



SERVICE MANUAL

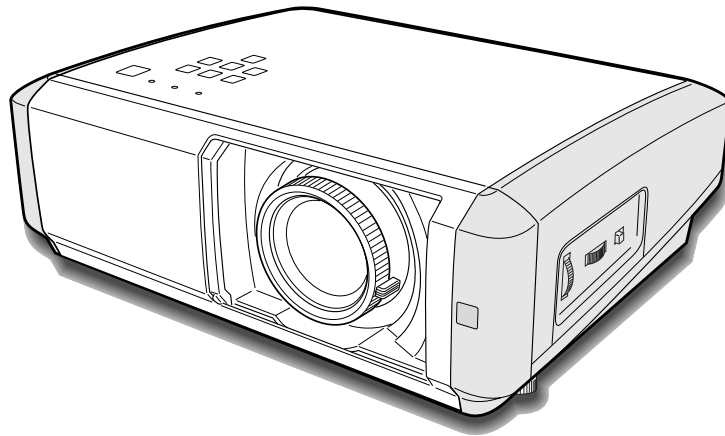
Original Version

FILE NO.

MODEL NO. PLV-Z4

(U.S.A., Canada, Europe
Asia, Africa, U.K.)

Multimedia Projector



Chassis No. M4W-Z400

NOTE: Match the Chassis No. on the rating sheet on the cabinet with the Chassis No. in the Service Manual.

If the Original Version Service Manual Chassis No. does not match the unites, additional Service Literature is required. You must refer to “Notices” to the Original Service Manual prior to servicing the unit.

PRODUCT CODE :

PLV-Z4 1 122 316 00 (M4WA)
PLV-Z4 1 122 317 00 (P4WA)
PLV-Z4 1 122 317 02 (P4WC)

REFERENCE NO. SM5110744-00

■ Contents

■ Safety Instructions.....	3
■ Specifications	4
■ Circuit Protections	5
■ Maintenance and Cleaning	7
■ Lamp Replacement	12
■ Mechanical disassemblies.....	14
■ Optical parts disassemblies.....	30
● Optical parts location and direction	40
■ Adjustments After Parts Replacement	44
■ Optical Adjustment	45
■ Electrical Adjustment.....	54
● Service Adjustment Menu Operation	54
● Circuit Adjustment	55
● Service Adjustment Data Table	59
● Location of Test Points.....	68
■ Waveform	69
■ Chassis Block Diagram	70
■ Power Supply Lines.....	78
■ Troubleshooting.....	80
● No Power	80
● No Picture	82
■ Control Port Functions.....	84
■ IC Block Diagrams.....	87
■ Service Parts List	92
● Electrical Parts List	92
● Mechanical and Optical Parts List	110

Drawings & Diagrams A1-A13

■ Parts description and reading in schematic diagram	A2
■ Schematic diagrams.....	A3-A8
■ Printed wiring board diagrams	A9-A12
■ Pins description of ICs, transistors, diodes	A13

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. | DO NOT OPERATE THIS PROJECTOR WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED. |
| 2: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis. | 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. |
| 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. | 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 there 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 - 20kV) 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

Technical Specifications

Projector Type	Multimedia Projector
Dimensions (W x H x D)	15.04" x 4.99" x 11.98" (382 mm x 126.8 mm x 304.3 mm) (not including raised portions)
Net Weight	10.2 lbs (5.0 kg)
LCD Panel System	0.7" wide TFT Active Matrix type, 3 panels
Panel Resolution	1280 x 720 dots
Number of Pixels	2,764,800 (1280 x 720 x 3 panels)
Color System	PAL, SECAM, NTSC, NTSC4.43, PAL-M, and PAL-N
High Definition TV Signal	480i, 480p, 575i, 575p, 720p and 1080i
Scanning Frequency	H-sync. 15 ~ 80 KHz, V-sync. 50 ~ 100 Hz
Projection Image size (Diagonal)	Adjustable from 40" to 300"
Projection Lens	F 2.0 ~ 3.0 lens with f 21.3 mm ~ 42.6 mm with manual zoom and focus
Throw Distance	3.9' ~ 30.2' (1.2 m ~ 9.2 m)
Projection Lamp	145 W
Video Input Jacks	RCA Type x 1 (Video), RCA Type x 3 (Y, Pb/Cb, Pr/Cr) x 2 and Mini DIN 4 pin x 1 (S-video)
Computer Input Terminal	(VGA) HDB 15 Terminal x 1
HDMI Input Terminal	HDMI terminal 19 pin x 1
Service Port Connector	Mini DIN 8 pin x 1
Feet Adjustment	0° to 7.7°
Voltage and Power Consumption	AC 100 ~ 120 V (2.4 A Max. Ampere), 50/60 Hz (The U.S.A. and Canada) AC 200 ~ 240 V (1.3 A Max. Ampere), 50/60 Hz (Continental Europe and The U.K.)
Operating Temperature	41 °F ~ 95 °F (5 °C ~ 35 °C)
Storage Temperature	14 °F ~ 140 °F (-10 °C ~ 60 °C)
Remote Control	Power Source : AA or LR06 1.5V ALKALINE Type x 2 Operating Range : 16.4' (5 m) / ± 30° Dimensions : 1.57" x 1.44" x 5.12" (40 mm x 36.5 mm x 130 mm) Net Weight : 3.6 oz (102 g) (including batteries)
Accessories	Owner's Manual AC Power Cord Remote Control and Batteries Video Cable Air Blower

- 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.



The CE Mark is a Directive conformity mark of the European Community (EC).



Pixelworks ICs used.

■ 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.

● Fuse

A fuse(F601) is located inside of the projector. When the POWER indicator is not lightning, the fuse may be opened. Check the fuse as following steps.

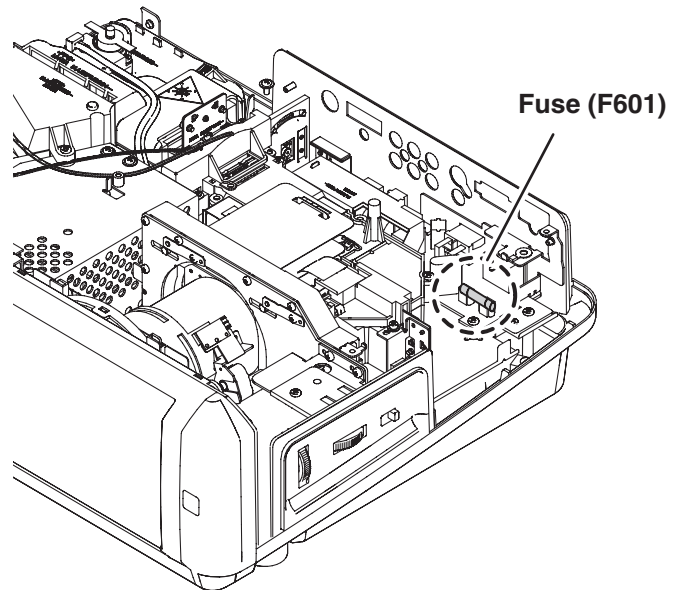
The fuse should be used with the following type;

Fuse Part No. : 423 022 2102
TYPE T4.0AH 250V FUSE
LITTEL FUSE INC. TYPE 215004

How to replace the fuse

1. Remove the cabinet top and main board following to "Mechanical Disassemblies".
2. Remove the fuse from fuse holder on the Filter Board.

To install the fuse, take reversed step in the above.



● Thermal switch

There is the thermal switch (SW902) inside of the projector to prevent the internal temperature rising abnormally. When the internal temperature reaches near 90°C, the thermal switch cuts off the drive signal to the lamp circuit automatically. The thermal switch is not reset to normal automatically, even if the internal temperature becomes normal. Reset the thermal switch following procedure.

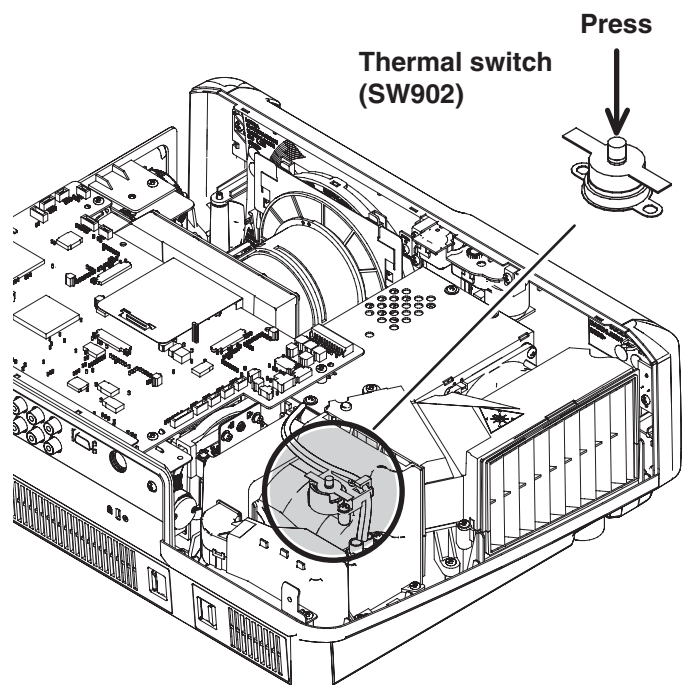
Check the resistance between terminals of thermal switch by using a tester. If it has high impedance, thermal switch may be open.

How to reset the thermal switch

1. Remove the cabinet top ass'y following to "Mechanical Disassemblies".
2. Press the reset button on the thermal switch with a sharp-pointed tool.

CAUTION:

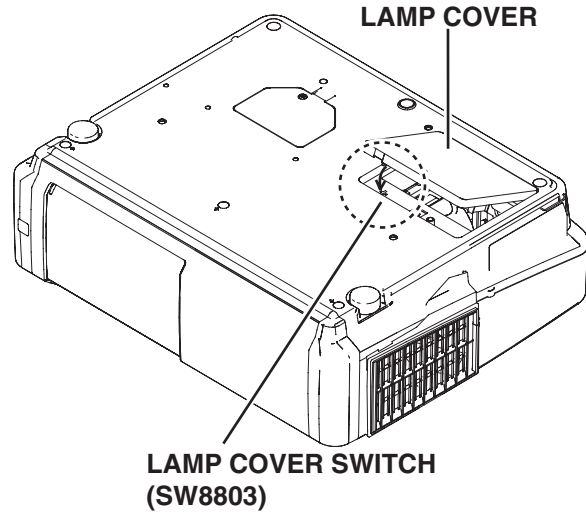
Before press the reset button, make sure that the AC cord must be disconnected from the AC outlet.



● Lamp cover switch

The lamp cover switch (SW8803) 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 unit, place the lamp cover correctly otherwise the projector can not turn on.



● Door switches for automatic slide shutter

The projector provides 2 door switches against an accident of the automatic slide shutter.

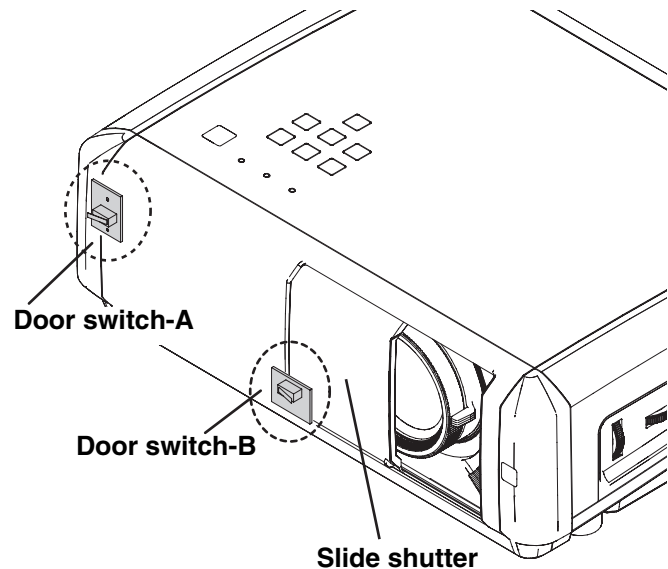
The door switch-A (SW8801) turns ON when the slide shutter is opened.

The door switch-B (SW8811) turns ON when the slide shutter is closed.

If the slide shutter stops half-open after turning on, the POWER indicator will blink orange and the projector goes to stand-by mode after cooling. In this case, press the POWER ON-OFF button again.

If the slide shutter is closed during operation, the projector is automatically turned off for safety.

In this case, be sure to check the position of the slide shutter. After opening or closing the slide shutter manually, press the POWER ON-OFF button and the projector turns on.



● 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 WARNING 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 power Supply Lines section.

Possible causes

- Air filters are clogged with dust particles. Remove dust from the air filters.
- 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)

■ Maintenance and Cleaning

After long periods of use, dust and other particles will accumulate on the LCD panel, prism, mirror, polarized glass, lens, etc., causing the picture to darken or color to blur. If this occurs, clean the inside of optical unit.

Remove dust and other particles using air spray. If dirt cannot be removed by air spray, disassemble and clean the optical unit.

● Cleaning with air spray

1. Remove the cabinet top following to "Mechanical Disassemblies".
2. Clean up the LCD panel and polarized glass by using the air spray from the cabinet top opening.

Caution:

Use a commercial (inert gas) air spray designed for cleaning camera and computer equipment. Use a resin-based nozzle only. Be very careful not to damage optical parts with the nozzle tip. Never use any kind of cleanser on the unit. Also, never use abrasive materials on the unit as this may cause irreparable damage.

● Disassembly Cleaning

Disassembly cleaning method should only be performed when the unit is considerable dirty and cannot be sufficiently cleaned by air spraying alone.

Be sure to readjust the optical system after performing disassembly cleaning.

1. Remove the cabinet top and main units following to "Mechanical Disassemblies".
2. Remove the optical base top following to "Optical Unit Disassemblies". If the LCD panel needs cleaning, remove the LCD panel unit following to "LCD panel/Prism ass'y replacement".
3. Clean the optical parts with a soft cloth. Clean extremely dirty areas using a cloth moistened with alcohol.

Caution:

The surface of the optical components consists of multiple dielectric layers with varying degrees of refraction. Never use organic solvents (thinner, etc.) or any kind of cleanser on these components. Since the LCD panel is equipped with an electronic circuit, never use any liquids (water, etc.) to clean the unit. Use of liquid may cause the unit to malfunction.

Cleaning the RGB panels

Blemishes such as dust and dirt on the internal optical components of the projector tend to degrade the brightness of the screen and are likely to appear as a shadow on the screen, which can lead to deterioration of image quality.

This projector is equipped with the RGB panel cleaning holes on the bottom for cleaning of the internal parts (such as optical components) of the projector. When you use the projector for a lengthy period of time or a shadow of dust appears on the projected screen, clean the inside of the projector.

Using the supplied air blower and with the Cleaning function in the Setting Menu, you can remove the dusts from the projector.

✓Note:

- Dust might not be removed completely with these steps. In that case, contact the dealer where you purchased the projector or service center.



CAUTION



PROHIBITED

CAUTION IN USING THE AIR BLOWER AND THE NOZZLE

- Turn the projector over when using the blower.
- Use only the supplied air blower and nozzle to keep the projector from being out of order or damaged. We could not guarantee the malfunction or breakage caused by other tools.
- Never use a commercially available compressed air duster. It causes the interior of the projector to malfunction with release of cold liquid propellant.
- Put the projector on a soft cloth to prevent scratching the surface.
- Open the hole cover only when you clean the inside of the projector.
- Do not look into the holes. A strong light could damage your eyes. (Do not look into the Air intake vent and Exhaust vent, either.)
- Use the blower and nozzle only to clean the projector. Do not attempt to use them for other purposes. Do not use the blower and nozzle against persons (particularly to eyes, mouth or ear, and so on). Be especially careful to ensure that children do not put the blower and nozzle into their mouth and swallow them.
- Do not attempt to pull the nozzle out of the blower. If the nozzle happened to be pulled out, put it back into the blower immediately.
- Do not use the blower supplied with this projector (Z4) to clean the Z3 and Z1X.

(Nozzle colour : this projector (Z4) -- light blue, Z3 and Z1X -- red)

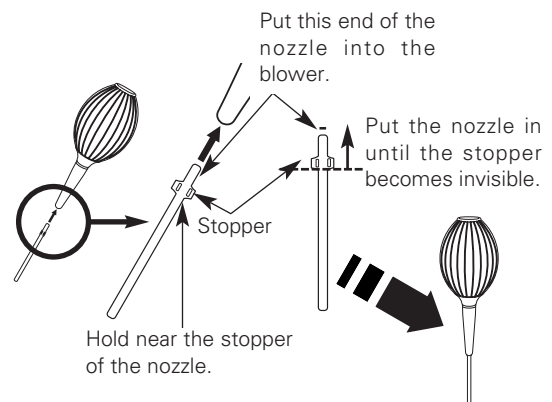
In the unlikely event that something goes wrong (smoke, a strange sound, an abnormal odor, and such) while you are cleaning, turn off and unplug the projector immediately, then call the dealer where you purchased the projector or service center.

If the nozzle is pulled out

The nozzle has the stopper. Put the stopper-side of the nozzle into the blower. Put the nozzle firmly into the blower until the stopper becomes invisible.

When putting the nozzle into the blower, hold near the stopper so that it will not break.

Make sure not to attempt to pull the nozzle out of the blower.



Clean by using the Cleaning function in the Setting Menu

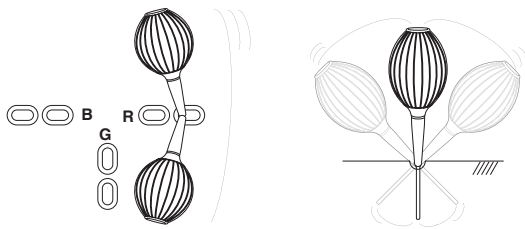
- 1 Turn the projector on and press the MENU button to display the On-Screen Menu. Select the Setting Menu with the Point ▲▼ buttons. Press the Point ► or OK buttons to access the sub-menu items.
- 2 Select Cleaning and then press the OK or Point ► buttons. The screen is blacked out temporarily.
- 3 Turn the projector over. Loosen the screw that secures the hole cover, and then open the hole cover.
- 4 Put the blower's nozzle into a hole.
- 5 Blow air into the projector with the blower watching the position of the dust from the screen.
- 6 When cleaning is done, pull the blower out of the hole and replace the hole cover and secure it with the screw.
- 7 Set the projector back into the right position, then press any button on the top control or on remote control to quit the Cleaning function.

* Do not open the hole cover except when you clean the inside of the projector to prevent foreign matters from getting into the projector. If it is open especially while operating the projector, the optical parts could damage.

Which hole to put the nozzle in?

When you look at the screen:

- When a red spot (dust) is showed up, put the nozzle into the R panel cleaning holes.
- When a green spot (dust) is showed up, put the nozzle into the G panel cleaning holes.
- When a blue spot (dust) is showed up, put the nozzle into the B panel cleaning holes.

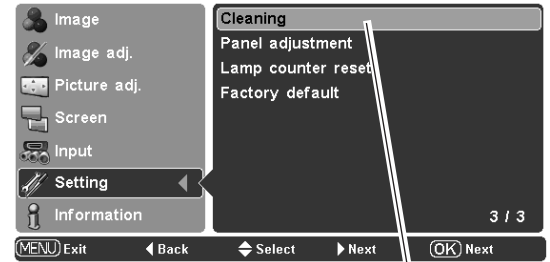


Wave the nozzle back and forth inside of the projector.
(Do not attempt to bend the nozzle.)

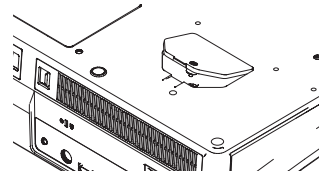


Use only the supplied blower and nozzle.
Do not use a commercially available compressed air duster. It causes the interior of the projector to malfunction with release of cold liquid propellant. We could not guarantee the malfunction of breakage by using other tools.

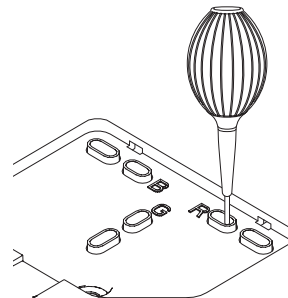
Cleaning



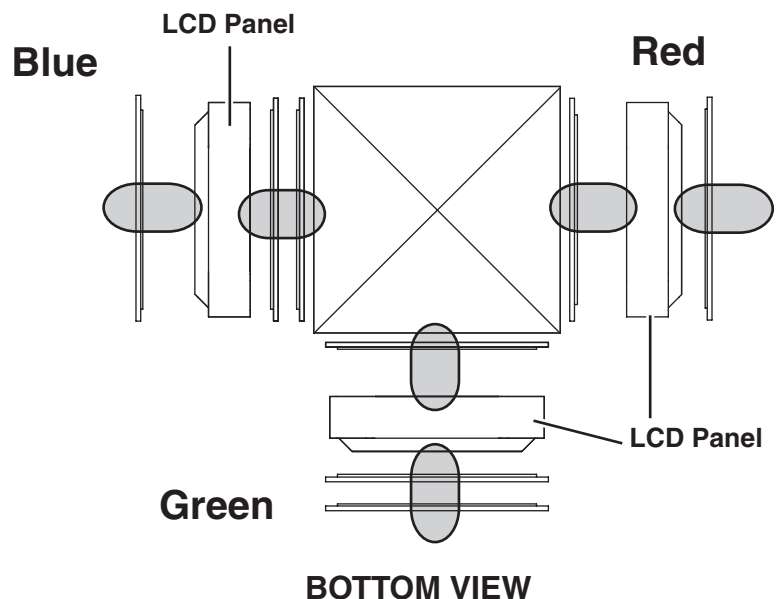
Select Cleaning in the Setting Menu.



Loosen the screw that secures the hole cover.



The nozzle will go no further than a certain point when it is put into the hole. Do not attempt to push the nozzle in further, or it could break and is stuck inside of the projector.



Cleaning the Air Filters

The air filters prevent dust from accumulating on the surface of the optical elements inside the projector. Should the air filters become clogged with dust particles, it will reduce cooling fans' effectiveness and may result in a buildup of internal heat and adversely affect the life of the projector. Clean the air filters by following the steps below.

Cleaning the Air Filter 1 and 2

- 1** Press the latch and release it. Take off the filter covers. Do not try to pull the delicate filter part.
- 2** Pull out the air filters.
When taking out the Air Filter 2, put your finger on the air filters tab and pull.
- 3** Remove dust and dirt with a soft brush or a vacuum cleaner. Be careful not to damage the air filters and do not clean them with water.
When the Air Filter 1 gets dusty and dirty, replace it with a new one. For ordering the replacement filter, contact your sales dealer.
- 4** Put the air filters back into the position and close the filter covers. Do not push the delicate filter part. Make sure that the air filters are properly and fully inserted.



CAUTION

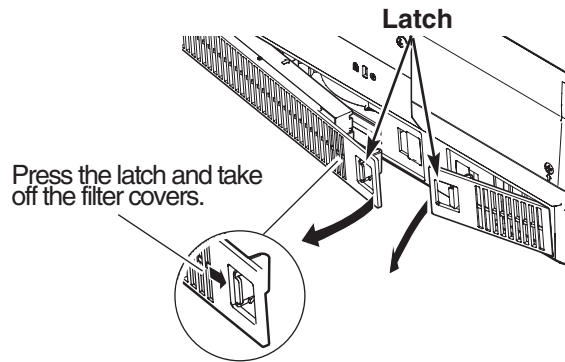
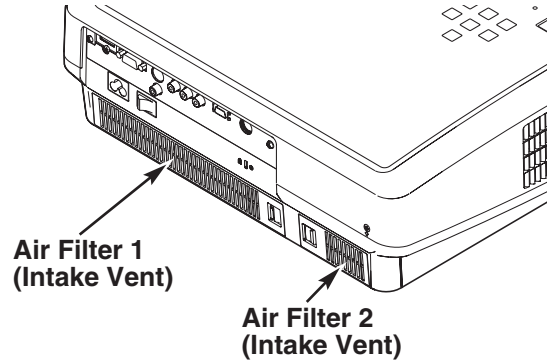
Do not operate the projector with the air filters removed. Dust may accumulate on the LCD panel degrading the picture quality of the projection mirror. Do not put anything into the air intake vents. It may result in malfunction of the projector.

RECOMMENDATION

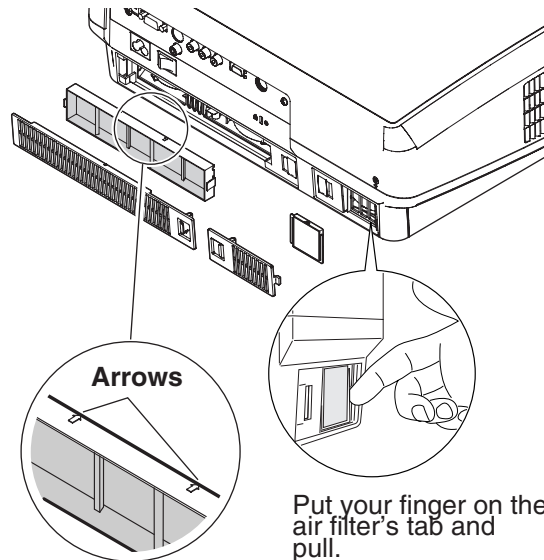
We recommend avoiding dusty/smoky environments when operating the projector. Usage in these environment may cause a poor image quality.

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.

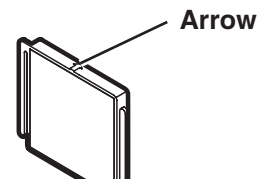
When the symptoms above are noticed, contact your authorized dealer or service station for proper cleaning.



Pull out the air filters.



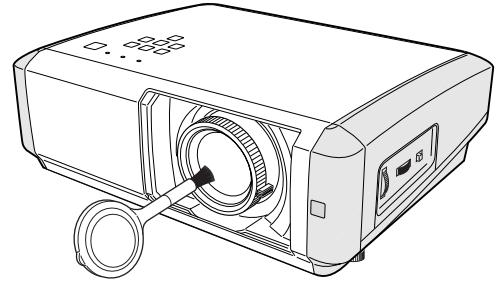
When putting back this air filter, make sure that the arrows on the filter are facing towards the projector.



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 a 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.

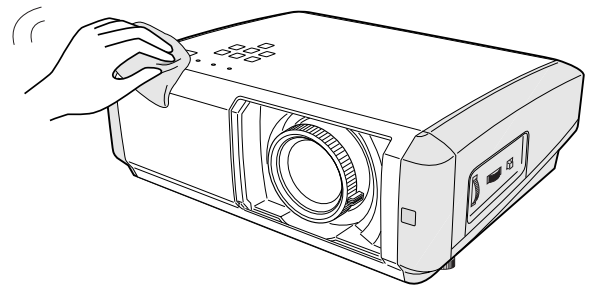


When the projector is not in use, make sure that the automatic slide shutter is closed.

Cleaning the Projector Cabinet

Unplug the AC power cord before cleaning.

Gently wipe the projector body with a dry soft cloth. When the cabinet is heavily soiled, apply a small amount of mild detergent and finish with a dry soft 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 it in an appropriate carrying case to protect it from dust and scratches.

■ Lamp Replacement

When the life of the projection lamp of this projector draws to an end, the LAMP REPLACE indicator emits a yellow light. If this indicator lights yellow, replace the lamp with a new one promptly.

The time when the LAMP REPLACE indicator lights is depending on the lamp mode.

This indicator lights yellow when the life of the projection lamp draws to an end.

Top Control



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.

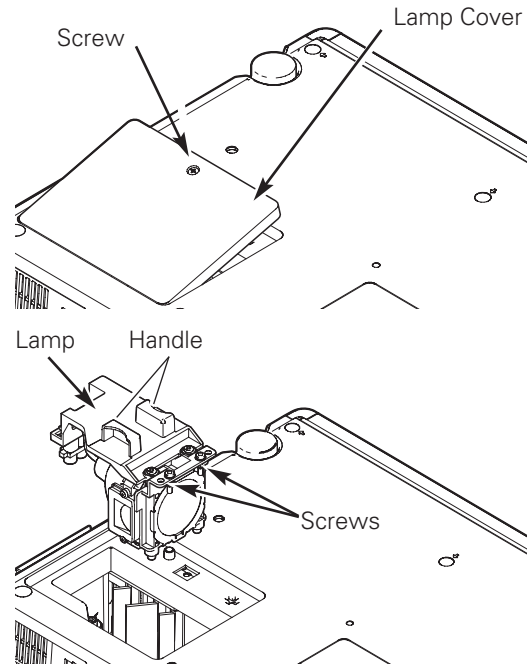


CAUTION

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

Follow these steps to replace the lamp.

- 1** Turn off the projector and unplug the AC power cord. Allow the projector to cool for at least 45 minutes.
- 2** Turn the projector over. Loosen the screw that secures the lamp cover, and then open the lamp cover.
- 3** Loosen the two (2) screws that secure the lamp. Lift the lamp out of the projector by using the built in handle.
- 4** Replace the lamp with a new one and secure it with the two (2) screws. Make sure that the lamp is set properly. Replace the lamp cover and secure it with the screw.
- 5** Connect the AC power cord to the projector and turn on the projector.
- 6** **Reset the Lamp replacement counter.**
See "Lamp Replacement Counter" on the next page.



LAMP HANDLING PRECAUTIONS

This projector uses a high-pressure lamp which must be handled carefully and properly. Improper handling may result in accidents, injury, or create a fire hazard.

- Lamp lifetime may differ from lamp to lamp and according to the environment of use. There is no guarantee of the same lifetime for each lamp. Some lamps may fail or terminate their lifetime in a shorter period of time than other similar lamps.
- If the projector indicates that the lamp should be replaced, i.e., if the LAMP REPLACE indicator lights up, replace the lamp with a new one IMMEDIATELY after the projector has cooled down.
(Follow carefully the instructions in the Lamp Replacement section of this manual.) Continuous use of the lamp with the LAMP REPLACE indicator lighted may increase the risk of lamp explosion.
- A Lamp may explode as a result of vibration, shock or degradation as a result of hours of use as its lifetime draws to an end. Risk of explosion may differ according to the environment or conditions in which the projector and lamp are being used.

IF A LAMP EXPLODES, THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE TAKEN.

If a lamp explodes, disconnect the projector's AC plug from the AC outlet immediately. Contact an authorized service station for a checkup of the unit and replacement of the lamp. Additionally, check carefully to ensure that there are no broken shards or pieces of glass around the projector or coming out from the cooling air circulation holes. Any broken shards found should be cleaned up carefully. No one should check the inside of the projector except those who are authorized trained technicians and who are familiar with projector service. Inappropriate attempts to service the unit by anyone, especially those who are not appropriately trained to do so, may result in an accident or injury caused by pieces of broken glass.

ORDER REPLACEMENT LAMP

Replacement lamp can be ordered through your dealer. When ordering a projection lamp, give the following information to the dealer.

- **Model No. of your projector** : **PLV-Z4**
- **Replacement Lamp Type No.** : **POA-LMP94**
(Service Parts No. 610 323 5998)

Lamp Replacement Counter

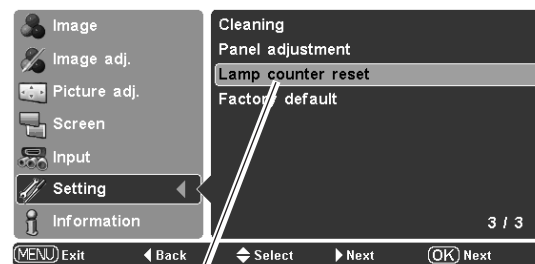
Be sure to reset the lamp replacement counter after the lamp is replaced. When the lamp replacement counter is reset, the LAMP REPLACE indicator stops lighting.

- 1 Turn the projector on and press the MENU button to display the On-Screen Menu. Select the Setting Menu with the Point ▲▼ buttons. Press the Point ► button to access the sub-menu items.
- 2 Select Lamp counter reset and then press the the OK or Point ► buttons. "Lamp replacement counter reset?" will appear. Select [Yes] and then press the OK or Point ► buttons.
- 3 Another confirmation dialog box appears, and select [Yes] to reset the Lamp replacement counter.

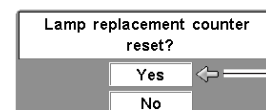
✓ **Note:**

- Do not reset the Lamp replacement counter without implementing lamp replacement. Be sure to reset the Lamp replacement counter only after replacing the lamp.

Lamp counter reset



Select Lamp counter reset and press the OK or Point ► buttons. "Lamp replacement counter reset?" will appear.



Select [Yes] and press the OK or Point ► buttons, then another confirmation box will appear.



Select [Yes] again to reset the lamp counter.

How to check lamp used time

The LAMP REPLACE indicator will light when the total lamp used time reaches 3,000 hours. This is to indicate that lamp replacement is required. The total lamp used time is calculated by using the below expression;

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

T_{eco} : used time in Eco mode

T_{normal} : used time in Normal/Auto1/Auto2 mode

You can check the lamp counter following procedure.

- 1 Press and hold the **POWER ON-OFF** button on the projector or the remote control unit for more than 20 seconds.
- 2 The projector used time and lamp used time will be displayed on the screen briefly.

You can also check "Lamp Time" in the "Information Menu". This value is actual lamp used time.

$$\text{"Lamp Time"} = T_{\text{eco}} + T_{\text{normal}}$$

Lamp Counter Display

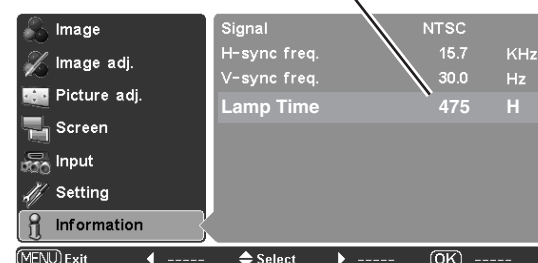
Counter	
Projector	475H
Lamp	
Normal	100H
Eco	375H
Corresponding value	525H

Projector used time

Total lamp used time

Total lamp used time (actual)

Information Menu



■ Mechanical disassemblies

Disassemble 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 lose of performance and product safety.

The wiring method of the leads and ferrite cores should be returned exactly the same state as the original, otherwise it may cause lose of performance and product safety.

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

1 Cabinet top ass'y removal.

1. Remove the 3 screws-A(M3x8) from the bottom side.
2. Remove the 2 screws-B(M3x8), remove the screw-C(T3x8), remove the screw-D(M3x6) and remove the Cabinet top ass'y.

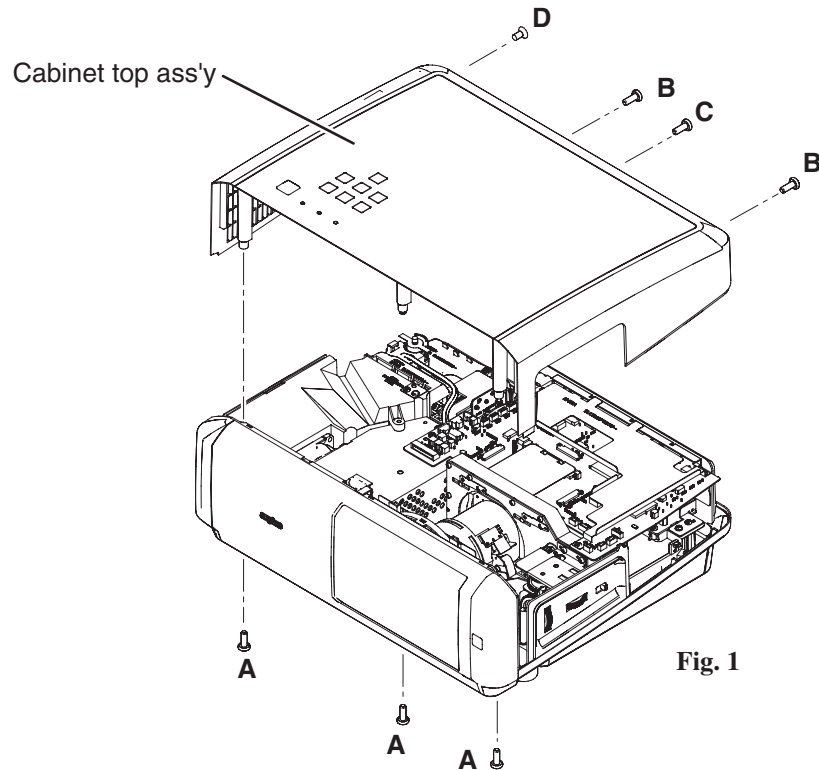


Fig. 1

2 Cabinet top ass'y disassemblies.

1. Remove the 4 screws-A(T3x8).
2. Remove the Control board, remove the Control button, and Decoration inlay LED.

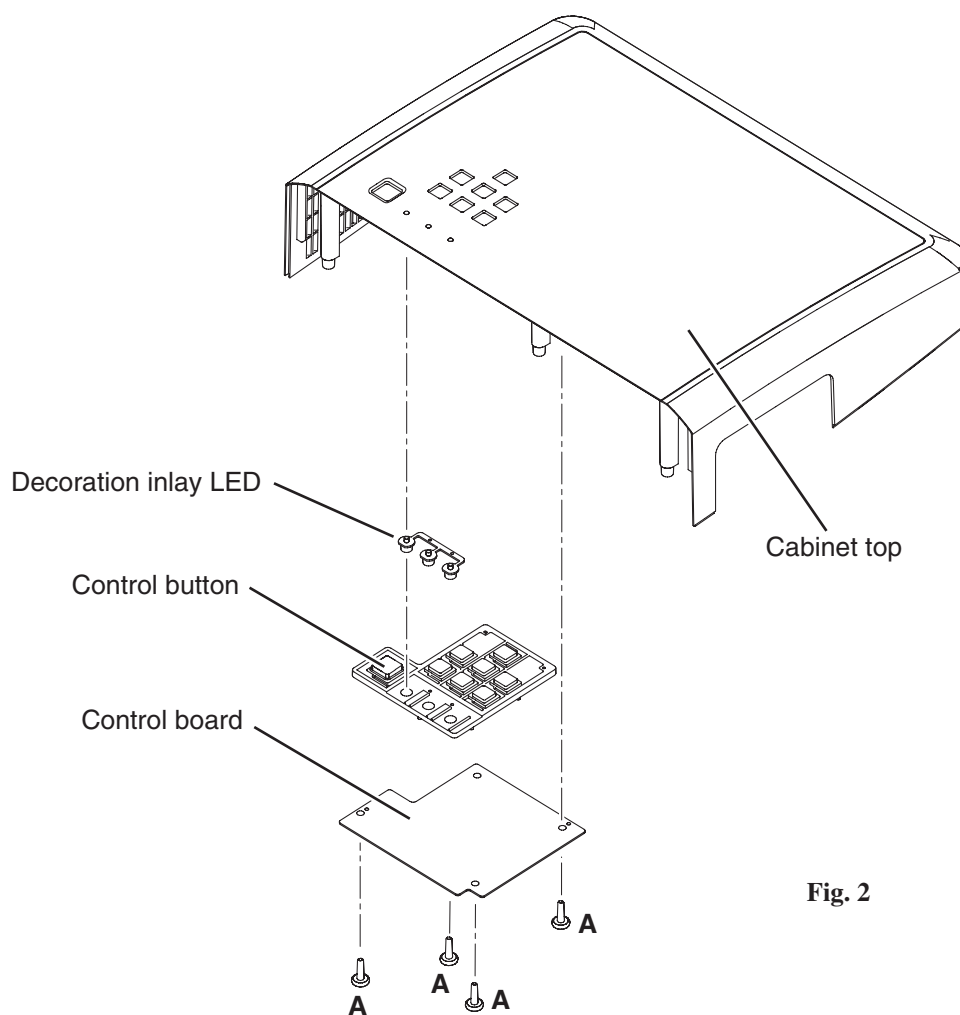
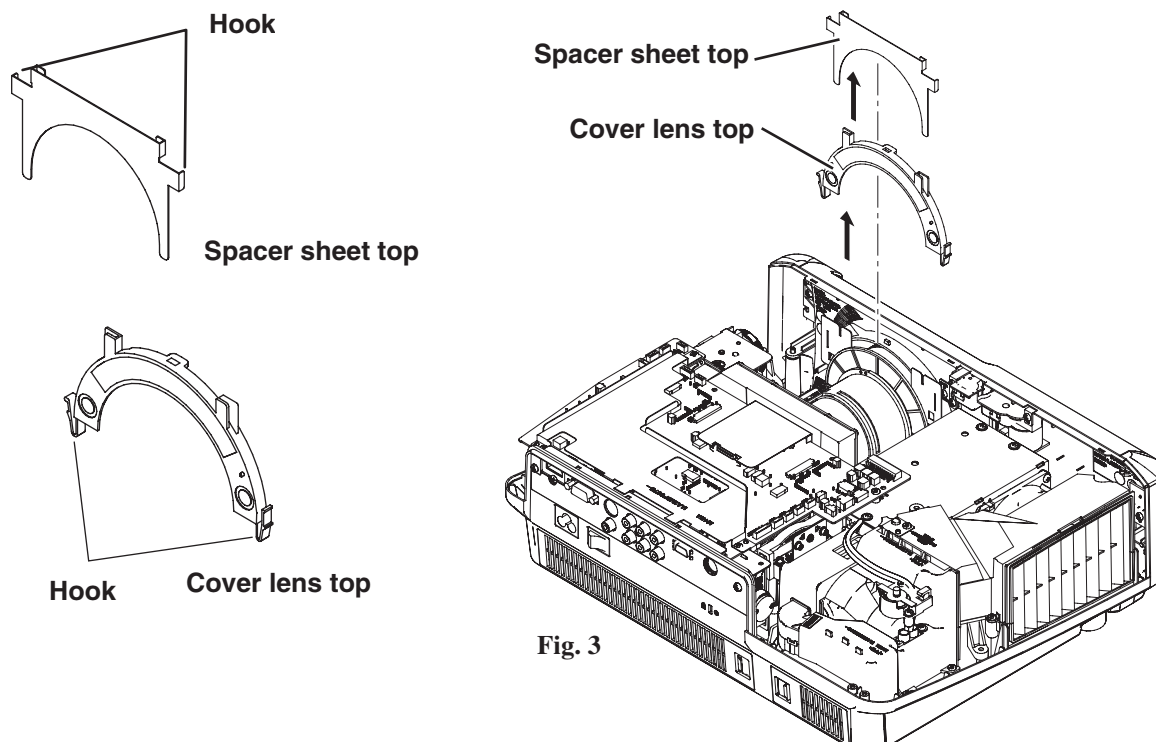


Fig. 2

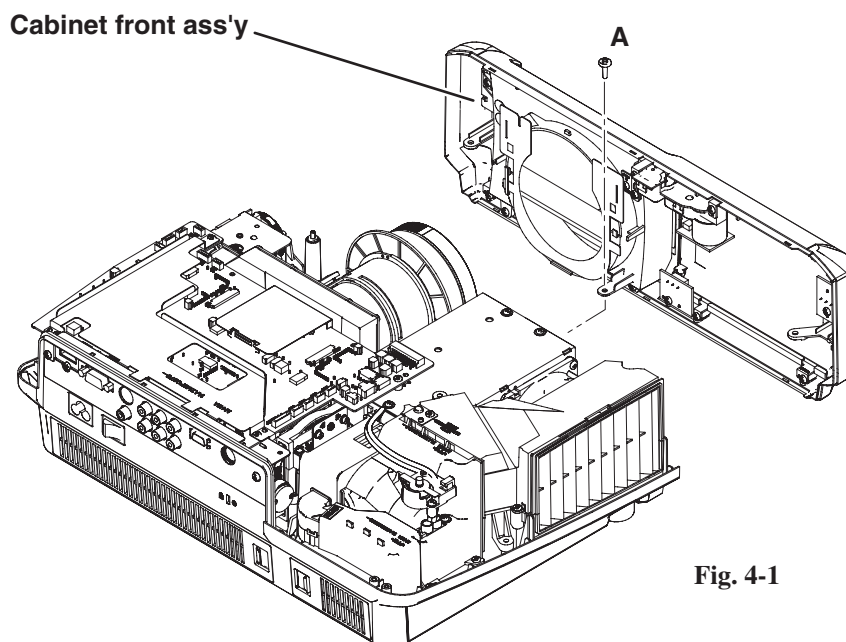
3 Cover lens top and spacer removal.

1. Unhook the stoppers and remove the Spacer sheet top upward.
1. Unhook the stoppers and remove the Cover lens top upward.



4-1 Cabinet front ass'y removal.

1. Remove the screw-A(T3x8) and remove the Cabinet front ass'y.



4-2 Cabinet front ass'y disassemblies-1.

1. Remove the screw-A(M3x6).
2. Remove the screws-C(T3x8) and remove the Mounting shutter.
3. Remove the 3 screws-B(T3x8) and remove the Cover lens bottom.

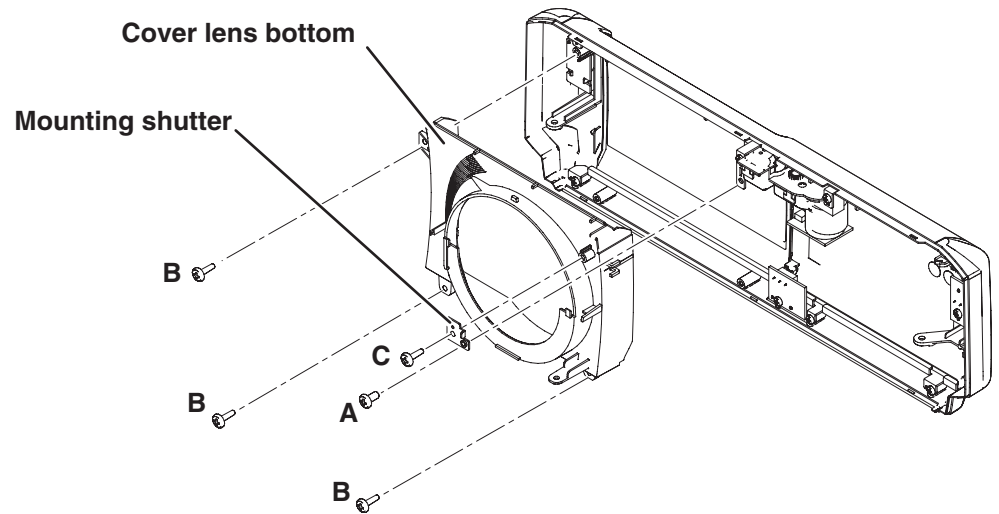


Fig. 4-2

4-3 Cabinet front ass'y disassemblies-2.

1. Remove the tape, unhook the stoppers and remove the R/C board.
1. Remove the screw-A(T3x8) and remove the Door sw board-A.
1. Remove the screw-B(T3x8) and remove the Door sw board-B.

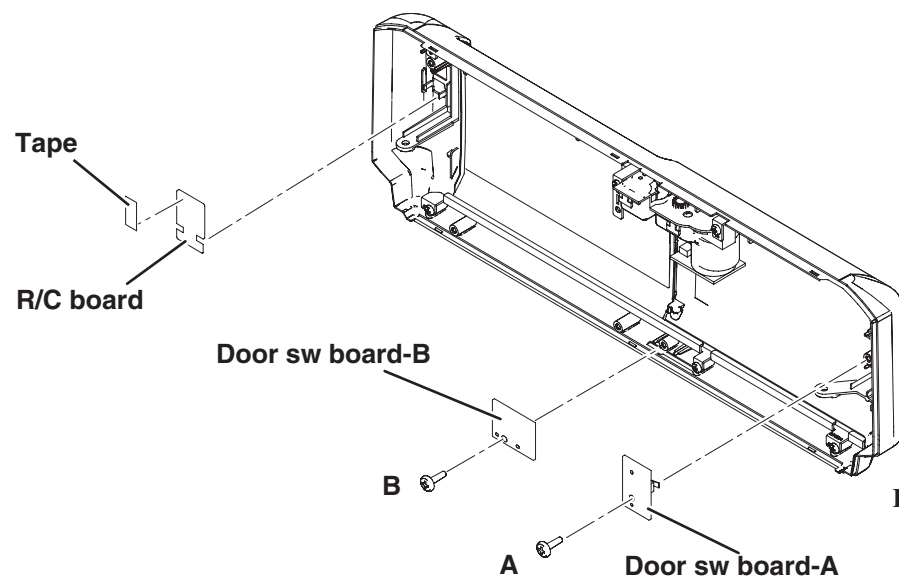


Fig. 4-3

4-4 Cabinet front ass'y disassemblies-3.

1. Remove the 3 screws-A(T3x8) and remove the Shutter rail bottom.
2. Remove the 2 screws-B(T3x8) and remove the Shutter ass'y.

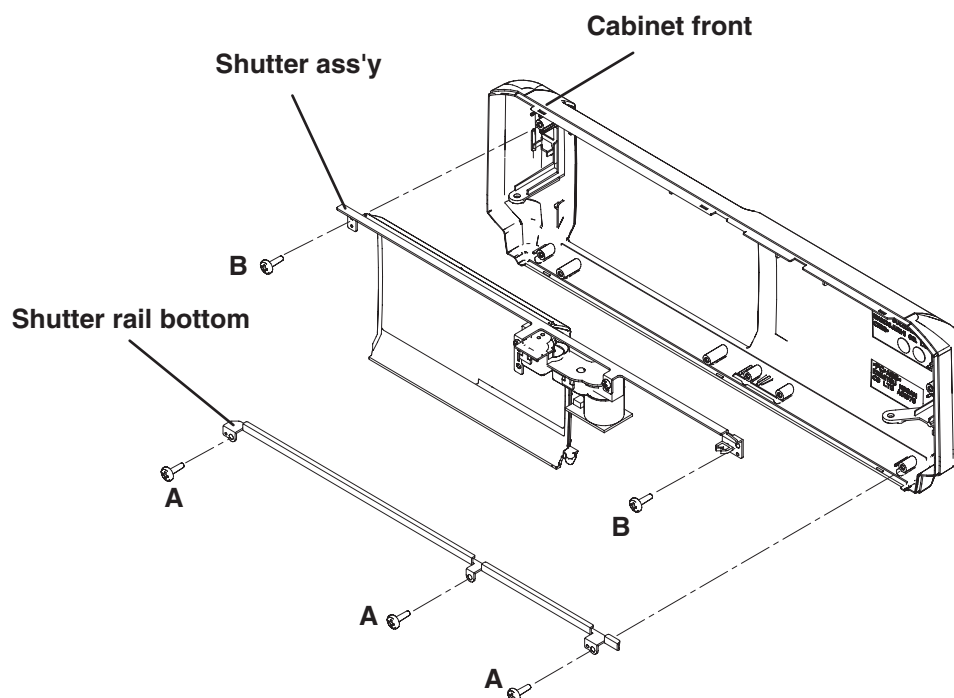


Fig. 4-4

4-5 Cabinet front ass'y disassemblies-4.

1. Remove the Shutter panel.
2. Remove the 2 screws-A(T3x8) and remove the Shutter motor ass'y.

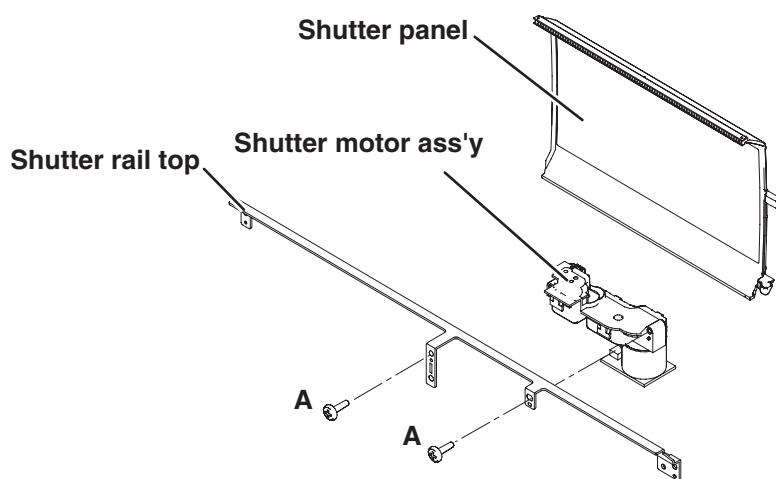


Fig. 4-5

5 Main board removal.

1. Remove the 4 screws-A(M3x6), remove the Shield plate and remove the Main board.

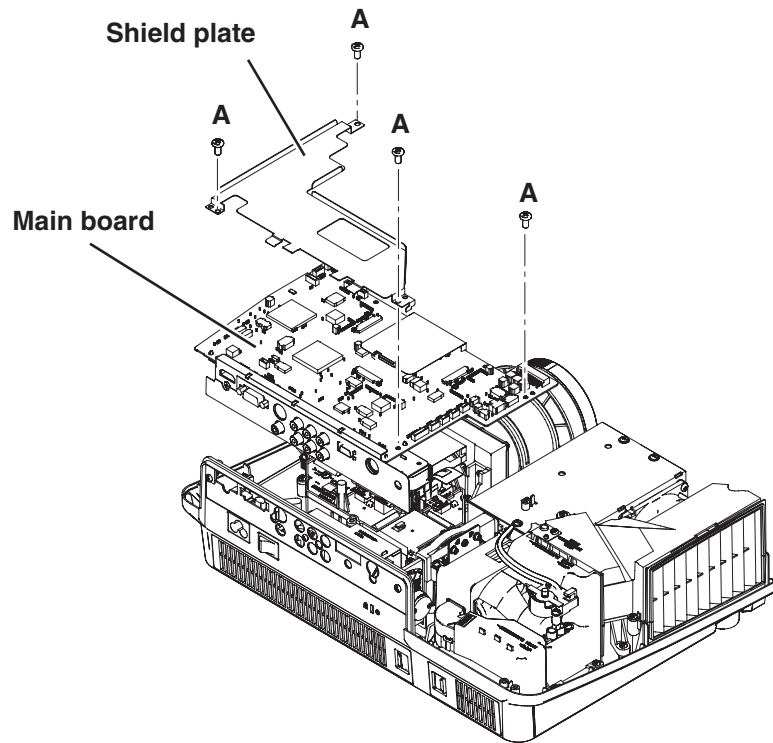


Fig. 5

6-1 Lamp exhaust duct ass'y removal.

1. Remove the screw-A(M3x6), remove 2 screws-B(T3x8) and remove the Lamp exhaust duct ass'y.

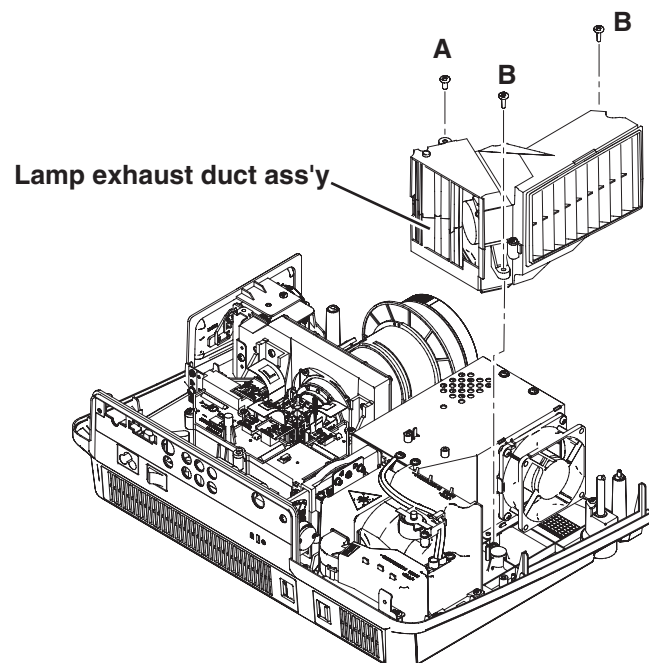


Fig. 6-1

6-2 Lamp exhaust duct ass'y disassemblies-1.

1. Remove the 4 screws-A(T3x8) and remove the Cover duct top.
2. Remove the screw-B(T3x8) and remove the Shield plate.
3. Remove the Cover duct side.

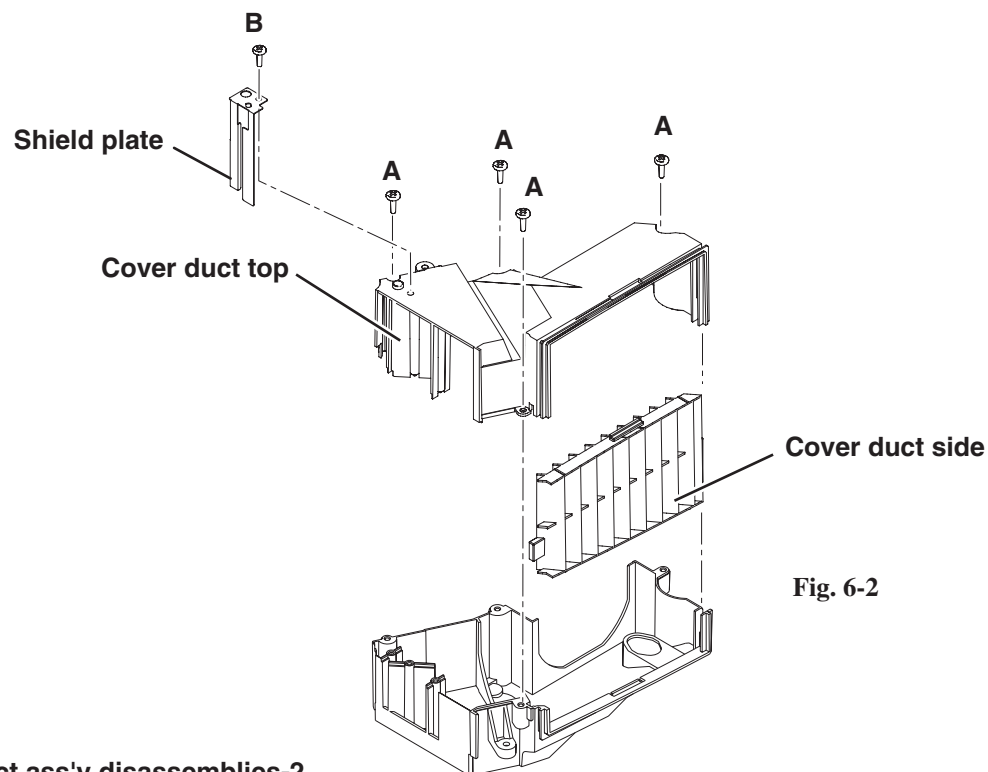


Fig. 6-2

6-3 Lamp exhaust duct ass'y disassemblies-2.

1. Remove the 3 screws-A(T3x8) and remove the Fan(FN903) ass'y.
2. Remove the 4 screws-B(M3x9.2) and remove the Fan(FN903).

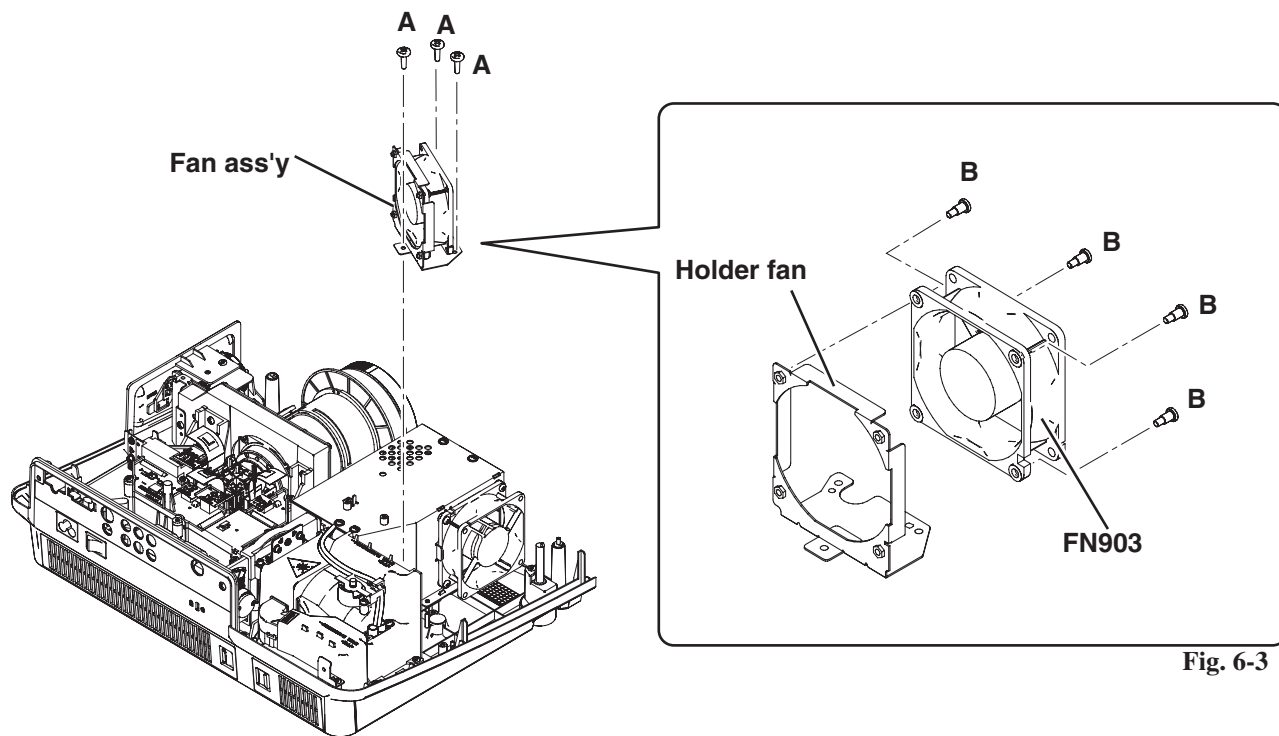
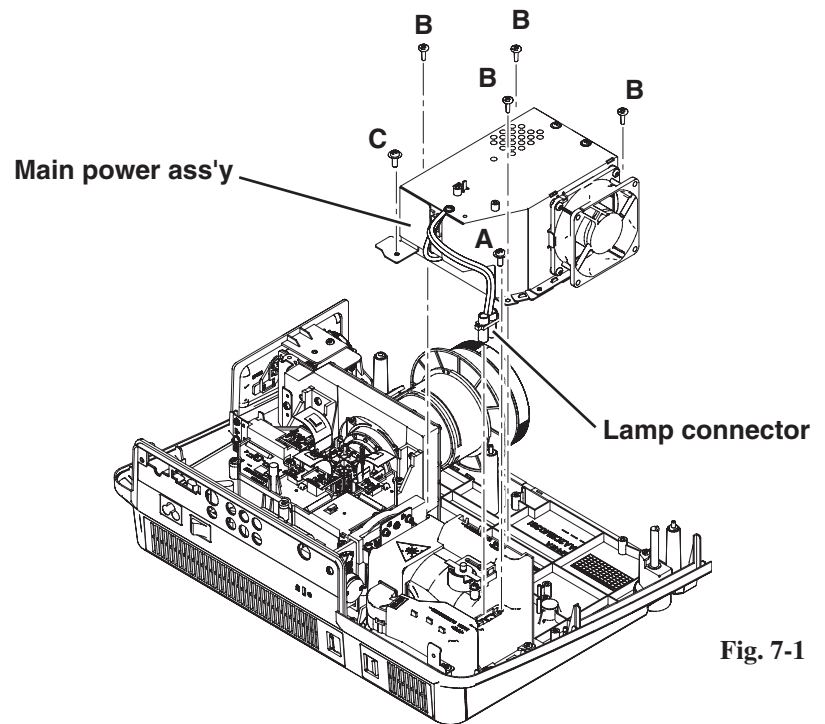


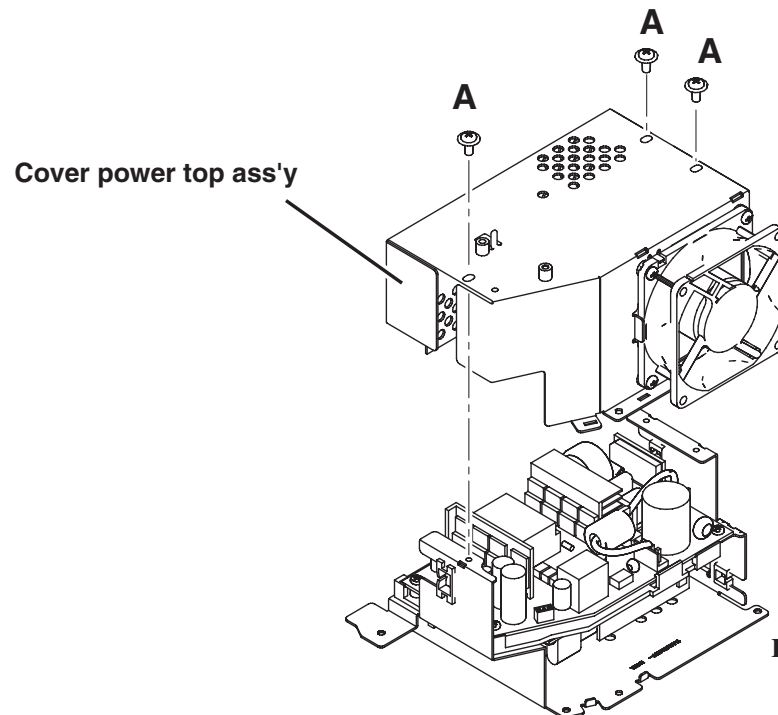
Fig. 6-3

7-1 Main power ass'y removal.

1. Remove the screw-A(M3x8) and disconnect the lamp connector.
2. Remove the 4 screws-B(T3x8), remove the screw-C(M3x6) and remove the Main power ass'y .

**Fig. 7-1****7-2 Main power ass'y disassemblies-1.**

1. Remove the 3 screws-A(M3x6) and remove the Cover power top ass'y.

**Fig. 7-2**

7-3 Main power ass'y disassemblies-2.

1. Remove the 4 screws-A(M3x9.2) and remove the Fan(FN901).

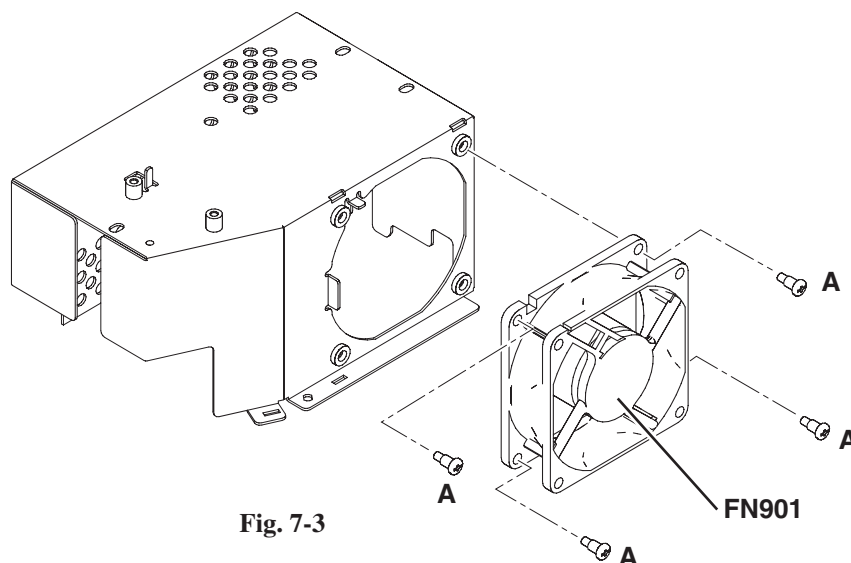


Fig. 7-3

7-4 Main power ass'y disassemblies-3.

1. Remove the 3 screws-A(M3x6) and remove the Power board.
2. Remove the 2 screws-B(T3x8), remove the Ballast unit and remove the Holder.

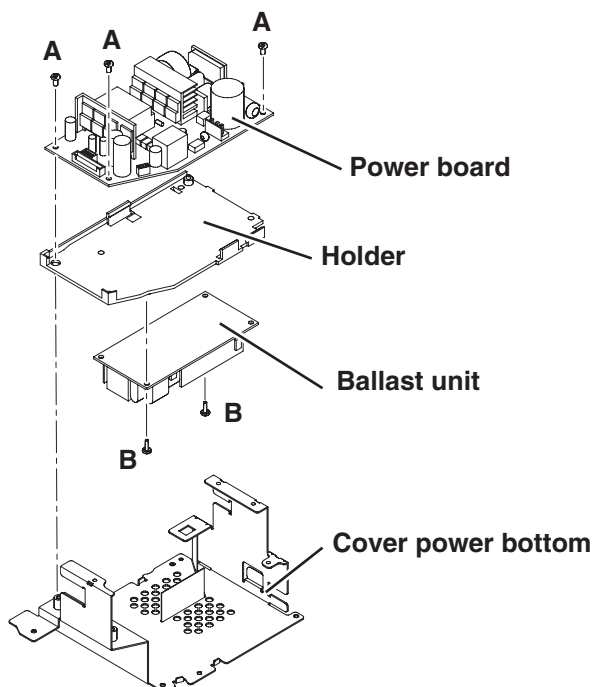
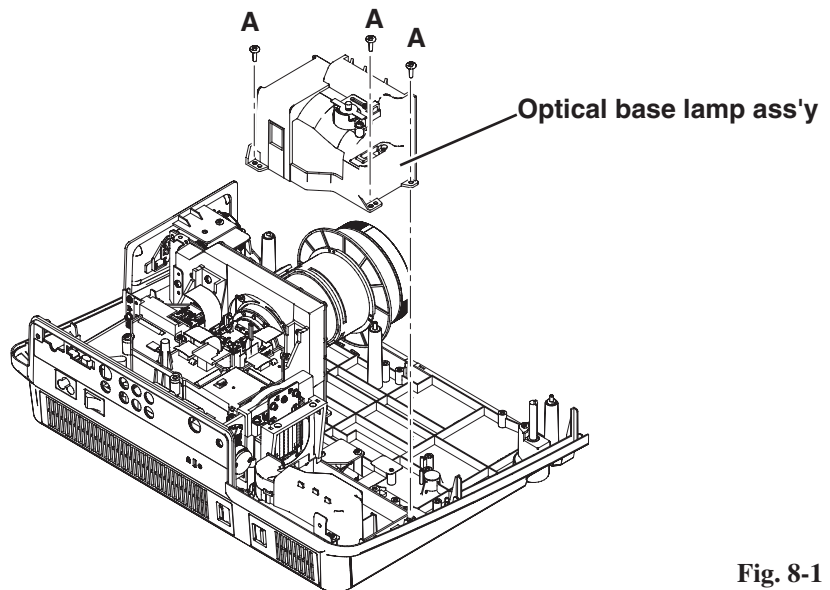


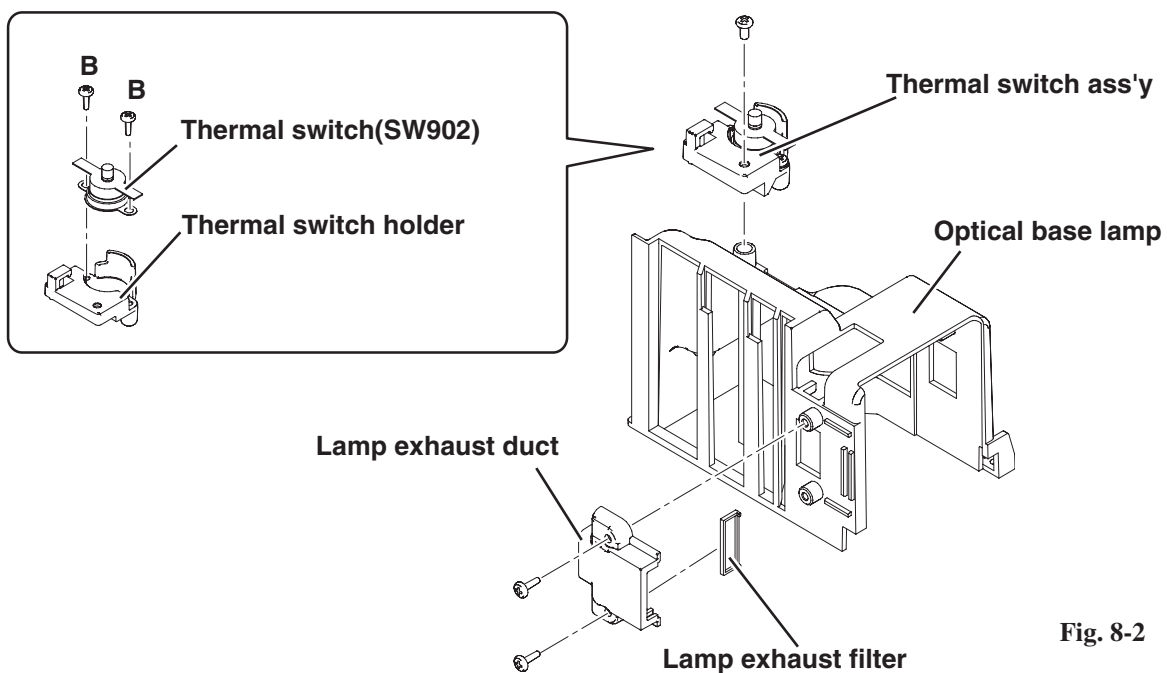
Fig. 7-4

8-1 Optical base lamp ass'y removal.

1. Remove the 3 screws-A(T3x8) and remove the Optical base lamp ass'y.

**Fig. 8-1****8-2 Optical base lamp ass'y disassemblies.**

1. Remove the screw-A(M3x6) and remove the thermal switch ass'y.
2. Remove the 2 screws-B(T3x8) and remove the Thermal switch(SW902).
3. Remove the 2 screws-C(T3x8), remove the Lamp exhaust duct and remove the Lamp exhaust filter.

**Fig. 8-2**

9 Lamp ass'y and filters removal.

1. Loosen the screw-A and remove the Blower cover.
2. Loosen the screw-B and remove the Lamp cover.
3. Loosen the 2 screws-C and remove the Lamp ass'y.
4. Remove the Filter cover 1 and filter1.
5. Remove the Filter cover 2 and filter2.

