjust the Keystone Offset adjustment as follows.

1. Put the projector on a horizontal place with the adjustable feet being minimum range and then enter the service mode.
2. Select Group No." **102**"; Item No." **3**" and set data value from" **0**" to" **5**".
3. By pressing the **SELECT** button, the Keystone Offset adjustment will start.
4. When it has completed, the "OK" message will appear on the screen.
5. By pressing any button on the projector or the remote control, the "**OK**" message will disappear. (Data value of Group No." **102**"; Item No." **3**" will be back from" **5**" to" **0**" for initial value.)

Color Shading Correction adjustment

If the correction of the Color shading adjustment is necessary, please adjust the "Color shading" by using the "COLOR SHADING CORRECTION" software supplied separately.

The color shading correction adjustment for this model should be performed with the whole-gray patterns specified as below.

4-input patterns:

8% gray, 15% gray, 30% gray, 60% gray

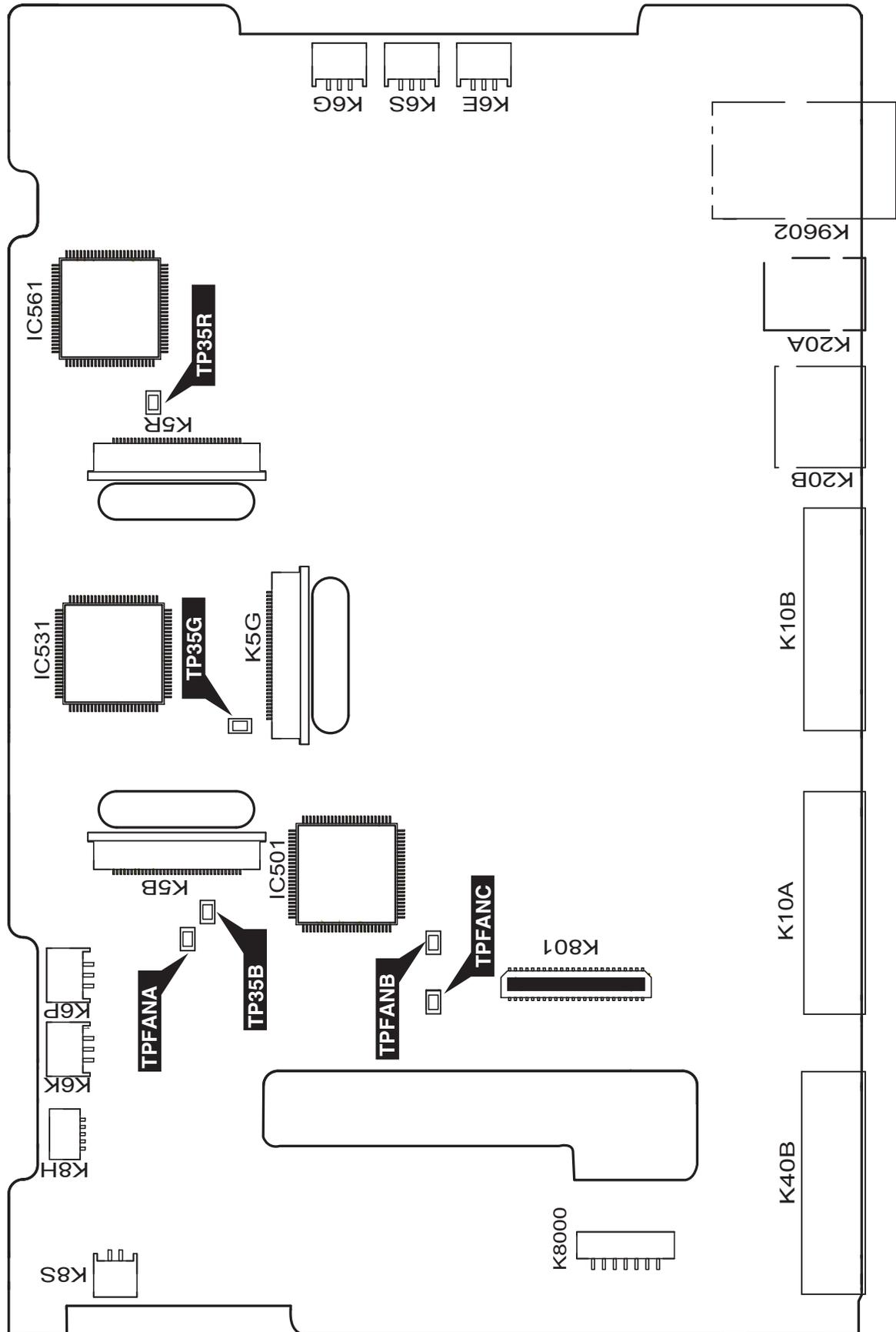
The Color Shading Correction can be ordered with following service code.

COLOR SHADING CORRECTION Ver. 4.20

Service Parts No. 610 343 5596

Test Points and Locations

MAIN BOARD



Electrical Adjustments

Service Adjustment Data Table

These initial values are the reference data written from the CPU ROM to memory IC when replaced new memory IC. The adjustment items indicated with "*" are required to readjust following to the "Electrical adjustments". Other items should be used with the initial data value.

Group/Item	Item Name	Function	Initial	Range	Note
Group 0	AD Converter (PW190)				
0	ADC G-OFFSET	PC / Component / SCART	128/120/128	0 - 255	* G-Pedestal Adjustment
1	ADC R-OFFSET	PC / Component / SCART	128/140/128	0 - 255	* R-Pedestal Adjustment
2	ADC B-OFFSET	PC / Component / SCART	128/140/128	0 - 255	* B-Pedestal Adjustment
3	ADC G-GAIN	PC / Component / SCART	50/50/50	0 - 255	* G-Gain Adjustmen
4	ADC R-GAIN	PC / Component / SCART	40/40/40	0 - 255	* R-Gain Adjustmen
5	ADC B-GAIN	PC / Component / SCART	40/40/40	0 - 255	* B-Gain Adjustmen
6	GRAAFLTR/RBAAFLTR	Green (Red and Blue) Anti-Alias Filter	4 / R / R	0 - 7	
7	GRNAADWNSMPL / RBAADWNSMPL	Green (Red and Blue) Anti-Alias Downsample	0 / R / R	0 - 3	Composite & S-Video / Component / PC
8	GRNAAHF / RBAAHF	Green (Red and Blue) Anti-Alias High Frequency	3 / R / R	0 - 3	*R: Read only value
10	SOGTH	PC / Component / SCART SyncOn Green Threhold	6 / 4 / 4	0 - 15	
11	SOGHYSDIS	PC / Component / SCART Sync On Green Hsysterisis Enable	0	0 - 1	
12	HS1TH		4	0 - 7	
13	HS0TH		4	0 - 7	
100	PreCoast PC Signal		3	0 - 63	
101	PostCoast PC Signal		8	0 - 63	
120	PreCoast PC Video 480i		7	0 - 63	
121	PostCoast PC Video 480i		13	0 - 63	
122	PreCoast PC Video 575i		7	0 - 63	
123	PostCoast PC Video 575i		13	0 - 63	
124	PreCoast PC Video 480p		7	0 - 63	
125	PostCoast PC Video 480p		13	0 - 63	
126	PreCoast PC Video 575p		7	0 - 63	
127	PostCoast PC Video 575p		13	0 - 63	
128	PreCoast PC Video 720p 60Hz		7	0 - 63	
129	PostCoast PC Video 720p 60Hz		13	0 - 63	
130	PreCoast PC Video 720p 50Hz		7	0 - 63	
131	PostCoast PC Video 720p 50Hz		13	0 - 63	
132	PreCoast PC Video 1080i 60Hz		7	0 - 63	
133	PostCoast PC Video 1080i 60Hz		13	0 - 63	
134	PreCoast PC Video 1080i 50Hz		7	0 - 63	
135	PostCoast PC Video 1080i 50Hz		13	0 - 63	
136	PreCoast PC Video 1035i		7	0 - 63	
137	PostCoast PC Video 1035i		13	0 - 63	
138	PreCoast PC Video 1080p 60Hz		7	0 - 63	
139	PostCoast PC Video 1080p 60Hz		13	0 - 63	
140	PreCoast PC Video 1080p 50Hz		7	0 - 63	
141	PostCoast PC Video 1080p 50Hz		13	0 - 63	
142	PreCoast PC Video 1080p 30Hz		7	0 - 63	
143	PostCoast PC Video 1080p 30Hz		13	0 - 63	
144	PreCoast PC Video 1080p 25Hz		7	0 - 63	
145	PostCoast PC Video 1080p 25Hz		13	0 - 63	
146	PreCoast PC Video 1080p 24Hz		7	0 - 63	
147	PostCoast PC Video 1080p 24Hz		13	0 - 63	

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
150	PreCoast YCbCr 480i		7	0 - 63	
151	PostCoast YCbCr 480i		13	0 - 63	
152	PreCoast YCbCr 575i		7	0 - 63	
153	PostCoast YCbCr 575i		13	0 - 63	
154	PreCoast YCbCr 480p		7	0 - 63	
155	PostCoast YCbCr 480p		13	0 - 63	
156	PreCoast YCbCr 575p		7	0 - 63	
157	PostCoast YCbCr 575p		13	0 - 63	
158	PreCoast YCbCr 720p 60Hz		7	0 - 63	
159	PostCoast YCbCr 720p 60Hz		13	0 - 63	
160	PreCoast YCbCr 720p 50Hz		7	0 - 63	
161	PostCoast YCbCr 720p 50Hz		13	0 - 63	
162	PreCoast YCbCr 1080i 60Hz		7	0 - 63	
163	PostCoast YCbCr 1080i 60Hz		13	0 - 63	
164	PreCoast YCbCr 1080i 50Hz		7	0 - 63	
165	PostCoast YCbCr 1080i 50Hz		13	0 - 63	
166	PreCoast YCbCr 1035i		7	0 - 63	
167	PostCoast YCbCr 1035i		13	0 - 63	
180	PreCoast SCART 480i		7	0 - 63	
181	PostCoast SCART 480i		13	0 - 63	
182	PreCoast SCART 575i		7	0 - 63	
183	PostCoast SCART 575i		13	0 - 63	
Group 10 Sync Processor					
0	SYNCAMPHLCKTOLOW	Minimum sync amplitude threshold for HLCK 1 to 0 transition	0x700	0 - 9999	
1	SYNCAMPHLCKTOHI	Minimum sync amplitude threshold for HLCK 0 to 1 transition	0x1000	0 - 9999	
Group 20 Video Decoder *R : Read Only Value					
0	Y Level	Composite / S-Video - Y Level (ADC RGB Gain)	10 / 10	0 - 255	Composite / S-Video * Gain Adjustment [Video]
1	C Level	Composite / S-Video - C Level (ADC Saturation)	115 / 115	0 - 255	Composite / S-Video
3	XCXL Level	Cross-Chroma, Cross-Luma Level	3	0 - 5	
4	C2DNBANDWIDTH	Comb 2D Narrow Bandwidth	3 / 3	0 - 3	NTSC/PAL
5	C2DWBANDWIDTH	Comb 2D Wide Bandwidth	4 / 4	0 - 7	NTSC/PAL
6	C2DCNMINLEAK	Comb 2D Chroma Narrow Band Minimum Leakage	0 / 3	0 - 3	Left Values are adjustable if CXCL Level = 5.
7	C2DCNSLOPELEAK	Comb 2D Narrow Band Slope Leakage	7 / 7	0 - 7	NTSC/PAL
8	C2DCWMINLEAK	Comb 2D Wide Band Minimum Leakage	1 / 3	0 - 3	NTSC/PAL
9	C2DCWSLOPELEAK	Comb 2D CW Slope Leakage	6 / 6	0 - 7	NTSC/PAL
10	COMBLEAK2BPGAIN	Comb Leak To Ban Pass Gain	1 / 0	0 - 3	NTSC/PAL
11	C2DBDIAGONALGAIN	Comb 2D Band Pass Diagonal Gain	1 / 3	0 - 3	NTSC/PAL
12	C2DNBCWBCLGAIN	Comb 2D Narrow Band Comb Wide Band Comb	1 / 1	0 - 3	NTSC/PAL
13	RLUMASETUP-Enable	7.5IRE Setup Enable	0	0 - 1	Effective only NTSC Signal
Group 40 General					
0	IP Mode	Sets for IP Off	1	0 - 1	0: IP Block not used 1: IP OFF used with IP Block
1	3:2 PullDown Mode		1	1 - 3	bit0 : Global Motion bit1 : Video Motion
2	Detect Film Mode Enable		0	0 - 2	0 : 2:3pull down & 2:2pull down 1 : 2:3pull down 2 : 2:2pull down
3	Force IP Mode		2	0 - 2	0 : IP Process Disable 1 : Force Normal IP Mode 2 : Force Film Mode Effective only for PSF Signal.
Group 41 Deinterlacer setting Effective only for Progressive ON-L1 mode.					

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
0	Motion Adaptive Weight Value	<KDEINT>	30	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	4	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 42	Deinterlacer setting Effective only for Progressive ON-L2 mode.				
0	Motion Adaptive Weight Value	<KDEINT>	0	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	2	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 43	Deinterlacer setting Effective only for Progressive ON/Film mode.				
0	Motion Adaptive Weight Value	<KDEINT>	30	0 - 255	
1	Angle Interpolation Level	0 : Conservative <====> 4 : Aggressive	4	0 - 4	
2	CUE Low Pass Filter Enable	<CUELPFEN>	0	0 - 1	
Group 45	Noise Reduction (Time) Effective only for N.R - Off				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	0	0 - 255	
Group 47	Noise Reduction (Time) Effective only for N.R L1				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	50	0 - 255	
Group 49	Noise Reduction (Time) Effective only for N.R L2				
0	Noise Pixel Range	<NSRANGEY> / <NSRANGEUV>	1	0 - 2	
1	Noise Region 0	<NSREGIONY0> / <NSREGIONUV0>	12	0 - 1023	
2	Noise Region 1	<NSREGIONY1> / <NSREGIONUV1>	24	0 - 1023	
3	Noise Region 2	<NSREGIONY2> / <NSREGIONUV2>	40	0 - 1023	
4	Noise Gain Level	<NSFILTERY**> / <NSFILTERUV**>	100	0 - 255	
Group 50	2:2pull down setting				
0	22Film Mode Sensitivity	Film Detection Sensitivity <FILMSTVT22>	4	1 - 5	
1	22Film Mode Threshold Low	<FILMTHRD22A>	80	0 - 32767	
2	22Film Mode Threshold High	<FILMTHRD22B>	120	0 - 32767	
3	VOFTHR13	<VOFTHR13>	124	0 - 1023	Read only
4	VOFTHR12	<VOFTHR12>	124	0 - 1023	Read only
5	VOFTHR23	<VOFTHR23>	124	0 - 1023	Read only
6	Video Motion Window Start X	<VOFSTARX>	10	0 - 2047	Range of detective for Film mode
7	Video Motion Window Stop X	<VOFSTOPX>	10	0 - 2047	Range of detective for Film mode
8	Video Motion Window Start Y	<VOFSTARY>	10	0 - 1023	Range of detective for Film mode
9	Video Motion Window Stop Y	<VOFSTOPY>	10	0 - 1023	Range of detective for Film mode
Group 51	2:3pull down setting				

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
0	Global Motion Sensitivity	Film Detection Sensitivity <FILMSTVT23>	4	1 - 5	
1	Video Motion Sensitivity	Film Detection Sensitivity <VOFSTVT>	4	1 - 5	
2	Video Motion Threshold Low	<VOFTHRDA>	120	0 - 32767	
3	Video Motion Threshold High	<VOFTHRDB>	180	0 - 32767	
4	Global Motion Threshold	<GMDTHRD>	124	0 - 1023	Read only value
5	23Film Mode Threshold	<FILMTHRD23>	100	0 - 32767	
6	Global Motion Window Start X	<GMDSTARX>	10	0 - 2047	Range of detective for Film mode
7	Global Motion Window Stop X	<GMDSTOPX>	10	0 - 2047	Range of detective for Film mode
8	Global Motion Window Start Y	<GMDSTARY>	10	0 - 1023	Range of detective for Film mode
9	Global Motion Window Stop Y	<GMDSTOPY>	10	0 - 1023	Range of detective for Film mode

Group 60	Image				
0	Center Contrast	534/578/534/534/492/492	0 - 1023		
1	Center Brightness	512/496/512/500/512/512	0 - 1023		Video(S-Video) / Component / SCART /
2	Center Color	512/512/512/512/512/512	0 - 1023		ANALOG / DIGITAL / HDCP
3	Center Tint	90/90/90/90/90/90	0-180		Setting Value=
4	Center Sharpness	16/16/16/16/16/16	16		(MENU Value - MENU Center Value)
5	Alpha Contrast	40/40/40/40/40/40	0-1000		x Alpha / 10 + Center
6	Alpha Brightness	140/140/140/140/140/140	0-1000		[Setting Value to PW]
7	Alpha Color	70/70/70/70/70/70	0-1000		Contrast [Max] 1023 [Min] 0
8	Alpha Tint	10/10/10/10/10/10	0-1000		Brightness [Max] 1023 [Min] 0
9	Alpha Sharpness	10/10/10/10/10/10	0-1000		Color [Max] 1023 [Min] 0
10	Center WB Red	512/512/512/512/512/512	0-1023		Tint [Max] 180 [Min] 0
11	Center WB Green	512/512/512/512/512/512	0-1023		Sharpness [Max] 57 [Min] 0
12	Center WB Blue	512/512/512/512/512/512	0-1023		Composite / S-Video / Component / Digital / D-RGB-Video / AnalogRGB / RGB-Video / HDCP-PC / HDCP-AV / SCART / PJ-Net
13	Alpha WB Red	40/40/40/40/40/40	0-1000		Setting Value=
14	Alpha WB Green	40/40/40/40/40/40	0-1000		MENU Value - MENU Center Value)
15	Alpha WB Blue	40/40/40/40/40/40	0-1000		x Alpha / 10 + Center

Group 100	Panel Service				
0	G-SubGain	2064/2048/2000/2000/2000/1950/1950/1830/1900	0-4095		PCStandard/PCDynamic/PCReal/PCBlackBoard/PCColBoaR/PCColBoaG/PCColBoaB/PCColBoaY/AVStandard/AVDynamic/AVCinema/AVBlackBoard/AVColBoaR/AVColBoaG/AVColBoaB/AVColBoaY
1	R-SubGain	2064/2048/2000/2000/2000/1850/2048/1950/2048	0-4095		
2	B-SubGain	2064/2048/2000/2000/2000/2048/2000/2048/2048	0-4095		
3	G-SubBright	0/0/24/24/32/0/32/0/32	0-4095		PCStandard/PCDynamic/PCReal/PCBlackBoard/PCColBoaR/PCColBoaG/PCColBoaB/PCColBoaY/AVStandard/AVDynamic/AVCinema/AVBlackBoard/AVColBoaR/AVColBoaG/AVColBoaB/AVColBoaY/
4	R-SubBright	0/0/24/24/40/0/32/0/32	0-4095		PC/AV
5	B-SubBright	0/0/24/24/32/16/0/50/32	0-4095		Center=512
6	G-GammaShift	2048	0-4095		[R] and [B] are linked with [G] Scan Direction (Front/Rear)
7	R-GammaShift	2048	0-4095		[R] and [B] are linked with [G] Scan Direction (Front/Rear)
8	B-GammaShift	2048	0-4095		Scan Direction (Front/Rear)
9	G-ReferH	4095/4095	0-4095		Scan Direction (Front/Rear)
10	G-ReferL	288	0-4095		Scan Direction (Front/Rear)
11	R-ReferH	4095/4095	0-4095		Scan Direction (Front/Rear)
12	R-ReferL	288	0-4095		Scan Direction (Front/Rear)
13	B-ReferH	4095/4095	0-4095		Scan Direction (Front/Rear)
14	B-ReferL	288	0-4095		Scan Direction (Front/Rear)
15	DXOutR	242	0-1023		
16	DXOutG	242	0-1023		
17	DXOutB	242	0-1023		
18	H_Change_Pos	43	0-255		
19	SH_Base	1092	0-4095		
20	NRG_Pos	34	0-127		
21	NRG_Width	32	0-255		
22	OSD_Pos	2	0-3		
23	OSD_Ptn	0	0-9		
24	GammaCtrl	1	0-1		
25	REF_GatePos	32	0-1023		

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
	26 REF_GateDur		143	0-1023	
	27 R-BasePos		3	0-15	
	28 G-BasePos		3	0-15	
	29 B-BasePos		3	0-15	
	30 RGB-Adjust		0	0-7	
	31 RGB-AdjLv		0	0-4095	Operation STEP=256[0<->256<->512<->768<->1023]
	32 LineR0		0	0-1023	(MIN<->MAX Cyclic Operation)
	33 LineR1		0	0-1023	(MIN<->MAX Cyclic Operation)
	34 LineR2		0	0-1023	(MIN<->MAX Cyclic Operation)
	35 LineR3		0	0-1023	(MIN<->MAX Cyclic Operation)
	36 LineR4		0	0-1023	(MIN<->MAX Cyclic Operation)
	37 LineG0		0	0-1023	(MIN<->MAX Cyclic Operation)
	38 LineG1		0	0-1023	(MIN<->MAX Cyclic Operation)
	39 LineG2		0	0-1023	(MIN<->MAX Cyclic Operation)
	40 LineG3		0	0-1023	(MIN<->MAX Cyclic Operation)
	41 LineG4		0	0-1023	(MIN<->MAX Cyclic Operation)
	42 LineB0		0	0-1023	(MIN<->MAX Cyclic Operation)
	43 LineB1		0	0-1023	(MIN<->MAX Cyclic Operation)
	44 LineB2		0	0-1023	(MIN<->MAX Cyclic Operation)
	45 LineB3		0	0-1023	(MIN<->MAX Cyclic Operation)
	46 LineB4		0	0-1023	(MIN<->MAX Cyclic Operation)
	47 GhostR-Pos		8	0-31	
	48 GhostG-Pos		8	0-31	
	49 GhostB-Pos		8	0-31	
	50 GhostR-Cent		0	0-2047	
	51 GhostR-Start		128	0-255	
	52 GhostR-End		128	0-255	
	53 GhostG-Cent		0	0-2047	
	54 GhostG-Start		128	0-255	
	55 GhostG-End		128	0-255	
	56 GhostB-Cent		0	0-2047	
	57 GhostB-Start		128	0-255	
	58 GhostB-End		128	0-255	
	59 BlockR1		0	0-2047	(MIN<->MAX Cyclic Operation)
	60 BlockG1		0	0-2047	(MIN<->MAX Cyclic Operation)
	61 BlockB1		0	0-2047	(MIN<->MAX Cyclic Operation)
	62 BlockR2		0	0-2047	(MIN<->MAX Cyclic Operation)
	63 BlockG2		0	0-2047	(MIN<->MAX Cyclic Operation)
	64 BlockB2		0	0-2047	(MIN<->MAX Cyclic Operation)
	65 ReverseR		0	0-2047	(MIN<->MAX Cyclic Operation)
	66 ReverseG		0	0-2047	(MIN<->MAX Cyclic Operation)
	67 ReverseB		0	0-2047	(MIN<->MAX Cyclic Operation)
	68 BackCrossR-Cent		6	0-2047	
	69 BackCrossR-Start		128	0-255	
	70 BackCrossR-End		128	0-255	
	71 BackCrossG-Cent		6	0-2047	
	72 BackCrossG-Start		128	0-255	
	73 BackCrossG-End		128	0-255	
	74 BackCrossBR-Cent		6	0-2047	
	75 BackCrossB-Start		128	0-255	
	76 BackCrossB-End		128	0-255	
	77 ColshdSelect		1	0-1	
	78 R-Min		454	0-1023	
	79 R-Mid2		536	0-1023	
	80 R-Mid1		636	0-1023	
	81 R-Max		698	0-1023	
	82 G-Min		454	0-1023	
	83 G-Mid2		536	0-1023	
	84 G-Mid1		636	0-1023	
	85 G-Max		698	0-1023	
	86 B-Min		454	0-1023	
	87 B-Mid2		536	0-1023	
	88 B-Mid1		636	0-1023	
	89 B-Max		698	0-1023	
	90 H-OutPos		109	0-2047	
	91 OutAreaLv		2048	0-4095	
	92 FlickerAdj		0	0/2	
	93 FRC_Bit		1	0-3	

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
94	FrontCTalkR-Cent		2045	0-2047	
95	FrontCTalkR-Start		128	0-255	
96	FrontCTalkR-End		128	0-255	
97	FrontCTalkG-Cent		2045	0-2047	
98	FrontCTalkG-Start		128	0-255	
99	FrontCTalkG-End		128	0-255	
100	FrontCTalkB-Cent		2045	0-2047	
101	FrontCTalkB-Start		128	0-255	
102	FrontCTalkB-End		128	0-255	
103	R-DCOffset-NGain		0	0-1023	Scan Direction (Front/Rear)
104	R-DCOffset-N1		16	0-2047	Scan Direction (Front/Rear)
105	R-DCOffset-N2		0	0-2047	Scan Direction (Front/Rear)
106	R-DCOffset-N3		0	0-2047	Scan Direction (Front/Rear)
107	R-DCOffset-N4		0	0-2047	Scan Direction (Front/Rear)
108	R-DCOffset-N5		0	0-2047	Scan Direction (Front/Rear)
109	R-DCOffset-N6		0	0-2047	Scan Direction (Front/Rear)
110	R-DCOffset-N7		0	0-2047	Scan Direction (Front/Rear)
111	R-DCOffset-N8		0	0-2047	Scan Direction (Front/Rear)
112	R-DCOffset-N9		0	0-2047	Scan Direction (Front/Rear)
113	R-DCOffset-N10		0	0-2047	Scan Direction (Front/Rear)
114	R-DCOffset-N11		0	0-2047	Scan Direction (Front/Rear)
115	R-DCOffset-N12		1968	0-2047	Scan Direction (Front/Rear)
116	G-DCOffset-NGain		0	0-1023	Scan Direction (Front/Rear)
117	G-DCOffset-N1		16	0-2047	Scan Direction (Front/Rear)
118	G-DCOffset-N2		0	0-2047	Scan Direction (Front/Rear)
119	G-DCOffset-N3		0	0-2047	Scan Direction (Front/Rear)
120	G-DCOffset-N4		0	0-2047	Scan Direction (Front/Rear)
121	G-DCOffset-N5		0	0-2047	Scan Direction (Front/Rear)
122	G-DCOffset-N6		0	0-2047	Scan Direction (Front/Rear)
123	G-DCOffset-N7		0	0-2047	Scan Direction (Front/Rear)
124	G-DCOffset-N8		0	0-2047	Scan Direction (Front/Rear)
125	G-DCOffset-N9		0	0-2047	Scan Direction (Front/Rear)
126	G-DCOffset-N10		0	0-2047	Scan Direction (Front/Rear)
127	G-DCOffset-N11		0	0-2047	Scan Direction (Front/Rear)
128	G-DCOffset-N12		1968	0-2047	Scan Direction (Front/Rear)
129	B-DCOffset-NGain		0	0-1023	Scan Direction (Front/Rear)
130	B-DCOffset-N1		16	0-2047	Scan Direction (Front/Rear)
131	B-DCOffset-N2		0	0-2047	Scan Direction (Front/Rear)
132	B-DCOffset-N3		0	0-2047	Scan Direction (Front/Rear)
133	B-DCOffset-N4		0	0-2047	Scan Direction (Front/Rear)
134	B-DCOffset-N5		0	0-2047	Scan Direction (Front/Rear)
135	B-DCOffset-N6		0	0-2047	Scan Direction (Front/Rear)
136	B-DCOffset-N7		0	0-2047	Scan Direction (Front/Rear)
137	B-DCOffset-N8		0	0-2047	Scan Direction (Front/Rear)
138	B-DCOffset-N9		0	0-2047	Scan Direction (Front/Rear)
139	B-DCOffset-N10		0	0-2047	Scan Direction (Front/Rear)
140	B-DCOffset-N11		0	0-2047	Scan Direction (Front/Rear)
141	B-DCOffset-N12		1968	0-2047	Scan Direction (Front/Rear)
142	R-DCOffset-PGain		0	0-1023	Scan Direction (Front/Rear)
143	R-DCOffset-P1		2041	0-2047	Scan Direction (Front/Rear)
144	R-DCOffset-P2		0	0-2047	Scan Direction (Front/Rear)
145	R-DCOffset-P3		0	0-2047	Scan Direction (Front/Rear)
146	R-DCOffset-P4		0	0-2047	Scan Direction (Front/Rear)
147	R-DCOffset-P5		0	0-2047	Scan Direction (Front/Rear)
148	R-DCOffset-P6		0	0-2047	Scan Direction (Front/Rear)
149	R-DCOffset-P7		0	0-2047	Scan Direction (Front/Rear)
150	R-DCOffset-P8		0	0-2047	Scan Direction (Front/Rear)
151	R-DCOffset-P9		0	0-2047	Scan Direction (Front/Rear)
152	R-DCOffset-P10		0	0-2047	Scan Direction (Front/Rear)
153	R-DCOffset-P11		0	0-2047	Scan Direction (Front/Rear)
154	R-DCOffset-P12		54	0-2047	Scan Direction (Front/Rear)
155	G-DCOffset-PGain		0	0-1023	Scan Direction (Front/Rear)
156	G-DCOffset-P1		2041	0-2047	Scan Direction (Front/Rear)
157	G-DCOffset-P2		0	0-2047	Scan Direction (Front/Rear)
158	G-DCOffset-P3		0	0-2047	Scan Direction (Front/Rear)
159	G-DCOffset-P4		0	0-2047	Scan Direction (Front/Rear)
160	G-DCOffset-P5		0	0-2047	Scan Direction (Front/Rear)
161	G-DCOffset-P6		0	0-2047	Scan Direction (Front/Rear)
162	G-DCOffset-P7		0	0-2047	Scan Direction (Front/Rear)

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
163	G-DCOffset-P8		0	0-2047	Scan Direction (Front/Rear)
164	G-DCOffset-P9		0	0-2047	Scan Direction (Front/Rear)
165	G-DCOffset-P10		0	0-2047	Scan Direction (Front/Rear)
166	G-DCOffset-P11		0	0-2047	Scan Direction (Front/Rear)
167	G-DCOffset-P12		54	0-2047	Scan Direction (Front/Rear)
168	B-DCOffset-PGain		0	0-1023	Scan Direction (Front/Rear)
169	B-DCOffset-P1		2041	0-2047	Scan Direction (Front/Rear)
170	B-DCOffset-P2		0	0-2047	Scan Direction (Front/Rear)
171	B-DCOffset-P3		0	0-2047	Scan Direction (Front/Rear)
172	B-DCOffset-P4		0	0-2047	Scan Direction (Front/Rear)
173	B-DCOffset-P5		0	0-2047	Scan Direction (Front/Rear)
174	B-DCOffset-P6		0	0-2047	Scan Direction (Front/Rear)
175	B-DCOffset-P7		0	0-2047	Scan Direction (Front/Rear)
176	B-DCOffset-P8		0	0-2047	Scan Direction (Front/Rear)
177	B-DCOffset-P9		0	0-2047	Scan Direction (Front/Rear)
178	B-DCOffset-P10		0	0-2047	Scan Direction (Front/Rear)
179	B-DCOffset-P11		0	0-2047	Scan Direction (Front/Rear)
180	B-DCOffset-P12		54	0-2047	Scan Direction (Front/Rear)
181	ENBX-R		0	0-127	
182	ENBX-G		0	0-127	
183	ENBX-B		0	0-127	
184	DXOutPos		0	0-1	
185	R_V_INPUT_SETP_0		17	0-1023	
186	R_V_INPUT_SETP_512		14	0-1023	
187	R_V_INPUT_SETP_1024		9	0-1023	
188	R_V_INPUT_SETP_1536		6	0-1023	
189	R_V_INPUT_SETP_2048		0	0-1023	
190	R_V_INPUT_SETP_2560		1020	0-1023	
191	R_V_INPUT_SETP_3072		1016	0-1023	
192	R_V_INPUT_SETP_3584		1019	0-1023	
193	R_V_INPUT_SETP_4096		1022	0-1023	
194	G_V_INPUT_SETP_0		17	0-1023	
195	G_V_INPUT_SETP_512		14	0-1023	
196	G_V_INPUT_SETP_1024		9	0-1023	
197	G_V_INPUT_SETP_1536		6	0-1023	
198	G_V_INPUT_SETP_2048		0	0-1023	
199	G_V_INPUT_SETP_2560		1020	0-1023	
200	G_V_INPUT_SETP_3072		1016	0-1023	
201	G_V_INPUT_SETP_3584		1019	0-1023	
202	G_V_INPUT_SETP_4096		1022	0-1023	
203	B_V_INPUT_SETP_0		17	0-1023	
204	B_V_INPUT_SETP_512		14	0-1023	
205	B_V_INPUT_SETP_1024		9	0-1023	
206	B_V_INPUT_SETP_1536		6	0-1023	
207	B_V_INPUT_SETP_2048		0	0-1023	
208	B_V_INPUT_SETP_2560		1020	0-1023	
209	B_V_INPUT_SETP_3072		1016	0-1023	
210	B_V_INPUT_SETP_3584		1019	0-1023	
211	B_V_INPUT_SETP_4096		1022	0-1023	
212	ERPPOL		84	0-4095	
213	FRP_POS		32	0-255	
214	SWAP		1280	0-2047	
215	PRE_COLSHD_SEL		0	0-255	
216	HSYNC_FOLLOW		0	0-1	
217	DELAY_HSYNC		0	0-2047	
218	DELAY_VSYNC		0	0-255	
219	VSYNC_FOLLOW		0	0-1	
220	BLANK_RCENTER		0	0-2047	
221	BLANK_RSTART		128	0-255	
222	BLANK_REND		128	0-255	
223	BLANK_GCENTER		0	0-2047	
224	BLANK_GSTART		128	0-255	
225	BLANK_GEND		128	0-255	
226	BLANK_BCENTER		0	0-2047	
227	BLANK_BSTART		128	0-255	
228	BLANK_BEND		128	0-255	
229	Output limit R		3686	0-4095	
230	Output limit G		3686	0-4095	
231	Output limit B		3686	0-4095	

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
	232 CROSSTALK_COEF_R		1023	0-1023	
	233 CROSSTALK_COEF_G		1023	0-1023	
	234 CROSSTALK_COEF_B		1023	0-1023	
	235 LCCON_ENABLE		0	0-1	
	236 ENBY_L1		12	0-255	
	237 ENBY_H1		674	0-1023	
	238 ENBY_L2		12	0-255	
	239 ENBY_H2		674	0-1023	
Group 101	Panel Service(6200)				
	0 R_LCCOM		186	0-255	
	1 G_LCCOM		186	0-255	
	2 B-LCCOM		186	0-255	
	3 R-ENBX-PW		5	0-15	
	4 G-ENBX-PW		5	0-15	
	5 B-ENBX-PW		5	0-15	
	6 R-DXIN		0	0-127	
	7 G-DXIN		0	0-127	
	8 B-DXIN		0	0-255	
	9 R-ENB11N		20	0-31	
	10 G-ENB11N		20	0-31	
	11 B-ENB11N		20	0-31	
	12		0/0	0-3	
	13 R-FPDDR1M		1/0	0-1	
	14		1/0	0-1	
	15		0	0-7	
	16 R-PARA1		1	0-1	
	17 R-PARA2		257	0-1023	
	18 R-PARA3		256	0-1023	
	19 R-FPDDR1		868	0-1023	
	20 R-FPDDR11		921	0-1023	
	21		0/0	0-3	
	22 G-FPDDR1M		1/0	0-1	
	23		1/0	0-1	
	24 G-PARA1		0	0-7	
	25		1	0-1	
	26 G-PARA2		257	0-1023	
	27 G-PARA3		256	0-1023	
	28 G-FPDDR1		868	0-1023	
	29 G-GPDDR11		921	0-1023	
	30		0/0	0-3	
	31 B-FPDDR1M		1/0	0-1	
	32		1/0	0-1	
	33		0	0-7	
	34 B-PARA1		1	0-1	
	35 B-PARA2		257	0-1023	
	36 B-PARA3		256	0-1023	
	37 B-FPDDR1		868	0-1023	
	38 B-FPDDR11		921	0-1023	
Group 102	Auto Keystone Setup Value				
	0 OFFSET		0	-1056 - 1056	
	1 OFFSET SWITCH		0	0 - 1	
	2 DEBUG MODE		0	0 - 1	
	3 SERVICE CALIBRATION		0	0 - 10	
	4 LOCK COUNT		5	1 - 255	
	5 DELT VERT RESULT		64	1 - 255	
	6 ANGLE 1 COUNT		1	1 - 10	
	7 ANGLE 2 COUNT		5	1 - 10	
	8 BLIND SECTOR 1		160	0 - 1024	
	9 BLIND SECTOR 3		32	0 - 1024	
	10 BLIND SECTOR BIAS		61	0 - 1024	
Group 200	Option				

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
0	Logo Prohibition	Logo Prohibition (0: Menu, 1: Forced)	0	0 - 1	Effective after AC On
1	RS232C Baudrate	Baud Rate	0	0 - 2	0: 19200bps, 1: 9600bps, 2: 115200bps
2	PJLink Enable	PJLink	1	0 - 1	0: Disable 1: Enable
4	CABLE SW	Long Cable	1	0 - 1	0: Disable, 1: Enable
5	PW Debug Command Enable		0	0 - 1	0:Disable (Serial Command Enable) 1: Enable (PW Debug Mode)
6	Device Refresh Disable		0	0 - 1	0:Enable, 1:Disable No last memory
7	Device Access Disable		0	0 - 1	0:Enable (Normal), 1:Disable No last memory
40	Lamp PWM PresAv 50Hz		80	0-255	
41	Lamp PWM PresAv 60Hz		67	0-255	
42	Lamp PWM PresUnlock		65	0-255	
43	Lamp PWM PresPcA		2	0-255	
44	Lamp PWM PresPcB		3	0-255	
45	Lamp PWM PrefHAv50Hz		5000	0-65535	
46	Lamp PWM PrefHAv60Hz		5000	0-65535	
47	Lamp PWM PrefHUNlock		5000	0-65535	
50	Lamp Replacement Display		1	0-1	
51	Filter Warning Display	Filter Warning Display On / Off	1	0-1	1: On, 0: Off
52	Lamp Counter Reset Times	Reset Times of Lamp Counter	0	0-255	Read only
53	Filter Counter Reset Times	Filter Counter Reset Times	0	0-255	
54	Factory Default Execute Times	Reset times of Factory Default	0	0 - 255	Read only
56	Menu Position	Move menu (X axis)	0	0 - 1024	
57	Menu Position	Move menu (Y axis)	0	0 - 1024	
59	Source Search Enable	Source Search Enable (0: Disable 1:Enable)	1	0-1	
60	Language Default Setting	Language Default setting (0: English 1:Japanese)	0	0-1	
65	Mute Setting In Freeze status	Mute On/Off in Freeze status	1	0-1	1: On, 0: Off
66	Iris Warning Display	Iris Warning Display On/Off	1	0-1	1: On, 0: Off
Group 201 Option (signal)					
0	FrameLock Option		1	0 - 1	0: FrameLockOFF at PC signal 1: FrameLockON at PC signal and 47Hz (Vfreq) ~ Panel frequency of input signal
2	Field Sense Invert Enable		0	0 - 1	Reverse Processing of FLDINVSetting Value 0: Disable - Used FLDINV Setting Value 1: Enable - Used Reversed FLDINV Setting Value
4	Sub Image Enable		1	0 - 1	0:Disable (Service Adjustment Dsiable, Used all the Center Values) 1:Enable (Service Adjustment Enable)
6	Zoom Accelerator Enable		0	0 - 1	0:Zoom Accelerator OFF, 1:Zoom Accelerator ON No last memory
7	DZoom Reset by Keystone		0	0 - 1	0:Enable (Normal), 1:Disable (Dzoom is not cancelled even if Keystone is cancelled) No last memory
8	Stability Count	Count Value of V-missing	5	0 - 255	
9	Sensitivity for Signal Lost (HSYNC)	Only used this value for No Signal Judgement(Hz)	350	0 - 32767	
10	Sensitivity for Signal Lost (VSYNC)	Only used this value for No Signal Judgement(Line)	3	0 - 255	
11	Keystone Filter Center Value	Reference Value	16	0 - 30	
Group 202 Option (MCI model only)					
0	Memory Viewer OSD	Memory Viewer OSD Display (1: Yes, 0: No)	1	0 - 1	
1	SIMPLE_CHANNEL_NUM		11	0-11	
Group 205 Spread Spetrum					

