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PA | No. 0211

Service Manual

50V720 / LC57

Revision History

Change Number	Date of Change	Page numbers changed	Description of change
1	11.15.2006	24, 180	Part number change
2	05.03.07	32	Text changed Increase > Decrease
3	7.23.07	112, 180	Part number change

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SERVICE MANUAL

PA | **No. 0211**

50V720 / LC57

NTSC	LC57	R/C: CLU-4352UG2

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CONTENTS

CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Before servicing this chassis, it is important that the service technician read the “IMPORTANT SAFETY INSTRUCTIONS” in this service manual.

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by a ! on the schematics and on the parts list in this Service Data and its supplements and bulletins. Before servicing the chassis, it is important that the service technician read and follow the “Important Safety Instructions” in this Service Manual.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

LCD REAR PROJECTION TELEVISION

AUGUST 2005 **HHEA-MANUFACTURING DIVISION**

IMPORTANT SAFETY INSTRUCTIONS

NOTICE: Comply with all cautions and safety-related notes located on or inside the cabinet and on the chassis or optic unit.

WARNING: Since the chassis of this receiver is connected to one side of the AC power supply during operation, whenever the receiver is plugged in service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of receiver.

The following precautions should be observed:

1. Do not install, remove, or handle the optic unit in any manner unless shatterproof goggles are worn. People not so equipped should be kept away from the optic unit while handling.

2. When service is required, an isolation transformer should be inserted between power line and the receiver before any service is performed on a "HOT" chassis receiver.

3. When replacing a chassis in the receiver, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment cover-shields, isolation resistors, capacitors, etc.

4. When service is required, observe the original lead dress.

5. Always use the manufacturer's replacement components. Critical components as indicated on the circuit diagram should not be replaced by another manufacturer's. Furthermore, where a short circuit has occurred, replace those components that indicate evidence of overheating.

6. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the receiver by the manufacturer has become defective, or inadvertently defeated during servicing.

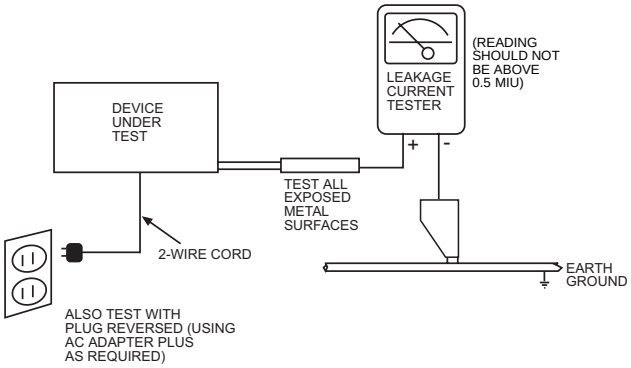
Therefore, the following checks should be performed for the continued protection of the customer and service technician.

Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Using an insulation tester (DC500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a minimum resistor reading of 2.4MΩ and a maximum resistor reading of 5.2MΩ. Any resistance value below or above this range indicates an abnormality which requires corrective action. An exposed metal part having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC 60Hz outlet (do not use an isolated transformer for this check). Turn the AC power ON. Using a Leakage Current Tester (Simpson's Model 228 or equivalent), measure for current from all exposed metal parts of the cabinet (antennas, screwheads, overlays, control shafts, etc.) particularly any exposed metal part having a return path to the chassis or to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5 MIU.

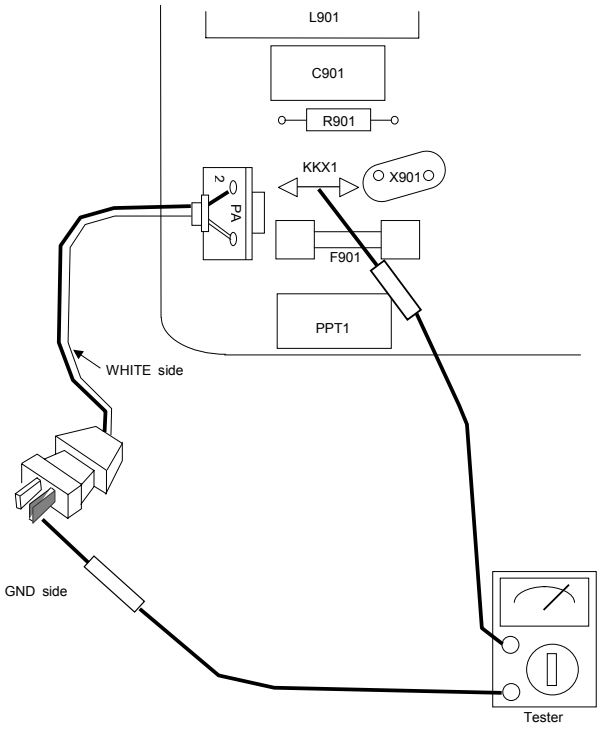


AC LEAKAGE TEST

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE RECEIVER TO THE CUSTOMER.

AC CORD POLARITY

This check is based on the UL standard. Use the jigs specified by the production technology section. The GND side (wider blade) of the AC power cord should be connected to KKX1.



PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in HITACHI television receivers have special safety-related characteristics. These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified with an ⚠ mark in the schematics and parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI-recommended replacement component, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Production safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies of HITACHI Service Manuals may be obtained at a nominal charge from HITACHI Sales Corporation.

Ultraviolet Radiation

OPTIC UNIT: The primary source of Ultraviolet Radiation in this receiver is the optic unit. The optic unit utilized in this chassis is specially constructed to limit Ultraviolet Radiation emissions. For continued Ultraviolet Radiation protection, the replacement optic unit must be the same type as the original HITACHI-approved type.

Service Personnel - WARNING
Eye damage may result from directly viewing the light produced by the lamp used in this product. Always turn off lamp before opening optic unit. Ultraviolet radiation eye protection required during servicing.

When troubleshooting and making test measurements in a receiver with an excessive high voltage problem, avoid being unnecessarily close to the optic unit and the high voltage component.

Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.

This Service Manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void warranty. Consumers should not risk trying to do the necessary repairs and should refer to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health and Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with solder. Also, when soldering do not inhale any smoke or fumes produced.

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics identified by ⚠ on the parts list in this service manual and its supplements and bulletins. Before servicing this product, it is important that the service technician read and follow the “Safety Precautions” and the “Product Safety Notices” in this Service Manual.

For continued ultraviolet protection, replace optic unit with original type or HITACHI equivalent type.

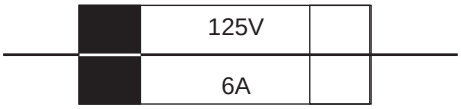
POWER SOURCE

This television receiver is designed to operate on 120 Volts/60Hz, AC house current. Insert the power cord into a 120 Volts/60Hz outlet.

NEVER CONNECT THE TV TO OTHER THAN THE SPECIFIED VOLTAGE OR TO DIRECT CURRENT.

CAUTION!
The following symbol near the fuse indicates fast operating fuse (to be replaced). Fuse ratings appear within the symbol.

Example:



F101

The rating of fuse F101 is 6.0A-125V.
Replace with the same type of fuse for continued protection against fire.

NOTE: The lamp in this product contains Mercury. Dispose of properly in accordance with applicable environmental laws. For Recycling and Disposal information, contact your respective governmental agencies or the Electronic Industries Alliance at www.eiae.org (in the U.S.) or Electronic Product Stewardship Canada at www.epsc.ca (in Canada).

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the SAFETY PRECAUTIONS on page 2 of this publication.
NOTE: If unforseen circumstances create conflict between the following SERVICING PRECAUTIONS and any of the SAFETY INSTRUCTIONS on page 2 of this publication, always follow the SAFETY INSTRUCTIONS.
Remember: Safety First.

General Servicing Guidelines

1. Always unplug the instrument AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.
   b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.
   c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.
   CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Do not spray chemicals on or near this instrument or any of its assemblies.
3. Unless specified otherwise in these service data, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) ispropyle alchohol (90%-99% strength).
   CAUTION: This is a flammable mixture. Unless specified otherwise in these service data, lubrication of contacts is not required.
4. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service data might be equipped.
5. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat-sinks are correctly installed.
6. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.
7. Use with this instrument only the test fixtures specified in this service data.
   CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge build-up or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or desolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as “anti-static” can generate electrical charges sufficient to damage ES device.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

SERVICING PRECAUTIONS

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F.

2. Use an appropriate gauge of resin-core solder composed of 60 parts tin/40 parts lead.

3. Keep the soldering iron tip clean and well-tinned.

4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.

5. Use the following desoldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).

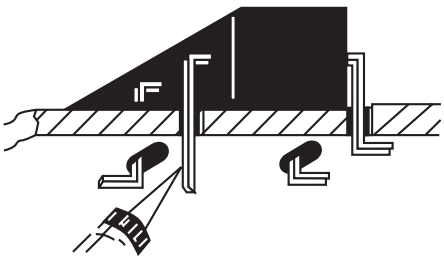
   b. Heat the component lead until the solder melts. Quickly draw away the melted solder with an anti-static, suction-type solder removal device or with solder braid.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil.

6. Use the following soldering technique.
   a. Allow the sodering iron tip to reach normal temperature (500°F to 600°F).

   b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.

   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil or components.

   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.



Use Soldering Iron to Pry Leads

IC Removal/Replacement

Some Hitachi unitized chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.

2. Draw away the melted solder with an anti-static suction-type sol der removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.

2. Carefully bend each IC lead against the circuit foil pad and solder it.

3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to areas.)

“Small-signal” Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.

2. Bend into a “U” shape the end of each of three leads remaining on the circuit board.

3. Bend into a “U” shape the replacement transistor leads.

4. Connect to replacement transistor leads to the corresponding leads extending from the circuit board and crimp the “U” with long nose pliers to insure metal to metal contact, then solder each connection.

Power Output Transistor Devices Removal/Replacement

1. Heat and remove all solder from around the transistor leads.

2. Remove the heatsink mounting screw (if so equipped).

3. Carefully remove the transistor from the circuit board.

4. Insert new transistor in circuit board.

5. Solder each transistor lead, and clip off excess lead.

6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possilbe to diode body.

2. Bend the two remaining leads perpendicularly to the circuit board.

3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.

4. Securely crimp each connection and solder it.

5. Inspect (on the circuit board copper side) the solder joints of the two “original leads”. If they are not shiny, reheat them and, if necessary, apply additional solder.

SERVICING PRECAUTIONS

Fuses and conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of circuit board hollow stake.

2. Securely crimp leads of replacement component around stake 1/8 inch from top.

3. Solder the connections.
   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board, to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board, causing the foil to separate from, or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

In Critical Copper Pattern Areas

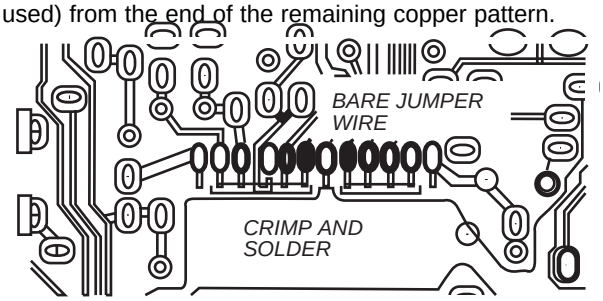
High component/copper pattern density and/or special voltage/current characteristics make the spacing and integrity of copper pattern in some circuit board areas more critical than in others. The circuit foil in these area is designated as Critical Copper Pattern. Because Critical Copper Pattern requires special soldering techniques to ensure the maintenance of reliability and safety standards, contact your Hitachi personnel.

At IC Connections

To repair defective copper pattern at IC connections, use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections.)

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)

2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.



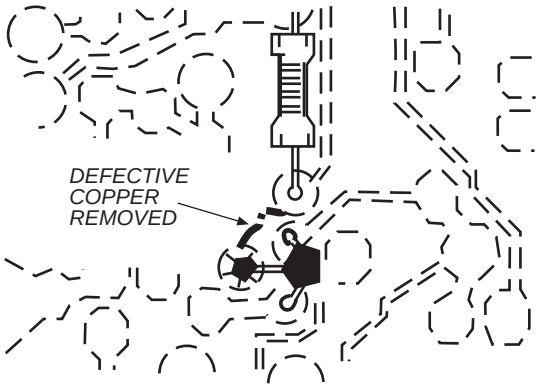
Install Jumper Wire and Solder

3. Bend a small "U" in one end of a small-gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.

4. Route the jumper wire along the path of the cut-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area, and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.



Insulated Jumper Wire

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure hazardous condition will not exist if the jumper wire opens.

2. Trace along the copper pattern from both wire sides of the pattern break and locate the nearest component directly connected to the affected copper pattern.

3. Connect insulated 20-gauge jumper wire from the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.
   CAUTION: Be sure the insulated jumper wire is dressed so that it does not touch components or sharp edges.

Frequency Synthesis (FS) Tuning Systems

1. Always unplug the instrument AC power cord before disconnecting or reconnecting FS tuning system cables and before removing or inserting FS tuning system modules.

2. The FS tuner must never be disconnected from the FS tuning control module while the power is applied to the instrument.

3. When troubleshooting intermittent problems that might be caused by defective cable connection(s) to the FS tuning system, remove the instrument AC power as soon as the defective connector is found and finish confirming the bad connection with a continuity test. This procedure will reduce the probability of electrical overstress of the FS system semi-conductor components.

SERVICING PRECAUTIONS

NOTE: ***These components are affixed with glue. Be careful not to break or damage any foil under the component or at the pins of the ICs when removing. Usually applying heat to the component for a short time while twisting with tweezers will break the component loose.***

Leadless Chip Components (surface mount)

Chip components must be replaced with identical chips due to critical foil track spacing. There are no holes in the board to mount standard transistors or diodes. Some chip capacitor or resistor board solder pads may have holes through the board, however the hole diameter limits standard resistor replacement to 1/8 watt. Standard capacitors may also be limited for the same reason. It is recommended that identical chip components be used. .

Chip resistors have a three digit numerical resistance code -1st and 2nd significant digits and a multiplier. Example: 162 = 1600 or 1.6KΩ resistor, 0 = 0Ω (jumper).

Chip capacitors generally do not have the value indicated on the capacitor. The color of the component indicates the general range of the capacitance.

Chip transistors are identified by a two letter code. The first letter indicates the type and the second letter, the grade of transistor.

Chip diodes have a two letter identification code as per the code chart and are a dual diode pack with either common anode or common cathode. Check the parts list for correct diode number.

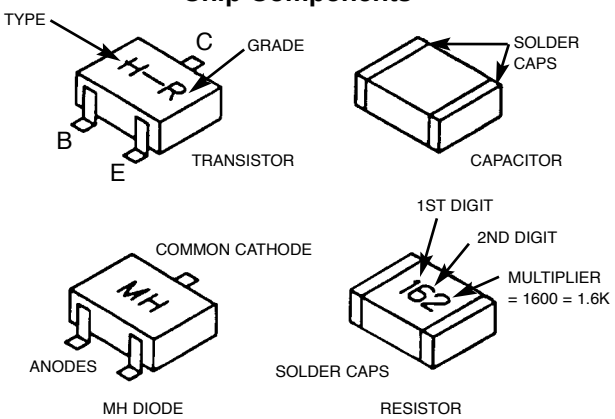
Component Removal

1. Use solder wick to remove solder from component end caps or terminals.
2. Without pulling up, carefully twist the component with tweezers to break the adhesive.
3. Do not reuse removed leadless or chip components since they are subject to stress fracture during removal.

Chip Component Installation

1. Put a small amount of solder on the board soldering pads.
2. Hold the chip component against the soldering pads with tweezers or with a miniature alligator clip and apply heat to the pad area with a 30 watt iron until solder flows. Do not apply heat for more than 3 seconds

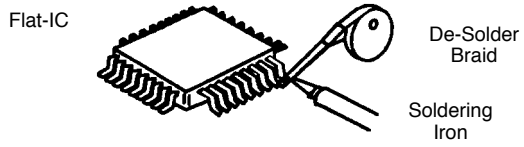
Chip Components



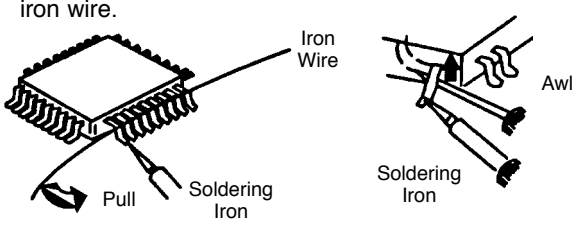
How to Replace Flat-IC —Required Tools—

- Soldering iron
- De-solder braids
- iron wire or small awl
- Magnifier

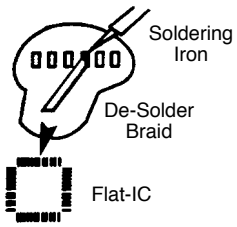
1. Remove the solder from all of the pins of a Flat-IC by using a de-solder braid.



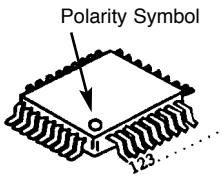
2. Put the iron wire under the pins of the Flat-IC and pull it in the direction indicated while heating the pins using a soldering iron. A small awl can be used instead of the iron wire.



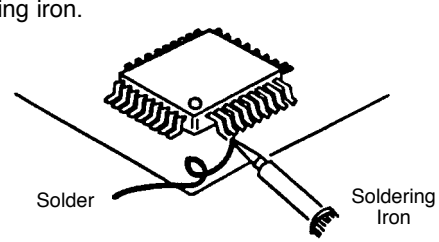
3. Remove the solder from all of the pads of the Flat-IC by using a de-solder braid.



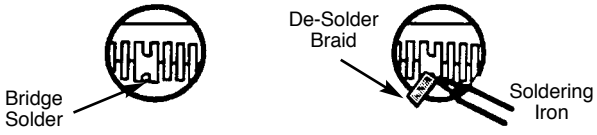
4. Position the new Flat-IC in place (apply the pins of the Flat-IC to the soldering pads where the pins need to be soldered). Properly determine the positions of the soldering pads and pins by correctly aligning the polarity symbol.



5. Solder all pins to the soldering pads using a fine tipped soldering iron.



6. Check with a magnifier for solder bridge between the pins or for dry joint between pins and soldering pads. To remove a solder bridge, use a de-solder braid as shown in the figure below.



Information for service about lead-free solder Introduction

Hitachi introduced lead-free solder to conserve the "Earth Environment". Please refer to the following before servicing.

(1) Characteristic of lead-free solder

Melting point of lead free solder is 40-50°C higher than solder containing lead.

(2) Solder for service

Following composition is recommended.

" Sn - 3.0Ag - 0.5Cu " , or " Sn - 0.7 Cu "

Lead solder can be used, but there is a possibility of failure due to insufficient strength of the solder.

Caution when using solder containing lead.

Please remove previous solder as much as possible from the soldering point.

When soldering, please perfectly melt the lead-free solder to mix well with the previous solder.

(3) Soldering iron for lead-free solder.

Melting point of lead-free solder is higher than solder containing lead.

Use of a soldering tool "with temperature control" and "with much thermal capacitance" is recommended.

(Recommended temperature control : 320°C - 450°C)

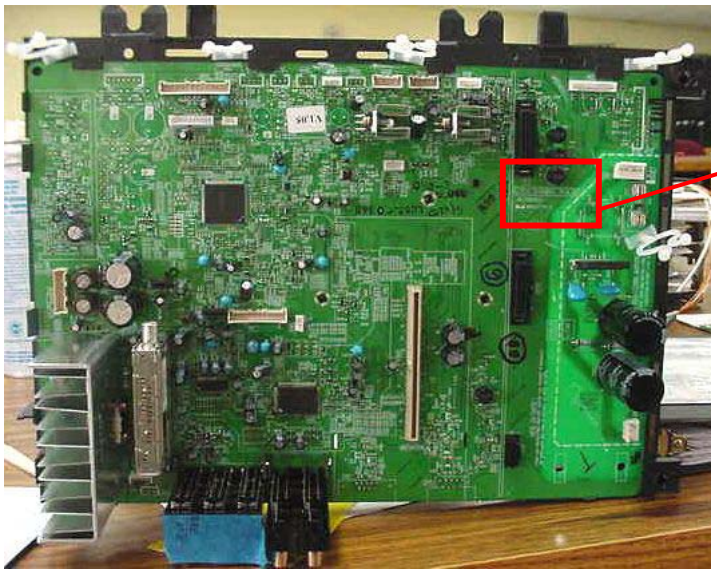
Recommended temperature

PWB with chip parts	320°C +/- 30°C
PWB without chip parts	380°C +/- 30°C
Chassis, metal, shield etc.	420°C +/- 30°C

(4) Identification of lead-free PWB

2004 models	>> lead-free solder is introduced
2005 models	>> lead-free solder apply

On lead-free PWB, "F" is added at the beginning of stamp on PWB. (e.g. F LC57)



PLUG AND PLAY

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

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

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Cable Compatible Television Apparatus- Tèlèvision câblocompatible, Canada.

This LCD Television receiver will display television closed captioning,(CC or), in accordance with paragraph 15.119 of the FCC rules.

AGENCY REGULATORY INFORMATION

Federal Communications Commission Notice

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

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

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi Home Electronics (America), Inc. may void the user's warranty.

Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

Any cables that are supplied with the system must be replaced with identical cables in order to assure compliance with FCC rules. Order Hitachi spares as replacement cables.

Features and Specifications

FEATURES:

- Superfine Picture Quality; 1280 Line Horizontal Resolution
- Remote (Controls many PVR/VCR brands, cable boxes, satellite boxes, and other audio equipment).
- New Easy-to-Use (3-Language) On-Screen Menu
- Full Set of Input Jacks, including S-Video
- COMPONENT VIDEO: Y-P_B/P_R
- Six Aspect Modes
- Closed Caption Decoder
- 2-Tuner Picture in Picture
- 2 Antenna Inputs (Either for Analog/Digital)
- Video Input Sensor
- HDMI (High Definition Multimedia Interface) (High Bandwidth Digital Content Protection V1.1 compatible).
- Digital Audio Output (Dolby® Digital and PCM)
- 3 Dimensional Y/C Comb Filter
- Compatible with 1080i, 720p, 480p and 480i input signals.
- CableCARD™ compatible - Contact your local cable operator for more information.
- BBE Technology.
  Licensed by BBE Sound, Inc. under USP5510752 and 5736897. BBE and BBE symbol are registered trademarks of BBE Sound, Inc. Manufactured under license from BBE Sound, Inc.
- SRS® Technology.
  SRS and symbol are trademarks of SRS Labs, Inc. SRS technology is incorporated under license from SRS Labs, Inc.
- DOLBY DIGITAL® Technology.
  Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- HDMI™ Technology
  HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

INPUTS:

- Power Input.....AC 120V, 60Hz
- Stand-by Power.....Less than 1 Watt
- Power Consumption - Refer to rear panel at the back of the T.V.
- Antenna input impedance.....75 Ohm
- Channel coverage
  - VHF-Band.....2 – 13
  - UHF-Band.....14 – 69
  - CATV Band.....1 – 135, A – I
- Video.....1.0Vp-p, 75 Ohm
- S-Video
  - Luminance (Y).....1.0Vp-p, 75 Ohm
  - Chrominance (C).....0.286Vp-p, 75 Ohm
- Component Video
  - Luminance (Y).....1.0Vp-p, 75 Ohm
  - Chrominance (P_B/P_R).....0.7Vp-p, 75 Ohm
- Audio input Impedance.....47k Ohm
- Average input level.....470mVrms
- HDMI.....HDMI 19 PIN

OUTPUTS:

- Video.....1.0Vp-p. 75 Ohm
- Audio (Fixed).....470mVrms, 1k Ohm
- S-Video
  - Luminance (Y).....1.0Vp-p, 75 Ohm
  - Chrominance (C).....0.286Vp-p, 75 Ohm
- Optical Out (Digital Audio).....1 optical connector

DIMENSIONS:

	50V720
Height (in.)	35 1/2
(mm)	901.0
Width (in.)	54 5/8
(mm)	1,387.0
Depth (in.)	16 3/8
(mm)	415.0
Weight (lbs.)	90
(kg.)	40.8

NOTE: *Due to improvements, specifications in this operating guide are subject to change without notice.*

SPECIFICATIONS

2.1 A/V TERMINALS

No.	MODEL NAME	REAR										
		A/V In	S-video In	COMP In	HDMI In	Monitor Out	Monitor S Out	A Out *1	Cent In L(mono)	ANT In	Optical Out	MM Card
1	50V720	2	2	2	1	1	1	1	1	2	1	1
2												
3												
4												
5												
6												
7												
8												
9												
10												

No.	MODEL NAME	REAR						FRONT (or SIDE)				
		POD Card	IEEE 1394					A/V In	S-video In	Photo (USB)		
1	50V720	1						1	1	1		
2												
3												
4												
5												
6												
7												
8												
9												
10												

Remark: *1 “Monitor out” and “Audio to HiFi” share one terminal and switched by user menu.
See I/B Terminals and other function about the electrical specifications.

SPECIFICATIONS

2.2 STRUCTURAL DIMENSIONS

No.	Model name	Width (mm)	Height (mm)	Depth (mm)	Weight (kg)
1	50V720	1387	901	415	40
2					
3					
4					
5					
6					
7					
8					
9					
10					

2.3 MAIN PARTS

(1) LCD panel

LC5x occupies 3 LCD panels (for Red, Green and Blue color).

No.	Item	Description
1	Product name	Blue: L3D07H-51G01B / L3D07H-52G01B Red: L3D07H-51G01R / L3D07H-52G01R Green: L3D07H-51G01G / L3D07H-52G01G
2	System type	TFT Active matrix
3	Pixels	1284 (H) x 724 (V)
4	Panel size	0.7”
5	Dot pitch	12 µm
6	Life time	More than 20,000h (@Ta ≤ 25°C, worst UV filter combination)

LCD panel is UV light sensitive device. UV ray which illuminates LCD panel should be cut with three UV filters with 50% cut wavelength of 430nm+430nm+430nm (nominal) and 427nm+427nm+426nm (worst combination).

(2) Lamp

No.	Item	Description		
1	Input electricity	120W		
2	Manufacture	Panasonic		
3	Model name			
4	Type	UHP lamp		
5	Arc length	1.3mm		
6	Life time (50% survival rate)	More than 6,000h		
7	Applied model	50V720		

Mercury legislation: Apply (Hg) mark on body

GENERAL INFORMATION

How to set up your new HITACHI Projection Television

ANTENNA

Unless your LCD Rear PTV is connected to a cable TV system or to a centralized antenna system, a good outdoor TV antenna is recommended for best performance. However, if you are located in an exceptionally good signal area that is free from interference and multiple image ghosts, an indoor antenna may be sufficient.

LOCATION

Select an area where sunlight or bright indoor illumination will not fall directly on the picture screen. Also, be sure that the location selected allows a free flow of air to and from the perforated back cover of the set. To avoid cabinet warping, cabinet color changes, and increased chance of set failure, do not place the TV where temperatures can become excessively hot, for example, in direct sunlight or near a heating appliance, etc. When using your LCD Rear PTV against a wall, keep it at least 10cm (4 inches) from the wall.

NOTE: *Your new **HDTV** has a built-in high definition television signal processor. This television includes a fan to cool the processor. The sound of moving air from the fan is normal and may be noticeable in very quiet environments.*

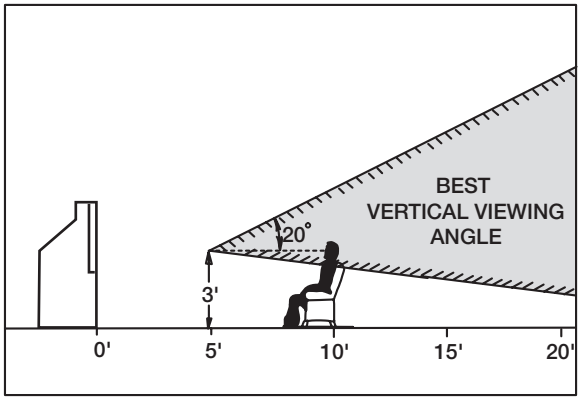
VIEWING

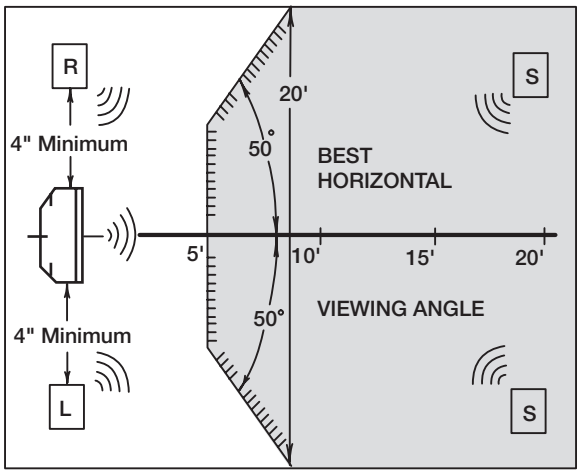
The major benefit of the **HITACHI** LCD Rear PTV is its large viewing screen. To see this large screen at its best, test various locations in the room to find the optimum spot for viewing.

The best picture is seen by sitting directly in front of the TV and about 10 to 18 feet from the screen. Picture brightness decreases as the viewer moves to the left and right of the receiver.

During daylight hours, reflections from outside light may appear on the screen. If so, drapes or screens can be used to reduce the reflection or the TV can be located in a different section of the room.

If the TV's audio output will be connected to a Hi-Fi system's external speakers, the best audio performance will be obtained by placing the speakers equidistant from each side of the receiver cabinet and as close as possible to the height of the picture screen center. For best stereo separation, place the external speakers at least four feet from the side of the TV, place the surround speakers to the side or behind the viewing area. Differences in room sizes and acoustical environments will require some experimentation with speaker placement for best performance.





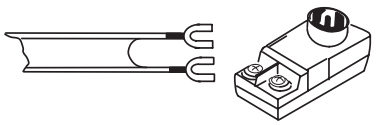
IMPORTANT NOTES:

1. *Since LCD Rear PTV incorporates a high pressure lamp to display an image, it may take about one minute for the picture to become stable, after the power has been turned on. After extended use, the picture may darken, the color may look unusual, or the lamp "goes out," (burns out). You may hear a "pop" sound when the lamp "goes out." These are common characteristics of the lamp, and should not be considered defective.*
2. *LCD Rear PTV incorporates an advanced cooling fan system to prevent from overheating. If you hear the cooling fan, it should not be considered defective.*
3. *If you hear a "cracking" sound from the TV cabinet, it is due to the TV's cabinet expanding and contracting due to room temperature changes. It has no effect on the TV's functions.*
4. *The LCD Rear PTV cabinet is constructed with all plastic. Make sure to place it on a flat surface. An uneven surface might warp the cabinet and reduce the picture quality.*

Hook-up Cables and Connectors

Most video/audio connections between components can be made with shielded video and audio cables that have phono connectors. For best performance, video cables should use 75-Ohm coaxial shielded wire. Cables can be purchased from most stores that sell audio/video products. Below are illustrations and names of common connectors. Before purchasing any cables, be sure of the output and input connector types required by the various components and the length of each cable.

300-Ohm Twin Lead Connector
This outdoor antenna cable must be connected to an antenna adapter (300-Ohm to 75-Ohm).

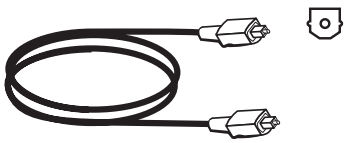


Phono Connector
Used on all standard video and audio cables which connect to inputs and outputs located on the television's rear jack panel and side control panel.

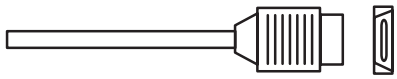
"F" Type 75-Ohm Coaxial Antenna Connector
For connecting RF signals (antenna or cable TV) to the antenna jack on the television.

S-Video (Super Video) Connector
This connector is used on camcorders, VCRs and laser-disc players with an S-Video feature in place of the standard video cable to produce a high quality picture.

Optical Cable
This cable is used to connect to an audio amplifier with an Optical Audio In jack. Use this cable for the best sound quality.

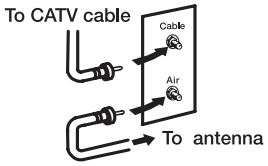


HDMI Cable
This cable is used to connect your external devices such as Set-Top-Boxes or DVD players equipped with an **HDMI** output connection to the TV's **HDMI** input.

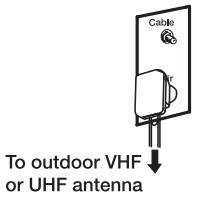


ANTENNA CONNECTIONS TO REAR JACK PANEL

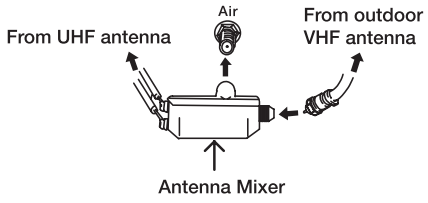
VHF (75-Ohm) antenna/CATV (Cable TV)
When using a 75-Ohm coaxial cable system, connect **CATV** coaxial cable to the **CABLE** (75-Ohm) terminal. If you have an antenna, connect the coaxial cable to the **AIR** terminal.



VHF (300-Ohm) antenna/UHF antenna
When using a 300-Ohm twin lead from an outdoor antenna, connect the **VHF** or **UHF** antenna leads to screws of the **VHF** or **UHF** adapter. Plug the adapter into the antenna terminal on the TV.

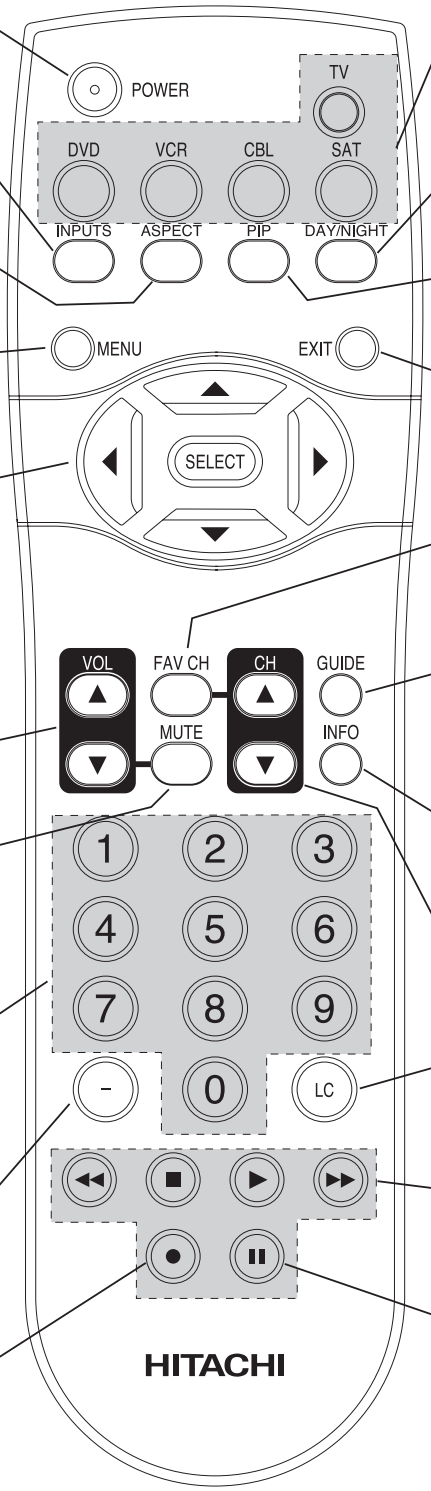


When both VHF and UHF antennas are connected
Attach an optional antenna cable mixer to the TV antenna terminal, and connect the cables to the antenna mixer. Consult your dealer or service store for the antenna mixer.



Quick Reference Remote Control Buttons and Functions

In addition to controlling all of the functions on your HITACHI LCD Rear Projection TV, the new remote control is designed to operate different types of devices, such as, DVD Players, CBL (Cable Boxes), set-top-boxes, satellite receivers, and VCRs. The remote control must be programmed to control the chosen device. Please see I/B manual for a complete description of all features and programming of the Remote Control.



POWER BUTTON (TV, CBL, VCR, DVD, SAT)
Turns the selected device on and off.

INPUTS BUTTON (TV)
Accesses the INPUTS menu system.

ASPECT BUTTON (TV)
Changes the aspect ratio while watching TV.

MENU BUTTON (CBL, DVD, SAT, TV)
Accesses the OSD menu system.

CURSOR/SELECT BUTTONS (TV, DVD, CBL, SAT)
The CURSOR buttons are used to navigate the cursor through the OSD and INPUTS menu systems, and the SELECT button is used to Select/Activate the highlighted menu item.

VOLUME BUTTONS (TV)
Adjusts the audio level of your TV.

MUTE BUTTON (TV)
Reduces the audio level to 50% if pressed once, and to complete mute if pressed twice. Press it a third time to restore audio level.

NUMERIC BUTTONS (TV, DVD, CBL, SAT, VCR)
Used to manually enter the TV channel, and used for numeric entry when navigating through the OSD menu system.

(-) BUTTON (TV, SAT)
The (-) button is used when the remote is in Set-Top-Box (STB) mode or when the TV uses a digital input.

RECORD BUTTON (VCR)
Press twice (2 times) to record programs.

SOURCE ACCESS BUTTONS (TV, DVD, VCR, CBL, SAT)
Changes the mode of the Universal Remote Control to control the device selected.

DAY/NIGHT BUTTON (TV)
Select picture mode settings between DAY and NIGHT mode.

PIP BUTTON (TV)
Press to show and change the Picture-in-Picture mode.

EXIT BUTTON (TV, CBL, SAT)
Exits out of the OSD or INPUTS menu systems if their menu is displayed.

FAVORITE CHANNEL (FAV CH) button (TV)
Press to enter/access Favorite Channel (FAV) mode.

GUIDE BUTTON (SAT/STB, CBL)
Accesses the program guide of other devices.

INFO BUTTON (TV, CBL, SAT)
Displays various information on the screen.

CHANNEL BUTTONS (TV, CBL, SAT, VCR)
Changes the channel.

LAST CHANNEL (LC) BUTTON (TV, CBL, SAT)
Switches between the current and last channel viewed.

DVD/VCR CONTROL BUTTONS (DVD, VCR)
Controls the precode functions of your VCR and DVD.

PAUSE BUTTON (TV, VCR, DVD)
Press to show and change the Freeze mode of the TV or pause other devices.

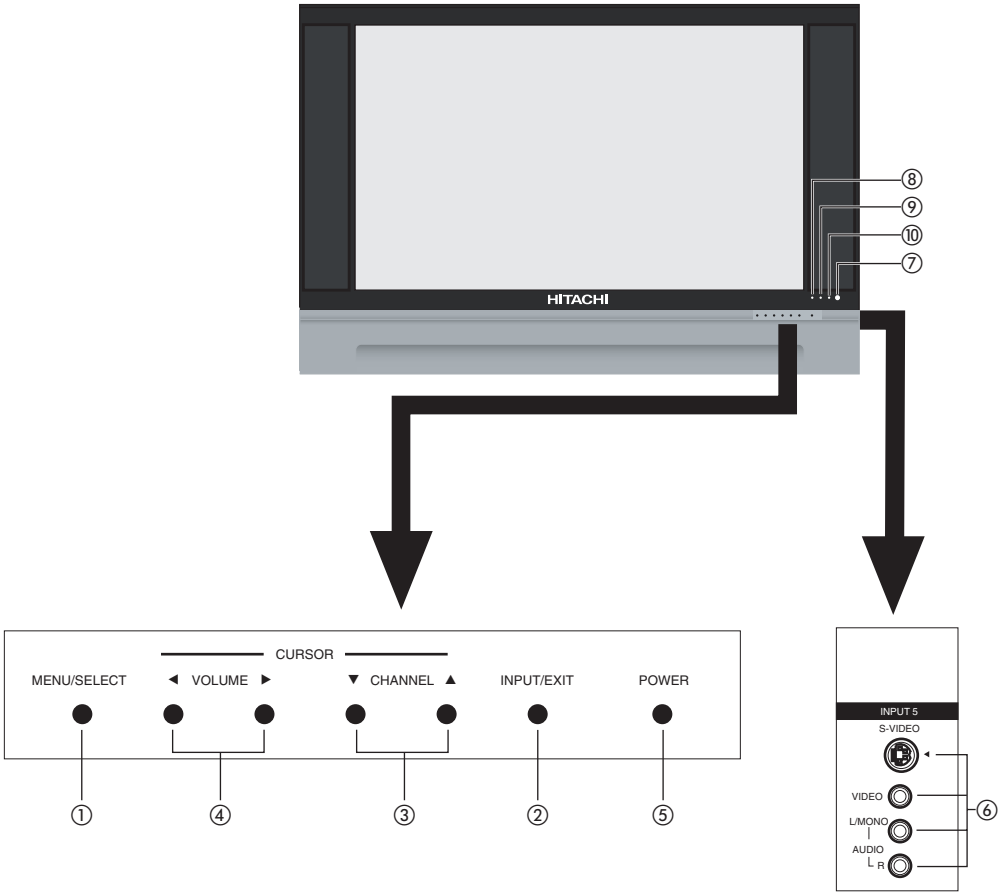
LEGEND

TV — Television
CBL — Cable Box
STB — Set-Top-Box
VCR — Video Cassette Recorder/Player
DVD — Digital Video Disc Player
SAT — Satellite Receiver

NOTE: ***STB precode is included in the SAT mode.***

GENERAL INFORMATION

Front Panel Controls



❶ MENU/SELECT button
This button allows you to enter the **MENU**, making it possible to set TV features to your preference without using the remote. This button also serves as the **SELECT** button when in **MENU** mode.

❷ INPUT/EXIT button
Press this button to display the input menu selections of **CABLE**, **AIR**, **INPUT**: **1, 2, 3, 4** and **5**. This button also serves as the **EXIT** button when in **MENU** mode.

❸ CHANNEL selector
Press these buttons until the desired channel appears in the top right corner of the TV screen. These buttons also serve as the cursor down (▼) and up (▲) buttons when in **MENU** mode.

❹ VOLUME level
Press these buttons for your desired sound level. The volume level will be displayed on the TV screen. These buttons also serve as the cursor left (◀) and right (▶) buttons when in **MENU** mode. When the TV power is turned OFF at a volume level 31 or greater, the volume level will default to 30 when the TV is turned ON. However, if it is set to a level 30 or less, the volume level will be at the level it was set when the TV is turned ON.

❺ POWER button
Press this button to turn the TV ON or OFF.

❻ SIDE INPUT JACKS (INPUT 5)
Use these audio/video jacks for a quick hook-up from a camcorder or VCR to instantly view your favorite show or new recording. Press the **INPUT** button and select **INPUT 5**. If you have mono sound, insert the audio cable into the left audio jack.

❼ IR RECEIVER Sensor
Point the remote control at this area when selecting channels, adjusting volume, etc.

GENERAL INFORMATION

Front Panel Controls

❽ POWER Light

When the TV is turned ON, the Power Light will first blink to indicate that the television lamp is warming up. This light will be ON during normal operation. When the TV is turned OFF, the Power Light will blink to indicate that the television lamp will be cooling down and the light will eventually turn off.

❾ TEMP Indicator

This light is off during normal operation. If this indicator is lit, the optic unit is too hot. If this indicator is blinking, the cooling fan has stopped. Please call service. The optic unit has an air filter that may become clogged over time. The internal termperature will increse which will trigger the temperature sensor to display an On-Screen warning. After 6 minutes, the lamp will turn off, then the TV will turn off with the TEMP LED On.

❿ LAMP Indicator

This light is off during normal operation. If light is lit, the lamp has failed. See page 24-27 for lamp replacement procedure. Consult your Hitachi dealer for proper part. If light is blinking, lamp cover is not assembled securely after replacement.

NOTES:

1.

INDICATOR	INDICATION	MEANING	ACTION
LAMP LED	LIGHT ON	NO LAMP LIGHT or BROKEN LAMP	Need to replace if LAMP still does not light by Power On ” again. Check assembly condition of LAMP UNIT
	BLINKING	WRONG LAMP UNIT ASSEMBLY / LAMP DOOR OPEN	
TEMP LED	LIGHT ON	Too hot inside the OPTIC unit	Call for Service
	BLINKING	COOLING FAN STOPPED	
POWER LED	INTERMEDIATE BLINKING (0.5 SEC CYCLE)	BEGINNING OF WARM UP AFTER THE POWER ON.	
	LIGHT ON	NORMAL OPERATION	
	SHORT BLINKING (0.3 SEC CYCLE)	BEGINNING OF COOL DOWN (FOR 20 SEC.) (TV CANNOT ACCEPT ANY CODE IN THIS PERIOD EXCEPT WITHIN THE BEGINNING 5 SEC.)	
	LONG BLINKING (1 SEC CYCLE)	COOL DOWN (FOR 6 MINUTES) (TV CAN ACCEPT REMOTE CONTROL AND SIDE BUTTONS)	

2. If the LAMP, TEMP, and POWER LED are blinking in the order below, the television is warming up.
   POWER → TEMP → LAMP
   ↑ ↓

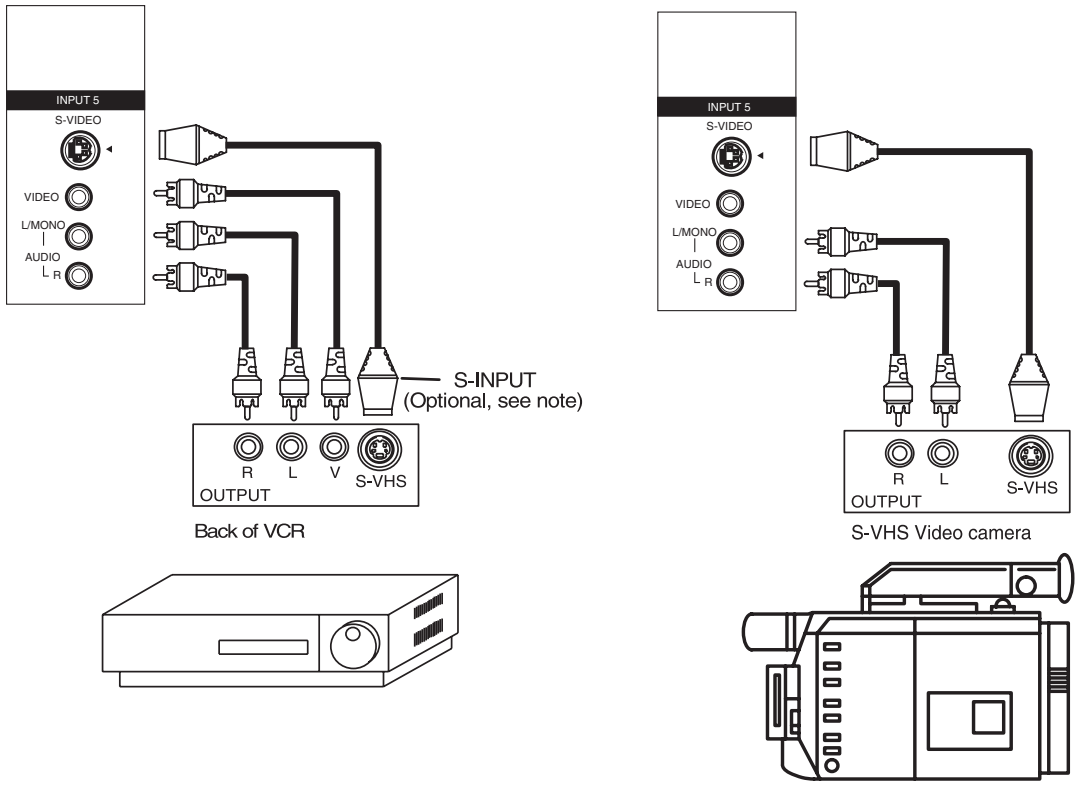
3. Your Hitachi LCD Rear Projection Television may appear to be OFF when it is set to input 1 ~ input 5 and the video signal is not received from the input jacks. Please make sure the Blue Power light indicator is not lit (OFF) when you are not watching for long lasting performance.

4. Your Hitachi LCD Rear Projection Television has an internal lamp that lights up the TV screen. Make sure to turn off the Power when you do not watch the LCD Rear Projection Television for longer lamp life

GENERAL INFORMATION

Side Panel Jacks and Connections

The side panel jacks are provided as a convenience to allow you to easily connect a camcorder or VCR as shown in the following examples:



NOTE: *1. Completely insert connection cord plugs when connecting to side panel jacks. If you do not, the played back picture may be abnormal.*
2. If you have a S-VHS VCR, use the S-INPUT cable in place of the standard video cable.
3. If you have a mono VCR, insert the audio cable into the left audio jack of your TV.

GENERAL INFORMATION

Rear Panel Connections

❶ **Antenna Input**
CABLE – CATV (Cable TV) input.
AIR – RF antenna input.

NOTE: *You may ask your local cable company whether DTV services are available.*

❷ **Audio/Video Inputs 1, 2, 3 and 4**
By using the **INPUTS** button, **CURSOR** buttons and **SELECT** button of the remote control you can select each video source. Use the audio and video inputs to connect external devices, such as VCRs, camcorders, laserdisc players, DVD players etc. (If you have mono sound, insert the audio cable into the left audio jack.)

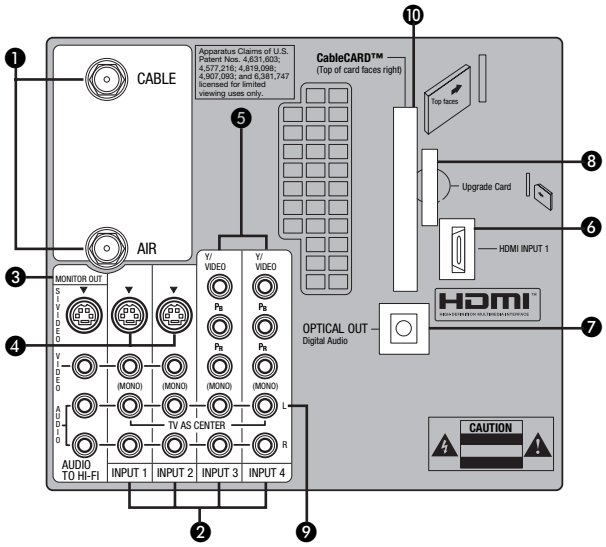
NOTE: *You may use **VIDEO** or **S-VIDEO** inputs to connect to **INPUT 1** and **2**, but only one of these inputs may be used at a time.*

❸ **Monitor Out**
These jacks provide fixed or variable audio and video signals which are used for recording. Use the S-Video Output for high quality video output .

❹ **S-Video Inputs 1 and 2**
INPUTS 1 and **2** provide S-Video (Super Video) jacks for connecting equipment with S-Video output capability.

❺ **Component: Y-P_BP_R Inputs**
INPUTS 3 and **4** provide Y-P_BP_R jacks for connecting equipment with this capability, such as a DVD player or Set Top Box. You may use composite video signal for both inputs.

NOTE:
1. *Do not connect composite **VIDEO** and **S-VIDEO** to **INPUT 1, 2** or **5** at the same time. **S-VIDEO** has priority over **VIDEO** input.*
2. *Your component outputs may be labeled Y, B-Y, and R-Y. In this case, connect the components B-Y output to the TV's P_B input and the components R-Y output to the TV's P_R input.*
3. *Your component outputs may be labeled Y-C_BC_R. In this case, connect the component C_B output to the TV's P_B input and the component C_R output to the TV's P_R input.*
4. *It may be necessary to adjust **TINT** to obtain optimum picture quality when using the Y-P_BP_R inputs .*
5. *To ensure no copyright infringement, the **MONITOR OUT** output will be abnormal, when using the Y-P_BP_R jacks.*
6. ***INPUT 3** and **INPUT 4** (Y/VIDEO) can be used for composite video and component video input.*



❻ **HDMI (High Definition Multimedia Interface)**

ABOUT HDMI – **HDMI** is the next-generation all digital interface for consumer electronics. **HDMI** enables the secure distribution of uncompressed high-definition video and multi-channel audio in a single cable. Because digital television (DTV) signals remain in digital format, **HDMI** assures that pristine high-definition images retain the highest video quality from the source all the way to your television screen.

Use the **HDMI** input for your external devices such as Set-Top-Boxes or DVD players equipped with an **HDMI** output connection.

***HDMI**, the **HDMI** logo and High-Definition Multimedia Interface are trademarks or registered trademarks of **HDMI** Licensing LLC.*

NOTE:
1. *The **HDMI** input is not intended for use with personal computers.*
2. *Only DTV formats such as **1080i, 720p, 480i** and **480p** are available for **HDMI**.*

❼ **Optical Out (Digital Audio)**
This jack provides Digital Audio Output for your audio device that is Dolby® Digital and PCM compatible, such as an audio amplifier.

*Manufactured under license from Dolby Laboratories. **DOLBY** and the **DOUBLE-D** symbol are trademarks of Dolby Laboratories.*

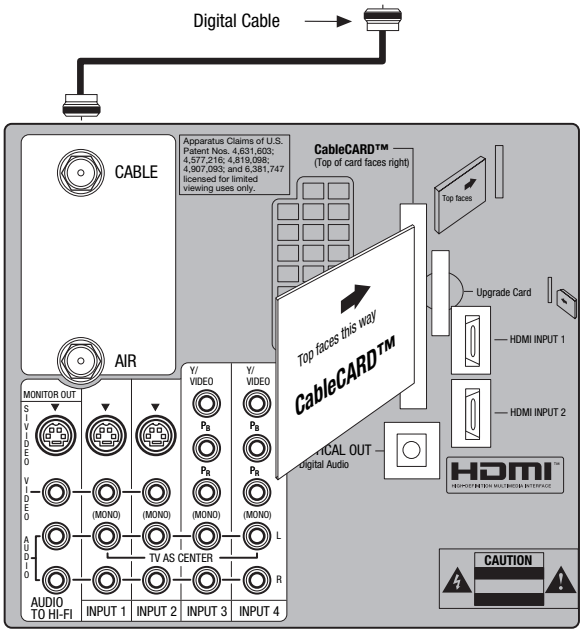
❽ **Upgrade Card**
This card slot is for future software upgrades. Hitachi will notify you if a software upgrade is required for your TV. In order to receive written notification, please complete and return your warranty card.

Rear Panel Connections

❾ TV AS CENTER (INPUTS 1-4)
These jacks are for stereo amplifiers with center signal output capability. This feature allows the TV speakers to be used as a center speaker. The TV must be set as a center channel by selecting **TV AS CENTER** on the Internal Speakers Settings of the Audio Menu.

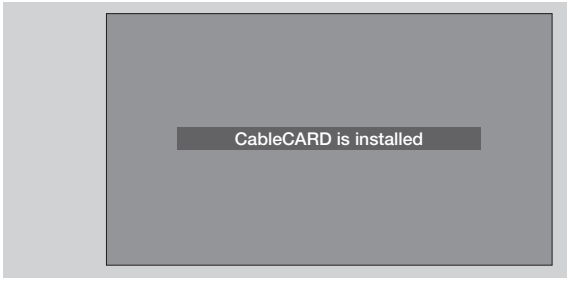
❿ CableCARD Slot
This slot is for the CableCARD that will be provided by your local cable operator to gain access to chosen cable channels. The CableCARD will allow you to tune digital and high definition cable channels. Please call your local cable operator if this service is available before requesting a CableCARD (also known as Point of Deployment (POD) module).

1. Connect a coaxial cable to cable terminal of the Rear Panel Jacks.
2. Insert the CableCARD into the slot (Top of card should be facing right as shown below).

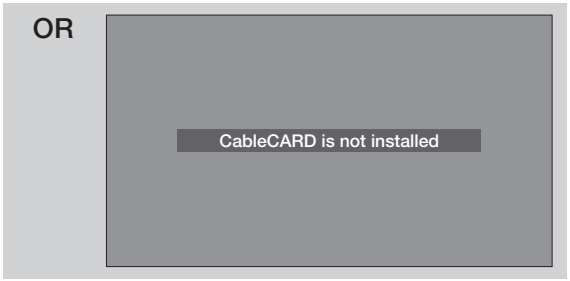


NOTE: *1. A digital cable subscription is required.*
2. Do not insert a PCMCIA card into the CableCARD slot.

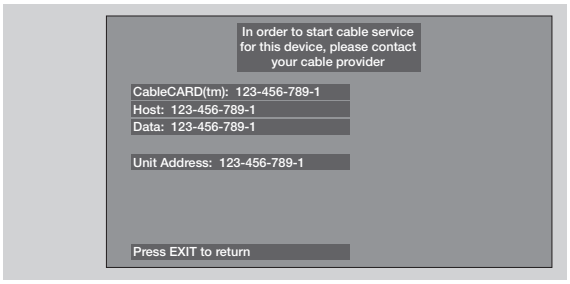
If the CableCARD is properly installed or not installed, the TV will display the following respective screens.



OR



After the CableCARD is installed, wait until the second screen below appears. The third screen below will appear if a channel is not authorized for viewing. Press the **EXIT** button to exit the second screen.



OR

Please take note of all information on the screen (you will provide this information to your cable operator). Call your cable operator and give them the information from the card to start your cable service.

Rear Panel Connections

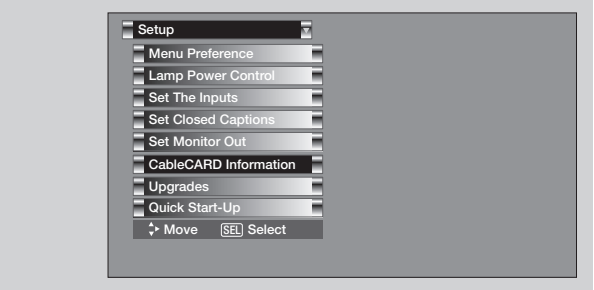
Additional CableCARD Information

After the CableCARD has been successfully installed, a CableCARD Information menu appears in the **SETUP** menu of the On-Screen Display.
Follow the instructions below to access the CableCARD Information menu.

1. Press the **MENU** button on the Remote Control to access the Main Menu screen.

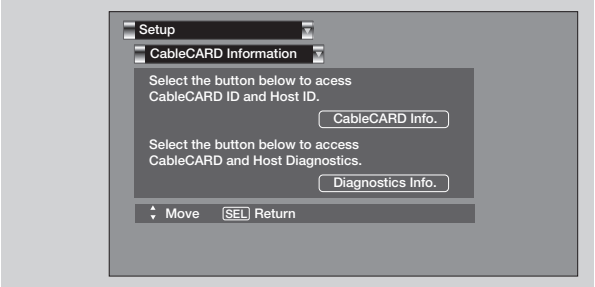
2. Use the **CURSOR button ▼** to highlight **SETUP** in the Main Menu and press the **SELECT** button.

3. Use the **CURSOR button ▼** to highlight **CableCARD Information** and press the **SELECT** button.



4. To view the CableCARD ID and Host ID, use the **CURSOR button ▼** to highlight **CableCARD Info** and press the **SELECT** button.

NOTE: *The **Diagnostics Info.** window is for Service use only.*

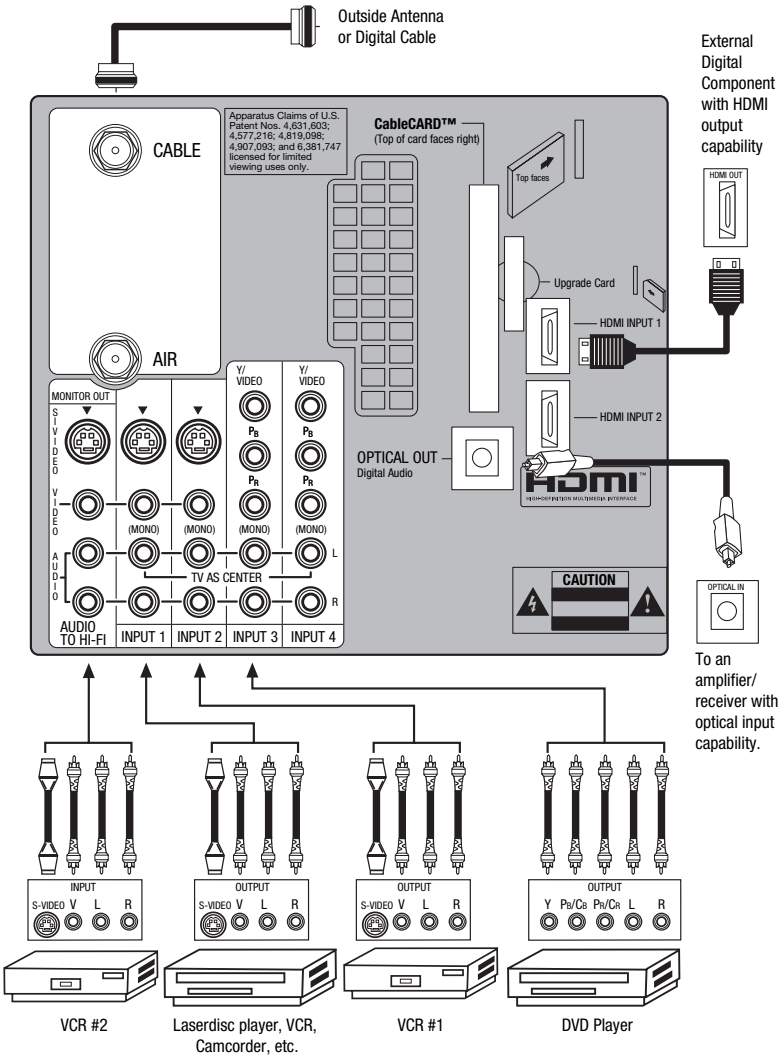


GENERAL INFORMATION

Rear Panel Connections

TIPS ON REAR PANEL CONNECTIONS

- **S-VIDEO**, **Y-PBPR** and **HDMI** connections are provided for high performance laserdisc players, VCRs etc. that have this feature. Use these connections in place of the standard video connection if your device has this feature.
- If your device has only one audio output (mono sound), connect it to the left audio jack on the television.
- Refer to the operating guide of your other electronic equipment for additional information on connecting your hook-up cables.
- A single VCR can be used for VCR #1 and VCR #2, but note that a VCR cannot record its own video or line output (**INPUT 1** in the example on this page). Refer to your VCR operating guide for more information on line input-output connections.
- You may use **VIDEO** or **S-VIDEO** inputs to connect to **INPUT 1**, **INPUT 2** or **INPUT 5**, but only one of these may be used at a time.
- Connect only one component (VCR, DVD player, camcorder, etc.) to each input jack.



- COMPONENT: **Y-PBPR (INPUT 3** and **INPUT 4)** connections are provided for high performance components, such as DVD players and set-top-boxes. Use these connections in place of the standard video connection if your device has this feature. **INPUT 3** accepts both composite and component video signals.
- Your component outputs may be labeled **Y, B-Y,** and **R-Y**. In this case, connect the components **B-Y** output to the TV's **PB** input and the components **R-Y** output to the TV's **PR** input.
- Your component outputs may be labeled **Y-CBCR**. In this case, connect the components **CB** output to the TV's **PB** input and the components **CR** output to the TV's **PR** input.
- You may use composite and component video signals for **INPUT 3** and **INPUT 4**.
- It may be necessary to adjust **TINT** to obtain optimum picture quality when using the **Y-PBPR** inputs .
- To ensure no copyright infringement, the **MONITOR OUT** output may be abnormal, when using the **Y-PBPR** jacks.
- When using an **HDMI** input from a Set-Top-Box, it is recommended that a **1080i** or **720p** input signal is used.

NOTE:
1. *Connect only one component to each input jack.*
2. *Follow connections that pertain to your personal entertainment system.*
3. ***INPUT 3** and **INPUT 4** can accomodate Composite and Component video signals.*
4. *Cables are not included with the purchase of this TV, except when noted as "provided".*

MACROVISION NOTES:
1. *Video signals fed through a VCR may be affected by copyright protection systems and the picture will be distorted on the television.*
2. *Connecting the television directly to the Audio /Video output of a Set-Top-Box will assure a more normal picture.*

GENERAL INFORMATION

Connecting External Video Sources

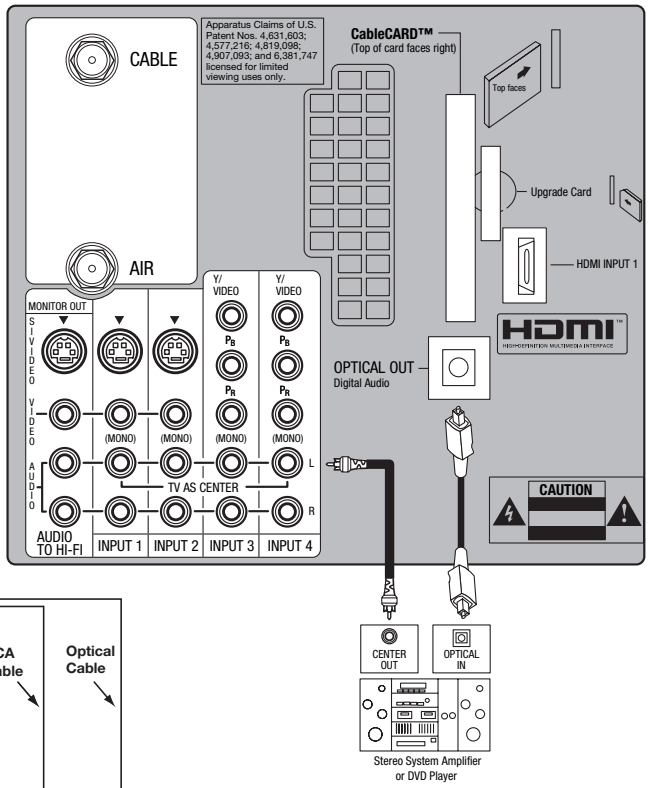
Match the numbers below to the diagram for speaker placement.

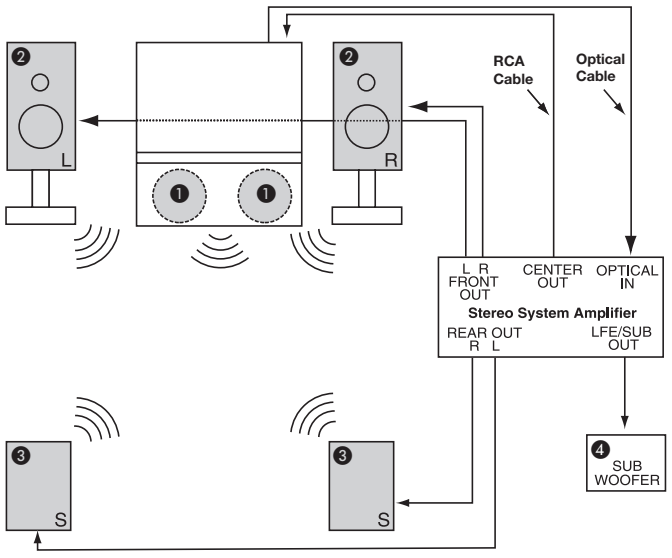
❶ The television's internal speakers will act as center speaker (select **AUDIO** - **INTERNAL SPEAKERS** - **TV AS CENTER**).

❷ These FRONT left and right speakers are connected to the FRONT output of a separate audio amplifier.

❸ These REAR left and right speakers are connected to the Rear output of a separate audio amplifier.

❹ This subwoofer is connected to the LFE/SUB Out output of a separate audio amplifier.





NOTE: *1. The Optical Out (Digital Audio) provides a fixed digital audio output to your external component such as an A/V receiver with optical input capability. The audio level can only be controlled through the volume control of the external audio amplifier.*

Lamp Replacement

Lamp Life

The lamp life may vary based on usage of the LCD Rear PTV. Turning on and off frequently may shorten the life of the lamp.

Lamp Replacement

After extended use, if the TV picture turns dark, the color looks unusual or LAMP INDICATOR light turns on, then it is time to replace the lamp with a new lamp.

WARNING:

The lamp gets very hot! The lamp may explode if improperly handled. To avoid injury, please observe the following precautions.

- *Do not open lamp compartment or attempt to remove lamp assembly unless the lamp assembly is being replaced.*
- *Unplug the product's power cord from the AC outlet before attempting to replace the lamp assembly.*
- *If the lamp is in use when failure occurs or if the lamp has exploded, wait at least 30-45 minutes for the lamp to cool before opening the lamp compartment or touching the lamp assembly or any broken pieces.*
- *Broken lamp pieces can cause injury. Handle with gloves to avoid cuts.*
- *Do not place any foreign objects inside the lamp compartment.*
- *When installing a new lamp, follow handling instruction included with the new lamp. Do not touch glass surface of new lamp.*
- *This product contains lead and a lamp that contains mercury. Dispose of this product and its lamp in accordance with applicable environmental laws. For lamp recycling and disposal information, go to www.lamprecycle.org. For product recycling and disposal information, contact your local government agency or eRecycle.org (in California), the Electronic Industries Alliance at www.eiae.org (in the US) or the Electronic Product Stewardship Canada at www.epsc.ca (in Canada).*
  For more information, call "1-800-HITACHI."

CAUTION!

A "LAMP" indicator will light when lamp becomes hot. Unplug product's power cord from the AC outlet and allow lamp to cool for at least 30-45 minutes. If "LAMP" indicator is still lit, please contact your authorized service center .

NOTES:

- *Contact your Hitachi dealer for a new lamp unit. Using other lamps may cause damage to the TV Set.*

MODEL#	***LAMP TYPE***	***PART#***
50V720	*LM520*	UX21517

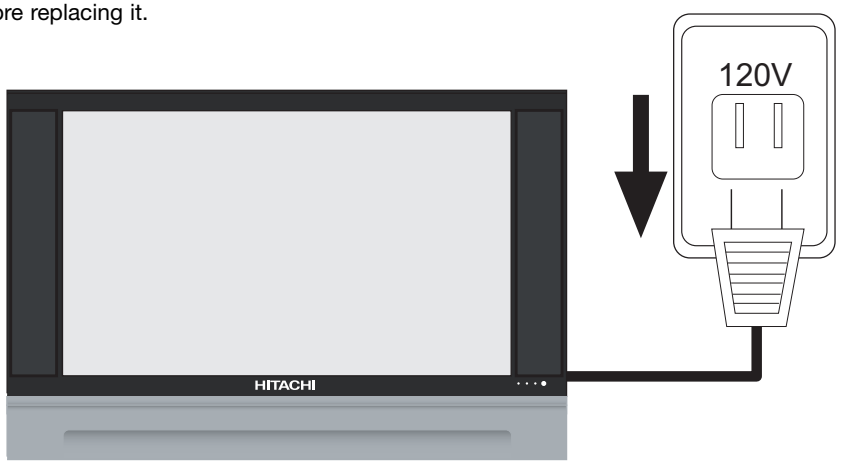
- *When replacing the lamp, let it cool down completely, for approximately 30 to 45 minutes after the power has been switched off and A.C. cord has been unplugged.*
- *Do not touch the glass of the new lamp or make it dirty which can shorten the life of the lamp and reduce the picture quality.*
- *Keep the lamp out of the reach of children and away from flammable materials.*
- *Do not pour water onto the removed lamp or put any object inside the lamp.*
- *Once the lamp is removed, do not put flammable materials and metal objects inside the lamp receptacle on the TV set. Do not touch the receptacle.*
- *Install the new lamp securely, otherwise the picture may become dark or it may cause severe overheating.*
- *Install the lamp cover correctly, otherwise power will not come on.*

CH 1

Lamp Replacement

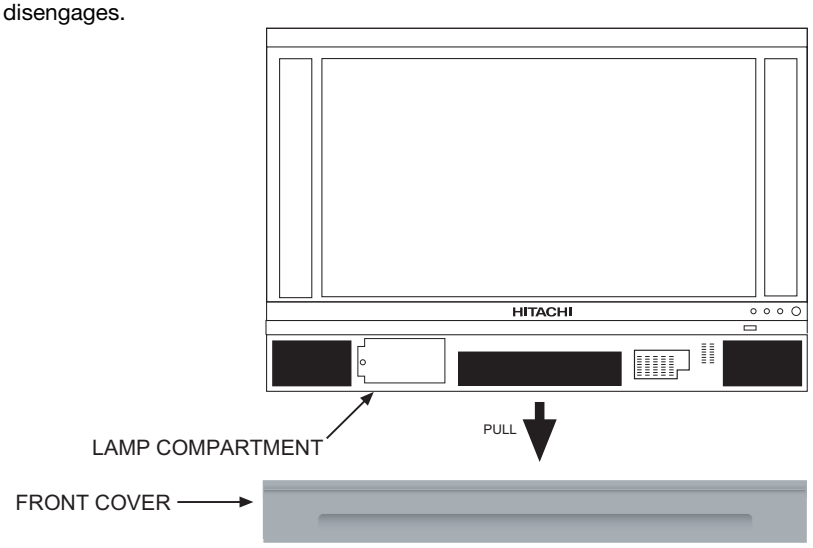
Lamp Replacement

1. Turn off the main power switch and unplug the power cord. Wait at least 30 minutes to allow the lamp to cool down before replacing it.



CAUTION: *The lamp is very hot and may cause fire or severe burns. Wait at least 30~45 minutes to allow the lamp to cool before proceeding with lamp removal.*

2. Remove the front cover from the TV set. This is held by snap on. Pull the cover outwards until the quick snap on disengages.

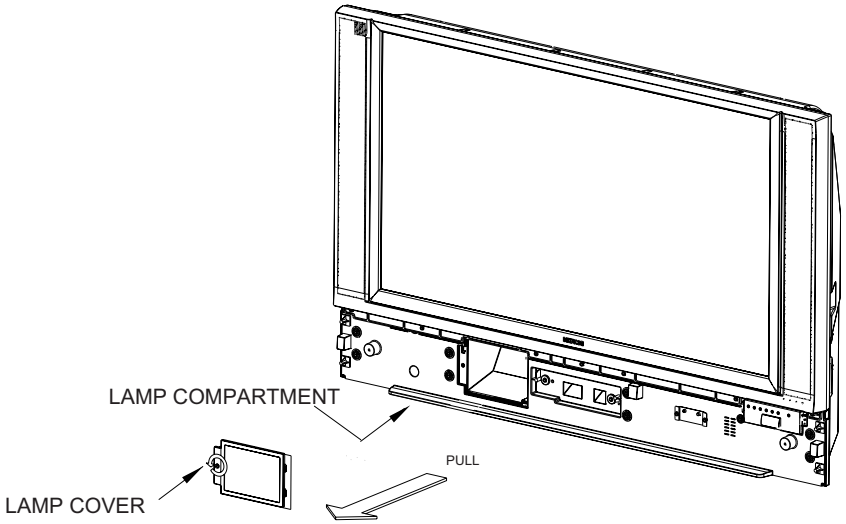


NOTE: *This product contains lead and a lamp that contains mercury. Dispose of this product and its lamp in accordance with applicable environmental laws. For lamp recycling and disposal information, go to www.lamprecycle.org. For product recycling and disposal information, contact your local government agency or the Electronic Industries Alliance at www.eiae.org (in the US) or the Electronic Product Stewardship Canada at www.epsc.ca (in Canada). For more information, call "1-800-HITACHI."*

GENERAL INFORMATION

Lamp Replacement

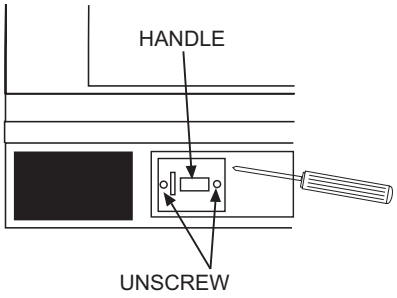
3. Remove the screw securing the lamp cover with a Phillips head screw driver as shown. Remove the lamp cover.

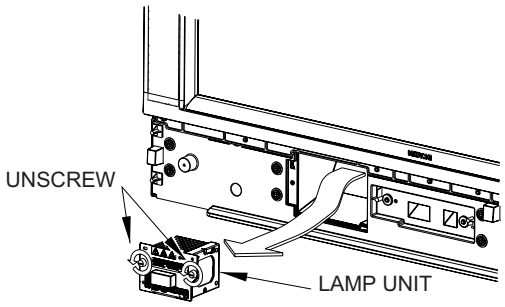


CAUTION: *The lamp is very hot and may cause fire or severe burns. Wait at least 30~45 minutes to allow the lamp to cool before proceeding with lamp removal.*

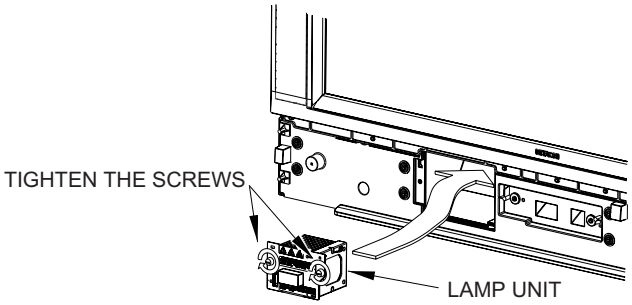
4. Remove the two screws that hold the lamp in place. Remove the lamp unit by holding the lamp handle, then pulling outwards. Exercise caution when removing the lamp unit to avoid injury to your fingers.

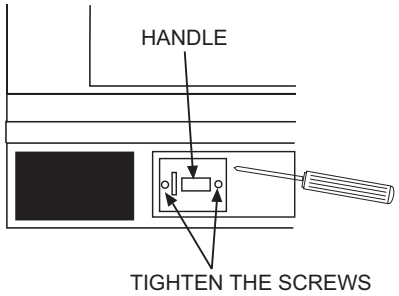
NOTE: *Do not put your hand in the Lamp Storage area after the Lamp Unit is removed, your may get burned.*





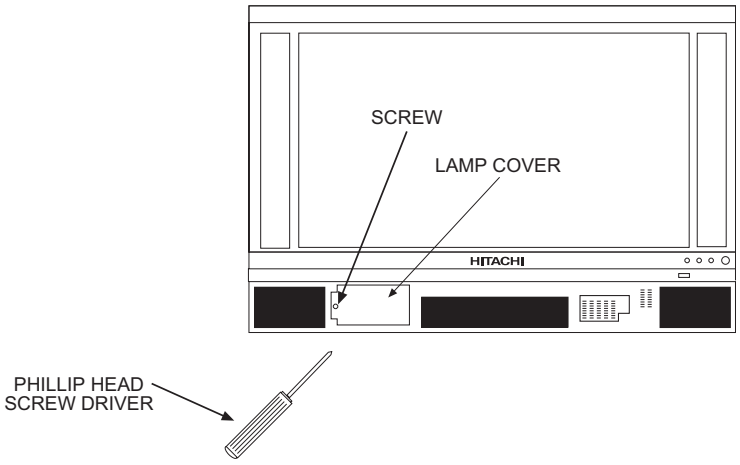
5. Replace with the new lamp.
   Place the removed lamp into the empty box of the replacement lamp. Do not touch the front glass of the new lamp or its receptacle. This may shorten the life of the lamp and reduce the picture quality.
   - Push the lamp unit back to its original position.
   - Tighten the screws firmly on the lamp unit. If they are loose, the TV may not operate correctly.





Lamp Replacement

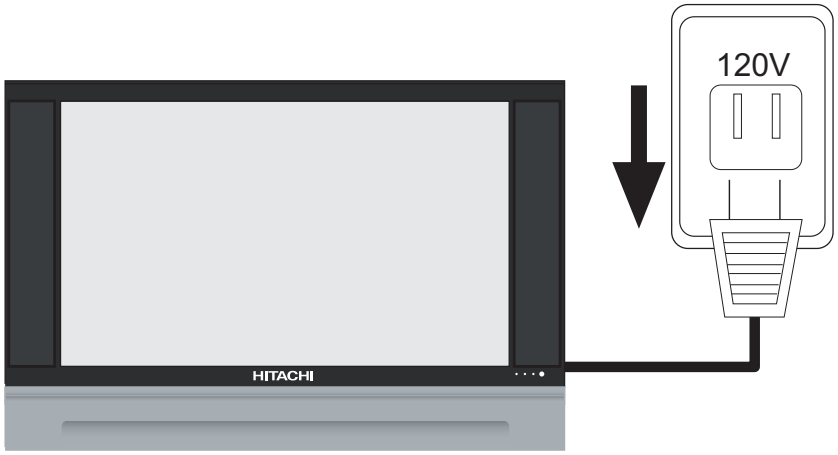
6. Without installing the lamp cover, the power will be off and the Lamp Indicator will flash (see page 17). Be sure to install the lamp cover by re-engaging the two clips and tighten the screws before turning the power on, otherwise it may cause unusual colors.



NOTE: *If power is connected before the Lamp Cover is installed, the power will be off and the Lamp Indicator will flash (see page 17).*

7. Install the front cover as shown below. Put the front cover back in and align the snap on quick connect then push inwards holding the left and right side of the front cover until you hear a snap. Push the other snap on gently to make a good fit.

8. Plug power cord into AC outlet and turn on the main power switch.



NOTE: *This product contains lead and a lamp that contains mercury. Dispose of this product and its lamp in accordance with applicable environmental laws. For lamp recycling and disposal information, go to www.lamprecycle.org. For product recycling and disposal information, contact your local government agency or eRecycle.org (in California), the Electronic Industries Alliance at www.eiae.org (in the US) or Electronic Product Stewardship Canada atwww.epsc.ca (in Canada).*
For more information, call "1-800-Hitachi".

DISPLAY PICTURE FORMAT

❺ ASPECT button

Press this button to quickly change the picture format ASPECT ratio. Depending on the input signal format received, the picture format ratio allows you to adjust the images through the following options.

4:3 STANDARD
Use this aspect mode to display conventional (4:3) images. Side panels (gray areas) are placed to the left and right of the image to preserve the original aspect ratio of the source. Note: Use this mode for only 15% of your total viewing time to prevent uneven aging of the phosphors. Phosphors in the lighted area of the picture will age more rapidly than the gray areas.

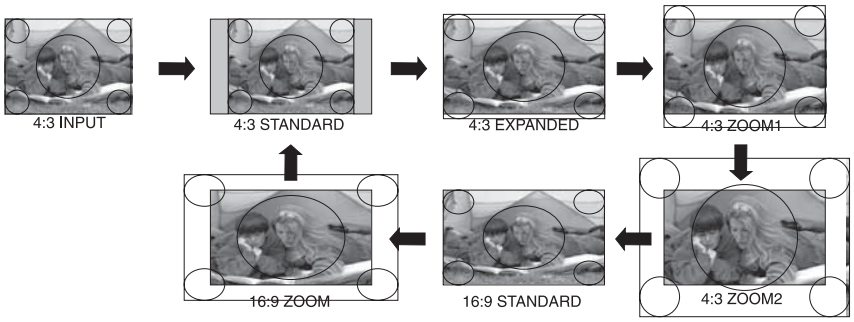
4:3 EXPANDED
Use this aspect mode to display conventional (4:3) sources by linearly increasing image expansion from the center towards the edges of the display area in order to fill it.

4:3 ZOOM1/ZOOM2
Use these aspect modes to zoom in on conventional (4:3) sources.

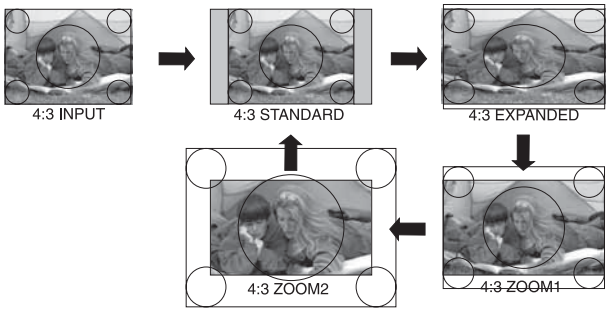
16:9 STANDARD
Use this aspect mode to display 16:9 sources like HDTV and DVD's preserving the original 16:9 aspect ratio.

16:9 ZOOM
Use this aspect to Zoom-in once while in 16:9 aspect.

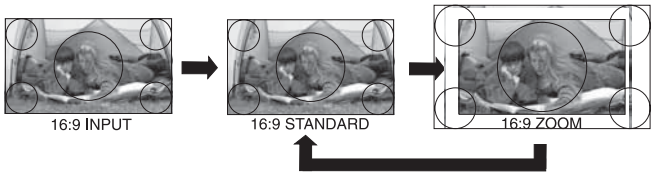
- **Antenna-Analog**
- **S-Video/Video Input (Auto Aspect: Off)**
- **HDMI-480i/480p Input (Auto Aspect: Off)**
- **Component-480i/480p Input (Auto Aspect: Off)**



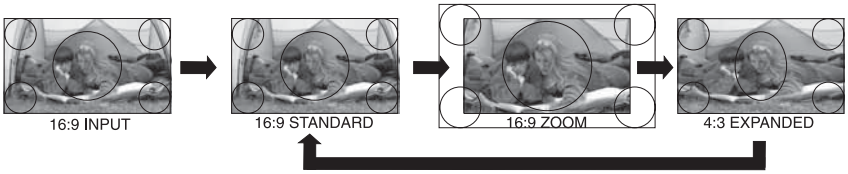
- **Antenna-Digital (4:3)**
- **S-Video/Video 4:3 Letter Input (Auto Aspect: On)**
- **HDMI-480i/480p 4:3/ Letter Input (Auto Aspect: On)**
- **Component-480i/480p 4:3 Letter Input (Auto Aspect: On)**



- **S-Video/Video 16:9 Input (Auto Aspect: On)**
- **HDMI-480i/480p 16:9 Input (Auto Aspect: On)**
- **Component-480i/480p 16:9 Input (Auto Aspect: On)**



- **Antenna-Digital (16:9)**
- **HDMI-720p/1080i Input**
- **Component-720p/1080i Input**



NOTE: 1. The Aspect Style setting you select for an ANT input will automatically be set for the other ANT input. However, all five video inputs have independent Aspect Style settings.
2. Vertical position adjustments are directly available when you choose 4:3 EXPANDED/ZOOM1/ZOOM2 or 16:9 ZOOM aspect style .

Picture-in-Picture (PIP)

PIP Mode Picture-in-Picture
This feature is only available with a Digital 16:9, 720p and 1080i signal. To prevent a pattern burn, occasionally move the sub-picture using the **CURSOR** buttons.

SPLIT Mode Picture-in-Picture
Split Mode PIP displays the main picture and sub-picture evenly on the screen.

SURF Mode Picture-in-Picture
Surf Mode PIP automatically scans all active channels (those set in memory) and displays them as PIP sub-pictures or Thumbnail channels. Press the **SELECT** button to stop on a chosen channel. Use the remote **CURSOR** buttons (◀, ▶, ▲, ▼) to navigate the Thumbnail. Press the **EXIT** button to enable your chosen channel and return to normal viewing.

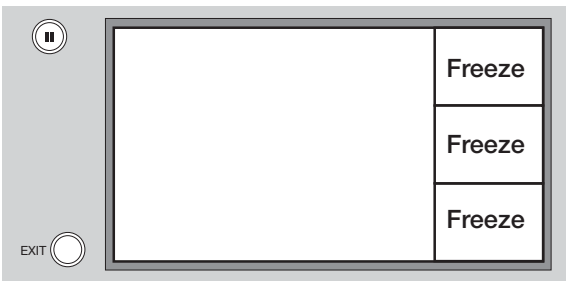
NOTE: Press the SELECT button to stop the Surf mode or channel scan. Press the SELECT button again to resume Surf mode or channel scan.

Picture-in-Picture (PIP) Modes

PIP Mode	Main/ Sub	Aspect	Digital Tuner 16:9	Digital Tuner 4:3	1080i/ 720p 16:9	480p/480i Analog Tuner Video/S-Video 16:9	480p/480i Analog Tuner Video/S-Video 4:3
POP	ANT Digital	16:9	—	—	Yes	Yes	Yes
	480p/480i	16:9	Yes[1]	Yes[1]	—	—	—
	ANT Analog S-Video/Video	4:3	Yes	Yes	—	—	—
PIP 4:3	ANT Digital	16:9	—	—	—	Yes[1]	Yes
	1080i/720p	16:9	—	Yes	—	—	—
	480p/480i S-Video/Video	16:9	—	Yes[2]	—	—	—
PIP 16:9	ANT Digital	16:9	—	—	Yes	Yes[2]	—
	1080i/720p	16:9	Yes	—	—	—	—
	480p/480i S-Video/Video	16:9	Yes[2]	—	—	—	—
SPLIT	ANT Digital	16:9	—	—	Yes	Yes	Yes
		4:3	—	—	Yes	Yes	Yes
	1080i/720p	16:9	Yes	Yes	—	—	—
	480p/480i	16:9	Yes	Yes	—	—	—
	ANT Analog S-Video/Video	4:3	Yes	Yes	—	—	—
SURF 12 PIX	—	—	Yes	Yes	—	—	Yes

Yes[1] = Auto Aspect Off; Yes[2] = Auto Aspect On

❷ **PAUSE button**
If you wish to freeze the sub-picture, press the **PAUSE** button. This is convenient when trying to write down the address for a mail order company, recording statistics for a sporting event, etc. To return the picture to motion, press the **EXIT** button. Press the **PAUSE** button repeatedly to toggle between **FREEZE** modes (Main Freeze, SPLIT and STROBE).



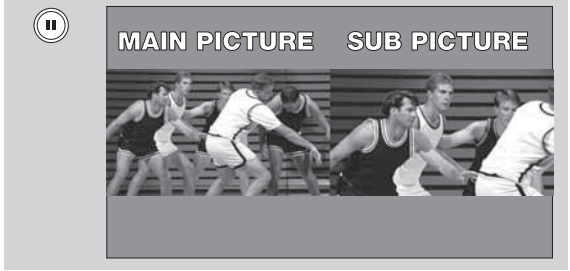
Picture-in-Picture (PIP)

MAIN FREEZE

Press the **PAUSE** button to freeze one frame of the picture you are currently viewing and the frozen frame will show in the Main Picture. Press the **EXIT** button to return to normal viewing. This feature is useful for freezing a picture frame with addresses.

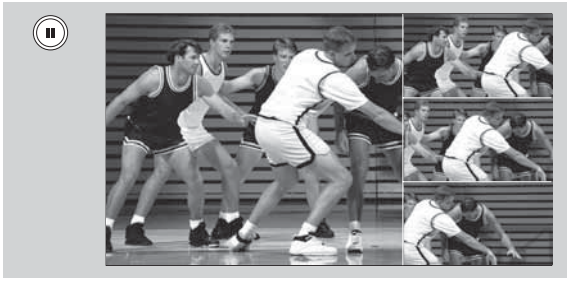
SPLIT FREEZE

Press the **PAUSE** button to freeze the picture you are currently viewing (only the right sub-picture will freeze). Press the **EXIT** button to return to normal viewing.