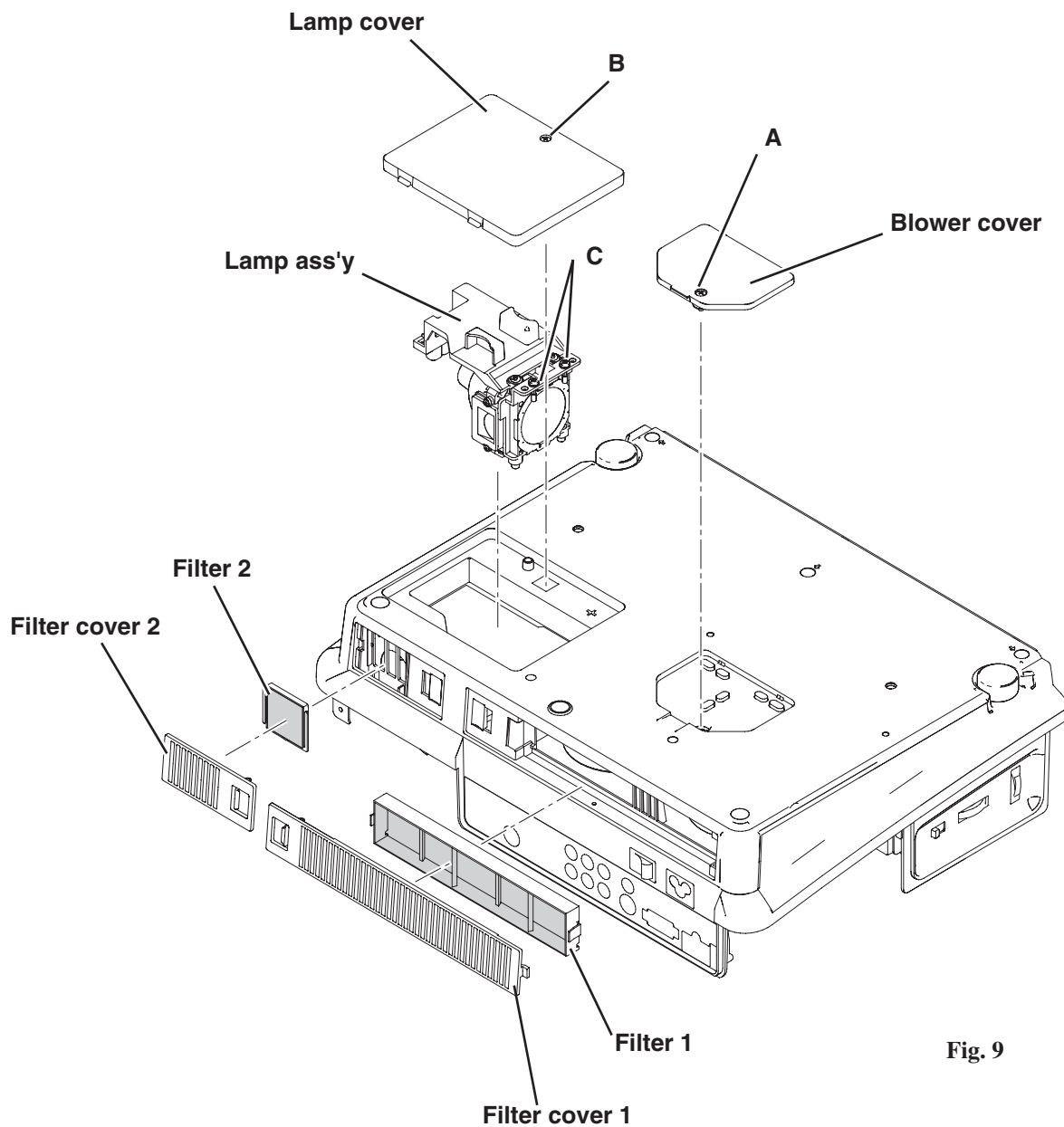


Fig. 9

10-1 Lamp duct ass'y removal.

- 1.Remove the screw-A(T3x8) and remove the Stopper.
- 2.Remove the 2 screws-B(T3x8) and remove the Lamp duct ass'y.

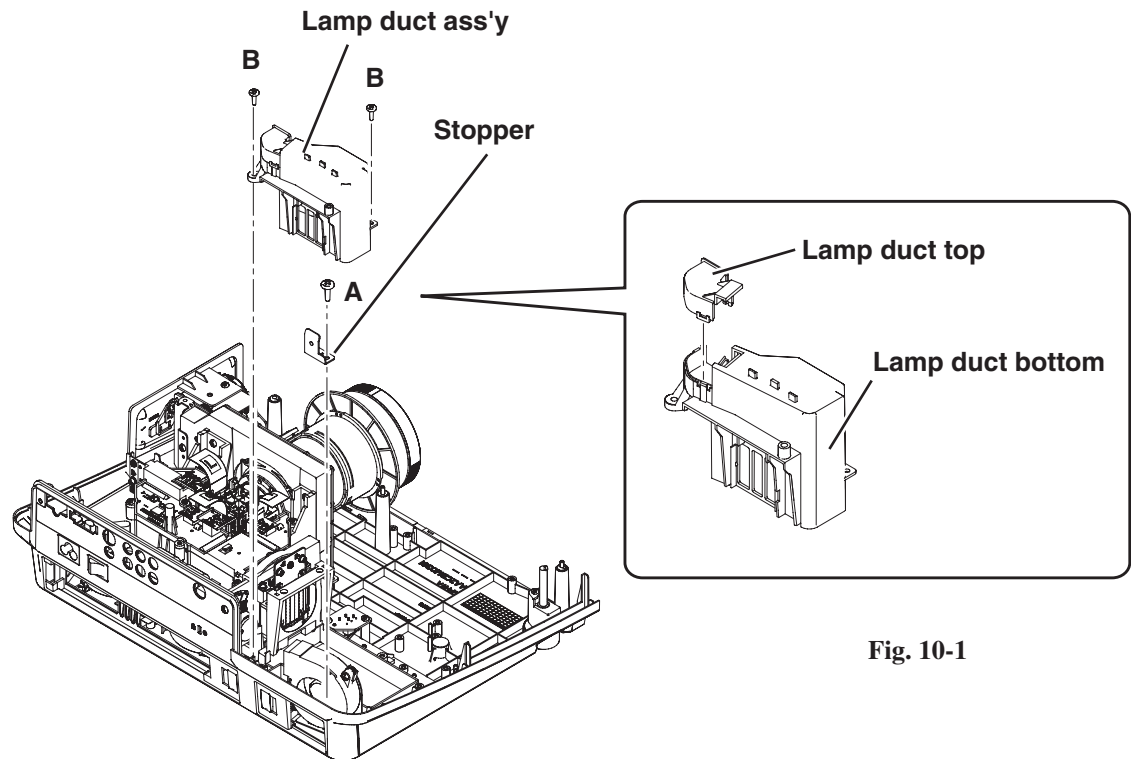


Fig. 10-1

10-2 Lamp cooling Fan(FN902) ass'y removal.

- 1.Remove the 2 screws-A(T3x8) and remove the Lamp cooling fan(FN902) ass'y.

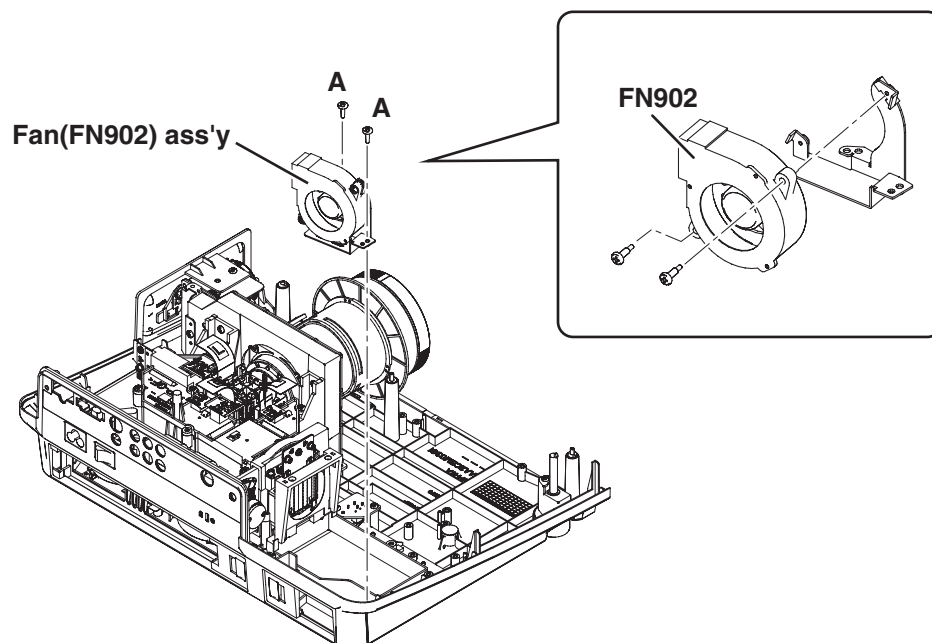


Fig. 10-2

11 Optical unit removal.

1. Remove the screw-A(M3x6), remove the 5 screws-B(T3x10), remove the Optical unit and remove the Spacer sheet bottom.

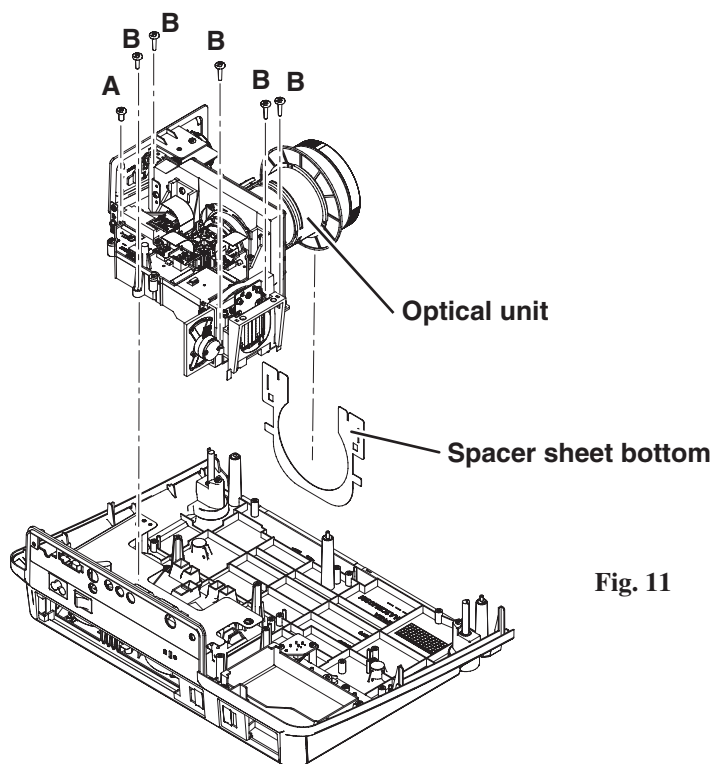


Fig. 11

12 Filter board removal.

1. Remove the 4 screws-A(T3x8), remove the screw-B(M3x6) and remove the Filter board.

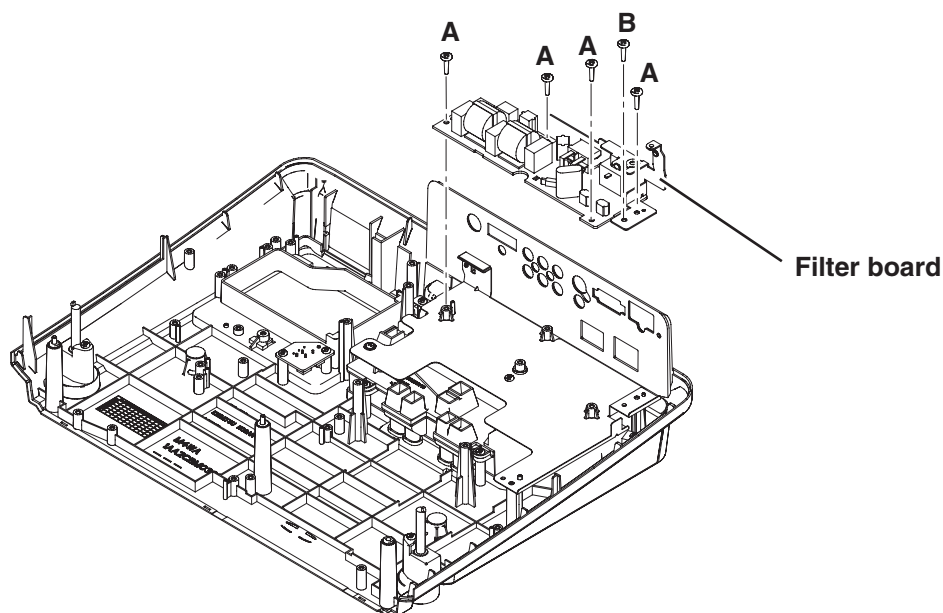
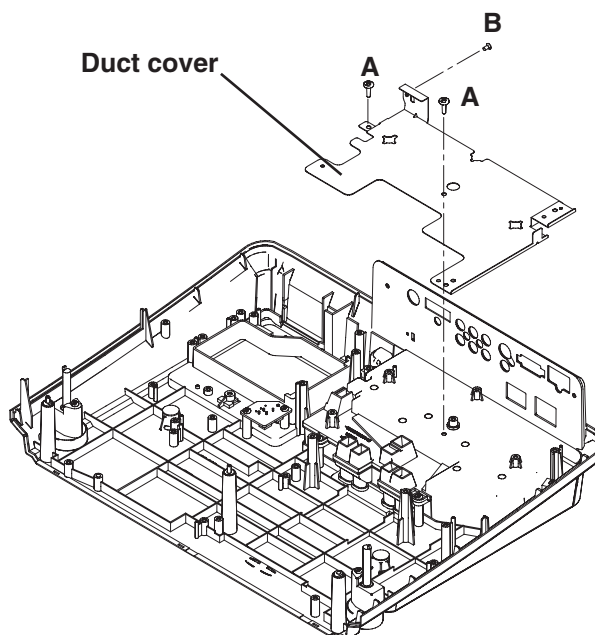


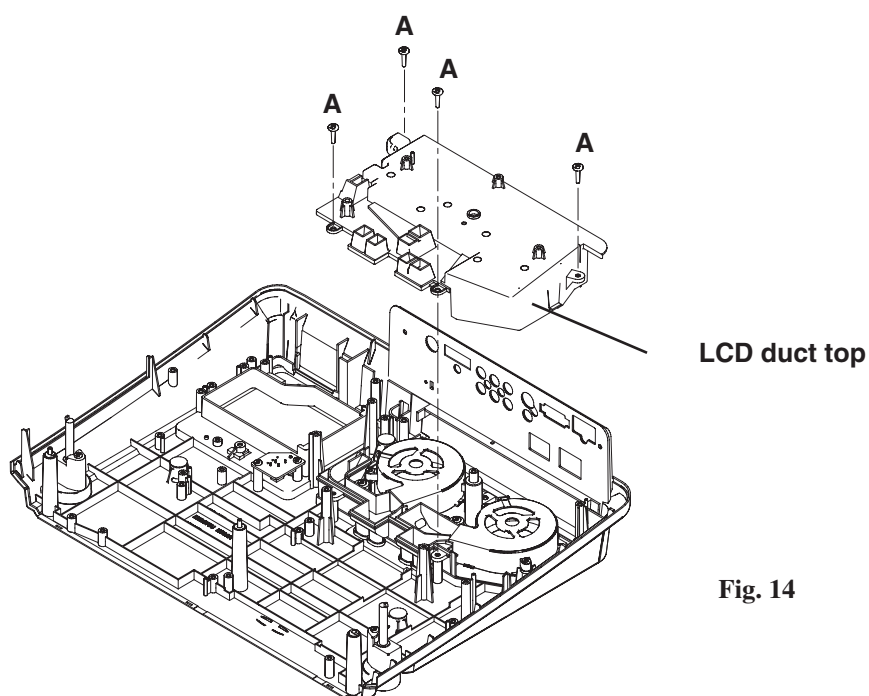
Fig. 12

13 Duct cover removal.

1.Remove the 2 screws-A(T3x8), remove the screw-B(M2x4), and remove the Duct cover.

**Fig. 13****14 LCD duct top removal.**

1.Remove the 4 screws-A(T3x10) and remove the LCD duct top.

**Fig. 14**

15 Fans(FN904, FN905) removal.

1.Remove the 4 screws-A(M2x11.2) and remove the Fans(FN904 and FN905).

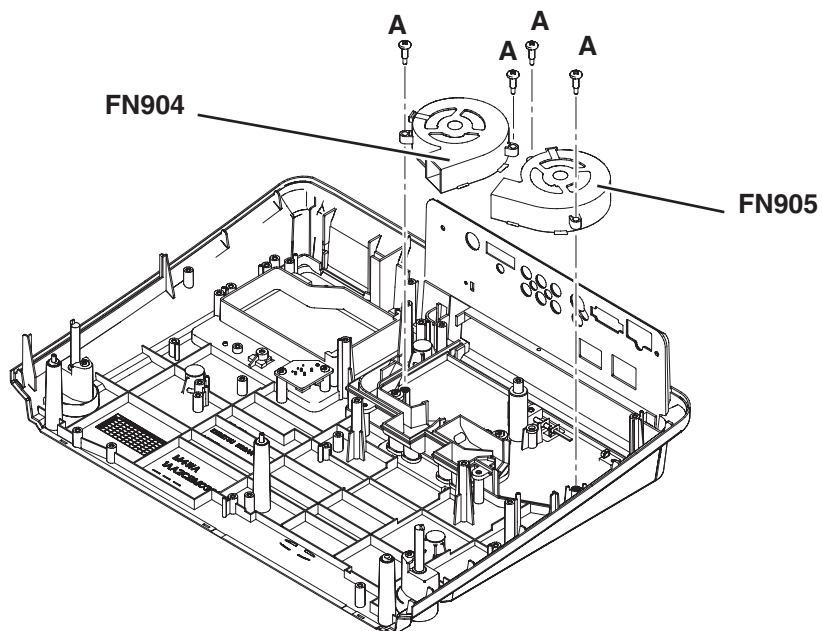


Fig. 15

16 LCD duct bottom removal.

1.Remove the 2 screws-A(T3x10) and remove the LCD duct bottom.

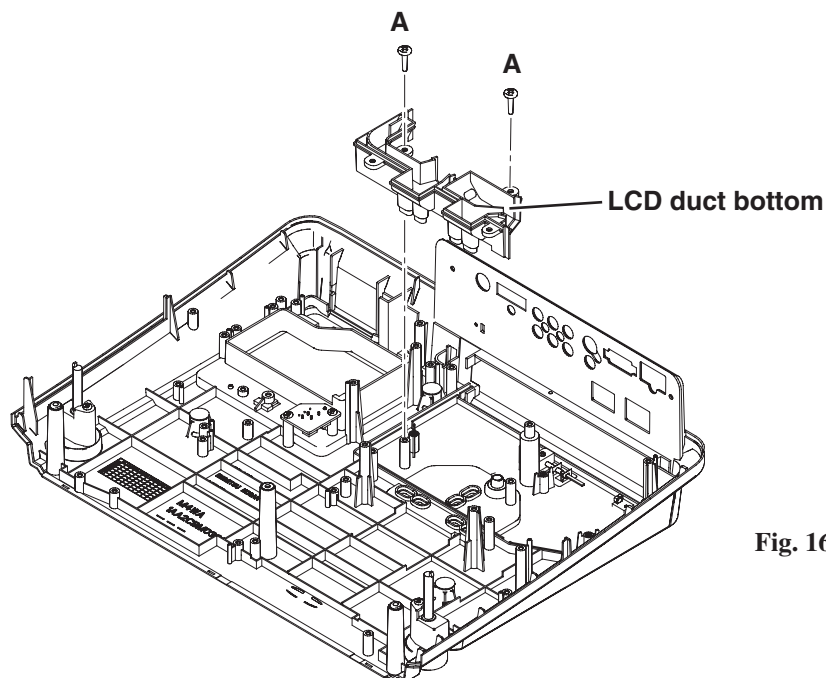
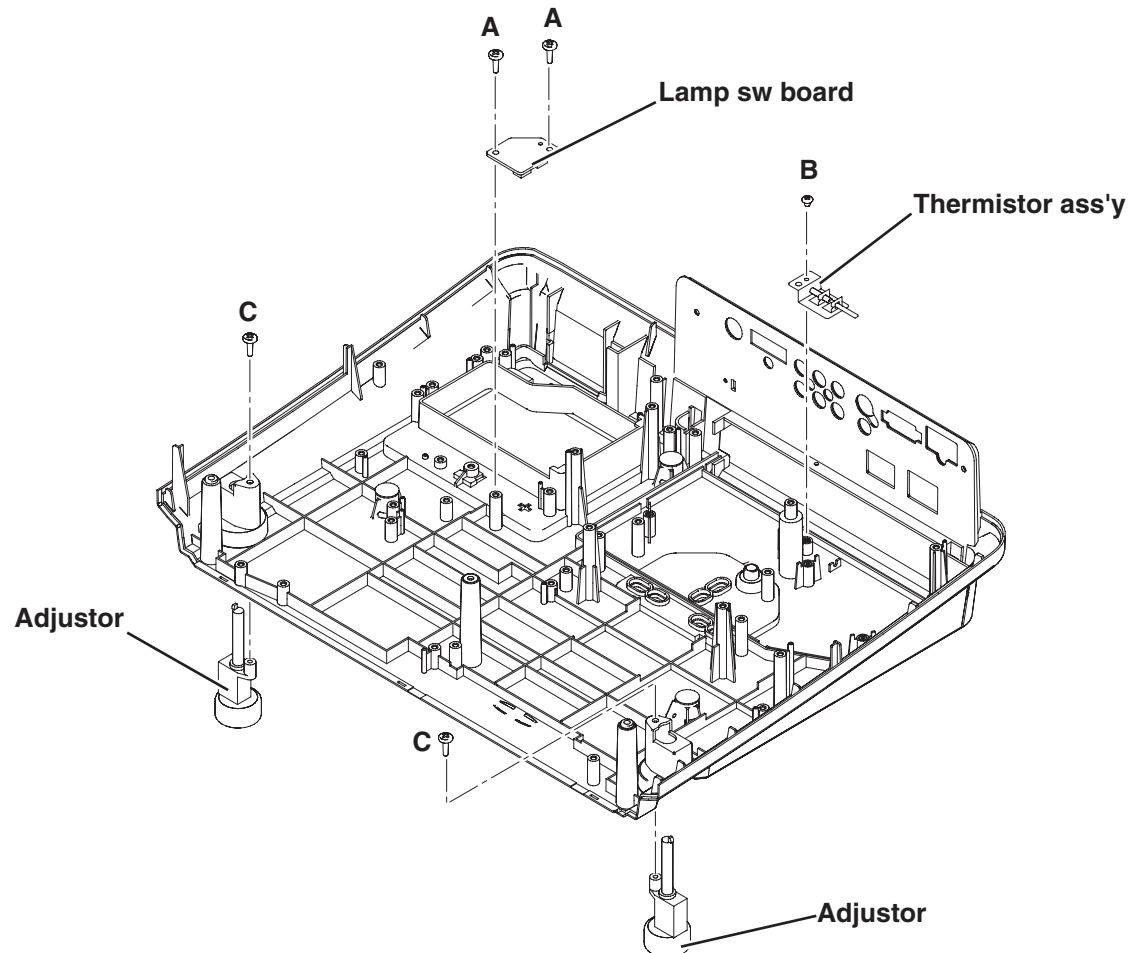


Fig. 16

17 Cabinet bottom ass'y disassemblies.

- 1.Remove the 2 screws-A(T3x8) and remove the Lamp sw board.
- 2.Remove the screw-B(M2x2) and remove the Thermistor ass'y(TH902).
- 3.Remove the 2 screws-C(T3x8) and remove the Adjusters(R & L).

**Fig. 17**

■ Optical parts disassemblies

18 Lens shift panel removal.

1.Remove the screw-A(M3x6), remove the Lens shift panel and remove the Slide cover.

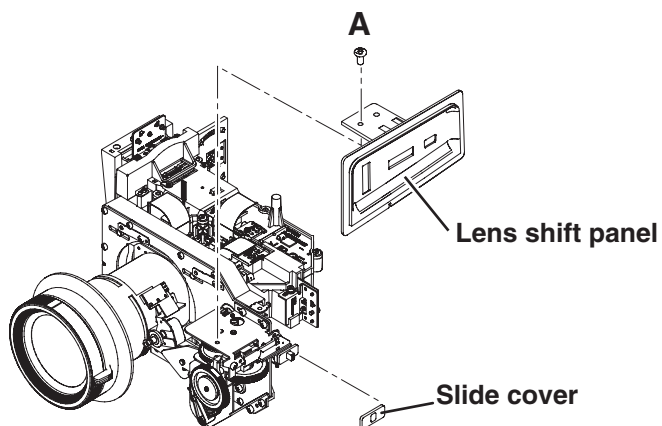


Fig. 18

19-1 Integrator lens ass'y removal.

1.Remove the 2 screws-A(M2.5x5) and remove the Integrator lens (IN) ass'y.

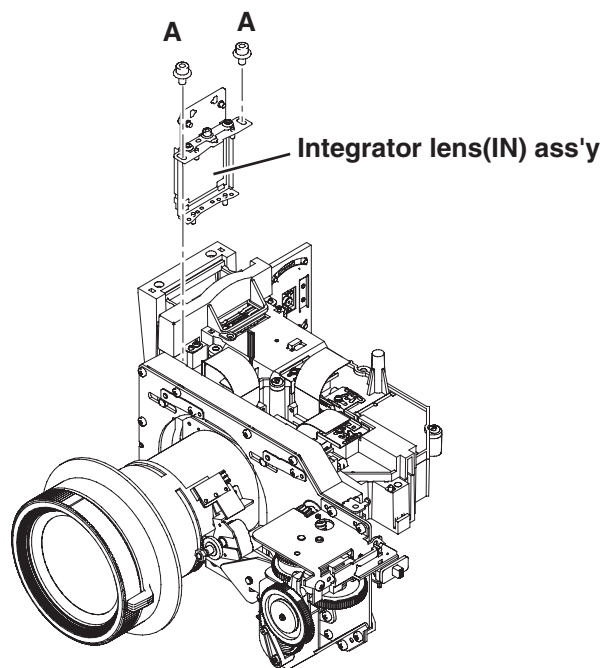
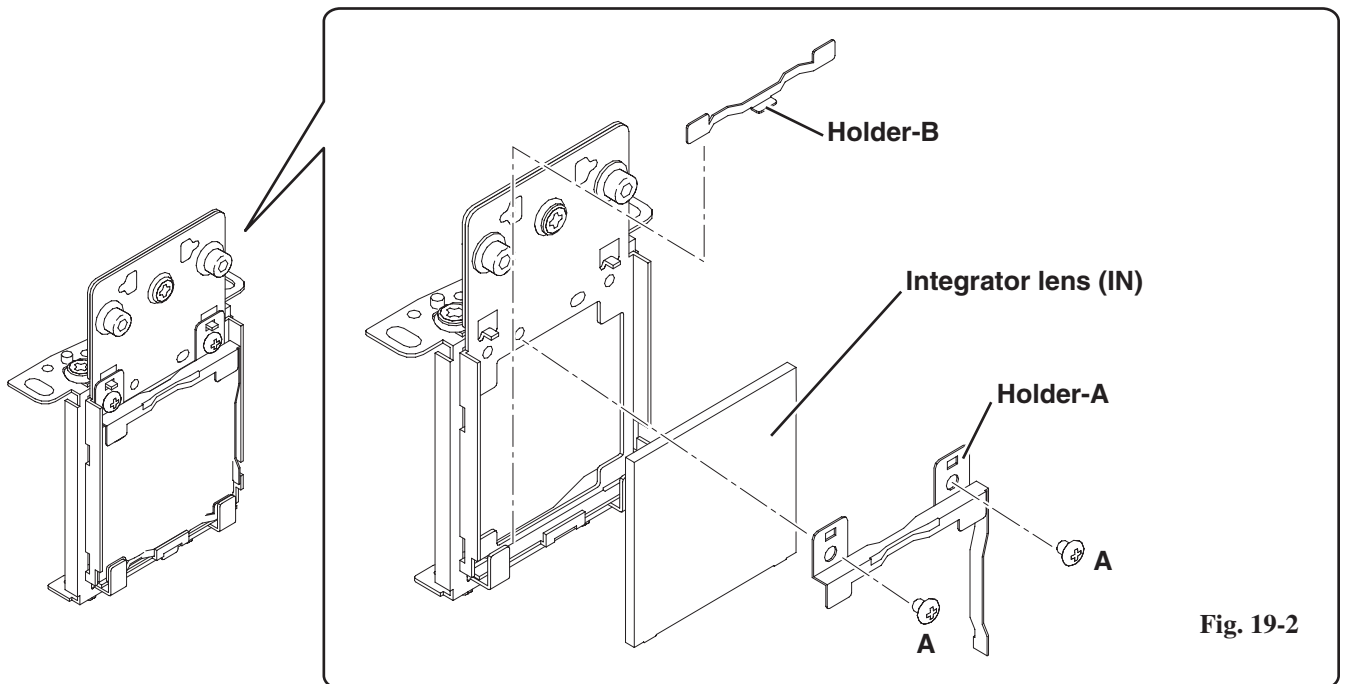


Fig. 19-1

19-2 Integrator lens (IN) disassemblies.

1. Remove the 2 screws-A(M2x2), remove the Holder-A, remove the Holder-B and remove the Integrator lens (IN).

**20-1 LCD panel / Prism ass'y removal.**

1. Unhook the stopper and remove the Spacer.
2. Remove the screw-A(M2x3) and remove the Shield cover.
3. Remove the 4 screws-B(M2.5x5) and remove the LCD panel/Prism ass'y.

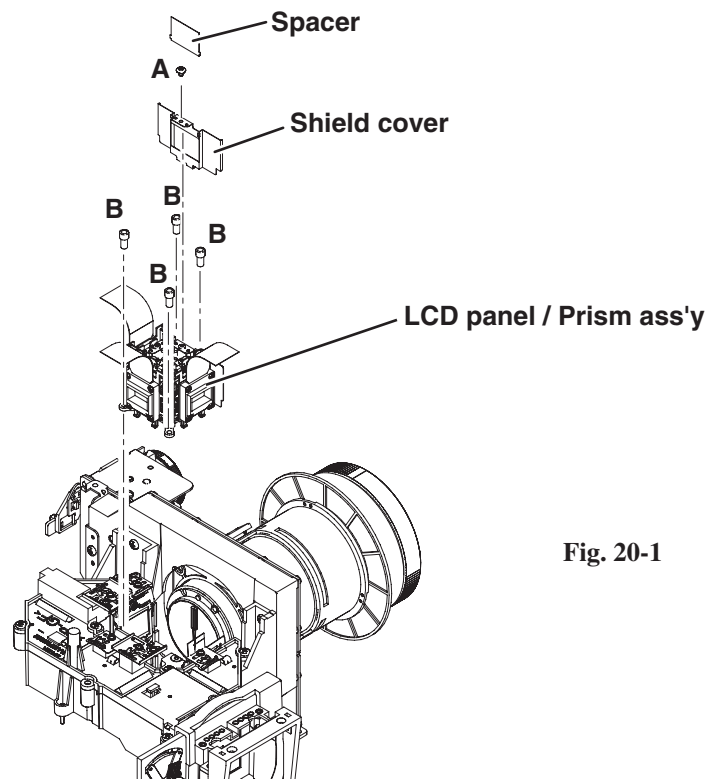
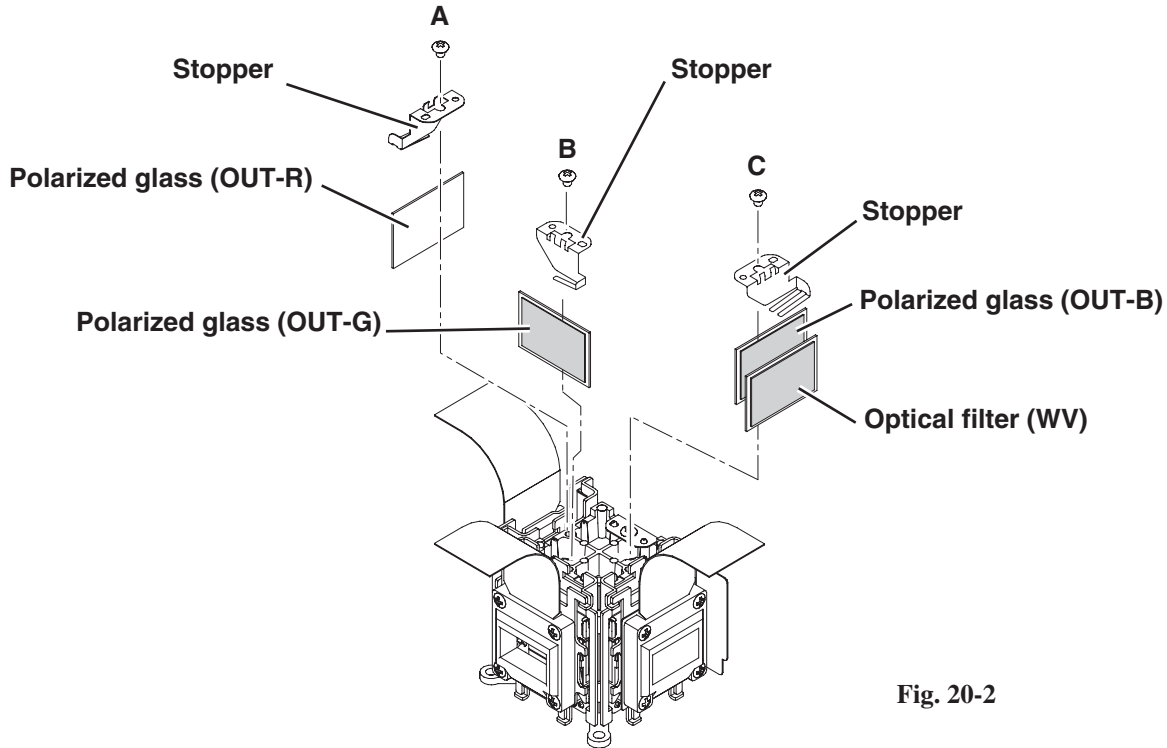


Fig. 20-1

20-2 LCD panel / Prism ass'y disassemblies.

- 1.Remove the screw-A(M2x3), remove the stopper and remove the Polarized glass (OUT-R).
- 2.Remove the screw-B(M2x3), remove the stopper and remove the Polarized glass (OUT-G).
- 3.Remove the screw-C(M2x3), remove the stopper, remove the Optical filter (WV) and remove the Polarized glass (OUT-B).

**Fig. 20-2**

Note; Do not replace the LCD panel separately otherwise it can not obtain proper picture. Do not touch the prism, the LCD panel and electrode of flexible cable.

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.

After replacing LCD Panel/Prism ass'y, please check the following adjustments.

- Check the "Integrator Lens Adjustment" and "Relay Lens Adjustment" following to chapter "Optical Adjustment".
- Check the "White Balance Adjustment" and "Common Center Adjustment" following to chapter "Electrical Adjustment".
- Check the white uniformity on the screen.

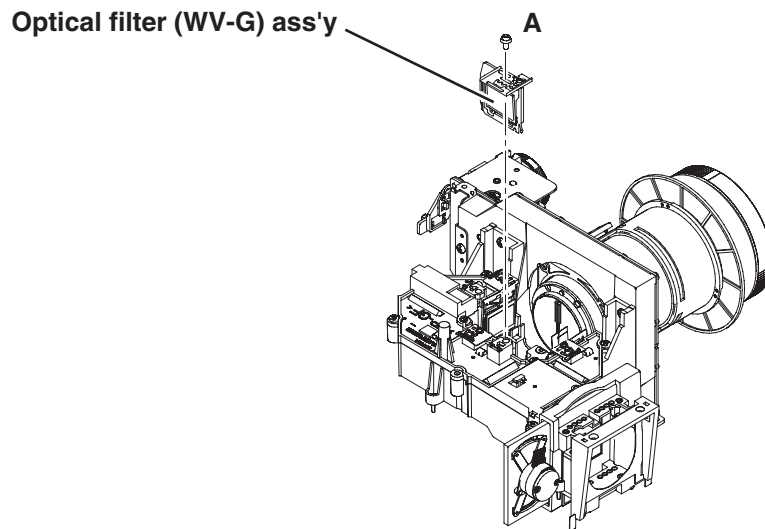
If you find the color shading, please adjust the white uniformity by using the proper computer and "Color Shading Correction" software supplied separately. The software can be ordered as follows;

COLOR SHADING CORRECTION

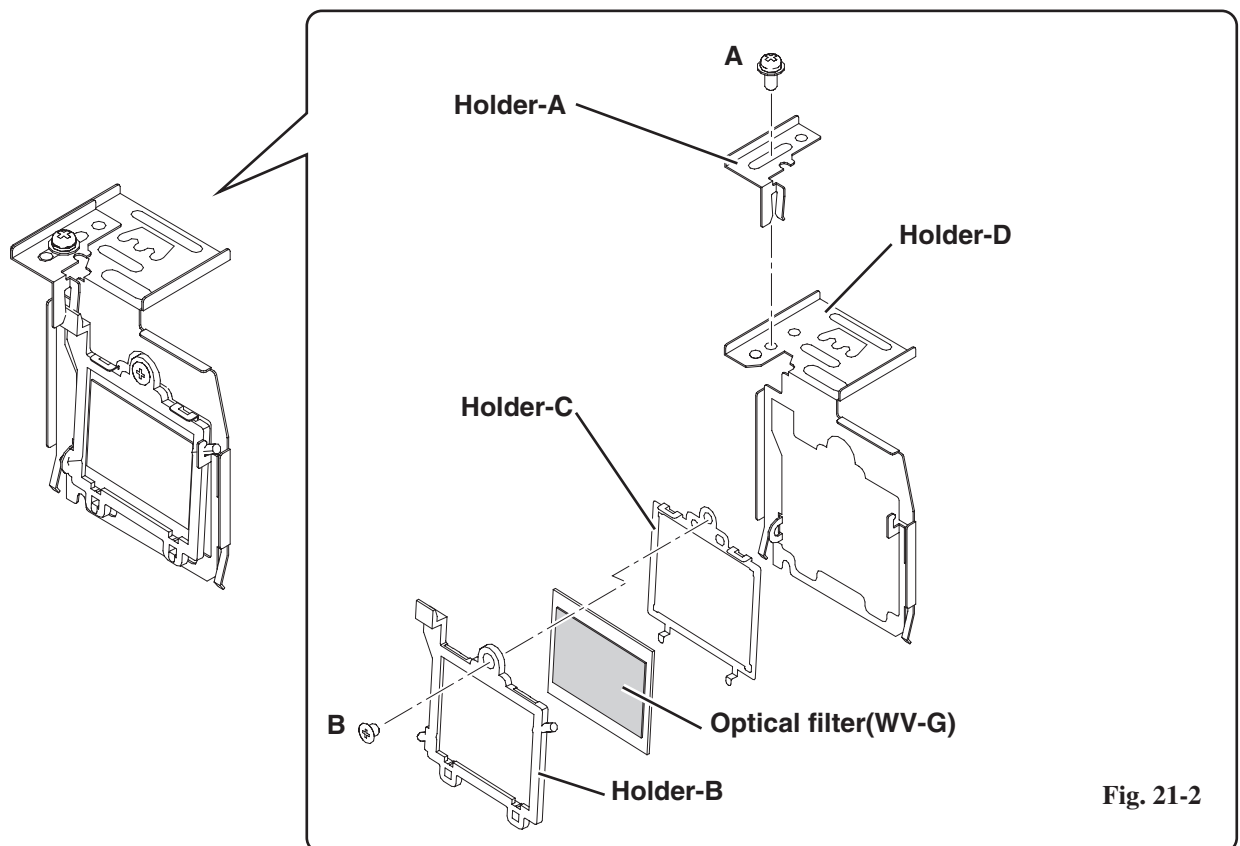
Service Parts No. 645 075 9611

21-1 Optical filter(WV-G) ass'y removal.

- 1.Remove the screw-A(M2x5) and remove the Optical filter(WV-G) ass'y.

**Fig. 21-1****21-2 Optical filter(WV-G) ass'y disassemblies.**

- 1.Remove the screw-A(M2x5) and remove the Holder-A.
- 2.Remove the screw-B(M2x2), remove the Holder-B, remove the Holder-C and remove the Optical filter(WV-G).

**Fig. 21-2**

22-1 Polarized glass ass'y (IN-R) removal.

- 1.Remove the screw-A(M2x5) and remove the Polarized glass ass'y (IN-R).

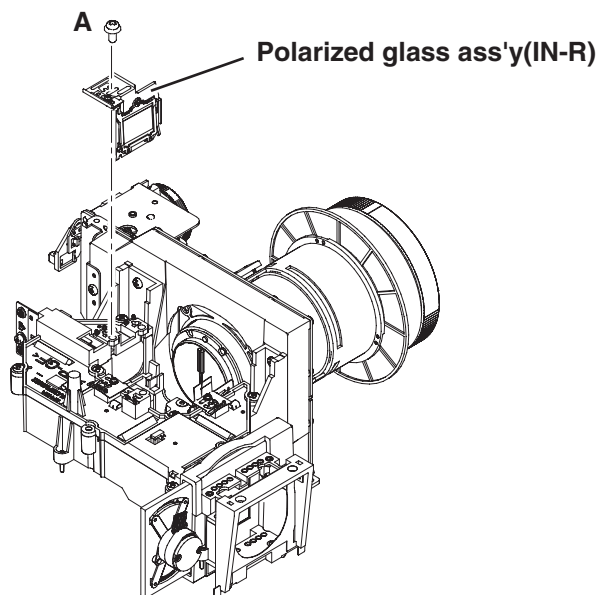


Fig. 22-1

22-2 Polarized glass(IN-R) removal.

- 1.Remove the screw-A(M2x5) and remove the Holder-A.
- 2.Remove the screw-B(M2x2), remove the Holder-B, remove the Holder-C and remove the Polarized glass(IN-R).

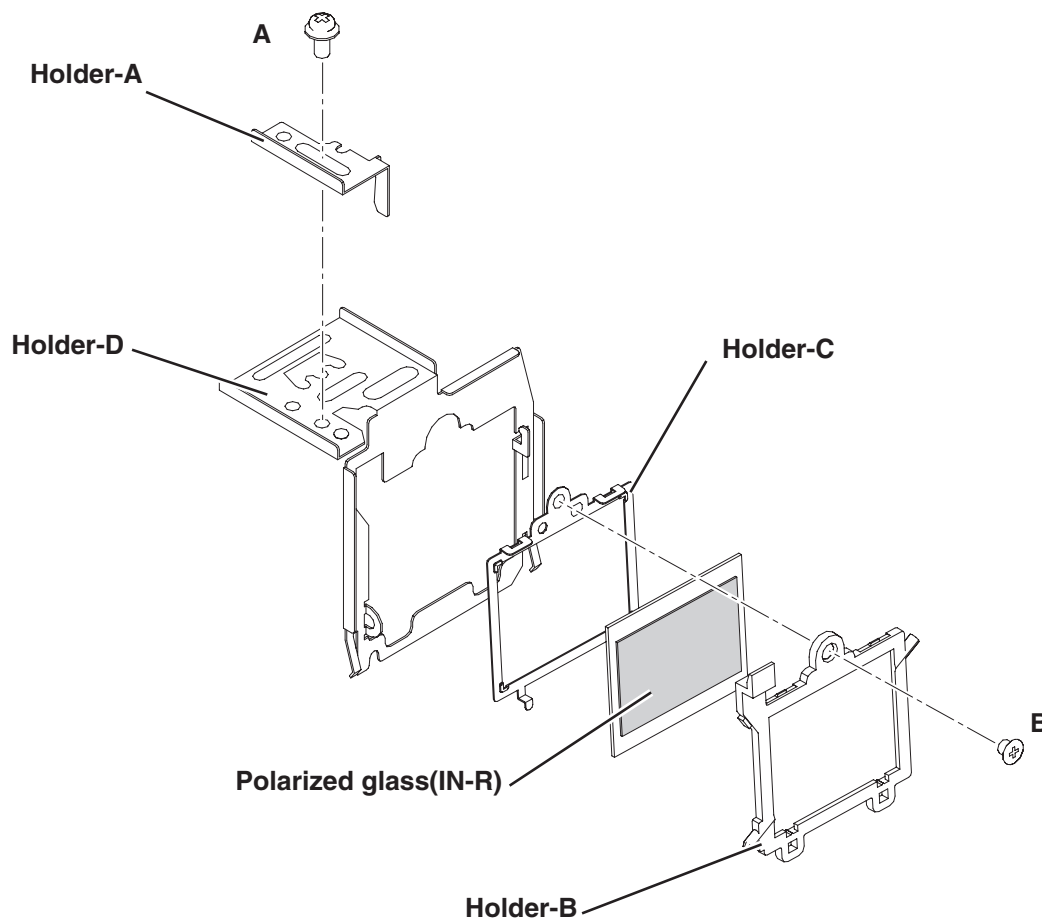


Fig. 22-2

23 Polarized glasses removal.

- 1.Remove the screw-A(M2x5) and remove the Polarized glass ass'y (IN-G).
- 2.Remove the screw-B(M2x5) and remove the Polarized glass ass'y (IN-B).

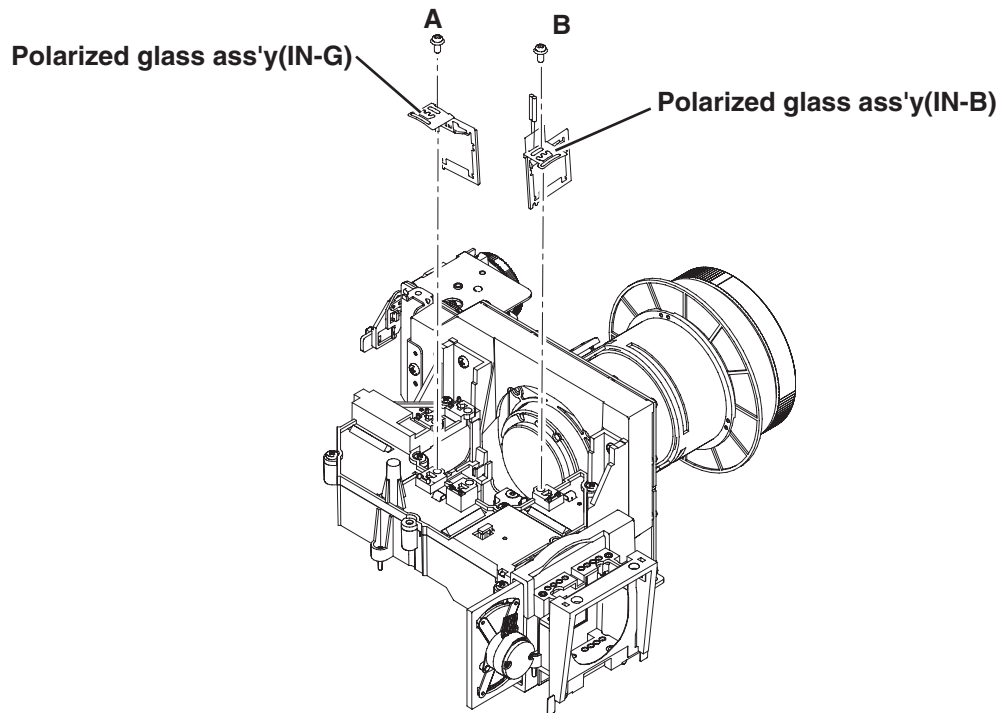


Fig. 23-a

Polarized Glass ass'y (IN-G)

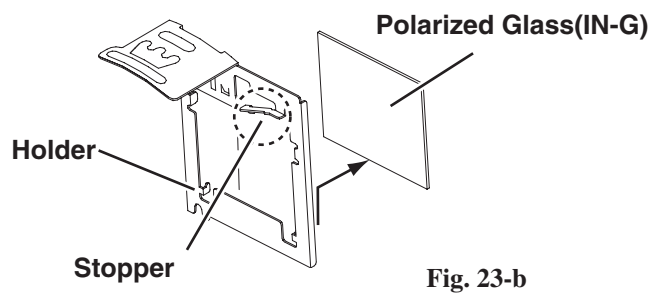
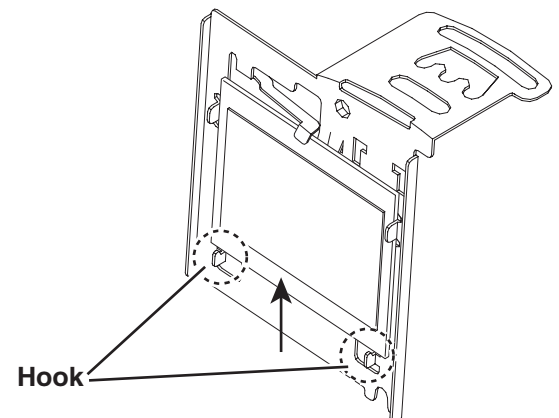
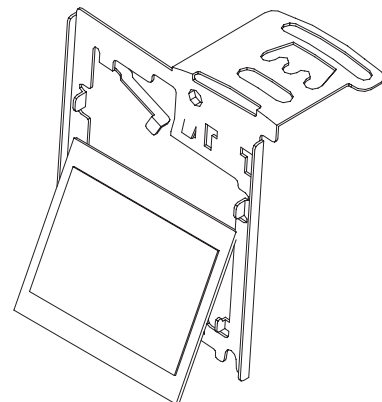


Fig. 23-b

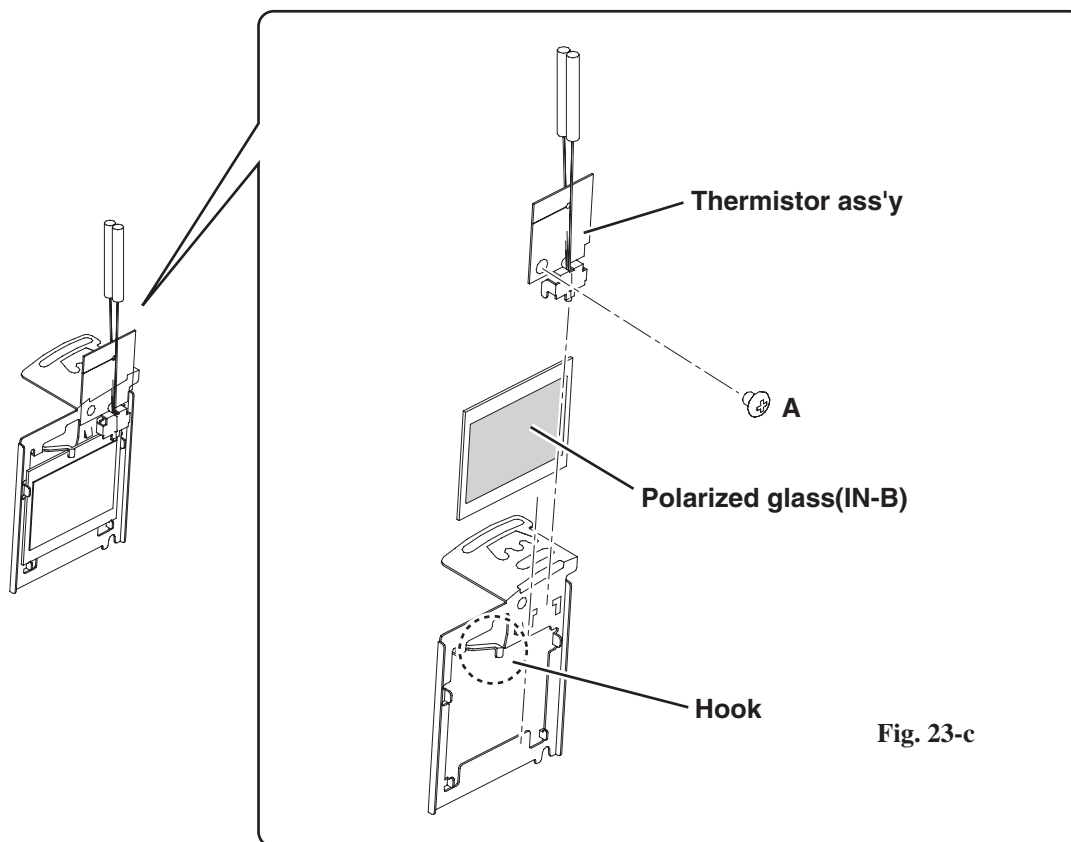


Push the Polarized glass upward, unhook the holder and remove the Polarized glass.

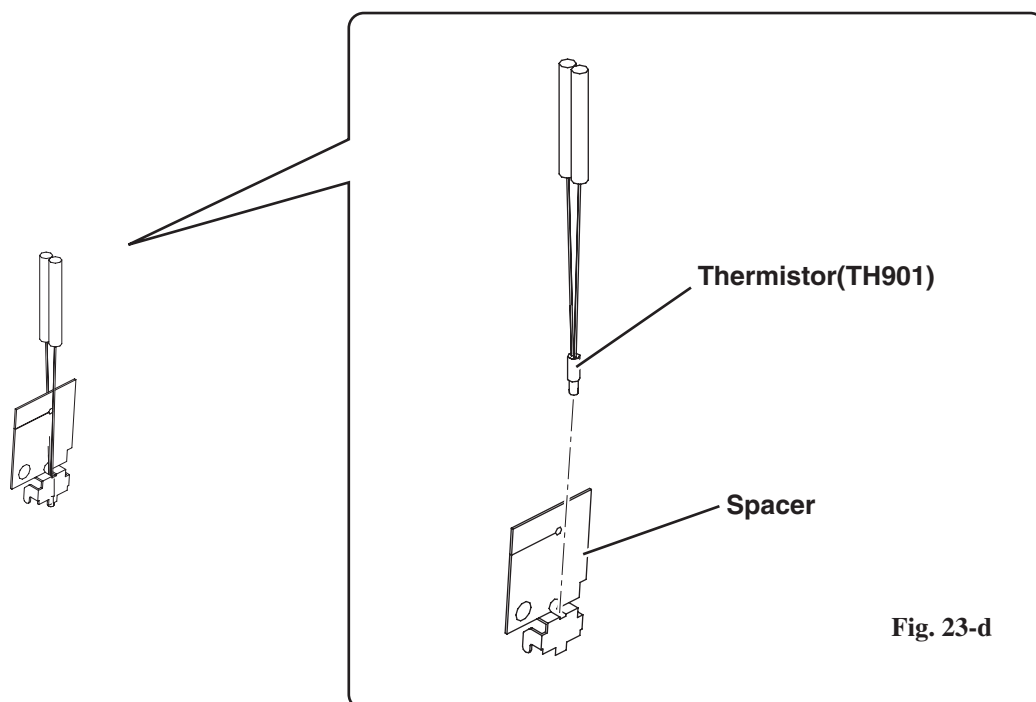


Polarized Glass ass'y (IN-B)

Remove the screw-A and remove the Thermistor ass'y.
Push the Polarized glass upward, unhook the holder and remove the Polarized glass. (Refer to P35)

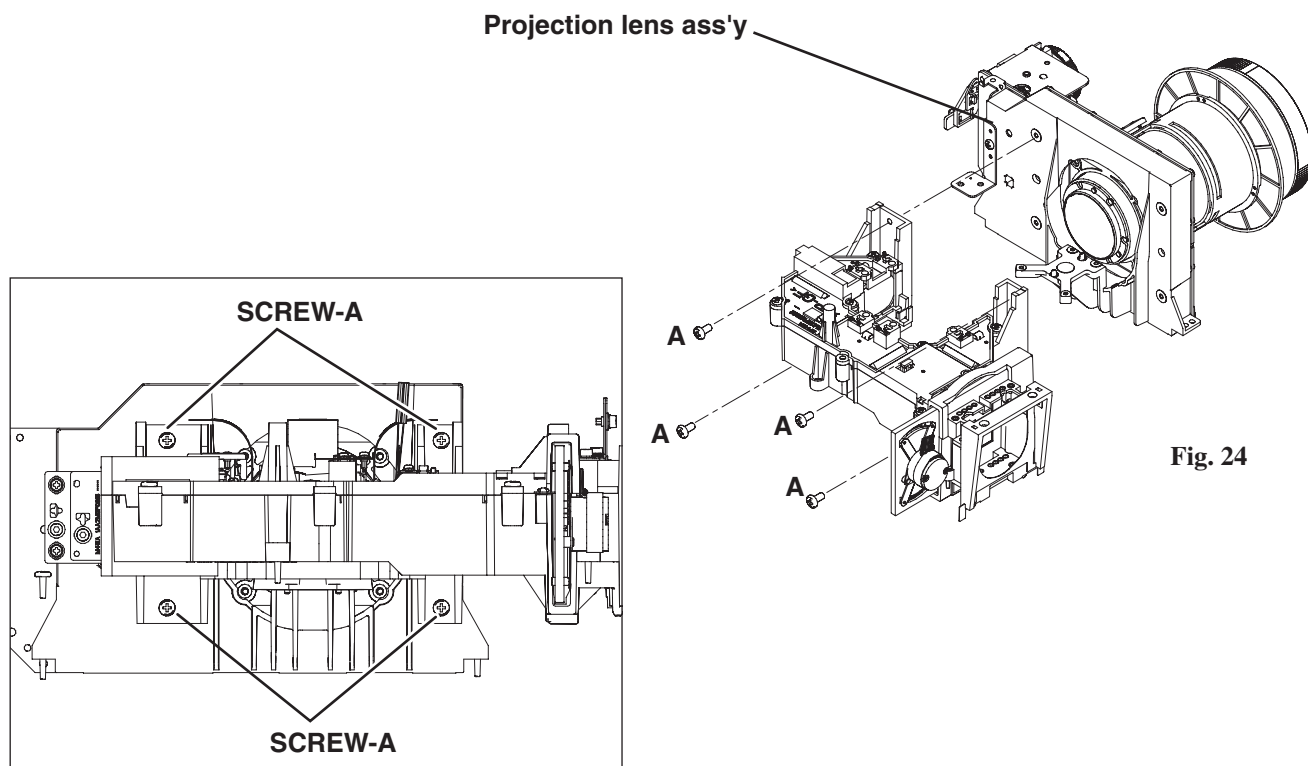


Remove the Thermistor(TH901).

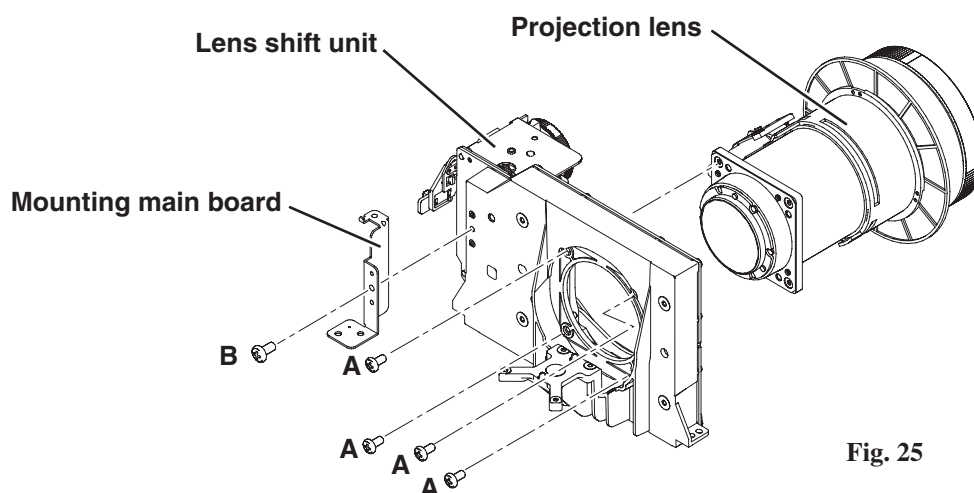


24 Projection lens ass'y removal.

- 1.Remove the 4 screws-A(M3x6) and remove the Projection lens ass'y.

**Fig. 24****25 Projection lens removal.**

- 1.Remove the 4 screws-A(M2.6x6) and remove the Projection lens.
- 2.Remove the screw-B(M3x6) and remove the Mounting main board .

**Fig. 25**

26 Optical base top removal.

- 1.Remove the 7 screws-A(T3x10) and remove the Optical base top.

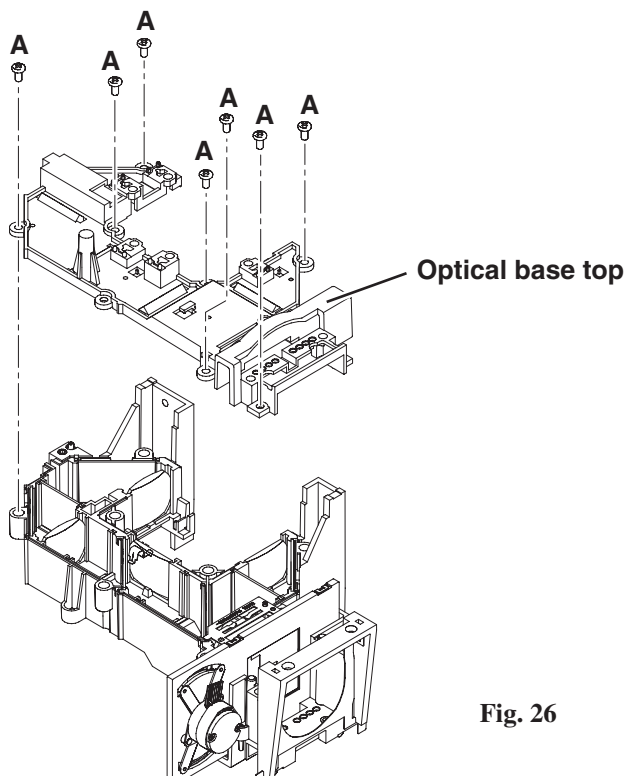


Fig. 26

27-1 Lamp iris unit and Relay lens ass'y removal.

- 1.Remove the 2 screws-A(M2x2), remove the Shield plate and remove the Lamp iris unit.
- 2.Remove the screw-A(M2.5x5) and remove the Relay lens (OUT) ass'y.

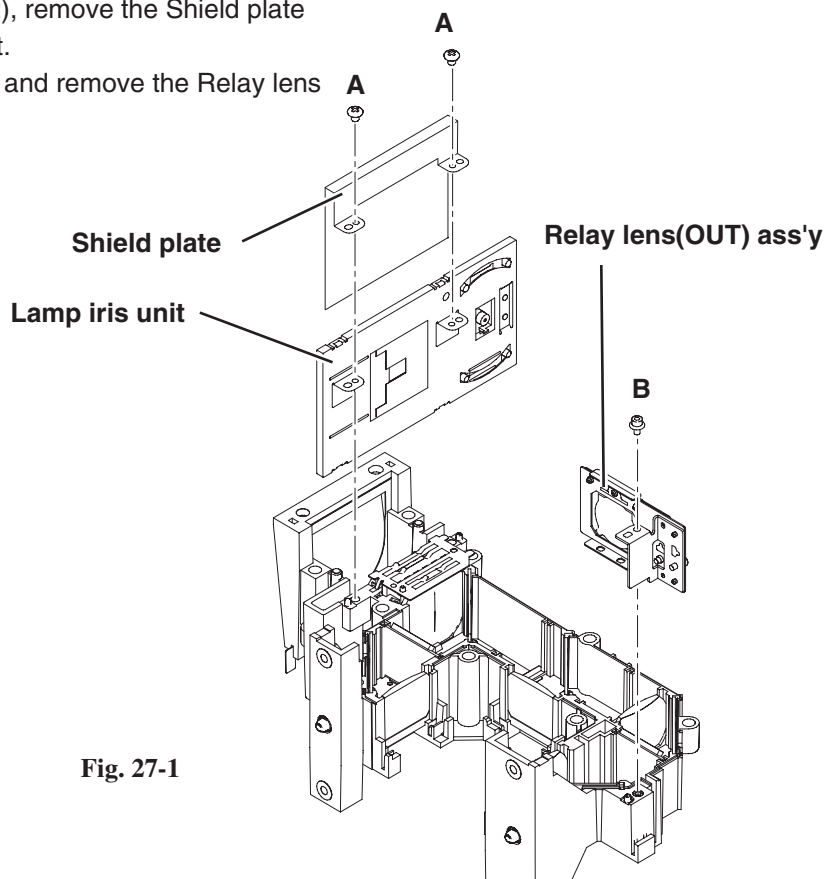
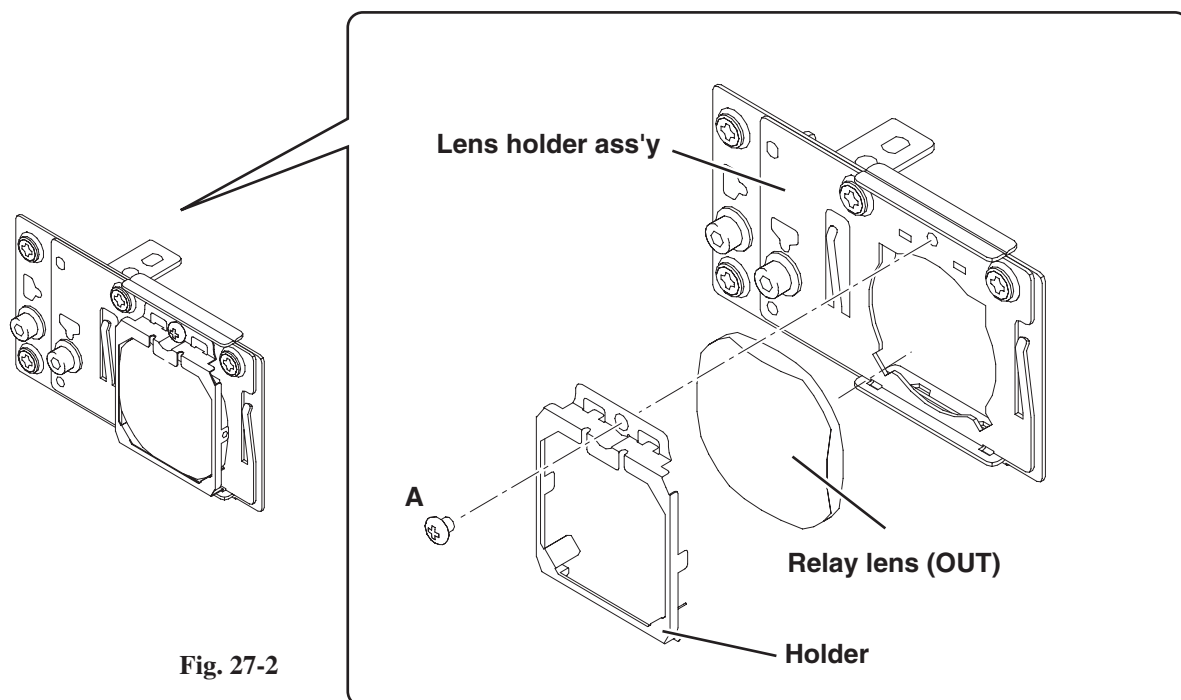


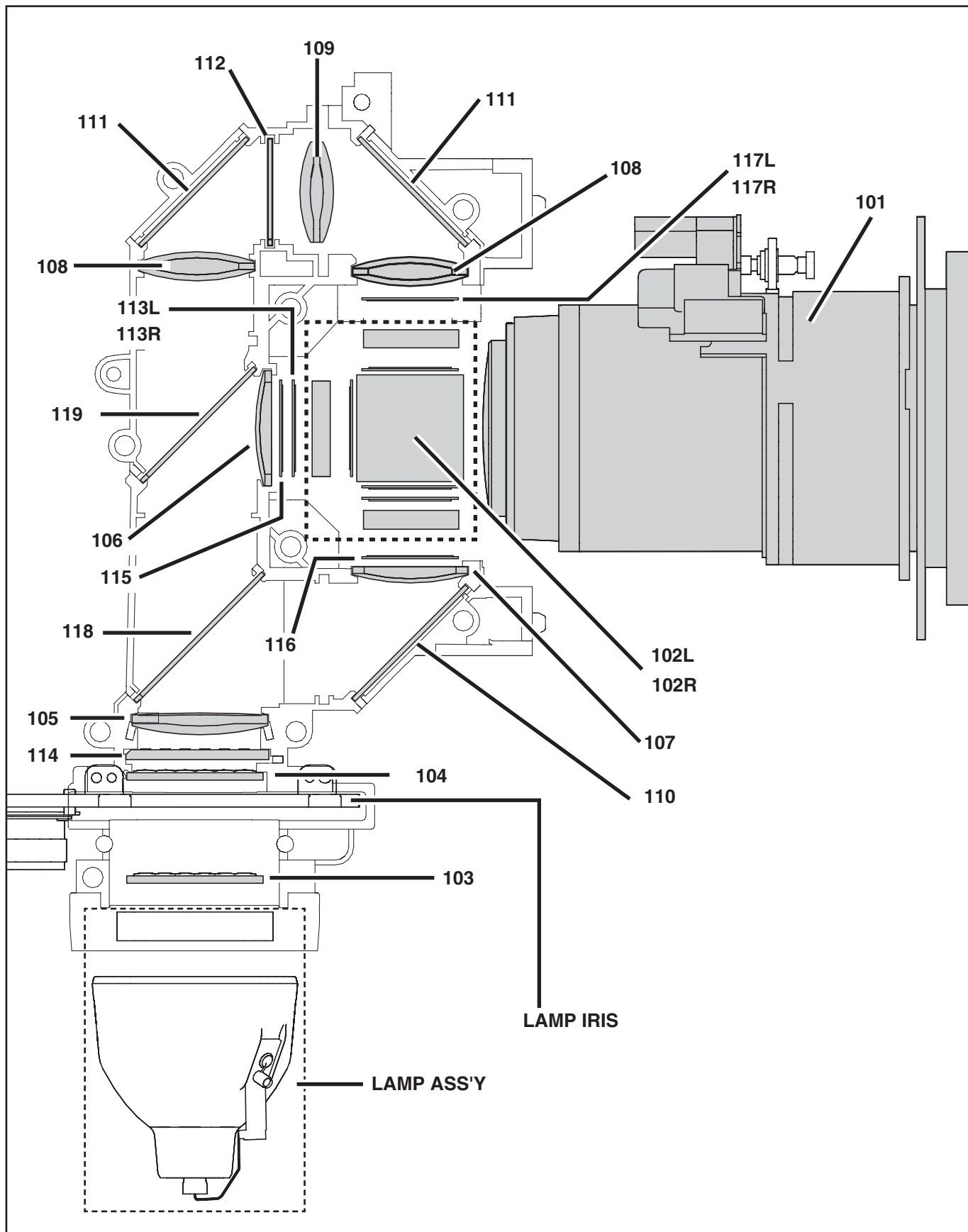
Fig. 27-1

27-2 Relay lens (OUT) ass'y disassemblies.

1.Remove the screw-A(M2x2), remove the Holder and remove the Relay lens (OUT).