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
0	Enable	0=Enable, 1=Disable	1	0 - 1	
1	Modulation frequency		300	1 - 500	
2	Diffusivity		200	0 - 300	
Group 210	Lamp Control				
0	DIMMER_CTRL_LEVEL1	Luminance Level 1 Data for Dimmer: Dim Level 1 at the less than the Value	7	0-255	
1	DIMMER_CTRL_LEVEL2	Luminance Level 1 Data for Dimmer: Dim Level 2 at the less than the Value	14	0-255	
2	DIMMER_CTRL_LEVEL3	Luminance Level 1 Data for Dimmer: Dim Level 3 at the less than the Value	21	0-255	
3	DIMMER_CTRL_LEVEL4	Luminance Level 1 Data for Dimmer: Dim Level 4 at the less than the Value	28	0-255	
4	DIMMER_CTRL_LEVEL5	Luminance Level 1 Data for Dimmer: Dim Level 5 at the less than the Value	35	0-255	
5	DIMMER_CTRL_LEVEL6	Luminance Level 1 Data for Dimmer: Dim Level 6 at the less than the Value	42	0-255	
6	DIMMER_CTRL_LEVEL7	Luminance Level 1 Data for Dimmer: Dim Level 7 at the less than the Value	49	0-255	
7	DIMMER_CTRL_LEVEL8	Luminance Level 1 Data for Dimmer: Dim Level 8 at the less than the Value	56	0-255	
8	DIMMER_CTRL_LEVEL9	Luminance Level 1 Data for Dimmer: Dim Level 9 at the less than the Value	63	0-255	
9	DIMMER_CTRL_LEVEL10	Luminance Level 10 Data for Dimmer: Dim Level 10 at the less than the Value	70	0-255	
10	DIMMER_CTRL_LEVEL11	Luminance Level 11 Data for Dimmer: Dim Level 11 at the less than the Value	77	0 - 255	
11	DIMMER_CTRL_LEVEL12	Luminance Level 12 Data for Dimmer: Dim Level 12 at the less than the Value	84	0 - 255	
12	DIMMER_CTRL_LEVEL13	Luminance Level 13 Data for Dimmer: Dim Level 13 at the less than the Value	91	0 - 255	
13	DIMMER_CTRL_LEVEL14	Luminance Level 14 Data for Dimmer: Dim Level 14 at the less than the Value	98	0 - 255	
14	DIMMER_CTRL_LEVEL15	Luminance Level 15 Data for Dimmer: Dim Level 15 at the less than the Value	105	0 - 255	
15	DIMMER_AVERAGE_POINT	Luminance Data Average Point for Mimmer	4	1 - 16	
16	DIMMER_AVERAGE_DATA	Luminance Data Average Value for Dimmer	-	-	* Read only
17	DIMMER_LEVEL_AUTO	Current Dimmer Level	-	-	* Read only
18	DIMMER_LEVEL_NORMAL	Normal Dimmer Level	12	0 - 15	
19	DIMMER_LEVEL_ECO	Eco Dimmer Level	1	0 - 15	
20	Lamp check enable		0	0 - 1	0: Lamp Failure Detection OFF (White 50% Back), 1 : ON (Blue 100% Back)
21	VOLTAGE_LEVEL	Lamp Voltage	-		Unit: 8bit(Raw Data) * Read only
22	DIMMER_LEVEL_HIGH	Dimmer level High	15	0 - 15	
23	Past Calculation System		-	-	
24	New APL System		-	-	
25	Red Average Level		-	-	
26	Green Average Level		-	-	
27	Blue Average Level		-	-	
28	SAT		-	-	
29	Chroma Coefficient		-	-	
30	cSatMin		53	0-255	
31	cSatMax		203	0-255	
32	wCoeMin		400	0-1000	
33	wCoeMax		1000	0-1000	
Group 211	General				
0	Mode		0	0-3	
1	Error Detect Enable		1	0-1	
2	Open Position Offset		-12	-511-511	
3	Speed adjust		1/1	1-1023	(AV/PC)
4	Manual Position Adjust		0	0-1023	

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
5	APL Threshold Min		4/4	0-255	(AV/PC)
6	APL Threshold Max		9/9	0-255	(AV/PC)
10	Close Limit Dimmer 0		728	0-1023	
11	Close Limit Dimmer 1		714	0-1023	
12	Close Limit Dimmer 2		684	0-1023	
13	Close Limit Dimmer 3		654	0-1023	
14	Close Limit Dimmer 4		624	0-1023	
15	Close Limit Dimmer 5		594	0-1023	
16	Close Limit Dimmer 6		564	0-1023	
17	Close Limit Dimmer 7		534	0-1023	
18	Close Limit Dimmer 8		504	0-1023	
19	Close Limit Dimmer 9		474	0-1023	
20	Close Limit Dimmer 10		444	0-1023	
21	Close Limit Dimmer 11		414	0-1023	
22	Close Limit Dimmer 12		384	0-1023	
23	Close Limit Dimmer 13		354	0-1023	
24	Close Limit Dimmer 14		324	0-1023	
25	Close Limit Dimmer 15		294	0-1023	
30	Update Interval		18/18	0-1023	(AV/PC)

Group	VBI Slice Level				
230	0	Generic Initial Slicing Level	PW190 register 0xE344	9	0-255
	1	Generic High Level Threshold	PW190 register 0xE345	0	0-255
	2	Generic Low Level Threshold	PW190 register 0xE346	0	0-255
	3	Generic Minimum Low Level	PW190 register 0xE347	0	0-255
	4	Generic Maximum High Level	PW190 register 0xE348	255	0-255

Group	FAN Control				
250	0	FAN1 MIN ADJUST (DAC)	DAC Output for Fan	38	0 - 255
	1	FAN1 MAX ADJUST (DAC)	Adjust the tolerance of DAC and Fan	233	0 - 255
	2	FAN2 MIN ADJUST (DAC)	Volage.	38	0 - 255
	3	FAN2 MAX ADJUST (DAC)	* Lamp mode is forced Eco	230	0 - 255
	4	FAN3 MIN ADJUST (DAC)		31	0-255
	5	FAN3 MAX ADJUST (DAC)		214	0-255
	6	Not used			
	7	Not used			

Group	FAN Option				
252	0	HI-LAND SWITCH	0: Normal, 1: Hi-Land, 2-4: Hi-Land 1-3	0	0 - 5
	1	SAFETY SWITCH	For test purpose	0	0 - 6
	2	FAN MANUAL SWITCH	0: Auto, 1: Manual	0	0 - 3
	3	FAN1 MANUAL VOLTAGE	Fan Voltage (unit : 0.1V)	100	0 - 255
	4	FAN2 MANUAL VOLTAGE	Effective only when Fan Manual	100	0 - 255
	5	FAN3 MANUAL VOLTAGE	switch is 1	100	0 - 255

Group	Fan Tem Error Setting (Memorized)							
253			Normal	Ceiling	HiLand-Normal	HiLand-Ceiling		
	0	Temp A Warning (High)	45	51	47(On1),48(On2)	49(On1),50(On2)	-	
	1	Temp B Warning (High)	58	63	58	63	-	
	2	Temp C Warning (High)	63	68	63	68	-	
	3	Temp B-A Warning(High)	100	100	100	100	-	
	4	Temp C-A Warning(High)	100	100	100	100	-	
	5	Temp A Warning (Normal)	Temp. A to judge the Temp Error at Normal (Room)	45	50	46(On1),47(On2)	48(On1),49(On2)	30-100
	6	Temp B Warning (Normal)	Temp. B to judge the Temp Error at Normal (Panel)	58	63	58	63	30-100
	7	Temp C Warning (Normal)	Temp. C to judge the Temp Error at Normal (Lamp)	63	68	63	68	30-100
	8	Temp B-A Warning (Normal)	Temp. B-A to judge the Temp Error at Normal (Clogging Det.)	100	100	100	100	0-100
	9	Temp C-A Warning(Normal)	Temp. C-A to judge the Temp Error at Normal (Clogging Det.)	100	100	100	100	0-100
	10	Temp A Warning (Eco)	Temp. A to judge the Temp Error at Eco (Room)	45	46	46	47(On1),48(On2)	30-100
	11	Temp B Warning (Eco)	Temp. B to judge the Temp Error at Eco(Panel)	58	58	58	58	30-100
	12	Temp C Warning (Eco)	Temp. C to judge the Temp Error at Eco(Panel)	62	62	62	62	30-100
	13	Temp B-A Warning (Eco)	Temp. B-A to judge the Temp Error at Normal (Clogging Det.)	100	100	100	100	0-100
	14	Temp C-A Warning (Eco)	Temp. C-A to judge the Temp Error at Normal (Clogging Det.)	100	100	100	100	0-100

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note		
15	Temp A Warning Offset (Temp)		5	0-100			
16	Temp B Warning Offset (Temp)	Offset of Temp Error (Temp.) Error Setting Value is increased XC at the below condition * Standby * Right to turn on the lamp * Right to change the Lamp mode	5	0-100			
17	Temp C Warning Offset (Temp)		5	0-100			
18	Temp B-A Warning Offset (Temp)		0	0-100			
19	Temp C-A Warning Offset (Temp)		0	0-100			
20	Temp A Warning Offset (Time)	Offset of Temp Error (Minutes) Error Setting Value is increased X minute at the below condition * Standby * Right to turn on the lamp * Right to change the Lamp mode	3	0-5			
21	Temp B Warning Offset (Time)		3	0-5			
22	Temp C Warning Offset (Time)		3	0-5			
23	Temp B-A Warning Offset (Time)		3	0-5			
24	Temp C-A Warning Offset (Time)		3	0-5			
Group 254	Fan Control Range Setting (Temp./Voltage)						
			Normal	Ceiling	HiLand-Normal	HiLand-Ceiling	
0	High Fan Control Min Temp		33	35	33(On1),34(On2)	35(On1),36(On2)	-
1	High Fan Control Max Temp		40	46	40(On1),42(On2)	43(On1),44(On2)	-
2	High Fan1 Min		68	68	83(On1),93(On2)	85(On1),95(On2)	-
3	High Fan1 Max		135	135	135	135	-
4	High Fan2 Min		75	85	88(On1),100(On2)	98(On1),110(On2)	-
5	High Fan2 Max		100	105	113(On1),125(On2)	118(On1),130(On2)	-
6	High Fan3 Min		80	85	85(On1),100(On2)	90(On1),105(On2)	-
7	High Fan3 Max		135	135	135	135	-
10	Normal Fan Control Min Temp	Temp Sensor Control Start/End Temp at Normal	33	35	33(On1),34(On2)	35	20-100
11	Normal Fan Control Max Temp		40	45	40(On1), 41(On2)	42(On1),43(On2)	20-100
12	Normal Fan1 Min	Fan voltage value at Normal (unit: 0.1V)	58	58	80(On1),90(On2)	85(On1),95(On2)	0-255
13	Normal Fan1 Max		135	135	135	135	0-255
14	Normal Fan2 Min		73	85	88(On1),100(On2)	101(On1),113(On2)	0-255
15	Normal Fan2 Max		96	101	112(On1), 124(On2)	117(On1),129(On2)	0-255
16	Normal Fan3 Min		75	80	85(On1),100(On2)	90(On1),105(On2)	0-255
17	Normal Fan3 Max		135	135	135	135	0-255
20	Eco Fan Control Min Temp		Temp Sensor Control Start/End Temp at Eco	34	35	32(On1),33(On2)	34
21	Eco Fan Control Max Temp		40	41	40	41(On1), 42(On2)	20-100
22	Eco Fan1 Min	Fan voltage value at Eco (unit: 0.1V)	50	50	60(On1),70(On2)	65(On1),75(On2)	0-255
23	Eco Fan1 Max		120	120	125	125	0-255
24	Eco Fan2 Min		45	45	48(On1),60(On2)	48(On1),60(On2)	0-255
25	Eco Fan2 Max		65	70	68(On1),80(On2)	73(On1),85(On2)	0-255
26	Eco Fan3 Min		55	60	60(On1),75(On2)	65(On1),80(On2)	0-255
27	Eco Fan3 Max		110	110	115	115	0-255
Group 255	Fan Start/Cooling Setting						
0	Fan1 Initial Volt		55		0-255		
1	Fan2 Initial Volt	Fan Start Voltage(0.1V)	55		0-255		
2	Fan3 Initial Volt		55		0-255		
4	Fan1 Cooling Speed		135		0-255		
5	Fan2 Cooling Speed	Fan Voltage at Power Off (0.1V)	100		0-255		
6	Fan3 Cooling Speed		135		0-255		
8	Cooling Time L1	Cooling Time setting at Fan Mode L1 (x 30 sec) 1: 30, 3: 90, 15: 450 sec.	2		1-15		
9	Cooling Time L2	Cooling Time setting at Fan Mode L2 (x 30 sec) 1: 30, 3: 90, 15: 450 sec.	3		1-15		
10	Temp Error Cooling Time	Cooling Time setting at Temp Erro (x 30 sec)	3		1-15		
11	OnStart Cooling Start Threshold		38		0-100		
12	After shutdown cooling	Cooling after shutdown (0: No, 1: Yes)	1		0-1		
Group 256	Fan/Lamp Voltage Dimmer Setting						
2	Fan 1 Speed Gain		10		0-255		
3	Fan 2 Speed Gain		10		0-255		

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
4	Fan 3 Speed Gain		10	0-255	
Group 257	Fan Dimmer Setting				
0	Dimmer Average Check Period	Dimmer Average measurement Time (0:10sec. 1:30sec. 2:60 sec. 90: sec...10:30sec.)	0	0-10	
1	Dimmer Average	Dimmer Average Value (Read only)	-		
2	Last Voltage Difference		-		
3	Voltage Difference Goal		-		
Group 258	Fan Network IC temperature rising resolve				
0	Standby Cooling Check Cycle		9999		
1	Standby Cooling Start Threshold		9999		
2	Standby Cooling Enable		9999		
Group 260	Auto Calibration(Common)*Auto Calibration				
0	Execute Calibration		0	0 - 1	Executes Auto-Calibration when changing the Value (PC White 100%)
1	Loop Count	Maximum Execution Times (OFFSET >GAIN)	10	1 - 30	
2	Auto Status	Result of Auto-Calibration (Last Memory)	0	0 / 1 / 9	0: OK, 1: Adjusting,9: Error * ReadOnly
3	AutoWait	Wait Value for each setting	1	1 - 20	
4	CHECK -Tolerance	Tolerance of OFFSET	2	1 - 255	
Group 261	Auto Calibration (RGB)				
0	OFFSET AREA H START	Black Level Acquiring Area H-Start Position	975	0 - 1000	
1	OFFSET AREA V START	Black Level Acquiring Area V-Start Position	500	0 - 1000	
2	GAIN AREA H START	White Level Acquiring Area H-Start Position	25	0 - 1000	
3	GAIN AREA V START	White Level Acquiring Area V-Start Position	500	0 - 1000	
4	Image AREA H WIDTH	Black/White Level Acquiring Area	13	0 - 4095	
5	Image AREA V HIGHT	Black/White Level Acquiring Area Height	9	0 - 4095	
6	OFFSET target	Target Value of Black Level Adj.	3	0 - 127	
7	OFFSET torelance	Tolerance of Black Level Adj.	1	1 - 127	
8	GAIN target	Target Value of White Level Adj.	238	0 - 255	
9	GAIN torelance	Tolerance of White Level Adj.	1	1-255	
Group 262	Auto Calibration (CVBS/SVIDEO)				
0	Y Image Area Start X	Y Acquiring Area H-Start Position	20	0-1000	
1	Y Image Area Start Y	Y Acquiring Area V-Start Position	200	0-1000	
6	Image Area H Width	Image Level Acquiring Area	8	0-4095	
7	Image Area V Hight	Image Level Acquiring Area Height	9	0-4095	
8	Y Target Level	Target Value of Y Level Adj.	217	0-255	
11	Gain Tolerance	Tolerance of Level Adj.	1	0-255	
12	Delta Gain	Deviation Width of Gain Value	9	0-255	
Group 264	Auto Calibration (YCbCr)				
0	Y-OFFSET AREA H START	Y - Offset Acquiring Area H-Start Position	925	0 - 1000	
1	Y-OFFSET AREA V START	Y - Offset Acquiring Area V-Start Position	500	0 - 1000	
2	CB - OFFSET AREA H START	CB - Offset Acquiring Area H-Start Position	925	0 - 1000	
3	CB - OFFSET AREA V START	CB - Offset Acquiring Area V-Start Position	500	0 - 1000	
4	CR - OFFSET AREA H START	CR - Offset Acquiring Area H-Start Position	925	0 - 1000	
5	CR - OFFSET AREA V START	CR - Offset Acquiring Area V-Start Position	500	0 - 1000	
6	Y - GAIN AREA H START		50	0 - 1000	
7	Y - GAIN AREA V START		500	0 - 1000	
8	CB - GAIN AREA H START		800	0 - 1000	
9	CB - GAIN AREA V START		500	0 - 1000	
10	CR - GAIN AREA H START		700	0 - 1000	

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
11	CR - GAIN AREA V START		500	0 - 1000	
12	Image AREA H WIDTH	YCBCR Level Acquiring Area	13	0 - 4095	
13	Image AREA V HIGHT	YCBCR Level Acquiring Area Height	9	0 - 4095	
14	Y - OFFSET TARTGET		4	1 - 255	
15	CB OFFSET TARGET		128	1 - 255	
16	CR OFFSET TARGET		128	1 - 255	
17	Y-GAIN TARGET		217	1 - 255	
18	CB-GAINTARGET		237	1 - 255	
19	CR-GAINTARGET		237	1 - 255	
20	OFFSET torelance	Torelance of OFFSET Adj.	1	1 - 255	
21	GAIN torelance	Torelance of GAIN Adj.	1	1 - 255	
Group 270	CUSTOM(Aspect)				
0	Scaler Horizontal	Horizontal Scaler Edit	100	68-132	
1	Sclaler Vertical	Vertical Scaler Edit	100	68-132	
2	Connect	Seperate/Connect Edit	0	0-1	0:Seperate, 1: Connect
3	Position Horizontal	Horizontal Postion Correction	100	85-115	
4	Position Vertical	Vertical Position Correct	100	85-115	
Group 280	AutoPC Adjust				
0	AutoPCAdjustEnable	Auto-PC Adj Operation Enable if Un-supported Signal Input	0	0-1	0:Enabel, 1:Disable
1	Frequency Step	Frequency Steps of Total Dot	1	0-3	
2	Frequency Threshold	Total Dot Frequency Threshold	5	0-10	0 <-- --> 10[Not matched]
3	Fine Phase	Do Phase Adj after Total Dot Adj.	1	0-1	0;Excutes Fine Phase; 1:Not Excute
4	BLKDET	Black Level Detection Area	1	0 - 7	
5	PHASEMSK	Phase Detection Filter	0	0 - 3	0: Effective All Bit, 1: Disable Lower 1 bit 2: Disable Lower 2 bit, 3: Disable Lower 3 bit
Group 290	PanelType * Panel Type Check				
0	GammaL/R-View	Current Setting Check	0	0-20	0: Gamma for L-Turn 20: Gamma for R-Turn * Read only
1	GammaL/R-Change	Setting of Gamma	10	0-20	Sets L-Turn Gamma if the Value is set to 0. Sets R-Turn Gamma if the Value is set to 20.
Group 500	Composite (NTSC) Composite / S-Video				
0					
1	Disp Dots		668	0 ~ 4095	
2	H Back Porch		28	0 ~ 4095	
3	V Back Porch		18	0 ~ 4095	
4	Disp Line		458	0 ~ 4095	
Group 501	Composite (PAL) Composite / S-Video				
0					
1	Disp Dots		658	0 ~ 4095	
2	H Back Porch		34	0 ~ 4095	
3	V Back Porch		22	0 ~ 4095	
4	Disp Line		536	0 ~ 4095	
Group 502	Composite (SECAM) Composite / S-Video				
0					
1	Disp Dots		652	0 ~ 4095	
2	H Back Porch		28	0 ~ 4095	
3	V Back Porch		22	0 ~ 4095	
4	Disp Line		536	0 ~ 4095	
Group 510	SCART(480i)				
0					
1	Disp Dots		674	0 ~ 4095	
2	H Back Porch		132	0 ~ 4095	
3	V Back Porch		43	0 ~ 4095	
4	Disp Line		452	0 ~ 4095	
Group 511	SCART (575i)				

Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
	1	Disp Dots	650	0 ~ 4095	
	2	H Back Porch	152	0 ~ 4095	
	3	V Back Porch	68	0 ~ 4095	
	4	Disp Line	514	0 ~ 4095	
Group 520	YCbCr (480i)				
	0	Total Dots	858	0 ~ 4095	
	1	Disp Dots	670	0 ~ 4095	
	2	H Back Porch	146	0 ~ 4095	
	3	V Back Porch	48	0 ~ 4095	
	4	Disp Line	458	0 ~ 4095	
Group 521	YCbCr (575i)				
	0	Total Dots	864	0~4095	
	1	Disp Dots	656	0~4095	
	2	H Back Porch	162	0~4095	
	3	V Back Porch	64	0~4095	
	4	Disp Line	534	0~4095	
Group 522	YCbCr (480P)				
	0	Total Dots	858	0 ~ 4095	* Read only
	1	Disp Dots	684	0 ~ 4095	
	2	H Back Porch	136	0 ~ 4095	
	3	V Back Porch	46	0 ~ 4095	
	4	Disp Line	460	0 ~ 4095	
Group 523	YCbCr (575P)				
	0	Total Dots	864	0 ~ 4095	* Read only
	1	Disp Dots	690	0 ~ 4095	
	2	H Back Porch	142	0 ~ 4095	
	3	V Back Porch	56	0 ~ 4095	
	4	Disp Line	550	0 ~ 4095	
Group 524	YCbCr (720P - 60)				
	0	Total Dots	1650	0 ~ 4095	* Read only
	1	Disp Dots	1248	0 ~ 4095	
	2	H Back Porch	313	0 ~ 4095	
	3	V Back Porch	34	0 ~ 4095	
	4	Disp Line	700	0 ~ 4095	
Group 525	YCbCr (720P - 50)				
	0	Total Dots	1980	0 ~ 4095	* Read only
	1	Disp Dots	1248	0 ~ 4095	
	2	H Back Porch	338	0 ~ 4095	
	3	V Back Porch	36	0 ~ 4095	
	4	Disp Line	700	0 ~ 4095	
Group 526	YCbCr (1080i - 60)				
	0	Total Dots	2200	0 ~ 4095	* Read only
	1	Disp Dots	1872	0 ~ 4095	
	2	H Back Porch	256	0 ~ 4095	
	3	V Back Porch	54	0 ~ 4095	
	4	Disp Line	1052	0 ~ 4095	
Group 527	YCbCr (1080i - 50)				
	0	Total Dots	2640	0 ~ 4095	* Read only
	1	Disp Dots	1870	0 ~ 4095	
	2	H Back Porch	257	0 ~ 4095	
	3	V Back Porch	54	0 ~ 4095	
	4	Disp Line	1052	0 ~ 4095	
Group 528	YCbCr (1035i)				
	0	Total Dots	2200	0 ~ 4095	* Read only

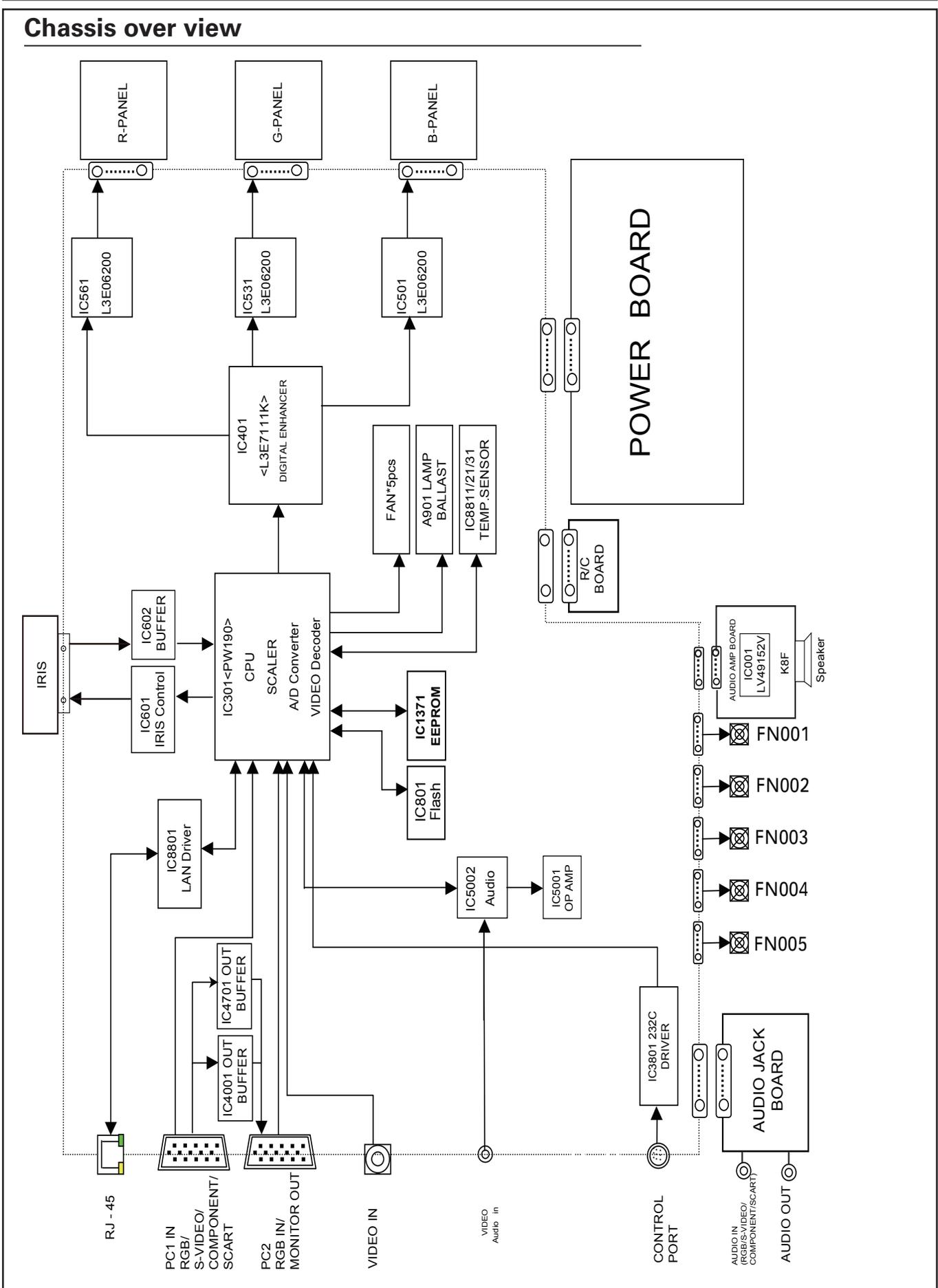
Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
	1	Disp Dots	1872	0 ~ 4095	
	2	H Back Porch	256	0 ~ 4095	
	3	V Back Porch	92	0 ~ 4095	
	4	Disp Line	1012	0 ~ 4095	
Group 540	RGB Video (480i)				
	0	Total Dots	960	0 ~ 4095	
	1	Disp Dots	752	0 ~ 4095	
	2	H Back Porch	166	0 ~ 4095	
	3	V Back Porch	48	0 ~ 4095	
	4	Disp Line	460	0 ~ 4095	
Group 541	RGB Video (575i)				
	0	Total Dots	966	0 ~ 4095	
	1	Disp Dots	736	0 ~ 4095	
	2	H Back Porch	182	0 ~ 4095	
	3	V Back Porch	66	0 ~ 4095	
	4	Disp Line	536	0 ~ 4095	
Group 542	RGB Video (480P)				
	0	Total Dots	960	0 ~ 4095	
	1	Disp Dots	766	0 ~ 4095	
	2	H Back Porch	156	0 ~ 4095	
	3	V Back Porch	46	0 ~ 4095	
	4	Disp Line	460	0 ~ 4095	
Group 543	RGB Video (575P)				
	0	Total Dots	986	0 ~ 4095	
	1	Disp Dots	774	0 ~ 4095	
	2	H Back Porch	174	0 ~ 4095	
	3	V Back Porch	62	0 ~ 4095	
	4	Disp Line	540	0 ~ 4095	
Group 544	RGB Video (720P - 60)				
	0	Total Dots	1650	0 ~ 4095	
	1	Disp Dots	1246	0 ~ 4095	
	2	H Back Porch	318	0 ~ 4095	
	3	V Back Porch	36	0 ~ 4095	
	4	Disp Line	698	0 ~ 4095	
Group 545	RGB Video (720P - 50)				
	0	Total Dots	1980	0 ~ 4095	
	1	Disp Dots	1246	0 ~ 4095	
	2	H Back Porch	310	0 ~ 4095	
	3	V Back Porch	34	0 ~ 4095	
	4	Disp Line	702	0 ~ 4095	
Group 546	RGB Video (1080i - 60)				
	0	Total Dots	2200	0 ~ 4095	
	1	Disp Dots	1872	0 ~ 4095	
	2	H Back Porch	260	0 ~ 4095	
	3	V Back Porch	58	0 ~ 4095	
	4	Disp Line	1046	0 ~ 4095	
Group 547	RGB Video (1080i - 50)				
	0	Total Dots	2640	0 ~ 4095	
	1	Disp Dots	1872	0 ~ 4095	
	2	H Back Porch	260	0 ~ 4095	
	3	V Back Porch	56	0 ~ 4095	
	4	Disp Line	1050	0 ~ 4095	
Group 548	RGB Video (1035i)				
	0	Total Dots	2200	0 ~ 4095	

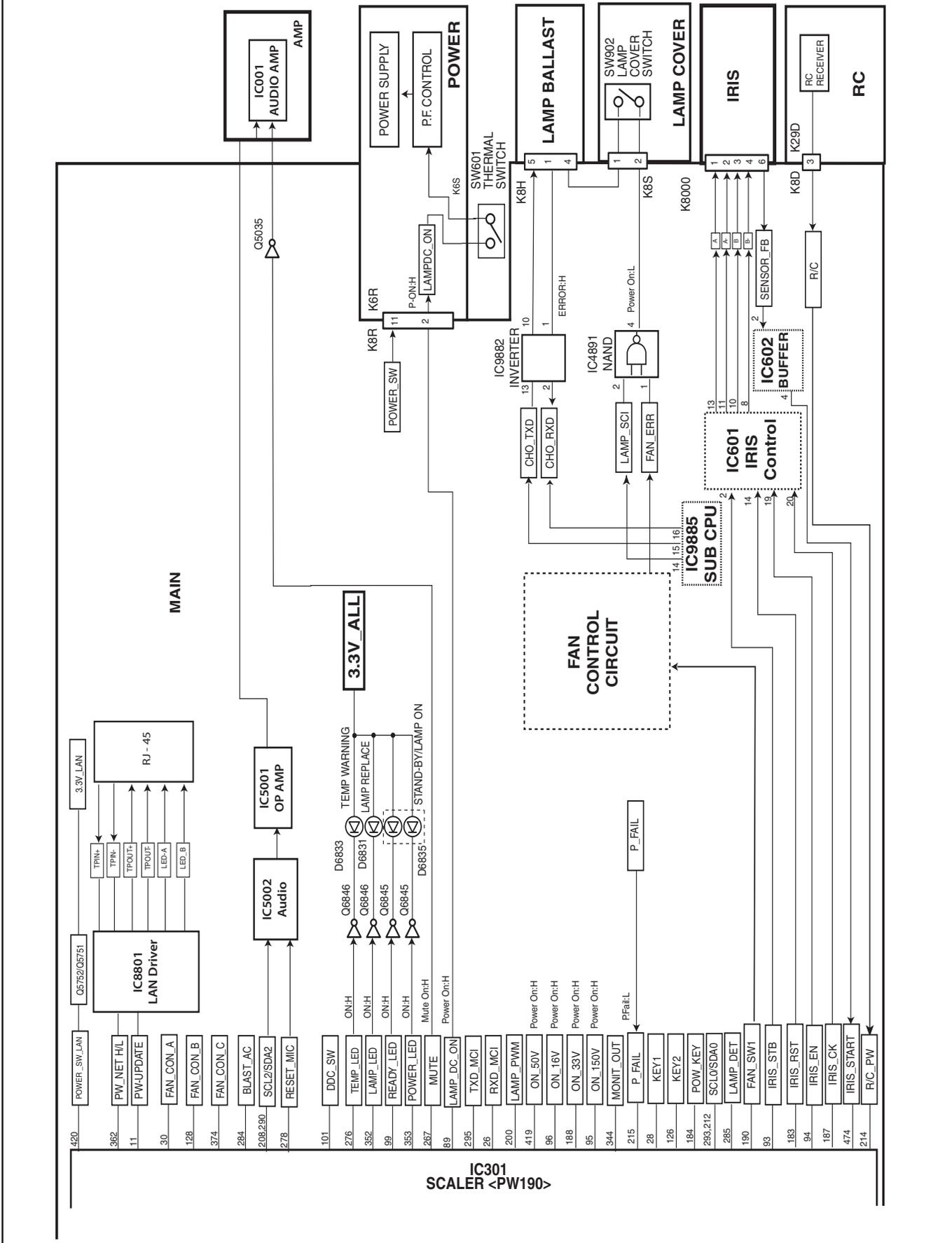
Electrical Adjustments

Group/Item	Item Name	Function	Initial	Range	Note
1	Disp Dots		1872	0 ~ 4095	
2	H Back Porch		260	0 ~ 4095	
3	V Back Porch		92	0 ~ 4095	
4	Disp Line		1008	0 ~ 4095	
Group 981 Color Shading Adj Offset					
0	R-Max		128	0 - 255	
1	R-Mid1		128	0 - 255	
2	R-Mid2		128	0 - 255	
3	R-Min		128	0 - 255	
4	G-Max		128	0 - 255	
5	G-Mid1		128	0 - 255	
6	G-Mid2		128	0 - 255	
7	G-Min		128	0 - 255	
8	B-Max		128	0 - 255	
9	B-Mid1		128	0 - 255	
10	B-Mid2		128	0 - 255	
11	B-Min		128	0 - 255	