STROBE FREEZE

Press the **PAUSE** button to freeze three frames of the picture you are currently viewing (only the 3 sub-pictures will freeze). Press the **EXIT** button to return to normal viewing. This feature is useful for viewing a moving picture that has many details, for example, a close play in a sporting event or a golf swing.



*NOTE: 1. The default **FREEZE** mode is the MAIN freeze followed by the **SPLIT** freeze and then the **STROBE** freeze. The last Freeze mode you selected before you pressed the **EXIT** button will be the one that comes up after pressing the **PAUSE** button again.*

2. Each freeze frame is delayed about 0.1 (1/10) second.

SERVICE ADJUSTMENTS

TO GO TO AN ADJUSTMENT, CLICK ON ITS HEADING BELOW

***IMPORTANT**
For many of the above adjustments, it is necessary to have an HDTV (1080i or 720P) signal generator, SDTV (480P) signal generator, as well as the usual NTSC (480i) signal generator.
Hitachi recognizes that few companies offer HDTV or SDTV signal generators and that the cost of these generators is sometimes prohibitive. For this reason, we suggest the use of a set-top-box for HDTV and SDTV adjustments. Usually, there is a switch on the set-top-box which enables it to output HDTV (1080i or 720P) or SDTV (480P) signals even with no input. In this case, the sync is automatically detected by the TV (at the Y-P_BP_R Inputs on the rear panel).

ADJUSTMENT PROCEDURE START-UP

The 50V720 LCD rear proyection television sets pass through adjustment procedures during the assembly process. These adjustments must be done to assure the best performance of the LCD set for the consumer.

Also, after servicing, these same adjustments must be done. Most of the adjustments are made by the I_2C bus by changing data in the Adjustment mode menu.

On pages 42-78 shows the complete parameter list with a brief description, signal format, the adjustment range and the initial data.

1-1 HOW TO GET TO ADJUSTMENT MODE

Chassis adjustment mode can be access by pressing the R/C keys MENU + MENU + 8 + SELECT to enter adjustment mode. For some parameters the only way to see them is by selecting the parameter number than pressed SELECT in order to see it; then DATA can be change if other parameter needs to change then press ▼ key then repeat the same procedure.

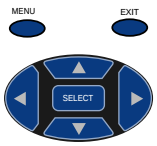
ADJUST MODE
▶**RGB**
H POSITION **
V POSITION **
ENBW **
GHOST
VCOM
NRSH
STRIPE
S.GHOST
STREAK

Other way to access this mode is by use JIG R/C code: (9C Hex). To escape from Adjustment Mode press “INPUT” key on Side panel or EXIT key of R/C to exit service adjustment mode.

1-1.1 CHANGING DATA AND SELECTING ADJUSTMENT CODE

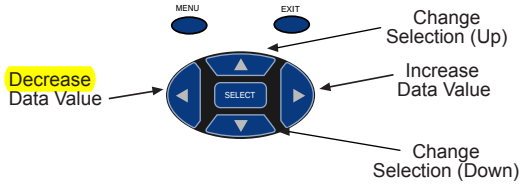
When the LCD set is in adjustment mode, the cursor ◀, ▶, ▲, ▼ and MENU keys of the remote control or front panel may be used as the adjustment keys.

A. Use any Hitachi remote control when making an adjustment.
▲, ▼ keys are used for selecting adjustment item.



◀, ▶ keys are used for changing data values.
MENU key is used to advance through the adjustment mode menus and pages.

Remote Control Buttons



B. To make a selection, use the NUMBER pad on the LCD R/C ; example : select SEINE press 69 then SELECT the DATA shown is "EB" ; if this DATA needs to be change press the ◀, ▶, keys to modify, when finish press SELECT key to store the new DATA value.
normal condition.

C. After finishing the necessary adjustment press the R/C EXIT key or EXIT key on the side panel.
Adjustment mode is released and LCD set returns to normal condition.

1-2 MEMORY INITIALIZE

1-2.1 MEMORY INITIALIZE OPERATION

NOTE: The execution of this function returns the adjustment codes to the preset values, therefore, **adjustment data will be lost**.

Procedure

(1) Enter Adjustment mode by the method described in sub-items 1.1 and 1.2 from item 1 (“Adjustment procedure start up”).
(2) Get to the second page of Adjust Mode by pressing remote control “Menu” key once, or with either the R/C or front panel ▲, ▼ cursor keys several times.
(3) Select MEMORY INIT adjust code.
(4) Activate MEMORY INIT by pressing ▶ cursor key for more than 3 seconds.
(5) Check the following process for initialization operation.

·Process of Memory Initialize operation.
① A screen is be colored **blue** when MEMORY INIT start.
② A screen is be colored **green** when MEMORY INIT finish normally.
③ A screen is be colored **black** when MEMORY INIT finish abnormally.

(6) Do not unplug from AC outlet until this operation is complete and do not perform any key operation either, after this operation each factory setting and all adjust mode data should reset to delivery settings automatically.
(7) After Memory Initialize, it should be unplug AC cord. Unplug and plug AC cord and then all settings and data are updated.
(8) When LCD turns ON , it will tune CH03 this is the complete operation of Memory Initialize process.

CH 2

1-3 FACTORY RESET OPERATION

NOTE: The execution of this function returns the adjustment made by the customer , this will return all the adjustments to the **original shipping conditions.**

Procedure

(1) Enter Adjustment mode by the method described in sub-items 1.1 and 1.2 from item 1 (“Adjustment procedure start up”).
(2) Get to the second page of Adjust Mode by pressing remote control “Menu” key once, or with either the R/C or front panel ▲, ▼ cursor keys several times.
(3) Select FACTORY RESET adjust code.
(4) Activate FACTORY RESET by pressing ▶cursor key for more than 3 seconds.
(5) Check the following process for FACTORY RESET operation.

·Process of FACTORY RESET operation.

① A screen is be colored **MAGENTA** when FACTORY RESET start.
② A screen is be colored **green** when FACTORY RESET finish normally.
③ A screen is be colored **black** when FACTORY RESET finish abnormally.

(6) Do not unplug from AC outlet until this operation is complete and do not perform any key operation either, after this operation each factory setting and all adjust mode data should reset to delivery settings automatically.
(7) After FACTORY RESET, it should be unplug AC cord. Unplug and plug AC cord and then all settings and data are updated.
(8) When LCD turns ON , it will tune CH03 this is the complete operation of FACTORY RESET process.

1-4 FACTORY AND SERVICE ADJUSTMENTS

The adjustment item that is affected by the memory initialize operation is shown below:

*** JIG. R/C FACTORY PRESET CODE:92**

MEMORY INITIALIZE and FACTORY PRESET

ITEM	MEMORY INITIALIZE	FACTORY RESET	REMARKS
H POSITION ADJUST DATA	INITIALIZE	NOT INITIALIZE	
V POSITION ADJUST DATA	INITIALIZE	NOT INITIALIZE	
RGB(480p) ADJUST DATA	INITIALIZE	NOT INITIALIZE	
SETTING DATA FOR EACH DEVICE	INITIALIZE	NOT INITIALIZE	
BBE EFFECT SETTING DATA	INITIALIZE	NOT INITIALIZE	
AUDIO AGC SETTING DATA	INITIALIZE	NOT INITIALIZE	
V CHIP RATING SETTING DATA	INITIALIZE	NOT INITIALIZE	
CCD SETTING DATA	INITIALIZE	NOT INITIALIZE	
FACTORY RESET ITEM	INITIALIZE	INITIALIZE	
LAMP TIME	INITIALIZE	INITIALIZE	
Accumulate TIME	INITIALIZE	NOT INITIALIZE	
GHOST ADJUST DATA	INITIALIZE	NOT INITIALIZE	
FLICKER ADJUST DATA(V.COM)	INITIALIZE	NOT INITIALIZE	
NRSH ADJUST DATA	INITIALIZE	NOT INITIALIZE	
COLOR UNIFORMITY	NOT INITIALIZE	NOT INITIALIZE	
GAMMA CORRECTION	NOT INITIALIZE	NOT INITIALIZE	
V.REF (EPSON PANEL ONLY)	NOT INITIALIZE	NOT INITIALIZE	
Automatic Power saving- Yes/No	Set to “No” for heat-run	Set to Yes	

NOTE: (1) If there is a different value than shown in I2C Parameter List, for fixed data, adjust it using ◀,▶ buttons (only in this case)

2 Final ASSEMBLY ADJUSTMENT

2-1 PRE HEAT RUN CONDITION

Heat run should be performed with moving picture or no signal.
And disable side panel or top/bottom panel.
Do NOT use stock market quotation, computer graphics, and other fixed (non-moving) image.

Table 2.1 Final adjustment order

Order	Adjustment Item	Signal
1	SUB CONTRAST ADJUSTMENT (RGB)	White Raster 480i,720P
2	RASTER POSITION ADJUSTMENT	Circle pattern signal.
3	GHOST ADJUSTMENT	
4	FLICKER ADJUSTMENT	
5	NRSH ADJUSTMENT	
6	White Balance (GAMMA) ADJUSTMENT	
7	WHITE UNIFORMITY ADJUSTMENT	
8	DOT STRIPE CHECKING and ADJUSTMENT	
9	SUB GHOST CHECKING and ADJUSTMENT	
10	HORIZONTAL CROSS TALK CHECKING and ADJUSTMENT	
11	LAMP DOOR PROTECTION OPERATION CHECK	
12	LAMP HOLDER PROTECTION OPERATION CHECK	
13	HIGH TEMPERATURE PROTECTION OPERATION CHECK	
14	TEMPERATURE SENSOR OPERATION CHECK	
15	HDMI ADJUSTMENT / EDID DATA INSTALLATION	
16		
17		
18		
19		
20		

2-2 SUB-CONTRASTADJUSTMENT

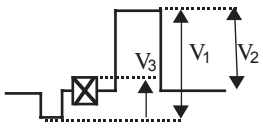
Preparation

Receive Sub-contrast adjustment signal (Fig. 1).

Adjustment

(1) Select ‘SUB CONTRAST’ of Service Adj. Menu. Press ▶ for over 2 seconds and have it perform automatic adjustment. When it’s completed, ‘Auto Adjusting’ on the screen will be disappeared.

Fig. 1
Full White



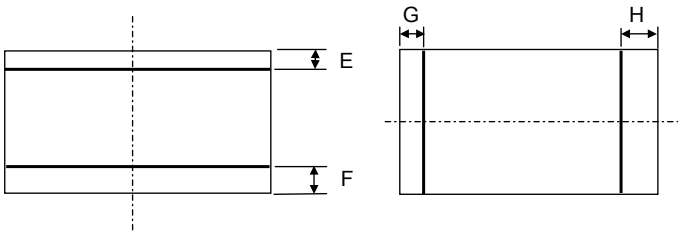
(RF Input ANT A))
V_1=1.0 Vp-p (when
V_2=100IRE with
V_3=7.51IRE)

(Y P_BP_R Input 720p,1080i)
V_1=1.0 Vp-p (when
V_2=100IRE with
V_3=7.51IRE)

Final ASSEMBLY ADJUSTMENT

2-3 RASTER POSITION ADJUSTMENT

(1) Receive Circle pattern signal.
(2) Recall Adjustment menu.
(3) Select 'V POSITION' by using the cursor stick (▲/▼ direction) on handset. Adjust the horizontal picture position where |E-F| <= 3mm by using the cursor stick (◄/► direction).
(4) Select 'H POSITION' by using the cursor stick (▲/▼ direction) on handset. Adjust the horizontal picture position where |G-H| <= 3mm by using the cursor stick (◄/► direction).



NOTE : Refer to page 48 for display area spec.

2-4 FLICKER ADJUSTMENT

ADJUSTMENT PROCEDURE

(1) SIGNAL: Internal signal from IC (50% raster signal with one dot black lines)
(2) Red FLICKER ADJUSTMENT: **LCD ADJUST MODE → V.COM.**

LCD ADJUST MODE
VCOM R xx
VCOM G xx
VCOM B xx

Press SELECT key, test pattern will be displayed.
Reduce the flicker by pressing cursor stick ◄► of handset.
The adjustment point is the weakest FLICKER position and required additional offset. (***1**)

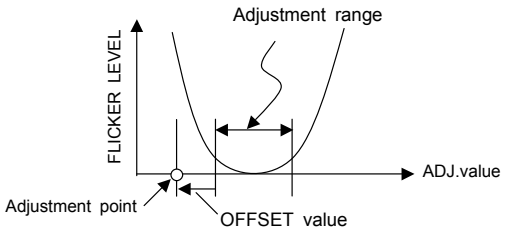
(3) GREEN FLICKER ADJUSTMENT: Press SELECT key to return to the "LCD ADJUST MODE". Select VCOM G and adjust by same procedure as red flicker.
(4) BLUE FLICKER ADJUSTMENT: Press SELECT key to return to the "LCD ADJUST MODE". Select VCOM B and adjust by same procedure as red flicker

(*1)Additional offset is required for VCOM adjustment. The offset value is depends on each color.
Offset steps are shown below.

Additional OFFSET table:

Color	OFFSET
RED	-5
GREEN	-7
BLUE	-8

Graphic representation of adjustment:

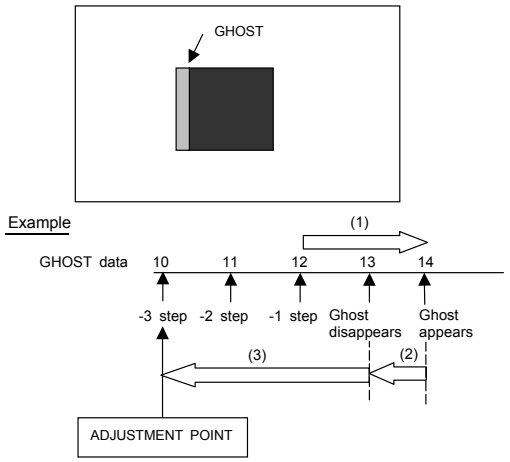


2-5 GHOST ADJUSTMENT

ADJUSTMENT PROCEDURE
(1) ADJ.SIGNAL Internal signal from IC (Black window pattern with RGB raster signal)
(2) RED GHOST **LCD ADJUST MODE → GHOST** ADJUSTMENT

LCD ADJUST MODE
GHOST R xx
GHOST G xx
GHOST B xx

Press SELECT key, test pattern will be displayed.
(3) Increase the I^2C data by pressing cursor stick ► of handset until ghost appears at left side of the window pattern.
(4) Then, decrease the I^2C data by pressing cursor stick ◄ of handset until ghost disappears.
(5) Finally, decrease the I^2C data by 3 steps



(6) GREEN GHOST Press SELECT key to return to the "LCD ADJUST MODE". ADJUSTMENT Select GHOST G and adjust same procedure as red GHOST.
(7) BLUE GHOST Press SELECT key to return to the "LCD ADJUST MODE". ADJUSTMENT Select GHOST B and adjust same procedure as red GHOST

2-6 NRSH ADJUSTMENT

ADJUSTMENT PROCEDURE

(1) Complete FLICKER ADJUSTMENT before the adjustment.
(2) SIGNAL Internal signal from IC (Gray scale)
(3) Red NRSH ADJUSTMENT **LCD ADJUST MODE→ NRSH**

LCD ADJUST MODE
NRSH HR xx
NRSH HG xx

Press SELECT key, test pattern will be displayed.
Reduce the vertical lines (12 dot width) by pressing the cursor stick◄► of handset.

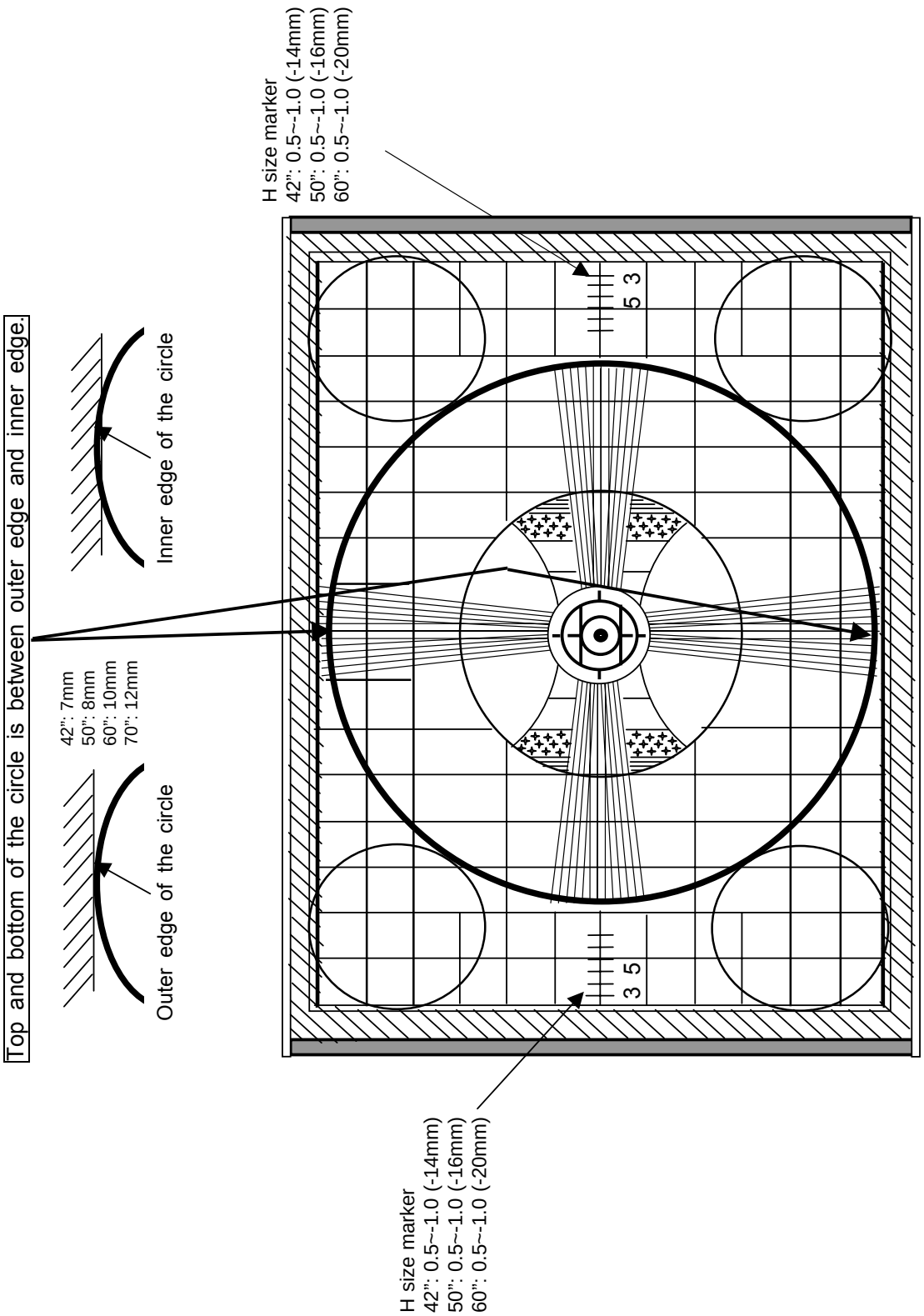
Press SELECT key to return to the "LCD ADJUST MODE".

(4) GREEN NRSH ADJUSTMENT Press "▼" of handset. The test pattern will be changed from red to green.
Adjust the Green NRSH with same procedure as Red NRSH.
The Blue NRSH adjustment is not required.
(5) CHECK FLICKER Check that picture is not flickering. If there is, re-adjust flicker.

Final ASSEMBLY ADJUSTMENT

2-7 DISPLAY AREA SPECIFICATIONS

Normal mode

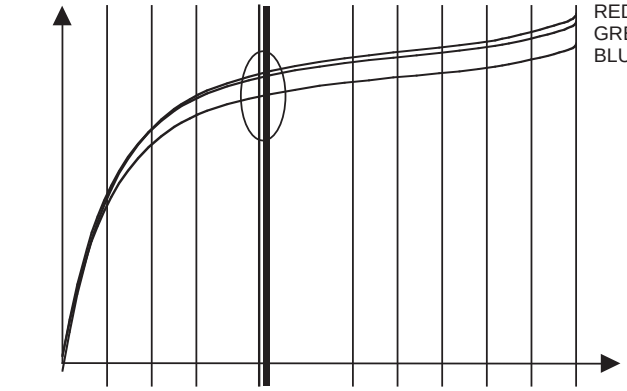


Final ASSEMBLY ADJUSTMENT

2-8 GAMMA Correction (White Balance)

GAMMA data (white balance) should not be adjusted. This data are adjusted by the factory and MEMORY INITialize cannot erase these data. If and only if the customer request to change the GAMMA correction, follow the instruction below.
(1) Heat run for 10 minutes or more after power on.
(2) The white signal is generated from the internal IC.
(3) Change only the step that are requested to change.

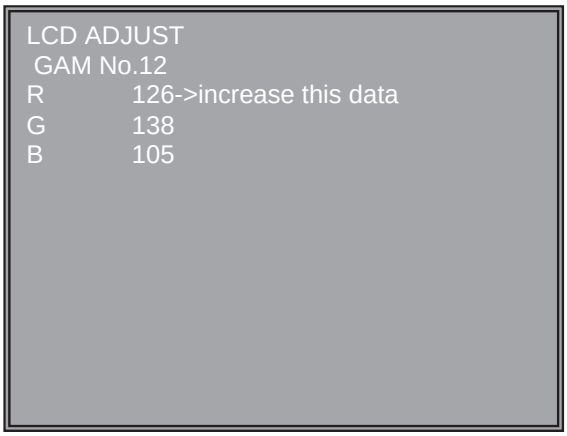
For customer request, it is possible to adjust RGB signal amplitude (means adjust the gamma correction curve) each signal level (No.1_No.32).
If customer require to change the white balance of LCD PTV, we should re-adjust gamma correction curve.



1. ADJUSTMENT PROCEDURE for SERVICE
Input signal level(luminance level) is divided into 32(No.0_No.32).

FOR EXAMPLE,
If customer require to change the white balance of 12th level of white to reddish, increase the red value and adjust the white balance of 12th signal level (see below).

I2C MENU (Adjustment)
LCDADJ>GAMMA>No.12



Remark: The gamma data for higher intensity should always be bigger than that of lower intensity. If not, noise may appear on the screen.

example:

	GAM No11		GAM No12		GAM No13	
R	120	>	119	<	127	NG
R	120	<	128	>	127	NG
R	120	≤	125	≤	127	OK

GAM No12 Red Adjustable Range 120~127

STORE THE DATA TO TV SET
LCD ADJ>G/C WRITE_press for several second
After this procedure, this new data will be write back to E2PROM. It takes about 20 seconds (picture will be black out).

Final ASSEMBLY ADJUSTMENT

2-9 Color Uniformity (White Uniformity)

COLOR UNIFORMITY data should not be adjusted. This data are adjusted by the factory and MEMORY INITialize cannot erase these data. If and only if the customer request to change the color uniformity, follow the instruction below.

(1) Heat run for 10 minutes or more after power on.
The four white signals generated from the internal IC

(3) Change only the step that are requested to change.

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25

The screen is divided in 25 spaces. It can adjust for 4 different luminance levels. These data is linearly interpolated on screen.

1. COLOR UNIFORMITY ADJUSTMENT PROCEDURE

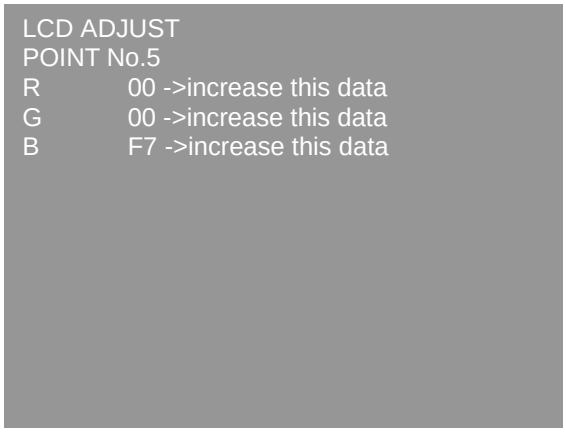
Adjustable luminance level is divided in 4 (MIN (8%), MIDL (20%), MIDH (55%), and HMAX (82%)).

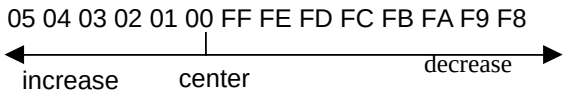
FOR EXAMPLE

If a customer complains about the color uniformity at position 5 on the screen (luminance level; MIDH), increase the BLUE (or GREEN or RED) value and adjust the color uniformity of position 5.

I^2C MENU

LCD ADJ > C.UNIF (MIDH) > POINT No.5





STORE THE DATA TO TV SET

LCD ADJ > G/C WRITE - press for 2- 3 second

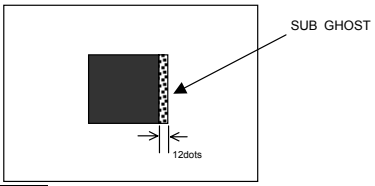
After this procedure, this new data will be written back to E^2PROM. It takes about 20 seconds.

2.10 DRIVE ADJUSTMENT CHECK

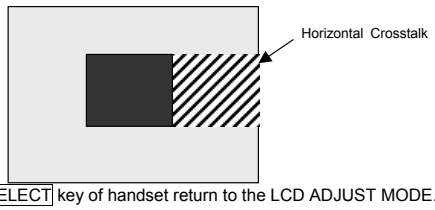
2.10.1 DOT STRIPE(vertical lines 12 dot width) CHECKING and ADJUSTMENT

ADJUSTMENT ITEMS		ADJUSTMENT PROCEDURE
0	PREPARATION	Complete White uniformity adjustment before the adjustment.
1	SIGNAL	Internal signal from IC（Dot pattern with gray scale）
2	RED Stripe adjustment	**LCD ADJUST MODE →STRIPE** LCD ADJUST MODE STRIPE R0 xx STRIPE R1 xx STRIPE R2 xx STRIPE R3 xx STRIPE R4 xx Press SELECT key, test pattern will be displayed. Check that no vertical line with pitch of 12 dots on screen. If there is, adjust the data by pressing left or right cursor stick ◄►of handset. 5 signal levels are required to check and adjust the vertical stripes. Signal levels are changed pressing ▼cursor of handset. Press SELECT key of handset return to the LCD ADJUST MODE.
3	GREEN Stripe adjustment	Press "▼" key to select Green. Check and adjust Green stripe with same procedure as Red Stripe.
4	BLUE Stripe adjustment	Press "▼" key to select Blue. Check and adjust Blue stripe with same procedure as Red Stripe.

2.10.2 SUB GHOST CHECKING and ADJUSTMENT

ADJUSTMENT ITEMS		ADJUSTMENT PROCEDURE
0	PREPARATION	Complete White uniformity adjustment before the adjustment.
1	SIGNAL	Internal signal from IC（50% white window pattern ）
2	Sub Ghost R adjustment	**LCD ADJUST MODE →S GHOST** LCD ADJUST MODE S GHOST R xxx S GHOST G xxx S GHOST B xxx Press SELECT key, test pattern will be displayed Check that no ghost on right hand side of the window. If there is, decrease Ghost by pressing cursor stick ◄► of handset  Press SELECT key of handset return to the LCD ADJUST MODE.
3	Sub Ghost G adjustment	Press "▼" key to select green. Check and adjust sub ghost green with same procedure as Red SUB GHOST.
4	Sub Ghost B adjustment	Press "▼" key to select blue. Check and adjust sub ghost blue with same procedure as Red SUB GHOST.

2.10.3 HORIZONTAL CROSS TALK CHECKING and ADJUSTMENT

ADJUSTMENT ITEMS		ADJUSTMENT PROCEDURE
0	PREPARATION	Complete White uniformity adjustment before the adjustment.
1	SIGNAL	Internal signal from IC (50% white window pattern)
2	STREAK LEVEL R STREAK SLOPE R	**LCD ADJUST MODE → STREAK** LCD ADJUST MODE R LEVEL xx R SLOPE xx G LEVEL xx G SLOPE xx B LEVEL xx B SLOPE xx Press SELECT key, test pattern will be displayed Check that no horizontal cross talk on right side of the window. If there is, adjust the "R-LEVEL" by pressing cursor stick ◄► of handset. If cross talk does not disappear with "R-LEVEL", press ▼ key and adjust "R-SLOPE" until cross talk is disappeared.  Press SELECT key of handset return to the LCD ADJUST MODE.
3	STREAK LEVEL G STREAK SLOPE G	Press "▼" key to select Green. Check and adjust Green Streak with same procedure as Red cross talk.
4	STREAK LEVEL B STREAK SLOPE B	Press "▼" key to select Blue. Check and adjust Blue Streak with same procedure as Red cross talk.

Final ASSEMBLY ADJUSTMENT

2-11 LAMP DOOR PROTECTION OPERATION CHECK

Adjustment procedure

(1) Remove Lamp cover and turn the set on.
(2) Check that the lamp dose not light and “Lamp indicator” flash red.
(3) Turn the set off and attach Lamp cover again

2-12 LAMP HOLDER PROTECTION OPERATION CHECK

Adjustment procedure

(1) Remove Lamp holder and turn the set on. (attach Lamp cover)
(2) Check that the lamp dose not light and “Lamp indicator” flash red.
(3) Turn the set off and attach Lamp holder again

2-13 HIGH TEMPERATURE PROTECTION OPERATION CHECK

Adjustment procedure

(1) Remove EPF2 connector while the set is on.
(2) Check that the lamp is turned off and “Temp indicator” flash red.
(3) Turn the set off and attach EPF2 again.
(4) Remove EPF3 connector while the set is on.
(5) Check that the lamp is turned off and “Temp indicator” flash red.
(6) Turn the set off and attach EPF3 again.
(7) Turn the set on and remove the connector of temperature sensor terminals on optical engine.
(8) Check that the lamp is turned off and “Temp indicator” lights in red.

2-14 TEMP SENSOR DATA SETTING

2-14.1 Background and Outline

TEMP Sensor is placed in the OPT unit, and is monitoring inner temperature.

Sensor: IL01(EMC1001) on LC5X SENSOR P.W.B connected to
SIGNAL PWB by PTM* connector through SENSOR CONN P.W.B.

Main micro in Digital Core checks that temperature, and indicates LED alarm if the temperature exceeds the limit.

i) High Temperature: Alarm message is displayed for 5 minutes and
Power will be shut down with cool-down sequence.

(Only the power button is acceptable. Any menu and message OSD cannot be displayed.)

ii) IL01 failed or not connected: TEMP LED and LAMP LED are blinking alternately. (Cycle; 1sec)

2-14.2 Purpose

It's important to set the limiting data correctly. And it's better to use the automatic adjustment then human mistake is prevented.
Because, each model needs the unique data that is different from another models.

2-14.3 Adjustment Spec.

Adjustment procedure

1) Open ADJ menu and select Seine.
2) Input the data 72. Press SELECT and initial data will be displayed.
3) Change the data to required adjustment data as shown in following table, (This is for starting of Alarm.)
4) Press SELECT to write.

Input Data

MODEL	DATA(hex)
	No.72
(Default data)	(4B)
50V720	Not fixed

2-15 Checking of temperature sensor

Adjustment procedure

1) Open ADJ menu and select Seine.
2) Input the data 71. Press SELECT.

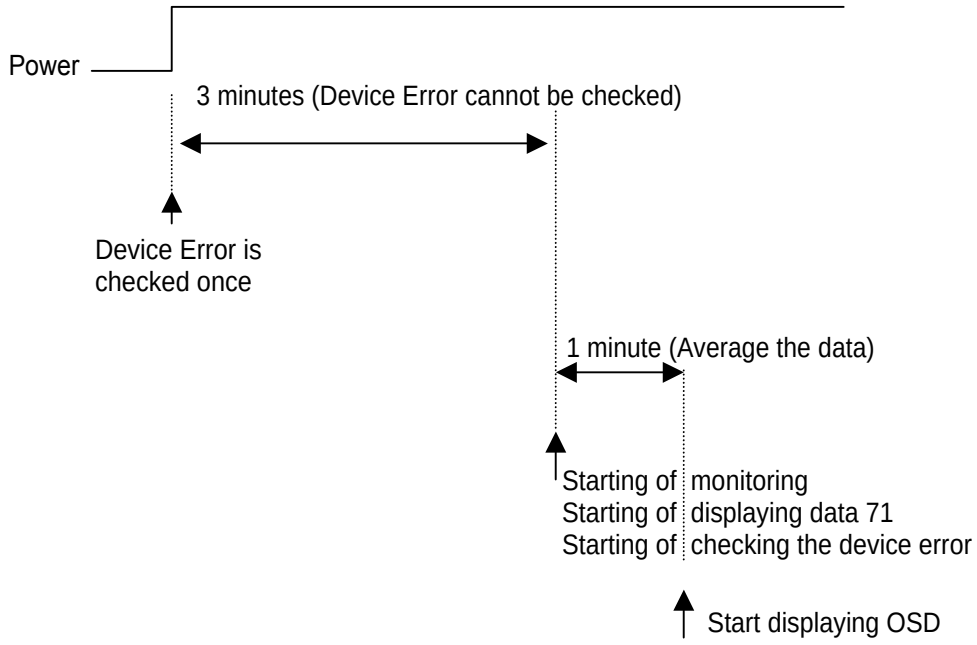
Checking

Check that the data is normal. (Hexadecimal number °C)
(If the data 72 were changed to be equal to data 71, alarm message OSD will be displayed in a minute.)

Simplified method

Check that front LEDs are not blinking alternately after power ON. (Device error blinking)

2-15.1 Timing of the sensor operation (as Appendix)



2-16. Adjustment I²C Parameter List

1st Page (1/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
Drive Up						
AMP ADJUST	To Auto Adjustment Menu	–	–	–	–	–
Drive Up (E7070)						
H_POSITION	**[ISF Mode]** Horizontal Position Adjustment	000~3FF	1A1*	←	←	←
V_POSITION	**[ISF Mode]** Vertical Position Adjustment	000~1FF	00F*	←	←	←
ENBW	ENBW (E7070 C0Ch)	00~3F	00B*	←	←	←
GHOST_R	GHOST R (E7070 C09H)	00~7F	0F*	←	←	←
GHOST_G	GHOST G (E7070 C0AH)	00~7F	0F*	←	←	←
GHOST_B	LCD Adjust-GHOST B (E7070 C0BH)	00~7F	0F*	←	←	←
Drive Up (E6110)						
VCOM_R	LCD Adjust-V-COM_R (E6110-R/8h)	00~FF	8F*	←	←	←
VCOM _G	LCD Adjust-V-COM_G (E6110-G/ 8h)	00~FF	8F*	←	←	←
VCOM _B	LCD Adjust-V-COM_B (E6110-B/ 8h)	00~FF	8F*	←	←	←
Drive Up (E7070)						
NRSH_HR	LCD DRIVE-NRSH HR	000~3FF	1D0*	←	←	←
NRSH_HG	LCD DRIVE-NRSH HG/HB	000~3FF	1D0*	←	←	←
STRIPE_R0	LCD Adjust-STRIPE0(R) (E7070 C46h)	00~FF	008*	←	←	←
STRIPE_R1	LCD Adjust-STRIPE1(R) (E7070 C47h)	00~FF	002*	←	←	←
STRIPE_R2	LCD Adjust-STRIPE2(R) (E7070 C48h)	00~FF	000*	←	←	←
STRIPE_R3	LCD Adjust-STRIPE3(R) (E7070 C49h)	00~FF	0FB*	←	←	←
STRIPE_R4	LCD Adjust-STRIPE4(R) (E7070 C4Ah)	00~FF	0FA*	←	←	←

*: Stored in EEPROM for Drive Micro

1st Page (2/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
Drive Up (E7070)						
STRIPE_G0	LCD Adjust-STRIPE0(G) (E7070 C4Bh)	00~FF	008*	←	←	←
STRIPE_G1	LCD Adjust-STRIPE1(G) (E7070 C4Ch)	00~FF	002*	←	←	←
STRIPE_G2	LCD Adjust-STRIPE2(G) (E7070 C4Dh)	00~FF	000*	←	←	←
STRIPE_G3	LCD Adjust-STRIPE3(G) (E7070 C4Eh)	00~FF	0FB*	←	←	←
STRIPE_G4	LCD Adjust-STRIPE4(G) (E7070 C4Fh)	00~FF	0FA*	←	←	←
STRIPE_B0	LCD Adjust-STRIPE0(B) (E7070 C50h)	00~FF	008*	←	←	←
STRIPE_B1	LCD Adjust-STRIPE1(B) (E7070 C51h)	00~FF	002*	←	←	←
STRIPE_B2	LCD Adjust-STRIPE2(B) (E7070 C52h)	00~FF	000*	←	←	←
STRIPE_B3	LCD Adjust-STRIPE3(B) (E7070 C53h)	00~FF	0FB*	←	←	←
STRIPE_B4	LCD Adjust-STRIPE4(B) (E7070 C54h)	00~FF	0FA*	←	←	←
S_GHOST_R	LCD Adjust-SUB GHOST R (E7070 C58h)	00~7FF	000*	←	←	←
S_ GHOST_G	LCD Adjust-SUB GHOST G (E7070 C59h)	00~7FF	000*	←	←	←
S_ GHOST_B	LCD Adjust-SUB GHOST B (E7070 C5Ah)	00~7FF	000*	←	←	←
STREAK_R_LEVEL	LCD Adjust-STREAK-LEVEL R (E7070 C6Dh)	00~7FF	000*	←	←	←
STREAK_R_SLOPE	LCD Adjust-STREAK-SLOPE R (E7070 C67h)	300h~3FF	3FD*	←	←	←
STREAK_G_LEVEL	LCD Adjust-STREAK-LEVEL G (E7070 C70h)	00~7FF	000*	←	←	←
STREAK_G_SLOPE	LCD Adjust-STREAK-SLOPE G (E7070 C68h)	300h~3FF	3FD*	←	←	←
STREAK_B_LEVEL	LCD Adjust-STREAK-LEVEL B (E7070 C73h)	00~7FF	000*	←	←	←
STREAK_B_SLOPE	LCD Adjust-STREAK-SLOPE B (E7070 C69h)	300h~3FF	3FD*	←	←	←

*: Stored in EEPROM for Drive Micro

BACK TO ADJUSTMENTS

2nd Page (1/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
Drive Up (E7070)						
No. 0~32	LCD Adjust-GAMMA NO.	00~20	000*	←	←	←
R	LCD Adjust-GAM R	000~3FF	(*1)	←	←	←
G	LCD Adjust-GAM G	000~3FF	(*1)	←	←	←
B	LCD Adjust-GAM B	000~3FF	(*1)	←	←	←
No. 1~25	LCD Adjust-C. UNIF NO.	01~19	01	←	←	←
R	LCD Adjust-R. UNIF (MIN).	00~FF	(*1)	←	←	←
G	LCD Adjust-G. UNIF (MIN).	00~FF	(*1)	←	←	←
B	LCD Adjust-B. UNIF (MIN).	00~FF	(*1)	←	←	←
No. 1~25	LCD Adjust-C. UNIF NO.	01~19	01	←	←	←
R	LCD Adjust-R. UNIF (MIN).	00~FF	(*1)	←	←	←
G	LCD Adjust-G. UNIF (MIN).	00~FF	(*1)	←	←	←
B	LCD Adjust-B. UNIF (MIN).	00~FF	(*1)	←	←	←
No. 1~25	LCD Adjust-C. UNIF NO.	01~19	01	←	←	←
R	LCD Adjust-R. UNIF (MIN).	00~FF	(*1)	←	←	←
G	LCD Adjust-G. UNIF (MIN).	00~FF	(*1)	←	←	←
B	LCD Adjust-B. UNIF (MIN).	00~FF	(*1)	←	←	←
No. 1~25	LCD Adjust-C. UNIF NO.	01~19	01	←	←	←
R	LCD Adjust-R. UNIF (MIN).	00~FF	(*1)	←	←	←
G	LCD Adjust-G. UNIF (MIN).	00~FF	(*1)	←	←	←
B	LCD Adjust-B. UNIF (MIN).	00~FF	(*1)	←	←	←
G/C_WRITE		–				

*: Stored in EEPROM for Drive Micro

2nd Page (2/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
Drive Up (E7070)						
LCD DRIVE	Device: To LCD Drive Adjustment Item	–				
Drive Up (E7070)						
TEST_PATTERN	LCD DRIVE-TEST PATTERN	00~7F				
Seine/Sub Micro						
ACCUMULATION_ TIME	ACCUMULATION_TiME		*			
LAMP_TIME	LAMP_TIME		*			
FACTORY_RESET	FACTORY_RESET	–				

BACK TO ADJUSTMENTS

3rd page (1/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
SEINE						
TV_GUIDE	Don't care					
TV_GUIDE	Don't care					
TV_GUIDE	Don't care					
UEI						
IR_BLASTER						
IR_BLASTER						
TC90103						
H_TIMING	VBIDLY: Slicer H Timing Delay (ID1/WSS/CCD/G-Gide)	00~0F	08	←	←	←
V_PHASE	VBIVAD: Slicer V Phase (ID1/WSS/CCD/G-Gide)	00~07	04	←	←	←
CCD_READ_OUT	CCDON: CCD Slice Read Output	00~01	01	←	←	←
CCD_SLiCE_CONT	CSLICES: CCD Slice Control	00~01	00	←	←	←
CCD_SLiCE_LEVEL	CSLICEL: CCD Slice Level	00~03	00	←	←	←
CCD_SB_DET	CSTMOD: CCD SB Detect	00~01	00	←	←	←
CCD_FIELD_SEL	CCDMOD: CCD Field Select	00~03	02	←	←	←
ID1_READ_OUT	ID1ON: ID1 Slice Read Output	00~01	01	←	←	←
ID1_SLiCE_CONT	ISLICES: ID1 Slice Control	00~01	00	←	←	←
ID1_SLiCE_LEVEL	ISLICEL: ID1 Slice Level	00~03	00	←	←	←
ID1_AMP	IRWIDON: ID1 Amplitude Detect	00~01	01	←	←	←
ID1_PHASE_SEL	IEDGES: ID1 Phase Select	00~01	00	←	←	←
ID1_PHASE_WiDTH	IRTIMS: ID1 Detection Phase Width	00~01	00	←	←	←

3rd page (2/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
TC90103						
G_READ_OUT	GGSON: Guide Slice Read Output	00~01	01	←	←	←
G_DETECT	GGSJDG: Guide Detection Sensitivity	00~01	01	←	←	←
G_SLiCE_LEVEL	GGSLV: Guide Slice Level	00~03	00	←	←	←
CLOCK_RUN_iN	GGPKDET: Guide Clock Run In Detect	00~01	00	←	←	←
READ_DATA_ORDER	SLDSLT: Guide Read Out order	00~01	00	←	←	←
ADD_DATA	GGSIGON: Guide Add Data Function	00~01	00	←	←	←
LiNE_10_25	Line 10~25	00~FFFF	0000	←	←	←
Sub Micro						
VBi_SLICER_S	Sub VBI (CCD/V Chip) Adjustment					
SAMPLING						
POLLING						
START						
TIMEOUT						
STATUS						
Seine/Sub Micro						
CLOCK_TEST						
AFC_TEST						
MAINTENANCE						
MEMORY_INITIALIZE						

BACK TO ADJUSTMENTS

Drive Micro (1/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
Drive Micro (E7070)						
001	**[ISF Mode]** LCD DRIVE R-SUB GAIN (High) Color Temperature：High	000~3FF	200*	←	←	←
002	**[ISF Mode]** LCD DRIVE G-SUB GAIN (High) Color Temperature: High	000~3FF	200*	←	←	←
003	**[ISF Mode]** LCD DRIVE B-SUB GAIN (High) Color Temperature: High	000~3FF	200*	←	←	←
004	**[ISF Mode]** LCD DRIVE R-SUB GAIN (Medium) Color Temperature: Medium	000~3FF	200*	←	←	←
005	**[ISF Mode]** LCD DRIVE G-SUB GAIN (Medium) Color Temperature: Medium	000~3FF	1B9*	←	←	←
006	**[ISF Mode]** LCD DRIVE B-SUB GAIN (Medium) Color Temperature: Medium	000~3FF	18C*	←	←	←
007	**[ISF Mode]** LCD DRIVE R-SUB GAIN (STD) Color Temperature: STD	000~3FF	200*	←	←	←
008	**[ISF Mode]** LCD DRIVE G-SUB GAIN (STD) Color Temperature: STD	000~3FF	1B5*	←	←	←
009	**[ISF Mode]** LCD DRIVE B-SUB GAIN (STD) Color Temperature: STD	000~3FF	16E*	←	←	←
010	**[ISF Mode]** LCD DRIVE R-SUB GAIN (B/W) Color Temperature: B/W	000~3FF	200*	←	←	←
011	**[ISF Mode]** LCD DRIVE G-SUB GAIN (B/W) Color Temperature: B/W	000~3FF	199*	←	←	←
012	**[ISF Mode]** LCD DRIVE B-SUB GAIN (B/W) Color Temperature: B/W	000~3FF	148*	←	←	←
013	LCD DRIVE-VREF	00~FF	*	←	←	←
014	LCD DRIVE-SHPR	00~0F	07*	←	←	←
015	LCD DRIVE-SHRG	00~0F	07*	←	←	←
016	LCD DRIVE-SHRB	00~0F	07*	←	←	←

*: Stored in EEPROM for Drive Micro

Drive Micro (2/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
Drive Micro (E7070)						
017	LCD DRIVE-NRSH LR	000~3FF	1F0*	←	←	←
018	LCD DRIVE-NRSH LG	000~3FF	1F0*	←	←	←
019	LCD DRIVE-NRSH LB	000~3FF	1F0*	←	←	←
020	LCD DRIVE-BLOCK_R	000~7FF	000*	←	←	←
021	LCD DRIVE-BLOCK_G	000~7FF	000*	←	←	←
022	LCD DRIVE-BLOCK_B	000~7FF	000*	←	←	←
023	LCD DRIVE-RE_GHOST_R	000~7FF	001*	←	←	←
024	LCD DRIVE-RE_GHOST_G	000~7FF	001*	←	←	←
025	LCD DRIVE-RE_GHOST_B	000~7FF	001*	←	←	←
026	LCD DRIVE-GMAS_R	000~3FF	000*	←	←	←
027	LCD DRIVE- GMAS_G	000~3FF	000*	←	←	←
028	LCD DRIVE- GMAS_B	000~3FF	000*	←	←	←
029	LCD DRIVE-NRSH_LP	000~1FF	000*	←	←	←
030	LCD DRIVE- NRSH_LW	000~1FF	075*	←	←	←
031	LCD DRIVE-NRGP	00~7F	057*	←	←	←
032	LCD DRIVE- NRGW	00~FF	046*	←	←	←
033	LCD DRIVE-HPOSI Offset-R	00~0F	07*	←	←	←
034	LCD DRIVE-HPOSI Offset-B	00~0F	07*	←	←	←
035	LCD DRIVE-VPOSI Offset-R	00~0F	07*	←	←	←
036	LCD DRIVE-VPOSI Offset-B	00~0F	07*	←	←	←
Drive Micro (Ballast)						
037	Lamp flicker / Lamp Hysteresis	000~FFF	864*	←	←	←

BACK TO ADJUSTMENTS

Seine (1/3)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
SEINE						
026	Picture Digital Output Select 00h: Normal, 01h: Color Bar	00~01	00	←	←	←
027	Setup 00h: off, 01h: on	00~01	00	←	←	←
028	Noise Reduction Switch for Y 00h: Not Round, 01h: Round NTSC/480i Input only	00~01	01	←	←	←
029	Y Moving Detection Band for Noise Reduction 00h: Narrowband, 01h: Wideband NTSC/480i Input only	00~01	00	←	←	←
030	Y Moving Horizontal Extension for Noise Reduction 00h:OFF, 01h:ON NTSC/480i Input only	00~01	01	←	←	←
031	Y Signal Round Coefficient for Noise Reduction NTSC/480i Input only	00~0D	0A	←	←	←
032	Y Frame Difference Limit for Noise Reduction NTSC/480i Input only	00~1F	03	←	←	←
033	Color Signal Noise Reduction Switch 00h: Not Round, 01h: Round NTSC/480i Input only	00~01	01	←	←	←
034	Color Moving Detection Band for Noise Reduction 00h: Narrowband, 01h: Wideband NTSC/480i Input only	00~01	00	←	←	←
035	Color Moving Horizontal Extension foe Noise Reduction 00h:OFF, 01h:ON NTSC/480i Input only	00~01	01	←	←	←

Seine (2/3)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
SEINE						
036	Color Signal Round Coefficient for Noise Reduction NTSC/480i Input only	00~0D	0A	←	←	←
037	Color Signal Frame Difference Limit for Noise Reduction NTSC/480i Input only	00~1F	03	←	←	←
038	Enhance Movement Mode 00h: Enhancer & 2nd V filter OFF 01h: Enhancer ON 02h: 2nd V filter ON 03h: Reserved	00~03	00	←	←	←
039	Enhancer Movement Mode Select 00h: 1H, 01h: 2H	00~01	00	←	←	←
040	Noise Distinction Value	00~10	00	←	←	←
041	Noise Reduction Gain	00~07	00	←	←	←
042	Vertical Enhancer Gain 1/16step 0x00: OFF, 0x20: 2 times	00~20	00	←	←	←
043	Vertical Enhancer Coring Value	00~0F	00	←	←	←
044	Vertical Enhancer Turning Position	00~FF	00	←	←	←
045	Horizontal Enhancer Gain 1/16step 0x00: OFF, 0x20: 2 倍	00~20	00	←	←	←
046	Horizontal Enhancer Coring Value	00~0F	00	←	←	←
047	Horizontal Enhancer Turning Position	00~FF	00	←	←	←
048	Horizontal Enhancer Coefficient Z6	00~FF	00	←	←	←
049	Horizontal Enhancer Coefficient Z5	00~FF	00	←	←	←
050	Horizontal Enhancer Coefficient Z4	00~FF	00	←	←	←
051	Horizontal Enhancer Coefficient Z3	00~FF	00	←	←	←
052	Horizontal Enhancer Coefficient Z2	00~FF	00	←	←	←
053	Horizontal Enhancer Coefficient Z1	00~FF	00	←	←	←
054	Horizontal Enhancer Coefficient Z0	00~FF	00	←	←	←

BACK TO ADJUSTMENTS

Seine (3/3)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
SEINE							
055	Odd/Even Field Horizontal Active Picture Data Start Point	ANT/NTSC	000~6B4	0F8	←	←	←
056		480i_YPbPr	000~35A	0F4	←	←	←
057		480i_HDMI	000~6B4	000	←	←	←
058		480p_YPbPr	000~35A	078	←	←	←
059		480p_HDMI	000~35A	000	←	←	←
060		1080i_YPbPr	000~898	0E0	←	←	←
061		1080i_HDMI	000~898	000	←	←	←
062		720p_YPbPr	000~672	120	←	←	←
063		720p_HDMI	000~672	000	←	←	←
064		VGA_HDMI	000~35A	000	←	←	←
065	S/N Detection Setting (Receiving Mode Border Line Setting)	Mode 1-2	00~FF	19	←	←	←
066		Mode 2-3	00~FF	32	←	←	←
067		Mode 3-4	00~FF	4B	←	←	←
068		Mode 4-5	00~FF	64	←	←	←
069	Contrast Auto Adjustment Setting Value	ANT/NTSC 480i	00~FF	Eb	←	←	←
070		480p 1080i/720p	00~FF	Eb	←	←	←
071	Temperature Sensor 0 Read Data		00~FF	*	←	←	←
072	Alarm 0 Start Temperature Setting		00~FF	4B	←	←	←
073	Alarm 0 Stop Temperature Setting		00~FF	41	←	←	←
074	Reserve Temperature Sensor 1 Read Data		00~FF	*	←	←	←
075	Reserve Alarm 1 Start Temperature Setting		00~FF	4B	←	←	←
076	Reserve Alarm 1 Stop Temperature Setting		00~FF	41	←	←	←

FC6 (1/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6							
001	**[ISF Mode]** Black Stretch 00h: OFF, 01h: DBS, 02h: HBS		00~02	01	←	←	←
002	**[ISF Mode]** Black Correction 00h: OFF, 01h: DBS, 02h: HBS		00~02	01	←	←	←
003	**[ISF Mode]** Histogram Gamma 00h: OFF, 01h: Active		00~01	01	←	←	←
004	**[ISF Mode]** Histogram Enhancer 00h: OFF, 01h: Active		00~01	01	←	←	←
005	**[ISF Mode]** Histogram Amp 00h: OFF, 01h: Active		00~01	01	←	←	←
006	**[ISF Mode]** Histogram Color Management 00h: OFF, 01h: Active		00~01	01	←	←	←
007	**[ISF Mode]** Dynamic Backlight/Lamp Correction 00h: OFF, 01h: Active		00~01	00	←	←	←
008	**[ISF Mode]** Dynamic Shading 00h: OFF, 01h: Active		00~01	00	←	←	←
009	**[ISF Mode]** Bgm Gain OFF 00h: Normal 01h: Compulsion OFF		00~01	00	←	←	←
010	Detect Area Display ON		00~01	00	←	←	←
011	Horizontal Detect Area		00~64	4B	←	←	←
012	Vertical Detect Area		00~64	4C	←	←	←
013	Brightness Center	ANT/NTSC	000~7FF	400	←	←	←
014		480i/480p	000~7FF	400	←	←	←
015		1080i/720p	000~7FF	400	←	←	←

BACK TO ADJUSTMENTS

FC6 (2/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6						
016	**[ISF Mode]** Contrast Center	000~FF	80	←	←	←
017	**[ISF Mode]** Red Gain Adjustment Color Temperature: High 000h: ×0, 200h: ×1, 3FFh: ×1023/512	000~3FF	200	←	←	←
018	**[ISF Mode]** Green Gain Adjustment Color Temperature: High 000h: ×0, 200h: ×1, 3FFh: ×1023/512	000~3FF	200	←	←	←
019	**[ISF Mode]** Blue Gain Adjustment Color Temperature: High 000h: ×0, 200h: ×1, 3FFh: ×1023/512	000~3FF	200	←	←	←
020	**[ISF Mode]** Red Line 1 Setting	000~3FF	040	←	←	←
021	**[ISF Mode]** Red Line 2 Setting	000~3FF	080	←	←	←
022	**[ISF Mode]** Red Line 3 Setting	000~3FF	0C0	←	←	←
023	**[ISF Mode]** Red Line 4 Setting	000~3FF	100	←	←	←
024	**[ISF Mode]** Red Line 5 Setting	000~3FF	140	←	←	←
025	**[ISF Mode]** Red Line 6 Setting	000~3FF	180	←	←	←
026	**[ISF Mode]** Red Line 8 Setting	000~3FF	200	←	←	←
027	**[ISF Mode]** Red Line 10 Setting	000~3FF	280	←	←	←
028	**[ISF Mode]** Red Line 12 Setting	000~7FF	300	←	←	←
029	**[ISF Mode]** Red Line 14 Setting	000~7FF	380	←	←	←
030	**[ISF Mode]** Blue Line 1 Setting	000~3FF	040	←	←	←
031	**[ISF Mode]** Blue Line 2 Setting	000~3FF	080	←	←	←
032	**[ISF Mode]** Blue Line 3 Setting	000~3FF	0C0	←	←	←
033	**[ISF Mode]** Blue Line 4 Setting	000~3FF	100	←	←	←
034	**[ISF Mode]** Blue Line 5 Setting	000~3FF	140	←	←	←
035	**[ISF Mode]** Blue Line 6 Setting	000~3FF	180	←	←	←

FC6 (3/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6							
036	**[ISF Mode]** Blue Line 8 Setting		000~3FF	200	←	←	←
037	**[ISF Mode]** Blue Line 10 Setting		000~3FF	280	←	←	←
038	**[ISF Mode]** Blue Line 12 Setting		000~7FF	300	←	←	←
039	**[ISF Mode]** Blue Line 14 Setting		000~7FF	380	←	←	←
040	**[ISF Mode]** RGB Output Mode 00h: Normal, 01h: Red only, 02h: Green only, 03h: Blue only		00~03	00	←	←	←
041	**[ISF Mode]** R-Y_Cr Decode Adjustment 000h(=x0)~400h(=x1)~FFFh(=x4)	High	000~FFF	59B	←	←	←
042		Medium	000~FFF	59B	←	←	←
043		Standard	000~FFF	59B	←	←	←
044		Black/White	000~FFF	59B	←	←	←
045	**[ISF Mode]** R-Y_Cb Decode Adjustment 000h(=x0)~400h(=x1)~FFFh(=x4)	High	000~FFF	000	←	←	←
046		Medium	000~FFF	000	←	←	←
047		Standard	000~FFF	000	←	←	←
048		Black/White	000~FFF	000	←	←	←
049	**[ISF Mode]** G-Y_Cr Decode Adjustment 000h(=x0)~400h(=x1)~FFFh(=x4)	High	000~FFF	2CE	←	←	←
050		Medium	000~FFF	2CE	←	←	←
051		Standard	000~FFF	2CE	←	←	←
052		Black/White	000~FFF	2CE	←	←	←
053	**[ISF Mode]** G-Y_Cb Decode Adjustment 000h(=x0)~400h(=x1)~FFFh(=x4)	High	000~FFF	160	←	←	←
054		Medium	000~FFF	160	←	←	←
055		Standard	000~FFF	160	←	←	←
056		Black/White	000~FFF	160	←	←	←

BACK TO ADJUSTMENTS

FC6 (4/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6							
057	**[ISF Mode]** B-Y_Cb Decode Adjustment 000h(=x0)~400h(=x1)~FFFh(=x4)	High	000~FFF	716	←	←	←
058		Medium	000~FFF	716	←	←	←
059		Standard	000~FFF	716	←	←	←
060		Black/White	000~FFF	716	←	←	←
061	**[ISF Mode]** Edge Filter Selection	ANT/NTSC/480i	00~0F	07	←	←	←
062		480p/1080i/720p	00~0F	07	←	←	←
063	**[ISF Mode]** Y Vertical & Horizontal Enhancer Gain Adjustment	ANT_Mode 1	00~1F	0F	←	←	←
064		ANT-Mode2	00~1F	0F	←	←	←
065		ANT-Mode3	00~1F	0F	←	←	←
066		ANT-Mode4	00~1F	0F	←	←	←
067		ANT-Mode5	00~1F	0F	←	←	←
068		NTSC	00~1F	0F	←	←	←
069		480i	00~1F	0F	←	←	←
070		480p	00~1F	0F	←	←	←
071		1080i	00~1F	0F	←	←	←
072		720p	00~1F	0F	←	←	←
073		HDMI/DVI 480i	00~1F	0F	←	←	←
074		HDMI/DVI 480p/VGA	00~1F	0F	←	←	←
075		HDMI/DVI 720p	00~1F	0F	←	←	←
076		HDMI/DVI 1080i	00~1F	0F	←	←	←
077		Reserve	00~1F	0F	←	←	←
078		Reserve	00~1F	0F	←	←	←
079	**[ISF Mode]** Y Vertical Enhancer OFF		00~01	00	←	←	←

FC6 (5/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6							
080	**[ISF Mode]** Y Vertical Enhancer Gain Adjustment	ANT/NTSC (DAY)	00~1F	0A	←	←	←
081		480i(DAY)	00~1F	0A	←	←	←
082		480p(DAY)	00~1F	0A	←	←	←
083		1080i/720p (DAY)	00~1F	0A	←	←	←
084		ALL(NIGHT)	00~1F	0A	←	←	←
085	**[ISF Mode]** Y Vertical Dynamic Shoot Balance Gain Adjustment	ANT	00~03	00	←	←	←
086		NTSC	00~03	00	←	←	←
087		480i	00~03	00	←	←	←
088		480p	00~03	00	←	←	←
089		1080i/720p	00~03	00	←	←	←
090	**[ISF Mode]** Y Vertical Dynamic Shoot Balance Coring Adjustment	ANT/NTSC	00~1F	1F	←	←	←
091		480i	00~1F	1F	←	←	←
092		480p/1080i/720p	00~1F	1F	←	←	←
093	**[ISF Mode]** Y Vertical Enhancer Clip OFF	ANT/NTSC/480i	00~01	00	←	←	←
094		480p	00~01	00	←	←	←
095		1080i/720p	00~01	00	←	←	←
096	**[ISF Mode]** Y Vertical Clip Offset Level	ANT	00~3F	3F	←	←	←
097		NTSC	00~3F	3F	←	←	←
098		480i	00~3F	3F	←	←	←
099		480p	00~3F	3F	←	←	←
100		1080i/720p	00~3F	3F	←	←	←
101		ANT/NTSC/480i (NIGHT)	00~3F	3F	←	←	←
102		480p (NIGHT)	00~3F	3F	←	←	←
103		1080i/720p (NIGHT)	00~3F	3F	←	←	←

BACK TO ADJUSTMENTS

FC6 (6/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6							
104	**[ISF Mode]** Y Vertical Non Linear Peaking	ANT/NTSC/480i	00~FF	00	←	←	←
105		480p/1080i/720p	00~FF	00	←	←	←
106	**[ISF Mode]** Y Horizontal Enhancer OFF		00~01	00	←	←	←
107	**[ISF Mode]** Y Horizontal Enhancer Gain Adjustment	ANT	00~1F	05	←	←	←
108		NTSC	00~1F	05	←	←	←
109		480i	00~1F	05	←	←	←
110		480p	00~1F	05	←	←	←
111		1080i/720p	00~1F	05	←	←	←
112	**[ISF Mode]** Y Horizontal Dynamic Shoot Balance Gain Adjustment	ANT	00~03	00	←	←	←
113		NTSC	00~03	00	←	←	←
114		480i	00~03	00	←	←	←
115		480p	00~03	00	←	←	←
116		1080i/720p	00~03	00	←	←	←
117	**[ISF Mode]** Y Horizontal Dynamic Shoot Balance Coring Adjustment	ANT/NTSC	00~1F	1F	←	←	←
118		480i	00~1F	1F	←	←	←
119		480p/1080i/720p	00~1F	1F	←	←	←
120	**[ISF Mode]** Y Horizontal Enhancer Clip OFF	ANT/NTSC/480i	00~01	00	←	←	←
121		480p	00~01	00	←	←	←
122		1080i/720p	00~01	00	←	←	←
123	**[ISF Mode]** Y Horizontal Clip Offset Level	ANT	00~1F	3F	←	←	←
124		NTSC	00~1F	3F	←	←	←
125		480i	00~1F	3F	←	←	←
126		480p	00~1F	3F	←	←	←
127		1080i/720p	00~1F	3F	←	←	←

FC6 (7/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6							
128	**[ISF Mode]** Y Horizontal Non Linear Peaking	ANT/NTSC/480i	00~FF	00	←	←	←
129		480p/1080i/720p	00~FF	00	←	←	←
130	**[ISF Mode]** Y Coring Amplitude Adjustment	ANT_Mode1	00~1F	00	←	←	←
131		ANT-Mode2	00~1F	00	←	←	←
132		ANT-Mode3	00~1F	00	←	←	←
133		ANT-Mode4	00~1F	00	←	←	←
134		ANT-Mode5	00~1F	00	←	←	←
135		NTSC (Composite)	00~1F	00	←	←	←
136		NTSC(Y/C)	00~1F	00	←	←	←
137		480i	00~1F	00	←	←	←
138		480p	00~1F	00	←	←	←
139		1080i	00~1F	00	←	←	←
140		720p	00~1F	00	←	←	←
141		HDMI/DVI_480i	00~1F	00	←	←	←
142		HDMI/DVI 480p/VGA	00~1F	00	←	←	←
143		HDMI/DVI 720p	00~1F	00	←	←	←
144		HDMI/DVI 1080i	00~1F	00	←	←	←
145		Reserve	00~1F	00	←	←	←
146	Y Horizontal HPF Center Select	ANT/NTSC	00~10	02	←	←	←
147		480i	00~10	02	←	←	←
148		480p	00~10	02	←	←	←
149		1080i/720p	00~10	09	←	←	←

BACK TO ADJUSTMENTS

FC6 (8/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
FC6						
150	Dither Select 00h: OFF, 01h: 10bit, 02h: 8bit, 03h: 6bit	00~03	00	←	←	←
151	Histogram Gamma Color Correction γ0	00~FF	20	←	←	←
152	Histogram Gamma Color Correction γ1	00~FF	E0	←	←	←
153	Histogram Gamma Color Correction γ2	00~80	10	←	←	←
154	Histogram/APL Data Average Count	00~0F	0A	←	←	←
155	Histogram Gamma Value 00h: Dynamic Gamma OFF	00~80	01	←	←	←
156	Histogram Gamma APL Point 0	00~FF	00	←	←	←
157	Histogram Gamma APL Point 1	00~FF	37	←	←	←
158	Histogram Gamma APL Point 2	00~FF	50	←	←	←
159	Histogram Gamma APL Point 3	00~FF	78	←	←	←
160	Histogram Gamma APL Point 4	00~FF	96	←	←	←
161	Histogram Gamma APL Point 5	00~FF	C8	←	←	←
162	Histogram Gamma APL Point 0 Gamma Select	00~02	00	←	←	←
163	Histogram Gamma APL Point 1 Gamma Select	00~02	00	←	←	←
164	Histogram Gamma APL Point 2 Gamma Select	00~02	01	←	←	←
165	Histogram Gamma APL Point 3 Gamma Select	00~02	02	←	←	←
166	Histogram Gamma APL Point 4 Gamma Select	00~02	02	←	←	←
167	Histogram Gamma APL Point 5 Gamma Select	00~02	02	←	←	←
168	Histogram Gamma Histogram High Start	00~FF	05	←	←	←
169	Histogram Gamma Histogram High End	00~FF	14	←	←	←
170	Histogram Gamma APL Point 0 Gamma Select High	00~02	01	←	←	←

FC6 (9/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX)			
				LC58E	LC58	LC57	
FC6							
171	Histogram Gamma APL Point 1 Gamma Select High		00~02	00	←	←	←
172	Histogram Gamma APL Point 2 Gamma Select High		00~02	01	←	←	←
173	Histogram Gamma APL Point 3 Gamma Select High		00~02	02	←	←	←
174	Histogram Gamma APL Point 4 Gamma Select High		00~02	02	←	←	←
175	Histogram Gamma APL Point 5 Gamma Select High		00~02	02	←	←	←
176	Histogram Gamma Histogram Super High Start		00~FF	64	←	←	←
177	Histogram Gamma Histogram Super High End		00~FF	80	←	←	←
178	Histogram Gamma APL Point 0 Gamma Select S_High		00~03	01	←	←	←
179	Histogram Gamma APL Point 1 Gamma Select S_High		00~03	00	←	←	←
180	Histogram Gamma APL Point 2 Gamma Select S_High		00~03	01	←	←	←
181	Histogram Gamma APL Point 3 Gamma Select S_High		00~03	02	←	←	←
182	Histogram Gamma APL Point 4 Gamma Select S_High		00~03	03	←	←	←
183	Histogram Gamma APL Point 5 Gamma Select S_High		00~03	03	←	←	←
184	Gamma Line 16 Setting	for Dark Picture	000~3FF	FF	←	←	←
185		for Standard	000~3FF	FF	←	←	←
186		for Bright Picture	000~3FF	FF	←	←	←
187		for Very Bright Picture	000~3FF	FF	←	←	←
188	Gamma Line 15 Setting	for Dark Picture	000~3FF	F3	←	←	←
189		for Standard	000~3FF	F5	←	←	←
190		for Bright Picture	000~3FF	F5	←	←	←
191		for Very Bright Picture	000~3FF	F0	←	←	←

BACK TO ADJUSTMENTS

FC6 (10/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX)			
				LC58E	LC58	LC57	
FC6							
192	Gamma Line 14 Setting	for Dark Picture	000~3FF	E6	←	←	←
193		for Standard	000~3FF	EB	←	←	←
194		for Bright Picture	000~3FF	EB	←	←	←
195		for Very Bright Picture	000~3FF	D4	←	←	←
196	Gamma Line 13 Setting	for Dark Picture	000~3FF	D9	←	←	←
197		for Standard	000~3FF	DB	←	←	←
198		for Bright Picture	000~3FF	DB	←	←	←
199		for Very Bright Picture	000~3FF	BB	←	←	←
200	Gamma Line 12 Setting	for Dark Picture	000~3FF	CB	←	←	←
201		for Standard	000~3FF	C8	←	←	←
202		for Bright Picture	000~3FF	CA	←	←	←
203		for Very Bright Picture	000~3FF	AA	←	←	←
204	Gamma Line 11 Setting	for Dark Picture	000~3FF	BD	←	←	←
205		for Standard	000~3FF	B9	←	←	←
206		for Bright Picture	000~3FF	B4	←	←	←
207		for Very Bright Picture	000~3FF	9B	←	←	←
208	Gamma Line 10 Setting	for Dark Picture	000~3FF	AF	←	←	←
209		for Standard	000~3FF	A8	←	←	←
210		for Bright Picture	000~3FF	9E	←	←	←
211		for Very Bright Picture	000~3FF	8C	←	←	←
212	Gamma Line 9 Setting	for Dark Picture	000~3FF	9F	←	←	←
213		for Standard	000~3FF	98	←	←	←
214		for Bright Picture	000~3FF	8A	←	←	←
215		for Very Bright Picture	000~3FF	7C	←	←	←

FC6 (11/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX)			
				LC58E	LC58	LC57	
FC6							
216	Gamma Line 8 Setting	for Dark Picture	000~3FF	8E	←	←	←
217		for Standard	000~3FF	86	←	←	←
218		for Bright Picture	000~3FF	76	←	←	←
219		for Very Bright Picture	000~3FF	6C	←	←	←
220	Gamma Line 7 Setting	for Dark Picture	000~3FF	7E	←	←	←
221		for Standard	000~3FF	76	←	←	←
222		for Bright Picture	000~3FF	62	←	←	←
223		for Very Bright Picture	000~3FF	5E	←	←	←
224	Gamma Line 6 Setting	for Dark Picture	000~3FF	6E	←	←	←
225		for Standard	000~3FF	65	←	←	←
226		for Bright Picture	000~3FF	4E	←	←	←
227		for Very Bright Picture	000~3FF	4E	←	←	←
228	Gamma Line 5 Setting	for Dark Picture	000~3FF	5D	←	←	←
229		for Standard	000~3FF	54	←	←	←
230		for Bright Picture	000~3FF	3F	←	←	←
231		for Very Bright Picture	000~3FF	3F	←	←	←
232	Gamma Line 4 Setting	for Dark Picture	000~3FF	4B	←	←	←
233		for Standard	000~3FF	43	←	←	←
234		for Bright Picture	000~3FF	30	←	←	←
235		for Very Bright Picture	000~3FF	30	←	←	←
236	Gamma Line 3 Setting	for Dark Picture	000~3FF	39	←	←	←
237		for Standard	000~3FF	33	←	←	←
238		for Bright Picture	000~3FF	24	←	←	←
239		for Very Bright Picture	000~3FF	24	←	←	←

BACK TO ADJUSTMENTS

FC6 (12/20)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6							
240	Gamma Line 2 Setting	for Dark Picture	000~3FF	26	←	←	←
241		for Standard	000~3FF	22	←	←	←
242		for Bright Picture	000~3FF	17	←	←	←
243		for Very Bright Picture	000~3FF	17	←	←	←
244	Gamma Line 1 Setting	for Dark Picture	000~3FF	10	←	←	←
245		for Standard	000~3FF	10	←	←	←
246		for Bright Picture	000~3FF	0C	←	←	←
247		for Very Bright Picture	000~3FF	0C	←	←	←
248	Gamma Line 0 Setting	for Dark Picture	000~3FF	00	←	←	←
249		for Standard	000~3FF	00	←	←	←
250		for Bright Picture	000~3FF	00	←	←	←
251		for Very Bright Picture	000~3FF	00	←	←	←
252	Gradation Amp Weight Ratio		00~7F	50	←	←	←
253	Gradation Amp Weight Ratio 1		00~7F	0F	←	←	←
254	Gradation Amp Weight Ratio 2		00~7F	05	←	←	←
255	Gradation Amp Max Histogram Ratio		00~FF	1E	←	←	←
256	Gradation Amp Min Histogram Ratio		00~FF	0A	←	←	←
257	Gradation Amp Up Gain		00~1F	14	←	←	←
258	Gradation Amp Down Gain		00~1F	02	←	←	←
259	Gradation Amp Max APL		00~FF	3C	←	←	←
260	Gradation Amp Min APL		00~FF	28	←	←	←
261	RGB Gamma Line 14 Setting Offset		00~FF	00h	←	←	←
262	RGB Gamma Line 16 Setting Offset		00~FF	00h	←	←	←

FC6 (13/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6						
263	Black Stretch & Black Correction Speed 00h: Fast, 10h: Slow	00~10	00	←	←	←
264	Black Stretch & Black Correction Reset ΔAPL	00~FF	0A	←	←	←
265	Black Stretch & Black Correction Reset APL	00~FF	32	←	←	←
266	Black Stretch & Black Correction Speed Up ΔAPL	00~FF	0E	←	←	←
267	Black Stretch & Black Correction Speed Up Step 00h: Direct, 01h: Slow~FFh: Fast	00~FF	00	←	←	←
268	Black Stretch Gain Up Step 0 00h: Direct, 01h: Slow~FFh: Fastx8	00~FF	03	←	←	←
269	Black Stretch Gain Up Step 1 00h: Direct, 01h: Slow~FFh: Fastx8	00~FF	04	←	←	←
270	Black Stretch Gain Down Step 0 00h: Direct, 01h: Slow~FFh: Fastx64	00~FF	03	←	←	←
271	Black Stretch Gain Down Step 1 00h: Direct, 01h: Slow~FFh: Fastx64	00~FF	80	←	←	←
272	Black Stretch Gain Step SW0	00~FF	32	←	←	←
273	Black Stretch Gain Step SW1	00~FF	3C	←	←	←
274	Black Stretch Start Level	00~FF	72	←	←	←
275	Histogram Value	00~05	03	←	←	←
276	Black Stretch Change Point 0 Black Area	00~FF	CA	←	←	←
277	Black Stretch Change Point 1 Black Area	00~FF	6E	←	←	←
278	Black Stretch Change Point 2 Black Area	00~FF	78	←	←	←
279	Black Stretch Change Point 3 Black Area	00~FF	78	←	←	←
280	Black Stretch Change Point 4 Black Area	00~FF	78	←	←	←
281	Black Stretch Change Point 0 Gain	00~FF	41	←	←	←
282	Black Stretch Change Point 1 Gain	00~FF	26	←	←	←
283	Black Stretch Change Point 2 Gain	00~FF	00	←	←	←
284	Black Stretch Change Point 3 Gain	00~FF	00	←	←	←
285	Black Stretch Change Point 4 Gain	00~FF	00	←	←	←

BACK TO ADJUSTMENTS

FC6 (14/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
FC6						
286	Black Stretch Gain	00~FF	*	←	←	←
287	Black Correction Gain Up Step 00h: Direct, 01h: Slow~FFh: Fast	00~FF	04	←	←	←
288	Black Correction Gain Down Step 00h: Direct, 01h: Slow~FFh: Fast	00~FF	80	←	←	←
289	Histogram Value	00~05	05	←	←	←
290	Black Correction Area 0 Correction Stop Area	00~FF	28	←	←	←
291	Black Correction Area 1 Correction Stop Area	00~FF	28	←	←	←
292	Black Correction Area 2 Correction Stop Area	00~FF	28	←	←	←
293	Black Correction Area 3 Correction Stop Area	00~FF	28	←	←	←
294	Black Correction Area 4 Correction Stop Area	00~FF	28	←	←	←
295	Black Correction Area 0 Max Correction	00~FF	3D	←	←	←
296	Black Correction Area 1 Max Correction	00~FF	1B	←	←	←
297	Black Correction Area 2 Max Correction	00~FF	07	←	←	←
298	Black Correction Area 3 Max Correction	00~FF	07	←	←	←
299	Black Correction Area 4 Max Correction	00~FF	00	←	←	←
300	Black Correction APL Correction Start APL	00~FF	7F	←	←	←
301	Black Correction APL Correction End APL	00~FF	7F	←	←	←
302	Black Correction APL Correction Max Gain	00~FF	00	←	←	←
303	Black Correction Setting Value	00~FF	*	←	←	←
304	Black Correction Contrast Correction Offset	00~FF	00	←	←	←
305	Black Correction Contrast Correction Value	00~FF	*	←	←	←

FC6 (15/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
FC6						
306	Back Light Correction Speed 00h: Fast, 3Fh: Slow	00~10	05	←	←	←
307	Back Light Correction Up Step 00h: Direct, 01h~FFh: Adjustment × 4/256step	00~FF	40	←	←	←
308	Back Light Correction Down Step 00h: Direct, 01h~FFh: Adjustment × 4/256step	00~FF	10	←	←	←
309	Back Light Correction 0←1APL	00~FF	0A	←	←	←
310	Back Light Correction 0→1APL	00~FF	14	←	←	←
311	Back Light Correction 1←2APL	00~FF	40	←	←	←
312	Back Light Correction 1→2APL	00~FF	00	←	←	←
313	Back Light Correction Level 0 00h:-255 7Fh:-128 FFh:0	00~FF	80	←	←	←
314	Back Light Correction Level 1 00h:-255 7Fh:-128 FFh:0	00~FF	7F	←	←	←
315	Back Light Correction Level 2 00h:-255 7Fh:-128 FFh:0	00~FF	FF	←	←	←
316	Back Light Correction Level Value	00~FF	*	←	←	←
317	Lamp Adjustment Start White Area	00~FF	07	←	←	←
318	Lamp Adjustment End White Area	00~FF	3C	←	←	←
319	Lamp Adjustment Start White Area Gain	00~FF	00	←	←	←
320	Lamp Adjustment End White Area Gain	00~FF	80	←	←	←
321	Lamp Adjustment Start Black Area	00~FF	00	←	←	←
322	Lamp Adjustment End Black Area	00~FF	00	←	←	←
323	Lamp Adjustment Start Black Area Gain	00~FF	00	←	←	←
324	Lamp Adjustment End Black Area Gain	00~FF	00	←	←	←
325	White Area Detection Count	00~0F	04	←	←	←

BACK TO ADJUSTMENTS

FC6 (16/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
FC6						
326	Black Area Detection Count	00~0F	00	←	←	←
327	White Area Detection	00~FF	*	←	←	←
328	Black Area Detection	00~FF	*	←	←	←
329	Saturation Correction APL Count	00~10	05	←	←	←
330	Saturation Correction Up Step Count	00~80	01	←	←	←
331	Saturation Correction Down Step Count	00~80	01	←	←	←
332	Saturation Up APL Point 0	00~FF	B4	←	←	←
333	Saturation Up APL Point 1	00~FF	E6	←	←	←
334	Saturation Up Gain	00~80	00	←	←	←
335	Saturation Down APL Point 0	00~FF	19	←	←	←
336	Saturation Down APL Point 1	00~FF	4B	←	←	←
337	Saturation Down Gain	00~FF	00	←	←	←
338	Saturation Up Histogram Point 0	00~FF	50	←	←	←
339	Saturation Up Histogram Point 1	00~FF	80	←	←	←
340	Saturation Up Count	00~FF	00	←	←	←
341	Saturation Down Histogram Point 0	00~FF	50	←	←	←
342	Saturation Down Histogram Point 1	00~FF	80	←	←	←
343	Saturation Down Count	00~FF	00	←	←	←
344	Saturation Correction Value	00~FF	*	←	←	←

FC6 (17/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
FC6						
345	Shading OFF→10%	00~FF	33	←	←	←
346	Shading 10%→OFF	00~FF	1F	←	←	←
347	Shading 10%→20%	00~FF	3A	←	←	←
348	Shading 20%→10%	00~FF	26	←	←	←
349	Shading 20%→30%	00~FF	41	←	←	←
350	Shading 30%→20%	00~FF	2D	←	←	←
351	Histogram Detection Average Value	00~10	05	←	←	←
352	Histogram Area Start Position	00~07	04	←	←	←
353	Histogram Area End Position	00~07	07	←	←	←
354	Histogram Enhancer Border 0 NTSC	00~FF	00	←	←	←
355	Histogram Enhancer Border 1 NTSC	00~FF	32	←	←	←
356	Histogram Enhancer Border 2 NTSC	00~FF	78	←	←	←
357	Histogram Enhancer Border 3 NTSC	00~FF	96	←	←	←
358	Histogram Enhancer Gain 0 NTSC	00~3E	26	←	←	←
359	Histogram Enhancer Gain 4 NTSC	00~3E	1D	←	←	←
360	Histogram Enhancer Coring Max Gain NTSC	00~1F	19	←	←	←
361	Histogram Enhancer Border 0 HD	00~FF	00	←	←	←
362	Histogram Enhancer Border 1 HD	00~FF	32	←	←	←
363	Histogram Enhancer Border 2 HD	00~FF	78	←	←	←
364	Histogram Enhancer Border 3 HD	00~FF	96	←	←	←
365	Histogram Enhancer Gain 0 HD	00~3E	28	←	←	←
366	Histogram Enhancer Gain 4 HD	00~3E	14	←	←	←
367	Histogram Enhancer Coring Max Gain HD	00~1F	05	←	←	←

BACK TO ADJUSTMENTS

FC6 (18/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
FC6						
368	Histogram Enhancer Detection Value	00~FF	*	←	←	←
369	Histogram Enhancer Setting Value	00~FF	*	←	←	←
370	Histogram Coring Setting Value	00~FF	*	←	←	←
385	RGB Stretch Start APL	00~FF	C8	←	←	←
386	RGB Stretch End APL	00~FF	E6	←	←	←
387	Dynamic Gamma Flicker Value	00~40	04	←	←	←
388	Black Correction TV ON/OFF 00h: Black Correction OFF 01h: Black Correction ON	00~01	00	←	←	←
389	RGB Gamma Select 00h: Linear, 01h: ^1. 9, 02h: ^1. 97	00~02	00	←	←	←

FC6 (19/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
FC6						
390	Audio Delay Value	00~3F	3F	←	←	←
391		00~3F	3F	←	←	←
392	Minimum Brightness Level Detection	00~FF	*	←	←	←
393	Maximum Brightness Level Detection	00~FF	*	←	←	←
394	Average Brightness Level Detection	00~FF	*	←	←	←
395	Brightness Histogram Detection 0	0000~FFFF	*	←	←	←
396	Brightness Histogram Detection 1	0000~FFFF	*	←	←	←
397	Brightness Histogram Detection 2	0000~FFFF	*	←	←	←
398	Brightness Histogram Detection 3	0000~FFFF	*	←	←	←
399	Brightness Histogram Detection 4	0000~FFFF	*	←	←	←
400	Brightness Histogram Detection 5	0000~FFFF	*	←	←	←
401	Brightness Histogram Detection 6	0000~FFFF	*	←	←	←
402	Brightness Histogram Detection 7	0000~FFFF	*	←	←	←
403	Brightness Histogram Detection 8	0000~FFFF	*	←	←	←
404	Brightness Histogram Detection 9	0000~FFFF	*	←	←	←
405	Brightness Histogram Detection 10	0000~FFFF	*	←	←	←
406	Brightness Histogram Detection 11	0000~FFFF	*	←	←	←
407	Brightness Histogram Detection 12	0000~FFFF	*	←	←	←
408	Brightness Histogram Detection 13	0000~FFFF	*	←	←	←
409	Brightness Histogram Detection 14	0000~FFFF	*	←	←	←
410	Brightness Histogram Detection 15	0000~FFFF	*	←	←	←

BACK TO ADJUSTMENTS

FC6 (20/20)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC6						
411	Edge Histogram Detection 0	00~FF	*	←	←	←
412	Edge Histogram Detection 1	00~FF	*	←	←	←
413	Edge Histogram Detection 2	00~FF	*	←	←	←
414	Edge Histogram Detection 3	00~FF	*	←	←	←
415	Edge Histogram Detection 4	00~FF	*	←	←	←
416	Edge Histogram Detection 5	00~FF	*	←	←	←
417	Edge Histogram Detection 6	00~FF	*	←	←	←
418	Edge Histogram Detection 7	00~FF	*	←	←	←
419	Color Histogram Detection 0	00~FF	*	←	←	←
420	Color Histogram Detection 1	00~FF	*	←	←	←
421	Color Histogram Detection 2	00~FF	*	←	←	←
422	Color Histogram Detection 3	00~FF	*	←	←	←

FC4 (1/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
001	**[ISF Mode]** Dynamic Enhancer 00h:APL/Motion Adjustment Enhancer OFF 01h:APL Synchronize Enhancer OFF 02h:Motion Adjustment Enhancer 03h:Active		00~03	03	←	←	←
002	**[ISF Mode]** Dynamic Contrast Correction 00h: OFF, 01h: Active		00~01	01	←	←	←
003	**[ISF Mode]** Contrast Center	Normal	00~FF	80	←	←	←
004		HDMI/DVI Setup Cancel OFF	00~FF	80	←	←	←
005		DVI Setup Cancel ON	00~FF	80	←	←	←
006	**[ISF Mode]** Brightness Center		00~1FF	100	←	←	←
007	**[ISF Mode]** Color Center	ANT/NTSC	00~7F	40	←	←	←
008		CbCr	00~7F	40	←	←	←
009		PbPr	00~7F	40	←	←	←
010		HDMI CbCr DVI CbCr	00~7F	40	←	←	←
011		HDMI PbPr DVI PbPr	00~7F	40	←	←	←
012	**[ISF Mode]** Tint Center	ANT/NTSC	00~FF	88	←	←	←
013		CbCr	00~FF	88	←	←	←
014		PbPr	00~FF	88	←	←	←
015		HDMI CbCr DVI CbCr	00~FF	88	←	←	←
016		HDMI PbPr DVI PbPr	00~FF	88	←	←	←

BACK TO ADJUSTMENTS

FC4 (2/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
017	**[ISF Mode]** Horizontal Enhance	ANT_Mode1	00~03	01	←	←	←
018		ANT_Mode2~5	00~03	01	←	←	←
019		NTSC	00~03	01	←	←	←
020		480i	00~03	01	←	←	←
021		480p	00~03	01	←	←	←
022		1080i/720p	00~03	01	←	←	←
023		ALL(NIGHT)	00~03	00	←	←	←
024		Reserve	00~03	03	←	←	←
025		Reserve	00~03	03	←	←	←
026	**[ISF Mode]** Horizontal Enhance Coring	ANT_Mode1	00~0F	00	←	←	←
027		ANT_Mode2~5	00~0F	00	←	←	←
028		NTSC	00~0F	00	←	←	←
029		480i	00~0F	00	←	←	←
030		480p	00~0F	01	←	←	←
031		1080i	00~0F	00	←	←	←
032		720p	00~0F	00	←	←	←
033		Reserve	00~0F	00	←	←	←

FC4 (3/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
034	**[ISF Mode]** Vertical Enhance	ANT_Mode1	00~03	02	←	←	←
035		ANT_Mode2~5	00~03	02	←	←	←
036		NTSC	00~03	02	←	←	←
037		480i	00~03	02	←	←	←
038		480p	00~03	02	←	←	←
039		1080i/720p	00~03	01	←	←	←
040		ALL(NIGHT)	00~03	00	←	←	←
041		Reserve	00~03	01	←	←	←
042		Reserve	00~03	01	←	←	←
043	**[ISF Mode]** Vertical Enhance Coring	ANT_Mode1	00~0F	01	←	←	←
044		ANT_Mode2~5	00~0F	01	←	←	←
045		NTSC	00~0F	01	←	←	←
046		480i	00~0F	01	←	←	←
047		480p	00~0F	01	←	←	←
048		1080i	00~0F	00	←	←	←
049		720p	00~0F	00	←	←	←
050		Reserve	00~0F	02	←	←	←

BACK TO ADJUSTMENTS

FC4 (4/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX)			
				LC58E	LC58	LC57	
FC4							
051	**[ISF Mode]** Y Vertical and Horizontal Enhance Gain	ANT_Mode 1	00~1F	0F	←	←	←
052		ANT-Mode2	00~1F	0F	←	←	←
053		ANT-Mode3	00~1F	0F	←	←	←
054		ANT-Mode4	00~1F	0F	←	←	←
055		ANT-Mode5	00~1F	0F	←	←	←
056		NTSC	00~1F	0F	←	←	←
057		480i	00~1F	0F	←	←	←
058		480p	00~1F	0F	←	←	←
059		1080i	00~1F	0F	←	←	←
060		720p	00~1F	0F	←	←	←
061		HDMI/DVI 480i	00~1F	0F	←	←	←
062		HDMI/DVI 480p/VGA	00~1F	0F	←	←	←
063		HDMI/DVI 1080i	00~1F	0F	←	←	←
064		HDMI/DVI 720p	00~1F	0F	←	←	←
065		Reserve	00~1F	0F	←	←	←
066		Reserve	00~1F	0F	←	←	←
067	**[ISF Mode]** Horizontal High Pass Filter Switch 00h: Low Freq, 01h: High Freq	ANT/NTSC	00~03	02	←	←	←
068		480i	00~03	02	←	←	←
069		480p	00~03	02	←	←	←
070		1080i/720p	00~03	01	←	←	←
071	**[ISF Mode]** Y Horizontal Enhancer Clip Off 00h: CLIP ON, 01h: CLIP OFF	ANT/NTSC/480i	00~01	00	←	←	←
072		480p	00~01	00	←	←	←
073		1080i/720p	00~01	00	←	←	←