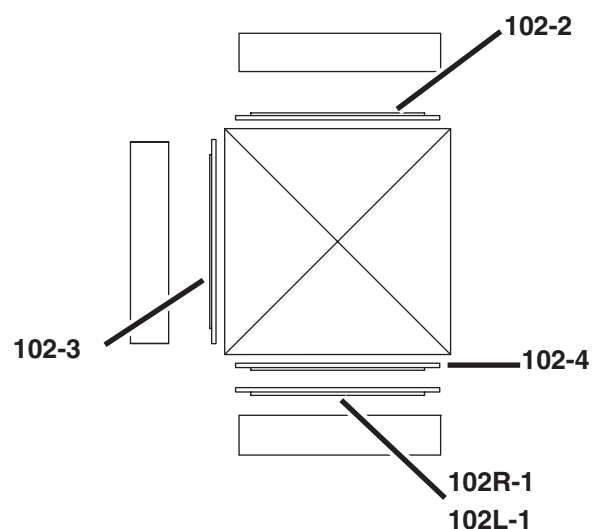


● Optical parts location and direction



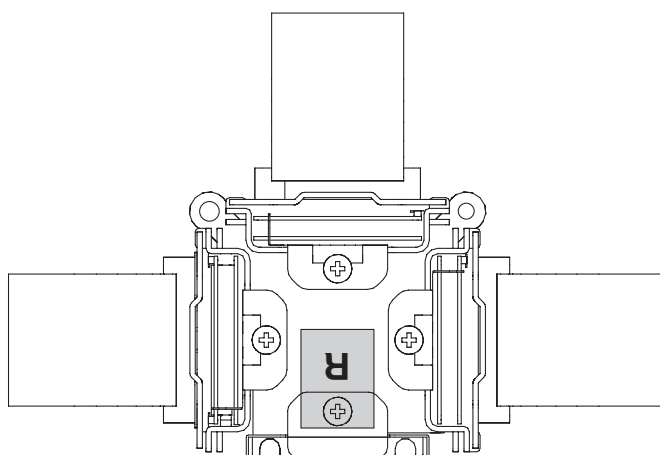
101	LENS, PROJECTION
102R	ASS'Y, LCD PNL/PRISM(M4WA_LRL) --- Type R
102L	ASS'Y, LCD PNL/PRISM(M4WA_RLR) --- Type L
103	LENS, INTEGRATOR(IN)
104	LENS, INTEGRATOR(OUT) UV
105	LENS, CONDENSER(OUT)
106	LENS, CONDENSER(G)
107	LENS, CONDENSER(B)
108	LENS, CONDENSER(R)
109	LENS, RELAY(OUT)
110	MIRROR(B)
111	MIRROR(R)
112	OPTICAL FILTER(R)
113R	OPTICAL FILTER(WV-G) --- Type R
113L	OPTICAL FILTER(WV-G) --- Type L
114	PRISM(PBS)
115	POLARIZED GLASS(IN/G)
116	POLARIZED GLASS(IN/B)
117R	POLARIZED GLASS(IN/R) --- Type R
117L	POLARIZED GLASS(IN/R) --- Type L
118	DICHROIC MIRROR(B)
119	DICHROIC MIRROR(G)

102R	ASS'Y, LCD PNL/PRISM(M4WA_LRL) --- Type R
102R-1	OPTICAL FILTER(WV-B) --- Type R
102-2	POLARIZED GLASS(OUT/R)
102-3	POLARIZED GLASS(OUT/G)
102-4	POLARIZED GLASS(OUT/B)
102L	ASS'Y, LCD PNL/PRISM(M4WA_RLR) --- Type L
102L-1	OPTICAL FILTER(WV-B) --- Type L
102-2	POLARIZED GLASS(OUT/R)
102-3	POLARIZED GLASS(OUT/G)
102-4	POLARIZED GLASS(OUT/B)

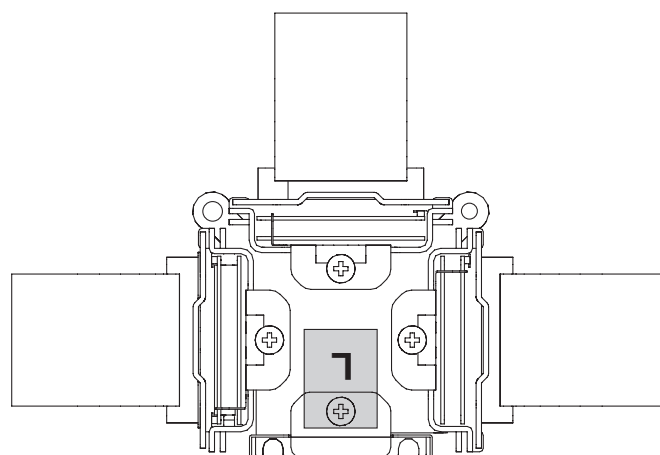


Note: There are 2 types of LCD Panel/Prism ass'y. (Type-R and Type-L)

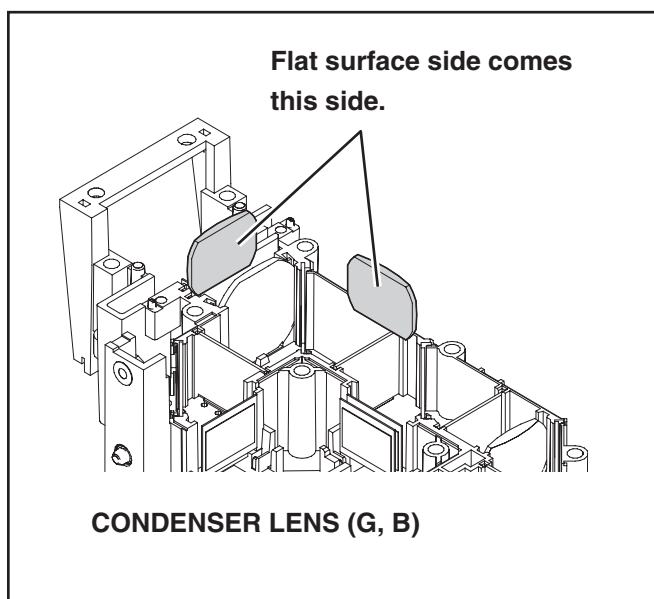
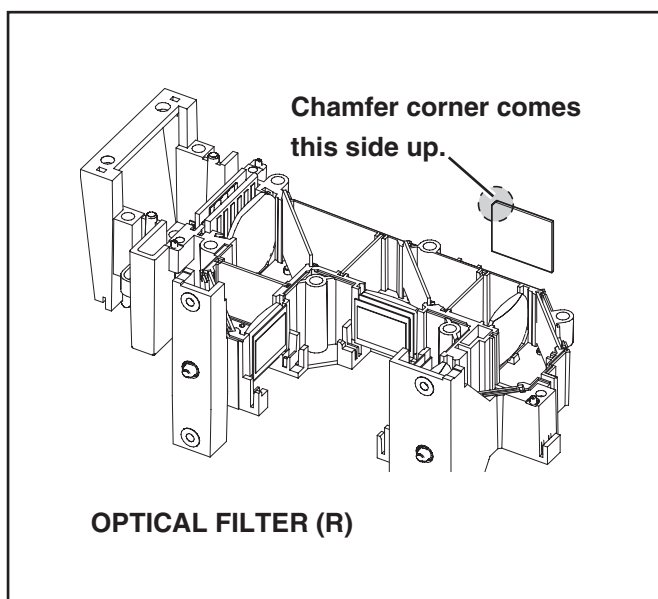
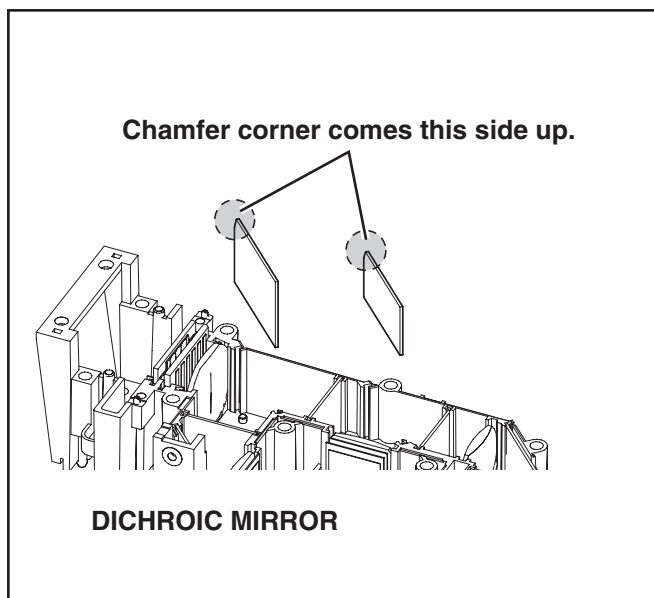
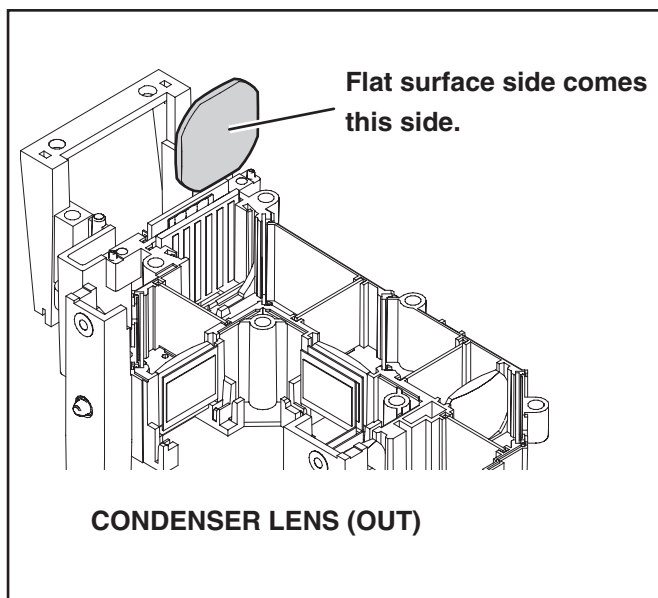
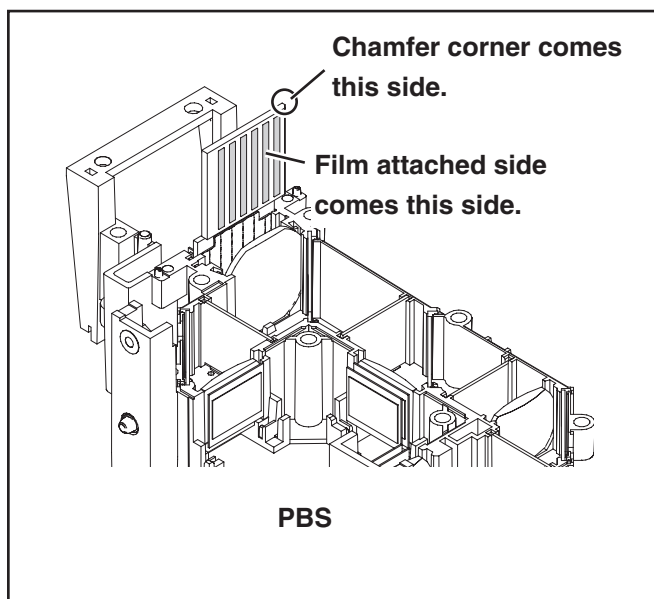
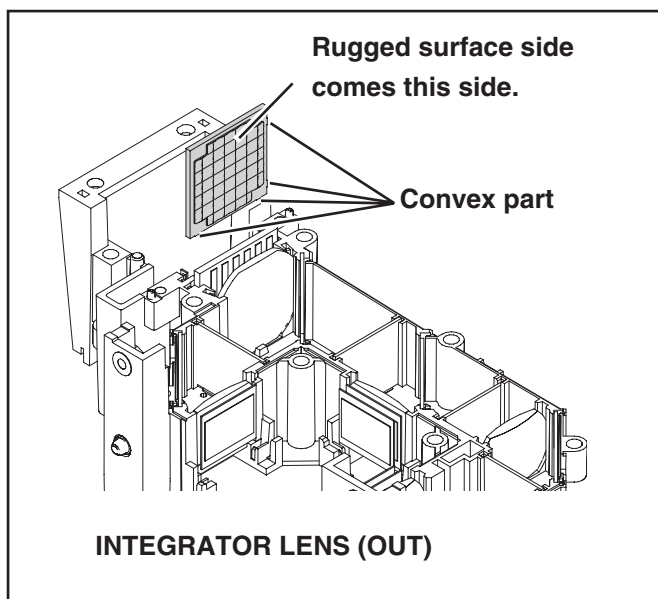
Each LCD Panel/Prism ass'y must combine and use the specific Optical filter(key No.113) and the polarized glass(key No.117).

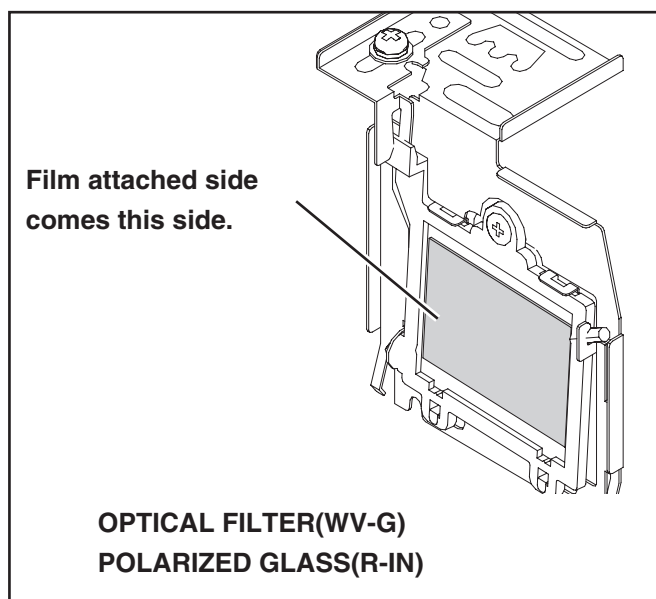
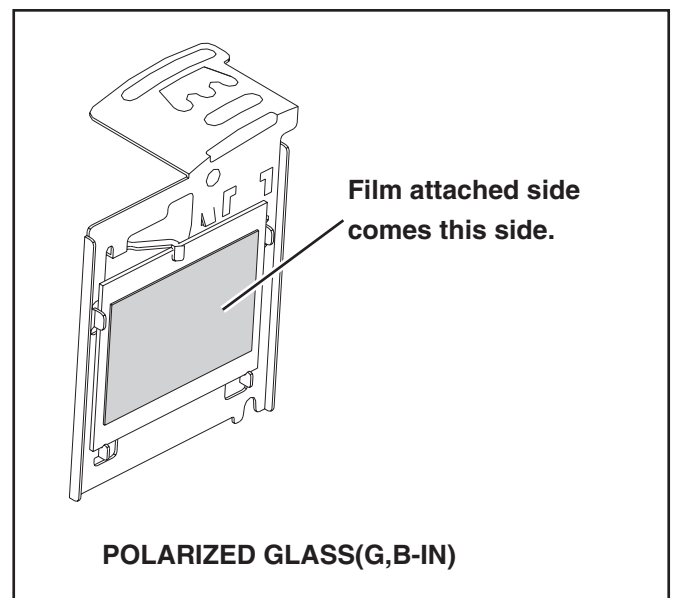
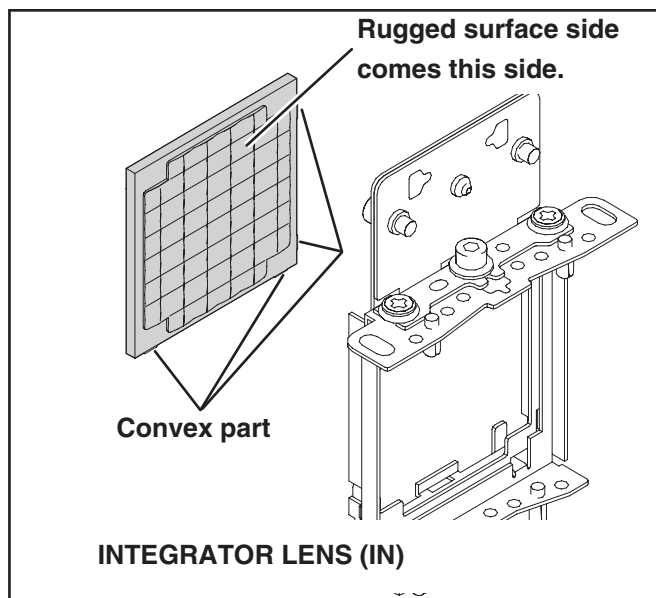
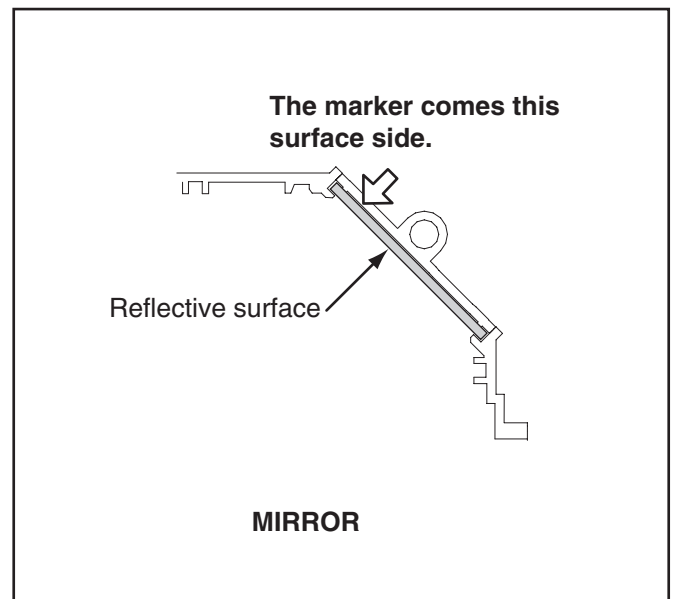
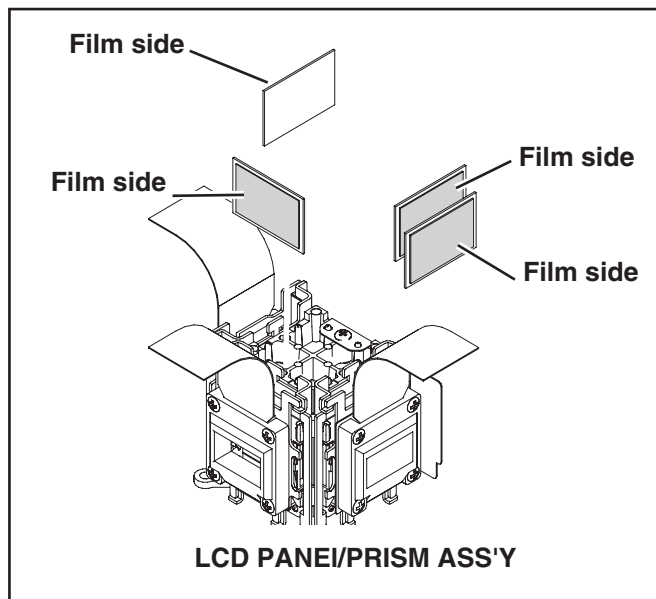


LCD Panel / Prism ass'y (Type R)



LCD Panel / Prism ass'y (Type L)





■ Adjustments After Parts Replacement

● : Adjustment necessary ○ : Check necessary

		Disassembly / Replaced Parts											
		LCD/ Prism Ass'y	Integrator Lens	Relay Lens	Polarized glass			Optical filter		Power Board	Main Board	Lamp Iris	
					R	G	B	G					
Optical Adjustments	Contrast Adjustment												
	R-Contrast adjustment(Polarized glass)	○			●								
	G-Contrast adjustment(Polarized glass)	○				●							
	B-Contrast adjustment(Polarized glass)	○					●						
	G-Contrast adjustment(Optical filter)	○				●		●					
	Integrator Lens Adjustment	○	●										
	Relay Lens Adjustment	○		●									
Electrical Adjustments	Fan Minimum Adjustment									●	●		
	Iris Adjustment										●	●	
	Signal Center Adjustment										●		
	Reference Adjustment										●		
	Sub Gain Adjustment										●		
	Common Center Adjustment	●									●		
	Panel Luminance Adjustment	○									●		
	White Balance Adjustment	○									●		

■ MEMORY IC REPLACEMENT

IC1391 on the main board stores the data for the service adjustments, and should not be replaced except for the case of defective device.

If replaced, it should be performed the re-adjustments following to the “Electrical Adjustments”.

The data of lamp replacement monitor timer is stored in the IC1391.

Please note that the lamp replace counter is reset when the memory IC (IC1391) is replaced.

(Lamp replace counter can not be set to the previous value.)

● Caution to memory IC replacement

When IC1391 is replaced with new one, the CPU writes down the default data of the service adjustments to the replaced IC, refer to the service adjust-

ment table. As these data are not the same data as factory shipped data, it should be required to perform the re-adjustments following to the “Electrical Adjustments”.

Please note that in this case the lamp replace counter will be reset.

● Caution of Main Board replacement (in the case IC1391 is not defective)

When the main board is replaced, IC1391 should be replaced with the one on previous main board. After replacement, it should be required to perform the re-adjustments following to the “Electrical Adjustments”.

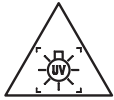
In this case, the lamp replace counter can be kept the value as before.

■ Optical Adjustment

Before taking optical adjustments below, remove the Cabinet Top following to the "Mechanical Disassemblies". Adjustments require a 2.0mm hex wrench, Philips Screwdriver and a slot screwdriver. When you adjust Integrator lens or Relay lens adjustment, you need to disconnect some connectors and FPC cables of LCD panels on the main board.

Note:

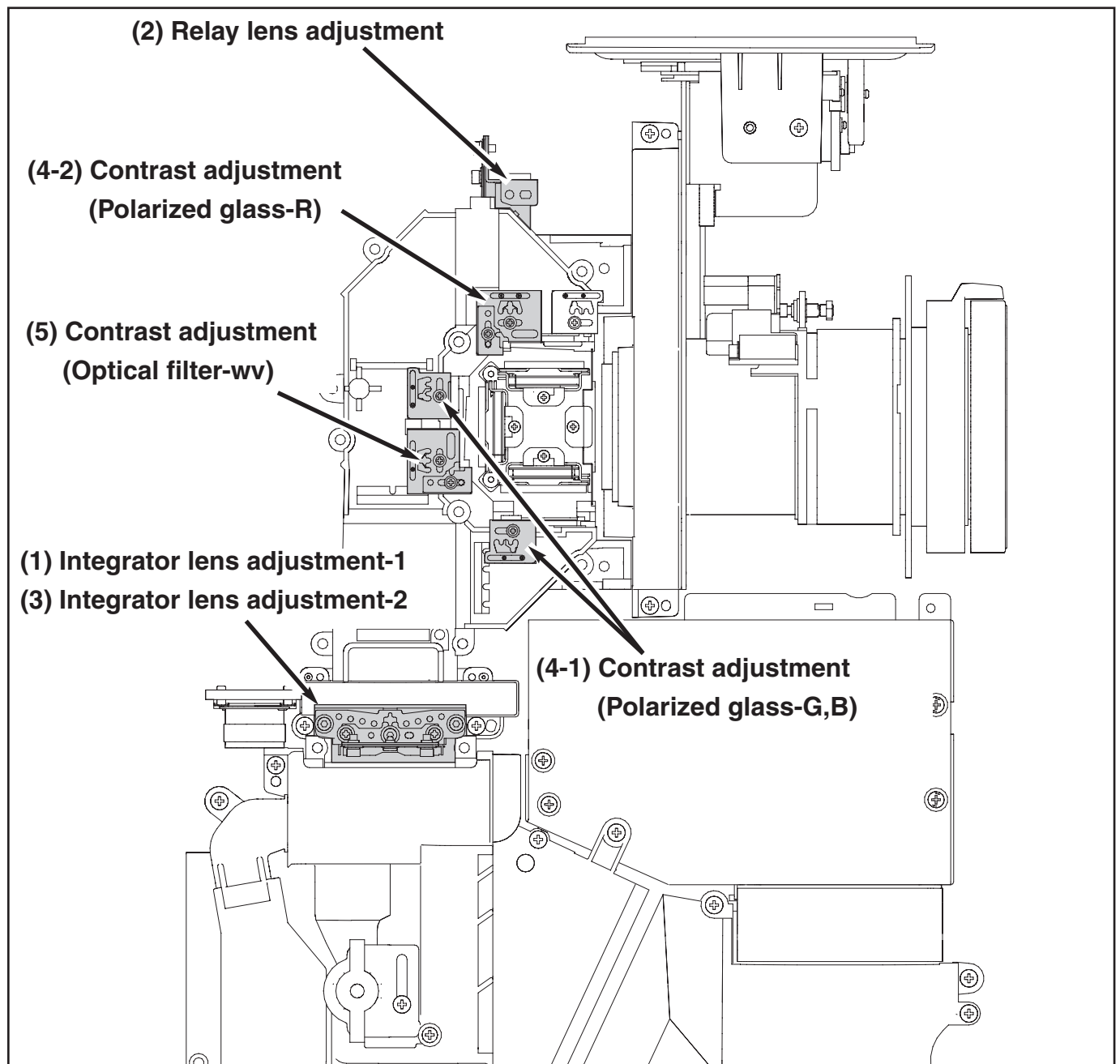
Do not disconnect connectors on the main board, because the projector can not turn on or operate properly for adjustment.



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.



Before adjustment

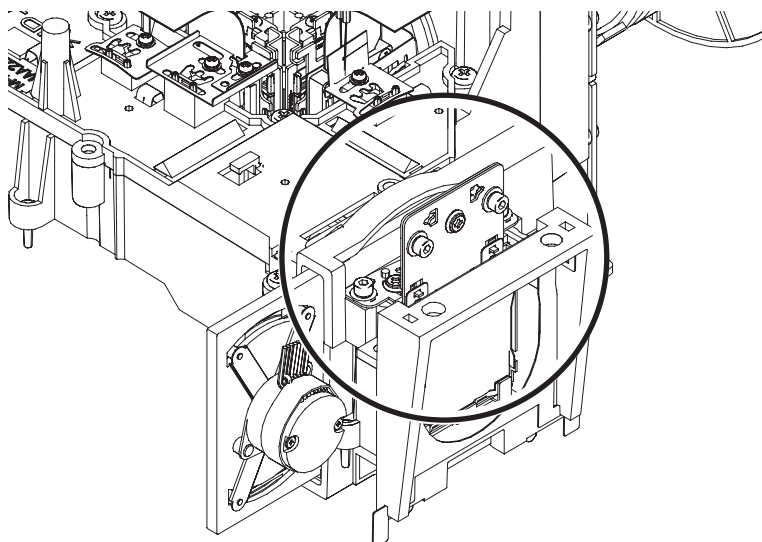
1. Turn the projector on by a state of without FPC cables.

2. Integrator lens adjustment

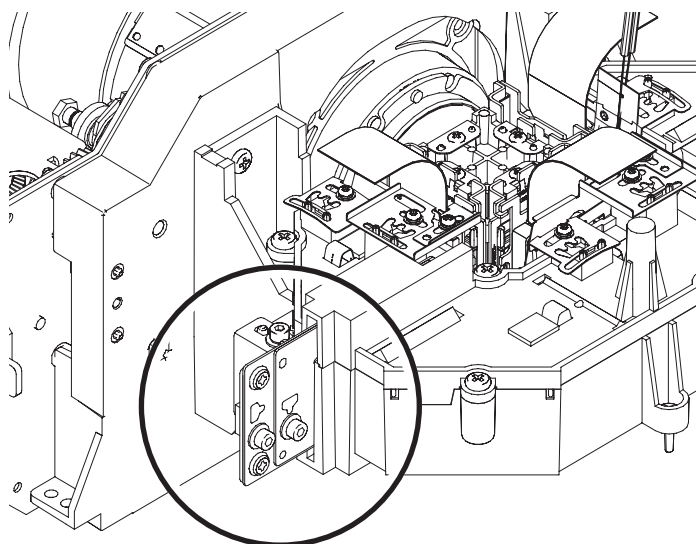
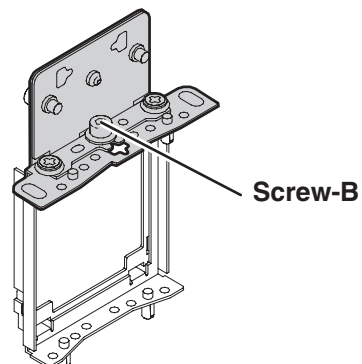
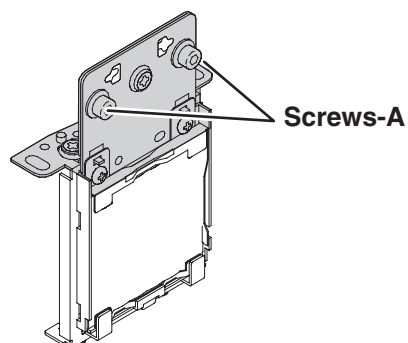
Loosen the 2 screws A and screw B.

3. Relay lens adjustment

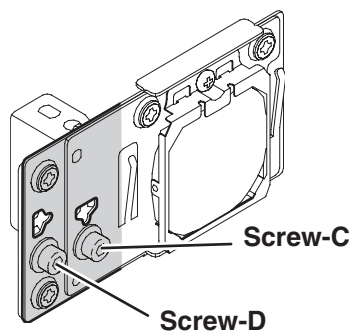
Loosen the 2 screws C and screw D.



Integrator lens adjustment



Relay lens adjustment

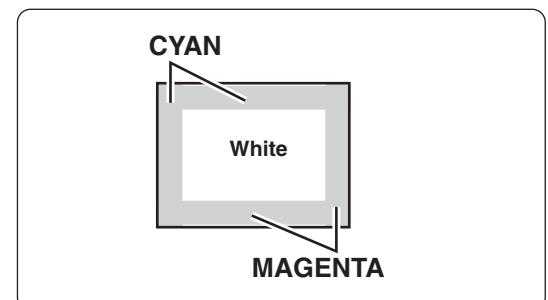
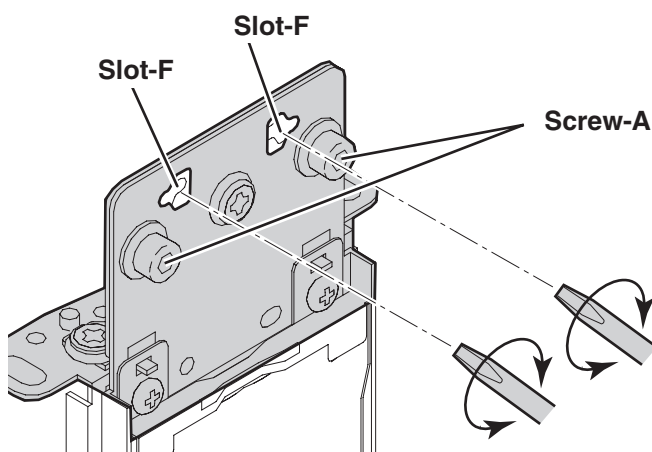
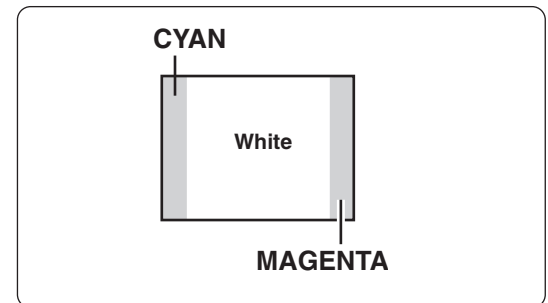
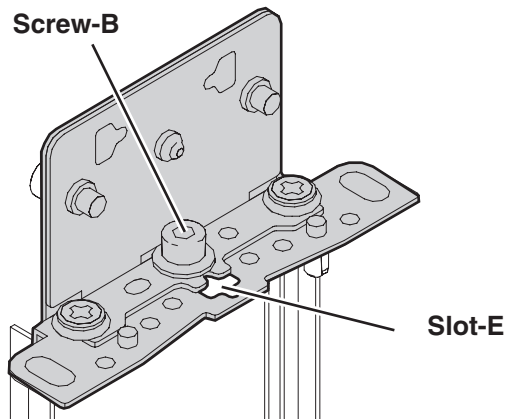
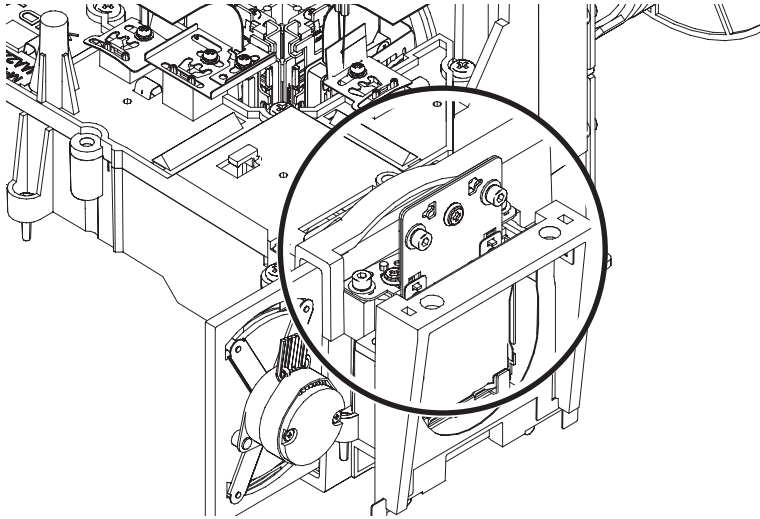


1. Integrator lens adjustment-1

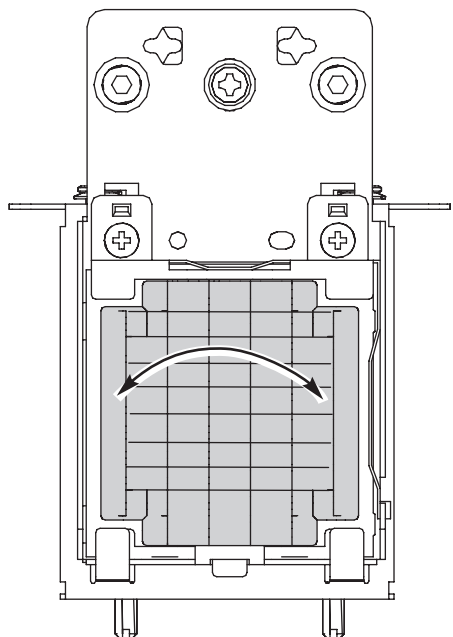
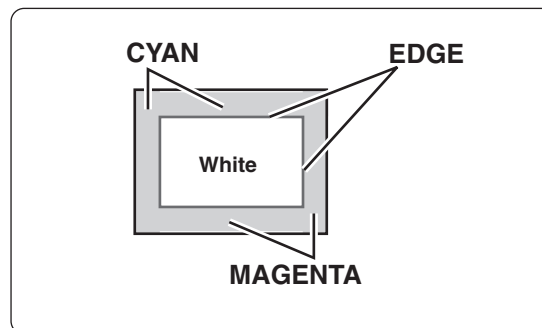
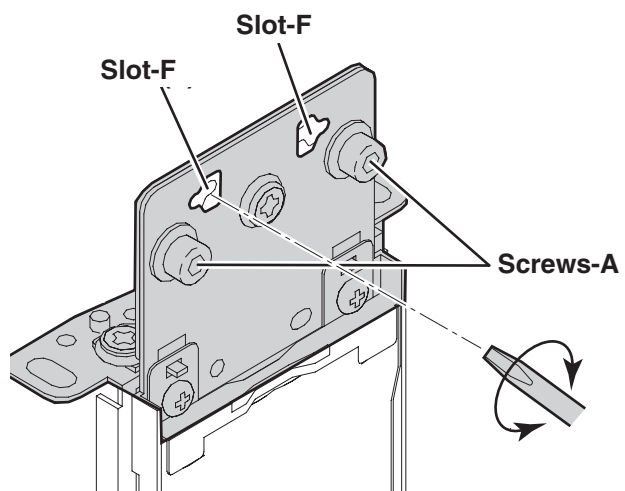
1. Adjust the slot **E** to make shading appears on the right and left(magenta and cyan) of the screen as shown in figure.
2. Adjust the slot **F** to make shading appears on the top and bottom(cyan and magenta) of the screen as shown in figure.

Note;

Slot **F** is moved in parallel by operating the right and left simultaneously. Otherwise, the integrator lens rotates.



3. Adjust the boundary(edge) of the shading area to the Sharp focus.
(The integrator lens rotates when the right or the left of slot-F is used.)



2. Relay lens adjustment

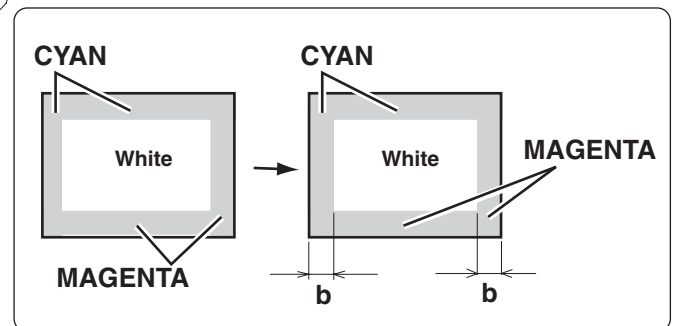
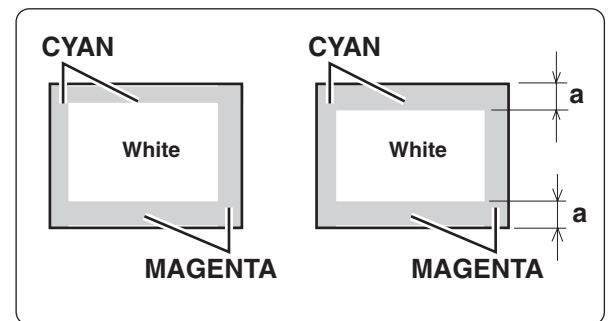
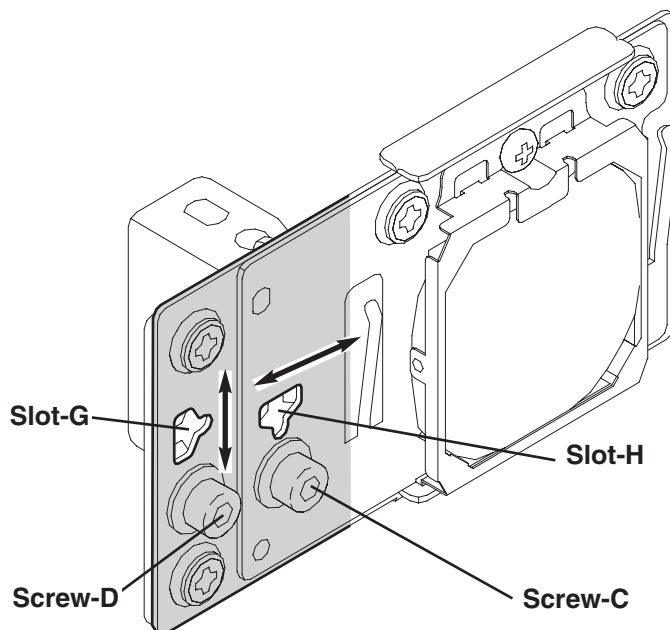
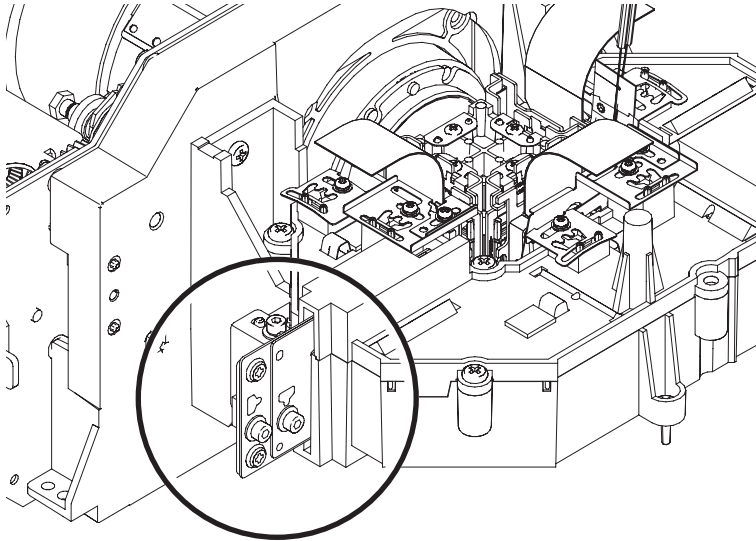
1. Adjust the slot **G**.

It is adjusted that cyan and the magenta in the top and bottom part become the same width.

2. Adjust the slot **H**.

It is adjusted that cyan and the magenta in the right and left part become the same width.

3. Tighten screw **C** and screw **D** to fix the relay lens unit.



3. Integrator lens adjustment-2

1. Adjust the 2 slots **F** to make color uniformity in white by using a slot screwdriver.

(Top and bottom shading are erased.)

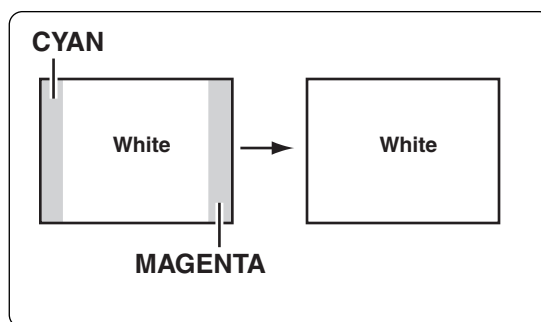
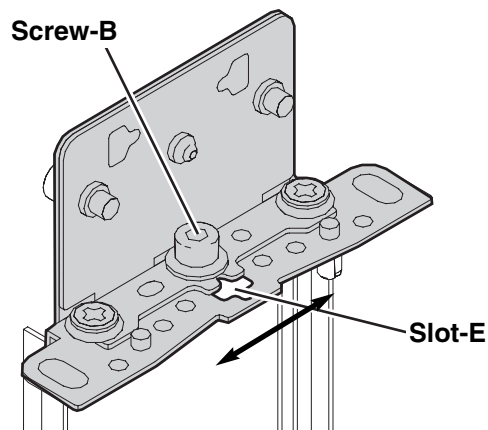
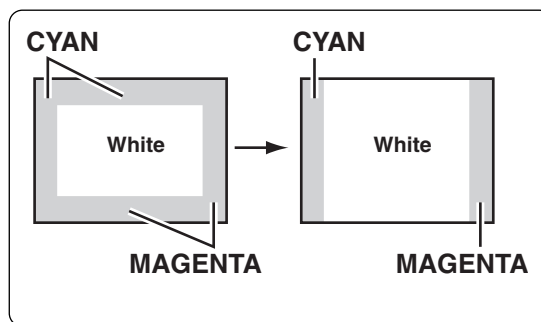
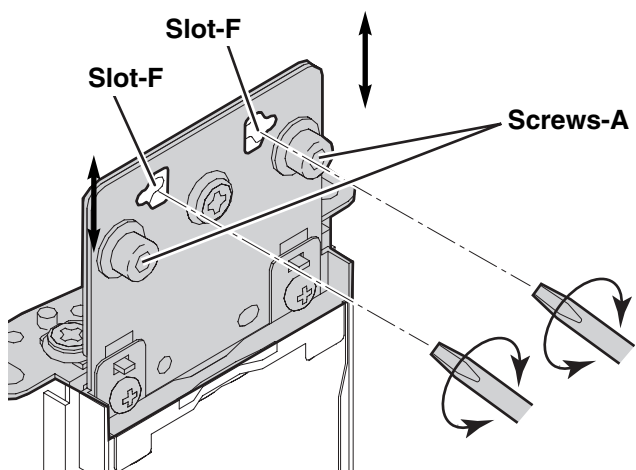
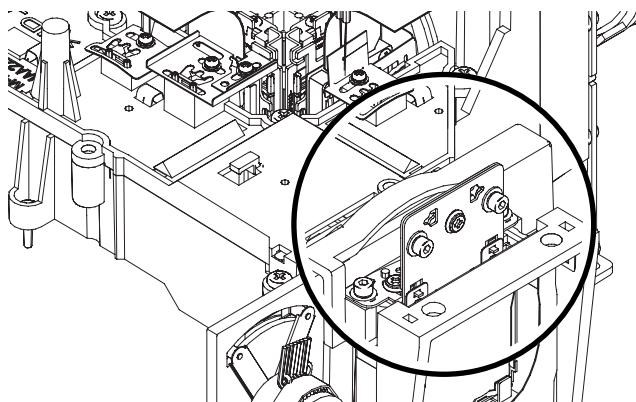
Note;

Slot **F** is moved in parallel by operating the right and left simultaneously. Otherwise, the integrator lens rotates. Refer to "**1 Integrator lens adjustment-1**".

2. Adjust the slots **E** to make color uniformity in white by using a slot screwdriver.

(Right and left shading are erased.)

3. Tighten 2 screws **A** and screw **B** to fix the integrator lens unit.



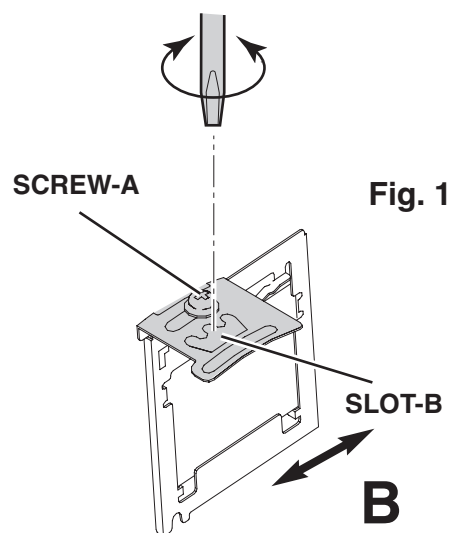
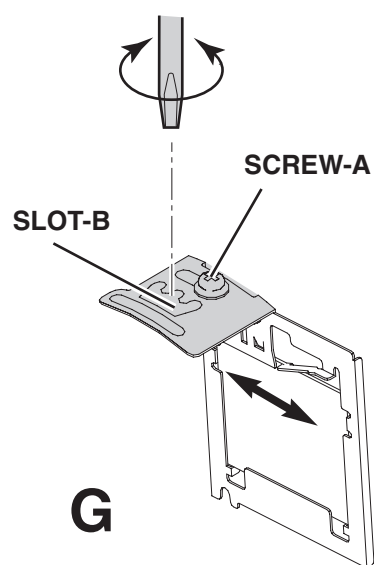
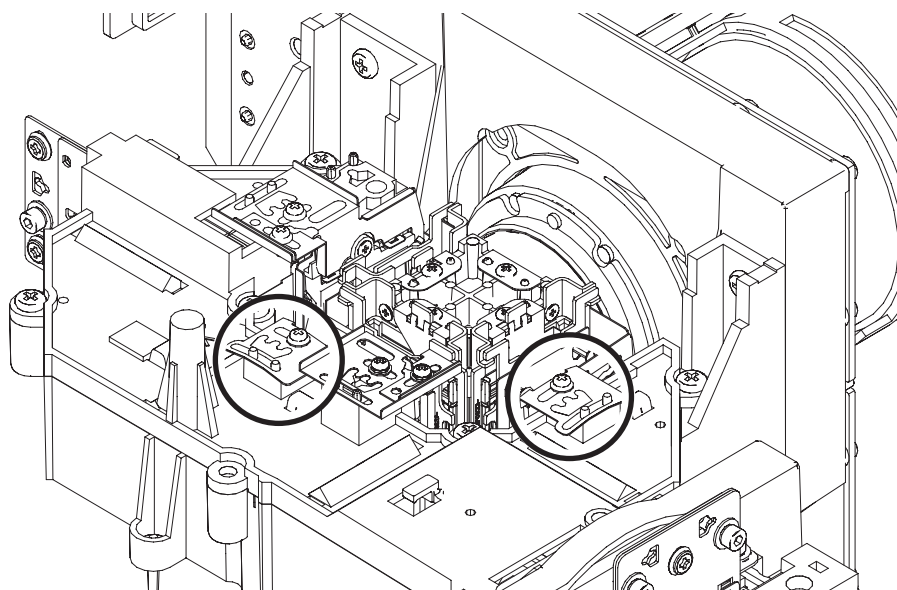
4-1. Contrast adjustment (Polarized glass-G,B)

[Before Adjustment]

- Input a 100% of black raster signal.

1. Loosen a screw **A** on the polarized glass mounting base which you intend to adjust.
2. Adjust the slot **B** to obtain the darkest brightness on the screen as shown in **Fig. 1**.
3. Tighten the screw **A** to fix the polarized glass mounting base.

Repeat steps 1 to 3 for remaining polarized glasses.



4-2. Contrast adjustment (Polarized glass-R)

[Before Adjustment]

- Input a 100% of black raster signal.

1. Loosen a screw **A** on the polarized glass mounting base which you intend to adjust.
2. Adjust the slot **B** to obtain the darkest brightness on the screen as shown in **Fig. 2**.
3. Tighten the screw **A** to fix the polarized glass mounting base.

[If the un-uniformity appears on the corner, - - -]

4. Loosen a screw **C** on the polarized glass mounting base which you intend to adjust Red .
5. Adjust the slot **D** to obtain the uniform black on the screen as shown in **Fig. 2**.
6. Tighten the screw **C** to fix the polarized glass mounting base.

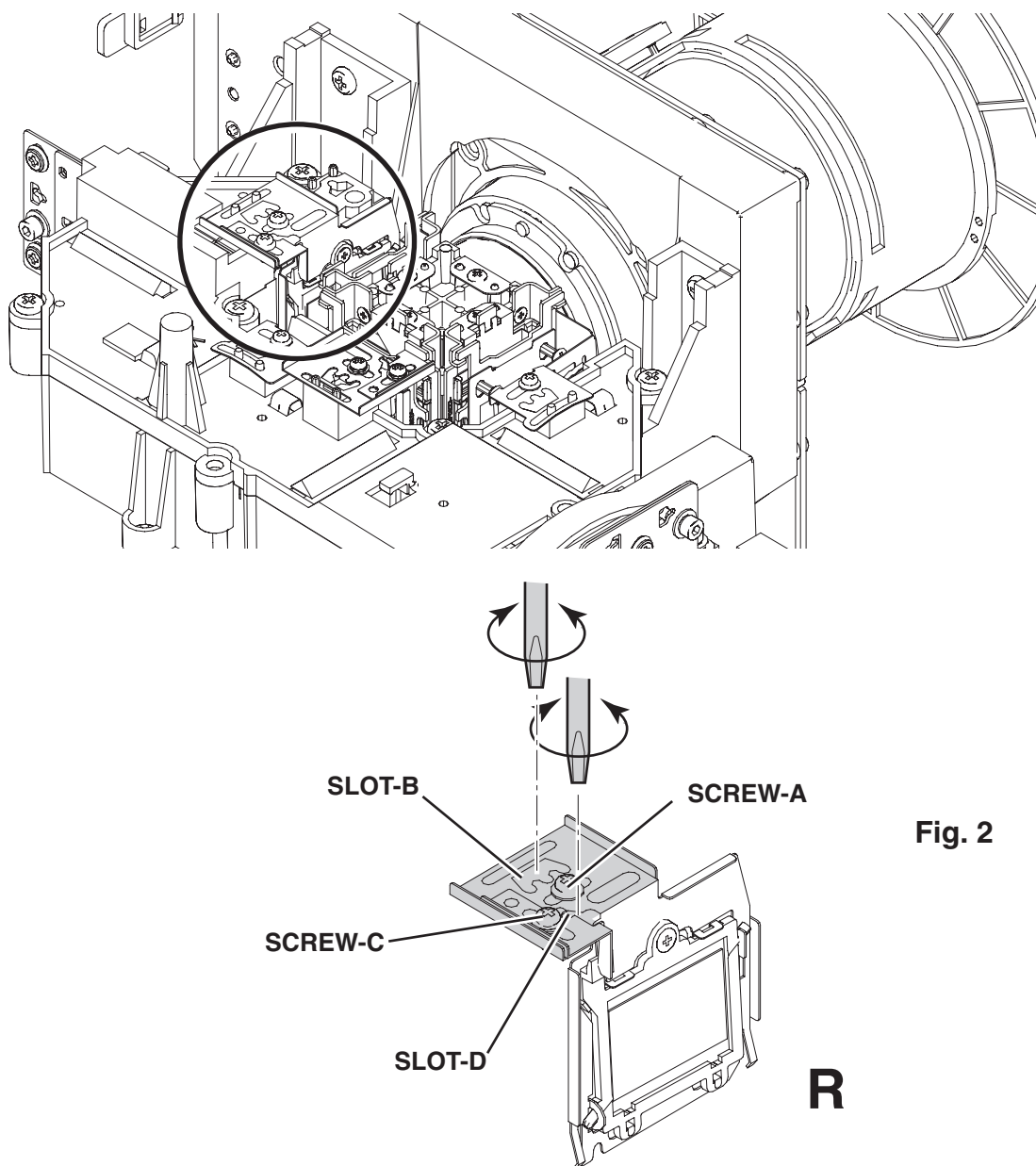


Fig. 2

5. Contrast adjustment (Optical filter WV-IN)

1. Loosen a screw **A** on the optical filter mounting base which you intend to adjust Green.
2. Adjust the slot **B** to obtain the uniform black on the screen as shown in **Fig. 3**.
3. Tighten the screw **A** to fix the optical filter mounting base.

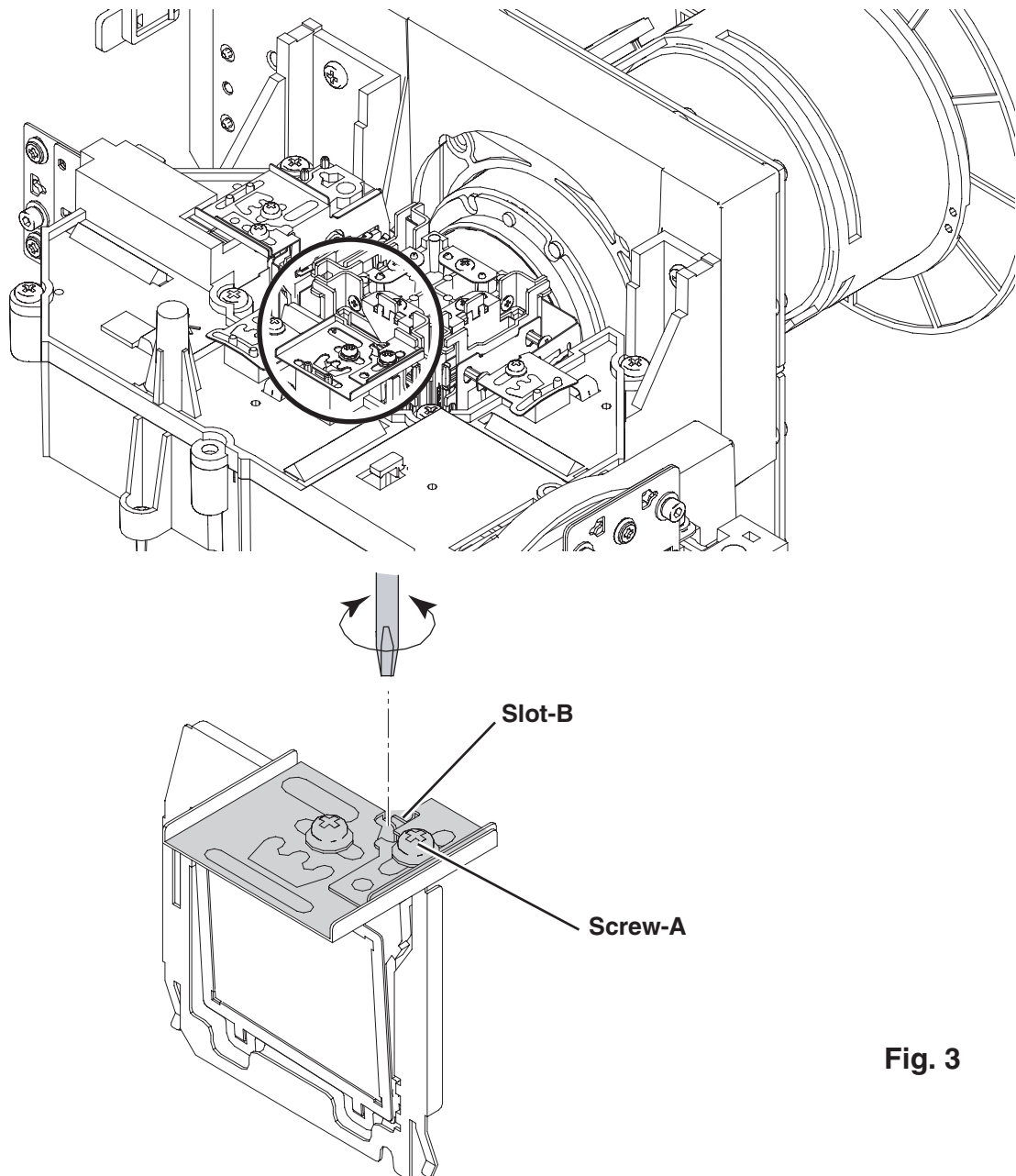


Fig. 3

■ Electrical Adjustment

● Service Adjustment Menu Operation

◆ To enter service mode

To enter service mode, press and hold the **"MENU"** and **"INPUT"** buttons on the projector simultaneously for 5 seconds. (or press and hold the **"MENU"** buttons for 20 seconds.) The **"S"** mark appears on the screen. While the **"S"** mark is displayed on the screen, press and hold the **"POINT UP"** and **"POINT DOWN"** buttons on the projector or **"SCREEN"** button on the remote control unit for more than 3 seconds. As shown in a figure, a service mode display appears on a screen.

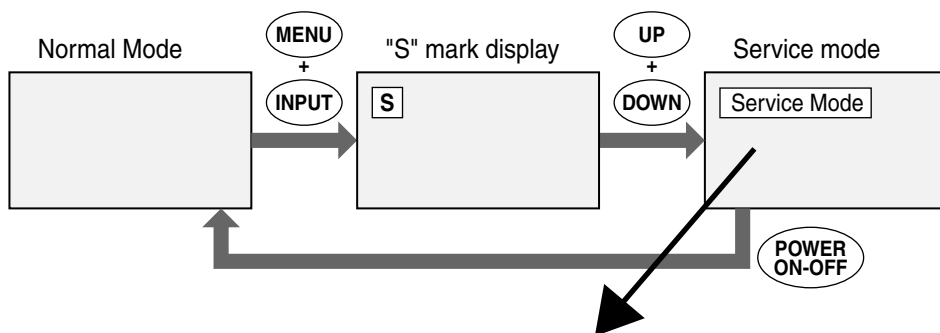
◆ To adjust service data

Adjust service data using the following control buttons.

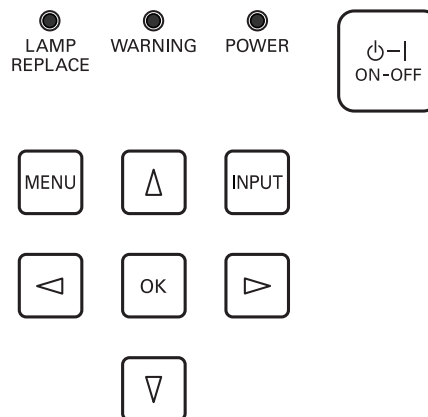
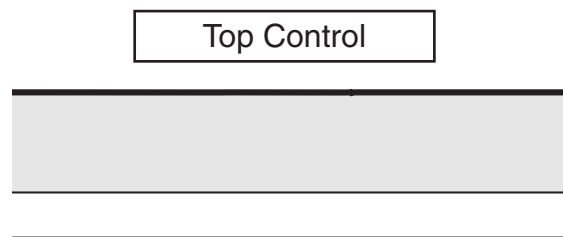
- **"OK"** A group number increases.
- **"MENU"** A group number decreases.
- **"POINT UP"** An item number increases.
- **"POINT DOWN"** An item number decreases.
- **"POINT RIGHT"** An adjustment value increases.
- **"POINT LEFT"** An adjustment value decreases.

◆ To exit service mode

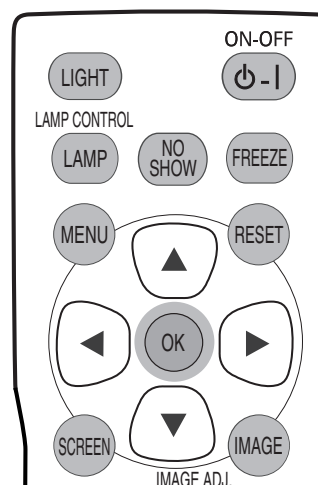
To quit the service mode, press the **"POWER ON/OFF"** button only once on the projector or the remote control unit.



Service Mode		SANYO		
Input	VIDEO			
Image	Dynamic			
Group	No.	Data		
102	0	0		
Ver	1.00	M4WA		
TempA	TempB	TempC		
28.62	44.75	37.75		
Fan1	Fan2	Fan3	Fan4	
53	55	56	56	
Fan1 rpm	Fan2 rpm	Fan3 rpm	Fan4 rpm	Fan5 rpm
1455	2460	1755	2490	2460

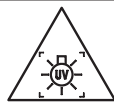


Remote Control



● Circuit Adjustment

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.



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]

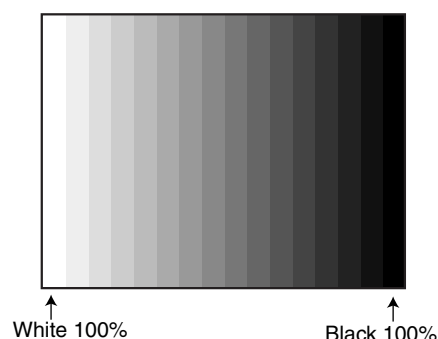
● Input signal

Computer signal 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern, 1 line dot pattern, 100% and 50% whole white pattern (720p format)

Component Video signal 0.7Vp-p/75Ω terminated, 16 steps gray scale pattern (480i, 480p, 720p and 1080i format), 100% and 50% whole white pattern (480p format)

Video signal 1.0Vp-p/75Ω terminated, 16 steps gray scale pattern (NTSC composite video signal)

16 steps gray scale pattern



● Image level selection..... “Powerful” mode unless otherwise noted.

Note:

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

1 Fan minimum voltage adjustment

Equipment Digital voltmeter

1. Enter the service mode.
2. Change data values of each test points to adjust the fan minimum output voltage.

Item no.	Fan Location	Test Point	Adjustment value
102 - 7	FN901	TPFAN1	3.5 ±0.05Vdc
102 - 8	FN902	TPFAN2	3.5 ±0.05Vdc
102 - 9	FN903	TPFAN3	3.5 ±0.05Vdc
102 - 10	FN904/5	TPFAN4	3.5 ±0.05Vdc

Note:

The location of each fan is refer to the parts list.

2 Iris adjustment

Equipment NIL

After replacing or repairing the LAMP IRIS, this re-adjustment is needed.

1. Enter the service mode.
2. Select group/item no. “105 - 14”, and change data value from “0” to “1”, then automatic iris adjustment will be done.
3. After this adjustment, change this data value from “1” to “0” for normal operation.

3 Video signal center adjustment

Equipment	Digital voltmeter
Input mode	Computer [RGB(Analog)]
Image mode	Powerful
Input signal	16-step gray scale computer signal (720p format)

1. Enter the service mode.
2. Change data values for each test points to adjust the video signal center voltage (VMID).

<u>Item no.</u>	<u>Test Point</u>	<u>Adjustment value</u>
2 - 0	TPVG	7.0 $\pm$0.05Vdc
2 - 1	TPVB	7.0 $\pm$0.05Vdc
2 - 2	TPVR	7.0 $\pm$0.05Vdc

4 Reference adjustment

Equipment	Digital voltmeter
Input mode	Computer [RGB(Analog)]
Image mode	Powerful
Input signal	16-step gray scale computer signal (720p format)

1. Enter the service mode.
2. Change data value for each test points to adjust the video signal reference voltage (VREF).

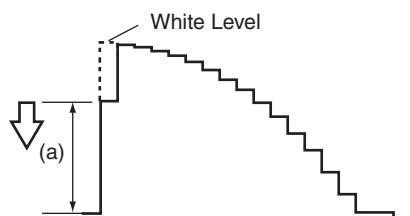
<u>Item no.</u>	<u>Test Point</u>	<u>Adjustment value</u>
2 - 3	TPREFG	9.5 $\pm$0.05Vdc
2 - 4	TPREFB	9.5 $\pm$0.05Vdc
2 - 5	TPREFR	9.5 $\pm$0.05Vdc

5 Sub gain adjustment

Equipment	Oscilloscope
Input signal	16-step gray scale signal
5-a Input mode	Computer [RGB(Analog)]
Image mode	Powerful
Input format	720p computer signal
5-b Input mode	Video
Image mode	Powerful
Input format	NTSC composite video signal
5-c Input mode	Component_1
Image mode	Powerful
Input format	480i component signal
5-d Input mode	Component_1
Image mode	Powerful
Input format	480p component signal
5-e Input mode	Component_1
Image mode	Powerful
Input format	720p component signal
5-f Input mode	Component_1
Image mode	Powerful
Input format	1080i component signal

1. Enter the service mode.
2. Change data values for each test points to adjust the waveform "a" to be minimum amplitude **in each mode**.

<u>Item no.</u>	<u>Test Point</u>
106 - 0	TP35G
106 - 1	TP35B
106 - 2	TP35R



6 Common Center adjustment

Input mode	Computer [RGB(Analog)]
Image mode	Powerful
Input signal	1 line dot pattern 720p computer signal

1. Enter the service mode.
2. Select group/item no. "**4 - 114**", and change data value from "**0**" to "**2**". (Flicker adjustment mode ...See Note)
3. Project only one color component to the screen.
4. Change data value to obtain **the minimum flicker** for each color on the screen.
5. After this adjustment, select group/item no. "**4 -114**", and change data value from "**2**" to "**0**" for normal operation.(Or turn off the projector, then this data value will be reset to "**0**".)

Item no.	Screen
3 - 0	Only green color picture
3 - 1	Only blue color picture
3 - 2	Only red color picture

Note:

The FRP signal (common electrode reverse signal) works at 120Hz, so flicker is invisible for human eyes. The service mode "**4 - 114**" can change the FRP signal from 120Hz to 60Hz, and flicker can be seen.

7 Panel Luminance adjustment (PC)

Equipment	luminance meter
Input mode	Computer [RGB(Analog)]
Image mode	Powerful
Input format	720p computer signal

1. Receive the 100% whole-white signal.
2. Enter the service mode.
3. Select group/item no. "**4 - 6**" and measure the luminance on the screen with the luminance meter. It is **A** for the reading of luminance meter.
4. Change the signal source to the 50% whole-white signal.
5. Change data value to make the reading of luminance meter to be **A x 30 ± 2%**.

8 White Balance adjustment (PC)

Input mode	Computer [RGB(Analog)]
Image mode	Powerful
Input format	720p computer signal

1. Receive the 50% whole-white signal.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**7**" (**Blue**) or "**8**" (**Red**), and change data values respectively to make a proper white balance.

**9 Panel Luminance adjustment
(Pure Cinema)**

Equipment	luminance meter
Input mode	Component_1
Image mode	Pure Cinema
Input format	480p component signal

1. Receive the 100% whole-white signal.
2. Enter the service mode.
3. Select group/item no. "**4 - 6**" and measure the luminance on the screen with the luminance meter. It is **B** for the reading of luminance meter.
4. Change the signal source to the 50% whole-white signal.
5. Change data value to make the reading of luminance meter to be **B x 22 ± 2%**.

**11 Panel Luminance adjustment
(Creative Cinema)**

Equipment	luminance meter
Input mode	Component_1
Image mode	Creative Cinema
Input format	480p component signal

1. Receive the 100% whole-white signal.
2. Enter the service mode.
3. Select group/item no. "**4 - 6**" and measure the luminance on the screen with the luminance meter. It is **B** for the reading of luminance meter.
4. Change the signal source to the 50% whole-white signal.
5. Change data value to make the reading of luminance meter to be **B x 22 ± 2%**.

**10 White Balance adjustment
(Pure Cinema)**

Input mode	Component_1
Image mode	Pure Cinema
Input format	480p component signal

1. Receive the 50% whole-white signal.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**7**" (**Blue**) or "**8**" (**Red**), and change data values respectively to make a proper white balance.

**12 White Balance adjustment
(Creative Cinema)**

Input mode	Component_1
Image mode	Creative Cinema
Input format	480p component signal

1. Receive the 50% whole-white signal.
2. Enter the service mode.
3. Select group no. "**4**", item no. "**7**" (**Blue**) or "**8**" (**Red**), and change data values respectively to make a proper white balance.

Note on WHITE UNIFORMITY Adjustment

If you find the color shading on the screen, please adjust the white uniformity by using the proper computer and "Color Shading Correction" software supplied separately. The software can be ordered as follows;

COLOR SHADING CORRECTION ver.. 4.00

Service Parts No. 645 075 9611

● 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.