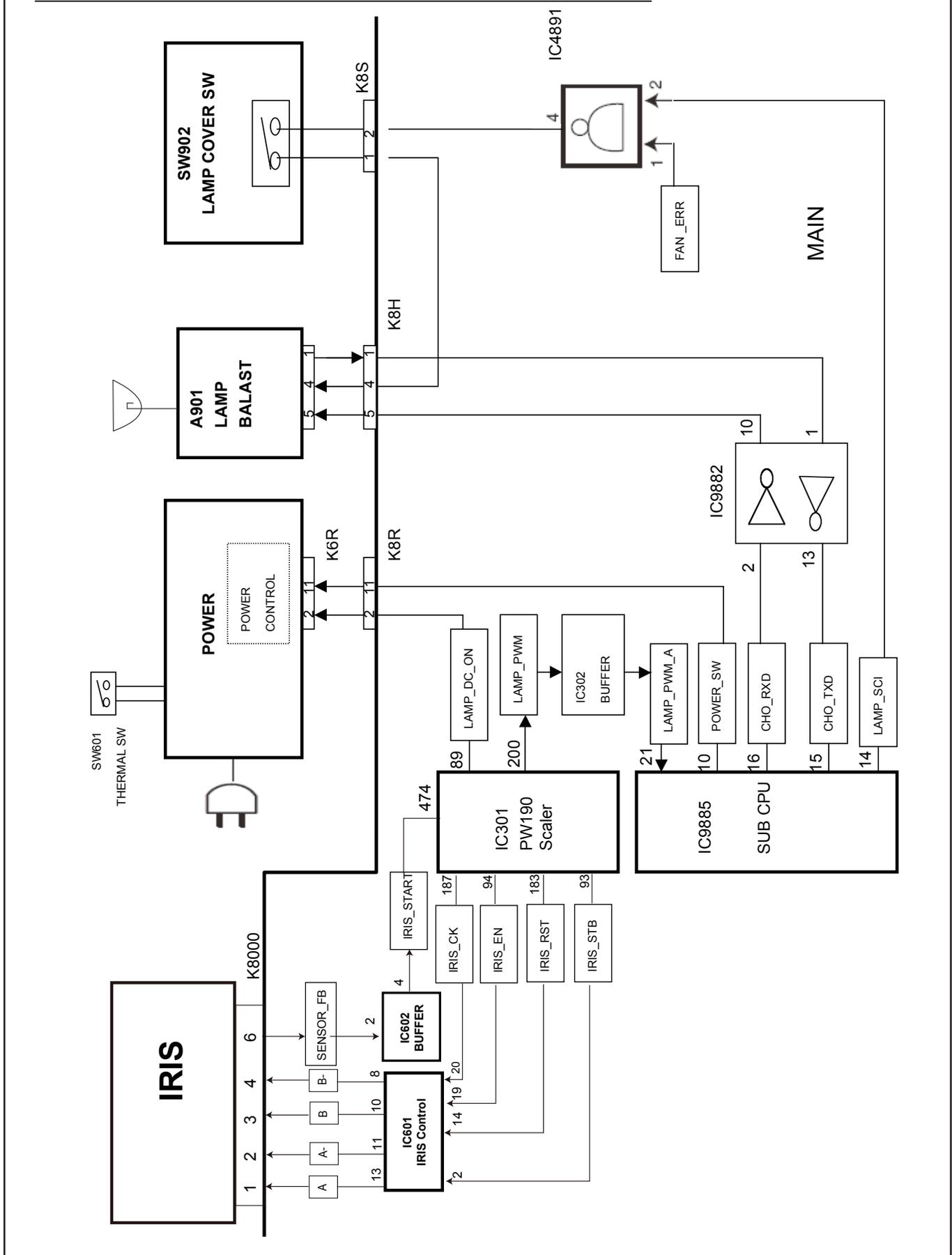
Chassis over view



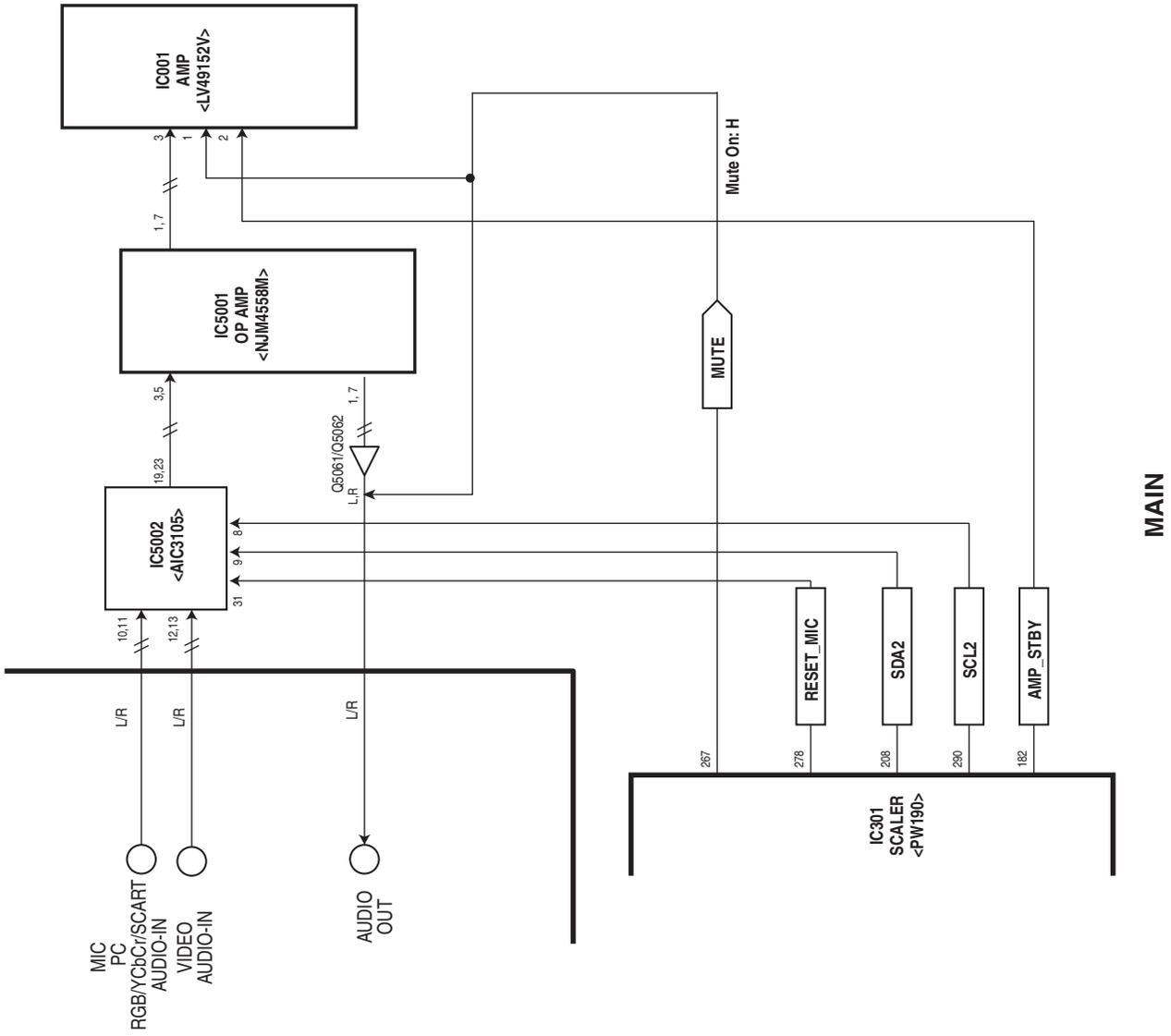
System control



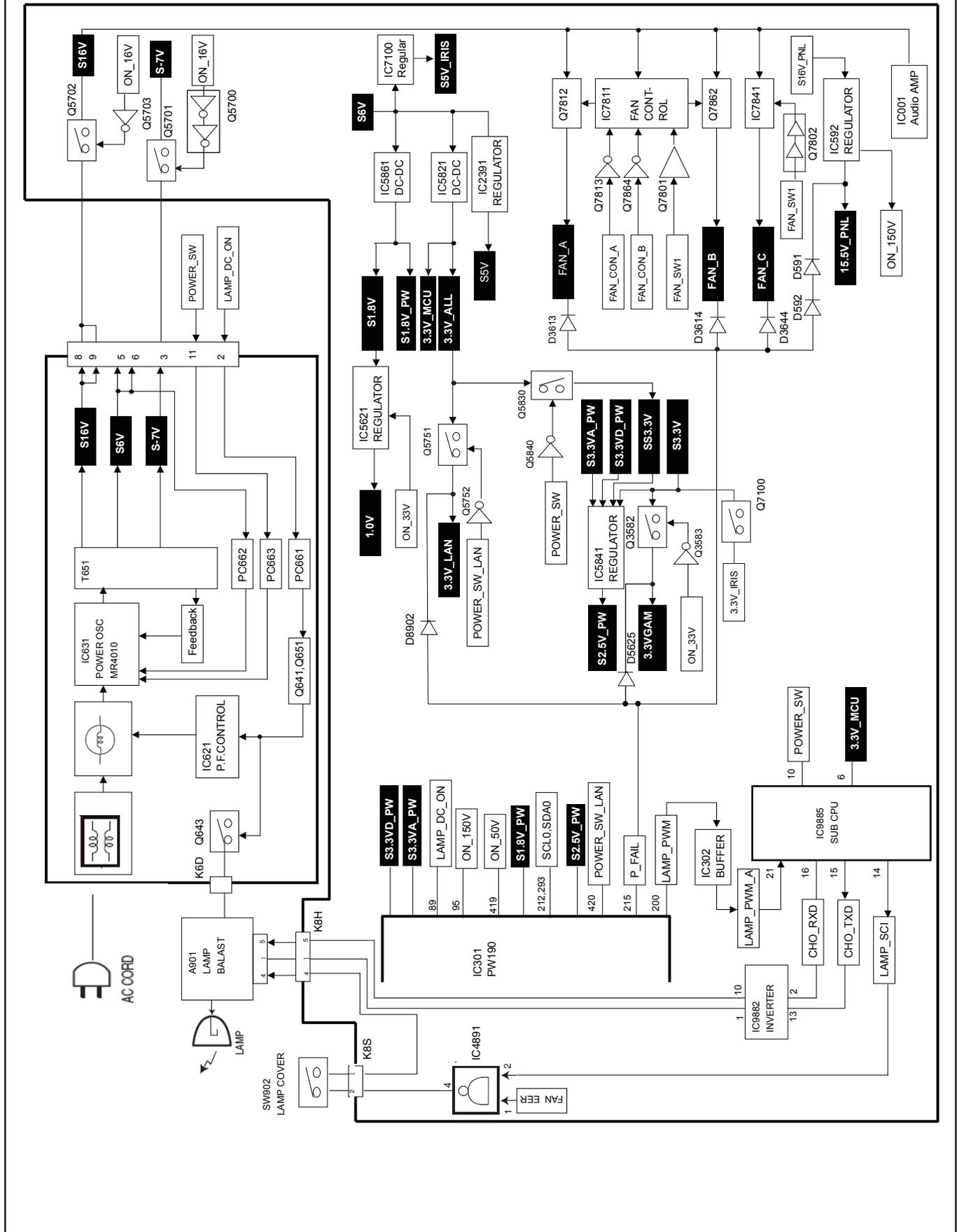
Lamp control



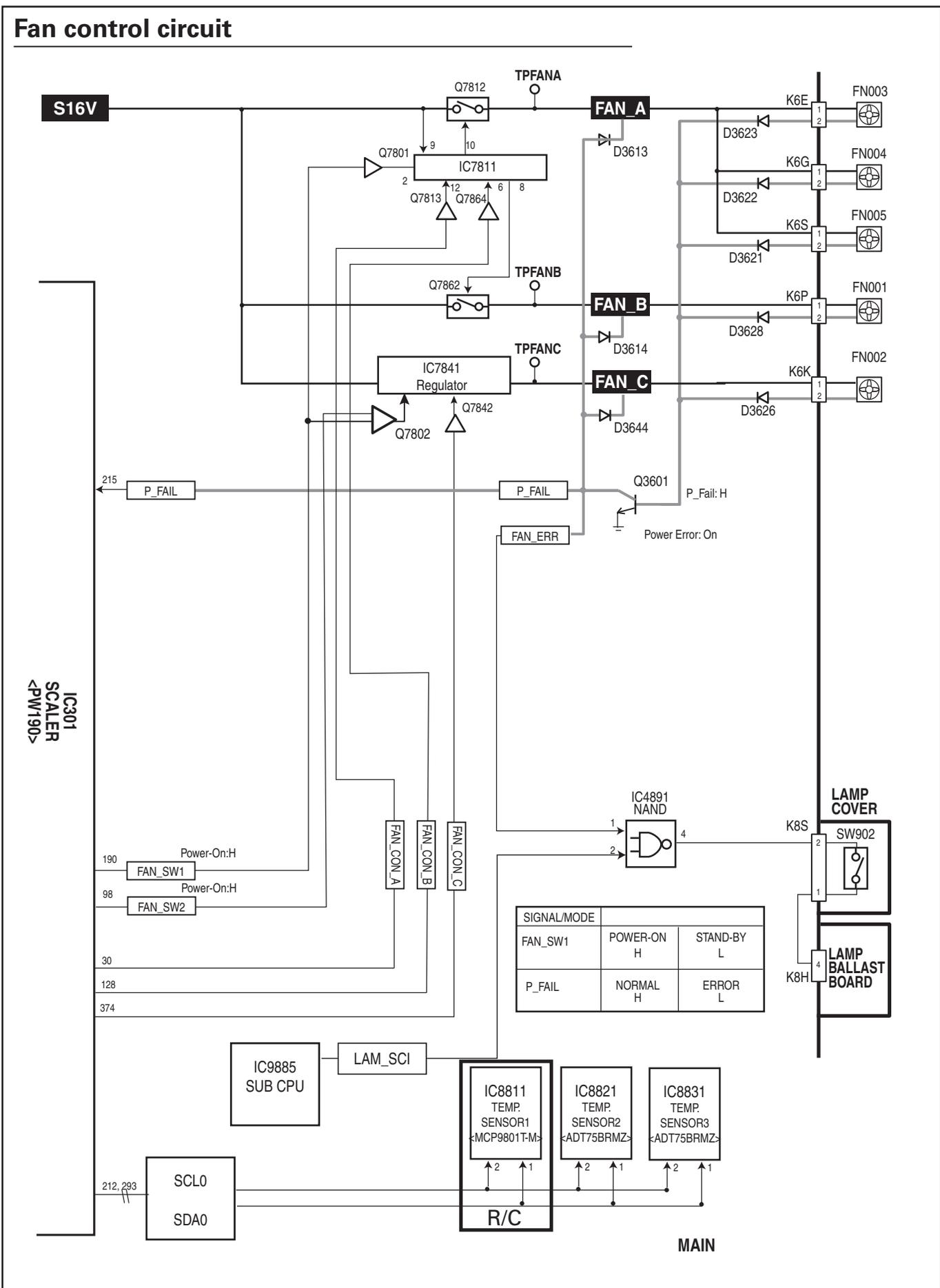
Audio circuit



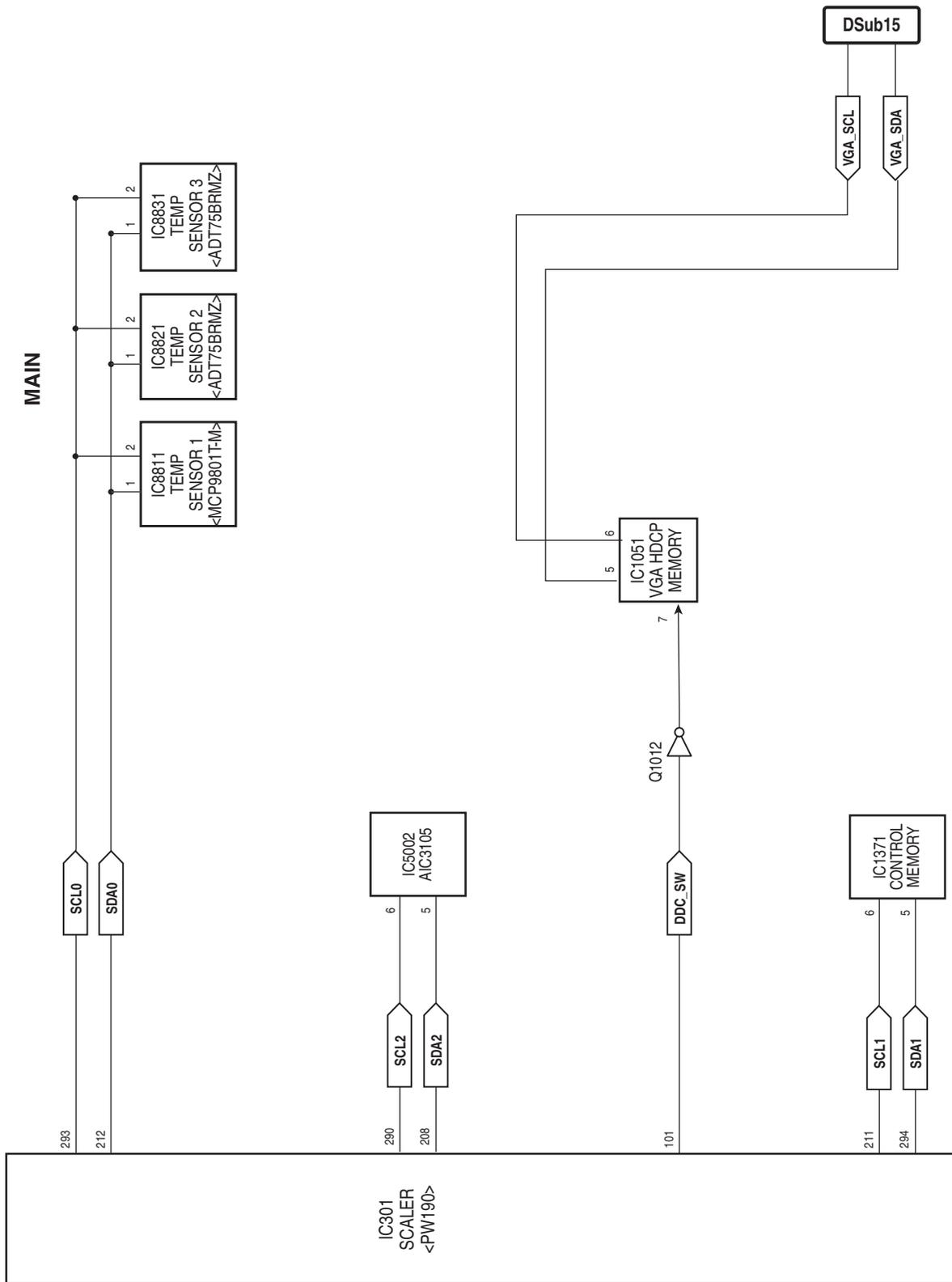
Power supply & protection circuit



Fan control circuit



IIC bus control circuit



Troubleshooting

Indicators and Projector Condition

Check the indicators for projector condition.

Indicators			Projector Condition
POWER red/green	WARNING red	LAMP REPLACE yellow	
●	●	●	The projector is off. (The AC power cord is unplugged.)
◐	●	*	The projector is in stand-by mode. Press the ON/STAND-BY button to turn on the projector.
○	●	*	The projector is operating normally.
◐	●	*	The projector is preparing for stand-by or the projection lamp is being cooled down. The projector cannot be turned on until cooling is completed and the POWER indicator stops blinking.
◐	●	*	The projector is in the Power management mode.
◐	◐	*	The temperature inside the projector is abnormally high. The projector cannot be turned on. When the projector is cooled down enough and the temperature returns to normal, the POWER indicator stops blinking and the projector can be turned on. (The WARNING indicator keeps blinking.)
◐	◐	*	The projector has been cooled down enough and the temperature returns to normal. When turning on the projector, the WARNING indicator stops blinking.
●	◐	*	The projector detects an abnormal condition and cannot be turned on. Unplug the AC power cord and plug it again to turn on the projector. If the projector is turned off again, unplug the AC power cord and contact the dealer or the service center for service and checkup. Do not leave the projector on. It may cause an electric shock or a fire hazard.
 Service			The projector detects an abnormal condition. It may be that the iris module has an operational error. Check the iris module and peripheral circuit, and replace the iris module if it needs.

○ ● ● ● green.

◐ ● ● ● red

● ● ● ● off

◐ ● ● ● blinks green.

◐ ● ● ● blinks red.

* When the life of the projection lamp draws to an end, the LAMP REPLACE indicator lights yellow. When this indicator lights yellow, replace the projection lamp with a new one promptly. Reset the lamp replacement counter after replacement of the lamp.

Troubleshooting

No Power

This projector provides a function which can be specified a defective area simply by indicating the LEDs. Connect the AC cord and press the Power button once and then check the LED indication.

- **When all of LED indicators are not lighting**, the symptom indicates that the primary power supply circuit does not operate properly. Check the power primary circuit and parts as follow;

AC cord, F601 (Fuse), Power board,

SW601 (Thermal sw.) short in normal

SW601 opens when the surrounding temperature of the switch exceeds 85°C.

- **When the WARNING (red) and POWER (red) indicators are blinking**, the symptom indicates that the projector detected an abnormal temperature risen inside the projector. Check the air filters and remove the object near the intake and exhaust fan openings, and wait until the POWER indicator stops blinking, and then try to turn on the projector.

The internal temperature is monitored by sensor ICs, IC8831, IC8821 on the Main board and IC8811 on the R/C board.

- **When the WARNING indicator lights red**, the symptom indicates that the projector detected an abnormality in the cooling fan operation or in the power supply secondary circuits. Check fan operation and power supply lines, and the driving signal status.

The P_FAIL signal (Error: L) is sent to pin 215 of IC301<SCALER> when the abnormality occurred inside the projector, and then the IC301 sends the shutdown signal, LAMP_DC_ON, to the power supply circuit to stop its operation, and signal LAMP_SCI to the lamp ballast board via IC4891 and SW902<lamp cover switch> to stop operation of the lamp circuit.

An abnormality occurs on the secondary power supply;

Check power supplies S16V, S6V, S-7V. P_FAIL signal becomes "Low" when the abnormality occurs on any of the power supply lines.

An abnormality occurs on the fan control circuit;

Check FN001, FN002, FN003, FN004, FN005 and peripheral circuit.

If any of the fans has an error, the fan lock signal drives Q3601 becomes "High". As the result, signal FAN_ERR becomes Low and is sent to lamp ballast board to stop lamp circuit.

An abnormality occurs on the drive signals;

ON_150V signal (Power-on: H) is output from pin 95 of IC301 and switches IC592, 15.5V supply circuit, ON_33V signal (Power-on: H) is output from pin 188 of IC301 and switches IC5621, 1.0V and Q3582 33V supply circuit.

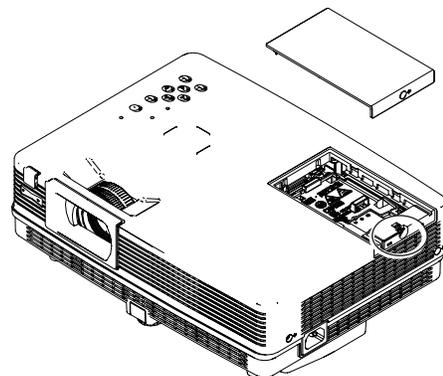
LAMP_DC_ON signal (Power-on: H) is output from pin 89 of IC301 and supplied to the P.C Control IC, IC621, on the power supply board through Q691, and PC663.

LAMP_SCI signal (Power-on: H) is output from pin 14 of IC9885 and applied to pin 2 of IC4891 and output pin 4 and then supplied to the lamp ballast board through SW902<Lamp Cover SW>.

LAMP_DET signal at the pin 285 of IC301 is applied from the lamp ballast unit. If the abnormality occurred on the lamp ballast unit, LAMP_DET signal becomes "High" and then IC301 shuts down the power supply circuit.

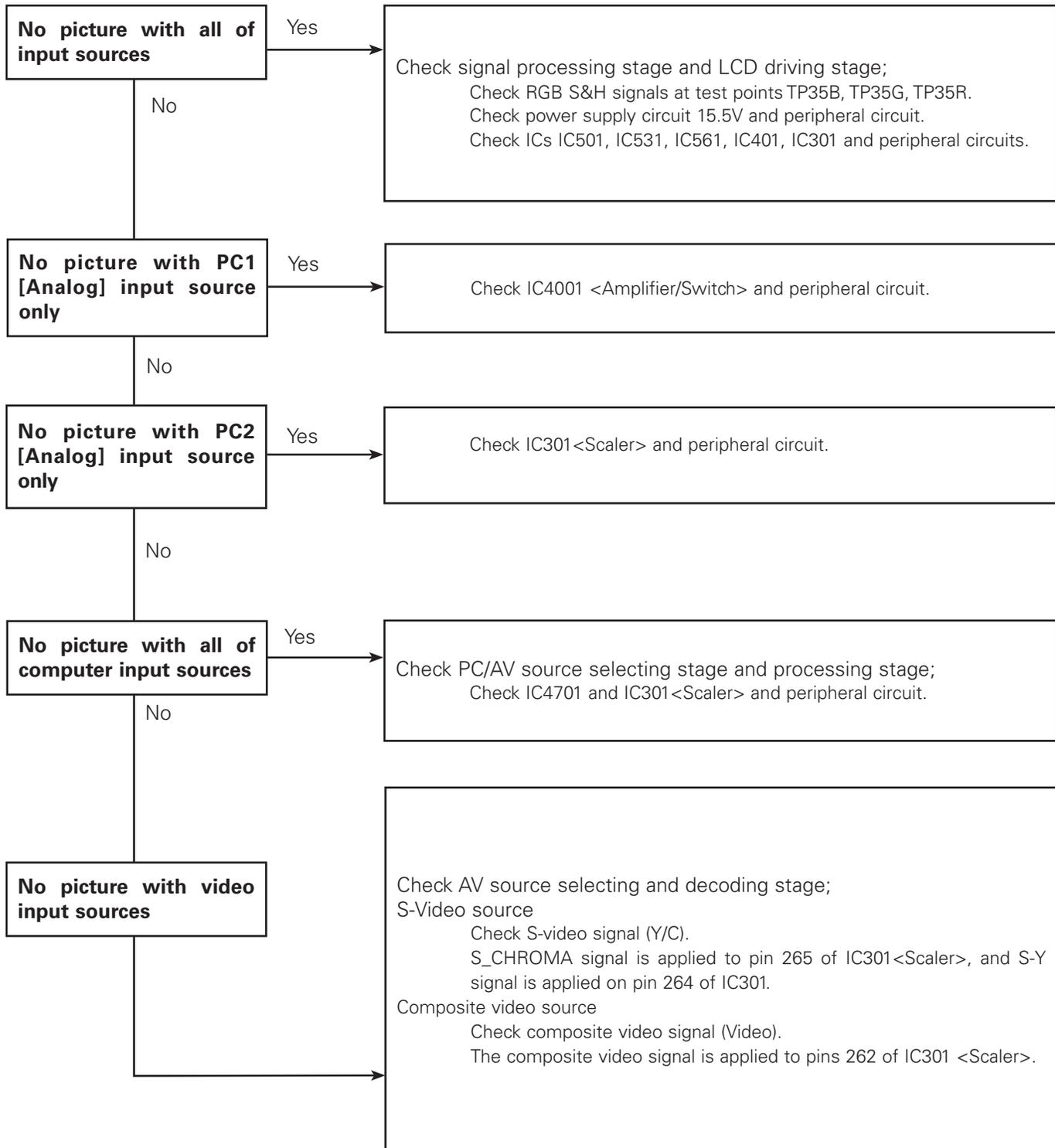
Lamp Cover switch

Make sure that the lamp cover is mounted correctly. If not or the lamp cover removed, the lamp does not light on for the safety. Check the lamp cover and lamp cover switch (SW902).



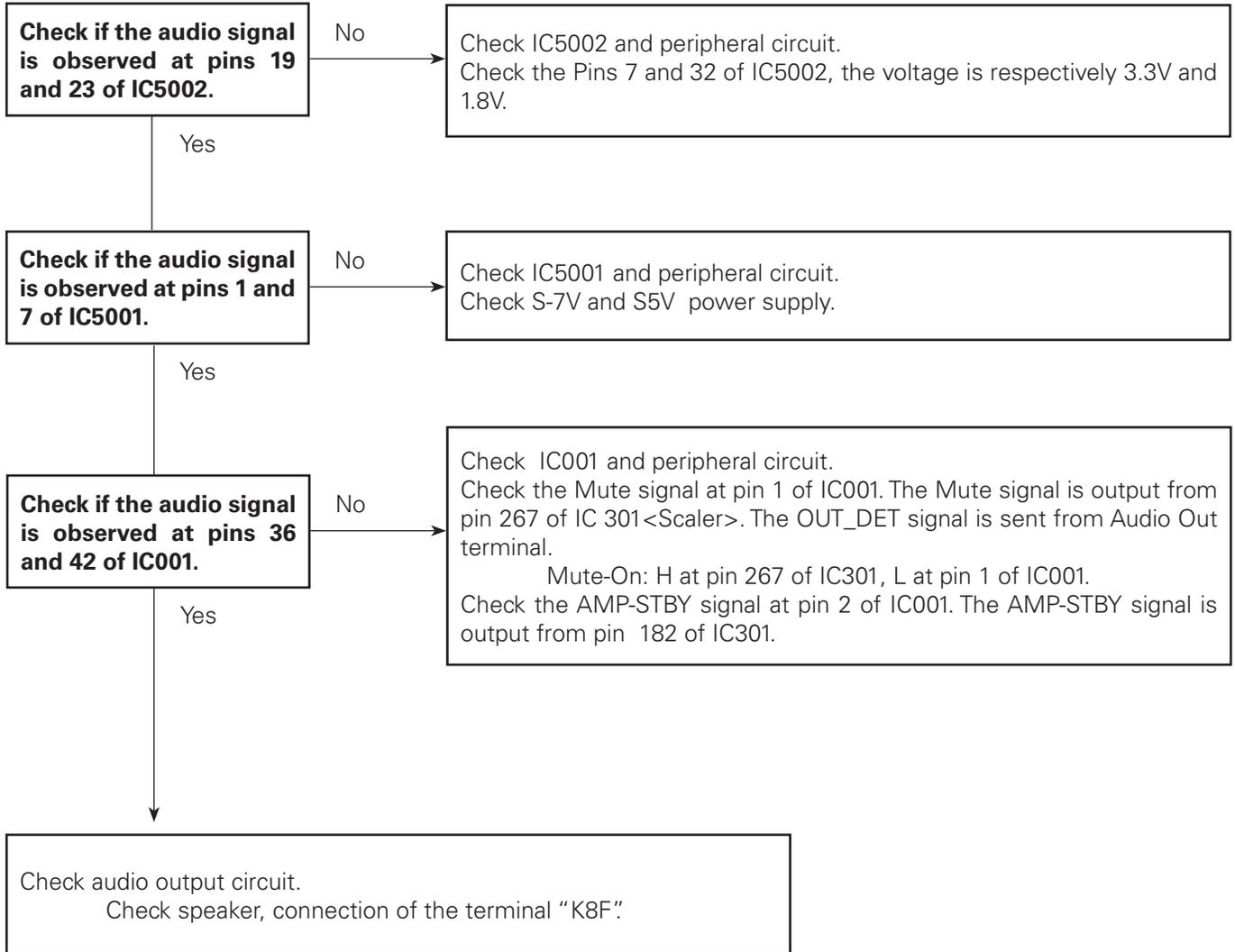
No Picture

Check following steps.



No Sound

Check following steps.



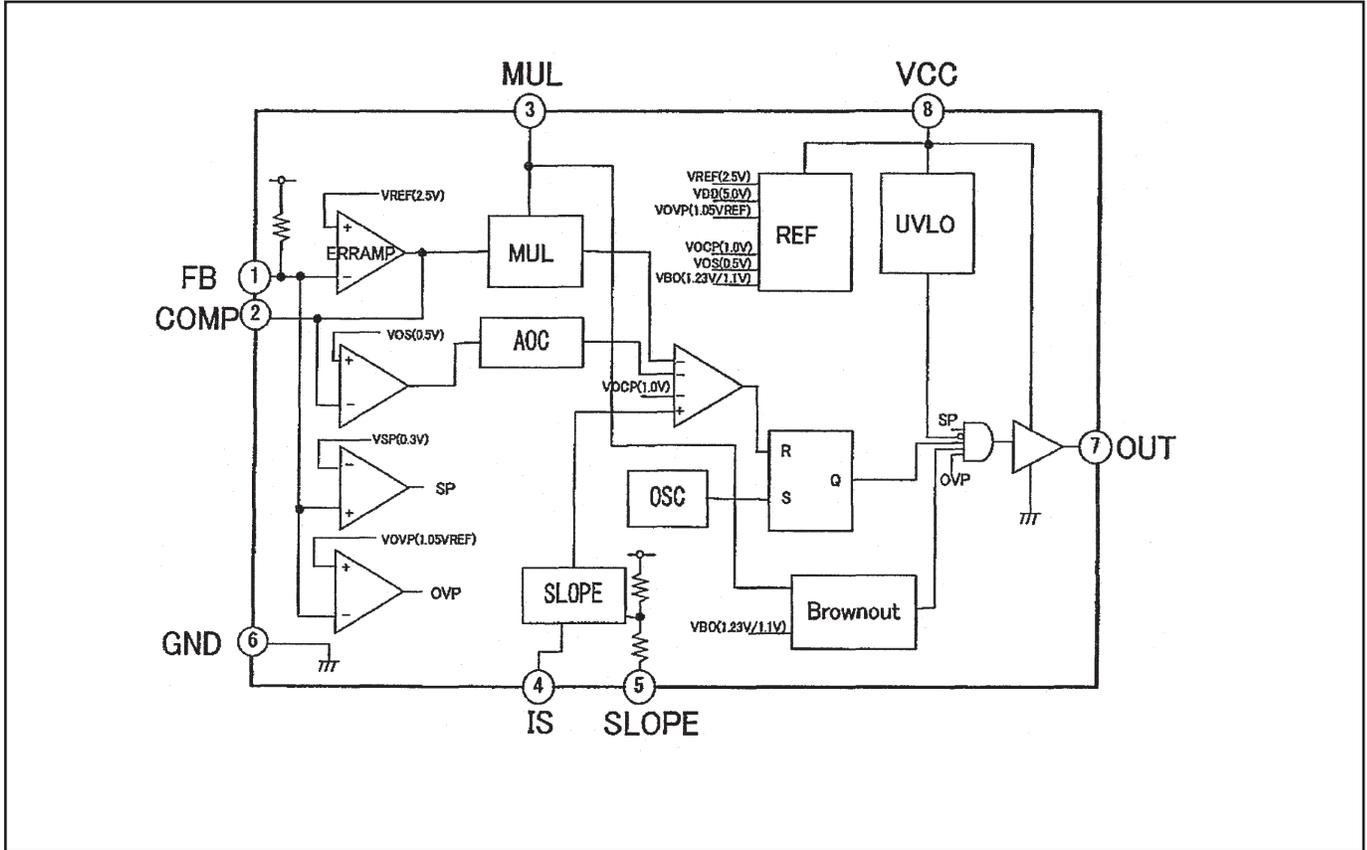
Control Port Functions

Scaler I/O Port Functions (PW190)

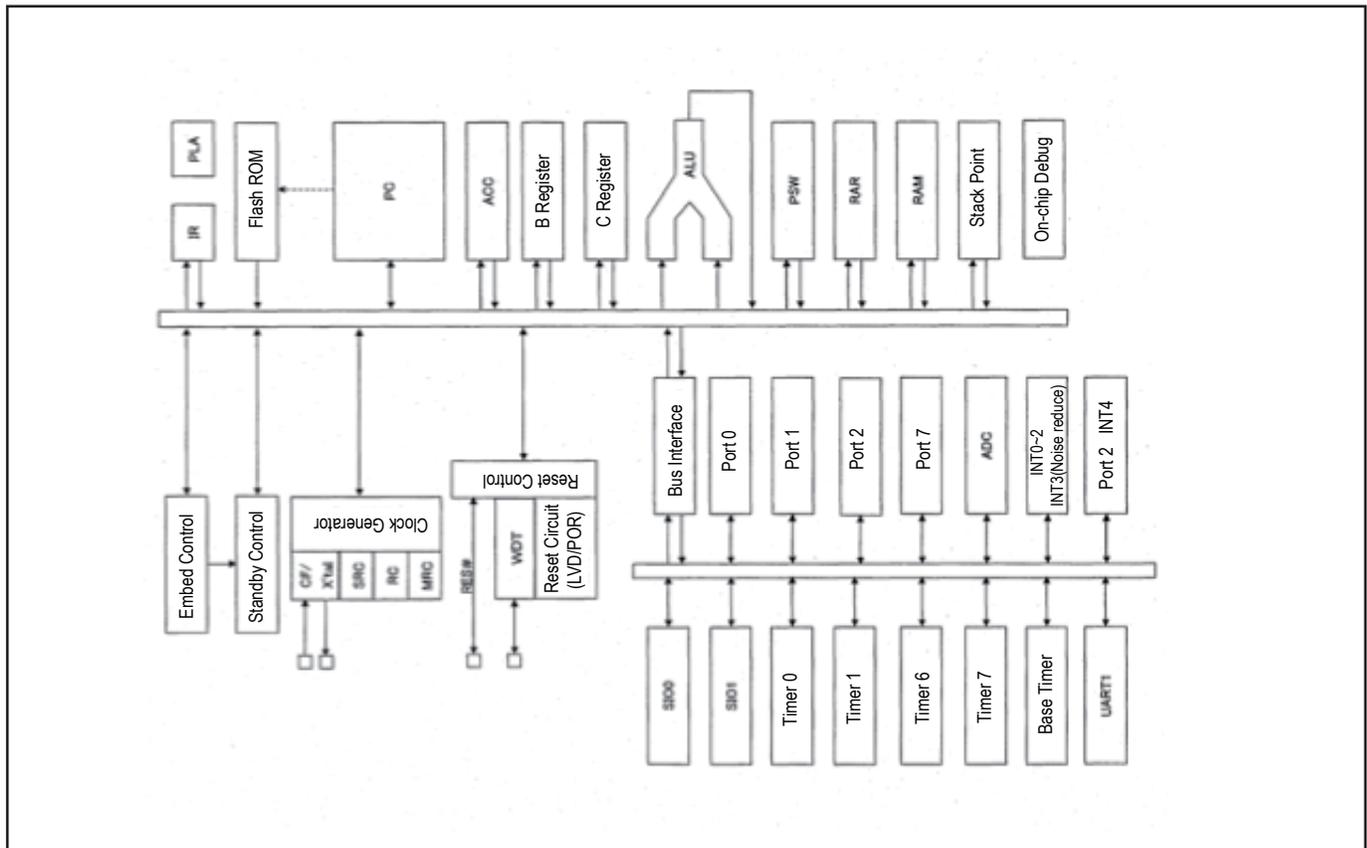
PIN NO.	PORT NO.	PORT NAME	FUNCTION	SIGNAL NAME	DESCRIPTION	I/O
1	A1	PORTD7		MIC_OFF	MIC Control	O
11	A11	PORTC5		PW_UPDATE		O
26	A26	RXD1		RXD_MCI	Network RXD	I
101	B2	PORTD6		DDC_SW		O
124	B25	TXD_PW		TXD_PW	Serial Control RXD	O
99	C1	PORTE3		READY_LED		O
202	C12	PORTC2		SDATA_PW	3-Wired Serial Control Data	O
205	E15	PORTC0		PW_NMCLR	LAN control	I
208	C18	PORTH5	2-Wire Serial Data 2	SDA2	IIC Bus Switch IC DAC, SoundIC[5V_SW]	O
211	C21	PORTH1	2-Wire Serial Clock 1	SCL1		O
212	C22	PORTH7	2-Wire Serial Data 0	SDA0	IIC Bus Temp Sensor []	O
28	C26	ADC1	ADC1	KEY1	Input/Select/Keystone	I
191	D2	PORTE4		PW_MASTER_SCK		O
276	D3	PORTE1		TEMP_LED	LED on:H	O
278	D5	PORTD5		RESET_MIC	MIC RET	I
284	D11	PWM1		BLAST_AC	Ballast CTL	O
285	D12	PORTC3		LAMP_DET	Lamp retry detect, High=Retry	I
290	D17	PORTH4	2-Wire Serial Clock 2	SCL2	IIC Bus Control Clock	O
293	D20	PORTH6	2-Wire Serial Clock 0	SCL0	IIC Bus Control Clock	O
294	D21	PORTH3	2-Wire Serial Data 1	SDA1	IIC Bus Control Data	O
295	D22	TXD1		TXD_MCI	Network TXD	O
215	D24	ADC0	ADC0	P_FAIL	Power Failure Signal Input, Failure:L	I
126	D25	ADC2	ADC2	KEY-2	Key Control Input	I
190	E2	PORTE7		FAN_SW1	Fan Control Swicth 1	O
275	E3	PORTE5		PW_MASTER_SD0	Sub CPU Communication	O
352	E4	PORTE2		LAMP_LED	LED on:H	O
353	E5	PORTE0		POWER_LED	LED on:H	O
362	E14	PORTC4		PW_NET_HIL	LAN control	O
368	E20	PORTH0		RXD_PW	Serial Control RXD	I
216	E24	ADC3	ADC3	SENSOR_T	Keystone Sensor	I
127	E25	ADC7	ADC7	SENSOR_X	Keystone Sensor	I
30	E26	DAC1	DAC1	FAN_CON_A	FAN_CON_A	O
96	F1	PORTF4		ON_16V	Standby Power Control	I
189	F2	PORTF1		PW_MASTER_SDI	Sub CPU Communication	I
420	F5	PORTF2		POWER_SW_LAN	Netwokr Power SW	I
298	F23	ADC4	ADC4	Option SW	Option Switch	I
128	F25	DAC2	DAC2	FAN_CON_B	FAN_CON_B	O
374	J22	DAC3	DAC3	FAN_CON_C	FAN_CON_C	O
184	L2	PORTB6		POW_KEY	Power On Key, H:ON	I
89	N1	PORTA3		LAMP_DC_ON	Power Control, Power On: H	O
267	N3	PORTA6		MUTE	High=MUTE_ON	O
344	N4	PORTA7		MONIT_OUT	Low=in, High=Monit OUT	O
200	C10	PWM3		LAMP-PWM	Light adjust	O
201	C11	PORTC7		SV_IRIS	IRIS control	O
110	B11	PORTC6		S3.3V_IRIS	IRIS control	O
111	B12	PORTC1		SCS_PW	3 wired serial control data	O
367	E19	THRWSC		SCLK_PW	3 wored serial clock	O
214	C24	IRRCVR0		RIC_PW	PIC RECEIVER	I
474	N6	PORTA2		IRIS_STAT	IRIS STAT control	I
413	N5	PORTA4		MODEL_OPTION	Model select	O
182	N2	PORTA5		AMP_STBY	Audio control	O
90	M1	PORTA0		IRIS-CW	IRIS control	O
183	M2	PORTA1		IRIS_RST	IRIS control	O
93	J1	INIB9		IRIS_STB	IRIS control	O
187	H2	INIB2		IRIS_CK	IRIS control	O
94	H1	INIB3		IRIS_EN	IRIS control	O
188	G2	INIG7		ON_33V	Power control	O
95	G1	INIG9		ON_150V	Power control	O
273	G3	INIG5		IRM_IRT	L3E0711 reset	O