FC4 (5/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX)			
				LC58E	LC58	LC57	
FC4							
074	**[ISF Mode]** Y Horizontal Enhancer Gain	ANT	00~0F	0B	←	←	←
075		NTSC	00~0F	0B	←	←	←
076		480i	00~0F	0B	←	←	←
077		480p	00~0F	0A	←	←	←
078		1080i/720p	00~0F	0A	←	←	←
079		ALL(NIGHT)	00~0F	0A	←	←	←
080	**[ISF Mode]** Y Horizontal Enhance Clip Offset	ANT	00~0F	07	←	←	←
081		NTSC	00~0F	07	←	←	←
082		480i	00~0F	0F	←	←	←
083		480p	00~0F	0F	←	←	←
084		1080i/720p	00~0F	0F	←	←	←
085	**[ISF Mode]** Y Horizontal Dynamic Shoot Balance Gain	ANT	00~03	01	←	←	←
086		NTSC	00~03	01	←	←	←
087		480i	00~03	01	←	←	←
088		480p	00~03	01	←	←	←
089		1080i/720p	00~03	00	←	←	←
090	**[ISF Mode]** Y Horizontal Dynamic Shoot Balance Coring	ANT/NTSC	00~07	07	←	←	←
091		480i	00~07	07	←	←	←
092		480p/1080i/720p	00~07	07	←	←	←
093	**[ISF Mode]** Y Horizontal Nonlinear Peaking	ANT/NTSC/480i	00~3F	00	←	←	←
094		480p/1080i/720p	00~3F	00	←	←	←
095	**[ISF Mode]** Y Vertical Enhancer Clip OFF 00h:LTI	ANT/NTSC/480i	00~01	00	←	←	←
096		480p	00~01	00	←	←	←
097		1080i/720p	00~01	00	←	←	←

BACK TO ADJUSTMENTS

FC4 (6/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
098	**[ISF Mode]** Y Vertical Enhance Gain	ANT/NTSC	00~0F	00	←	←	←
099		480i	00~0F	00	←	←	←
100		480p	00~0F	00	←	←	←
101		1080i/720p	00~0F	00	←	←	←
102		ALL(NIGHT)	00~0F	00	←	←	←
103	**[ISF Mode]** Y Vertical Enhance Clip Offset	ANT	00~0F	0F	←	←	←
104		NTSC	00~0F	0F	←	←	←
105		480i	00~0F	0F	←	←	←
106		480p	00~0F	0F	←	←	←
107		1080i/720p	00~0F	05	←	←	←
108	**[ISF Mode]** Y Vertical Dynamic Shoot Balance Gain	ANT	00~03	00	←	←	←
109		NTSC	00~03	00	←	←	←
110		480i	00~03	00	←	←	←
111		480p	00~03	00	←	←	←
112		1080i/720p	00~03	00	←	←	←
113	**[ISF Mode]** Y Vertical Dynamic Shoot Balance Coring	ANT/NTSC	00~07	07	←	←	←
114		480i	00~07	07	←	←	←
115		480p/1080i/720p	00~07	07	←	←	←
116	**[ISF Mode]** Y Vertical Nonlinear Peaking	ANT/NTSC/480i	00~3F	00	←	←	←
117		480p/1080i/720p	00~3F	00	←	←	←

FC4 (7/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
118	**[ISF Mode]** Y Coring Amplitude	ANT_Mode1	00~07	03	←	←	←
119		ANT-Mode2	00~07	03	←	←	←
120		ANT-Mode3	00~07	03	←	←	←
121		ANT-Mode4	00~07	03	←	←	←
122		ANT-Mode5	00~07	03	←	←	←
123		NTSC (Composite)	00~07	04	←	←	←
124		NTSC(Y/C)	00~07	04	←	←	←
125		480i	00~07	04	←	←	←
126		480p	00~07	04	←	←	←
127		1080i	00~07	01	←	←	←
128		720p	00~07	01	←	←	←
129		HDMI/DVI 480i	00~07	04	←	←	←
130		HDMI/DVI 480p/VGA	00~07	04	←	←	←
131		HDMI/DVI 1080i	00~07	01	←	←	←
132		HDMI/DVI 720p	00~07	01	←	←	←
133		Reserve	00~07	07	←	←	←
134	Pedestal Sift	ANT/NTSC	00~7F	10	←	←	←
135		480i	00~7F	10	←	←	←
136		480p	00~7F	10	←	←	←
137		1080i/720p Digital HD	00~7F	10	←	←	←
138		HDMI/DVI Setup Cancel OFF	00~7F	00	←	←	←
139		DVI Setup Cancel ON	00~7F	10	←	←	←
140		Digital SD	00~7F	10	←	←	←

BACK TO ADJUSTMENTS

FC4 (8/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
141	DVI SET UP ON/OFF 00h: Setup Cancel OFF(Normal) 01h: Setup Cancel ON		00~01	00	←	←	←
142	Line Interpolation ANT/NTSC/480i only		00~01	00	←	←	←
143	Gain Down Speed STEP = (SP+1)*8		00~FF	17	←	←	←
144	Gain Up Speed STEP = (SP+1)*8		00~FF	03	←	←	←
145	Dynamic Contrast ON/OFF/Width		00~7F	2E	←	←	←
146	Lowest APL Dynamic Contrast Adjustment Width		00~7F	20	←	←	←
147	Dynamic Contrast Maximum Upper Limit		00~FF	F4	←	←	←
148	Dynamic Contrast Maximum Lower Limit		00~FF	80	←	←	←
149	High APL Judgment Border		00~FF	7C	←	←	←
150	Low APL Judgment Border		00~FF	36	←	←	←
151	Lowest APL Judgment Border		00~FF	24	←	←	←
152	Dynamic Gain Control Offset Value		0000~7FFF	*	←	←	←
153	Dynamic Contrast Color Correction Start Gain		00~7F	20	←	←	←
154	Dynamic Contrast Color Correction Maximum Value		00~3F	19	←	←	←
155	Dynamic Contrast Color Correction Value		00~3F	*	←	←	←
156	APL Enhancer Correction APL Average Count		00~10	05	←	←	←
157	APL Enhancer Correction Center APL	480i	00~FF	78	←	←	←
158		1080i	00~FF	8C	←	←	←
159	APL Enhancer Correction APL Width	480i	00~FF	50	←	←	←
160		1080i	00~FF	46	←	←	←
161	APL Enhancer Correction Value	480i	00~1F	0D	←	←	←
162		1080i	00~1F	0C	←	←	←
163	Horizontal & Vertical Enhancer Setting Value		00~1F	*	←	←	←
164	Moving Enhancer Speed		00~10	0A	←	←	←

FC4 (9/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
165	Moving Enhancer Start Frame Differential	ANT/NTSC/480i	00~FF	12	←	←	←
166		480p/1080i/720p	00~FF	0A	←	←	←
167	Moving Enhancer End Frame Differential	ANT/NTSC/480i	00~FF	5A	←	←	←
168		480p/1080i/720p	00~FF	28	←	←	←
169	Moving Enhancer Coring Offset Maximum	ANT/NTSC/480i	00~07	04	←	←	←
170		480p/1080i/720p	00~07	03	←	←	←
171	Moving Enhancer Horizontal Clip Offset Maximum	ANT/NTSC/480i	00~0F	0F	←	←	←
172		480p/1080i/720p	00~0F	02	←	←	←
173	Moving Enhancer Vertical Clip Offset Maximum	ANT/NTSC/480i	00~0F	0F	←	←	←
174		480p/1080i/720p	00~0F	05	←	←	←
175	Moving Enhancer Coring Offset Setting Value		00~07	*	←	←	←
176	Moving Enhancer Horizontal Clip Offset Setting Value		00~0F	*	←	←	←
177	Moving Enhancer Clip Offset Setting Value		00~0F	*	←	←	←
178	Color Vertical and Horizontal Enhance Gain	ANT	00~1F	10	←	←	←
179		NTSC	00~1F	10	←	←	←
180		480i	00~1F	10	←	←	←
181		480p	00~1F	0D	←	←	←
182		1080i/720p	00~1F	0D	←	←	←
183	Color Horizontal High Pass Filter Peak Frequency Select	ANT/NTSC/480i	00~03	02	←	←	←
184		480p	00~03	02	←	←	←
185		1080i/720p	00~03	02	←	←	←

BACK TO ADJUSTMENTS

FC4 (10/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
186	Color Horizontal Enhance Gain	ANT/NTSC/480i	00~0F	0F	←	←	←
187		480p	00~0F	0F	←	←	←
188		1080i/720p	00~0F	09	←	←	←
189	Color Vertical Enhancer Gain	ANT/NTSC/480i	00~0F	0F	←	←	←
190		480p	00~0F	0F	←	←	←
191		1080i/720p	00~0F	09	←	←	←
192	Color Coring Amplitude	ANT/NTSC/480i	00~07	01	←	←	←
193		480p/1080i/720p	00~07	01	←	←	←
194	Main Y Frame Cycle Noise Reduction 3 Dimension Filter 00h: Y OFF, 01h: Y ON		00~01	00	←	←	←
195	Sub Y Frame Cycle Noise Reduction 3 Dimension Filter 00h: Y OFF, 01h: Y ON		00~01	00	←	←	←
196	Main/Sub YNR Passage Level Limit	ANT_Mode 1	00~07	00	←	←	←
197		ANT_Mode2	00~07	00	←	←	←
198		ANT_Mode3	00~07	00	←	←	←
199		ANT_Mode4	00~07	00	←	←	←
200		ANT_Mode5	00~07	00	←	←	←
201		NTSC	00~07	00	←	←	←
202		480i	00~07	00	←	←	←
203		480p	00~07	00	←	←	←
204		1080i/720p	00~07	00	←	←	←

FC4 (11/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
205	Main/Sub YNR Input Level Gain	ANT	00~07	04	←	←	←
206		NTSC	00~07	04	←	←	←
207		480i	00~07	04	←	←	←
208		480p	00~07	04	←	←	←
209		1080i/720p	00~07	04	←	←	←
210	Main YNR Reducing Gain		00~07	02	←	←	←
211	Sub YNR Reducing Gain		00~07	02	←	←	←
212	Main YNR 0 Point		00~0F	07	←	←	←
213	Sub YNR 0 Point		00~0F	07	←	←	←
214	Main Color Frame Cycle Noise Reduction 3 Dimension Filter 00h: C OFF, 01h: C ON		00~01	00	←	←	←
215	Sub Color Frame Cycle Noise Reduction 3 Dimension Filter 00h: C OFF, 01h: C ON		00~01	00	←	←	←
216	Main/Sub CNR Passage Level Limit	ANT_Mode1	00~07	02	←	←	←
217		ANT_Mode2	00~07	02	←	←	←
218		ANT_Mode3	00~07	02	←	←	←
219		ANT_Mode4	00~07	02	←	←	←
220		ANT_Mode5	00~07	02	←	←	←
221		NTSC	00~07	02	←	←	←
222		480i	00~07	02	←	←	←
223		480p	00~07	02	←	←	←
224		1080i/720p	00~07	00	←	←	←

BACK TO ADJUSTMENTS

FC4 (12/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
225	Main/Sub CNR Input Level Gain	ANT	00~07	04	←	←	←
226		NTSC	00~07	04	←	←	←
227		480i	00~07	04	←	←	←
228		1080i/720p	00~07	04	←	←	←
229		480p	00~07	04	←	←	←
230	Main CNR Reducing Gain		00~07	00	04	←	←
231	Sub CNR Reducing Gain		00~07	00	04	←	←
232	Main CNR 0 Point		00~0F	06	←	←	←
233	Sub CNR 0 Point		00~0F	06	←	←	←
234	C/M OFF Phase0 Hue Center (CbCr Magenta) Magenta Data=Tint/360°×1024 =45°/360°×1024=128 (080h)		000~3FF	080	←	←	←
235	C/M OFF Phase0 Hue Width (CCD Magenta) 90° = 256 (100h)		000~3FF	100	←	←	←
236	C/M OFF Phase0 Hue Clip (CCD Magenta)		000~3FF	3FF	←	←	←
237	C/M OFF Phase0 Hue Slope (CCD Magenta) 00h:-128, 80h:0, FFh:+127		00~FF	80	←	←	←
238	C/M OFF Phase1 Hue Center (CCD Red) Red Data=Tint/360°×1024 =113. 2°/360°×1024=322 (142h)		000~3FF	142	←	←	←
239	C/M OFF Phase1 Hue Width (CCD Red)		000~3FF	100	←	←	←
240	C/M OFF Phase1 Hue Clip (CCD Red)		000~3FF	3FF	←	←	←
241	C/M OFF Phase1 Hue Slope (CCD Red) 00h:-128, 80h:0, FFh:+127		00~FF	80	←	←	←
242	C/M OFF Phase2 Hue Center (CCD Yellow) Yellow Data=Tint/360°×1024 =173°/360°×1024=492 (1ECh)		00~3FF	1EC	←	←	←
243	C/M OFF Phase2 Hue Width (CCD Yellow)		000~3FF	100	←	←	←
244	C/M OFF Phase2 Hue Clip (CCD Yellow)		000~3FF	3FF	←	←	←
245	C/M OFF Phase2 Hue Slope (CCD Yellow) 00h:-128, 80h:0, FFh:+127		00~FF	80	←	←	←

FC4 (13/19)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4						
246	C/M OFF Phase3 Hue Center (CCD Green) Green Data=Tint/360°×1024 =225°/360°×1024=640 (280h)	000~3FF	280	←	←	←
247	C/M OFF Phase3 Hue Width (CCD Green)	000~3FF	100	←	←	←
248	C/M OFF Phase3 Hue Clip (CCD Green)	000~3FF	3FF	←	←	←
249	C/M OFF Phase3 Hue Slope (CCD Green) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
250	C/M OFF Phase4 Hue Center (CCD Cyan) Cyan Data=Tint/360°×1024 =293. 2°/360°×1024=834 (342h)	00~3FF	342	←	←	←
251	C/M OFF Phase4 Hue Width (CCD Cyan)	000~3FF	100	←	←	←
252	C/M OFF Phase4 Hue Clip (CCD Cyan)	000~3FF	3FF	←	←	←
253	C/M OFF Phase4 Hue Slope (CCD Cyan) 0:-128 128:0 255:+127	00~FF	80	←	←	←
254	C/M OFF Phase5 Hue Center (CCD Blue) Blue Data=Tint/360°×1024 =353°/360°×1024=1004 (3ECh)	000~3FF	3EC	←	←	←
255	C/M OFF Phase5 Hue Width (CCD Blue)	000~3FF	100	←	←	←
256	C/M OFF Phase5 Hue Clip (CCD Blue)	000~3FF	3FF	←	←	←
257	C/M OFF Phase5 Hue Slope (CCD Blue) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
258	C/M OFF Phase6 Hue Center (CCD Other_1) Auto Color Data=Tint/360°×1024 =107°/360°×1024=304 (130h)	000~3FF	141	←	←	←
259	C/M OFF Phase6 Hue Width (CCD Other_1)	000~3FF	055	←	←	←
260	C/M OFF Phase6 Hue Clip (CCD Other_1)	000~3FF	02F	←	←	←
261	C/M OFF Phase6 Hue Slope (CCD Other_1) 00h:-128, 80h:0, FFh:+127	00~FF	51	←	←	←

BACK TO ADJUSTMENTS

FC4 (14/19)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4						
262	C/M OFF Phase7 Hue Center (CCD Other_2) Auto Color Data=Tint/360°×1024 =137°/360°×1024=390 (186h)	000~3FF	197	←	←	←
263	C/M OFF Phase7 Hue Width (CCD Other_2)	000~3FF	55	←	←	←
264	C/M OFF Phase7 Hue Clip (CCD Other_2)	000~3FF	02F	←	←	←
265	C/M OFF Phase7 Hue Slope (CCD Other_2) 00h:-128, 80h:0, FFh:+127	00~FF	AF	←	←	←
266	C/M OFF Gain0 Hue Center (CCD Magenta) Magenta Data=Tint/360°×1024 =45°/360°×1024=128 (080h)	000~3FF	080	←	←	←
267	C/M OFF Gain0 Hue Width (CCD Magenta)	000~3FF	100	←	←	←
268	C/M OFF Gain0 Hue Clip (CCD Magenta)	000~3FF	3FF	←	←	←
269	C/M OFF Gain0 Hue Slope (CCD Magenta) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
270	C/M OFF Gain1 Hue Center (CCD Red) Red Data=Tint/360°×1024 =113. 2°/360°×1024=322 (142h)	000~3FF	142	←	←	←
271	C/M OFF Gain1 Hue Width (CCD Red)	000~3FF	100	←	←	←
272	C/M OFF Gain1 Hue Clip (CCD Red)	000~3FF	3FF	←	←	←
273	C/M OFF Gain1 Hue Slope (CCD Red) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
274	C/M OFF Gain2 Hue Center (CCD Yellow) Yellow Data=Tint/360°×1024 =173°/360°×1024=492 (1ECh)	000~3FF	1EC	←	←	←
275	C/M OFF Gain2 Hue Width (CCD Yellow)	000~3FF	100	←	←	←
276	C/M OFF Gain2 Hue Clip (CCD Yellow)	000~3FF	3FF	←	←	←
277	C/M OFF Gain2 Hue Slope (CCD Yellow) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←

FC4 (15/19)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4						
278	C/M OFF Gain3 Hue Center (CCD Green) Green Data=Tint/360°×1024 =225°/360°×1024=640 (280h)	000~3FF	280	←	←	←
279	C/M OFF Gain3 Hue Width (CCD Green)	000~3FF	100	←	←	←
280	C/M OFF Gain3 Hue Clip (CCD Green)	000~3FF	3FF	←	←	←
281	C/M OFF Gain3 Hue Slope (CCD Green) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
282	C/M OFF Gain4 Hue Center (CCD Cyan) Cyan Data=Tint/360°×1024 =293. 2°/360°×1024=834 (342h)	000~3FF	342	←	←	←
283	C/M OFF Gain4 Hue Width (CCD Cyan)	000~3FF	100	←	←	←
284	C/M OFF Gain4 Hue Clip (CCD Cyan)	000~3FF	3FF	←	←	←
285	C/M OFF Gain4 Hue Slope (CCD Cyan) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
286	C/M OFF Gain5 Hue Center (CCD Blue) Blue Data=Tint/360°×1024 =353°/360°×1024=1004 (3ECh)	000~3FF	3EC	←	←	←
287	C/M OFF Gain5 Hue Width (CCD Blue)	000~3FF	100	←	←	←
288	C/M OFF Gain5 Hue Clip (CCD Blue)	000~3FF	3FF	←	←	←
289	C/M OFF Gain5 Hue Slope (CCD Blue) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
290	C/M OFF Gain6 Hue Center (CCD Other_1) Data=Tint/360°×1024	000~3FF	000	←	←	←
291	C/M OFF Gain6 Hue Width (CCD Other_1)	000~3FF	100	←	←	←
292	C/M OFF Gain6 Hue Clip (CCD Other_1)	000~3FF	3FF	←	←	←
293	C/M OFF Gain6 Hue Slope (CCD Other_1) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
294	C/M OFF Gain7 Hue Center (CCD Other_2) Data=Tint/360°×1024	000~3FF	000	←	←	←
295	C/M OFF Gain7 Hue Width (CCD Other_2)	000~3FF	100	←	←	←
296	C/M OFF Gain7 Hue Clip (CCD Other_2)	000~3FF	3FF	←	←	←
297	C/M OFF Gain7 Hue Slope (CCD Other_2) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←

BACK TO ADJUSTMENTS

FC4 (16/19)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4						
298	C/M OFF Phase0 Hue Center (Paper Magenta) Magenta Data=Tint/360°×1024 =45°/360°×1024=128 (080h)	000~3FF	080	←	←	←
299	C/M OFF Phase0 Hue Width (Paper Magenta)	000~3FF	100	←	←	←
300	C/M OFF Phase0 Hue Clip (Paper Magenta)	000~3FF	3FF	←	←	←
301	C/M OFF Phase0 Hue Slope (Paper Magenta) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
302	C/M OFF Phase1 Hue Center (Paper Red) Red Data=Tint/360°×1024 =113. 2°/360°×1024=322 (142h)	000~3FF	142	←	←	←
303	C/M OFF Phase1 Hue Width (Paper Red)	000~3FF	100	←	←	←
304	C/M OFF Phase1 Hue Clip (Paper Red)	000~3FF	3FF	←	←	←
305	C/M OFF Phase1 Hue Slope (Paper Red) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
306	C/M OFF Phase2 Hue Center (Paper Yellow) Yellow Data=Tint/360°×1024 =173°/360°×1024=492 (1ECh)	000~3FF	1EC	←	←	←
307	C/M OFF Phase2 Hue Width (Paper Yellow)	000~3FF	100	←	←	←
308	C/M OFF Phase2 Hue Clip (Paper Yellow)	000~3FF	3FF	←	←	←
309	C/M OFF Phase2 Hue Slope (Paper Yellow) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
310	C/M OFF Phase3 Hue Center (Paper Green) Green Data=Tint/360°×1024 =225°/360°×1024=640 (280h)	000~3FF	280	←	←	←
311	C/M OFF Phase3 Hue Width (Paper Green)	000~3FF	100	←	←	←
312	C/M OFF Phase3 Hue Clip (Paper Green)	000~3FF	3FF	←	←	←
313	C/M OFF Phase3 Hue Slope (Paper Green) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←

FC4 (17/19)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4						
314	C/M OFF Phase4 Hue Center (Paper Cyan) Cyan Data=Tint/360°×1024 =293. 2°/360°×1024=834 (342h)	000~3FF	342	←	←	←
315	C/M OFF Phase4 Hue Width (Paper Cyan)	000~3FF	100	←	←	←
316	C/M OFF Phase4 Hue Clip (Paper Cyan)	000~3FF	3FF	←	←	←
317	C/M OFF Phase4 Hue Slope (Paper Cyan) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
318	C/M OFF Phase5 Hue Center (Paper Blue) Blue Data=Tint/360°×1024 =353°/360°×1024=1004 (3ECh)	000~3FF	3EC	←	←	←
319	C/M OFF Phase5 Hue Width (Paper Blue)	000~3FF	100	←	←	←
320	C/M OFF Phase5 Hue Clip (Paper Blue)	000~3FF	3FF	←	←	←
321	C/M OFF Phase5 Hue Slope (Paper Blue) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
322	C/M OFF Gain0 Hue Center (Paper Magenta) Magenta Data=Tint/360°×1024 =45°/360°×1024=128 (080h)	000~3FF	080	←	←	←
323	C/M OFF Gain0 Hue Width (Paper Magenta)	000~3FF	100	←	←	←
324	C/M OFF Gain0 Hue Clip (Paper Magenta)	000~3FF	3FF	←	←	←
325	C/M OFF Gain0 Hue Slope (Paper Magenta) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
326	C/M OFF Gain1 Hue Center (Paper Red) Red Data=Tint/360°×1024 =113. 2°/360°×1024=322 (142h)	000~3FF	142	←	←	←
327	C/M OFF Gain1 Hue Width (Paper Red)	000~3FF	100	←	←	←
328	C/M OFF Gain1 Hue Clip (Paper Red)	000~3FF	3FF	←	←	←
329	C/M OFF Gain1 Hue Slope (Paper Red) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←

FC4 (18/19)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4						
330	C/M OFF Gain2 Hue Center (Paper Yellow) Yellow Data=Tint/360°×1024 =173°/360°×1024=492 (1ECh)	000~3FF	1EC	←	←	←
331	C/M OFF Gain2 Hue Width (Paper Yellow)	000~3FF	100	←	←	←
332	C/M OFF Gain2 Hue Clip (Paper Yellow)	000~3FF	3FF	←	←	←
333	C/M OFF Gain2 Hue Slope (Paper Yellow) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
334	C/M OFF Gain3 Hue Center (Paper Green) Green Data=Tint/360°×1024 =225°/360°×1024=640 (280h)	000~3FF	280	←	←	←
335	C/M OFF Gain3 Hue Width (Paper Green)	000~3FF	100	←	←	←
336	C/M OFF Gain3 Hue Clip (Paper Green)	000~3FF	3FF	←	←	←
337	C/M OFF Gain3 Hue Slope (Paper Green) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
338	C/M OFF Gain4 Hue Center (Paper Cyan) Cyan Data=Tint/360°×1024 =293. 2°/360°×1024=834 (342h)	000~3FF	342	←	←	←
339	C/M OFF Gain4 Hue Width (Paper Cyan)	000~3FF	100	←	←	←
340	C/M OFF Gain4 Hue Clip (Paper Cyan)	000~3FF	3FF	←	←	←
341	C/M OFF Gain4 Hue Slope (Paper Cyan) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←
342	C/M OFF Gain5 Hue Center (Paper Blue) Blue Data=Tint/360°×1024 =353°/360°×1024=1004 (3ECh)	000~3FF	3EC	←	←	←
343	C/M OFF Gain5 Hue Width (Paper Blue)	000~3FF	100	←	←	←
344	C/M OFF Gain5 Hue Clip (Paper Blue)	00~3FF	3FF	←	←	←
345	C/M OFF Gain5 Hue Slope (Paper Blue) 00h:-128, 80h:0, FFh:+127	00~FF	80	←	←	←

FC4 (19/19)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
FC4							
346	C/M OFF Gain6 Hue Center (Paper Other_1) Data=Tint/360°×1024		000~3FF	000	←	←	←
347	C/M OFF Gain6 Hue Width (Paper Other_1)		000~3FF	100	←	←	←
348	C/M OFF Gain6 Hue Clip (Paper Other_1)		00~3FF	3FF	←	←	←
349	C/M OFF Gain6 Hue Slope (Paper Other_1) 00h:-128, 80h:0, FFh:+127		00~FF	80	←	←	←
350	C/M OFF Gain7 Hue Center (Paper Other_2) Data=Tint/360°×1024		000~3FF	000	←	←	←
351	C/M OFF Gain7 Hue Width (Paper Other_2)		000~3FF	100	←	←	←
352	C/M OFF Gain7 Hue Clip (Paper Other_2)		000~3FF	3FF	←	←	←
353	C/M OFF Gain7 Hue Slope (Paper Other_2) 00h:-128, 80h:0, FFh:+127		00~FF	80	←	←	←
354	Sub Vertical Write Input Horizontal Phase Adjustment	ANT/NTSC/480i	00~07	05	←	←	←
355		480p	00~07	05	←	←	←
356		720p	00~07	05	←	←	←
357		1080i	00~07	04	←	←	←
358	Sub Horizontal Sync Horizontal Phase Offset		00~FF	7F	←	←	←
359	Y Frame Bright		00~FF	5A	←	←	←
360	ACT Picture Slice Level		00~FF	66	←	←	←
361	ACT Max/Min Detection LPF Select		00~03	03	←	←	←
362	Horizontal Picture Start Position		000~FFF	*	←	←	←
363	Horizontal Picture End Position		000~FFF	*	←	←	←
364	Vertical Picture Start Position		000~3FF	*	←	←	←
365	Vertical Picture End Position		000~3FF	*	←	←	←
366	V/H Phase Differential Detection Value		0000~1FFF	*	←	←	←
367	3-2/2-2 Pull Down Detection 00h:Monitor, 01h:Control, 02h:2-3, 03h:2-2		00~03	*	←	←	←
368	Spectrum ON/OFF		00~01	01	←	←	←

BACK TO ADJUSTMENTS

TC90103 (1/12)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i						
001	3D Motion Detection Select 00h:Compulsion Standard, 01h:Compulsion Still Picture, 02h:MOVE, 03h:MANU		00~03	03	←	←	←
002	YES Mode 00h:Mode1, 01h:3Line+3DNR, 02h:BPF+3DNR, 03h:Mode2		00~03	03	←	←	←
003	3D Y Noise Reduction Limiter Level 00h:Level Small~07h:Level Big		00~07	06	←	←	←
004	3D Color Noise Reduction Round Coefficient 00h:×1, 01h:×1/2, 02h:×3/4, 03h:OFF		00~03	02	←	←	←
005	3D Y Noise Reduction Gain 00h:OFF~07h:×0. 875		00~07	00	←	←	←
006	3D Color Noise Reduction Limiter Level 00h:Level Small~07h:Level Large		00~07	05	←	←	←
007	3D Color Round Coefficient 00h:×1, 01h:×1/2, 02h:×3/4h, 03h:OFF		00~03	01	←	←	←
008	3D Color Noise Reduction Gain 00h:OFF~07h:×0. 875		00~07	00	←	←	←
009	Vertical Enhancer Gain 00h:OFF, 01h:×1/8, 02h:×1/4, 03h:×1/2		00~03	00	←	←	←
010	Vertical Enhancer Turning Point 00h:6 IRE, 01h:9 IRE, 02h:13 IRE, 03h:16 IRE		00~03	01	←	←	←
011	Vertical Enhancer Coring 00h:OFF, 01h:0. 8 IRE, 02h:1. 6IRE, 03h:2. 3 IRE		00~03	01	←	←	←
012	Sharpness f0 00h:4. 2MHz, 01h:3. 3MHz		00~01	00	←	←	←
013	Pre-Enhancer 00h:OFF, 01h:ON		00~01	00	←	←	←
014	Sharpness Gain 00h: OFF,	ANT/NTSC	00~0F	00	←	←	←
015	01h: 1. 02dB, 02h: 1. 94dB, 03h: 2. 77dB, 04h: 3. 52dB, 05h: 4. 22dB, 06h: 4. 86dB, 07h: 5. 46dB, 08h: -6. 02dB, 09h: -5. 00dB, 0Ah: -4. 08dB, 0Bh: -3. 25dB, 0Ch: 2. 50dB, 0Dh: -1. 80dB, 0Eh: -1. 16dB, 0Fh: -0. 56 dB	Y/C/480i	00~0F	00	←	←	←

TC90103 (2/12)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i						
016	Sharpness/Noise Cancel Coring 00h:0. 8 IRE, 01h:1. 6 IRE,	ANT/NTSC	00~03	01	←	←	←
017	02h:3. 2 IER, 03h:6. 4 IRE	Y/C/480i	00~03	01	←	←	←
018	Noise Cancel Gain 00h:OFF, 01h:×1/4, 0h2:×1/2, 03h:×1		00~03	00	←	←	←
019	LTI Gain (LTI = Luminance Transient Improvement) 00h:OFF, 01h:×1/8, 02h:×1/4, 03h:×1/2		00~03	00	←	←	←
020	LTI Coring Level (LTI = Luminance Transient Improvement) 00h:0. 8 IRE, 01h:1. 6 IRE, 02h:3. 2 IER, 03h:6. 4 IRE		00~03	00	←	←	←
021	Chrominance Delay 00h:-296ns~0Fh:259ns	ANT	00~0F	09	←	←	←
022		NTSC/480i	00~0F	08	←	←	←
023		Y/C	00~0F	06	←	←	←
024	CTI Gain (CTI = Chrominance Transient Improvement) 00h:OFF, 01h:×1/8, 02h:×1/4, 03h:×1/2		00~03	02	←	←	←
025	CTI Coring Level (CTI = Chrominance Transient Improvement) 00:0. 2 IRE, 01:0. 8 IRE, 02:1. 6 IRE, 03:3. 2 IRE		00~03	00	←	←	←
026	LTI f0 (LTI = Luminance Transient Improvement) 00h:3. 2MHz, 01h:2. 2MHz		00~01	01	←	←	←
027	CTI f0 (CTI = Chrominance Transient Improvement) 00h:1. 7MHz, 01h:3. 4MHz		00~01	00	←	←	←
028	Contrast Control 00h:×1/2~40h:×1~FFh:×2. 4		00~FF	4A	←	←	←
029	Brightness (Y Output Offset) 80h:-128Lsbh~00h:OFF~7Fh:+127(10Bit)		00~FF	61	←	←	←
030	Cr Output Gain 08h:×0. 5 ~ 00:×1 ~ 07:×1. 4		00~0F	0A	←	←	←
031	Cb Output Gain 08h:×0. 5 ~ 00h:×1 ~ 07h:×1. 4		00~0F	0A	←	←	←
032	Cr Output Offset 08h:-8LSB ~ 00h:0 ~ 07h:+7LSB(10Bit)		00~0F	08	←	←	←
033	Cb Output Offset 08h:-8LSB ~ 00h:0 ~ 07h:+7LSB(10Bit)		00~0F	08	←	←	←
034	Phase Control 80h:-45° ~ 00h:0° ~ 7Fh: +43. 6°		00~7F	40	←	←	←
035	Cb Delay 00h:Cb Preceding, 01h:Cr Delay		00~01	00	←	←	←

BACK TO ADJUSTMENTS

TC90103 (3/12)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i						
036	Demodulation Angle 00h: 0° ~ 3Fh:+45°		00~3F	00	←	←	←
037	Color Killer Level 00h:-40dB ~ 07h:-30dB		00~07	00	←	←	←
038	ACC Level (ACC = Auto Color Level) 00h: Min ~ 0Fh: Max [08h: Center]		00~0F	05	←	←	←
039	ACK Hysteresis (ACK = Auto Color Killer) 00h: Small, 01h: Large		00~01	01	←	←	←
040	2'nd BPF/TRAP on/off 00h:ON, 01h:OFF		00~01	01	←	←	←
041	2'nd BPF/TRAP bpf/trap 00h:Trap, 01h:BPF		00~01	00	←	←	←
042	TRAP1 00h:ON, 01h:OFF		00~01	00	←	←	←
043	TRAP2 00h:ON, 01h:OFF		00~01	00	←	←	←
044	Take Off Filter 00h:OFF, 01h:BPF ON,	ANT (RF Input)	00~07	07	←	←	←
045	02h:Min ~ 07h:Max	NTSC/480i	00~07	01	←	←	←
046	Y Digital Clamp 00h:OFF, 01h:ON		00~01	00	←	←	←
047	BSRC Filter 00h:ON, 01h:OFF		00~01	01	←	←	←
048	Chrominance Digital Clamp 00h:OFF, 01h:ON		00~01	01	←	←	←
049	Y Noise Cancel Limiter 00h:4lsb, 01h:8lsb, 02h:16lsb, 03h:32lsb		00~03	00	←	←	←
050	Y Noise Cancel Gain 00h:OFF, 01h:×1, 02h:×1. 5, 03h:×2		00~03	01	←	←	←
051	Chrominance Noise Cancel Limiter 00h:1lsb, 01h:2lsb, 02h:4lsb, 03h:8lsb		00~03	00	←	←	←
052	C Noise Cancel Gain 00h:OFF, 01h:×1, 02h:×1. 5, 03h:×2		00~03	00	←	←	←
053	Horizontal Dot Obstruction Reduction 00h:OFF, 01h:×0. 16, 02h:×0. 17, 03h:×0. 18		00~03	03	←	←	←
054	COMB+ 00h:OFF, 01h:ON		00~01	00	←	←	←
055	1 Line Dot Improvement 00h:OFF, 01h:ON		00~01	01	←	←	←
056	Vertical Y Noise Cancel Limiter 00h:8lsb, 01h:16lsb		00~01	00	←	←	←
057	Vertical Y Noise Cancel Gain 00h:×1, 01h:×2		00~01	00	←	←	←

TC90103 (4/12)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i					
058	Vertical Y ON 00h:OFF, 01h:ON	00~01	01	←	←	←
059	C NY Limiter 00h:16lsb, 01h:24lsb	00~01	00	←	←	←
060	C NC Gain	00~01	00	←	←	←
061	C-NC ON 00h:OFF, 01h:ON	00~01	00	←	←	←
062	IIR Filter 00h:OFF, 01h:ON	00~03	00	←	←	←
063	Output Peak Limiter 00h:OFF, 01h:ON	00~01	00	←	←	←
064	AFC Integrate Gain Switch	00~0F	03	←	←	←
065	AFC Proportional Gain Switch	00~0F	07	←	←	←
066	Linear Gain Switch at Phase Large Error	00~0F	08	←	←	←
067	No Linear Area 2nd Gain Switch	00~0F	0C	←	←	←
068	Linear Gain Switch at Phase Small Error	00~0F	05	←	←	←
069	Integrate Value Reset ON at Limit 00h:OFF, 01h:ON	00~01	01	←	←	←
070	Linear Area Width Setting	00~07	04	←	←	←
071	Sync Separation Input Select 00h:Internal, 01h:CsyncH, 02h:CsyncL, 03h:VsyncH, 04h:Internal(OFF_SET), 07h:Free run	00~07	00	←	←	←
072	AFC Integrate Relay 00h:OFF, 01h:ON	00~01	01	←	←	←
073	Phase Error Gain Up 00h:ON, 01h:00×2, 02h:00×4, 03h:00×8	00~03	03	←	←	←
074	Phase Error Maximum Linear Area Width Setting 00h:OFF, 01h:LRW0＋16'h5000, 02h:LRW0＋16'h6000, 03h:LRW0＋16'h7000	00~03	01	←	←	←
075	Horizontal Standard Phase Adjustment 20h:-4. 7μs ~ 00h:±0 ~ 1Fh:+4. 59μs (1/6. 75MHz_Step)	00~3F	20	←	←	←
076	Horizontal Separation Level 00h:30%, 01h:40%	00~01	00	←	←	←
077	Half Horizontal Killer 00h:OFF, 01h:ON	00~01	01	←	←	←

BACK TO ADJUSTMENTS

TC90103 (5/12)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i					
078	Vertical Standard Setting 04h:+4H ~ 00h:Center ~ 03h:−3H	00~07	04	←	←	←
079	External VD Phase Setting 00h:Center, 01h:+1. 99us, 02h:+3. 97us, 03h:＋5. 96us, 04h:-7. 94us, 05h:-5. 96us, 06h:-3. 97us, 07h:-1. 99us	00~07	04	←	←	←
080	VD Output Control 00h:Always Input Sync 01h:DET50 02h/03h: TVM[1]	00~03	02	←	←	←
081	Field Distinction Horizontal Phase Setting 00h:-5. 7us, 01h:-8. 2us, 02h:-10. 7us, 03h:-13. 2us, 04h:-15. 7us, 05h:-18. 4us, 06h:-20. 9us, 07h:-23. 2us	00~07	04	←	←	←
082	Vertical Counter Tolerance 00h:-H/8~+H/4, 01h:±H/8	00~01	00	←	←	←
083	Vertical Counter Limiter 00h:OFF, 01h:ON	00~01	00	←	←	←
084	Vertical Jitter Remove 00h:OFF, 01h:ON	00~01	00	←	←	←
085	Field Distinction at Non Standard 00h:Reverse at Every 1V, 01h:Low	00~01	00	←	←	←
086	Integrate Center Level Setting for Vertical Separation 00h:5/16, 01h:1/2	00~01	01	←	←	←
087	Y Horizontal Edge Detection Level 00h:OFF, 01h:6 IRE, 02h:3 IRE, 03h:1. 5 IRE	00~03	02	←	←	←
088	1 Field Y Detection Slope, Color Motion Picture Edge 00h:1/2 ~ 03h:∞[02]	00~03	02	←	←	←
089	1 Field Y Detection Offset, Color Motion Picture Edge 00h:Still Picture ~0Fh:Motion Picture [0C: Center]	00~0F	0C	←	←	←
090	Y Vertical Edge Detection Level 00h:OFF, 01h:12 IRE, 02h:5 IRE, 03h:2 IRE	00~03	03	←	←	←
091	1 Field Y Detection Slope, Color Motion Picture Smooth 00h:1/2 ~ 03h:∞[02]	00~03	02	←	←	←
092	1 Field Y Detection Offset, Color Motion Picture Edge 00h:Still Picture ~ 0Fh:Motion Picture [0C: Center]	00~0F	0C	←	←	←
093	Color Motion Picture Distinction Standard 00h:8%, 01h:16%, 02h:24%, 03h:32%	00~03	01	←	←	←
094	1 Field Y Detection Slope, Color Still Picture Edge 00h:1/2 ~ 03h:∞[02]	00~03	01	←	←	←
095	1 Field Y Detection Offset, Color Still Picture Edge 00h:Still Picture ~ 0Fh:Motion Picture [0C: Center]	00~0F	00	←	←	←

TC90103 (6/12)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i					
096	Y Motion Picture Distinction Standard 00h:8%, 01h:16%, 02h:24%, 03h:32%	00~03	00	←	←	←
097	1 Field Y Detection Slope, Color Still Picture Smooth 00h:1/2 ~ 03h:∞[02]	00~03	02	←	←	←
098	1 Field Y Detection Offset, Color Still Picture Smooth 00h:Still Picture ~ 0Fh:Motion Picture [0C: Center]	00~0F	08	←	←	←
099	2 Field Y Motion Detection Enhancement 00h:ON, 01h:OFF	00~01	00	←	←	←
100	2 Field Color Motion Detection Enhancement 00h:ON, 01h:OFF	00~01	00	←	←	←
101	1 Field Y Detection Slope, Y Motion Picture Edge 00h:ON, 01h:OFF	00~03	02	←	←	←
102	1 Field Y Detection Offset, Y Motion Picture Edge 00h:1/2 ~ 03h:∞[02]	00~0F	08	←	←	←
103	2 Field Motion Detection Enhancement 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~01	00	←	←	←
104	2 Field Motion Detection Enhancement Standard 00h:ON, 01h:OFF	00~01	00	←	←	←
105	1 Field Y Detection Slope, Y Motion Picture Smooth 00h:ON 01h:OFF	00~03	03	←	←	←
106	1 Field Y Detection Offset, Y Motion Picture Smooth 00h:1/2 ~ 03h:∞[02: Default]	00~0F	08	←	←	←
107	2 Field Color Detection 2nd Slope Threshold, Color Still Picture Edge 00h:0, 01h:1, 0h2:2, 03h:3	00~03	00	←	←	←
108	1 Field Y Detection Slope, Y Still Picture Edge 00h:1/2 ~ 03h:∞[02]	00~03	02	←	←	←
109	1 Field Y Detection Offset, Y Still Picture Edge 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	07	←	←	←
110	2 Field C Detection 2nd Slope, Color Still Picture Edge 00h:1/8, 0h1:1/4, 02h:1/2, 03h:1	00~03	00	←	←	←

BACK TO ADJUSTMENTS

TC90103 (7/12)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i					
111	1 Filed Detection Slope, Y Still Picture Smooth 00h:1/2 ~ 03h:∞[02]	00~03	03	←	←	←
112	1 Field Y Detection Offset, Y Still Picture Smooth 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	0A	←	←	←
113	2 Field Detection 2nd Slope Threshold, Color Still Picture Smooth 00h:0, 01h:1, 02h:2, 03h:3	00~03	00	←	←	←
114	2 Field Color Detection Slope, Color Motion Picture Smooth 00h:1/2 ~ 03h:∞[02]	00~03	02	←	←	←
115	2 Field Color Detection Offset, Color Motion Picture Edge 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	0A	←	←	←
116	2 Field Color Detection 2nd Slope, Color Still Picture Smooth 00h:1/8, 01h:1/4, 02h:1/2, 03h:1	00~03	00	←	←	←
117	2 Field Color Detection Slope, Color Motion Picture Edge 00h:1/2 ~ 03h:∞[02]	00~03	02	←	←	←
118	2 Field Color Detection Offset, Color Still Picture Smooth 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	0C	←	←	←
119	2 Field 2nd Slope Threshold, Y Still Picture Edge 00h:0, 01h:1, 02h:2, 03h:3	00~03	01	←	←	←
120	2 Field Color Detection Slope, Color Still Picture Edge 00h:1/2 ~ 03h:∞ [02h: Default]	00~03	01	←	←	←
121	2 Field Color Detection Offset, Color Still Picture Smooth 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	04	←	←	←
122	2 Field Detection 2nd Slope Offset, Y Still Picture Edge 00h:1/8, 01h:1/4, 02h:1/2, 03h:1	00~03	02	←	←	←
123	2 Field Color Slope Threshold, Color Still Picture Smooth 00h:1/2 ~ 03h:∞ [02h: Default]	00~03	02	←	←	←
124	2 Field Color Detection Offset, Color Still Picture Smooth 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	08	←	←	←
125	2 Field Detection 2nd Slope Threshold, Y Still Picture Smooth 00h:0, 01h:1, 02h:2, 03h:3	00~03	00	←	←	←

TC90103 (8/12)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i					
126	2 Field Detection Slope, Y Motion Picture Edge 00h:1/2 ~ 03h:∞ [02h: Default]	00~03	03	←	←	←
127	2 Field Detection Offset, Y Motion Picture Edge 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	0E	←	←	←
128	2 Field Detection 2nd Slope, Y Still Picture Smooth 00h:1/8, 01h:1/4, 02h:1/2, 03h:1	00~03	01	←	←	←
129	2 Field Detection Slope. Y Motion Picture Smooth 00h:1/2 ~ 03h:∞ [02h: Default]	00~03	03	←	←	←
130	2 Field Detection Offset, Y Motion Picture Smooth 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	0C	←	←	←
131	2 Field Detection Slope, Y Still Picture Edge 00h:1/2 ~ 03h:∞ [02h: Default]	00~03	02	←	←	←
132	2 Field Detection Offset, Y Still Picture Edge 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	07	←	←	←
133	2 Field Detection Slope, Y Still Picture Smooth 00h:1/2 ~ 03h:∞ [02h: Default]	00~03	02	←	←	←
134	2 Field Detection Offset, Y Still Picture Smooth 00h:Still Picture ~ 0Fh:Motion Picture [0Ch: Center]	00~0F	0E	←	←	←
135	[NR] Color Level (for Y Differential Color Level Detection) 00h:Small ~ 0Fh:Large［03h: Center］	00~0F	03	←	←	←
136	[NR/NR] Y Differential Integrate Motion Picture Distinction Level 00h:Motion Picture ~ 0Fh:Still Picture [01h: Default]	00~0F	03	←	←	←
137	2 Field Assistance Simple Color Motion Detection Threshold 00h:Small ~ 0Fh:Large [0Fh: Default]	00~0F	0F	←	←	←
138	2 Field Assistance Simple Color Motion Detection ON/OFF 00h:ON, 01h:OFF	00~01	00	←	←	←
139	Color Signal Edge Detection Level 00h:Small ~ 07h: Large [04h: Default]	00~07	04	←	←	←
140	2 Field Assistance Function 00h:OFF, 01h:ON	00~01	01	←	←	←

BACK TO ADJUSTMENTS

TC90103 (9/12)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i					
141	2 Field Assistance Select 00h:Y, 01h:C	00~01	00	←	←	←
142	2 Field Assistance Color Still Picture Distinction Level 00h: Small ~ 07h:Large [04h: Default]	00~07	04	←	←	←
143	2 Field Assistance Y Still Picture Distinction Level 00h: Small ~ 07h: Large [04h: Default]	00~07	04	←	←	←
144	1 Field Detection Still Offset Adjustment for Still Picture Cross Color Improvement 00h:OFF ~0Fh:Compulsion Still Picture 2 Step [0Ah: Default]	00~0F	04	←	←	←
145	2 Field Detection Still Picture Offset Adjustment for Still Picture Cross Color Improvement 00h:OFF~0Fh:Still Picture Distinction	00~0F	02	←	←	←
146	Motion Detection Error, Compulsion Motion Picture at Vicinity of 3. 4MHz Still Color Signal Level Threshold (Still Picture Color Detection) 00h:OFF~0Fh:15/1023 (1Lsb Step)[00h: Default]	00~0F	00	←	←	←
147	Motion Detection Error, Compulsion Motion Picture at Vicinity of 3. 4MHz Still Picture Color Signal Level Threshold (Still Picture No Color Detection) 00h:OFF~0Fh:15/1023 (1Lsb Step)[00h: Default]	00~0F	00	←	←	←
148	[NR] Band Select 00h:Wideband, 01h: Narrowband	00~01	00	←	←	←
149	Y Differential Color Level Detection 00h:Motion Detection OFF, 01h:Nonlinear Processing	00~01	00	←	←	←
150	Y Non Correlation Detection Level Switch 00h:[4:0], 01h:「5:1」	00~01	00	←	←	←
151	Color Non Correlation Detection Level Switch 00h:[5:1], 01h:「6:2」	00~01	00	←	←	←
152	[NR] Y Differential Color Level Y Motion Picture Distinction Level 00h:Motion Picture ~ 0Fh:Still Picture [08h: Default]	00~0F	08	←	←	←
153	AGC Manual Setting (AGC = Auto Gain Control) 00h:OFF, 01h:ON	00~01	00	←	←	←
154	AGC Manual Gain Setting (AGC = Auto Gain Control)	00~7F	28	←	←	←
155	AGC Sync Level Detection ON/OFF (AGC = Auto Gain Control) 00h:OFF, 01h:ON	00~01	01	←	←	←

TC90103 (10/12)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i					
156	AGC Peak Level Detection ON/OFF (AGC = Auto Gain Control) 00h:OFF, 01h:ON	00~01	01	←	←	←
157	AGC OFF/ON Level Setting (AGC = Auto Gain Control) 00h:OFF, 01h:70%, 02h:75%, 03h:80%	00~03	00	←	←	←
158	GCA Setting (GCA = ?) 00h:Auto, 01h:Digital	00~01	00	←	←	←
159	AGC Response Time Setting (AGC = Auto Gain Control) 00h:Fast ~ 07h:Slow	00~07	00	←	←	←
160	Peak AGC Level (AGC = Auto Gain Control) 00h:105%, 01h:110%, 02h:115%, 03h:120%	00~03	01	←	←	←
161	GCA Gain Switch (GCA = ?) 00h:-3~+7dB, 01h:+6dB, 02h:−5~+5dB, 03h:−6~+4dB	00~03	01	←	←	←
162	Pedestal Difference Detection ON/OFF 00h:OFF, 01h:ON	00~01	00	←	←	←
163	Peak AGC Discharge Speed 00h:Fast ~ 07h:Slow	00~07	00	←	←	←
164	AGC Pedestal Timing for Digital Clamp (AGC = Auto Gain Control) 08h:-1. 19us ~ 00h:(Center) ~ 07h:+1. 04us	00~0F	08	←	←	←
165	AGC Sync Timing for Digital Clamp 08h:-1. 19us ~ 00h:(Center) ~ 07h:+1. 04us	00~0F	08	←	←	←
166	Horizontal Phase Adjustment for Digital Format 08h:-1. 185us ~ 00h: 0us ~ 0Fh:+1. 04us	00~0F	08	←	←	←
167	Vertical Phase Adjustment for Digital Format 00h:0H ~ 0Fh:+15H	00~0F	00	←	←	←
168	Vertical Horizontal Start Phase at Vertical Through 00h:0W, 01h:64W, 02h:128W, 03h:192W, 04h:256W, 05h:320W, 06h:348W, 07h:Prohibition	00~07	00	←	←	←
169	VD at Non Standard Output 00h:Horizontal Count Standard, 01h:Vertical Separation Standard	00~01	01	←	←	←
170	656 Non Conforming Horizontal Out Phase 00h:32W, 01h:36W, 02h:40W, 03h:44W	00~03	00	←	←	←

BACK TO ADJUSTMENTS

TC90103 (11/12)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i					
171	CK Out Clock Select 00h:13. 5MHz, 01h:27MHz(601:13. 5MHz), 02h:54MHz(656:27MHz), 03h:AUTO	00~03	03	←	←	←
172	Horizontal Blanking Period 00h:OFF, 01h:ON	00~01	00	←	←	←
173	Vertical Blanking Period 00h:OFF, 0h1:ON	00~01	00	←	←	←
174	601 Output Mode YCbCr Overlay Select 00h:OFF, 01h:ON	00~01	00	←	←	←
175	Horizontal Blanking Period Overlay Line Select NTSC:21/284 Lines+(Register Value)、 PAL:24/337 Lines+(Register Value) D2 60Hz 41 Lines+(Register Value)、 D2 50Hz:47 Lines+(Register Value)[00h: Default]	00~1F	00	←	←	←
176	Field Blanking Period Overlay Line Select NTSC:1 Line+(Register Value)、 PAL:1 Line+(Register Value)	00~0F	00	←	←	←
177	for DID Code Setting	00~0F	04	←	←	←
178	for SDID Code Setting	00~FF	04	←	←	←
179	Picture Processing Period Horizontal Start Phase Adjustment 08h:-1. 185us ~ 00h:0us ~ 07h:+1. 04us	00~0F	08	←	←	←
180	Picture Processing Period Horizontal Width Adjustment 08h:-1. 185us ~ 00h:0us ~ 07h:+1. 04us	00~0F	08	←	←	←
181	Picture Processing Period Vertical Start Phase Adjustment 00h:10 Line ~ 0Fh:25 Lines	00~0F	00	←	←	←
182	EN_PIXV_E 00h:Manual, 01h:Auto	00~01	00	←	←	←
183	COMB_KILL 00h:OFF, 01h:1~21H, 02h:1~22H, 03h:1~23H, 04h:1~24H, 05h:1~25H, 06h:1~26H, 07h1:Auto (60Hz:22H、50Hz:23H)	00~07	07	←	←	←
184	Horizontal Blanking Pulse Start Phase Adjustment 08h:-2. 37us ~ 00h:0us ~ 07h:+2. 07us	00~0F	08	←	←	←
185	Horizontal Blanking Pulse Width Adjustment 08h:-2. 37us ~ 00h:0us ~ 07h:+2. 07us	00~0F	08	←	←	←
186	Memory Write Horizontal Phase Adjustment 08h:-2. 37us ~ 00h:0us ~ 07h:+2. 07us	00~0F	08	←	←	←
187	Memory Write Vertical Start Phase Adjustment 08h:-8H ~ 00h:0us ~ 07h:+7H	00~0F	08	←	←	←
188	Burst Gate Pulse Start Phase Adjustment 00h:0us ~ 0Fh:+4. 44us [02h: Default](3. 58MHz unit)	00~0F	02	←	←	←

TC90103 (12/12)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX)			
				LC58E	LC58	LC57	
TC90103	ANT/NTSC/480i						
189	Clamp Pulse Horizontal Adjustment for Ghost Canceller Tuner 08h:-1. 185us ~ 00h:0us ~ 07h:+1. 04us [0Dh: Default](6. 75MHz unit)		00~0F	08	←	←	←
190	Pedestal Detection Pulse Start Phase Adjustment for Horizontal Separation 08h:-2. 37us~00h:±0~07h:+2. 07us 3. 375MHz unit		00~0F	0A	←	←	←
191	Pedestal Detection Pulse Start Width Adjustment for Horizontal Separation 08h:-2. 37us~00h:±0~07h:+2. 07us 3. 375MHz unit		00~0F	08	←	←	←
192	Charge Discharge Pulse Start Phase Adjustment for Input Clamp 08h:-2. 37us~00h:±0~07h:+2. 07us 3. 375MHz unit		00~0F	08	←	←	←
193	Charge Discharge Pulse Start Width Adjustment for Input Clamp 08h:-2. 37us~00h:±0~07h:+2. 07us 3. 375MHz unit		00~0F	08	←	←	←
194	Color Stripe Detection 00h:OFF, 01h:ON		00~01	00	←	←	←
195	Noise Detection Period Vertical Start Adjustment NTSC:7H/270H Lines+(Register Value)、 PAL:4H/316H Lines+(Register Value)		00~07	00	←	←	←
196	Read Data Read Order Switch		00~07	00	←	←	←
197	EDTV Ⅱ Detection 00h:OFF(ED2 Impossible), 01h:ON(ID1 Impossible)		00~01	00	←	←	←
198	Linear Area Width Setting for NTSC/480i		00~07	00	←	←	←
199	Chrominance Delay for 480i		00~0F	0A	←	←	←
200	Cr Output Offset for 480i		00~0F	0F	←	←	←
201	Cb Output Offset for 480i		00~0F	0F	←	←	←
202	ACC Level (ACC = Auto Color Level)		00~0F	06	←	←	←
203	Brightness (Y Output Offset)	480i Black Enhancement OFF	00~FF	7D	←	←	←
204		ANT/NTSC Black Enhancement Low/Mid/High	00~FF	7D	←	←	←
205		480i Black Enhancement Low/Mid/High	00~FF	7D	←	←	←
206	8bit Output LSB Correction		00~01	01	←	←	←

BACK TO ADJUSTMENTS

AD9880 (1/2)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
AD9880	A/D Converter, 480p/1080i/720p						
001	Pr channel gain Adjust		00~7F	58	←	←	←
002	Y Channel Gain Adjust		00~7FF	58	←	←	←
003	Pb Channel Gain Adjust		00~7F	58	←	←	←
004	Pr offset MSB		00~FF	40	←	←	←
005	Pr Offset		00~FF	00	←	←	←
006	Y Offset MSB		00~FF	08	←	←	←
007	Y Offset		00~FF	00	←	←	←
008	Pb Offset MSB		00~FF	40	←	←	←
009	Pb Offset		00~FF	00	←	←	←
010	Clamp Placement	480p	00~FF	06	←	←	←
011		1080i	00~FF	45	←	←	←
012		720p	00~FF	45	←	←	←
013	Clamp Duration	480p	00~FF	22	←	←	←
014		1080i	00~FF	2A	←	←	←
015		720p	00~FF	74	←	←	←

CXA2211 (1/2)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
CXA2211	Sync Processor						
001	Horizontal Number High Bit		000~3FF	*	←	←	←
002	Vertical Number High Bit		000~7FF	*	←	←	←
003	AFC loop gain control 00h = H free-running mode 01h = gain low 02h = gain middle 03h = gain high	480i	00~03	02	←	←	←
004		480p	00~03	02	←	←	←
005		1080i	00~03	02	←	←	←
006		720p	00~03	02	←	←	←
007	Phase control (Control for rough-tune) for HOUT 00h = H sync center, 01h = center -3. 125%, 02h = center -6. 25%, 03h = center -9. 375% 04h~06h = Leading edge same phase as HSSOUT 07h = Outputs the same phase as HSSOUT	480i	00~07	07	←	←	←
008		480p	00~07	07	←	←	←
009		1080i	00~07	07	←	←	←
010		720p	00~07	07	←	←	←
011	Phase control (Control for fine-tune) for HOUT This is valid when HSHIFT = 0~3. 1 step: 0. 024%, Total control range: 6%	480i	00~FF	10	←	←	←
012		480p	00~FF	10	←	←	←
013		1080i	00~FF	10	←	←	←
014		720p	00~FF	10	←	←	←
015	Sets the sync separation method. This is valid when AUTO = 1 00h = Forcibly sliced at the sync tip + 78mV level. 01h = Level detection mode	480i	00~01	01	←	←	←
016		480p	00~01	01	←	←	←
017		1080i	00~01	01	←	←	←
018		720p	00~01	01	←	←	←

BACK TO ADJUSTMENTS

CXA2211 (2/2)

Adjustment Mode OSD	Adjustment Item		Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
CXA2211	Sync Processor						
019	This is switch a switch that selects the route of LPF in the sync sep circuit.	480i	00~01	00	←	←	←
020	This is valid when AUTO = 1 00h = Through, 01h = LPF	480p	00~01	00	←	←	←
021		1080i	00~01	00	←	←	←
022		720p	00~01	00	←	←	←
023	Sync separation circuit slice level setting This is valid when HSEPSEL = 1	480i	00~03	01	←	←	←
024	00h = Automatic setting 01h = H fixed to 65% from the sync tip.	480p	00~03	01	←	←	←
025	02h = H fixed to 25% from the sync tip. 03h = ***	1080i	00~03	01	←	←	←
026		720p	00~03	01	←	←	←

HDMI (1/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX) LC58E	LC58	LC57	
HDMI	HDMI_1/2					
001	VSYNC/Clock detect/Sync detect 1	00~07	*	←	←	←
002	HDCP Status	00~FF	*	←	←	←
003	Pixel clock	00~FF	*	←	←	←
004	N hardware value 1 Low 7 bit	00~FF	*	←	←	←
005	N hardware value 1 Middle 7 bit	00~FF	*	←	←	←
006	N hardware value 1 High 4 bit	00~FF	*	←	←	←
007	CTS hardware value 1 Low 7 bit	00~FF	*	←	←	←
008	CTS hardware value 1 Middle 7 bit	00~FF	*	←	←	←
009	CTS hardware value 1 High 4 bit	00~FF	*	←	←	←
010	ACR PLL hardware value 1	00~FF	*	←	←	←
011	ACR PLL hardware value 1	00~3F	*	←	←	←
012	Extracted Sampling Frequency 1 channel status bits 24-27(same value at 0x30)	00~7F	*	←	←	←
013	Clock Accuracy/Sampling Frequency 1	00~FF	*	←	←	←
014	Audio length/Audio length max 1	00~FF	*	←	←	←
015	AV mute/HDMI mode 1	00~FF	*	←	←	←
016	AVI info frame type code 1	00~FF	*	←	←	←
017	AVI info frame version code 1	00~FF	*	←	←	←
018	AVI info frame data 1	00~FF	*	←	←	←
019		00~FF	*	←	←	←
020		00~FF	*	←	←	←
021		00~FF	*	←	←	←
022		00~FF	*	←	←	←

BACK TO ADJUSTMENTS

HDMI (2/2)

Adjustment Mode OSD	Adjustment Item	Adjustment Range(HEX)	Initial Data(HEX)			
			LC58E	LC58	LC57	
HDMI	HDMI_1/2					
023	SPD info frame type code	00~FF	*	←	←	←
024	SPD info frame version code	00~FF	*	←	←	←
025	SPD info frame data	00~FF	*	←	←	←
026	AUDIO Info Frame Type Code 1	00~FF	*	←	←	←
027	AUDIO Info Frame Version Code 1	00~FF	*	←	←	←
028	AUDIO Info Frame Data Bytes 1	00~FF	*	←	←	←
029		00~FF	*	←	←	←
030		00~FF	*	←	←	←
031		00~FF	*	←	←	←
032		00~FF	*	←	←	←
033	GCP data	00~FF	*	←	←	←
034	ACP packet type code	00~FF	*	←	←	←
035	ACP type	00~FF	*	←	←	←
036	DVD-audio type dependent generation	00~FF	*	←	←	←
037	Audio copy information	00~FF	*	←	←	←
038	RGB to YCbCr range scaling	00~01	01	←	←	←
039	Back Porch Mode, Field 2 Position Adjustment	00~01	01	←	←	←
040	Matching Test to allow increment of stability counter.	00~01	00	←	←	←
041	RGB to YCbCr range scaling	00~01	01	←	←	←
042	Back Porch Mode, Field 2 Position Adjustment	00~01	01	←	←	←
043	Matching Test to allow increment of stability counter.	00~01	00	←	←	←

ISF Adjutment Mode List

ISF Adjustment Mode		
Device	OSD	Item
1st Page	H_POSITION	Horizontal Position Adjustment
	V_POSITION	Vertical Position Adjustment
Drive Micro	001	LCD DRIVE R-SUB GAIN (High)
	002	LCD DRIVE G-SUB GAIN (High)
	003	LCD DRIVE B-SUB GAIN (High)
	004	LCD DRIVE R-SUB GAIN (Medium)
	005	LCD DRIVE G-SUB GAIN (Medium)
	006	LCD DRIVE B-SUB GAIN (Medium)
	007	LCD DRIVE R-SUB GAIN (STD)
	008	LCD DRIVE G-SUB GAIN (STD)
	009	LCD DRIVE B-SUB GAIN (STD)
	010	LCD DRIVE R-SUB GAIN (B/W)
	011	LCD DRIVE G-SUB GAIN (B/W)
	012	LCD DRIVE B-SUB GAIN (B/W)
FC6	001	Black Stretch
	002	Black Correction
	003	Histogram Gamma
	004	Histogram Enhancer
	005	Histogram Amp
	006	Histogram Color Management
	007	Dynamic Backlight/Lamp Correction
	008	Dynamic Shading
	009	Bgm Gain OFF
	016	Contrast Center
	017	Red Gain Adjustment Color Temperature: High
	018	Green Gain Adjustment Color Temperature: High
	019	Blue Gain Adjustment Color Temperature: High
	020	Red Line 1 Setting
	021	Red Line 2 Setting
	022	Red Line 3 Setting
	023	Red Line 4 Setting
	024	Red Line 5 Setting
	025	Red Line 6 Setting
	026	Red Line 8 Setting
	027	Red Line 10 Setting
	028	Red Line 12 Setting
	029	Red Line 14 Setting
	030	Blue Line 1 Setting
	031	Blue Line 2 Setting
	032	Blue Line 3 Setting
	033	Blue Line 4 Setting
	034	Blue Line 5 Setting
	035	Blue Line 6 Setting
	036	Blue Line 8 Setting
	037	Blue Line 10 Setting
	038	Blue Line 12 Setting
	039	Blue Line 14 Setting
	040	RGB Output Mode

BACK TO ADJUSTMENTS

ISF Adjustment Mode			
Device	**OSD**	**Item**	
FC6	041	R-Y_Cr Decode Adjustment	High
	042		Medium
	043		Standard
	044		Black/White
	045	R-Y_Cb Decode Adjustment	High
	046		Medium
	047		Standard
	048		Black/White
	049	G-Y_Cr Decode Adjustment	High
	050		Medium
	051		Standard
	052		Black/White
	053	G-Y_Cb Decode Adjustment	High
	054		Medium
	055		Standard
	056		Black/White
	057	B-Y_Cb Decode Adjustment	High
	058		Medium
	059		Standard
	060		Black/White
	061	Edge Filter Selection	ANT/NTSC/480i
	062		480p/1080i/720p
	063	Y Vertical & Horizontal Enhancer Gain Adjustment	ANT_Mode1
	064		ANT-Mode2
	065		ANT-Mode3
	066		ANT-Mode4
	067		ANT-Mode5
	068		NTSC
	069		480i
	070		480p
	071		1080i
	072		720p
	073		HDMI/DVI: 480i
	074		HDMI/DVI: 480p/VGA
	075		HDMI/DVI: 720p
	076		HDMI/DVI: 1080i
	077		Reserve
	078		Reserve
	079	Y Vertical Enhancer OFF	
	080	Y Vertical Enhancer Gain Adjustment	ANT/NTSC (DAY)
	081		480i (DAY)
	082		480p (DAY)
	083		1080i/720p (DAY)
	084		ALL (NIGHT)
	085	Y Vertical Dynamic Shoot Balance Gain Adjustment	ANT
	086		NTSC
	087		480i
	088		480p
	089		1080i/720p
	090	Y Vertical Dynamic Shoot Balance Coring Adjustment	ANT/NTSC
	091		480i
	092		480p/1080i/720p
	093	Y Vertical Enhancer Clip OFF	ANT/NTSC/480i
	094		480p
	095		1080i/720p

ISF Adjustment Mode			
Device	**OSD**	**Item**	
FC6	096	Y Vertical Clip Offset Level	ANT
	097		NTSC
	098		480i
	099		480p
	100		1080i/720p
	101		ANT/NTSC/480i (NIGHT)
	102		480p (NIGHT)
	103		1080i/720p (NIGHT)
	104	Y Vertical Non Linear Peaking	ANT/NTSC/480i
	105		480p/1080i/720p
	106	Y Horizontal Enhancer OFF	
	107	Y Horizontal Enhancer Gain Adjustment	ANT
	108		NTSC
	109		480i
	110		480p
	111		1080i/720p
	112	Y Horizontal Dynamic Shoot Balance Gain Adjustment	ANT
	113		NTSC
	114		480i
	115		480p
	116		1080i/720p
	117	Y Horizontal Dynamic Shoot Balance Coring Adjustment	ANT/NTSC
	118		480i
	119		480p/1080i/720p
	120	Y Horizontal Enhancer Clip OFF	ANT/NTSC/480i
	121		480p
	122		1080i/720p
	123	Y Horizontal Clip Offset Level	ANT
	124		NTSC
	125		480i
	126		480p
	127		1080i/720p
	128	Y Horizontal Non Linear Peaking	ANT/NTSC/480i
	129		480p/1080i/720p
	130	Y Coring Amplitude Adjustment	ANT_Mode1
	131		ANT-Mode2
	132		ANT-Mode3
	133		ANT-Mode4
	134		ANT-Mode5
	135		NTSC (Composite)
	136		NTSC (Y/C)
	137		480i
	138		480p
	139		1080i
	140		720p
	141		HDMI/DVI: 480i
	142		HDMI/DVI: 480p/VGA
	143		HDMI/DVI: 720p
	144		HDMI/DVI: 1080i
	145		Reserve

BACK TO ADJUSTMENTS

ISF Adjustment Mode			
Device	**OSD**	**Item**	
FC4	001	Dynamic Enhancer	
	002	Dynamic Contrast Correction	
	003	Contrast Center	Normal
	004		HDMI/DVI: Setup Cancel OFF
	005		DVI: Setup Cancel ON
	006	Brightness Center	
	007	Color Center	ANT/NTSC
	008		CbCr
	009		PbPr
	010		HDMI CbCr: DVI CbCr
	011		HDMI PbPr: DVI PbPr
	012	Tint Center	ANT/NTSC
	013		CbCr
	014		PbPr
	015		HDMI CbCr: DVI CbCr
	016		HDMI PbPr: DVI PbPr
	017	Horizontal Enhance	ANT_Mode1
	018		ANT_Mode2~5
	019		NTSC
	020		480i
	021		480p
	022		1080i/720p
	023		ALL(NIGHT)
	024		Reserve
	025		Reserve
	026	Horizontal Enhance Coring	ANT_Mode1
	027		ANT_Mode2~5
	028		NTSC
	029		480i
	030		480p
	031		1080i
	032		720p
	033		Reserve
	034	Vertical Enhance	ANT_Mode1
	035		ANT_Mode2~5
	036		NTSC
	037		480i
	038		480p
	039		1080i/720p
	040		ALL(NIGHT)
	041		Reserve
	042		Reserve
	043	Vertical Enhance Coring	ANT_Mode1
	044		ANT_Mode2~5
	045		NTSC
	046		480i
	047		480p
	048		1080i
	049		720p
	050		Reserve

ISF Adjustment Mode			
Device	**OSD**	**Item**	
FC4	051	Y Vertical and Horizontal Enhance Gain	ANT_Mode1
	052		ANT-Mode2
	053		ANT-Mode3
	054		ANT-Mode4
	055		ANT-Mode5
	056		NTSC
	057		480i
	058		480p
	059		1080i
	060		720p
	061		HDMI/DVI: 480i
	062		HDMI/DVI: 480p/VGA
	063		HDMI/DVI: 1080i
	064		HDMI/DVI: 720p
	065		Reserve
	066		Reserve
	067	Horizontal High Pass Filter Switch	ANT/NTSC
	068		480i
	069		480p
	070		1080i/720p
	071	Y Horizontal Enhancer Clip Off	ANT/NTSC/480i
	072		480p
	073		1080i/720p
	074	Y Horizontal Enhancer Gain	ANT
	075		NTSC
	076		480i
	077		480p
	078		1080i/720p
	079		ALL(NIGHT)
	080	Y Horizontal Enhance Clip Offset	ANT
	081		NTSC
	082		480i
	083		480p
	084		1080i/720p
	085	Y Horizontal Dynamic Shoot Balance Gain	ANT
	086		NTSC
	087		480i
	088		480p
	089		1080i/720p
	090	Y Horizontal Dynamic Shoot Balance Coring	ANT/NTSC
	091		480i
	092		480p/1080i/720p
	093	Y Horizontal Nonlinear Peaking	ANT/NTSC/480i
	094		480p/1080i/720p
	095	Y Vertical Enhancer Clip OFF	ANT/NTSC/480i
	096		480p
	097		1080i/720p
	098	Y Vertical Enhance Gain	ANT/NTSC
	099		480i
	100		480p
	101		1080i/720p
	102		ALL(NIGHT)
	103	Y Vertical Enhance Clip Offset	ANT
	104		NTSC
	105		480i
	106		480p
	107		1080i/720p
	108	Y Vertical Dynamic Shoot Balance Gain	ANT
	109		NTSC
	110		480i
	111		480p
	112		1080i/720p

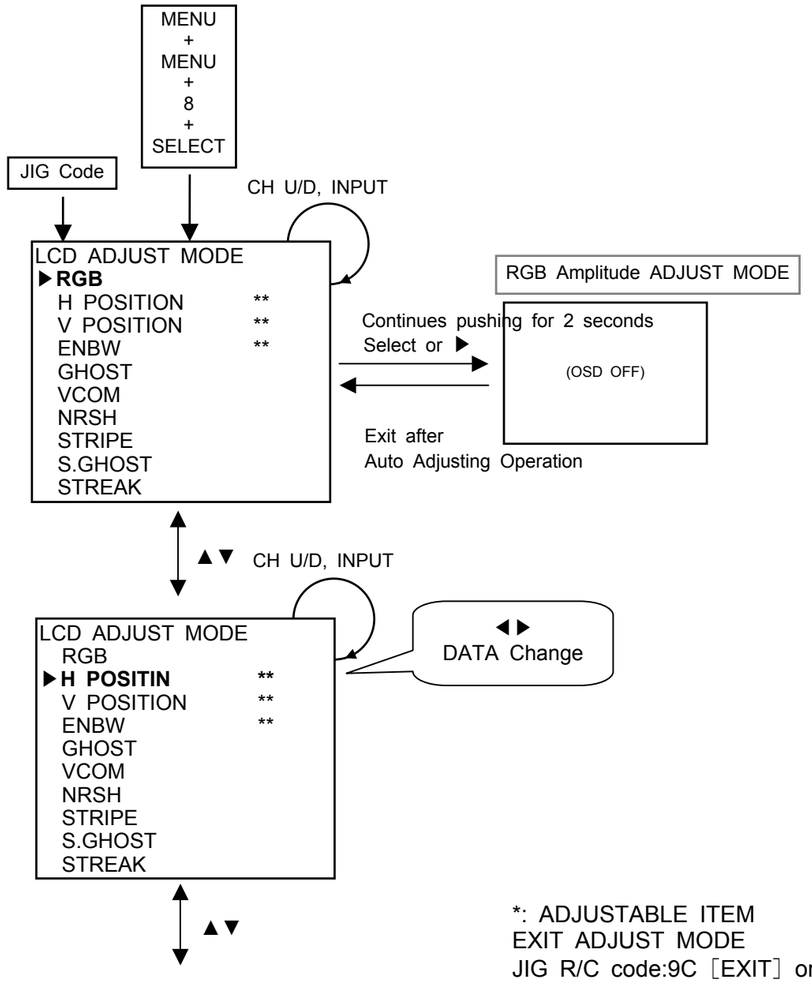
BACK TO ADJUSTMENTS

ISF Adjustment Mode			
Device	**OSD**	**Item**	
FC4	113	Y Vertical Dynamic Shoot Balance Coring	ANT/NTSC
	114		480i
	115		480p/1080i/720p
	116	Y Vertical Nonlinear Peaking	ANT/NTSC/480i
	117		480p/1080i/720p
	118	Y Coring Amplitude	ANT_Mode1
	119		ANT-Mode2
	120		ANT-Mode3
	121		ANT-Mode4
	122		ANT-Mode5
	123		NTSC (Composite)
	124		NTSC (Y/C)
	125		480i
	126		480p
	127		1080i
	128		720p
	129		HDMI/DVI: 480i
	130		HDMI/DVI: 480 p /VGA
	131		HDMI/DVI: 1080i
	132		HDMI/DVI: 720p
	133		Reserve:

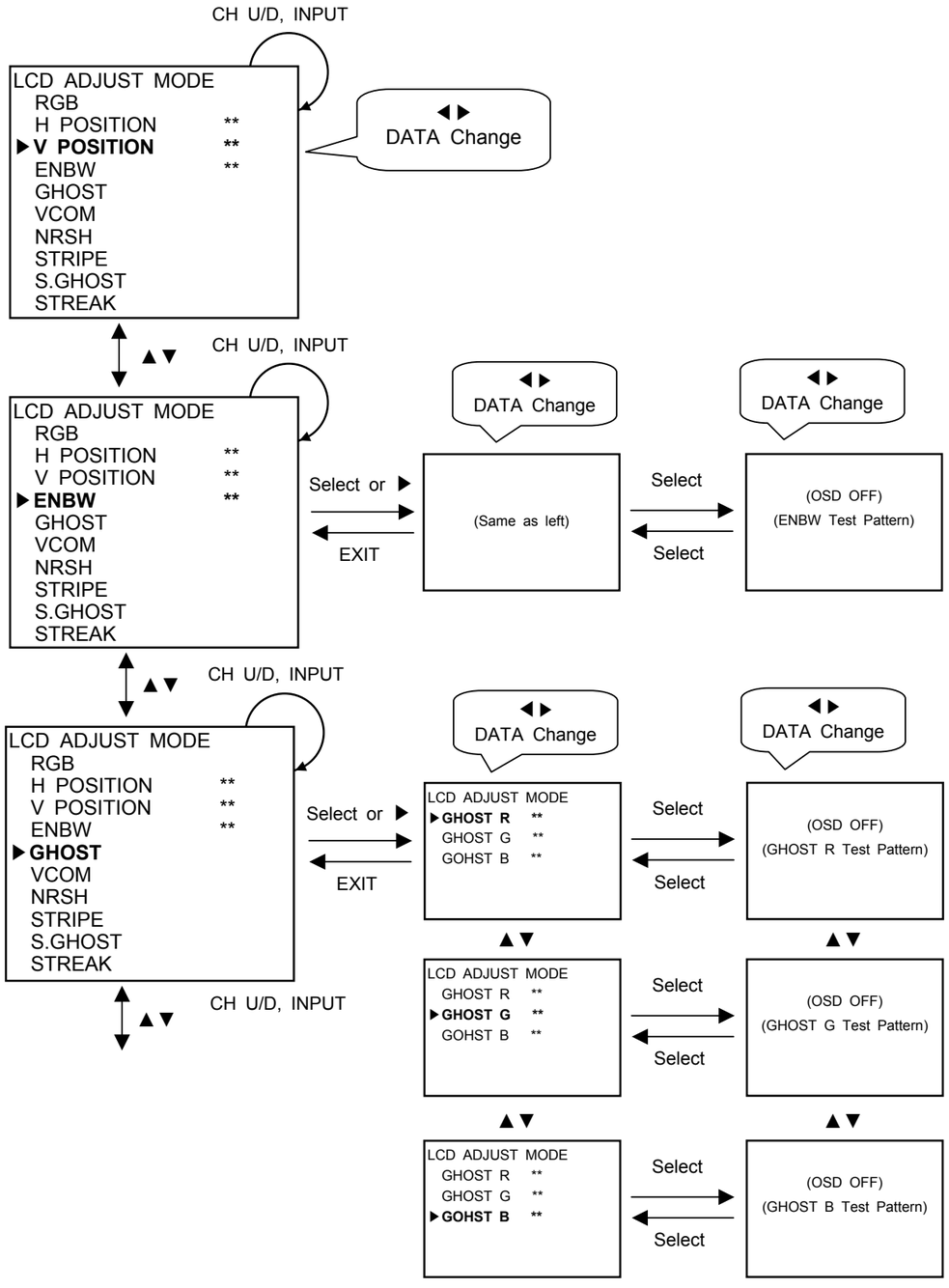
BACK TO ADJUSTMENTS

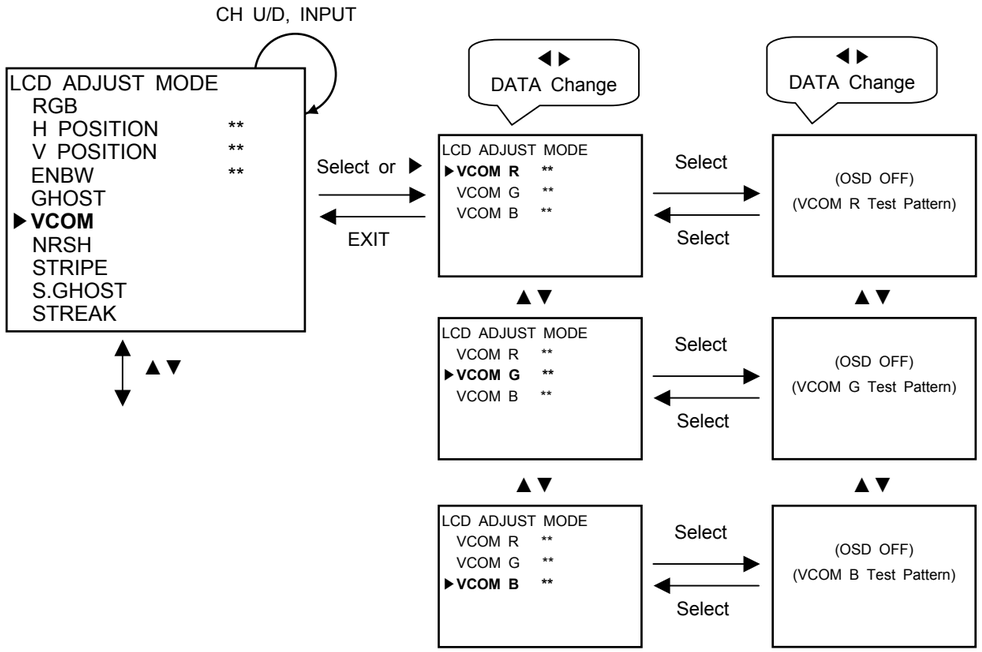
2.17 Adjustment OSD Flowchart

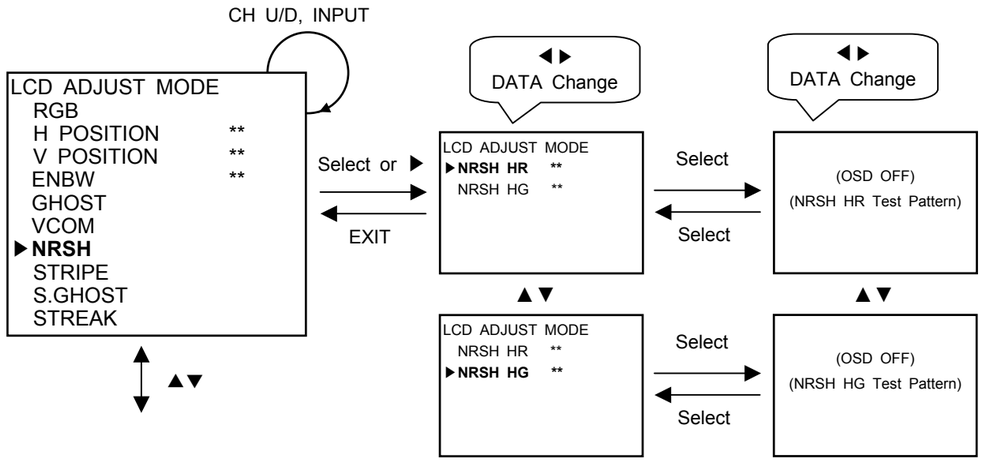
(1) Adjust Mode OSD
JIG R/C code:9C or Press [MENU] + [MENU] + [8] + [SELECT] of Control panel.

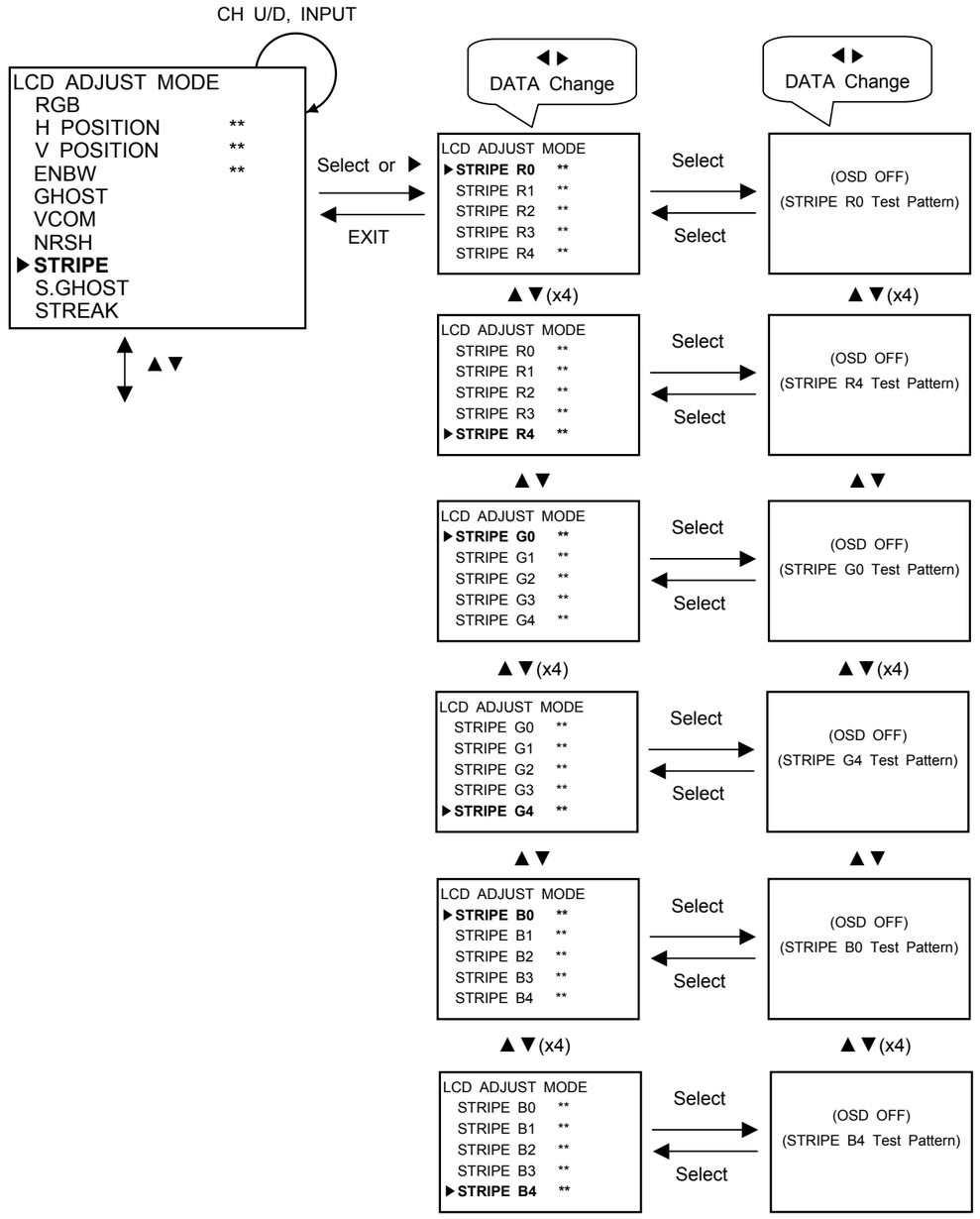


*: ADJUSTABLE ITEM
EXIT ADJUST MODE
JIG R/C code:9C［EXIT］or POWER on/off.