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group: 0 ADV7403				
0	SOG_SYNC_LEV	11/11/11/18/11/11/11	0 - 31	PC/480i/575i/480p/720p/1080i
Group: 2 M62399 (Panel Adjustment)				
0	G_VMID [A1]	133	0 - 255	* G Video center adjustment
1	B_VMID [A3]	133	0 - 255	* B Video center adjustment
2	R_VMID [A5]	133	0 - 255	* R Video center adjustment
3	G_VREF [A2]	100	0 - 255	* G Black - black adjustment
4	B_VREF [A4]	100	0 - 255	* B Black - black adjustment
5	R_VREF [A6]	100	0 - 255	* R Black - black adjustment
6	SVREFL [A7]	102	0 - 255	4.0V fix
7	SVREFH [A8]	153	0 - 255	10.0V fix
Group: 3 L3E06130/1060P0A (Panel Driver)				
0	G_LCCOM	70	0 - 255	* G Common center adjustment
1	B_LCCOM	70	0 - 255	* B Common center adjustment
2	R_LCCOM	70	0 - 255	* R Common center adjustment
3	R_LCCOM_Ceiling	0	-128 - 127	R Common center adjustment Ceiling difference
4	G_LCCOM_Ceiling	0	-128 - 127	G Common center adjustment Ceiling difference
5	B_LCCOM_Ceiling	0	-128 - 127	B Common center adjustment Ceiling difference
6	R_ENBX_PW	10	0 - 255	R ENBX pulse width
7	G_ENBX_PW	10	0 - 255	G ENBX pulse width
8	B_ENBX_PW	10	0 - 255	B ENBX pulse width
9	R_DXIN	2	0 - 255	R DXIN Delay
10	G_DXIN	2	0 - 255	G DXIN Delay
11	B_DXIN	2	0 - 255	B DXIN Delay
12	R_CLXIN	2	0 - 255	R CLXIN Delay
13	G_CLXIN	2	0 - 255	G CLXIN Delay
14	B_CLXIN	2	0 - 255	B CLXIN Delay
15	R_ENBX1IN	16	0 - 255	R ENBX1IN Delay
16	G_ENBX1IN	16	0 - 255	G ENBX1IN Delay
17	B_ENBX1IN	16	0 - 255	B ENBX1IN Delay
18	R_GFB	1	0 - 3	R Automatic delay adjustment
19	G_GFB	1	0 - 3	G Automatic delay adjustment
20	B_GFB	1	0 - 3	B Automatic delay adjustment
Group: 4 L3E07110K0A (Digital Gamma)				
0	G_Contrast	512/512/512	360 - 535	CreativeCinema&Natural&Living/PureCinema/Powerful&Dynamic&Vivid
1	B_Contrast	512/512/512	360 - 535	
2	R_Contrast	512/512/512	360 - 535	
3	G_Bright	0/0/0	0 - 1023	
4	B_Bright	0/0/0	0 - 1023	
5	R_Bright	0/0/0	0 - 1023	* Panel luminance adjustment * White balance adjustment [B] * White balance adjustment [R]
6	G_Gamma_Shift	0/0/0	-512 - 511	
7	B_Gamma_Shift	0/0/0	-512 - 511	
8	R_Gamma_Shift	0/0/0	-512 - 511	
9	R_REF_H	896	0 - 1023	
10	R_REF_L	256	0 - 1023	
11	G_REF_H	896	0 - 1023	
12	G_REF_L	256	0 - 1023	
13	B_REF_H	896	0 - 1023	
14	B_REF_L	256	0 - 1023	
15	DXOUTR	214	0 - 1023	
16	DXOUTG	214	0 - 1023	
17	DXOUTB	214	0 - 1023	
18	ENBX_R	0	0 - 127	
19	ENBX_G	0	0 - 127	
20	ENBX_B	0	0 - 127	
21	H_CHANGE_Pos	6	0 - 255	
22	SH_BASE_Pos	0	0 - 1	
23	R_SH_Pos	10	0 - 15	
24	G_SH_Pos	10	0 - 15	
25	B_SH_Pos	10	0 - 15	
26	NRG_Pos	51	0 - 127	
27	NRG_Width	48	0 - 255	
28	OSD_Pos	2	0 - 3	
29	OSD_Pat	0	0 - 7	
30	Gamma_Ctrl	1	0 - 1	
31	REF_GATE_Pos	2	0 - 1023	
32	REF_GATE_Width	180	0 - 1023	
33	R_BASE_Pos	6	0 - 15	
34	G_BASE_Pos	6	0 - 15	
35	B_BASE_Pos	6	0 - 15	
36	RGB_ADJUST	0	0 - 7	
37	RGB_ADJLEV	0	0 - 1023	
38	LINE_R0	4	0 - 255	
39	LINE_R1	3	0 - 255	

Electrical Adjustments

No.	Adjustment Item	Initial Value	Range	Input source / Description
40	LINE_R2	1	0 - 255	
41	LINE_R3	0	0 - 255	
42	LINE_R4	0	0 - 255	
43	LINE_G0	4	0 - 255	
44	LINE_G1	3	0 - 255	
45	LINE_G2	1	0 - 255	
46	LINE_G3	0	0 - 255	
47	LINE_G4	0	0 - 255	
48	LINE_B0	4	0 - 255	
49	LINE_B1	3	0 - 255	
50	LINE_B2	1	0 - 255	
51	LINE_B3	0	0 - 255	
52	LINE_B4	0	0 - 255	
53	GHOST_R_Pos	6	0 - 15	
54	GHOST_G_Pos	6	0 - 15	
55	GHOST_B_Pos	6	0 - 15	
56	GHOST_R_cent	0	0 - 2047	
57	GHOST_R_start	128	0 - 2047	
58	GHOST_R_end	128	0 - 2047	
59	GHOST_G_cent	0	0 - 2047	
60	GHOST_G_start	128	0 - 255	
61	GHOST_G_end	128	0 - 255	
62	GHOST_B_cent	0	0 - 2047	
63	GHOST_B_start	128	0 - 255	
64	GHOST_B_end	128	0 - 255	
65	BLOCK_R1	0	0 - 2047	
66	BLOCK_G1	0	0 - 2047	
67	BLOCK_B1	0	0 - 2047	
68	BLOCK_R2	0	0 - 2047	
69	BLOCK_G2	0	0 - 2047	
70	BLOCK_B2	0	0 - 2047	
71	REVERSE_R	0	0 - 2047	
72	REVERSE_G	0	0 - 2047	
73	REVERSE_B	0	0 - 2047	
74	BACK_CTALK_R_cent	0	0 - 2047	
75	BACK_CTALK_R_start	128	0 - 255	
76	BACK_CTALK_R_end	128	0 - 255	
77	BACK_CTALK_G_cent	0	0 - 2047	
78	BACK_CTALK_G_start	128	0 - 255	
79	BACK_CTALK_G_end	128	0 - 255	
80	BACK_CTALK_B_cent	0	0 - 2047	
81	BACK_CTALK_B_start	128	0 - 255	
82	BACK_CTALK_B_end	128	0 - 255	
83	CS_COR	1	0 - 1	
84	H_START	265	0 - 2047	
85	V_START	8	0 - 2047	
86	H_END	1545	0 - 2047	
87	V_END	728	0 - 2047	
88	R_MIN	466	0 - 1023	
89	R_MID6	556	0 - 1023	
90	R_MID5	609	0 - 1023	
91	R_MID4	650	0 - 1023	
92	G_MIN	466	0 - 1023	
93	G_MID6	556	0 - 1023	
94	G_MID5	609	0 - 1023	
95	G_MID4	650	0 - 1023	
96	B_MIN	466	0 - 1023	
97	B_MID6	556	0 - 1023	
98	B_MID5	609	0 - 1023	
99	B_MID4	650	0 - 1023	
100	R_MID3	679	0 - 1023	
101	R_MID2	706	0 - 1023	
102	R_MID1	733	0 - 1023	
103	R_MAX	762	0 - 1023	
104	G_MID3	679	0 - 1023	
105	G_MID2	706	0 - 1023	
106	G_MID1	733	0 - 1023	
107	G_MAX	762	0 - 1023	
108	B_MID3	679	0 - 1023	
109	B_MID2	706	0 - 1023	
110	B_MID1	733	0 - 1023	
111	B_MAX	762	0 - 1023	
112	H_OUTPUT_Pos	108	0 - 1023	
113	OUTAREA_LEVEL	0	0 - 1023	
114	FLICKER_ADJUST	0	0 / 2	0: Disable, 2: Flicker adjustment setting
115	FRC_BIT	1	0 - 1	10bit/12bit
116	FRONT_CTALK2_R_cent	0	0 - 2047	
117	FRONT_CTALK2_R_start	126	0 - 255	
118	FRONT_CTALK2_R_end	128	0 - 255	
119	FRONT_CTALK2_G_cent	0	0 - 2047	
120	FRONT_CTALK2_G_start	126	0 - 255	
121	FRONT_CTALK2_G_end	128	0 - 255	
122	FRONT_CTALK2_B_cent	0	0 - 2047	
123	FRONT_CTALK2_B_start	126	0 - 255	

No.	Adjustment Item	Initial Value	Range	Input source / Description
124	FRONT_CTALK2_B_end	128	0 - 255	
125	R_DCOffset_N_Gain	0/0	0 - 255	Scanning direction (Front projection/Rear projection)
126	R_DCOffset_N_1	503/503	0 - 511	
127	R_DCOffset_N_2	0/0	0 - 511	
128	R_DCOffset_N_11	503/503	0 - 511	
129	R_DCOffset_N_12	503/503	0 - 511	
130	R_DCOffset_P_Gain	0/0	0 - 255	
131	R_DCOffset_P_1	10/10	0 - 511	
132	R_DCOffset_P_2	5/0	0 - 511	
133	R_DCOffset_P_11	10/10	0 - 511	
134	R_DCOffset_P_12	10/10	0 - 511	
135	G_DCOffset_N_Gain	0/0	0 - 255	
136	G_DCOffset_N_1	503/503	0 - 511	
137	G_DCOffset_N_2	0/0	0 - 511	
138	G_DCOffset_N_11	503/503	0 - 511	
139	G_DCOffset_N_12	503/503	0 - 511	
140	G_DCOffset_P_Gain	0/0	0 - 255	
141	G_DCOffset_P_1	10/10	0 - 511	
142	G_DCOffset_P_2	0/5	0 - 511	
143	G_DCOffset_P_11	10/10	0 - 511	
144	G_DCOffset_P_12	10/10	0 - 511	
145	B_DCOffset_N_Gain	0/0	0 - 255	
146	B_DCOffset_N_1	503/503	0 - 511	
147	B_DCOffset_N_2	0/0	0 - 511	
148	B_DCOffset_N_11	503/503	0 - 511	
149	B_DCOffset_N_12	503/503	0 - 511	
150	B_DCOffset_P_Gain	0/0	0 - 255	
151	B_DCOffset_P_1	10/10	0 - 511	
152	B_DCOffset_P_2	5/0	0 - 511	
153	B_DCOffset_P_11	10/10	0 - 511	
154	B_DCOffset_P_12	10/10	0 - 511	
155	G_HalfLight	0/0	-512 - 511	DARK/BRIGHT[Natural,Living,CreativeCinema,PureCinema/Dynamic,Powerful,Vivid]
156	B_HalfLight	0/0	-512 - 511	
157	R_HalfLight	0/0	-512 - 511	
158	SWAP_OUTPUT	0	0 - 5	L3E07110 Output Swap: Normal=0, RB Swap=5
Group: 5 PIC				
0	Revision	Read only		
1	Version	Read only		
2	Lamp Voltage Pic	Read only		
3	Lamp Voltage	Read only		
Group: 6 FPGA				
0	Soft version	Read only		
1	Hard version	Read only		
2	H Total	Read only		
3	V Total	Read only		
4	H Resolution	Read only		
5	V Resolution	Read only		
6	Color management enable	1	0 - 1	0: Disable, 1:Enable
7	Y Range	8	0 - 32	
8	Hue Range	10	0 - 20	
9	Gain Range	30	0 - 50	
10	Gamma Minimus Slope	3	0 - 10	
11	Gamma Maximum Slope	18	0 - 30	
12	Gamma Converge	3	1 - 5	
13	Same Hue	3	1 - 10	
14	UV Norm	5	0 - 64	
15	Minimum Y	0	0 - 127	
16	Maximum Y	255	128 - 255	
17				
Group: 100 PW Option				
2	Forced NOBRAND	0	0 - 1	0: Normal, 1: Forced NOBRAND LOGO
4	Super Standby Mode	0	0 - 1	0: Normal Standby Mode, 1: Super Standby Mode
5	PWDEBUG_SW	0	0 - 1	0: PWDebug Disable, 1: PWDebug Enable
6	No signal lamp mode	0	0 - 1	0: Disable change lamp mode at no signal, 1: Enable
7	Language Display	1	0 - 1	0: Off, 1: On
10	RS232C BaudRate	0	0 - 1	0: 19200bps, 1: 9600bps
11	EP6130_VLINE_RESET	0	0 - 10	
12	Signal Display	0	0 - 1	0: Normal, 1: Display signal name in the information of the menu(XGA1,VGA1,etc)
13	My Picture	0	0 - 1	0: My Picture key disable, 1: My Picture key enable
14		-	-	
Group: 101 Dimmer				
0	Dimmer SW	0	0 - 1	0: Auto, 1: Manual
1	Manual Control	0	0 - 15	Dimmer control level 0 (dark) ... 15 (bright)
2	DIMMER_CTRL_LEVEL0	0/0	0 - 255	APL threshold level (AUTO1/AUTO2)
3	DIMMER_CTRL_LEVEL1	0/0	0 - 255	
4	DIMMER_CTRL_LEVEL2	8/13	0 - 255	
5	DIMMER_CTRL_LEVEL3	16/26	0 - 255	
6	DIMMER_CTRL_LEVEL4	24/39	0 - 255	
7	DIMMER_CTRL_LEVEL5	32/52	0 - 255	
8	DIMMER_CTRL_LEVEL6	40/65	0 - 255	

Electrical Adjustments

No.	Adjustment Item	Initial Value	Range	Input source / Description
9	DIMMER_CTRL_LEVEL7	48/78	0 - 255	APL threshold level (AUTO1/AUTO2)
10	DIMMER_CTRL_LEVEL8	56/255	0 - 255	
11	DIMMER_CTRL_LEVEL9	64/255	0 - 255	
12	DIMMER_CTRL_LEVEL10	72/255	0 - 255	
13	DIMMER_CTRL_LEVEL11	80/255	0 - 255	
14	DIMMER_CTRL_LEVEL12	88/255	0 - 255	
15	DIMMER_CTRL_LEVEL13	96/255	0 - 255	
16	DIMMER_CTRL_LEVEL14	104/255	0 - 255	
17	DIMMER_AVERAGE_POINT	2	0 - 7	
18	DIMMER_AVERAGE_DATA	-	0 - 255	
19	DIMMER_NORMAL_LV	15	0 - 15	
20	DIMMER_ECO_LV	0	0 - 15	
Group: 102 Fan Control				
0	Fan Control Mode 1	0	0 - 3	0: Normal, 1: Ceiling, 2: Wall hanging, 3: Highland
1	Fan Control Mode 2	0	0 - 2	0: Normal, 1: Forced wall hanging mode, 3: Forced highland mode
2	Fan SW	0	0 - 3	0: Auto, 1: Temp. MIN, 2: Temp. MAX, 3: Manual
3	Manual Fan1 Voltage	100	30 - 145	*: Fan minimum voltage adjustment
4	Manual Fan2 Voltage	100	30 - 145	
5	Manual Fan3 Voltage	100	30 - 145	
6	Manual Fan4 Voltage	100	30 - 145	
7	Fan1 Min Adjust	28	0 - 255	
8	Fan2 Min Adjust	28	0 - 255	
9	Fan3 Min Adjust	28	0 - 255	
10	Fan4 Min Adjust	23	0 - 255	
11	Fan1 Max Adjust	229	0 - 255	
12	Fan2 Max Adjust	229	0 - 255	
13	Fan3 Max Adjust	229	0 - 255	
14	Fan4 Max Adjust	223	0 - 255	
15	Fan1 Min Limit	35	30 - 145	
16	Fan2 Min Limit	30	30 - 145	
17	Fan3 Min Limit	35	30 - 145	
18	Fan4 Min Limit	30	30 - 145	
19	Fan1 Max Limit	138	30 - 145	
20	Fan2 Max Limit	138	30 - 145	
21	Fan3 Max Limit	138	30 - 145	
22	Fan4 Max Limit	138	30 - 145	
23	Fan1 Min Rpm	510	510 - 4500	
24	Fan2 Min Rpm	510	510 - 6510	
25	Fan3 Min Rpm	510	510 - 4500	
26	Fan4 Min Rpm	510	510 - 6510	
27	Fan1 Max Rpm	4500	510 - 4500	
28	Fan2 Max Rpm	6510	510 - 6510	
29	Fan3 Max Rpm	4500	510 - 4500	
30	Fan4 Max Rpm	6510	510 - 6510	
		Norm/Ceil/wall/Highland		
31	Normal Fan1 Min	1560/1560/1680/2580	510 - 4500	
32	Normal Fan2 Min	3240/3285/3450/4620	510 - 6510	
33	Normal Fan3 Min	2235/2235/2415/3300	510 - 4500	
34	Normal Fan4 Min	2580/2580/2775/4335	510 - 6510	
35	Normal Fan1 Max	2490/2490/2490/2760	510 - 4500	
36	Normal Fan2 Max	3375/3465/3375/4530	510 - 6510	
37	Normal Fan3 Max	3060/3060/3060/3675	510 - 4500	
38	Normal Fan4 Max	5055/5055/5340/4965	510 - 6510	
39	Normal TempA Low	27/27/27/25	-5 - 100	
40	Normal TempA High	35/35/35/30	-5 - 100	
41	Normal TempB Low	50/50/49/50	-5 - 100	
42	Normal TempB High	55/55/54/53	-5 - 100	
43	Normal TempC Low	43/43/45/43	-5 - 100	
44	Normal TempC High	48/48/50/48	-5 - 100	
45	Normal TempA Error	41/41/41/31	-5 - 100	
46	Normal TempB Error	56/56/55/54	-5 - 100	
47	Normal TempC Error	49/51/51/49	-5 - 100	
48	Normal TempB-A Error	33/33/33/30	0 - 100	
49	Normal TempC-A Error	26/26/26/28	0 - 100	
50	Eco Fan1 Min	1245/1680/1860/2085	510 - 4500	
51	Eco Fan2 Min	2235/2265/2220/3405	510 - 6510	
52	Eco Fan3 Min	1605/2340/2520/3045	510 - 4500	
53	Eco Fan4 Min	1815/1815/1815/3900	510 - 6510	
54	Eco Fan1 Max	2325/2325/2310/2715	510 - 4500	
55	Eco Fan2 Max	2670/2655/2550/3600	510 - 6510	
56	Eco Fan3 Max	1935/2640/2835/3360	510 - 4500	
57	Eco Fan4 Max	4125/4905/5025/4740	510 - 6510	
58	Eco TempA Low	27/27/27/25	-5 - 100	
59	Eco TempA High	35/35/35/30	-5 - 100	
60	Eco TempB Low	53/52/51/52	-5 - 100	
61	Eco TempB High	58/57/56/55	-5 - 100	
62	Eco TempC Low	46/46/46/42	-5 - 100	
63	Eco TempC High	51/51/51/47	-5 - 100	
64	Eco TempA Error	41/41/41/31	-5 - 100	
65	Eco TempB Error	59/59/57/56	-5 - 100	
66	Eco TempC Error	52/52/52/48	-5 - 100	
67	Eco TempB-A Error	38/38/38/30	0 - 100	
68	Eco TempC-A Error	26/28/26/28	0 - 100	

No.	Adjustment Item	Initial Value	Range	Input source / Description
69	Auto Watt Max Fan1 Min	1560/1545/1680/2580	510 - 4500	
70	Auto Watt Max Fan2 Min	3240/3285/3450/4620	510 - 6510	
71	Auto Watt Max Fan3 Min	2235/2235/2415/3300	510 - 4500	
72	Auto Watt Max Fan4 Min	2580/2580/2820/4335	510 - 6510	
73	Auto Watt Max Fan1 Max	2490/2490/2490/2760	510 - 4500	
74	Auto Watt Max Fan2 Max	3375/3465/3375/4530	510 - 6510	
75	Auto Watt Max Fan3 Max	3045/3045/3045/3675	510 - 4500	
76	Auto Watt Max Fan4 Max	5055/5055/5340/4965	510 - 6510	
77	Auto Watt Min Fan1 Min	1245/1680/1860/2085	510 - 4500	
78	Auto Watt Min Fan2 Min	2235/2265/2220/3405	510 - 6510	
79	Auto Watt Min Fan3 Min	1605/2340/2520/3045	510 - 4500	
80	Auto Watt Min Fan4 Min	1815/1815/1815/3900	510 - 6510	
81	Auto Watt Min Fan1 Max	2325/2325/2310/2715	510 - 4500	
82	Auto Watt Min Fan2 Max	2670/2655/2550/3600	510 - 6510	
83	Auto Watt Min Fan3 Max	1935/2640/2835/3360	510 - 4500	
84	Auto Watt Min Fan4 Max	4125/4905/5025/4740	510 - 6510	
85	Auto TempA Low	27/27/27/25	-5 - 100	
86	Auto TempA High	35/35/35/30	-5 - 100	
87	Auto TempB Low	53/52/51/52	-5 - 100	
88	Auto TempB High	58/57/56/55	-5 - 100	
89	Auto TempC Low	46/46/46/42	-5 - 100	
90	Auto TempC High	51/51/51/47	-5 - 100	
91	Auto TempA Error	41/41/41/31	-5 - 100	
92	Auto TempB Error	59/59/57/56	-5 - 100	
93	Auto TempC Error	52/52/52/48	-5 - 100	
94	Auto TempB-A Error	38/38/38/30	0 - 100	
95	Auto TempC-A Error	26/28/26/28	0 - 100	
96	Cooling Time	2	0 - 15	0: Always ON, 1: 30sec, 2: 60sec, 3: 90sec, ... 15: 450sec.
97	Temp Error Cooling Time	3	1 - 15	1: 30sec, 2: 60sec, 3: 90sec, ... 15: 450sec.
98	Average Time	1	0 - 10	0: 10sec, 1: 30sec, 2: 60sec, 3: 90sec ... 10: 300sec
99	Change Normal	0	0 - 1	0: Normal, 1: Forced lamp MAX
101	Dac Change Speed	2	1 - 10	
102	Fan1 Initial Vol	50	0 - 255	
103	Fan2 Initial Vol	40	0 - 255	
104	Fan3 Initial Vol	50	0 - 255	
105	Fan4 Initial Vol	40	0 - 255	
106	Fan Keep Time	15	0 - 180	
107	Fan Min Keep Time	60	0 - 180	
108	Shutdown Temp A	5	0 - 100	
109	Shutdown Temp B	20	0 - 100	
110	Shutdown Temp C	5	0 - 100	
111	Shutdown Temp B-A	20	0 - 100	
112	Shutdown Temp C-A	20	0 - 100	
113	Shutdown Time A	240	0 - 255	
114	Shutdown Time B	240	0 - 255	
115	Shutdown Time C	240	0 - 255	
116	Shutdown Time B-A	240	0 - 255	
117	Shutdown Time C-A	240	0 - 255	
122	Fan Min Interlock	0	0 - 1	FAN MIN Interlock On/Off (0: Individual, 1: Link)
125	Lamp Monitor SW	1	0 - 1	0: Off, 1: On
126	Lamp Voltage	---	30 - 90	Read only
127	Lamp Vol Threshold	60	50 - 90	
128	Fan Speed Gain	300	0 - 1500	
129	Lamp Keep Time	90	0 - 255	
Group: 103 Lens IRIS				
0	Iris Descriptor Min	120	0 - 255	
1	Iris Descriptor Max	230	0 - 255	
2	Iris Valid	1	0 - 1	0: Disable, 1: Enable
3	Iris ADC Value	---	0 - 255	Read only
Group: 104 Door Control				
0	Door Control Brake	16	1 - 16	
1	Door Control First	0	0 - 2000	
2	Door Control Open	900	0 - 2000	
3	Door Control Close	900	0 - 2000	
4	Door Control Extra	300	0 - 2000	
5	Door Control Limit	5000	0 - 20000	
6	Door Control Initialize	400	0 - 2000	
7	Door Control Count OPEN	---	0 - 30000	Read only
8	Door Control Count CLOSE	---	0 - 30000	Read only
9	Door Control Reset OPEN	1	0 - 1	
10	Door Control Reset CLOSE	1	0 - 1	
11	Door Control Exhibition	0	0 - 1	Shutter demonstration(0: Normal demo, 1: Exhibition demo)
12	Door Control Blink Time	2	0 - 10	0: Always, 1: 30sec, 2: 60sec ... n: 30n sec.
Group: 105 Lamp IRIS				
0	Lamp IRIS Mecha A	50	1 - 254	
1	Lamp IRIS Mecha B	200	1 - 254	
2	Lamp IRIS PWM Time	200	100 - 1000	
3	Lamp IRIS Margin	5	0 - 63	
4	Lamp IRIS Point C	4/4	0 - 255	(AUTO1/AUTO2)
5	Lamp IRIS Point O	64/64	0 - 255	(AUTO1/AUTO2)
6	Lamp IRIS Min X	0/22	0 - 63	(AUTO1/AUTO2)

Electrical Adjustments

No.	Adjustment Item	Initial Value	Range	Input source / Description
7	Lamp IRIS Max Y	63/63	0 - 63	(AUTO1/AUTO2)
8	Lamp IRIS Close	33	0 - 63	
9	Lamp IRIS Open	63	0 - 63	
10	Lamp IRIS Ave Time	4/4	1 - 8	(AUTO1/AUTO2)
11	Lamp IRIS SW	0	0 - 1	0:Auto, 1:Manual
12	Lamp IRIS Manual	128	1 - 254	
13	Lamp IRIS 145W Min	22	0 - 63	
14	Lamp IRIS Adjust	0	0 - 1	Moving range adjustment of Lens iris and Lamp iris * Iris adjustment
Group: 106 User menu contrast center adjust				
0	Contrast G center adjust	512/467/512/512/ 512/512/512/512/490	0 - 1023	Ntsc, Pal, Secam, PalM, PalN, Mono60, Mono50/Ntsc443, Pal60/480i, 575i/480p, 575p/ 720p60, 720p50/1080i60, 1080i50/PC/Scart/HDMI *: Sub gain adjustment
1	Contrast B center adjust	512/467/512/512/ 512/512/512/512/490	0 - 1023	
2	Contrast R center adjust	512/467/512/512/ 512/512/512/512/490	0 - 1023	
Group: 200 PW DeInterlacer (General)				
0	IP MODE	0	0 - 1	0: IP OFF with IP Black, 1: IP OFF without IP Block
1	3:2 PullDown Mode	1	0 - 3	bit 0 : Global Motion Enable, bit 1 : Video Motion
Group: 201 PW DeInterlacer (Progressive level)				
0	Motion Adaptive Weight Value	27/27/60/65/60/60/60/60/ 0/0/0/0/0/0/0/0	0 - 255	L1 : Composite/SVideo/480i, 575i/1080i, 1080i50/Scart/HDMI(480i, 575i)/HDMI(1080i, 1080i50)/PC L2 : Composite/SVideo/480i, 575i/1080i, 1080i50/Scart/HDMI(480i, 575i)/HDMI(1080i, 1080i50)/PC Film: Composite/SVideo/480i, 575i/1080i, 1080i50/Scart/HDMI(480i, 575i)/HDMI(1080i, 1080i50)/PC
1	Low Angle interpolation	0/2/2	0 - 4	L1/L2/Film
Group: 203 PW DeInterlacer (Noise Reduction)				
0	Noise reduction enable	0/1/1/1/1/1/1/1	0 - 1	Composite/SVideo/480i, 575i/480p, 575p/Scart/ HDMI(480i, 575i)/HDMI(VGA, 480p, 575p)/PC(480p, 575p, VGA)
1	Trmp noise reduction enable	0/0/0/1/1/1/1/1	0 - 1	
2	NoiseLevel	0/0/0/0/0/0/0/0	0 - 1023	
3	Noise Pixel Range	1/1/1/1/1/1/1/1	0 - 3	
4	Noise Region 0	12/12/12/12/12/12/12/12	0 - 1023	
5	Noise Region 1	24/24/24/24/24/24/24/24	0 - 1023	
6	Noise Region 2	40/40/40/40/40/40/40/40	0 - 1023	
7	Noise Gain Level	148/148/148/148/148/148/148/148	0 - 1023	
Group: 204 PW DeInterlacer (2:2 Pull Down)				
0	22Film Mode Sensitivity	4	0 - 5	
1	22Film Mode Threshold Low	80	0 - 32767	
2	22Film Mode Threshold High	120	0 - 32767	
3	VOFTHR13	124	0 - 1023	
4	VOFTHR12	124	0 - 1023	
5	VOFTHR23	124	0 - 1023	
6	Video Motion Window Start X	10	0 - 2047	
7	Video Motion Window Stop X	10	0 - 2047	
8	Video Motion Window Start Y	10	0 - 1023	
9	Video Motion Window Stop Y	10	0 - 1023	
Group: 205 PW DeInterlacer (2:3 Pull Down)				
0	Global Motion Sensitivity	4	0 - 5	
1	Video Motion Sensitivity	4	0 - 5	
2	Video Motion Threshold Low	120	0 - 32767	
3	Video Motion Threshold High	81	0 - 32767	
4	Global Motion Threshold	124	0 - 1023	
5	23Film Mode Threshold	100	0 - 32767	
6	Global Motion Window Start X	10	0 - 2047	
7	Global Motion Window Stop X	10	0 - 2047	
8	Global Motion Window Start Y	10	0 - 1023	
9	Global Motion Window Stop Y	10	0 - 1023	
Group: 210 PW Scaling Filter				
0	Scaling Filter	14/14/15/17/15/9/ 15/15/16/18/13/17	0 - 42	Composite/SVideo/480i, 575i/480p, 575p/720p60, 720p50/1035i, 1080i60, 1080i50/ Scart/HDMI(480i, 575i)/HDMI(VGA, 480p, 575p)/HDMI(720p)/HDMI(1080i)/PC
1	Scaling Filter Difference	6	0 - 20	Progressive OFF at YCbCr1035i, 1080i60, 1080i50/HDMI(1080i)
Group: 220 PW Video Enhancement				
0	DCS	0/0/0/0/0/0/0/0/0/0	0 - 1	Composite/SVideo/480i, 575i/480p, 575p/720p60, 720p50/1035i, 1080i60, 1080i50/ Scart/HDMI(480i, 575i)/HDMI(VGA, 480p, 575p)/HDMI(720p)/HDMI(1080i)/PC
1	DCTI	1/1/1/0/0/0/0/0/0/0	0 - 5	
2	Peaking enable	1/1/1/0/1/1/1/0/1/1	0 - 1	
3	Peaking overshoot 1	8/8/8/8/8/8/8/8/8/8	0 - 255	
4	Peaking overshoot 2	8/8/8/8/8/8/8/8/8/8	0 - 255	
5	Peaking B	2/2/2/2/2/2/2/2/2/2	0 - 3	
6	Peaking H	1/1/1/1/1/1/1/1/1/1	0 - 3	
7	Peaking low pass filter gain	3/2/5/3/4/4/2/4/2/0/	0 - 63	
8	Peaking high pass filter gain	3/2/5/3/4/4/2/4/2/0/	0 - 63	
9	Peaking core filter threshold	10/10/10/10/10/10/ 10/10/10/10/10/10	0 - 31	
10	BWL	0/0/0/0/0/0/0/0/0/0	0 - 255	
Group: 230 PW Input port				
0	VSBEg	2	0 - 15	

No.	Adjustment Item	Initial Value	Range	Input source / Description
Group: 500 NTSC overscan				
1	DISP DOTS	694		
2	H BACK PORCH	86		
3	V BACK PORCH	32		
4	DISP LINE	474		
5	CLAMP	3		
6	WIDTH	30		
Group: 501 NTSC overscan (Normal through/Full through)				
1	DISP DOTS	694		
2	H BACK PORCH	86		
3	V BACK PORCH	32		
4	DISP LINE	474		
5	CLAMP	3		
6	WIDTH	30		
Group: 502 PAL overscan				
1	DISP DOTS	692		
2	H BACK PORCH	92		
3	V BACK PORCH	44		
4	DISP LINE	562		
5	CLAMP	3		
6	WIDTH	30		
Group: 503 PAL overscan (Normal through/Full through)				
0	TOTAL DOTS	944		
1	DISP DOTS	692		
2	H BACK PORCH	92		
3	V BACK PORCH	44		
4	DISP LINE	562		
5	CLAMP	3		
6	WIDTH	30		
Group: 510 YCbCr 480i overscan				
1	DISP DOTS	702		
2	H BACK PORCH	82		
3	V BACK PORCH	28		
4	DISP LINE	482		
5	CLAMP	10		
6	WIDTH	40		
Group: 511 YCbCr 480i overscan (Normal through/Full through)				
1	DISP DOTS	702		
2	H BACK PORCH	82		
3	V BACK PORCH	28		
4	DISP LINE	482		
5	CLAMP	0		
6	WIDTH	32		
Group: 512 YCbCr 575i overscan				
1	DISP DOTS	692		
2	H BACK PORCH	92		
3	V BACK PORCH	38		
4	DISP LINE	574		
5	CLAMP	10		
6	WIDTH	40		
Group: 513 YCbCr 575i overscan (Normal through/Full through)				
1	DISP DOTS	694		
2	H BACK PORCH	91		
3	V BACK PORCH	38		
4	DISP LINE	574		
5	CLAMP	10		
6	WIDTH	40		
Group: 514 YCbCr 480p overscan				
0	TOTAL DOTS	1716		
1	DISP DOTS	1440		
2	H BACK PORCH	115		
3	V BACK PORCH	36		
4	DISP LINE	483		
5	CLAMP	27		
6	WIDTH	20		
Group: 515 YCbCr 480p overscan (Normal through/Full through)				
0	TOTAL DOTS	858		
1	DISP DOTS	712		
2	H BACK PORCH	62		
3	V BACK PORCH	36		
4	DISP LINE	483		
5	CLAMP	18		
6	WIDTH	20		
Group: 516 YCbCr 575p overscan				
0	TOTAL DOTS	1886		
1	DISP DOTS	1536		
2	H BACK PORCH	178		
3	V BACK PORCH	44		
4	DISP LINE	576		
5	CLAMP	25		
6	WIDTH	20		
Group: 517 YCbCr 575p overscan (Normal through/Full through)				
0	TOTAL DOTS	928		
1	DISP DOTS	768		

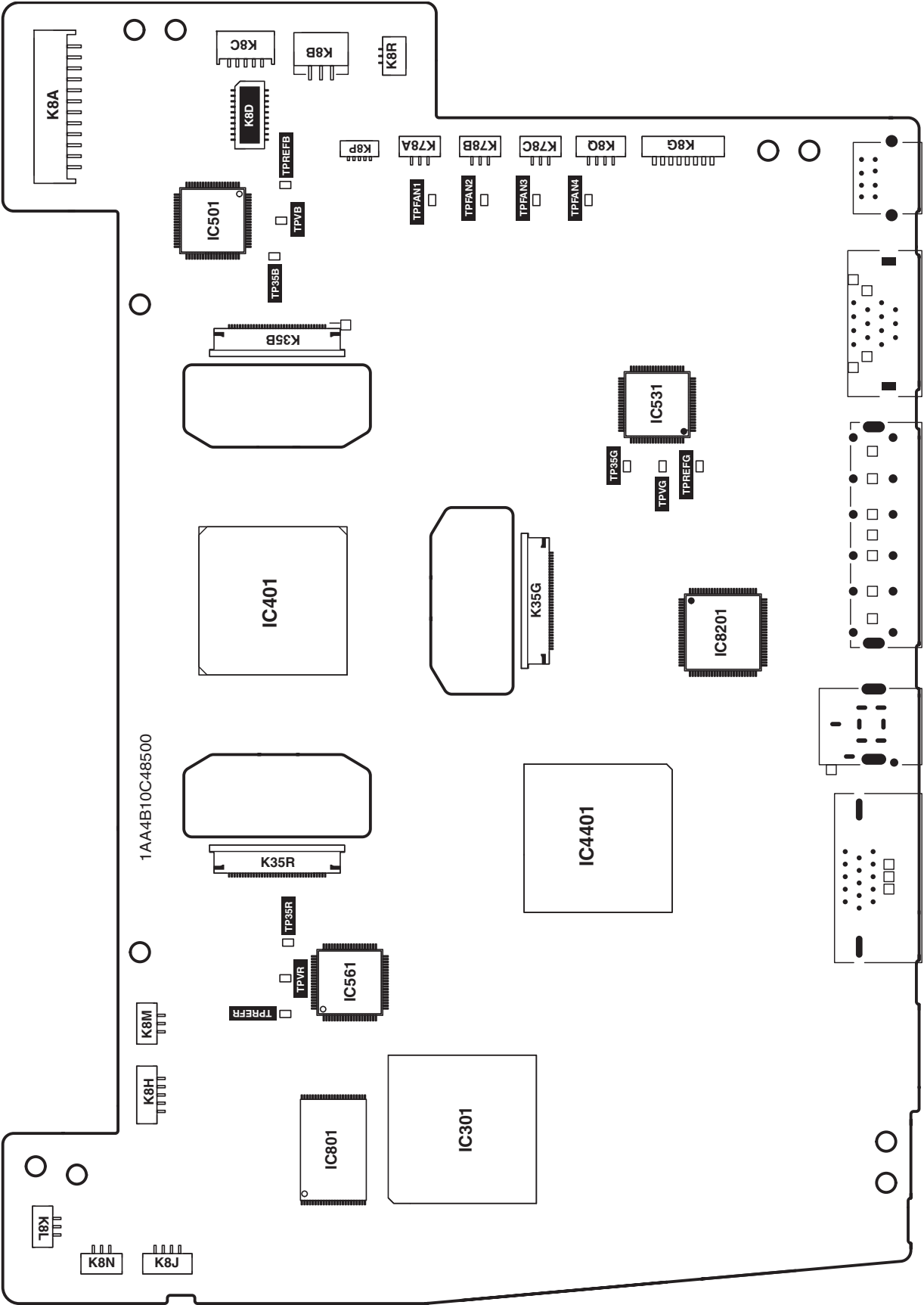
Electrical Adjustments

No.	Adjustment Item	Initial Value	Range	Input source / Description
2	H BACK PORCH	82		
3	V BACK PORCH	44		
4	DISP LINE	576		
5	CLAMP	25		
6	WIDTH	20		
Group: 518 YCbCr 720p-50 overscan				
0	TOTAL DOTS	1980		
1	DISP DOTS	1280		
2	H BACK PORCH	217		
3	V BACK PORCH	25		
4	DISP LINE	720		
5	CLAMP	10		
6	WIDTH	24		
Group: 519 YCbCr 720p-60 overscan				
0	TOTAL DOTS	1650		
1	DISP DOTS	1280		
2	H BACK PORCH	217		
3	V BACK PORCH	25		
4	DISP LINE	720		
5	CLAMP	0		
6	WIDTH	20		
Group: 521 YCbCr 1080i-50 overscan				
0	TOTAL DOTS	2640		
1	DISP DOTS	1920		
2	H BACK PORCH	145		
3	V BACK PORCH	40		
4	DISP LINE	1080		
5	CLAMP	0		
6	WIDTH	20		
Group: 522 YCbCr 1080i-60 overscan				
0	TOTAL DOTS	2200		
1	DISP DOTS	1920		
2	H BACK PORCH	145		
3	V BACK PORCH	40		
4	DISP LINE	1080		
5	CLAMP	0		
6	WIDTH	20		
Group: 530 RGB 480i overscan				
1	DISP DOTS	610		
2	H BACK PORCH	136		
3	V BACK PORCH	48		
4	DISP LINE	458		
5	CLAMP	1		
6	WIDTH	20		
Group: 531 RGB 480i overscan (Normal through/Full through)				
1	DISP DOTS	610		
2	H BACK PORCH	136		
3	V BACK PORCH	48		
4	DISP LINE	458		
5	CLAMP	1		
6	WIDTH	20		
Group: 532 RGB 575i overscan				
1	DISP DOTS	716		
2	H BACK PORCH	185		
3	V BACK PORCH	64		
4	DISP LINE	534		
5	CLAMP	1		
6	WIDTH	20		
Group: 533 RGB 575i overscan (Normal through/Full through)				
1	DISP DOTS	716		
2	H BACK PORCH	185		
3	V BACK PORCH	64		
4	DISP LINE	534		
5	CLAMP	1		
6	WIDTH	20		
Group: 536 RGB 575p overscan				
0	TOTAL DOTS	928		
1	DISP DOTS	696		
2	H BACK PORCH	84		
3	V BACK PORCH	83		
4	DISP LINE	500		
5	CLAMP	1		
6	WIDTH	20		
Group: 537 RGB 575p overscan (Normal through/Full through)				
0	TOTAL DOTS	928		
1	DISP DOTS	696		
2	H BACK PORCH	84		
3	V BACK PORCH	83		
4	DISP LINE	500		
5	CLAMP	1		
6	WIDTH	20		
Group: 538 RGB 720p-50 overscan				
0	TOTAL DOTS	1980		
1	DISP DOTS	1280		

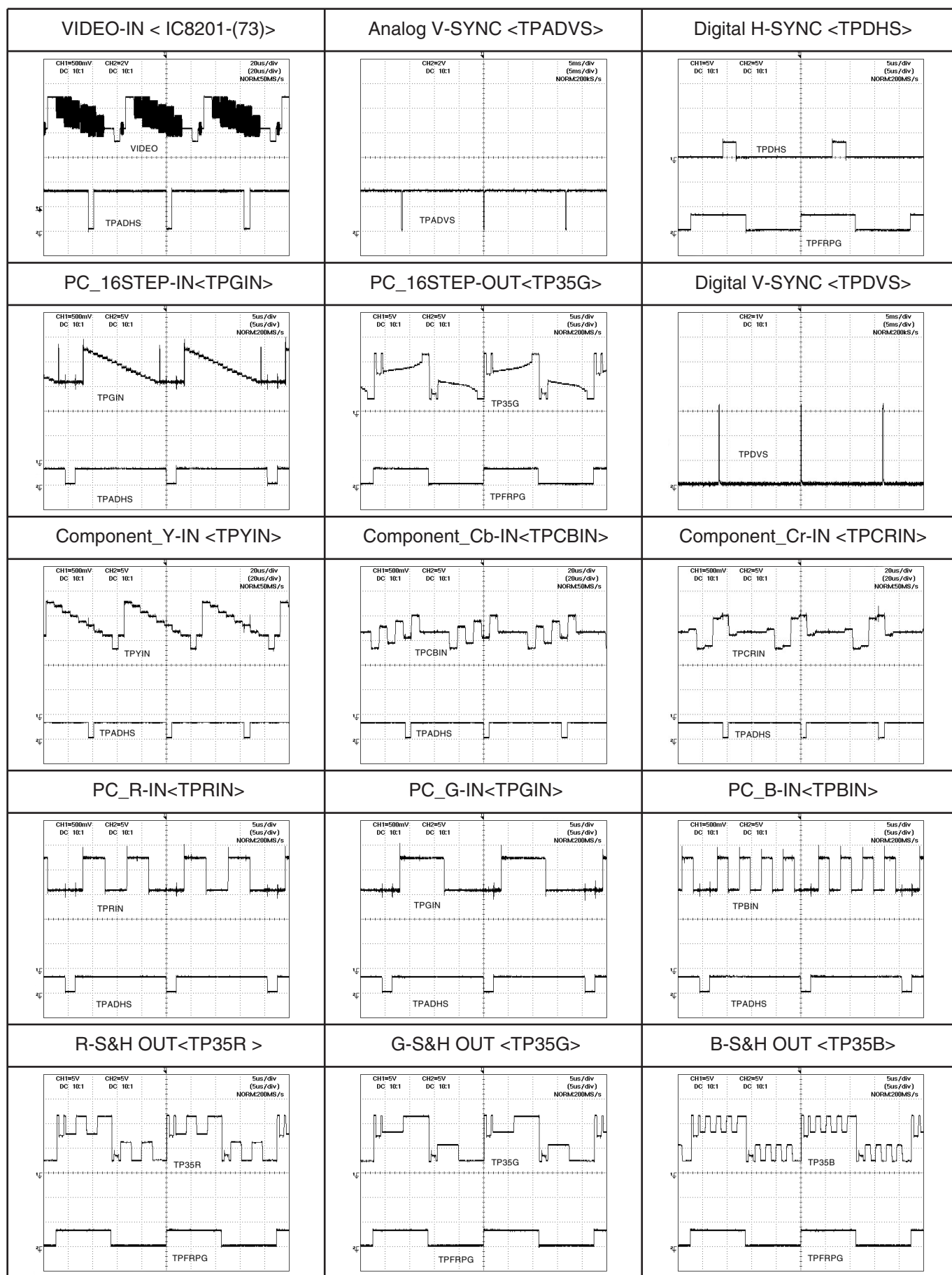
No.	Adjustment Item	Initial Value	Range	Input source / Description
2	H BACK PORCH	234		
3	V BACK PORCH	25		
4	DISP LINE	720		
5	CLAMP	10		
6	WIDTH	20		
Group: 539 RGB 720p-60 overscan				
0	TOTAL DOTS	1650		
1	DISP DOTS	1280		
2	H BACK PORCH	217		
3	V BACK PORCH	25		
4	DISP LINE	720		
5	CLAMP	10		
6	WIDTH	20		
Group: 541 RGB 1080i-50 overscan				
0	TOTAL DOTS	2640		
1	DISP DOTS	1920		
2	H BACK PORCH	143		
3	V BACK PORCH	40		
4	DISP LINE	1080		
5	CLAMP	10		
6	WIDTH	20		
Group: 542 RGB 1080i-60 overscan				
0	TOTAL DOTS	2200		
1	DISP DOTS	1920		
2	H BACK PORCH	143		
3	V BACK PORCH	40		
4	DISP LINE	1080		
5	CLAMP	10		
6	WIDTH	20		
Group: 550 SCART 480i overscan				
1	DISP DOTS	690		
2	H BACK PORCH	88		
3	V BACK PORCH	26		
4	DISP LINE	480		
5	CLAMP	1		
6	WIDTH	32		
Group: 551 SCART 480i overscan (Normal through/Full through)				
1	DISP DOTS	690		
2	H BACK PORCH	86		
3	V BACK PORCH	26		
4	DISP LINE	480		
5	CLAMP	1		
6	WIDTH	32		
Group: 552 SCART 575i overscan				
1	DISP DOTS	710		
2	H BACK PORCH	86		
3	V BACK PORCH	36		
4	DISP LINE	570		
5	CLAMP	1		
6	WIDTH	32		
Group: 553 SCART 575i overscan (Normal through/Full through)				
1	DISP DOTS	710		
2	H BACK PORCH	83		
3	V BACK PORCH	36		
4	DISP LINE	570		
5	CLAMP	1		
6	WIDTH	32		

● Location of Test Points

MAIN BOARD



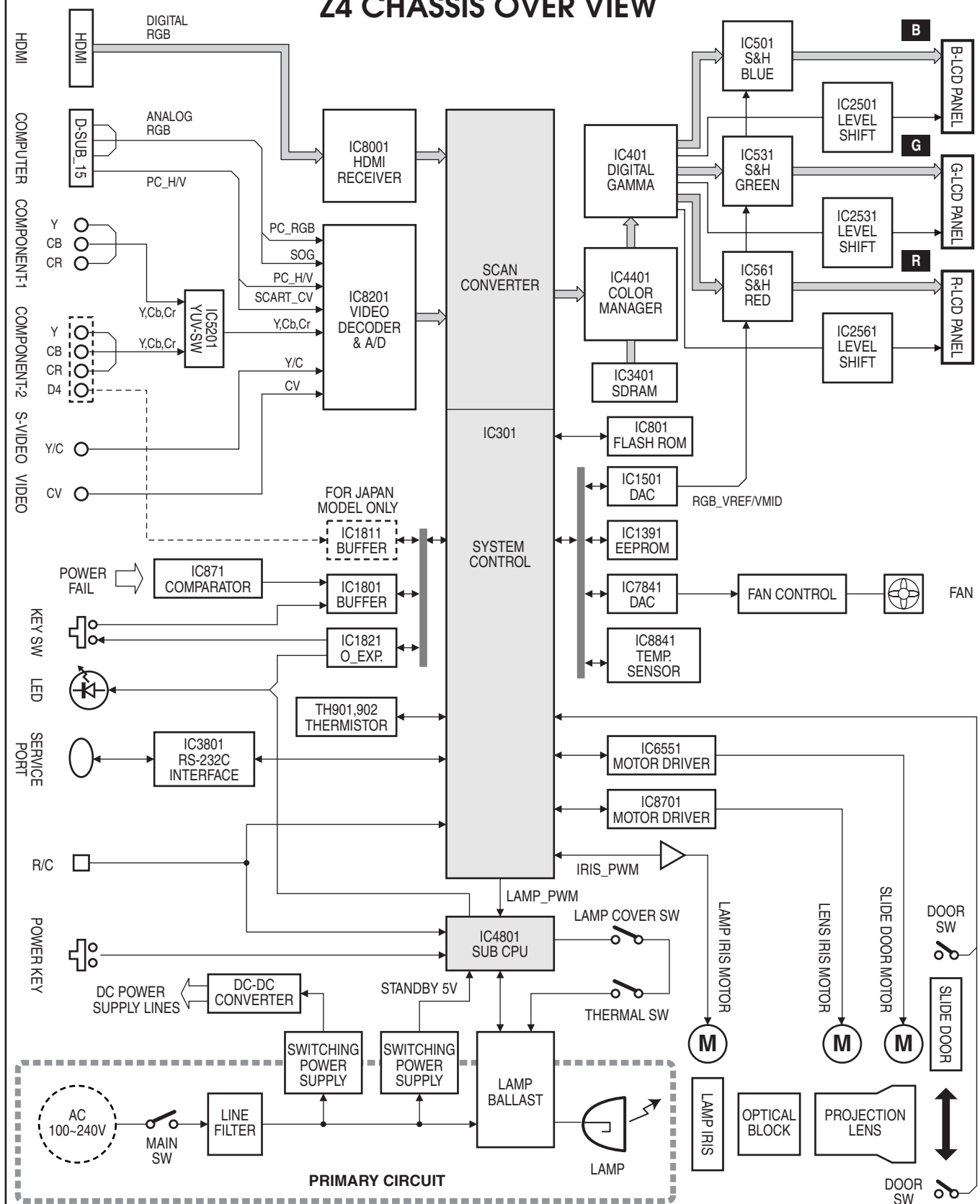
Waveform



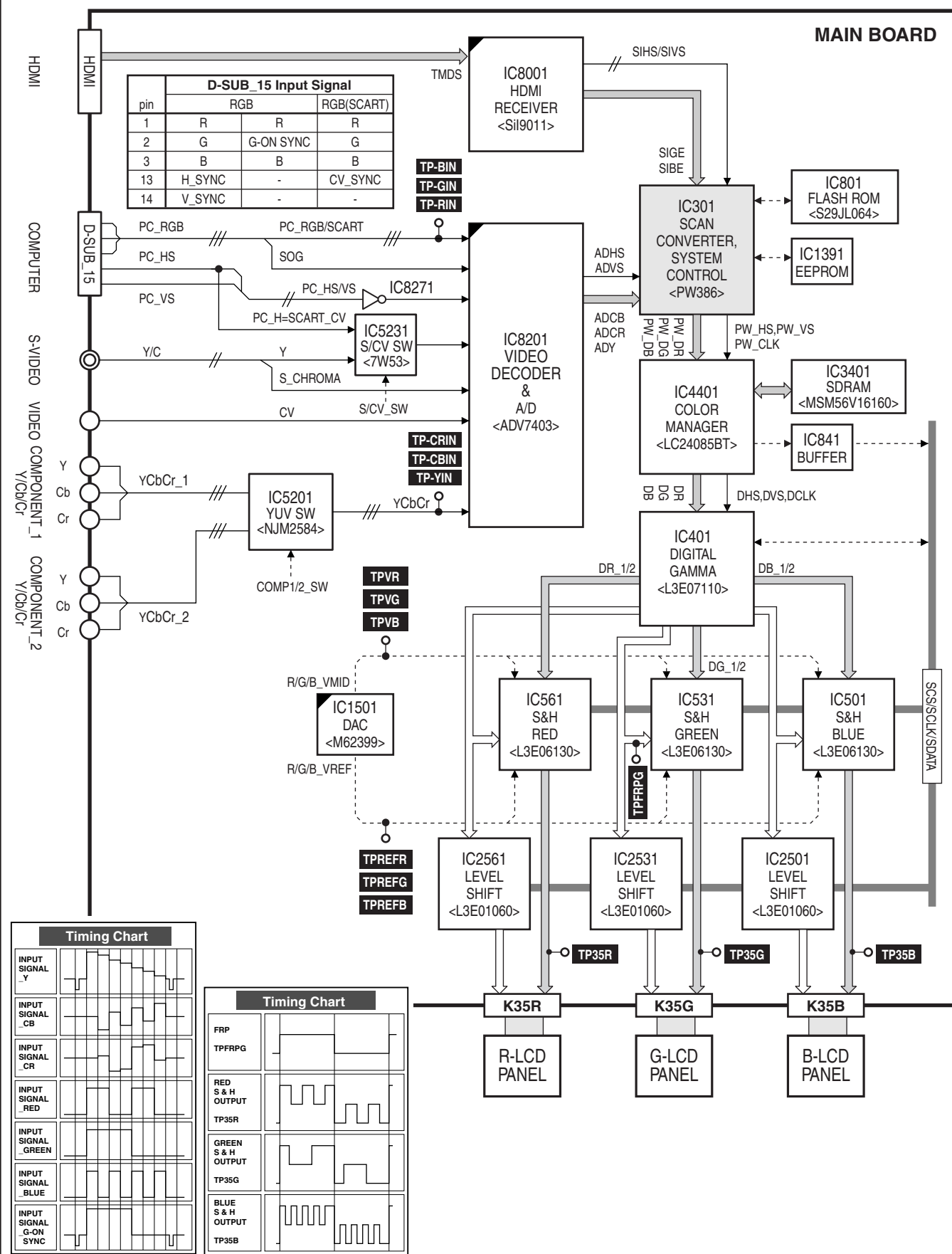
Chassis Block Diagram

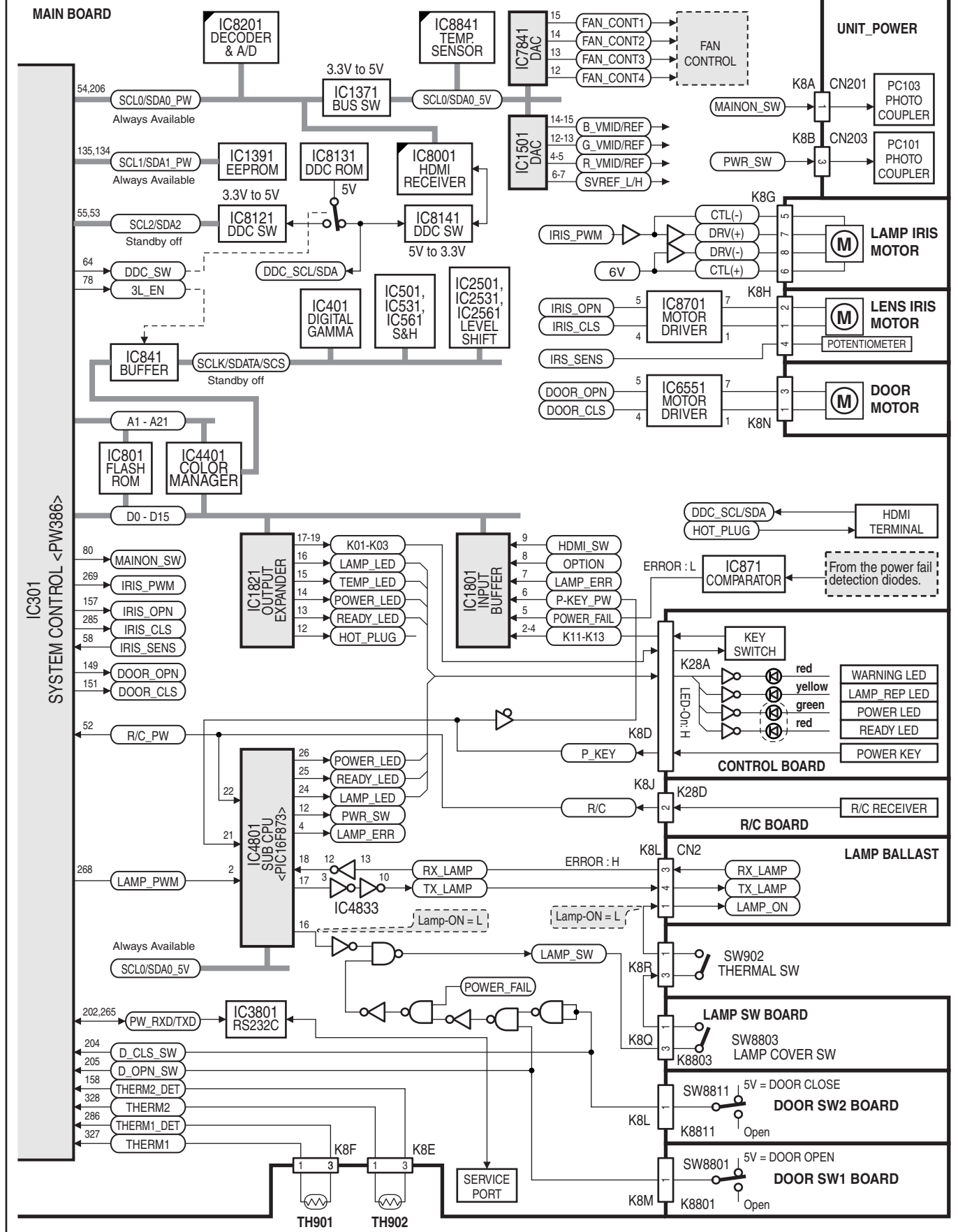
Chassis Overview

Z4 CHASSIS OVER VIEW



● Video signal processing circuit and LCD panel driving circuit





● Description of System control circuit

Power saving system control

When the projector is standby mode, IC301(Main CPU) is not working and IC4801(Sub CPU) is only working for saving energy. IC4801 is working for power management at standby mode and lamp control at normal mode. (Refer to "Power supply circuit" for detail)

Remote control

R/C signal is sent to pin 52 of IC301(Main CPU) and also sent to pin 22 of IC4801(Sub CPU). R/C signal is received by IC4801 only at standby mode.

Thermal switch

There is the thermal switch (SW902) above the lamp holder to prevent the internal abnormal temperature rising. If the internal temperature reaches near 90°C, the switch will be opened and LAMP_SW signal will be shut off automatically and the lamp operation will be stopped.

Remark;

The thermal switch is not reset to normal automatically even if the internal temperature becomes normal, so in this case you have to reset it manually.

Lamp cover switch

If the lamp cover is not fixed securely, the lamp cover switch(SW8803) will be open, and LAMP_SW signal will be shut off automatically and the lamp operation will be stopped.

Temperature sensor

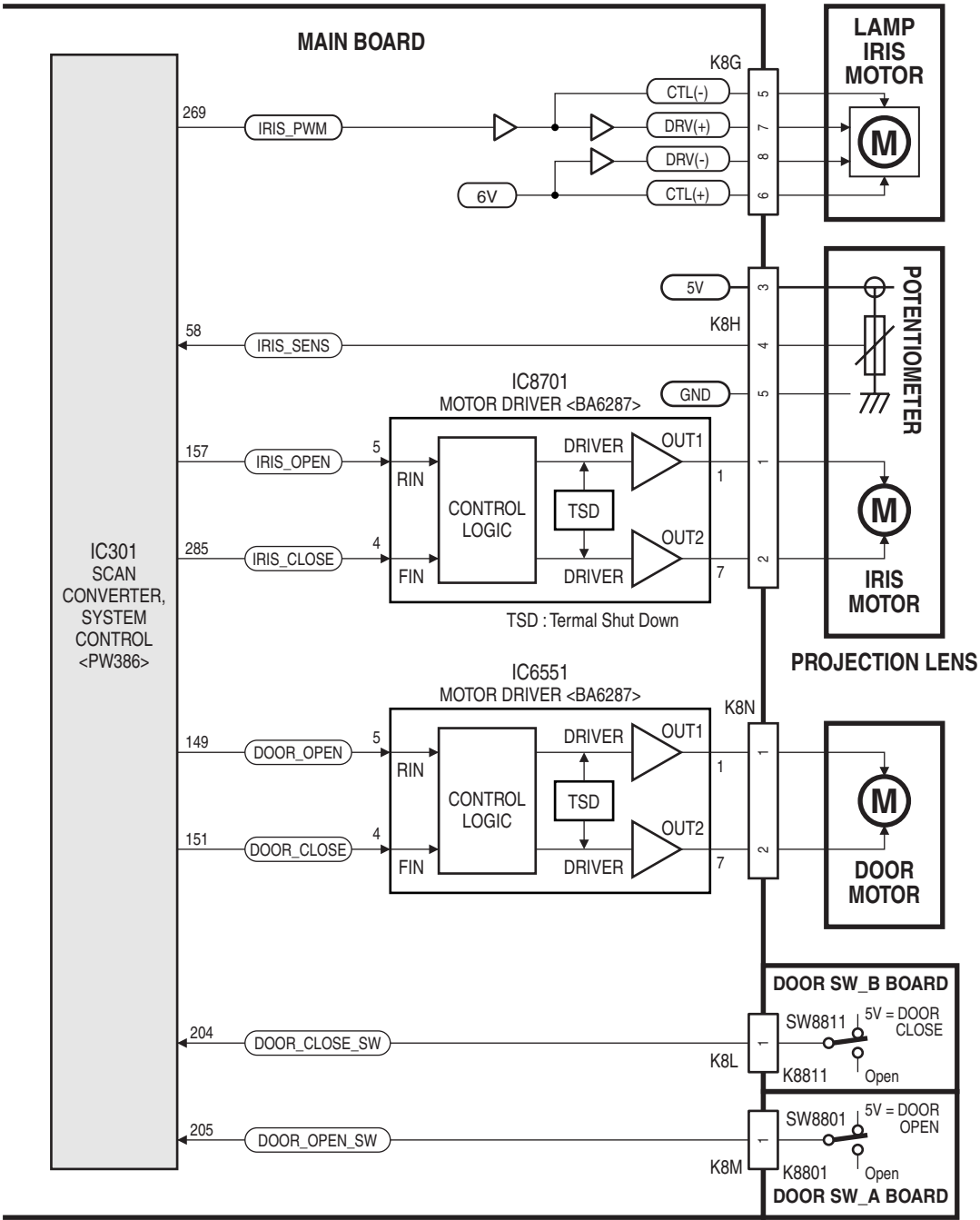
The projector provides the temperature sensors "TH901", "TH902" and "IC8841" to prevent the internal temperature rising abnormally and to control the cooling fans. (refer to "Fan control circuit" for detail)

If the internal temperature rising abnormally over the threshold value, the IC301 shuts down after cooling.

Service port

The mini DIN-8 pin jack is used for service the projector with RS-232C. The RS-232C Rx/Tx signals are connected to pins 202 and 265 of IC301 via IC3801(RS-232C RECEIVER/DRIVER). The main program and data are stored in IC801(FLASH ROM). The program can be replaced with new one by specified software "FlashUpgrader".

● Motor driving circuit



MOTOR FUNCTION TABLE of BA6287

FIN	RIN	OUT2	OUT1	OUTPUT MODE	FUNCTION
H	L	L	H	FORWARD MODE	OPEN
L	H	H	L	REVERSE MODE	CLOSE
H	H	L	L	BRAKE MODE	BRAKE
L	L	OPEN	OPEN	STAND-BY MODE	STAND-BY

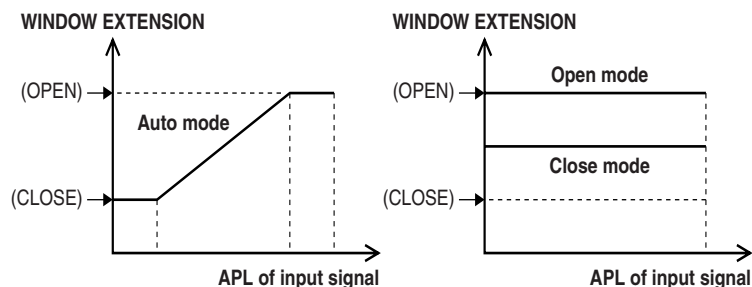
● Description of Motor driving circuit

Lamp Iris Motor and Lens Iris Motor

The lamp iris and the lens iris are equipped for the expansion of visible contrast level. The operation of them is varied according to "Image Level Selection" and their user menu.

Lamp Iris Motor

The lamp iris unit is located in the front of lamp. It is controlled by the PWM signal, which is varied based upon the average luminance level of the input image signal, from pin 269 of IC301. When the image becomes darker, the lamp iris will be closed, and when the image becomes brighter, it will be opened.



Lens Iris Motor

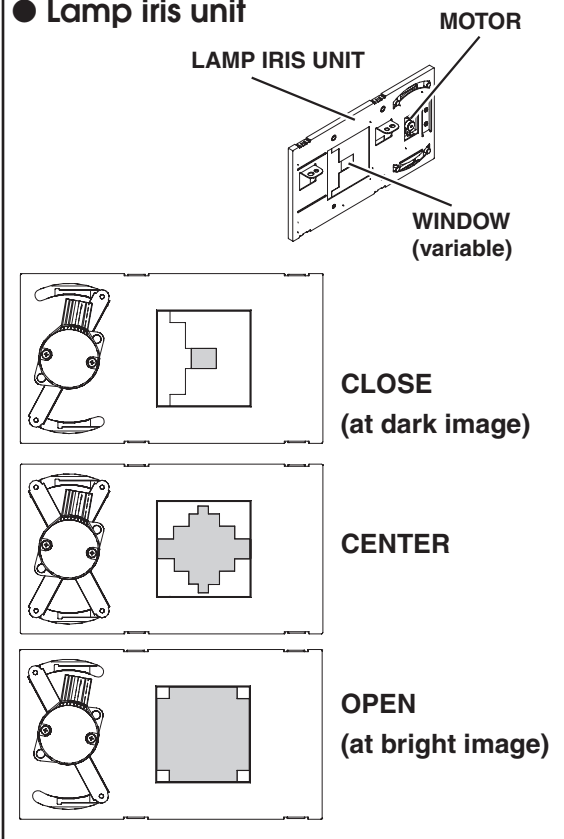
The lens iris is located on the projection lens. It is controlled by the IRIS_OPEN/CLOSE signals from pins 157 and 285 of IC301. The IRIS_SENS signal from the potentiometer of the lens iris unit is sent to pin 58 of IC301 and monitored the position of the lens iris.

Door Motor

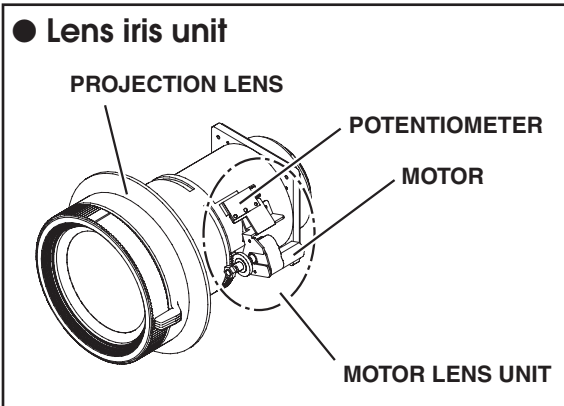
The projector provides 2 door switches. The door switch-A (SW8801 on DOOR SW_A board) turns ON, when the slide shutter is opened. The door switch-B (SW8811 on DOOR SW_B board) turns ON, when the slide shutter is closed. If the slide shutter is half-open or close, the lamp does not light. When turning the projector on, the lamp starts light after SW8801 turning on.

If the slide shutter error occurs during operation, the POWER indicator will blink orange and the projector will go to stand-by mode after cooling.

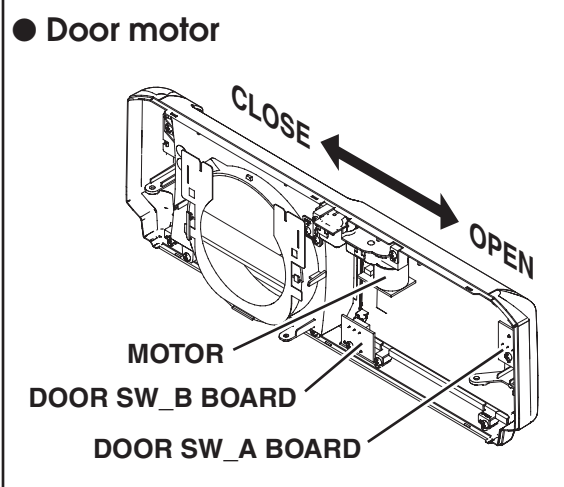
● Lamp iris unit



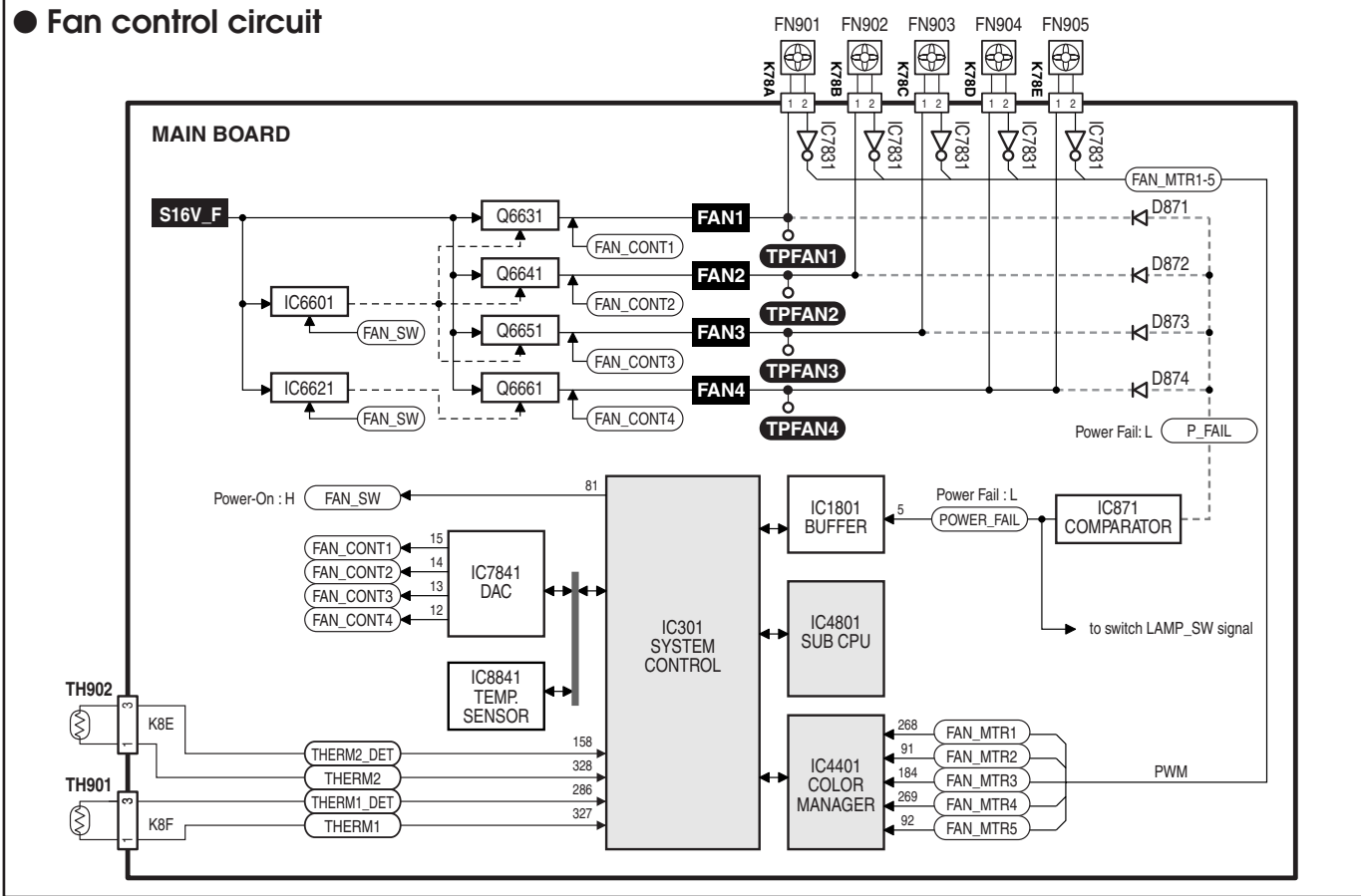
● Lens iris unit



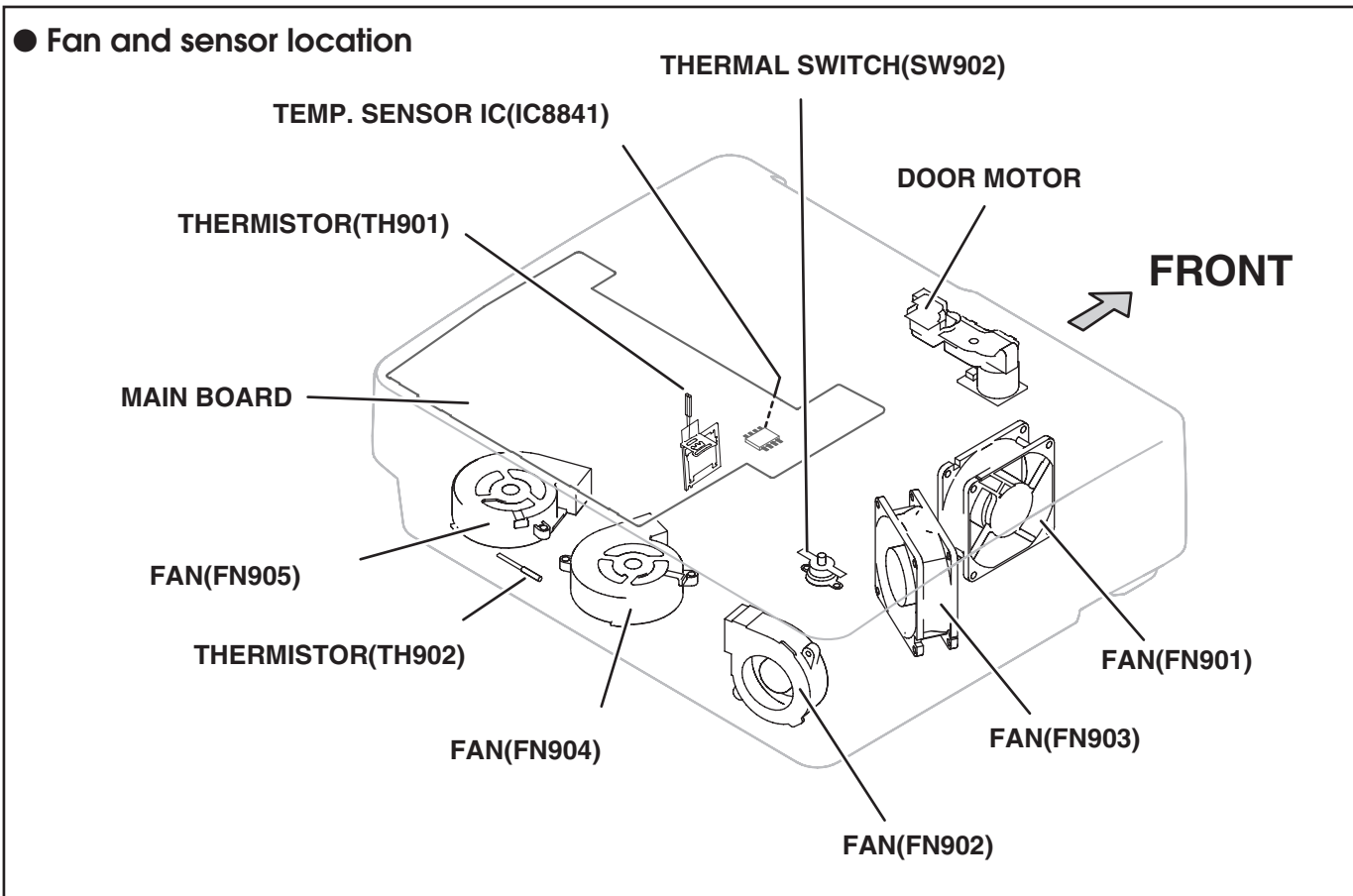
● Door motor



Fan control circuit



Fan and sensor location



● Description of Fan control circuit

Fan control circuit

The Fan drive power supplies "FAN1", "FAN2", "FAN3" and "FAN4" are generated from "S16V_F". Each power supply drives fans as follow;

FAN1 FN901 for power and ballast exhaust

FAN2 FN902 for lamp cooling

FAN3 FN903 for lamp exhaust

FAN4 FN904 and FN905 for intake and panel cooling

The fan spinning speed is controlled by "FAN_CONT1", "FAN_CONT2", "FAN_CONT3" and "FAN_CONT4" from pins 15, 14, 13 and 12 of IC7841(DAC).

Power failure protection of Fan

The alarm output signals(PWM signals) from the fans are connected to IC4401(Color Manager) and IC4401 monitors the fan spinning speed for safety.

When an abnormality occurs on any one of the fans, for example the fan spinning speed is lower than the specified speed, IC301 shuts down the projector. If a fan connector is not connected firmly, IC301 also shuts down the projector.

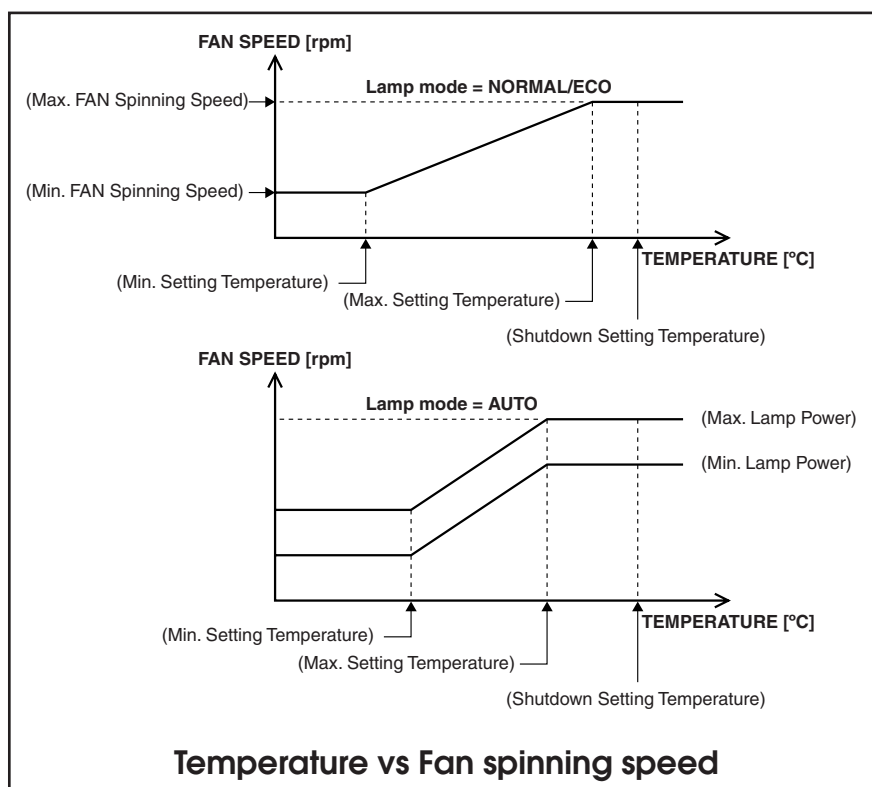
Temperature sensor for Fan control

TempA - TH902 around the intake fan "FN904"and "FN905" for outer temperature of the projector

TempB - IC8841(above the lamp) on the Main board for optical parts

TempC - TH901 on the polarized glass (IN-B) for panel and polarized glass temperature

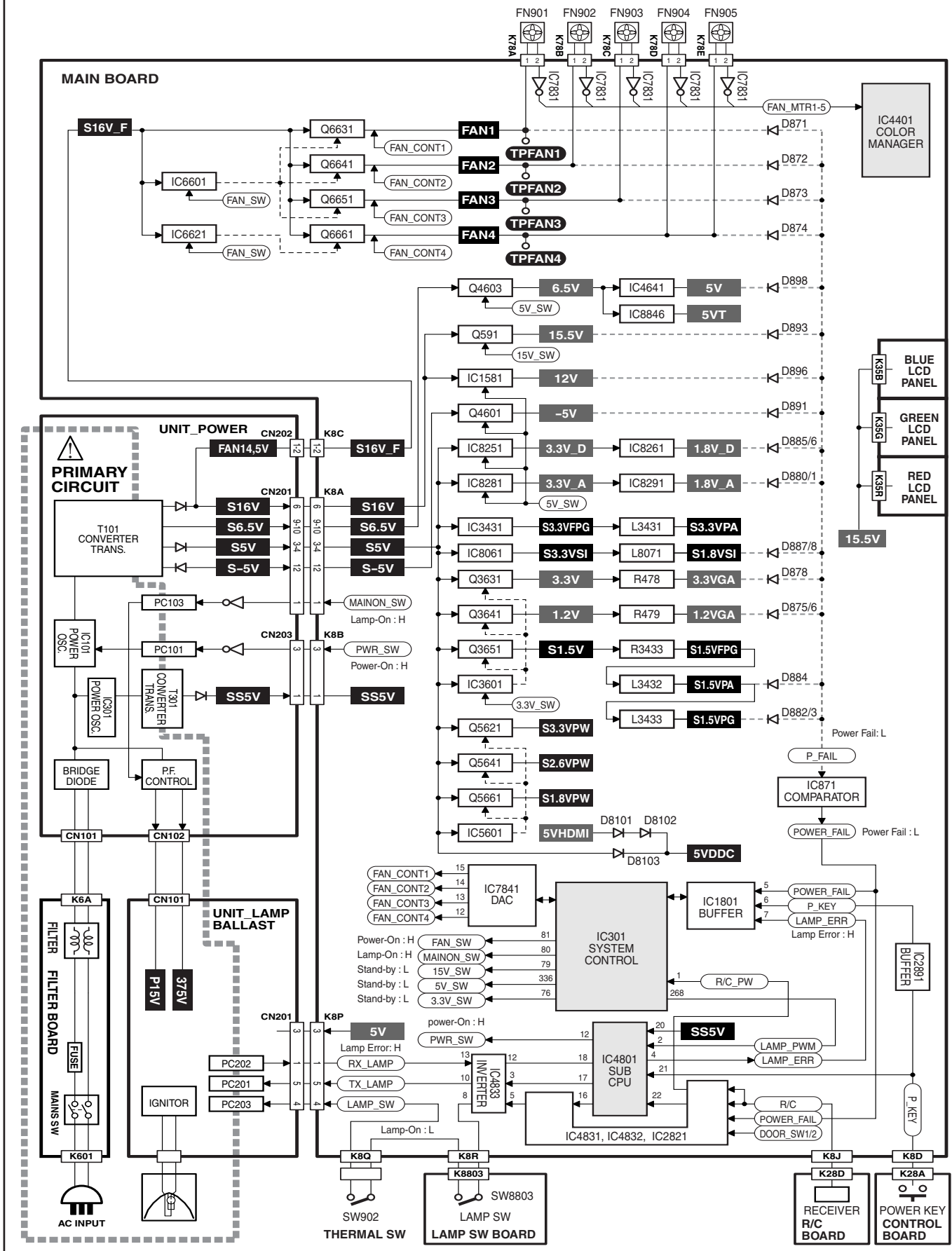
The temperature sensors measure surrounding temperature and sends data to IC301. IC301 controls the proper fan spinning speed based upon these temperature data. Also, when a temperature rises over a specified value, IC301 judges that there is abnormal internal temperature and turns off the projector.