IC Block Diagrams

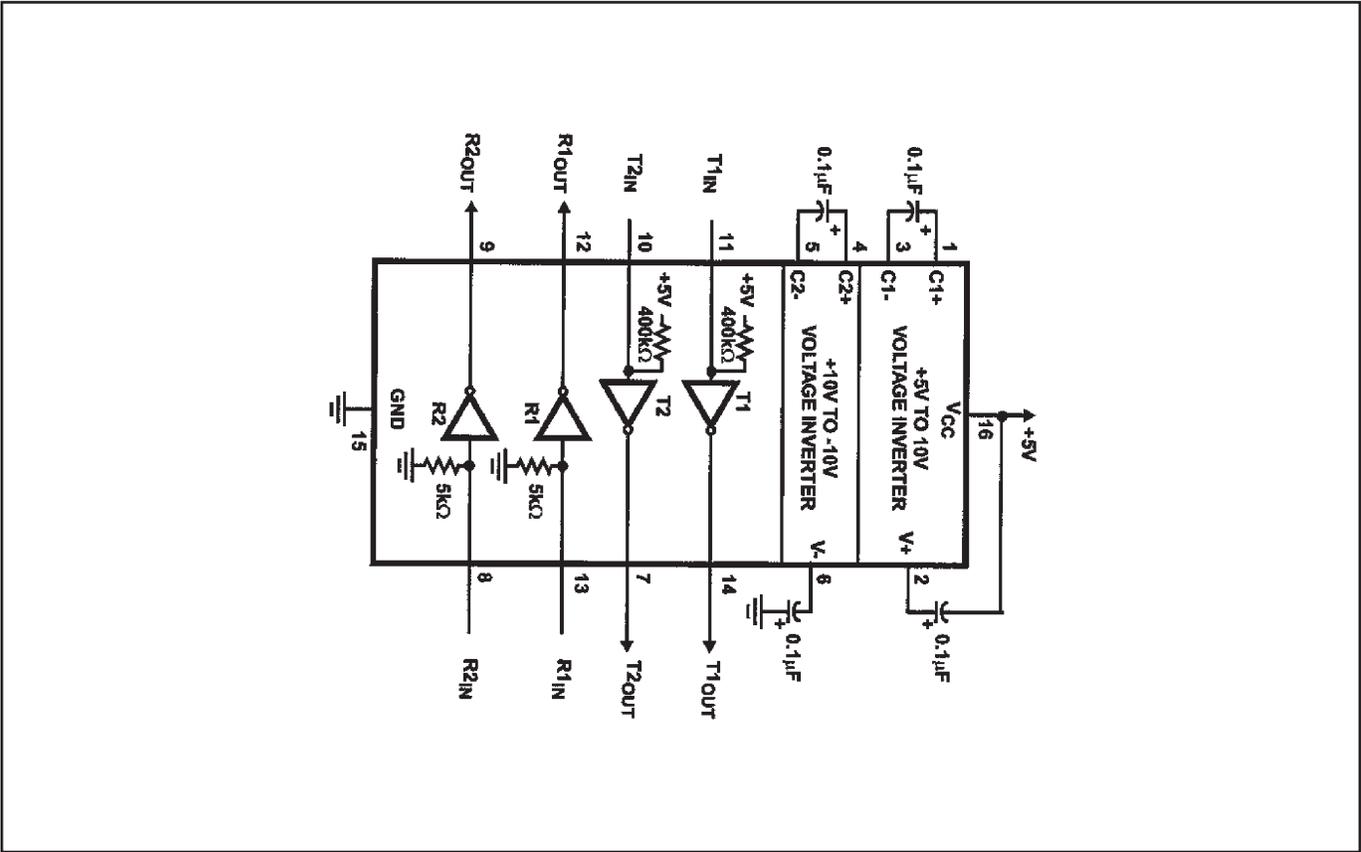
● FA5550NG <P.F. Control, IC621>



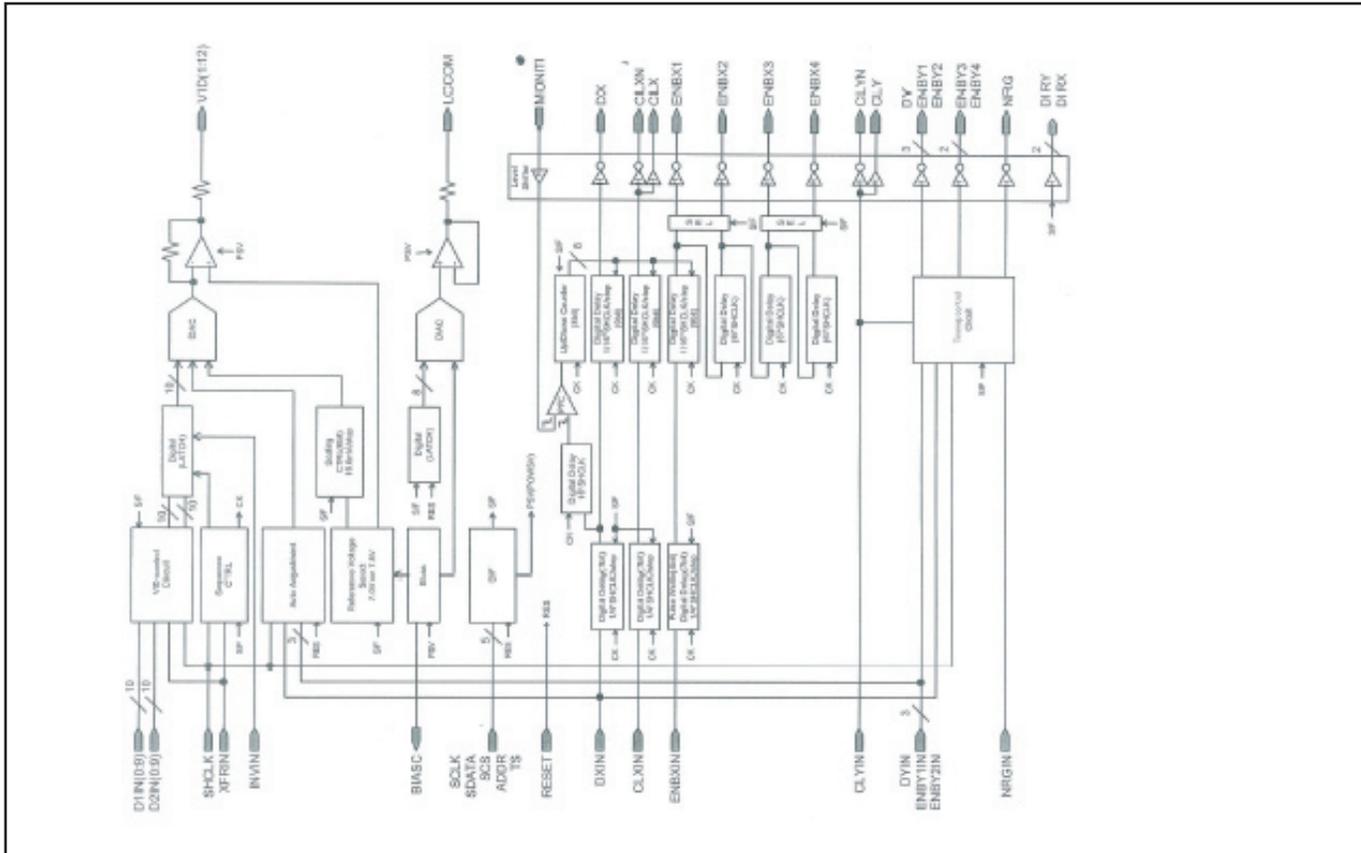
● LC87F2G08AUSSOP <SUB CPU, IC9885>



● MAX232ECPWRP <RS-232C Driver, IC3801>

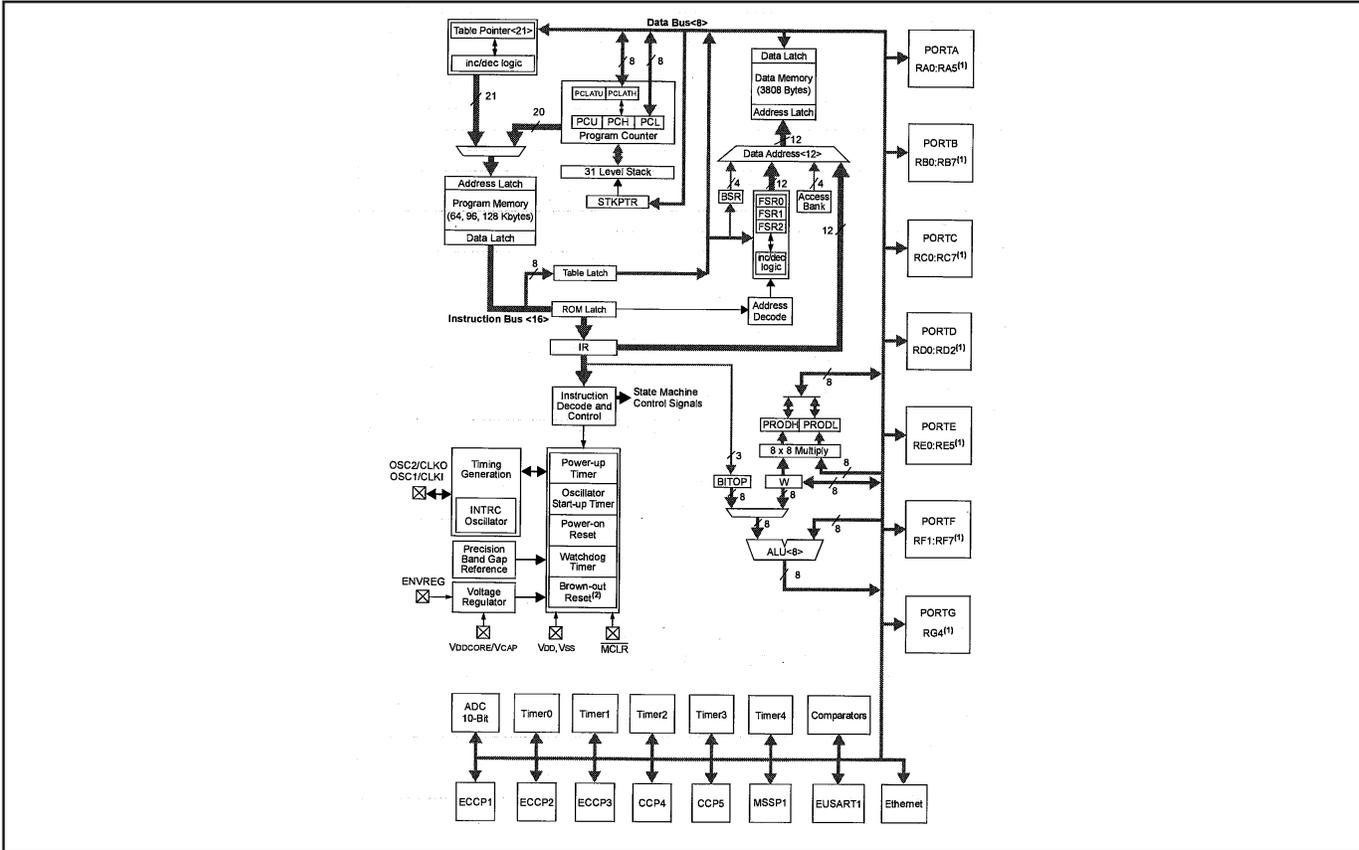


● L3E06200P0A <D/A, S/H-LCD Driver, IC501, IC531, IC561>

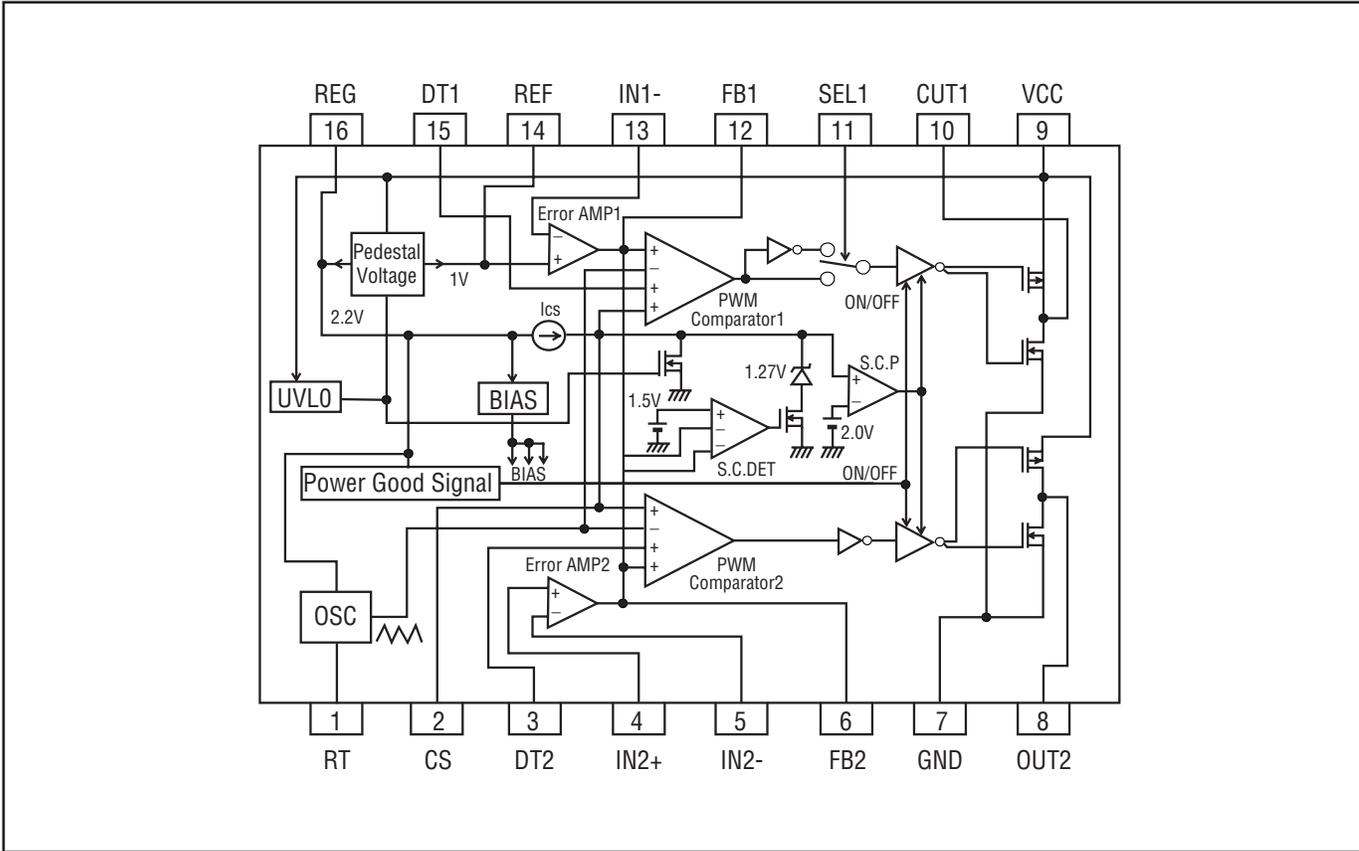


IC Block Diagrams

● PIC18F67J60 <LAN CONTROL, IC8801 >

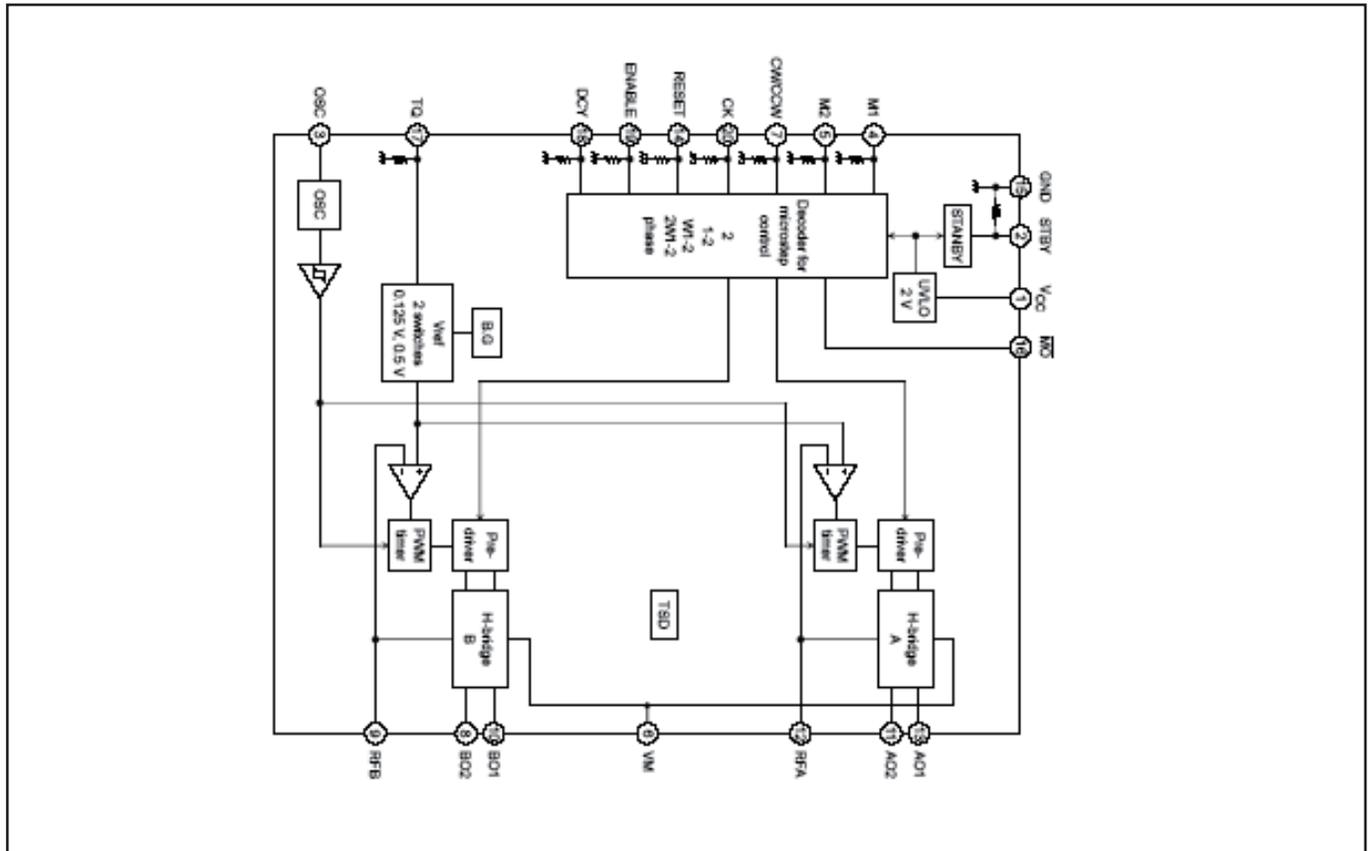


● FA7703 <DC-DC Converter, IC7811 >

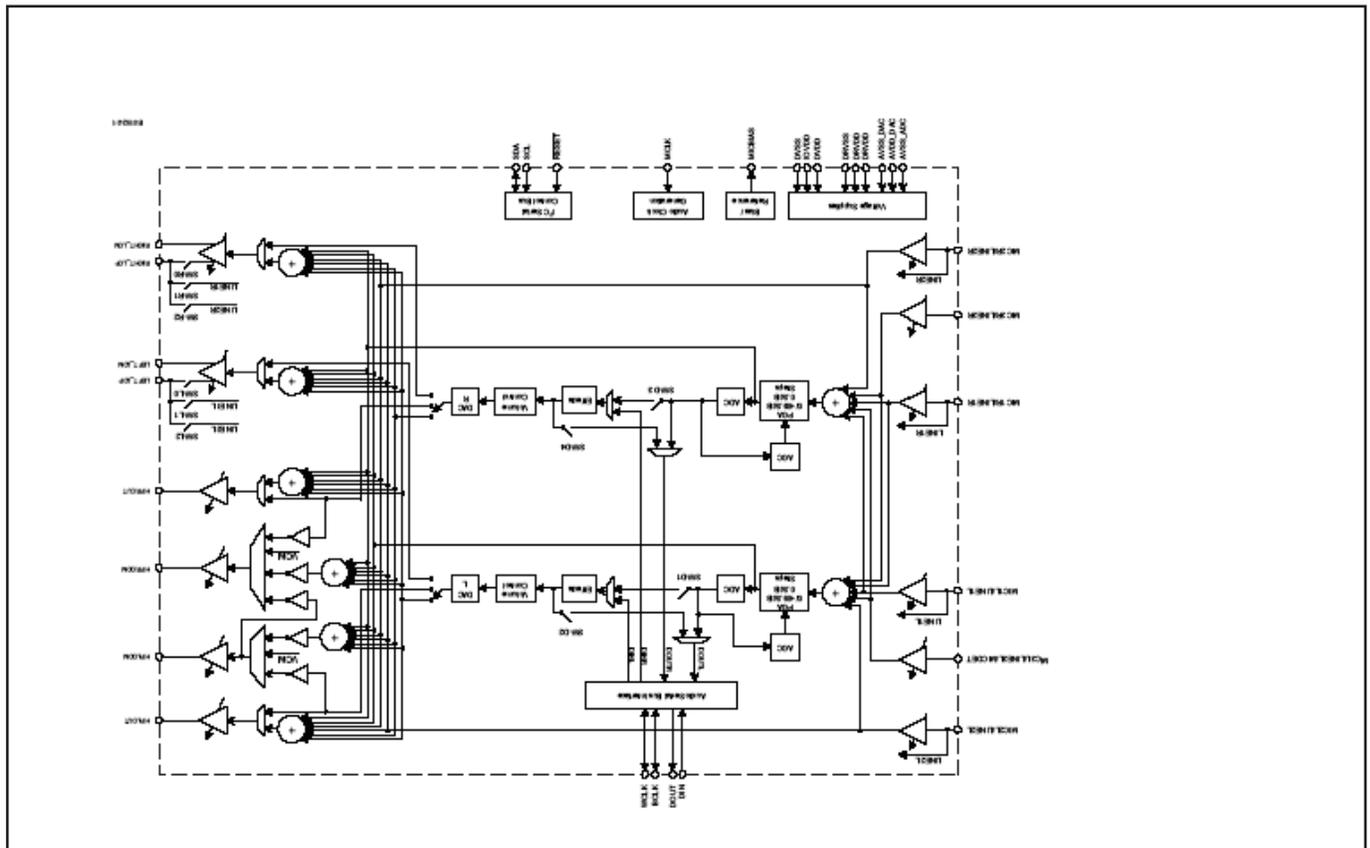


IC Block Diagrams

● TB6608FNG <IRIS Control, IC601>

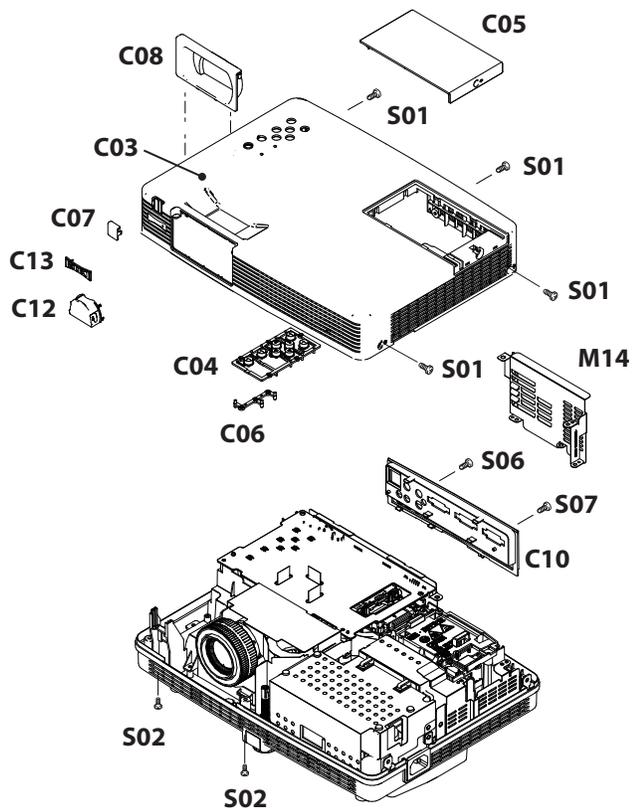


● TLV320AIC3105 <Audio Control, IC5002>

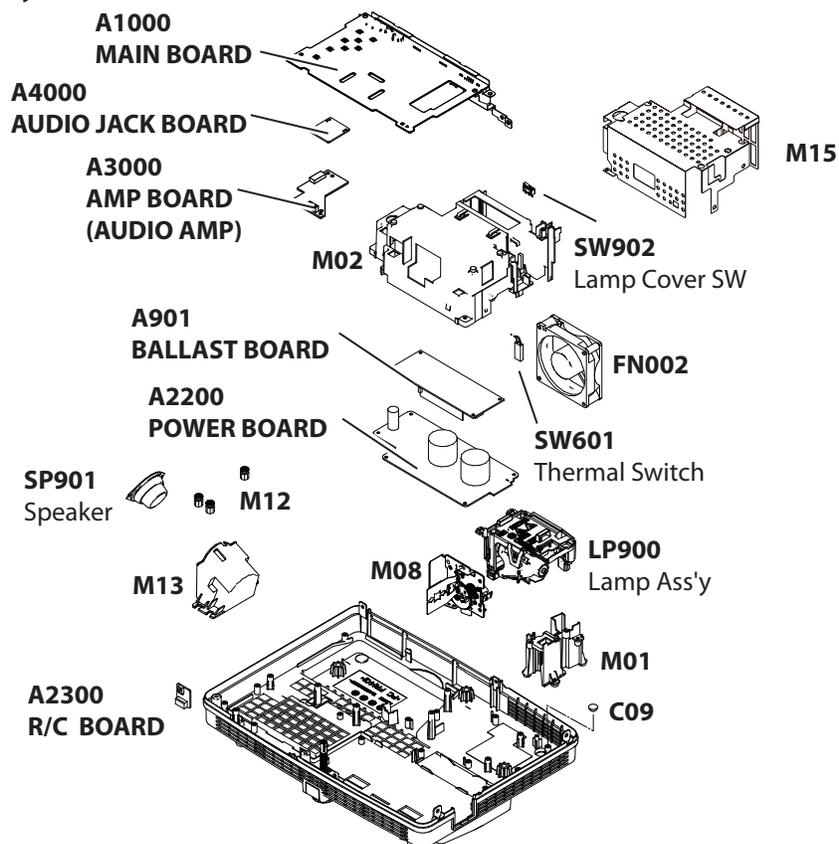


Parts Location Diagrams

Cabinet top assembly

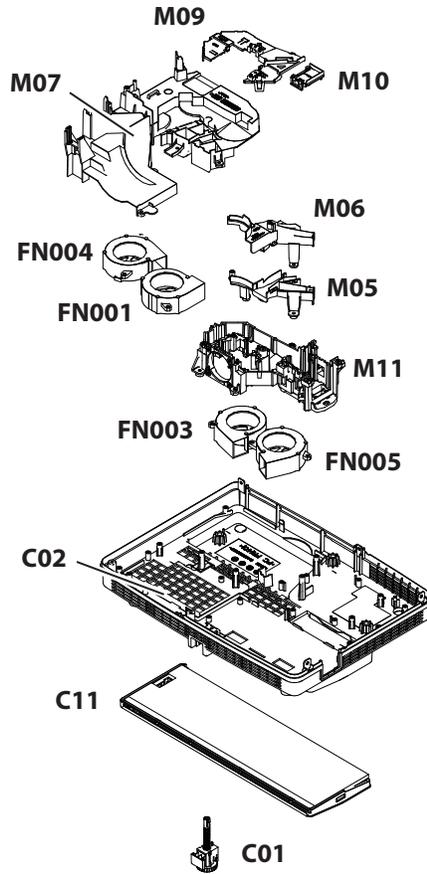


Cabinet bottom-1 assembly

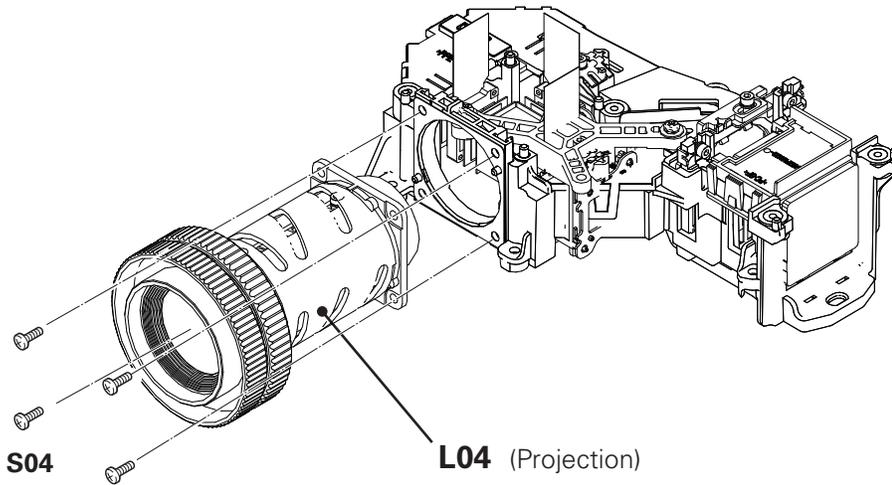


Parts Location Diagrams

Cabinet bottom-2 assembly

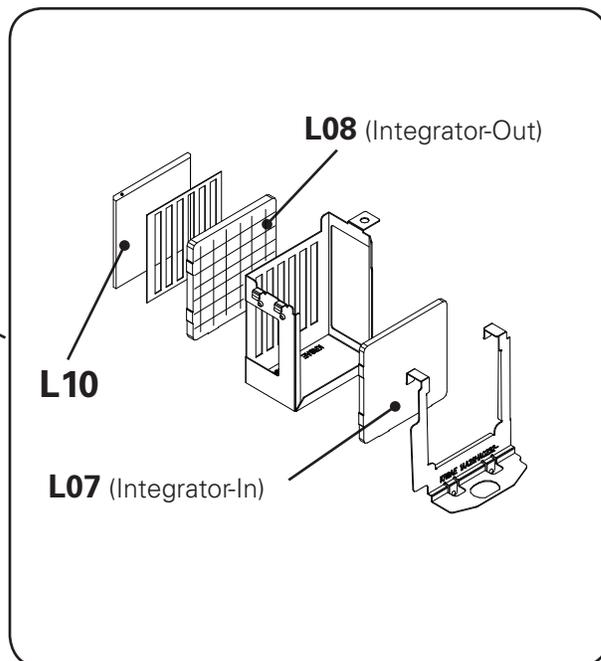
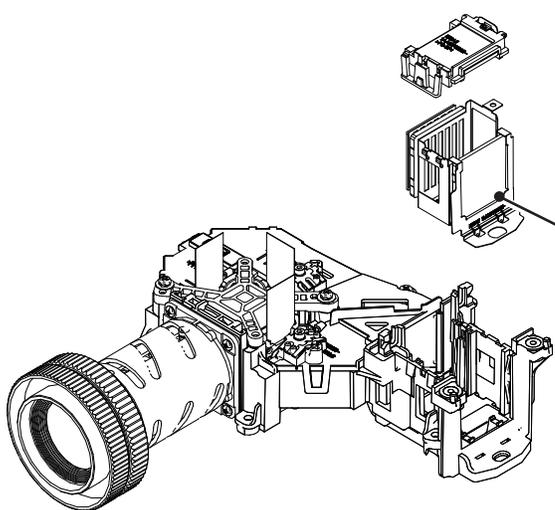


Projection Lens

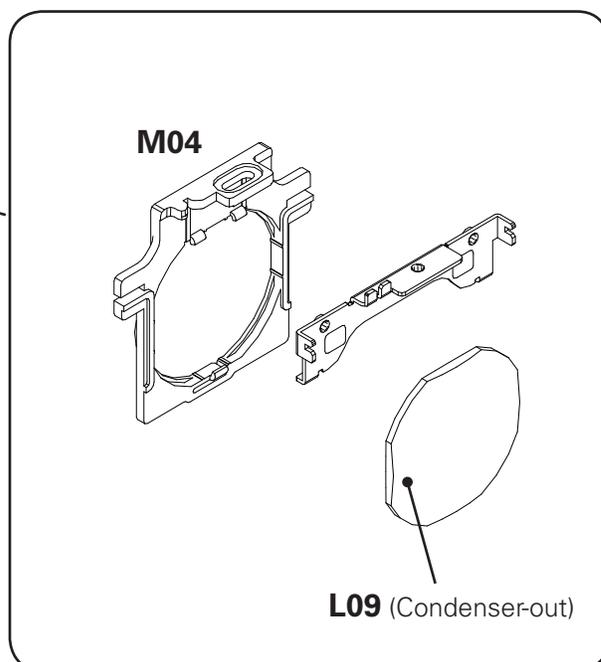
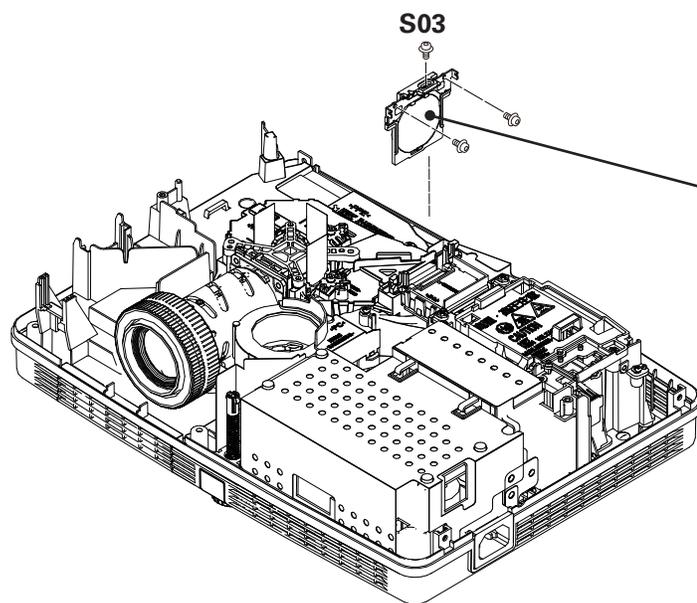


Parts Location Diagrams

Integrator lens assembly

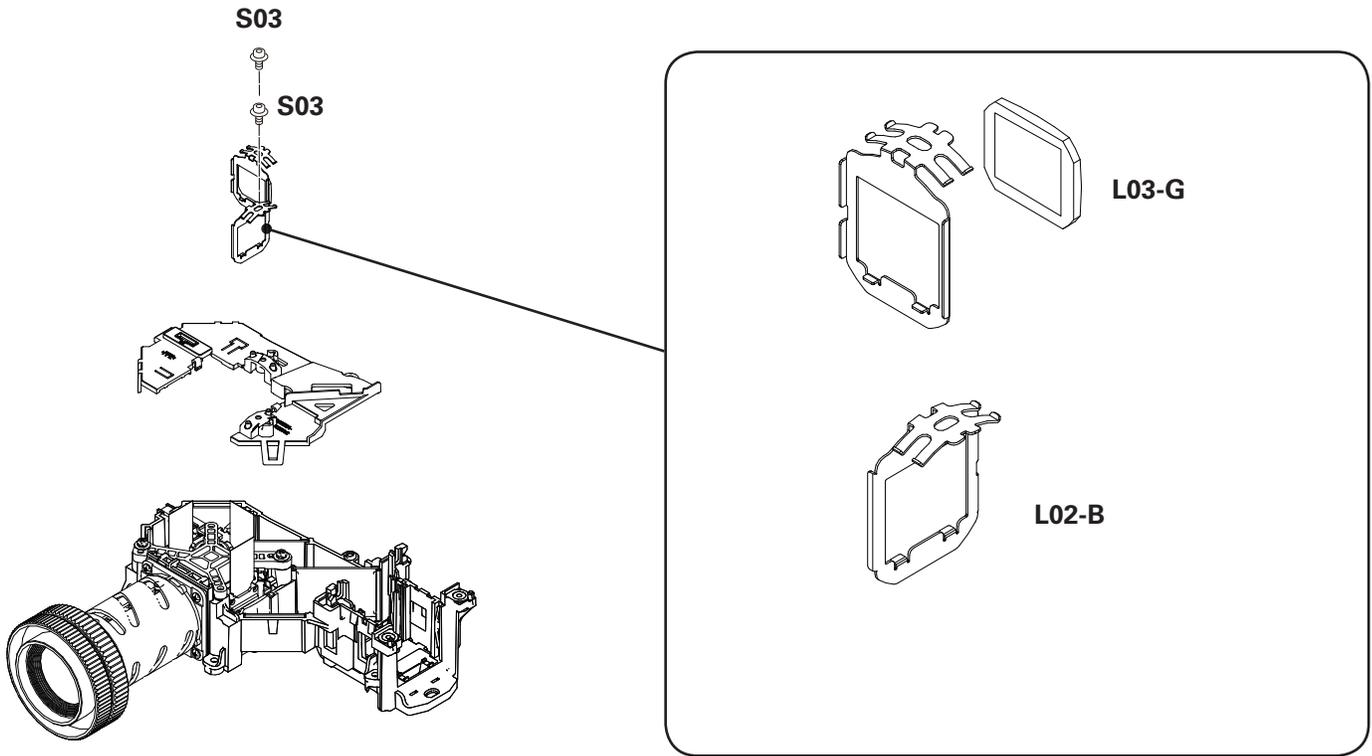


Condenser lens (Out) assembly

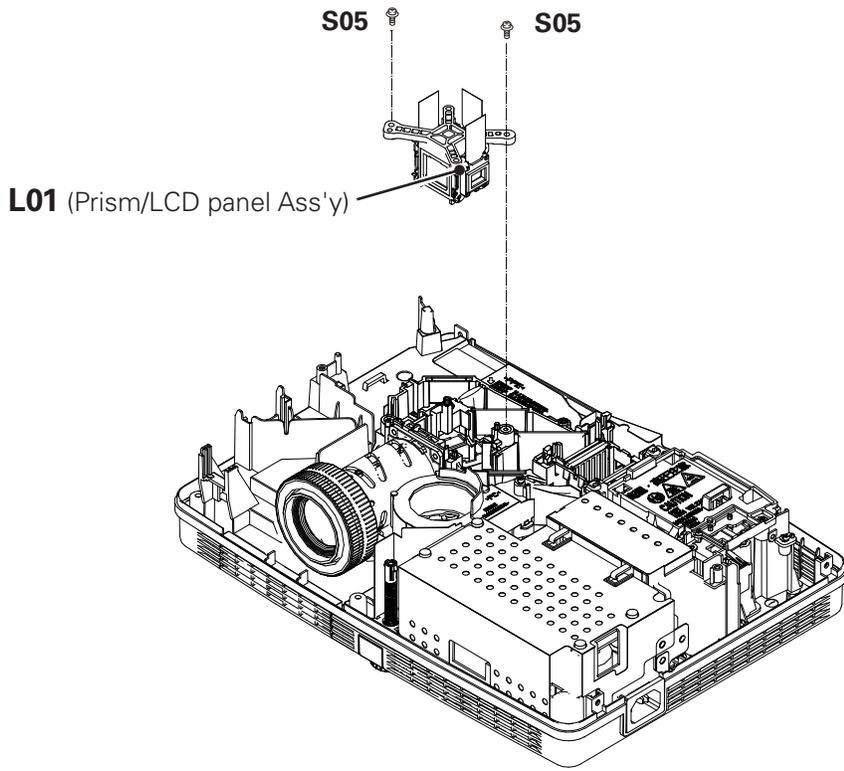


Parts Location Diagrams

Ass'y Condenser In Lens

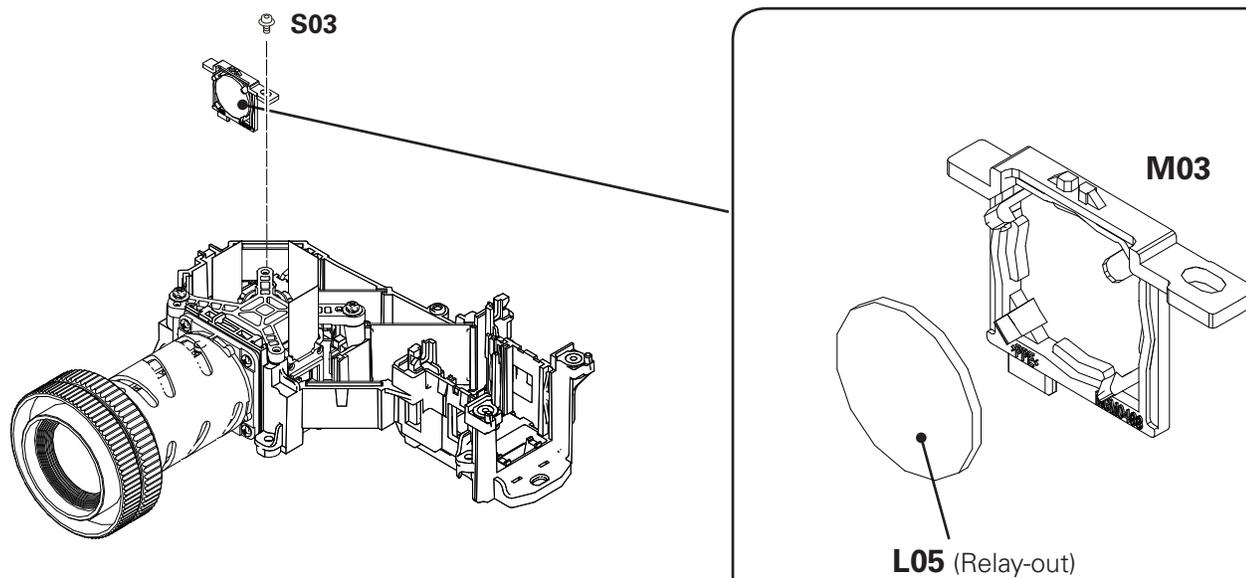


LCD Panel/Prism Assembly



Parts Location Diagrams

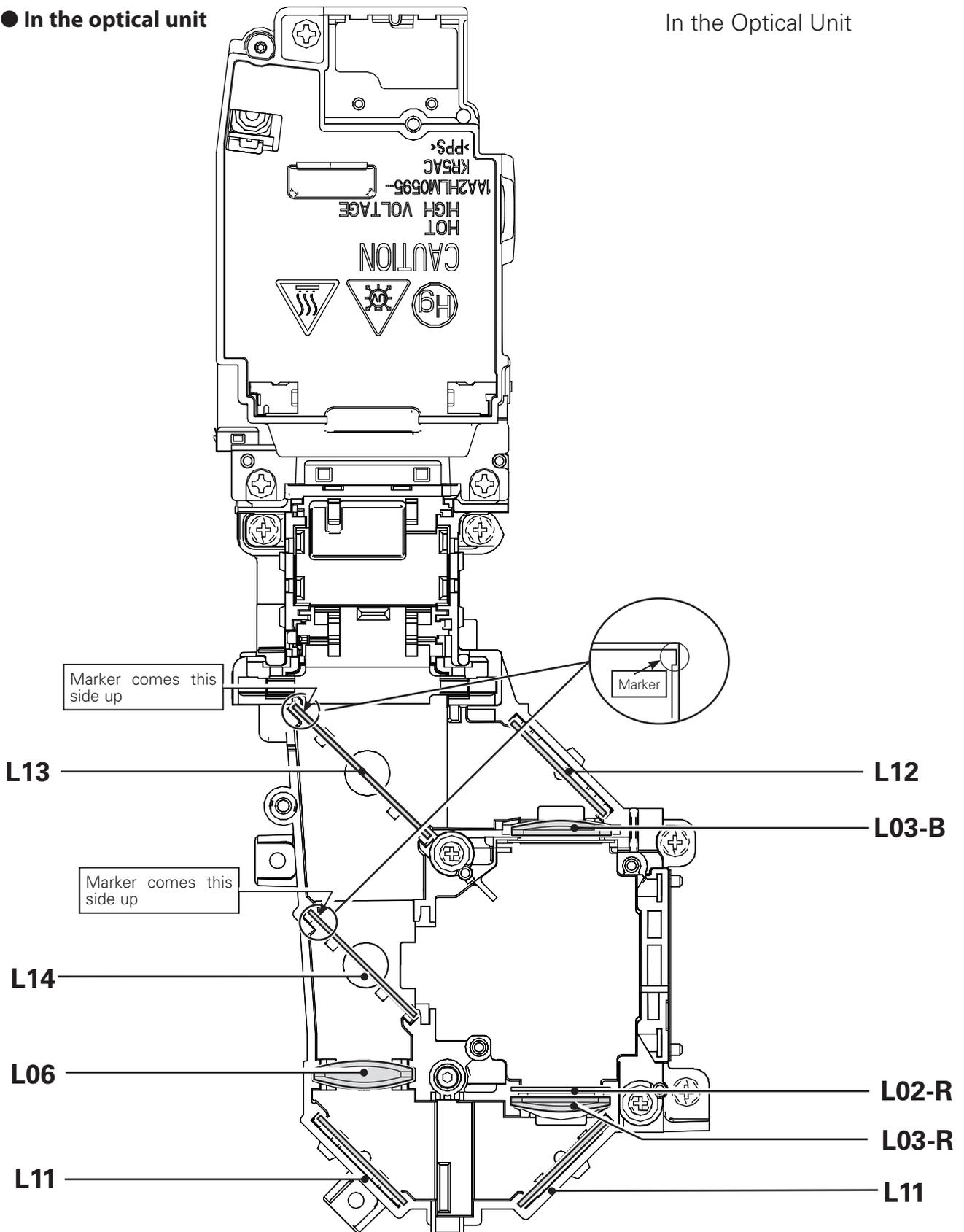
Relay lens (Out) assembly



Parts Location Diagrams

● In the optical unit

In the Optical Unit



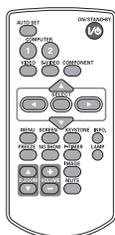
CAUTION:

Part must be placed in specified direction when replacing the optical parts. Please see "Optical Parts Disassembly" for further instructions.