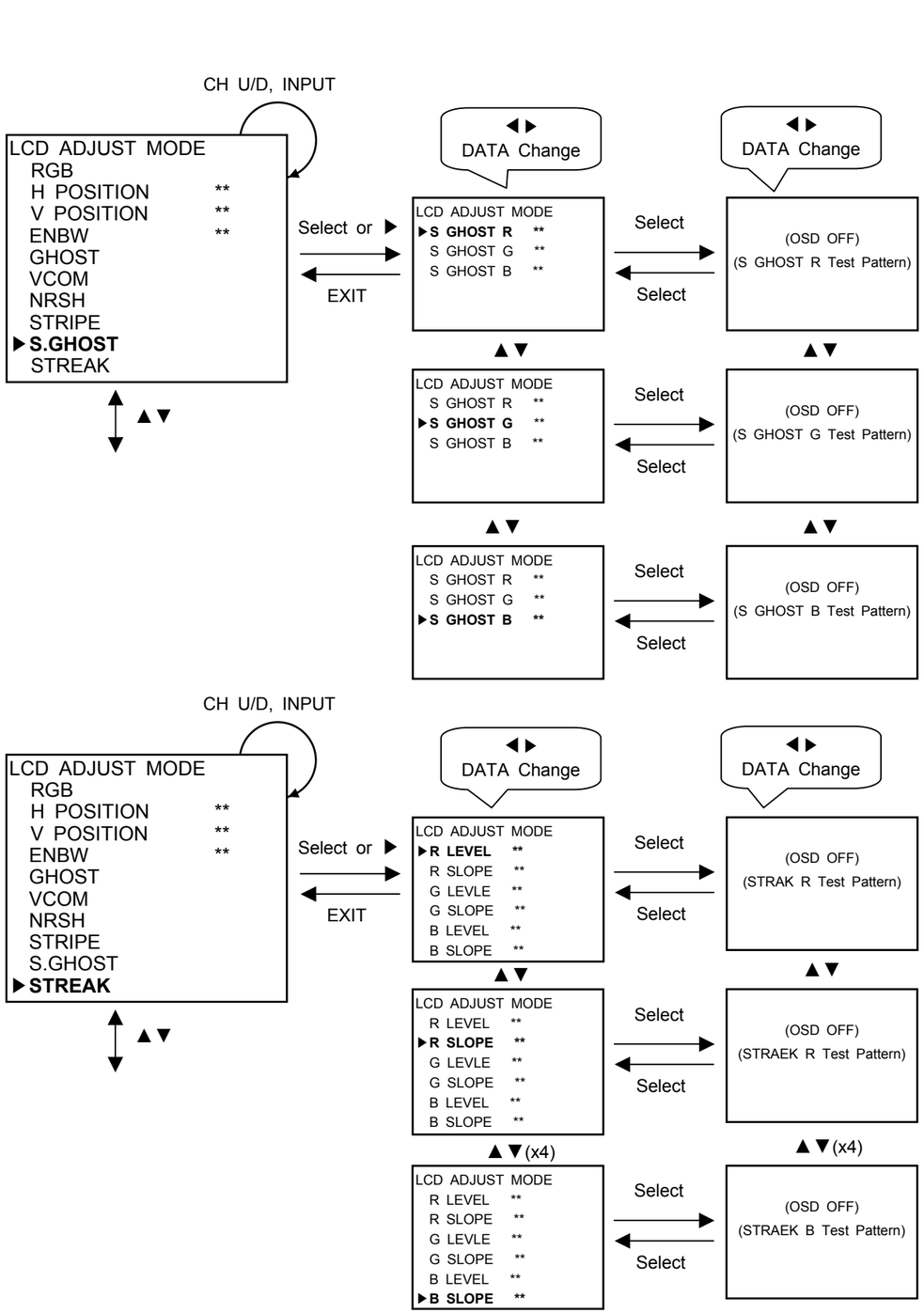


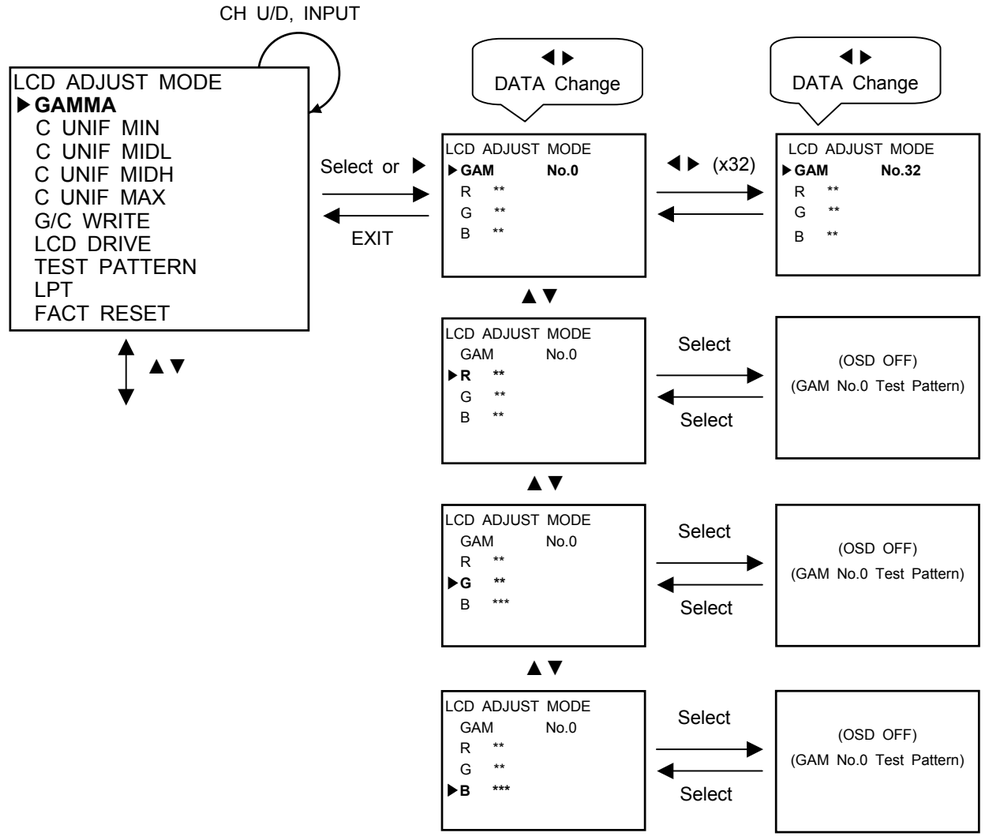




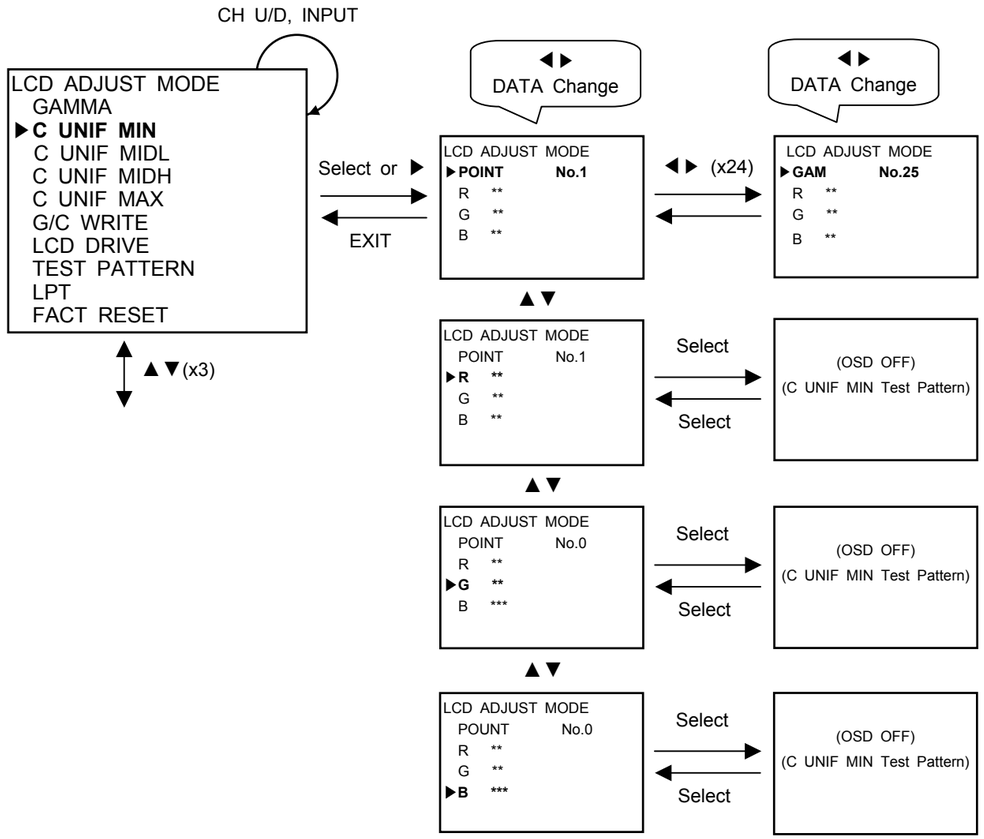


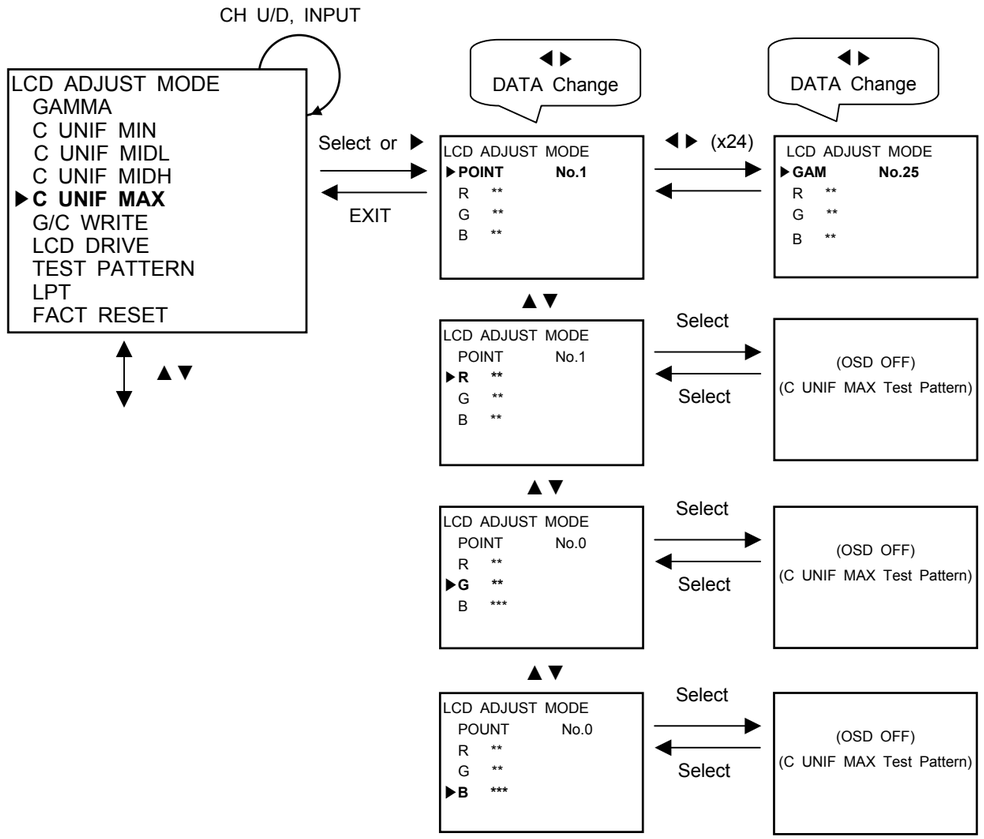
BACK TO ADJUSTMENTS

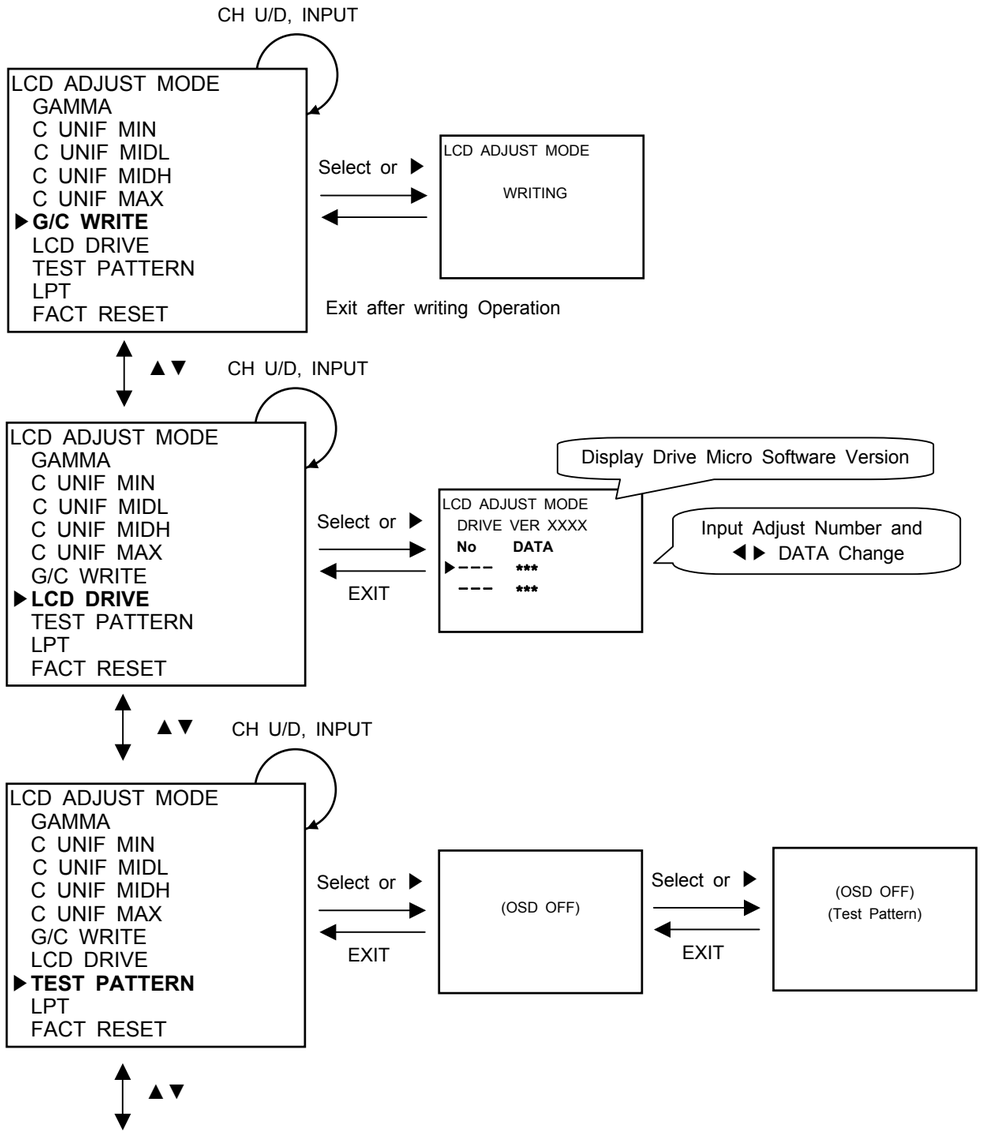


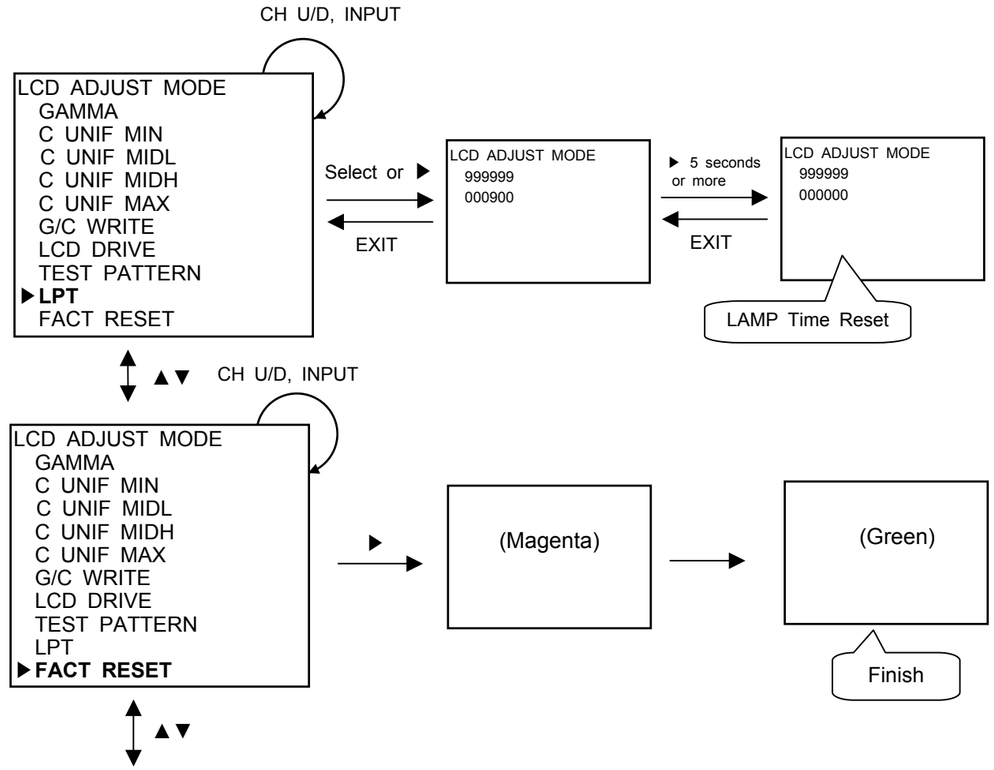


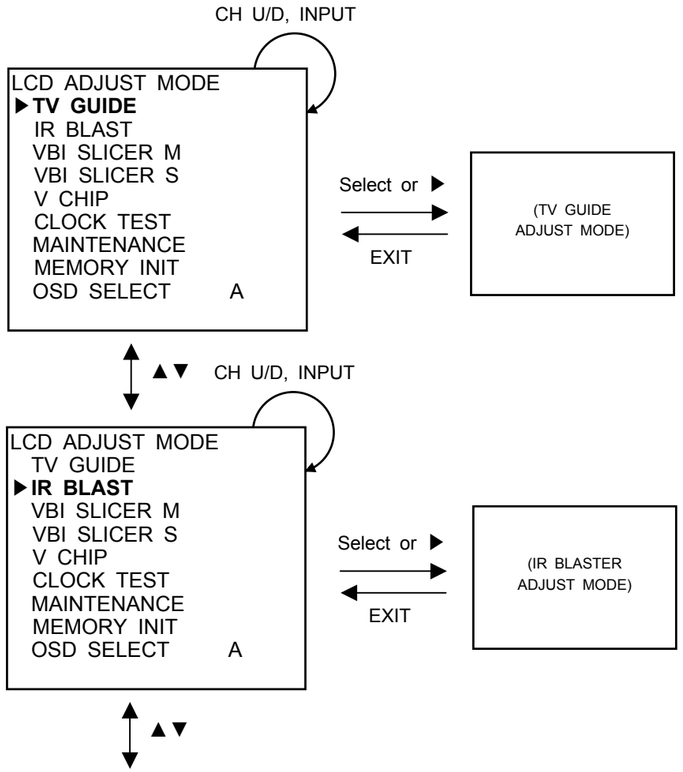
BACK TO ADJUSTMENTS

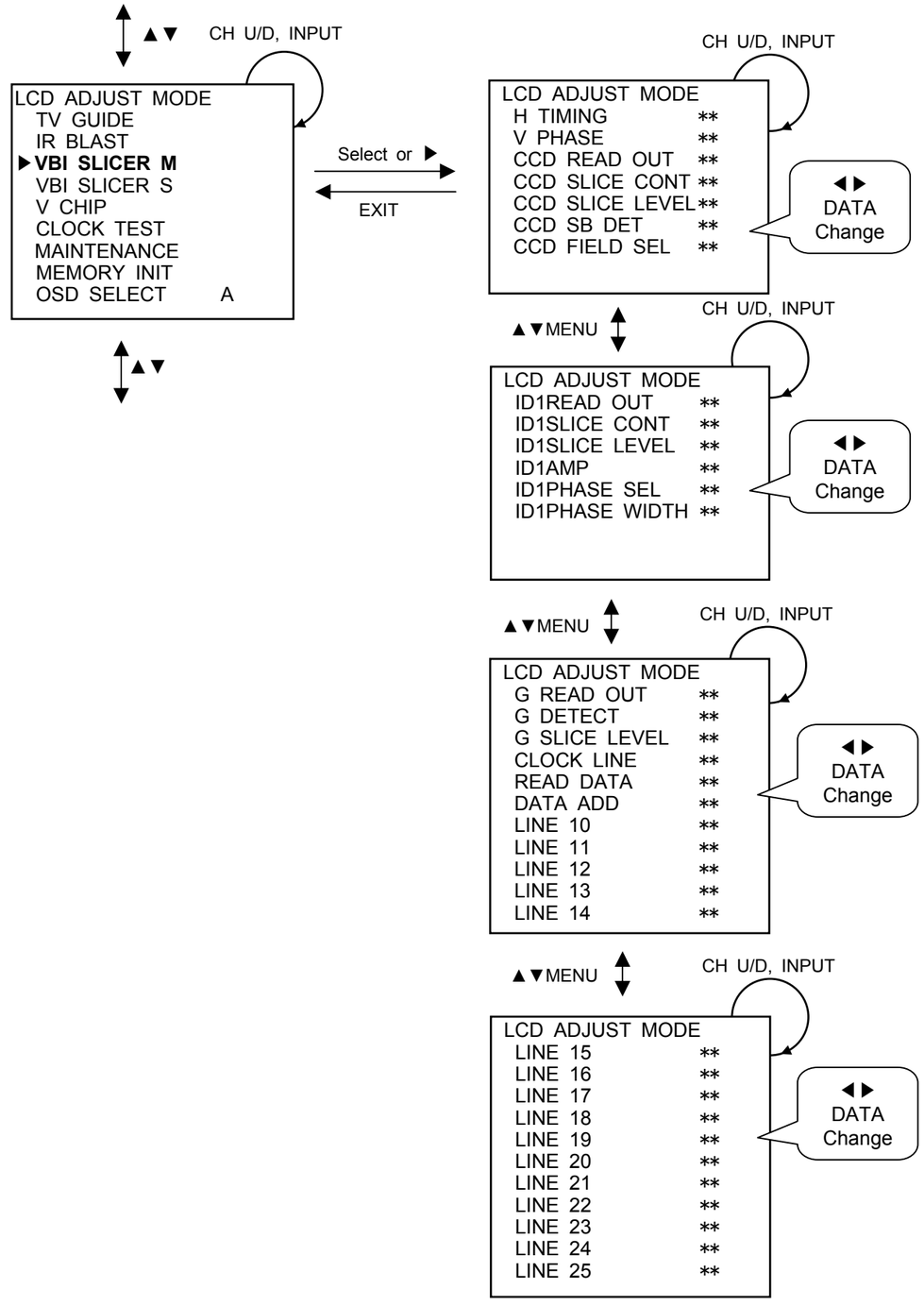

CH U/D, INPUT
LCD ADJUST MODE
GAMMA
▶C UNIF MIN
C UNIF MIDL
C UNIF MIDH
C UNIF MAX
G/C WRITE
LCD DRIVE
TEST PATTERN
LPT
FACT RESET
▲▼(x3)
Select or ▶
EXIT
DATA Change
LCD ADJUST MODE
▶POINT No.1
R **
G **
B **
◀▶ (x24)
DATA Change
LCD ADJUST MODE
▶GAM No.25
R **
G **
B **
▲▼
LCD ADJUST MODE
POINT No.1
▶R **
G **
B **
Select
Select
(OSD OFF)
(C UNIF MIN Test Pattern)
▲▼
LCD ADJUST MODE
POINT No.0
R **
▶G **
B ***
Select
Select
(OSD OFF)
(C UNIF MIN Test Pattern)
▲▼
LCD ADJUST MODE
POUNT No.0
R **
G **
▶B ***
Select
Select
(OSD OFF)
(C UNIF MIN Test Pattern)


CH U/D, INPUT
LCD ADJUST MODE
GAMMA
C UNIF MIN
C UNIF MIDL
C UNIF MIDH
▶C UNIF MAX
G/C WRITE
LCD DRIVE
TEST PATTERN
LPT
FACT RESET
▲▼
Select or ▶
EXIT
DATA Change
LCD ADJUST MODE
▶POINT No.1
R **
G **
B **
◀▶ (x24)
DATA Change
LCD ADJUST MODE
▶GAM No.25
R **
G **
B **
▲▼
LCD ADJUST MODE
POINT No.1
▶R **
G **
B **
Select
Select
(OSD OFF)
(C UNIF MAX Test Pattern)
▲▼
LCD ADJUST MODE
POINT No.0
R **
▶G **
B ***
Select
Select
(OSD OFF)
(C UNIF MAX Test Pattern)
▲▼
LCD ADJUST MODE
POUNT No.0
R **
G **
▶B ***
Select
Select
(OSD OFF)
(C UNIF MAX Test Pattern)

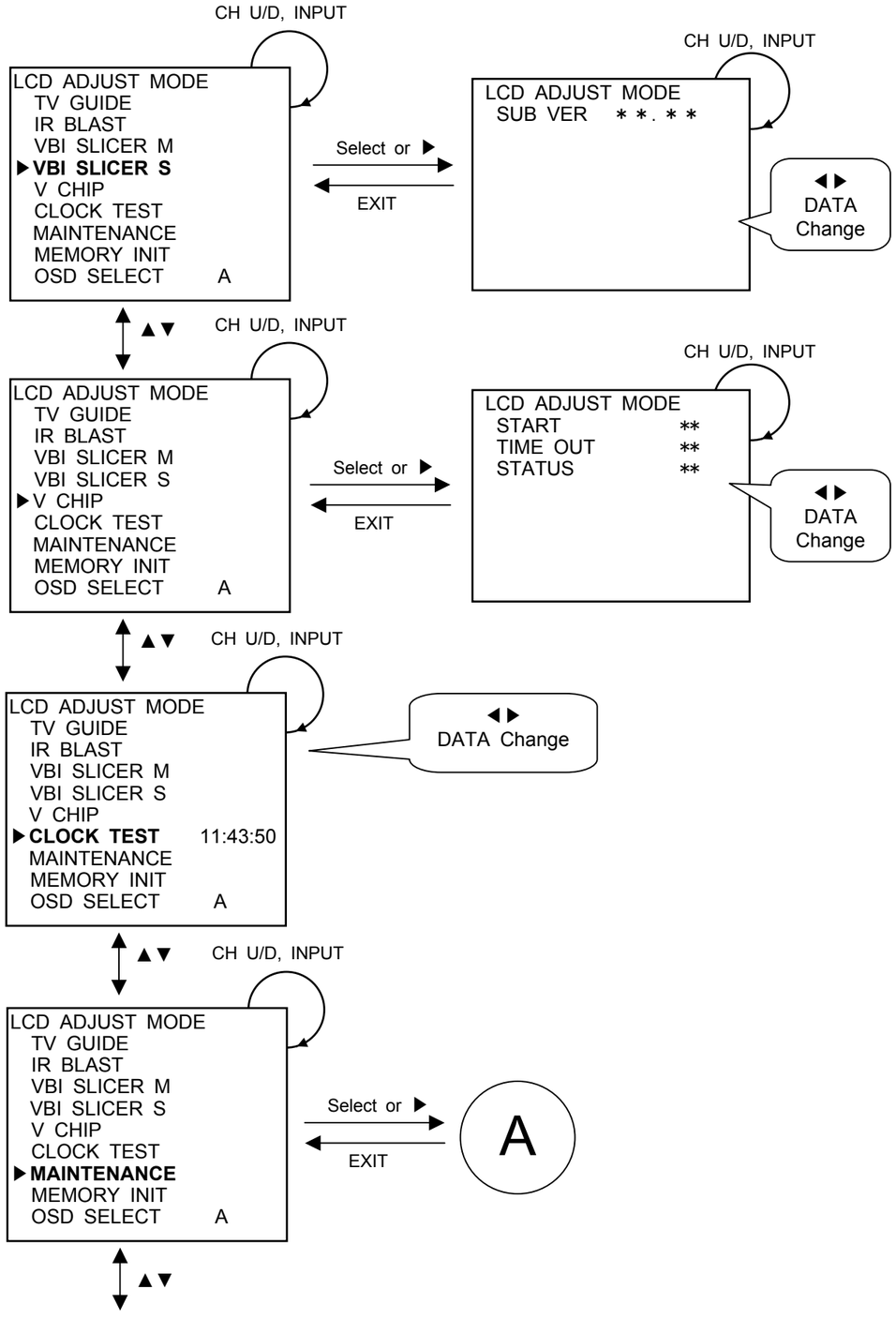

CH U/D, INPUT
LCD ADJUST MODE
GAMMA
C UNIF MIN
C UNIF MIDL
C UNIF MIDH
C UNIF MAX
▶G/C WRITE
LCD DRIVE
TEST PATTERN
LPT
FACT RESET
Select or ▶
LCD ADJUST MODE
WRITING
Exit after writing Operation
▲▼
CH U/D, INPUT
LCD ADJUST MODE
GAMMA
C UNIF MIN
C UNIF MIDL
C UNIF MIDH
C UNIF MAX
G/C WRITE
▶LCD DRIVE
TEST PATTERN
LPT
FACT RESET
Select or ▶
EXIT
LCD ADJUST MODE
DRIVE VER XXXX
No DATA
▶--- ***
--- ***
Display Drive Micro Software Version
Input Adjust Number and
◀ ▶ DATA Change
▲▼
CH U/D, INPUT
LCD ADJUST MODE
GAMMA
C UNIF MIN
C UNIF MIDL
C UNIF MIDH
C UNIF MAX
G/C WRITE
LCD DRIVE
▶TEST PATTERN
LPT
FACT RESET
Select or ▶
EXIT
(OSD OFF)
Select or ▶
EXIT
(OSD OFF)
(Test Pattern)
▲▼

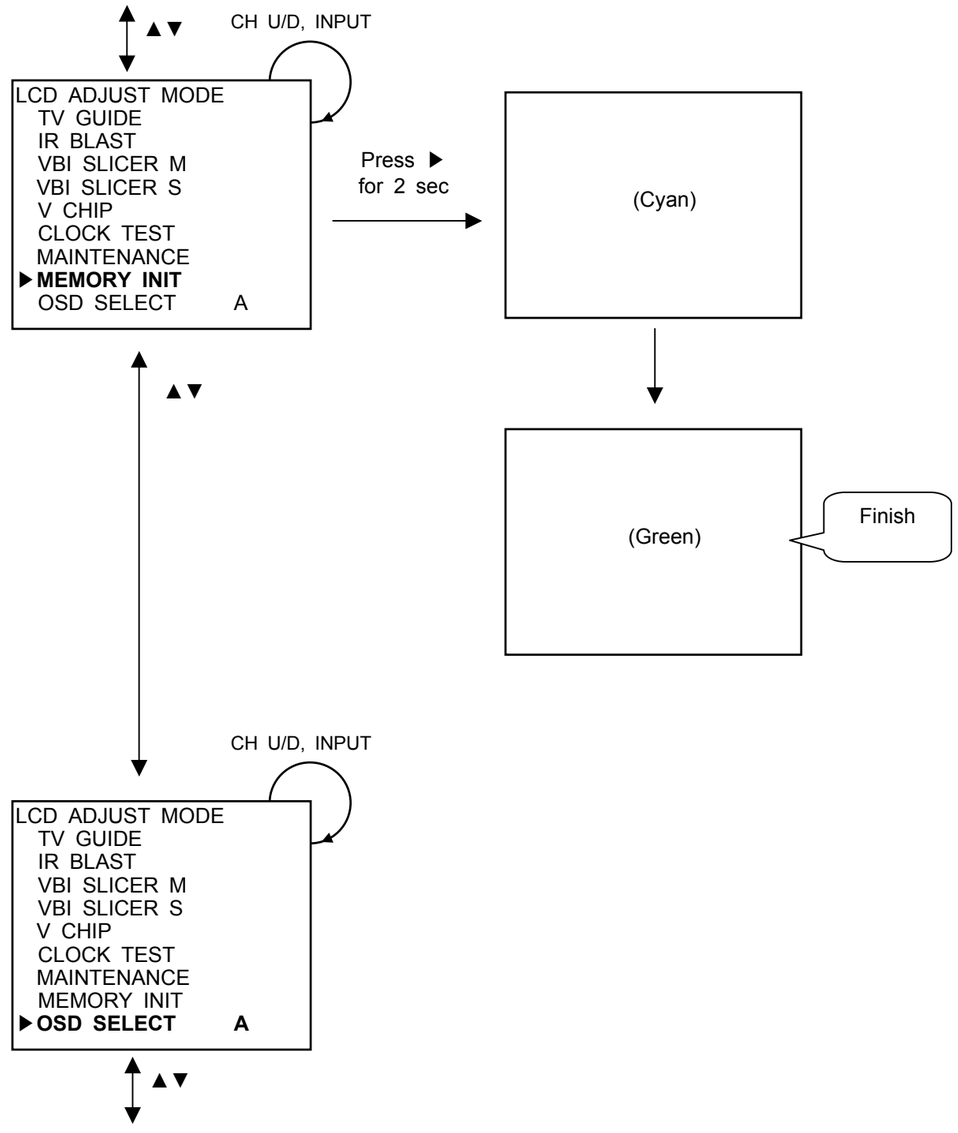

CH U/D, INPUT
LCD ADJUST MODE
GAMMA
C UNIF MIN
C UNIF MIDL
C UNIF MIDH
C UNIF MAX
G/C WRITE
LCD DRIVE
TEST PATTERN
▶LPT
FACT RESET
Select or ▶
EXIT
LCD ADJUST MODE
999999
000900
▶ 5 seconds
or more
EXIT
LCD ADJUST MODE
999999
000000
LAMP Time Reset
▲▼
CH U/D, INPUT
LCD ADJUST MODE
GAMMA
C UNIF MIN
C UNIF MIDL
C UNIF MIDH
C UNIF MAX
G/C WRITE
LCD DRIVE
TEST PATTERN
LPT
▶FACT RESET
▶
(Magenta)
(Green)
Finish
▲▼



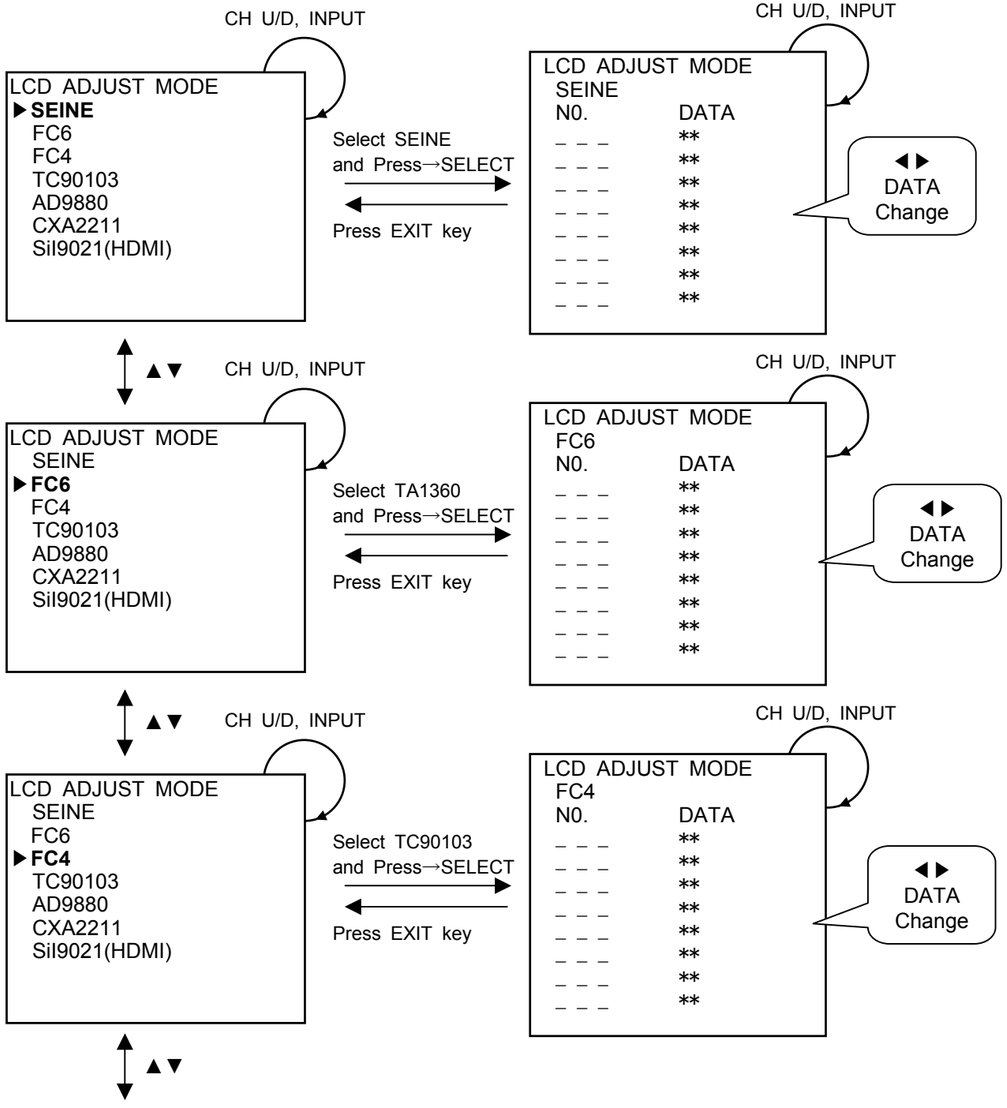


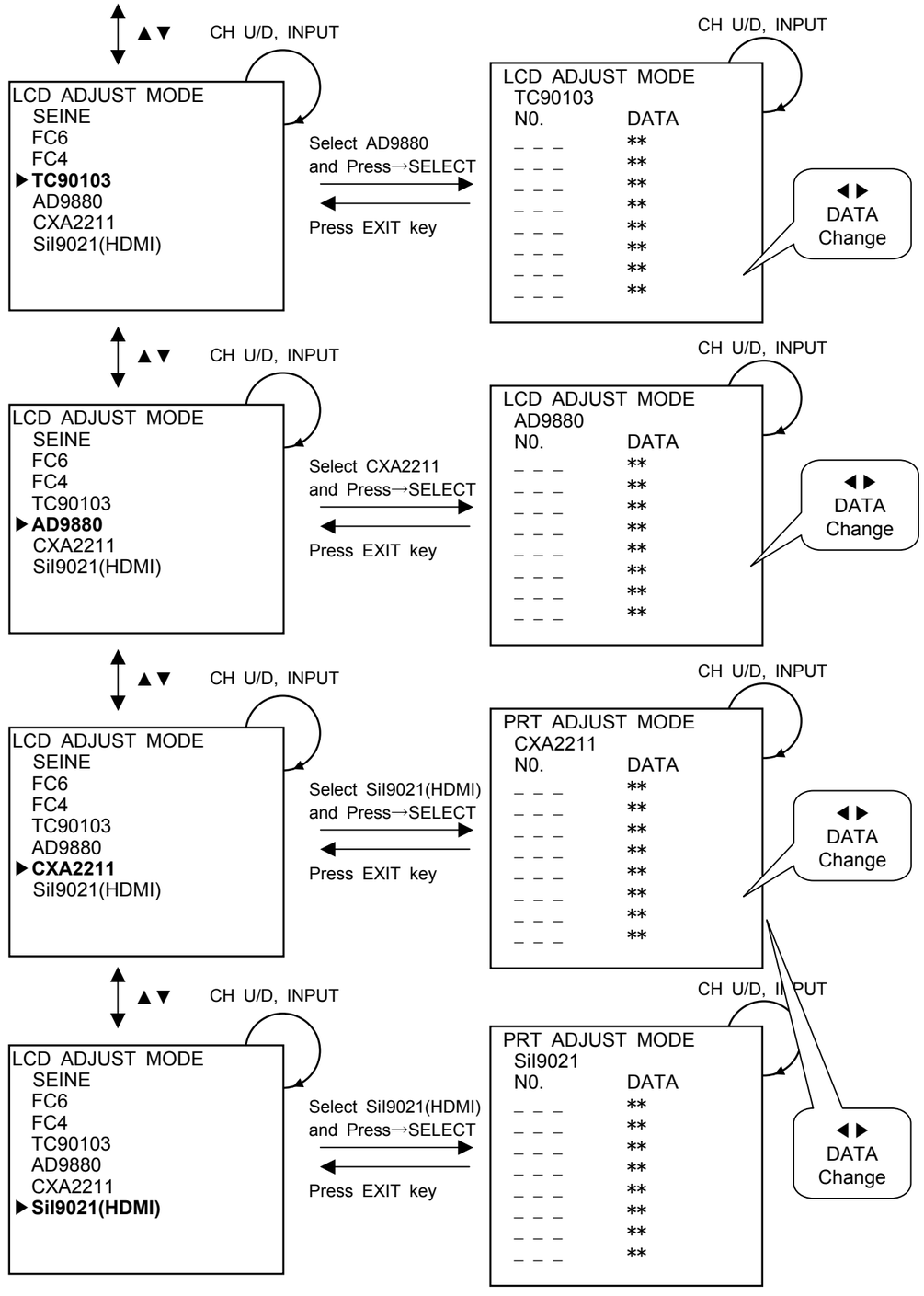
BACK TO ADJUSTMENTS



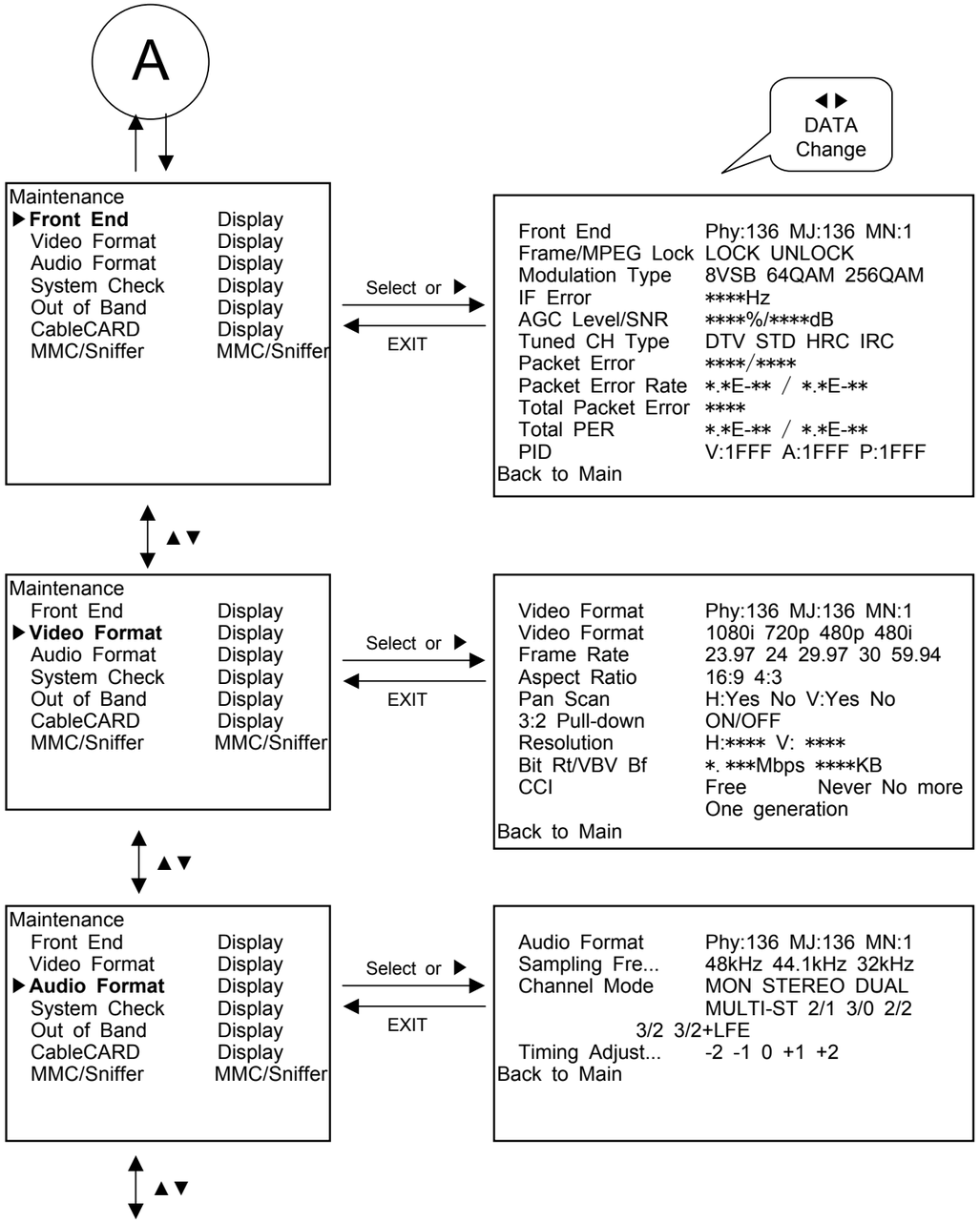


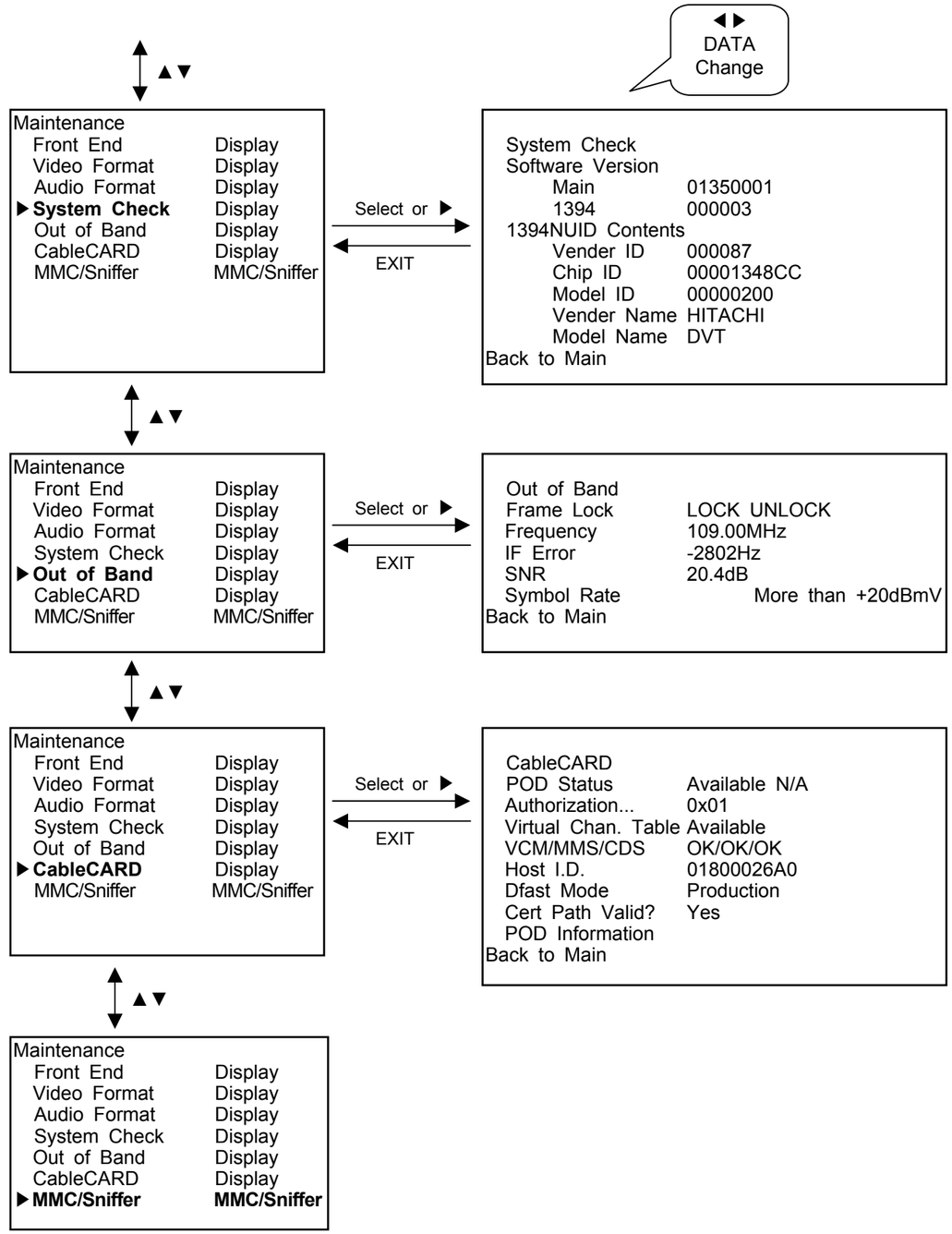
BACK TO ADJUSTMENTS





BACK TO ADJUSTMENTS





BACK TO ADJUSTMENTS

2-18 TROUBLESHOOTING FLOW CHARTS

2-18.1 TROUBLE SHOOTING FOR DIGITAL MODULE

Digital Main P.W.B has five LED (KNIGHT RIDER) on board.
After Power ON by POWER_1(6pin of PPT3), these LED will be turned on in sequence as follows. It may take a few seconds for the sequence.

LED sequence

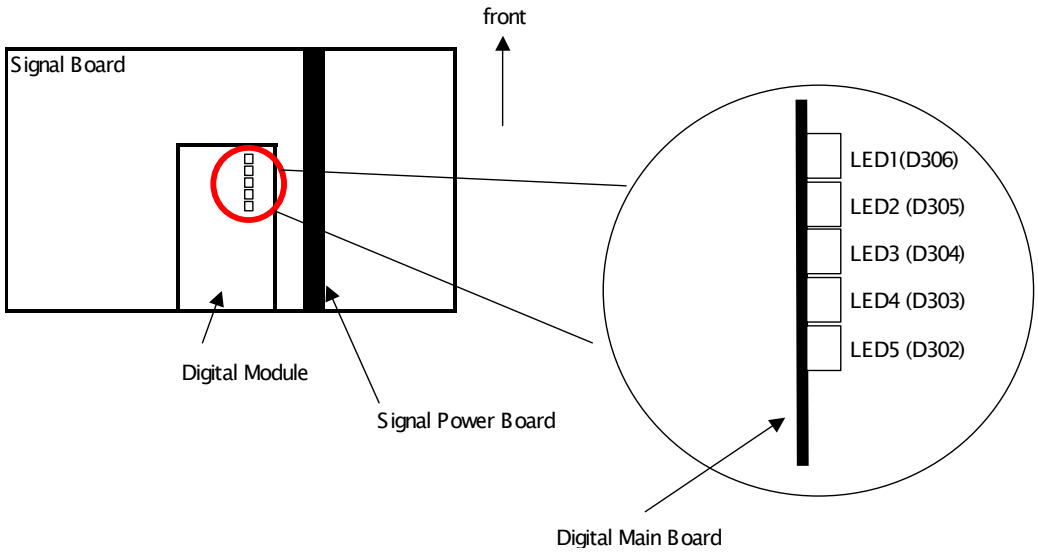
Sequence	D302 (Red) <PiO04>	D303 (Green) <PiO03>	D304 (Yellow) <PiO02>	D305 (Orange) <PiO01>	D306 (Red) <PiO00>
1 (Start)	○	○	○	○	●
2	○	○	○	●	●
3	○	○	●	●	●
4	○	●	●	●	●
5 (End)	○	○	○	○	○

(○: LED OFF ●: LIT)

After Program is loaded without error, all LED will be turned off.
Any LED should not light.
If some errors occur, LED will show the error pattern.

(1) Check that LED is not lit.
(2) If LED is lit, refer to the following table and check the involved devices.

Location of LEDs



2-18 TROUBLESHOOTING FLOW CHARTS

LED patterns for involved devices

No.	LED					Device	Circuit No	
	D306 (Red)	D305 (Orange)	D304 (Green)	D303 (Yellow)	D302 (Red)			
1								
2	○	○	○	●	○	Digital Tuner		Video/Audio of Cable/Air
3	○	○	○	●	●	Analog Tuner		Video/Audio of Cable/Air
4	○	○	●	○	○	MPEG		Video/Audio of Cable/Air
5	○	○	●	○	●	Graphics		All OSD
6	○	○	●	●	○	Flash Memory		Loading Program
7	○	○	●	●	●	IEEE1394 (Vivid Logic)	LC5X only	IEEE1394
8								
9								
10								
11								
12	○	●	●	○	○	Video Decoder (TC9010)		CCD etc.
13								
14	○	●	●	●	○	Audio DSP (AD9980)		Audio cont. SRS/BBE
15								
16	●	○	○	○	○	HDMI		HDMI
17	●	○	○	○	●	A/D Converter (AD9980)		Video
18	●	○	○	●	○	Sync Separator (CXA2211)		Sync
19	●	○	○	●	●	FC4	LC5X only	Picture Cont.
20	●	○	●	○	○	FC6	LC5X only	Picture Cont.

BACK TO ADJUSTMENTS

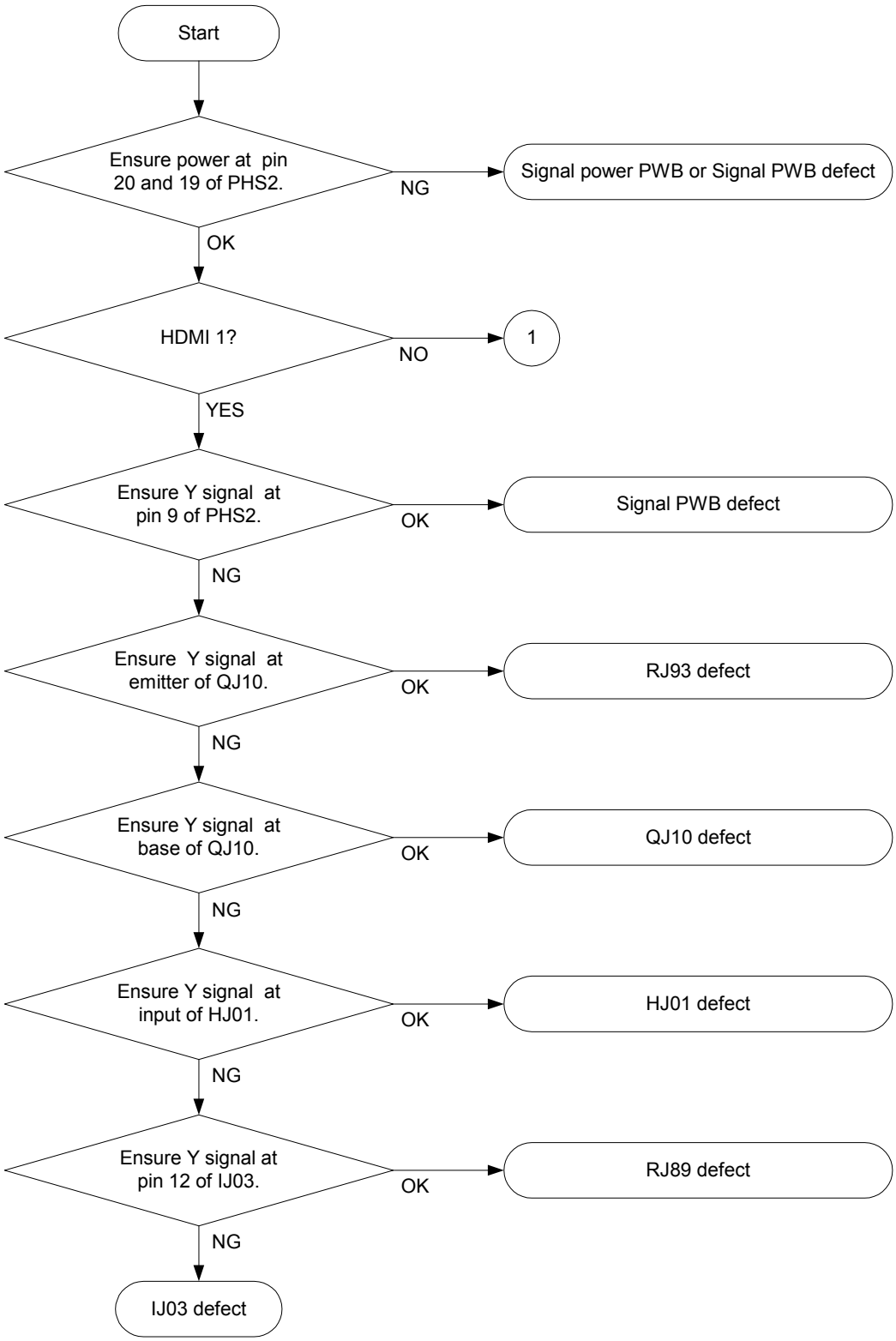
2-18 TROUBLESHOOTING FLOW CHARTS

No.	LED					Device	Circuit No	Role
	D306 (Red)	D305 (Orange)	D304 (Green)	D303 (Yellow)	D302 (Red)			
21	●	○	●	○	●	RGB Processor (TA1360)	DP5X only	Picture Cont/ VM
22								
23	●	○	●	●	●	Drive u-COM	LC5X only	LCD panel
24	●	●	○	○	○	Video SW		Video
25	●	●	○	○	●	Audio SW		Audio
26	●	●	○	●	○	Temp. Sensor	LC5X only	Temperature sensor
27								
28								
29								
30								
31								
32								

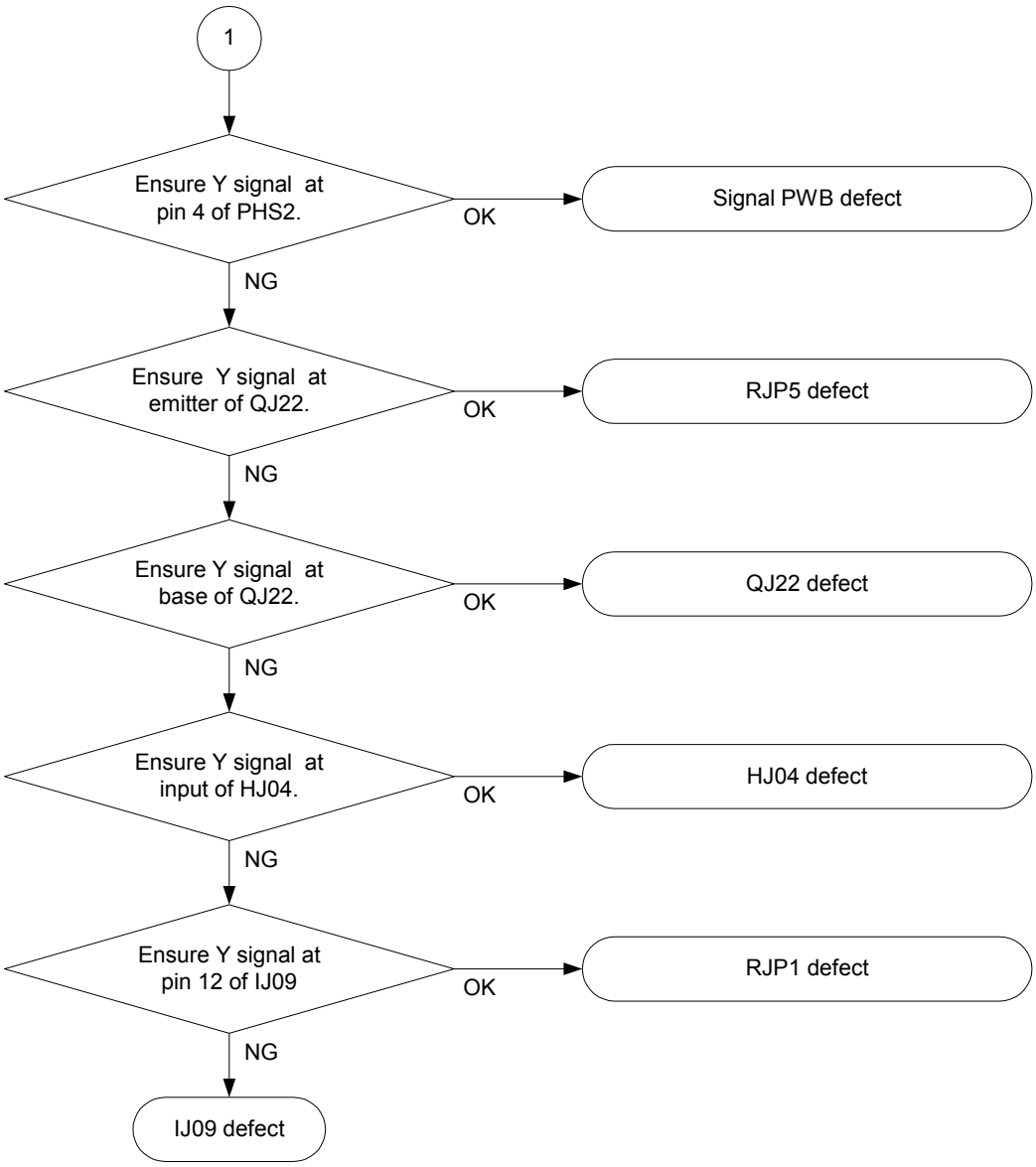
2-18 TROUBLESHOOTING FLOW CHARTS

2.18-2 Troubleshooting for HDMI

(1) No HDMI picture

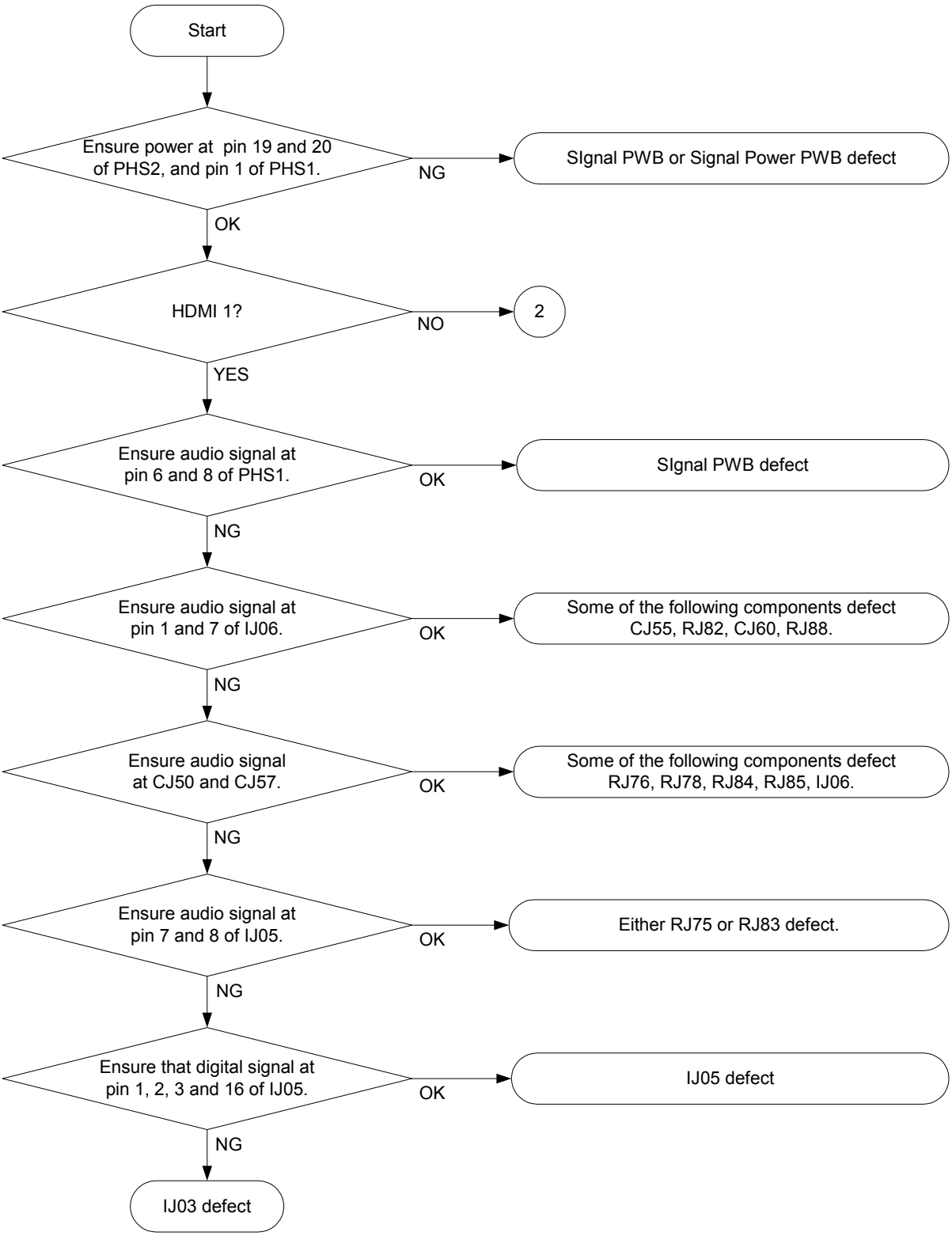


2-18 TROUBLESHOOTING FLOW CHARTS



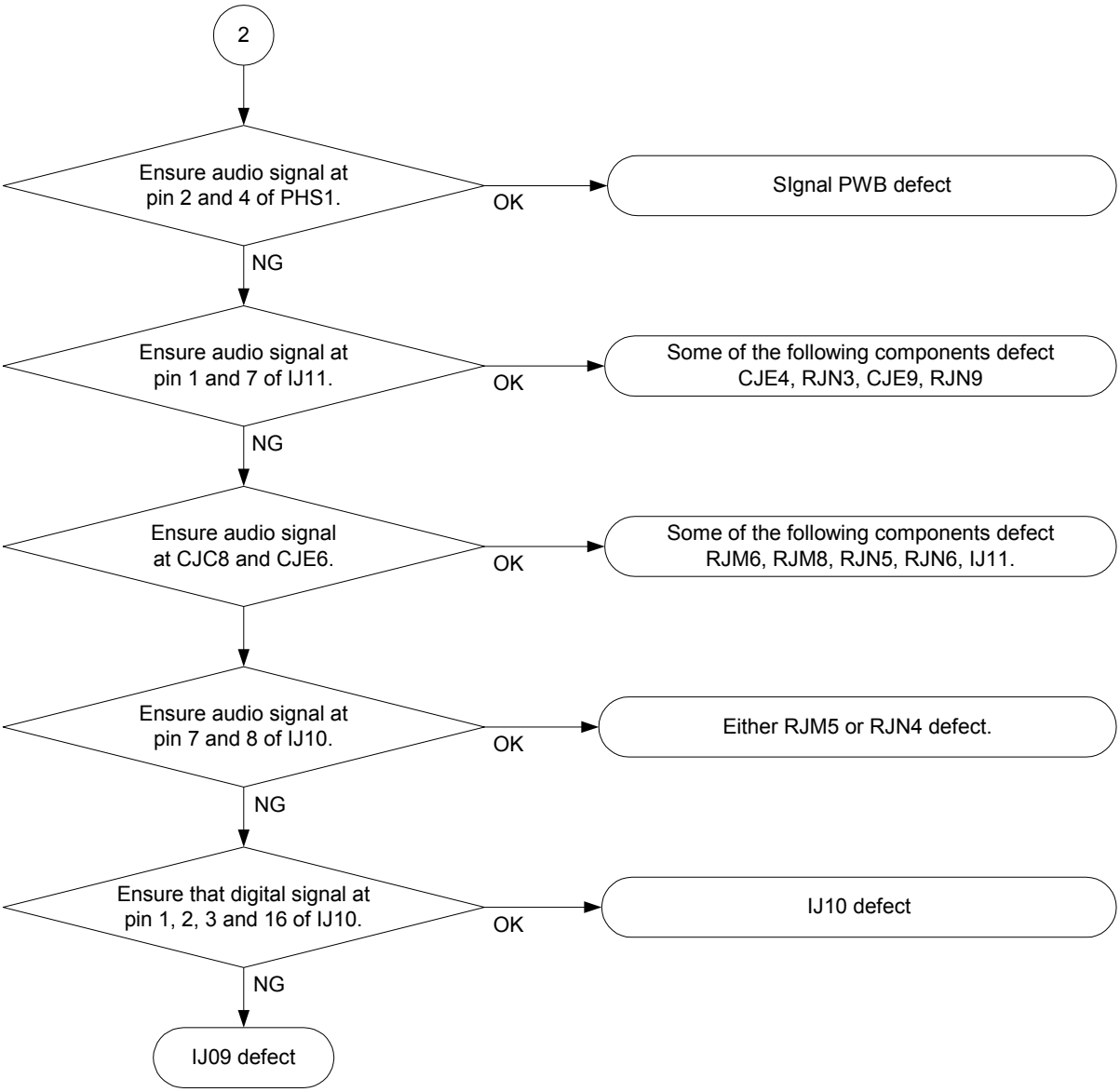
2-18 TROUBLESHOOTING FLOW CHARTS

(2) No HDMI analog audio



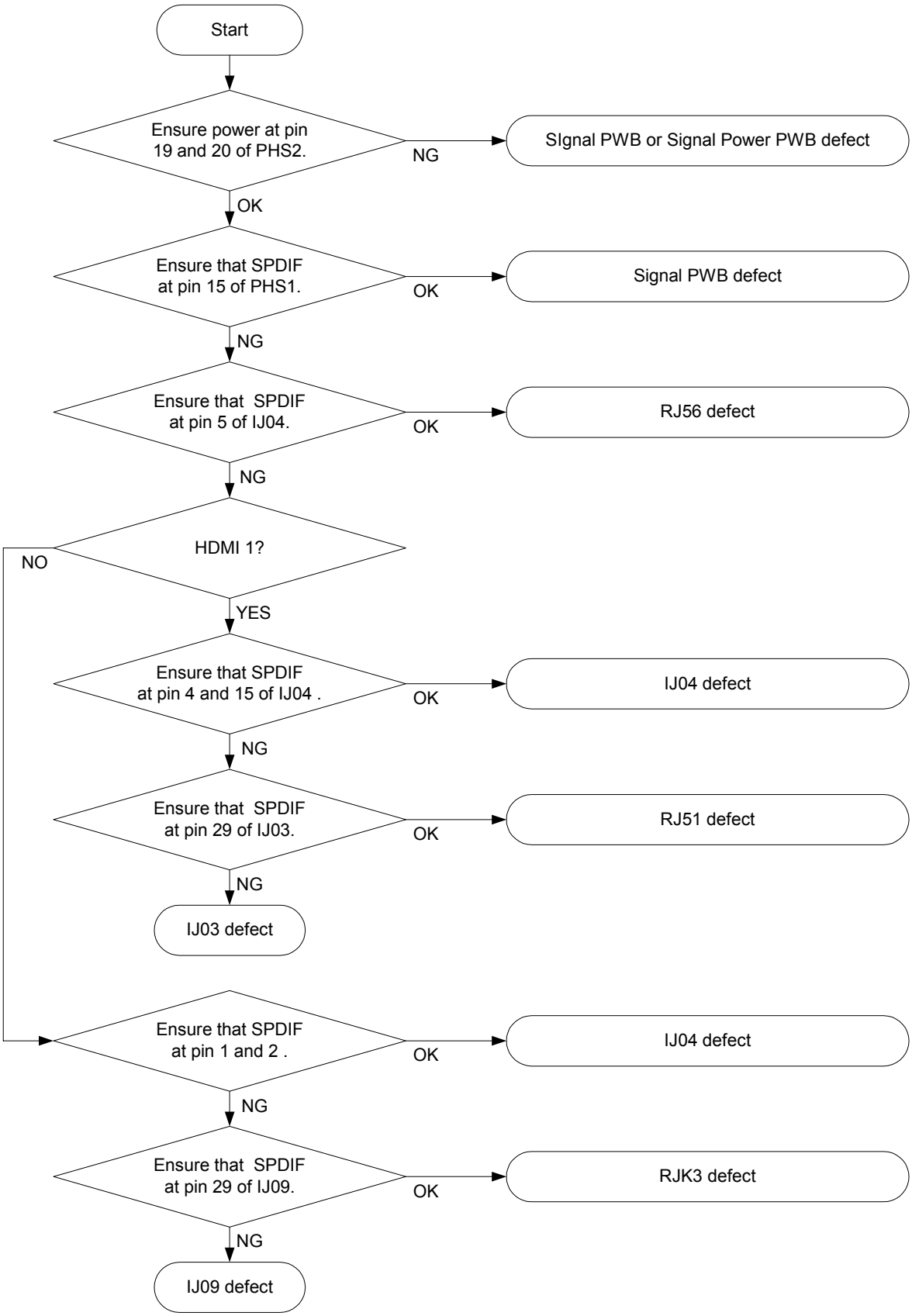
BACK TO ADJUSTMENTS

2-18 TROUBLESHOOTING FLOW CHARTS

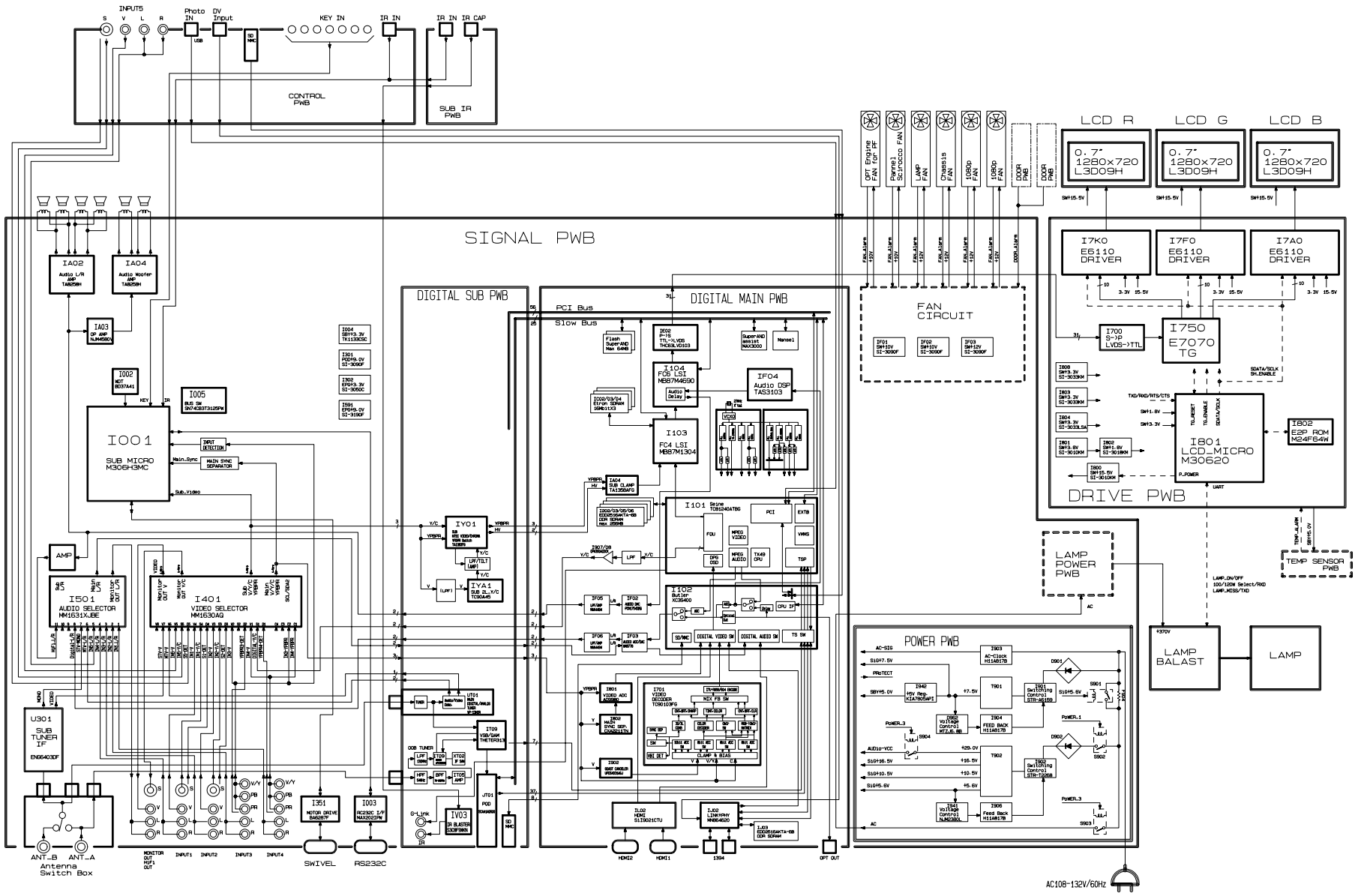


2-18 TROUBLESHOOTING FLOW CHARTS

(3) No HDMI digital audio



CIRCUIT BLOCK DIAGRAM



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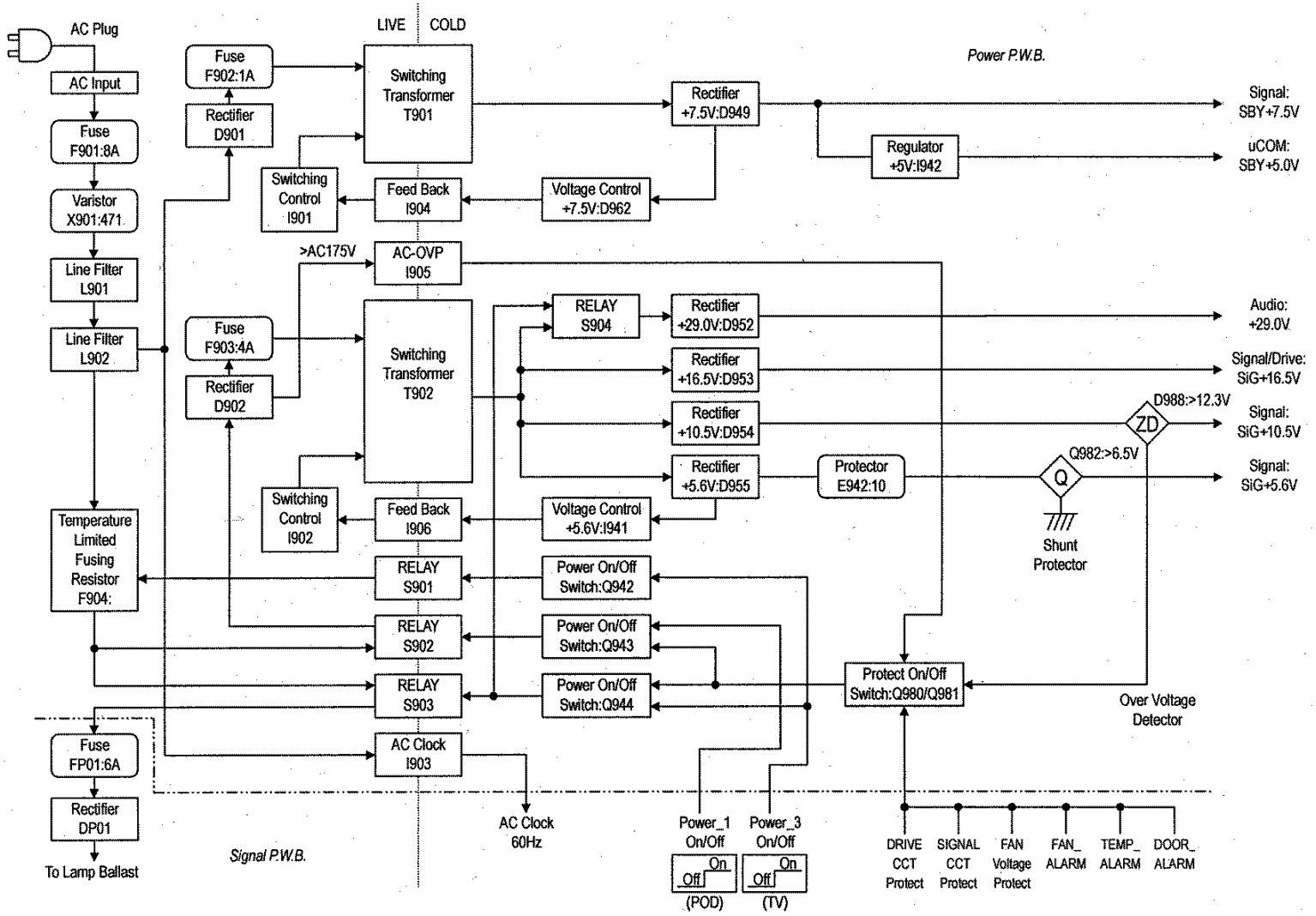
POWER SUPPLY BLOCK DIAGRAM



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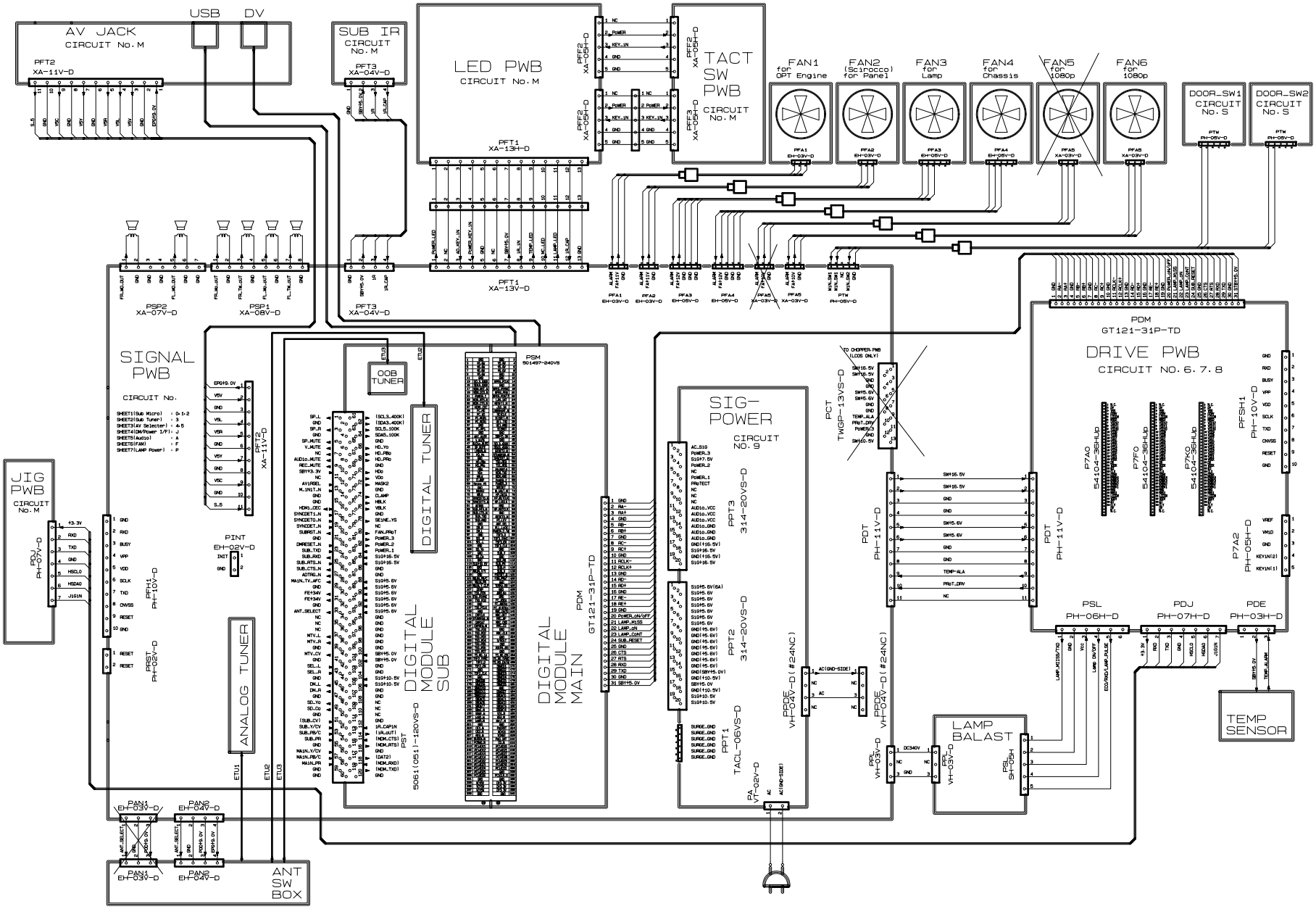
CONNECTION DIAGRAM



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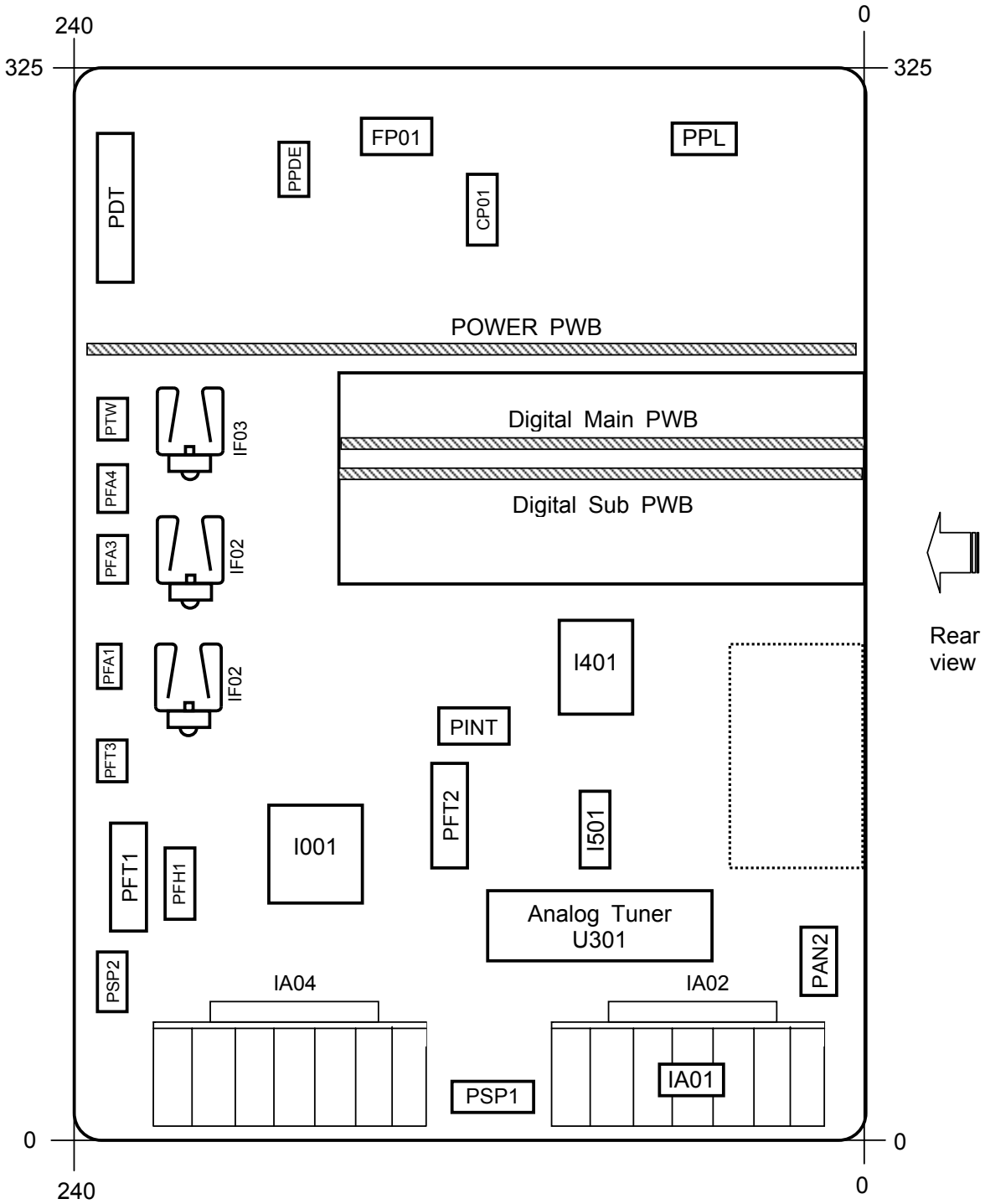
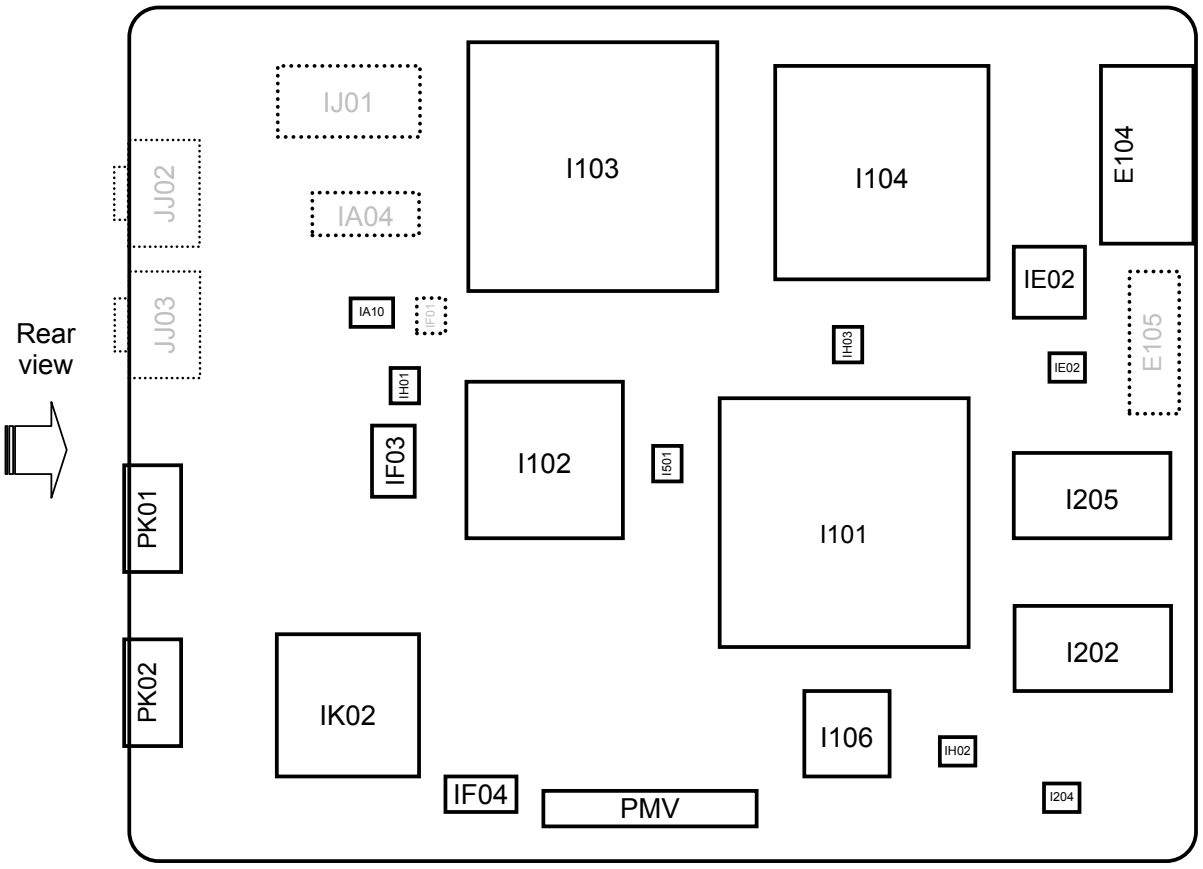
ASSEMBLY DRAWINGS

4.9.1 SIGNAL BLOCK ASY

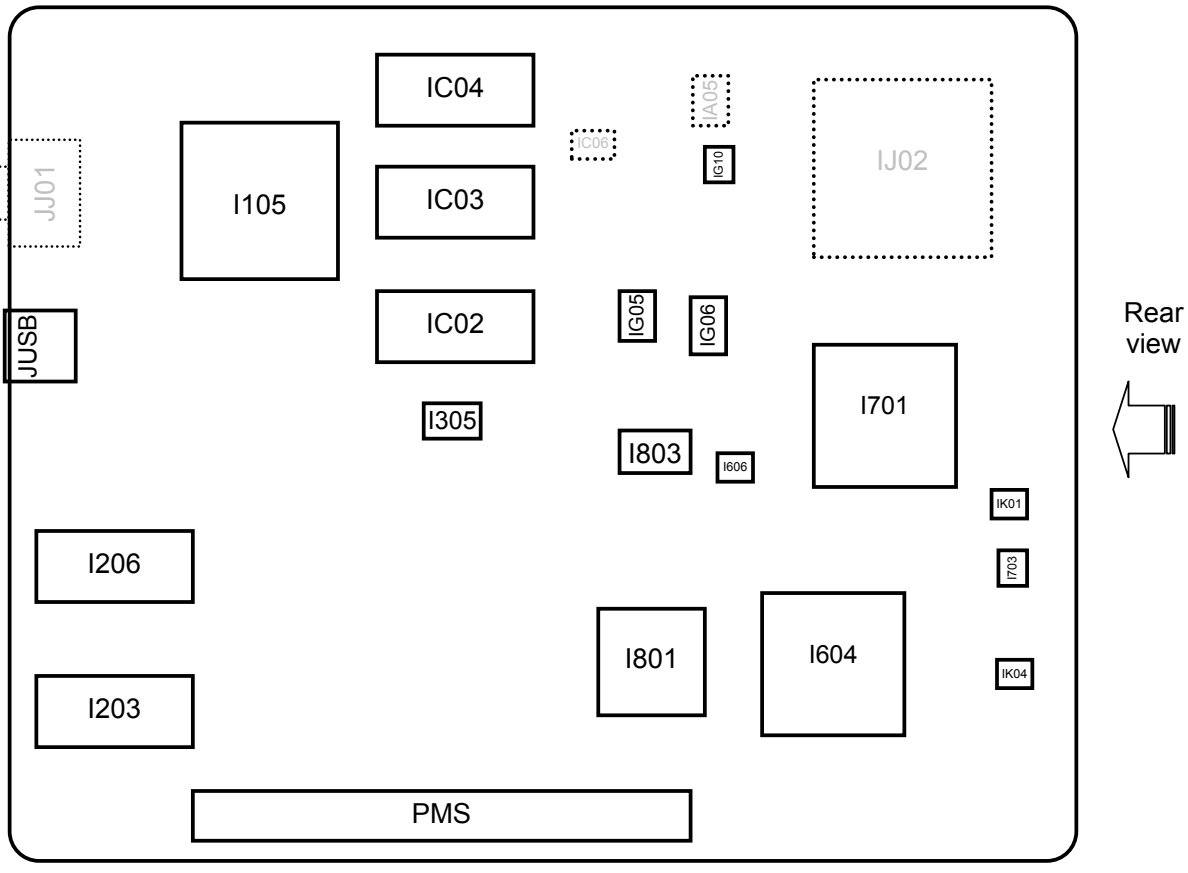


4.9.2 DIGITAL MAIN ASSEMBLY

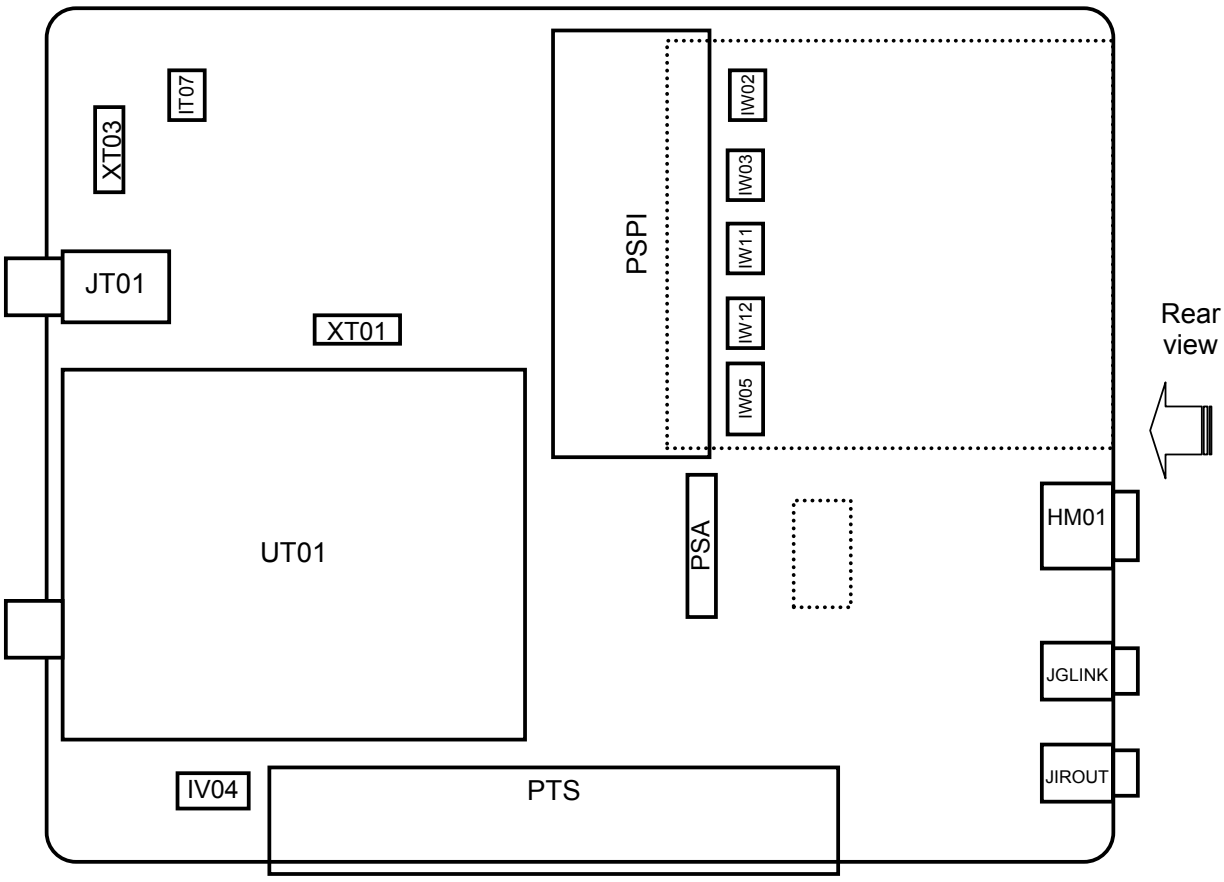
Digital Main PWB Side A



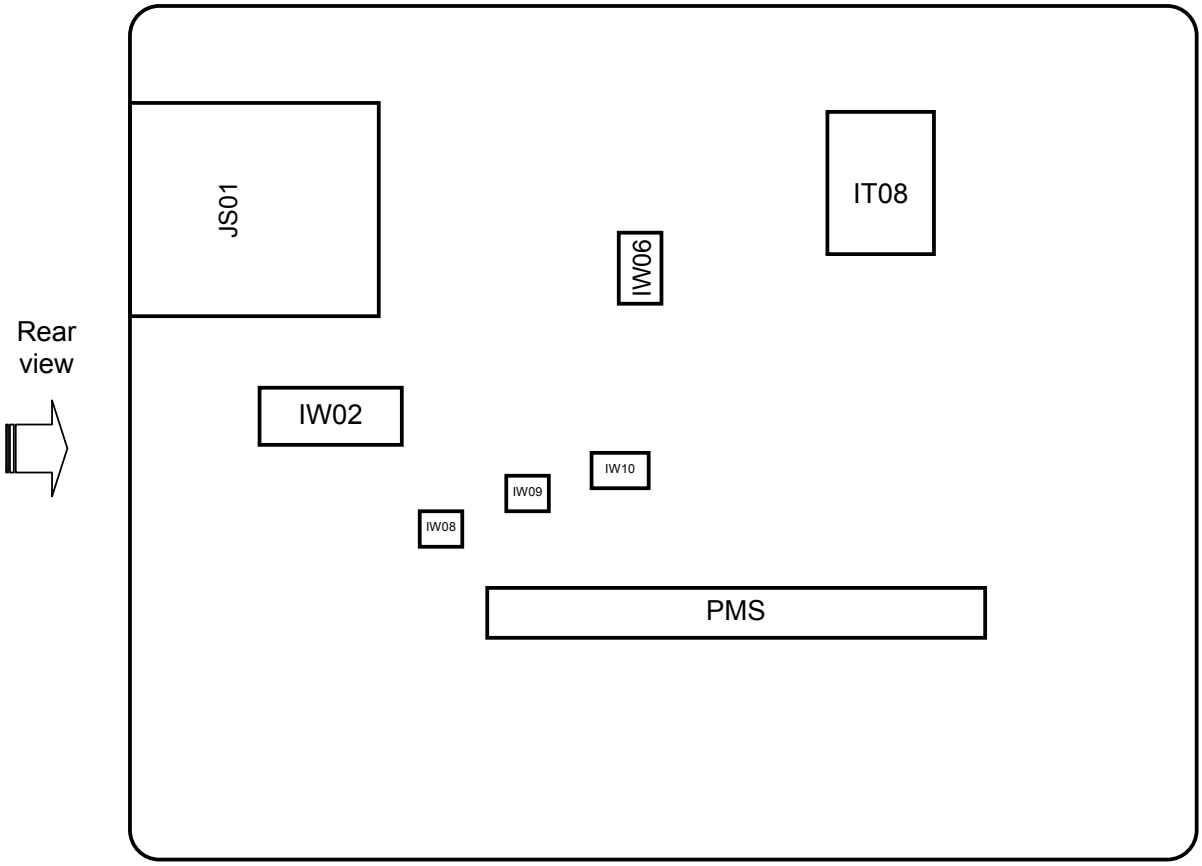
Digital Main PWB Side H



Digital Sub PWB Component Side

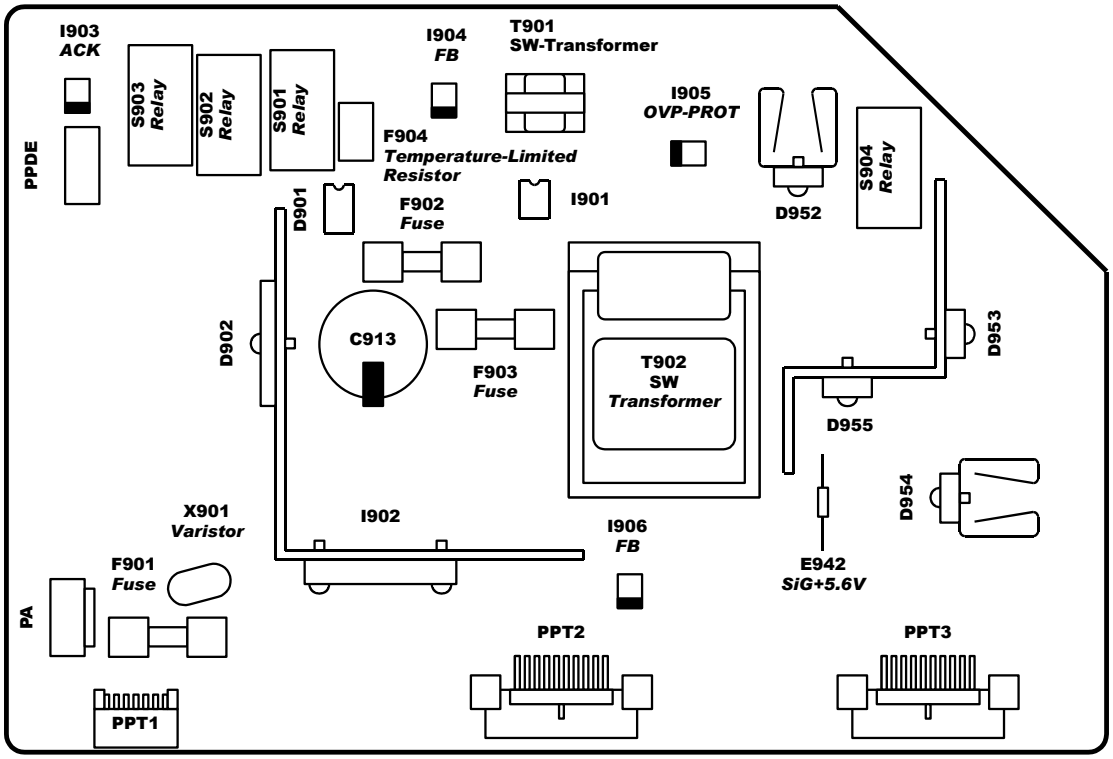


Digital Sub PWB Pattern Side



4.9.4 POWER P.W.B.

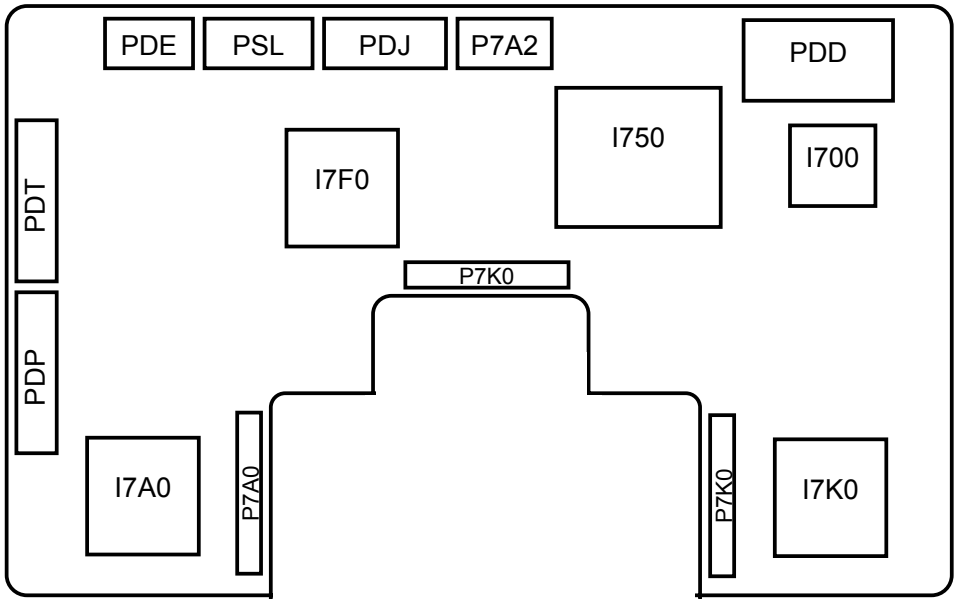
LC5X POWER P.W.B.