The fan spinning speed is controlled with the temperature and the lamp power.

Power Supply Lines

Power supply circuit and Protection circuit



● Description of Power supply circuit

When the projector is standby mode, IC301(Main CPU) is not working and IC4801(Sub CPU) is only working for saving energy.

When the projector is connected to outlet with AC power cord and the Mains SW is switched to ON, SS5V line is supplied to to standby circuit, including IC4801. IC4801 is waiting for the POWER ON-OFF key input or remote control signal.

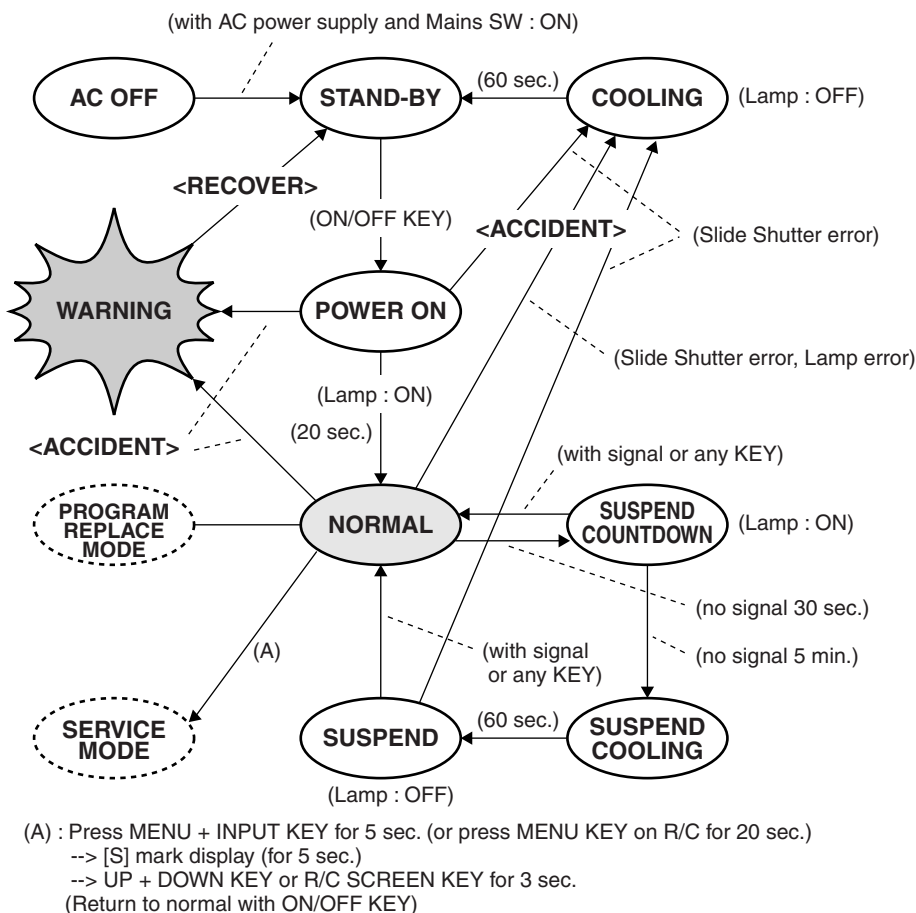
When the projector is turned on, "PWR_SW" signal (Power ON:H) from pin 12 of IC4801 is sent to the UNIT_POWER, and then the switching power supply circuit starts operation. "MAINON_SW" signal (Lamp ON:H) from pin 80 of IC301 is also sent to UNIT_POWER, and then the lamp power supply circuit starts operation.

The "5V_SW", "3.3V_SW", "15V_SW" and "FAN_SW" signals are also sent to the power supply circuits.

Power failure protection of secondary power circuit

The projector provides a protection circuit to prevent the secondary failure when the power failure, fans failure or temperature failure occurs on the projector. The power failure detection lines are connected to the main power supplies. When a failure occurs, IC301 receives the power failure detection signals "POWER_FAIL" through the power failure detection lines and "MAINON_SW" signal (Lamp OFF:L) and "PWR_SW" signal (Power OFF:L) are supplied to the UNIT_POWER to stop the power supply operation, and the lamp operation is stopped with "LAMP_SW" signal (Lamp OFF:H).

● Flow chart of projector condition



■ Troubleshooting

● No Power

This projector provides a function which can be specified a defective area simply by indicating the LEDs on the control panel. Connect the AC cord and turn the projector on and then check the LED indication.

Indicators		Troubleshooting	
POWER red/green	WARNING red		
●	●	Does a indicator flash or light? No The primary power supply circuit does not operate properly. Yes Is fuse (F601) broken? Yes Check Varistor (VA611). Check Power Board. No Check SS5V power supply line. - PWR_SW signal (Power-on:H) is output from pin 12 of IC4801 and sent to the Power Board and SS5V line is supplied.	
⊘	⊘	WARNING (red) indicator are lighting? Yes 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. - POWER_FAIL (Error:L) signals are sent to IC301 via IC871 and IC1801, then IC301 shuts down the power supply circuit. Check following items An abnormality occurs on the secondary power supply lines Check power supply lines, S5V,S-5V, S16V, etc. on the Main board. - Refer to the diagram "Power Supply Lines". An abnormality occurs on the fan control circuits. Power failure detection diodes detect the fan operation stop. Check FN901/902/903/904/905 and peripheral circuit. Check connectors K8E/K8F from TH901/TH902. - Refer to the diagram "Fan control circuit". An abnormality occurs on power starter signals. Check power starter signals as follows: - MAINON_SW signal (Power-on:H) is output from pin 80 of IC301 and sent to the Power Board and S16V, S16V_F, S6.5V, S5V, S-5V lines are supplied. - 5V_SW signal (Power-on:H) is output from pin 336 of IC301 and sent to IC1581, IC8251, IC8281, Q4601, Q4603, then 12V, 3.3V_D, 3.3V_A, -5V, 6.5V lines are supplied. - 3.3V_SW signal (Power-on:H) is output from pin 76 of IC301 and sent to IC3601, then 3.3V, 1.2V lines are supplied. - 15V_SW signal (Power-on:H) is output from pin 79 of IC301 and sent to Q591, then 15.5V line is supplied. - FAN_SW signal (Power-on:H) is output from pin 81 of IC301 and applied to the Fan power supply circuit. ↓ To next page	

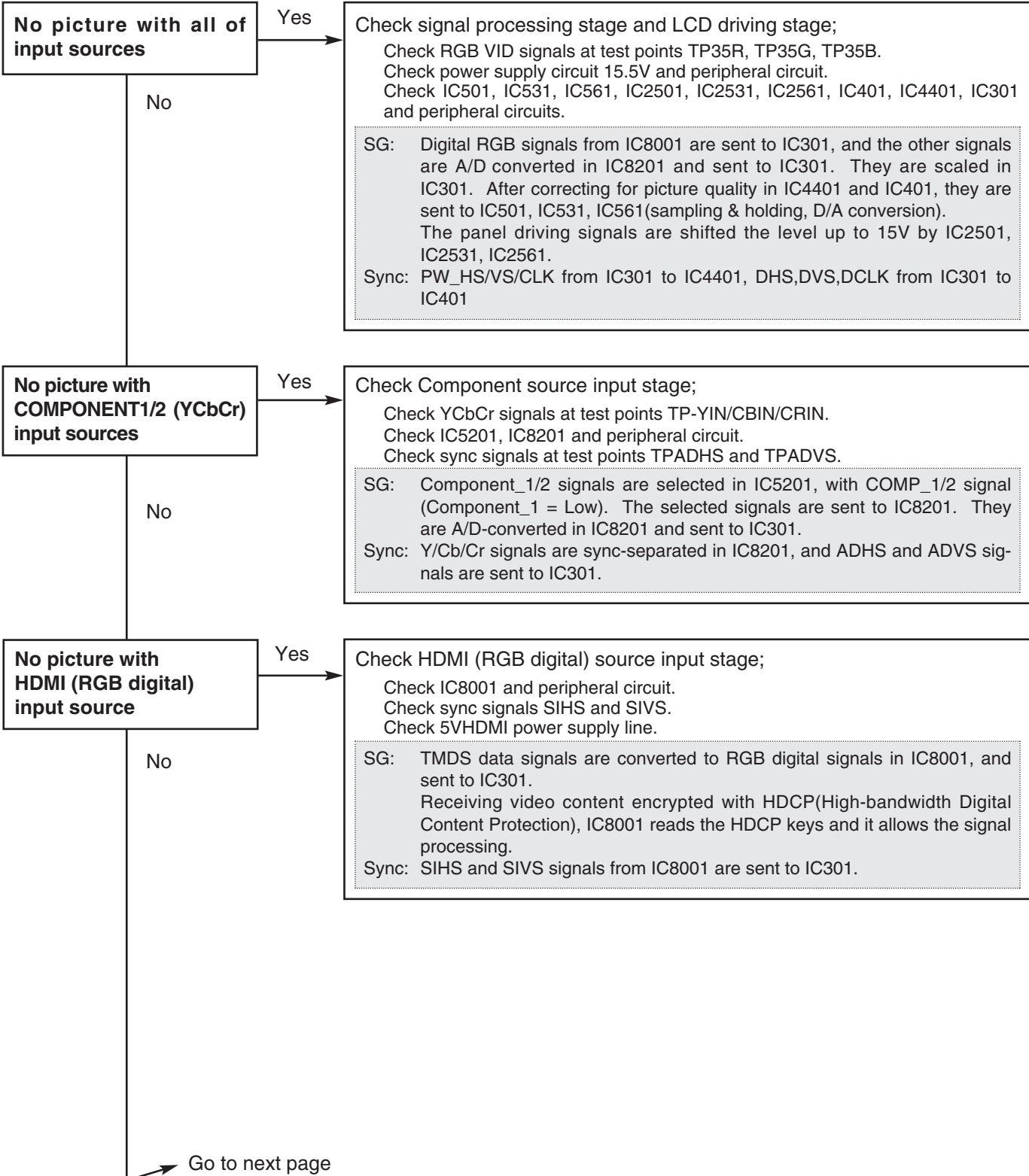
Indicators			Troubleshooting	
POWER red/green /orange	WARNING red	LAMP REPLACE yellow		
  Cooling	  Cooling	  Cooling	From previous page WARNING (red) and POWER (red) indicators are flashing? Yes → The symptom indicates that the projector detected an abnormal temperature risen inside the projector. Check the air filters and remove the object near the intake and exhaust fan openings, and wait until the POWER indicator stops flashing, and then try to turn on the projector. - The internal temperature is monitored by the sensors, IC8841 on Main Board, TH901 and TH902. (Refer to "Fan control circuit") No POWER (red) and LAMP REPLACE (yellow) indicators are flashing? Yes → The symptom indicates that the projector detected an abnormality in the lamp driving signal. Check the lamp driving signal, Lamp Cover SW and the Thermal SW. - LAMP_SW signal (Lamp-on:L) from pin 16 of IC4801 is sent to Lamp Ballast Unit through SW8803(Lamp Cover SW) and SW902(Thermal SW). - TXL signal is output from pin 17 of IC4801 and sent to Lamp ballast Unit via IC4833. (TXL signal is applied for lamp power control. Lo: Low power, Hi: High power) - RXL signal (Lamp status signal) is output from Lamp Ballast Unit and sent to pin 18 of IC4801 via IC4833, then LAMP_ERR signal is output from pin 4 of IC4801 and sent to IC301 via pin 7 of IC1801. If an abnormality occurred on the lamp ballast unit, RXL signal and LAMP_ERR signal become "H" and then the projector will be cooled down and to stand-by mode (POWER indicator lights red). Lamp Cover Switch (SW8803 on Lamp SW board) 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. Thermal Switch (SW902) short in normal SW902 opens when the surrounding temperature of the switch exceeds 90°C. No POWER indicator is flashing orange? Yes → The symptom indicates that the projector detected an abnormality in the slide shutter. Check the slide shutter and the door switches. Door Switches (SW8801/SW8811 on Door SW-A/B board) Make sure that the shutter is open or close. If it is half-open or close, the lamp does not light.	
  Cooling	  Cooling	  Cooling		
  Cooling	  Cooling	  Cooling		

 ... lights green.
  ... flashes green.
  ... lights red.
  ... flashes red.
  ... off
 ... flashes orange.
 ... flashes yellow.

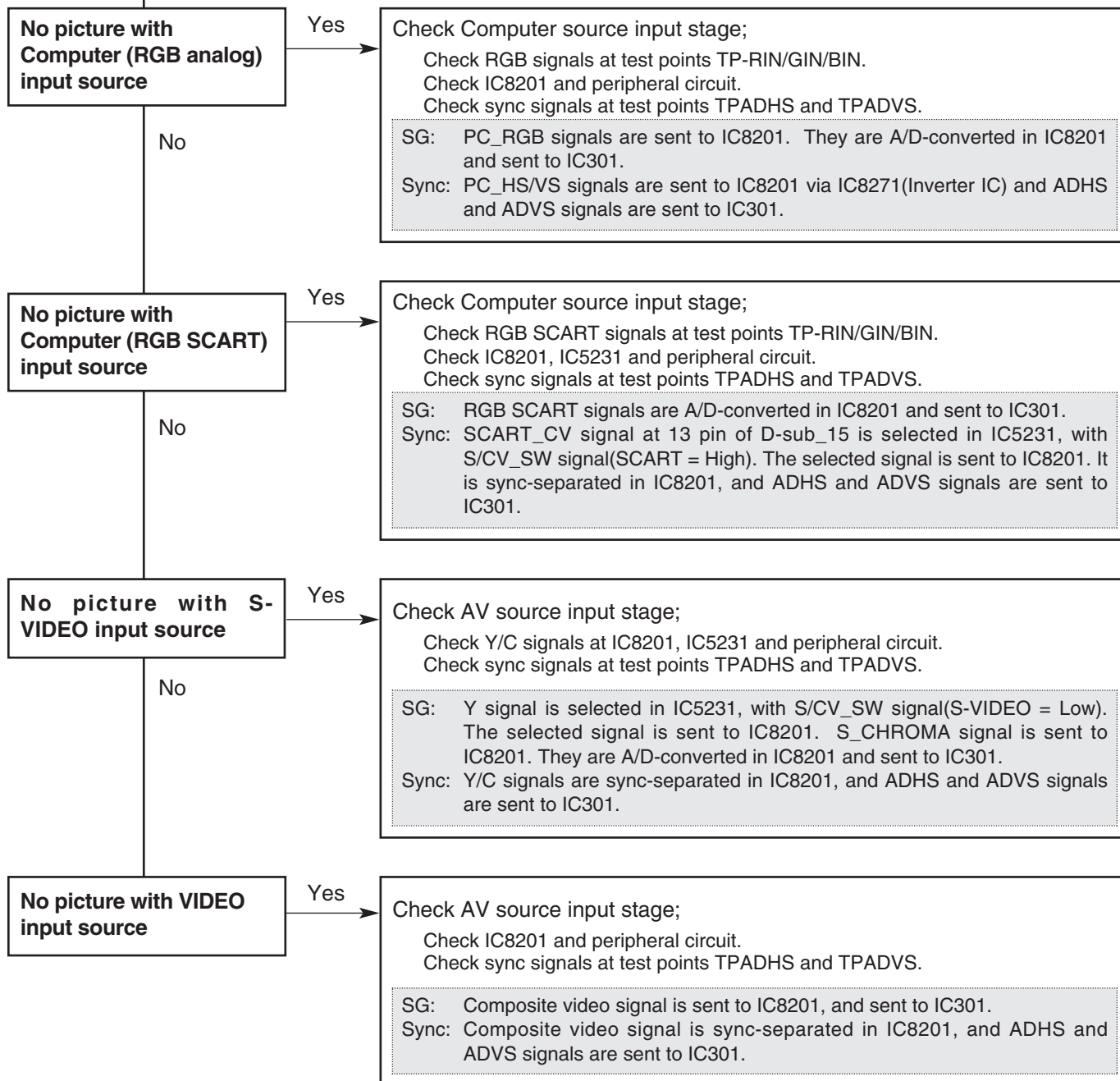
● No Picture

Check following steps.

SG: Description of visual signal flow
Sync: Description of sync signal flow



From previous
page



■ Control Port Functions

● I/O Port Table of Main CPU (IC301, PW386)

Pin No.	Name	Function Name	Function	Polarity	I/O
268	Port A7	LAMP_PWM	PWM Output to Sub_CPU	PWM	O
269	Port A6	IRIS_PWM	PWM Output to Lamp iris	PWM	O
55	Port A5	SCL2			I/O
53	Port A4	SDA2			O
135	Port A3	SCL1			I/O
134	Port A2	SDA1			O
54	Port A1	SCL0			I/O
206	Port A0	SDA0			O
203	Port B7	WP11			I/O
204	Port B6	D-CLOSE_SW			I
266	Port B5	PIC_POW_M		Not used	-
56	Port B4	NCONFIG			O
132	Port B3	CONF_DONE			O
133	Port B2	NSTATUS			O
267	Port B1	MICON_CLB			O
205	Port B0	D-OPEN_SW			I
222	Port H7	IRM_RST			O
153	Port H6	SIRST			O
213	Port H5	AD_RST			O
64	Port H4	DDC_SW			O
151	Port I5	DOOR_CLOSE			O
286	Port I4	THERM1_DET			I
82	Port I3	WP2			
149	Port I2	DOOR_OPEN			O
156	Port I1	THERM2_DET			I
285	Port I0	IRIS_CLOSE			O
80	Port J5	MAINON_SW			O
73	Port J4	COMP1/2_SW	Component-1/Component-2 switch	COMP1 = L	O
157	Port J3	IRIS_OPEN			O
336	Port J2	5V_SW		ON = H	O
81	Port J1	FAN_SW		ON = H	O
72	Port J0	S/CV_SW	S-VIDEO/SCART switch	S-VIDEO = L	O
78	Port K5	3L_EN			O
283	Port K4	FPGA_RST			O
76	Port K3	3.3V_SW		ON = H	O
155	Port K2	EXIO_OE			
79	Port K1	15V_SW		ON = H	O
152	Port K0	CLK_OE			
52	IRRCVR0	R/C	IR Receiver Input 0		I
202	RXD	RXD			I/O
265	TXD	TXD			I/O
92	ROMOE	ROMOE	ROM output enable	L: external	O
13	ROMWE	ROMWE	ROM write enable		O
96	CS1	CS1	I/O Expander Chip Select (Input)	Active Low	I/O
171	CS0	CS0	I/O Expander Chip Select (Output)	Active Low	I/O
207	NMI	NMI	Non-maskable Interrupt	Active High	I
136	RESETB	RESET	Master reset	Active Low	I/O
57	EXTRSTEN	EXTRSTEN	External reset enable	H: external	I

● Sub CPU (IC4801, PIC16F873)

Pin No.	Name	Function Name	Function	Polarity	I/O
1	MCLR/VPP	RESET			I
2	RA0/AN0	LAMP_PWM	APL Level Input		I
3	RA1/AN1	CPU_ADCIN	From lamp iris for factory usage		I
4	RA2/AN2	LAMP_ERR	Lamp Error Output	Lamp Error = H	O
5	RA3/AN3	(5V)			O
6	RA4/TOCKI				O
7	RA5/AN4				I
9	OSC1	XTAL			-
10	OSC2	XTAL			-
11	RC0	CPU_RESET			-
12	RC1	PWR_SW		Power ON = H	-
13	RC2	PIC_POW_M		Not used	I
14	RC3	SCL0_5V			
15	RC4	SDA0_5V			-
16	RC5	LAMP_SW		Lamp ON = L	O
17	RC6	TX_LAMP			O
18	RC7	RX_LAMP			I
21	RB0	P_KEY_PIC	Power Key Input		I
22	RB1	RC_IN_PIC	Remote Control Input		I
23	RB2				-
24	RB3	PIC_LAMP_LED			O
25	RB4	PIC_READY_LED			O
26	RB5	PIC_POWER_LED			O
27	RB6	RB6_PIC	Service		I
28	RB7	RB7_PIC	Service		I

● IIC Bus D/A Converter

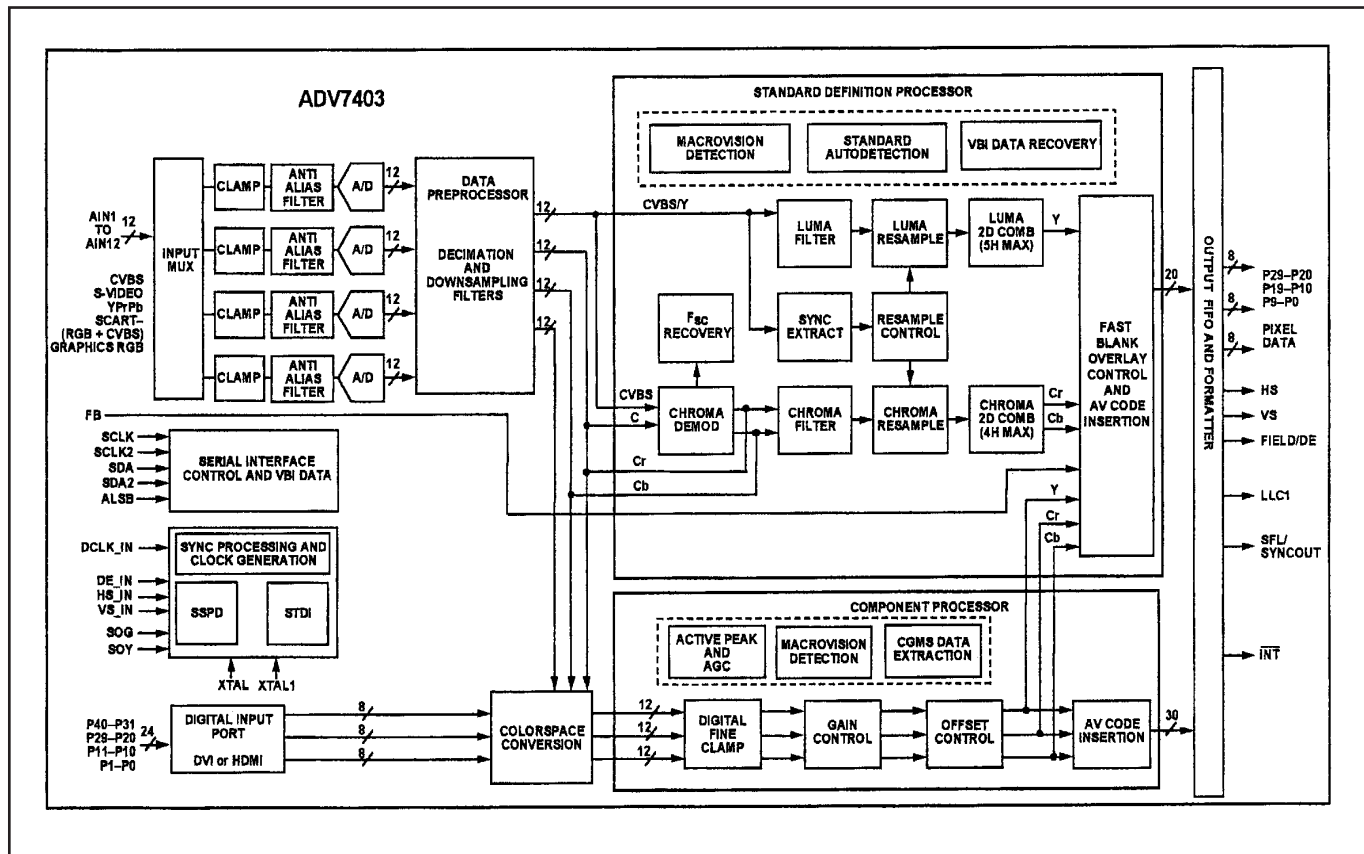
IC Ref. No.	Pin	I/O	Signal Name	Function	Note
IC1501 M62399	2	I	SCL0_5V		
	3	I/O	SDA0_5V		
	4	O	R_VMID		
	5	O	R_VREF		
	6	O	SVREFL		
	7	O	SVREFH		
	12	O	G_VMID		
	13	O	G_VREF		
	14	O	B_VMID		
	15	O	B_VREF		
	16	-	Vcc		12V
	17	-	Vdd		5V
	18	I	CS2	Slave address setting port 2	Vdd
	19	I	CS1	Slave address setting port 1	Vdd
	20	I	CS0	Slave address setting port 0	Vdd
IC7841 M62399	2	I	SCL0_5V		
	3	I/O	SDA0_5V		
	4	O		Not used	
	5	O		Not used	
	6	O		Not used	
	7	O		Not used	
	12	O	FAN_CONT4		
	13	O	FAN_CONT3		
	14	O	FAN_CONT2		
	15	O	FAN_CONT1		
	16	-	Vcc		12V
	17	-	Vdd		5V
	18	I	CS2	Slave address setting port 2	Vdd
	19	I	CS1	Slave address setting port 1	GND
	20	I	CS4	Slave address setting port 0	GND

● Parallel Bus I/O Expander

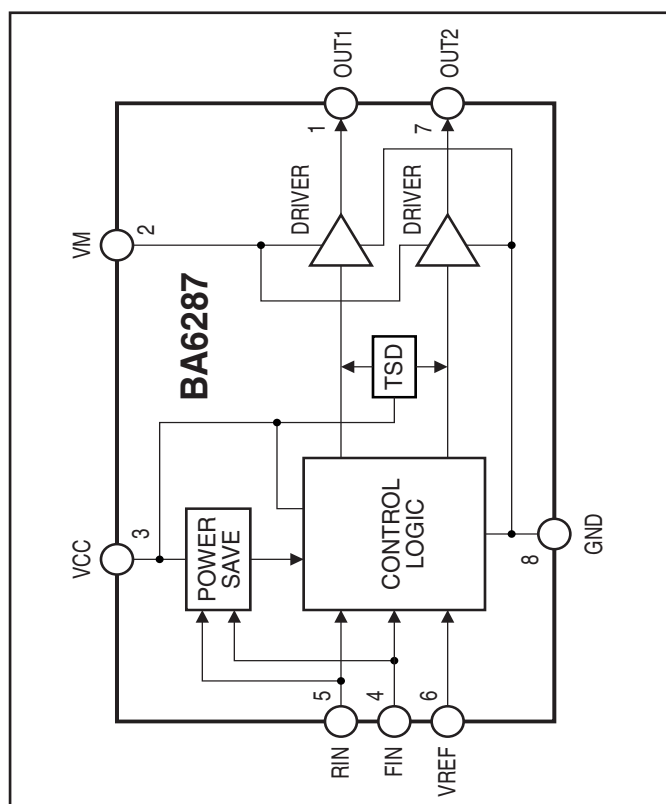
IC Ref. No	Pin	I/O	Signal Name	Function	Note
IC1801 TC74LCX541	2	I	K11	Key Input 1	
	3	I	K12	Key Input 2	
	4	I	K13	Key Input 3	
	5	I	POWER_FAIL	Power Fail Input	Power Fail: Low
	6	I	P-KEY_PW	Power key Input	
	7	I	LAMP_ERR	Lamp Error Input	Lamp Error: High
	8	I	OPTION	Option Input	
	9	I	HDMI_SW		
IC1821 TC74LCX574	12	O	HOT_PLUG	HDMI	
	13	O	READY_LED		
	14	O	POWER_LED		
	15	O	TEMP_LED		
	16	O	LAMP_LED		
	17	O	K03	Key Scan Output	
	18	O	K02	Key Scan Output	
	19	O	K01	Key Scan Output	

■ IC Block Diagrams

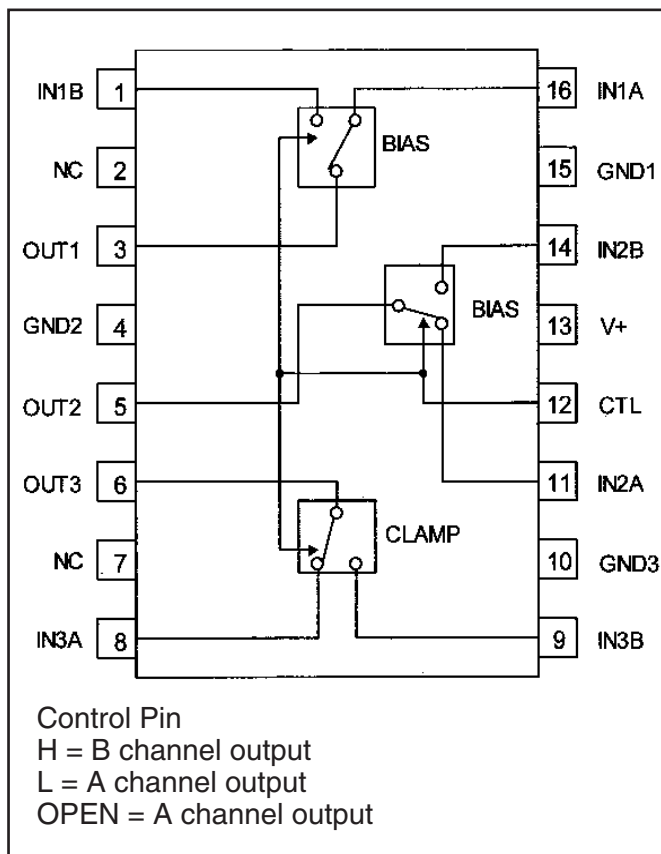
● ADV7403 <Video Decoder and RGB Digitizer, IC8201>



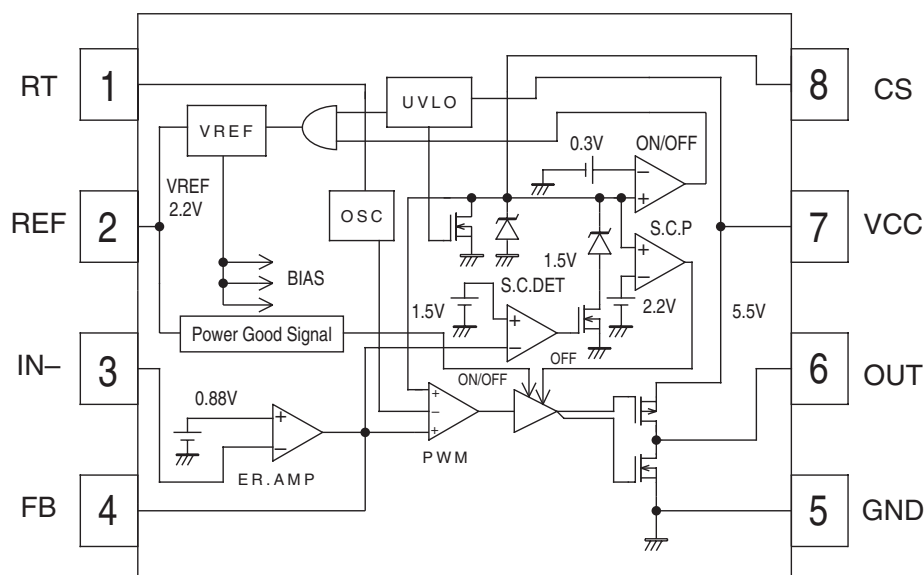
● BA6287F <Motor Driver, IC6551, IC8701>



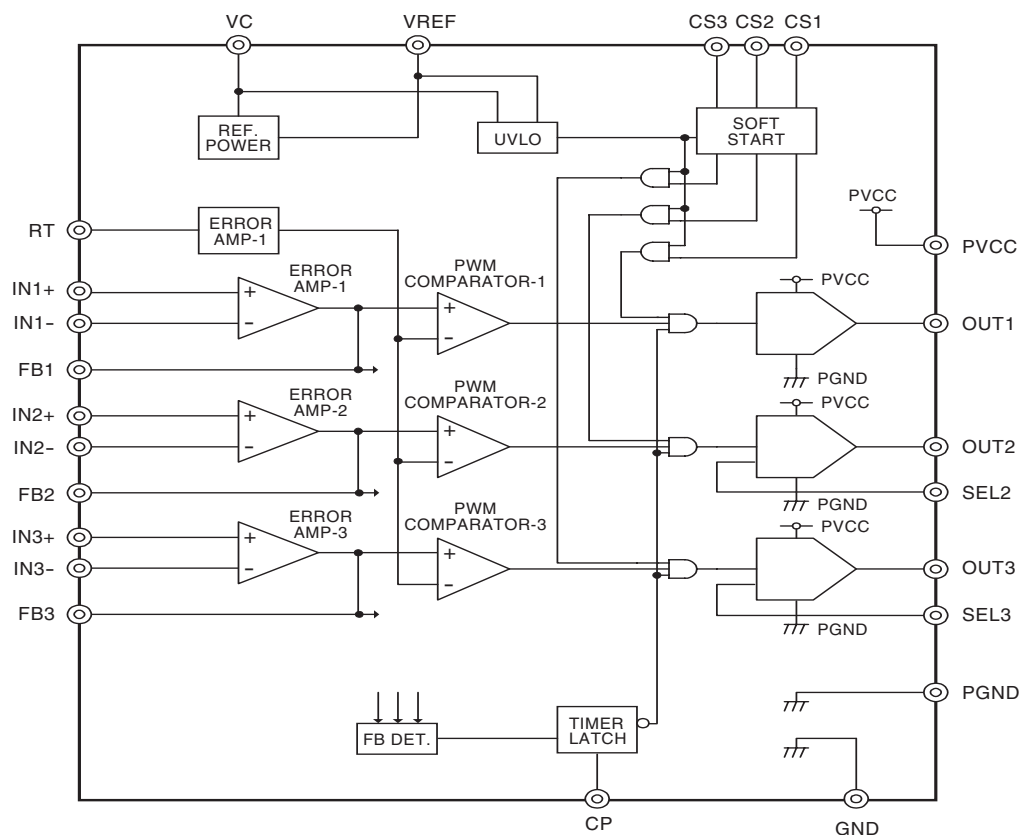
● NJM2584 <Video Switch, IC5201>



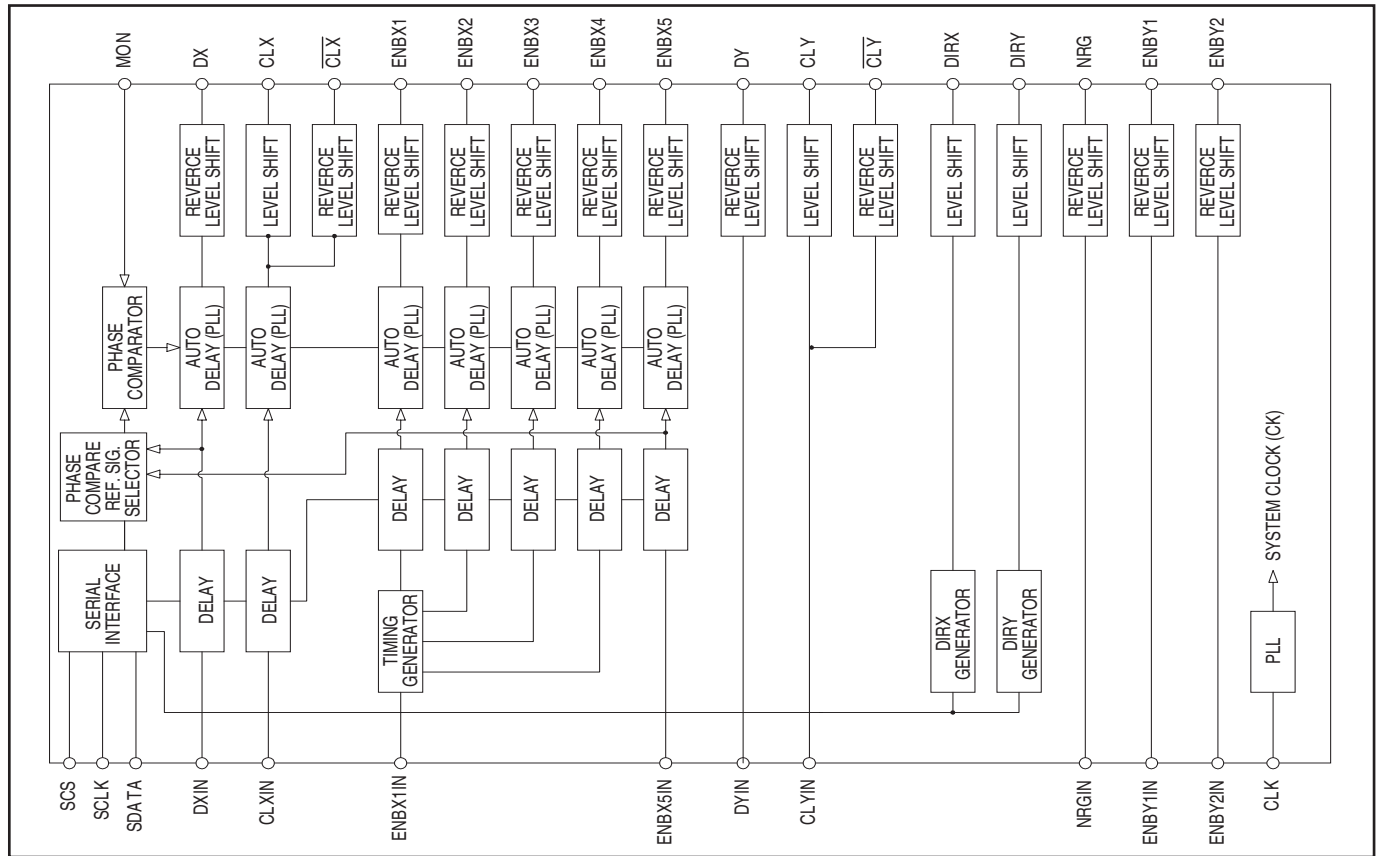
● FA7701 <Switching power Supply Controller, IC6601>



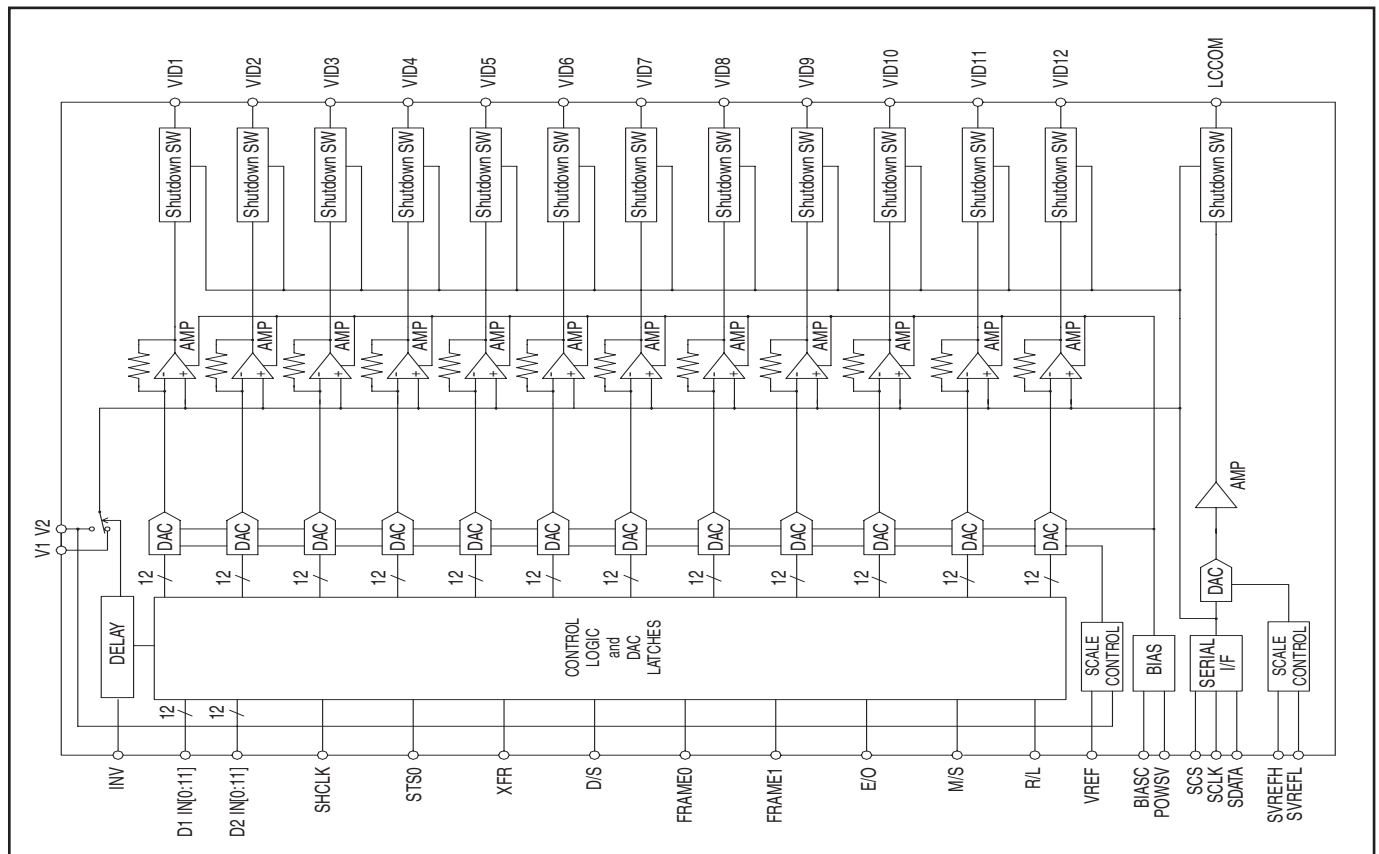
● FA7711 <Switching power Supply Controller, IC6621>



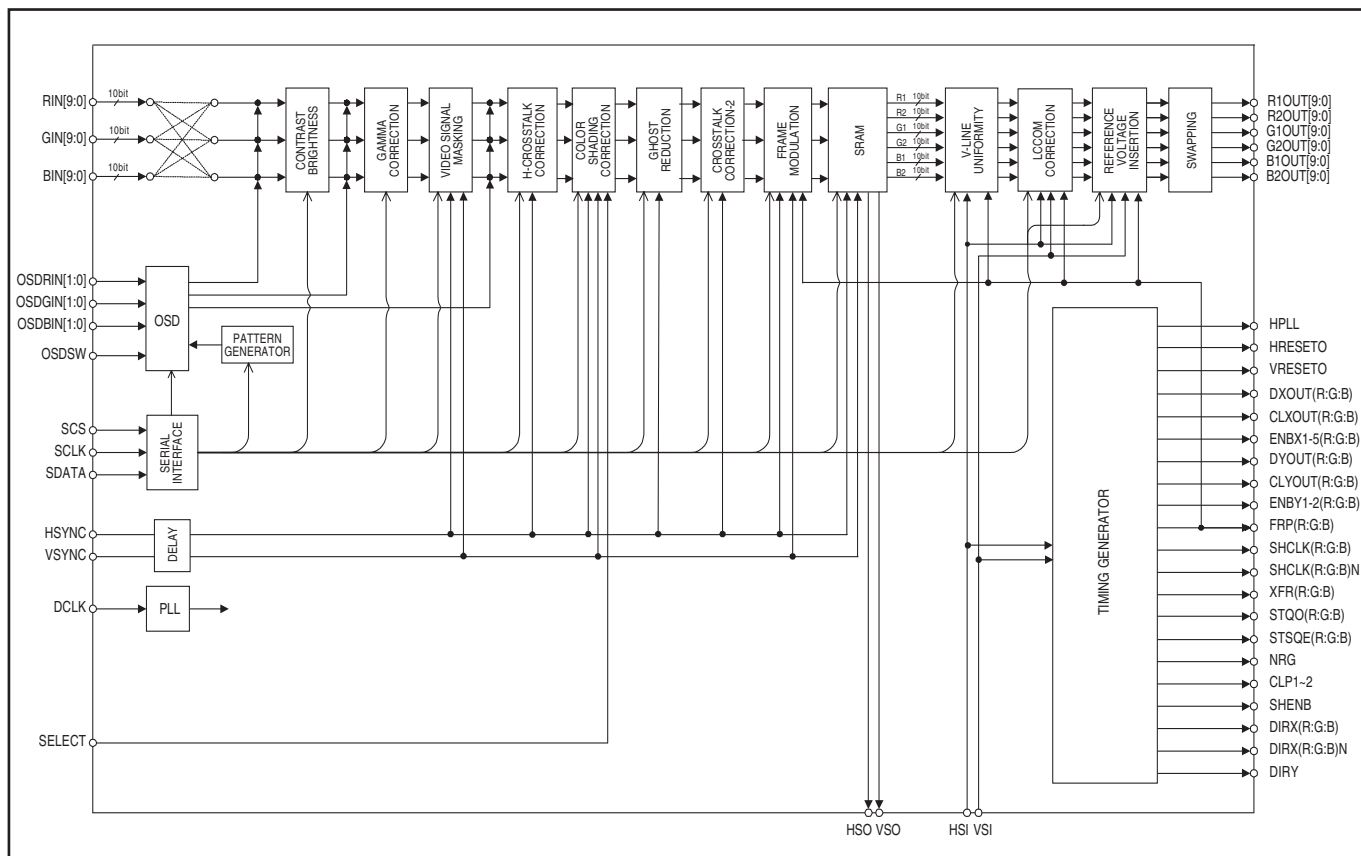
● L3E01060 <Level Shift, IC2501, IC2531, IC2561>



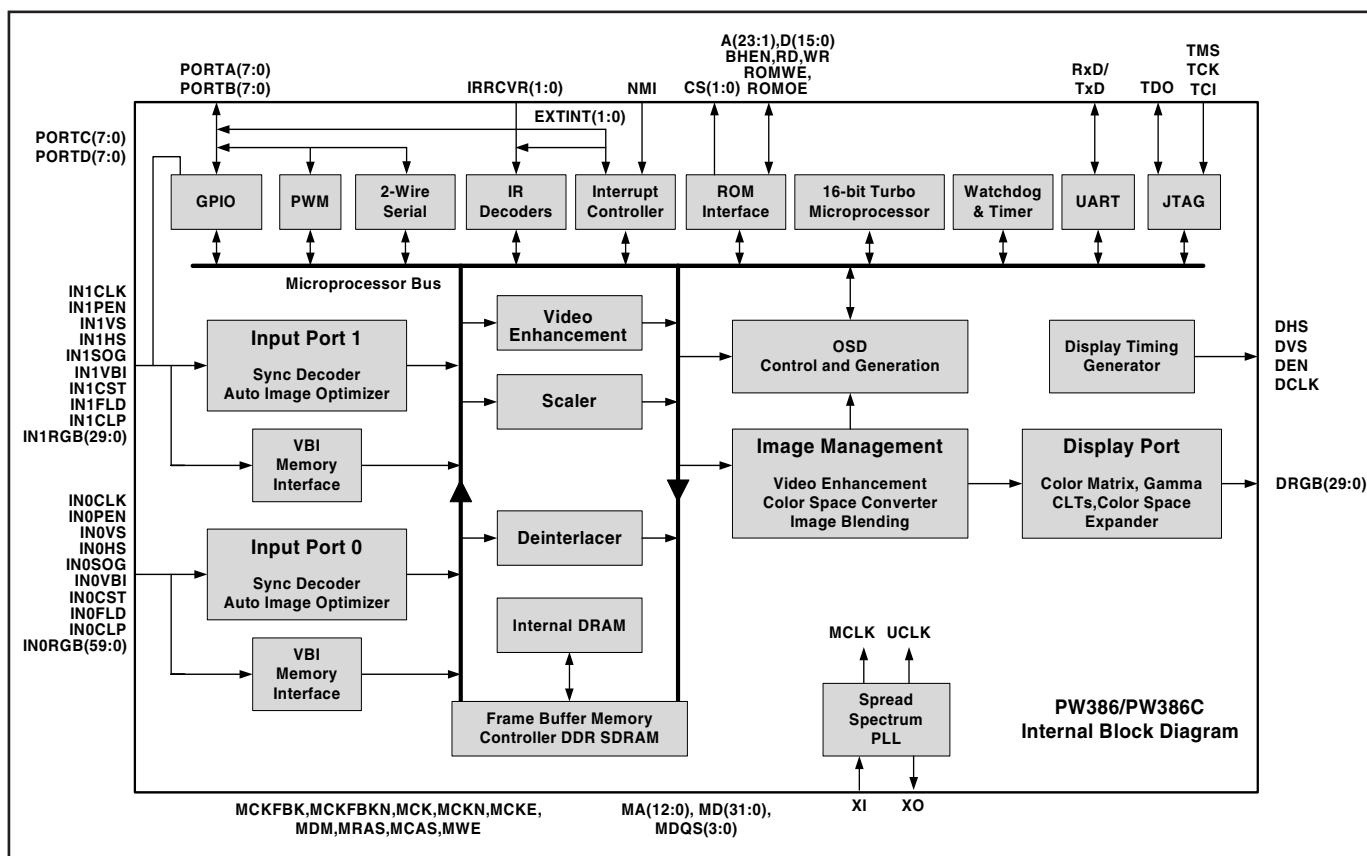
● L3E06130 <Sample & Hold, IC501, IC531, IC561>



● L3E07110 <Digital Gamma, IC401>



● PW386 <Scan Converter & Main CPU, IC301>





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:

CAPACITOR	CERAMIC	100P	K	50V	
					Rated Voltage
					Tolerance Symbols:
					Less than 10pF
					A : Not specified B : $\pm 0.1\text{pF}$ C : $\pm 0.25\text{pF}$
					D : $\pm 0.5\text{pF}$ E : $+0 -1\text{pF}$ F : $\pm 1\text{PF}$
					G : $\pm 2\text{pF}$ H : $+0.1 -0\text{pF}$ L : $+0 -0.1\text{pF}$
					R : $\pm 0.25 -0\text{pF}$ S : $+0 -0.25\text{pF}$
					More than 10pF
					A : Not specified B : $\pm 0.1\%$ C : $\pm 0.25\%$
					D : $\pm 0.5\%$ F : $\pm 1\%$ G : $\pm 2\%$
					H : $\pm 3\%$ J : $\pm 5\%$ K : $\pm 10\%$
					L : $\pm 15\%$ M : $\pm 20\%$ N : $\pm 30\%$
					P : $\pm 100-0\%$ Q : $\pm 30-10\%$ T : $\pm 50-10\%$
					U : $\pm 75-10\%$ V : $\pm 20-10\%$ W : $\pm 100-10\%$
					X : $\pm 40-20\%$ Y : $\pm 150-10\%$ Z : $\pm 80-20\%$
					Rated value: P=pico farad, U=micro farad

- 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

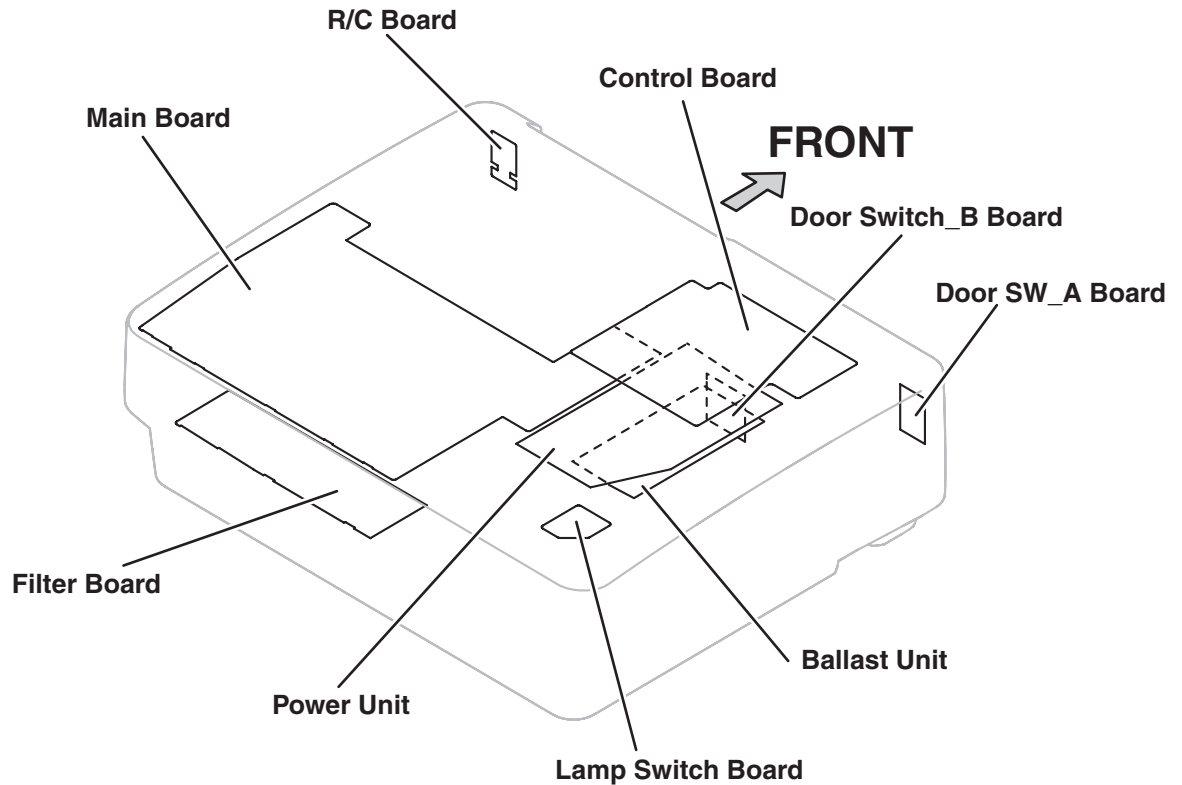
RESISTOR	CARBON	4.7K	J	A	1/4W	
						Rated Wattage
						Performance Symbols:
						A: General B: Non flammable Z: Low noise
						Other: Temperature coefficient
						T: $\pm 10\text{ppm}/^\circ\text{C}$ U: $\pm 25\text{ppm}/^\circ\text{C}$ C: $\pm 50\text{ppm}/^\circ\text{C}$
						D: $\pm 100\text{ppm}/^\circ\text{C}$ E: $\pm 200\text{ppm}/^\circ\text{C}$ F: $\pm 250\text{ppm}/^\circ\text{C}$
						G: $\pm 350\text{ppm}/^\circ\text{C}$ H: $\pm 1000\text{ppm}/^\circ\text{C}\pm 10\%$ W: $\pm 1200\text{ppm}/^\circ\text{C}\pm 10\%$
						Y: $\pm 1400\text{ppm}/^\circ\text{C}\pm 10\%$ J: $\pm 2000\text{ppm}/^\circ\text{C}\pm 10\%$ K: $\pm 2400\text{ppm}/^\circ\text{C}\pm 10\%$
						L: $\pm 2700\text{ppm}/^\circ\text{C}\pm 10\%$ M: $\pm 3000\text{ppm}/^\circ\text{C}\pm 10\%$ N: $\pm 3300\text{ppm}/^\circ\text{C}\pm 10\%$
						P: $\pm 3600\text{ppm}/^\circ\text{C}\pm 10\%$ Q: $\pm 3900\text{ppm}/^\circ\text{C}\pm 10\%$ R: $\pm 4200\text{ppm}/^\circ\text{C}\pm 10\%$
						S: $\pm 4300\text{ppm}/^\circ\text{C}\pm 10\%$ V: $\pm 4500\text{ppm}/^\circ\text{C}\pm 10\%$ X: $\pm 8000\text{ppm}/^\circ\text{C}\pm 10\%$
						Tolerance Symbols:
						A: $\pm 0.05\%$ B: $\pm 0.1\%$ C: $\pm 0.25\%$ D: $\pm 0.5\%$
						F: $\pm 1\%$ G: $\pm 2\%$ J: $\pm 5\%$ K: $\pm 10\%$
						M: $\pm 20\%$ P: $\pm 5-15\%$ Z: 0 ohm
						Rated value, ohms:
						K: 1,000, M: 1,000,000

- 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
 - RESISTOR Other

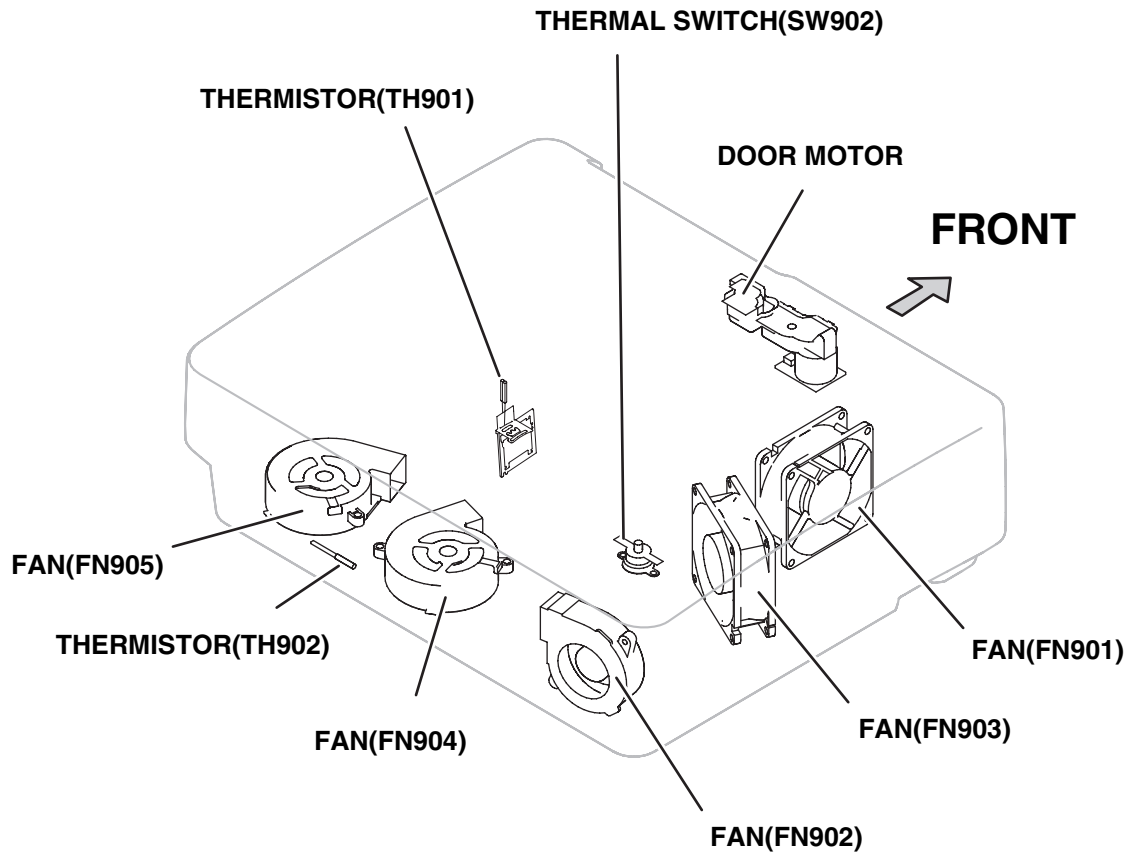
Electrical Parts List

Note: Parts order must contain Chassis No., Part No., and Descriptions.

● ASSEMBLED BOARDS



● OUT OF CIRCUIT BOARD



Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
ASSEMBLED BOARDS					
△ 610 322 4695	ASSY,PWB,MAIN .M4WA			405 014 4618	TR 2SC2412K T146 S
△ 610 322 5708	ASSY,PWB,CTRL M4WA			405 015 8724	TR 2SC2812-L6-TB
△ 610 322 7177	ASSY,PWB,R/C M4WA			405 015 8922	TR 2SC2812-L7-TB
△ 610 324 5294	ASSY,PWB,FILTER M4WA		Q1036	405 163 1612	TR 2SC2812N-L6-TB0
△ 610 324 5027	ASSY,PWB,DOOR SW_A M4WA			405 014 4519	TR 2SC2412K T146 R
△ 610 324 5287	ASSY,PWB,DOOR SW_B M4WA			405 014 4618	TR 2SC2412K T146 S
△ 610 324 5003	ASSY,PWB,LAMP SW M4WA			405 015 8724	TR 2SC2812-L6-TB
OUT OF CIRCUIT BOARDS				405 015 8922	TR 2SC2812-L7-TB
L901	645 003 3810	CORE,FERRITE		405 163 1612	TR 2SC2812N-L6-TB0
	645 040 2593	CORE,FERRITE	Q3612	405 014 4519	TR 2SC2412K T146 R
△LP901	610 323 5998	COMPL,OPT LMP-M4WA		405 014 4618	TR 2SC2412K T146 S
△A901	645 078 0790	UNIT,BALLAST		405 015 8724	TR 2SC2812-L6-TB
△A902	645 078 7126	UNIT,POWER		405 015 8922	TR 2SC2812-L7-TB
△FN901	645 078 8390	MOTOR,FAN DC 2.28W	Q3613	405 163 1612	TR 2SC2812N-L6-TB0
△FN902	645 078 8369	MOTOR,BLW DC 1.92W		405 134 5925	TR 2SA1037AK-T146-R
△FN903	645 078 8383	MOTOR,FAN DC 2.4W		405 147 2215	TR 2SA1037AK-S-T146
△FN904	645 078 8376	MOTOR,BLW DC 3.0W		405 002 0318	TR 2SA1037K T146 R
△FN905	645 078 8376	MOTOR,BLW DC 3.0W		405 002 0417	TR 2SA1037K T146 S
△SW902	645 078 9496	SWITCH,THERMAL(90DEG)		405 002 6726	TR 2SA1179-M6-TB
TH901	645 079 7767	SWITCH,THERMAL,THERMISTOR		405 002 6924	TR 2SA1179-M7-TB
TH902	645 079 7774	SWITCH,THERMAL,THERMISTOR	Q3614	405 163 1513	TR 2SA1179N-M6-TB
WK8A	610 325 5620	HALOGEN FREE WIRE 12P 2.0MM		405 014 4519	TR 2SC2412K T146 R
WK8B	610 325 5644	HALOGEN FREE WIRE 3P 2.0MM		405 014 4618	TR 2SC2412K T146 S
WK8C	610 325 5583	HALOGEN FREE WIRE 4P-5P		405 015 8724	TR 2SC2812-L6-TB
WK8D	610 325 5590	HALOGEN FREE WIRE 20P 1.0MM		405 015 8922	TR 2SC2812-L7-TB
WK8J	610 325 5576	HALOGEN FREE WIRE 4P 1.5MM	Q3631	405 163 1612	TR 2SC2812N-L6-TB0
WK8L	610 325 5613	HALOGEN FREE WIRE 3P 1.5MM B	Q3641	406 017 8402	TR RTQ025P02-TR
WK8M	610 325 5637	HALOGEN FREE WIRE 3P 1.5MM R	Q3651	406 017 8402	TR RTQ025P02-TR
WK8N	610 325 5606	HALOGEN FREE WIRE 3P 1.5MM	Q3801	405 045 8725	TR 2SK536-TB
WK8P	610 325 5569	HALOGEN FREE WIRE 5P 1.0MM	Q4601	405 174 1816	TR CPH3424-TL
WK8Q	610 325 5552	HALOGEN FREE WIRE 4P 1.5MM	Q4602	405 139 7716	TR IMZ1A-T108
MAIN BOARD			Q4603	405 002 8324	TR 2SA1203-Y-FE12L
610 322 4695 ASSY,PWB,MAIN .M4WA			Q4604	405 014 4519	TR 2SC2412K T146 R
TRANSISTOR				405 014 4618	TR 2SC2412K T146 S
Q1001	405 014 4519	TR 2SC2412K T146 R		405 015 8724	TR 2SC2812-L6-TB
	405 014 4618	TR 2SC2412K T146 S		405 015 8922	TR 2SC2812-L7-TB
	405 015 8724	TR 2SC2812-L6-TB		405 163 1612	TR 2SC2812N-L6-TB0
	405 015 8922	TR 2SC2812-L7-TB		405 014 4519	TR 2SC2412K T146 R
	405 163 1612	TR 2SC2812N-L6-TB0		405 014 4618	TR 2SC2412K T146 S
Q1031	405 014 4519	TR 2SC2412K T146 R		405 015 8724	TR 2SC2812-L6-TB
	405 014 4618	TR 2SC2412K T146 S		405 015 8922	TR 2SC2812-L7-TB
	405 015 8724	TR 2SC2812-L6-TB		405 163 1612	TR 2SC2812N-L6-TB0
	405 015 8922	TR 2SC2812-L7-TB	Q5621	406 017 8402	TR RTQ025P02-TR
	405 163 1612	TR 2SC2812N-L6-TB0	Q5641	406 017 8402	TR RTQ025P02-TR
Q1032	405 134 5925	TR 2SA1037AK-T146-R	Q5661	406 017 8402	TR RTQ025P02-TR
	405 147 2215	TR 2SA1037AK-S-T146	Q591	405 002 8324	TR 2SA1203-Y-FE12L
	405 002 0318	TR 2SA1037K T146 R	Q592	405 014 4519	TR 2SC2412K T146 R
	405 002 0417	TR 2SA1037K T146 S		405 014 4618	TR 2SC2412K T146 S
	405 002 6726	TR 2SA1179-M6-TB		405 015 8724	TR 2SC2812-L6-TB
	405 002 6924	TR 2SA1179-M7-TB		405 015 8922	TR 2SC2812-L7-TB
	405 163 1513	TR 2SA1179N-M6-TB		405 163 1612	TR 2SC2812N-L6-TB0
Q1033	405 014 4519	TR 2SC2412K T146 R	Q6611	405 014 4519	TR 2SC2412K T146 R
	405 014 4618	TR 2SC2412K T146 S		405 014 4618	TR 2SC2412K T146 S
	405 015 8724	TR 2SC2812-L6-TB		405 015 8724	TR 2SC2812-L6-TB
	405 015 8922	TR 2SC2812-L7-TB		405 015 8922	TR 2SC2812-L7-TB
	405 163 1612	TR 2SC2812N-L6-TB0		405 163 1612	TR 2SC2812N-L6-TB0
Q1034	405 014 4519	TR 2SC2412K T146 R	Q6612	405 134 5925	TR 2SA1037AK-T146-R
				405 147 2215	TR 2SA1037AK-S-T146
				405 002 0318	TR 2SA1037K T146 R
				405 002 0417	TR 2SA1037K T146 S
				405 002 6726	TR 2SA1179-M6-TB

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
Q6613	405 002 6924	TR 2SA1179-M7-TB	IC4831	409 431 6019	IC MC74VHC14DT
	405 163 1513	TR 2SA1179N-M6-TB	IC4832	409 422 5222	IC MC74ACT00DT
	405 014 4519	TR 2SC2412K T146 R	IC4833	409 431 6019	IC MC74VHC14DT
	405 014 4618	TR 2SC2412K T146 S	IC5201	409 605 3318	IC NJM2584AM
	405 015 8724	TR 2SC2812-L6-TB	IC5231	409 400 7115	IC TC7W53FU-(TE12L)
Q6614	405 015 8922	TR 2SC2812-L7-TB	IC5601	409 567 3210	IC FA7711V-TE1
	405 163 1612	TR 2SC2812N-L6-TB0	IC5801	410 423 8000	IC TC74LCX138FT
	405 014 4519	TR 2SC2412K T146 R	IC5821	409 368 5819	IC TC7SH08FU(TE85L)
	405 014 4618	TR 2SC2412K T146 S	IC5831	409 301 5319	IC TC7S32FU-TE85L
	405 015 8724	TR 2SC2812-L6-TB	IC5841	409 471 6710	IC TC7WH00FK(TE85L)
Q6626	405 015 8922	TR 2SC2812-L7-TB	IC5851	409 488 5921	IC TC7WH04FK-TE85L
	405 163 1612	TR 2SC2812N-L6-TB0	IC6551	409 362 1124	IC BA6287F
	405 014 4519	TR 2SC2412K T146 R	IC6601	409 567 3210	IC FA7711V-TE1
	405 014 4618	TR 2SC2412K T146 S	IC6621	409 531 6226	IC FA7701V-TE1
	405 015 8724	TR 2SC2812-L6-TB	IC7701	409 246 9717	IC LA6358NM-TE-L
Q6631	405 015 8922	TR 2SC2812-L7-TB	IC7741	409 649 4715	IC NJM4556AV-TE2
	405 163 1612	TR 2SC2812N-L6-TB0	IC7761	409 368 5819	IC TC7SH08FU(TE85L)
	406 017 8402	TR RTQ025P02-TR	IC7781	409 246 9717	IC LA6358NM-TE-L
	405 139 7716	TR IMZ1A-T108	IC7831	410 337 0602	IC HD74LVC14T
	406 017 8402	TR RTQ025P02-TR	IC7841	409 428 9610	IC M62399FP-DF0Q
Q6642	405 139 7716	TR IMZ1A-T108	IC8001	410 573 2309	IC SII9011CLU
Q6651	406 017 8402	TR RTQ025P02-TR	IC801	410 586 6608	IC S29JL064H70TF-0674
Q6652	405 139 7716	TR IMZ1A-T108	IC8061	409 588 6313	IC BA33BC0FP
Q6661	406 017 8402	TR RTQ025P02-TR	IC8071	409 583 8114	IC SI-3018LSA-TL
Q6662	405 139 7716	TR IMZ1A-T108	IC8101	409 400 7115	IC TC7W53FU-(TE12L)
Q7781	405 014 4519	TR 2SC2412K T146 R	IC8102	409 400 7115	IC TC7W53FU-(TE12L)
	405 014 4618	TR 2SC2412K T146 S	IC8121	410 479 4001	IC TC7WBD125AFK
	405 015 8724	TR 2SC2812-L6-TB	IC8131	409 417 5517	IC 24LC04BT/SN
	405 015 8922	TR 2SC2812-L7-TB	IC8141	410 479 4001	IC TC7WBD125AFK
	405 163 1612	TR 2SC2812N-L6-TB0	IC8251	409 539 8915	IC PQ033EZ012P
Q8001	405 078 4121	TR 2N7002	IC8261	409 583 8114	IC SI-3018LSA-TL
Q8101	405 014 4519	TR 2SC2412K T146 R	IC8271	410 471 9905	IC SN74AHC2G14HDCT3
	405 014 4618	TR 2SC2412K T146 S	IC8281	409 539 8915	IC PQ033EZ012P
	405 015 8724	TR 2SC2812-L6-TB	IC8291	409 583 8114	IC SI-3018LSA-TL
	405 015 8922	TR 2SC2812-L7-TB	IC841	410 362 6501	IC TC74LCX541FT
	405 163 1612	TR 2SC2812N-L6-TB0	IC8701	409 362 1124	IC BA6287F
Q8701	405 014 4519	TR 2SC2412K T146 R	IC8841	409 481 8612	IC LM76CHMX-5
	405 014 4618	TR 2SC2412K T146 S	IC8846	409 545 5717	IC XC6202P502M
	405 015 8724	TR 2SC2812-L6-TB	CAPACITOR		
	405 015 8922	TR 2SC2812-L7-TB	C1001	403 164 0234	CERAMIC 0.1U Z 25V
	405 163 1612	TR 2SC2812N-L6-TB0	C1033	403 164 0234	CERAMIC 0.1U Z 25V
Q891	405 014 4519	TR 2SC2412K T146 R	C1034	403 372 7517	CERAMIC 2.2U K 6.3V
	405 014 4618	TR 2SC2412K T146 S	C1036	403 164 0234	CERAMIC 0.1U Z 25V
	405 015 8724	TR 2SC2812-L6-TB	C1037	403 215 2211	CERAMIC 0.01U K 50V
	405 015 8922	TR 2SC2812-L7-TB	C1038	403 283 6339	CERAMIC 1U Z 10V
	405 163 1612	TR 2SC2812N-L6-TB0	C1044	403 283 6339	CERAMIC 1U Z 10V
INTEGRATED CIRCUIT			C1046	403 283 6339	CERAMIC 1U Z 10V
IC1301	409 480 1327	IC PST573IM	C1047	403 283 6339	CERAMIC 1U Z 10V
IC1302	409 350 2918	IC TC7W126FU-(TE12L)	C1301	403 283 6339	CERAMIC 1U Z 10V
IC1303	409 604 5511	IC TC7SZ02FU	C1302	403 394 1319	ELECT 100U M 6.3V
IC1371	410 479 4001	IC TC7WBD125AFK	C1303	403 283 6339	CERAMIC 1U Z 10V
IC1391	410 538 4904	IC 24LC64T-I/SNG	C1304	403 164 0234	CERAMIC 0.1U Z 25V
IC1501	409 428 9610	IC M62399FP-DF0Q	C1306	403 215 2211	CERAMIC 0.01U K 50V
IC1581	409 608 9119	IC BAJ2CC0WFP	C1307	403 283 6339	CERAMIC 1U Z 10V
IC1591	409 545 5717	IC XC6202P502M	C1311	403 215 2211	CERAMIC 0.01U K 50V
IC1801	410 362 6501	IC TC74LCX541FT	C1331	403 139 7316	CERAMIC 18P J 50V
IC1821	410 346 8804	IC TC74LCX574FT	C1332	403 139 7316	CERAMIC 18P J 50V
IC2821	410 337 0602	IC HD74LVC14T	C1371	403 164 0234	CERAMIC 0.1U Z 25V
IC2891	409 350 2918	IC TC7W126FU-(TE12L)	C1391	403 164 0234	CERAMIC 0.1U Z 25V
IC301	409 646 9218	IC PW386-10L	C1501	403 164 0234	CERAMIC 0.1U Z 25V
IC3401	410 402 6300	IC MSM56V16160F-8TS-K	C1502	403 164 0234	CERAMIC 0.1U Z 25V
IC3431	409 588 6313	IC BA33BC0FP	C1503	403 164 0234	CERAMIC 0.1U Z 25V
IC3601	409 567 3210	IC FA7711V-TE1	C1504	403 164 0234	CERAMIC 0.1U Z 25V
IC3801	409 466 6916	IC SP232ECT-L	C1581	403 164 0234	CERAMIC 0.1U Z 25V
IC4401	410 562 5007	IC EP1S25F672C8N	C1582	403 398 3814	ELECT 220U M 16V
IC4641	409 416 6515	IC BA05FP-E2	C1591	403 164 0234	CERAMIC 0.1U Z 25V
IC4811	409 400 9218	IC TC7SET32FU-(TE85L)	C1592	403 392 1212	ELECT 47U M 6.3V