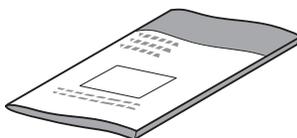
Parts Location Diagrams

● Accessories (see accessories parts list)

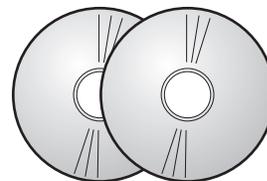
REMOTE CONTROL



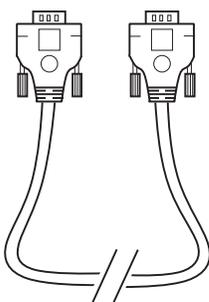
MANUALs



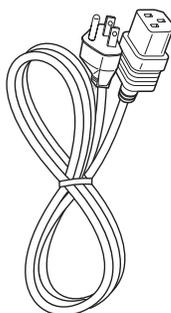
CD-ROMs



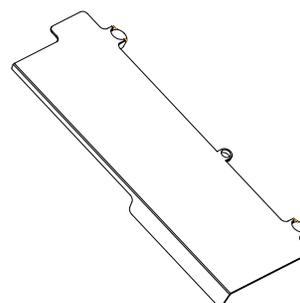
VGA CABLE



AC CORD



FILTER COVER



Mechanical Parts List

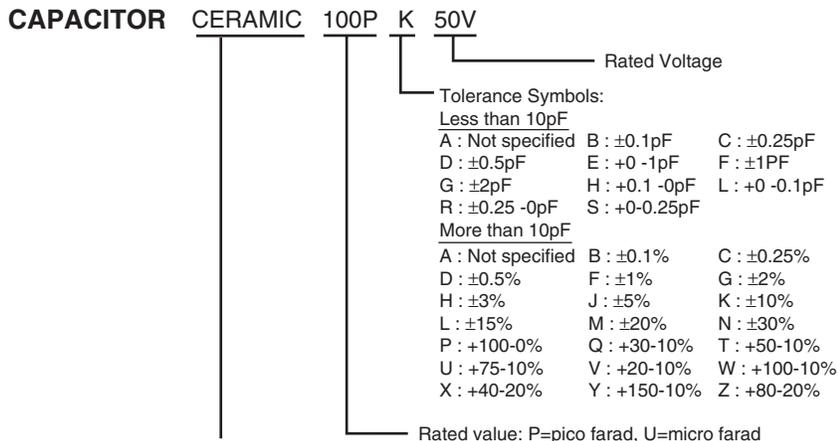
Key No.	Part No.	Description	Key No.	Part No.	Description
PACKING MATERIALS			M09	610 346 4886	OPTICAL TOP-KS5AC
	610 352 9387	CARTON CASE-KT8BE	M10	610 354 4113	OPTICAL TOP A(A)-KR8AE
	610 354 2027	CASE ACC-KR8AE	M11	610 352 8359	OPTICAL BASE-KT8AE
	610 352 6195	CUSHION BOTTOM-KR8AE	M12	610 349 0830	BUSH -KJ8AC
	610 352 6188	CUSHION TOP-KR8AE	M13	610 352 5112	HOLDER_SP-KR8AE
	645 097 3987	POLY BAG-0550X0600*NC*R8P	M14	610 354 2317	SHIELD LMP BACK SERV-KR8AE
			M15	610 352 8458	SHIELD POW SERVICE-KR8AC
ACCESSORIES			SCREWS		
OWNER'S MANUAL			S01	411 189 8600	SCR BIN 3X8
	610 348 9162	CD-ROM(PJ NW MANAGER)	S02	411 190 5001	SCR S-TPG BIN 3X10
	610 352 7086	CD-ROM,OWNERS MANUAL-KT8BE	S03	412 077 8108	SPECIAL SCREW-2.5X6
	655 004 0275	SETUP INST-KT8BE	S04	411 191 6304	SCR BIN 2.5X8
REMOTE CONTROL			S05	411 192 6709	SCR PAN+SW+W 3X10
	645 100 0606	ASSY,REMOCON CXZS	S06	411 214 2900	SCR S-TPG PAN 3X6
	610 344 9944	RC-BATTERY LID-MXAC	S07	411 190 5605	SCR FLT 2X4
AC CORD			OPTICAL PARTS		
△US	945 064 6363	CORD,POWER-3.0MK,US	L01	610 349 6573	ASSY,PNL/PSM-KM8AC
△EU	945 054 1156	CORD,POWER-3.0MK	L02-R	645 102 2929	POLARIZED GLASS(IN/R)
△HK	945 054 1149	CORD,POWER-3.138MK	L02-B	610 350 0751	POLIN SERVICE-KM8AC
MISCELANEOUS			L03-R	645 101 2357	LENS,CONDENSER(R)
	610 343 0249	STRAP CAP-KT7AC	L03-G	645 101 2142	ASSY,LENS,CONDENSER(G)
	610 353 8990	COVER OP FLT-KR8AE	L03-B	645 101 2340	LENS,CONDENSER(B)
	610 353 9287	POLYE BAG 350X180-KR8AE	L04	645 103 5646	LENS,PROJECTION
	945 075 6550	CABLE,INTERFACE VGA-S (US Only)	L05	645 096 4671	LENS,RELAY(OUT)
	945 073 4855	CABLE,INTERFACE VGA	L06	645 099 0571	LENS,RELAY(IN)
	645 093 1642	CABLE,INTERFACE VGA	L07	645 099 8447	LENS,INTEGRATOR(IN)
	652 002 9552	CABLE,INTERFACE VGA	L08	645 099 8454	LENS,INTEGRATOR(OUT)
	945 023 4959	CORE,CLAMP	L09	645 099 8478	LENS,CONDENSER(OUT)
	652 003 2767	CORE,CLAMP	L10	945 086 6372	PRISM(PBS)
CABINET PARTS			L11	645 096 4718	MIRROR(R)
C01	610 345 0049	ASSY,ADJ-KR5AC	L12	645 099 8492	MIRROR(B)
C02	610 354 6513	CABINET_BTM(A)_KR8AE	L13	645 100 5144	DICHROIC MIRROR (B)
C03	610 353 8716	CABINET TOP LG SERV-KT8BE	L14	645 100 5151	DICHROIC MIRROR (G)
C04	610 350 8047	BUTTON CONTROL LG-KR8BC	SERVICE TOOL		
C05	610 350 8955	COVER LMP LG SERV-KR8BC		610 343 5596	CD-ROM,PJ SVC TOOL V420
C06	610 344 9999	DEC INLAY LED-KR5AC			
C07	610 345 0018	DEC INLAY RC-KR5AC			
C08	610 352 6447	DEC_RING-KR8AE			
C09	910 325 2477	DEC LEG-PT5EC			
C10	610 353 7993	PANEL AV LG-KR8BE			
C11	610 354 8296	ASSY_FLT(A)-KR8AE			
C12	610 353 0192	COVER LENS-KR8AE			
C13	610 342 0189	BADGE EIKI-KL7BC			
CHASSIS PARTS					
M01	610 345 0087	HOLDER LAMP BASE-KR5AC			
M02	610 352 4184	HOLDER POWER(A)-KR5AC			
M03	610 343 3721	MTG RELAY OUT-KR5AC			
M04	610 343 3738	MTG COND OUT-KR5AC			
M05	610 350 4469	MTG DUCT BTM IN LAMP			
M06	610 350 4476	MTG DUCT TOP IN LP-KR8AC			
M07	610 352 5143	MTG_DUCT_PNL-KK2AC			
M08	610 352 1879	ACTIVE IRIS_KR8AE			

Electrical Parts List

Product safety should be considered when a component replacement is made in any area of a projector. Components indicated by a Δ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

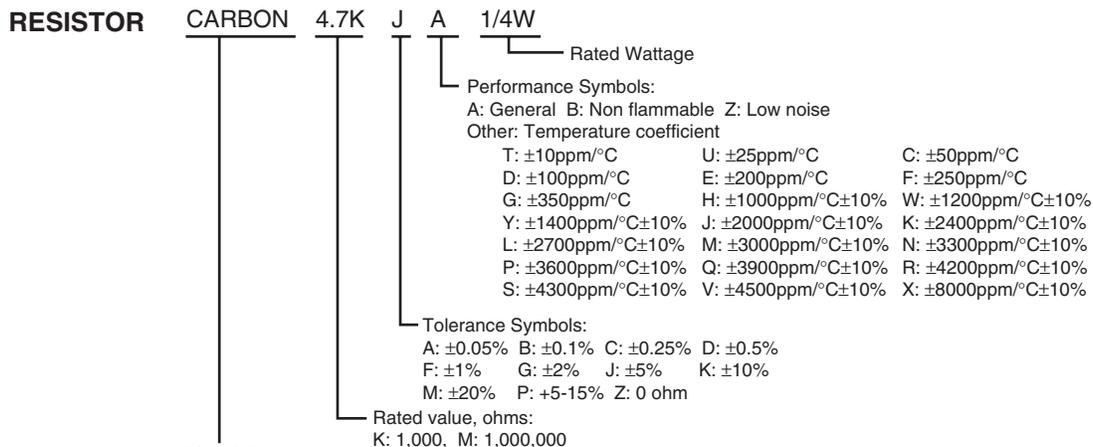
● Read Description in the parts list

Read description in the Capacitor and Resistor as follows:



Material:

- CERAMIC..... Ceramic
- MT-PAPER..... Metallized Paper
- POLYESTER..... Polyester
- MT-POLYEST.....Metallized Polyester
- POLYPRO..... Polypropylene
- MT-POLYPRO.....Metallized Polypropylene
- COMPO FILM..... Composite film
- MT-COMPO.....Metallized Composite
- STYRENE.....Styrene
- TA-SOLID..... Tantalum Oxide Solid Electrolytic
- AL-SOLID..... Aluminium Solid Electrolytic
- ELECT..... Aluminum Foil Electrolytic
- NP-ELECT..... Non-polarised Electrolytic
- OS-SOLID..... Aluminium Solid with Organic Semiconductive Electrolytic
- POS-SOLID..... Polymerized Organic Semiconductive
- DL-ELECT..... Double Layered Electrolytic
- PPS-FILM.....Polyphenylene Sulfide Film
- MT-PPS-FILM.....Metalized Polyphenylene Sulfide Film
- MT-PEN-FILM.....Metalized Polyethylenenaphthalate Film
- CAPACITOR.....Other



Material:

- CARBON..... Carbon
- MT-FILM..... Metal Film
- OXIDE-MT..... Oxide Metal Film
- SOLID..... Composition
- MT-GLAZE..... Metal Glaze
- WIRE WOUND... Wire Wound
- CERAMIC RES.. Ceramic
- FUSIBLE RES.... Fusible
- RESISTOROther

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
IC602	309 330 2511	IC TC7SH04FU-(TE85L)		303 305 8515	CERAMIC 15P J 50V
IC7100	409 699 6516	IC TA48S00AF		404 125 8208	CERAMIC 15P J 50V
IC7811	309 675 1316	IC FA7703V-H1	C1371	303 453 8917	CERAMIC 0.1U K 16V
IC7841	309 461 7822	IC PQ20WZ11		303 453 8610	CERAMIC 0.1U K 16V
IC801	410 714 0003	IC M29W320ET70N6EKT8AE		303 409 3426	CERAMIC 0.1U K 16V
IC841	409 699 3010	IC PT7M7809STE	C1871	403 455 1012	CERAMIC 1U K 10V
IC8801	410 715 6707	IC PIC18F67J60-I/PT-KT8AE		303 433 1112	CERAMIC 1U K 10V
CAPACITOR			C2001	303 392 1215	ELECT 47U M 6.3V
C1001	403 455 1012	CERAMIC 1U K 10V	C2002	303 453 6319	CERAMIC 100P J 50V
	303 433 1112	CERAMIC 1U K 10V		303 454 0910	CERAMIC 100P J 50V
C1002	303 398 3312	ELECT 47U M 10V		303 294 6110	CERAMIC 100P J 50V
C1004	303 453 8917	CERAMIC 0.1U K 16V	C2003	404 123 5100	CERAMIC 100P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		303 453 6319	CERAMIC 100P J 50V
	303 409 3426	CERAMIC 0.1U K 16V		303 454 0910	CERAMIC 100P J 50V
C1006	303 453 8917	CERAMIC 0.1U K 16V	C2021	303 294 6110	CERAMIC 100P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		404 123 5100	CERAMIC 100P J 50V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 6319	CERAMIC 100P J 50V
C1007	303 453 8917	CERAMIC 0.1U K 16V		303 454 0910	CERAMIC 100P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		303 294 6110	CERAMIC 100P J 50V
	303 409 3426	CERAMIC 0.1U K 16V	C2023	404 123 5100	CERAMIC 100P J 50V
C1008	303 453 8917	CERAMIC 0.1U K 16V		303 453 6319	CERAMIC 100P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		303 454 0910	CERAMIC 100P J 50V
	303 409 3426	CERAMIC 0.1U K 16V		303 294 6110	CERAMIC 100P J 50V
C1009	303 453 8917	CERAMIC 0.1U K 16V	C2025	404 123 5100	CERAMIC 100P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		303 372 7510	CERAMIC 2.2U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V		303 370 0216	CERAMIC 2.2U K 6.3V
C1011	303 454 0415	CERAMIC 0.068U K 16V	C2026	403 455 1012	CERAMIC 1U K 10V
	303 442 0519	CERAMIC 0.068U K 16V		303 433 1112	CERAMIC 1U K 10V
	404 125 3104	CERAMIC 0.068U K 16V	C2031	303 453 6319	CERAMIC 100P J 50V
C1012	303 453 8917	CERAMIC 0.1U K 16V		303 454 0910	CERAMIC 100P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		303 294 6110	CERAMIC 100P J 50V
	303 409 3426	CERAMIC 0.1U K 16V	C2041	404 123 5100	CERAMIC 100P J 50V
C1014	303 454 0415	CERAMIC 0.068U K 16V		303 453 6319	CERAMIC 100P J 50V
	303 442 0519	CERAMIC 0.068U K 16V		303 454 0910	CERAMIC 100P J 50V
	404 125 3104	CERAMIC 0.068U K 16V		303 294 6110	CERAMIC 100P J 50V
C1016	303 454 0415	CERAMIC 0.068U K 16V	C2050	404 123 5100	CERAMIC 100P J 50V
	303 442 0519	CERAMIC 0.068U K 16V		303 372 7510	CERAMIC 2.2U K 6.3V
	404 125 3104	CERAMIC 0.068U K 16V		303 370 0216	CERAMIC 2.2U K 6.3V
C1017	303 454 0415	CERAMIC 0.068U K 16V	C2051	403 455 1012	CERAMIC 1U K 10V
	303 442 0519	CERAMIC 0.068U K 16V		303 433 1112	CERAMIC 1U K 10V
	404 125 3104	CERAMIC 0.068U K 16V	C2052	303 454 0613	CERAMIC 10000P K 50V
C1018	303 454 0415	CERAMIC 0.068U K 16V		303 441 9810	CERAMIC 0.01U K 50V
	303 442 0519	CERAMIC 0.068U K 16V	C2387	403 455 1012	CERAMIC 1U K 10V
	404 125 3104	CERAMIC 0.068U K 16V		303 433 1112	CERAMIC 1U K 10V
C1019	303 453 8917	CERAMIC 0.1U K 16V	C2388	303 358 3215	CERAMIC 10U K 6.3V
	303 453 8610	CERAMIC 0.1U K 16V		303 370 0018	CERAMIC 10U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
C1049	303 453 8917	CERAMIC 0.1U K 16V	C2389	303 324 6417	CERAMIC 0.022U K 16V
	303 453 8610	CERAMIC 0.1U K 16V	C2891	303 453 8917	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C1061	303 398 3312	ELECT 47U M 10V	C2892	303 409 3426	CERAMIC 0.1U K 16V
C1092	303 358 3215	CERAMIC 10U K 6.3V		303 453 7217	CERAMIC 47P J 50V
	303 370 0018	CERAMIC 10U K 6.3V		303 454 1610	CERAMIC 47P J 50V
	303 368 7319	CERAMIC 10U K 6.3V		303 305 8812	CERAMIC 47P J 50V
C1103	303 453 8917	CERAMIC 0.1U K 16V		404 123 4004	CERAMIC 47P J 50V
	303 453 8610	CERAMIC 0.1U K 16V	C301	303 453 8917	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C1105	303 453 8917	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V	C302	303 392 1215	ELECT 47U M 6.3V
	303 409 3426	CERAMIC 0.1U K 16V	C303	303 453 8719	CERAMIC 470P K 50V
C1331	403 455 5713	CERAMIC 15P J 50V		303 453 9211	CERAMIC 470P K 50V
	403 455 5218	CERAMIC 15P J 50V		303 282 5118	CERAMIC 470P K 50V
	303 305 8515	CERAMIC 15P J 50V	C304	303 453 8917	CERAMIC 0.1U K 16V
	404 125 8208	CERAMIC 15P J 50V		303 453 8610	CERAMIC 0.1U K 16V
C1332	403 455 5713	CERAMIC 15P J 50V		303 409 3426	CERAMIC 0.1U K 16V
	403 455 5218	CERAMIC 15P J 50V	C306	303 453 8917	CERAMIC 0.1U K 16V
				303 453 8610	CERAMIC 0.1U K 16V

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
C3513	303 453 7019	CERAMIC 33P J 50V	C3569	303 396 9613	CERAMIC 1U K 25V
	303 453 9617	CERAMIC 33P J 50V		303 397 7618	CERAMIC 1U K 25V
	303 276 3113	CERAMIC 33P J 50V		403 478 5912	CERAMIC 1U K 25V
	404 123 4509	CERAMIC 33P J 50V	C357	303 453 8917	CERAMIC 0.1U K 16V
C352	303 453 8917	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C3571	303 396 9613	CERAMIC 1U K 25V
C3524	303 157 4215	CERAMIC 220P J 50V		303 397 7618	CERAMIC 1U K 25V
C3527	303 453 7019	CERAMIC 33P J 50V		403 478 5912	CERAMIC 1U K 25V
	303 453 9617	CERAMIC 33P J 50V	C3573	303 453 7019	CERAMIC 33P J 50V
	303 276 3113	CERAMIC 33P J 50V		303 453 9617	CERAMIC 33P J 50V
	404 123 4509	CERAMIC 33P J 50V		303 276 3113	CERAMIC 33P J 50V
C353	303 453 8917	CERAMIC 0.1U K 16V		404 123 4509	CERAMIC 33P J 50V
	303 453 8610	CERAMIC 0.1U K 16V	C358	303 453 8917	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C3531	303 396 9613	CERAMIC 1U K 25V		303 409 3426	CERAMIC 0.1U K 16V
	303 397 7618	CERAMIC 1U K 25V	C3584	303 157 4215	CERAMIC 220P J 50V
	403 478 5912	CERAMIC 1U K 25V	C3598	303 394 5815	CERAMIC 4.7U K 16V
C3532	303 396 9613	CERAMIC 1U K 25V		303 441 5515	CERAMIC 4.7U K 16V
	303 397 7618	CERAMIC 1U K 25V	C3599	403 455 1012	CERAMIC 1U K 10V
	403 478 5912	CERAMIC 1U K 25V		303 433 1112	CERAMIC 1U K 10V
C3533	403 467 0911	CERAMIC 0.1U K 25V	C361	403 455 1012	CERAMIC 1U K 10V
C3534	303 396 9613	CERAMIC 1U K 25V		303 433 1112	CERAMIC 1U K 10V
	303 397 7618	CERAMIC 1U K 25V	C362	403 455 1012	CERAMIC 1U K 10V
	403 478 5912	CERAMIC 1U K 25V		303 433 1112	CERAMIC 1U K 10V
C3536	303 381 5316	ELECT 100U M 16V	C363	403 455 1012	CERAMIC 1U K 10V
	303 369 3211	ELECT 100U M 16V		303 433 1112	CERAMIC 1U K 10V
C3538	303 437 4614	CERAMIC 10U K 25V	C364	303 454 0613	CERAMIC 10000P K 50V
	403 478 5714	CERAMIC 10U K 25V		303 441 9810	CERAMIC 0.01U K 50V
C3539	303 396 9613	CERAMIC 1U K 25V	C365	303 454 0415	CERAMIC 0.068U K 16V
	303 397 7618	CERAMIC 1U K 25V		303 442 0519	CERAMIC 0.068U K 16V
	403 478 5912	CERAMIC 1U K 25V		404 125 3104	CERAMIC 0.068U K 16V
C354	303 453 8917	CERAMIC 0.1U K 16V	C366	303 453 8917	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C3541	303 396 9613	CERAMIC 1U K 25V	C367	303 453 8917	CERAMIC 0.1U K 16V
	303 397 7618	CERAMIC 1U K 25V		303 453 8610	CERAMIC 0.1U K 16V
	403 478 5912	CERAMIC 1U K 25V		303 409 3426	CERAMIC 0.1U K 16V
C3543	303 453 7019	CERAMIC 33P J 50V	C368	303 453 8917	CERAMIC 0.1U K 16V
	303 453 9617	CERAMIC 33P J 50V		303 453 8610	CERAMIC 0.1U K 16V
	303 276 3113	CERAMIC 33P J 50V		303 409 3426	CERAMIC 0.1U K 16V
	404 123 4509	CERAMIC 33P J 50V	C369	303 453 8917	CERAMIC 0.1U K 16V
C355	303 453 8917	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C370	303 453 8917	CERAMIC 0.1U K 16V
C3554	303 157 4215	CERAMIC 220P J 50V		303 453 8610	CERAMIC 0.1U K 16V
C3557	303 453 7019	CERAMIC 33P J 50V		303 409 3426	CERAMIC 0.1U K 16V
	303 453 9617	CERAMIC 33P J 50V	C371	303 453 8917	CERAMIC 0.1U K 16V
	303 276 3113	CERAMIC 33P J 50V		303 453 8610	CERAMIC 0.1U K 16V
	404 123 4509	CERAMIC 33P J 50V		303 409 3426	CERAMIC 0.1U K 16V
C356	303 453 8917	CERAMIC 0.1U K 16V	C372	403 457 2512	CERAMIC 0.47U K 10V
	303 453 8610	CERAMIC 0.1U K 16V		303 376 6311	CERAMIC 0.47U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C373	403 457 2512	CERAMIC 0.47U K 10V
C3561	303 396 9613	CERAMIC 1U K 25V		303 376 6311	CERAMIC 0.47U K 10V
	303 397 7618	CERAMIC 1U K 25V	C374	403 457 2512	CERAMIC 0.47U K 10V
	403 478 5912	CERAMIC 1U K 25V		303 376 6311	CERAMIC 0.47U K 10V
C3562	303 396 9613	CERAMIC 1U K 25V	C377	303 453 8917	CERAMIC 0.1U K 16V
	303 397 7618	CERAMIC 1U K 25V		303 453 8610	CERAMIC 0.1U K 16V
	403 478 5912	CERAMIC 1U K 25V		303 409 3426	CERAMIC 0.1U K 16V
C3563	403 467 0911	CERAMIC 0.1U K 25V	C378	303 453 8917	CERAMIC 0.1U K 16V
C3564	303 396 9613	CERAMIC 1U K 25V		303 453 8610	CERAMIC 0.1U K 16V
	303 397 7618	CERAMIC 1U K 25V		303 409 3426	CERAMIC 0.1U K 16V
	403 478 5912	CERAMIC 1U K 25V	C379	303 453 8917	CERAMIC 0.1U K 16V
C3566	303 381 5316	ELECT 100U M 16V		303 453 8610	CERAMIC 0.1U K 16V
	303 369 3211	ELECT 100U M 16V		303 409 3426	CERAMIC 0.1U K 16V
C3568	303 437 4614	CERAMIC 10U K 25V	C380	303 453 8917	CERAMIC 0.1U K 16V
	403 478 5714	CERAMIC 10U K 25V		303 453 8610	CERAMIC 0.1U K 16V

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
	303 409 3426	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C3801	403 455 1012	CERAMIC 1U K 10V		303 409 3426	CERAMIC 0.1U K 16V
	303 433 1112	CERAMIC 1U K 10V	C417	303 372 7510	CERAMIC 2.2U K 6.3V
C3802	403 455 1012	CERAMIC 1U K 10V		303 370 0216	CERAMIC 2.2U K 6.3V
	303 433 1112	CERAMIC 1U K 10V	C421	303 453 8719	CERAMIC 470P K 50V
C3803	403 455 1012	CERAMIC 1U K 10V		303 453 9211	CERAMIC 470P K 50V
	303 433 1112	CERAMIC 1U K 10V		303 282 5118	CERAMIC 470P K 50V
C3804	403 455 1012	CERAMIC 1U K 10V	C426	403 455 1012	CERAMIC 1U K 10V
	303 433 1112	CERAMIC 1U K 10V		303 433 1112	CERAMIC 1U K 10V
C3806	403 455 1012	CERAMIC 1U K 10V	C427	303 453 8719	CERAMIC 470P K 50V
	303 433 1112	CERAMIC 1U K 10V		303 453 9211	CERAMIC 470P K 50V
C381	303 453 8917	CERAMIC 0.1U K 16V		303 282 5118	CERAMIC 470P K 50V
	303 453 8610	CERAMIC 0.1U K 16V	C431	303 453 8719	CERAMIC 470P K 50V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 9211	CERAMIC 470P K 50V
C382	303 453 8917	CERAMIC 0.1U K 16V		303 282 5118	CERAMIC 470P K 50V
	303 453 8610	CERAMIC 0.1U K 16V	C432	303 453 8917	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C383	303 453 8719	CERAMIC 470P K 50V		303 409 3426	CERAMIC 0.1U K 16V
	303 453 9211	CERAMIC 470P K 50V	C433	303 453 8719	CERAMIC 470P K 50V
	303 282 5118	CERAMIC 470P K 50V		303 453 9211	CERAMIC 470P K 50V
C384	303 453 8719	CERAMIC 470P K 50V		303 282 5118	CERAMIC 470P K 50V
	303 453 9211	CERAMIC 470P K 50V	C434	303 453 8917	CERAMIC 0.1U K 16V
	303 282 5118	CERAMIC 470P K 50V		303 453 8610	CERAMIC 0.1U K 16V
C385	303 453 8719	CERAMIC 470P K 50V		303 409 3426	CERAMIC 0.1U K 16V
	303 453 9211	CERAMIC 470P K 50V	C439	303 358 3215	CERAMIC 10U K 6.3V
	303 282 5118	CERAMIC 470P K 50V		303 370 0018	CERAMIC 10U K 6.3V
C3857	303 453 8917	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
	303 453 8610	CERAMIC 0.1U K 16V	C442	403 455 1012	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
C3858	303 358 3215	CERAMIC 10U K 6.3V	C443	303 453 8719	CERAMIC 470P K 50V
	303 370 0018	CERAMIC 10U K 6.3V		303 453 9211	CERAMIC 470P K 50V
	303 368 7319	CERAMIC 10U K 6.3V		303 282 5118	CERAMIC 470P K 50V
C3859	303 453 8917	CERAMIC 0.1U K 16V	C480	303 358 3215	CERAMIC 10U K 6.3V
	303 453 8610	CERAMIC 0.1U K 16V		303 370 0018	CERAMIC 10U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
C3860	303 453 8917	CERAMIC 0.1U K 16V	C481	303 358 3215	CERAMIC 10U K 6.3V
	303 453 8610	CERAMIC 0.1U K 16V		303 370 0018	CERAMIC 10U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
C3861	303 453 8917	CERAMIC 0.1U K 16V	C4891	303 453 8917	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C388	303 453 8917	CERAMIC 0.1U K 16V	C5022	303 392 1215	ELECT 47U M 6.3V
	303 453 8610	CERAMIC 0.1U K 16V	C5024	303 453 8917	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C4001	303 382 7814	CERAMIC 2.2U K 10V		303 409 3426	CERAMIC 0.1U K 16V
	303 394 5211	CERAMIC 22U K 10V	C5025	403 455 1616	CERAMIC 10U K 16V
C4002	303 453 8917	CERAMIC 0.1U K 16V		403 478 5813	CERAMIC 10U K 16V
	303 453 8610	CERAMIC 0.1U K 16V	C5026	403 455 1616	CERAMIC 10U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		403 478 5813	CERAMIC 10U K 16V
C4003	303 453 8917	CERAMIC 0.1U K 16V	C5027	403 455 1012	CERAMIC 1U K 10V
	303 453 8610	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V	C5028	403 455 1012	CERAMIC 1U K 10V
C4004	303 382 7814	CERAMIC 2.2U K 10V		303 433 1112	CERAMIC 1U K 10V
	303 394 5211	CERAMIC 22U K 10V	C5029	403 455 1012	CERAMIC 1U K 10V
C403	303 453 8719	CERAMIC 470P K 50V		303 433 1112	CERAMIC 1U K 10V
	303 453 9211	CERAMIC 470P K 50V	C503	303 453 8917	CERAMIC 0.1U K 16V
	303 282 5118	CERAMIC 470P K 50V		303 453 8610	CERAMIC 0.1U K 16V
C406	303 453 8917	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V	C5030	403 455 1012	CERAMIC 1U K 10V
	303 409 3426	CERAMIC 0.1U K 16V		303 433 1112	CERAMIC 1U K 10V
C407	303 453 8719	CERAMIC 470P K 50V	C5031	403 455 1012	CERAMIC 1U K 10V
	303 453 9211	CERAMIC 470P K 50V		303 433 1112	CERAMIC 1U K 10V
	303 282 5118	CERAMIC 470P K 50V	C5032	403 455 1616	CERAMIC 10U K 16V
C413	303 453 8719	CERAMIC 470P K 50V		403 478 5813	CERAMIC 10U K 16V
	303 453 9211	CERAMIC 470P K 50V	C5033	403 455 1616	CERAMIC 10U K 16V
	303 282 5118	CERAMIC 470P K 50V		403 478 5813	CERAMIC 10U K 16V
C414	303 453 8917	CERAMIC 0.1U K 16V	C5034	403 455 1012	CERAMIC 1U K 10V

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
	303 433 1112	CERAMIC		303 368 7319	CERAMIC
C5035	403 455 1012	CERAMIC	C508	303 401 4312	ELECT
	303 433 1112	CERAMIC		303 419 5219	ELECT
C5036	403 455 1012	CERAMIC	C509	303 372 7510	CERAMIC
	303 433 1112	CERAMIC		303 370 0216	CERAMIC
C5038	303 454 0613	CERAMIC	C5098	403 455 1616	CERAMIC
	303 441 9810	CERAMIC		403 478 5813	CERAMIC
C5039	403 455 1012	CERAMIC	C511	303 397 8219	CERAMIC
	303 433 1112	CERAMIC		403 454 6414	CERAMIC
C504	303 453 8917	CERAMIC	C512	403 467 0911	CERAMIC
	303 453 8610	CERAMIC	C513	403 467 0911	CERAMIC
	303 409 3426	CERAMIC	C514	403 467 0911	CERAMIC
C5040	303 454 0613	CERAMIC	C516	403 467 0911	CERAMIC
	303 441 9810	CERAMIC	C517	403 467 0911	CERAMIC
C5041	303 454 0613	CERAMIC	C519	403 467 0911	CERAMIC
	303 441 9810	CERAMIC	C521	303 396 9613	CERAMIC
C5042	403 455 1012	CERAMIC		303 397 7618	CERAMIC
	303 433 1112	CERAMIC		403 478 5912	CERAMIC
C5043	403 455 1012	CERAMIC	C523	303 342 3313	CERAMIC
	303 433 1112	CERAMIC		404 124 8506	CERAMIC
C5044	303 453 8917	CERAMIC	C524	303 342 3313	CERAMIC
	303 453 8610	CERAMIC		404 124 8506	CERAMIC
	303 409 3426	CERAMIC	C527	403 467 0911	CERAMIC
C5045	303 358 3215	CERAMIC	C528	403 467 0911	CERAMIC
	303 370 0018	CERAMIC	C5304	303 454 0613	CERAMIC
	303 368 7319	CERAMIC		303 441 9810	CERAMIC
C5046	403 455 1012	CERAMIC	C5315	303 453 8917	CERAMIC
	303 433 1112	CERAMIC		303 453 8610	CERAMIC
C5047	303 453 8917	CERAMIC		303 409 3426	CERAMIC
	303 453 8610	CERAMIC	C5316	303 454 0415	CERAMIC
	303 409 3426	CERAMIC		303 442 0519	CERAMIC
C5048	303 453 8917	CERAMIC		404 125 3104	CERAMIC
	303 453 8610	CERAMIC	C533	303 453 8917	CERAMIC
	303 409 3426	CERAMIC		303 453 8610	CERAMIC
C5049	303 453 8917	CERAMIC		303 409 3426	CERAMIC
	303 453 8610	CERAMIC	C5333	403 455 1012	CERAMIC
	303 409 3426	CERAMIC		303 433 1112	CERAMIC
C5050	303 453 8917	CERAMIC	C5334	303 453 6814	CERAMIC
	303 453 8610	CERAMIC		303 454 0019	CERAMIC
	303 409 3426	CERAMIC		303 320 0419	CERAMIC
C5051	303 453 8917	CERAMIC		404 123 3403	CERAMIC
	303 453 8610	CERAMIC	C5336	303 453 6319	CERAMIC
	303 409 3426	CERAMIC		303 454 0910	CERAMIC
C5052	303 394 1312	ELECT		303 294 6110	CERAMIC
C5053	403 467 0911	CERAMIC		404 123 5100	CERAMIC
C5058	403 455 1012	CERAMIC	C5337	303 453 6319	CERAMIC
	303 433 1112	CERAMIC		303 454 0910	CERAMIC
C5059	403 455 1012	CERAMIC		303 294 6110	CERAMIC
	303 433 1112	CERAMIC	C534	404 123 5100	CERAMIC
C5060	303 358 3215	CERAMIC		303 453 8917	CERAMIC
	303 370 0018	CERAMIC		303 453 8610	CERAMIC
	303 368 7319	CERAMIC	C537	303 409 3426	CERAMIC
C5061	403 455 1616	CERAMIC		303 358 3215	CERAMIC
	403 478 5813	CERAMIC		303 370 0018	CERAMIC
C5062	303 453 8917	CERAMIC		303 368 7319	CERAMIC
	303 453 8610	CERAMIC	C538	303 401 4312	ELECT
	303 409 3426	CERAMIC		303 419 5219	ELECT
C5063	303 453 8917	CERAMIC	C539	303 372 7510	CERAMIC
	303 453 8610	CERAMIC		303 370 0216	CERAMIC
	303 409 3426	CERAMIC	C541	303 397 8219	CERAMIC
C5064	303 453 8917	CERAMIC		403 454 6414	CERAMIC
	303 453 8610	CERAMIC	C542	403 467 0911	CERAMIC
	303 409 3426	CERAMIC	C543	403 467 0911	CERAMIC
C5069	403 455 1616	CERAMIC	C544	403 467 0911	CERAMIC
	403 478 5813	CERAMIC	C546	403 467 0911	CERAMIC
C507	303 358 3215	CERAMIC	C547	403 467 0911	CERAMIC
	303 370 0018	CERAMIC	C549	403 467 0911	CERAMIC