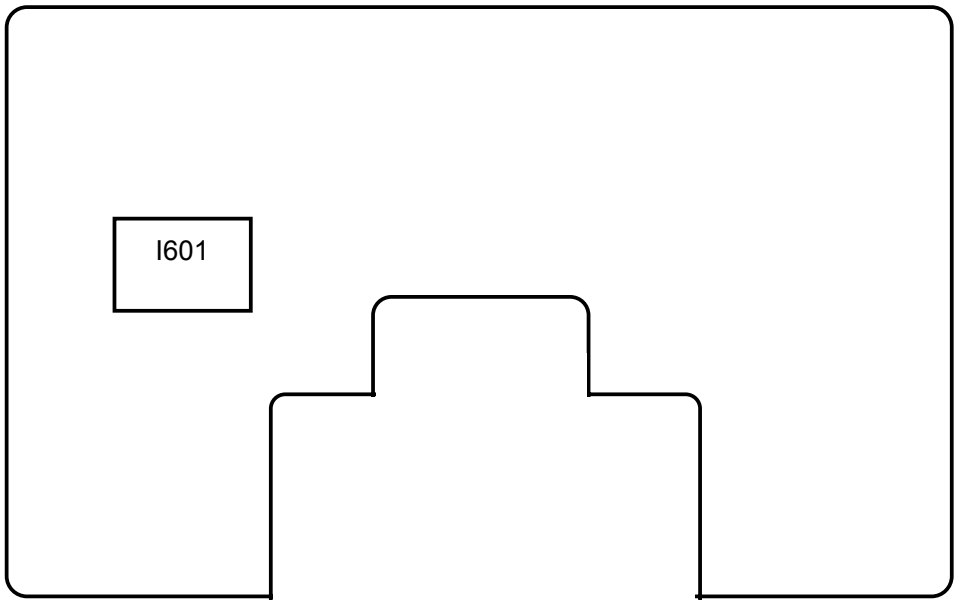
Back Cover Side

4.9.5 DRIVE P.W.B.

Drive PWB Side A

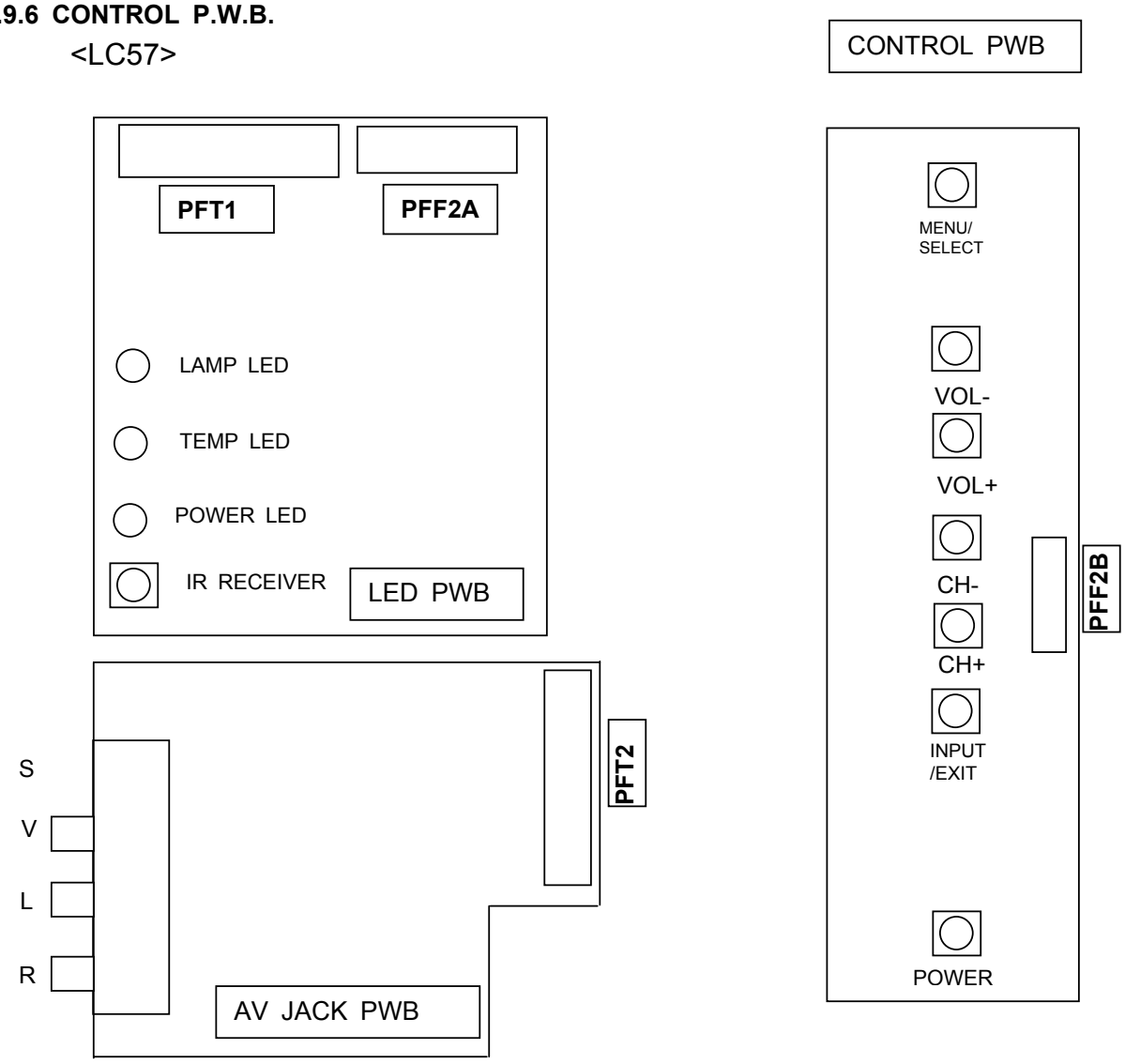


Drive PWB Side B



4.9.6 CONTROL P.W.B.

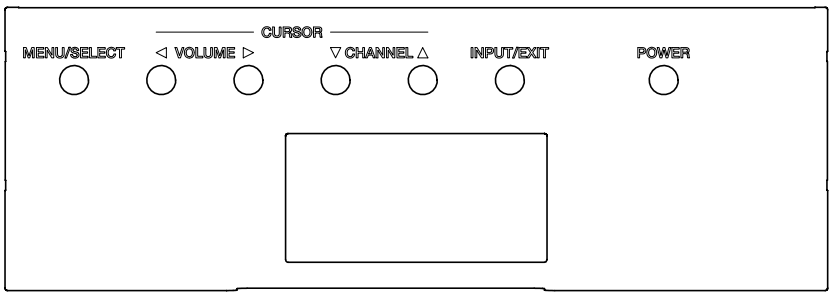
<LC57>



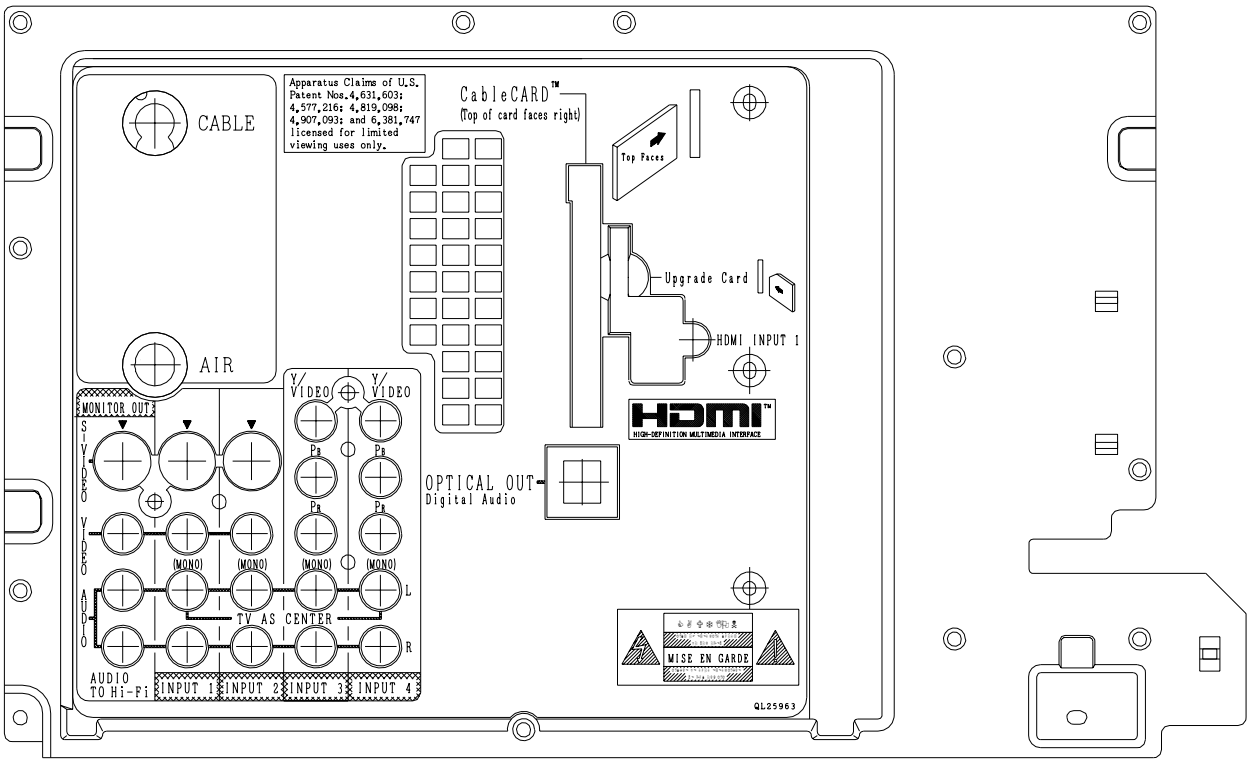
CONTROL PANEL and JACKS

LC57 chassis
Model: 50V720

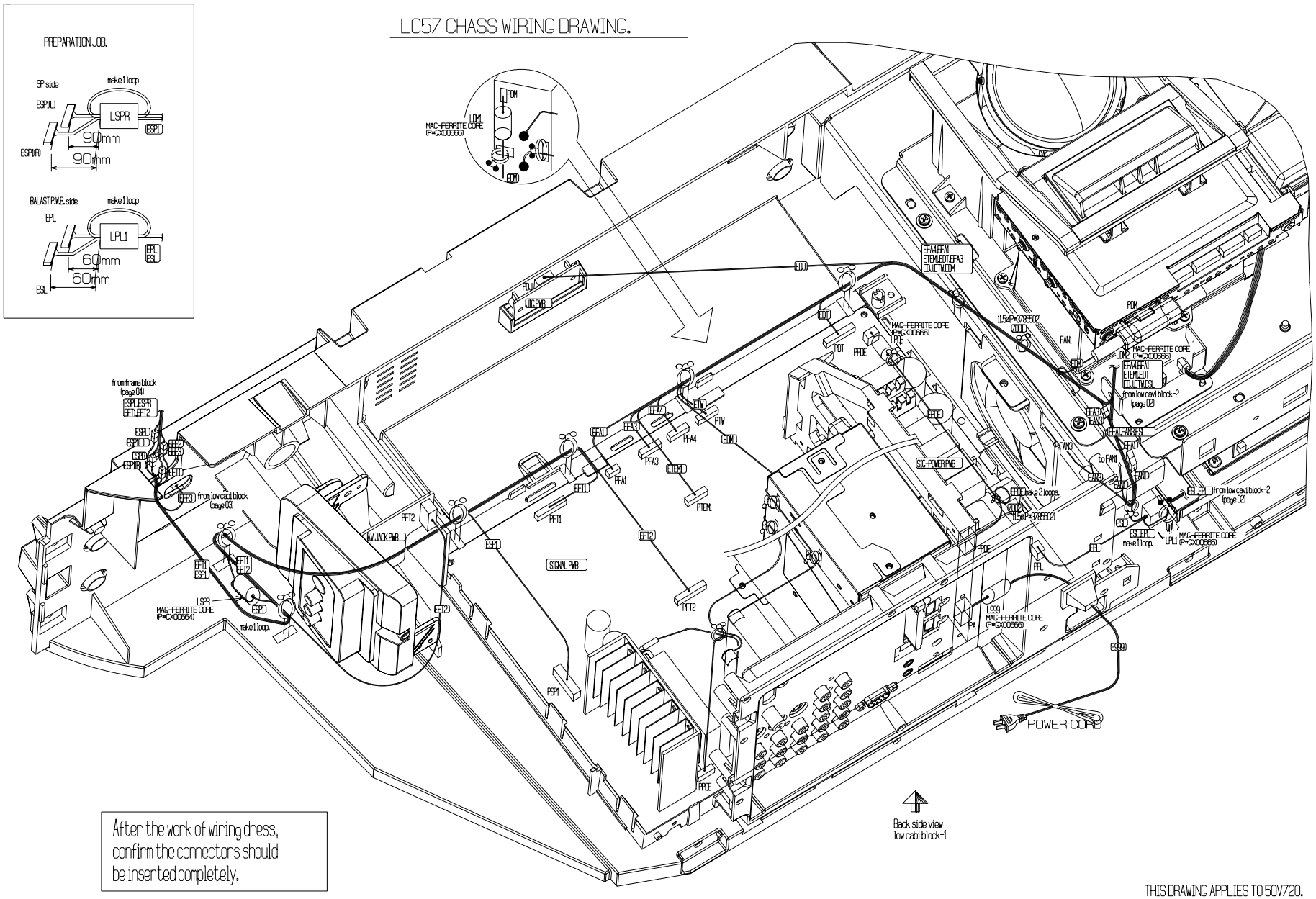
(1) FRONT PANEL



(2) REAR PANEL



FINAL WIRING DIAGRAM



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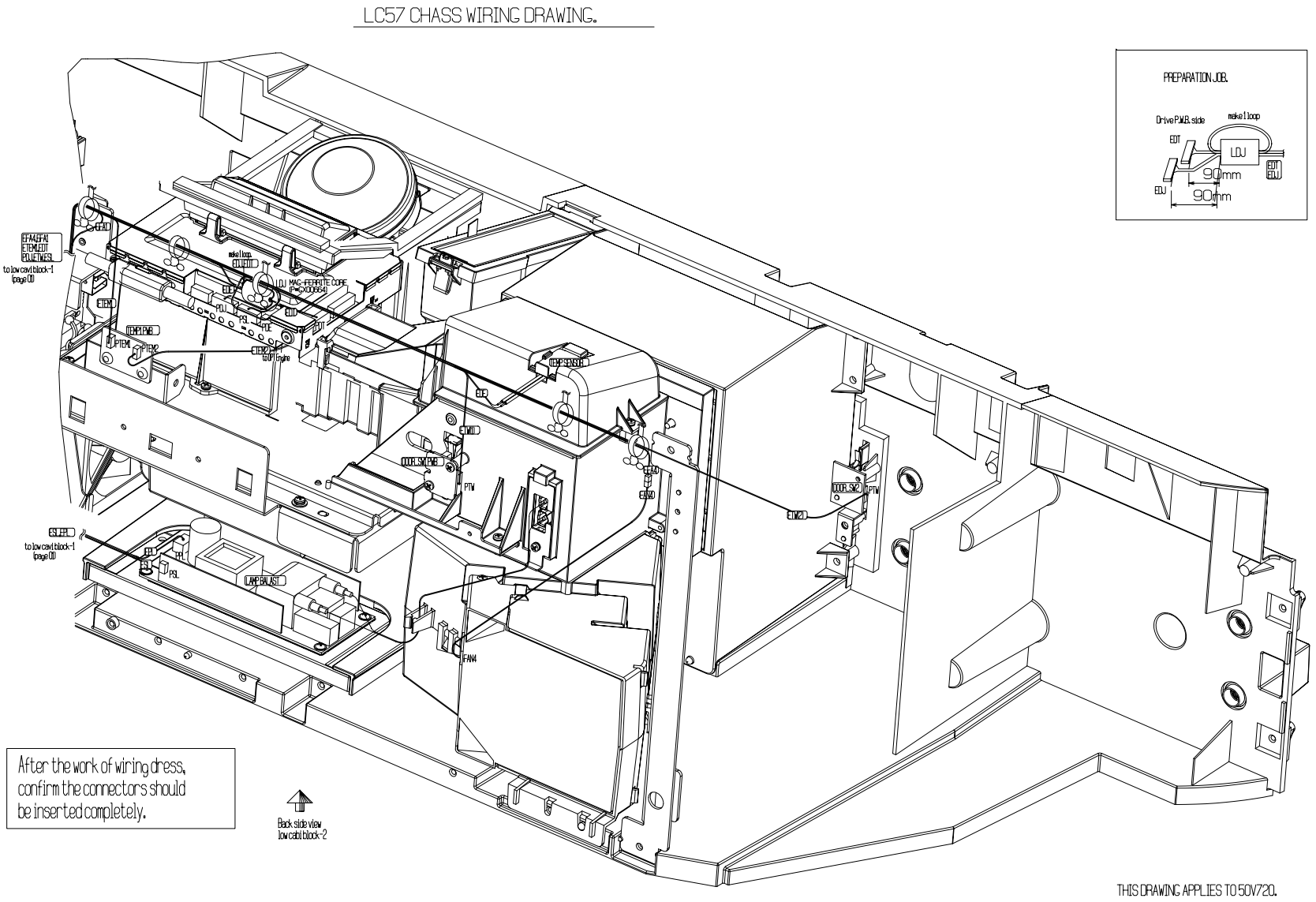
FINAL WIRING DIAGRAM



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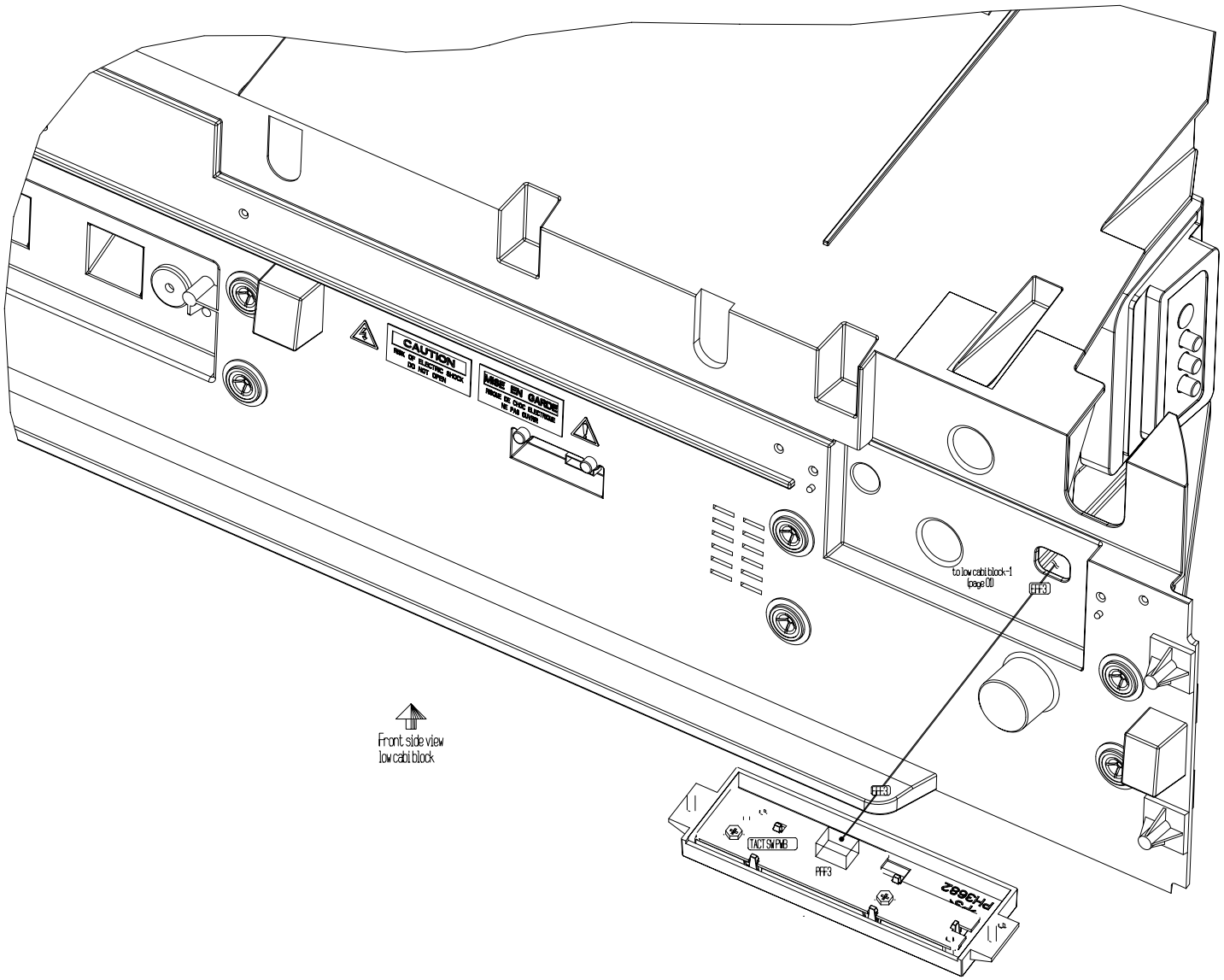
FINAL WIRING DIAGRAM

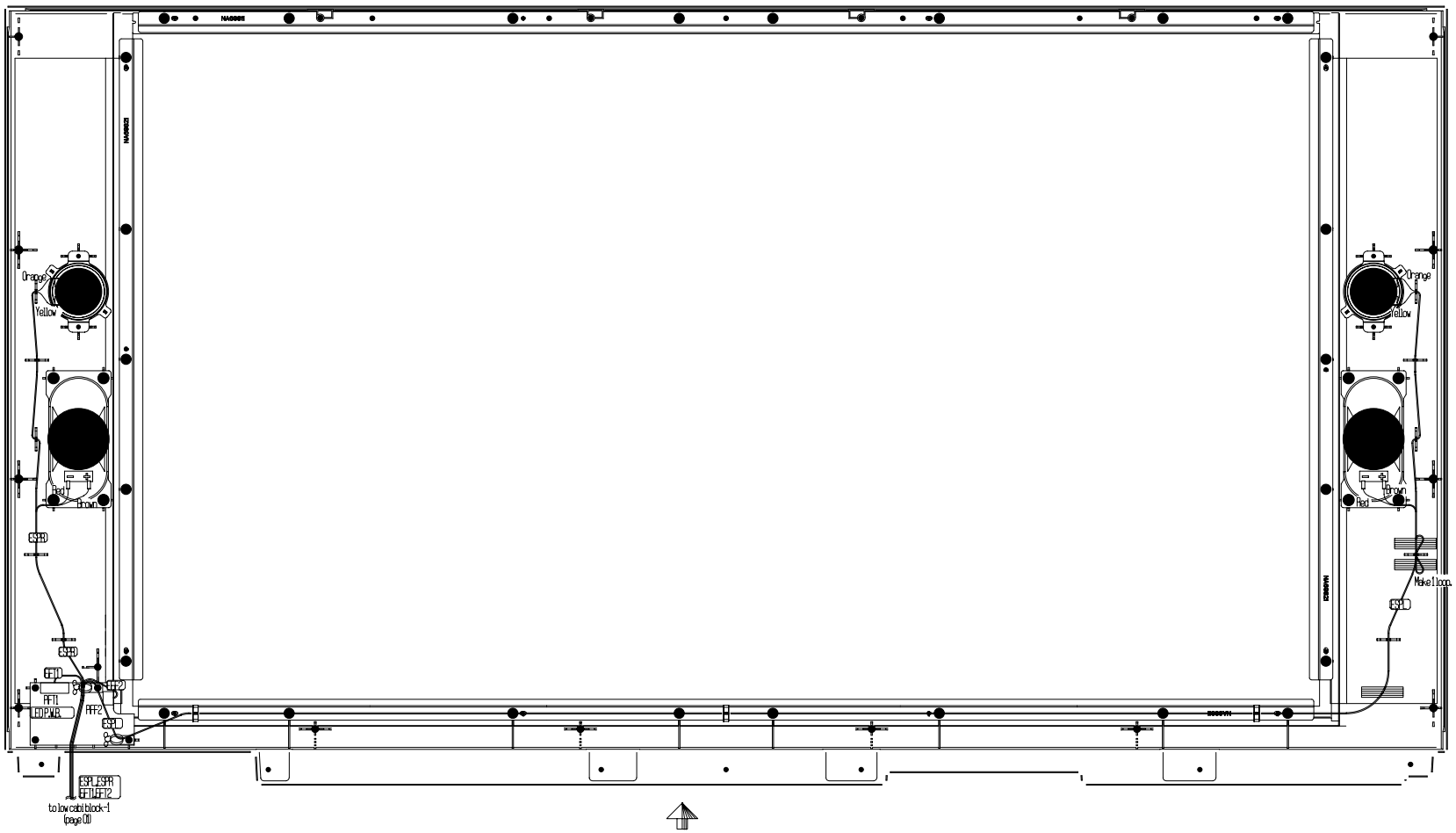
LC57 CHASS WIRING DRAWING.



THIS DRAWING APPLIES TO 50V720.

FINAL WIRING DIAGRAM

LC57 CHASS WIRING DRAWING.



Back Side View
Frame Block.

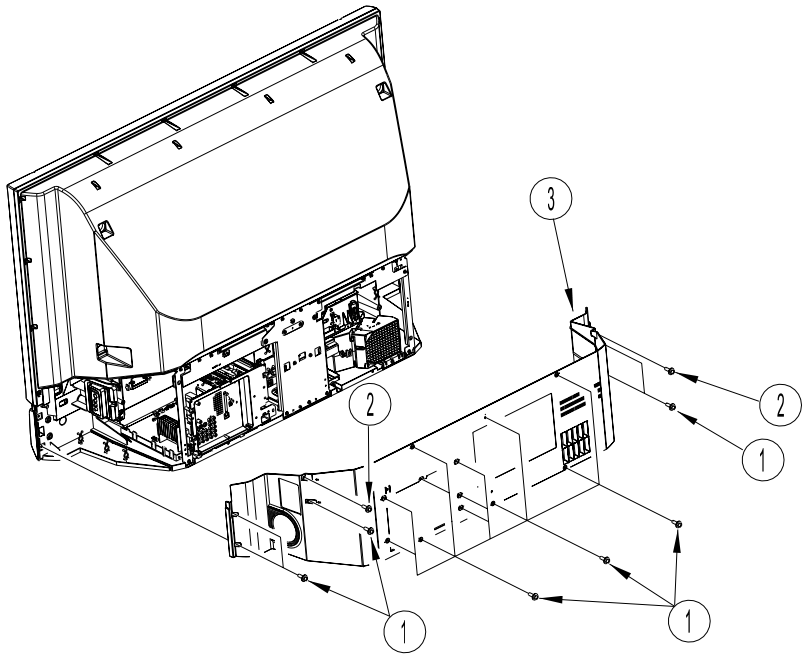
THIS DRAWING APPLIES TO 50V720.

LOWER REAR COVER

① Screws T1T 4*18 P#MJ03587(17 Pcs.)

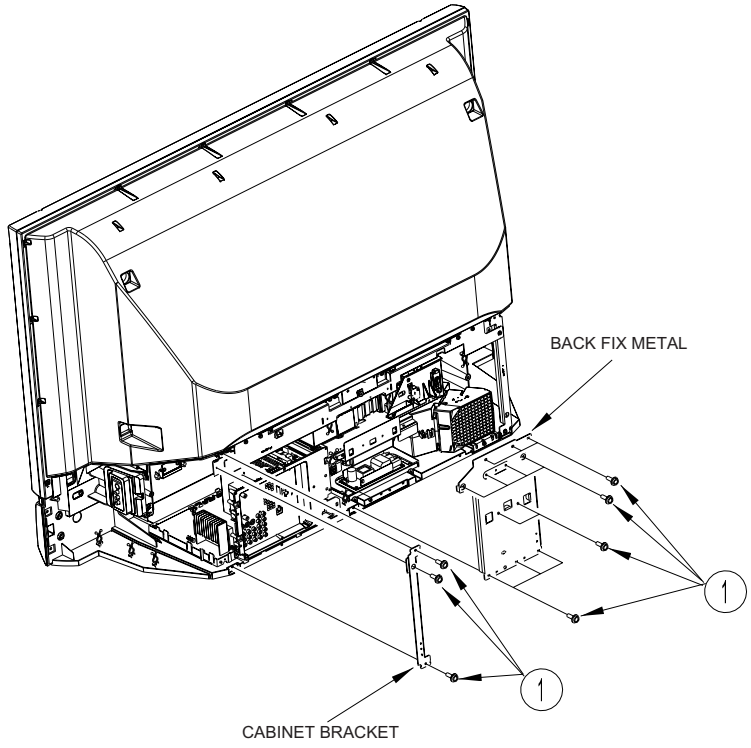
② Screws T2B 4*25 P#MJ03639(2 Pcs.)

③ Lower Rear Cover P#QD36558



BACK FIX METAL

① Screws T2B 4*20 P#MJ03638(2 Pcs.)
T1T 4*18 P#MJ03587(13 Pcs.)



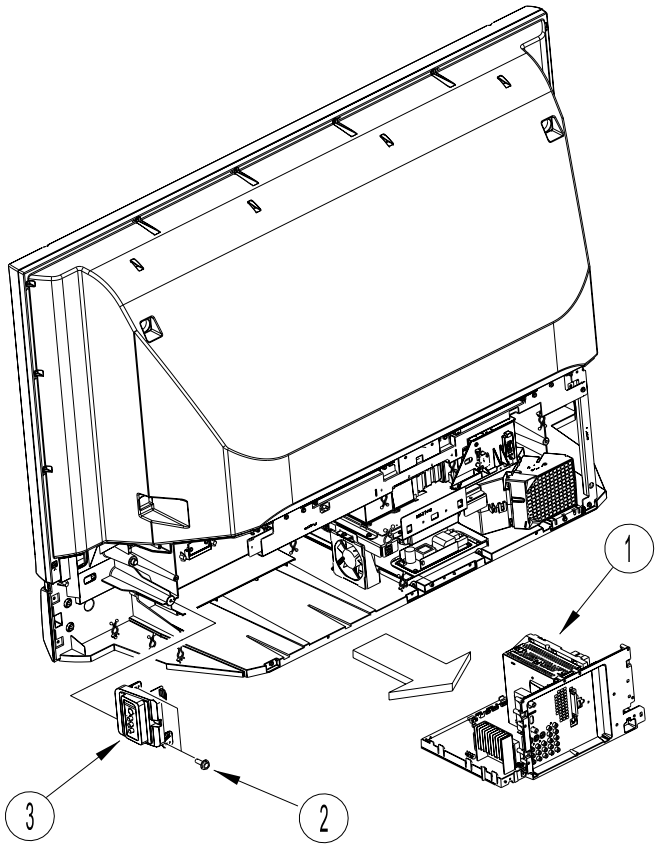
QUICK DISASSEMBLE GUIDE

MAIN CHASSIS, SIDE AV JACK

① Main Chassis P#UE24553

② Screws T2B 4*16 P#MJ03635(2 Pcs.)

③ Side AV Jack Assy P#UE35341



BALLAST, OPTICAL BLOCK 1

① Screws T2V 4*16 P#MJ08901(2 Pcs.)

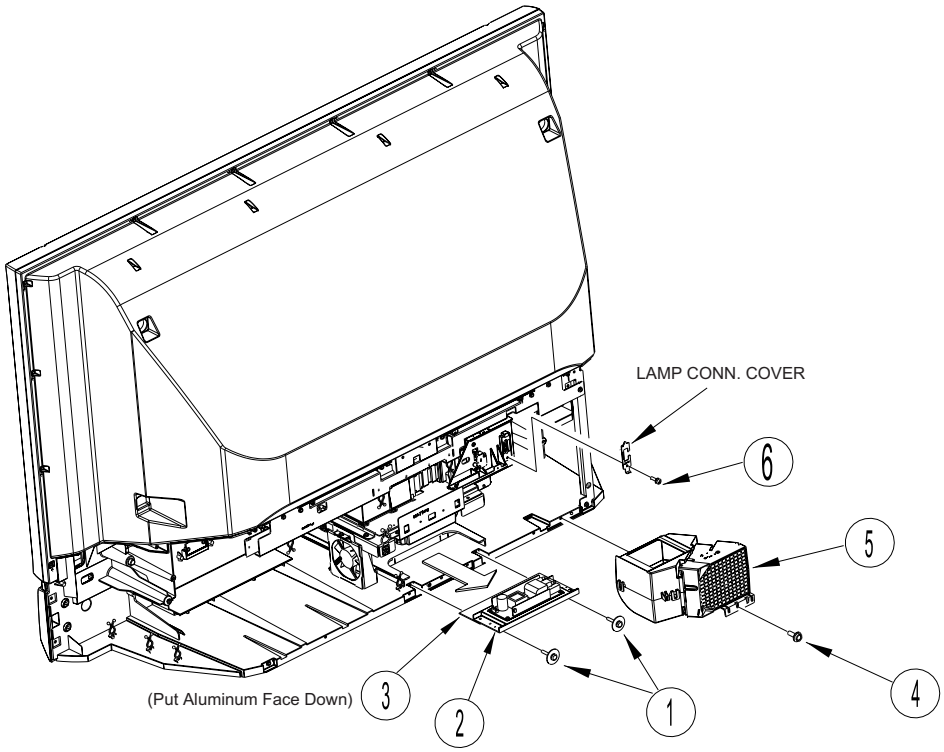
② Lamp Power Unit(Ballast) P#HA01631
Pow Unit Holder P#NT03193

③ Ballast FCC Sheet P#ME04511

④ Screw T2B 4*16 P#MJ03635

⑤ Fan Duct Assy P#~~UX24691~~

⑥ Screw M3M 3*10 P#MJ03601

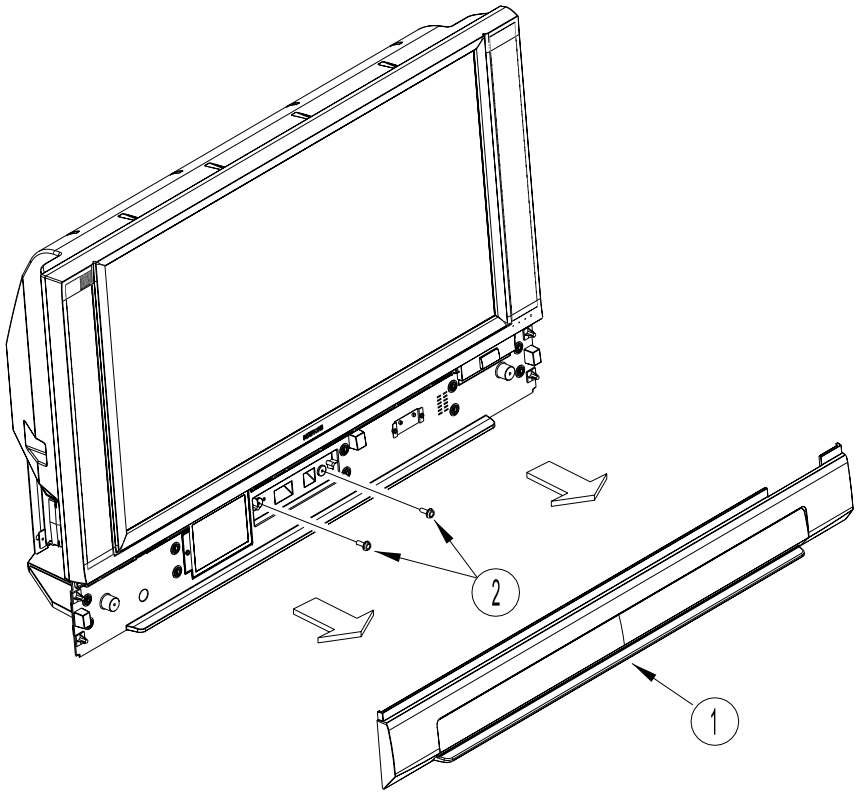


QUICK DISASSEMBLE GUIDE

OPTICAL BLOCK 2

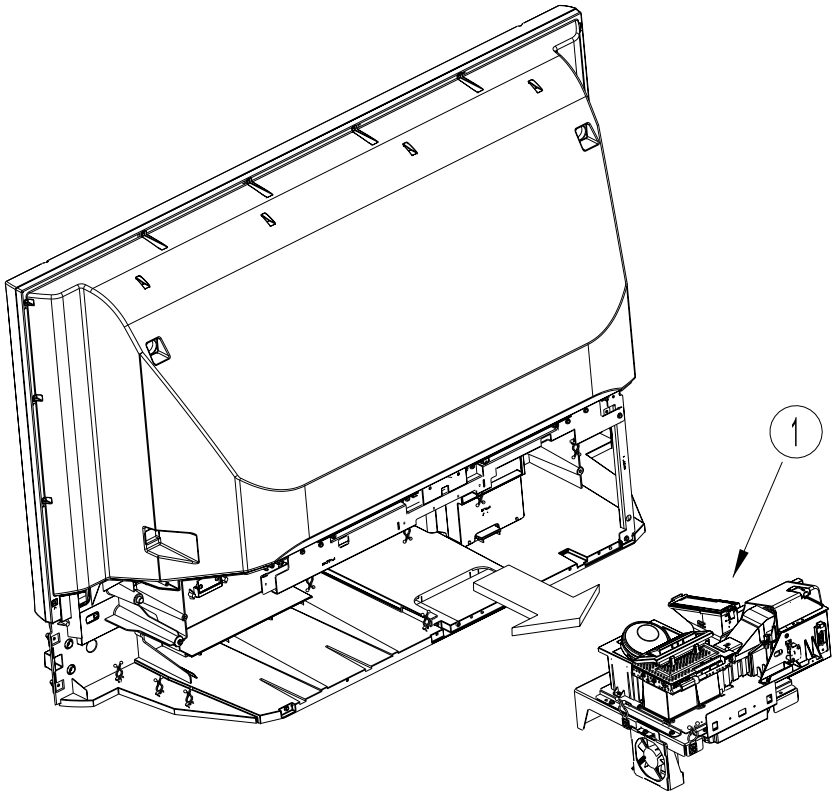
① Front Cover P#QD50991

② Screws T2B 4*16 P#MJ03635(2 Pcs.)



OPTICAL BLOCK 3

① Optical Block Assy P#UE25307



QUICK DISASSEMBLE GUIDE

DRIVE PWB

① Screw T3E 3*12 P#MJ03651(2 Pcs.)

② Lens Barrier P#ME04421

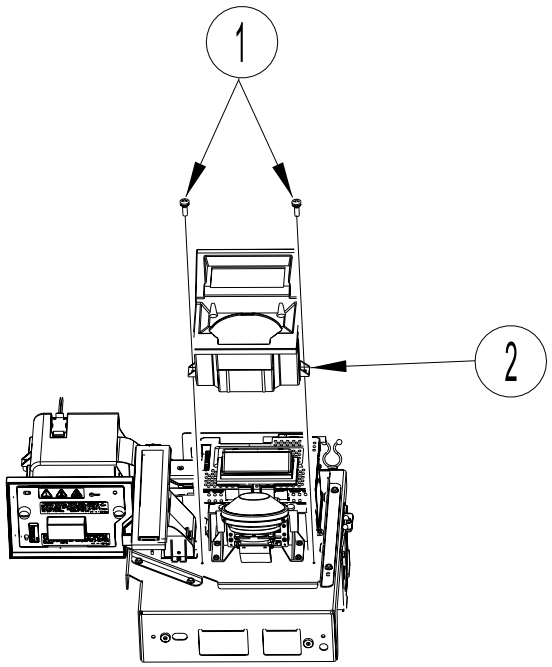
③ Screw T3E 3*12 P#MJ03651

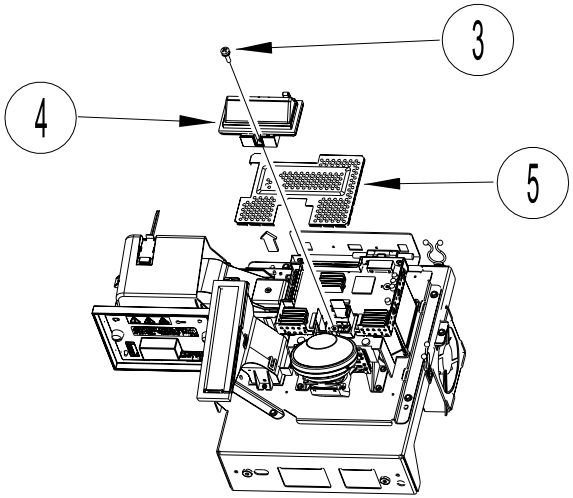
④ Panel Out Ducts P#NJ22371
P#NJ22361

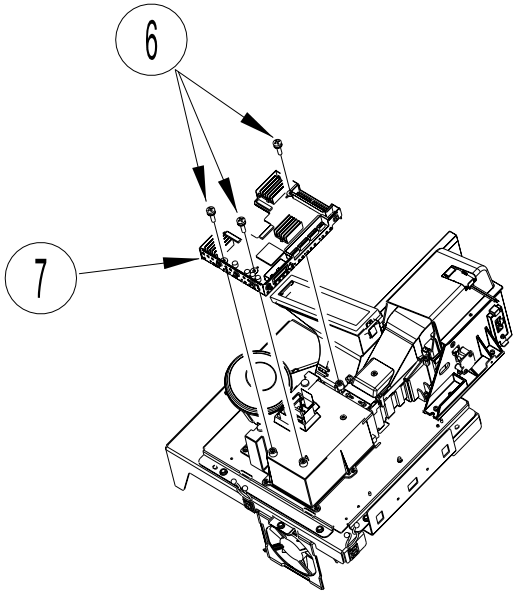
⑤ Drive Shield P#MD09382

⑥ Screw T3E 3*12 P#MJ03651(3 Pcs.)

⑦ DRIVE PWB P#JP08483





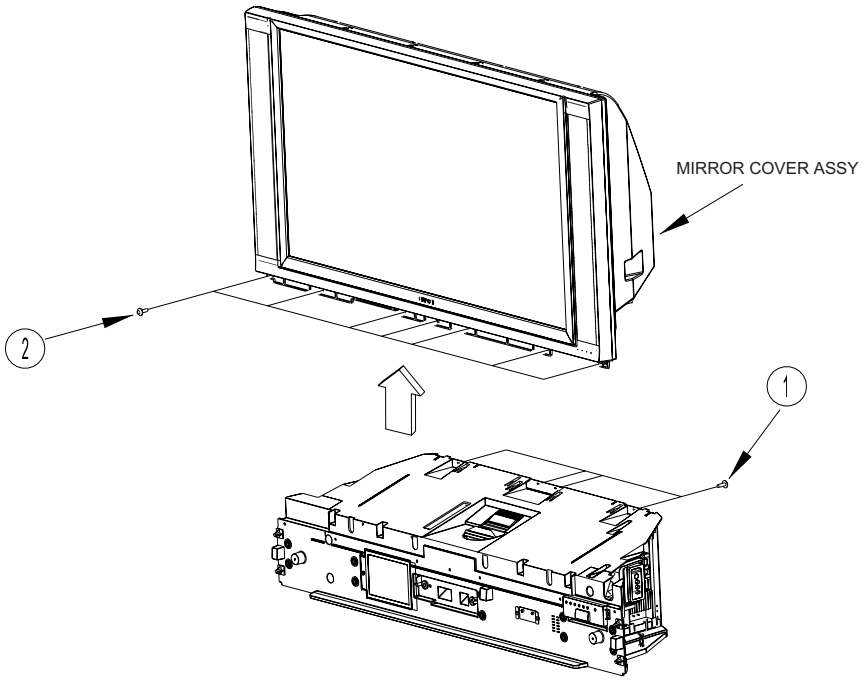


QUICK DISASSEMBLE GUIDE

LOW CABINET ASSY, FRAME/MIRROR COVER ASSY

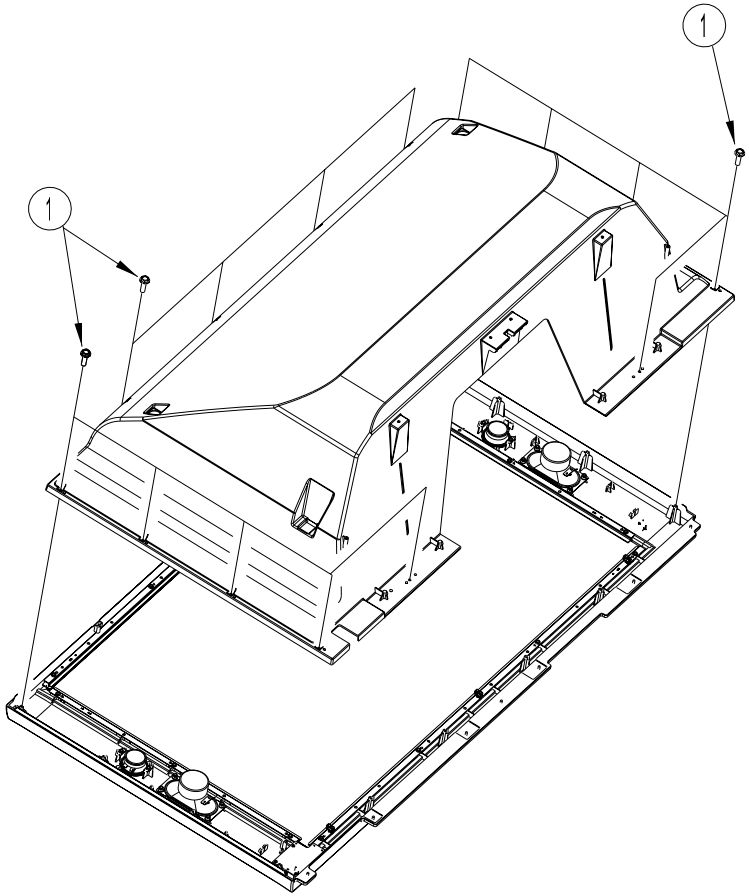
① Screws T2B 4*20 P#MJ03638(4 Pcs.)

② Screws T2B 4*16 P#MJ03638(7 Pcs.)



SCREEN FRAME ASSY, MIRROR COVER ASSY

① Screws T1T 4*18 P#MJ03557(14 Pcs.)



QUICK DISASSEMBLE GUIDE

MIRROR COVER ASSY

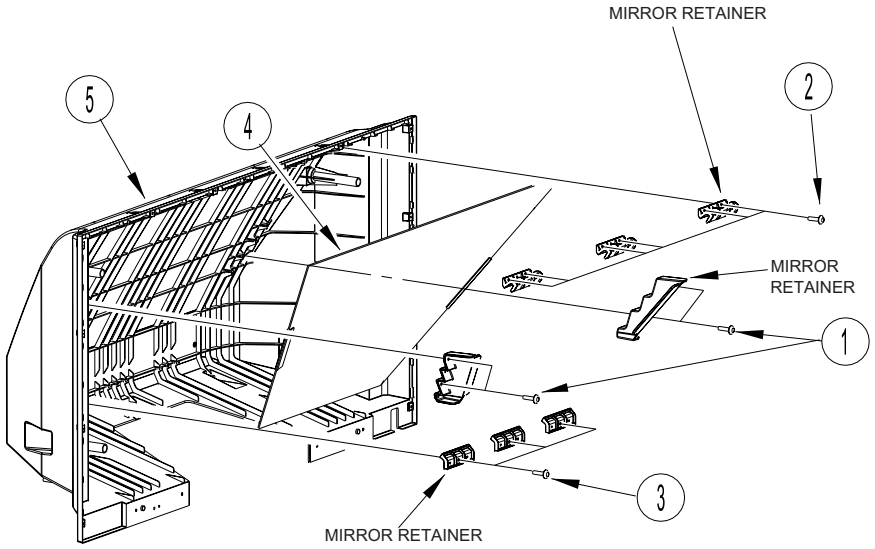
① Screws T1T 4*25 P#MJ03589(4 Pcs.)

② Screws T1T 4*18 P#MJ03587(6 Pcs.)

③ Screws T1T 4*18 P#MJ03587(3 Pcs.)

④ Mirror P#KS09384

⑤ Mirror Cover P#QD36144



SCREEN FRAME ASSY 1

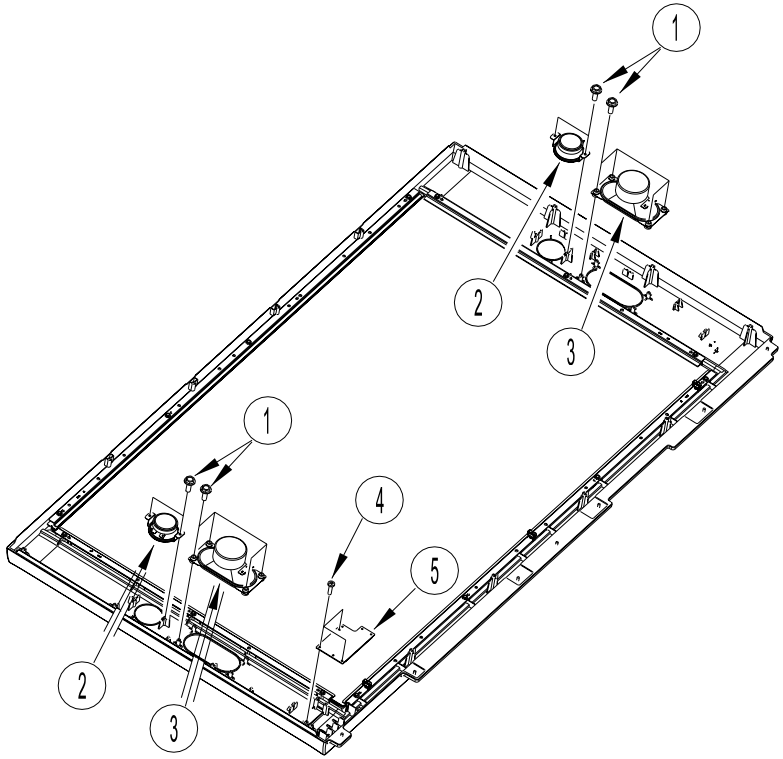
① Screws T2V 3*12 P#MJ03616(8 Pcs.)
T2B 3*12 P#MJ03458(4 Pcs.)

② Tweeters P#GK01401

③ Speakers P#GK01391

④ Screws T2B 3*12 P#MJ03551(3 Pcs.)

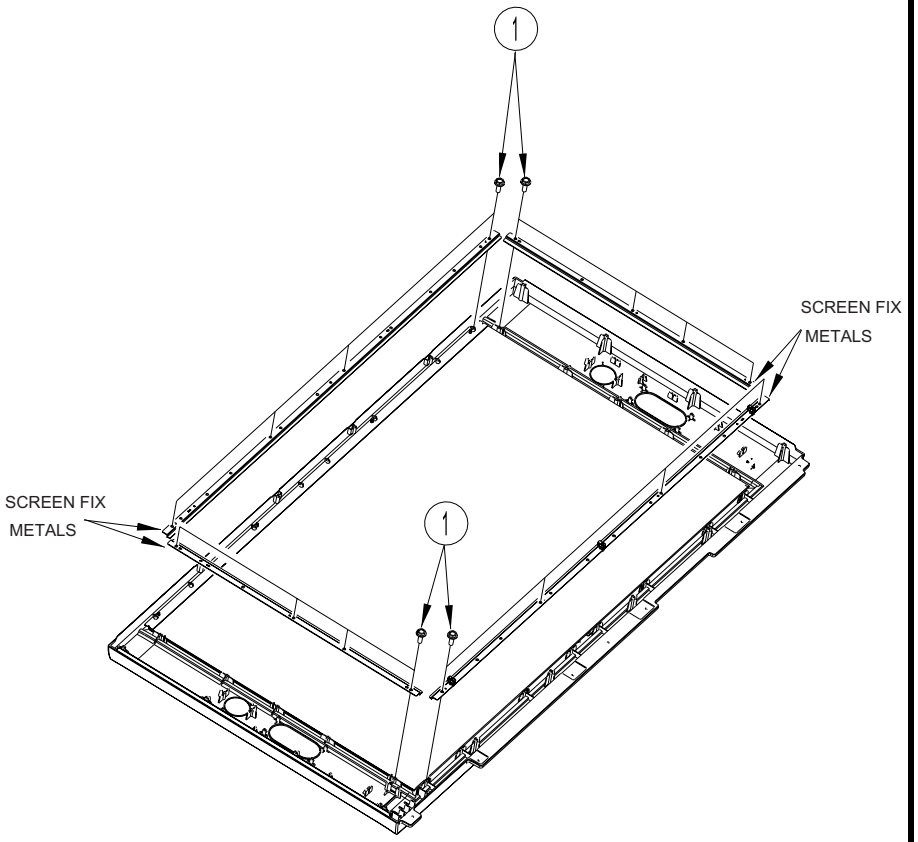
⑤ LED PWB Assy P#JT25003



QUICK DISASSEMBLE GUIDE

SCREEN FRAME ASSY 2

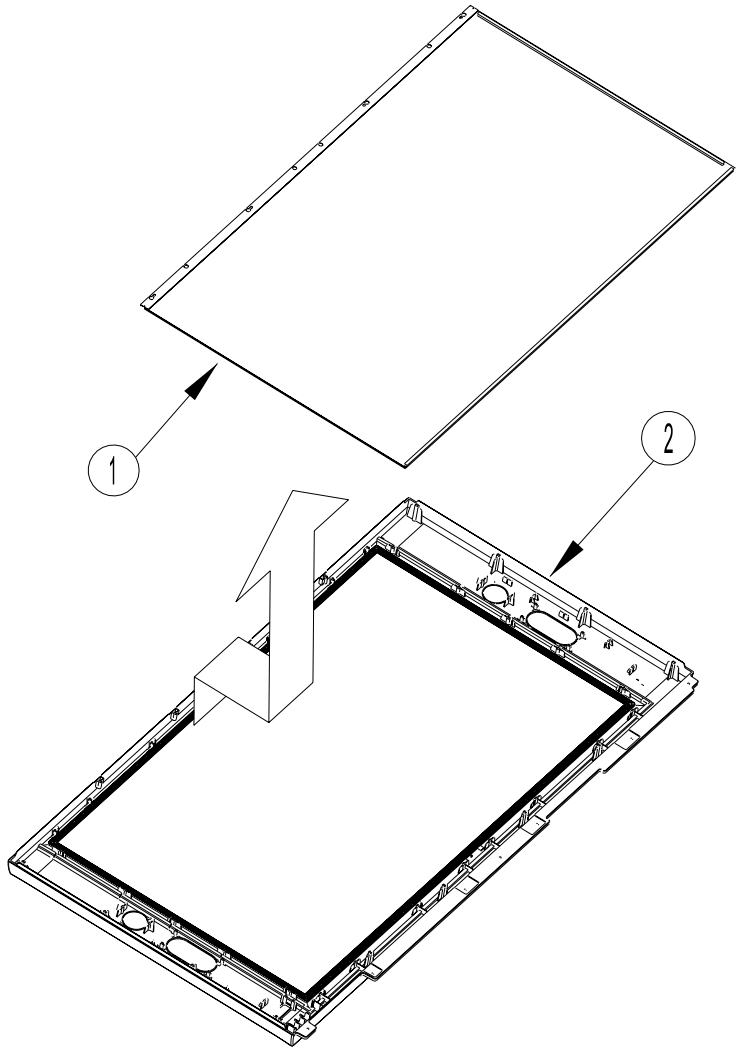
① Screws T1T 4*14 P#MJ03588(16 Pcs.)



SCREEN FRAME ASSY 3

① Screen Assy P#KR03238

② Screen Frame P#QD50981



QUICK DISASSEMBLE GUIDE

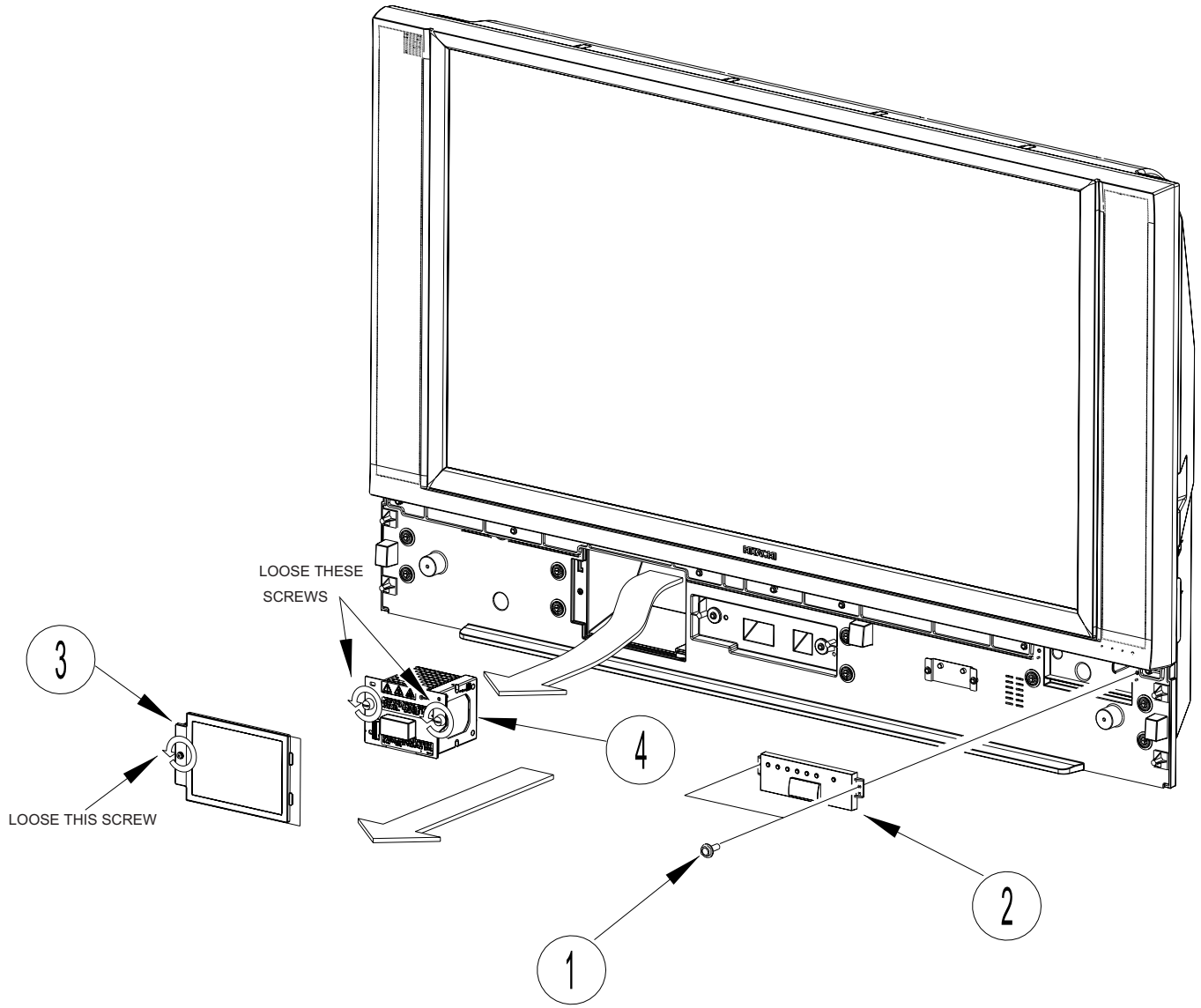
LAMP ASSY, CONTROL BLOCK

① Screws T2B 4*16 P#MJ03635(2 Pcs.)

② Control Block Assy P#UE25331

③ Lamp Cover P#PH33036

④ Lamp Assy P#DP00527



QUICK DISASSEMBLE GUIDE

CONTROL BLOCK, SIDE AV JACK

① Screws T2B 3*12 P#MJ03551(2 Pcs.)

② Control PWB Assy P#JT2503

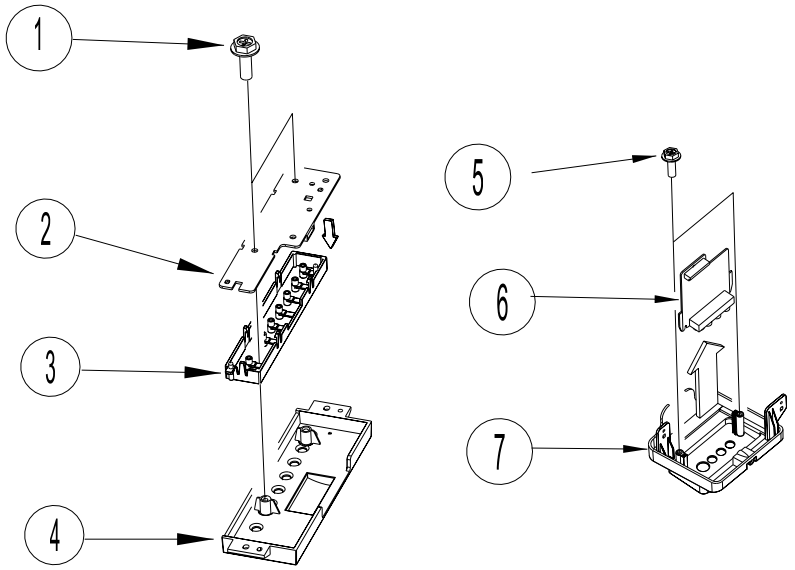
③ Control Button P#PC06621

④ Control Panel Frame P#PH36821

⑤ Screws T2V 4*16 P#MJ03442(2 Pcs.)

⑥ Side AV Jack PWB Assy P#JT25003

⑦ AV Jack Frame P#PH36452
Plate P#PH36801



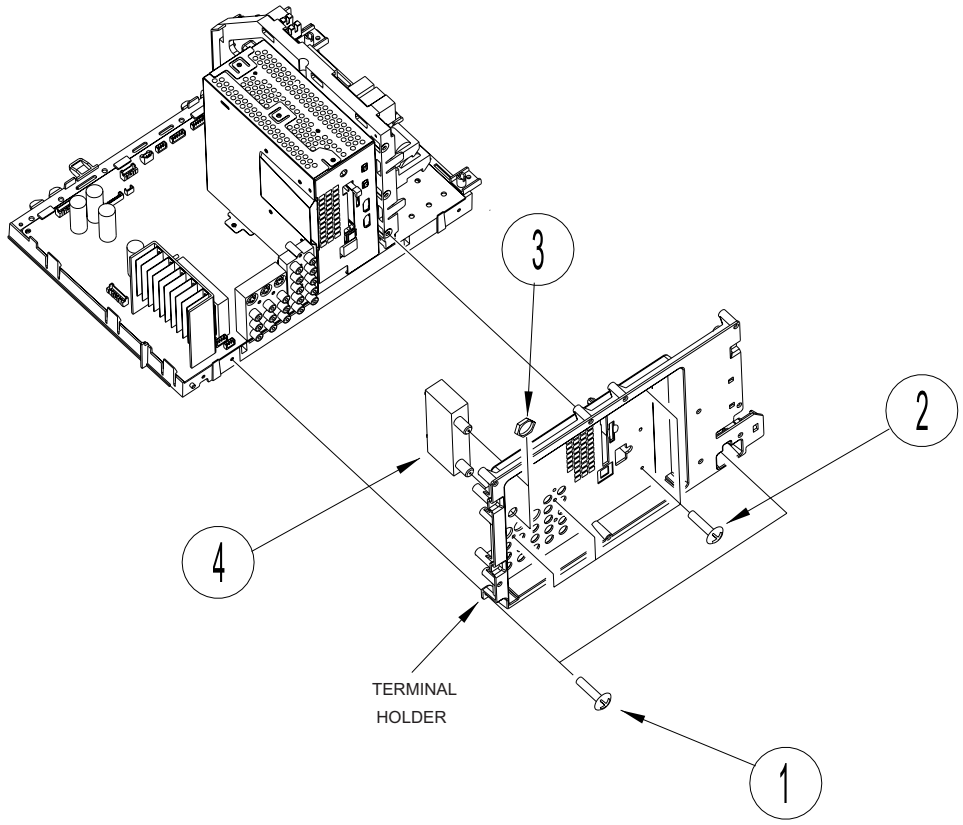
MAIN CHASSIS 1

① Screws T2B 3*16 P#MJ03459(2 Pcs.)

② Screws T2B 3*12 P#MJ03551(4 Pcs.)

③ Nut Washer P#MK01431(2 Pcs.)

④ Antenna Switch Box P#HP00774

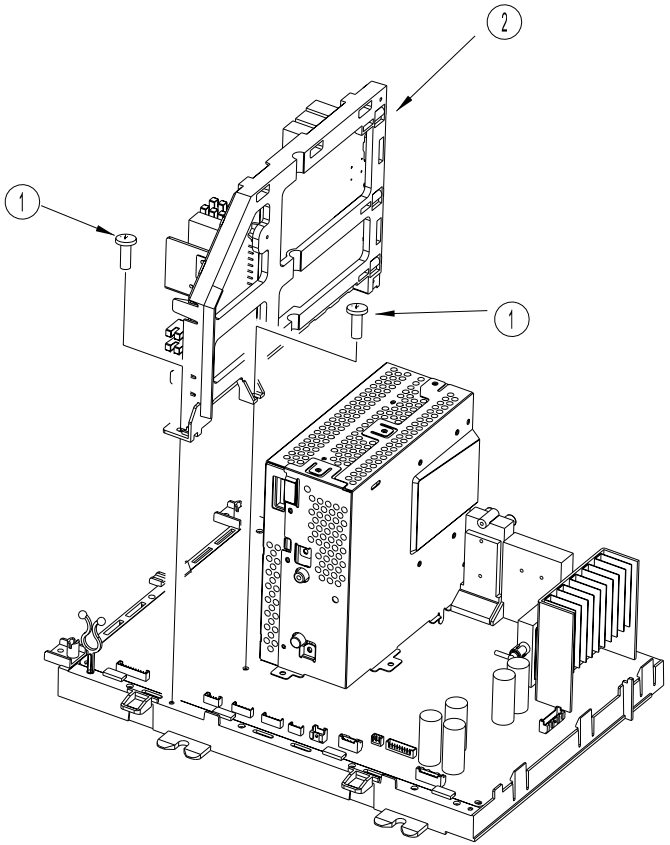


QUICK DISASSEMBLE GUIDE

POWER PWB ASSY

① Screws T2B 3*16 P#MJ03459(2 Pcs.)

② Powe PWB Assy P#JT24993

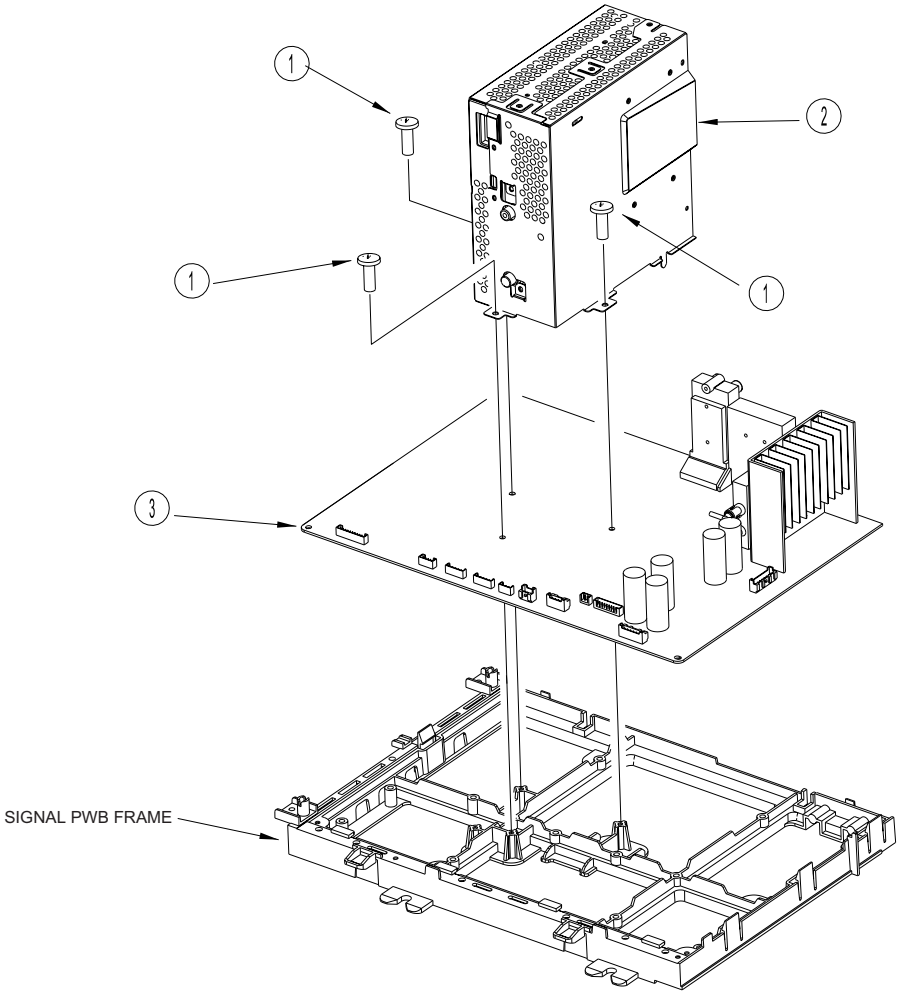


SIGNAL PWB ASSY, DIGITAL CORE

① Screws T2B 3*16 P#MJ03459(3 Pcs.)

② Digital Core P#UE24613

③ Signal PWB Assy P#JT24983

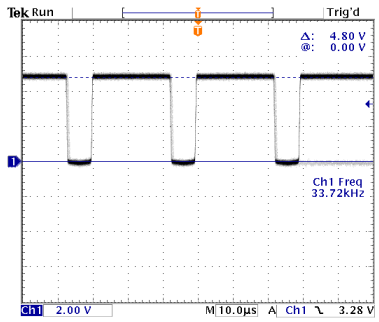


WAVEFORMS AT EACH SECTION

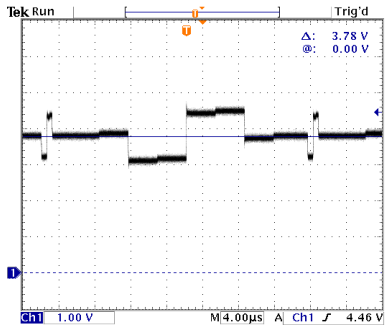
Numbers inside circle correspond to locations shown in the circuit diagram. Waveforms taken using a Color Bar signal with H sync 31 khz and V. sync 60 hz and a X10 probe.

Click on number to go to schematic

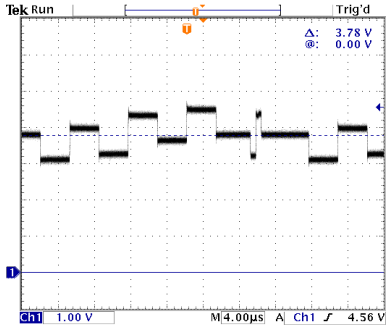
1 I001 Pin 4 Main Sync



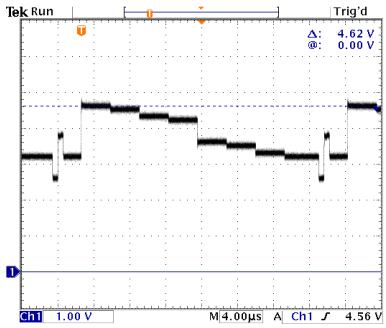
2 I401 Pin 54 Main PR OUT



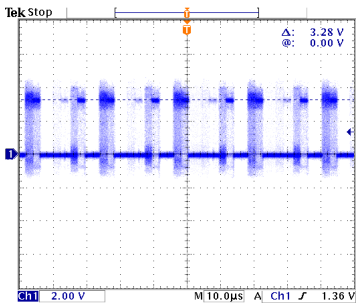
3 I401 Pin 55 Main PB OUT



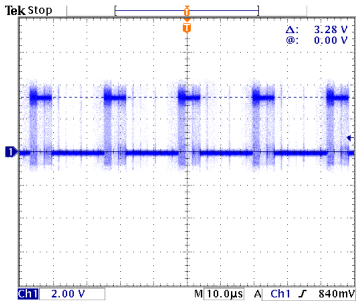
4 I401 Pin 56 Main Y OUT



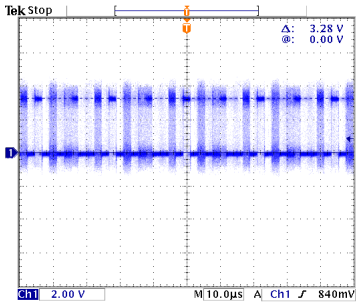
5 I700 Pin 12 Rin1



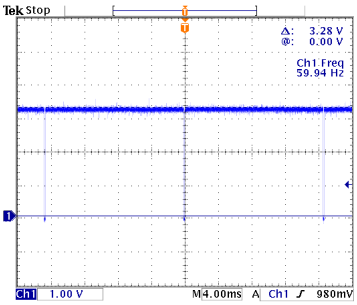
6 I700 Pin 10 Gin1



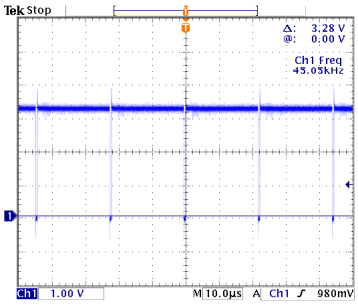
7 I700 Pin 7 Bin1



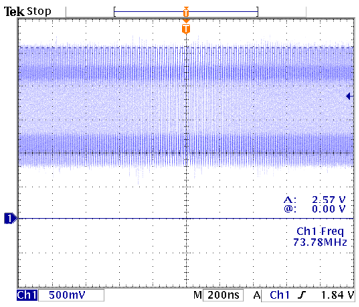
8 I700 Pin 24 VD OUT



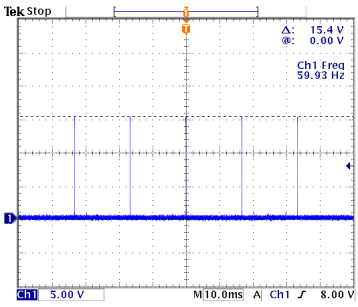
9 I700 Pin 25 HD OUT



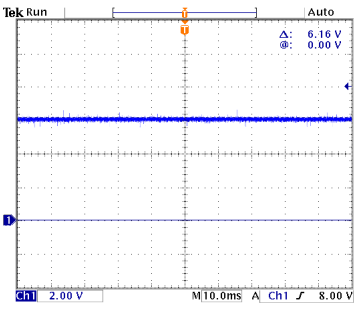
10 I700 Pin 31 CLK OUT



11 P7A0/F0/K0 Pin 2 DY



12 P7A0/F0/K0 Pin 5 LCCOM

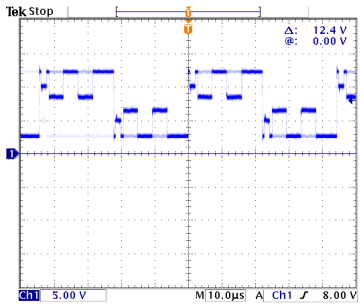


WAVEFORMS AT EACH SECTION

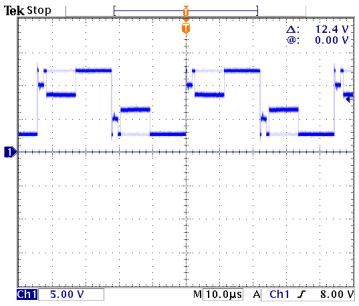
Numbers inside circle correspond to locations shown in the circuit diagram. Waveforms taken using a Color Bar signal with H sync 31 khz and V. sync 60 hz and a X10 probe.

Click on number to go to schematic

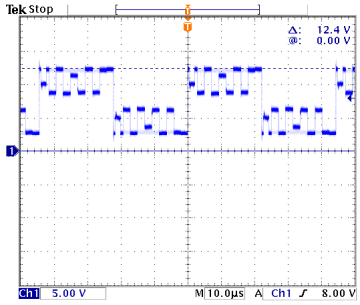
(13) P7A0 Pin 7-18 RVID1-12



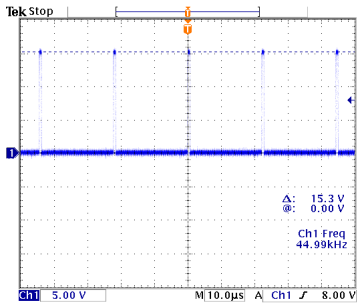
(14) P7F0 Pin 7-18 GVID1-12



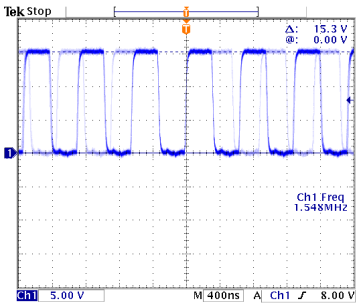
(15) P7K0 Pin 7-18 BVID1-12



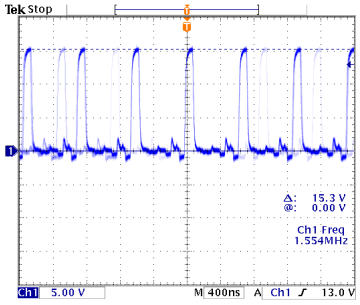
(16) P7A0/F0/K0 Pin 20 DX



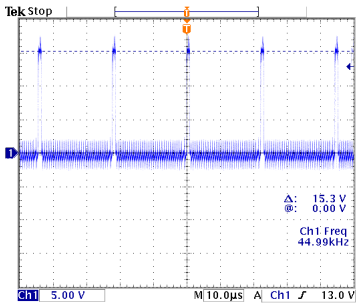
(17) P7A0/F0/K0 Pin 22 CLX



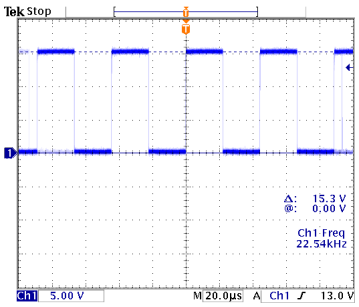
(18) P7A0/F0/K0 Pin 25-28 ENBX1-4



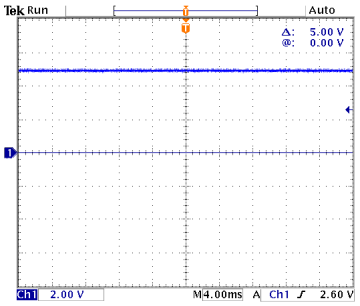
(19) P7A0/F0/K0 Pin 29 NRG



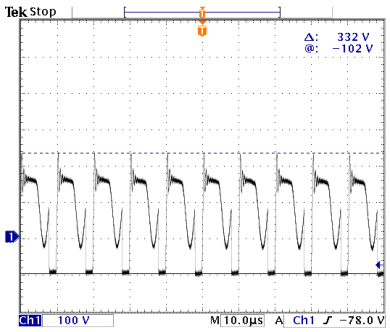
(20) P7A0/F0/K0 Pin 34 CLY



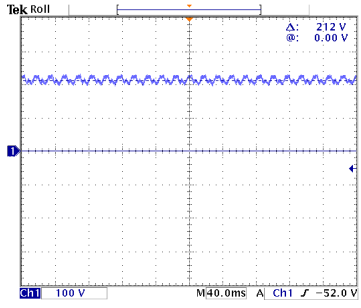
(21) I001 Pin 46-48 ALARM 0-2



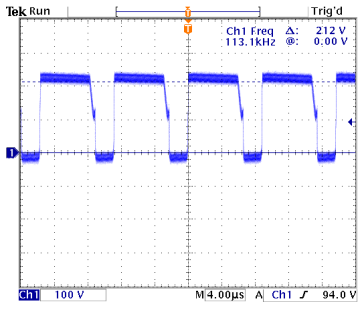
(22) I901 Pin 7,8 STBY SWITCHED OUT



(23) I902 Pin 3,4 DL + OUT



(24) I902 Pin 1 DL- OUT



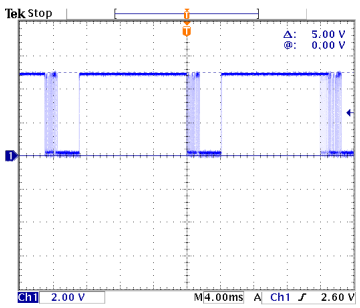
IMPORTANT NOTE: FOR HOT AREA USE AC CORD WITH FLOATING GROUND

WAVEFORMS AT EACH SECTION

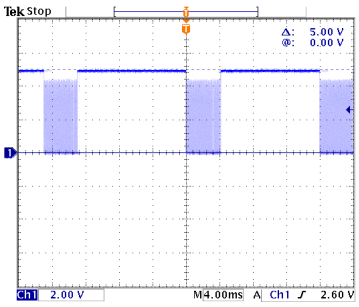
Numbers inside circle correspond to locations shown in the circuit diagram. Waveforms taken using a Color Bar signal with H sync 31 khz and V. sync 60 hz and a X10 probe.