Electrical Parts List

Key No.	Part No.	Description				Key No.	Part No.	Description			
C1801	403 164 0234	CERAMIC	0.1U	Z	25V	C3441	403 164 0234	CERAMIC	0.1U	Z	25V
C1821	403 164 0234	CERAMIC	0.1U	Z	25V	C3442	403 358 3212	CERAMIC	10U	K	6.3V
C2504	403 164 0234	CERAMIC	0.1U	Z	25V		403 368 7316	CERAMIC	10U	K	6.3V
C2505	403 398 5412	ELECT	47U	M	25V	C3443	403 164 0234	CERAMIC	0.1U	Z	25V
C2506	403 164 0234	CERAMIC	0.1U	Z	25V	C3444	403 394 1319	ELECT	100U	M	6.3V
C2507	403 164 0234	CERAMIC	0.1U	Z	25V	C3446	403 358 3212	CERAMIC	10U	K	6.3V
C2509	403 164 0234	CERAMIC	0.1U	Z	25V		403 368 7316	CERAMIC	10U	K	6.3V
C2511	403 164 0234	CERAMIC	0.1U	Z	25V	C3447	403 164 0234	CERAMIC	0.1U	Z	25V
C2513	403 164 0234	CERAMIC	0.1U	Z	25V	C3501	403 164 0234	CERAMIC	0.1U	Z	25V
C2534	403 164 0234	CERAMIC	0.1U	Z	25V	C3502	403 164 0234	CERAMIC	0.1U	Z	25V
C2535	403 398 5412	ELECT	47U	M	25V	C3503	403 164 0234	CERAMIC	0.1U	Z	25V
C2536	403 164 0234	CERAMIC	0.1U	Z	25V	C3504	403 164 0234	CERAMIC	0.1U	Z	25V
C2537	403 164 0234	CERAMIC	0.1U	Z	25V	C3506	403 398 4118	ELECT	47U	M	16V
C2539	403 164 0234	CERAMIC	0.1U	Z	25V	C3531	403 164 0234	CERAMIC	0.1U	Z	25V
C2541	403 164 0234	CERAMIC	0.1U	Z	25V	C3532	403 164 0234	CERAMIC	0.1U	Z	25V
C2543	403 164 0234	CERAMIC	0.1U	Z	25V	C3533	403 164 0234	CERAMIC	0.1U	Z	25V
C2564	403 164 0234	CERAMIC	0.1U	Z	25V	C3534	403 164 0234	CERAMIC	0.1U	Z	25V
C2565	403 398 5412	ELECT	47U	M	25V	C3536	403 398 4118	ELECT	47U	M	16V
C2566	403 164 0234	CERAMIC	0.1U	Z	25V	C3561	403 164 0234	CERAMIC	0.1U	Z	25V
C2567	403 164 0234	CERAMIC	0.1U	Z	25V	C3562	403 164 0234	CERAMIC	0.1U	Z	25V
C2569	403 164 0234	CERAMIC	0.1U	Z	25V	C3563	403 164 0234	CERAMIC	0.1U	Z	25V
C2571	403 164 0234	CERAMIC	0.1U	Z	25V	C3564	403 164 0234	CERAMIC	0.1U	Z	25V
C2573	403 164 0234	CERAMIC	0.1U	Z	25V	C3566	403 398 4118	ELECT	47U	M	16V
C2821	403 164 0234	CERAMIC	0.1U	Z	25V	C3601	403 364 5811	CERAMIC	1U	K	10V
C2891	403 164 0234	CERAMIC	0.1U	Z	25V	C3602	403 364 5811	CERAMIC	1U	K	10V
C301	403 164 0234	CERAMIC	0.1U	Z	25V	C3605	403 155 2319	CERAMIC	4700P	K	50V
C302	403 392 1212	ELECT	47U	M	6.3V	C3608	403 155 2319	CERAMIC	4700P	K	50V
C303	403 164 0234	CERAMIC	0.1U	Z	25V	C3609	403 155 2319	CERAMIC	4700P	K	50V
C304	403 164 0234	CERAMIC	0.1U	Z	25V	C3611	403 164 0234	CERAMIC	0.1U	Z	25V
C306	403 164 0234	CERAMIC	0.1U	Z	25V	C3612	403 164 0234	CERAMIC	0.1U	Z	25V
C307	403 164 0234	CERAMIC	0.1U	Z	25V	C3613	403 164 0234	CERAMIC	0.1U	Z	25V
C308	403 164 0234	CERAMIC	0.1U	Z	25V	C3631	403 364 5811	CERAMIC	1U	K	10V
C309	403 164 0234	CERAMIC	0.1U	Z	25V	C3632	403 347 5517	POS-SOLID	470U	M	4V
C311	403 164 0234	CERAMIC	0.1U	Z	25V	C3634	403 164 0234	CERAMIC	0.1U	Z	25V
C312	403 164 0234	CERAMIC	0.1U	Z	25V	C3636	403 215 2112	CERAMIC	8200P	K	50V
C313	403 164 0234	CERAMIC	0.1U	Z	25V	C3641	403 364 5811	CERAMIC	1U	K	10V
C314	403 164 0234	CERAMIC	0.1U	Z	25V	C3642	403 347 5517	POS-SOLID	470U	M	4V
C316	403 164 0234	CERAMIC	0.1U	Z	25V	C3644	403 164 0234	CERAMIC	0.1U	Z	25V
C317	403 164 0234	CERAMIC	0.1U	Z	25V	C3646	403 215 2112	CERAMIC	8200P	K	50V
C318	403 164 0234	CERAMIC	0.1U	Z	25V	C3651	403 364 5811	CERAMIC	1U	K	10V
C319	403 164 0234	CERAMIC	0.1U	Z	25V	C3652	403 347 5517	POS-SOLID	470U	M	4V
C321	403 164 0234	CERAMIC	0.1U	Z	25V	C3654	403 164 0234	CERAMIC	0.1U	Z	25V
C322	403 164 0234	CERAMIC	0.1U	Z	25V	C3656	403 215 2112	CERAMIC	8200P	K	50V
C323	403 164 0234	CERAMIC	0.1U	Z	25V	C3801	403 372 7517	CERAMIC	2.2U	K	6.3V
C324	403 164 0234	CERAMIC	0.1U	Z	25V	C3802	403 372 7517	CERAMIC	2.2U	K	6.3V
C326	403 164 0234	CERAMIC	0.1U	Z	25V	C3803	403 372 7517	CERAMIC	2.2U	K	6.3V
C327	403 164 0234	CERAMIC	0.1U	Z	25V	C3804	403 372 7517	CERAMIC	2.2U	K	6.3V
C328	403 164 0234	CERAMIC	0.1U	Z	25V	C3806	403 283 6339	CERAMIC	1U	Z	10V
C329	403 164 0234	CERAMIC	0.1U	Z	25V	C4003	403 233 3818	CERAMIC	10P	C	50V
C331	403 164 0234	CERAMIC	0.1U	Z	25V	C401	403 164 0234	CERAMIC	0.1U	Z	25V
C332	403 392 1212	ELECT	47U	M	6.3V	C402	403 164 0234	CERAMIC	0.1U	Z	25V
C333	403 392 1212	ELECT	47U	M	6.3V	C403	403 164 0234	CERAMIC	0.1U	Z	25V
C334	403 164 0234	CERAMIC	0.1U	Z	25V	C404	403 164 0234	CERAMIC	0.1U	Z	25V
C337	403 164 0234	CERAMIC	0.1U	Z	25V	C406	403 164 0234	CERAMIC	0.1U	Z	25V
C3401	403 164 0234	CERAMIC	0.1U	Z	25V	C407	403 164 0234	CERAMIC	0.1U	Z	25V
C3402	403 164 0234	CERAMIC	0.1U	Z	25V	C411	403 164 0234	CERAMIC	0.1U	Z	25V
C3403	403 164 0234	CERAMIC	0.1U	Z	25V	C412	403 164 0234	CERAMIC	0.1U	Z	25V
C3404	403 164 0234	CERAMIC	0.1U	Z	25V	C413	403 164 0234	CERAMIC	0.1U	Z	25V
C3406	403 164 0234	CERAMIC	0.1U	Z	25V	C414	403 164 0234	CERAMIC	0.1U	Z	25V
C3432	403 164 0234	CERAMIC	0.1U	Z	25V	C416	403 164 0234	CERAMIC	0.1U	Z	25V
C3433	403 394 1319	ELECT	100U	M	6.3V	C417	403 164 0234	CERAMIC	0.1U	Z	25V
C3434	403 397 6311	ELECT	22U	M	16V	C421	403 164 0234	CERAMIC	0.1U	Z	25V
C3436	403 358 3212	CERAMIC	10U	K	6.3V	C422	403 164 0234	CERAMIC	0.1U	Z	25V
	403 368 7316	CERAMIC	10U	K	6.3V	C423	403 164 0234	CERAMIC	0.1U	Z	25V
C3437	403 164 0234	CERAMIC	0.1U	Z	25V	C424	403 164 0234	CERAMIC	0.1U	Z	25V
C3439	403 358 3212	CERAMIC	10U	K	6.3V	C426	403 164 0234	CERAMIC	0.1U	Z	25V
	403 368 7316	CERAMIC	10U	K	6.3V	C427	403 164 0234	CERAMIC	0.1U	Z	25V

Electrical Parts List

Key No.	Part No.	Description				Key No.	Part No.	Description			
C431	403 164 0234	CERAMIC	0.1U	Z	25V	C4811	403 298 9619	CERAMIC	0.1U	K	16V
C432	403 164 0234	CERAMIC	0.1U	Z	25V	C4812	403 215 2211	CERAMIC	0.01U	K	50V
C433	403 164 0234	CERAMIC	0.1U	Z	25V	C4814	403 164 0234	CERAMIC	0.1U	Z	25V
C434	403 164 0234	CERAMIC	0.1U	Z	25V	C4831	403 164 0234	CERAMIC	0.1U	Z	25V
C436	403 164 0234	CERAMIC	0.1U	Z	25V	C4832	403 164 0234	CERAMIC	0.1U	Z	25V
C437	403 164 0234	CERAMIC	0.1U	Z	25V	C4833	403 164 0234	CERAMIC	0.1U	Z	25V
C438	403 398 2015	ELECT	33U	M	6.3V	C4851	403 215 2211	CERAMIC	0.01U	K	50V
C439	403 164 0234	CERAMIC	0.1U	Z	25V	C501	403 135 0717	CERAMIC	1U	K	25V
C4401	403 164 0234	CERAMIC	0.1U	Z	25V	C502	403 164 0234	CERAMIC	0.1U	Z	25V
C4411	403 164 0234	CERAMIC	0.1U	Z	25V	C503	403 164 0234	CERAMIC	0.1U	Z	25V
C4412	403 164 0234	CERAMIC	0.1U	Z	25V	C504	403 164 0234	CERAMIC	0.1U	Z	25V
C4413	403 164 0234	CERAMIC	0.1U	Z	25V	C506	403 164 0234	CERAMIC	0.1U	Z	25V
C4414	403 164 0234	CERAMIC	0.1U	Z	25V	C508	403 164 0234	CERAMIC	0.1U	Z	25V
C4416	403 164 0234	CERAMIC	0.1U	Z	25V	C513	403 164 0234	CERAMIC	0.1U	Z	25V
C4417	403 164 0234	CERAMIC	0.1U	Z	25V	C514	403 164 0234	CERAMIC	0.1U	Z	25V
C4418	403 164 0234	CERAMIC	0.1U	Z	25V	C517	403 164 0234	CERAMIC	0.1U	Z	25V
C4419	403 164 0234	CERAMIC	0.1U	Z	25V	C518	403 164 0234	CERAMIC	0.1U	Z	25V
C4421	403 164 0234	CERAMIC	0.1U	Z	25V	C519	403 164 0234	CERAMIC	0.1U	Z	25V
C4422	403 164 0234	CERAMIC	0.1U	Z	25V	C5201	403 372 7517	CERAMIC	2.2U	K	6.3V
C4423	403 164 0234	CERAMIC	0.1U	Z	25V	C5202	403 372 7517	CERAMIC	2.2U	K	6.3V
C4424	403 164 0234	CERAMIC	0.1U	Z	25V	C5203	403 364 5811	CERAMIC	1U	K	10V
C4426	403 164 0234	CERAMIC	0.1U	Z	25V	C5204	403 364 5811	CERAMIC	1U	K	10V
C4427	403 164 0234	CERAMIC	0.1U	Z	25V	C5206	403 364 5811	CERAMIC	1U	K	10V
C4428	403 164 0234	CERAMIC	0.1U	Z	25V	C5207	403 364 5811	CERAMIC	1U	K	10V
C4429	403 164 0234	CERAMIC	0.1U	Z	25V	C5208	403 164 0234	CERAMIC	0.1U	Z	25V
C4431	403 164 0234	CERAMIC	0.1U	Z	25V	C5209	403 164 0234	CERAMIC	0.1U	Z	25V
C4432	403 164 0234	CERAMIC	0.1U	Z	25V	C521	403 164 0234	CERAMIC	0.1U	Z	25V
C4436	403 164 0234	CERAMIC	0.1U	Z	25V	C522	403 164 0234	CERAMIC	0.1U	Z	25V
C4437	403 164 0234	CERAMIC	0.1U	Z	25V	C5221	403 298 9619	CERAMIC	0.1U	K	16V
C4438	403 164 0234	CERAMIC	0.1U	Z	25V	C5222	403 298 9619	CERAMIC	0.1U	K	16V
C4441	403 164 0234	CERAMIC	0.1U	Z	25V	C5223	403 298 9619	CERAMIC	0.1U	K	16V
C4442	403 298 9619	CERAMIC	0.1U	K	16V	C5224	403 348 5823	CERAMIC	0.47U	K	10V
C4446	403 164 0234	CERAMIC	0.1U	Z	25V	C523	403 164 0234	CERAMIC	0.1U	Z	25V
C4447	403 164 0234	CERAMIC	0.1U	Z	25V	C5231	403 164 0234	CERAMIC	0.1U	Z	25V
C4448	403 164 0234	CERAMIC	0.1U	Z	25V	C5232	403 164 0234	CERAMIC	0.1U	Z	25V
C4451	403 164 0234	CERAMIC	0.1U	Z	25V	C5233	403 164 0234	CERAMIC	0.1U	Z	25V
C4452	403 164 0234	CERAMIC	0.1U	Z	25V	C5234	403 164 0234	CERAMIC	0.1U	Z	25V
C4453	403 164 0234	CERAMIC	0.1U	Z	25V	C524	403 164 0234	CERAMIC	0.1U	Z	25V
C4454	403 164 0234	CERAMIC	0.1U	Z	25V	C5241	403 298 9619	CERAMIC	0.1U	K	16V
C4456	403 164 0234	CERAMIC	0.1U	Z	25V	C5242	403 298 9619	CERAMIC	0.1U	K	16V
C4457	403 164 0234	CERAMIC	0.1U	Z	25V	C5243	403 298 9619	CERAMIC	0.1U	K	16V
C4458	403 164 0234	CERAMIC	0.1U	Z	25V	C531	403 135 0717	CERAMIC	1U	K	25V
C4459	403 164 0234	CERAMIC	0.1U	Z	25V	C532	403 164 0234	CERAMIC	0.1U	Z	25V
C4461	403 164 0234	CERAMIC	0.1U	Z	25V	C533	403 164 0234	CERAMIC	0.1U	Z	25V
C4462	403 164 0234	CERAMIC	0.1U	Z	25V	C534	403 164 0234	CERAMIC	0.1U	Z	25V
C4463	403 164 0234	CERAMIC	0.1U	Z	25V	C536	403 164 0234	CERAMIC	0.1U	Z	25V
C4464	403 164 0234	CERAMIC	0.1U	Z	25V	C538	403 164 0234	CERAMIC	0.1U	Z	25V
C4466	403 164 0234	CERAMIC	0.1U	Z	25V	C543	403 164 0234	CERAMIC	0.1U	Z	25V
C4467	403 164 0234	CERAMIC	0.1U	Z	25V	C544	403 164 0234	CERAMIC	0.1U	Z	25V
C4468	403 164 0234	CERAMIC	0.1U	Z	25V	C547	403 164 0234	CERAMIC	0.1U	Z	25V
C4469	403 164 0234	CERAMIC	0.1U	Z	25V	C548	403 164 0234	CERAMIC	0.1U	Z	25V
C4601	403 394 9315	ELECT	220U	M	6.3V	C549	403 164 0234	CERAMIC	0.1U	Z	25V
C4602	403 398 5016	ELECT	33U	M	25V	C551	403 164 0234	CERAMIC	0.1U	Z	25V
C4603	403 391 5112	ELECT	100U	M	16V	C552	403 164 0234	CERAMIC	0.1U	Z	25V
C4604	403 394 1319	ELECT	100U	M	6.3V	C553	403 164 0234	CERAMIC	0.1U	Z	25V
C4606	403 284 4314	CERAMIC	0.022U	K	50V	C554	403 164 0234	CERAMIC	0.1U	Z	25V
C4607	403 298 9619	CERAMIC	0.1U	K	16V	C5601	403 364 5811	CERAMIC	1U	K	10V
C4616	403 164 0234	CERAMIC	0.1U	Z	25V	C5602	403 298 9619	CERAMIC	0.1U	K	16V
C4621	403 394 1319	ELECT	100U	M	6.3V	C5603	403 364 5811	CERAMIC	1U	K	10V
C4631	403 391 5112	ELECT	100U	M	16V	C5604	403 155 2319	CERAMIC	4700P	K	50V
C4641	403 164 0234	CERAMIC	0.1U	Z	25V	C5606	403 325 6314	CERAMIC	0.22U	K	10V
C4642	403 394 9315	ELECT	220U	M	6.3V	C5607	403 337 9518	CERAMIC	0.15U	K	10V
C478	403 392 1212	ELECT	47U	M	6.3V	C5608	403 298 9619	CERAMIC	0.1U	K	16V
C479	403 392 1212	ELECT	47U	M	6.3V	C5609	403 155 2319	CERAMIC	4700P	K	50V
C4800	403 298 9619	CERAMIC	0.1U	K	16V	C561	403 135 0717	CERAMIC	1U	K	25V
C4801	403 164 0234	CERAMIC	0.1U	Z	25V	C5611	403 155 2319	CERAMIC	4700P	K	50V
C4802	403 164 0234	CERAMIC	0.1U	Z	25V	C562	403 164 0234	CERAMIC	0.1U	Z	25V

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
C5621	403 364 5811	CERAMIC 1U K 10V	C6663	403 164 0234	CERAMIC 0.1U Z 25V
C5622	403 347 5517	POS-SOLID 470U M 4V	C7701	403 164 0234	CERAMIC 0.1U Z 25V
C5624	403 164 0234	CERAMIC 0.1U Z 25V	C7741	403 164 0234	CERAMIC 0.1U Z 25V
C5626	403 215 2112	CERAMIC 8200P K 50V	C7742	403 215 2211	CERAMIC 0.01U K 50V
C563	403 164 0234	CERAMIC 0.1U Z 25V	C7743	403 215 2211	CERAMIC 0.01U K 50V
C564	403 164 0234	CERAMIC 0.1U Z 25V	C7761	403 164 0234	CERAMIC 0.1U Z 25V
C5641	403 364 5811	CERAMIC 1U K 10V	C7763	403 164 0234	CERAMIC 0.1U Z 25V
C5642	403 347 5517	POS-SOLID 470U M 4V	C7781	403 164 0234	CERAMIC 0.1U Z 25V
C5644	403 164 0234	CERAMIC 0.1U Z 25V	C7831	403 164 0234	CERAMIC 0.1U Z 25V
C5646	403 215 2112	CERAMIC 8200P K 50V	C7841	403 164 0234	CERAMIC 0.1U Z 25V
C566	403 164 0234	CERAMIC 0.1U Z 25V	C7842	403 164 0234	CERAMIC 0.1U Z 25V
C5661	403 364 5811	CERAMIC 1U K 10V	C7843	403 164 0234	CERAMIC 0.1U Z 25V
C5662	403 347 5517	POS-SOLID 470U M 4V	C7844	403 164 0234	CERAMIC 0.1U Z 25V
C5664	403 164 0234	CERAMIC 0.1U Z 25V	C8001	403 113 3835	CERAMIC 1000P K 50V
C5666	403 215 2112	CERAMIC 8200P K 50V	C8003	403 113 3835	CERAMIC 1000P K 50V
C568	403 164 0234	CERAMIC 0.1U Z 25V	C8004	403 298 9619	CERAMIC 0.1U K 16V
C573	403 164 0234	CERAMIC 0.1U Z 25V	C8006	403 391 5518	ELECT 10U M 16V
C574	403 164 0234	CERAMIC 0.1U Z 25V	C8007	403 298 9619	CERAMIC 0.1U K 16V
C577	403 164 0234	CERAMIC 0.1U Z 25V	C8008	403 113 3835	CERAMIC 1000P K 50V
C578	403 164 0234	CERAMIC 0.1U Z 25V	C8009	403 298 9619	CERAMIC 0.1U K 16V
C579	403 164 0234	CERAMIC 0.1U Z 25V	C801	403 164 0234	CERAMIC 0.1U Z 25V
C5801	403 164 0234	CERAMIC 0.1U Z 25V	C8011	403 298 9619	CERAMIC 0.1U K 16V
C581	403 164 0234	CERAMIC 0.1U Z 25V	C8013	403 298 9619	CERAMIC 0.1U K 16V
C582	403 164 0234	CERAMIC 0.1U Z 25V	C8014	403 298 9619	CERAMIC 0.1U K 16V
C5821	403 164 0234	CERAMIC 0.1U Z 25V	C8016	403 298 9619	CERAMIC 0.1U K 16V
C583	403 164 0234	CERAMIC 0.1U Z 25V	C8017	403 358 3212	CERAMIC 10U K 6.3V
C5831	403 164 0234	CERAMIC 0.1U Z 25V		403 368 7316	CERAMIC 10U K 6.3V
C584	403 164 0234	CERAMIC 0.1U Z 25V	C8018	403 113 3835	CERAMIC 1000P K 50V
C5841	403 164 0234	CERAMIC 0.1U Z 25V	C8021	403 113 3835	CERAMIC 1000P K 50V
C5851	403 164 0234	CERAMIC 0.1U Z 25V	C8023	403 298 9619	CERAMIC 0.1U K 16V
C591	403 164 0234	CERAMIC 0.1U Z 25V	C8024	403 113 3835	CERAMIC 1000P K 50V
C592	403 398 3814	ELECT 220U M 16V	C8026	403 113 3835	CERAMIC 1000P K 50V
C6201	403 348 5823	CERAMIC 0.47U K 10V	C8027	403 113 3835	CERAMIC 1000P K 50V
C6202	403 298 9619	CERAMIC 0.1U K 16V	C8028	403 139 7316	CERAMIC 18P J 50V
C6203	403 298 9619	CERAMIC 0.1U K 16V	C8029	403 139 7316	CERAMIC 18P J 50V
C6204	403 298 9619	CERAMIC 0.1U K 16V	C8031	403 215 2211	CERAMIC 0.01U K 50V
C6206	403 298 9619	CERAMIC 0.1U K 16V	C8032	403 298 9619	CERAMIC 0.1U K 16V
C6207	403 298 9619	CERAMIC 0.1U K 16V	C8033	403 358 3212	CERAMIC 10U K 6.3V
C6208	403 298 9619	CERAMIC 0.1U K 16V		403 368 7316	CERAMIC 10U K 6.3V
C6551	403 164 0234	CERAMIC 0.1U Z 25V	C8034	403 358 3212	CERAMIC 10U K 6.3V
C6552	403 164 0234	CERAMIC 0.1U Z 25V		403 368 7316	CERAMIC 10U K 6.3V
C6553	403 164 0234	CERAMIC 0.1U Z 25V	C8036	403 113 3835	CERAMIC 1000P K 50V
C6554	403 164 0234	CERAMIC 0.1U Z 25V	C8037	403 298 9619	CERAMIC 0.1U K 16V
C6601	403 164 0234	CERAMIC 0.1U Z 25V	C8038	403 113 3835	CERAMIC 1000P K 50V
C6602	403 364 5811	CERAMIC 1U K 10V	C8039	403 113 3835	CERAMIC 1000P K 50V
C6605	403 155 2319	CERAMIC 4700P K 50V	C8041	403 298 9619	CERAMIC 0.1U K 16V
C6608	403 155 2319	CERAMIC 4700P K 50V	C8042	403 113 3835	CERAMIC 1000P K 50V
C6609	403 155 2319	CERAMIC 4700P K 50V	C8043	403 113 3835	CERAMIC 1000P K 50V
C6611	403 164 0234	CERAMIC 0.1U Z 25V	C8044	403 298 9619	CERAMIC 0.1U K 16V
C6612	403 164 0234	CERAMIC 0.1U Z 25V	C8047	403 358 3212	CERAMIC 10U K 6.3V
C6613	403 164 0234	CERAMIC 0.1U Z 25V		403 368 7316	CERAMIC 10U K 6.3V
C6621	403 164 0234	CERAMIC 0.1U Z 25V	C8048	403 113 3835	CERAMIC 1000P K 50V
C6622	403 164 0234	CERAMIC 0.1U Z 25V	C8049	403 298 9619	CERAMIC 0.1U K 16V
C6623	403 155 2319	CERAMIC 4700P K 50V	C8051	403 298 9619	CERAMIC 0.1U K 16V
C6626	403 164 0234	CERAMIC 0.1U Z 25V	C8052	403 113 3835	CERAMIC 1000P K 50V
C6627	403 164 0234	CERAMIC 0.1U Z 25V	C8053	403 298 9619	CERAMIC 0.1U K 16V
C6631	403 164 0234	CERAMIC 0.1U Z 25V	C8054	403 298 9619	CERAMIC 0.1U K 16V
C6632	403 391 5112	ELECT 100U M 16V	C8056	403 113 3835	CERAMIC 1000P K 50V
C6633	403 164 0234	CERAMIC 0.1U Z 25V	C8062	403 164 0234	CERAMIC 0.1U Z 25V
C6641	403 164 0234	CERAMIC 0.1U Z 25V	C8063	403 394 1319	ELECT 100U M 6.3V
C6642	403 391 5112	ELECT 100U M 16V	C8071	403 164 0234	CERAMIC 0.1U Z 25V
C6643	403 164 0234	CERAMIC 0.1U Z 25V	C8072	403 164 0234	CERAMIC 0.1U Z 25V
C6651	403 164 0234	CERAMIC 0.1U Z 25V	C8073	403 379 0214	POS-SOLID 68U M 6.3V
C6652	403 391 5112	ELECT 100U M 16V	C8101	403 164 0234	CERAMIC 0.1U Z 25V
C6653	403 164 0234	CERAMIC 0.1U Z 25V	C8102	403 164 0234	CERAMIC 0.1U Z 25V
C6661	403 164 0234	CERAMIC 0.1U Z 25V	C8104	403 358 3212	CERAMIC 10U K 6.3V
C6662	403 391 5112	ELECT 100U M 16V		403 368 7316	CERAMIC 10U K 6.3V

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
C8121	403 164 0234	CERAMIC 0.1U Z 25V	R1004	401 105 5410	MT-GLAZE 47K JA 1/16W
C8131	403 164 0234	CERAMIC 0.1U Z 25V	R1006	401 105 2815	MT-GLAZE 2.2K JA 1/16W
C8141	403 164 0234	CERAMIC 0.1U Z 25V	R1007	401 238 4519	MT-GLAZE 47 JA 1/3W
C8201	403 215 2211	CERAMIC 0.01U K 50V	R1008	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8202	403 283 2915	CERAMIC 0.082U K 16V	R1009	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8203	403 164 0234	CERAMIC 0.1U Z 25V	R1011	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8204	403 215 2211	CERAMIC 0.01U K 50V	R1012	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8209	403 298 9619	CERAMIC 0.1U K 16V	R1013	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8211	403 164 0234	CERAMIC 0.1U Z 25V	R1014	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8212	403 298 9619	CERAMIC 0.1U K 16V	R1016	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8213	403 215 2211	CERAMIC 0.01U K 50V	R1017	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8214	403 358 3212	CERAMIC 10U K 6.3V	R1032	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
	403 368 7316	CERAMIC 10U K 6.3V	R1033	401 105 5410	MT-GLAZE 47K JA 1/16W
C8216	403 298 9619	CERAMIC 0.1U K 16V	R1034	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8217	403 358 3212	CERAMIC 10U K 6.3V	R1036	401 105 0514	MT-GLAZE 1K JA 1/16W
	403 368 7316	CERAMIC 10U K 6.3V	R1037	401 105 6011	MT-GLAZE 5.6K JA 1/16W
C8218	403 298 9619	CERAMIC 0.1U K 16V	R1038	401 105 0514	MT-GLAZE 1K JA 1/16W
C8219	403 358 3212	CERAMIC 10U K 6.3V	R1039	401 105 0712	MT-GLAZE 100K JA 1/16W
	403 368 7316	CERAMIC 10U K 6.3V	R1041	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8221	403 298 9619	CERAMIC 0.1U K 16V	R1042	401 260 4112	MT-GLAZE 75 JA 1/3W
C8222	403 215 2211	CERAMIC 0.01U K 50V	R1043	401 105 5113	MT-GLAZE 47 JA 1/16W
C8223	403 358 3212	CERAMIC 10U K 6.3V	R1044	401 260 4112	MT-GLAZE 75 JA 1/3W
	403 368 7316	CERAMIC 10U K 6.3V	R1046	401 105 5113	MT-GLAZE 47 JA 1/16W
C8224	403 298 9619	CERAMIC 0.1U K 16V	R1047	401 260 4112	MT-GLAZE 75 JA 1/3W
C8226	403 215 2211	CERAMIC 0.01U K 50V	R1048	401 105 5113	MT-GLAZE 47 JA 1/16W
C8232	403 164 0234	CERAMIC 0.1U Z 25V	R1049	401 105 1511	MT-GLAZE 1.5K JA 1/16W
C8233	403 215 2211	CERAMIC 0.01U K 50V	R1051	401 105 1511	MT-GLAZE 1.5K JA 1/16W
C8234	403 164 0234	CERAMIC 0.1U Z 25V	R1052	401 105 1511	MT-GLAZE 1.5K JA 1/16W
C8236	403 215 2211	CERAMIC 0.01U K 50V	R1059	401 105 0316	MT-GLAZE 10 JA 1/16W
C8237	403 164 0234	CERAMIC 0.1U Z 25V	R1068	401 105 0514	MT-GLAZE 1K JA 1/16W
C8238	403 215 2211	CERAMIC 0.01U K 50V	R1301	401 105 2716	MT-GLAZE 220 JA 1/16W
C8239	403 215 2211	CERAMIC 0.01U K 50V	R1302	401 105 0712	MT-GLAZE 100K JA 1/16W
C8241	403 164 0234	CERAMIC 0.1U Z 25V	R1304	645 050 2972	IMPEDANCE, 600 OHM P
C8242	403 166 9314	CERAMIC 8P C 50V	R1309	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8243	403 166 9314	CERAMIC 8P C 50V	R1311	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8244	403 215 2211	CERAMIC 0.01U K 50V	R1312	401 105 0514	MT-GLAZE 1K JA 1/16W
C8246	403 164 0234	CERAMIC 0.1U Z 25V	R1331	401 105 8015	MT-GLAZE 1M JA 1/16W
C8251	403 164 0234	CERAMIC 0.1U Z 25V	R1371	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8253	403 394 1319	ELECT 100U M 6.3V	R1372	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8261	403 164 0234	CERAMIC 0.1U Z 25V	R1373	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C8262	403 164 0234	CERAMIC 0.1U Z 25V	R1374	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C8263	403 379 0214	POS-SOLID 68U M 6.3V	R1376	401 105 5311	MT-GLAZE 4.7K JA 1/16W
C8271	403 164 0234	CERAMIC 0.1U Z 25V	R1378	401 105 5311	MT-GLAZE 4.7K JA 1/16W
C8281	403 164 0234	CERAMIC 0.1U Z 25V	R1379	401 105 0316	MT-GLAZE 10 JA 1/16W
C8283	403 394 1319	ELECT 100U M 6.3V	R1381	401 105 0316	MT-GLAZE 10 JA 1/16W
C8291	403 164 0234	CERAMIC 0.1U Z 25V	R1391	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8292	403 164 0234	CERAMIC 0.1U Z 25V	R1392	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8293	403 379 0214	ELECT 68U M 6.3V	R1393	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C841	403 164 0234	CERAMIC 0.1U Z 25V	R1394	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C8701	403 164 0234	CERAMIC 0.1U Z 25V	R1397	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C8702	403 164 0234	CERAMIC 0.1U Z 25V	R1501	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
C8703	403 164 0234	CERAMIC 0.1U Z 25V	R1502	401 105 0415	MT-GLAZE 100 JA 1/16W
C8704	403 164 0234	CERAMIC 0.1U Z 25V	R1503	401 105 0415	MT-GLAZE 100 JA 1/16W
C8706	403 164 0234	CERAMIC 0.1U Z 25V	R1506	401 105 5311	MT-GLAZE 4.7K JA 1/16W
C871	403 283 6339	CERAMIC 1U Z 10V	R1507	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C872	403 283 6339	CERAMIC 1U Z 10V	R1511	401 105 2815	MT-GLAZE 2.2K JA 1/16W
C873	403 283 6339	CERAMIC 1U Z 10V	R1512	401 105 0514	MT-GLAZE 1K JA 1/16W
C8841	403 155 1619	CERAMIC 33P J 50V	R1516	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C8842	403 155 1619	CERAMIC 33P J 50V	R1517	401 105 0613	MT-GLAZE 10K JA 1/16W
C8843	403 164 0234	CERAMIC 0.1U Z 25V	R1521	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C8846	403 164 0234	CERAMIC 0.1U Z 25V	R1522	401 105 5311	MT-GLAZE 4.7K JA 1/16W
C8847	403 392 1212	ELECT 47U M 6.3V	R1523	401 105 4116	MT-GLAZE 3.3K JA 1/16W
C8851	403 398 2114	ELECT 330U M 6.3V	R1524	401 105 5311	MT-GLAZE 4.7K JA 1/16W
C891	403 215 2211	CERAMIC 0.01U K 50V	R1526	401 105 0514	MT-GLAZE 1K JA 1/16W
RESISTOR			R1527	401 105 2815	MT-GLAZE 2.2K JA 1/16W
R1002	401 105 0316	MT-GLAZE 10 JA 1/16W	R1528	401 105 0514	MT-GLAZE 1K JA 1/16W
R1003	401 105 0514	MT-GLAZE 1K JA 1/16W	R1529	401 105 2815	MT-GLAZE 2.2K JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R1531	401 105 0613	MT-GLAZE 10K JA 1/16W	R2558	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1532	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R2559	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1533	401 105 0613	MT-GLAZE 10K JA 1/16W	R2561	401 105 0415	MT-GLAZE 100 JA 1/16W
R1534	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R2562	401 105 0415	MT-GLAZE 100 JA 1/16W
R1536	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2563	401 105 0415	MT-GLAZE 100 JA 1/16W
R1537	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2564	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R1538	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2566	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1581	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R2567	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1582	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R2568	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1583	401 105 0415	MT-GLAZE 100 JA 1/16W	R2569	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1591	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R2571	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1592	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R2572	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1801	401 105 0613	MT-GLAZE 10K JA 1/16W	R2573	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1802	401 105 0613	MT-GLAZE 10K JA 1/16W	R2574	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R1803	401 105 0613	MT-GLAZE 10K JA 1/16W	R2576	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1804	401 105 0613	MT-GLAZE 10K JA 1/16W	R2577	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1807	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2578	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1808	401 105 6011	MT-GLAZE 5.6K JA 1/16W	R2579	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1809	401 105 0613	MT-GLAZE 10K JA 1/16W	R2581	401 105 0712	MT-GLAZE 100K JA 1/16W
R1822	401 105 0613	MT-GLAZE 10K JA 1/16W	R2582	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R1823	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2584	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2001	401 105 0415	MT-GLAZE 100 JA 1/16W	R2586	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2002	401 105 0415	MT-GLAZE 100 JA 1/16W	R2587	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2501	401 105 0415	MT-GLAZE 100 JA 1/16W	R2588	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2502	401 105 0415	MT-GLAZE 100 JA 1/16W	R2589	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2503	401 105 0415	MT-GLAZE 100 JA 1/16W	R2821	401 105 5915	MT-GLAZE 560 JA 1/16W
R2504	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R2822	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2506	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2823	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2507	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2824	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2508	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2826	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2509	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2831	401 260 4112	MT-GLAZE 75 JA 1/3W
R2511	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2832	401 260 4112	MT-GLAZE 75 JA 1/3W
R2512	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2833	401 105 0415	MT-GLAZE 100 JA 1/16W
R2513	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2891	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2514	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R2892	401 105 0514	MT-GLAZE 1K JA 1/16W
R2516	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2893	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2517	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2894	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2518	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3001	401 260 4112	MT-GLAZE 75 JA 1/3W
R2519	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3002	401 260 4112	MT-GLAZE 75 JA 1/3W
R2521	401 105 0712	MT-GLAZE 100K JA 1/16W	R3003	401 260 4112	MT-GLAZE 75 JA 1/3W
R2522	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3004	401 260 4112	MT-GLAZE 75 JA 1/3W
R2524	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3006	401 260 4112	MT-GLAZE 75 JA 1/3W
R2526	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3007	401 260 4112	MT-GLAZE 75 JA 1/3W
R2527	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R303	401 105 2617	MT-GLAZE 22 JA 1/16W
R2528	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R304	401 105 0514	MT-GLAZE 1K JA 1/16W
R2529	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R306	401 105 0514	MT-GLAZE 1K JA 1/16W
R2531	401 105 0415	MT-GLAZE 100 JA 1/16W	R309	401 105 2013	MT-GLAZE 1.8K JA 1/16W
R2532	401 105 0415	MT-GLAZE 100 JA 1/16W	R313	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2533	401 105 0415	MT-GLAZE 100 JA 1/16W	R316	401 105 2617	MT-GLAZE 22 JA 1/16W
R2534	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R317	401 105 2617	MT-GLAZE 22 JA 1/16W
R2536	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R321	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2537	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R322	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2538	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R323	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2539	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R324	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2541	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R332	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2542	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R333	401 105 0613	MT-GLAZE 10K JA 1/16W
R2543	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R336	401 105 0316	MT-GLAZE 10 JA 1/16W
R2544	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R337	401 105 0316	MT-GLAZE 10 JA 1/16W
R2546	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3402	401 105 0613	MT-GLAZE 10K JA 1/16W
R2547	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3403	401 105 0613	MT-GLAZE 10K JA 1/16W
R2548	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3404	401 105 0613	MT-GLAZE 10K JA 1/16W
R2549	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3406	401 105 0613	MT-GLAZE 10K JA 1/16W
R2551	401 105 0712	MT-GLAZE 100K JA 1/16W	R3407	401 105 0613	MT-GLAZE 10K JA 1/16W
R2552	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3413	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2554	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3416	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2556	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3417	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R2557	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3418	401 105 2617	MT-GLAZE 22 JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R3419	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3641	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R3421	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3642	401 105 5410	MT-GLAZE 47K JA 1/16W
R3422	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3643	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R3423	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3644	401 202 4019	MT-GLAZE 10K FA 1/16W
R3424	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3646	401 230 2513	MT-GLAZE 1K FA 1/16W
R3426	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3647	401 260 4716	MT-GLAZE 1.5K FA 1/16W
R3431	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R3648	401 035 4118	MT-GLAZE 0.000 ZA 1/8W
R3432	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R3651	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R3433	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R3652	401 105 5410	MT-GLAZE 47K JA 1/16W
R3448	401 105 0316	MT-GLAZE 10 JA 1/16W	R3653	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R3473	401 105 0316	MT-GLAZE 10 JA 1/16W	R3654	401 105 0613	MT-GLAZE 10K JA 1/16W
R3474	401 105 0316	MT-GLAZE 10 JA 1/16W	R3656	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R3476	401 105 0316	MT-GLAZE 10 JA 1/16W	R3657	401 105 6516	MT-GLAZE 680 JA 1/16W
R3477	401 105 0316	MT-GLAZE 10 JA 1/16W	R3658	401 035 4118	MT-GLAZE 0.000 ZA 1/8W
R3479	401 105 0613	MT-GLAZE 10K JA 1/16W	R371	401 105 2617	MT-GLAZE 22 JA 1/16W
R3486	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R372	401 105 2617	MT-GLAZE 22 JA 1/16W
R3487	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R373	401 105 2617	MT-GLAZE 22 JA 1/16W
R3501	401 105 0712	MT-GLAZE 100K JA 1/16W	R374	401 105 2617	MT-GLAZE 22 JA 1/16W
R3502	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R376	401 105 2617	MT-GLAZE 22 JA 1/16W
R3503	401 105 5410	MT-GLAZE 47K JA 1/16W	R377	401 105 2617	MT-GLAZE 22 JA 1/16W
R3504	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3803	401 105 0415	MT-GLAZE 100 JA 1/16W
R3509	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R3804	401 113 5310	MT-GLAZE 430 JA 1/16W
R351	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3805	401 105 6516	MT-GLAZE 680 JA 1/16W
R352	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R3806	401 105 0613	MT-GLAZE 10K JA 1/16W
R353	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R381	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R3531	401 105 0712	MT-GLAZE 100K JA 1/16W	R382	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R3532	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R383	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R3533	401 105 5410	MT-GLAZE 47K JA 1/16W	R384	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R3534	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R386	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R3539	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R387	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R354	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R396	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R356	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4001	401 260 4112	MT-GLAZE 75 JA 1/3W
R3561	401 105 0712	MT-GLAZE 100K JA 1/16W	R4002	401 260 4112	MT-GLAZE 75 JA 1/3W
R3562	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4003	401 260 4112	MT-GLAZE 75 JA 1/3W
R3563	401 105 5410	MT-GLAZE 47K JA 1/16W	R401	401 105 0316	MT-GLAZE 10 JA 1/16W
R3564	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R402	401 105 0316	MT-GLAZE 10 JA 1/16W
R3569	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R403	401 105 0316	MT-GLAZE 10 JA 1/16W
R357	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R404	401 105 0316	MT-GLAZE 10 JA 1/16W
R3601	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R406	401 105 0316	MT-GLAZE 10 JA 1/16W
R3602	401 113 6713	MT-GLAZE 9.1K JA 1/16W	R407	401 105 0316	MT-GLAZE 10 JA 1/16W
R3603	401 217 3816	MT-GLAZE 27K FA 1/16W	R408	401 105 0316	MT-GLAZE 10 JA 1/16W
R3604	401 202 4019	MT-GLAZE 10K FA 1/16W	R409	401 105 0316	MT-GLAZE 10 JA 1/16W
R3605	401 105 0613	MT-GLAZE 10K JA 1/16W	R411	401 105 0316	MT-GLAZE 10 JA 1/16W
R3606	401 217 3816	MT-GLAZE 27K FA 1/16W	R412	401 105 0316	MT-GLAZE 10 JA 1/16W
R3607	401 202 4019	MT-GLAZE 10K FA 1/16W	R413	401 105 0316	MT-GLAZE 10 JA 1/16W
R3608	401 105 0613	MT-GLAZE 10K JA 1/16W	R414	401 105 0316	MT-GLAZE 10 JA 1/16W
R3609	401 105 0613	MT-GLAZE 10K JA 1/16W	R416	401 105 0316	MT-GLAZE 10 JA 1/16W
R361	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R421	401 105 0316	MT-GLAZE 10 JA 1/16W
R3610TM	401 024 7430	CARBON 10K JA 1/6W	R422	401 105 0316	MT-GLAZE 10 JA 1/16W
R3612	401 105 0613	MT-GLAZE 10K JA 1/16W	R423	401 105 0316	MT-GLAZE 10 JA 1/16W
R3613	401 105 0613	MT-GLAZE 10K JA 1/16W	R424	401 105 0316	MT-GLAZE 10 JA 1/16W
R3614	401 105 0613	MT-GLAZE 10K JA 1/16W	R426	401 105 0316	MT-GLAZE 10 JA 1/16W
R3615	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R427	401 105 0316	MT-GLAZE 10 JA 1/16W
R3616	401 105 0613	MT-GLAZE 10K JA 1/16W	R428	401 105 0316	MT-GLAZE 10 JA 1/16W
R3617	401 105 0613	MT-GLAZE 10K JA 1/16W	R429	401 105 0316	MT-GLAZE 10 JA 1/16W
R3618	401 105 0613	MT-GLAZE 10K JA 1/16W	R431	401 105 0316	MT-GLAZE 10 JA 1/16W
R3619	401 105 0613	MT-GLAZE 10K JA 1/16W	R432	401 105 0316	MT-GLAZE 10 JA 1/16W
R362	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R433	401 105 0316	MT-GLAZE 10 JA 1/16W
R363	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R434	401 105 0316	MT-GLAZE 10 JA 1/16W
R3631	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R437	401 105 0316	MT-GLAZE 10 JA 1/16W
R3632	401 105 5410	MT-GLAZE 47K JA 1/16W	R438	401 105 5113	MT-GLAZE 47 JA 1/16W
R3633	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R439	401 105 0415	MT-GLAZE 100 JA 1/16W
R3634	401 202 4019	MT-GLAZE 10K FA 1/16W	R4400	401 035 4118	MT-GLAZE 0.000 ZA 1/8W
R3636	401 217 4110	MT-GLAZE 22K FA 1/16W	R4401	401 105 0514	MT-GLAZE 1K JA 1/16W
R3637	401 219 1117	MT-GLAZE 1.8K FA 1/16W	R4402	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R3638	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R4407	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R364	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4408	401 105 7919	MT-GLAZE 0.000 ZA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R4409	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R452	401 105 0316	MT-GLAZE 10 JA 1/16W
R441	401 105 0316	MT-GLAZE 10 JA 1/16W	R453	401 105 0316	MT-GLAZE 10 JA 1/16W
R4411	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R454	401 105 0316	MT-GLAZE 10 JA 1/16W
R4412	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R456	401 105 0316	MT-GLAZE 10 JA 1/16W
R4414	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4601	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4416	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4602	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4417	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4603	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4418	401 105 0613	MT-GLAZE 10K JA 1/16W	R4604	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R442	401 105 0316	MT-GLAZE 10 JA 1/16W	R4606	401 105 2518	MT-GLAZE 20K JA 1/16W
R4421	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4607	401 105 8114	MT-GLAZE 56K JA 1/16W
R4422	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4608	401 105 0613	MT-GLAZE 10K JA 1/16W
R4423	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4609	401 105 0613	MT-GLAZE 10K JA 1/16W
R4424	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R461	401 105 0316	MT-GLAZE 10 JA 1/16W
R4427	401 105 0613	MT-GLAZE 10K JA 1/16W	R4611	401 105 0613	MT-GLAZE 10K JA 1/16W
R4428	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4612	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R443	401 105 0316	MT-GLAZE 10 JA 1/16W	R4616	401 105 0613	MT-GLAZE 10K JA 1/16W
R4431	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4617	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R4432	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4618	401 105 0613	MT-GLAZE 10K JA 1/16W
R4433	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4619	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R4434	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R462	401 105 0316	MT-GLAZE 10 JA 1/16W
R4437	401 105 2617	MT-GLAZE 22 JA 1/16W	R4621	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4438	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R463	401 105 0316	MT-GLAZE 10 JA 1/16W
R4439	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4631	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R444	401 105 0316	MT-GLAZE 10 JA 1/16W	R4641	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4441	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4642	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4442	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R471	401 105 0514	MT-GLAZE 1K JA 1/16W
R4443	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R472	401 105 0316	MT-GLAZE 10 JA 1/16W
R4444	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R473	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4446	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R477	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4447	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R478	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4448	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R479	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4449	401 105 0316	MT-GLAZE 10 JA 1/16W	R4800	401 105 0613	MT-GLAZE 10K JA 1/16W
R4452	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4801	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4453	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4802	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4454	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4806	401 105 8015	MT-GLAZE 1M JA 1/16W
R4457	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4807	401 105 0316	MT-GLAZE 10 JA 1/16W
R4458	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4811	401 105 0613	MT-GLAZE 10K JA 1/16W
R4459	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4812	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R446	401 105 0316	MT-GLAZE 10 JA 1/16W	R4813	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4461	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4816	645 050 2972	IMPEDANCE, 600 OHM P
R4462	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4817	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R4463	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4818	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4464	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4819	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R4466	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4821	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4467	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4823	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R447	401 105 0316	MT-GLAZE 10 JA 1/16W	R4824	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4471	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4825	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4472	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4826	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4476	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4827	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4477	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4828	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4478	401 105 0613	MT-GLAZE 10K JA 1/16W	R4829	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R448	401 105 0316	MT-GLAZE 10 JA 1/16W	R4836	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4481	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4838	401 105 0514	MT-GLAZE 1K JA 1/16W
R4482	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4839	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4483	401 105 0613	MT-GLAZE 10K JA 1/16W	R484	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4484	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4841	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4486	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4842	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4487	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4843	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4488	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4851	401 105 0514	MT-GLAZE 1K JA 1/16W
R4489	401 105 0613	MT-GLAZE 10K JA 1/16W	R4852	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R449	401 105 0316	MT-GLAZE 10 JA 1/16W	R4853	401 105 2716	MT-GLAZE 220 JA 1/16W
R4491	401 105 0613	MT-GLAZE 10K JA 1/16W	R4854	401 105 2716	MT-GLAZE 220 JA 1/16W
R4493	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4856	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4494	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R4857	401 113 4917	MT-GLAZE 200 JA 1/16W
R4496	401 105 5113	MT-GLAZE 47 JA 1/16W	R486	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4499	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R501	401 105 0415	MT-GLAZE 100 JA 1/16W
R451	401 105 0316	MT-GLAZE 10 JA 1/16W	R502	401 105 0415	MT-GLAZE 100 JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R503	401 105 0415	MT-GLAZE 100 JA 1/16W	R5626	401 217 4110	MT-GLAZE 22K FA 1/16W
R504	401 105 0415	MT-GLAZE 100 JA 1/16W	R5627	401 218 4416	MT-GLAZE 1.2K FA 1/16W
R507	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5628	401 035 4118	MT-GLAZE 0.000 ZA 1/8W
R511	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R563	401 105 0415	MT-GLAZE 100 JA 1/16W
R512	401 105 0415	MT-GLAZE 100 JA 1/16W	R564	401 105 0415	MT-GLAZE 100 JA 1/16W
R513	401 105 0415	MT-GLAZE 100 JA 1/16W	R5641	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R519	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5642	401 105 5410	MT-GLAZE 47K JA 1/16W
R5201	401 105 0316	MT-GLAZE 10 JA 1/16W	R5643	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R5202	401 105 0316	MT-GLAZE 10 JA 1/16W	R5644	401 105 0613	MT-GLAZE 10K JA 1/16W
R5203	401 105 0316	MT-GLAZE 10 JA 1/16W	R5646	401 105 0613	MT-GLAZE 10K JA 1/16W
R5204	401 105 0316	MT-GLAZE 10 JA 1/16W	R5647	401 105 6615	MT-GLAZE 6.8K JA 1/16W
R5206	401 105 0316	MT-GLAZE 10 JA 1/16W	R5648	401 035 4118	MT-GLAZE 0.000 ZA 1/8W
R5207	401 105 0316	MT-GLAZE 10 JA 1/16W	R5661	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R5208	401 105 8015	MT-GLAZE 1M JA 1/16W	R5662	401 105 5410	MT-GLAZE 47K JA 1/16W
R5209	401 105 8015	MT-GLAZE 1M JA 1/16W	R5663	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R521	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5664	401 105 0613	MT-GLAZE 10K JA 1/16W
R5211	401 105 0514	MT-GLAZE 1K JA 1/16W	R5666	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R522	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5667	401 105 4611	MT-GLAZE 3.9K JA 1/16W
R5221	401 105 0316	MT-GLAZE 10 JA 1/16W	R5668	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R5222	401 105 0316	MT-GLAZE 10 JA 1/16W	R567	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R5223	401 105 0316	MT-GLAZE 10 JA 1/16W	R571	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R523	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R572	401 105 0415	MT-GLAZE 100 JA 1/16W
R5231	401 105 0514	MT-GLAZE 1K JA 1/16W	R573	401 105 0415	MT-GLAZE 100 JA 1/16W
R5232	401 105 0316	MT-GLAZE 10 JA 1/16W	R579	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R5233	401 105 5113	MT-GLAZE 47 JA 1/16W	R5807	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R5234	401 105 0316	MT-GLAZE 10 JA 1/16W	R5808	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R5236	401 105 0514	MT-GLAZE 1K JA 1/16W	R5809	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R524	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R581	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R5241	401 105 0316	MT-GLAZE 10 JA 1/16W	R5811	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R5242	401 105 0316	MT-GLAZE 10 JA 1/16W	R5813	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R5243	401 105 0316	MT-GLAZE 10 JA 1/16W	R5814	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R526	401 105 0316	MT-GLAZE 10 JA 1/16W	R5816	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R528	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R5817	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R529	645 049 6875	IMPEDANCE,1000 OHM P	R582	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R531	401 105 0415	MT-GLAZE 100 JA 1/16W	R5821	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R532	401 105 0415	MT-GLAZE 100 JA 1/16W	R5822	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R533	401 105 0415	MT-GLAZE 100 JA 1/16W	R583	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R534	401 105 0415	MT-GLAZE 100 JA 1/16W	R5831	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R541	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5832	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R542	401 105 0415	MT-GLAZE 100 JA 1/16W	R5833	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R543	401 105 0415	MT-GLAZE 100 JA 1/16W	R584	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R549	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5843	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R551	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5844	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R552	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5851	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R553	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R5852	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R554	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R586	401 105 0316	MT-GLAZE 10 JA 1/16W
R556	401 105 0316	MT-GLAZE 10 JA 1/16W	R588	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R558	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R589	645 049 6875	IMPEDANCE,1000 OHM P
R559	645 049 6875	IMPEDANCE,1000 OHM P	R591	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R5601	401 105 1115	MT-GLAZE 12K JA 1/16W	R592	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R5602	401 217 3816	MT-GLAZE 27K FA 1/16W	R593	401 105 0613	MT-GLAZE 10K JA 1/16W
R5603	401 202 4019	MT-GLAZE 10K FA 1/16W	R594	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R5604	401 105 0613	MT-GLAZE 10K JA 1/16W	R596	401 105 0613	MT-GLAZE 10K JA 1/16W
R5606	401 105 0712	MT-GLAZE 100K JA 1/16W	R597	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R5607	401 105 0712	MT-GLAZE 100K JA 1/16W	R6201	401 105 0316	MT-GLAZE 10 JA 1/16W
R5608	401 105 0712	MT-GLAZE 100K JA 1/16W	R6202	401 105 0316	MT-GLAZE 10 JA 1/16W
R5609	401 105 0613	MT-GLAZE 10K JA 1/16W	R6203	401 105 0316	MT-GLAZE 10 JA 1/16W
R561	401 105 0415	MT-GLAZE 100 JA 1/16W	R6204	401 105 0316	MT-GLAZE 10 JA 1/16W
R5611	401 105 0613	MT-GLAZE 10K JA 1/16W	R6224	401 105 0316	MT-GLAZE 10 JA 1/16W
R5612	401 105 3416	MT-GLAZE 27K JA 1/16W	R6552	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R5613	401 105 0613	MT-GLAZE 10K JA 1/16W	R6553	401 105 0514	MT-GLAZE 1K JA 1/16W
R5614	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R6554	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R562	401 105 0415	MT-GLAZE 100 JA 1/16W	R6555	401 105 0316	MT-GLAZE 10 JA 1/16W
R5621	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R6556	401 105 0514	MT-GLAZE 1K JA 1/16W
R5622	401 105 5410	MT-GLAZE 47K JA 1/16W	R6557	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R5623	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R6561	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R5624	401 202 4019	MT-GLAZE 10K FA 1/16W	R6562	401 105 7919	MT-GLAZE 0.000 ZA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R6601	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R7721	401 105 4611	MT-GLAZE 3.9K JA 1/16W
R6602	401 105 3416	MT-GLAZE 27K JA 1/16W	R7722	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R6603	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R7728	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6604	401 105 0613	MT-GLAZE 10K JA 1/16W	R7729	401 105 0514	MT-GLAZE 1K JA 1/16W
R6605	401 105 0712	MT-GLAZE 100K JA 1/16W	R7731	401 105 0514	MT-GLAZE 1K JA 1/16W
R6606	401 105 0613	MT-GLAZE 10K JA 1/16W	R7732	401 105 0514	MT-GLAZE 1K JA 1/16W
R6607	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R7733	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R6608	401 105 0712	MT-GLAZE 100K JA 1/16W	R7734	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R6609	401 105 0712	MT-GLAZE 100K JA 1/16W	R7742	401 105 5519	MT-GLAZE 470K JA 1/16W
R6610TM	401 024 7430	CARBON 10K JA 1/6W	R7743	401 105 5519	MT-GLAZE 470K JA 1/16W
R6611	401 105 0613	MT-GLAZE 10K JA 1/16W	R7744	401 105 0514	MT-GLAZE 1K JA 1/16W
R6612	401 105 0613	MT-GLAZE 10K JA 1/16W	R7746	401 105 7414	MT-GLAZE 8.2K JA 1/16W
R6613	401 105 0613	MT-GLAZE 10K JA 1/16W	R7748	401 105 7414	MT-GLAZE 8.2K JA 1/16W
R6614	401 105 0613	MT-GLAZE 10K JA 1/16W	R7751	401 105 2013	MT-GLAZE 1.8K JA 1/16W
R6615	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R7761	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6616	401 105 0613	MT-GLAZE 10K JA 1/16W	R7764	401 105 0712	MT-GLAZE 100K JA 1/16W
R6617	401 105 0613	MT-GLAZE 10K JA 1/16W	R7773	401 105 0514	MT-GLAZE 1K JA 1/16W
R6618	401 105 0613	MT-GLAZE 10K JA 1/16W	R7776	401 105 1610	MT-GLAZE 15K JA 1/16W
R6619	401 105 0613	MT-GLAZE 10K JA 1/16W	R7780	401 105 0514	MT-GLAZE 1K JA 1/16W
R6621	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R7781	401 105 6011	MT-GLAZE 5.6K JA 1/16W
R6622	401 105 3416	MT-GLAZE 27K JA 1/16W	R7782	401 105 6615	MT-GLAZE 6.8K JA 1/16W
R6623	401 105 0712	MT-GLAZE 100K JA 1/16W	R7783	401 105 4017	MT-GLAZE 330 JA 1/16W
R6626	401 105 0613	MT-GLAZE 10K JA 1/16W	R7784	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6627	401 177 2416	MT-GLAZE 10M JA 1/16W	R7786	401 105 0514	MT-GLAZE 1K JA 1/16W
R6631	401 113 4214	MT-GLAZE 51 JA 1/16W	R7787	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6632	401 217 3816	MT-GLAZE 27K FA 1/16W	R7801	401 105 0613	MT-GLAZE 10K JA 1/16W
R6633	401 105 3713	MT-GLAZE 3K JA 1/16W	R7802	401 105 0613	MT-GLAZE 10K JA 1/16W
R6634	401 113 6218	MT-GLAZE 3.6K JA 1/16W	R7803	401 105 0514	MT-GLAZE 1K JA 1/16W
R6636	401 105 0514	MT-GLAZE 1K JA 1/16W	R7806	401 105 0613	MT-GLAZE 10K JA 1/16W
R6637	401 113 7116	MT-GLAZE 24K JA 1/16W	R7807	401 105 0613	MT-GLAZE 10K JA 1/16W
R6638	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R7808	401 105 0514	MT-GLAZE 1K JA 1/16W
R6639	401 105 0613	MT-GLAZE 10K JA 1/16W	R7811	401 105 0613	MT-GLAZE 10K JA 1/16W
R6641	401 113 4214	MT-GLAZE 51 JA 1/16W	R7812	401 105 0613	MT-GLAZE 10K JA 1/16W
R6642	401 217 3816	MT-GLAZE 27K FA 1/16W	R7813	401 105 0514	MT-GLAZE 1K JA 1/16W
R6643	401 105 3713	MT-GLAZE 3K JA 1/16W	R7816	401 105 0613	MT-GLAZE 10K JA 1/16W
R6644	401 113 6218	MT-GLAZE 3.6K JA 1/16W	R7817	401 105 0613	MT-GLAZE 10K JA 1/16W
R6646	401 105 0514	MT-GLAZE 1K JA 1/16W	R7818	401 105 0514	MT-GLAZE 1K JA 1/16W
R6647	401 113 7116	MT-GLAZE 24K JA 1/16W	R7821	401 105 0613	MT-GLAZE 10K JA 1/16W
R6648	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R7822	401 105 0613	MT-GLAZE 10K JA 1/16W
R6649	401 105 0613	MT-GLAZE 10K JA 1/16W	R7823	401 105 0514	MT-GLAZE 1K JA 1/16W
R6651	401 113 4214	MT-GLAZE 51 JA 1/16W	R7831	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6652	401 217 3816	MT-GLAZE 27K FA 1/16W	R7832	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6653	401 105 3713	MT-GLAZE 3K JA 1/16W	R7833	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6654	401 113 6218	MT-GLAZE 3.6K JA 1/16W	R7834	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6656	401 105 0514	MT-GLAZE 1K JA 1/16W	R7836	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6657	401 113 7116	MT-GLAZE 24K JA 1/16W	R7837	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6658	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R7841	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6659	401 105 0613	MT-GLAZE 10K JA 1/16W	R7842	401 105 0415	MT-GLAZE 100 JA 1/16W
R6661	401 113 4214	MT-GLAZE 51 JA 1/16W	R7843	401 105 0415	MT-GLAZE 100 JA 1/16W
R6662	401 217 3816	MT-GLAZE 27K FA 1/16W	R7846	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6663	401 105 3317	MT-GLAZE 2.7K JA 1/16W	R7847	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6664	401 113 6218	MT-GLAZE 3.6K JA 1/16W	R7848	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6666	401 105 0514	MT-GLAZE 1K JA 1/16W	R8001	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6667	401 113 7116	MT-GLAZE 24K JA 1/16W	R8003	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R6668	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R8004	401 105 0613	MT-GLAZE 10K JA 1/16W
R6669	401 105 0613	MT-GLAZE 10K JA 1/16W	R8006	401 105 0613	MT-GLAZE 10K JA 1/16W
R7701	401 105 3317	MT-GLAZE 2.7K JA 1/16W	R8008	401 105 3911	MT-GLAZE 33 JA 1/16W
R7703	401 105 0514	MT-GLAZE 1K JA 1/16W	R8009	401 105 8015	MT-GLAZE 1M JA 1/16W
R7704	401 105 3515	MT-GLAZE 270K JA 1/16W	R801	401 105 0613	MT-GLAZE 10K JA 1/16W
R7706	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8011	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R7708	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8012	401 105 3911	MT-GLAZE 33 JA 1/16W
R7711	401 105 3515	MT-GLAZE 270K JA 1/16W	R8013	401 105 3911	MT-GLAZE 33 JA 1/16W
R7713	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R8014	401 105 3911	MT-GLAZE 33 JA 1/16W
R7716	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R8016	401 105 3911	MT-GLAZE 33 JA 1/16W
R7718	401 105 0613	MT-GLAZE 10K JA 1/16W	R802	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R7719	401 105 0613	MT-GLAZE 10K JA 1/16W	R803	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R7720	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R804	401 105 0613	MT-GLAZE 10K JA 1/16W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
R806	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R858	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R8061	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R859	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R8062	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R8701	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R807	401 105 0613	MT-GLAZE 10K JA 1/16W	R8702	401 105 0514	MT-GLAZE 1K JA 1/16W
R8071	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R8703	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R8072	401 105 0613	MT-GLAZE 10K JA 1/16W	R8704	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R8073	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R8706	401 105 0514	MT-GLAZE 1K JA 1/16W
R808	401 105 0613	MT-GLAZE 10K JA 1/16W	R8707	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R8100	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8708	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R8101	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R871	401 105 1115	MT-GLAZE 12K JA 1/16W
R8102	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8711	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R8103	401 105 0613	MT-GLAZE 10K JA 1/16W	R8712	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R812	401 105 0613	MT-GLAZE 10K JA 1/16W	R8713	401 105 1610	MT-GLAZE 15K JA 1/16W
R8121	401 105 0613	MT-GLAZE 10K JA 1/16W	R8714	401 105 3416	MT-GLAZE 27K JA 1/16W
R8122	401 105 0613	MT-GLAZE 10K JA 1/16W	R8715	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R8123	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R8716	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R8124	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R872	401 105 1115	MT-GLAZE 12K JA 1/16W
R8126	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R873	401 105 0613	MT-GLAZE 10K JA 1/16W
R8127	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R874	401 105 0316	MT-GLAZE 10 JA 1/16W
R8131	401 105 5410	MT-GLAZE 47K JA 1/16W	R875	401 105 1610	MT-GLAZE 15K JA 1/16W
R8132	401 105 5410	MT-GLAZE 47K JA 1/16W	R876	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R8141	401 105 0613	MT-GLAZE 10K JA 1/16W	R8821	401 105 6110	MT-GLAZE 560K JA 1/16W
R8142	401 105 0613	MT-GLAZE 10K JA 1/16W	R8822	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R8143	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R8831	401 105 6110	MT-GLAZE 560K JA 1/16W
R8144	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8832	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R8146	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R8841	401 105 0316	MT-GLAZE 10 JA 1/16W
R8147	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8842	401 105 0316	MT-GLAZE 10 JA 1/16W
R8200	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	R8843	401 105 0613	MT-GLAZE 10K JA 1/16W
R8201	401 113 4511	MT-GLAZE 91 JA 1/16W	R8844	401 105 0613	MT-GLAZE 10K JA 1/16W
R8202	401 219 1018	MT-GLAZE 1.6K FA 1/16W	R8846	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R8203	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8851	401 105 0415	MT-GLAZE 100 JA 1/16W
R8206	401 105 3317	MT-GLAZE 2.7K JA 1/16W	R8852	401 105 0415	MT-GLAZE 100 JA 1/16W
R8207	401 105 3317	MT-GLAZE 2.7K JA 1/16W	R8853	401 105 0712	MT-GLAZE 100K JA 1/16W
R8209	401 105 6011	MT-GLAZE 5.6K JA 1/16W	R8854	401 105 0712	MT-GLAZE 100K JA 1/16W
R8212	401 105 0415	MT-GLAZE 100 JA 1/16W	R8856	401 105 5113	MT-GLAZE 47 JA 1/16W
R8213	401 105 0415	MT-GLAZE 100 JA 1/16W	R8857	401 105 5113	MT-GLAZE 47 JA 1/16W
R8214	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8858	401 105 0514	MT-GLAZE 1K JA 1/16W
R8216	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R8859	401 105 2013	MT-GLAZE 1.8K JA 1/16W
R8217	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R891	401 105 0613	MT-GLAZE 10K JA 1/16W
R8218	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R892	401 105 0613	MT-GLAZE 10K JA 1/16W
R8221	401 105 0613	MT-GLAZE 10K JA 1/16W	R893	401 105 2914	MT-GLAZE 22K JA 1/16W
R8222	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R894	401 105 2914	MT-GLAZE 22K JA 1/16W
R8223	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	RB2501	645 037 0656	R-NETWORK 0X4 0.063W
R8224	401 105 8015	MT-GLAZE 1M JA 1/16W		645 024 7477	R-NETWORK 0X4 1/16W
R8226	401 105 0316	MT-GLAZE 10 JA 1/16W	RB2531	645 037 0656	R-NETWORK 0X4 0.063W
R8251	401 105 0415	MT-GLAZE 100 JA 1/16W		645 024 7477	R-NETWORK 0X4 1/16W
R8252	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	RB2561	645 037 0656	R-NETWORK 0X4 0.063W
R8253	401 037 5014	MT-GLAZE 0.000 ZA 1/10W		645 024 7477	R-NETWORK 0X4 1/16W
R8261	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	RB3401	645 037 0663	R-NETWORK 22X4 0.063W
R8262	401 105 0613	MT-GLAZE 10K JA 1/16W		645 021 4943	R-NETWORK 22X4 1/16W
R8263	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	RB3402	645 037 0663	R-NETWORK 22X4 0.063W
R8271	401 105 0514	MT-GLAZE 1K JA 1/16W		645 021 4943	R-NETWORK 22X4 1/16W
R8272	401 105 0514	MT-GLAZE 1K JA 1/16W	RB3403	645 037 0663	R-NETWORK 22X4 0.063W
R8281	401 105 0415	MT-GLAZE 100 JA 1/16W		645 021 4943	R-NETWORK 22X4 1/16W
R8282	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	RB3406	645 037 0663	R-NETWORK 22X4 0.063W
R8283	401 037 5014	MT-GLAZE 0.000 ZA 1/10W		645 021 4943	R-NETWORK 22X4 1/16W
R8291	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	RB3407	645 037 0663	R-NETWORK 22X4 0.063W
R8292	401 105 0613	MT-GLAZE 10K JA 1/16W		645 021 4943	R-NETWORK 22X4 1/16W
R8293	401 037 5014	MT-GLAZE 0.000 ZA 1/10W	RB3408	645 037 0663	R-NETWORK 22X4 0.063W
R839	401 105 4116	MT-GLAZE 3.3K JA 1/16W		645 021 4943	R-NETWORK 22X4 1/16W
R842	401 105 0514	MT-GLAZE 1K JA 1/16W	RB3409	645 037 0663	R-NETWORK 22X4 0.063W
R843	401 105 0514	MT-GLAZE 1K JA 1/16W		645 021 4943	R-NETWORK 22X4 1/16W
R844	401 105 0514	MT-GLAZE 1K JA 1/16W	RB371	645 037 0663	R-NETWORK 22X4 0.063W
R845	401 105 0514	MT-GLAZE 1K JA 1/16W		645 021 4943	R-NETWORK 22X4 1/16W
R846	401 105 0514	MT-GLAZE 1K JA 1/16W	RB372	645 037 0663	R-NETWORK 22X4 0.063W
R847	401 105 0514	MT-GLAZE 1K JA 1/16W		645 021 4943	R-NETWORK 22X4 1/16W
R857	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	RB373	645 037 0663	R-NETWORK 22X4 0.063W

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
RB374	645 021 4943	R-NETWORK 22X4 1/16W	RB444	645 037 3107	R-NETWORK 10X4 0.063W
	645 037 0663	R-NETWORK 22X4 0.063W		645 028 5981	R-NETWORK 10X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB446	645 037 3107	R-NETWORK 10X4 0.063W
RB376	645 037 0663	R-NETWORK 22X4 0.063W		645 028 5981	R-NETWORK 10X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB501	645 037 0656	R-NETWORK 0X4 0.063W
RB377	645 037 0663	R-NETWORK 22X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB502	645 037 0656	R-NETWORK 0X4 0.063W
RB401	645 037 3107	R-NETWORK 10X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB503	645 037 0656	R-NETWORK 0X4 0.063W
RB402	645 037 3107	R-NETWORK 10X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB531	645 037 0656	R-NETWORK 0X4 0.063W
RB403	645 037 3107	R-NETWORK 10X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB532	645 037 0656	R-NETWORK 0X4 0.063W
RB404	645 037 3107	R-NETWORK 10X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB533	645 037 0656	R-NETWORK 0X4 0.063W
RB406	645 037 3107	R-NETWORK 10X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB561	645 037 0656	R-NETWORK 0X4 0.063W
RB421	645 037 3107	R-NETWORK 10X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB562	645 037 0656	R-NETWORK 0X4 0.063W
RB422	645 037 3107	R-NETWORK 10X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB563	645 037 0656	R-NETWORK 0X4 0.063W
RB423	645 037 3107	R-NETWORK 10X4 0.063W		645 024 7477	R-NETWORK 0X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB8001	645 058 8846	R-NETWORK 33X4 0.063W
RB424	645 037 3107	R-NETWORK 10X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB8002	645 058 8846	R-NETWORK 33X4 0.063W
RB426	645 037 3107	R-NETWORK 10X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB8003	645 058 8846	R-NETWORK 33X4 0.063W
RB441	645 037 3107	R-NETWORK 10X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB8004	645 058 8846	R-NETWORK 33X4 0.063W
RB4411	645 037 0656	R-NETWORK 0X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 024 7477	R-NETWORK 0X4 1/16W	RB8006	645 058 8846	R-NETWORK 33X4 0.063W
RB4412	645 037 0656	R-NETWORK 0X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 024 7477	R-NETWORK 0X4 1/16W	RB8251	645 058 8846	R-NETWORK 33X4 0.063W
RB4413	645 037 0663	R-NETWORK 22X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB8252	645 058 8846	R-NETWORK 33X4 0.063W
RB4414	645 037 0663	R-NETWORK 22X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB8253	645 058 8846	R-NETWORK 33X4 0.063W
RB4416	645 037 0663	R-NETWORK 22X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB8254	645 058 8846	R-NETWORK 33X4 0.063W
RB4417	645 037 0663	R-NETWORK 22X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB8256	645 058 8846	R-NETWORK 33X4 0.063W
RB442	645 037 3107	R-NETWORK 10X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 028 5981	R-NETWORK 10X4 1/16W	RB8257	645 058 8846	R-NETWORK 33X4 0.063W
RB4421	645 037 0663	R-NETWORK 22X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB8258	645 058 8846	R-NETWORK 33X4 0.063W
RB4422	645 037 0663	R-NETWORK 22X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	RB8259	645 058 8846	R-NETWORK 33X4 0.063W
RB4423	645 037 0663	R-NETWORK 22X4 0.063W		645 031 4063	R-NETWORK 33X4 1/16W
	645 021 4943	R-NETWORK 22X4 1/16W	COIL		
RB4424	645 037 0663	R-NETWORK 22X4 0.063W	L1001	645 070 3669	INDUCTOR,90 OHM
	645 021 4943	R-NETWORK 22X4 1/16W	L1002	645 070 3669	INDUCTOR,90 OHM
RB4426	645 037 0663	R-NETWORK 22X4 0.063W	L1003	645 070 3669	INDUCTOR,90 OHM
	645 021 4943	R-NETWORK 22X4 1/16W	L1004	645 070 3669	INDUCTOR,90 OHM
RB4427	645 037 0663	R-NETWORK 22X4 0.063W	L1031	645 068 8331	FILTER,EMI 200MHZ
	645 021 4943	R-NETWORK 22X4 1/16W	L1032	645 068 8331	FILTER,EMI 200MHZ
RB4428	645 037 0663	R-NETWORK 22X4 0.063W	L1033	645 068 8348	FILTER,EMI 400MHZ
	645 021 4943	R-NETWORK 22X4 1/16W	L1034	645 068 8348	FILTER,EMI 400MHZ
RB4429	645 037 0663	R-NETWORK 22X4 0.063W	L1036	645 068 8348	FILTER,EMI 400MHZ
	645 021 4943	R-NETWORK 22X4 1/16W	L2001	645 068 8324	FILTER,EMI 20MHZ
RB443	645 037 3107	R-NETWORK 10X4 0.063W	L2002	645 068 8324	FILTER,EMI 20MHZ
	645 028 5981	R-NETWORK 10X4 1/16W	L2881	645 068 8355	FILTER,EMI 50MHZ
RB4431	645 037 0663	R-NETWORK 22X4 0.063W	L2882	645 068 8355	FILTER,EMI 50MHZ
	645 021 4943	R-NETWORK 22X4 1/16W	L2883	645 068 8355	FILTER,EMI 50MHZ
RB4432	645 037 0663	R-NETWORK 22X4 0.063W	L2884	645 068 8355	FILTER,EMI 50MHZ
	645 021 4943	R-NETWORK 22X4 1/16W	L2891	645 068 8355	FILTER,EMI 50MHZ
RB4433	645 037 0663	R-NETWORK 22X4 0.063W	L2892	645 068 8355	FILTER,EMI 50MHZ
	645 021 4943	R-NETWORK 22X4 1/16W	L2893	645 068 8355	FILTER,EMI 50MHZ