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
C551	303 453 8917	CERAMIC 0.1U K 16V	C5845	403 467 0911	CERAMIC 0.1U K 25V
	303 453 8610	CERAMIC 0.1U K 16V	C5860	303 453 8917	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C553	303 342 3313	CERAMIC 0.1U K 25V		303 409 3426	CERAMIC 0.1U K 16V
	404 124 8506	CERAMIC 0.1U K 25V	C5861	303 324 6417	CERAMIC 0.022U K 16V
C554	303 342 3313	CERAMIC 0.1U K 25V	C5862	303 279 5114	CERAMIC 3300P K 50V
	404 124 8506	CERAMIC 0.1U K 25V	C5863	303 453 9815	CERAMIC 0.01U K 25V
C557	403 467 0911	CERAMIC 0.1U K 25V		303 369 0527	CERAMIC 0.01U K 25V
C558	403 467 0911	CERAMIC 0.1U K 25V	C5864	403 455 1616	CERAMIC 10U K 16V
C5621	303 383 5215	CERAMIC 4.7U K 6.3V		403 478 5813	CERAMIC 10U K 16V
C5623	303 383 5215	CERAMIC 4.7U K 6.3V	C5865	303 397 5713	ELECT 100U M 10V
C563	303 453 8917	CERAMIC 0.1U K 16V	C5866	303 453 9815	CERAMIC 0.01U K 25V
	303 453 8610	CERAMIC 0.1U K 16V		303 369 0527	CERAMIC 0.01U K 25V
	303 409 3426	CERAMIC 0.1U K 16V	C5867	303 392 5015	CERAMIC 22U M 6.3V
C564	303 453 8917	CERAMIC 0.1U K 16V		403 455 9216	CERAMIC 22U M 6.3V
	303 453 8610	CERAMIC 0.1U K 16V		303 443 9214	CERAMIC 22U M 6.3V
	303 409 3426	CERAMIC 0.1U K 16V	C587	403 467 0911	CERAMIC 0.1U K 25V
C567	303 358 3215	CERAMIC 10U K 6.3V	C588	403 467 0911	CERAMIC 0.1U K 25V
	303 370 0018	CERAMIC 10U K 6.3V	C596	403 467 0911	CERAMIC 0.1U K 25V
	303 368 7319	CERAMIC 10U K 6.3V	C597	303 437 4614	CERAMIC 10U K 25V
C568	303 401 4312	ELECT 47U M 25V		403 478 5714	CERAMIC 10U K 25V
	303 419 5219	ELECT 47.0UM 25V	C598	403 467 0911	CERAMIC 0.1U K 25V
C569	303 372 7510	CERAMIC 2.2U K 6.3V	C599	303 437 4614	CERAMIC 10U K 25V
	303 370 0216	CERAMIC 2.2U K 6.3V		403 478 5714	CERAMIC 10U K 25V
C5705	303 376 3112	ELECT 100U M 25V	C6001	303 392 1215	ELECT 47U M 6.3V
C5706	303 453 8917	CERAMIC 0.1U K 16V	C6002	303 453 8917	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
C5707	303 324 6417	CERAMIC 0.022U K 16V	C6003	303 276 1911	CERAMIC 22P J 50V
C5708	303 397 5713	ELECT 100U M 10V		404 123 4301	CERAMIC 22P J 50V
C571	303 397 8219	CERAMIC 2.2U K 25V	C6004	303 392 1215	ELECT 47U M 6.3V
	403 454 6414	CERAMIC 2.2U K 25V	C6005	303 453 8917	CERAMIC 0.1U K 16V
C572	403 467 0911	CERAMIC 0.1U K 25V		303 453 8610	CERAMIC 0.1U K 16V
C573	403 467 0911	CERAMIC 0.1U K 25V		303 409 3426	CERAMIC 0.1U K 16V
C574	403 467 0911	CERAMIC 0.1U K 25V	C6008	303 453 8917	CERAMIC 0.1U K 16V
C5752	303 372 7510	CERAMIC 2.2U K 6.3V		303 453 8610	CERAMIC 0.1U K 16V
	303 370 0216	CERAMIC 2.2U K 6.3V		303 409 3426	CERAMIC 0.1U K 16V
C576	403 467 0911	CERAMIC 0.1U K 25V	C6009	303 358 3215	CERAMIC 10U K 6.3V
C577	403 467 0911	CERAMIC 0.1U K 25V		303 370 0018	CERAMIC 10U K 6.3V
C579	403 467 0911	CERAMIC 0.1U K 25V		303 368 7319	CERAMIC 10U K 6.3V
C581	303 453 8917	CERAMIC 0.1U K 16V	C6010	303 358 3215	CERAMIC 10U K 6.3V
	303 453 8610	CERAMIC 0.1U K 16V		303 370 0018	CERAMIC 10U K 6.3V
	303 409 3426	CERAMIC 0.1U K 16V		303 368 7319	CERAMIC 10U K 6.3V
C5821	303 453 9815	CERAMIC 0.01U K 25V	C6801	303 453 8917	CERAMIC 0.1U K 16V
	303 369 0527	CERAMIC 0.01U K 25V		303 453 8610	CERAMIC 0.1U K 16V
C5822	303 157 7018	CERAMIC 1800P K 50V		303 409 3426	CERAMIC 0.1U K 16V
C5823	303 453 9815	CERAMIC 0.01U K 25V	C6802	303 453 8917	CERAMIC 0.1U K 16V
	303 369 0527	CERAMIC 0.01U K 25V		303 453 8610	CERAMIC 0.1U K 16V
C5824	403 455 1616	CERAMIC 10U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	403 478 5813	CERAMIC 10U K 16V	C6803	303 453 8917	CERAMIC 0.1U K 16V
C5825	303 397 5713	ELECT 100U M 10V		303 453 8610	CERAMIC 0.1U K 16V
C5826	303 453 9815	CERAMIC 0.01U K 25V		303 409 3426	CERAMIC 0.1U K 16V
	303 369 0527	CERAMIC 0.01U K 25V	C7100	303 453 8917	CERAMIC 0.1U K 16V
C5827	303 392 5015	CERAMIC 22U M 6.3V		303 453 8610	CERAMIC 0.1U K 16V
	403 455 9216	CERAMIC 22U M 6.3V		303 409 3426	CERAMIC 0.1U K 16V
	303 443 9214	CERAMIC 22U M 6.3V	C7101	403 455 1012	CERAMIC 1U K 10V
C583	303 342 3313	CERAMIC 0.1U K 25V		303 433 1112	CERAMIC 1U K 10V
	404 124 8506	CERAMIC 0.1U K 25V	C7811	303 397 8219	CERAMIC 2.2U K 25V
C584	303 342 3313	CERAMIC 0.1U K 25V		403 454 6414	CERAMIC 2.2U K 25V
	404 124 8506	CERAMIC 0.1U K 25V	C7812	303 453 8917	CERAMIC 0.1U K 16V
C5840	303 372 7510	CERAMIC 2.2U K 6.3V		303 453 8610	CERAMIC 0.1U K 16V
	303 370 0216	CERAMIC 2.2U K 6.3V		303 409 3426	CERAMIC 0.1U K 16V
C5842	303 358 3215	CERAMIC 10U K 6.3V	C7813	403 455 1616	CERAMIC 10U K 16V
	303 370 0018	CERAMIC 10U K 6.3V		403 478 5813	CERAMIC 10U K 16V
	303 368 7319	CERAMIC 10U K 6.3V	C7814	303 437 4614	CERAMIC 10U K 25V
C5844	403 455 1012	CERAMIC 1U K 10V		403 478 5714	CERAMIC 10U K 25V
	303 433 1112	CERAMIC 1U K 10V	C7817	303 453 8917	CERAMIC 0.1U K 16V

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
	303 453 8610	CERAMIC 0.1U K 16V	C8818	303 453 8917	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C7818	303 454 1917	CERAMIC 4700P K 50V		303 409 3426	CERAMIC 0.1U K 16V
C7841	303 437 4614	CERAMIC 10U K 25V	C8819	303 453 8917	CERAMIC 0.1U K 16V
	403 478 5714	CERAMIC 10U K 25V		303 453 8610	CERAMIC 0.1U K 16V
C7842	403 467 0911	CERAMIC 0.1U K 25V		303 409 3426	CERAMIC 0.1U K 16V
C7843	403 455 1616	CERAMIC 10U K 16V	C8820	303 453 8917	CERAMIC 0.1U K 16V
	403 478 5813	CERAMIC 10U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C7844	403 467 0911	CERAMIC 0.1U K 25V		303 409 3426	CERAMIC 0.1U K 16V
C7863	403 455 1616	CERAMIC 10U K 16V	C8821	303 453 8917	CERAMIC 0.1U K 16V
	403 478 5813	CERAMIC 10U K 16V		303 453 8610	CERAMIC 0.1U K 16V
C7868	303 454 1917	CERAMIC 4700P K 50V		303 409 3426	CERAMIC 0.1U K 16V
C801	303 453 8917	CERAMIC 0.1U K 16V	C8822	303 453 7019	CERAMIC 33P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		303 453 9617	CERAMIC 33P J 50V
	303 409 3426	CERAMIC 0.1U K 16V		303 276 3113	CERAMIC 33P J 50V
C841	403 455 1012	CERAMIC 1U K 10V		404 123 4509	CERAMIC 33P J 50V
	303 433 1112	CERAMIC 1U K 10V	C8823	303 453 8917	CERAMIC 0.1U K 16V
C842	303 392 1215	ELECT 47U M 6.3V		303 453 8610	CERAMIC 0.1U K 16V
	303 387 5310	ELECT 47U M 6.3V		303 409 3426	CERAMIC 0.1U K 16V
C843	303 454 0613	CERAMIC 10000P K 50V	C8824	303 453 7019	CERAMIC 33P J 50V
	303 441 9810	CERAMIC 0.01U K 50V		303 453 9617	CERAMIC 33P J 50V
C844	303 453 8511	CERAMIC 1000P K 50V		303 276 3113	CERAMIC 33P J 50V
	303 454 1214	CERAMIC 1000P K 50V		404 123 4509	CERAMIC 33P J 50V
C8801	303 453 8917	CERAMIC 0.1U K 16V	C8830	303 453 7019	CERAMIC 33P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		303 453 9617	CERAMIC 33P J 50V
	303 409 3426	CERAMIC 0.1U K 16V		303 276 3113	CERAMIC 33P J 50V
C8802	303 453 8917	CERAMIC 0.1U K 16V		404 123 4509	CERAMIC 33P J 50V
	303 453 8610	CERAMIC 0.1U K 16V	C8831	303 453 7019	CERAMIC 33P J 50V
	303 409 3426	CERAMIC 0.1U K 16V		303 453 9617	CERAMIC 33P J 50V
C8803	303 453 8917	CERAMIC 0.1U K 16V		303 276 3113	CERAMIC 33P J 50V
	303 453 8610	CERAMIC 0.1U K 16V		404 123 4509	CERAMIC 33P J 50V
	303 409 3426	CERAMIC 0.1U K 16V	C8832	303 454 0613	CERAMIC 10000P K 50V
C8806	303 453 8917	CERAMIC 0.1U K 16V		303 441 9810	CERAMIC 0.01U K 50V
	303 453 8610	CERAMIC 0.1U K 16V	C9875	303 453 7217	CERAMIC 47P J 50V
	303 409 3426	CERAMIC 0.1U K 16V		303 454 1610	CERAMIC 47P J 50V
C8807	303 453 7019	CERAMIC 33P J 50V		303 305 8812	CERAMIC 47P J 50V
	303 453 9617	CERAMIC 33P J 50V		404 123 4004	CERAMIC 47P J 50V
	303 276 3113	CERAMIC 33P J 50V	C9878	303 324 6417	CERAMIC 0.022U K 16V
	404 123 4509	CERAMIC 33P J 50V	C9882	303 453 8917	CERAMIC 0.1U K 16V
C8808	303 453 7019	CERAMIC 33P J 50V		303 453 8610	CERAMIC 0.1U K 16V
	303 453 9617	CERAMIC 33P J 50V		303 409 3426	CERAMIC 0.1U K 16V
	303 276 3113	CERAMIC 33P J 50V	C9883	303 392 1215	ELECT 47U M 6.3V
	404 123 4509	CERAMIC 33P J 50V	C9884	303 453 8917	CERAMIC 0.1U K 16V
C8809	303 453 8917	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9885	303 453 8917	CERAMIC 0.1U K 16V
C8810	303 453 8917	CERAMIC 0.1U K 16V		303 453 8610	CERAMIC 0.1U K 16V
	303 453 8610	CERAMIC 0.1U K 16V		303 409 3426	CERAMIC 0.1U K 16V
	303 409 3426	CERAMIC 0.1U K 16V	C9888	303 376 6212	CERAMIC 0.22U K 10V
C8811	303 453 8917	CERAMIC 0.1U K 16V			
	303 453 8610	CERAMIC 0.1U K 16V	RESISTOR		
	303 409 3426	CERAMIC 0.1U K 16V	R1001	301 260 4115	MT-GLAZE 75 JA 1/3W
C8812	303 453 8917	CERAMIC 0.1U K 16V	R1002	301 225 1210	MT-GLAZE 4.7K JA 1/16W
	303 453 8610	CERAMIC 0.1U K 16V	R1004	301 225 1210	MT-GLAZE 4.7K JA 1/16W
	303 409 3426	CERAMIC 0.1U K 16V	R1012	301 224 8814	MT-GLAZE 100 JA 1/16W
C8813	303 453 8917	CERAMIC 0.1U K 16V	R1013	301 224 8814	MT-GLAZE 100 JA 1/16W
	303 453 8610	CERAMIC 0.1U K 16V	R1014	301 225 1814	MT-GLAZE 47 JA 1/16W
	303 409 3426	CERAMIC 0.1U K 16V	R1016	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
C8814	303 453 8917	CERAMIC 0.1U K 16V	R1021	301 260 4115	MT-GLAZE 75 JA 1/3W
	303 453 8610	CERAMIC 0.1U K 16V	R1022	301 224 8814	MT-GLAZE 100 JA 1/16W
	303 409 3426	CERAMIC 0.1U K 16V	R1025	301 260 4214	MT-GLAZE 82 JA 1/3W
C8815	303 453 8917	CERAMIC 0.1U K 16V	R1026	301 260 4214	MT-GLAZE 82 JA 1/3W
	303 453 8610	CERAMIC 0.1U K 16V	R1028	301 260 4214	MT-GLAZE 82 JA 1/3W
	303 409 3426	CERAMIC 0.1U K 16V	R1029	301 225 2019	MT-GLAZE 680 JA 1/16W
C8817	303 453 8917	CERAMIC 0.1U K 16V	R1031	301 225 1418	MT-GLAZE 47K JA 1/16W
	303 453 8610	CERAMIC 0.1U K 16V	R1032	301 225 1814	MT-GLAZE 47 JA 1/16W
	303 409 3426	CERAMIC 0.1U K 16V	R1034	301 225 1814	MT-GLAZE 47 JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R1035	301 225 1814	MT-GLAZE 47 JA 1/16W	R2892	301 224 8814	MT-GLAZE 100 JA 1/16W
R1036	301 225 1814	MT-GLAZE 47 JA 1/16W	R300	301 224 9019	MT-GLAZE 10K JA 1/16W
R1037	301 225 1814	MT-GLAZE 47 JA 1/16W	R302	301 227 5612	MT-GLAZE 8.2K JA 1/16W
R1038	301 224 8814	MT-GLAZE 100 JA 1/16W	R303	301 224 9316	MT-GLAZE 1K JA 1/16W
R1039	301 225 1814	MT-GLAZE 47 JA 1/16W	R304	301 224 9316	MT-GLAZE 1K JA 1/16W
R1040	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R306	401 342 7314	MT-GLAZE 23.2K FA 1/16W
R1041	301 225 1418	MT-GLAZE 47K JA 1/16W	R307	301 224 9712	MT-GLAZE 22 JA 1/16W
R1043	301 224 9019	MT-GLAZE 10K JA 1/16W	R308	301 224 9712	MT-GLAZE 22 JA 1/16W
R1044	301 224 9019	MT-GLAZE 10K JA 1/16W	R309	301 224 9316	MT-GLAZE 1K JA 1/16W
R1049	301 224 8814	MT-GLAZE 100 JA 1/16W	R311	301 224 9316	MT-GLAZE 1K JA 1/16W
R1050	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R315	301 225 1814	MT-GLAZE 47 JA 1/16W
R1052	301 263 7420	MT-GLAZE 75 JA 1/16W	R317	301 225 1814	MT-GLAZE 47 JA 1/16W
R1060	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R318	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1062	301 263 7420	MT-GLAZE 75 JA 1/16W	R319	301 224 9019	MT-GLAZE 10K JA 1/16W
R1063	301 225 2019	MT-GLAZE 680 JA 1/16W	R320	301 225 1814	MT-GLAZE 47 JA 1/16W
R1064	301 225 2019	MT-GLAZE 680 JA 1/16W	R321	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1065	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R322	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1066	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R323	301 225 1814	MT-GLAZE 47 JA 1/16W
R1069	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R339	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1070	301 263 7420	MT-GLAZE 75 JA 1/16W	R341	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1072	301 263 7420	MT-GLAZE 75 JA 1/16W	R342	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1075	301 263 7420	MT-GLAZE 75 JA 1/16W	R343	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R1077	301 263 7420	MT-GLAZE 75 JA 1/16W	R344	301 225 1814	MT-GLAZE 47 JA 1/16W
R1078	301 263 7420	MT-GLAZE 75 JA 1/16W	R345	301 225 1814	MT-GLAZE 47 JA 1/16W
R1079	301 263 7420	MT-GLAZE 75 JA 1/16W	R346	301 225 1814	MT-GLAZE 47 JA 1/16W
R1080	301 263 7420	MT-GLAZE 75 JA 1/16W	R347	301 224 8814	MT-GLAZE 100 JA 1/16W
R1081	301 225 1418	MT-GLAZE 47K JA 1/16W	R348	301 224 9712	MT-GLAZE 22 JA 1/16W
R1083	301 225 1814	MT-GLAZE 47 JA 1/16W	R349	301 225 1814	MT-GLAZE 47 JA 1/16W
R1084	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R350	301 263 7420	MT-GLAZE 75 JA 1/16W
R1085	301 225 1814	MT-GLAZE 47 JA 1/16W	R3502	301 225 1418	MT-GLAZE 47K JA 1/16W
R1088	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R3504	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1091	301 225 1418	MT-GLAZE 47K JA 1/16W	R3505	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1101	301 224 8814	MT-GLAZE 100 JA 1/16W	R3506	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1111	301 260 4115	MT-GLAZE 75 JA 1/3W	R3507	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1134	301 225 1814	MT-GLAZE 47 JA 1/16W	R3509	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1215	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R351	301 224 9712	MT-GLAZE 22 JA 1/16W
R1217	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R3511	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R1331	301 224 9415	MT-GLAZE 1M JA 1/16W	R352	301 224 8814	MT-GLAZE 100 JA 1/16W
R2001	301 224 8913	MT-GLAZE 100K JA 1/16W	R353	301 263 7420	MT-GLAZE 75 JA 1/16W
R2003	301 224 8913	MT-GLAZE 100K JA 1/16W	R3532	301 225 1418	MT-GLAZE 47K JA 1/16W
R2006	301 260 4115	MT-GLAZE 75 JA 1/3W	R354	301 224 8814	MT-GLAZE 100 JA 1/16W
R2007	301 225 1814	MT-GLAZE 47 JA 1/16W	R355	301 224 8814	MT-GLAZE 100 JA 1/16W
R2008	301 225 3818	MT-GLAZE 1.5K JA 1/16W	R356	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2009	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R3562	301 225 1418	MT-GLAZE 47K JA 1/16W
R2010	301 224 8913	MT-GLAZE 100K JA 1/16W	R357	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R2011	301 224 8913	MT-GLAZE 100K JA 1/16W	R3585	301 224 9019	MT-GLAZE 10K JA 1/16W
R2012	301 224 9415	MT-GLAZE 1M JA 1/16W	R3586	301 224 9316	MT-GLAZE 1K JA 1/16W
R2013	301 224 9910	MT-GLAZE 22K JA 1/16W	R3587	301 224 9019	MT-GLAZE 10K JA 1/16W
R2014	301 224 9019	MT-GLAZE 10K JA 1/16W	R3588	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R2015	301 224 9613	MT-GLAZE 2.7K JA 1/16W	R359	301 225 0015	MT-GLAZE 270 JA 1/16W
R2016	301 224 9019	MT-GLAZE 10K JA 1/16W	R360	301 225 0015	MT-GLAZE 270 JA 1/16W
R2021	301 224 8913	MT-GLAZE 100K JA 1/16W	R3601	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R2022	301 224 8814	MT-GLAZE 100 JA 1/16W	R3602	301 224 9019	MT-GLAZE 10K JA 1/16W
R2023	301 224 8913	MT-GLAZE 100K JA 1/16W	R3603	301 224 9019	MT-GLAZE 10K JA 1/16W
R2024	301 224 8814	MT-GLAZE 100 JA 1/16W	R3604	301 224 9019	MT-GLAZE 10K JA 1/16W
R2025	301 224 9415	MT-GLAZE 1M JA 1/16W	R3605	301 224 8814	MT-GLAZE 100 JA 1/16W
R2026	301 224 8913	MT-GLAZE 100K JA 1/16W	R3606	301 224 9019	MT-GLAZE 10K JA 1/16W
R2027	301 224 8913	MT-GLAZE 100K JA 1/16W	R3607	301 224 9019	MT-GLAZE 10K JA 1/16W
R2028	301 224 9910	MT-GLAZE 22K JA 1/16W	R361	301 256 1517	MT-GLAZE 13K JA 1/10W
R2031	301 224 8913	MT-GLAZE 100K JA 1/16W	R3621	301 224 9019	MT-GLAZE 10K JA 1/16W
R2032	301 224 8814	MT-GLAZE 100 JA 1/16W	R3622	301 224 9019	MT-GLAZE 10K JA 1/16W
R2041	301 224 8913	MT-GLAZE 100K JA 1/16W	R3623	301 224 9019	MT-GLAZE 10K JA 1/16W
R2054	301 224 8814	MT-GLAZE 100 JA 1/16W	R3626	301 224 9019	MT-GLAZE 10K JA 1/16W
R2390	301 224 9910	MT-GLAZE 22K JA 1/16W	R3628	301 224 9019	MT-GLAZE 10K JA 1/16W
R2395	301 298 5511	MT-GLAZE 8.2K FA 1/16W	R363	301 224 9316	MT-GLAZE 1K JA 1/16W
R2396	301 287 2227	MT-GLAZE 22K FA 1/16W	R364	301 224 9316	MT-GLAZE 1K JA 1/16W
R2397	301 294 3016	MT-GLAZE 10K FA 1/16W	R366	301 224 9316	MT-GLAZE 1K JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R367	301 225 1814	MT-GLAZE 47 JA 1/16W	R5014	301 225 1418	MT-GLAZE 47K JA 1/16W
R368	301 225 1814	MT-GLAZE 47 JA 1/16W	R5017	301 224 9316	MT-GLAZE 1K JA 1/16W
R369	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5018	301 224 9316	MT-GLAZE 1K JA 1/16W
R371	301 229 3913	MT-GLAZE 180 JA 1/16W	R5019	301 225 8110	MT-GLAZE 10 JA 1/16W
R372	301 229 3913	MT-GLAZE 180 JA 1/16W	R5020	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R373	301 229 3913	MT-GLAZE 180 JA 1/16W	R5024	301 294 4112	MT-GLAZE 30K FA 1/16W
R374	301 229 3913	MT-GLAZE 180 JA 1/16W	R5025	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R378	301 224 9019	MT-GLAZE 10K JA 1/16W	R5026	301 294 3313	MT-GLAZE 15K FA 1/16W
R3801	301 225 8110	MT-GLAZE 10 JA 1/16W	R5027	301 294 3313	MT-GLAZE 15K FA 1/16W
R3802	301 225 8110	MT-GLAZE 10 JA 1/16W	R5028	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3803	301 225 8110	MT-GLAZE 10 JA 1/16W	R5029	301 294 4112	MT-GLAZE 30K FA 1/16W
R3804	301 225 8516	MT-GLAZE 1.8K JA 1/16W	R503	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3806	301 225 1517	MT-GLAZE 3.9K JA 1/16W	R5033	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R382	301 263 7420	MT-GLAZE 75 JA 1/16W	R5034	301 224 9316	MT-GLAZE 1K JA 1/16W
R3853	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5035	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R3854	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5036	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R3856	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5037	301 224 9316	MT-GLAZE 1K JA 1/16W
R3857	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5039	301 224 8814	MT-GLAZE 100 JA 1/16W
R3858	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5040	301 224 8814	MT-GLAZE 100 JA 1/16W
R3861	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R5041	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R3863	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R5042	301 224 9019	MT-GLAZE 10K JA 1/16W
R3865	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R5043	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R3868	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5044	301 224 9514	MT-GLAZE 2.2K JA 1/16W
R388	301 150 6014	MT-GLAZE 0.000 ZA 1/10W	R5045	301 224 9019	MT-GLAZE 10K JA 1/16W
R391	301 224 9019	MT-GLAZE 10K JA 1/16W	R5046	301 224 9019	MT-GLAZE 10K JA 1/16W
R395	301 224 9019	MT-GLAZE 10K JA 1/16W	R5047	301 224 9613	MT-GLAZE 2.7K JA 1/16W
R398	301 224 8814	MT-GLAZE 100 JA 1/16W	R5048	301 225 8011	MT-GLAZE 330 JA 1/16W
R4001	301 224 8814	MT-GLAZE 100 JA 1/16W	R5049	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R401	301 224 8814	MT-GLAZE 100 JA 1/16W	R505	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4014	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R5050	301 294 3511	MT-GLAZE 27K FA 1/16W
R4016	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R5052	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R4017	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R5053	301 225 8011	MT-GLAZE 330 JA 1/16W
R402	301 224 8814	MT-GLAZE 100 JA 1/16W	R5060	301 225 8110	MT-GLAZE 10 JA 1/16W
R4023	301 224 9019	MT-GLAZE 10K JA 1/16W	R5061	301 224 8814	MT-GLAZE 100 JA 1/16W
R4024	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R5062	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R403	301 224 8814	MT-GLAZE 100 JA 1/16W	R5063	301 224 9316	MT-GLAZE 1K JA 1/16W
R406	301 150 6014	MT-GLAZE 0.000 ZA 1/10W	R5064	301 224 8814	MT-GLAZE 100 JA 1/16W
R407	301 150 6014	MT-GLAZE 0.000 ZA 1/10W	R5066	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R4072	301 224 8814	MT-GLAZE 100 JA 1/16W	R5067	301 224 9316	MT-GLAZE 1K JA 1/16W
R4077	301 224 8814	MT-GLAZE 100 JA 1/16W	R5069	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R408	301 150 6014	MT-GLAZE 0.000 ZA 1/10W	R507	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R412	301 225 1814	MT-GLAZE 47 JA 1/16W	R5070	301 225 8011	MT-GLAZE 330 JA 1/16W
R414	301 225 1814	MT-GLAZE 47 JA 1/16W	R5072	301 224 9019	MT-GLAZE 10K JA 1/16W
R416	301 225 1814	MT-GLAZE 47 JA 1/16W	R5073	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R418	301 225 1814	MT-GLAZE 47 JA 1/16W	R508	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R419	301 225 1814	MT-GLAZE 47 JA 1/16W	R511	301 224 8814	MT-GLAZE 100 JA 1/16W
R422	301 225 1814	MT-GLAZE 47 JA 1/16W	R512	301 224 8814	MT-GLAZE 100 JA 1/16W
R423	301 225 1814	MT-GLAZE 47 JA 1/16W	R513	301 224 8814	MT-GLAZE 100 JA 1/16W
R424	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R5213	301 224 8814	MT-GLAZE 100 JA 1/16W
R472	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5215	301 224 8814	MT-GLAZE 100 JA 1/16W
R473	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R5220	301 224 8814	MT-GLAZE 100 JA 1/16W
R4834	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R5223	301 224 8814	MT-GLAZE 100 JA 1/16W
R4862	301 229 3913	MT-GLAZE 180 JA 1/16W	R531	301 224 8814	MT-GLAZE 100 JA 1/16W
R4863	301 229 3913	MT-GLAZE 180 JA 1/16W	R5317	301 225 1814	MT-GLAZE 47 JA 1/16W
R5001	301 287 2227	MT-GLAZE 22K FA 1/16W	R5318	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R5002	301 287 2227	MT-GLAZE 22K FA 1/16W	R5335	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5003	301 287 2227	MT-GLAZE 22K FA 1/16W	R5342	301 225 1418	MT-GLAZE 47K JA 1/16W
R5004	301 287 2227	MT-GLAZE 22K FA 1/16W	R5346	301 226 2414	MT-GLAZE 560 JA 1/16W
R5005	301 299 4810	MT-GLAZE 2.7K FA 1/16W	R541	301 224 8814	MT-GLAZE 100 JA 1/16W
R5006	301 294 4419	MT-GLAZE 1.8K FA 1/16W	R542	301 224 8814	MT-GLAZE 100 JA 1/16W
R5007	301 225 2019	MT-GLAZE 680 JA 1/16W	R543	301 224 8814	MT-GLAZE 100 JA 1/16W
R5008	301 224 9019	MT-GLAZE 10K JA 1/16W	R546	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R501	301 224 8814	MT-GLAZE 100 JA 1/16W	R5605	301 162 2219	MT-GLAZE 10 JA 1/10W
R5010	301 299 4810	MT-GLAZE 2.7K FA 1/16W	R5606	301 162 2219	MT-GLAZE 10 JA 1/10W
R5011	301 294 4419	MT-GLAZE 1.8K FA 1/16W	R561	301 224 8814	MT-GLAZE 100 JA 1/16W
R5012	301 225 2019	MT-GLAZE 680 JA 1/16W	R5611	301 224 8814	MT-GLAZE 100 JA 1/16W
R5013	301 225 1418	MT-GLAZE 47K JA 1/16W	R5701	301 259 7823	MT-GLAZE 20K JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R5702	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R6842	301 229 3913	MT-GLAZE 180 JA 1/16W
R5703	301 224 9019	MT-GLAZE 10K JA 1/16W	R6843	301 229 3913	MT-GLAZE 180 JA 1/16W
R5704	301 224 8814	MT-GLAZE 100 JA 1/16W	R6845	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R5705	301 224 9019	MT-GLAZE 10K JA 1/16W	R6848	301 225 8011	MT-GLAZE 330 JA 1/16W
R5706	301 224 9019	MT-GLAZE 10K JA 1/16W	R6851	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R5708	301 224 9019	MT-GLAZE 10K JA 1/16W	R6856	301 224 9019	MT-GLAZE 10K JA 1/16W
R5709	301 230 8013	MT-GLAZE 1K JA 1/3W	R6857	301 229 3913	MT-GLAZE 180 JA 1/16W
R571	301 224 8814	MT-GLAZE 100 JA 1/16W	R6858	301 229 3913	MT-GLAZE 180 JA 1/16W
R5710	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R6870	301 225 8011	MT-GLAZE 330 JA 1/16W
R5711	301 301 3718	MT-GLAZE 2K FA 1/16W	R6873	301 229 3913	MT-GLAZE 180 JA 1/16W
R5712	301 035 4111	MT-GLAZE 0.000 ZA 1/8W	R6874	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R5714	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R6877	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R572	301 224 8814	MT-GLAZE 100 JA 1/16W	R6881	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R573	301 224 8814	MT-GLAZE 100 JA 1/16W	R6882	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R5751	301 224 9019	MT-GLAZE 10K JA 1/16W	R6883	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R5752	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7100	301 224 9019	MT-GLAZE 10K JA 1/16W
R5753	301 224 9316	MT-GLAZE 1K JA 1/16W	R7101	301 294 3313	MT-GLAZE 15K FA 1/16W
R5754	301 224 9019	MT-GLAZE 10K JA 1/16W	R7102	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R5821	301 225 2118	MT-GLAZE 12K JA 1/16W	R7103	301 294 2613	MT-GLAZE 4.7K FA 1/16W
R5822	301 224 8913	MT-GLAZE 100K JA 1/16W	R7104	301 224 9019	MT-GLAZE 10K JA 1/16W
R5823	301 294 3016	MT-GLAZE 10K FA 1/16W	R7105	301 224 9316	MT-GLAZE 1K JA 1/16W
R5824	301 294 3511	MT-GLAZE 27K FA 1/16W	R7801	301 224 9019	MT-GLAZE 10K JA 1/16W
R5825	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7802	301 224 9019	MT-GLAZE 10K JA 1/16W
R5837	301 224 9019	MT-GLAZE 10K JA 1/16W	R7803	301 224 9019	MT-GLAZE 10K JA 1/16W
R5838	301 224 9316	MT-GLAZE 1K JA 1/16W	R7805	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R5839	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7816	301 225 8110	MT-GLAZE 10 JA 1/16W
R5840	301 224 9019	MT-GLAZE 10K JA 1/16W	R7818	301 294 3016	MT-GLAZE 10K FA 1/16W
R5841	301 294 3016	MT-GLAZE 10K FA 1/16W	R7819	301 224 8913	MT-GLAZE 100K JA 1/16W
R5860	301 265 5810	MT-GLAZE 82K FA 1/10W	R7821	301 294 3511	MT-GLAZE 27K FA 1/16W
R5861	301 234 9917	MT-GLAZE 6.8K JA 1/16W	R7824	301 294 2811	MT-GLAZE 2.2K FA 1/16W
R5863	301 294 3016	MT-GLAZE 10K FA 1/16W	R7828	301 224 9019	MT-GLAZE 10K JA 1/16W
R5864	301 294 3016	MT-GLAZE 10K FA 1/16W	R7829	301 224 9316	MT-GLAZE 1K JA 1/16W
R5865	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7831	301 224 9316	MT-GLAZE 1K JA 1/16W
R5867	301 037 5017	MT-GLAZE 0.000 ZA 1/10W	R7832	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R595	301 225 1210	MT-GLAZE 4.7K JA 1/16W	R7833	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R596	401 344 1914	MT-GLAZE 10K DA 1/16W	R7834	301 286 4717	MT-GLAZE 30K JA 1/16W
R597	401 351 3710	MT-GLAZE 1.8K DA 1/16W	R7841	301 336 8818	MT-GLAZE 6.8K FA 1/16W
R598	401 351 2010	MT-GLAZE 240 DA 1/16W	R7842	301 294 2811	MT-GLAZE 2.2K FA 1/16W
R599	301 224 9316	MT-GLAZE 1K JA 1/16W	R7843	301 226 1516	MT-GLAZE 0.000 ZA 1/16W
R6001	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7844	301 225 3818	MT-GLAZE 1.5K JA 1/16W
R6002	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R7845	301 224 9316	MT-GLAZE 1K JA 1/16W
R6003	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R7846	301 284 3326	MT-GLAZE 3K FA 1/16W
R6004	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7847	301 286 4717	MT-GLAZE 30K JA 1/16W
R6007	401 371 6913	MT-GLAZE 2 JA 1/16W	R7848	301 224 9019	MT-GLAZE 10K JA 1/16W
R6008	401 371 6913	MT-GLAZE 2 JA 1/16W	R7863	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6009	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7864	301 225 1210	MT-GLAZE 4.7K JA 1/16W
R6010	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7866	301 225 8110	MT-GLAZE 10 JA 1/16W
R6011	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7869	301 224 8913	MT-GLAZE 100K JA 1/16W
R6012	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R7871	301 294 3511	MT-GLAZE 27K FA 1/16W
R6015	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7874	301 294 2811	MT-GLAZE 2.2K FA 1/16W
R6016	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7878	301 224 9019	MT-GLAZE 10K JA 1/16W
R6017	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7879	301 224 9316	MT-GLAZE 1K JA 1/16W
R6018	301 224 9019	MT-GLAZE 10K JA 1/16W	R7881	301 224 9316	MT-GLAZE 1K JA 1/16W
R6019	301 224 9019	MT-GLAZE 10K JA 1/16W	R7882	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R6021	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	R7883	301 225 0213	MT-GLAZE 3.3K JA 1/16W
R6022	301 190 1413	MT-GLAZE 0.000 ZA 1/2W	R7884	301 286 4717	MT-GLAZE 30K JA 1/16W
R6801	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R801	301 224 9019	MT-GLAZE 10K JA 1/16W
R6803	301 224 9019	MT-GLAZE 10K JA 1/16W	R8039	301 341 0616	MT-GLAZE 49.9 FA 1/16W
R6804	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R804	301 224 9019	MT-GLAZE 10K JA 1/16W
R6806	301 224 9217	MT-GLAZE 15K JA 1/16W	R8040	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R6807	301 234 9917	MT-GLAZE 6.8K JA 1/16W	R8049	301 341 0616	MT-GLAZE 49.9 FA 1/16W
R6808	301 225 1517	MT-GLAZE 3.9K JA 1/16W	R8050	301 150 6014	MT-GLAZE 0.000 ZA 1/10W
R6809	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R8059	301 341 0616	MT-GLAZE 49.9 FA 1/16W
R6812	301 225 0213	MT-GLAZE 3.3K JA 1/16W	R8069	301 341 0616	MT-GLAZE 49.9 FA 1/16W
R6813	301 224 9019	MT-GLAZE 10K JA 1/16W	R807	301 224 9019	MT-GLAZE 10K JA 1/16W
R6822	301 224 9316	MT-GLAZE 1K JA 1/16W	R808	301 224 9019	MT-GLAZE 10K JA 1/16W
R6823	301 224 9019	MT-GLAZE 10K JA 1/16W	R809	301 225 8516	MT-GLAZE 1.8K JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R812	301 224 9316	MT-GLAZE 1K JA 1/16W	RB316	945 037 0831	R-NETWORK 47X4 1/16W
R813	301 224 9316	MT-GLAZE 1K JA 1/16W	RB318	945 037 0831	R-NETWORK 47X4 1/16W
R840	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB319	945 037 0831	R-NETWORK 47X4 1/16W
R841	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB411	945 037 0831	R-NETWORK 47X4 1/16W
R846	301 224 9316	MT-GLAZE 1K JA 1/16W	RB412	945 037 0831	R-NETWORK 47X4 1/16W
R847	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB413	945 037 0831	R-NETWORK 47X4 1/16W
R848	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB414	945 037 0831	R-NETWORK 47X4 1/16W
R851	301 224 9316	MT-GLAZE 1K JA 1/16W	RB416	945 037 0831	R-NETWORK 47X4 1/16W
R852	301 225 1210	MT-GLAZE 4.7K JA 1/16W	RB417	945 037 0831	R-NETWORK 47X4 1/16W
R8801	301 224 9316	MT-GLAZE 1K JA 1/16W	RB418	945 037 0831	R-NETWORK 47X4 1/16W
R8802	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB419	945 037 0831	R-NETWORK 47X4 1/16W
R8804	301 225 1210	MT-GLAZE 4.7K JA 1/16W	RB421	945 037 0831	R-NETWORK 47X4 1/16W
R8805	301 224 9316	MT-GLAZE 1K JA 1/16W	RB422	945 037 0831	R-NETWORK 47X4 1/16W
R8806	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB423	945 037 0831	R-NETWORK 47X4 1/16W
R8807	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB424	945 037 0831	R-NETWORK 47X4 1/16W
R8808	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB426	945 037 0831	R-NETWORK 47X4 1/16W
R8809	301 224 8814	MT-GLAZE 100 JA 1/16W	RB427	945 037 0831	R-NETWORK 47X4 1/16W
R8812	301 225 8110	MT-GLAZE 10 JA 1/16W	RB428	945 037 0831	R-NETWORK 47X4 1/16W
R8813	301 225 8110	MT-GLAZE 10 JA 1/16W	RB429	945 037 0831	R-NETWORK 47X4 1/16W
R8814	301 224 9415	MT-GLAZE 1M JA 1/16W	RB431	945 037 0831	R-NETWORK 47X4 1/16W
R8815	301 225 1210	MT-GLAZE 4.7K JA 1/16W	RB432	945 037 0831	R-NETWORK 47X4 1/16W
R8816	301 264 6511	MT-GLAZE 2.2K FA 1/10W	RB433	945 037 0831	R-NETWORK 47X4 1/16W
R8831	301 224 9019	MT-GLAZE 10K JA 1/16W	RB434	945 037 0831	R-NETWORK 47X4 1/16W
R8833	301 225 7915	MT-GLAZE 220 JA 1/16W	RB436	945 037 0831	R-NETWORK 47X4 1/16W
R8834	301 224 9712	MT-GLAZE 22 JA 1/16W	RB437	945 037 0831	R-NETWORK 47X4 1/16W
R8837	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB501	945 036 3529	R-NETWORK 0X4 1/32W
R8838	301 226 1516	MT-GLAZE 0.000 ZA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R8839	301 225 7915	MT-GLAZE 220 JA 1/16W	RB503	945 036 3529	R-NETWORK 0X4 1/32W
R8840	301 226 1516	MT-GLAZE 0.000 ZA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R8841	301 224 9019	MT-GLAZE 10K JA 1/16W	RB504	945 036 3529	R-NETWORK 0X4 1/32W
R8843	301 224 9019	MT-GLAZE 10K JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R8844	301 224 9019	MT-GLAZE 10K JA 1/16W	RB506	945 036 3529	R-NETWORK 0X4 1/32W
R8846	301 224 8913	MT-GLAZE 100K JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R8853	301 225 8110	MT-GLAZE 10 JA 1/16W	RB531	945 036 3529	R-NETWORK 0X4 1/32W
R8854	301 225 8110	MT-GLAZE 10 JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R9873	301 255 7312	MT-GLAZE 510K JA 1/10W	RB533	945 036 3529	R-NETWORK 0X4 1/32W
R9874	301 224 8913	MT-GLAZE 100K JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R9875	301 224 8913	MT-GLAZE 100K JA 1/16W	RB534	945 036 3529	R-NETWORK 0X4 1/32W
R9876	301 225 8110	MT-GLAZE 10 JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R9878	301 225 3818	MT-GLAZE 1.5K JA 1/16W	RB536	945 036 3529	R-NETWORK 0X4 1/32W
R9881	301 224 9019	MT-GLAZE 10K JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R9882	301 225 8110	MT-GLAZE 10 JA 1/16W	RB561	945 036 3529	R-NETWORK 0X4 1/32W
R9883	301 226 1516	MT-GLAZE 0.000 ZA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R9886	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	RB563	945 036 3529	R-NETWORK 0X4 1/32W
R9888	301 224 9316	MT-GLAZE 1K JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R9889	301 225 8110	MT-GLAZE 10 JA 1/16W	RB564	945 036 3529	R-NETWORK 0X4 1/32W
R9890	301 225 8110	MT-GLAZE 10 JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R9891	301 225 8110	MT-GLAZE 10 JA 1/16W	RB566	945 036 3529	R-NETWORK 0X4 1/32W
R9897	301 224 9712	MT-GLAZE 22 JA 1/16W		945 037 0817	R-NETWORK 0X4 1/16W
R9898	301 224 9712	MT-GLAZE 22 JA 1/16W	RB568	945 028 0697	R-NETWORK 100X4 1/16W
R9899	301 224 9712	MT-GLAZE 22 JA 1/16W			
R9902	301 224 9019	MT-GLAZE 10K JA 1/16W	COIL		
R9903	301 224 9019	MT-GLAZE 10K JA 1/16W	L1002	945 068 8349	FILTER,EMI 400MHZ
R9904	301 224 9019	MT-GLAZE 10K JA 1/16W	L1012	945 068 8349	FILTER,EMI 400MHZ
R9905	301 224 9019	MT-GLAZE 10K JA 1/16W	L1022	945 068 8349	FILTER,EMI 400MHZ
R9906	301 225 0817	MT-GLAZE 68K JA 1/16W	L1051	945 068 8349	FILTER,EMI 400MHZ
R9907	301 224 8814	MT-GLAZE 100 JA 1/16W	L1061	945 068 8349	FILTER,EMI 400MHZ
R9908	301 224 8814	MT-GLAZE 100 JA 1/16W	L1071	945 068 8349	FILTER,EMI 400MHZ
R9909	301 224 8814	MT-GLAZE 100 JA 1/16W	L2385	945 036 3895	INDUCTOR,220 OHM
R9910	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	L2891	652 002 8524	INDUCTOR 220OHM, P
R9914	301 224 9019	MT-GLAZE 10K JA 1/16W	L2892	652 002 8685	INDUCTOR 1000OHM, P
R9915	301 224 9019	MT-GLAZE 10K JA 1/16W	L2893	652 002 8685	INDUCTOR 1000OHM, P
R9916	301 224 9019	MT-GLAZE 10K JA 1/16W	L2894	652 002 8685	INDUCTOR 1000OHM, P
R9917	301 224 9019	MT-GLAZE 10K JA 1/16W	L301	652 002 8524	INDUCTOR 220OHM, P
R9918	301 224 9019	MT-GLAZE 10K JA 1/16W	L302	652 002 8524	INDUCTOR 220OHM, P
RB312	945 037 0831	R-NETWORK 47X4 1/16W	L303	652 002 8524	INDUCTOR 220OHM, P
RB313	945 037 0831	R-NETWORK 47X4 1/16W	L304	652 002 8524	INDUCTOR 220OHM, P