Click on number to go to schematic

(25) PST Pin 63 SDA



(26) PST Pin 64 SCL



DC VOLTAGE TABLES

Symbol	Pin No.	Voltage
PAN2	1	0
	2	0
	3	9
	4	9

Symbol	Pin No.	Voltage
PDT	1	16.6
	2	16.6
	3	0
	4	0
	5	5.7
	6	5.7
	7	0
	8	0
	9	0
	10	3.3
	11	0

Symbol	Pin No.	Voltage
PFA1	1	0
	2	11.9
	3	0

Symbol	Pin No.	Voltage
PFA3	1	0
	2	10.1
	3	0
	4	NC
	5	NC

Symbol	Pin No.	Voltage
PFA4	1	0
	2	10.1
	3	0
	4	NC
	5	NC

Symbol	Pin No.	Voltage
PFH1	1	0
	2	5
	3	5
	4	0
	5	5
	6	0
	7	5
	8	0
	9	5
	10	0

Symbol	Pin No.	Voltage
PFH2	1	0
	2	0

Symbol	Pin No.	Voltage
PSL	1	0.12
	2	0
	3	4.3
	4	0.6
	5	3.7
	6	0

Symbol	Pin No.	Voltage
PDE	1	0
	2	2.8
	3	2.8

Symbol	Pin No.	Voltage
PDJ	1	3.3
	2	3.3
	3	0
	4	0
	5	3.3
	6	3
	7	3.3

Symbol	Pin No.	Voltage
PTEM	1	3.9
	2	4.2
	3	3.3
	4	0

Symbol	Pin No.	Voltage
PSP1	1	0
	2	0
	3	0
	4	0
	5	0
	6	0
	7	0
	8	0

Symbol	Pin No.	Voltage
PTW	1	0
	2	0
	3	NC
	4	0
	5	0

Symbol	Pin No.	Voltage
PINT	1	3.3
	2	0

Symbol	Pin No.	Voltage
PPL	1	228
	2	NC
	3	-75.3

Symbol	Pin No.	Voltage
PPDE	1	74.8
	2	NC
	3	77.4
	4	NC

Symbol	Pin No.	Voltage
PPT1	1	0
	2	0
	3	0
	4	0
	5	0
	6	0

Symbol	Pin No.	Voltage	Pin No.	Voltage
PDP	1	0	6	3.3
	2	3.3	7	3.3
	3	3.3	8	0
	4	3.3	9	3.3
	5	0	10	0

Symbol	Pin No.	Voltage	Pin No.	Voltage
PFT1	1	0	8	0
	2	0	9	5
	3	5	10	0
	4	5	11	0
	5	0	12	0
	6	0	13	0
	7	5		

Symbol	Pin No.	Voltage	Pin No.	Voltage
PFT2	1	9	7	0
	2	0	8	0
	3	0	9	0
	4	2.5	10	0
	5	2.5	11	9
	6	0		

Symbol	Pin No.	Voltage	Pin No.	Voltage
PPT2	1	5.7	11	0
	2	0.0	12	0
	3	0.0	13	0
	4	0.0	14	0
	5	0	15	0
	6	5.7	16	0
	7	5.7	17	5
	8	0	18	0
	9	0	19	10
	10	0	20	10

Symbol	Pin No.	Voltage	Pin No.	Voltage
P7A0	1	0	19	0
P7F0	2	0.3	20	0.7
P7K0	3	0	21	15.7
	4	0.3	22	7.9
	5	6.2	23	7.7
	6	2.6	24	-0.3
	7	7.6	25	2.4
	8	7.6	26	2.2
	9	7.6	27	2.2
	10	7.6	28	2.1
	11	7.6	29	0.4
	12	7.6	30	5
	13	7.6	31	6.2
	14	7.6	32	15.7
	15	7.6	33	7.9
	16	7.6	34	7.9
	17	7.6	35	0.3
	18	7.6	36	NC

Symbol	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
PST	1	0	31	11.1	61	0	91	5.6
	2	0	32	-0.1	62	0	92	5.6
	3	0	33	0	63	4	93	5.6
	4	0	34	0	64	3.8	94	0
	5	0	35	0	65	0	95	0
	6	0	36	0	66	5.3	96	0
	7	0.1	37	0	67	5.3	97	0
	8	0	38	0	68	5.3	98	0
	9	0	39	0	69	0	99	0
	10	0	40	0	70	0.1	100	4.8
	11	3.3	41	0	71	0.1	101	4.8
	12	0	42	2.1	72	0.4	102	0
	13	3	43	0	73	0	103	0
	14	0	44	0	74	0	104	9.8
	15	0	45	4.3	75	0.4	105	9.8
	16	0	46	4.3	76	0.1	106	0
	17	0.4	47	0	77	0	107	0
	18	3.3	48	0.2	78	2.8	108	0
	19	0.1	49	0.3	79	0	109	0
	20	0	50	0	80	3.3	110	0
	21	0	51	0	81	3.3	111	0
	22	0	52	0	82	3.3	112	0
	23	3.4	53	0	83	4.7	113	0
	24	3.4	54	0	84	0	114	0
	25	0	55	0	85	0	115	0
	26	0.1	56	4.5	86	0	116	0
	27	0	57	4.5	87	0	117	0
	28	0	58	4.5	88	5.6	118	0
	29	0	59	0	89	5.6	119	0
	30	11.1	60	0	90	5.6	120	0

Symbol	Pin No.	Voltage
PPT3	1	0.5
	2	5.0
	3	7.6
	4	2.9
	5	0
	6	4.8
	7	0
	8	0
	9	0
	10	0
	11	31
	12	31
	13	31
	14	0
	15	0
	16	0
	17	0
	18	0
	19	16.6
	20	16.6

Symbol	Pin No.	Voltage	Pin No.	Voltage
PDD	1	0	16	1.3
	2	1.3	17	0
	3	3.3	18	1.3
	4	1.3	19	0
	5	0	20	1.2
	6	1.3	21	3.3
	7	0	22	1.3
	8	1.3	23	3.3
	9	0	24	1.2
	10	1.3	25	0
	11	0.4	26	0
	12	1.3	27	0
	13	3.3	28	0
	14	1.3	29	0
	15	0	30	5

Symbol	Pin No.	Voltage
P7A2	1	10
	2	7.6
	3	0
	4	0
	5	0

TABLE OF CONTENTS

DC VOLTAGE TABLES

Symbol	Pin No.	Voltage
Q002	B	4.4
	C	0
	E	5

Symbol	Pin No.	Voltage
Q003	B	0
	C	5
	E	0

Symbol	Pin No.	Voltage
Q005	B	5
	C	9
	E	6.4

Symbol	Pin No.	Voltage
Q006	B	0
	C	5
	E	0

Symbol	Pin No.	Voltage
Q008	B	6.4
	C	0
	E	6.8

Symbol	Pin No.	Voltage
Q009	B	0
	C	5
	E	0

Symbol	Pin No.	Voltage
Q011	B	6.8
	C	0.4
	E	7

Symbol	Pin No.	Voltage
Q012	B	5
	C	0
	E	5

Symbol	Pin No.	Voltage
Q013	B	0.4
	C	2.1
	E	0.3

Symbol	Pin No.	Voltage
Q014	B	0.7
	C	2.4
	E	0.3

Symbol	Pin No.	Voltage
Q015	B	1.8
	C	5
	E	2.6

Symbol	Pin No.	Voltage
Q017	B	0.1
	C	4.2
	E	0

Symbol	Pin No.	Voltage
Q018	B	0
	C	5
	E	0

Symbol	Pin No.	Voltage
Q021	B	4.5
	C	0
	E	0

Symbol	Pin No.	Voltage
Q025	B	4.3
	C	5
	E	5

Symbol	Pin No.	Voltage
Q026	B	0
	C	5
	E	0

Symbol	Pin No.	Voltage
Q027	B	0
	C	5
	E	0

Symbol	Pin No.	Voltage
Q029	B	5
	C	0
	E	0

Symbol	Pin No.	Voltage
Q030	B	0
	C	5
	E	0

Symbol	Pin No.	Voltage
Q301	B	0.7
	C	0
	E	0

Symbol	Pin No.	Voltage
Q402	B	2.5
	C	0
	E	0

Symbol	Pin No.	Voltage
Q403	B	3.8
	C	0
	E	4.4

Symbol	Pin No.	Voltage
Q407	B	3.8
	C	0
	E	4.4

Symbol	Pin No.	Voltage
Q408	B	3.8
	C	0
	E	4.4

Symbol	Pin No.	Voltage
Q409	B	3.8
	C	0
	E	4.4

Symbol	Pin No.	Voltage
Q410	B	3.8
	C	0
	E	4.4

Symbol	Pin No.	Voltage
Q500	B	1.5
	C	0
	E	2.1

Symbol	Pin No.	Voltage
Q501	B	1.5
	C	0
	E	2.1

Symbol	Pin No.	Voltage
Q502	B	0
	C	0
	E	0

Symbol	Pin No.	Voltage
Q503	B	0
	C	0
	E	0

Symbol	Pin No.	Voltage
QA01	B	2.1
	C	8.4
	E	1.5

Symbol	Pin No.	Voltage
QA02	B	8.4
	C	5.5
	E	9

Symbol	Pin No.	Voltage
QA03	B	2.2
	C	8.4
	E	1.5

Symbol	Pin No.	Voltage
QA04	B	8.4
	C	5.6
	E	9

Symbol	Pin No.	Voltage
QA05	B	0
	C	0
	E	0

Symbol	Pin No.	Voltage
QA06	B	0
	C	0
	E	0

Symbol	Pin No.	Voltage
QA07	B	0
	C	4.3
	E	0

Symbol	Pin No.	Voltage
QA08	B	0
	C	10.5
	E	0

Symbol	Pin No.	Voltage
QA13	B	31
	C	0
	E	31

Symbol	Pin No.	Voltage
QA14	B	0
	C	31
	E	0

Symbol	Pin No.	Voltage
QA15	B	0.7
	C	0
	E	0

Symbol	Pin No.	Voltage
QA18	B	3.4
	C	0
	E	3.4

Symbol	Pin No.	Voltage
QA19	B	0
	C	8.8
	E	0

Symbol	Pin No.	Voltage
QA20	B	8.8
	C	0
	E	8.8

Symbol	Pin No.	Voltage
QF01	B	0
	C	0
	E	0

Symbol	Pin No.	Voltage
QJ03	B	0.3
	C	1
	E	0

Symbol	Pin No.	Voltage
QJ04	B	0.3
	C	2
	E	0

Symbol	Pin No.	Voltage
Q901	B	0
	C	19.4
	E	0

Symbol	Pin No.	Voltage
Q942	B	0
	C	0.15
	E	0

Symbol	Pin No.	Voltage
Q943	B	0.8
	C	0
	E	0

Symbol	Pin No.	Voltage
Q944	B	0.8
	C	0.5
	E	0

Symbol	Pin No.	Voltage
Q982	A	5.8
	C	0
	G	0

Symbol	Pin No.	Voltage
Q7F0	B	8.2
	C	0
	E	7.6

Symbol	Pin No.	Voltage
Q7F1	B	8.2
	C	15.6
	E	7.6

DC VOLTAGE TABLES

Symbol	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
I001	1	5	30	0	59	0-5	88	0
	2	5	31	5	60	0-5	89	0
	3	NC	32	0	61	NC	90	0
	4	4.3	33	0	62	0	91	0
	5	0	34	5	63	0	92	NC
	6	2.5	35	2.5	64	0	93	NC
	7	0	36	0	65	0	94	0
	8	0	37	0-5	66	0	95	0
	9	NC	38	5	67	0	96	5
	10	NC	39	5	68	0	97	5
	11	5	40	0	69	5	98	5
	12	1.9	41	5	70	0	99	5
	13	0	42	5	71	0	100	NC
	14	2.1	43	5	72	0	101	6
	15	5	44	0	73	0	102	0
	16	5	45	0.5	74	0	103	0
	17	NC	46	5	75	NC	104	2.6
	18	5	47	5	76	0	105	5
	19	NC	48	5	77	0	106	5
	20	5	49	NC	78	0	107	0
	21	NC	50	NC	79	0	108	5
	22	0	51	NC	80	NC	109	2
	23	NC	52	NC	81	NC	110	5
	24	0	53	5	82	5	111	0
	25	NC	54	2.5	83	NC	112	5
	26	5	55	4.3 V	84	NC	113	2.6
	27	0	56	0	85	NC	114	0
	28	5	57	5	86	NC	115	2.3
	29	5	58	0-5	87	NC	116	5

Symbol	Pin No.	Voltage
I002	1	2.5
	2	2.7
	3	0.3
	4	5
	5	NC
	6	0
	7	5
	8	5

Symbol	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
I401	1	5.5	21	5.5	41	NC	61	NC
	2	9	22	0	42	0	62	0
	3	NC	23	5.5	43	NC	63	NC
	4	0	24	0	44	0	64	0
	5	NC	25	5.5	45	4	65	5.5
	6	0	26	0	46	4	66	0
	7	NC	27	5.5	47	9	67	5.5
	8	9	28	0	48	NC	68	0
	9	NC	29	5.5	49	NC	69	5.5
	10	0	30	0	50	3.8	70	9
	11	5.5	31	5.5	51	3.8	71	5.5
	12	0	32	0	52	3.8	72	0
	13	5.5	33	NC	53	9	73	5.5
	14	9	34	0	54	3.8	74	0
	15	5.5	35	NC	55	3.8	75	5.5
	16	3.7	36	0	56	3.8	76	9
	17	5.5	37	NC	57	9	77	5.5
	18	0	38	0	58	3.8	78	0
	19	5.5	39	NC	59	3.8	79	5.5
	20	0	40	0	60	3.8	80	0

Symbol	Pin No.	Voltage
I005	1	0
	2	0.5
	3	0.5
	4	0
	5	0
	6	0
	7	0
	8	3.4
	9	5
	10	0
	11	3.4
	12	5
	13	0
	14	3.3

Symbol	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
I501	1	4.5	10	4.5	19	4.5	28	NC
	2	4.5	11	NC	20	0	29	4.5
	3	4.5	12	NC	21	0	30	4.5
	4	4.5	13	NC	22	4	31	9
	5	4.5	14	NC	23	4	32	9
	6	4.5	15	4.5	24	0	33	NC
	7	4.5	16	4.5	25	4.5	34	NC
	8	4.5	17	4.5	26	4.5	35	4.5
	9	4.5	18	4.5	27	NC	36	4.5

Symbol	Pin No.	Voltage
I301	1	0
	2	10
	3	9.2
	4	9
	5	10

Symbol	Pin No.	Voltage
I004	1	5
	2	0
	3	1.3
	4	3.3
	5	5

Symbol	Pin No.	Voltage	Pin No.	Voltage
I602	1	0	5	3.3
	2	0	6	3.3
	3	0	7	0
	4	0	8	3.3

Symbol	Pin No.	Voltage
I302	1	2.9
	2	0
	3	1.3
	4	5
	5	0
	6	5.7

Symbol	Pin No.	Voltage
I903	1	27.3
	2	29.4
	3	0.65
	4	5.3

Symbol	Pin No.	Voltage	Pin No.	Voltage
I7A2	1	5.3	5	10.4
	2	5.3	6	10.4
	3	5.3	7	0
	4	0	8	15.6

Symbol	Pin No.	Voltage
I591	1	0
	2	3
	3	9
	4	9
	5	10

Symbol	Pin No.	Voltage	Pin No.	Voltage
U301	1	0	11	2.7
	2	5	12	3.8
	3	0	13	2.2
	4	32.4	14	0
	5	11.9	15	2.2
	6	0	16	2.2
	7	5	17	0
	8	3.8	18	5
	9	3.9	19	0
	10	4.2	20	5

Symbol	Pin No.	Voltage
I904	1	7.7
	2	6.7
	3	0
	4	2.1

Symbol	Pin No.	Voltage	Pin No.	Voltage
IA02	1	1.6	7	15
	2	0	8	5
	3	0	9	31
	4	0	10	0
	5	1.6	11	4.3
	6	10.5	12	14.4

Symbol	Pin No.	Voltage
I941	1	2.4
	2	0
	3	7.6

Symbol	Pin No.	Voltage
IF03	1	0
	2	3.3
	3	10.2
	4	9
	5	16

Symbol	Pin No.	Voltage
I905	1	19.2
	2	19.4
	3	0
	4	5

Symbol	Pin No.	Voltage	Pin No.	Voltage
I7K1	1	6.2	5	6.7
	2	6.7	6	6.7
	3	0	7	6.2
	4	0	8	15.7

Symbol	Pin No.	Voltage	Pin No.	Voltage
I7K3	1	6.2	5	9.5
	2	6.7	6	9.5
	3	0	7	10
	4	0	8	15.6

Symbol	Pin No.	Voltage
I942	1	7.7
	2	0
	3	5

Symbol	Pin No.	Voltage	Pin No.	Voltage
I901	1	0	5	141
	2	17.4	6	NC
	3	0	7	148
	4	2.2	8	148

Symbol	Pin No.	Voltage
I603	1	0
	2	0
	3	0
	4	3.3
	5	0

Symbol	Pin No.	Voltage
I802	1	3.3
	2	3.8
	3	0
	4	1.8
	5	1.8

Symbol	Pin No.	Voltage
I906	1	8.6
	2	7.6
	3	0
	4	2.1

Symbol	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
I700	1	0	17	0.3	33	0.7	49	1.3
	2	0	18	0.3	34	0.7	50	1.3
	3	3.3	19	0.4	35	0.9	51	1.3
	4	3.3	20	0.8	36	0.9	52	1.3
	5	3.3	21	0.8	37	0.9	53	3.3
	6	0	22	2.5	38	0.9	54	1.3
	7	0.8	23	3.3	39	0.9	55	1.3
	8	0.8	24	3.3	40	0.9	56	1.3
	9	0.9	25	3.3	41	0.9	57	1.3
	10	1	26	0.5	42	1	58	0
	11	1	27	0.6	43	1	59	1.3
	12	1	28	0.7	44	0	60	1.3
	13	1	29	0.5	45	1	61	1.3
	14	0	30	0	46	1	62	1.3
	15	0.3	31	1.7	47	1	63	0
	16	0	32	0.7	48	3.3	64	3.3

Symbol	Pin No.	Voltage
I800	1	3.3
	2	16.5
	3	0
	4	15.7
	5	1

Symbol	Pin No.	Voltage
I803	1	3.3
	2	5.7
	3	0
	4	3.3
	5	3.3

Symbol	Pin No.	Voltage
IF02	1	0
	2	3.3
	3	12
	4	9
	5	16

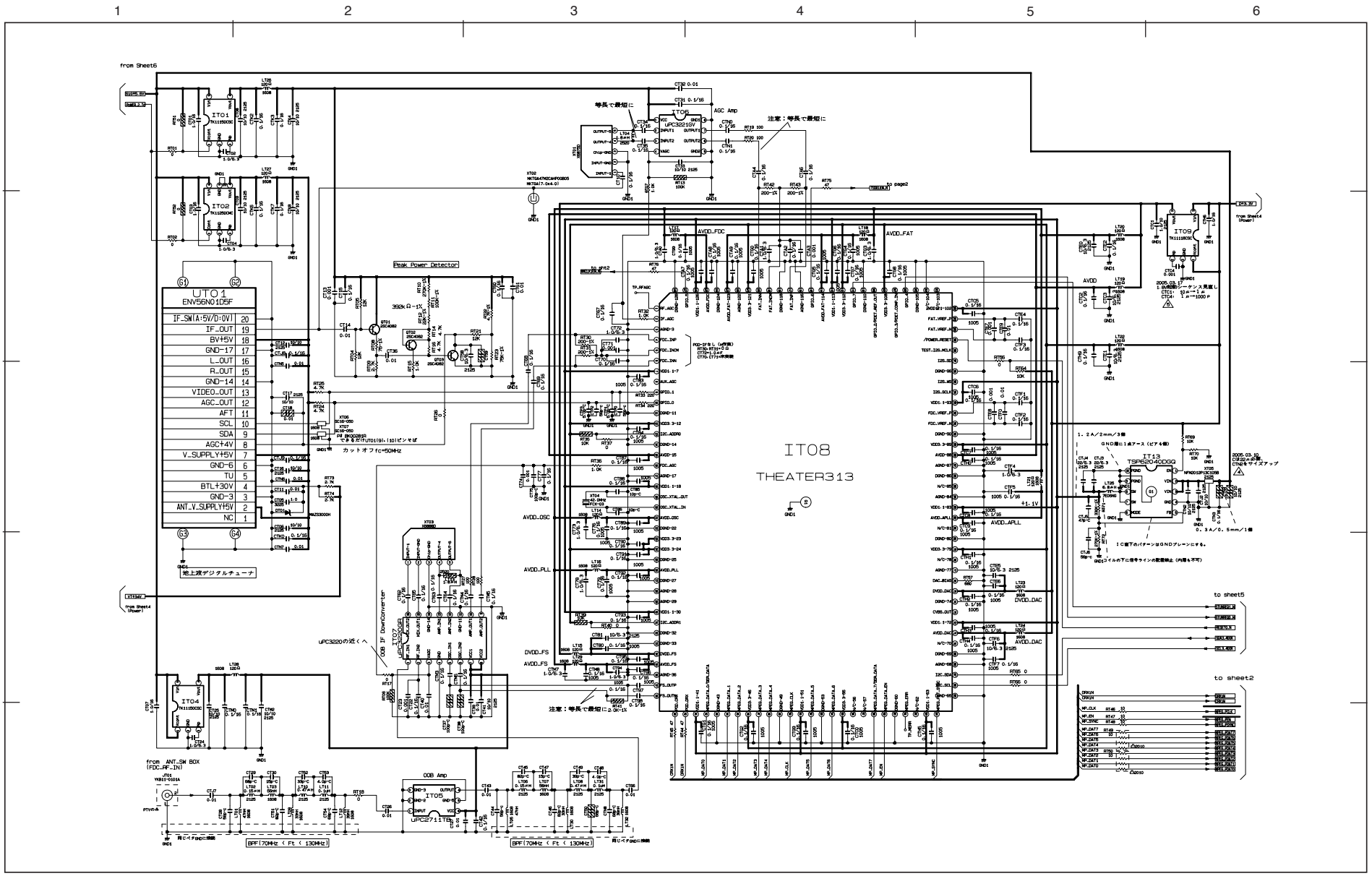
Symbol	Pin No.	Voltage
I801	1	3.3
	2	5.6
	3	0
	4	3.9
	5	1

Symbol	Pin No.	Voltage
I804	1	5.7
	2	5
	3	5.7
	4	3.3
	5	0
	6	0
	7	3.3
	8	3.3

Symbol	Pin No.	Voltage
I808	1	3.3
	2	5.7
	3	0
	4	3.3
	5	3.3

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM



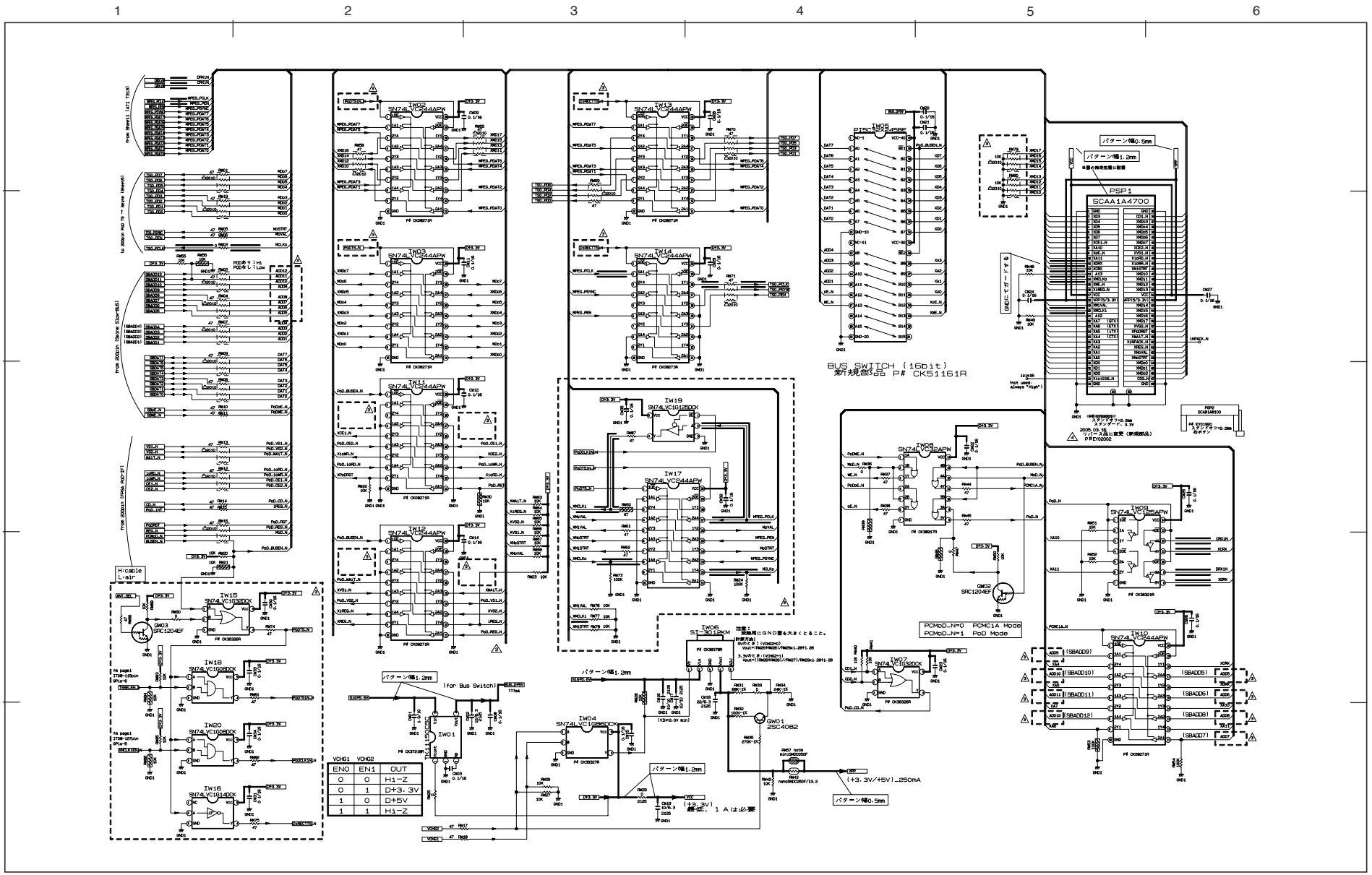
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

TUNER

TABLE OF CONTENTS

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

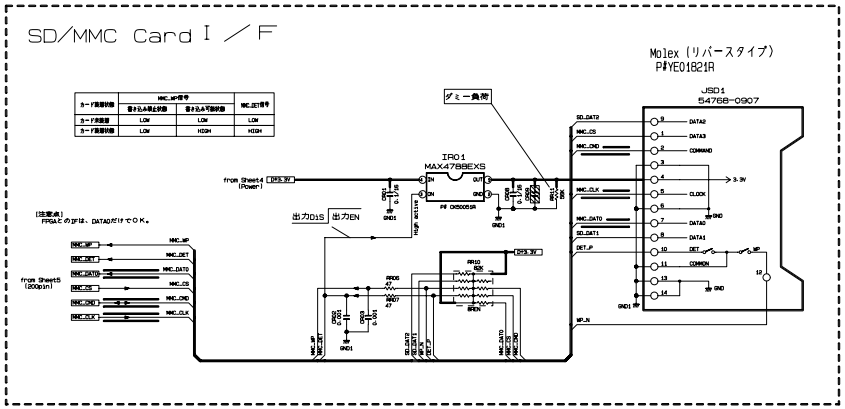


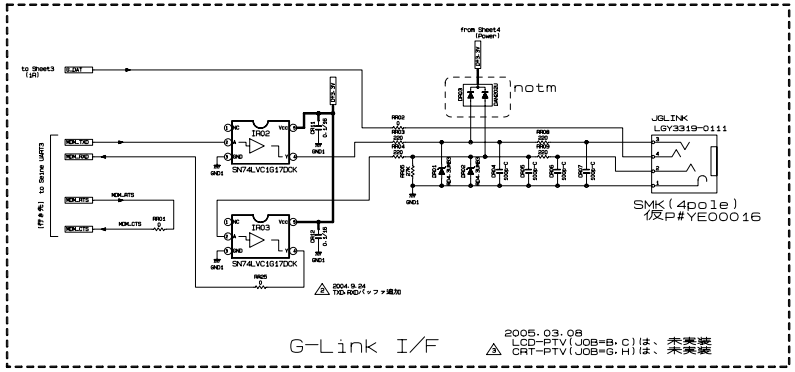
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

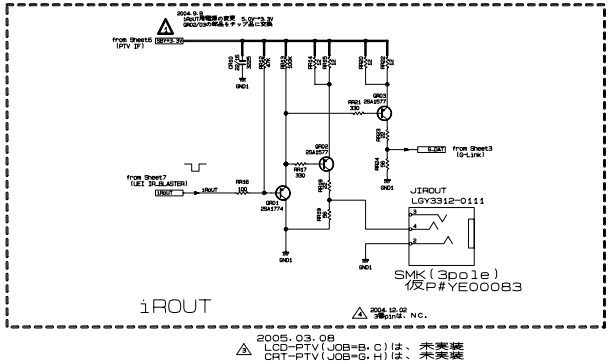
POD-IF

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM





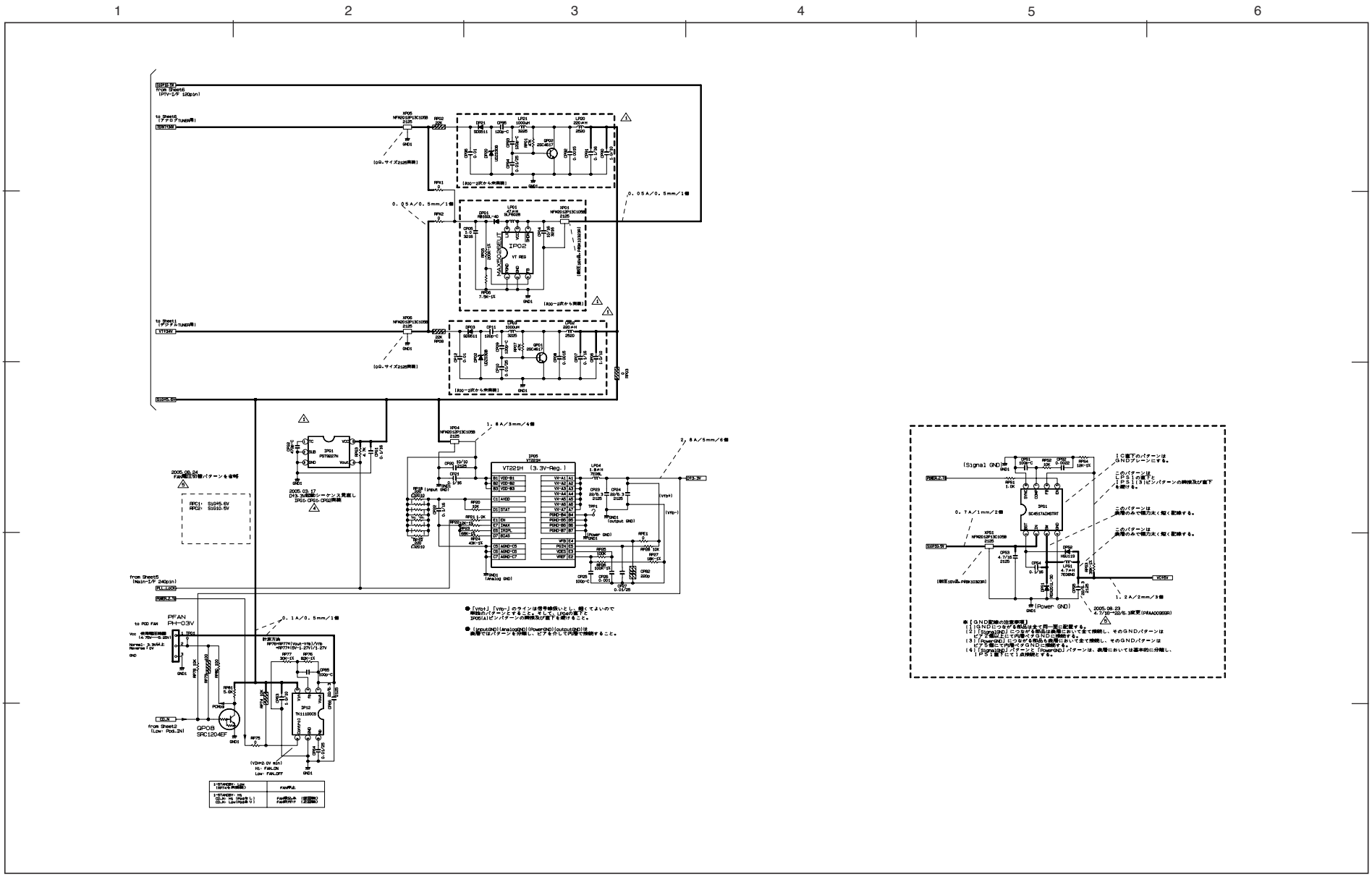


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

SD G-LINK □

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

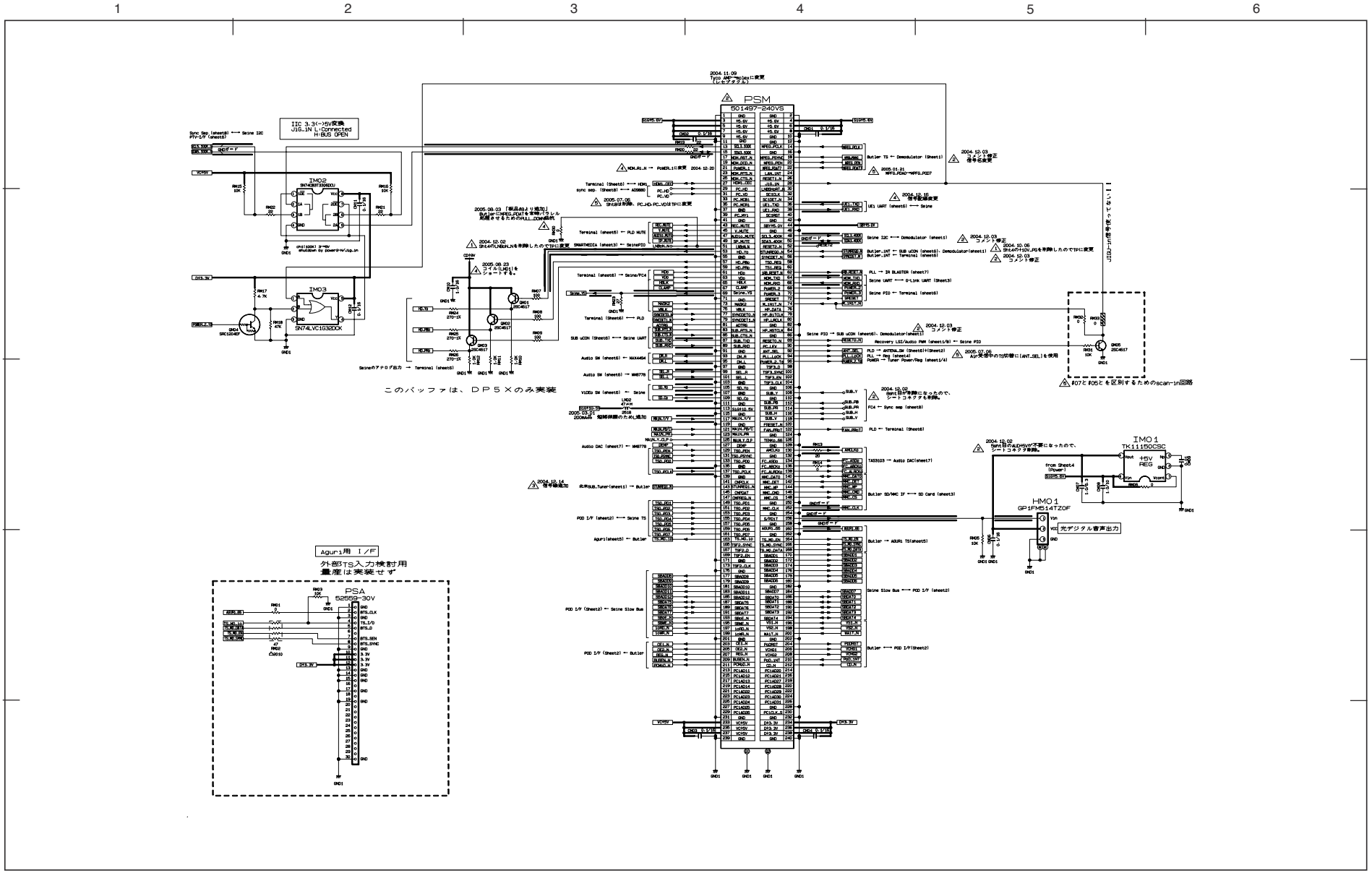


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

POWER I/F

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

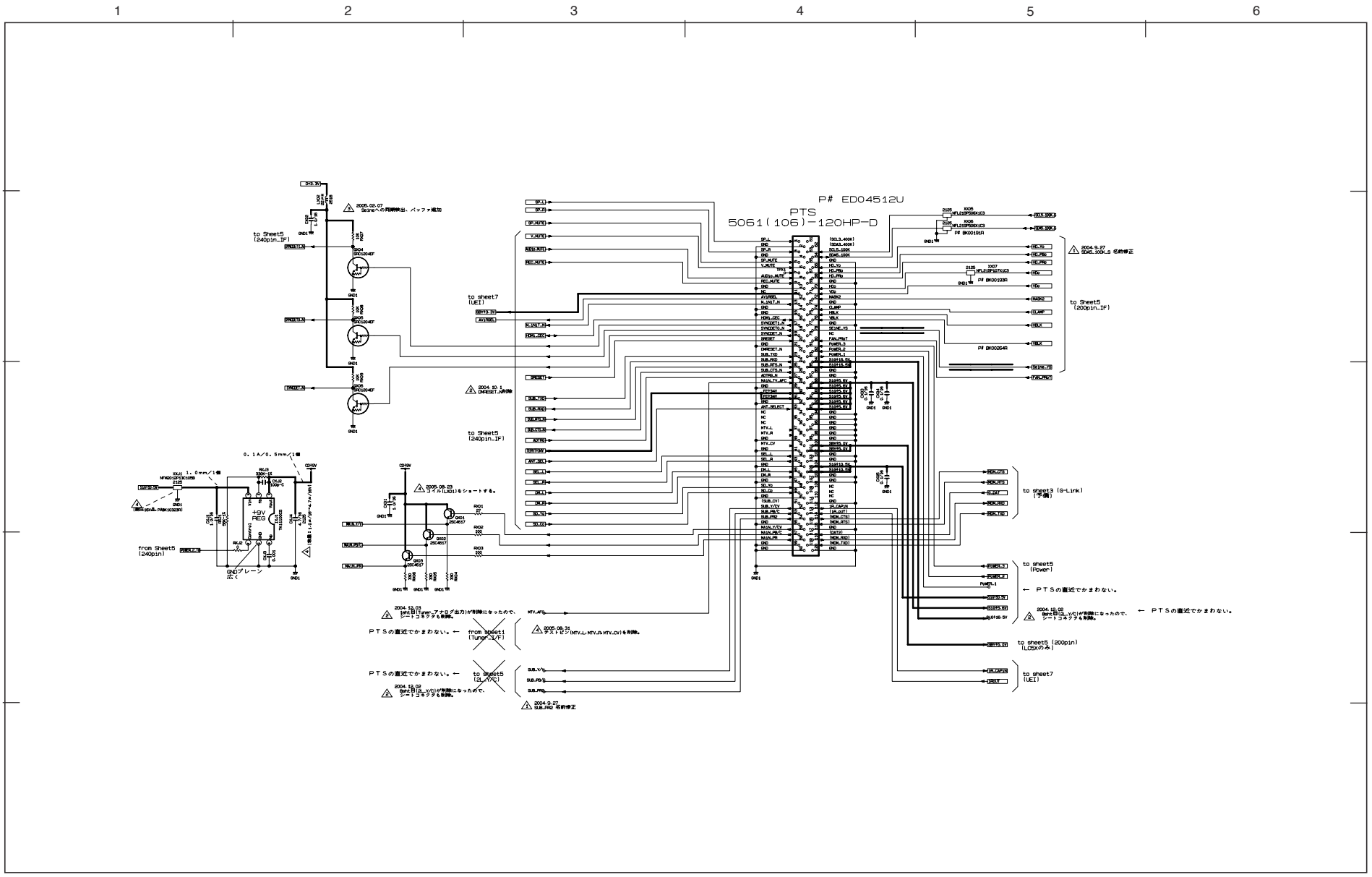


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

240 PIN I/F

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

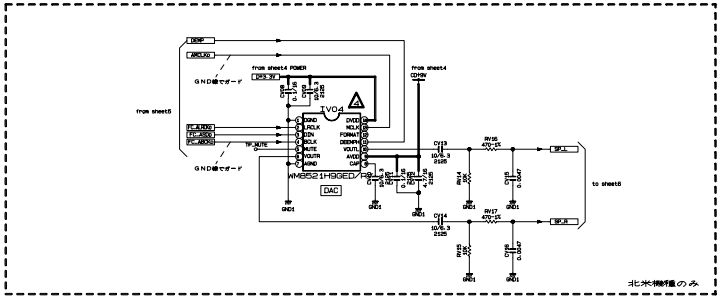


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

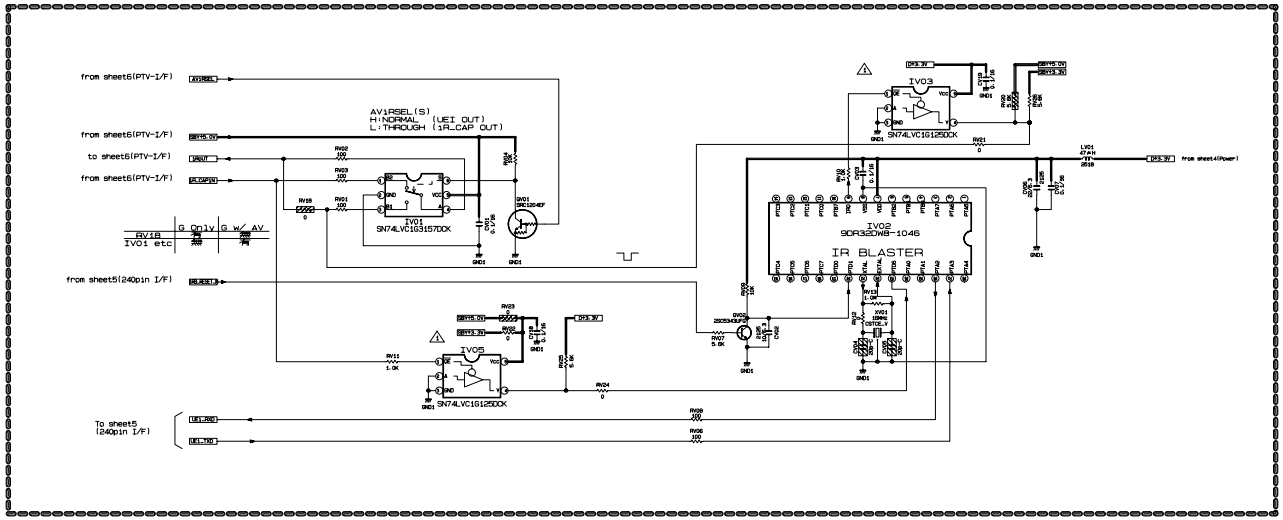
SIGNAL I/F

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM



2005.03.08
LCD-PTV(JOB=B,C)は、未実装
CRT-PTV(JOB=G,H)は、未実装

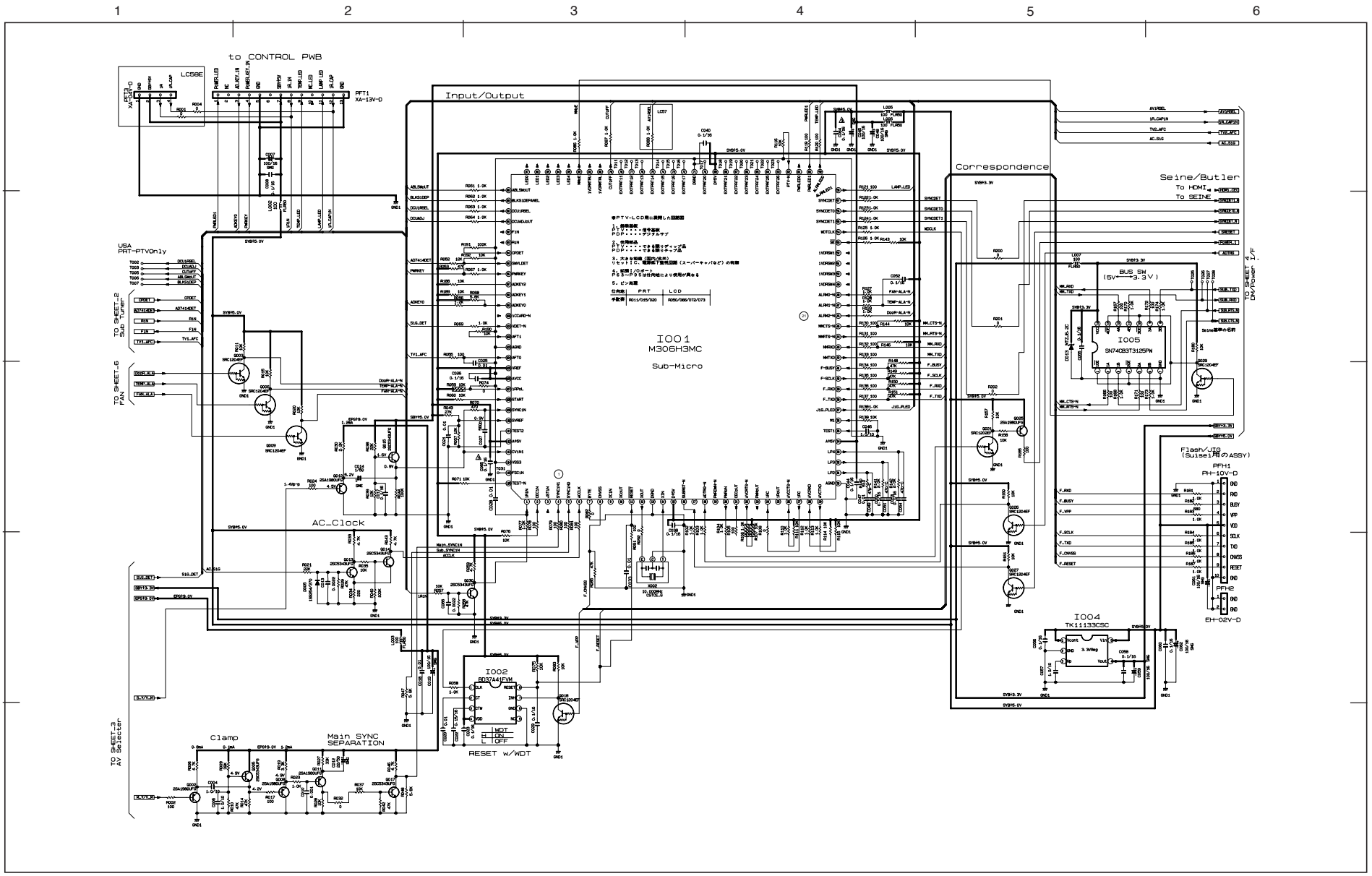


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

UEI

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM



- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

SUB MICRO

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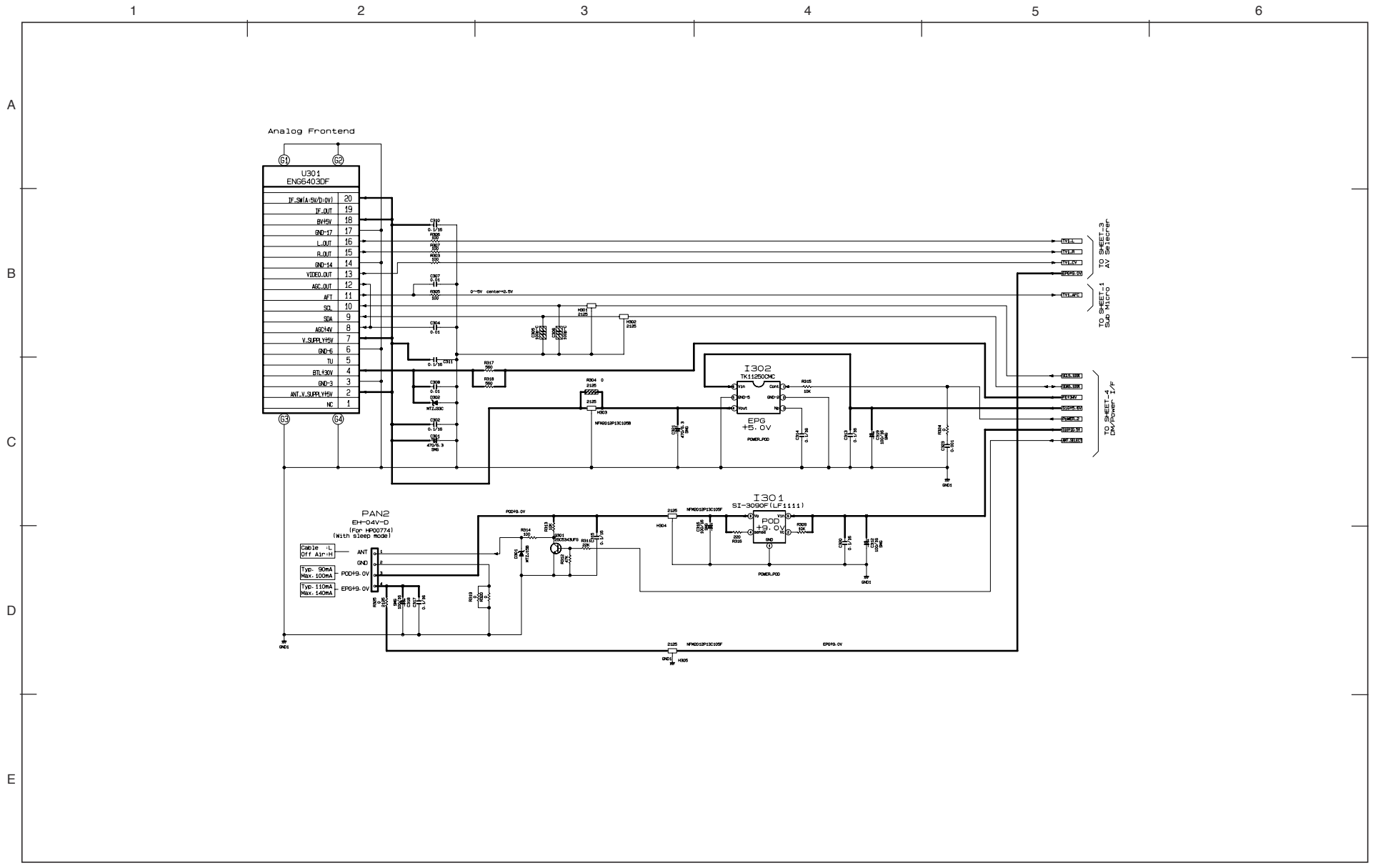
PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

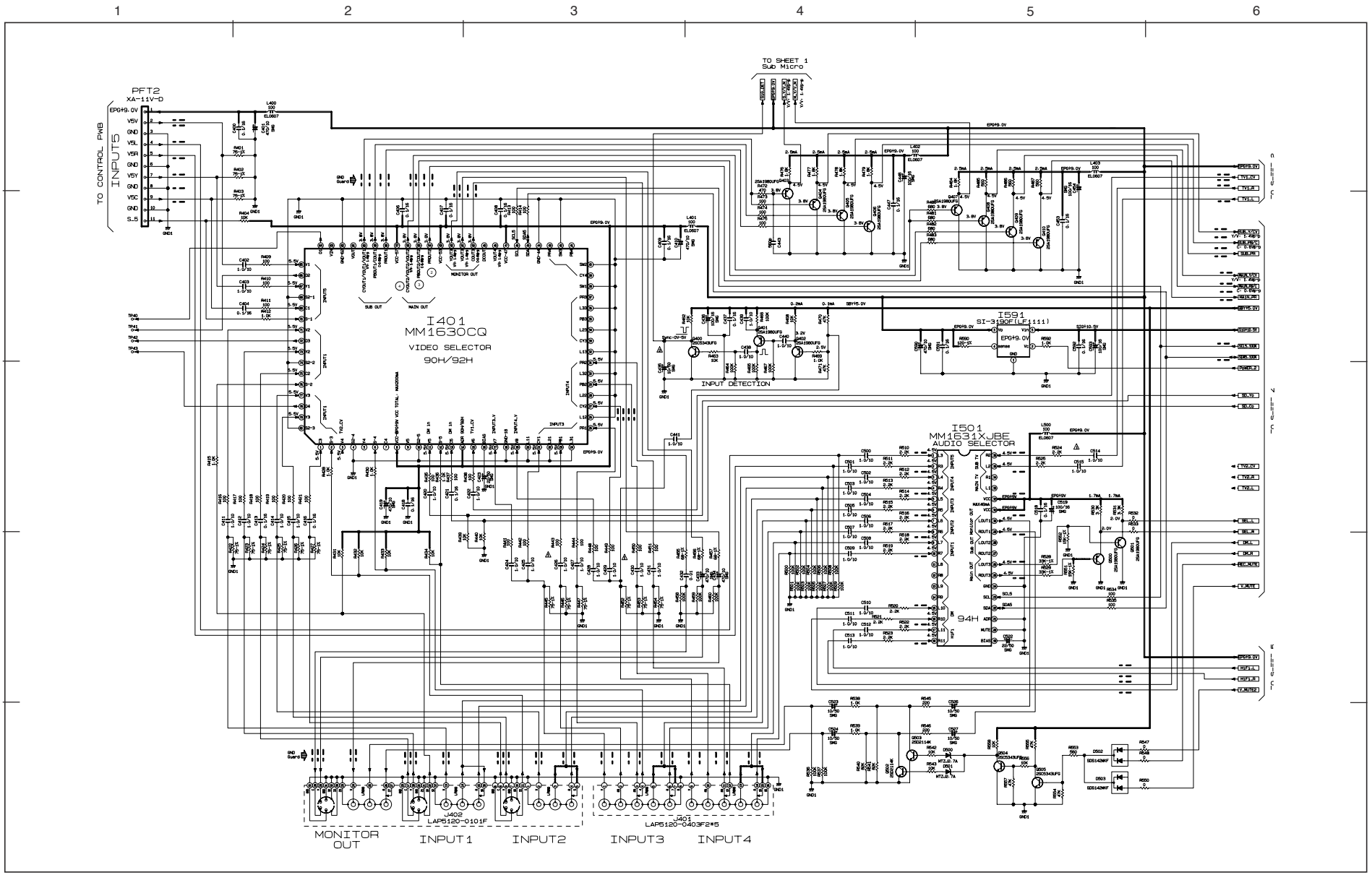


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

TUNER

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

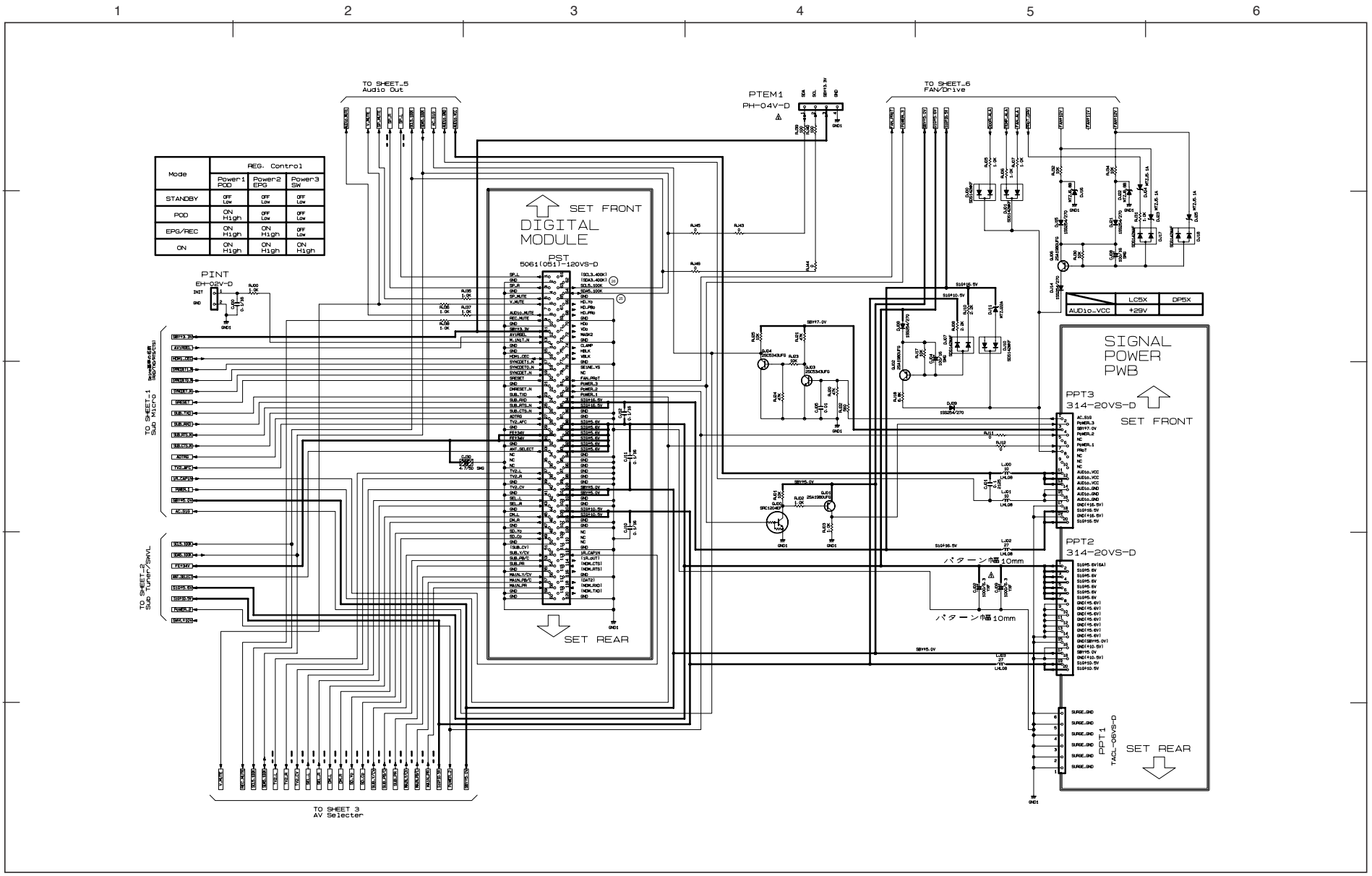


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

AV SELECTOR

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM



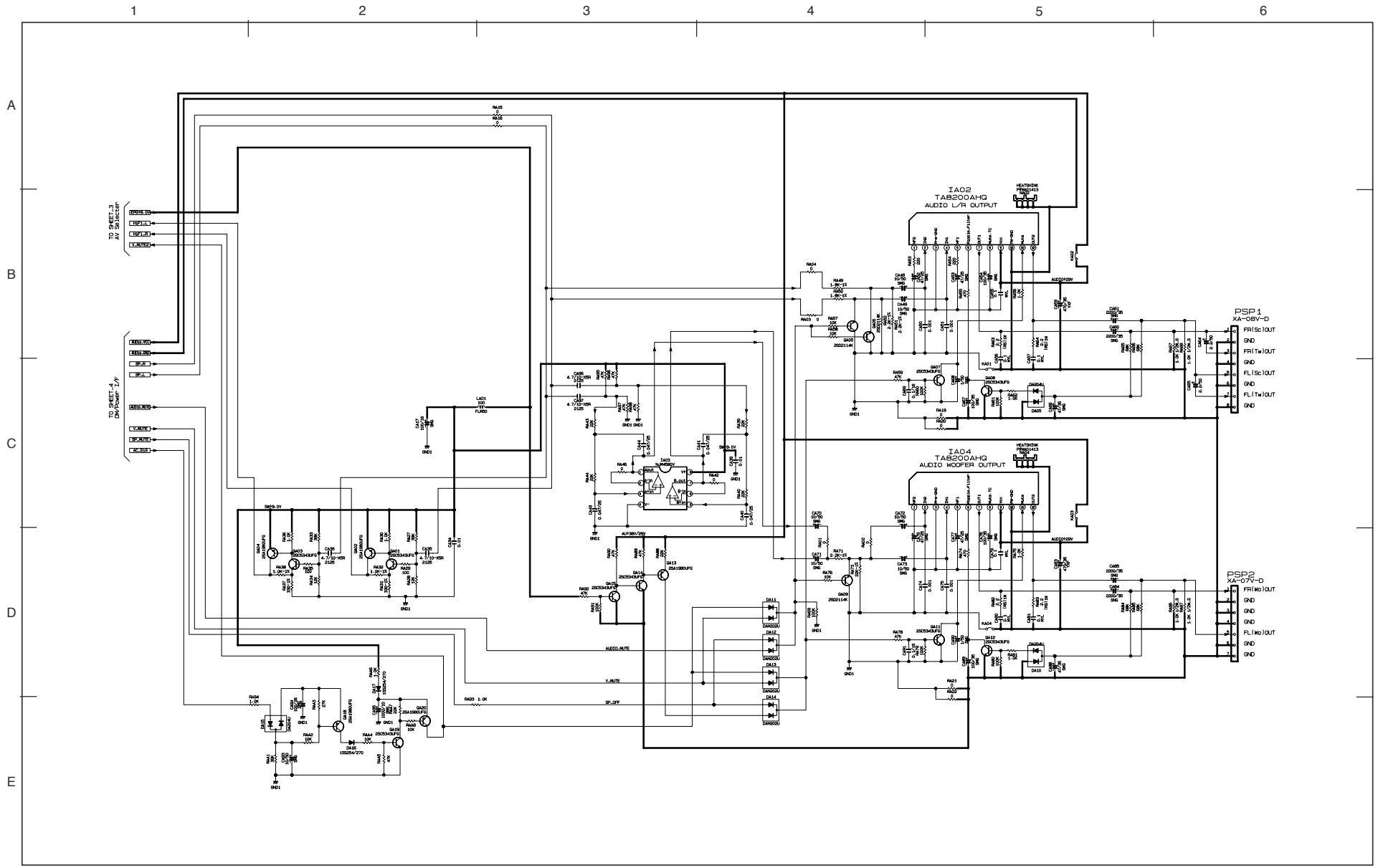
Mode	REG. Control		
	Power1 POD	Power2 EPG	Power3 SW
STANDBY	OFF Low	OFF Low	OFF Low
POD	ON High	OFF Low	OFF Low
EPG/REC	ON High	ON High	OFF Low
ON	ON High	ON High	ON High

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DM/POWER I/F

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

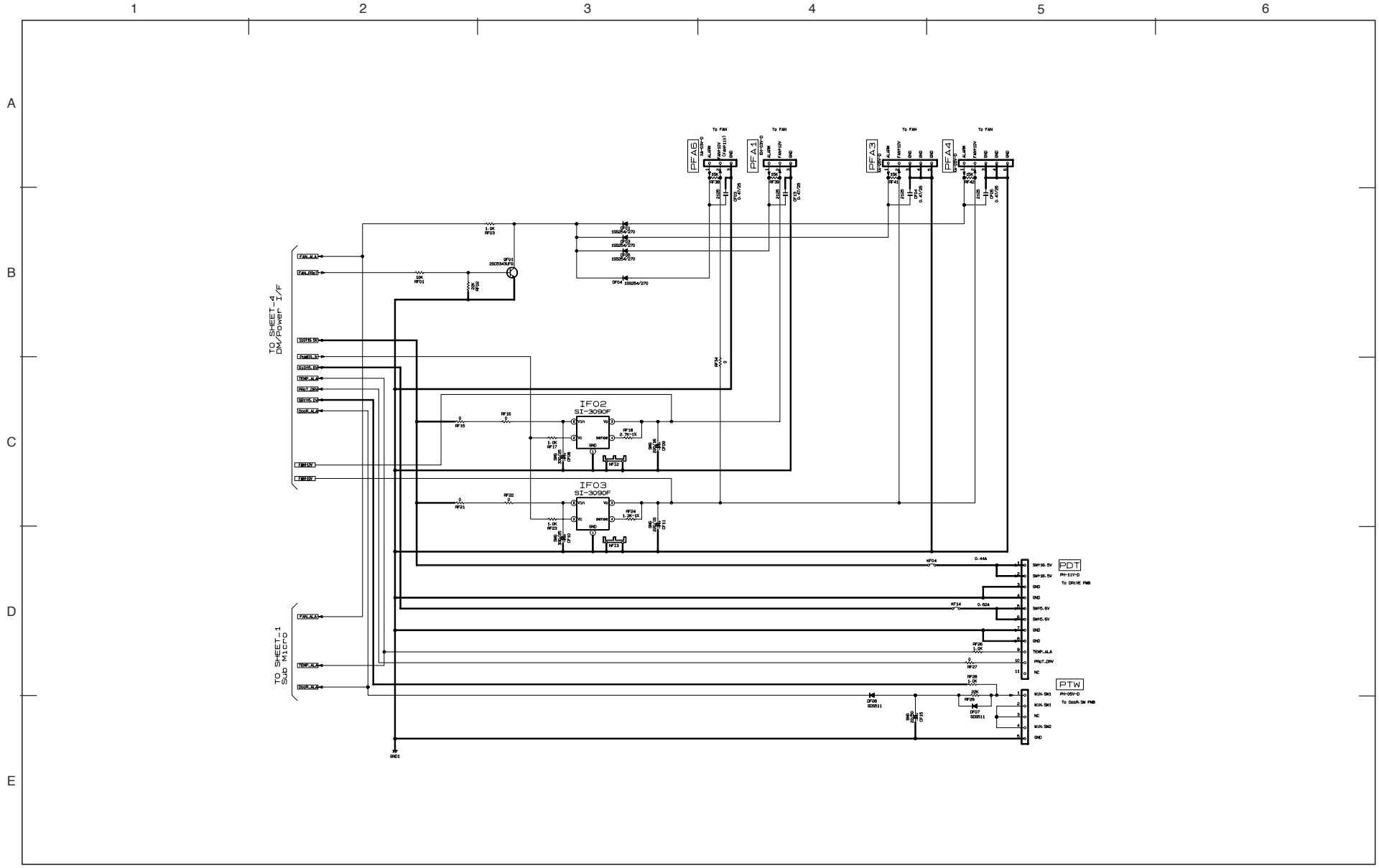


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

AUDIO

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

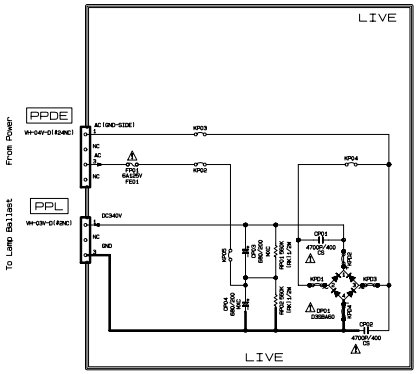


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

FAN

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

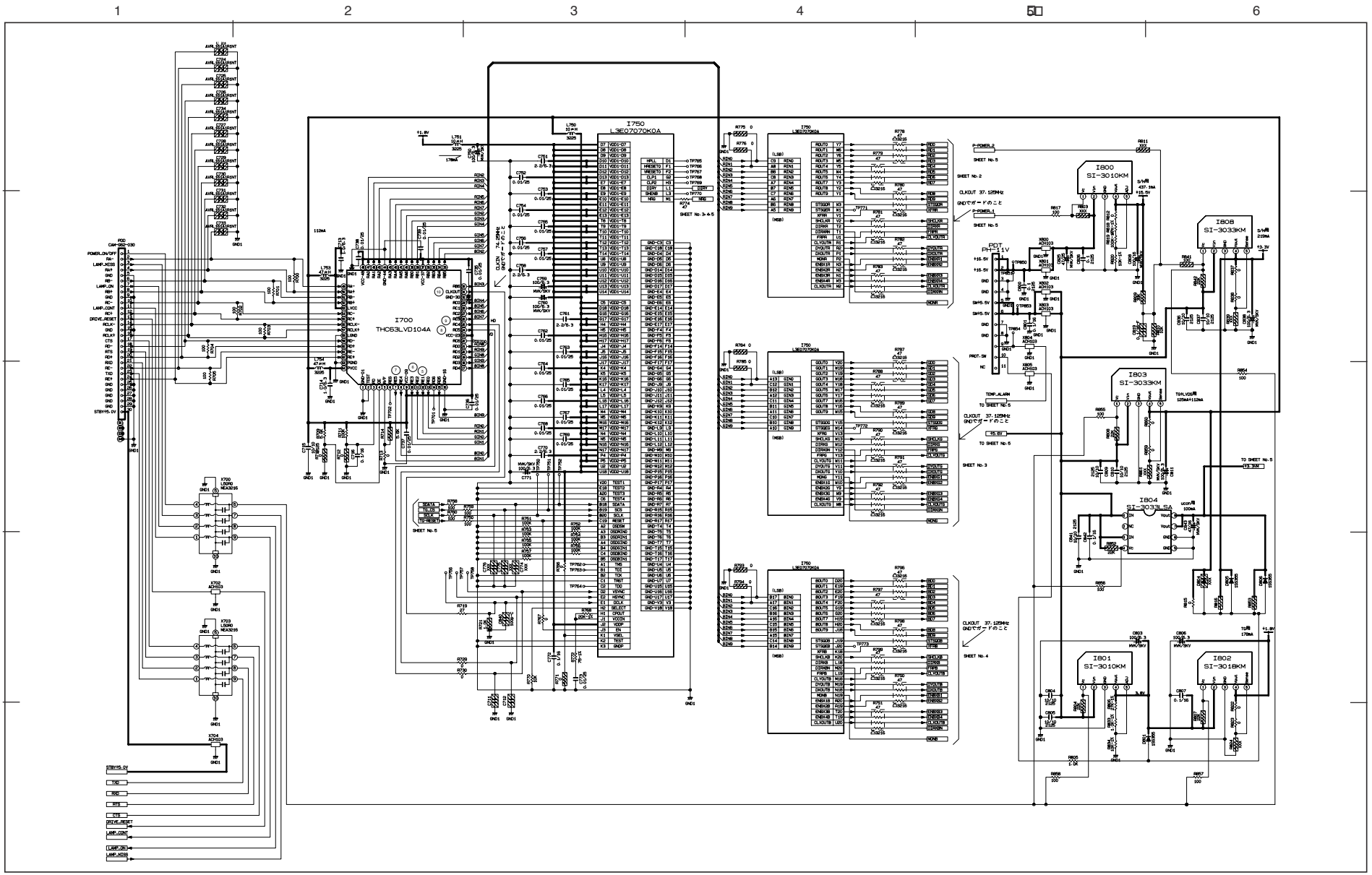


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

LAMP POWER

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM



- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DRIVE

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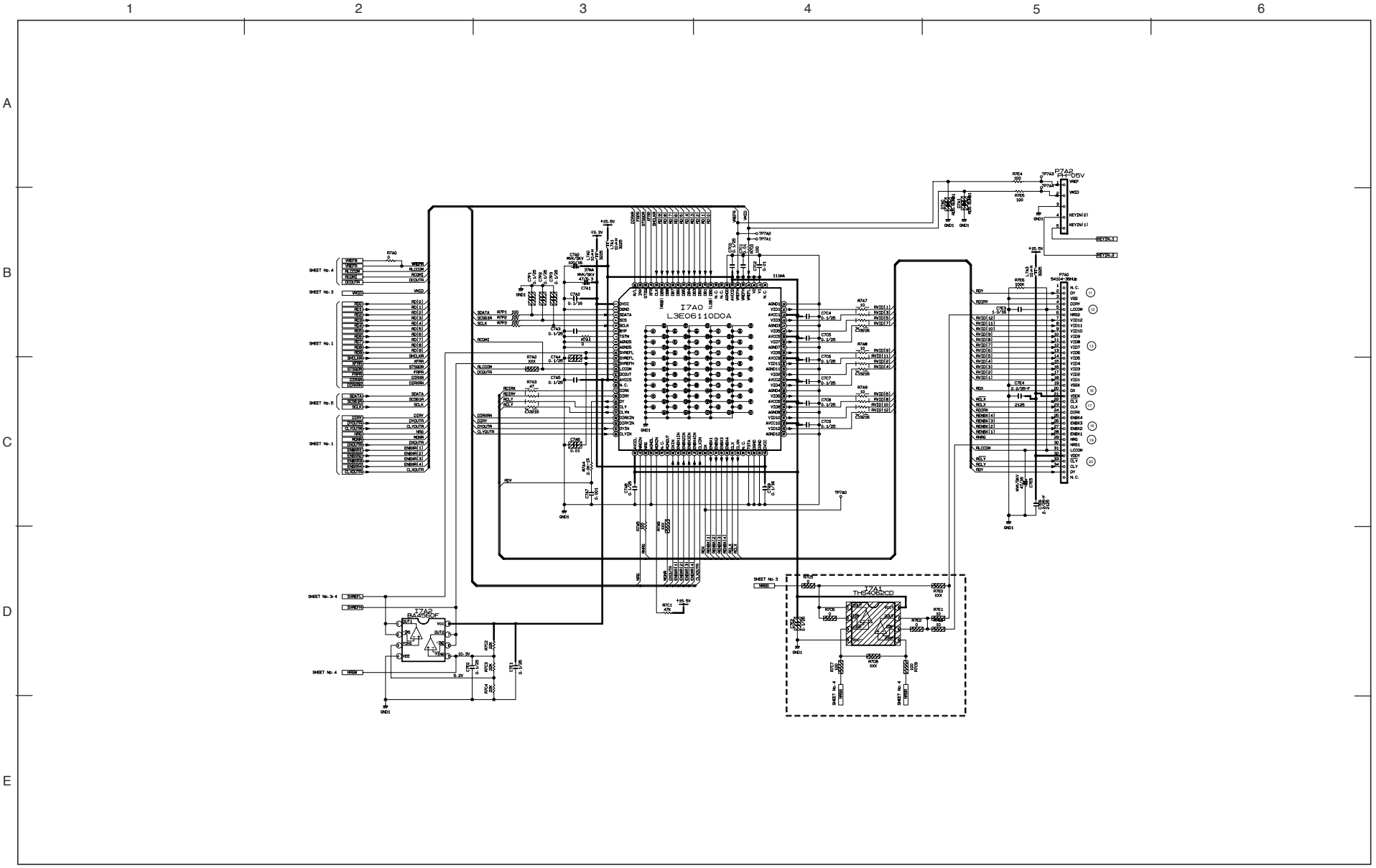
BASIC CIRCUIT DIAGRAM

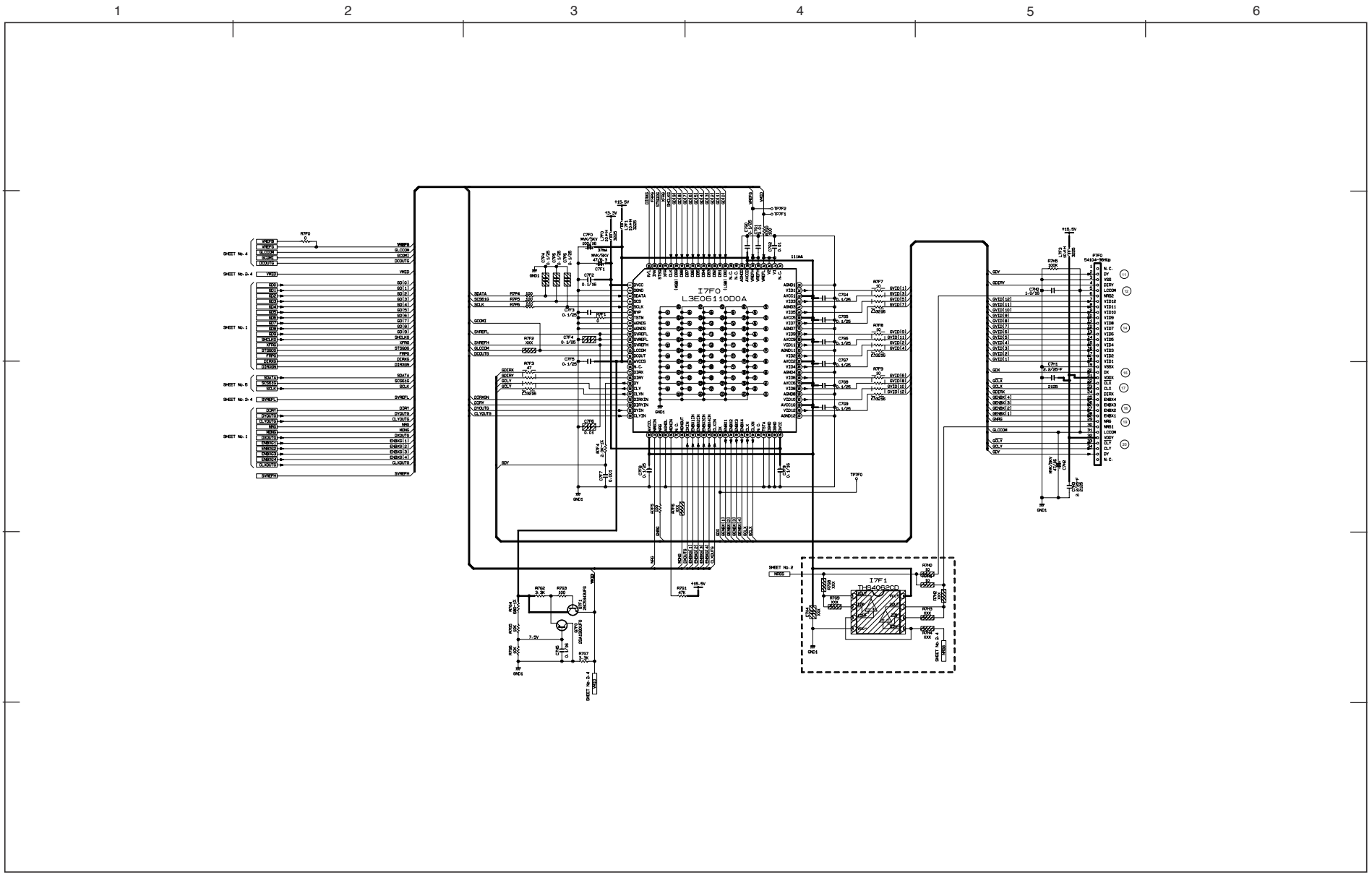


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DRIVE R OUTPUT

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

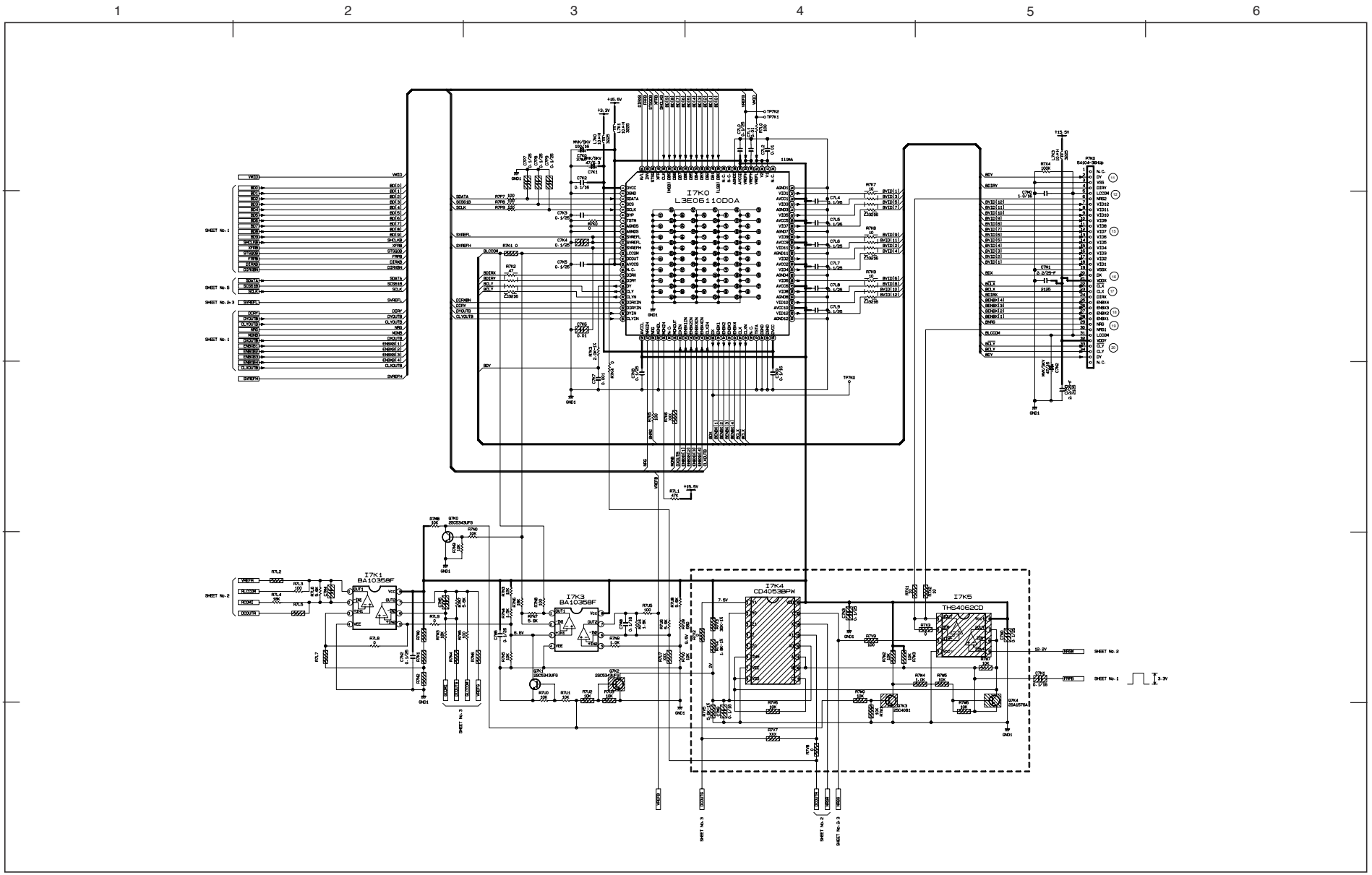


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DRIVE G OUTPUT

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

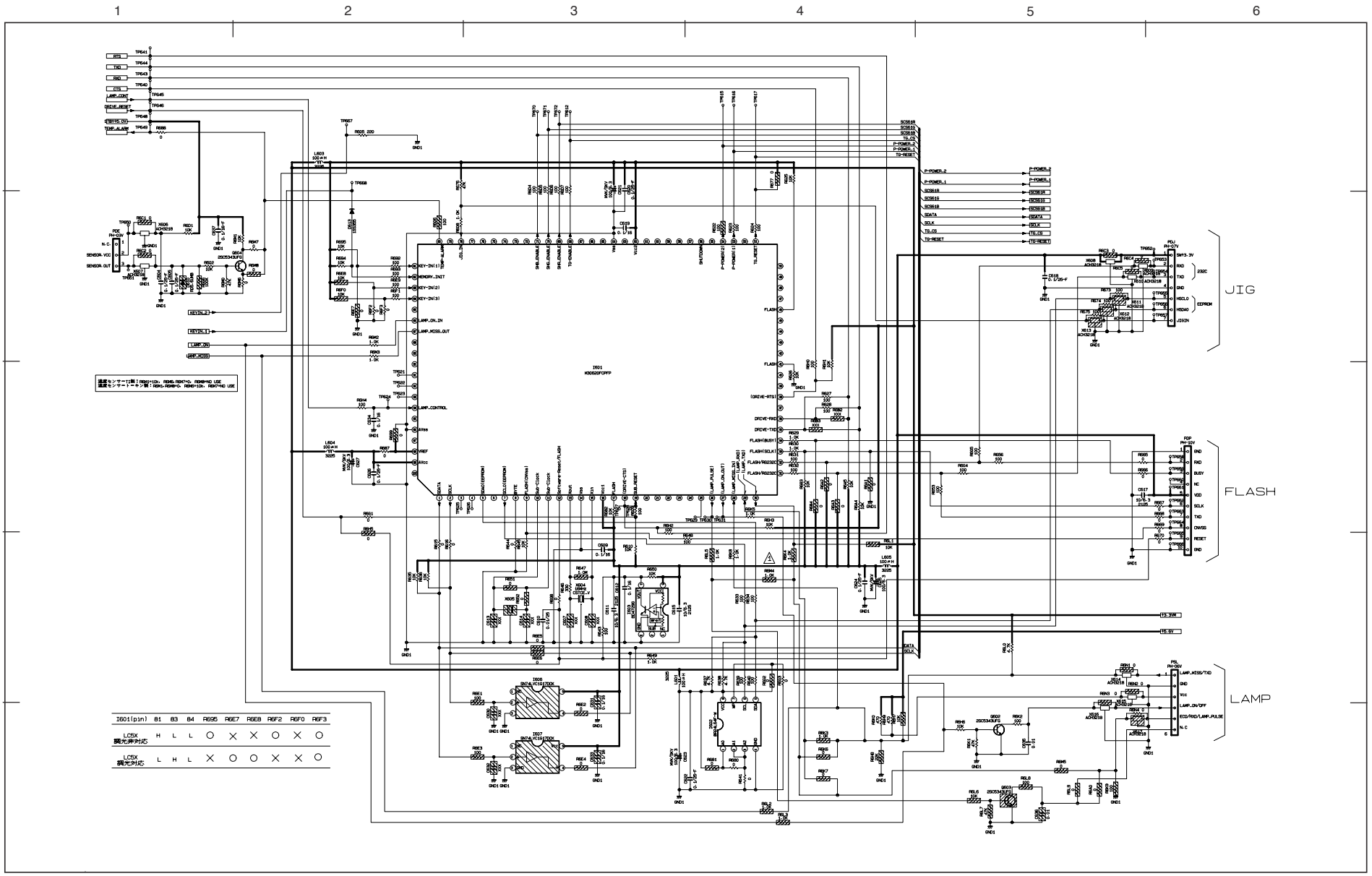


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DRIVE B OUTPUT

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

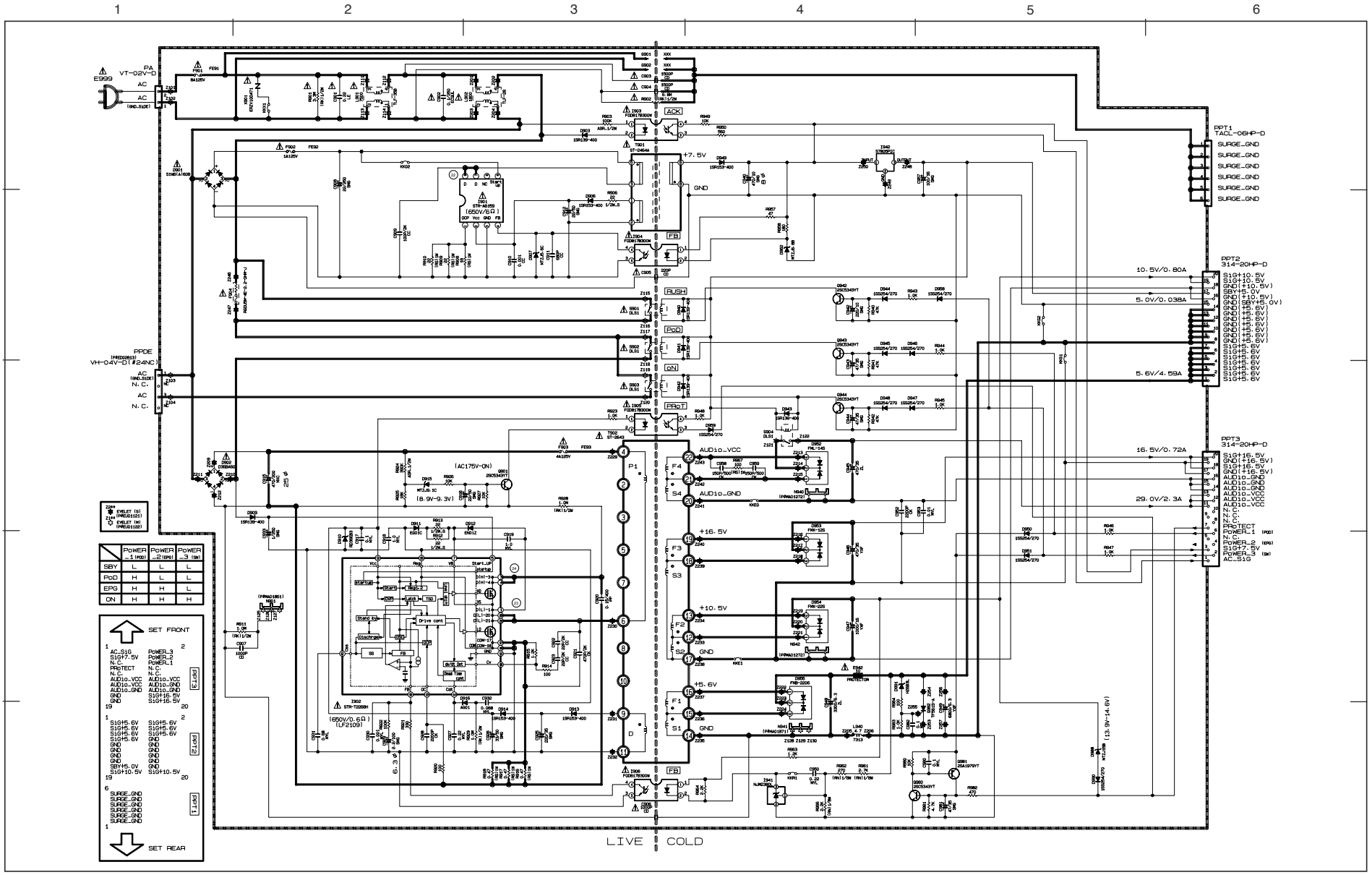


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DRIVE

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM

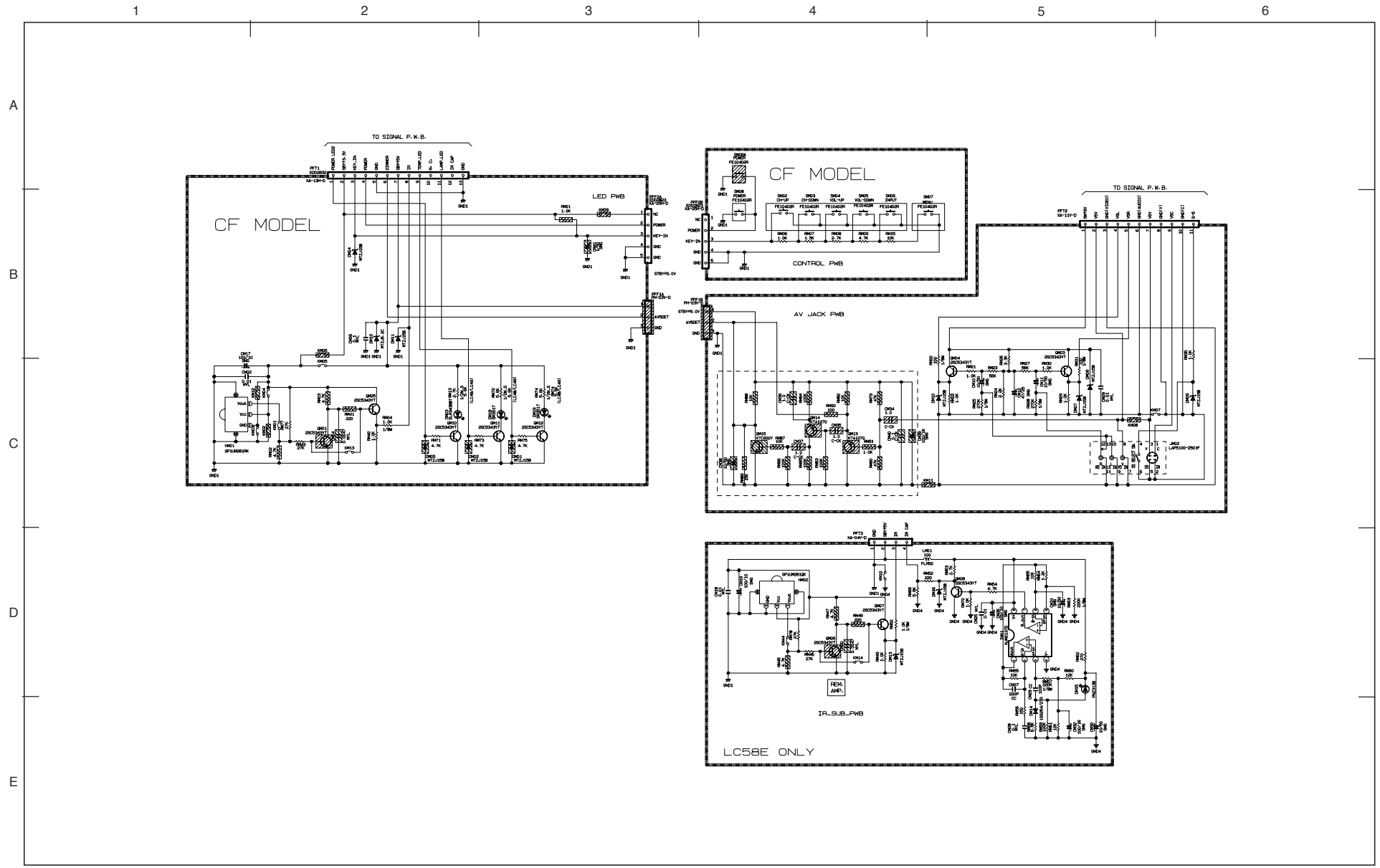


- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

POWER

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM



- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

CONTROL

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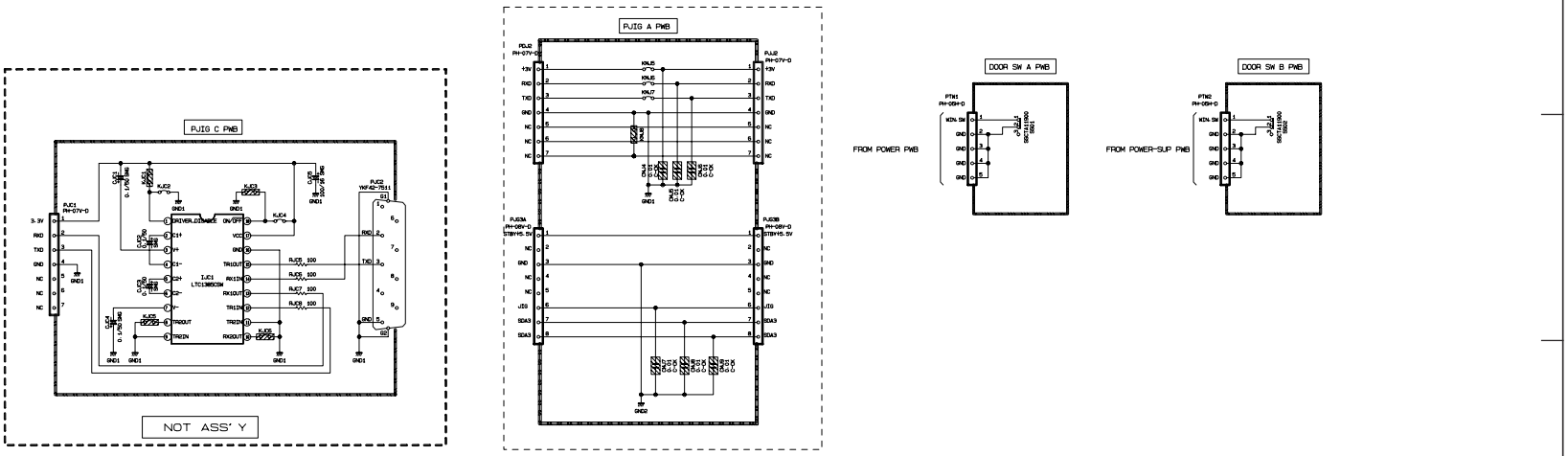
BASIC CIRCUIT DIAGRAM



- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

CONTROL

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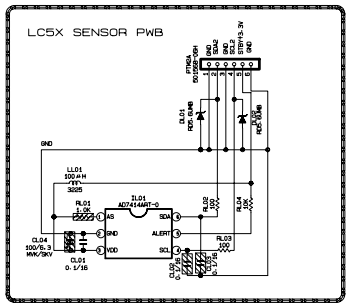
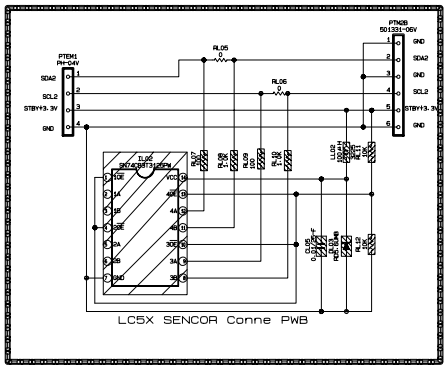
BASIC CIRCUIT DIAGRAM





- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

SENSOR

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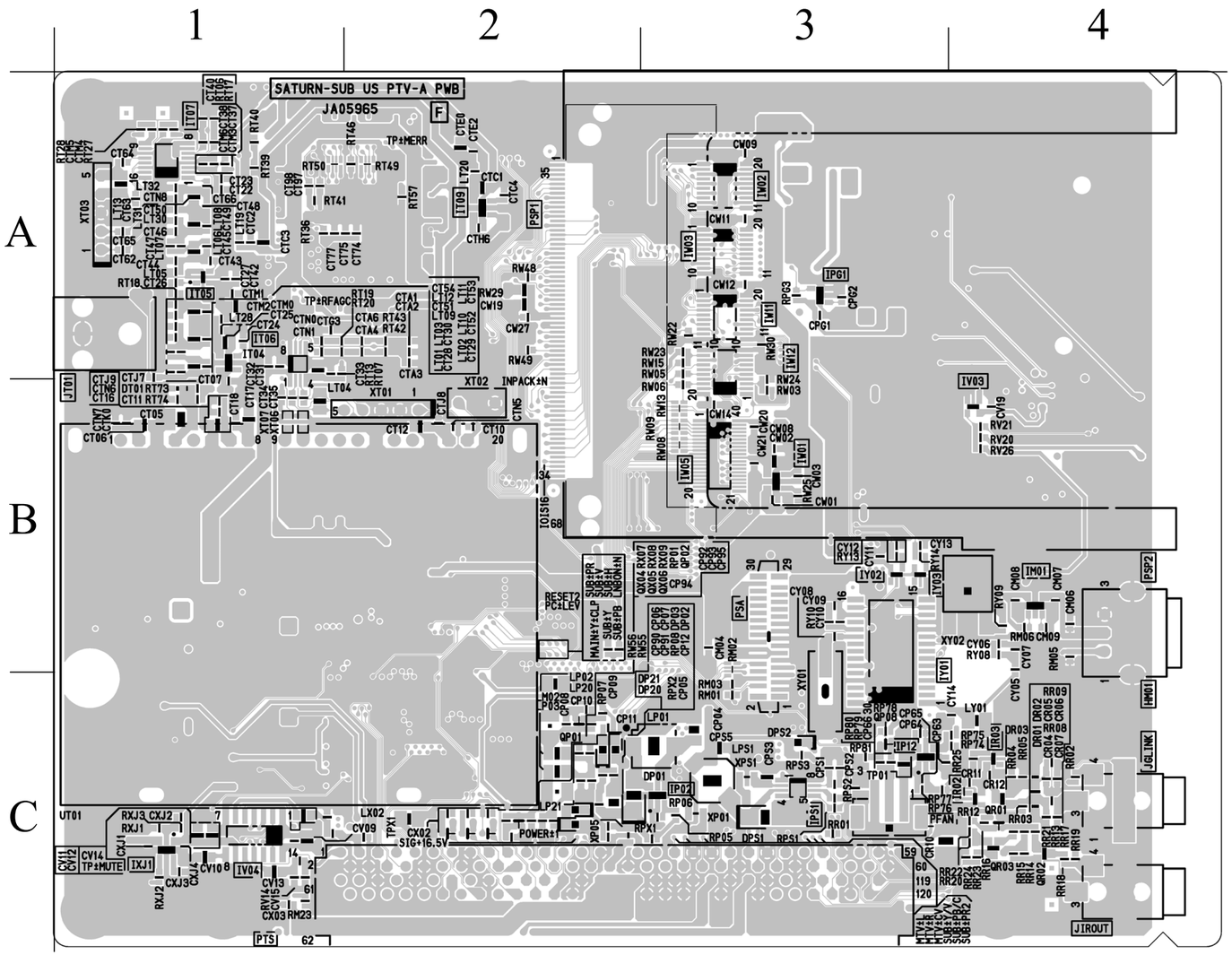
PRINTED CIRCUIT BOARDS

LC57 SUBDIGITAL PWB (Component side)



SUBDIGITAL PWB SEMICONDUCTOR LOCATION
(Component side)

IC	
IM01	B-4
IP02	C-3
IP12	C-3
IPG1	A-3
IPS1	C-3
IR02	C-4
IR03	C-4
IT04	A-1
IT05	A-1
IT06	A-1
IT07	A-1
IT09	A-2
IV03	B-4
IV04	C-1
IW01	B-3
IW02	A-3
IW03	A-3
IW05	B-3
IW11	A-3
IW12	A-3
IXJ1	C-1
IY01	B-3
IY02	B-3
IY03	B-3

TRANSISTOR	
QP01	C-2
QP02	C-2
QP08	C-3
QR01	C-4
QR02	C-4
QR03	C-4
QX04	C-2
QX05	C-2
QX06	C-2

DIODE	
DP01	C-2
DP02	C-2
DP03	C-2
DP20	C-2
DP21	C-2
DPS1	C-3
DPS2	C-3
DR01	C-4
DR02	C-4
DR03	C-4
DT01	B-1

CRYSTAL & FILTER	
XP01	C-3
XP05	C-2
XPS1	C-3
XT01	B-2
XT02	B-2
XT03	A-1
XT06	B-1
XT07	B-1
XY01	C-3
XY02	B-4

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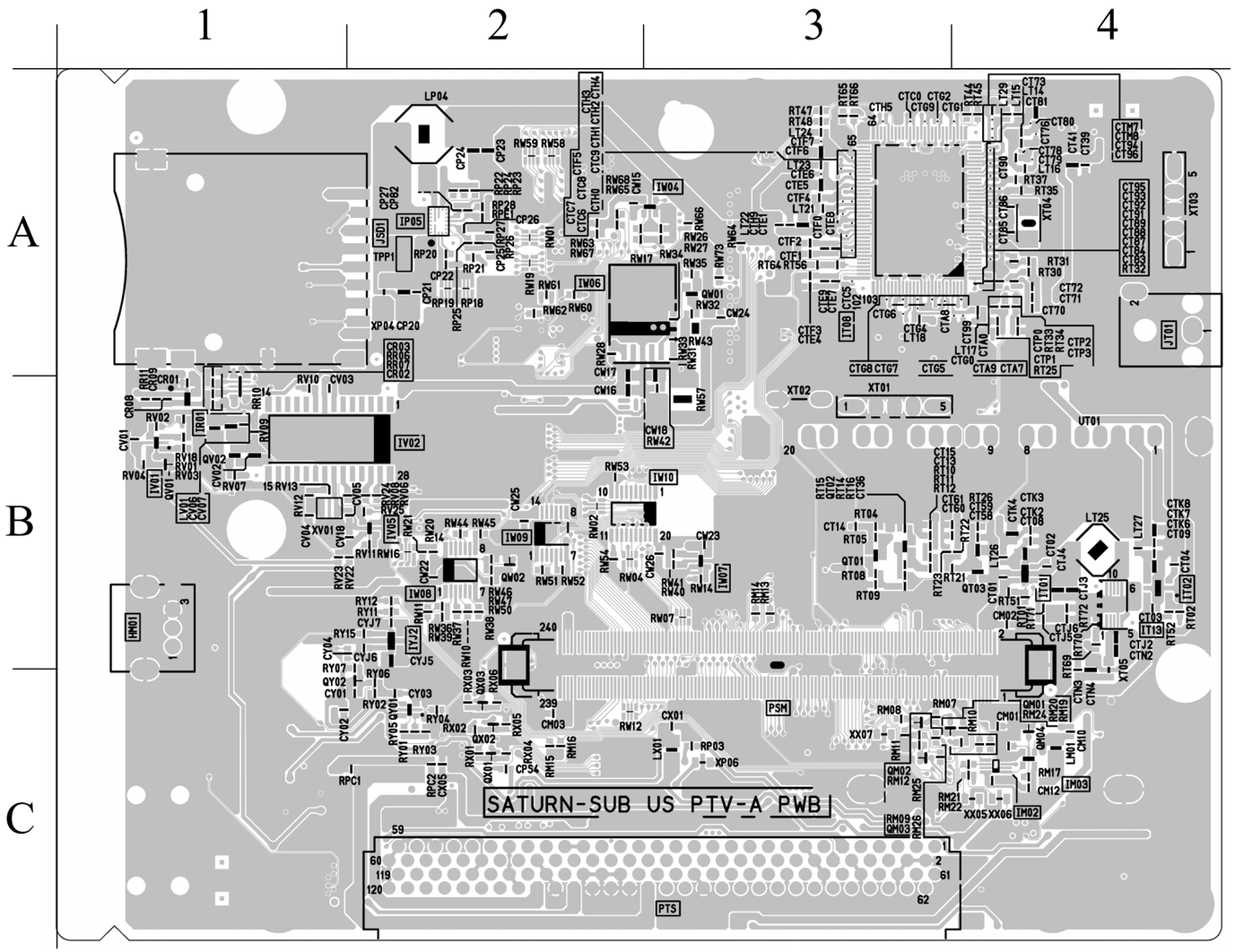
PRINTED CIRCUIT BOARDS

LC57 SUBDIGITAL PWB (Solder side)



SUBDIGITAL PWB SEMICONDUCTOR LOCATION
(Solder side)

IC	
IM02	C-4
IM03	C-4
IP05	A-2
IR01	B-1
IT01	B-4
IT02	B-4
IT08	A-3
IT13	B-4
IV01	B-1
IV02	B-1
IV05	B-2
IW04	A-3
IW06	A-3
IW07	B-3
IW08	B-2
IW09	B-2
IW10	B-2
IYJ2	B-2

TRANSISTOR	
QM01	C-4
QM02	C-3
QM03	C-3
QM04	C-4
QT01	B-3
QT02	B-3
QT03	B-4
QV01	B-1
QV02	B-1
QW01	A-3
QW02	B-2
QX01	C-2
QX02	C-2
QX03	C-2
QY01	C-2
QY02	C-2

CRYSTAL & FILTER	
XP04	A-2
XP06	C-3
XT04	A-4
XT05	B-4
XV01	B-1
XX05	C-4
XX06	C-4
XX07	C-3

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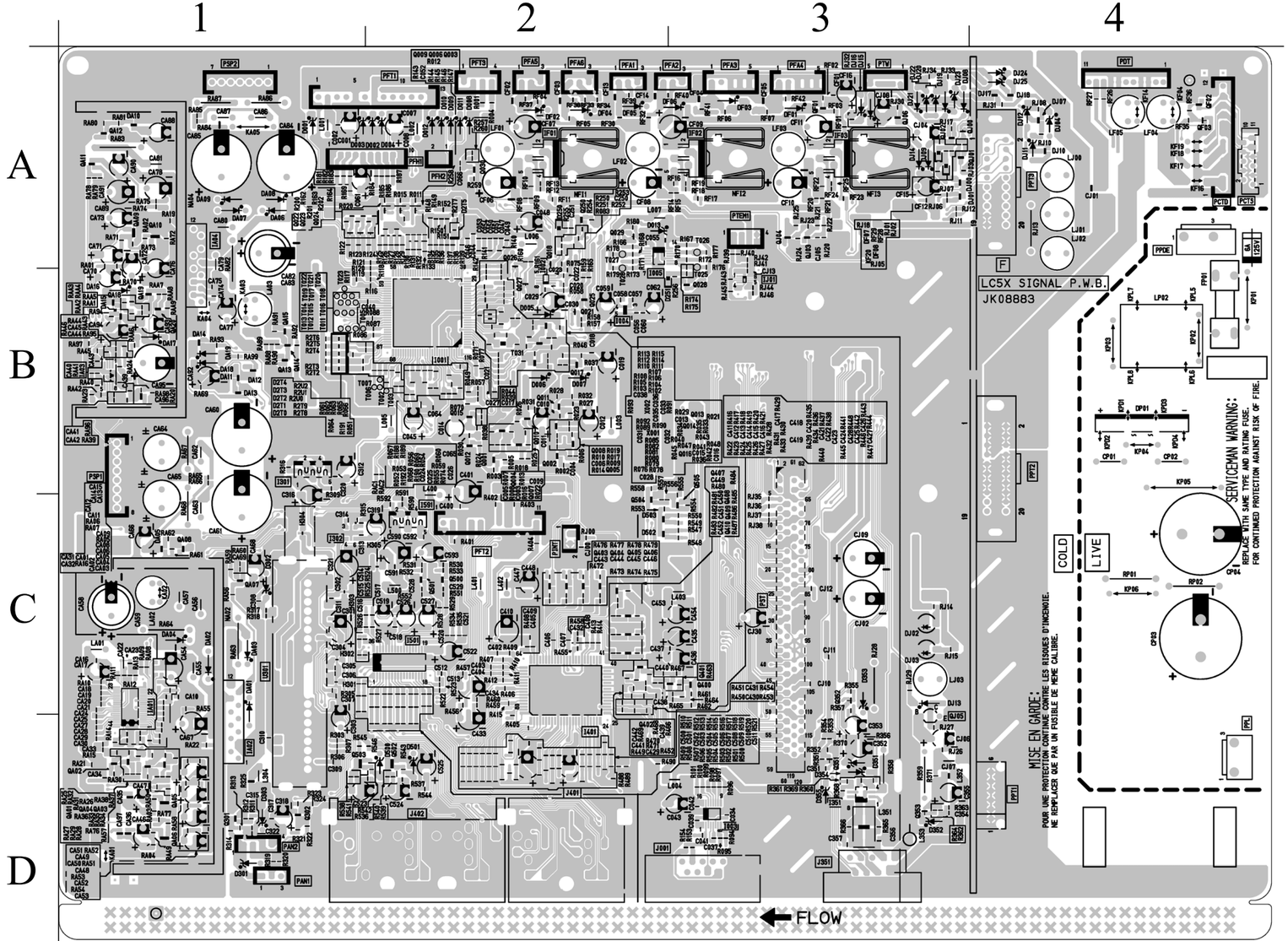
PRINTED CIRCUIT BOARDS

LC57 SIGNAL PWB (Component side)



SIGNAL PWB SEMICONDUCTOR LOCATION

(Component side)

IC	
I001	B-2
I002	B-2
I003	D-3
I004	B-2
I005	A-2
I301	B-1
I302	C-1
I351	D-3
I401	C-2
I501	C-2
I591	C-2
IA01	C-1
IA02	D-1
IA03	B-1
IA04	A-1
IF01	A-2
IF02	A-3
IF03	A-3
IJ01	B-3

TRANSISTOR	
Q001	B-2
Q002	B-2
Q003	A-2
Q004	B-2
Q005	B-2
Q006	A-2
Q007	B-2
Q008	B-2
Q009	A-2
Q010	B-2
Q011	B-2
Q012	B-2
Q013	B-2
Q014	B-2
Q015	B-2
Q016	B-2
Q017	B-2
Q018	A-2
Q021	B-2
Q022	A-1
Q023	A-1
Q024	A-2
Q025	B-2
Q026	A-2
Q027	B-2
Q028	B-3
Q029	A-2
Q030	A-2
Q250	A-2
Q301	D-1
Q302	D-1
Q351	D-3
Q352	C-3
Q353	D-3
Q400	C-3
Q401	C-3
Q402	C-2
Q403	C-2
Q404	C-2
Q405	C-2
Q406	C-2
Q407	C-2
Q408	C-2
Q409	C-2
Q410	C-2
Q500	C-2
Q501	C-2
Q502	D-2
Q503	D-1
Q504	C-2
Q505	C-3
QA01	D-1
QA02	D-1
QA03	D-1
QA04	D-1
QA05	D-1
QA06	D-1
QA07	C-1
QA08	C-1
QA09	A-1
QA10	A-1
QA11	A-1
QA12	A-1
QA13	B-1
QA14	B-1
QA15	B-1
QA18	B-1
QA19	B-1
QA20	B-1
QF01	A-3
QF02	A-4
QF03	A-4
QJ00	A-3
QJ01	A-3
QJ02	A-3
QJ03	A-3
QJ04	A-3
QJ05	C-3
QJ06	A-3

DIODE	
D001	A-1
D002	A-2
D003	A-2
D004	A-2
D005	B-2
D006	B-2
D007	B-2
D008	A-2
D009	A-2
D010	A-2
D011	A-2
D012	A-2
D013	A-2
D250	A-2
D251	B-3
D2T0	B-1
D2T1	B-1
D2T2	B-1
D2T3	B-1
D2T4	B-1
D2T5	A-2
D301	D-1
D302	C-1
D303	D-1
D351	D-3
D352	D-3
D353	C-3
D354	D-3
D355	D-3
D500	D-2
D501	D-2
D502	C-2
D503	C-2
DA01	D-1
DA02	C-1
DA03	C-1
DA04	C-1
DA05	C-1
DA06	A-1
DA07	A-1
DA08	A-1
DA09	A-1
DA10	A-1
DA11	B-1
DA12	B-1
DA13	B-1
DA14	B-1
DA15	B-1
DA16	B-1
DA17	B-1
DA18	B-1
DA19	B-1
DF01	A-3
DF02	A-2
DF03	A-3
DF04	A-2
DF05	A-2
DF06	A-2
DF07	A-3
DF08	A-3
DJ00	A-3
DJ01	A-3
DJ02	C-3
DJ03	C-3
DJ04	A-4
DJ07	A-4
DJ08	A-3
DJ09	A-3
DJ10	A-4
DJ11	A-4
DJ12	A-4
DJ13	C-3
DJ14	A-3
DJ15	A-3
DJ16	A-3
DJ17	A-4
DJ18	A-4
DJ19	A-3
DJ20	A-3
DJ21	A-3
DJ22	A-3
DJ23	A-3
DJ24	A-4
DJ25	A-4
DP01	B-4

CRYSTAL & FILTER	
H301	C-1
H302	C-1
H303	C-1
H304	C-1
H305	C-2
X001	B-2
X002	B-2

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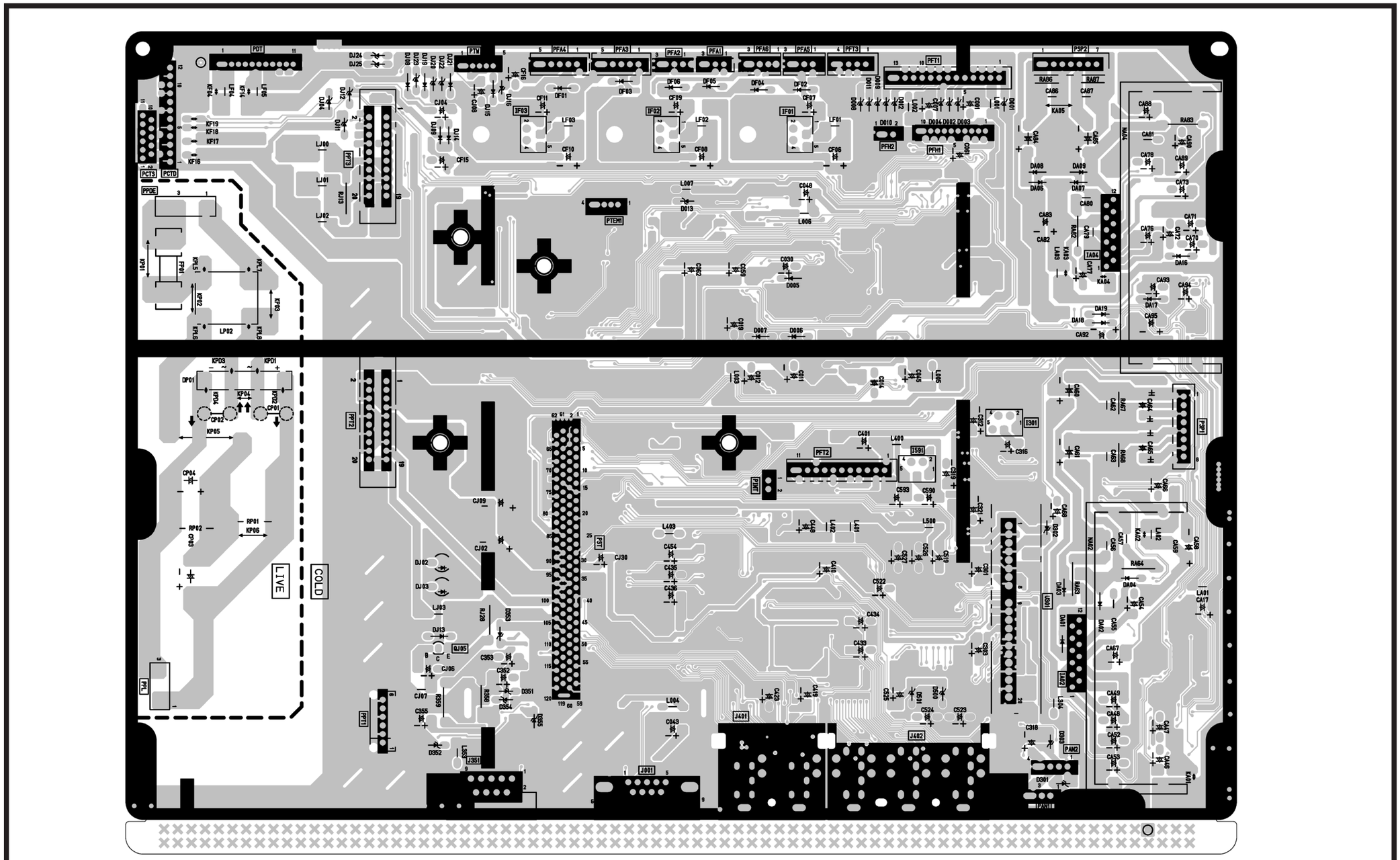
PRINTED CIRCUIT BOARDS

LC57 SIGNAL PWB (Solder side)



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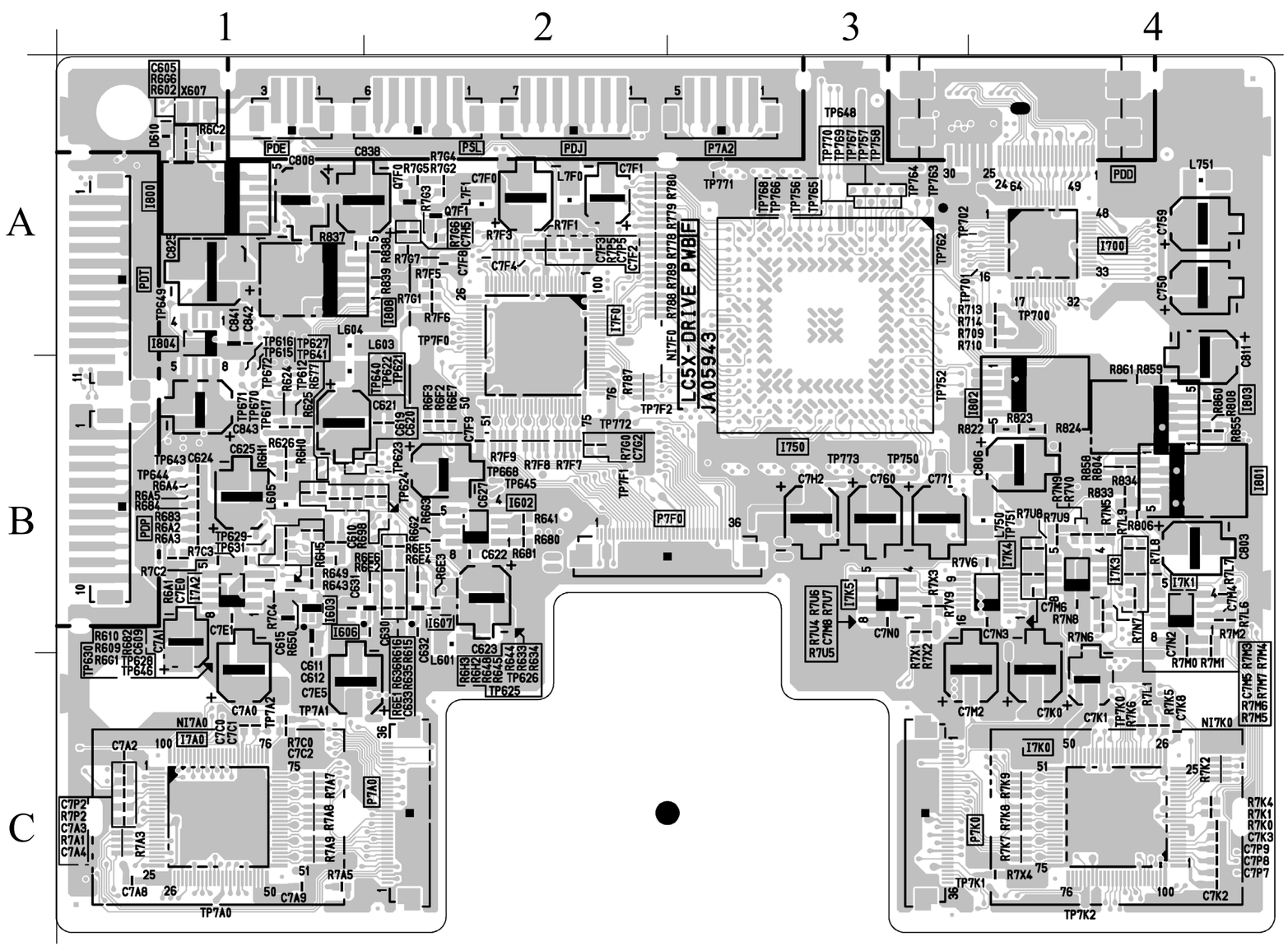
PRINTED CIRCUIT BOARDS

LC57 DRIVE PWB (Component side)



DRIVE PWB SEMICONDUCTOR LOCATION
(Component Side)

IC	
I602	B-2
I603	B-1
I606	B-2
I607	B-2
I700	A-4
I750	A-3
I7A0	C-1
I7A2	B-1
I7F0	A-2
I7K0	C-4
I7K1	B-4
I7K3	B-4
I7K4	B-4
I7K5	B-3
I800	A-1
I801	B-4
I802	B-4
I803	B-4
I804	A-1
I808	A-1
TRANSISTOR	
Q7F0	A-2
Q7F1	A-2
DIODE	
D610	A-1
FILTER	
X607	A-1

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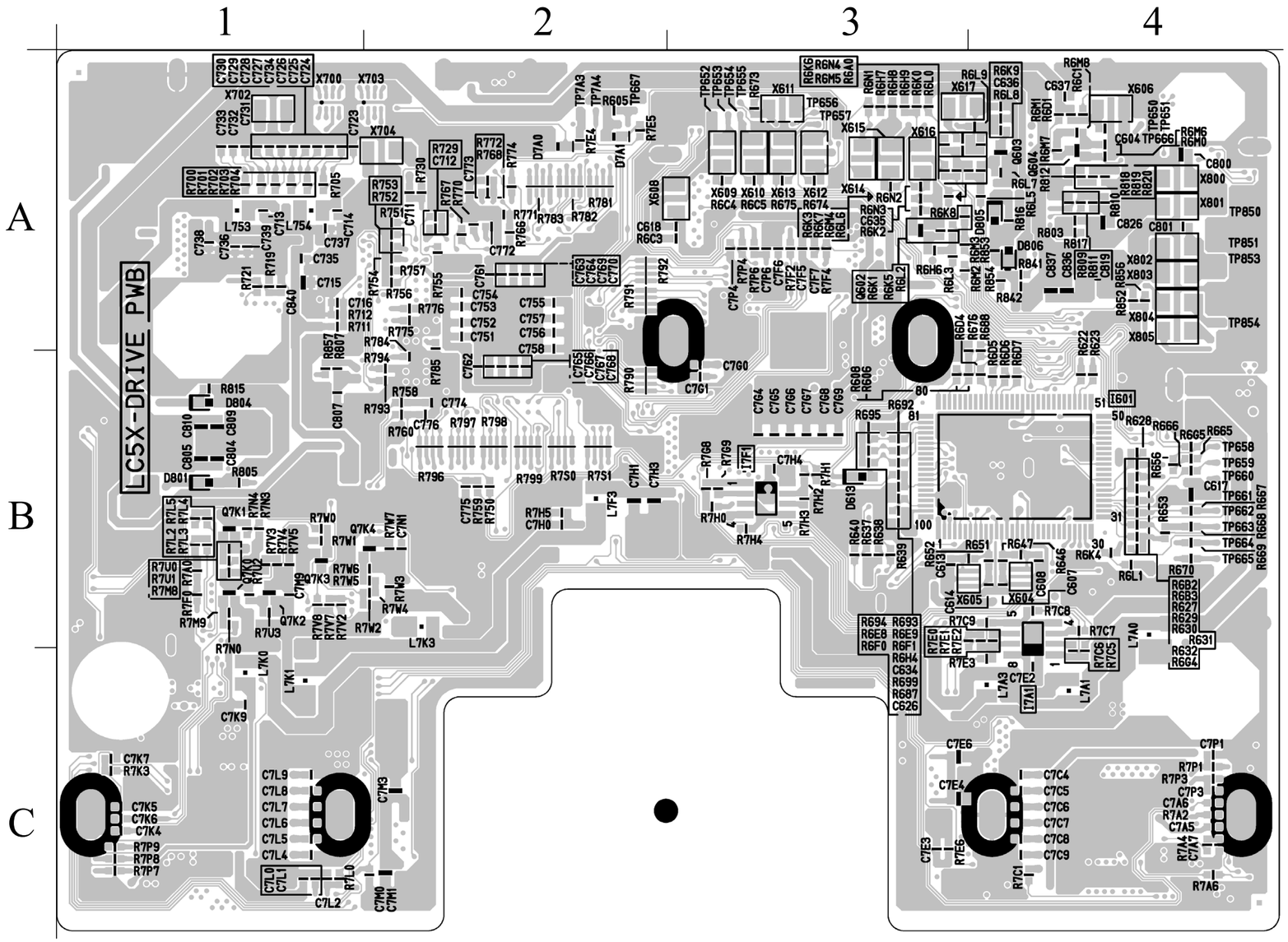
PRINTED CIRCUIT BOARDS

LC57 DRIVE PWB (Solder side)



DRIVE PWB SEMICONDUCTOR LOCATION
(Solder Side)

IC	
I601	B-4
I7A1	B-4
I7F1	B-3

TRANSISTOR	
Q602	A-3
Q603	A-4
Q604	A-4
Q7K0	B-1
Q7K1	B-1
Q7K2	B-1
Q7K3	B-1
Q7K4	B-2

DIODE	
D613	B-3
D7A0	A-2
D7A1	A-2
D801	B-1
D804	B-1
D805	A-4
D806	A-4

CRYSTAL & FILTER	
X604	B-4
X605	B-3
X606	A-4
X608	A-3
X609	A-3
X610	A-3
X611	A-3
X612	A-3
X613	A-3
X614	A-3
X615	A-3
X616	A-3
X617	A-3
X700	A-1
X702	A-1
X703	A-2
X704	A-2
X800	A-4
X801	A-4
X802	A-4
X803	A-4
X804	A-4
X805	A-4

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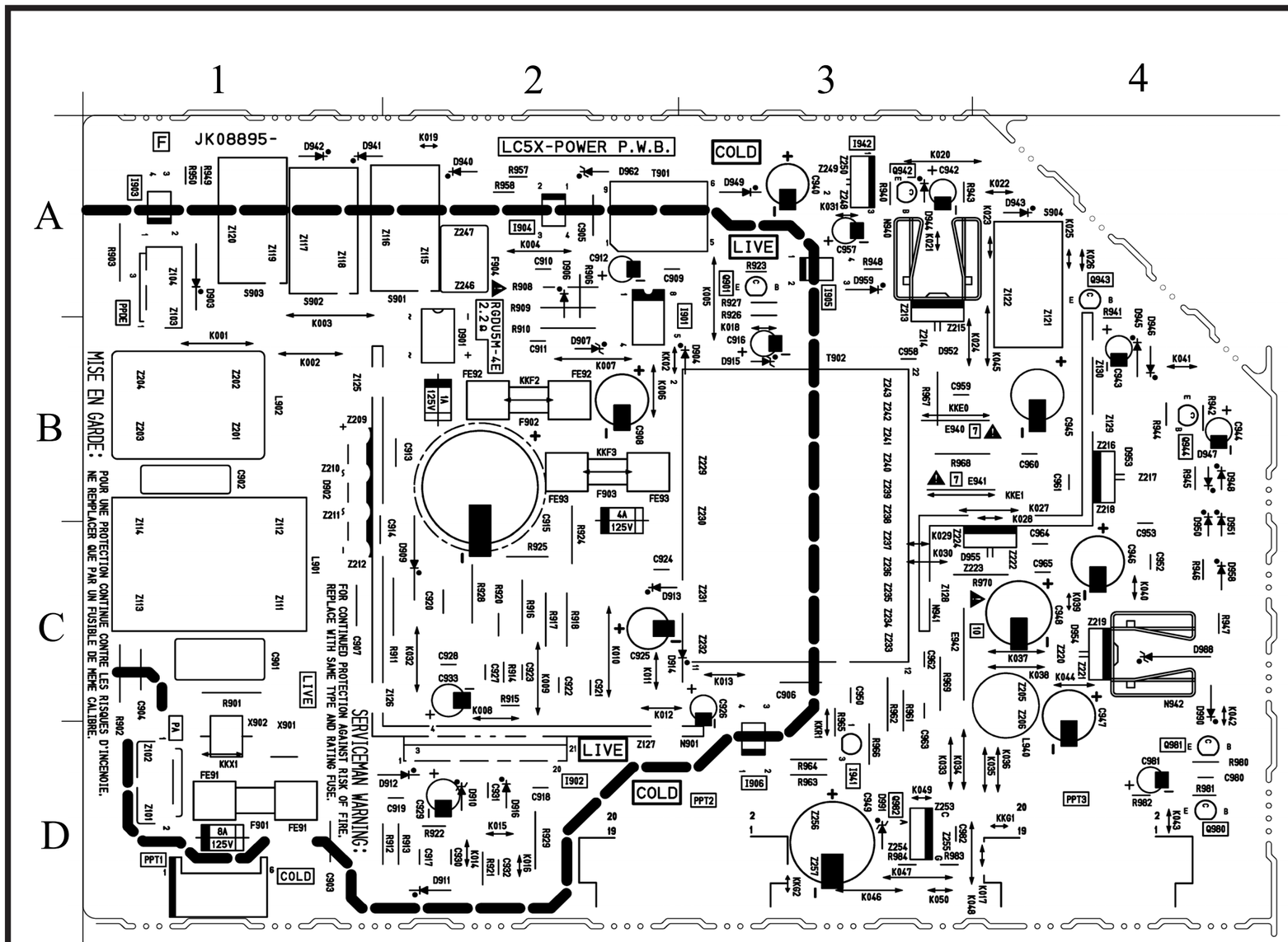
LC57 POWER PWB (Component side)



POWER PWB SEMICONDUCTOR LOCATION

(Component side)

IC	
I901	B-2
I902	D-2
I903	A-1
I904	A-2
I905	A-3
I906	D-3
I941	D-3
I942	A-3

TRANSISTOR	
Q901	A-3
Q942	A-3
Q943	A-4
Q944	B-4
Q980	D-4
Q981	D-4
Q982	D-3

DIODE	
D901	B-2
D902	B-1
D903	A-1
D904	B-3
D906	B-2
D907	B-2
D909	B-2
D910	D-2
D911	D-2
D912	D-1
D912	D-1
D913	C-3
D914	C-3
D915	B-3
D916	D-2
D940	A-2
D941	A-1
D942	A-1
D943	A-4
D944	A-3
D945	B-4
D946	B-4
D947	B-4
D948	B-4
D949	A-3
D950	C-4
D951	C-4
D952	A-3
D953	B-4
D954	C-4
D955	C-4
D958	C-4
D959	A-3
D962	A-2
D988	C-4
D990	C-4
D991	D-3

CRYSTAL & FILTER	
X901	D-1
X902	D-1

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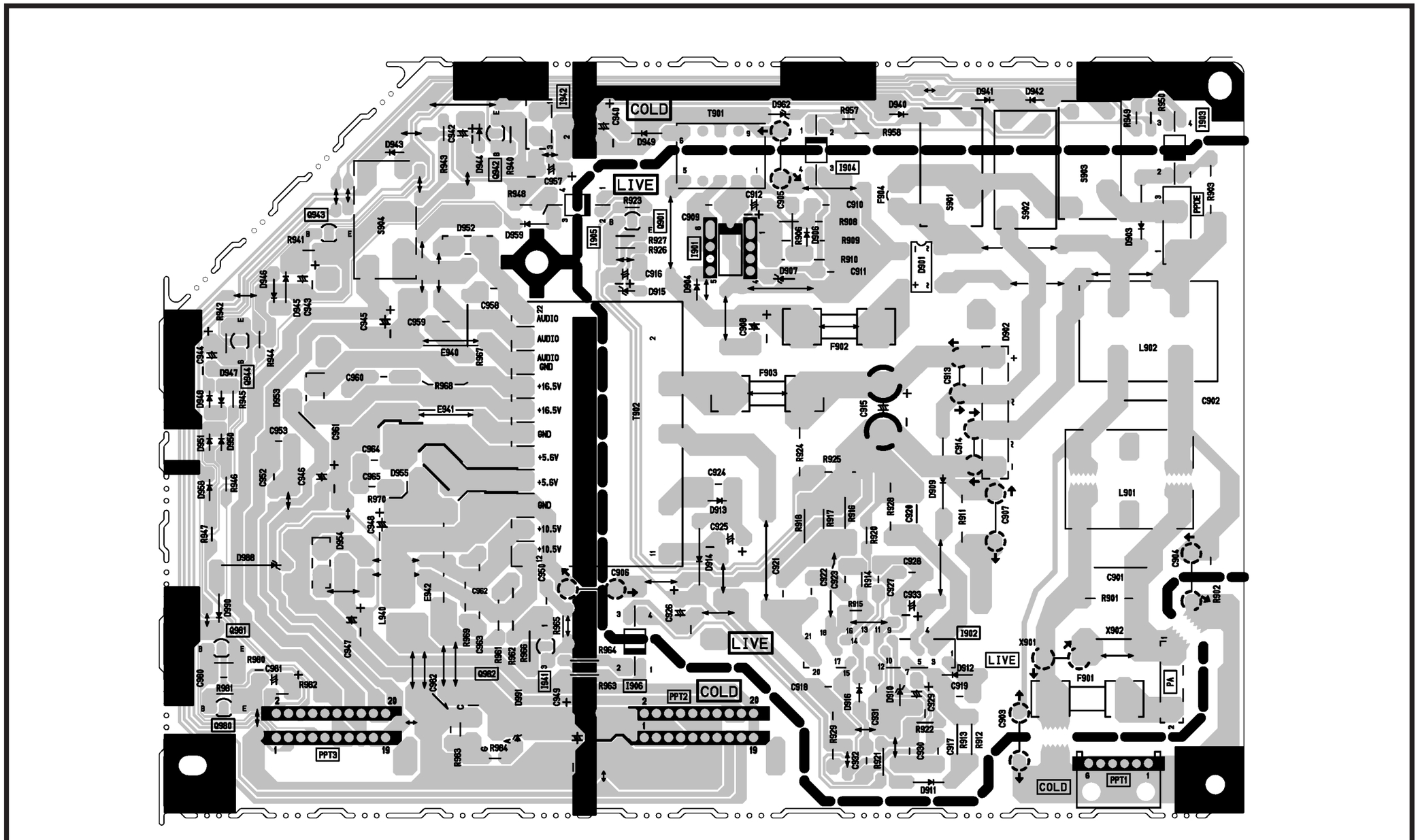
LC57 POWER PWB (Solder side)



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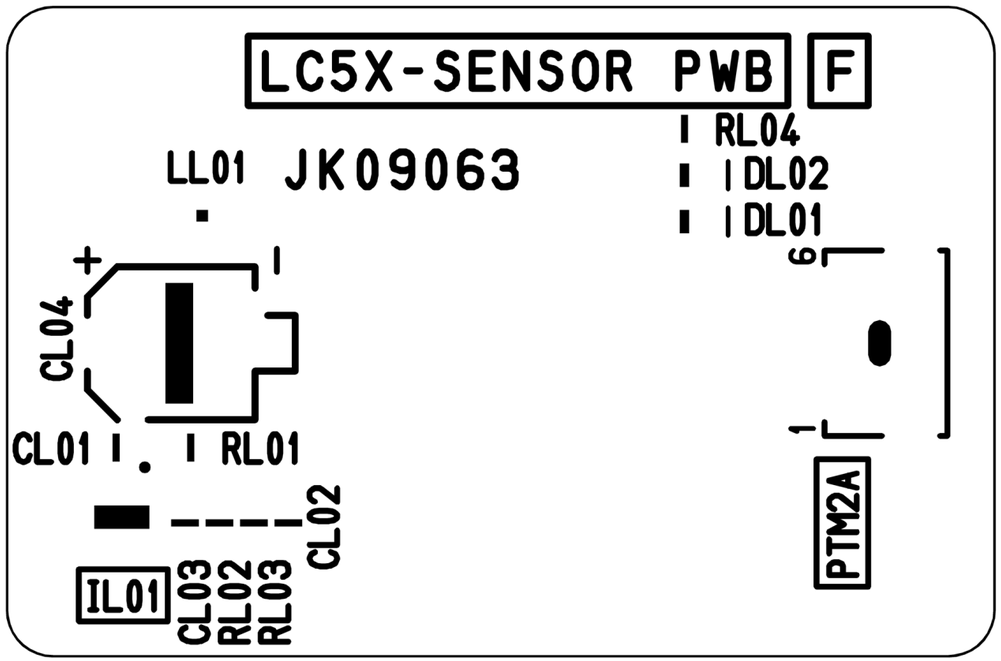
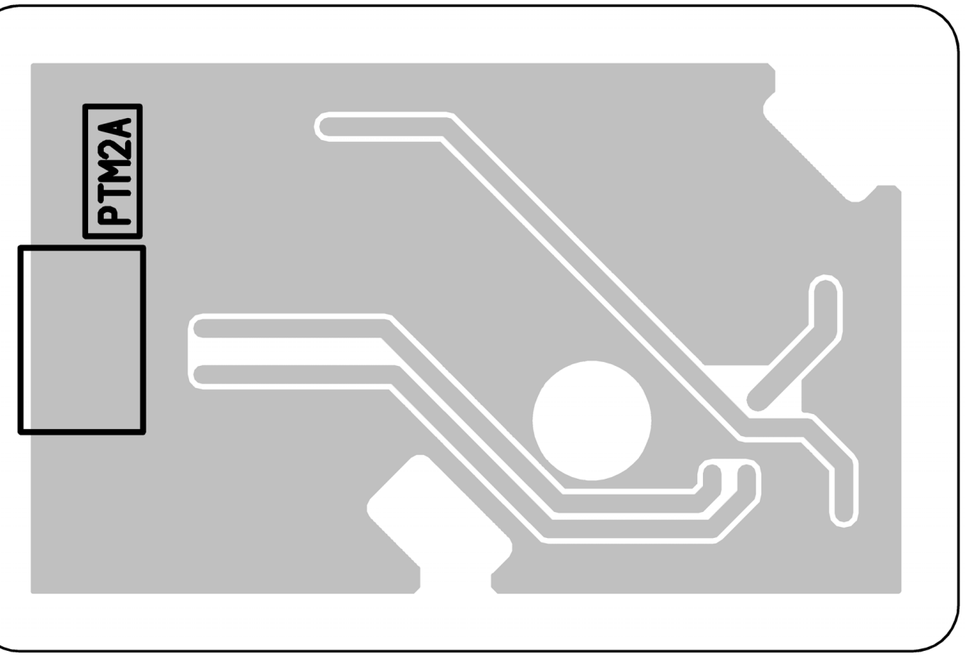
LC57 SENSOR PWB

(Component side)



(Solder side)



Component side

IC
IL01
DIODE
DL01 DL02

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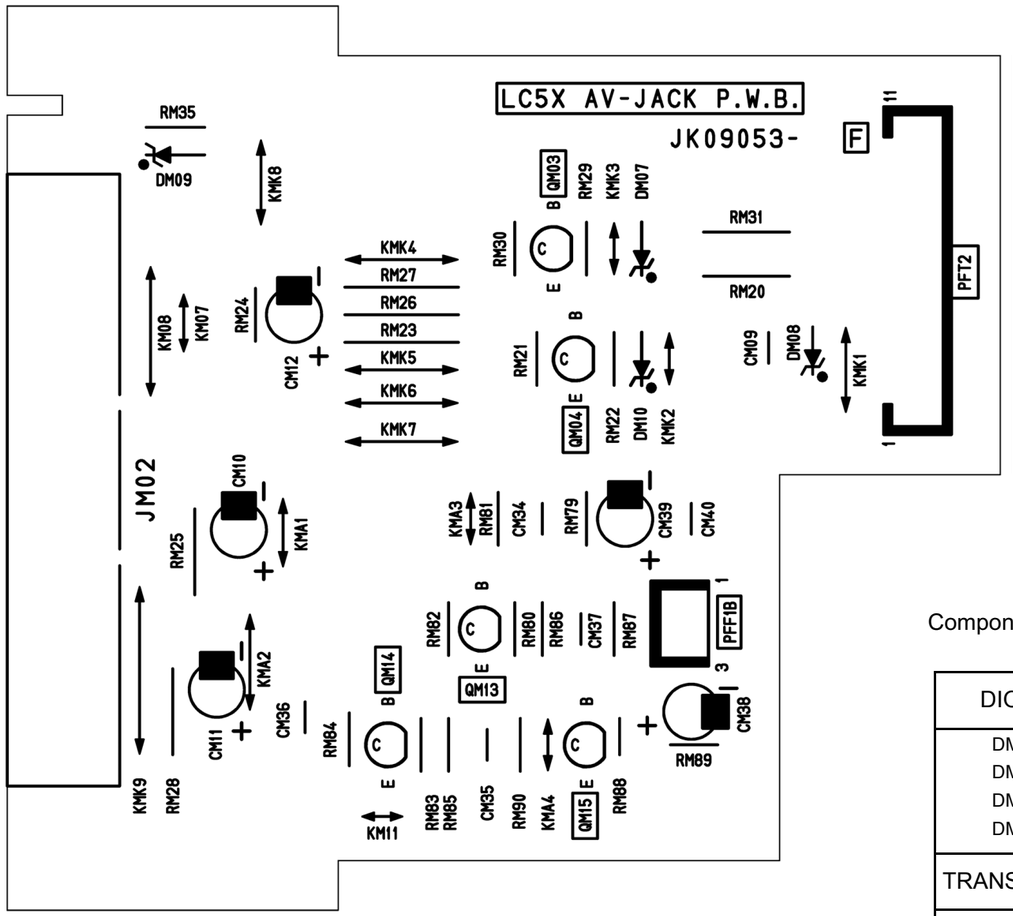
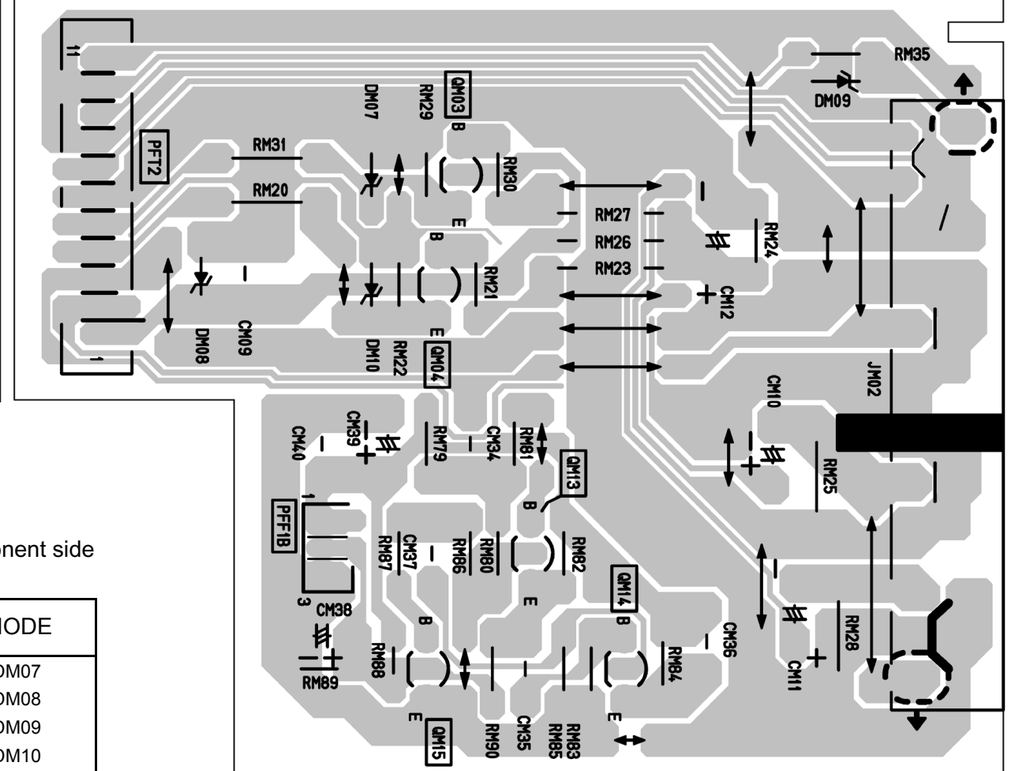
PRINTED CIRCUIT BOARDS

LC57 AV JACK PWB

(Component side)



(Solder side)



Component side

DIODE
DM07
DM08
DM09
DM10
TRANSISTOR
QM03
QM04
QM13
QM14
QM15

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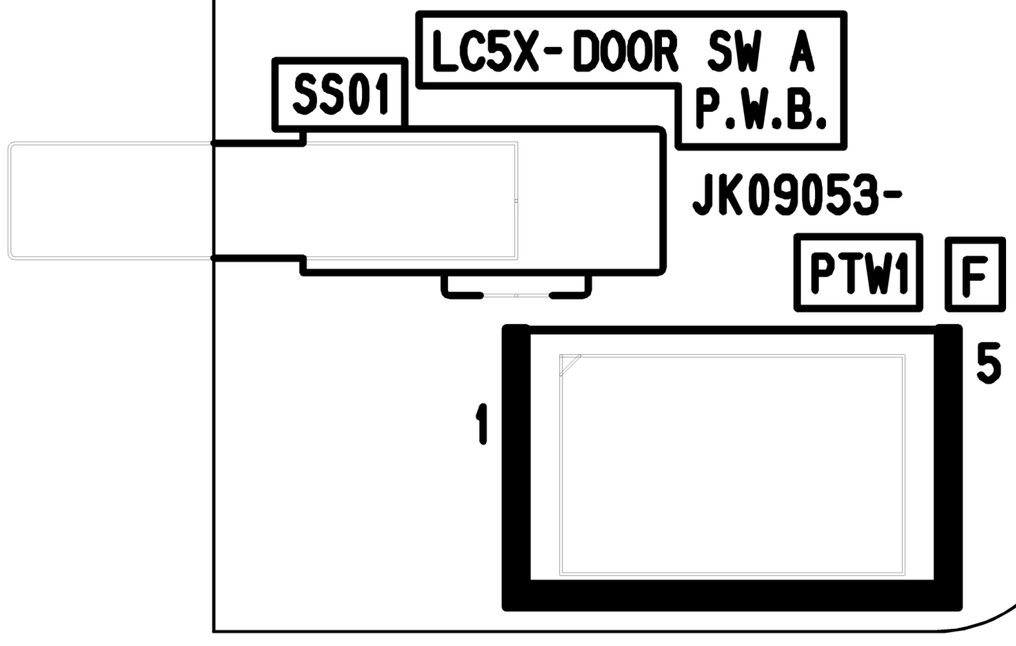
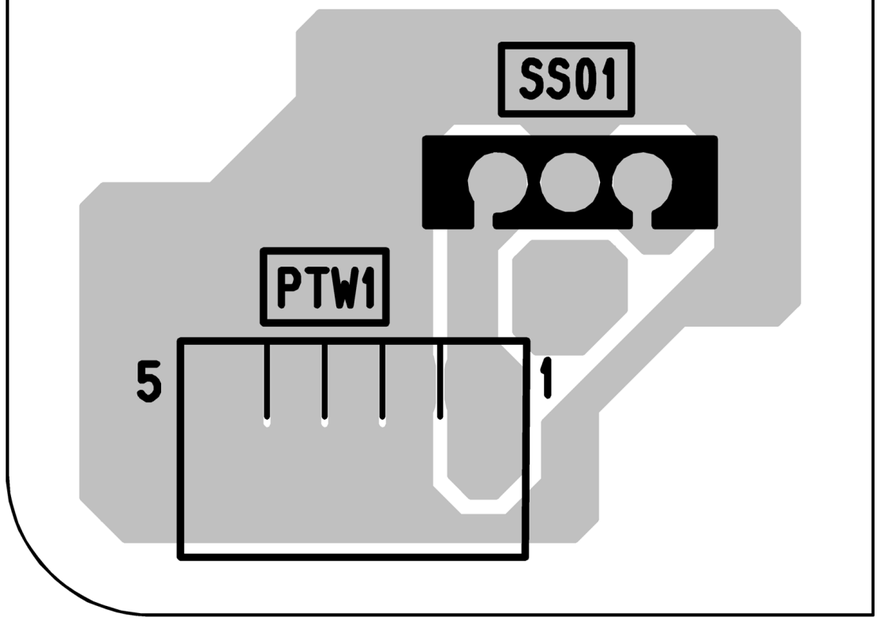
LC57 DOOR SW A PWB

(Component side



(Solder side)



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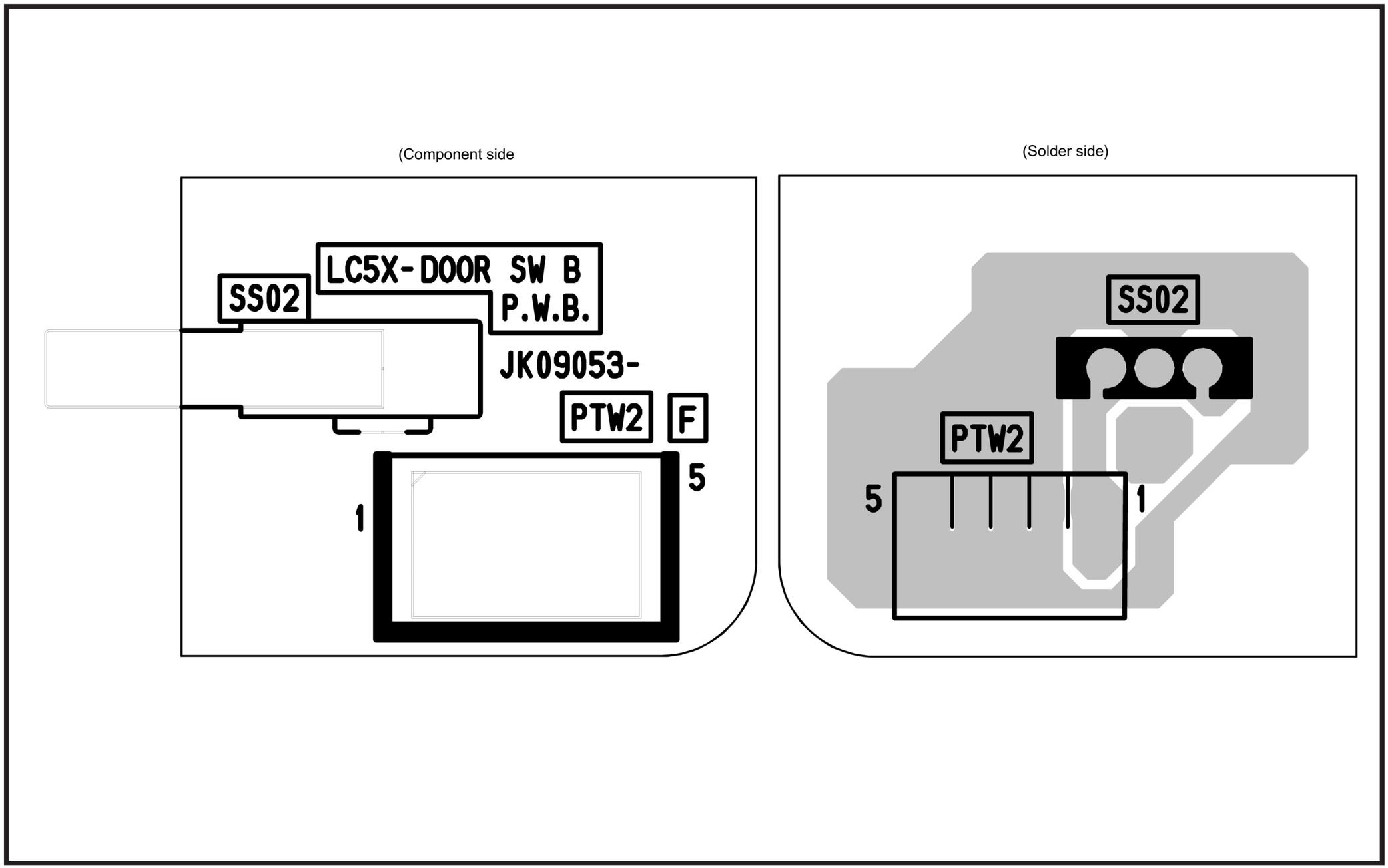
LC57 DOOR SW B PWB



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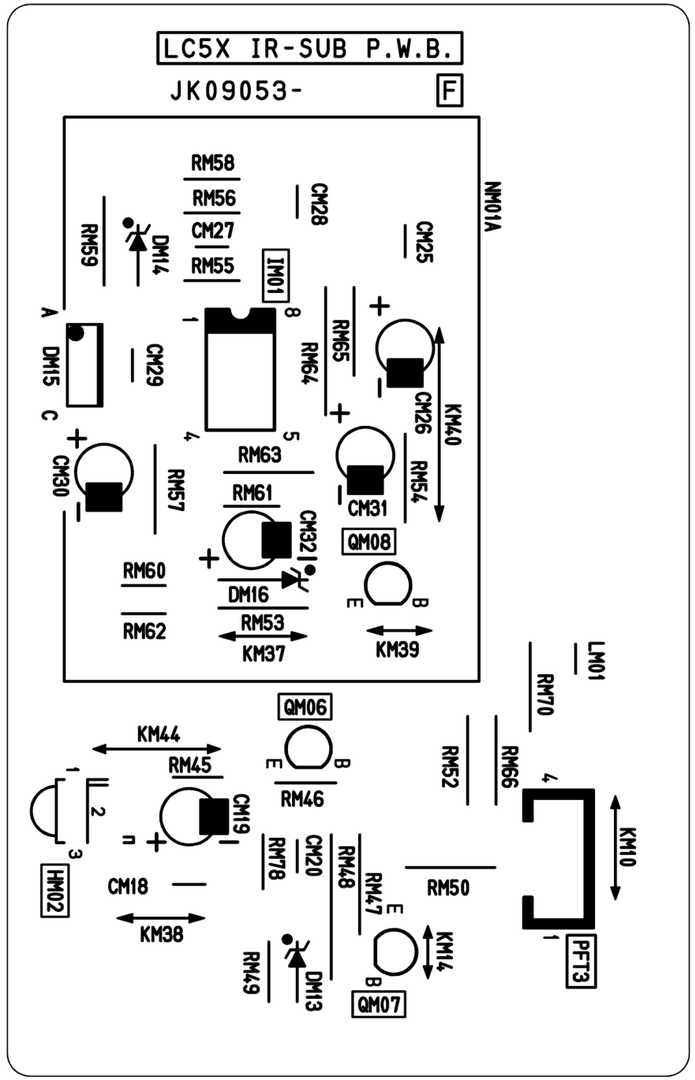
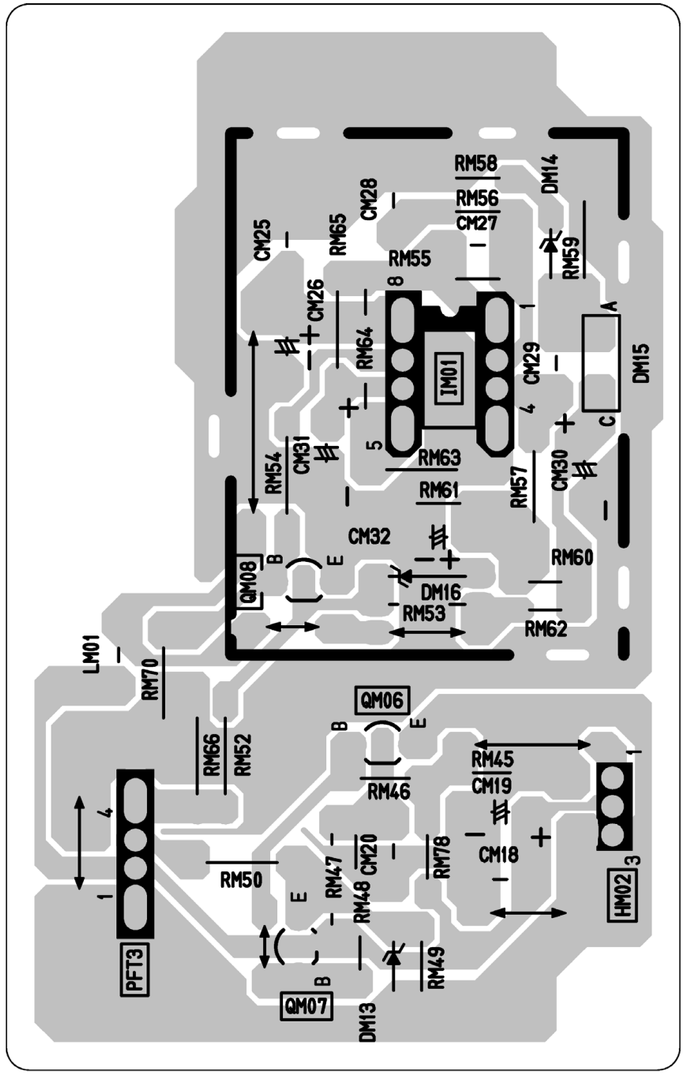
PRINTED CIRCUIT BOARDS

LC57 IR SUB PWB

(Component side)



(Solder side)



(Component side)

DIODE
DM13 DM14 DM15 DM16 HM02
IC
IM01
TRANSISTOR
QM06 QM07 QM08

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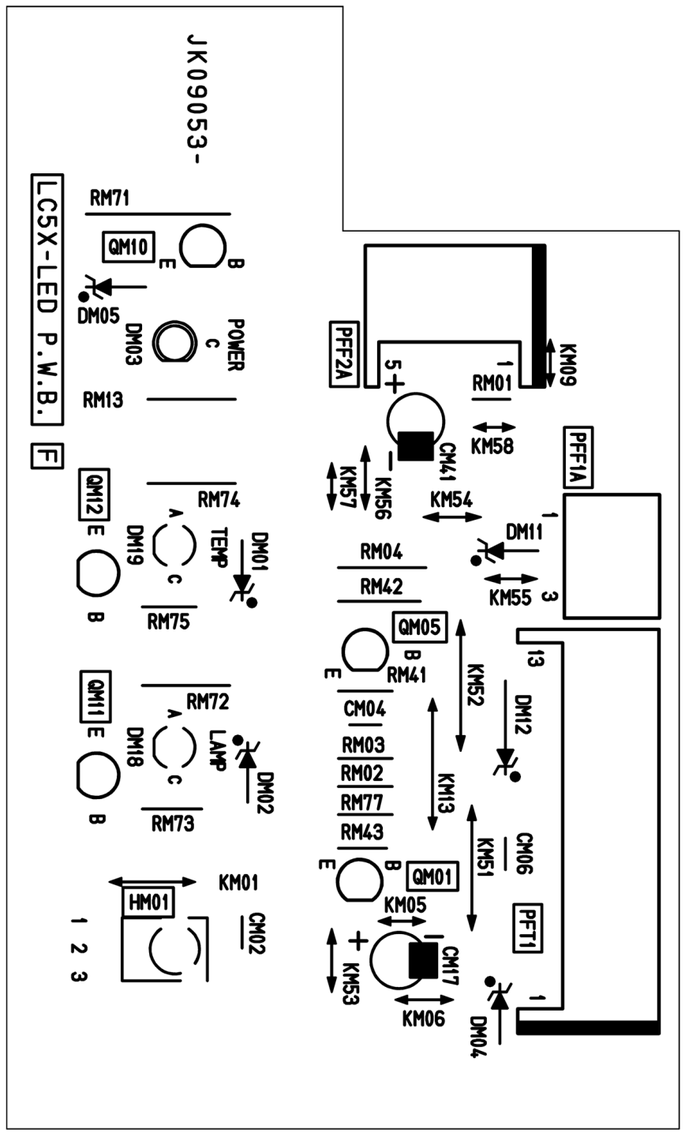
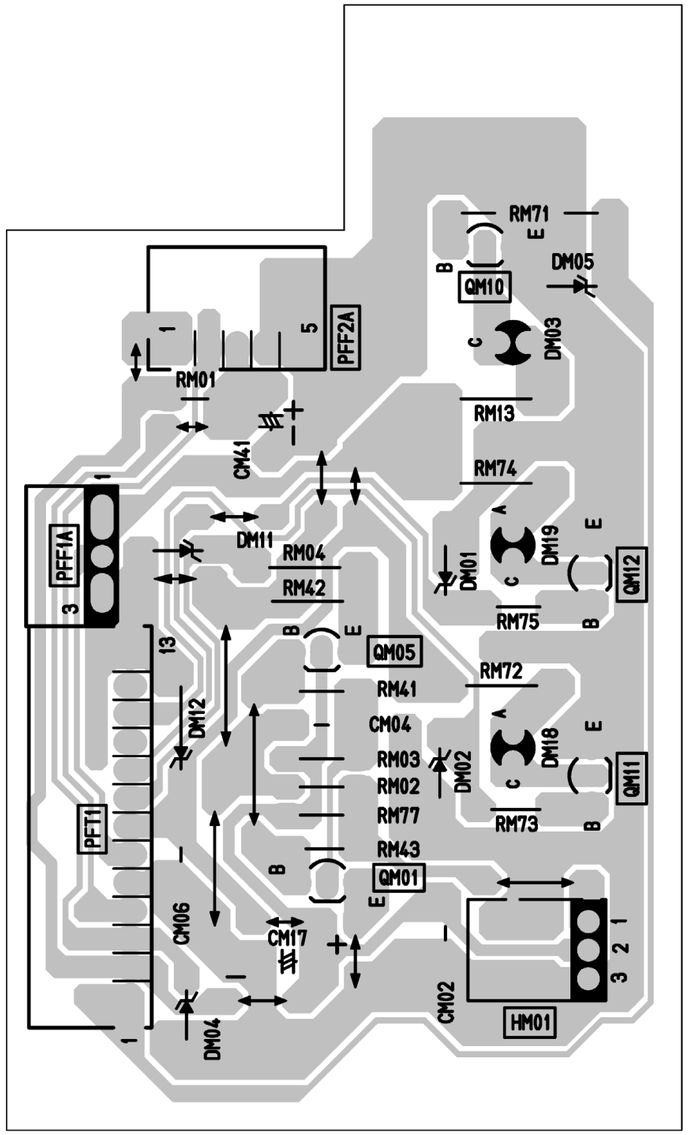
PRINTED CIRCUIT BOARDS

LC57 LED PWB

(Component side)



(Solder side)



(Component side)

DIODE
DM01
DM02
DM03
DM04
DM05
DM11
DM12
DM18
DM19
HM01

TRANSISTOR
QM01
QM05
QM10
QM11
QM12

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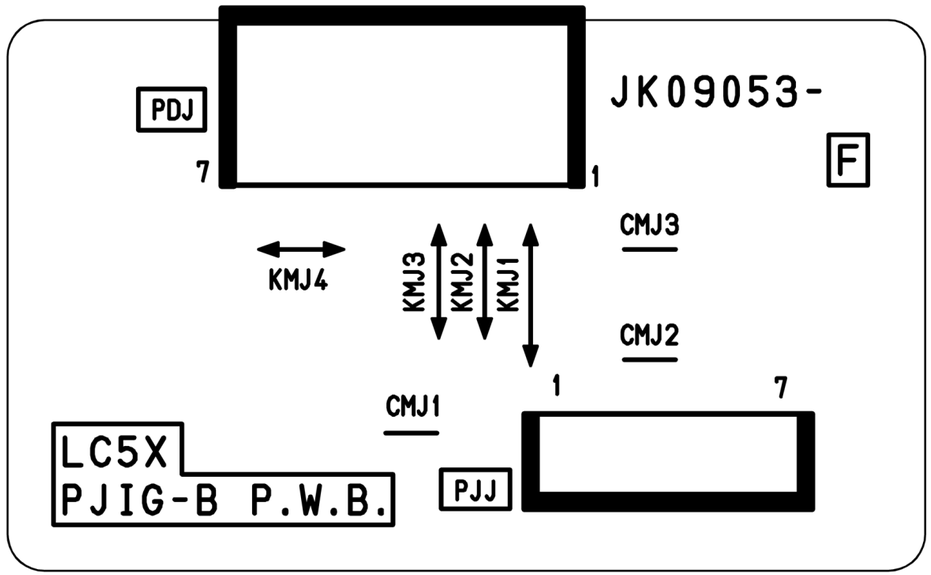
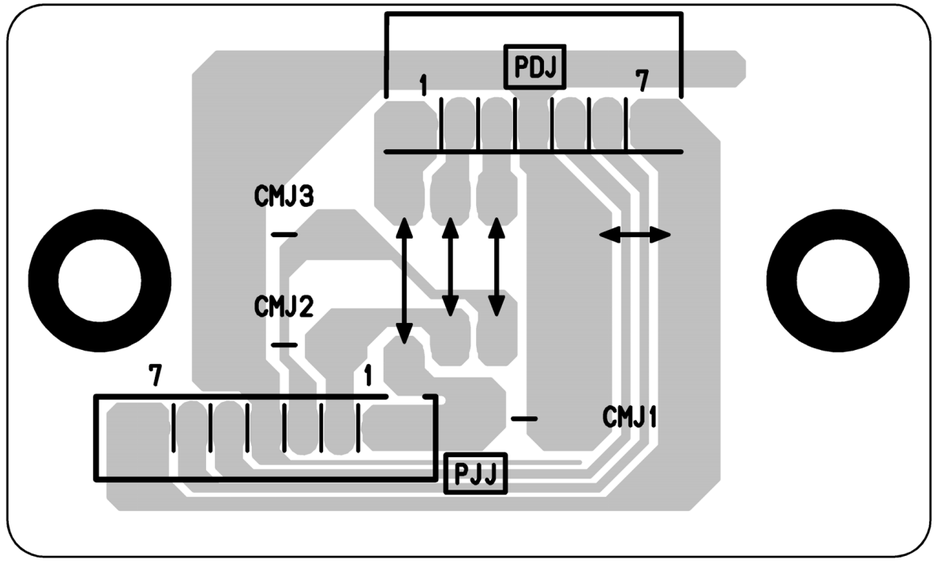
PRINTED CIRCUIT BOARDS

LC57 PJIG-B PWB

(Component side)



(Solder side)



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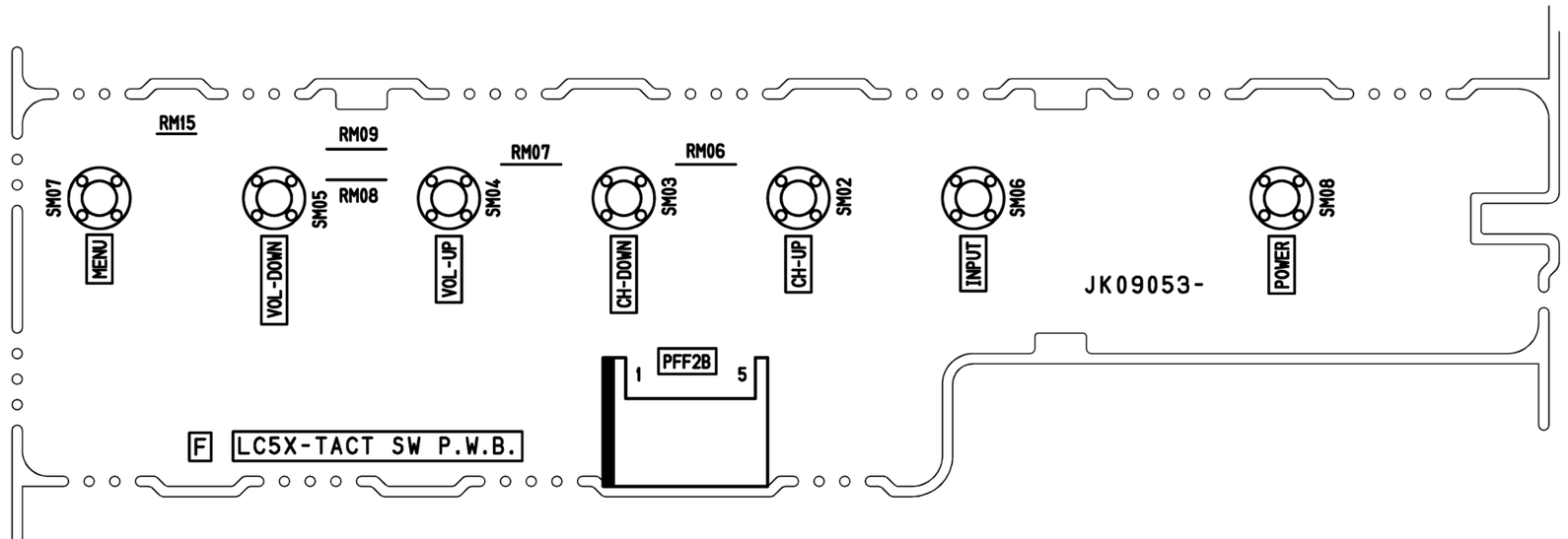
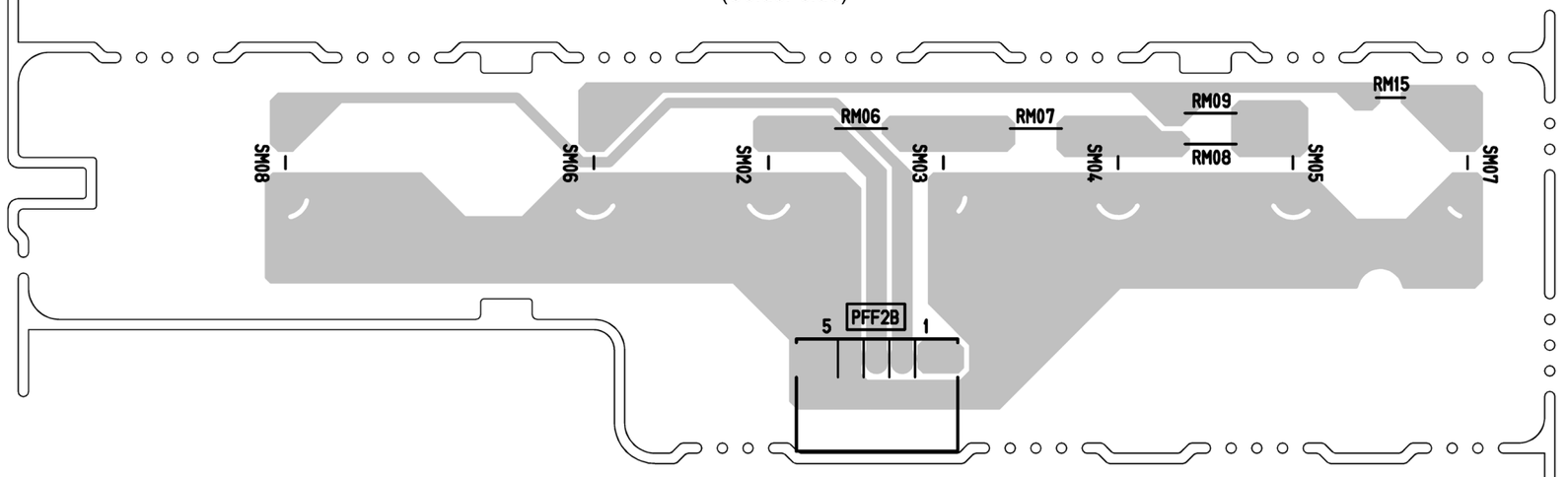
LC57 TACT SW PWB

(Component side)



(Solder side)



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REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ABBREVIATIONS

Capacitors:
- AL: Aluminum Electrolytic
- CD: Ceramic Disc
- EL: Electrolitic
- PF: Polyester Film
- PP: Polypropylene
- PL: Plastic
- TA: Tantalum
- PR: Paper
- TM: Trimmer
- MC: Mylar

Resistors:
- CF: Carbon Film
- CC: Carbon Composition
- MF: Metal Oxide
- VR: Variable Resistor
- WW: Wire Wound
- FR: Fuse Resistor
- MG: Metal Grazed

Semiconductors:
- TR: Transistor
- DI: Diode
- ZD: Zener Diode
- VA: Varistor
- TH: Termistor
- IC: Integrated Circuit

SYMBOL	PART No.	DESCRIPTION	LC57	SYMBOL	PART No.	DESCRIPTION	LC57
				CT02	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0
		SUBDIGITAL PWB		CT03	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
				CT04	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0
		CAPACITORS		CT05	AA01173R	CCC1R0K50-B-32CT 1UF/50V-B-3225	0
CM01	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT06	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CM02	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT07	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
CM03	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT08	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CM04	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT09	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CM06	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT10	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CM07	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	CT11	AA01802R	CCC103K50-B-16CT MCH18	0
CM08	AA01123R	CCC105K10-B-16CT	0	CT12	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CM09	AA01802R	CCC103K50-B-16CT MCH18	0	CT13	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
CM11	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT14	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CM12	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT15	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CP04	AA00699R	CAP.CHIP-CERAMIC 10UFK 16V B 3	0	CT16	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CP05	AA00724R	CAP.CHIP-CERAMIC 3216B 1UF 50V	0	CT17	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CP20	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	CT22	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CP21	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT23	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
CP22	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT24	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0
CP23	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	CT25	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CP24	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	CT26	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CP25	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE	0	CT27	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CP26	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CT28	0893123R	CAP 1608CHIP 56PFJCH 50V TAPE	0
CP27	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	CT29	0893124R	CAP 1608CHIP 68PFJCH 50V TAPE	0
CP63	AA01123R	CCC105K10-B-16CT	0	CT30	0893115R	CAP 1608CHIP 15PFJCH 50V TAPE	0
CP64	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0	CT31	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CP65	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE	0	CT32	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CP66	AA00969R	CAP.CHIP2125-B-22UF6.3V	0	CT33	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CPG1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT34	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CPG2	0893135R	CAP 1608CHIP 470PFJCH 50V TAPE	0	CT35	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CPS1	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE	0	CT36	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CPS2	0893213R	CAP1608CHIP 2200PFKB 50V TAPE	0	CT39	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CPS3	AA00955R	CAP.CHIP-CERAMIC 2125 B 4.7UF	0	CT40	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CPS4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT41	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CPS5	AA00955R	CAP.CHIP-CERAMIC 2125 B 4.7UF	0	CT42	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CR01	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT43	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CR02	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CT44	0893123R	CAP 1608CHIP 56PFJCH 50V TAPE	0
CR03	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CT45	0893125R	CAP 1608CHIP 82PFJCH 50V TAPE	0
CR08	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CT46	0893125R	CAP 1608CHIP 82PFJCH 50V TAPE	0
CT01	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0	CT47	0893115R	CAP 1608CHIP 15PFJCH 50V TAPE	0

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL	PART No.	DESCRIPTION	LC57	SYMBOL	PART No.	DESCRIPTION	LC57
CT48	0893106R	CAP 1608CHIP 4PFCCK 50V TAPE	0	CTF1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT49	0893121R	CAP 1608CHIP 39PFJCH 50V TAPE	0	CTF2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT51	0893125R	CAP 1608CHIP 82PFJCH 50V TAPE	0	CTF3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT52	0893119R	CAP 1608CHIP 33PFJCH 50V TAPE	0	CTF4	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0
CT53	0893106R	CAP 1608CHIP 4PFCCK 50V TAPE	0	CTF5	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT54	0893124R	CAP 1608CHIP 68PFJCH 50V TAPE	0	CTF6	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
CT58	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	CTF7	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT60	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTG0	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT61	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	CTG1	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT62	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTG2	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT63	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTG3	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0
CT64	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTG4	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT65	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTG5	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT66	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	CTG6	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT67	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTG7	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT68	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTG8	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT69	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTG9	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT70	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTH0	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT71	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CTH1	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT72	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	CTH2	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT73	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	CTH3	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT74	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CTH4	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT75	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE	0	CTH5	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CT76	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTH6	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
CT77	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTH9	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT78	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	CTJ2	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CT79	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTJ3	AA00969R	CAP.CHIP2125-B-22UF6.3V	0
CT80	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTJ4	AA00969R	CAP.CHIP2125-B-22UF6.3V	0
CT81	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	CTJ5	0893122R	CAP 1608CHIP 47PFJCH 50V TAPE	0
CT83	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTJ6	0893123R	CAP 1608CHIP 56PFJCH 50V TAPE	0
CT84	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTJ7	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CT85	0893113R	CAP 1608CHIP 10PFCCH 50V TAPE	0	CTJ8	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT86	0893113R	CAP 1608CHIP 10PFCCH 50V TAPE	0	CTJ9	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT87	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTK0	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT88	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTK2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT89	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTK3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT90	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTK4	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CT91	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTK6	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT92	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTK7	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT93	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTK8	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CT94	AA01216R	CAP.CHIP-CERAMIC 1005B 1UF 6.3	0	CTM0	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT95	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTM1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT96	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTM2	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CT97	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTM3	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT98	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTM4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CT99	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTM5	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CTA0	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	CTM6	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CTA1	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0	CTM7	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0
CTA2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTM8	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0
CTA3	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CTN0	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CTA4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTN1	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CTA6	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTN2	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CTA7	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTN5	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CTA8	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTN6	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CTA9	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTN7	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CTC0	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CTN8	0893124R	CAP 1608CHIP 68PFJCH 50V TAPE	0
CTC1	AA00931R	CAP. CERAMIC 2012 (1UF 10V)	0	CTP0	0893123R	CAP 1608CHIP 56PFJCH 50V TAPE	0
CTC2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CTP1	0893107R	CAP 1608CHIP 5PFCCH 50V TAPE	0
CTC3	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	CTP2	0893123R	CAP 1608CHIP 56PFJCH 50V TAPE	0
CTC4	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CTP3	0893107R	CAP 1608CHIP 5PFCCH 50V TAPE	0
CTC5	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CV08	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
CTC6	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CV09	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
CTC7	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CV10	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
CTC8	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CV11	0893008R	CAP.CHIP-CERAMIC 100000PF 16V	0
CTC9	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CV12	AA00955R	CAP.CHIP-CERAMIC 2125 B 4.7UF	0
CTE0	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	CV13	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
CTE1	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	CV14	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
CTE2	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CV15	0893217R	CAP 1608CHIP 4700PFKB 50V TAPE	0
CTE4	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0	CV16	0893217R	CAP 1608CHIP 4700PFKB 50V TAPE	0
CTE5	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0	CW01	AA01123R	CCC105K10-B-16CT	0
CTE6	AA01231R	0.1UF 16V 1005-B CERAMIC CAPAC	0	CW02	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
CTE7	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CW03	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CTE8	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0	CW08	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CTE9	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	CW09	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CTF0	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0	CW11	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0