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
L2894	645 068 8355	FILTER,EMI 50MHZ	D3641	407 201 2721	DIODE RB051L-40-TE25
L2896	645 068 8355	FILTER,EMI 50MHZ	D3642	407 232 0410	ZENER DIODE UDZS2.0B-TE-17
L2897	645 068 8355	FILTER,EMI 50MHZ	D3651	407 201 2721	DIODE RB051L-40-TE25
L2898	645 068 8355	FILTER,EMI 50MHZ	D3801	407 149 0817	DIODE 1SS355-TE-17
L3001	645 068 8348	FILTER,EMI 400MHZ	D4601	407 209 4519	ZD UDZS-TE-176.8B
L3002	645 068 8348	FILTER,EMI 400MHZ	D4602	407 218 7716	ZENER DIODE UDZS20B-TE-17
L3003	645 068 8348	FILTER,EMI 400MHZ	D4603	407 209 4519	ZD UDZS-TE-176.8B
L3004	645 068 8348	FILTER,EMI 400MHZ	D4621	407 218 7716	ZENER DIODE UDZS20B-TE-17
L3006	645 068 8348	FILTER,EMI 400MHZ	D4631	407 218 7716	ZENER DIODE UDZS20B-TE-17
L3007	645 068 8348	FILTER,EMI 400MHZ	D4800	407 149 0817	DIODE 1SS355-TE-17
L301	645 050 8448	IMPEDANCE,1000 OHM P	D4851	407 209 1211	ZD UDZS-TE-176.2B
L302	645 050 8448	IMPEDANCE,1000 OHM P	D4852	407 209 1211	ZD UDZS-TE-176.2B
L303	645 050 8448	IMPEDANCE,1000 OHM P	D4853	407 209 1211	ZD UDZS-TE-176.2B
L304	645 050 8448	IMPEDANCE,1000 OHM P	D4856	407 209 1211	ZD UDZS-TE-176.2B
L3431	645 002 5204	INDUCTOR,3.3U M	D5621	407 201 2721	DIODE RB051L-40-TE25
L3432	645 002 5204	INDUCTOR,3.3U M	D5641	407 201 2721	DIODE RB051L-40-TE25
L3433	645 002 5204	INDUCTOR,3.3U M	D5661	407 201 2721	DIODE RB051L-40-TE25
L3631	645 079 1468	INDUCTOR,10U M	D6552	407 149 0817	DIODE 1SS355-TE-17
L3641	645 079 1468	INDUCTOR,10U M	D6553	407 149 0817	DIODE 1SS355-TE-17
L3651	645 062 2939	INDUCTOR,10U M	D6631	407 201 2721	DIODE RB051L-40-TE25
L4001	645 068 8317	FILTER,EMI 100MHZ	D6641	407 201 2721	DIODE RB051L-40-TE25
L4004	645 068 8317	FILTER,EMI 100MHZ	D6651	407 201 2721	DIODE RB051L-40-TE25
L4006	645 068 8317	FILTER,EMI 100MHZ	D6661	407 201 2721	DIODE RB051L-40-TE25
L5621	645 079 1468	INDUCTOR,10U M	D7801	407 149 0817	DIODE 1SS355-TE-17
L5641	645 079 1468	INDUCTOR,10U M	D7802	407 149 0817	DIODE 1SS355-TE-17
L5661	645 062 2939	INDUCTOR,10U M	D7807	407 149 0817	DIODE 1SS355-TE-17
L6631	645 079 1475	INDUCTOR,33U M	D7811	407 149 0817	DIODE 1SS355-TE-17
L6641	645 079 1475	INDUCTOR,33U M	D7812	407 149 0817	DIODE 1SS355-TE-17
L6651	645 079 1475	INDUCTOR,33U M	D7816	407 149 0817	DIODE 1SS355-TE-17
L6661	645 079 1475	INDUCTOR,33U M	D7817	407 149 0817	DIODE 1SS355-TE-17
L8001	645 002 5228	INDUCTOR,4.7U M	D7821	407 149 0817	DIODE 1SS355-TE-17
L8002	645 036 3894	INDUCTOR,220 OHM	D7822	407 149 0817	DIODE 1SS355-TE-17
L8003	645 036 3894	INDUCTOR,220 OHM	D8101	407 209 1211	ZD UDZS-TE-176.2B
DIODE			D8102	407 201 2721	DIODE RB051L-40-TE25
D1001	407 209 1211	ZD UDZS-TE-176.2B	D8103	407 210 5611	DIODE RB500V-40-TE-17
D1002	407 209 1211	ZD UDZS-TE-176.2B	D8702	407 149 0817	DIODE 1SS355-TE-17
D1003	407 209 1211	ZD UDZS-TE-176.2B	D8703	407 149 0817	DIODE 1SS355-TE-17
D1004	407 209 1211	ZD UDZS-TE-176.2B	D871	407 149 0817	DIODE 1SS355-TE-17
D1031	407 209 1211	ZD UDZS-TE-176.2B	D872	407 149 0817	DIODE 1SS355-TE-17
D1032	407 209 1211	ZD UDZS-TE-176.2B	D873	407 149 0817	DIODE 1SS355-TE-17
D1033	407 209 1211	ZD UDZS-TE-176.2B	D874	407 149 0817	DIODE 1SS355-TE-17
D1034	407 209 1211	ZD UDZS-TE-176.2B	D875	407 149 0817	DIODE 1SS355-TE-17
D1036	407 209 1211	ZD UDZS-TE-176.2B	D876	407 149 0817	DIODE 1SS355-TE-17
D1037	407 209 1211	ZD UDZS-TE-176.2B	D878	407 149 0817	DIODE 1SS355-TE-17
D1038	407 209 1211	ZD UDZS-TE-176.2B	D880	407 149 0817	DIODE 1SS355-TE-17
D1039	407 209 1211	ZD UDZS-TE-176.2B	D881	407 149 0817	DIODE 1SS355-TE-17
D1041	407 209 1211	ZD UDZS-TE-176.2B	D882	407 149 0817	DIODE 1SS355-TE-17
D2881	407 149 0817	DIODE 1SS355-TE-17	D8821	407 223 5417	ZENER DIODE UDZS2.4B-TE-17
D2882	407 149 0817	DIODE 1SS355-TE-17	D883	407 149 0817	DIODE 1SS355-TE-17
D2883	407 149 0817	DIODE 1SS355-TE-17	D8831	407 223 5417	ZENER DIODE UDZS2.4B-TE-17
D2884	407 149 0817	DIODE 1SS355-TE-17	D884	407 149 0817	DIODE 1SS355-TE-17
D2886	407 149 0817	DIODE 1SS355-TE-17	D885	407 149 0817	DIODE 1SS355-TE-17
D2887	407 149 0817	DIODE 1SS355-TE-17	D8851	407 209 1211	ZD UDZS-TE-176.2B
D2894	407 208 9713	ZD UDZS-TE-175.6B	D8852	407 209 1211	ZD UDZS-TE-176.2B
D3001	407 209 4519	ZD UDZS-TE-176.8B	D886	407 149 0817	DIODE 1SS355-TE-17
D3002	407 209 4519	ZD UDZS-TE-176.8B	D887	407 149 0817	DIODE 1SS355-TE-17
D3003	407 209 4519	ZD UDZS-TE-176.8B	D888	407 149 0817	DIODE 1SS355-TE-17
D3004	407 209 4519	ZD UDZS-TE-176.8B	D890	407 149 0817	DIODE 1SS355-TE-17
D3006	407 209 4519	ZD UDZS-TE-176.8B	D8906	407 149 0817	DIODE 1SS355-TE-17
D3007	407 209 4519	ZD UDZS-TE-176.8B	D891	407 149 0817	DIODE 1SS355-TE-17
D3008	407 209 4519	ZD UDZS-TE-176.8B	D893	407 149 0817	DIODE 1SS355-TE-17
D3009	407 209 4519	ZD UDZS-TE-176.8B	D896	407 149 0817	DIODE 1SS355-TE-17
D3011	407 209 4519	ZD UDZS-TE-176.8B	D898	407 149 0817	DIODE 1SS355-TE-17
D3012	407 209 4519	ZD UDZS-TE-176.8B	MISCELLANEOUS		
D3013	407 209 4519	ZD UDZS-TE-176.8B	Q6551AM	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
D3014	407 209 4519	ZD UDZS-TE-176.8B	K10A	645 077 1057	SOCKET,IF(HDMI) 19P
D3631	407 201 2721	DIODE RB051L-40-TE25	K10B	645 027 7092	SOCKET,D-SUB 15P

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
K10C	645 067 6123	TERMINAL, BOARD	R6809	401 105 5113	MT-GLAZE 47 JA 1/16W
K10D	645 071 9028	JACK, RCA-6	DIODE		
K10F	645 041 1076	SOCKET, DIN 8P	D2851	407 208 9713	ZD UDZS-TE-175.6B
SC2001	645 076 3502	SURGE-ABSORBER	D2852	407 208 9713	ZD UDZS-TE-175.6B
SC2002	645 076 3502	SURGE-ABSORBER	D2853	407 208 9713	ZD UDZS-TE-175.6B
SC4001	645 076 3502	SURGE-ABSORBER	D2854	407 208 9713	ZD UDZS-TE-175.6B
SC4002	645 076 3502	SURGE-ABSORBER	D2856	407 209 7510	LED SML-210YT T86 L
SC4101	645 076 3502	SURGE-ABSORBER	D2857	407 203 7813	LED SML-210LT T86 M
X1331	645 076 0280	OSC, CRYSTAL 14.31818MHZ	D2858	407 222 4817	LED SML-521MUW T86
X4401	645 052 2727	OSC, CRYSTAL, 25.000MHZ	D2859	407 208 9713	ZD UDZS-TE-175.6B
X4801	645 060 9909	OSC, CERAMIC 8.00MHZ	D6801	407 149 0817	DIODE 1SS355-TE-17
X8001	645 072 9669	OSC, CRYSTAL 28.322MHZ	D6802	407 149 0817	DIODE 1SS355-TE-17
X8201	645 078 1438	OSC, CRYSTAL 28.63636MHZ	D6803	407 149 0817	DIODE 1SS355-TE-17
CONTROL BOARD			D6804	407 208 9713	ZD UDZS-TE-175.6B
610 322 5708 ASSY,PWB,CTRL M4WA			D6806	407 208 9713	ZD UDZS-TE-175.6B
TRANSISTOR			D6807	407 208 9713	ZD UDZS-TE-175.6B
Q2861	405 014 4519	TR 2SC2412K T146 R	D6809	407 208 9713	ZD UDZS-TE-175.6B
	405 014 4618	TR 2SC2412K T146 S	D6811	407 208 9713	ZD UDZS-TE-175.6B
	405 015 8724	TR 2SC2812-L6-TB	D6812	407 208 9713	ZD UDZS-TE-175.6B
	405 015 8922	TR 2SC2812-L7-TB	D6813	407 208 9713	ZD UDZS-TE-175.6B
	405 163 1612	TR 2SC2812N-L6-TB0	MISCELLANEOUS		
Q2862	405 014 4519	TR 2SC2412K T146 R	SC2851	645 076 3502	SURGE-ABSORBER
	405 014 4618	TR 2SC2412K T146 S	SW6801	645 026 2791	SWITCH, PUSH 1P-1TX1
	405 015 8724	TR 2SC2812-L6-TB	SW6802	645 026 2791	SWITCH, PUSH 1P-1TX1
	405 015 8922	TR 2SC2812-L7-TB	SW6803	645 026 2791	SWITCH, PUSH 1P-1TX1
	405 163 1612	TR 2SC2812N-L6-TB0	SW6804	645 026 2791	SWITCH, PUSH 1P-1TX1
Q2863	405 014 4519	TR 2SC2412K T146 R	SW6806	645 026 2791	SWITCH, PUSH 1P-1TX1
	405 014 4618	TR 2SC2412K T146 S	SW6807	645 026 2791	SWITCH, PUSH 1P-1TX1
	405 015 8724	TR 2SC2812-L6-TB	SW6808	645 026 2791	SWITCH, PUSH 1P-1TX1
	405 015 8922	TR 2SC2812-L7-TB	SW6809	645 026 2791	SWITCH, PUSH 1P-1TX1
	405 163 1612	TR 2SC2812N-L6-TB0			
Q2864	405 014 4519	TR 2SC2412K T146 R	R/C BOARD		
	405 014 4618	TR 2SC2412K T146 S	610 322 7177 ASSY,PWB,R/C M4WA		
	405 015 8724	TR 2SC2812-L6-TB	CAPACITOR		
	405 015 8922	TR 2SC2812-L7-TB	C2801	403 157 6612	CERAMIC 470P K 50V
	405 163 1612	TR 2SC2812N-L6-TB0	C2802	403 283 6319	CERAMIC 1U Z 10V
CAPACITOR			C2803	403 378 3117	CERAMIC 47U Z 6.3V
C2851	403 164 0214	CERAMIC 0.1U Z 25V	C2804	403 378 3117	CERAMIC 47U Z 6.3V
C2852	403 164 0214	CERAMIC 0.1U Z 25V	RESISTOR		
C2853	403 164 0214	CERAMIC 0.1U Z 25V	R2801	401 105 5113	MT-GLAZE 47 JA 1/16W
C2854	403 164 0214	CERAMIC 0.1U Z 25V	R2802	401 105 0415	MT-GLAZE 100 JA 1/16W
RESISTOR			MISCELLANEOUS		
R2850	401 105 0514	MT-GLAZE 1K JA 1/16W	A2801	645 067 5546	UNIT, REMOCON RECEIVER
R2851	401 105 5311	MT-GLAZE 4.7K JA 1/16W	FILTER BOARD		
R2853	401 105 5212	MT-GLAZE 470 JA 1/16W	610 324 5294 ASSY,PWB,FILTER M4WA		
R2854	401 105 5212	MT-GLAZE 470 JA 1/16W	CAPACITOR		
R2855	401 105 0514	MT-GLAZE 1K JA 1/16W	△C611	404 094 3808	MT-POLYEST 0.22U K 275V
R2856	401 105 5311	MT-GLAZE 4.7K JA 1/16W	△C612	404 094 3808	MT-POLYEST 0.22U K 275V
R2858	401 105 0514	MT-GLAZE 1K JA 1/16W	△C613	404 094 3808	MT-POLYEST 0.22U K 275V
R2859	401 105 5311	MT-GLAZE 4.7K JA 1/16W	△C614	404 104 9509	CERAMIC 1500P K 250V
R2860	401 105 0514	MT-GLAZE 1K JA 1/16W	△C616	404 104 9509	CERAMIC 1500P K 250V
R2862	401 105 6516	MT-GLAZE 680 JA 1/16W	RESISTOR		
R2863	401 105 4512	MT-GLAZE 390 JA 1/16W	R611	401 008 8627	CARBON 220K JA 1/2W
R2864	401 105 5311	MT-GLAZE 4.7K JA 1/16W	VARIABLE RESISTOR		
R2865	401 105 0514	MT-GLAZE 1K JA 1/16W	△VA611	408 018 9808	VARIATOR ENC471D-14AS
R2867	401 105 0514	MT-GLAZE 1K JA 1/16W	△VA613	408 059 4305	VARIATOR ERZV10D201
R2868	401 105 0514	MT-GLAZE 1K JA 1/16W	COIL		
R6801	401 105 5113	MT-GLAZE 47 JA 1/16W	△L611	645 061 7522	LINE FILTER
R6802	401 105 5113	MT-GLAZE 47 JA 1/16W	△L612	645 061 7522	LINE FILTER
R6803	401 105 5113	MT-GLAZE 47 JA 1/16W	MISCELLANEOUS		
R6804	401 105 0514	MT-GLAZE 1K JA 1/16W	△F601	423 022 2102	FUSE 250V 4A
R6806	401 105 5113	MT-GLAZE 47 JA 1/16W	△K601	645 079 4285	SOCKET, INLET AC 3P
R6807	401 105 5113	MT-GLAZE 47 JA 1/16W			
R6808	401 105 5113	MT-GLAZE 47 JA 1/16W			

Electrical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
K601A	610 327 3853	MOUNTING AC-M4WA			
△SW601	645 055 6661	SWITCH,POWER 2P-2TX2			
DOOR SW_A BOARD					
610 324 5027 ASSY,PWB,DOOR SW_A M4WA					
SW8801	645 056 0750	SWITCH,MICRO 1P-2T			
DOOR SW_B BOARD					
610 324 5287 ASSY,PWB,DOOR SW_B M4WA					
SW8811	645 056 0750	SWITCH,MICRO 1P-2T			
LAMP SW BOARD					
610 324 5003 ASSY,PWB,LAMP SW M4WA					
SW8803	645 063 5175	SWITCH,PUSH 2P-2TX3			
ACCESSORIES					
PRINTED MATTER / OWNER'S MANUAL					
(English)	610 324 5843	OWNERS MANUAL-M4WA			
(Germany)	610 324 5874	OWNERS MANUAL-M4WA-D			
(French)	610 324 5935	OWNERS MANUAL-M4WA-F			
(Italian)	610 324 5997	OWNERS MANUAL-M4WA-I			
(Spanish)	610 324 5881	OWNERS MANUAL-M4WA-E			
REMOTE CONTROL					
	645 078 3746	ASSY,REMOCON CXTS			
	610 322 9553	RC-BATTERY LID-CXTS			
AC CORD					
△ (US)	645 058 7900	CORD,POWER-1.85MK,US			
△ (EU)	645 051 6092	CORD,POWER-2.0MK			
△ (UK)	645 051 6085	CORD,POWER-2.0MK			
CABLE					
	645 073 5110	CABLE,VIDEO			
MISCELLANEOUS					
	610 324 5157	COMPL,DEC BLOWER-M4WA			
PACKING MATERIALS					
	610 324 5393	CARTON CASE-M4WA			
	610 325 5491	CUSHION SPACER-M4WA			
	610 324 5324	CUSHION BTM-M4WA			
	610 324 5218	CUSHION TOP-M4WA			
	610 327 5550	CUSHION LENS-M4WA			
	610 327 3075	SPACER LES PACKING-M4WA			
	645 084 0302	POLY SHEET-1050X0920*NC			

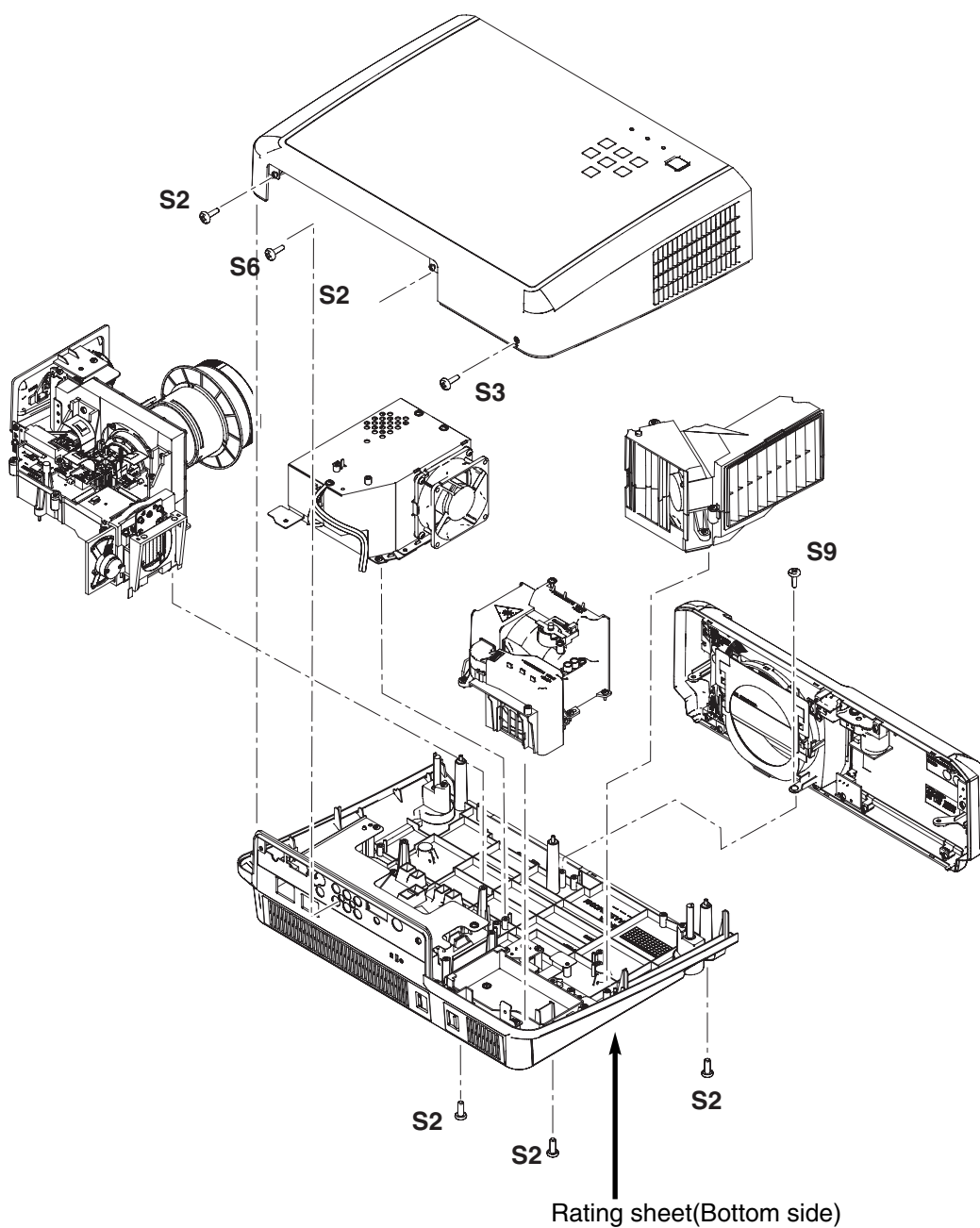
■ Mechanical and Optical Parts List

M4W-Z400

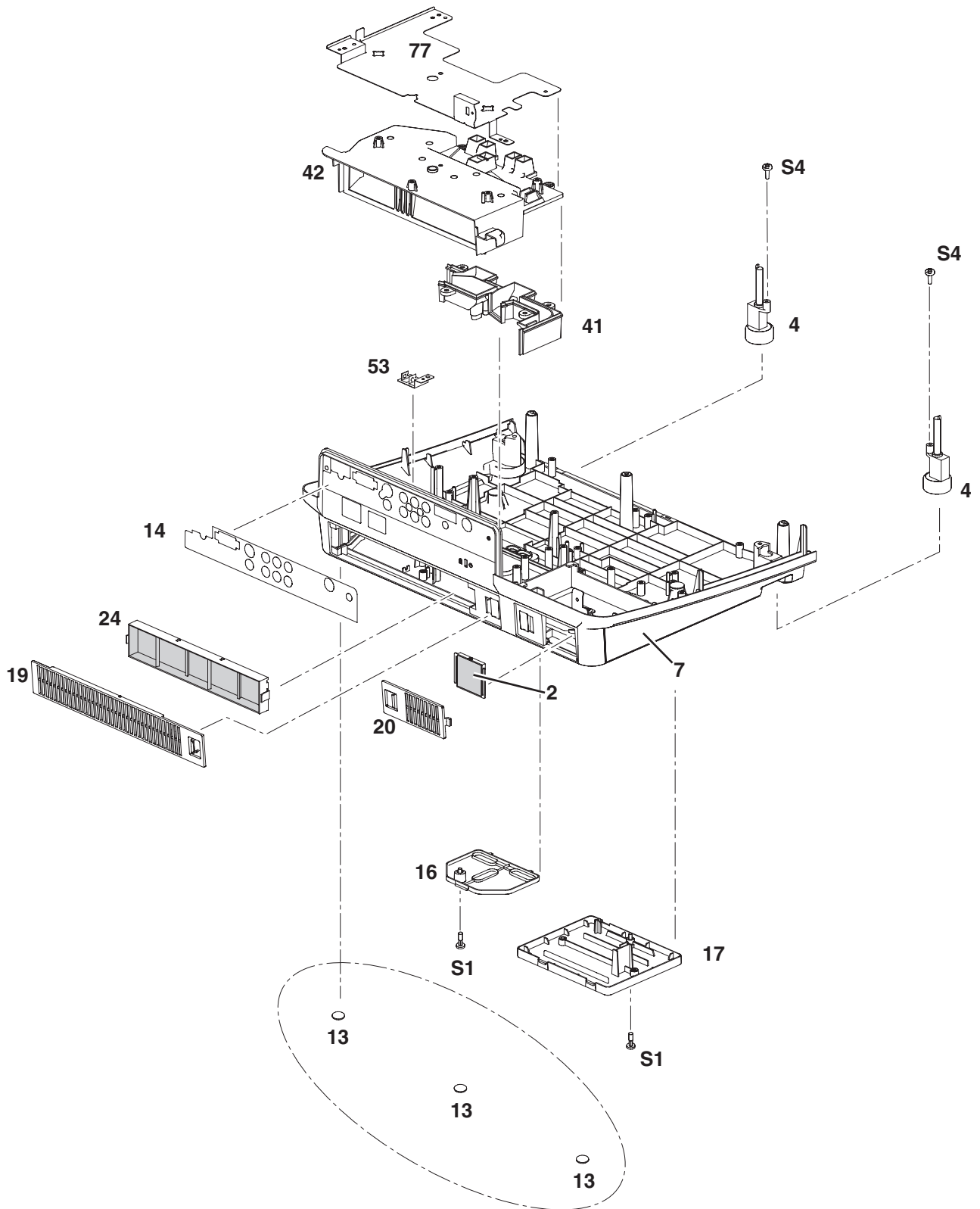
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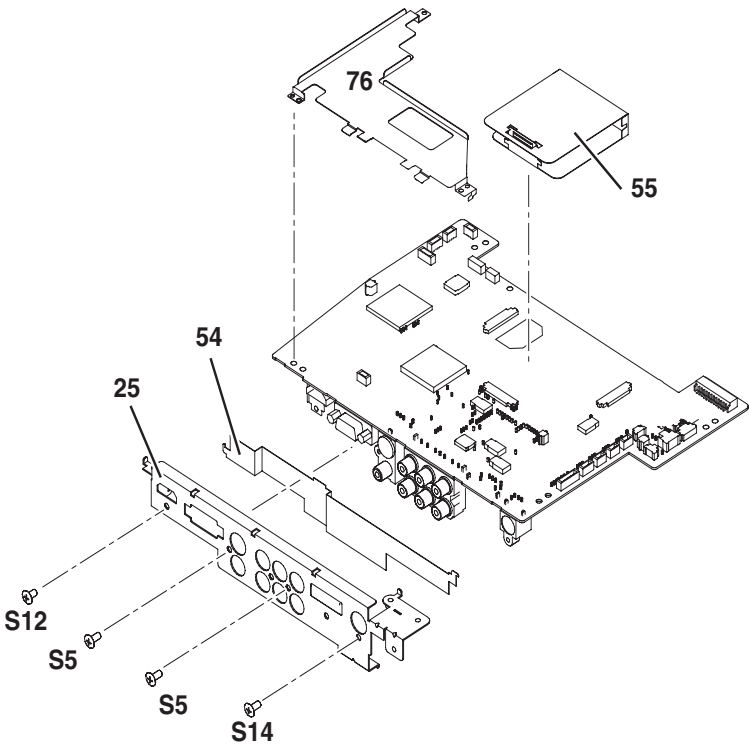
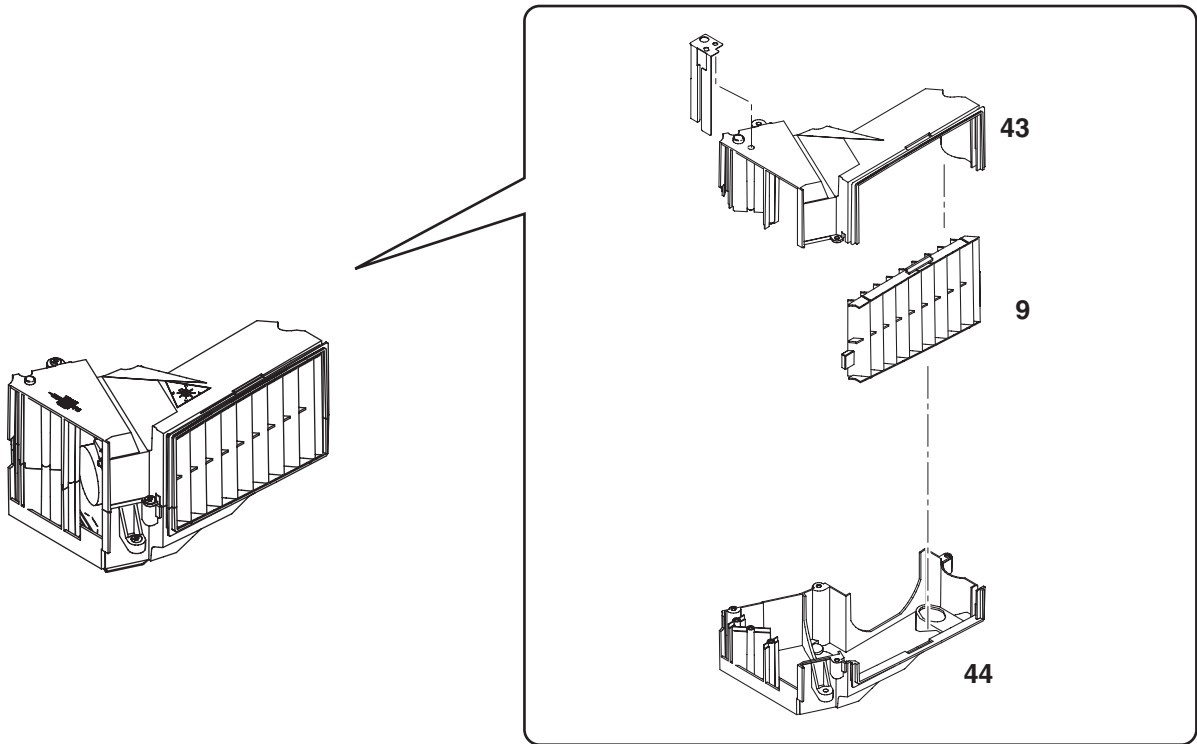
Part order must contain **Model No.**, **Chassis No.**, **Part No.**, and **descriptions**.

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

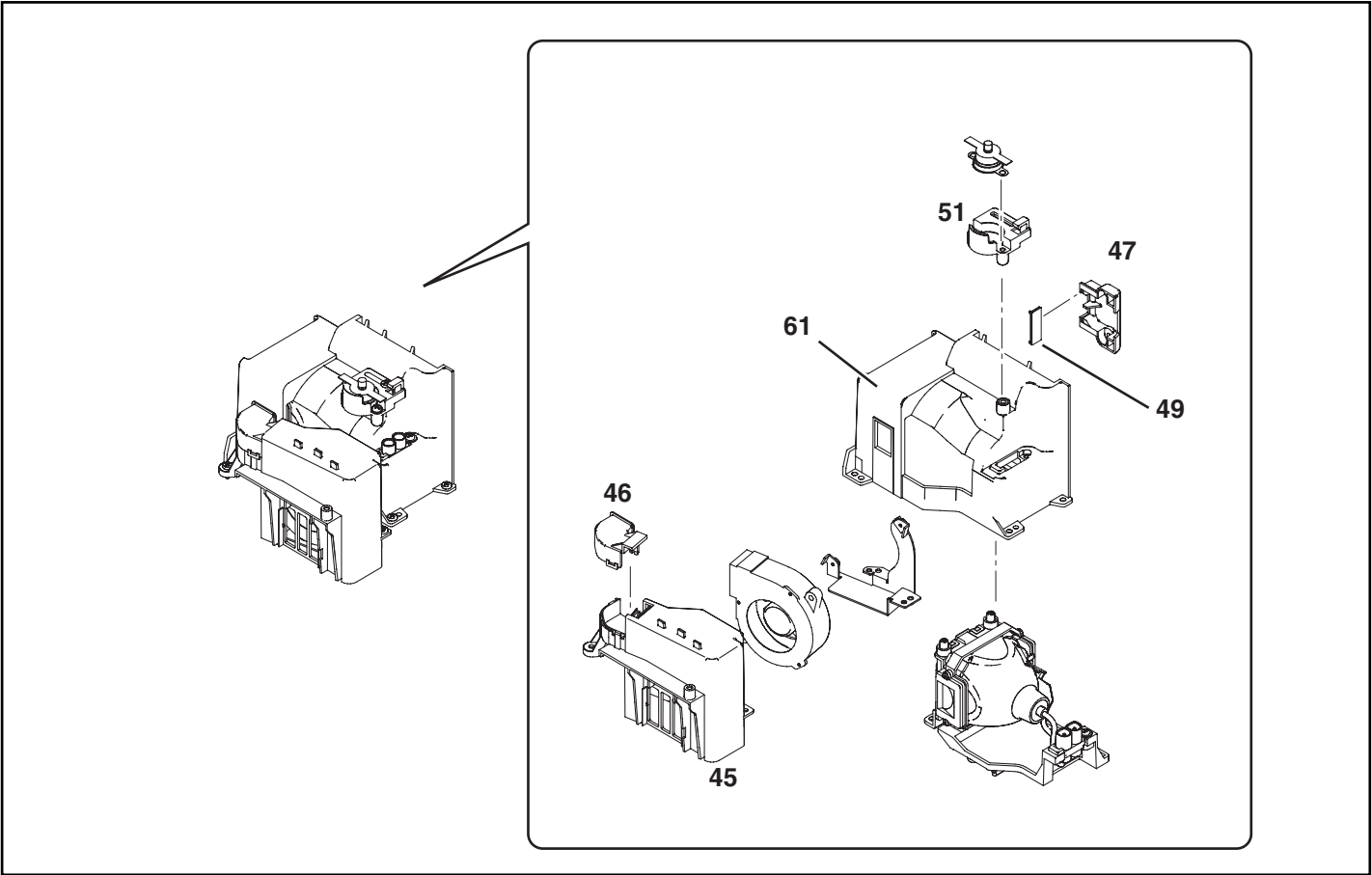
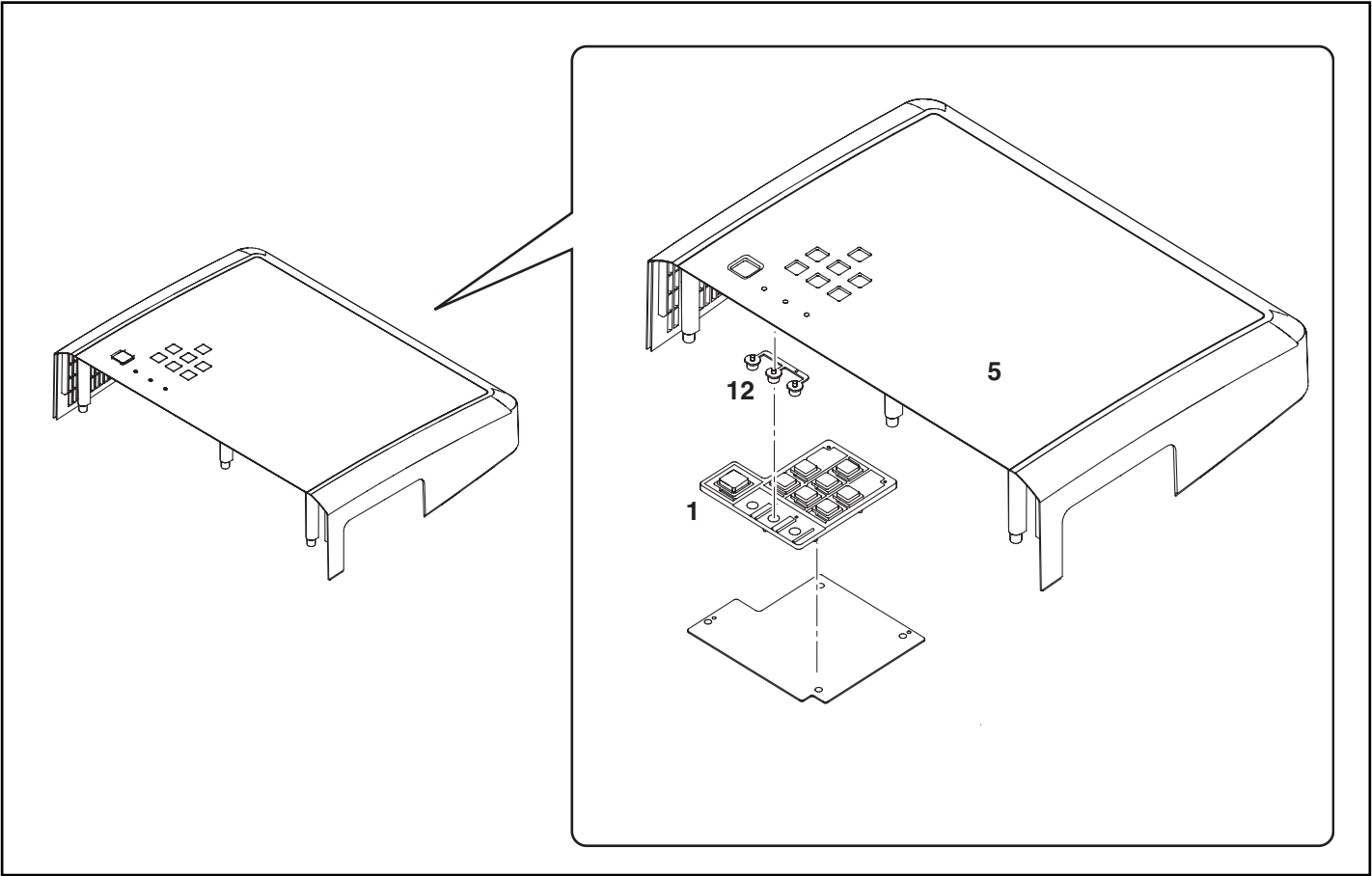


Mechanical and Optical Parts List

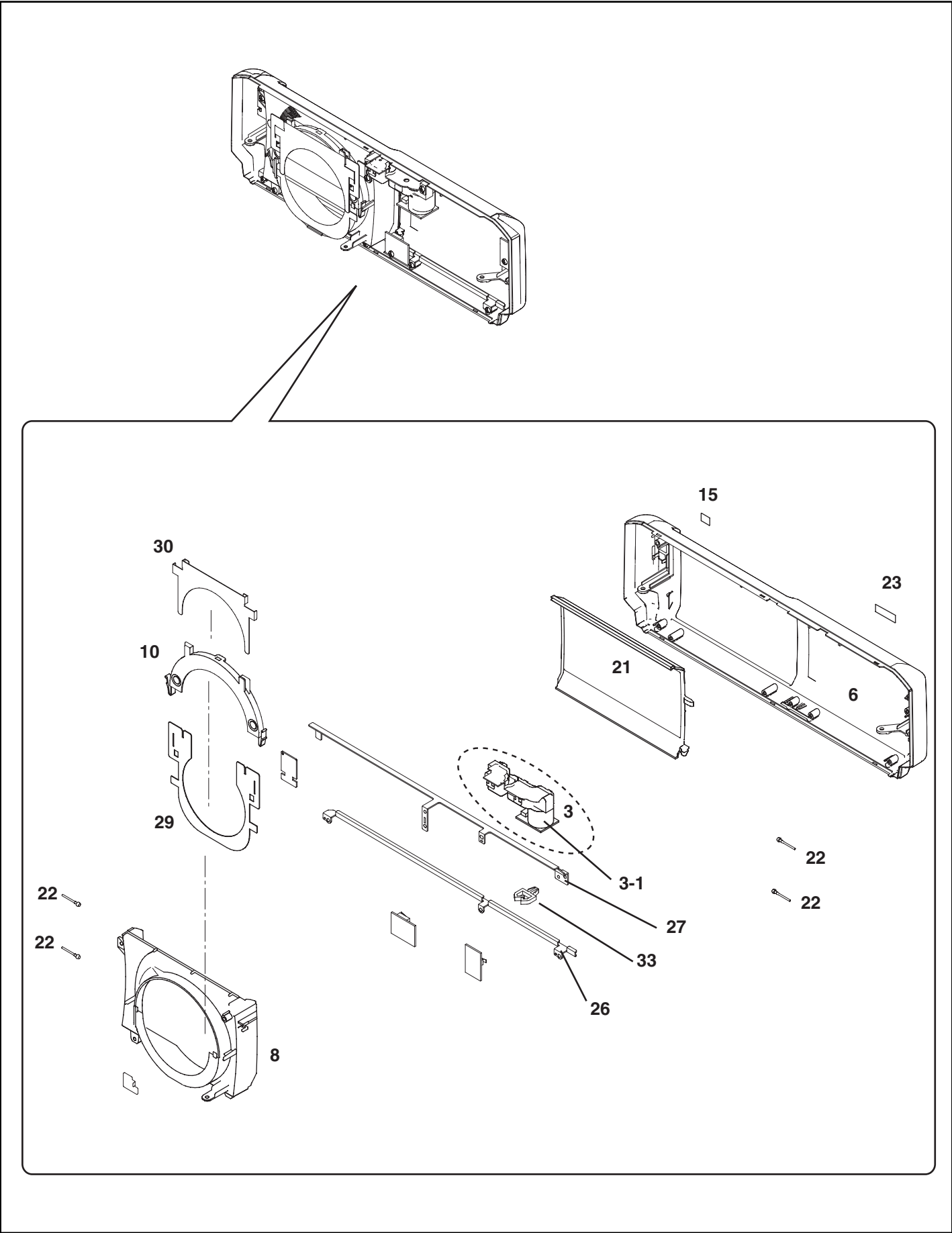




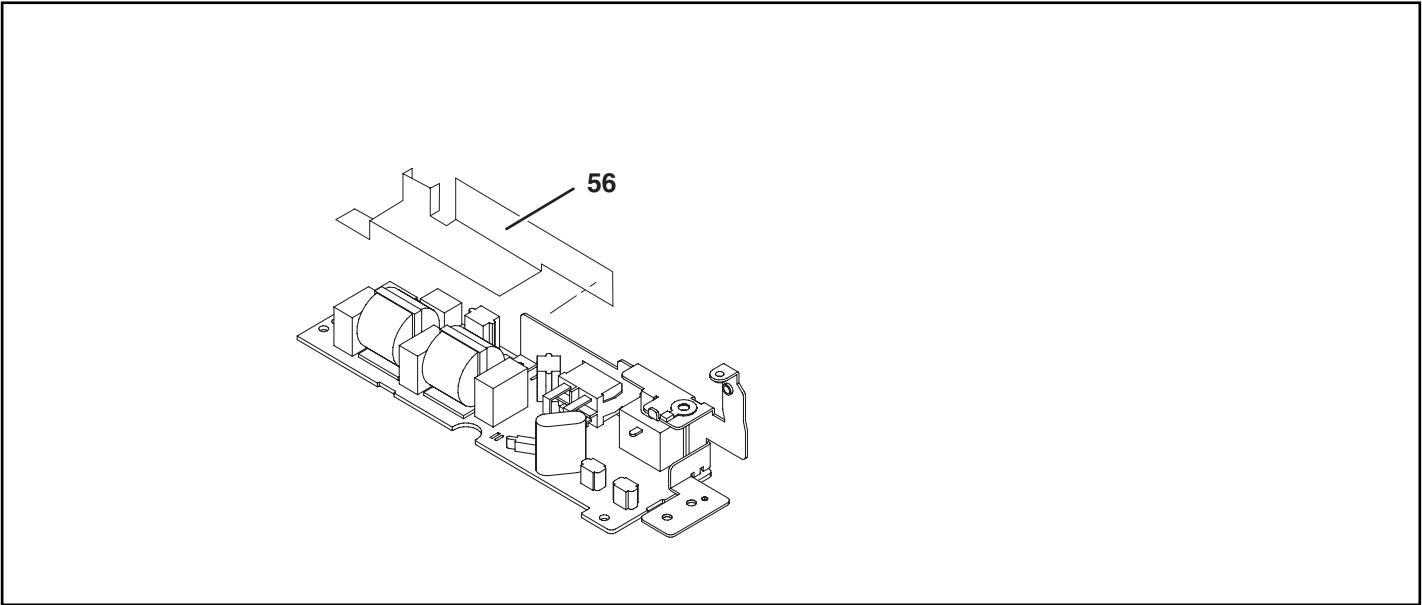
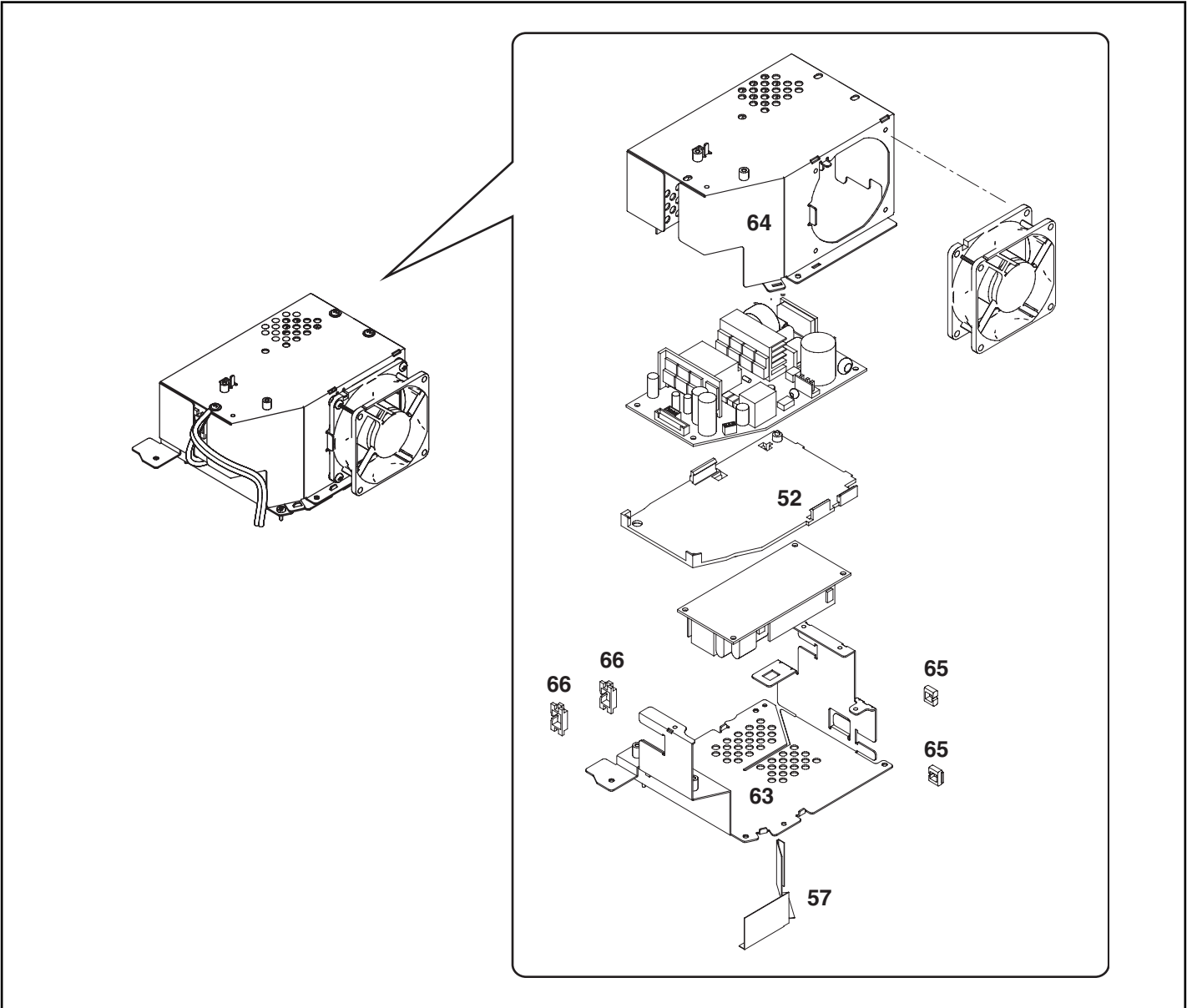
Mechanical and Optical Parts List

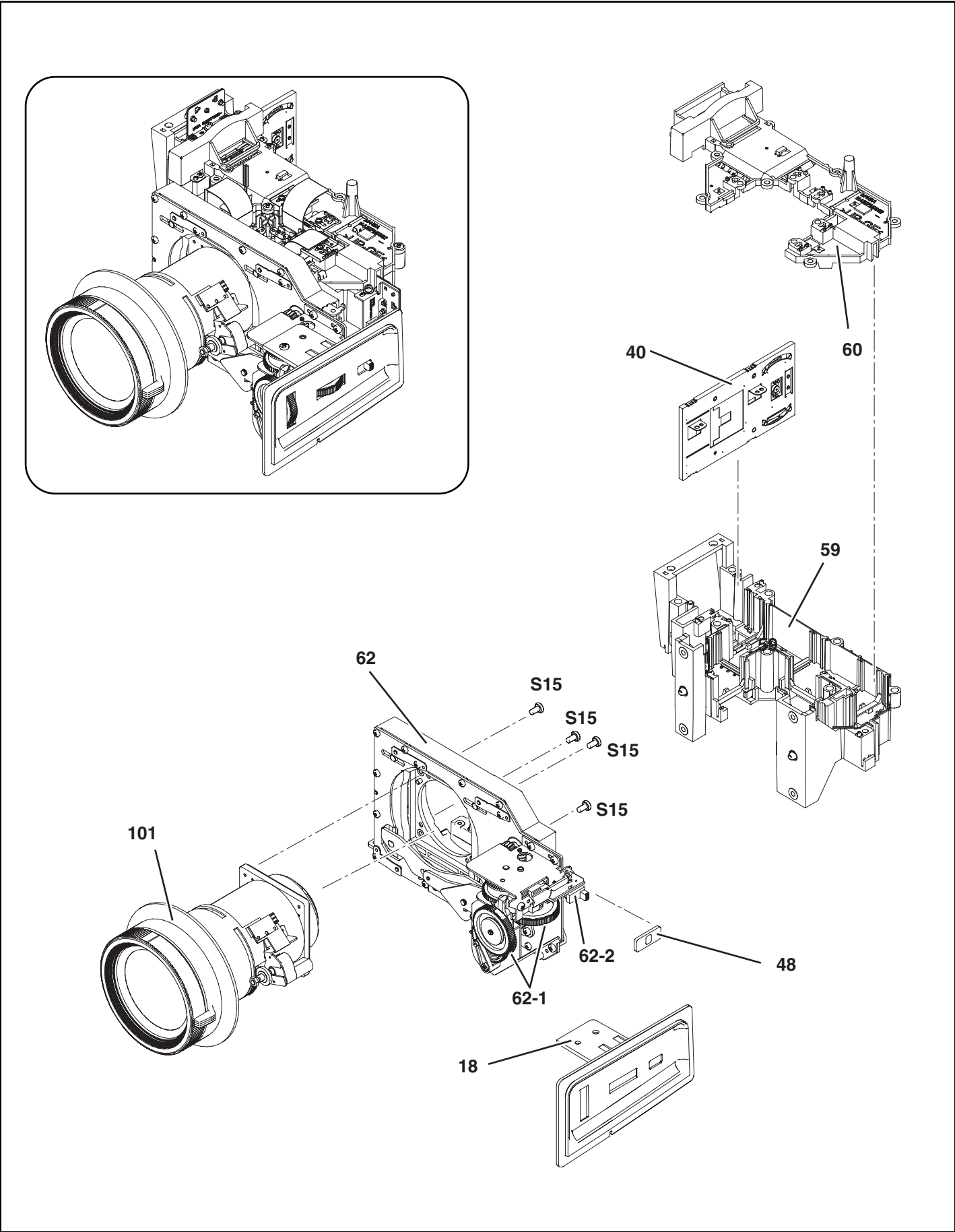


Mechanical and Optical Parts List

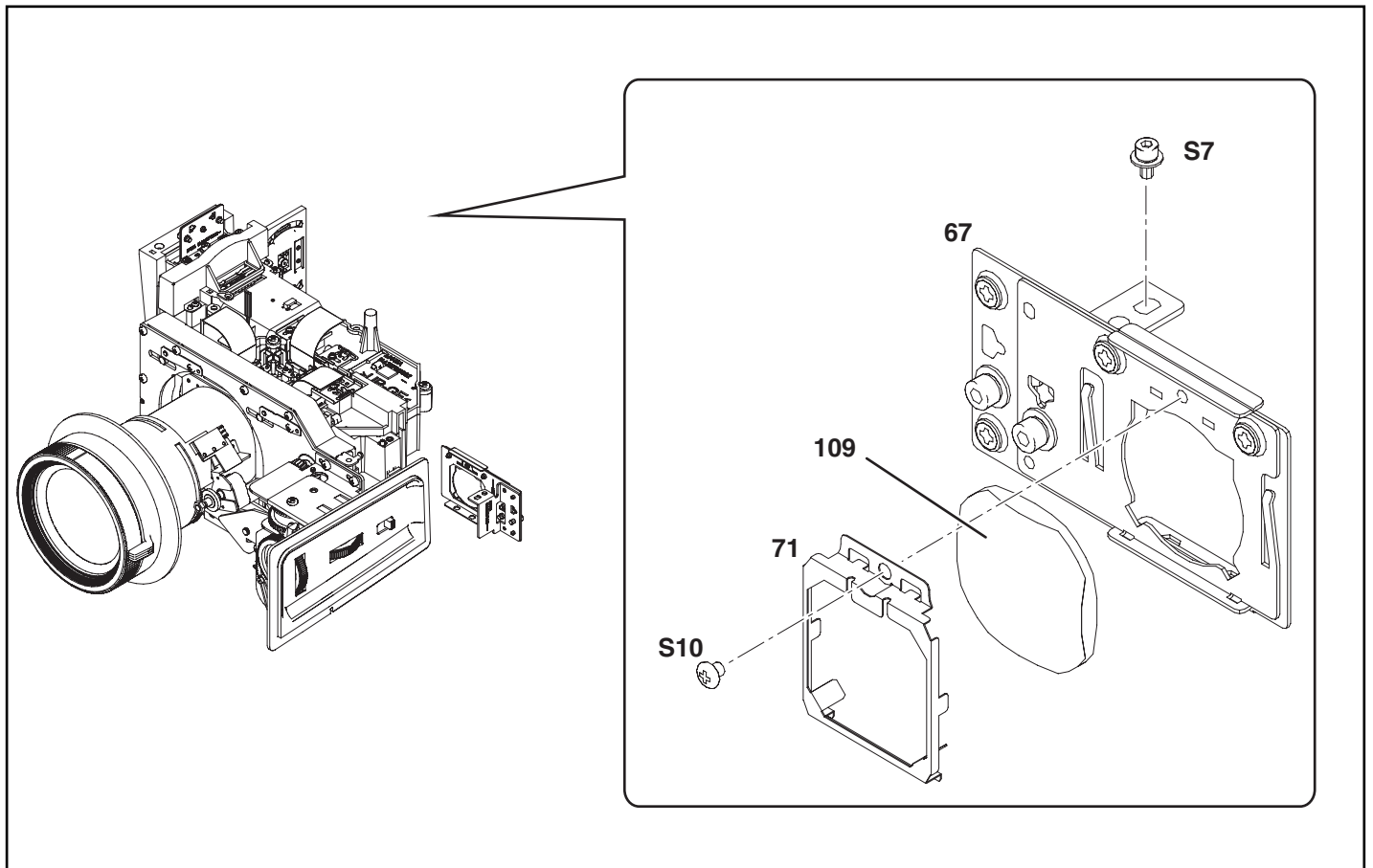
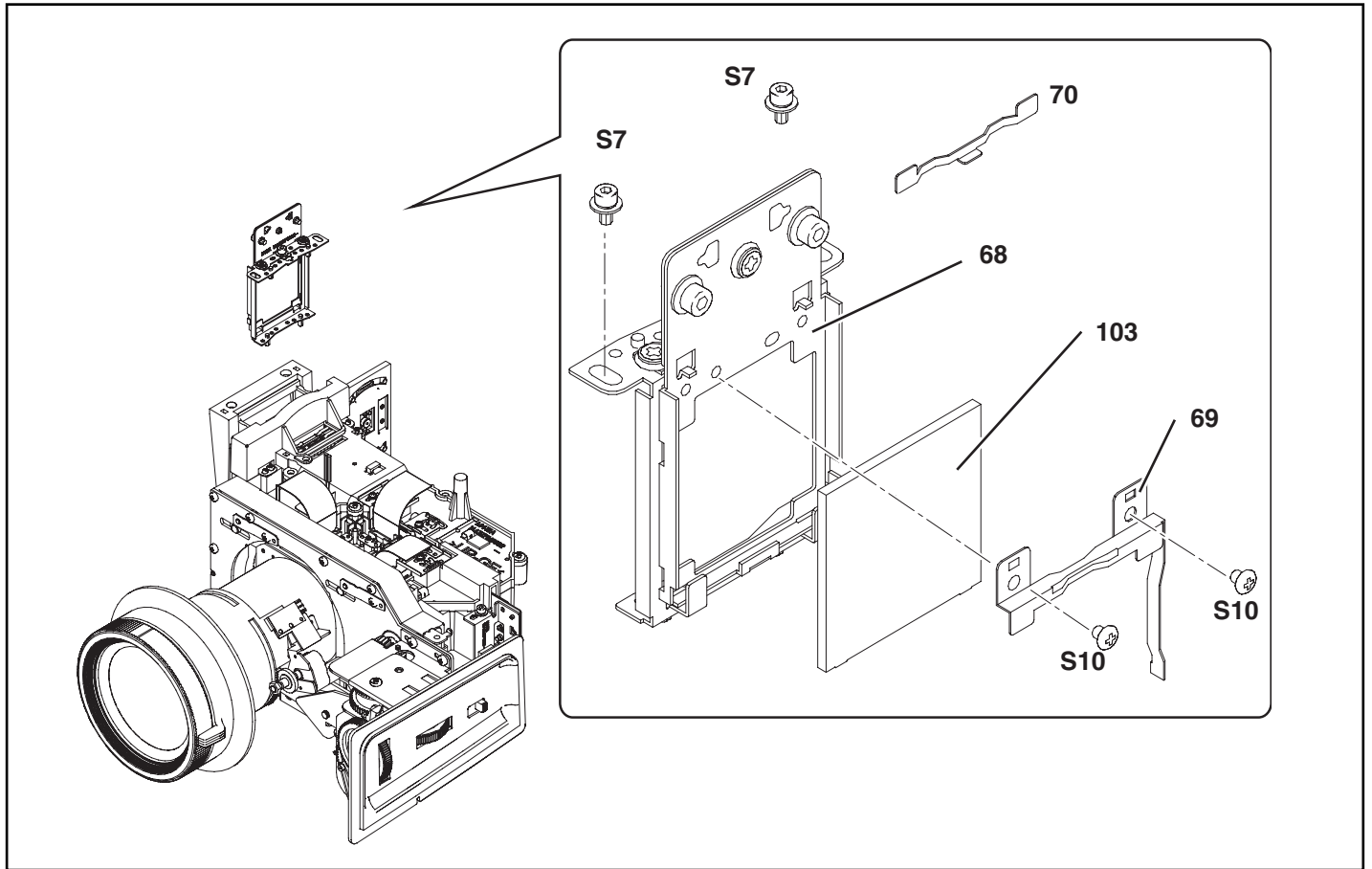


Mechanical and Optical Parts List

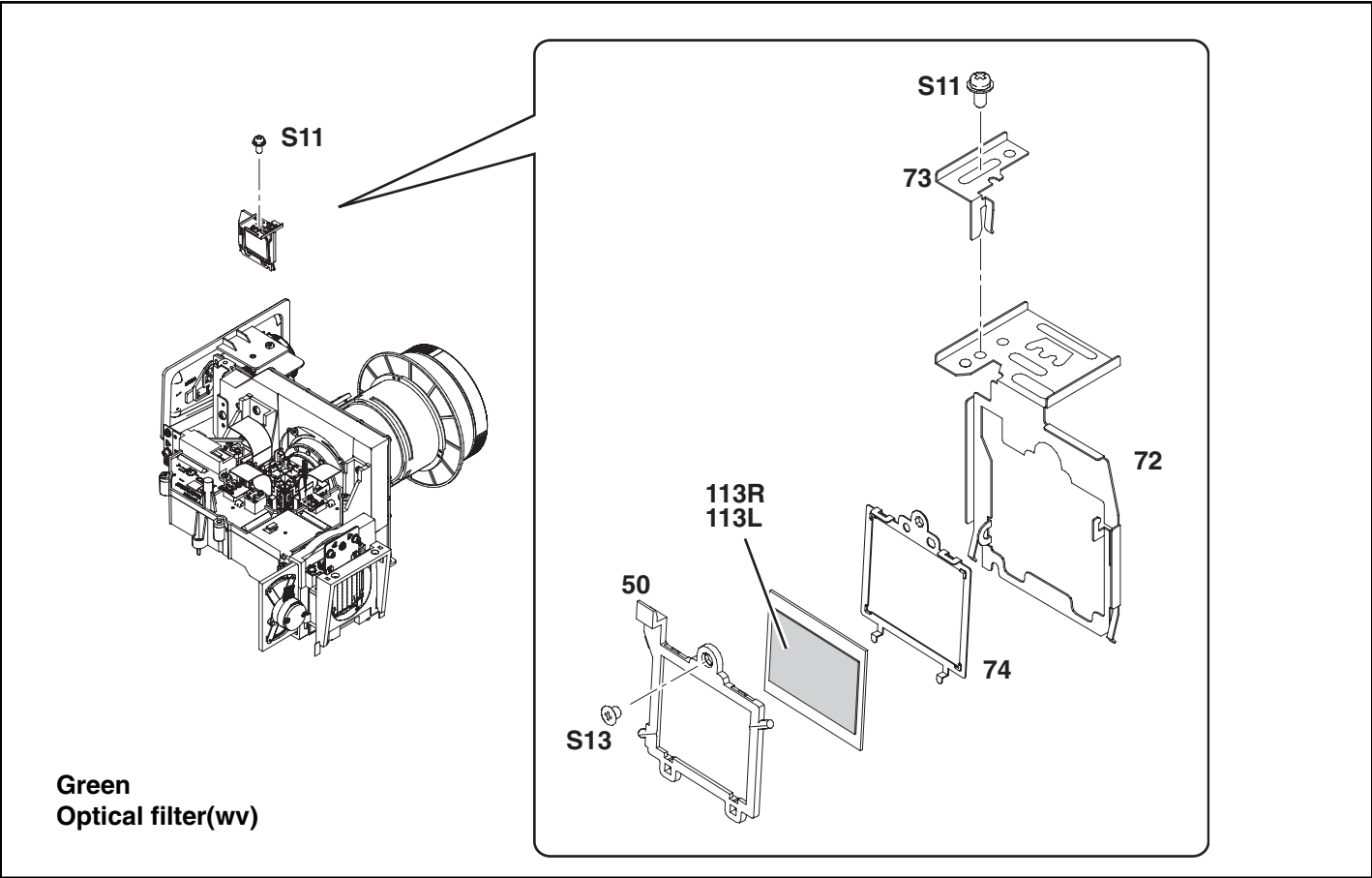
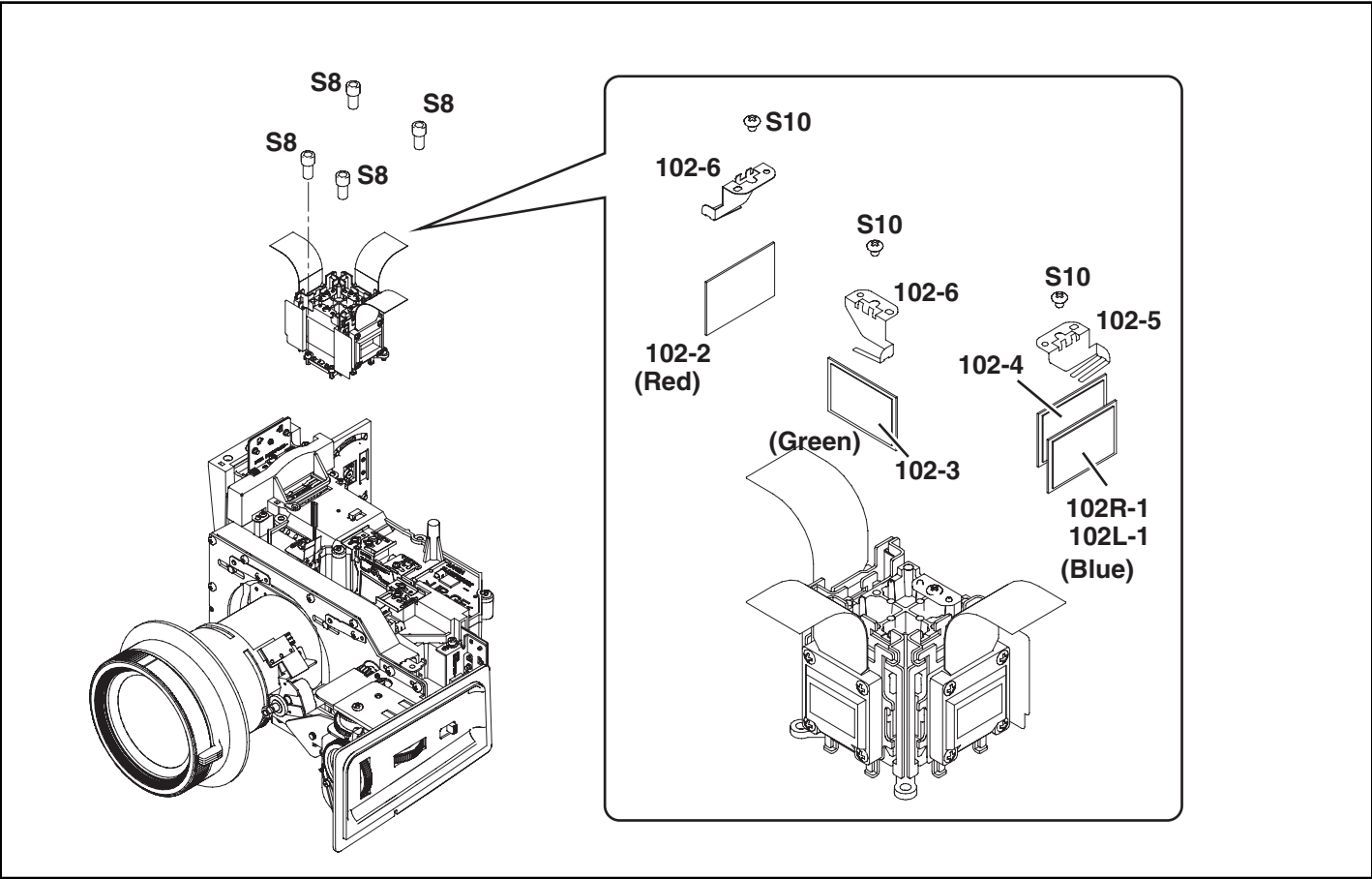




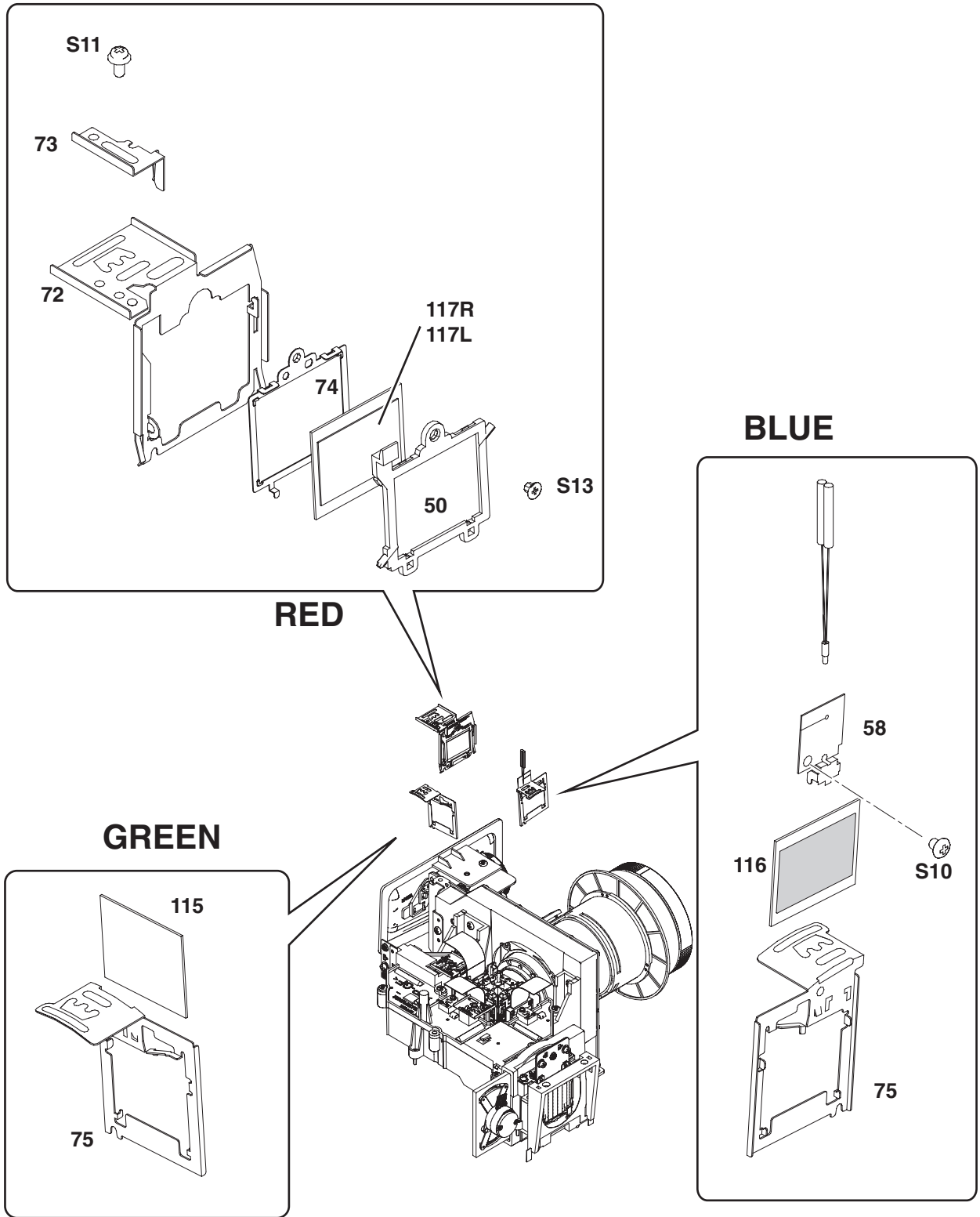
Mechanical and Optical Parts List



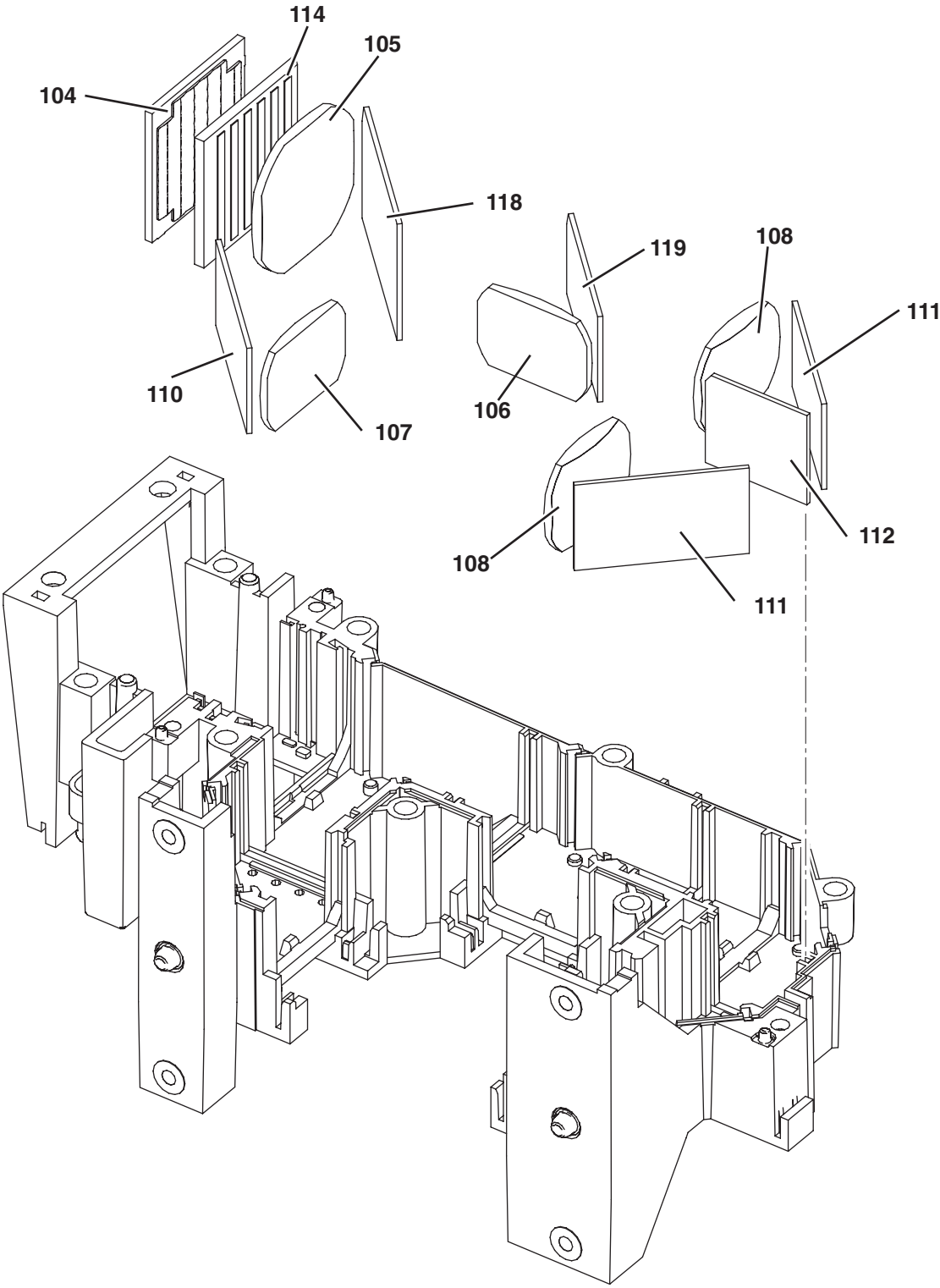
Mechanical and Optical Parts List



Mechanical and Optical Parts List



Mechanical and Optical Parts List



Mechanical and Optical Parts List

Key No.	Part No.	Description	Key No.	Part No.	Description
CABINET, CHASSIS PARTS					
1	610 323 4472	ASSY,BUTTON-M4WA	71	610 323 4458	STOPPER LNS REL-M4WA
2	610 326 9429	ASSY,FILTER LMP-M4WA	72	610 323 7312	MOUNTING WV IN BASE-M4WA
3	610 327 8612	COMPL,MOUNTING SHUTTER A-M4W	73	610 323 7336	MOUNTING WV IN TOP-M4WA
3-1	610 325 3251	ASSY,MTG SHTR MOTOR-M4WA	74	610 323 7572	STOPPER WV IN-M4WA
4	610 323 4076	COMPL,STAND LEG-M4WA	75	610 324 0015	STOPPER POL IN-M4WA
5	610 327 6175	CABINET TOP SERVICE-M4WA	76	610 326 9177	MOUNTING MAIN PWB C-M4WA
6	610 327 6168	CABINET FRONT SERVICE-M4WA	77	610 323 6124	SHIELD COVER DUCT-M4WA
7	610 323 4021	CABINET BOTTOM-M4WA	78	610 327 2924	SPACER CABINET TOP-M4WA
8	610 327 6120	COVER LNS BTM SERVICE-M4WA	SCREWS		
9	610 327 4348	COVER DUCT EXIT SIDE A-M4WA	S1	412 069 7409	SPECIAL SCREW
10	610 324 5188	COVER LNS TOP-M4WA	S2	411 031 9304	SCR BIN 3X8
12	610 323 4069	DEC INLY LED-M4WA	S3	411 052 9109	SCR OVL 3X6
13	610 311 0912	DEC LEG-MP3A	S4	411 189 7207	SCR S-TPG BIN 3X8
14	610 323 3895	DEC SHEET AV-M4WA	S5	412 072 7007	SPECIAL SCREW
15	610 325 1844	DEC SHEET RC-M4WA	S6	411 185 8802	SCR S-TPG PAN 3X8
16	610 327 6052	PANEL BLOWER SERVICE-M4WA	S7	411 189 6507	BOLT HEX-SCT+SW+W 2.5X5
17	610 323 3963	PANEL LMP-M4WA	S8	412 069 7102	SPECIAL SCREW V
18	610 323 4045	PANEL KNOB-M4WA	S9	411 188 6706	SCR S-TPG BIN 3X8
19	610 323 6131	PANEL FILTER-M4WA	S10	411 203 5400	SCR BIN 2X2
20	610 324 0060	PANEL LMP FILTER-M4WA	S11	411 203 5608	SCR PAN+SW+W 2X5
21	610 327 6106	PANEL SHUTTER SERVICE-M4WA	S12	412 072 6802	SPECIAL SCREW 3X5.0
22	610 302 7647	STOPPER LID-M4JA	S13	412 072 6208	SPECIAL SCREW
23	645 080 8791	BADGE,SANYO*26.2X5.7L26.0	S14	411 205 6702	SCR PAN PCS 2.6X8
24	610 324 6215	COMPLE,FILTER-M4WC	S15	411 204 0008	SCR PAN PCS 2.6X6
25	610 323 3932	MOUNTING MAIN PWB A-M4WA	OPTICAL PARTS		
26	610 323 6117	MOUNTING SHUTTER BTM-M4WA	101	645 078 9274	ASSY,LENS,PROJECTION
27	610 323 6155	MOUNTING SHUTTER UPPER-M4WA	102R	610 327 5666	ASSY,PNL/PSM R-M4WA(R)
29	610 324 5102	SPACER SHEET LNS BTM-M4WA	102R-1	645 083 1683	OPTICAL FILTER (WV-QZ)BL
30	610 325 2698	SPACER SHEET LNS TOP-M4WA	102-2	645 083 1652	POLARIZED GLASS(OUT/R)
33	645 022 0319	FIXER CLAMP	102-3	645 078 9434	POLARIZED GLASS(OUT/G)
40	610 323 4144	COMPL,MOUNTING IRIS-M4WA	102-4	645 083 1669	POLARIZED GLASS(OUT/B)
41	610 323 4038	COVER DUCT BTM-M4WA	102-5	610 323 6049	STOPPER POL OUT UP-M4WA
42	610 323 4090	COVER DUCT TOP-M4WA	102-6	610 326 8569	STOPPER POL OUT UP B-M4WA
43	610 327 4548	COVER DUCT EXT LMP TP A-M4WA	102L	610 327 6199	ASSY,PNL/PSM L-M4WA(L)
44	610 323 4489	COVER DUCT EXT LMP BTM-M4WA	102L-1	645 083 1706	OPTICAL FILTER (WV-QZ)BR
45	610 327 3143	COVER DUCT LMP BTM A-M4WA	102-2	645 083 1652	POLARIZED GLASS(OUT/R)
46	610 327 5079	COVER DUCT LMP TOP A-M4WA	102-3	645 078 9434	POLARIZED GLASS(OUT/G)
47	610 327 2016	COVER DUCT LMP EXIT A-M4WA	102-4	645 083 1669	POLARIZED GLASS(OUT/B)
48	610 325 4500	COVER SLIDE-M4WA	102-5	610 323 6049	STOPPER POL OUT UP-M4WA
49	610 326 9603	FILTER LMP EXIT-M4WA	102-6	610 326 8569	STOPPER POL OUT UP B-M4WA
50	610 323 7183	HOLDER WV IN-M4WA	103	645 078 9106	LENS,INTEGRATOR(IN)
51	610 327 5994	MOUNTING TEMP SENS-M4WA	104	645 084 4133	LENS,INTEGRATOR(OUT)UV-NC
52	610 325 1042	MOUNTING BST-M4WA	105	645 078 9120	LENS,CONDENSER(OUT)
53	610 324 5140	SPACER SHEET THERMISTOR-M4WA	106	645 078 9137	LENS,CONDENSER(G)
54	610 327 3907	SPACER SHEET AV-M4WA	107	645 078 9229	LENS,CONDENSER(B)
55	610 327 9282	SPACER SHEET BLOWER-M4WA	108	645 078 9236	LENS,CONDENSER(R)
56	610 326 7302	SPACER SHET LINE FILTER A-M4WA	109	645 078 9243	LENS,RELAY(OUT)
57	610 326 8255	SPACER SHEET BALLAST-M4WA	110	645 078 9304	MIRROR(B)
58	610 323 9828	STOPPER THERM POL IN-M4WA	111	645 078 9311	MIRROR(R)
59	610 323 3994	OPTICAL BASE BTM-M4WA	112	645 078 9342	OPTICAL FILTER (R)
60	610 323 4137	OPTICAL BASE TOP-M4WA	113L	645 083 1676	OPTICAL FILTER (WV-KC)GL
61	610 323 3871	OPTICAL BASE LMP-M4WA	113R	645 083 1690	OPTICAL FILTER (WV-KC)GR
62	610 323 4366	COMPL, MOUNTING LENS-M4WA	114	645 078 0844	PRISM(PBS)
62-1	610 325 3527	KNOB DRIVE-M4WA	115	645 083 3953	POLARIZED GLASS(IN/G)
62-2	610 325 3923	MOUNTING SLIDE CAM-M4WA	116	645 083 1645	POLARIZED GLASS(IN/B)
63	610 323 4298	MOUNTING POWER BTM-M4WA	117R	645 083 1577	POLARIZED GLASS(IN/R)L
64	610 323 4311	MOUNTING POWER TOP-M4WA	117L	645 083 1584	POLARIZED GLASS(IN/R)R
65	645 038 2628	FIXER HOOK	118	645 078 9328	DICHROIC MIRROR (B)
66	645 055 9334	FIXER HOOK	119	645 078 9335	DICHROIC MIRROR (G)
67	610 325 1080	COMPL, MOUNTING LNS REL-M4WA			
68	610 327 7882	COMPL, MOUNTING LNS INT A-M4WA			
69	610 323 7329	STOPPER LNS INT IN C-M4WA			
70	610 323 7510	STOPPER LNS INT IN D-M4WA			

MEMO

MEMO



■ Diagrams & Drawings

Schematic Diagrams Printed Wiring Board Drawings

Model	Chassis No.
PLV-Z4	M4W-Z400

These schematic diagrams and printed wiring board drawings are part of the service manual original for chassis No. M4W-Z400, model PLV-Z4.
File with the service manual No. SM5110744-00.