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
L305	652 002 8524	INDUCTOR 220OHM, P		307 209 1214	ZD UDZS-TE-176.2B
L306	652 002 8524	INDUCTOR 220OHM, P		408 063 7507	ZENER DIODE MM3Z6V2B
L307	652 002 8524	INDUCTOR 220OHM, P	D1002	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)
L308	652 002 8524	INDUCTOR 220OHM, P		307 209 1214	ZD UDZS-TE-176.2B
L309	652 002 8524	INDUCTOR 220OHM, P		408 063 7507	ZENER DIODE MM3Z6V2B
L311	652 002 8524	INDUCTOR 220OHM, P	D1003	307 205 5216	DIODE RB5215-30-TE61
L312	652 002 8524	INDUCTOR 220OHM, P		408 063 9501	DIODE RB5215-30
L313	652 002 8524	INDUCTOR 220OHM, P	D1004	307 205 5216	DIODE RB5215-30-TE61
L314	652 002 8524	INDUCTOR 220OHM, P		408 063 9501	DIODE RB5215-30
L3534	945 041 2210	INDUCTOR,0.12U K	D1005	307 235 0816	DIODE 1SS387 TPL3
L3622	652 002 8524	INDUCTOR 220OHM, P		307 210 1923	DIODE 1SS400 TE-61
L3623	652 002 8524	INDUCTOR 220OHM, P	D2025	307 163 0414	DIODE 1SS352-(TPH3)
L3626	652 002 8524	INDUCTOR 220OHM, P		307 149 0810	DIODE 1SS355-TE-17
L3627	652 002 8524	INDUCTOR 220OHM, P		408 062 7201	DIODE 1SS35
L3628	652 002 8685	INDUCTOR 1000OHM, P	D2026	307 163 0414	DIODE 1SS352-(TPH3)
L3630	652 002 8524	INDUCTOR 220OHM, P		307 149 0810	DIODE 1SS355-TE-17
L3631	652 002 8685	INDUCTOR 1000OHM, P		408 062 7201	DIODE 1SS35
L3633	652 002 8685	INDUCTOR 1000OHM, P	D2891	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)
L3638	652 002 8685	INDUCTOR 1000OHM, P		307 209 1214	ZD UDZS-TE-176.2B
L3691	652 002 8685	INDUCTOR 1000OHM, P		408 063 7507	ZENER DIODE MM3Z6V2B
L402	652 002 8500	INDUCTOR 330OHM, P	D2892	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)
L4809	652 002 8685	INDUCTOR 1000OHM, P		307 209 1214	ZD UDZS-TE-176.2B
L4810	652 002 8685	INDUCTOR 1000OHM, P		408 063 7507	ZENER DIODE MM3Z6V2B
L4811	652 002 8685	INDUCTOR 1000OHM, P	D3613	307 163 0414	DIODE 1SS352-(TPH3)
L4812	652 002 8524	INDUCTOR 220OHM, P		307 149 0810	DIODE 1SS355-TE-17
L4814	652 002 8685	INDUCTOR 1000OHM, P		408 062 7201	DIODE 1SS35
L501	652 002 8500	INDUCTOR 330OHM, P	D3614	307 163 0414	DIODE 1SS352-(TPH3)
L531	652 002 8500	INDUCTOR 330OHM, P		307 149 0810	DIODE 1SS355-TE-17
L5332	945 032 8344	INDUCTOR,39U J		408 062 7201	DIODE 1SS35
L5602	945 040 6455	INDUCTOR,4.7U M	D3617	307 163 0414	DIODE 1SS352-(TPH3)
L5603	652 002 8500	INDUCTOR 330OHM, P		307 149 0810	DIODE 1SS355-TE-17
L5604	652 002 8524	INDUCTOR 220OHM, P		408 062 7201	DIODE 1SS35
L5605	652 002 8524	INDUCTOR 220OHM, P	D3621	307 163 0414	DIODE 1SS352-(TPH3)
L5606	652 002 8500	INDUCTOR 330OHM, P		307 149 0810	DIODE 1SS355-TE-17
L5607	652 002 8524	INDUCTOR 220OHM, P		408 062 7201	DIODE 1SS35
L5608	652 002 8500	INDUCTOR 330OHM, P	D3622	307 163 0414	DIODE 1SS352-(TPH3)
L5609	652 002 8500	INDUCTOR 330OHM, P		307 149 0810	DIODE 1SS355-TE-17
L561	652 002 8500	INDUCTOR 330OHM, P		408 062 7201	DIODE 1SS35
L5611	652 002 8500	INDUCTOR 330OHM, P	D3623	307 163 0414	DIODE 1SS352-(TPH3)
L5662	652 002 8500	INDUCTOR 330OHM, P		307 149 0810	DIODE 1SS355-TE-17
L5701	652 002 8500	INDUCTOR 330OHM, P		408 062 7201	DIODE 1SS35
L5702	652 002 8500	INDUCTOR 330OHM, P	D3626	307 163 0414	DIODE 1SS352-(TPH3)
L5703	652 002 8500	INDUCTOR 330OHM, P		307 149 0810	DIODE 1SS355-TE-17
L5821	652 002 8784	INDUCTOR,10U,N		408 062 7201	DIODE 1SS35
L5822	652 002 8500	INDUCTOR 330OHM, P	D3627	307 163 0414	DIODE 1SS352-(TPH3)
L5827	301 037 5017	MT-GLAZE 0.000 ZA 1/10W		307 149 0810	DIODE 1SS355-TE-17
L5828	652 002 8500	INDUCTOR 330OHM, P		408 062 7201	DIODE 1SS35
L5830	652 002 8500	INDUCTOR 330OHM, P	D3628	307 163 0414	DIODE 1SS352-(TPH3)
L5848	652 002 8500	INDUCTOR 330OHM, P		307 149 0810	DIODE 1SS355-TE-17
L5861	652 002 8784	INDUCTOR,10U,N		408 062 7201	DIODE 1SS35
L5867	301 037 5017	MT-GLAZE 0.000 ZA 1/10W	D3644	307 163 0414	DIODE 1SS352-(TPH3)
L5868	652 002 8500	INDUCTOR 330OHM, P		307 149 0810	DIODE 1SS355-TE-17
L6001	945 036 3895	INDUCTOR,220 OHM		408 062 7201	DIODE 1SS35
L6002	945 036 3895	INDUCTOR,220 OHM	D4813	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)
L6003	945 036 3895	INDUCTOR,220 OHM		307 209 1214	ZD UDZS-TE-176.2B
L6004	945 036 3895	INDUCTOR,220 OHM		408 063 7507	ZENER DIODE MM3Z6V2B
L6005	645 092 3616	IMPEDANCE,22 OHM P	D5061	307 163 0414	DIODE 1SS352-(TPH3)
L6006	645 092 3616	IMPEDANCE,22 OHM P		307 149 0810	DIODE 1SS355-TE-17
L7101	652 002 8500	INDUCTOR 330OHM, P		408 062 7201	DIODE 1SS35
L7811	652 002 8777	INDUCTOR,33U,N	D5062	307 163 0414	DIODE 1SS352-(TPH3)
L7861	645 092 8819	INDUCTOR,100U M		307 149 0810	DIODE 1SS355-TE-17
L8801	301 037 5017	MT-GLAZE 0.000 ZA 1/10W		408 062 7201	DIODE 1SS35
L8835	645 100 9340	IMPEDANCE,120 OHM P	D5063	307 163 0414	DIODE 1SS352-(TPH3)
L8836	645 100 9340	IMPEDANCE,120 OHM P		307 149 0810	DIODE 1SS355-TE-17
				408 062 7201	DIODE 1SS35
DIODE			D5064	307 163 0414	DIODE 1SS352-(TPH3)
D1001	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)		307 149 0810	DIODE 1SS355-TE-17

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
D5065	408 062 7201	DIODE 1SS35	SC2021	652 003 2743	TRANS,PULSE
	307 163 0414	DIODE 1SS352-(TPH3)	SC2023	945 076 3503	SURGE-ABSORBER
	307 149 0810	DIODE 1SS355-TE-17	SC2031	945 076 3503	SURGE-ABSORBER
	408 062 7201	DIODE 1SS35	SC2041	945 076 3503	SURGE-ABSORBER
D5625	307 163 0414	DIODE 1SS352-(TPH3)	SW6801	945 026 2792	SWITCH,PUSH 1P-1TX1
	307 149 0810	DIODE 1SS355-TE-17		952 001 8830	SWITCH,PUSH 1P-1TX1
	408 062 7201	DIODE 1SS35	SW6803	945 026 2792	SWITCH,PUSH 1P-1TX1
D591	307 163 0414	DIODE 1SS352-(TPH3)		952 001 8830	SWITCH,PUSH 1P-1TX1
	307 149 0810	DIODE 1SS355-TE-17	SW6804	945 026 2792	SWITCH,PUSH 1P-1TX1
	408 062 7201	DIODE 1SS35		952 001 8830	SWITCH,PUSH 1P-1TX1
D592	307 163 0414	DIODE 1SS352-(TPH3)	SW6806	945 026 2792	SWITCH,PUSH 1P-1TX1
	307 149 0810	DIODE 1SS355-TE-17		952 001 8830	SWITCH,PUSH 1P-1TX1
	408 062 7201	DIODE 1SS35	SW6807	945 026 2792	SWITCH,PUSH 1P-1TX1
D6801	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)		952 001 8830	SWITCH,PUSH 1P-1TX1
	307 209 1214	ZD UDZS-TE-176.2B	SW6808	945 026 2792	SWITCH,PUSH 1P-1TX1
	408 063 7507	ZENER DIODE MM3Z6V2B		952 001 8830	SWITCH,PUSH 1P-1TX1
D6802	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)	SW6810	945 026 2792	SWITCH,PUSH 1P-1TX1
	307 209 1214	ZD UDZS-TE-176.2B		952 001 8830	SWITCH,PUSH 1P-1TX1
	408 063 7507	ZENER DIODE MM3Z6V2B	SW6811	945 026 2792	SWITCH,PUSH 1P-1TX1
D6803	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)		952 001 8830	SWITCH,PUSH 1P-1TX1
	307 209 1214	ZD UDZS-TE-176.2B	X1331	945 088 7179	OSC,CRYSTAL 27.0MHZ
	408 063 7507	ZENER DIODE MM3Z6V2B	X5001	645 103 8722	OSC,CRYSTAL 12.288MHZ
D6831	408 068 5508	LED KPT-2012YC	X8802	945 083 7556	OSC,CRYSTAL 25.0MHZ
D6833	307 203 7816	LED SML-210LT T86 M	X9885	945 060 9900	OSC,CERAMIC 8.00MHZ
D6835	408 068 5201	LED KPTB-1612ESGC			
D6840	307 163 0414	DIODE 1SS352-(TPH3)			
	307 149 0810	DIODE 1SS355-TE-17			
	408 062 7201	DIODE 1SS35			
D6841	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)			
	307 209 1214	ZD UDZS-TE-176.2B			
	408 063 7507	ZENER DIODE MM3Z6V2B			
D6842	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)			
	307 209 1214	ZD UDZS-TE-176.2B			
	408 063 7507	ZENER DIODE MM3Z6V2B			
D6845	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)			
	307 209 1214	ZD UDZS-TE-176.2B			
	408 063 7507	ZENER DIODE MM3Z6V2B			
D6846	307 223 1115	ZENER DIODE 02DZ6.2Y(TPH3)			
	307 209 1214	ZD UDZS-TE-176.2B			
	408 063 7507	ZENER DIODE MM3Z6V2B			
D6850	307 163 0414	DIODE 1SS352-(TPH3)			
	307 149 0810	DIODE 1SS355-TE-17			
	408 062 7201	DIODE 1SS35			
D6851	307 163 0414	DIODE 1SS352-(TPH3)			
	307 149 0810	DIODE 1SS355-TE-17			
	408 062 7201	DIODE 1SS35			
D6852	307 163 0414	DIODE 1SS352-(TPH3)			
	307 149 0810	DIODE 1SS355-TE-17			
	408 062 7201	DIODE 1SS35			
D6853	307 163 0414	DIODE 1SS352-(TPH3)			
	307 149 0810	DIODE 1SS355-TE-17			
	408 062 7201	DIODE 1SS35			
D6854	307 163 0414	DIODE 1SS352-(TPH3)			
	307 149 0810	DIODE 1SS355-TE-17			
	408 062 7201	DIODE 1SS35			
D7812	407 272 1415	DIODE SS3P4-M3/84A			
D7862	407 272 1415	DIODE SS3P4-M3/84A			
D8902	307 163 0414	DIODE 1SS352-(TPH3)			
	307 149 0810	DIODE 1SS355-TE-17			
	408 062 7201	DIODE 1SS35			
MISCELLANEOUS					
K10A	952 001 8601	SOCKET,D-SUB 15P			
K10B	952 001 8571	SOCKET,D-SUB 15P			
K20B	652 003 0473	JACK,RCA-2			
K40B	652 002 8135	PLUG,D-SUB 9P			
K9602	645 093 6760	TRANS,PULSE			
			A3000	655 004 1296	ASSY,PWB,AMP KT8AE
			CAPACITOR		
			C016	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C017	303 393 0019	ELECT 470U M 25V
			C018	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C019	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C021	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C022	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C023	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C024	303 367 0410	CERAMIC 0.1U K 50V
				303 370 1510	CERAMIC 0.1U K 50V
			C025	303 367 0410	CERAMIC 0.1U K 50V
				303 370 1510	CERAMIC 0.1U K 50V
			C027	303 450 2215	CERAMIC 0.22U K 25V
			C028	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C029	303 367 0410	CERAMIC 0.1U K 50V
				303 370 1510	CERAMIC 0.1U K 50V
			C030	303 367 0410	CERAMIC 0.1U K 50V
				303 370 1510	CERAMIC 0.1U K 50V
			C031	303 398 4418	ELECT 10U M 25V
			C032	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C033	303 450 2215	CERAMIC 0.22U K 25V
			C035	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
	403 478 5912	CERAMIC 1U K 25V		305 163 1615	TR 2SC2812N-L6-TB0
C038	303 396 9613	CERAMIC 1U K 25V		305 173 9816	TR 2SC3928A1R
	303 397 7618	CERAMIC 1U K 25V		305 173 9915	TR 2SC3928A1S
	403 478 5912	CERAMIC 1U K 25V	Q643	305 217 6600	TR 2SK3934
C039	403 455 1012	CERAMIC 1U K 10V	Q651	305 134 5928	TR 2SA1037AK-T146-R
	303 433 1112	CERAMIC 1U K 10V		305 147 2218	TR 2SA1037AK-S-T146
C041	303 453 8917	CERAMIC 0.1U K 16V		305 173 9618	TR 2SA1235A1E
	303 453 8610	CERAMIC 0.1U K 16V		305 173 9717	TR 2SA1235A1F
	303 409 3426	CERAMIC 0.1U K 16V		405 220 3115	TR ISA1235AC1E
C042	303 453 8917	CERAMIC 0.1U K 16V		405 220 3016	TR ISA1235AC1F
	303 453 8610	CERAMIC 0.1U K 16V	Q691	305 014 4512	TR 2SC2412K T146 R
	303 409 3426	CERAMIC 0.1U K 16V		305 014 4611	TR 2SC2412K T146 S
C047	303 396 9613	CERAMIC 1U K 25V		305 015 8727	TR 2SC2812-L6-TB
	303 397 7618	CERAMIC 1U K 25V		305 015 8925	TR 2SC2812-L7-TB
	403 478 5912	CERAMIC 1U K 25V		305 163 1615	TR 2SC2812N-L6-TB0
C049	403 469 6317	CERAMIC 0.47U K 50V		305 173 9816	TR 2SC3928A1R
				305 173 9915	TR 2SC3928A1S
RESISTOR			INTEGRATED CIRCUIT		
R008	301 276 4710	MT-GLAZE 0.000 ZA 1/3W	IC621	409 690 7918	IC FA5550N
R009	301 150 6212	MT-GLAZE 1K JA 1/10W	IC631	309 653 7405	IC MR4010-7101
R011	301 226 1516	MT-GLAZE 0.000 ZA 1/16W	IC671	409 692 2515	IC TA76L431FB
R012	301 276 4710	MT-GLAZE 0.000 ZA 1/3W			
R013	301 226 1516	MT-GLAZE 0.000 ZA 1/16W			
R015	301 265 1713	MT-GLAZE 4.7K FA 1/10W			
R016	301 265 2611	MT-GLAZE 5.1K FA 1/10W			
R021	301 150 6014	MT-GLAZE 0.000 ZA 1/10W			
R022	301 150 6014	MT-GLAZE 0.000 ZA 1/10W			
COIL			CAPACITOR		
L001	652 002 8500	INDUCTOR 330OHM, P	△C601	404 117 6403	MT-POLYEST 1U K 275V
L011	945 062 2855	INDUCTOR,33U M		404 117 8902	MT-POLYEST 1U K 310V
L012	945 062 2855	INDUCTOR,33U M	△C603	404 121 9605	CERAMIC 3300P M 250V
L5031	652 002 8524	INDUCTOR 220OHM, P	△C604	404 121 9605	CERAMIC 3300P M 250V
L5032	652 002 8524	INDUCTOR 220OHM, P	△C605	304 073 3709	CERAMIC 100P K 250V
			△C606	304 073 3709	CERAMIC 100P K 250V
			C611	303 222 1316	CERAMIC 1000P K 1K
			C612	303 222 1316	CERAMIC 1000P K 1K
			C613	303 451 4119	MT-POLYEST 1U K 450V
			C614	303 451 4119	MT-POLYEST 1U K 450V
			C615	404 118 3609	ELECT 150U M 420V
				404 123 1706	ELECT 150U M 420V
			C621	303 336 3510	CERAMIC 0.47U K 16V
			C622	304 091 4504	CERAMIC 0.047U K 50V
			C623	304 090 1207	CERAMIC 0.01U K 50V
			C625	304 090 1207	CERAMIC 0.01U K 50V
			C626	303 396 9613	CERAMIC 1U K 25V
				303 397 7618	CERAMIC 1U K 25V
				403 478 5912	CERAMIC 1U K 25V
			C627	304 091 3309	CERAMIC 2200P K 50V
			C631	303 157 4215	CERAMIC 220P J 50V
			C632	303 247 6627	CERAMIC 680P K 2K
				404 111 2401	CERAMIC 680P K 2K
			C633	303 265 3216	CERAMIC 1000P J 50V
			C634	304 091 3309	CERAMIC 2200P K 50V
			C641	303 367 0410	CERAMIC 0.1U K 50V
				304 091 2609	CERAMIC 0.1U K 50V
			C642	303 367 0410	CERAMIC 0.1U K 50V
				304 091 2609	CERAMIC 0.1U K 50V
			C644	303 417 9912	CERAMIC 4.7U K 25V
				303 452 5016	CERAMIC 4.7U K 25V
			C651	304 096 8309	ELECT 100U M 25V
			C653	303 367 0410	CERAMIC 0.1U K 50V
				303 370 1510	CERAMIC 0.1U K 50V
			C661	303 445 4405	ELECT 1800U M 25V
			C662	303 367 0410	CERAMIC 0.1U K 50V
				304 091 2609	CERAMIC 0.1U K 50V
			C663	303 367 0410	CERAMIC 0.1U K 50V
				304 091 2609	CERAMIC 0.1U K 50V
			C664	303 429 6718	ELECT 1500U M 10V
			C665	303 409 9913	ELECT 470U M 16V
			C671	304 091 2609	CERAMIC 0.1U K 50V
A4000	655 004 1289	ASSY,PWB, AUDIO JACK KT8AE			
K30A	652 003 2262	JACK,PHONE D3.6			
K30B	652 003 2262	JACK,PHONE D3.6			
A2200	655 004 1265	ASSY,PWB, POWER KT8AE			
TRANSISTOR					
Q611	305 140 3707	TR 2SK2698			
Q641	305 014 4512	TR 2SC2412K T146 R			
	305 014 4611	TR 2SC2412K T146 S			
	305 015 8727	TR 2SC2812-L6-TB			
	305 015 8925	TR 2SC2812-L7-TB			
	305 163 1615	TR 2SC2812N-L6-TB0			
	305 173 9816	TR 2SC3928A1R			
	305 173 9915	TR 2SC3928A1S			
Q642	305 014 4512	TR 2SC2412K T146 R			
	305 014 4611	TR 2SC2412K T146 S			
	305 015 8727	TR 2SC2812-L6-TB			
	305 015 8925	TR 2SC2812-L7-TB			

Electrical Parts List

Key No. Part No.	Description	Key No. Part No.	Description
RESISTOR		DIODE	
△R601	301 242 3914 MT-GLAZE 240K JA 1/2W	D611	407 267 4909 DIODE FML-S165
△R602	301 242 3914 MT-GLAZE 240K JA 1/2W	D611C	645 098 1715 CORE,FERRITE
R611	401 353 0311 MT-GLAZE 430K JA 1/3W	D613	307 163 0414 DIODE 1SS352-(TPH3)
R612	401 353 0212 MT-GLAZE 360K JA 1/3W		307 149 0810 DIODE 1SS355-TE-17
R613	301 256 6314 MT-GLAZE 47K JA 1/10W		408 062 7201 DIODE 1SS35
R614	302 106 5508 RESISTER 0.075 KB 5W	D631	307 163 0414 DIODE 1SS352-(TPH3)
R615	402 122 0409 MT-GLAZE 680K DD 1/4W		307 149 0810 DIODE 1SS355-TE-17
R616	402 122 0409 MT-GLAZE 680K DD 1/4W	D632	307 247 8827 DIODE RF101L2S
R621	301 326 1812 MT-GLAZE 8.2K DA 1/10W		307 190 4119 DIODE SFPL-52V
R622	301 309 8517 MT-GLAZE 330 DA 1/10W	D633	308 061 8806 DIODE EG01C
R623	401 360 8010 MT-GLAZE 470 DA 1/10W	D634	307 206 5413 ZD UDZS-TE-178.2B
R624	301 162 2912 MT-GLAZE 220 JA 1/10W	D651	307 247 8827 DIODE RF101L2S
R625	301 255 6513 MT-GLAZE 100 JA 1/10W		307 190 4119 DIODE SFPL-52V
R626	301 150 6014 MT-GLAZE 0.000 ZA 1/10W	D661	407 269 8400 DIODE FMEN-210A
R627	301 150 5918 MT-GLAZE 10K JA 1/10W		407 267 3100 DIODE SG10SC9M
R628	301 150 5918 MT-GLAZE 10K JA 1/10W	D662	407 269 8509 DIODE FMW-2106
R629	301 255 7312 MT-GLAZE 510K JA 1/10W		407 267 3001 DIODE SG10SC6M
R631	301 255 7718 MT-GLAZE 11K JA 1/10W	D663	307 247 8827 DIODE RF101L2S
R632	301 253 3712 MT-GLAZE 0.000 ZA 1/4W		307 190 4119 DIODE SFPL-52V
	301 035 4111 MT-GLAZE 0.000 ZA 1/8W	D664	307 210 5416 DIODE RB551V-30-TE-17
R633	301 150 6014 MT-GLAZE 0.000 ZA 1/10W		408 063 9600 DIODE RB551V-30
R634	301 256 1715 MT-GLAZE 33K JA 1/10W	DB611	307 202 7708 DIODE D10XB60
R635	402 122 1802 OXIDE-MT 0.39JA 1W		
	302 099 6308 OXIDE-MT 0.39JA 1W	MISCELLANEOUS	
R636	301 162 3018 MT-GLAZE 22K JA 1/10W	△F601	423 034 4101 FUSE 250V 6.3A
R641	301 150 5918 MT-GLAZE 10K JA 1/10W		323 021 7804 FUSE 250V 6.3A
R642	301 256 6611 MT-GLAZE 68K JA 1/10W	△F631	324 006 1305 FUSE 250V 2.5A
R643	301 150 5918 MT-GLAZE 10K JA 1/10W		Q611F 645 098 1715 CORE,FERRITE
R644	301 150 5918 MT-GLAZE 10K JA 1/10W	△PC661	307 223 7315 PC TLP421F(D4-GB-TP4)
R646	301 256 7212 MT-GLAZE 18K JA 1/10W		307 223 8312 PC TLP421F(D4-GR-TP4)
R648	301 256 7212 MT-GLAZE 18K JA 1/10W		407 265 7813 PC TLP781F(D4-GB-TP7)
R651	301 150 5918 MT-GLAZE 10K JA 1/10W	△PC662	307 223 7315 PC TLP421F(D4-GB-TP4)
R653	301 292 1915 MT-GLAZE 22 FA 1/2W		307 223 8312 PC TLP421F(D4-GR-TP4)
R662	301 152 3219 MT-GLAZE 330 JA 1/10W		407 265 7813 PC TLP781F(D4-GB-TP7)
R671	301 256 7618 MT-GLAZE 3.9K JA 1/10W	△PC663	307 223 7315 PC TLP421F(D4-GB-TP4)
R672	301 150 6212 MT-GLAZE 1K JA 1/10W		307 223 8312 PC TLP421F(D4-GR-TP4)
R673	301 264 2919 MT-GLAZE 12K FA 1/10W		407 265 7813 PC TLP781F(D4-GB-TP7)
R674	301 264 7518 MT-GLAZE 2.7K FA 1/10W	△PTH611	308 037 5501 THERMISTOR NTPDB5R0LDHBO
R675	301 162 3711 MT-GLAZE 4.7K JA 1/10W	△PTH641	408 062 4606 TH PRF18BD471QB1RB
R676	301 264 2810 MT-GLAZE 1.2K FA 1/10W	△SW601A	652 003 0244 ASSY,WIRE(SW601)
R683	301 265 0211 MT-GLAZE 390 FA 1/10W	Z6D&CB1	652 003 3849 ASSY,WIRE
R684	301 264 9314 MT-GLAZE 3.3K FA 1/10W	Z6D&CB1A	945 003 3835 CORE,FERRITE
R691	301 162 2417 MT-GLAZE 1.2K JA 1/10W		652 003 1098 CORE,CLAMP
R692	301 150 6212 MT-GLAZE 1K JA 1/10W	Z6D&CB1B	655 002 1410 CABLE TIES,V2-150
		Z6D&CB1E	610 354 1600 FIXER W10.3XL21.5-KR8AE
VARIABLE RESISTOR		A2300 655 004 1357 ASSY,PWB, R/C KT8AE	
△VA601	408 066 1700 VD TND14SE471KB0SLAA0	CAPACITOR	
TRANSFORMER		C2901	303 358 8319 CERAMIC 1U K 10V
△T651	645 097 6483 TRANS,POWER,PULSE	C2902	303 157 6615 CERAMIC 470P K 50V
COIL		C2903	303 230 3616 TA-SOLID 47U M 6.3V
△L601	645 099 6825 LINE FILTER		303 384 4712 TA-SOLID 47U M 6.3V
	652 003 1845 LINE FILTER	C8843	303 298 9612 CERAMIC 0.1U K 16V
L611	910 229 3532 CORE	RESISTOR	
L612	945 077 6565 INDUCTOR,900U	R2901	301 256 5614 MT-GLAZE 47 JA 1/10W
	945 084 0273 INDUCTOR,1400U	R2903	301 255 6513 MT-GLAZE 100 JA 1/10W
	652 003 1821 INDUCTOR,1580UH	R8855	301 162 2219 MT-GLAZE 10 JA 1/10W
L614	910 229 3532 CORE	R8856	301 162 2219 MT-GLAZE 10 JA 1/10W
L615	910 229 3532 CORE	MISCELLANEOUS	
L616	910 229 3532 CORE	A2901	652 002 3352 UNIT,REMOCON,RECEIVER
L617	652 002 8500 INDUCTOR 330OHM, P		652 003 3603 UNIT,REMOCON,RECEIVER
L631	952 001 0131 CORE,PIPE		
	910 078 5954 PIPE CORE		
△LF601	645 093 1765 SOCKET,INLET AC 3P		

Electrical Parts List

Key No. Part No.	Description	Key No. Part No.	Description

EIKI

A-key to better communications

Diagrams & Drawings

Schematic Diagrams Printed Wiring Board Drawings

Model	Chassis No.
LC-XBM31	KT8-XBM3100

These schematic diagrams and printed wiring board drawings are part of the service manual original for chassis No. KT8-XBM3100, model LC-XBM31.

File with the service manual No. SM5111295-00.

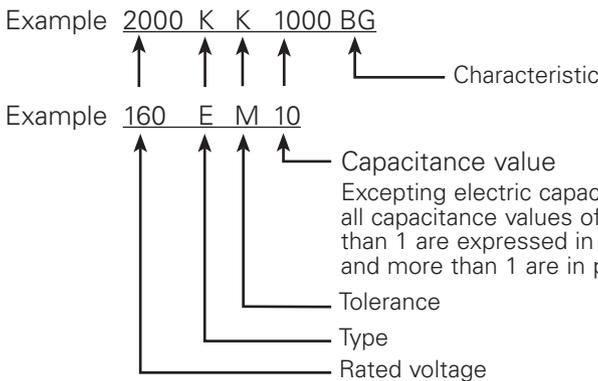
Note:

All the information of part numbers and values indicated on these diagrams are at the beginning of production. To improve the performance, there may be some differences to the actual set. When you order the service parts, use service parts code mentioned on the parts list in this service manual.

Parts description and reading in schematic diagram

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video color bar signal (1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmeter.

Capacitor Reading



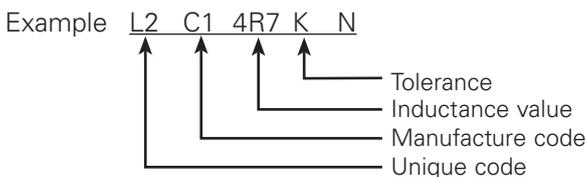
Material table

Mark	Material
E	Electrolytic
P	Electrolytic (non-polarized)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metalized polypropylene
H	Metalized polypropylar
B	Ceramic (semiconductor)
G	Metalized polyestel
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

Tolerance table

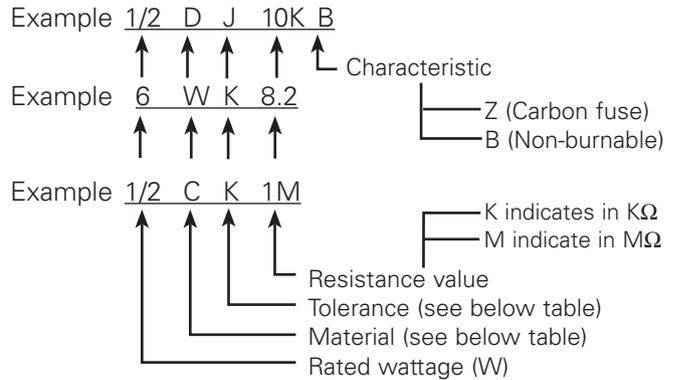
Mark	Tolerance
A	not specified
B	± 0.1
C	± 0.25
D	± 0.5
F	± 1
G	± 2
E	± 2.5
H	± 3
J	± 5
K	± 10
M	± 20
N	± 30
P	+100 -0
Q	+30 -10
T	+50 -10
U	+75 -10
V	+20 -10
W	+100 -10
X	+40 -20
Y	+150 -10
Z	+80 -20

Coil Reading



Mark	Tolerance (nH)	Mark	Tolerance (%)
C	± 0.25	G	± 2
D	± 0.5	J	± 5
S	± 0.3	K	± 10
A	± 0.2	L	± 15
		M	± 20

Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

Material table

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire winding or cement
H	Ceramic
F	Fusible

Tolerance table

Mark	Tolerance
A	± 0.05
B	± 0.1
C	± 0.25
D	± 0.5
F	± 1
G	± 2
J	± 5
K	± 10
M	± 20
P	+5 -15
Z	used in 0 ohm

Diode/Transistor Type Reading

Diode

Mark	Type number
R	1S2076A, 1S2473, 1N4148
AA	1S2076A, 1S2473, 1SS133, 1N4148

Transistor

(1) NPN type

Mark	Type number			
--	2SC536	2SC945A	2SC1815	2SC1740S
AD	NF, NG	PA, QA	Y, GR	Q, R, S
AE	NF, NG	PA, QA, RA	O, Y, GR	Q, R, S

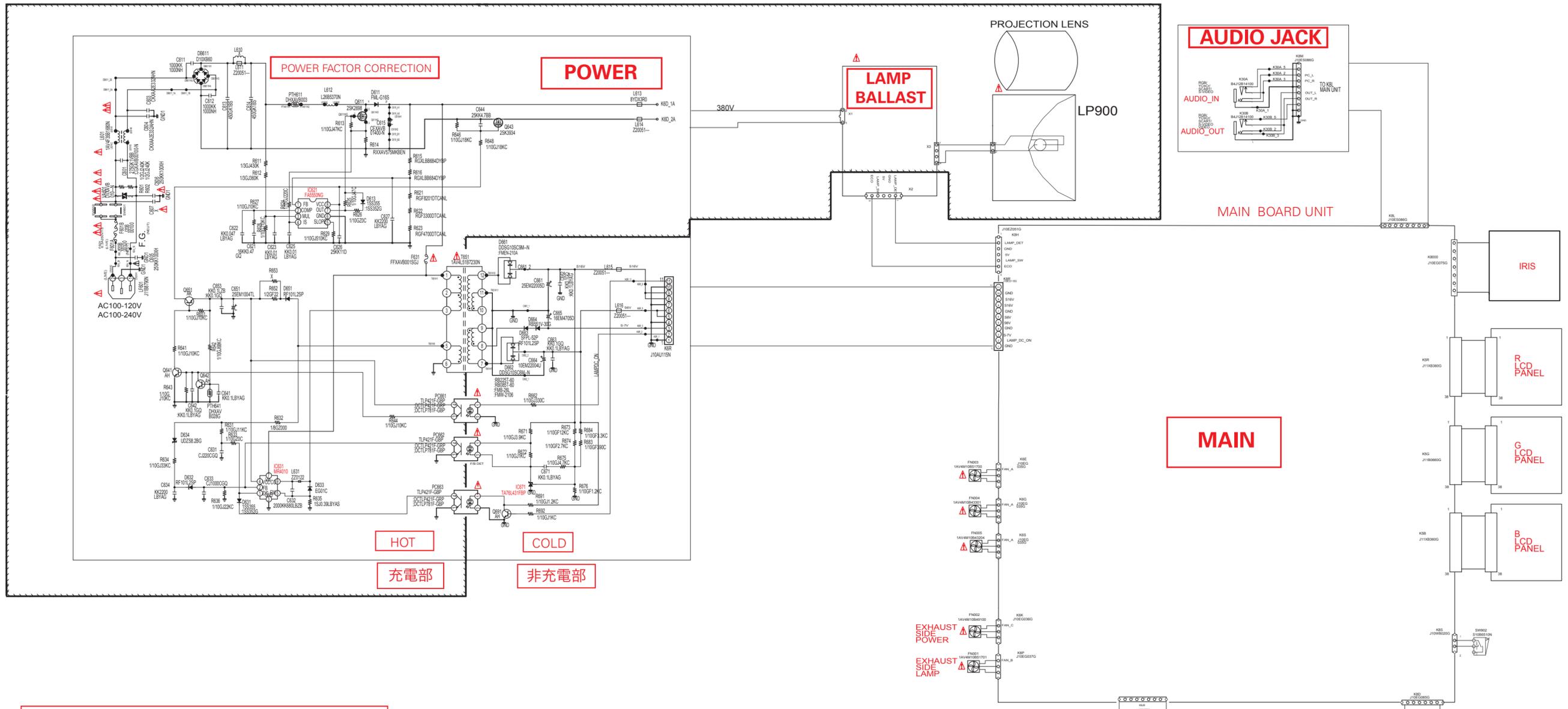
(2) PNP type

Mark	Type number			
--	2SA608	2SA564A	2SA1015	2SA933S
AB	NF	R	Y, GR	R
AC	NF	Q, R	O, Y, GR	Q, R

(3) Chip type

Mark	Type number				
--	2SA1179N	2SA1037K	2SA1037AK	2SC2812/N	2SC2412K
AJ	M6, M7	R, S	R, S		
AH				L6, L7	R, S

Schematic Diagrams



CAUTION

Components indicated by a mark Δ in this schematic diagram have the special significance in the safety. It is therefore, particularly recommended that the replacement of those parts must be made by exactly the same parts. Must be used with a specified fuse. Unauthorized substitutions may result in fire or accident.

This projector is isolated from AC line by using the internal converter transformer. Please pay attention to the following notes in servicing.

1. Do not touch the part on hot side (primary circuit) or both parts on the hot and cold sides (secondary circuit) at the same time.
2. Do not shorten the circuit between hot and cold sides.
3. The grounding lead must be connected to the ground of the same circuit when measuring the voltages and waveform.