Note:

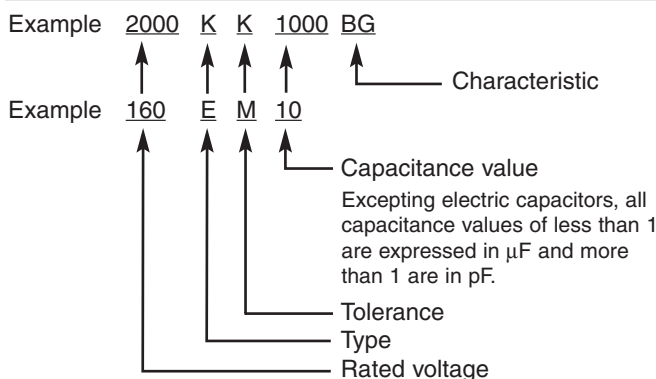
All the information of part numbers and values indicated on these diagrams are at the beginning of production. To improve the performance, there may be some differences to the actual set. When you order the service parts, use service parts code mentioned on the parts list in this service manual.

Parts description and reading in schematic diagram

M4W-Z400

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



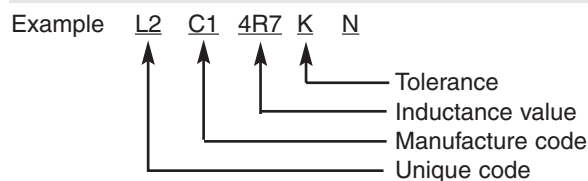
Material table

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 polyester
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

Tolerance table

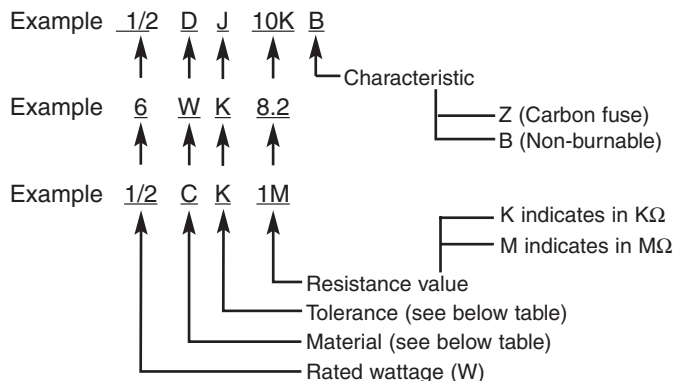
Mark	Tolerance
A	not specified
B	± 0.1
C	± 0.25
D	± 0.5
F	± 1
G	± 2
E	± 2.5
H	± 3
J	± 5
K	± 10
M	± 20
N	± 30
P	+100 -0
Q	+30 -10
T	+50 -10
U	+75 -10
V	+20 -10
W	+100 -10
X	+40 -20
Y	+150 -10
Z	+80 -20

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

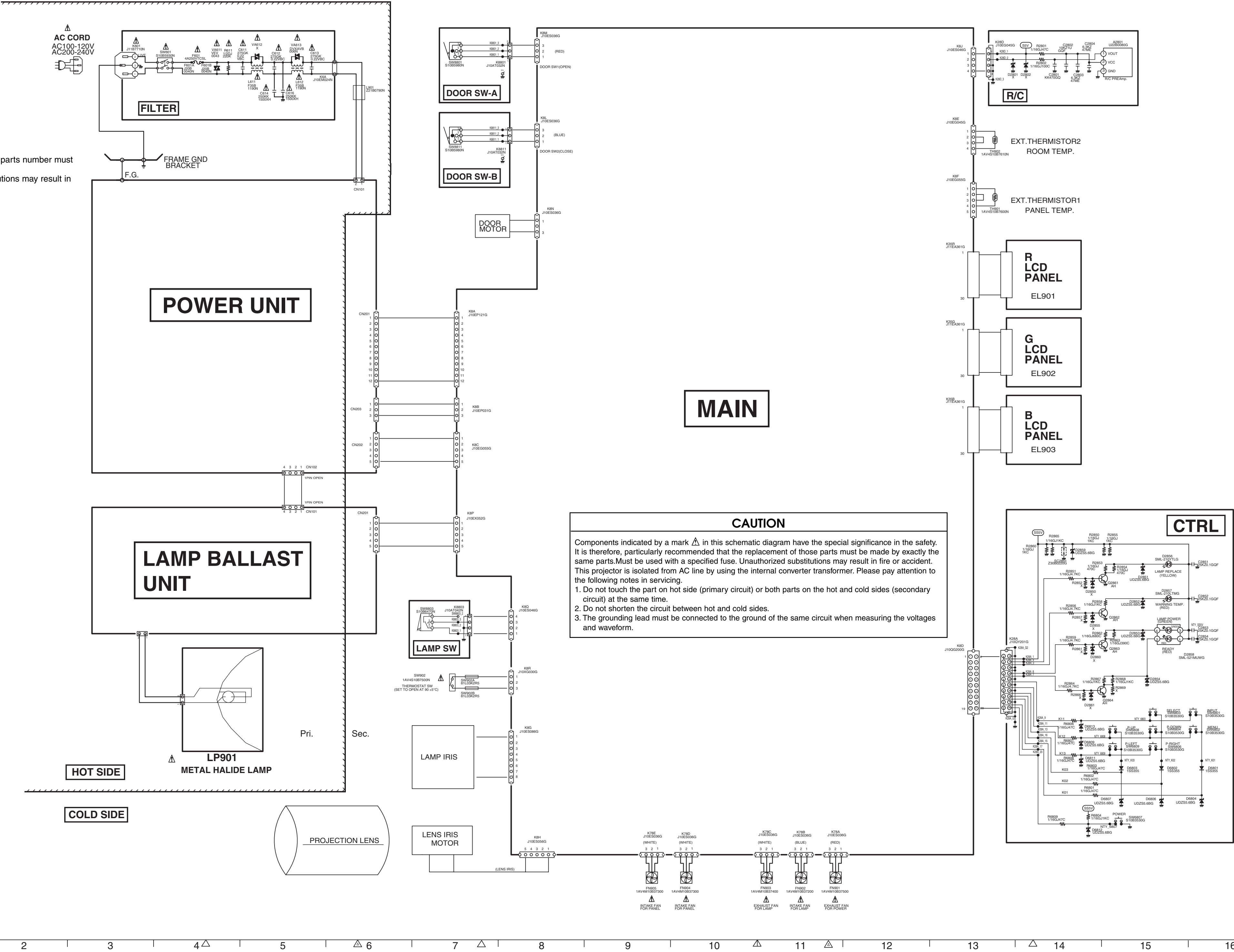
Mark	Type number
--	2SA608 2SA564A 2SA1015 2SA933S
AB	NF R Y, GR R
AC	NF Q, R O, Y, GR Q, R

(3) Chip type

Mark	Type number
--	2SA1179/N 2SA1037K 2SA1037AK 2SC2812/N 2SC2412K
AJ	M6, M7 R, S R, S
AH	L6, L7 R, S

Schematic Diagrams

CAUTION
Fuse of the specified parts number must be used.
Unauthorized substitutions may result in fire or accident.

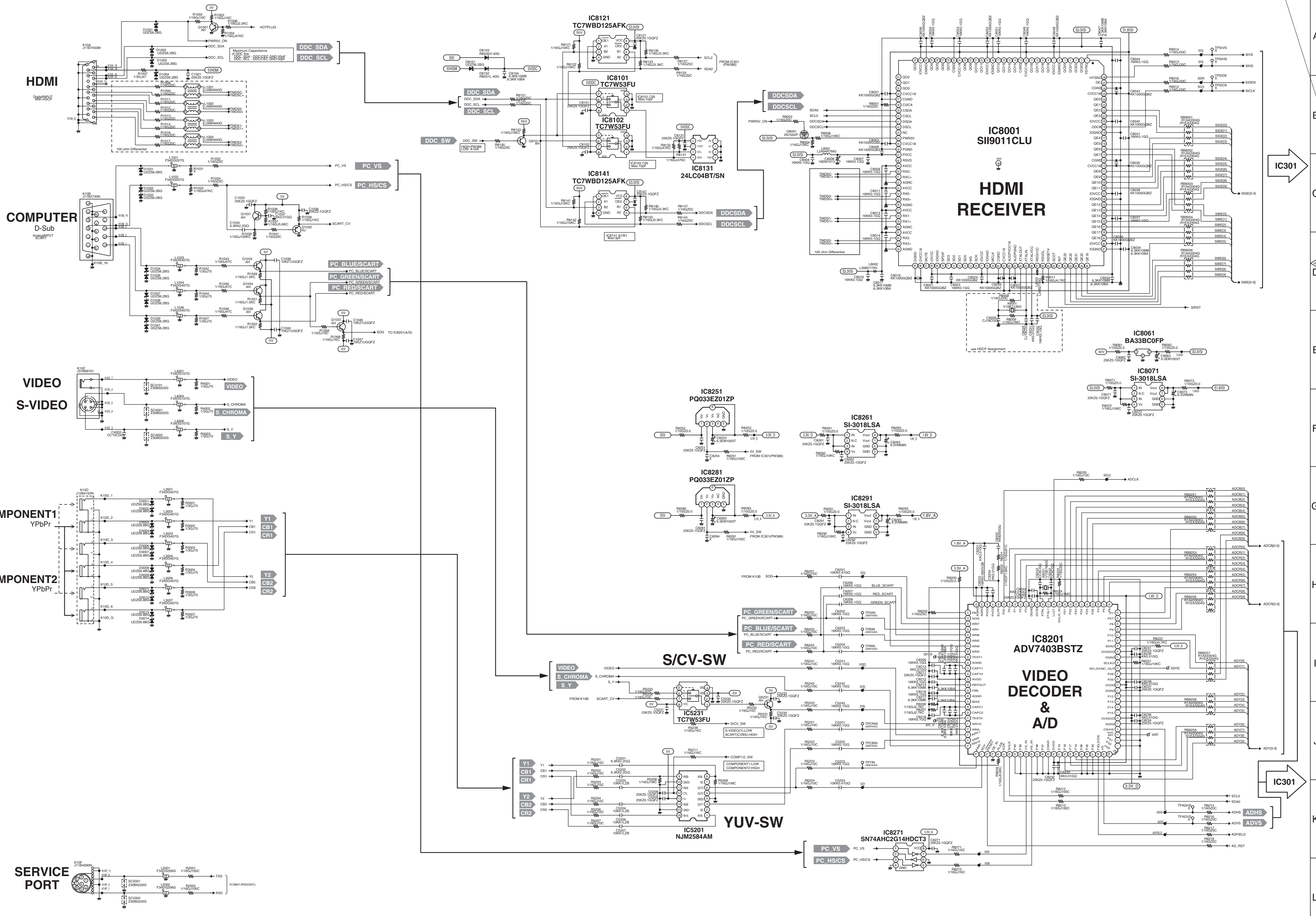


CAUTION

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.

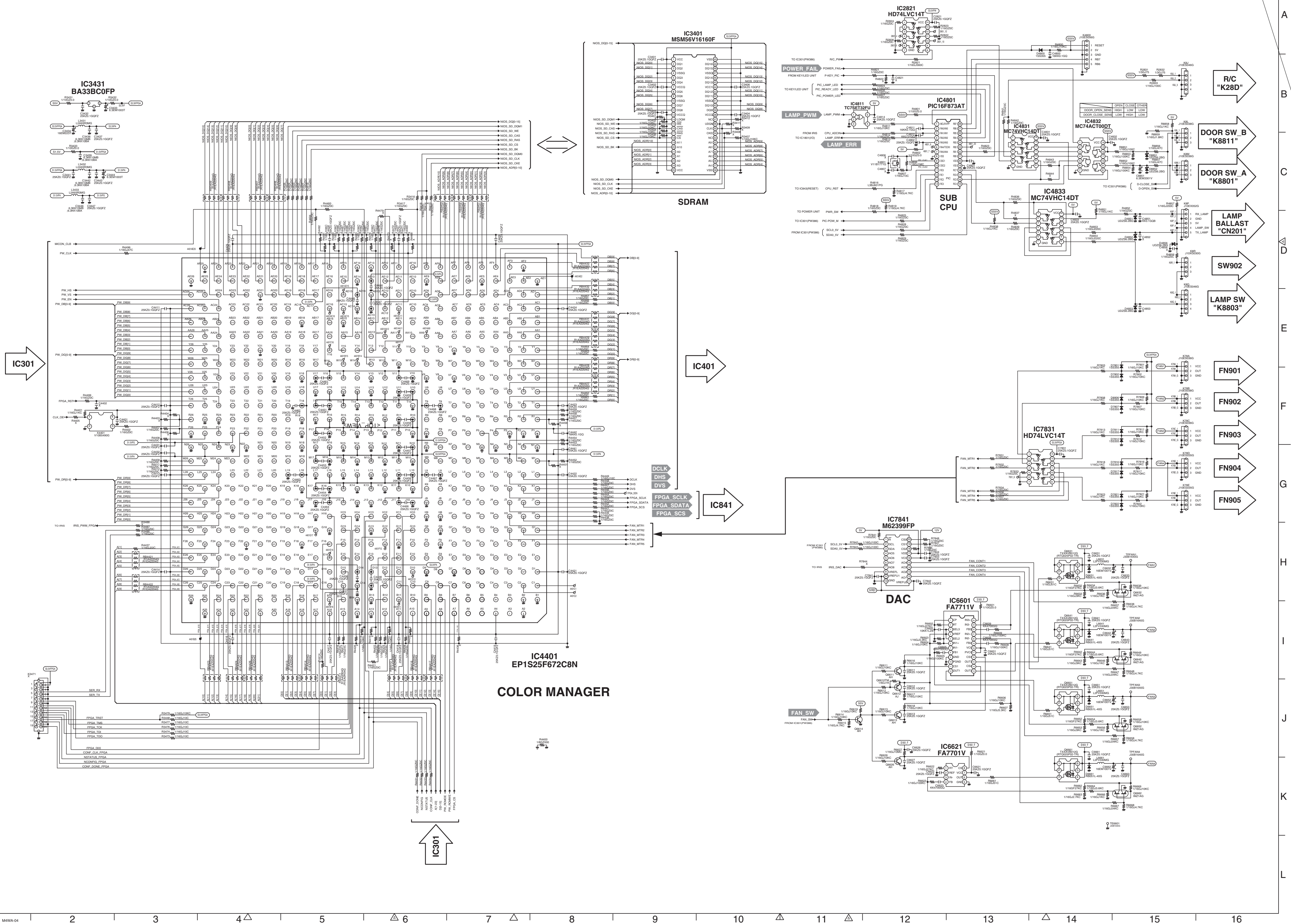
1. Do not touch the part on hot side (primary circuit) or both parts on the hot and cold sides (secondary circuit) at the same time.
2. Do not shorten the circuit between hot and cold sides.
3. The grounding lead must be connected to the ground of the same circuit when measuring the voltages and waveform.

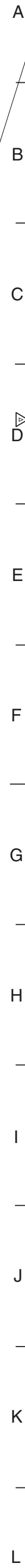
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B
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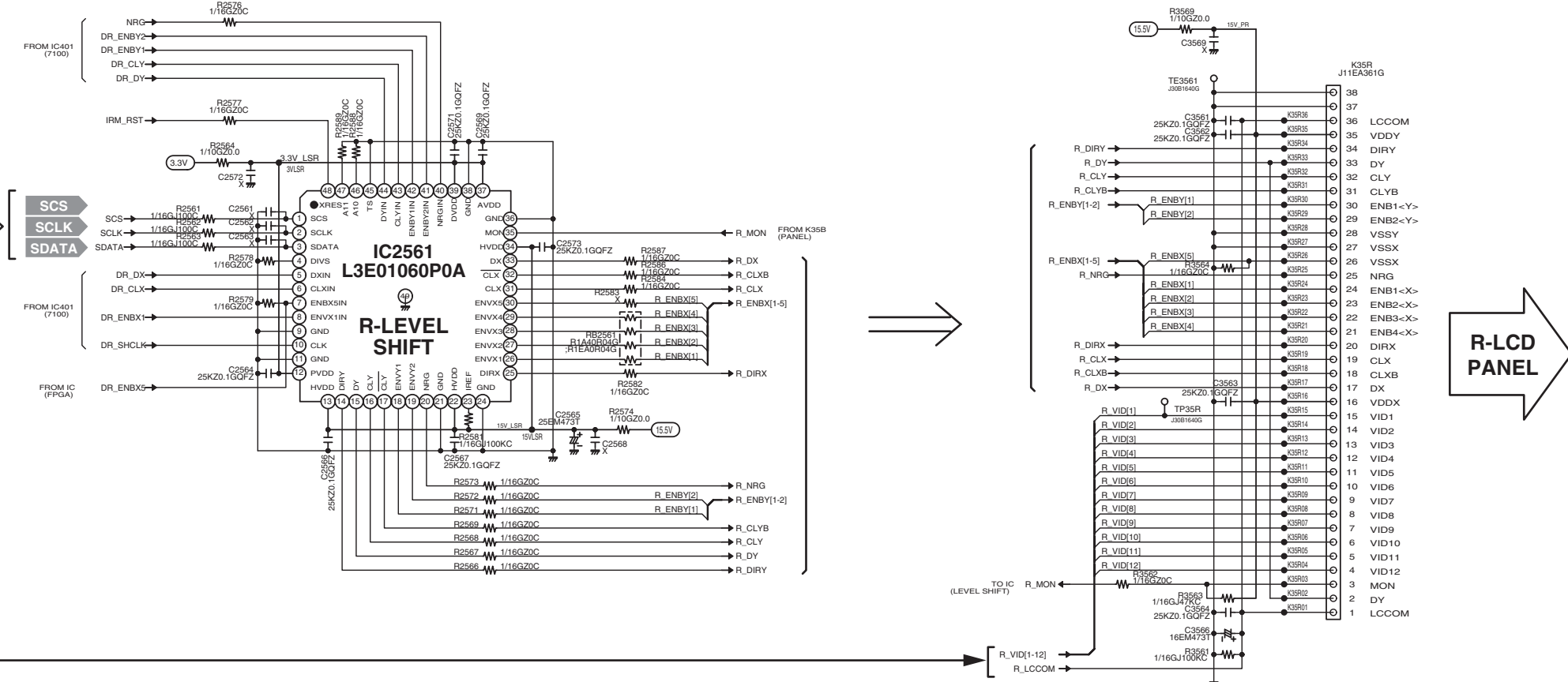
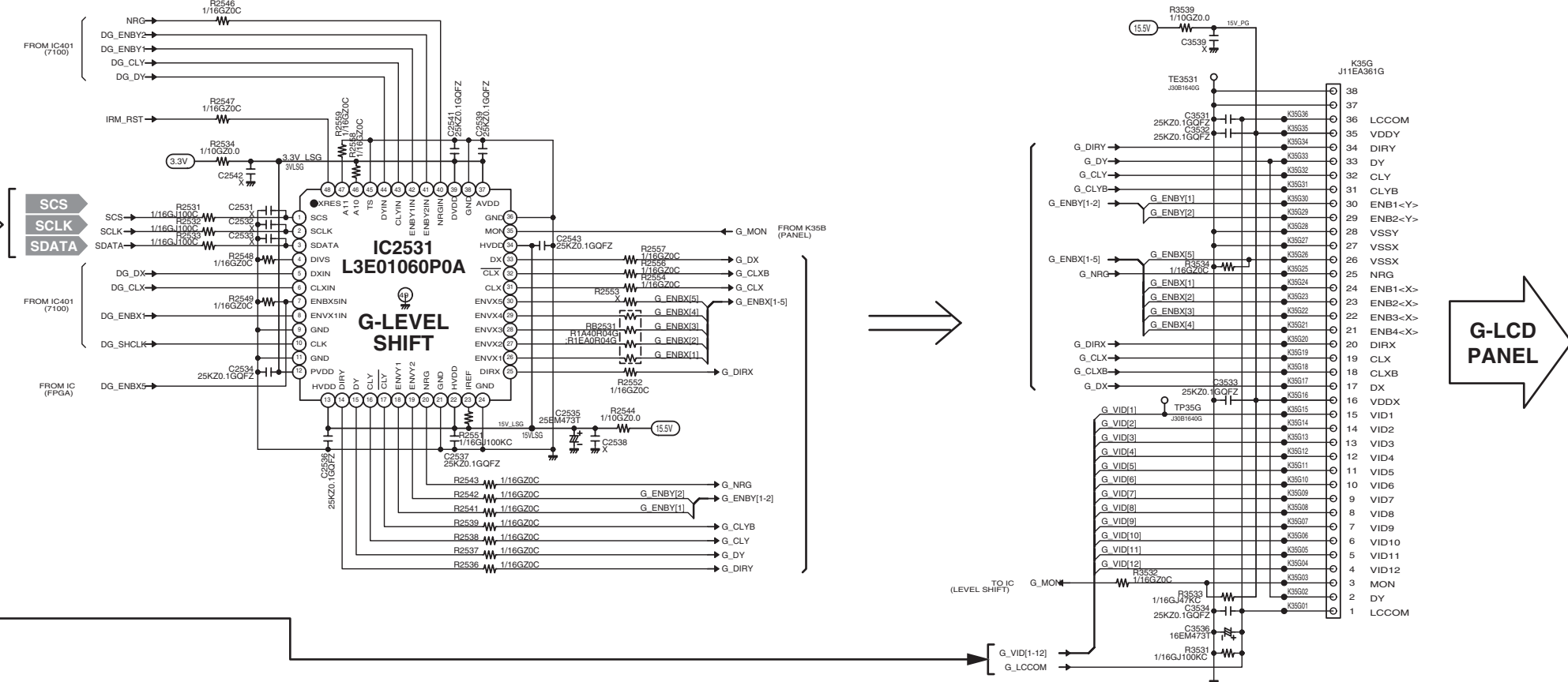
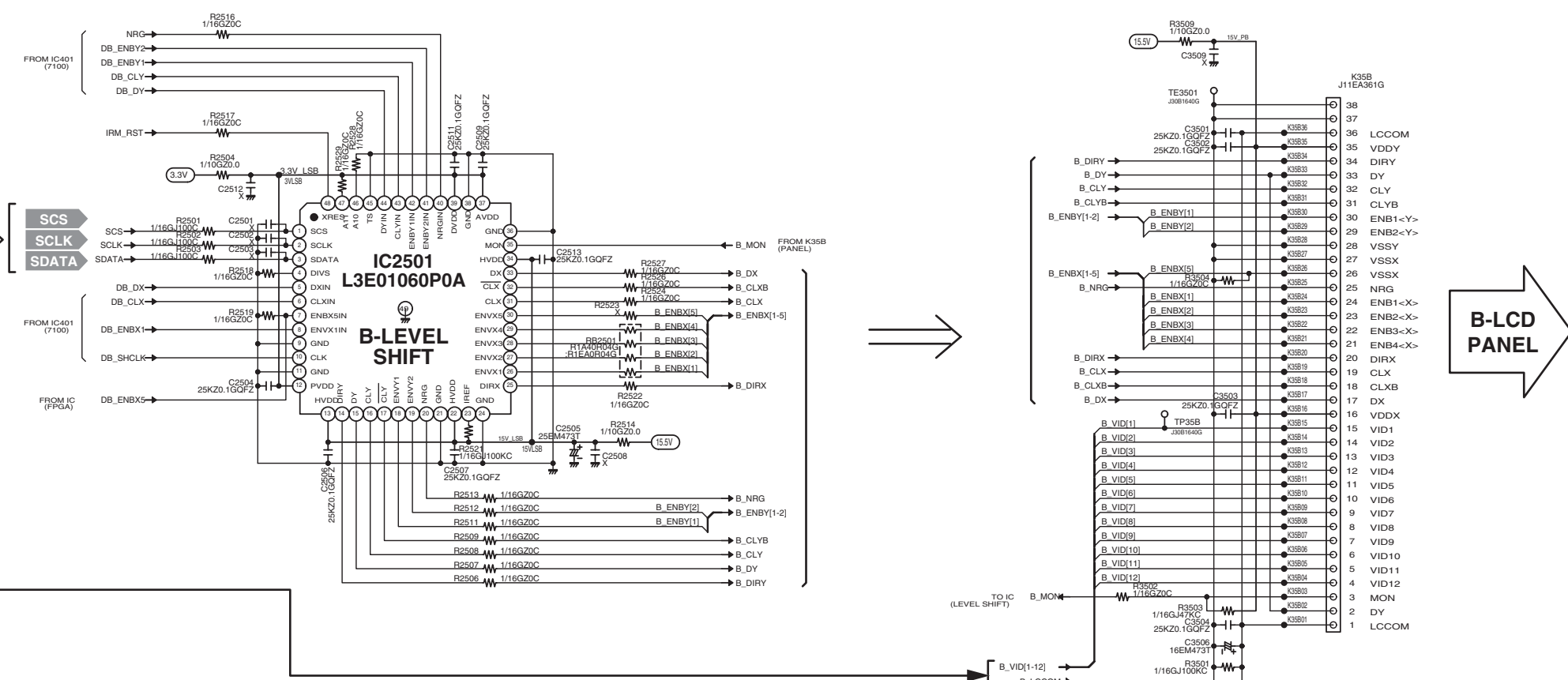
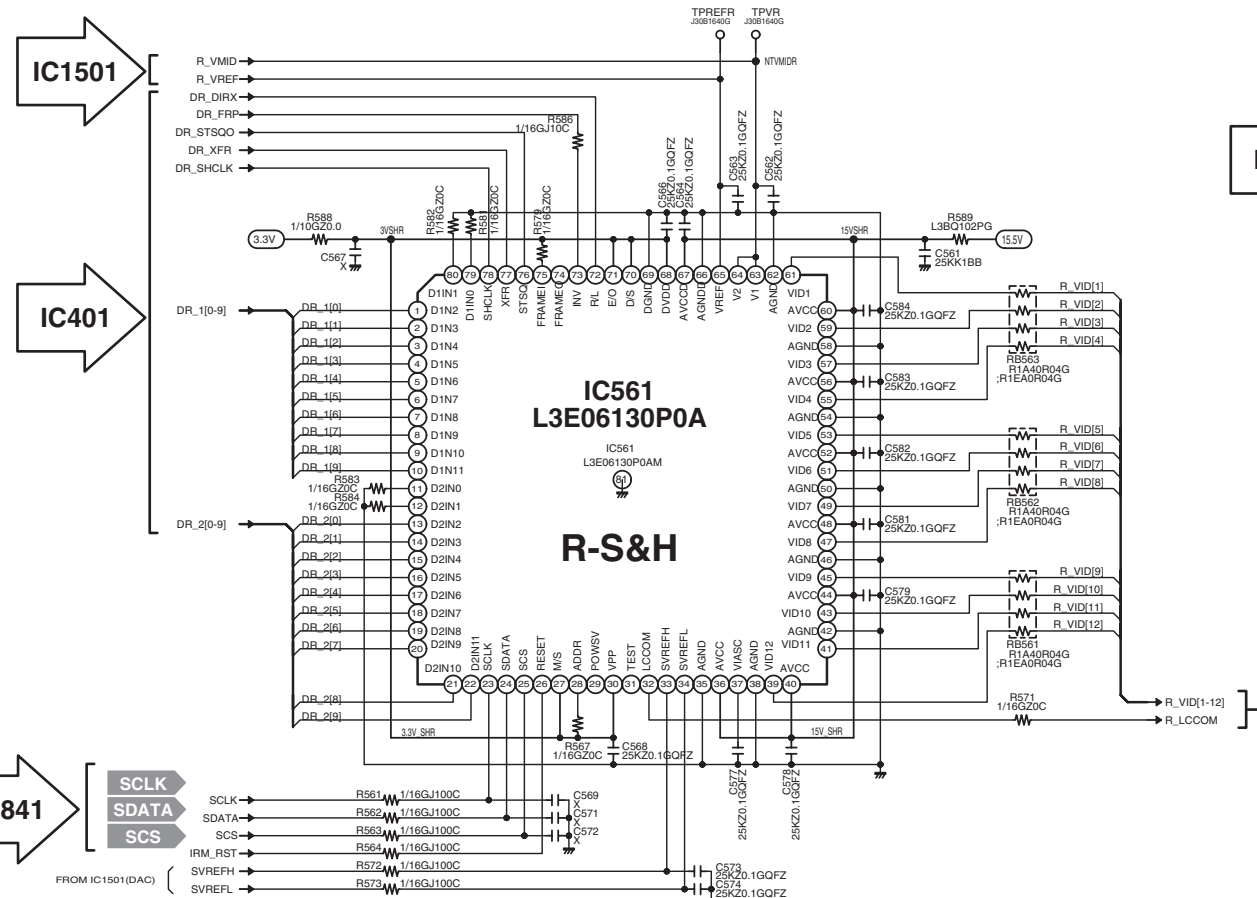
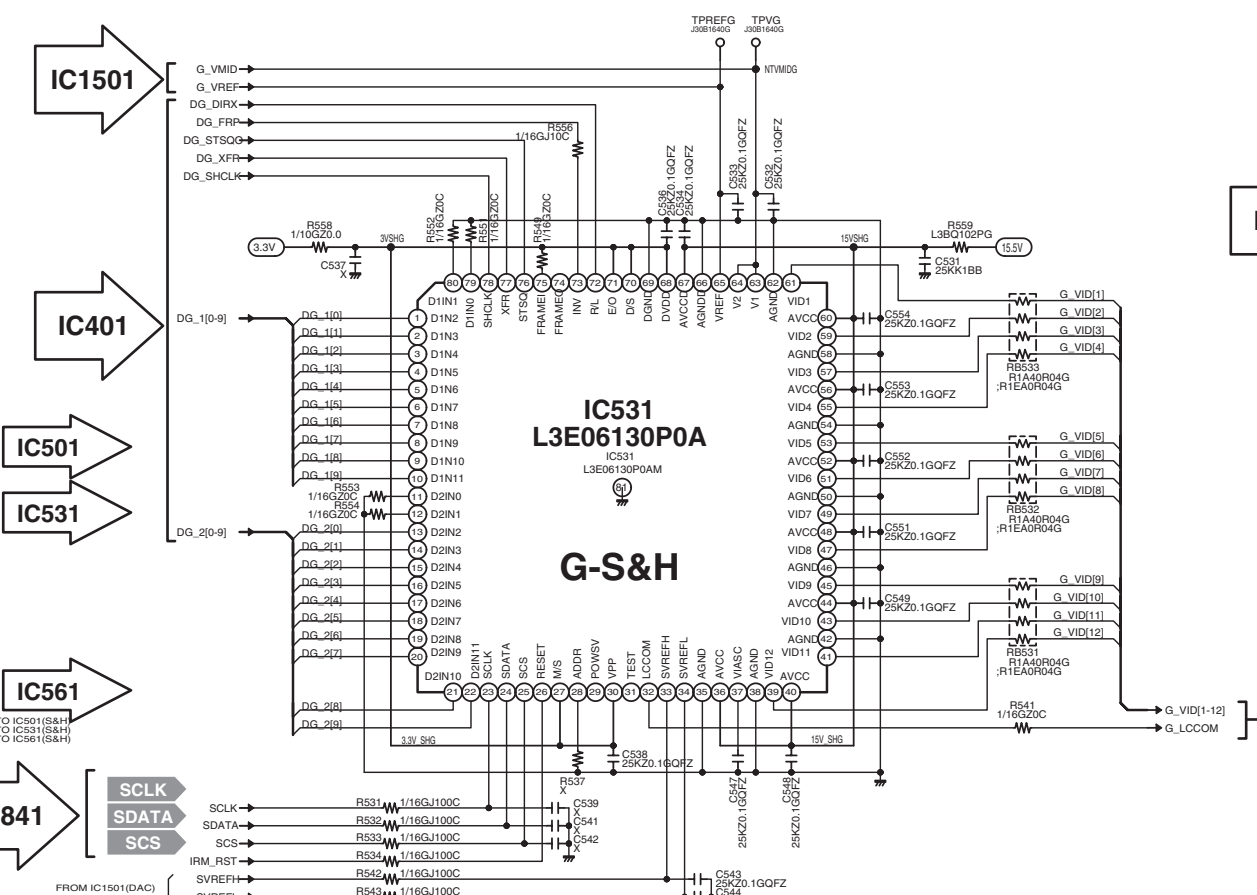
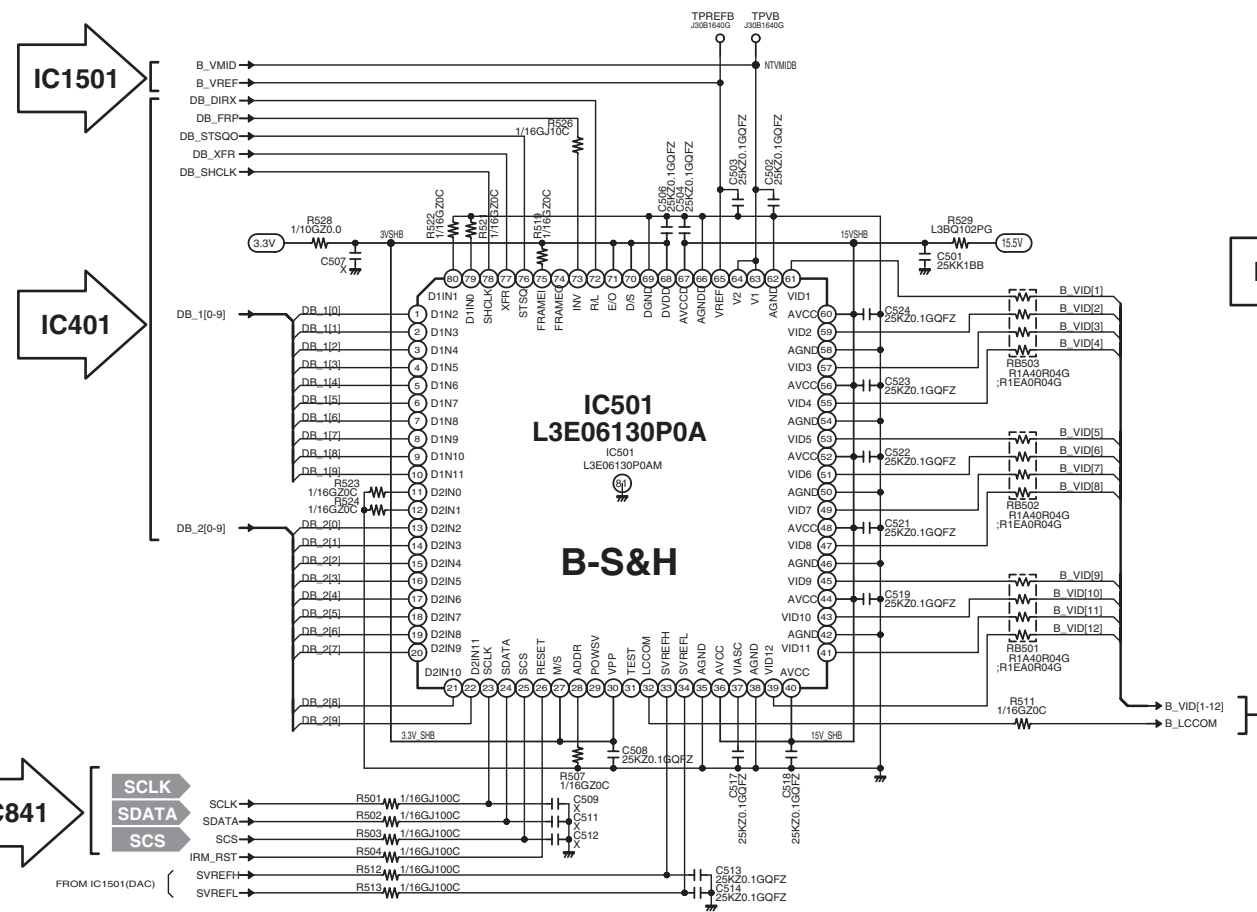
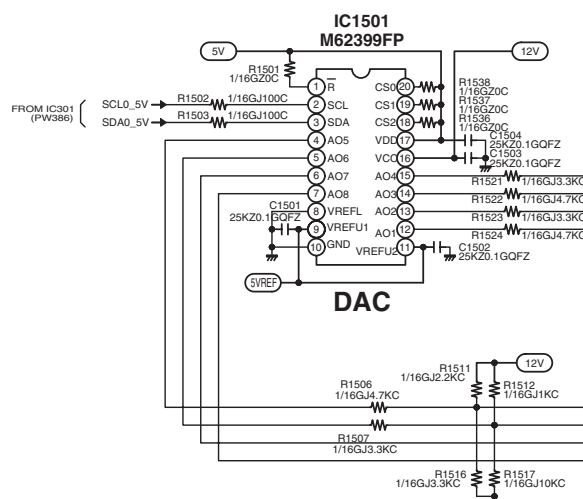


A
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C
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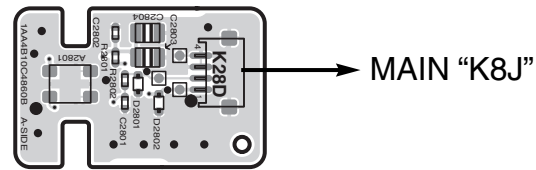




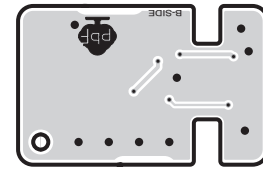
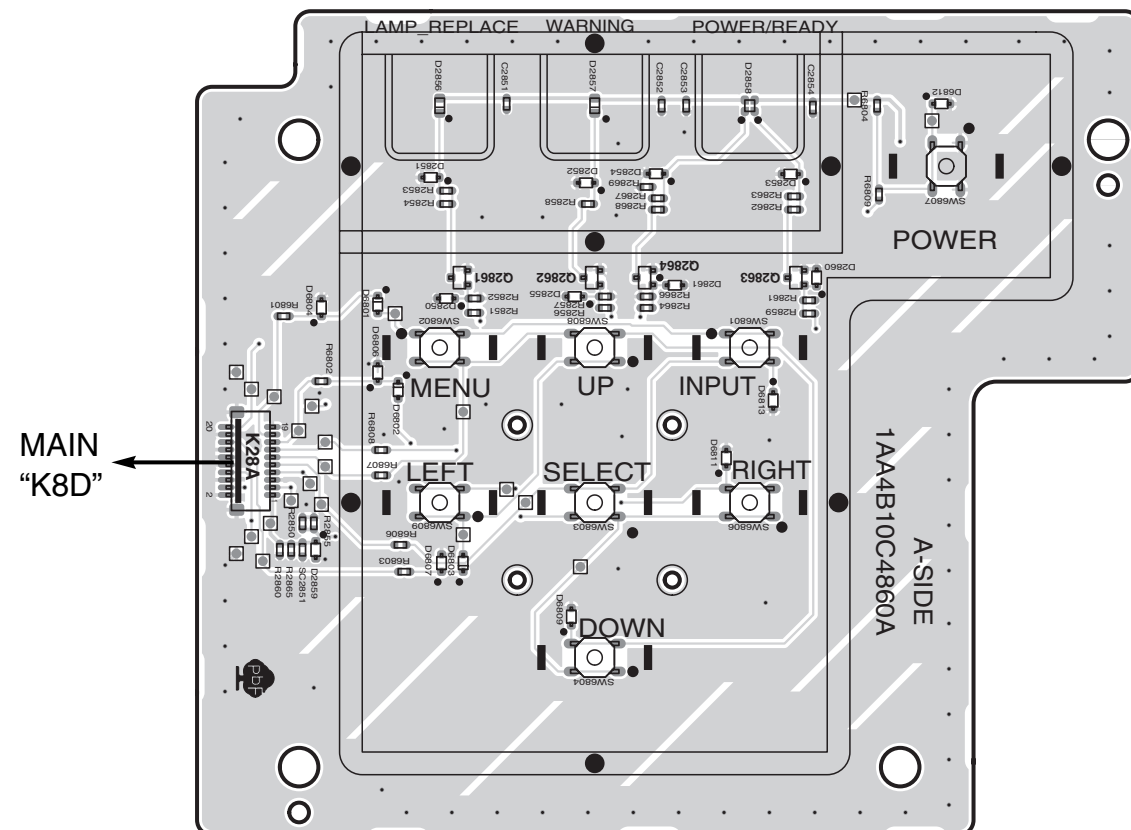
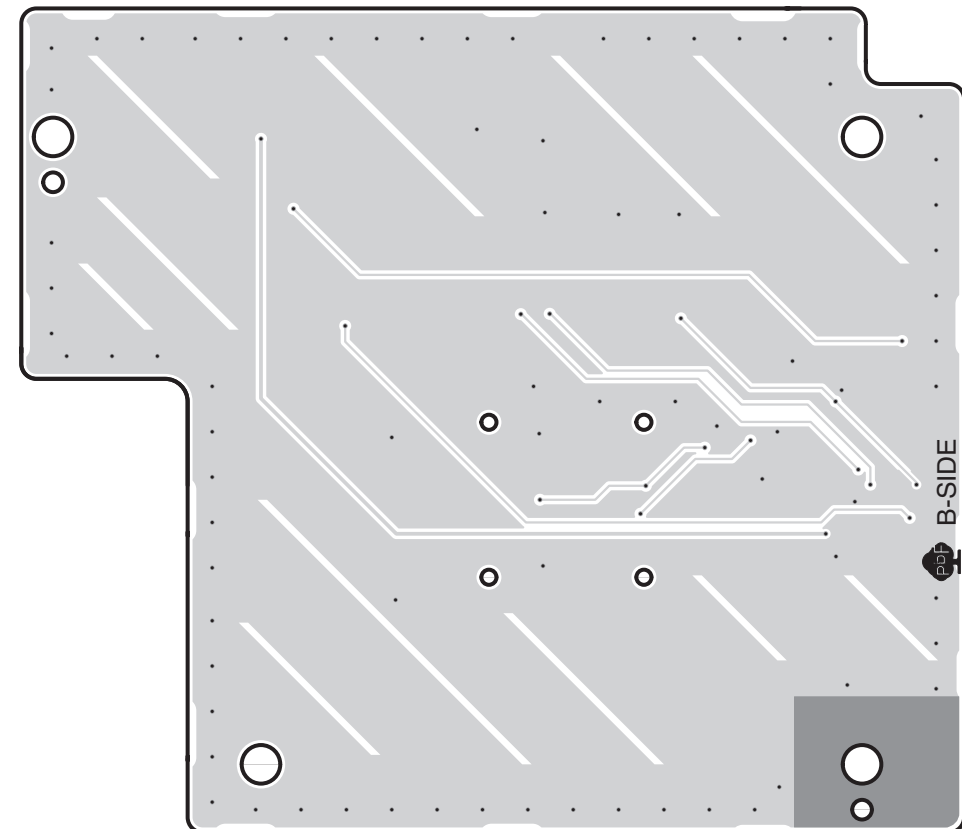


■ Printed Wiring Board Diagrams

R/C (SIDE:A)



R/C (SIDE:B)

**CTRL (SIDE:A)****CTRL (SIDE:B)**

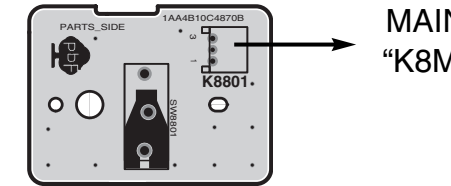
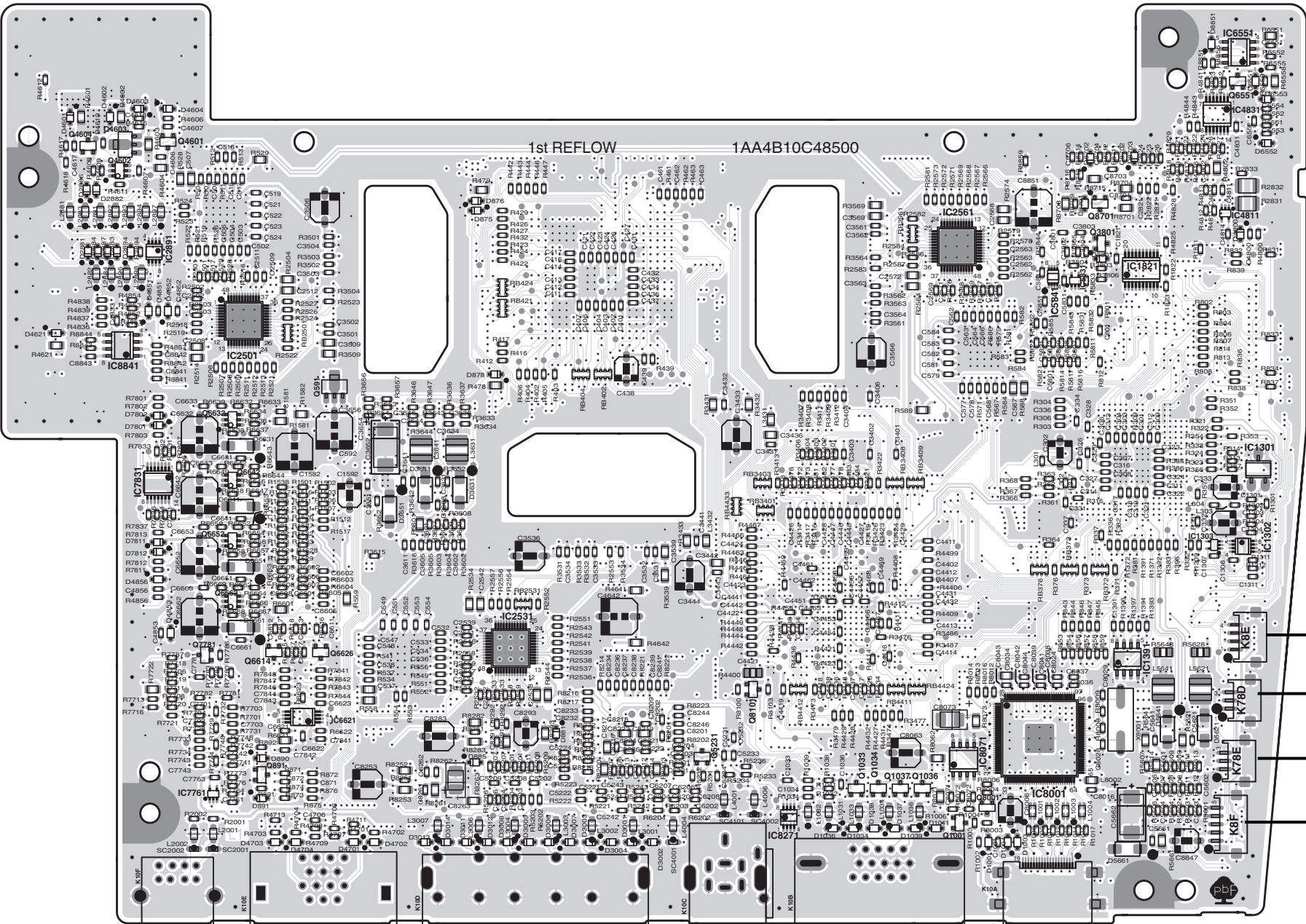
⚠ CAUTION

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

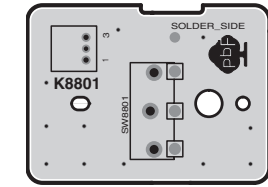
1. Do not touch the part on hot side (primary circuit) or both parts on hot and cold sides (secondary circuit) at the same time.
2. Do not shorten the circuit between hot and cold sides.
3. The grounding lead must be connected to the ground of the same circuit when measuring of voltages and waveforms.

MAIN (SIDE:A)

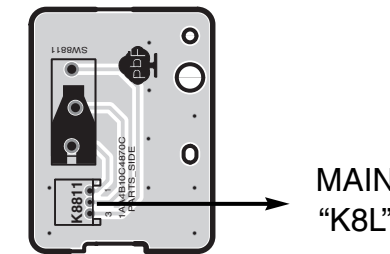
DOOR SW_A (SIDE:A)



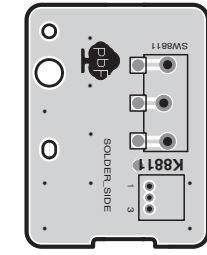
DOOR SW_A (SIDE:B)

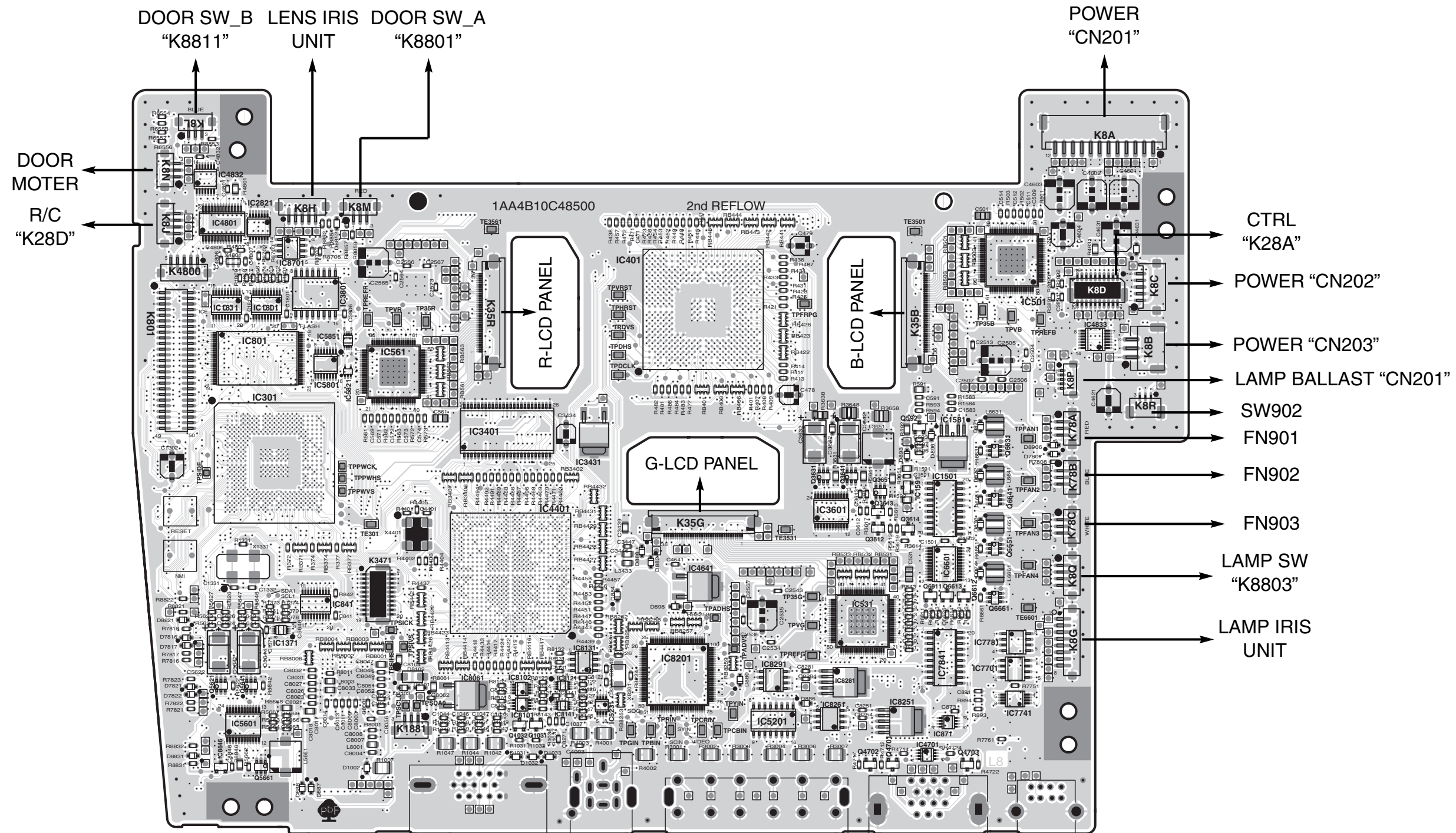


DOOR SW_B (SIDE:A)

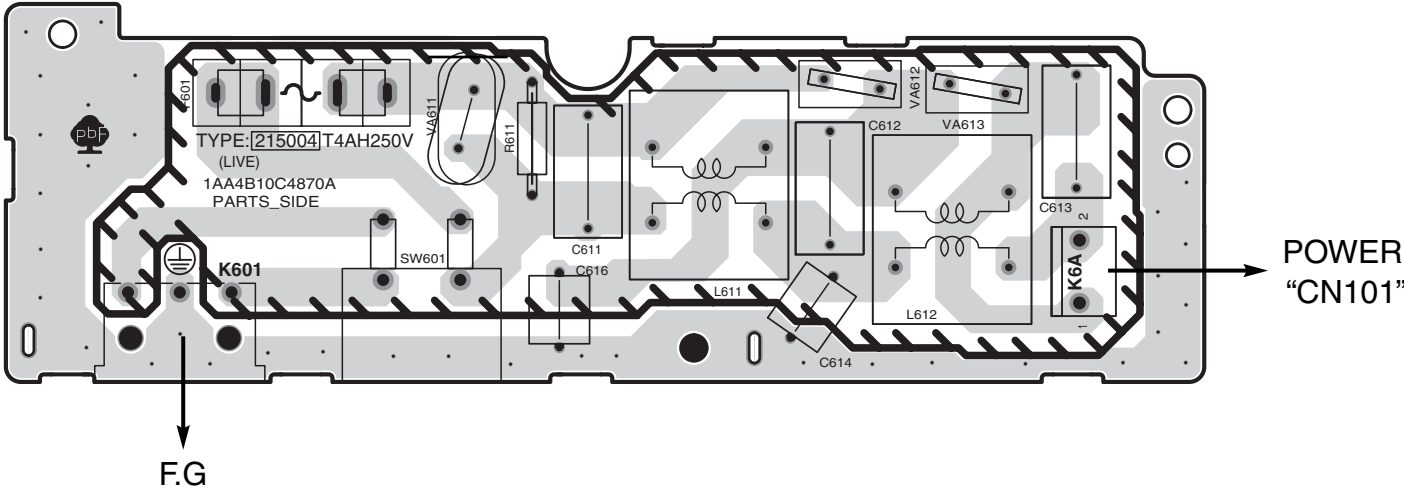


DOOR SW_B (SIDE:B)

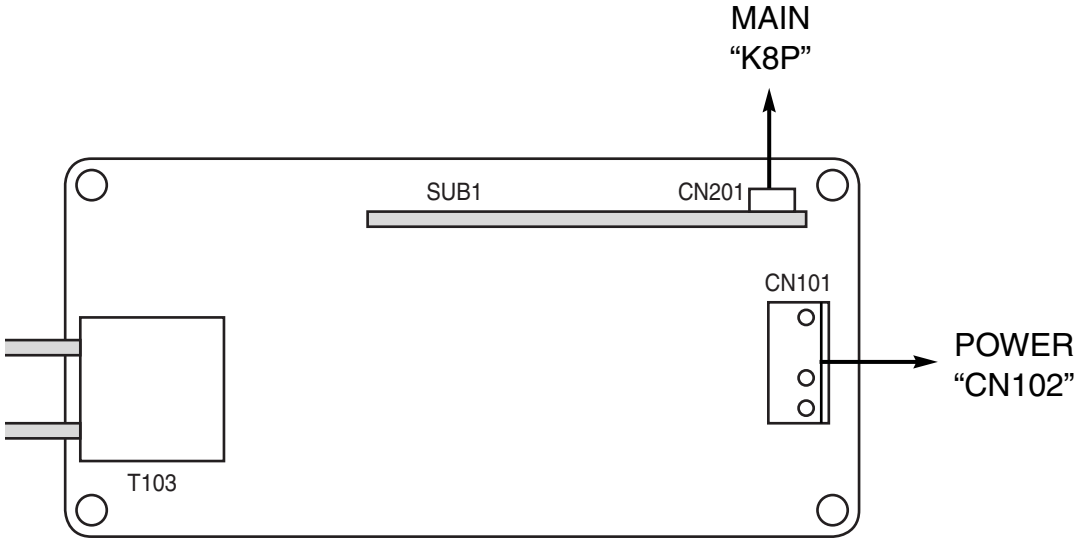




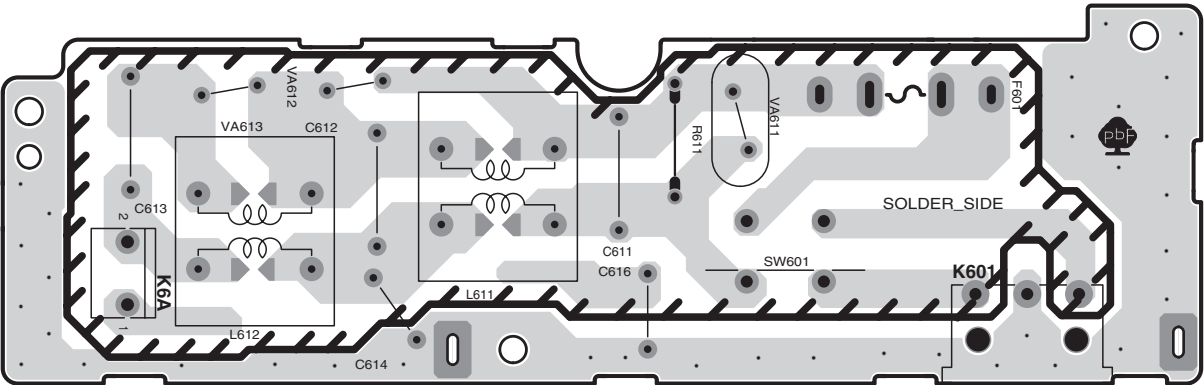
FILTER (SIDE:A)



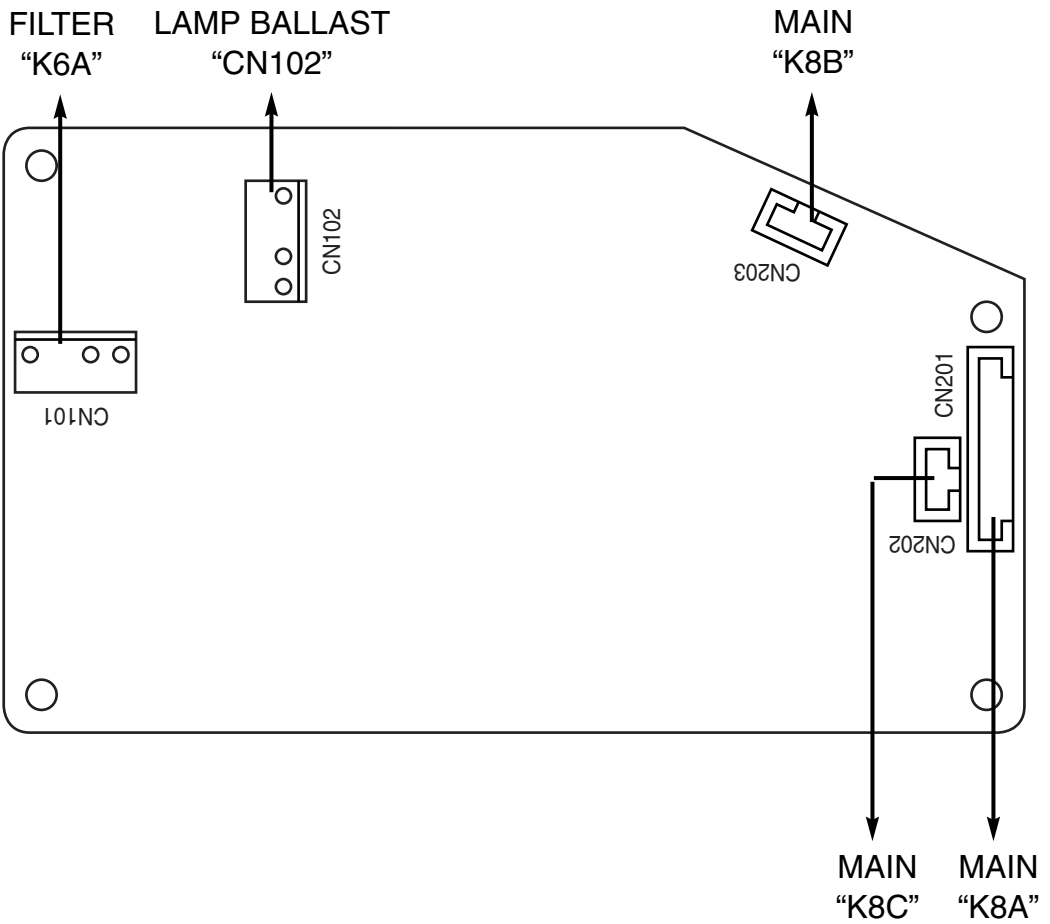
LAMP BALLAST (SIDE:A)



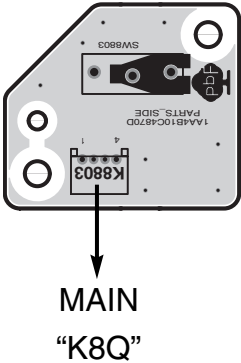
FILTER (SIDE:B)



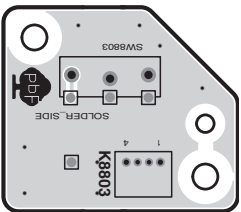
POWER (SIDE:A)



LAMP SW (SIDE:A)

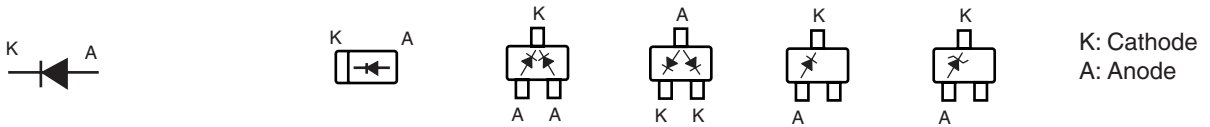


LAMP SW (SIDE:B)

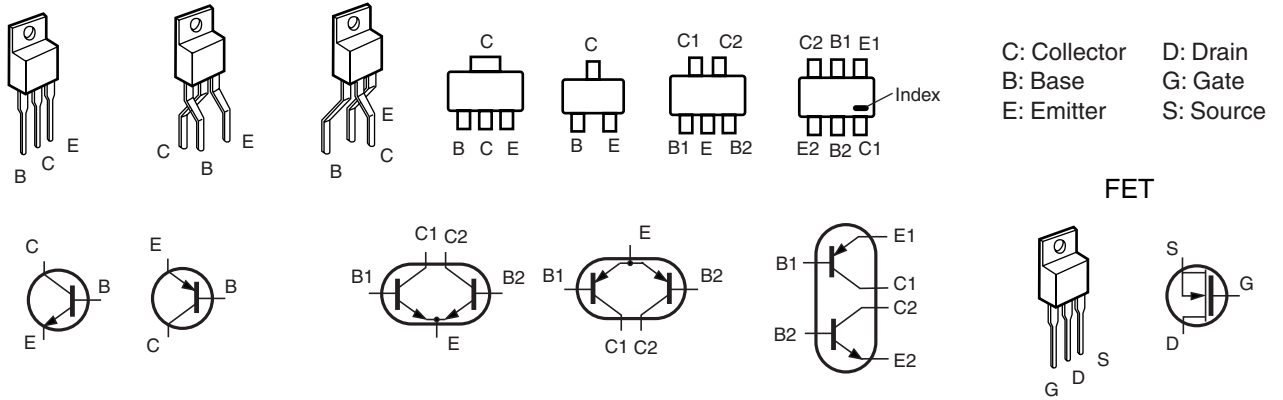


Pin description of diode, transistor and IC

Diode



Transistor/FET



IC