注意

Δ 印の部品は、安全上重要な部品です。交換をするときは安全および性能維持のため必ず指定の部品をご使用ください。指定品番以外のヒューズを使用しますと事故や、火災の原因となります。

本機は充電部と非充電部のアースが異なりますので下記の事項にご注意ください。

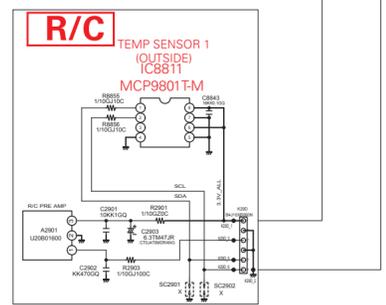
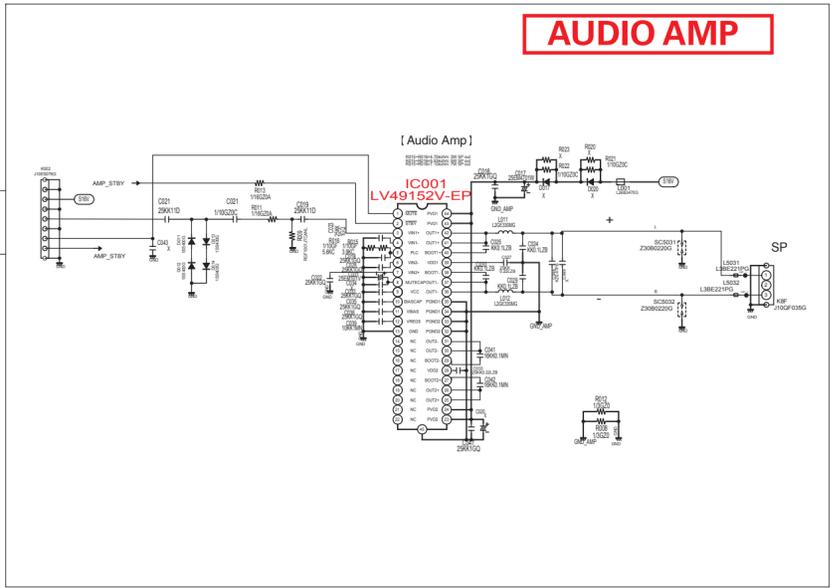
1. 充電部に触れたり、充電部と非充電部に同時に触れると感電することがあります。
2. 充電部、非充電部の間を短絡しないでください。故障の原因になります。
3. 測定器をつなぐ際、アースは測定点と同じ回路のアースから取ってください。

Indication of Signals / 信号の表示について

E **Power Failure, Fan Failure Detection Signals**
- NO POWER when one of those signals detects a failure.
電源異常、ファン異常検出信号
- 異常検出でスタンバイになります

D **Power Drive, Fan Drive Signals**
- NO POWER when one of those signals has a failure.
電源ドライブ、ファンドライブ信号
- 異常発生でスタンバイになります

S **Switch Signals [AV switch, Mute, etc]**
- NO PICTIER or NO SOUND when one of those signals has a failure.
各種スイッチ信号 (AV切替、ミュートなど)
- 異常発生で映像出ず、音声出ずになります

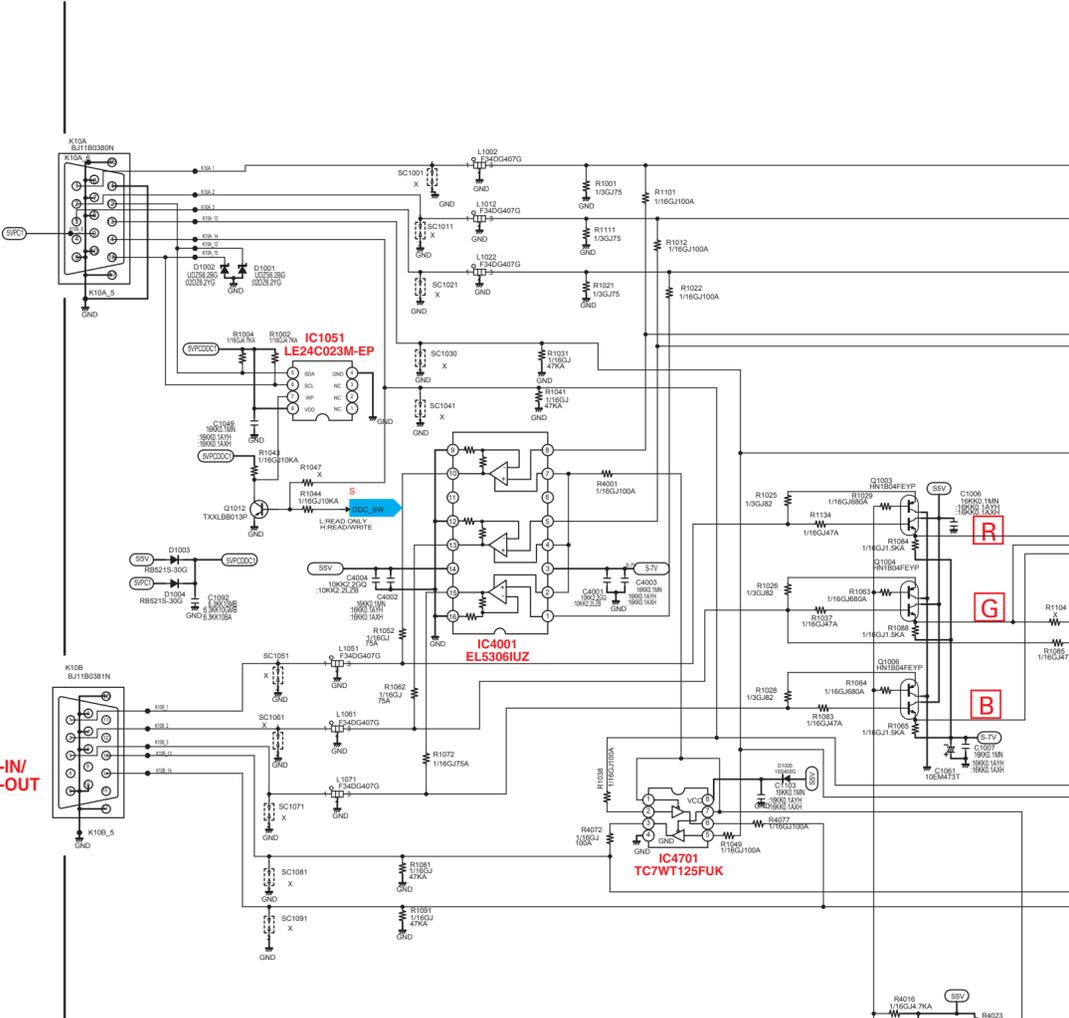


A
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C
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J
K
L

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J
K
L

A
B
C
D
E
F
G
H
I
J
K
L

PC1
RGB/
YCbCr/
SCART
S_VIDEO



PC2
RGB-IN/
RGB-OUT

AUDIO_IN

VIDEO_IN

PC1
RGB/
YCbCr/
SCART/
S-VIDEO
AUDIO_IN
MIC-IN
AUDIO_OUT

CONTROL
PORT

IC301

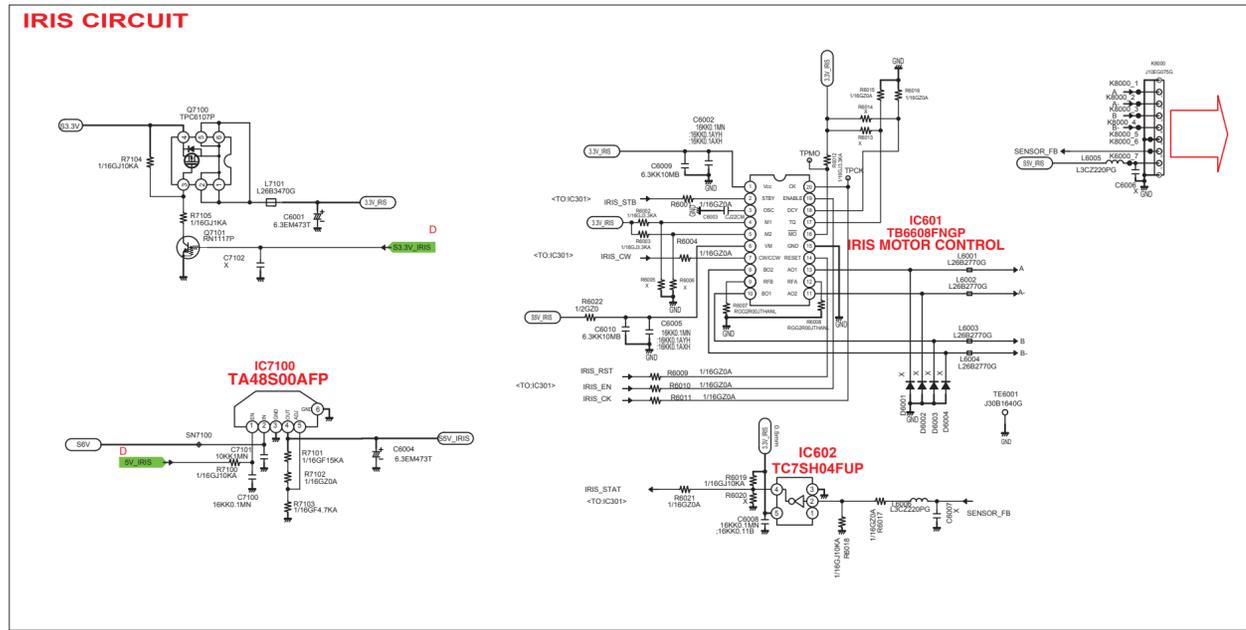
IC301

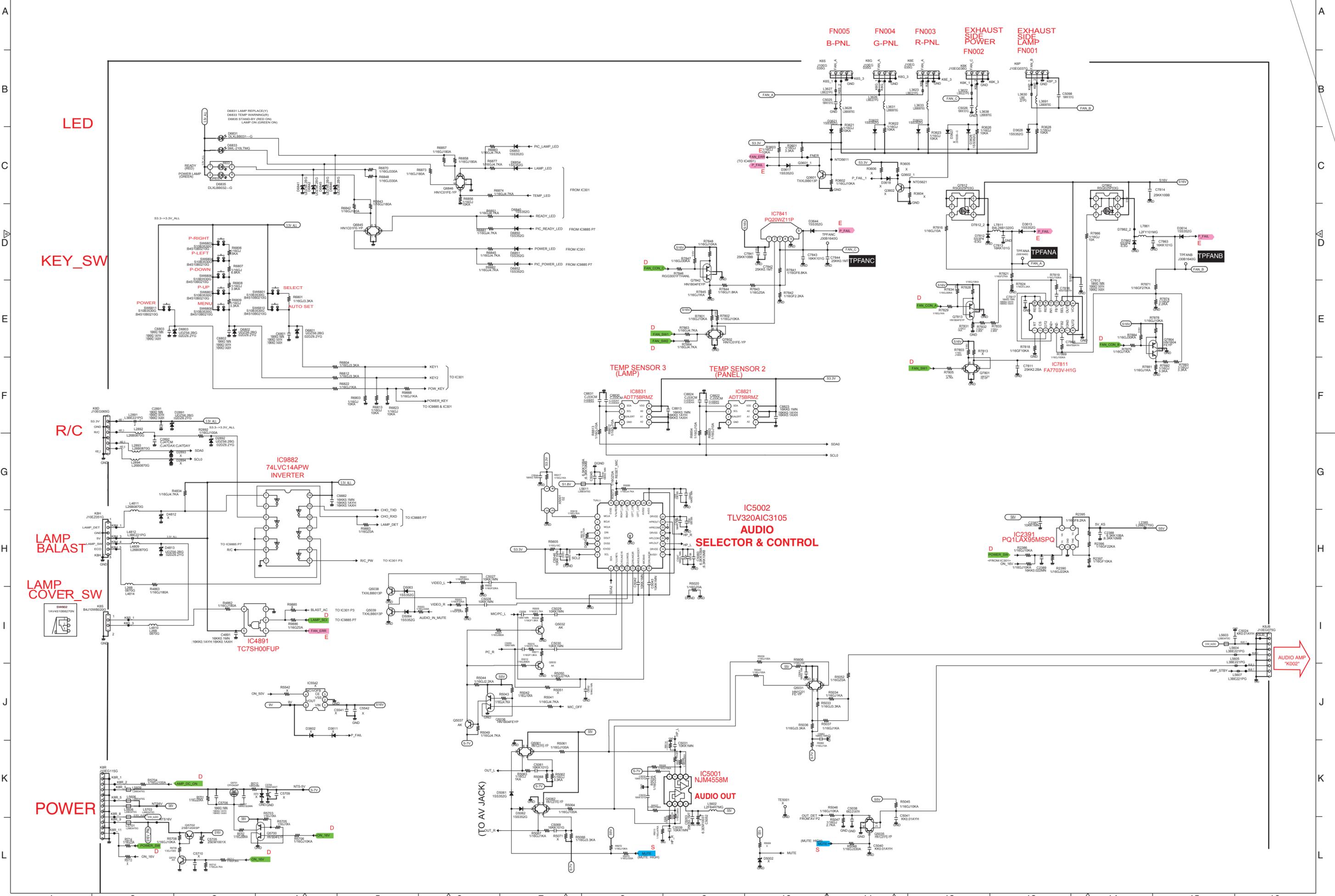
IC301

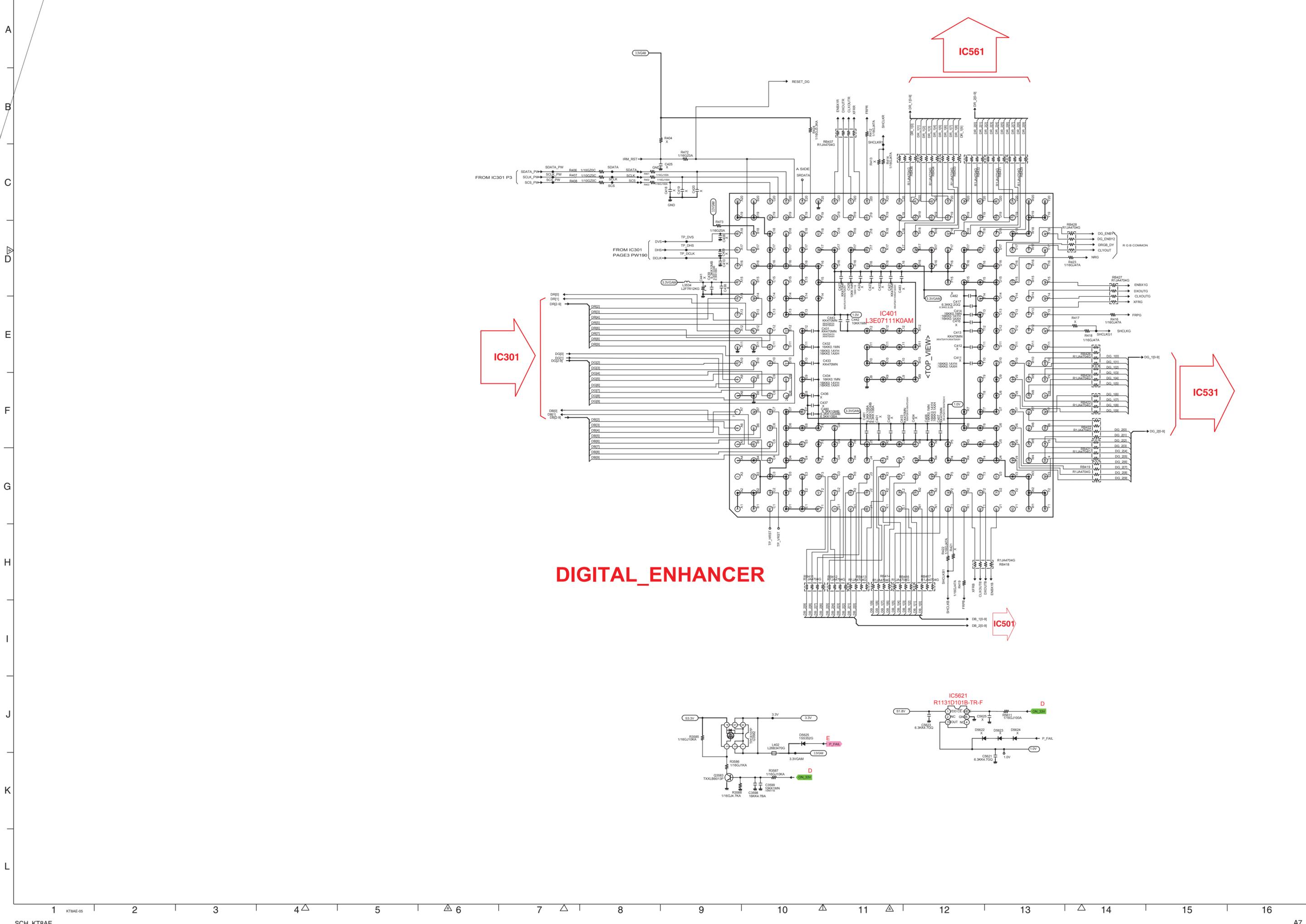
IC301

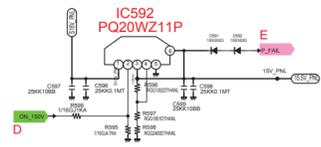
IRIS CIRCUIT

IRIS









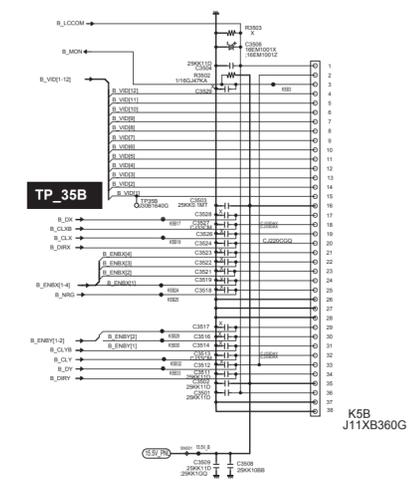
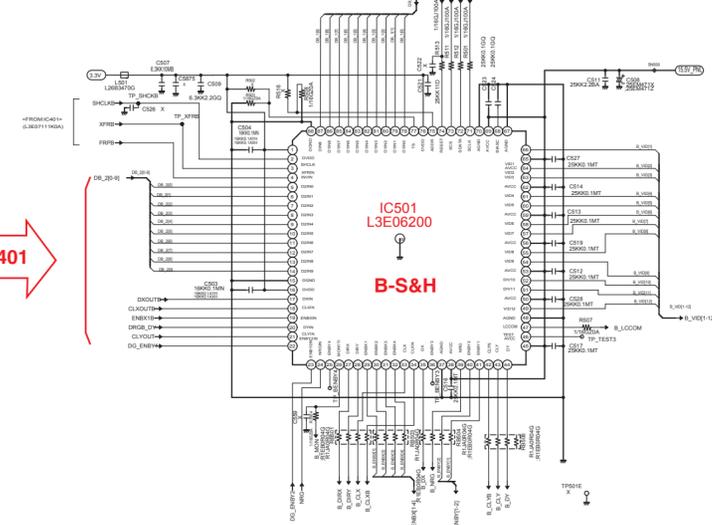
(BLUE)



IC401



IC401



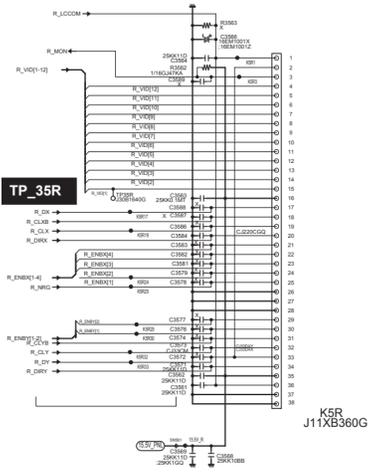
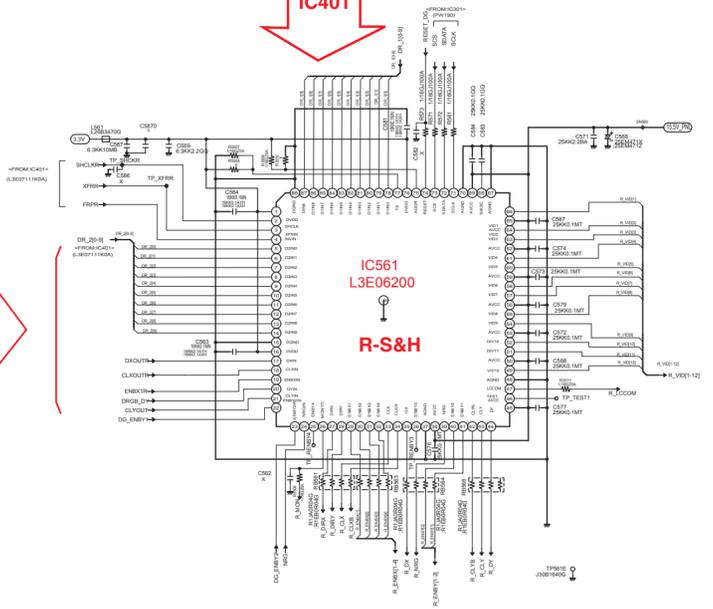
(RED)



IC401



IC401



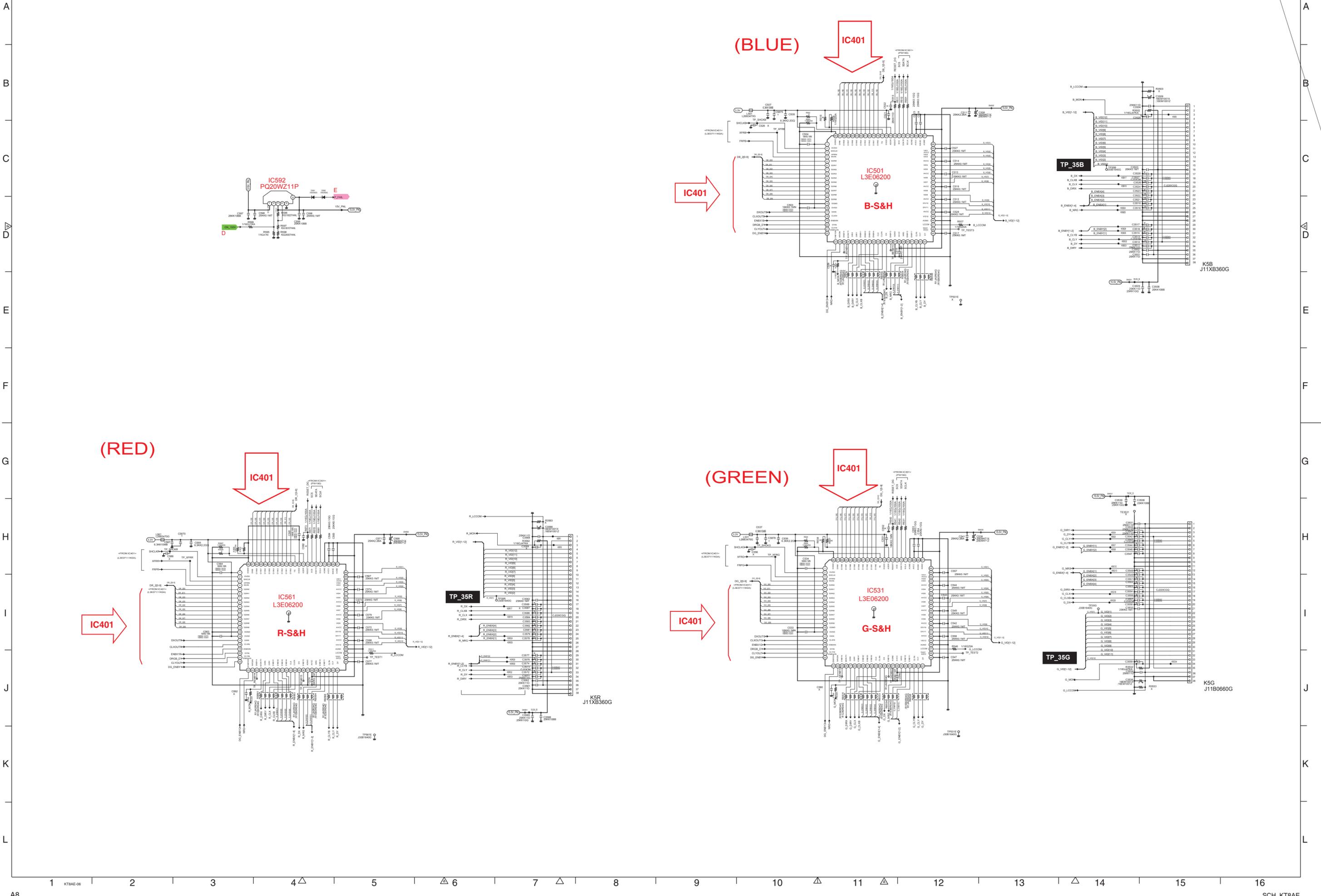
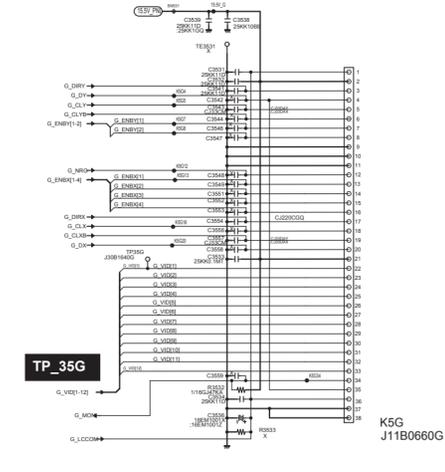
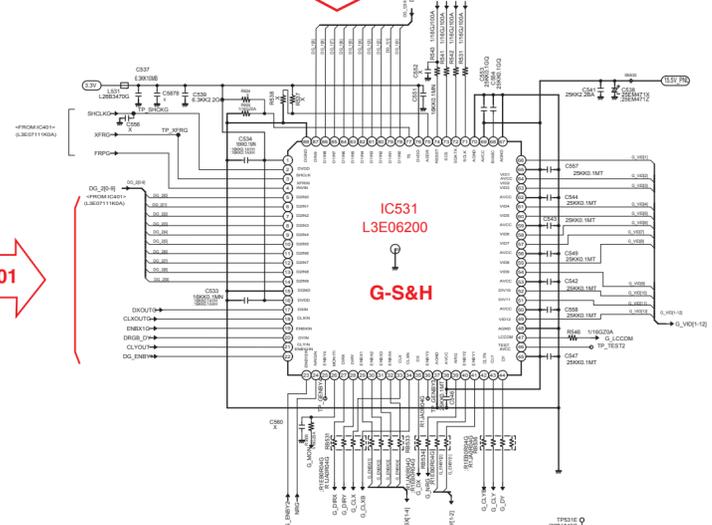
(GREEN)

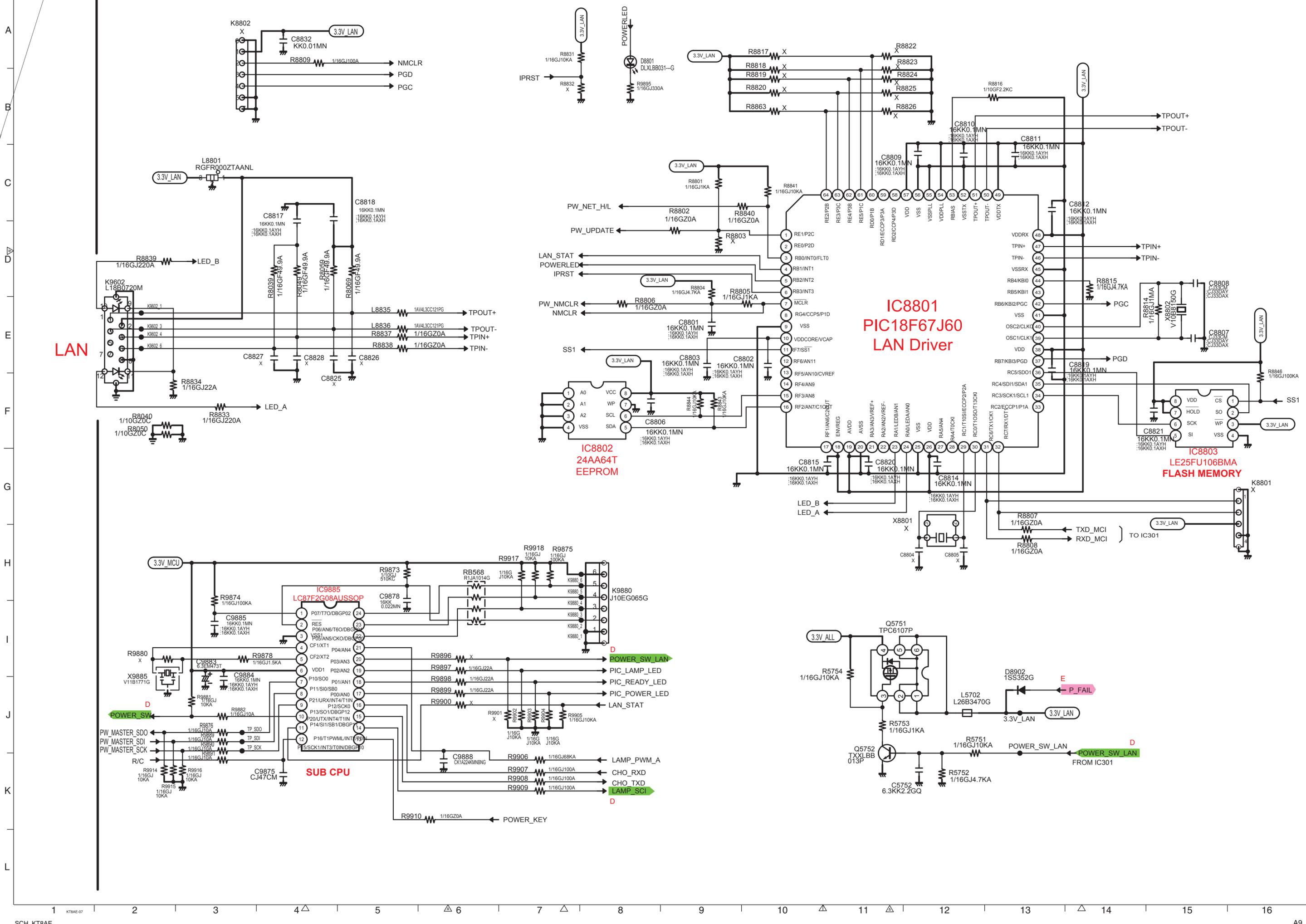


IC401



IC401





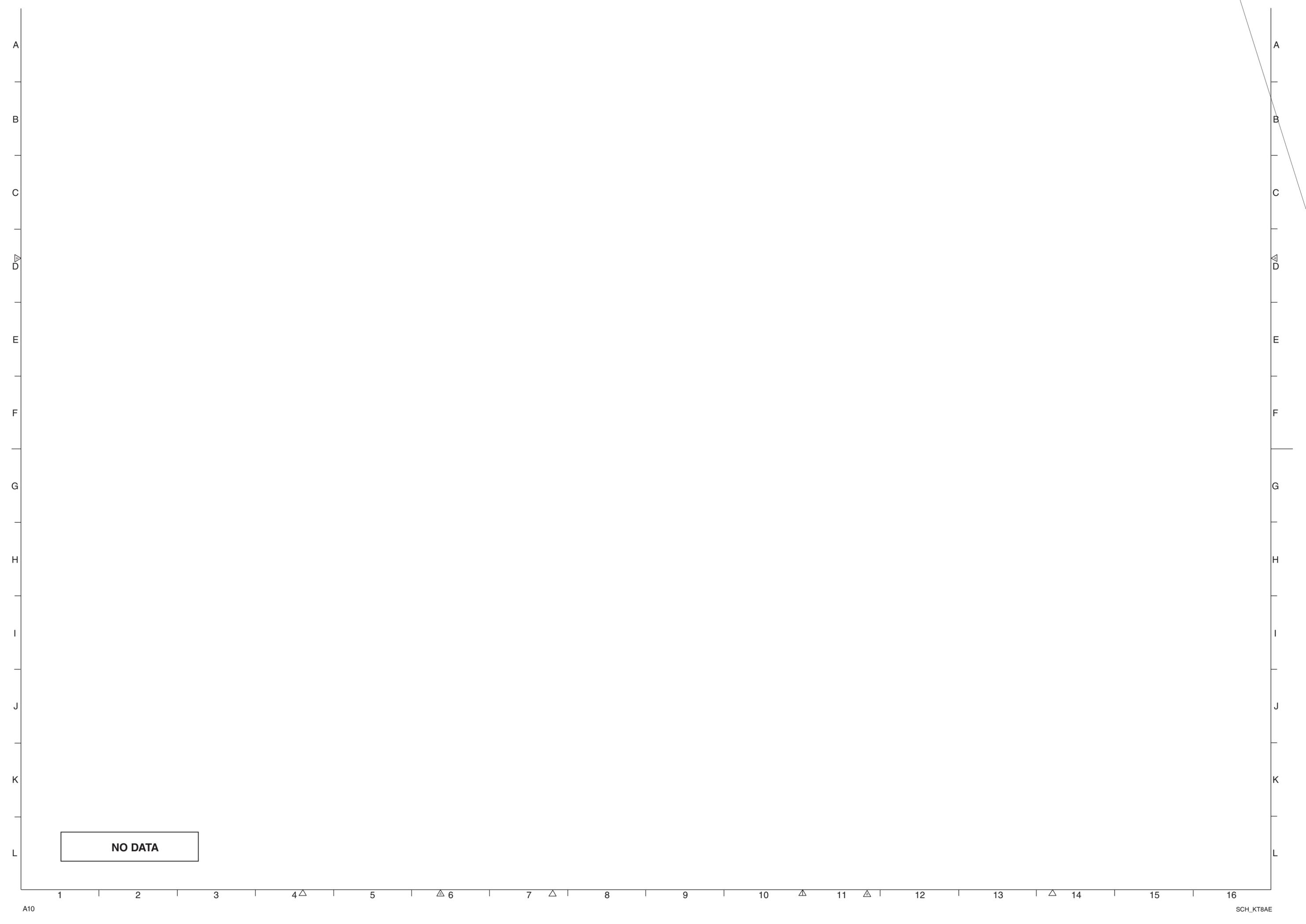
LAN

IC8801
PIC18F67J60
LAN Driver

IC8802
24AA64T
EEPROM

IC8803
LE25FU106BMA
FLASH MEMORY

SUB CPU



NO DATA

A
B
C
D
E
F
G
H
I
J
K
L

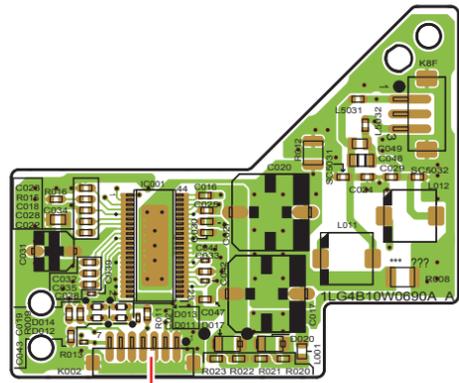
A
B
C
D
E
F
G
H
I
J
K
L

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A10

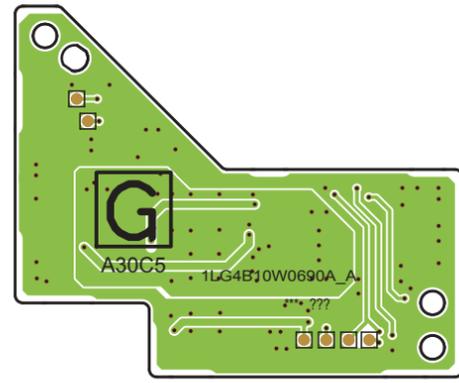
SCH_KT8AE

AUDIO AMP (SIDE:A)



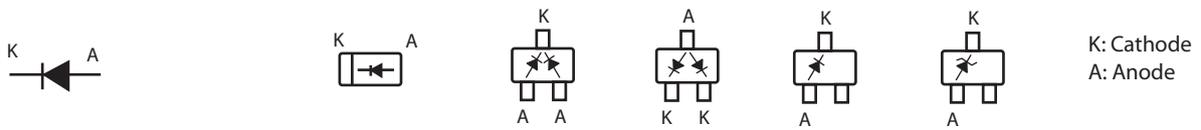
MAIN
"K8JB"

AUDIO AMP (SIDE:B)

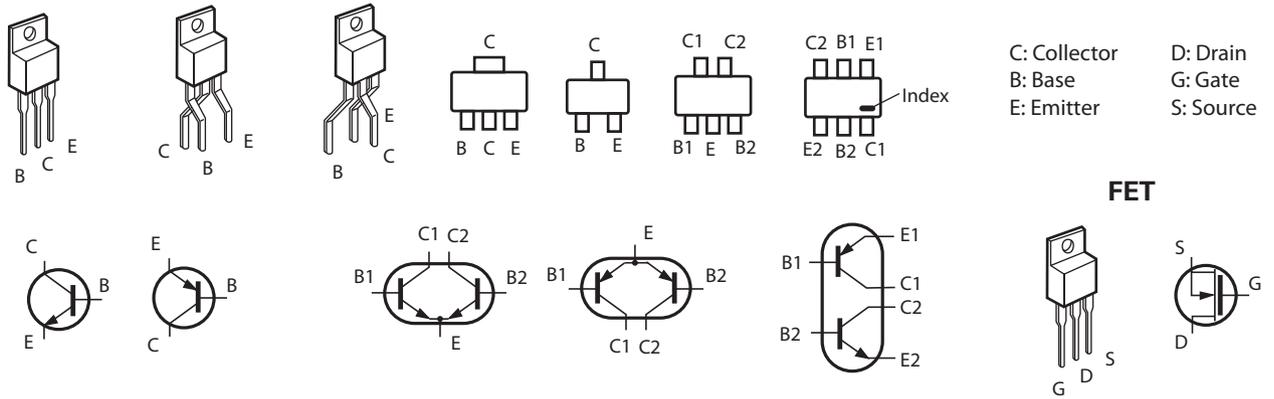


Pin description of diode, transistor and IC

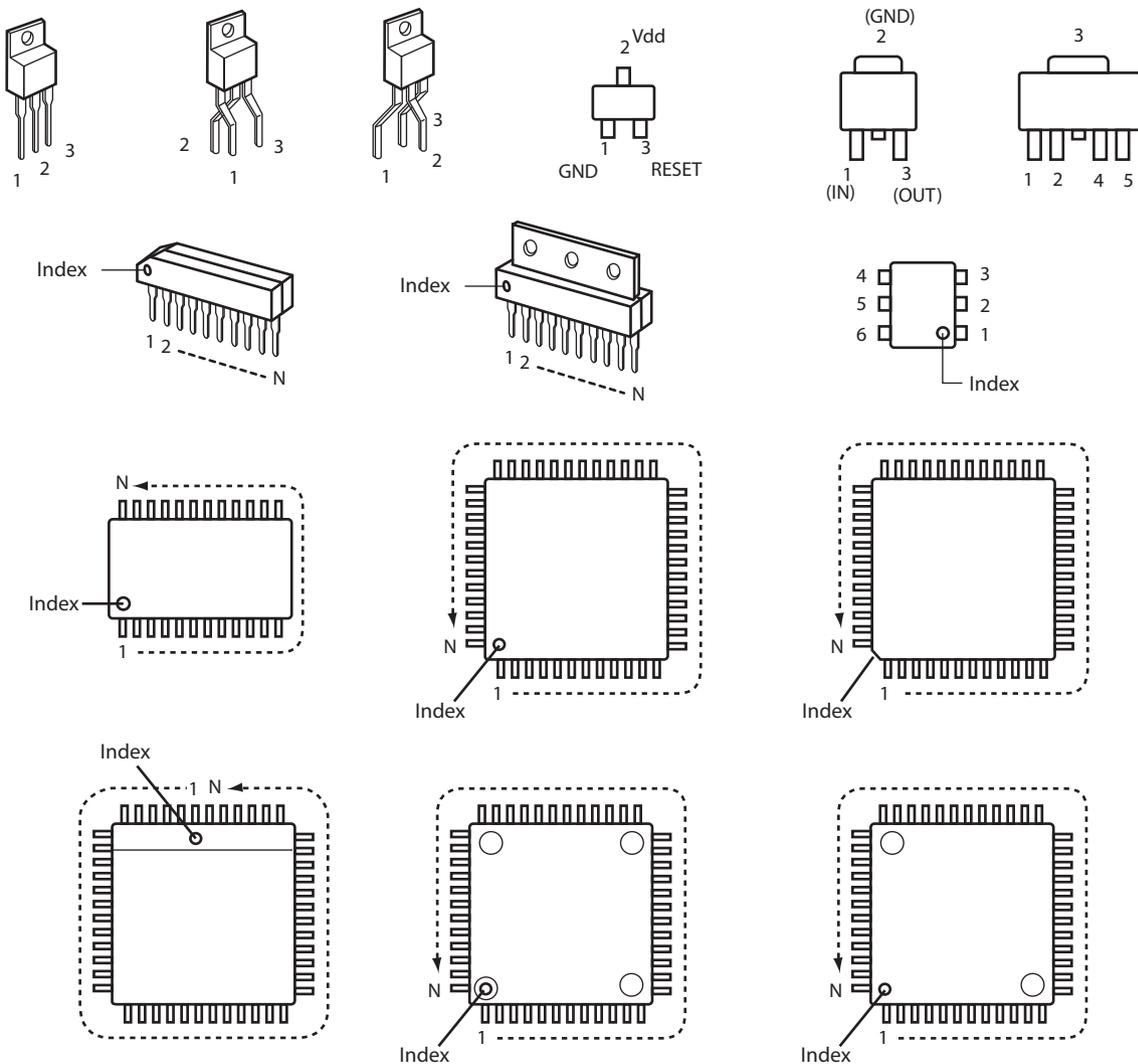
● Diode



● Transistor/FET



● IC



Note on Soldering

Do not use solder containing lead.

This product has been manufactured using lead-free solder in order to help preserve the environment.

Because of this, be sure to use lead-free solder when carrying out repair work, and never use solder containing lead.

Lead-free solder has a melting point that is 30–40 °C (86–104 °F) higher than solder containing lead, and moreover it does not contain lead which attaches easily to other metals. As a result, it does not melt as easily as solder containing lead, and soldering will be more difficult even if the temperature of the soldering iron is increased.

The extra difficulty in soldering means that soldering time will increase and damage to the components or the circuit board may easily occur.

Because of this, you should use a soldering iron and solder that satisfy the following conditions when carrying out repair work. Also, soldering work must be done in a short time.

Soldering iron

Use a soldering iron which is 70 W or equivalent, and which lets you adjust the tip temperature up to 450 °C (842 °F) It should also have as good temperature recovery characteristics as possible.

Solder

Use solder with the metal content and composition ratio by weight given in the table below. Do not use solders which do not meet these conditions.

Metal content	Tin (Sn)	Silver (Ag)	Copper (Cu)
Composition ratio by weight	96.5 %	3.0 %	0.5 %

Note:

If replacing existing solder containing lead with lead-free solder in the soldered parts of products that have been manufactured up until now, remove all of the existing solder at those parts before applying the lead-free solder.