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SYMBOL	PART No.	DESCRIPTION	LC57
CW12	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW14	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW15	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW16	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CW17	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0
CW18	AA00969R	CAP.CHIP2125-B-22UF6.3V	0
CW19	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
CW20	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW21	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW22	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW23	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW24	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW25	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW26	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CW27	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CX01	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
CX02	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
CX03	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CX04	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CX05	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CXJ1	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
CXJ2	0893126R	CAP 1608CHIP 100PFJCH 50V TAPE	0
CXJ3	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
CXJ4	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
		DIODES	
DP01	CC00781R	DIODE.CHIP RB160L-40(TE25)	0
DPS1	CC02211R	RSX201L-30	0
DPS2	CC01641R	DIODE HSU119	0
DT01	CC01131R	ZENER.CHIP MAZS3000H	0
		MODULES	
HM01	CZ01241	GP1FM514TZ0F	0
		INTEGRATED CIRCUITS (IC's)	
IM01	CK37218R	MONO IC TK11150CSCL	0
IM02	CK50961R	SN74CB3T3306DCUR	0
IM03	CK38326R	IC SN74LVC1G32DCKR	0
IP02	CK38851R	MAX5026EUT-T	0
IP05	CK52131R	ANALOG MONOLITHIC IC(VT221H)	0
IP12	CK51331R	TK11100CS	0
IPG1	CK33543R	ANALOG MONOLITHIC IC(PST9227N	0
IPS1	CK52141R	ANALOG MONOLITHIC IC(SC4517AI	0
IR01	CK50051R	MAX4788EXS-T	0
IT01	CK37218R	MONO IC TK11150CSCL	0
IT02	CK37605R	IC TK11250CM	0
IT04	CK37218R	MONO IC TK11150CSCL	0
IT05	CK51131R	UPC2711TB	0
IT06	CK51151R	UPC3221GV	0
IT07	CK51141R	UPC3220GR	0
IT08	CK51121U	THEATER313	0
IT09	CK37211R	MONO IC TK11118CSCL	0
IT13	CK50071R	TPS62040DGQR	0
IV04	CK51591R	WM8521H9GED/RV	0
IW01	CK37218R	MONO IC TK11150CSCL	0
IW02	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	0
IW03	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	0
IW04	CK38327R	DIGITAL MONOLITHIC IC (SN74LVC1G86DCKR)	0
IW05	CK51161R	PI5C32X245BEX	0
IW06	CK38378R	DIGITAL MONO IC SI-3012KM	0
IW07	CK38326R	IC SN74LVC1G32DCKR	0
IW08	CK38917R	DIGITAL MONOLITHIC IC (SN74LVC32APWR)	0
IW09	CK36321R	SN74LVC125APW	0
IW10	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	0
IW11	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	0
IW12	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	0
IXJ1	CK51331R	TK11100CS	0
		COILS	
LM02	BA00892R	LBC2518 CHIP COIL 47UH	0
LP01	BA00577R	SMD CHIP COIL SLF6028T-470MR59	0
LP04	BA02261R	7E08L TYPE POWER INDUCTOR 1.8U	0
LPS1	BA02251R	7E06NG TYPE POWER INDUCTOR 4.7	0
LT01	BA00161R	COIL HCC47NK16CT-HK1608	0
LT02	BA01227R	HK2125 TYPE CHIP INDUCTOR 150N	0
LT03	BA00162R	CHIP COIL 56NK16CT-HK1608	0
LT04	BA00862R	2520 CHIP COIL 2.2UH	0
LT05	BA00192R	CHIP COIL 47NJ16CT-HK1608	0
LT06	BA01227R	HK2125 TYPE CHIP INDUCTOR 150N	0
LT07	BA00162R	CHIP COIL 56NK16CT-HK1608	0
LT08	BA01234R	HK2125 TYPE CHIP INDUCTOR 470N	0
LT09	BA00189R	CHIP COIL 33NJ16CT-HK1608	0
LT10	BA01234R	HK2125 TYPE CHIP INDUCTOR 470N	0
LT11	BA01225R	HK2125 TYPE CHIP INDUCTOR 100N	0
LT12	BA00191R	COIL HCC39NJ16CT-HK1608	0
LT14	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT15	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT16	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT17	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT18	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT19	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT20	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT21	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT22	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT23	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT24	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT25	BA02252R	7E06NG TYPE POWER INDUCTOR 6.8	0
LT26	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT27	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT28	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT29	BM10348R	CHIP FERRITE BEAD BLM18PG121SN	0
LT30	BA00189R	CHIP COIL 33NJ16CT-HK1608	0
LT31	BA01225R	HK2125 TYPE CHIP INDUCTOR 100N	0
LT32	BA00191R	COIL HCC39NJ16CT-HK1608	0
LX01	BA00889R	LBC2518 CHIP COIL 22UH	0
LX02	BA00889R	LBC2518 CHIP COIL 22UH	0
		TRANSISTORS	
QM04	CA02091R	SRC1204EF_PF	0
QP08	CA02091R	SRC1204EF_PF	0
QT01	CA02171R	TRS.CHIP 2SC4082T106P	0
QT02	CA02171R	TRS.CHIP 2SC4082T106P	0
QT03	CA02171R	TRS.CHIP 2SC4082T106P	0
QW01	CA02171R	TRS.CHIP 2SC4082T106P	0
QW02	CA02091R	SRC1204EF_PF	0
QX01	1323293R	TRS.CHIP 2SC4617 TL (R/S)	0
QX02	1323293R	TRS.CHIP 2SC4617 TL (R/S)	0
QX03	1323293R	TRS.CHIP 2SC4617 TL (R/S)	0
QX04	CA02091R	SRC1204EF_PF	0
QX05	CA02091R	SRC1204EF_PF	0
QX06	CA02091R	SRC1204EF_PF	0
		RESISTORS	
RM01	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RM02	AQ00519R	CHIP RESISTOR 47OHM	0
RM03	0790051R	RES.CHIP 1/16W 10K OHM	0
RM05	0790051R	RES.CHIP 1/16W 10K OHM	0
RM06	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RM13	0196025R	RES.-1608CHIP 1/16W 20-J	0
RM14	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RM15	0790051R	RES.CHIP 1/16W 10K OHM	0
RM16	0790051R	RES.CHIP 1/16W 10K OHM	0
RM17	0790046R	RES.CHIP 1/16W 4.7K OHM	0
RM18	0790059R	RES.CHIP 1/16W 47K OHM	0
RM19	0790015R	RES.CHIP 1/16W 22 OHM	0
RM20	0790015R	RES.CHIP 1/16W 22 OHM	0
RM21	0790015R	RES.CHIP 1/16W 22 OHM	0
RM22	0790015R	RES.CHIP 1/16W 22 OHM	0
RP05	AQ00255R	RES.CHIP 1/16W 200K OHM TAPE	0
RP06	AQ00217R	RES.CHIP 1/16W 7.5K OHM TAPE	0
RP18	AQ00528R	CHIP RESISTOR 220OHM	0
RP19	AQ00528R	CHIP RESISTOR 220OHM	0
RP20	0790051R	RES.CHIP 1/16W 10K OHM	0
RP21	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RP22	AQ00223R	RES.CHIP 1/16W 12K OHM TAPE	0
RP23	AQ00243R	RES.CHIP 1/16W 68K OHM TAPE	0
RP24	AQ00237R	RES.CHIP 1/16W 43K OHM TAPE	0
RP25	0790064R	RES.CHIP 1/16W 100K OHM	0
RP26	AQ00247R	RES.CHIP 1/16W 100K OHM TAPE	0
RP27	AQ00227R	RES.CHIP 1/16W 18K OHM TAPE	0

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SYMBOL	PART No.	DESCRIPTION	LC57	SYMBOL	PART No.	DESCRIPTION	LC57
RP28	0790051R	RES.CHIP 1/16W 10K OHM	0	RW05	0790019R	RES.CHIP 1/16W 47 OHM	0
RP75	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW06	0790019R	RES.CHIP 1/16W 47 OHM	0
RP76	AQ00245R	RES.CHIP 1/16W 82K OHM TAPE	0	RW07	AQ00519R	CHIP RESISTOR 47OHM	0
RP77	AQ00233R	RES.CHIP 1/16W 30K OHM TAPE	0	RW08	AQ00519R	CHIP RESISTOR 47OHM	0
RP78	0790051R	RES.CHIP 1/16W 10K OHM	0	RW09	AQ00519R	CHIP RESISTOR 47OHM	0
RP80	0790024R	RES.CHIP 1/16W 100 OHM	0	RW10	0790019R	RES.CHIP 1/16W 47 OHM	0
RP81	0790047R	RES.CHIP 1/16W 5.6K OHM	0	RW11	0790019R	RES.CHIP 1/16W 47 OHM	0
RPC1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW12	AQ00519R	CHIP RESISTOR 47OHM	0
RPE1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW13	AQ00519R	CHIP RESISTOR 47OHM	0
RPG3	0790046R	RES.CHIP 1/16W 4.7K OHM	0	RW14	0790019R	RES.CHIP 1/16W 47 OHM	0
RPS1	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RW15	0790019R	RES.CHIP 1/16W 47 OHM	0
RPS2	0790051R	RES.CHIP 1/16W 10K OHM	0	RW16	AQ00519R	CHIP RESISTOR 47OHM	0
RPS3	AQ00236R	RES.CHIP 1/16W 39K OHM TAPE	0	RW17	0790019R	RES.CHIP 1/16W 47 OHM	0
RPS4	AQ00223R	RES.CHIP 1/16W 12K OHM TAPE	0	RW18	0790019R	RES.CHIP 1/16W 47 OHM	0
RPX1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW19	AQ00519R	CHIP RESISTOR 47OHM	0
RPX2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW20	0790051R	RES.CHIP 1/16W 10K OHM	0
RR06	0790019R	RES.CHIP 1/16W 47 OHM	0	RW22	0790051R	RES.CHIP 1/16W 10K OHM	0
RR07	0790019R	RES.CHIP 1/16W 47 OHM	0	RW23	0790051R	RES.CHIP 1/16W 10K OHM	0
RR10	AQ11519R	RES CHIP 1/32 823J 3210	0	RW24	0790064R	RES.CHIP 1/16W 100K OHM	0
RR11	0790061R	RES.CHIP 1/16W 56K OHM	0	RW25	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RT09	0790043R	RES.CHIP 1/16W 2.7K OHM	0	RW26	0790051R	RES.CHIP 1/16W 10K OHM	0
RT10	AQ00258R	RES.CHIP 1/16W 270K OHM TAPE	0	RW27	0790051R	RES.CHIP 1/16W 10K OHM	0
RT11	AQ00247R	RES.CHIP 1/16W 100K OHM TAPE	0	RW29	0195250R	RES 2125 CHIP JUMPER WIRE	0
RT12	AQ00229R	RES.CHIP 1/16W 22K OHM TAPE	0	RW31	AQ00243R	RES.CHIP 1/16W 68K OHM TAPE	0
RT14	0790046R	RES.CHIP 1/16W 4.7K OHM	0	RW32	AQ00247R	RES.CHIP 1/16W 100K OHM TAPE	0
RT15	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RW33	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RT16	0790046R	RES.CHIP 1/16W 4.7K OHM	0	RW34	AQ00231R	RES.CHIP 1/16W 24K OHM TAPE	0
RT17	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW35	AQ00258R	RES.CHIP 1/16W 270K OHM TAPE	0
RT18	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW36	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RT19	0790024R	RES.CHIP 1/16W 100 OHM	0	RW37	0790019R	RES.CHIP 1/16W 47 OHM	0
RT20	0790024R	RES.CHIP 1/16W 100 OHM	0	RW38	0790019R	RES.CHIP 1/16W 47 OHM	0
RT21	0790052R	RES.CHIP 1/16W 12K OHM	0	RW40	0790051R	RES.CHIP 1/16W 10K OHM	0
RT22	AQ00212R	RES.CHIP 1/16W 4.7K OHM TAPE	0	RW41	0790051R	RES.CHIP 1/16W 10K OHM	0
RT23	AQ00244R	RES.CHIP 1/16W 75K OHM TAPE	0	RW42	0790051R	RES.CHIP 1/16W 10K OHM	0
RT24	0790046R	RES.CHIP 1/16W 4.7K OHM	0	RW43	AZ01031R	THERMISTOR NANOSMDC050F13.2	0
RT25	0790046R	RES.CHIP 1/16W 4.7K OHM	0	RW44	0790019R	RES.CHIP 1/16W 47 OHM	0
RT26	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW45	0790019R	RES.CHIP 1/16W 47 OHM	0
RT27	0790024R	RES.CHIP 1/16W 100 OHM	0	RW47	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RT28	0790024R	RES.CHIP 1/16W 100 OHM	0	RW48	0790051R	RES.CHIP 1/16W 10K OHM	0
RT30	AQ00175R	RES.CHIP 1/16W 200 OHM TAPE	0	RW49	0790051R	RES.CHIP 1/16W 10K OHM	0
RT31	AQ00175R	RES.CHIP 1/16W 200 OHM TAPE	0	RW50	0790051R	RES.CHIP 1/16W 10K OHM	0
RT32	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RW51	0790051R	RES.CHIP 1/16W 10K OHM	0
RT33	0790028R	RES.CHIP 1/16W 220 OHM	0	RW52	0790051R	RES.CHIP 1/16W 10K OHM	0
RT34	0790028R	RES.CHIP 1/16W 220 OHM	0	RW54	0790064R	RES.CHIP 1/16W 100K OHM	0
RT36	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RW55	0790051R	RES.CHIP 1/16W 10K OHM	0
RT37	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW58	AQ00519R	CHIP RESISTOR 47OHM	0
RT40	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW59	AQ00519R	CHIP RESISTOR 47OHM	0
RT42	AQ00175R	RES.CHIP 1/16W 200 OHM TAPE	0	RW60	0790019R	RES.CHIP 1/16W 47 OHM	0
RT43	AQ00175R	RES.CHIP 1/16W 200 OHM TAPE	0	RW61	0790019R	RES.CHIP 1/16W 47 OHM	0
RT44	0790019R	RES.CHIP 1/16W 47 OHM	0	RW62	0790019R	RES.CHIP 1/16W 47 OHM	0
RT45	0790019R	RES.CHIP 1/16W 47 OHM	0	RW63	0790051R	RES.CHIP 1/16W 10K OHM	0
RT46	0790011R	RES.CHIP 1/16W 10 OHM	0	RW64	0790051R	RES.CHIP 1/16W 10K OHM	0
RT47	0790011R	RES.CHIP 1/16W 10 OHM	0	RW65	0790051R	RES.CHIP 1/16W 10K OHM	0
RT48	0790011R	RES.CHIP 1/16W 10 OHM	0	RW66	0790051R	RES.CHIP 1/16W 10K OHM	0
RT49	AQ00511R	CHIP RESISTOR 10OHM	0	RW67	0790051R	RES.CHIP 1/16W 10K OHM	0
RT50	AQ00511R	CHIP RESISTOR 10OHM	0	RW68	0790051R	RES.CHIP 1/16W 10K OHM	0
RT56	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RW73	0790064R	RES.CHIP 1/16W 100K OHM	0
RT57	0790035R	RES.CHIP 1/16W 680 OHM	0	RW95	0790234R	RES.CHIP 1/16W 100K OHM TAPE	0
RT64	0790051R	RES.CHIP 1/16W 10K OHM	0	RX01	0790016R	RES.CHIP 1/16W 27 OHM	0
RT65	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RX02	0790024R	RES.CHIP 1/16W 100 OHM	0
RT66	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RX03	0790024R	RES.CHIP 1/16W 100 OHM	0
RT69	0790051R	RES.CHIP 1/16W 10K OHM	0	RX04	0790031R	RES.CHIP 1/16W 330 OHM	0
RT70	0790051R	RES.CHIP 1/16W 10K OHM	0	RX05	0790031R	RES.CHIP 1/16W 330 OHM	0
RT71	AQ00261R	RES.CHIP 1/16W 330K OHM TAPE	0	RX06	0790031R	RES.CHIP 1/16W 330 OHM	0
RT72	AQ00258R	RES.CHIP 1/16W 270K OHM TAPE	0	RX07	0790051R	RES.CHIP 1/16W 10K OHM	0
RT73	0790043R	RES.CHIP 1/16W 2.7K OHM	0	RX08	0790051R	RES.CHIP 1/16W 10K OHM	0
RT74	0790043R	RES.CHIP 1/16W 2.7K OHM	0	RX09	0790051R	RES.CHIP 1/16W 10K OHM	0
RV14	0790051R	RES.CHIP 1/16W 10K OHM	0	RXJ1	AQ00241R	RES.CHIP 1/16W 56K OHM TAPE	0
RV15	0790051R	RES.CHIP 1/16W 10K OHM	0	RXJ2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RV16	AQ00185R	RES.CHIP 1/16W 470 OHM TAPE	0	RXJ3	AQ00261R	RES.CHIP 1/16W 330K OHM TAPE	0
RV17	AQ00185R	RES.CHIP 1/16W 470 OHM TAPE	0				
RW01	AQ00519R	CHIP RESISTOR 47OHM	0			**TEST POINTS**	
RW02	AQ00519R	CHIP RESISTOR 47OHM	0	TPP1	EA00001R	CHECKER CHIP 3216 TAPING	0
RW03	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0				
RW04	AQ00519R	CHIP RESISTOR 47OHM	0				

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SYMBOL	PART No.	DESCRIPTION	LC57
		CRYSTALS & FILTERS	
XP01	BK10323R	CERAMIC FILTER NFM2012P13C105F	0
XP04	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0
XP05	0195250R	RES 2125 CHIP JUMPER WIRE	0
XP06	0195250R	RES 2125 CHIP JUMPER WIRE	0
XPS1	BK10323R	CERAMIC FILTER NFM2012P13C105F	0
XT01	BG01624U	SAW FILTER(X6875D)	0
XT02	BN00261	BGS TRAP MKTGA47M2CAHP00B05	0
XT03	BG01625U	SAW FILTER(X6888D)	0
XT04	BL01491R	OSC25R14X10T	0
XT05	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0
XT06	BK00281R	CHIP CERAMIC FILTER SC16-050	0
XT07	BK00281R	CHIP CERAMIC FILTER SC16-050	0
XX05	BK00191R	CHIP CERAMIC FILTER NFL21SP506X1C3D	0
XX06	BK00191R	CHIP CERAMIC FILTER NFL21SP506X1C3D	0
XX07	BK00193R	CHIP CERAMIC FILTER NFL21SP107X1C3D	0
		CONNECTORS, JACKS	
JSD1	EY01821R	SD MEMORY CARD SOCKET 54768-0977	0
JT01	EQ00791	JACK	0
PFAN	EA02132R	3P SMT PH CONNE. POST -LF-	0
PSA	EA00507R	30P FPC CONNECTOR 52559-3092	0
PSM	EA02221U	0.5 PITCH 240P B TO B CONN. SH	0
PSP1	EY02002	JACK SCAA1A4700 PC CARD	0
PSP2	EY01991	JACK SCAB1A8100	0
PTS	ED04512U	2.54MM PITCH 120P B TO B PLUG	0
		MISCELLANEOUS	
A	JP08503	LC57 SUB DIGITAL PWB ASY	0
UT01	HJ00541	ENV56N01D5F (TUNER)	0
B	JA05966	SATURN SUB DIGITAL PWB #6	0
NW01~4	MJ03878	SCRW M3M_2*10PN+SM Unknown	0
		SIGNAL PWB	
		CAPACITORS	
C004	AA01123R	CCC105K10-B-16CT	0
C006	AA01123R	CCC105K10-B-16CT	0
C007	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C008	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C010	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
C012	0800303R	CAP.-ELECTRO. 22UF-M 50V	0
C013	0893213R	CAP1608CHIP 2200PFKB 50V TAPE	0
C014	0284623R	CAP.-ELECTRO. 1UF-SME(BP) 50V	0
C017	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C018	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C019	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C020	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C021	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C022	AA01145R	CAP.CHIP-CERAMIC 1608B0.15UF/1	0
C023	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C025	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C026	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C027	0893205R	CAP 1608CHIP 560PFKB 50V TAPE	0
C028	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C029	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C033	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C038	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C040	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C044	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C045	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C046	AA01123R	CCC105K10-B-16CT	0
C047	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C048	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C049	0893122R	CAP 1608CHIP 47PFJCH 50V TAPE	0
C050	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C051	0893122R	CAP 1608CHIP 47PFJCH 50V TAPE	0
C052	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C053	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C054	0893122R	CAP 1608CHIP 47PFJCH 50V TAPE	0
C055	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C056	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C057	AA01123R	CCC105K10-B-16CT	0
C058	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C059	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C060	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C061	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C062	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C064	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C065	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C066	0893213R	CAP1608CHIP 2200PFKB 50V TAPE	0
C301	0800351R	CAP.-ELECTRO. 470UF-M 6.3V	0
C302	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C304	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C307	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C308	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C310	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C311	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C312	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C313	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C314	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C315	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C316	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C317	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C318	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C319	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C320	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C321	0800351R	CAP.-ELECTRO. 470UF-M 6.3V	0
C323	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
C400	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C401	0800352R	CAP.-ELECTRO.470UF 10V	0
C402	AA01123R	CCC105K10-B-16CT	0
C403	AA01123R	CCC105K10-B-16CT	0
C404	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C406	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C407	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C408	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C409	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C410	0800352R	CAP.-ELECTRO.470UF 10V	0
C411	AA01123R	CCC105K10-B-16CT	0
C412	AA01123R	CCC105K10-B-16CT	0
C413	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C414	AA01123R	CCC105K10-B-16CT	0
C415	AA01123R	CCC105K10-B-16CT	0
C416	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C418	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C419	0800352R	CAP.-ELECTRO.470UF 10V	0
C420	AA01123R	CCC105K10-B-16CT	0
C421	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C422	AA01123R	CCC105K10-B-16CT	0
C423	0800303R	CAP.-ELECTRO. 22UF-M 50V	0
C424	AA01123R	CCC105K10-B-16CT	0
C425	AA01123R	CCC105K10-B-16CT	0
C426	AA01123R	CCC105K10-B-16CT	0
C427	AA01123R	CCC105K10-B-16CT	0
C428	AA01123R	CCC105K10-B-16CT	0
C429	AA01123R	CCC105K10-B-16CT	0
C430	AA01123R	CCC105K10-B-16CT	0
C431	AA01123R	CCC105K10-B-16CT	0
C432	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C433	0800352R	CAP.-ELECTRO.470UF 10V	0
C434	0800352R	CAP.-ELECTRO.470UF 10V	0
C435	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
C436	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C437	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C438	AA01123R	CCC105K10-B-16CT	0
C439	AA01123R	CCC105K10-B-16CT	0
C440	AA01123R	CCC105K10-B-16CT	0
C441	AA01123R	CCC105K10-B-16CT	0
C443	0893205R	CAP 1608CHIP 560PFKB 50V TAPE	0
C447	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C448	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C453	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C454	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C500	AA01123R	CCC105K10-B-16CT	0
C501	AA01123R	CCC105K10-B-16CT	0
C502	AA01123R	CCC105K10-B-16CT	0
C503	AA01123R	CCC105K10-B-16CT	0
C504	AA01123R	CCC105K10-B-16CT	0
C505	AA01123R	CCC105K10-B-16CT	0

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SYMBOL	PART No.	DESCRIPTION	LC57
C506	AA01123R	CCC105K10-B-16CT	0
C507	AA01123R	CCC105K10-B-16CT	0
C508	AA01123R	CCC105K10-B-16CT	0
C509	AA01123R	CCC105K10-B-16CT	0
C510	AA01123R	CCC105K10-B-16CT	0
C511	AA01123R	CCC105K10-B-16CT	0
C512	AA01123R	CCC105K10-B-16CT	0
C513	AA01123R	CCC105K10-B-16CT	0
C514	AA01123R	CCC105K10-B-16CT	0
C515	AA01123R	CCC105K10-B-16CT	0
C518	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C519	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C522	0800303R	CAP.-ELECTRO. 22UF-M 50V	0
C523	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
C524	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
C526	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
C527	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
C590	0800352R	CAP.-ELECTRO.470UF 10V	0
C591	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C592	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C593	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
CA17	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
CA34	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CA35	AA00936R	CERAMIC CAP. 2125-X5R 4.7UF 10V	0
CA36	AA00936R	CERAMIC CAP. 2125-X5R 4.7UF 10V	0
CA48	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
CA49	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
CA50	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
CA51	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
CA52	0800318R	CAP.-ELECTRO. 47UF-M 25V	0
CA53	0800318R	CAP.-ELECTRO. 47UF-M 25V	0
CA54	0800328R	CAP. ELECTRO. 100UF-M 35V	0
CA55	0880194R	CAP.-POLYESTER 0.1UF-J 50V	0
CA56	0880194R	CAP.-POLYESTER 0.1UF-J 50V	0
CA57	0880194R	CAP.-POLYESTER 0.1UF-J 50V	0
CA59	AL01152S	CAP.ELECTROLYTIC 470UF-M(YXF)3	0
CA60	0284824F	CAP.-ELECTRO. 2200UF 35V	0
CA61	0284824F	CAP.-ELECTRO. 2200UF 35V	0
CA64	258616	CAP.-ELECTRO 2.2UF-M 50V	0
CA65	258616	CAP.-ELECTRO 2.2UF-M 50V	0
CA66	0800319R	CAP.-ELECTRO. 47UF-M 35V	0
CA67	0800328R	CAP. ELECTRO. 100UF-M 35V	0
CA68	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	0
CA69	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
CA93	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
CA94	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
CA95	0800359R	CAP.-ELECTRO. 1000UF-M 10V	0
CF04	AA00983R	CERAMIC CAPACITOR(0.47UF 25V-B	0
CF05	AA00983R	CERAMIC CAPACITOR(0.47UF 25V-B	0
CF08	0800345R	CAP.-ELECTRO. 330UF-M(SMG) 25V	0
CF09	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V	0
CF10	0800345R	CAP.-ELECTRO. 330UF-M(SMG) 25V	0
CF11	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V	0
CF13	AA00983R	CERAMIC CAPACITOR(0.47UF 25V-B	0
CF15	0800303R	CAP.-ELECTRO. 22UF-M 50V	0
CJ00	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
CJ01	AA00991R	CERAMIC CAPACITOR(0.1UF 50V-B)	0
CJ02	AL01105R	CAP.ELECTROLYTIC 1000UF-M(YXF)	0
CJ04	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
CJ05	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
CJ08	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
CJ09	AL01105R	CAP.ELECTROLYTIC 1000UF-M(YXF)	0
CJ10	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CJ11	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CJ12	0893179R	CAP.CHIP-CERAMIC 100000PF 16V TAPE	0
CJ30	0800288R	CAP.-ELECTRO. 4.7UF-M(SMG) 50V	0
CP01 ⚠	AJ00167F	CAP.CERAMIC CS12-F2GA472MYNS	0
CP02 ⚠	AJ00167F	CAP.CERAMIC CS12-F2GA472MYNS	0
CP03	AL02762	CAP.ELEC. 680UF 200V MXC SERIES	0
CP04	AL02762	CAP.ELEC. 680UF 200V MXC SERIES	0
		DIODES	
D005	2344041M	DIODE 1SS254TA/1SS270TA	0
D013	2348123M	ZENER MTZJ-6.2C TA	0
D301	2348212M	ZENER DIODE MTZ-J15B	0
D302	2348293M	DIODE MTZ-J33CTA	0
D500	2348031M	DIO-MTZ-J2.7ATA	0
D501	2348031M	DIO-MTZ-J2.7ATA	0
D502	CC01921R	SDS142WKF_PF	0
D503	CC01921R	SDS142WKF_PF	0
DA05	CC10521R	DIODE	0
DA11	CC01921R	SDS142WKF_PF	0
DA12	CC01921R	SDS142WKF_PF	0
DA13	CC01921R	SDS142WKF_PF	0
DA14	CC01921R	SDS142WKF_PF	0
DA15	CC10521R	DIODE	0
DA16	2344041M	DIODE 1SS254TA/1SS270TA	0
DA17	2344041M	DIODE 1SS254TA/1SS270TA	0
DF01	2344041M	DIODE 1SS254TA/1SS270TA	0
DF03	2344041M	DIODE 1SS254TA/1SS270TA	0
DF05	2344041M	DIODE 1SS254TA/1SS270TA	0
DF07	CC01891R	SDS511_PF	0
DF08	CC01891R	SDS511_PF	0
DJ00	CC01921R	SDS142WKF_PF	0
DJ01	CC01921R	SDS142WKF_PF	0
DJ04	2348101M	ZENER MTZJ-5.1A TA	0
DJ07	CC01911R	SDS142WAF_PF	0
DJ08	2344041M	DIODE 1SS254TA/1SS270TA	0
DJ09	2344041M	DIODE 1SS254TA/1SS270TA	0
DJ10	CC01921R	SDS142WKF_PF	0
DJ11	2348251M	ZENER MTZJ-22A TA	0
DJ14	2344041M	DIODE 1SS254TA/1SS270TA	0
DJ15	2344041M	DIODE 1SS254TA/1SS270TA	0
DJ16	2348132M	ZENER MTZ-J6.8BTA	0
DJ17	CC01911R	SDS142WAF_PF	0
DJ18	CC01911R	SDS142WAF_PF	0
DJ21	2344041M	DIODE 1SS254TA/1SS270TA	0
DJ22	2348132M	ZENER MTZ-J6.8BTA	0
DJ23	2348101M	ZENER MTZJ-5.1A TA	0
DJ25	2348101M	ZENER MTZJ-5.1A TA	0
DP01 ⚠	2342062	DIODE D3SBA60-4103	0
		PROTECTORS	
FE01	2721351	FUSE HOLDER	0
FP01 ⚠	FN00474	FUSE 51MS 060 L-U	0
		INTEGRATED CIRCUITS (IC's)	
I001	CK50991U	M306H3MC-067FP	0
I002	CK51111R	BD37A41FVM	0
I004	CK37216R	MONO IC TK11133CSCL	0
I005	CK50951R	SN74CB3T3125PWR	0
I301	CP05163S	IC SI-3090F(LF1111)	0
I302	CK37605R	IC TK11250CM	0
I401	CK39882U	MM1630CQ	0
I501	CK39891R	MM1631XJBE	0
I591	CP05163S	IC SI-3090F(LF1111)	0
IA02	2004752	TA8200AHQ	0
IF02	CP05163F	IC SI-3090F	0
IF03	CP05162F	IC SI-3050F	0
		JUMPER WIRES	
KA01	2784381M	0.60MM TAPED JUMP.WIRE	0
KA02	2784381M	0.60MM TAPED JUMP.WIRE	0
KF04	2784381M	0.60MM TAPED JUMP.WIRE	0
KF14	2784381M	0.60MM TAPED JUMP.WIRE	0
KP02	2784381M	0.60MM TAPED JUMP.WIRE	0
KP03	2784381M	0.60MM TAPED JUMP.WIRE	0
KP04	2784381M	0.60MM TAPED JUMP.WIRE	0
KP05	2784381M	0.60MM TAPED JUMP.WIRE	0
KPD1	2784381M	0.60MM TAPED JUMP.WIRE	0
KPD2	2784381M	0.60MM TAPED JUMP.WIRE	0
KPD3	2784381M	0.60MM TAPED JUMP.WIRE	0
KPD4	2784381M	0.60MM TAPED JUMP.WIRE	0
		COILS	
L002	BH00697R	FILTER COIL 100UH	0
L003	BH00697R	FILTER COIL 100UH	0
L005	BH00697R	FILTER COIL 100UH	0
L006	BH00697R	FILTER COIL 100UH	0
L007	BH00697R	FILTER COIL 100UH	0

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SYMBOL	PART No.	DESCRIPTION	LC57	SYMBOL	PART No.	DESCRIPTION	LC57
L400	BH00697R	FILTER COIL 100UH	0	R015	0790051R	RES.CHIP 1/16W 10K OHM	0
L401	2123781R	FILTER COIL 100UH(EL0607)	0	R017	0790024R	RES.CHIP 1/16W 100 OHM	0
L402	BH00697R	FILTER COIL 100UH	0	R019	0790044R	RES.CHIP 1/16W 3.3K OHM	0
L403	BH00697R	FILTER COIL 100UH	0	R020	0790051R	RES.CHIP 1/16W 10K OHM	0
L500	BH00697R	FILTER COIL 100UH	0	R021	0790055R	RES.CHIP 1/16W 22K OHM	0
LA01	BH00697R	FILTER COIL 100UH	0	R023	0790037R	RES.CHIP 1/16W 1.0K OHM	0
LJ00	2125797N	FILT.COIL(LHL08 10UH)	0	R024	0790024R	RES.CHIP 1/16W 100 OHM	0
LJ01	2125797N	FILT.COIL(LHL08 10UH)	0	R027	0790057R	RES.CHIP 1/16W 33K OHM	0
LJ02	2125803N	FILT.COIL(LHL08 27UH)	0	R028	0790051R	RES.CHIP 1/16W 10K OHM	0
LJ03	2125803N	FILT.COIL(LHL08 27UH)	0	R029	0790059R	RES.CHIP 1/16W 47K OHM	0
				R030	0790042R	RES.CHIP 1/16W 2.2K OHM	0
		TRANSISTORS		R032	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
Q002	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R033	0790046R	RES.CHIP 1/16W 4.7K OHM	0
Q003	CA02091R	SRC1204EF_PF	0	R034	0790028R	RES.CHIP 1/16W 220 OHM	0
Q005	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R035	0790051R	RES.CHIP 1/16W 10K OHM	0
Q006	CA02091R	SRC1204EF_PF	0	R037	0790051R	RES.CHIP 1/16W 10K OHM	0
Q008	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R038	0790055R	RES.CHIP 1/16W 22K OHM	0
Q009	CA02091R	SRC1204EF_PF	0	R039	0790052R	RES.CHIP 1/16W 12K OHM	0
Q011	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R040	0790064R	RES.CHIP 1/16W 100K OHM	0
Q012	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R042	0790059R	RES.CHIP 1/16W 47K OHM	0
Q013	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R043	0790046R	RES.CHIP 1/16W 4.7K OHM	0
Q014	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R044	0790064R	RES.CHIP 1/16W 100K OHM	0
Q015	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R046	0790046R	RES.CHIP 1/16W 4.7K OHM	0
Q017	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R047	0790047R	RES.CHIP 1/16W 5.6K OHM	0
Q018	CA02091R	SRC1204EF_PF	0	R048	0790047R	RES.CHIP 1/16W 5.6K OHM	0
Q021	CA02092R	SRC1202EF	0	R049	0790056R	RES.CHIP 1/16W 27K OHM	0
Q025	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R053	0790059R	RES.CHIP 1/16W 47K OHM	0
Q026	CA02091R	SRC1204EF_PF	0	R055	0790024R	RES.CHIP 1/16W 100 OHM	0
Q027	CA02091R	SRC1204EF_PF	0	R056	0790038R	RES.CHIP 1/16W 1.2K OHM	0
Q029	CA02091R	SRC1204EF_PF	0	R057	0790052R	RES.CHIP 1/16W 12K OHM	0
Q030	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R058	0790037R	RES.CHIP 1/16W 1.0K OHM	0
Q301	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R060	0790051R	RES.CHIP 1/16W 10K OHM	0
Q400	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R067	0790037R	RES.CHIP 1/16W 1.0K OHM	0
Q401	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R068	0790046R	RES.CHIP 1/16W 4.7K OHM	0
Q402	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R069	0790037R	RES.CHIP 1/16W 1.0K OHM	0
Q403	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R070	0790033R	RES.CHIP 1/16W 470 OHM	0
Q407	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R071	0790051R	RES.CHIP 1/16W 10K OHM	0
Q408	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R074	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
Q409	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R075	0790051R	RES.CHIP 1/16W 10K OHM	0
Q410	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R076	0790051R	RES.CHIP 1/16W 10K OHM	0
Q500	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R077	0790037R	RES.CHIP 1/16W 1.0K OHM	0
Q501	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R078	0790024R	RES.CHIP 1/16W 100 OHM	0
Q502	CA00461R	TRS.CHIP 2SD2114K 20V TAPE	0	R079	0790024R	RES.CHIP 1/16W 100 OHM	0
Q503	CA00461R	TRS.CHIP 2SD2114K 20V TAPE	0	R080	0790024R	RES.CHIP 1/16W 100 OHM	0
Q504	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R081	0790024R	RES.CHIP 1/16W 100 OHM	0
Q505	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R082	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
QA01	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R083	0790051R	RES.CHIP 1/16W 10K OHM	0
QA02	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R085	0790059R	RES.CHIP 1/16W 47K OHM	0
QA03	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R086	0790037R	RES.CHIP 1/16W 1.0K OHM	0
QA04	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R088	0790037R	RES.CHIP 1/16W 1.0K OHM	0
QA05	CA00461R	TRS.CHIP 2SD2114K 20V TAPE	0	R091	0790024R	RES.CHIP 1/16W 100 OHM	0
QA06	CA00461R	TRS.CHIP 2SD2114K 20V TAPE	0	R092	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
QA07	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R102	0790037R	RES.CHIP 1/16W 1.0K OHM	0
QA08	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R103	0790037R	RES.CHIP 1/16W 1.0K OHM	0
QA13	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R104	0790037R	RES.CHIP 1/16W 1.0K OHM	0
QA14	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R108	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
QA15	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R110	0790037R	RES.CHIP 1/16W 1.0K OHM	0
QA18	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R111	0790051R	RES.CHIP 1/16W 10K OHM	0
QA19	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R112	0790037R	RES.CHIP 1/16W 1.0K OHM	0
QA20	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R113	0790037R	RES.CHIP 1/16W 1.0K OHM	0
QF01	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R114	0790051R	RES.CHIP 1/16W 10K OHM	0
QJ00	CA02091R	SRC1204EF_PF	0	R115	0790051R	RES.CHIP 1/16W 10K OHM	0
QJ01	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R116	0790051R	RES.CHIP 1/16W 10K OHM	0
QJ02	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R119	0790024R	RES.CHIP 1/16W 100 OHM	0
QJ03	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R120	0790024R	RES.CHIP 1/16W 100 OHM	0
QJ04	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R121	0790024R	RES.CHIP 1/16W 100 OHM	0
QJ06	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R122	0790037R	RES.CHIP 1/16W 1.0K OHM	0
				R123	0790037R	RES.CHIP 1/16W 1.0K OHM	0
		RESISTORS		R124	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R002	0790024R	RES.CHIP 1/16W 100 OHM	0	R125	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R006	0790046R	RES.CHIP 1/16W 4.7K OHM	0	R126	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R009	0790058R	RES.CHIP 1/16W 39K OHM	0	R127	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R010	0790059R	RES.CHIP 1/16W 47K OHM	0	R128	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R011	0790051R	RES.CHIP 1/16W 10K OHM	0	R129	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R014	0790059R	RES.CHIP 1/16W 47K OHM	0	R130	0790024R	RES.CHIP 1/16W 100 OHM	0

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SYMBOL	PART No.	DESCRIPTION	LC57	SYMBOL	PART No.	DESCRIPTION	LC57
R131	0790024R	RES.CHIP 1/16W 100 OHM	0	R412	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R132	0790024R	RES.CHIP 1/16W 100 OHM	0	R413	0790024R	RES.CHIP 1/16W 100 OHM	0
R133	0790024R	RES.CHIP 1/16W 100 OHM	0	R414	0790024R	RES.CHIP 1/16W 100 OHM	0
R134	0790024R	RES.CHIP 1/16W 100 OHM	0	R415	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R135	0790024R	RES.CHIP 1/16W 100 OHM	0	R416	0790024R	RES.CHIP 1/16W 100 OHM	0
R136	0790024R	RES.CHIP 1/16W 100 OHM	0	R417	0790024R	RES.CHIP 1/16W 100 OHM	0
R137	0790024R	RES.CHIP 1/16W 100 OHM	0	R418	0790024R	RES.CHIP 1/16W 100 OHM	0
R138	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R419	0790024R	RES.CHIP 1/16W 100 OHM	0
R139	0790051R	RES.CHIP 1/16W 10K OHM	0	R420	0790024R	RES.CHIP 1/16W 100 OHM	0
R140	0196060R	RES 1608 CHIP 1/16W 510J TAPE	0	R421	0790024R	RES.CHIP 1/16W 100 OHM	0
R141	0196075R	RES 1608 CHIP 1/16W 2.0KJ TAPE	0	R422	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R142	0196075R	RES 1608 CHIP 1/16W 2.0KJ TAPE	0	R423	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R143	0790051R	RES.CHIP 1/16W 10K OHM	0	R424	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R144	0790051R	RES.CHIP 1/16W 10K OHM	0	R425	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R146	0790051R	RES.CHIP 1/16W 10K OHM	0	R426	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R148	0790059R	RES.CHIP 1/16W 47K OHM	0	R427	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R149	0790059R	RES.CHIP 1/16W 47K OHM	0	R428	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R150	0790059R	RES.CHIP 1/16W 47K OHM	0	R430	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R151	0790059R	RES.CHIP 1/16W 47K OHM	0	R431	0790051R	RES.CHIP 1/16W 10K OHM	0
R157	0790051R	RES.CHIP 1/16W 10K OHM	0	R432	0790051R	RES.CHIP 1/16W 10K OHM	0
R158	0790051R	RES.CHIP 1/16W 10K OHM	0	R433	0790051R	RES.CHIP 1/16W 10K OHM	0
R160	0790051R	RES.CHIP 1/16W 10K OHM	0	R434	0790051R	RES.CHIP 1/16W 10K OHM	0
R161	0790051R	RES.CHIP 1/16W 10K OHM	0	R435	0790024R	RES.CHIP 1/16W 100 OHM	0
R165	0790024R	RES.CHIP 1/16W 100 OHM	0	R436	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R166	0790024R	RES.CHIP 1/16W 100 OHM	0	R437	0790024R	RES.CHIP 1/16W 100 OHM	0
R167	0790024R	RES.CHIP 1/16W 100 OHM	0	R438	0790024R	RES.CHIP 1/16W 100 OHM	0
R168	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R439	0790051R	RES.CHIP 1/16W 10K OHM	0
R170	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R440	0790051R	RES.CHIP 1/16W 10K OHM	0
R171	0790024R	RES.CHIP 1/16W 100 OHM	0	R441	0790024R	RES.CHIP 1/16W 100 OHM	0
R172	0790024R	RES.CHIP 1/16W 100 OHM	0	R442	0790024R	RES.CHIP 1/16W 100 OHM	0
R173	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R443	0790024R	RES.CHIP 1/16W 100 OHM	0
R174	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R444	0790024R	RES.CHIP 1/16W 100 OHM	0
R180	0790051R	RES.CHIP 1/16W 10K OHM	0	R445	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R181	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R446	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R182	0790035R	RES.CHIP 1/16W 680 OHM	0	R447	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R183	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R448	0790024R	RES.CHIP 1/16W 100 OHM	0
R184	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R449	0790024R	RES.CHIP 1/16W 100 OHM	0
R185	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R450	0790024R	RES.CHIP 1/16W 100 OHM	0
R186	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R451	0790024R	RES.CHIP 1/16W 100 OHM	0
R187	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R452	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R188	0790051R	RES.CHIP 1/16W 10K OHM	0	R453	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R189	0790051R	RES.CHIP 1/16W 10K OHM	0	R454	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0
R190	0790051R	RES.CHIP 1/16W 10K OHM	0	R455	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	0
R191	0790064R	RES.CHIP 1/16W 100K OHM	0	R456	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	0
R192	0790051R	RES.CHIP 1/16W 10K OHM	0	R457	AQ00163R	RES.CHIP 1/16W 68 OHM TAPE	0
R200	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R458	0790064R	RES.CHIP 1/16W 100K OHM	0
R201	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R459	0790064R	RES.CHIP 1/16W 100K OHM	0
R202	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R460	0790064R	RES.CHIP 1/16W 100K OHM	0
R257	0790051R	RES.CHIP 1/16W 10K OHM	0	R462	0790051R	RES.CHIP 1/16W 10K OHM	0
R258	0790059R	RES.CHIP 1/16W 47K OHM	0	R463	0790051R	RES.CHIP 1/16W 10K OHM	0
R259	0790046R	RES.CHIP 1/16W 4.7K OHM	0	R464	0790064R	RES.CHIP 1/16W 100K OHM	0
R303	0790024R	RES.CHIP 1/16W 100 OHM	0	R465	0790064R	RES.CHIP 1/16W 100K OHM	0
R305	0790024R	RES.CHIP 1/16W 100 OHM	0	R466	0790064R	RES.CHIP 1/16W 100K OHM	0
R306	0790024R	RES.CHIP 1/16W 100 OHM	0	R467	0790064R	RES.CHIP 1/16W 100K OHM	0
R307	0790024R	RES.CHIP 1/16W 100 OHM	0	R468	0790051R	RES.CHIP 1/16W 10K OHM	0
R309	0790051R	RES.CHIP 1/16W 10K OHM	0	R469	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R311	0790055R	RES.CHIP 1/16W 22K OHM	0	R470	0790059R	RES.CHIP 1/16W 47K OHM	0
R312	0790059R	RES.CHIP 1/16W 47K OHM	0	R471	0790059R	RES.CHIP 1/16W 47K OHM	0
R313	0790051R	RES.CHIP 1/16W 10K OHM	0	R472	0790033R	RES.CHIP 1/16W 470 OHM	0
R314	0790024R	RES.CHIP 1/16W 100 OHM	0	R476	0790041R	RES.CHIP 1/16W 1.8K OHM	0
R315	0790051R	RES.CHIP 1/16W 10K OHM	0	R480	0790035R	RES.CHIP 1/16W 680 OHM	0
R316	0790028R	RES.CHIP 1/16W 220 OHM	0	R481	0790035R	RES.CHIP 1/16W 680 OHM	0
R317	0790034R	RES.CHIP 1/16W 560 OHM	0	R482	0790035R	RES.CHIP 1/16W 680 OHM	0
R318	0790034R	RES.CHIP 1/16W 560 OHM	0	R483	0790035R	RES.CHIP 1/16W 680 OHM	0
R319	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R484	0790041R	RES.CHIP 1/16W 1.8K OHM	0
R320	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R485	0790034R	RES.CHIP 1/16W 560 OHM	0
R324	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R486	0790034R	RES.CHIP 1/16W 560 OHM	0
R325	0195250R	RES 2125 CHIP JAMPER WIRE	0	R487	0790034R	RES.CHIP 1/16W 560 OHM	0
R401	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0	R500	0790064R	RES.CHIP 1/16W 100K OHM	0
R402	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0	R501	0790064R	RES.CHIP 1/16W 100K OHM	0
R403	AQ00164R	CHIP RESISTOR 1/16W 75OHM TAPE	0	R502	0790064R	RES.CHIP 1/16W 100K OHM	0
R404	0790051R	RES.CHIP 1/16W 10K OHM	0	R503	0790064R	RES.CHIP 1/16W 100K OHM	0
R409	0790024R	RES.CHIP 1/16W 100 OHM	0	R504	0790064R	RES.CHIP 1/16W 100K OHM	0
R410	0790024R	RES.CHIP 1/16W 100 OHM	0	R505	0790064R	RES.CHIP 1/16W 100K OHM	0
R411	0790024R	RES.CHIP 1/16W 100 OHM	0	R506	0790064R	RES.CHIP 1/16W 100K OHM	0

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SYMBOL	PART No.	DESCRIPTION	LC57	SYMBOL	PART No.	DESCRIPTION	LC57
R507	0790064R	RES.CHIP 1/16W 100K OHM	0	RA54	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R508	0790064R	RES.CHIP 1/16W 100K OHM	0	RA55	0790033R	RES.CHIP 1/16W 470 OHM	0
R509	0790064R	RES.CHIP 1/16W 100K OHM	0	RA56	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R510	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA57	0790051R	RES.CHIP 1/16W 10K OHM	0
R511	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA58	0790051R	RES.CHIP 1/16W 10K OHM	0
R512	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA59	0790059R	RES.CHIP 1/16W 47K OHM	0
R513	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA60	0790064R	RES.CHIP 1/16W 100K OHM	0
R514	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA61	0790064R	RES.CHIP 1/16W 100K OHM	0
R515	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA62	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R516	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA63	AT03197S	METAL OX. 2.2OHM 1W	0
R517	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA64	AT03197S	METAL OX. 2.2OHM 1W	0
R518	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA65	0790062R	RES.CHIP 1/16W 68K OHM	0
R519	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA66	0790062R	RES.CHIP 1/16W 68K OHM	0
R520	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA67	AT03871M	1KOHM 1/2W RDS50 CARBON FILM RESISTOR	0
R521	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA68	AT03871M	1KOHM 1/2W RDS50 CARBON FILM RESISTOR	0
R522	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA69	0790064R	RES.CHIP 1/16W 100K OHM	0
R523	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA76	0790051R	RES.CHIP 1/16W 10K OHM	0
R524	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA88	0790055R	RES.CHIP 1/16W 22K OHM	0
R525	0790042R	RES.CHIP 1/16W 2.2K OHM	0	RA89	0790059R	RES.CHIP 1/16W 47K OHM	0
R528	AQ00234R	RES.CHIP 1/16W 33K OHM TAPE	0	RA90	0790059R	RES.CHIP 1/16W 47K OHM	0
R529	AQ00234R	RES.CHIP 1/16W 33K OHM TAPE	0	RA91	0790064R	RES.CHIP 1/16W 100K OHM	0
R530	0790044R	RES.CHIP 1/16W 3.3K OHM	0	RA92	0790059R	RES.CHIP 1/16W 47K OHM	0
R531	0790044R	RES.CHIP 1/16W 3.3K OHM	0	RA93	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R532	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RA94	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R533	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RAA1	0790058R	RES.CHIP 1/16W 39K OHM	0
R534	0790024R	RES.CHIP 1/16W 100 OHM	0	RAA2	0790051R	RES.CHIP 1/16W 10K OHM	0
R535	0790024R	RES.CHIP 1/16W 100 OHM	0	RAA3	0790056R	RES.CHIP 1/16W 27K OHM	0
R536	0790064R	RES.CHIP 1/16W 100K OHM	0	RAA4	0790051R	RES.CHIP 1/16W 10K OHM	0
R537	0790064R	RES.CHIP 1/16W 100K OHM	0	RAA5	0790059R	RES.CHIP 1/16W 47K OHM	0
R538	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RAA6	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R539	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RAA7	0790055R	RES.CHIP 1/16W 22K OHM	0
R540	0790063R	RES.CHIP 1/16W 82K OHM	0	RAA8	0790051R	RES.CHIP 1/16W 10K OHM	0
R541	0790063R	RES.CHIP 1/16W 82K OHM	0	RF01	0790051R	RES.CHIP 1/16W 10K OHM	0
R542	0790051R	RES.CHIP 1/16W 10K OHM	0	RF02	0790055R	RES.CHIP 1/16W 22K OHM	0
R543	0790051R	RES.CHIP 1/16W 10K OHM	0	RF03	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R545	0790028R	RES.CHIP 1/16W 220 OHM	0	RF15	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R546	0790028R	RES.CHIP 1/16W 220 OHM	0	RF16	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R547	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RF17	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R548	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RF18	AQ00196R	RES.CHIP 1/16W 1.2K OHM TAPE	0
R550	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RF21	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R551	AQ00225R	RES.CHIP 1/16W 15K OHM TAPE	0	RF22	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R552	AQ00225R	RES.CHIP 1/16W 15K OHM TAPE	0	RF23	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R553	0790034R	RES.CHIP 1/16W 560 OHM	0	RF24	AQ00207R	RES.CHIP 1/16W 3.3K OHM TAPE	0
R554	0790059R	RES.CHIP 1/16W 47K OHM	0	RF26	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R555	0790059R	RES.CHIP 1/16W 47K OHM	0	RF27	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R556	0790051R	RES.CHIP 1/16W 10K OHM	0	RF28	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R557	0790059R	RES.CHIP 1/16W 47K OHM	0	RF29	0790055R	RES.CHIP 1/16W 22K OHM	0
R558	0790051R	RES.CHIP 1/16W 10K OHM	0	RF39	0790053R	RES.CHIP 1/16W 15K OHM	0
R590	AQ00169R	RES.CHIP 1/16W 120 OHM TAPE	0	RF41	0790053R	RES.CHIP 1/16W 15K OHM	0
R592	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RF42	0790053R	RES.CHIP 1/16W 15K OHM	0
RA03	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ00	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RA04	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ01	0790051R	RES.CHIP 1/16W 10K OHM	0
RA15	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ02	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RA16	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ03	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RA19	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ05	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RA20	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ06	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RA21	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ07	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RA22	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ08	0790042R	RES.CHIP 1/16W 2.2K OHM	0
RA27	0790058R	RES.CHIP 1/16W 39K OHM	0	RJ10	0790042R	RES.CHIP 1/16W 2.2K OHM	0
RA28	0790052R	RES.CHIP 1/16W 12K OHM	0	RJ11	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RA29	0790024R	RES.CHIP 1/16W 100 OHM	0	RJ12	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RA30	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RJ17	0790051R	RES.CHIP 1/16W 10K OHM	0
RA31	AQ00181R	RES.CHIP 1/16W 330 OHM TAPE	0	RJ18	0790048R	RES.CHIP 1/16W 6.8K OHM	0
RA32	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE	0	RJ20	0790059R	RES.CHIP 1/16W 47K OHM	0
RA33	0790058R	RES.CHIP 1/16W 39K OHM	0	RJ21	0790059R	RES.CHIP 1/16W 47K OHM	0
RA34	0790052R	RES.CHIP 1/16W 12K OHM	0	RJ22	0790034R	RES.CHIP 1/16W 560 OHM	0
RA35	0790024R	RES.CHIP 1/16W 100 OHM	0	RJ23	0790051R	RES.CHIP 1/16W 10K OHM	0
RA36	0790037R	RES.CHIP 1/16W 1.0K OHM	0	RJ24	0790059R	RES.CHIP 1/16W 47K OHM	0
RA37	AQ00181R	RES.CHIP 1/16W 330 OHM TAPE	0	RJ25	0790051R	RES.CHIP 1/16W 10K OHM	0
RA38	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE	0	RJ30	0790051R	RES.CHIP 1/16W 10K OHM	0
RA49	AQ00201R	RES.CHIP 1/16W 1.8K OHM TAPE	0	RJ31	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RA50	AQ00201R	RES.CHIP 1/16W 1.8K OHM TAPE	0	RJ32	0790051R	RES.CHIP 1/16W 10K OHM	0
RA51	AQ00203R	RES.CHIP 1/16W 2.2K OHM TAPE	0	RJ34	0790051R	RES.CHIP 1/16W 10K OHM	0
RA52	AQ00203R	RES.CHIP 1/16W 2.2K OHM TAPE	0	RJ35	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RA53	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	RJ36	0790037R	RES.CHIP 1/16W 1.0K OHM	0

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SYMBOL	PART No.	DESCRIPTION	LC57
RJ37	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RJ38	0790037R	RES.CHIP 1/16W 1.0K OHM	0
RJ39	0790024R	RES.CHIP 1/16W 100 OHM	0
RJ40	0790024R	RES.CHIP 1/16W 100 OHM	0
RJ43	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RJ44	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RJ45	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RJ46	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RP01	AT03662M	RES.MTL GRAZD FLM 1/2W 560K	0
RP02	AT03662M	RES.MTL GRAZD FLM 1/2W 560K	0
		CRYSTALS & FILTERS	
H301	BK00213R	CERAMIC FILTER LFA20-2A1E473MT	0
H302	BK00213R	CERAMIC FILTER LFA20-2A1E473MT	0
H303	BK10324R	CERAMIC FILTER NFM2012P13C105BT1	0
H304	BK10323R	CERAMIC FILTER NFM2012P13C105F	0
H305	BK10323R	CERAMIC FILTER NFM2012P13C105F	0
X002	BL00972R	10MHzRESONATOR	0
		CONNECTORS, JACKS	
J401	ES00581	JACK LAF5120-0403F	0
J402	ES00351	JACK LAP5120-0101F US9P Y/C3P	0
PAN2	2902263	PLUG PIN SUB MINI 4P	0
PDT	2959061	PINPOST 11P PH	0
PFA1	2902262	PLUG PIN SUB MINI 3P	0
PFA3	ED00384	PLUG 5P LOCK 2.5MM JST	0
PFA4	ED00384	PLUG 5P LOCK 2.5MM JST	0
PFH1	2959059	PLUG PH PIN POST 10P	0
PFH2	2902261	PLUG PIN SUB MINI 2P	0
PFT1	ED00393	PLUG 13P LOCK 2.5MM JST	0
PFT2	ED00391	PLUG 11P WITH LOCK	0
PINT	2902261	PLUG PIN SUB MINI 2P	0
PPDE	ED02813	4P VH CONNECTOR PLUG #2 4 NC	0
PPL	2674281	3P B-PLUG PIN	0
PPT1	ED03203	6P 2.5MM PITCH CONNECTOR TAC-L06X-A3	0
PPT2	ED04332U	2.54MM PITCH 20P B TO B CONNEC	0
PPT3	ED04332U	2.54MM PITCH 20P B TO B CONNEC	0
PSP1	ED00387	PLUG 8P LOCK 2.5MM JST	0
PST	ED04522U	2.54MM PITCH 120P B TO B CONNE	0
PTEM1	2959053	5P POST PIN 4P TYPE PH	0
PTW	2959054	PINPOST 5P PH	0
		MISCELLANEOUS	
A	JT24983	LC57 SIGNAL PWB ASY	0
B	JK08884	LC5X SIGNAL PWB #4	0
U301	HC00642	ENGE6403DF (TUNER)	0
NA02	MA01413	AUDIO HEAT SINK DP3K	0
NA02N	MJ03595	SCRW M3M_3*12PN+SM Unknown	0
NFI2	MA01272	HEAT SINK SPTE H=25	0
NFI2N	MJ03595	SCRW M3M_3*12PN+SM Unknown	0
NFI3	MA01272	HEAT SINK SPTE H=25	0
NFI3N	MJ03595	SCRW M3M_3*12PN+SM Unknown	0
Z1	9414017W	SILICONE COMPOUND(G-746)	0
		POWER PWB	
		CAPACITORS	
C901 ⚠	AN02085S	PLASTIC FILM CAP.CQ-224K251PVS-LE	0
C902 ⚠	AN10501S	METALLIZ POLYES(0.1UF 250V) A	0
C903 ⚠	AJ00183F	CAP. CERAMIC CD10-E2GA152MYNS	0
C904 ⚠	AJ00183F	CAP. CERAMIC CD10-E2GA152MYNS	0
C905 ⚠	AJ00173F	CAP.CERAMIC CD85-B2GA221KYNS	0
C906 ⚠	AJ00182F	CAP. CERAMIC CD85-E2GA102MYNS	0
C907	AJ00182F	CAP. CERAMIC CD85-E2GA102MYNS	0
C908	AL00029R	CAP.-ELECTORO. 22UF-M 250V	0
C909	AJ01014R	CAP.CERAMIC 100PF 2KV CC45SL	0
C910	0890087R	CAP.-CERAMIC 1000PF-K 50V	0
C911	0890085R	CAP.-CERAMIC 680PF-K 50V	0
C912	0800303R	CAP.-ELECTRO. 22UF-M 50V	0
C915	AL02761	CAP.ELEC. 470UF 200V MXC SERIES	0
C916	0800303R	CAP.-ELECTRO. 22UF-M 50V	0
C917	0880194R	CAP.-POLYESTER 0.1UF-J 50V	0
C918	0880207R	CAP.-POLYESTER 1.0UF-J 50V	0
C919	0880207R	CAP.-POLYESTER 1.0UF-J 50V	0
C920	AN02423	METALLIZ POLYPROPYLENE FILM CA	0
C921	AJ00129R	CAP. CERAMIC CK45-R3DD471K-VR	0
C922	AJ01005R	CAP.CERAMIC 22PF 2KV CC45SL3	0
C923	AJ01005R	CAP.CERAMIC 22PF 2KV CC45SL3	0
C925	0800337R	CAP.-ELECTRO 220UF 35V (SMG TY PE)	0
C926	0800312R	CAP..-ELECTRO. 33UF-M 50V	0
C927	0880198R	CAP.-PLOY. 0.22UF-J 50V	0
C928	0244105R	CAP.-CERAMIC 2200PF-K 50V TAPE	0
C929	0800283R	CAP.-ELECTRO. 2.2UF-M(SMG) 100V	0
C930	0880031R	CAP.-POLY.1000PF-K 50V	0
C931	0880205R	CAP.-POLYESTER 0.68UF-J 50V	0
C932	0880192R	CQM-683J500HFT	0
C933	AL00024R	ALUMINIUM ELECTRO. CAPACITOR(10UF250V)	0
C940	0800352R	CAP.-ELECTRO.470UF 10V	0
C942	0800334R	CAP.-ELECTRO. 220UF 10V	0
C943	0800319R	CAP.-ELECTRO. 47UF-M 35V	0
C944	0800319R	CAP.-ELECTRO. 47UF-M 35V	0
C945	AL01865R	470UF 35V ALUMINIUM ELECTRO. CAPACITOR	0
C946	AL01152R	CAP.ELECTROLYTIC 470UF-M(YXF)35V	0
C947	AL01129S	CAP.ELECTROLYTIC 1000UF-M(YXF)16V	0
C948	AL01835R	3300UF 6.3V ALUMINIUM ELECTROL	0
C949	AL01109S	CAP.ELECTROLYTIC 6800UF-M(YXF)	0
C950	0880198R	CAP.-PLOY. 0.22UF-J 50V	0
C952	0244105R	CAP.-CERAMIC 2200PF-K 50V TAPE	0
C953	0880181R	CAP.METAL-POLY.FLM 0.01UF 50V	0
C957	0800326R	CAP.-ELECTRO. 100UF-M 16V	0
C958	0243503R	CAP.-CERAMIC 150PF-K B 500V	0
C959	0243503R	CAP.-CERAMIC 150PF-K B 500V	0
C980	0880194R	CAP.-POLYESTER 0.1UF-J 50V	0
C981	0800319R	CAP.-ELECTRO. 47UF-M 35V	0
C982	0880194R	CAP.-POLYESTER 0.1UF-J 50V	0
		DIODES	
D901 ⚠	CH00051	DIODE SD-S1WB(A)60B (600V)	0
D902 ⚠	2342061	DIODE D3SB(A)60.	0
D903	CH02001M	DIODE 1SR139-400	0
D906	CH02011M	DIODE 1SR153-400	0
D907	2348113M	DIO-MTZ-J5.6CTA	0
D909	CH02001M	DIODE 1SR139-400	0
D910	2334324M	ZENER DIODE RD36E TAPE (B3) SI 500MW 36V	0
D911	2338531M	DIODE EG-01C (V) SI 0.5A	0
D912	CH03111M	EN01Z	0
D913	CH02011M	DIODE 1SR153-400	0
D914	CH02011M	DIODE 1SR153-400	0
D915	2348163M	ZENER MTZJ-9.1C TA	0
D916	CH02251M	DIODE AG01V1	0
D940	CH02001M	DIODE 1SR139-400	0
D941	CH02001M	DIODE 1SR139-400	0
D942	CH02001M	DIODE 1SR139-400	0
D943	CH02001M	DIODE 1SR139-400	0
D944	2344041M	DIODE 1SS254TA/1SS270TA	0
D945	2344041M	DIODE 1SS254TA/1SS270TA	0
D946	2344041M	DIODE 1SS254TA/1SS270TA	0
D947	2344041M	DIODE 1SS254TA/1SS270TA	0
D948	2344041M	DIODE 1SS254TA/1SS270TA	0
D949	CH02011M	DIODE 1SR153-400	0
D950	2344041M	DIODE 1SS254TA/1SS270TA	0
D951	2344041M	DIODE 1SS254TA/1SS270TA	0
D952	CH03051	DIODE FML-14S	0
D953	CH02604	DIODE FMX-12S	0
D954	CH11222	LIGHT EMITTING DIODE	0
D955	CH00795	DIODE FMB-2206	0
D958	2344041M	DIODE 1SS254TA/1SS270TA	0
D959	2344041M	DIODE 1SS254TA/1SS270TA	0
D962	2348132M	ZENER MTZ-J6.8BTA	0
D988	2348212M	ZENER DIODE MTZ-J15B	0
D990	2344041M	DIODE 1SS254TA/1SS270TA	0
D991	2343076M	HZ6B3LTA	0
D992	2334324M	ZENER DIODE RD36E TAPE (B3) SI 500MW 36V	0
		PROTECTORS	
E942 ⚠	AZ00921M	PROTECTOR 0491010.NRT1-[JA]	0
F901 ⚠	FN00476	FUSE 51MS 080 L-U	0
F902 ⚠	FN00464	FUSE 51MS 010 L-U	0
F903 ⚠	FN00472	FUSE 51MS 040 L-U	0
F904 ⚠	AT05789	RES.WIRE WOUND 5W 2.2OHM CEMEN	0

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SYMBOL	PART No.	DESCRIPTION	LC57
FE91	2721351	FUSE HOLDER	0
FE92	2721351	FUSE HOLDER	0
FE93	2721351	FUSE HOLDER	0
		INTEGRATED CIRCUITS (IC's)	
I901 ⚠	CP08515F	ANALOG MONOLITHIC IC STR-A6159	0
I902 ⚠	CP08541U	STR-T2268	0
I903 ⚠	CP07851	MONO IC TLP421	0
I904 ⚠	CP07851	MONO IC TLP421	0
I905 ⚠	CP07851	MONO IC TLP421	0
I906 ⚠	CP07851	MONO IC TLP421	0
I941	CP08351R	IC NJM2380L(T1)	0
I942	CP08551U	S7805PI	0
		JUMPER WIRES	
K001	2784381M	0.60MM TAPED JUMP.WIRE	0
K002	2784381M	0.60MM TAPED JUMP.WIRE	0
K003	2784381M	0.60MM TAPED JUMP.WIRE	0
K005	2784381M	0.60MM TAPED JUMP.WIRE	0
K006	2784381M	0.60MM TAPED JUMP.WIRE	0
K007	2784381M	0.60MM TAPED JUMP.WIRE	0
K008	2784381M	0.60MM TAPED JUMP.WIRE	0
K009	2784381M	0.60MM TAPED JUMP.WIRE	0
K010	2784381M	0.60MM TAPED JUMP.WIRE	0
K011	2784381M	0.60MM TAPED JUMP.WIRE	0
K012	2784381M	0.60MM TAPED JUMP.WIRE	0
K013	2784381M	0.60MM TAPED JUMP.WIRE	0
K014	2784381M	0.60MM TAPED JUMP.WIRE	0
K015	2784381M	0.60MM TAPED JUMP.WIRE	0
K016	2784381M	0.60MM TAPED JUMP.WIRE	0
K017	2784381M	0.60MM TAPED JUMP.WIRE	0
K018	2784381M	0.60MM TAPED JUMP.WIRE	0
K019	2784381M	0.60MM TAPED JUMP.WIRE	0
K020	2784381M	0.60MM TAPED JUMP.WIRE	0
K021	2784381M	0.60MM TAPED JUMP.WIRE	0
K022	2784381M	0.60MM TAPED JUMP.WIRE	0
K023	2784381M	0.60MM TAPED JUMP.WIRE	0
K024	2784381M	0.60MM TAPED JUMP.WIRE	0
K025	2784381M	0.60MM TAPED JUMP.WIRE	0
K026	2784381M	0.60MM TAPED JUMP.WIRE	0
K027	2784381M	0.60MM TAPED JUMP.WIRE	0
K028	2784381M	0.60MM TAPED JUMP.WIRE	0
K029	2784381M	0.60MM TAPED JUMP.WIRE	0
K030	2784381M	0.60MM TAPED JUMP.WIRE	0
K031	2784381M	0.60MM TAPED JUMP.WIRE	0
K032	2784381M	0.60MM TAPED JUMP.WIRE	0
K033	2784381M	0.60MM TAPED JUMP.WIRE	0
K034	2784381M	0.60MM TAPED JUMP.WIRE	0
K035	2784381M	0.60MM TAPED JUMP.WIRE	0
K036	2784381M	0.60MM TAPED JUMP.WIRE	0
K037	2784381M	0.60MM TAPED JUMP.WIRE	0
K038	2784381M	0.60MM TAPED JUMP.WIRE	0
K039	2784381M	0.60MM TAPED JUMP.WIRE	0
K040	2784381M	0.60MM TAPED JUMP.WIRE	0
K041	2784381M	0.60MM TAPED JUMP.WIRE	0
K042	2784381M	0.60MM TAPED JUMP.WIRE	0
K043	2784381M	0.60MM TAPED JUMP.WIRE	0
K044	2784381M	0.60MM TAPED JUMP.WIRE	0
K045	2784381M	0.60MM TAPED JUMP.WIRE	0
K046	2784381M	0.60MM TAPED JUMP.WIRE	0
K047	2784381M	0.60MM TAPED JUMP.WIRE	0
K048	2784381M	0.60MM TAPED JUMP.WIRE	0
K049	2784381M	0.60MM TAPED JUMP.WIRE	0
K050	2784381M	0.60MM TAPED JUMP.WIRE	0
KK02	2784381M	0.60MM TAPED JUMP.WIRE	0
KKE0	2784381M	0.60MM TAPED JUMP.WIRE	0
KKE1	2784381M	0.60MM TAPED JUMP.WIRE	0
KKG1	2784381M	0.60MM TAPED JUMP.WIRE	0
KKG2	2784381M	0.60MM TAPED JUMP.WIRE	0
KKR1	2784381M	0.60MM TAPED JUMP.WIRE	0
KKX1	2784381M	0.60MM TAPED JUMP.WIRE	0
			0
		COILS	0
L901 ⚠	BZ05691	LINE FILTER 7.5MH	0
L902 ⚠	BZ06201	LINE FILTER 1.8MH	0
L903	BH01342M	COIL FERRITE BEADS 2.3UH	0
L903A	2771893	FERITE BEADS CORE (005)	0
L940	BH01941	7313 TYPE CHOKE COIL 4.7UH	0
		TRANSISTORS	
Q901	CF02981R	2SC5343YT_PF	0
Q942	CF02981R	2SC5343YT_PF	0
Q943	CF02981R	2SC5343YT_PF	0
Q944	CF02981R	2SC5343YT_PF	0
Q980	CF02981R	2SC5343YT_PF	0
Q981	CF02991R	2SA1979YT_PF	0
Q982 ⚠	CF02962F	TRS.TF561S-A-LF610	0
		RESISTORS	
R901 ⚠	AT03672M	RES.MTL GRAZD FLM 1/2W 3.3M	0
R902 ⚠	AT03676M	RES.MTL GRAZD FLM 1/2W 6.8M	0
R903	AT04421M	ASR 12 TB 100KOHM J	0
R906	AT03848M	22.0OHM 1/2W RDS50 CARBON FILM RESISTOR	0
R908	AT03222S	METAL OX. 18.0OHM 1W	0
R909	AT03224S	METAL OX. 22.0OHM 1W	0
R910	AT03224S	METAL OX. 22.0OHM 1W	0
R911	AT03665M	RES.MTL GRAZD FLM 1/2W 1M	0
R912	AT03215S	METAL OX. 10.0OHM 1W	0
R914	0700027M	RES.-CARBON FLM 1/16W 100-JB	0
R915	0700042M	RES.-CARBON FLM 1/16W 1.2K-JB	0
R916	AT03179S	METAL OX. 0.47OHM 1W	0
R917	AT03179S	METAL OX. 0.47OHM 1W	0
R918	AT03179S	METAL OX. 0.47OHM 1W	0
R920	0700027M	RES.-CARBON FLM 1/16W 100-JB	0
R921	0700034M	RES.-CARBON FLM 1/16W 330-JB	0
R922	0700067M	RES.-CARBON FLM 1/16W 100K-JB	0
R923	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
R924	AT04428M	ASR 12 TB 390KOHM J	0
R925	0700057M	RES.-CARBON FLM 1/16W 18K-JB	0
R926	0700054M	RES.-CARBON FLM 1/16W 10K-JB	0
R927	0700054M	RES.-CARBON FLM 1/16W 10K-JB	0
R928	AT03665M	RES.MTL GRAZD FLM 1/2W 1M	0
R929	AT03665M	RES.MTL GRAZD FLM 1/2W 1M	0
R940	0700063M	RES.-CARBON FLM 1/16W 47K-JB	0
R941	0700063M	RES.-CARBON FLM 1/16W 47K-JB	0
R942	0700063M	RES.-CARBON FLM 1/16W 47K-JB	0
R943	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
R944	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
R945	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
R946	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
R947	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
R948	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
R949	0700054M	RES.-CARBON FLM 1/16W 10K-JB	0
R950	0700037M	RES.-CARBON FLM 1/16W 560-JB	0
R957	0700023M	RES.-CARBON FLM 1/16W 47-J	0
R958	0700031M	RES.-CARBON FLM 1/16W 180-JB	0
R961	0119617M	RES.-MTL FLM 1/8W 2.7K-FB	0
R962	0119593M	RES.-MTL FLM 1/8W 270-FB	0
R963	0700042M	RES.-CARBON FLM 1/16W 1.2K-JB	0
R964	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	0
R966	0119615M	RES.-MTL FLM 1/8W 2.2K-FB	0
R967	AT03242S	METAL OX. 100OHM 1W	0
R980	0700054M	RES.-CARBON FLM 1/16W 10K-JB	0
R981	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	0
R982	0700036M	RES.-CARBON FLM 1/16W 470-JB	0
R983	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
R984	0700027M	RES.-CARBON FLM 1/16W 100-JB	0
		SWITCHES, RELAYS	
S901 ⚠	FJ00311	RELAY DLS5D1-0(M)0.25W	0
S902 ⚠	FJ00311	RELAY DLS5D1-0(M)0.25W	0
S903 ⚠	FJ00311	RELAY DLS5D1-0(M)0.25W	0
S904 ⚠	FJ00311	RELAY DLS5D1-0(M)0.25W	0
		TRANSFORMERS	
T901 ⚠	BT02272	SWITCHING TRANSFORMER EI16F05J	0
T902 ⚠	BT02283	SWITCHING TRANSFORMER	0
			0
		CRYSTALS & FILTERS	
X901 ⚠	AJ00835	ERZV10D471	0

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SYMBOL	PART No.	DESCRIPTION	LC57
		CONNECTORS, JACKS	
PA	ED02801	2P PLUG PIN	0
PPDE	ED02813	4P VH CONNECTOR PLUG #2 4 NC	0
PPT1	ED03183	6P 2.5MM PITCH PLUG TAC-L06P-A	0
PPT2	ED04342U	2.54MM PITCH 20P B TO B CONNEC	0
PPT3	ED04342U	2.54MM PITCH 20P B TO B CONNEC	0
		MISCELLANEOUS	
A	JT24993	LC57 POWER PWB ASY	0
B	JK08896	LC5X POWER PWB #6	0
N901	MA01861	POWER HEAT SINK (A) DP5X	0
N940/42	MA01272	HEAT SINK SPTE H=25	0
N941	MA01871	POWER HEAT SINK (B) DP5X	0
NC93/NX91	ME03402	VARISTOR COVER DIA. 10 PVC	0
ND91~5	MJ03595	SCRW M3M_3*12PN+SM Unknown	0
NI91	MJ03595	SCRW M3M_3*12PN+SM Unknown	0
NX91	ME03402	VARISTOR COVER DIA. 10 PVC	0
Z101~	EU01122	EYELET CG-10002 DIA 2.0	0
Z201~	EU01121	EYELET CG-10001 DIA 1.6	0
Z901~2	ZX03171	SILICON RUBBER SES-40W	0
ZNS9	9414017W	SILICONE COMPOUND(G-746)	0
		DRIVE PWB	
		CAPACITORS	
C604	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	0
C605	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	0
C609	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C610	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C611	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
C612	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C615	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
C617	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
C618	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	0
C619	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C620	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	0
C621	AD00623R	CEC101M06-EWMT 105	0
C622	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	0
C623	AD00623R	CEC101M06-EWMT 105	0
C624	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	0
C625	AD00623R	CEC101M06-EWMT 105	0
C626	0893232R	CAP 1608CHIP 100000PFZF25V TAPE	0
C627	AD00623R	CEC101M06-EWMT 105	0
C634	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C635	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C637	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C713	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0
C714	AA01111R	CERAMIC CAPACITOR(1.0UF 6.3V)	0
C715	AA00968R	CCC106M06-B-20CT (10UF 6.3V 2012M)	0
C716	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C735	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C736	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C737	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C738	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C750	AD00623R	CEC101M06-EWMT 105	0
C751	AA01113R	CCC225K06-B-16CT	0
C752	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C753	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C754	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C755	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C756	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C757	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C758	AA01113R	CCC225K06-B-16CT	0
C759	AD00623R	CEC101M06-EWMT 105	0
C760	AD00623R	CEC101M06-EWMT 105	0
C761	AA01113R	CCC225K06-B-16CT	0
C762	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C763	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C764	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C765	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C766	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C767	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C768	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C769	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C770	AA01113R	CCC225K06-B-16CT	0
C771	AD00623R	CEC101M06-EWMT 105	0
C772	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C773	0893193R	CAP 1608CHIP 10000PFKB 25V TAPE	0
C7A0 ⚠	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	0
C7A1 ⚠	AD00622R	CEC470M06-EWMT 105	0
C7A2	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C7A3	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7A5	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7A7	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
C7A8	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7A9	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C7C0	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7C1	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C7C2	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C7C4	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7C5	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7C6 ⚠	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7C7	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7C8	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7C9 ⚠	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7E0 ⚠	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7E1	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7E3	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
C7E4	AA01002R	CERAMIC CAPACITOR(2012 2.2UF 2	0
C7E5	AD00632R	CEC470M16-EWMT 105	0
C7E6	AA01002R	CERAMIC CAPACITOR(2012 2.2UF 2	0
C7F0	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	0
C7F1	AD00622R	CEC470M06-EWMT 105	0
C7F2	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C7F3	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7F5	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7F7	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
C7F8	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7F9	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C7G0	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7G1	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C7G2	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C7G4	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7G5	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7G6	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7G7	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7G8	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7G9	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7H0	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
C7H1	AA01002R	CERAMIC CAPACITOR(2012 2.2UF 2	0
C7H2	AD00632R	CEC470M16-EWMT 105	0
C7H3	AA01002R	CERAMIC CAPACITOR(2012 2.2UF 2	0
C7H5	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C7K0	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	0
C7K1	AD00622R	CEC470M06-EWMT 105	0
C7K2	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C7K3	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7K5	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7K7	0893208R	CAP 1608CHIP 1000PFKB 50V TAPE	0
C7K8	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7K9	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C7L0	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7L1	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C7L2	0893222R	CAP 1608CHIP10000PFKB 50V TAPE	0
C7L4	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7L5	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7L6	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7L7	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7L8	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7L9	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7M0	AA01144R	CERAMIC CAP. 1608-B 1.0UF 16V	0
C7M1	AA01002R	CERAMIC CAPACITOR(2012 2.2UF 2	0
C7M2	AD00632R	CEC470M16-EWMT 105	0
C7M3	AA01002R	CERAMIC CAPACITOR(2012 2.2UF 2	0
C7M6	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C7M8	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
C7N2	AA01347R	CERAMIC CAPACITOR(0.1UF 25V-B)	0
C800	AA00991R	CERAMIC CAPACITOR(0.1UF 50V-B)	0
C801	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0

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SYMBOL	PART No.	DESCRIPTION	LC57	SYMBOL	PART No.	DESCRIPTION	LC57
C803	AD00623R	CEC101M06-EWMT 105	0	R610	0790051R	RES.CHIP 1/16W 10K OHM	0
C804	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	R615	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
C805	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	R616	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
C806	AD00623R	CEC101M06-EWMT 105	0	R623	0790024R	RES.CHIP 1/16W 100 OHM	0
C807	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0	R624	0790024R	RES.CHIP 1/16W 100 OHM	0
C808	AD00658R	CAP.CHIP-ELECTRO 100UF 16V	0	R625	0790051R	RES.CHIP 1/16W 10K OHM	0
C809	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	R626	0790051R	RES.CHIP 1/16W 10K OHM	0
C810	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	R627	0790024R	RES.CHIP 1/16W 100 OHM	0
C811	AD00623R	CEC101M06-EWMT 105	0	R628	0790024R	RES.CHIP 1/16W 100 OHM	0
C825	AD00635R	CEC470M25-EWMT 105	0	R629	0790037R	RES.CHIP 1/16W 1.0K OHM	0
C826	AA00991R	CERAMIC CAPACITOR(0.1UF 50V-B)	0	R630	0790037R	RES.CHIP 1/16W 1.0K OHM	0
C836	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	R631	0790024R	RES.CHIP 1/16W 100 OHM	0
C837	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	R632	0790024R	RES.CHIP 1/16W 100 OHM	0
C838	AD00623R	CEC101M06-EWMT 105	0	R633	0790024R	RES.CHIP 1/16W 100 OHM	0
C841	AA00937R	CAP.CHIP-CERAMIC 10UF 10V 2012BK	0	R634	0790024R	RES.CHIP 1/16W 100 OHM	0
C842	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0	R635	0790051R	RES.CHIP 1/16W 10K OHM	0
C843	AD00632R	CEC470M16-EWMT 105	0	R636	0790051R	RES.CHIP 1/16W 10K OHM	0
				R637	0790046R	RES.CHIP 1/16W 4.7K OHM	0
		DIODES		R638	0790046R	RES.CHIP 1/16W 4.7K OHM	0
D613	CC01891R	SDS511_PF	0	R639	0790024R	RES.CHIP 1/16W 100 OHM	0
D801	CC01891R	SDS511_PF	0	R640	0790024R	RES.CHIP 1/16W 100 OHM	0
D805	CC01891R	SDS511_PF	0	R641	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
D806	CC01891R	SDS511_PF	0	R643	0790024R	RES.CHIP 1/16W 100 OHM	0
				R644	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
		INTEGRATED CIRCUITS (IC's)		R645	0790051R	RES.CHIP 1/16W 10K OHM	0
I601	CK52831U	LC5X_DRIVE_MICRO(M30620MCP-291	0	R646	0790031R	RES.CHIP 1/16W 330 OHM	0
I602	CK39651R	DIGITAL MONOLITHIC IC (BR24L64	0	R648	0790024R	RES.CHIP 1/16W 100 OHM	0
I603	CK37051R	ANALOG MONOLITHIC IC(BD4729G)	0	R649	0790037R	RES.CHIP 1/16W 1.0K OHM	0
I700	CK51761U	DIGITAL MONOLITHIC IC (THC63LV	0	R650	0790051R	RES.CHIP 1/16W 10K OHM	0
I750	CK38931U	IC L3E07070K0A	0	R653	0790024R	RES.CHIP 1/16W 100 OHM	0
I7A0	CK39631U	IC L3E06110D0A	0	R656	0790024R	RES.CHIP 1/16W 100 OHM	0
I7A2	CK06371R	ANALOG MONOLITHIC IC(BA4560F)	0	R665	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
I7F0	CK39631U	IC L3E06110D0A	0	R666	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
I7K0	CK39631U	IC L3E06110D0A	0	R667	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
I7K1	CK18641R	IC BA10358F-E2/-T1	0	R668	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
I7K3	CK18641R	IC BA10358F-E2/-T1	0	R669	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
I800	CK38379R	ANALOG MONO SI-3010KM-TL	0	R670	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
I801	CK38379R	ANALOG MONO SI-3010KM-TL	0	R673	0790024R	RES.CHIP 1/16W 100 OHM	0
I802	CK38372R	DIGITAL MONO IC SI-3018KM	0	R674	0790024R	RES.CHIP 1/16W 100 OHM	0
I803	CK38375R	DIGITAL MONO IC SI-3033KM	0	R675	0790024R	RES.CHIP 1/16W 100 OHM	0
I804	CK37193R	MONO IC SI-3033LSA-TL	0	R676	0790059R	RES.CHIP 1/16W 47K OHM	0
I808	CK38375R	DIGITAL MONO IC SI-3033KM	0	R680	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
				R682	0790051R	RES.CHIP 1/16W 10K OHM	0
		COILS		R683	0790051R	RES.CHIP 1/16W 10K OHM	0
L601	BA00714R	3225 CHIP COIL 100UH	0	R687	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
L603	BA00714R	3225 CHIP COIL 100UH	0	R688	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
L604	BA00714R	3225 CHIP COIL 100UH	0	R692	0790024R	RES.CHIP 1/16W 100 OHM	0
L605	BA00714R	3225 CHIP COIL 100UH	0	R693	0790024R	RES.CHIP 1/16W 100 OHM	0
L750	BA00707R	3225 CHIP COIL 10UH	0	R694	0790051R	RES.CHIP 1/16W 10K OHM	0
L751	BA00707R	3225 CHIP COIL 10UH	0	R695	0790051R	RES.CHIP 1/16W 10K OHM	0
L753	BA00712R	3225 CHIP COIL 47UH	0	R698	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
L754	BA00712R	3225 CHIP COIL 47UH	0	R6A4	0790051R	RES.CHIP 1/16W 10K OHM	0
L7A0	BA00707R	3225 CHIP COIL 10UH	0	R6A5	0790051R	RES.CHIP 1/16W 10K OHM	0
L7A1	BA00707R	3225 CHIP COIL 10UH	0	R6C4	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
L7A3	BA00707R	3225 CHIP COIL 10UH	0	R6C5	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
L7F0	BA00707R	3225 CHIP COIL 10UH	0	R6D1	0790051R	RES.CHIP 1/16W 10K OHM	0
L7F1	BA00707R	3225 CHIP COIL 10UH	0	R6D4	0790024R	RES.CHIP 1/16W 100 OHM	0
L7F3	BA00707R	3225 CHIP COIL 10UH	0	R6D5	0790024R	RES.CHIP 1/16W 100 OHM	0
L7K0	BA00707R	3225 CHIP COIL 10UH	0	R6D6	0790024R	RES.CHIP 1/16W 100 OHM	0
L7K1	BA00707R	3225 CHIP COIL 10UH	0	R6D7	0790024R	RES.CHIP 1/16W 100 OHM	0
L7K3	BA00707R	3225 CHIP COIL 10UH	0	R6E5	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
				R6E6	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
		TRANSISTORS		R6E9	0790024R	RES.CHIP 1/16W 100 OHM	0
Q602	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R6F1	0790024R	RES.CHIP 1/16W 100 OHM	0
Q604	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R6F2	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
Q7F0	CA02132R	TRS.CHIP 2SA1980UFG_PF	0	R6F3	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
Q7F1	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R6G1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
Q7K0	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R6G3	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
Q7K1	CA02142R	TRS.CHIP 2SC5343UFG_PF	0	R6G4	0790024R	RES.CHIP 1/16W 100 OHM	0
				R6G5	0790024R	RES.CHIP 1/16W 100 OHM	0
		RESISTORS		R6H0	0790024R	RES.CHIP 1/16W 100 OHM	0
R602	0790051R	RES.CHIP 1/16W 10K OHM	0	R6H1	0790051R	RES.CHIP 1/16W 10K OHM	0
R605	0790028R	RES.CHIP 1/16W 220 OHM	0	R6H2	0790024R	RES.CHIP 1/16W 100 OHM	0
R608	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R6H3	0790051R	RES.CHIP 1/16W 10K OHM	0
R609	0790024R	RES.CHIP 1/16W 100 OHM	0	R6H4	0790024R	RES.CHIP 1/16W 100 OHM	0

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SYMBOL	PART No.	DESCRIPTION	LC57	SYMBOL	PART No.	DESCRIPTION	LC57
R6H6	0790051R	RES.CHIP 1/16W 10K OHM	0	R7F1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R6H9	0790033R	RES.CHIP 1/16W 470 OHM	0	R7F3	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0
R6K0	0790033R	RES.CHIP 1/16W 470 OHM	0	R7F4	AQ00202R	RES.CHIP 1/16W 2.0K OHM TAPE	0
R6K1	0790059R	RES.CHIP 1/16W 47K OHM	0	R7F5	0790024R	RES.CHIP 1/16W 100 OHM	0
R6K2	0790024R	RES.CHIP 1/16W 100 OHM	0	R7F7	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0
R6K5	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R7F8	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0
R6K8	0790037R	RES.CHIP 1/16W 1.0K OHM	0	R7F9	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0
R6L0	0790046R	RES.CHIP 1/16W 4.7K OHM	0	R7G0	0790024R	RES.CHIP 1/16W 100 OHM	0
R6M0	0790059R	RES.CHIP 1/16W 47K OHM	0	R7G1	0790059R	RES.CHIP 1/16W 47K OHM	0
R6M1	0790051R	RES.CHIP 1/16W 10K OHM	0	R7G2	0790044R	RES.CHIP 1/16W 3.3K OHM	0
R6M6	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7G3	0790024R	RES.CHIP 1/16W 100 OHM	0
R6M7	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7G4	AQ00189R	RES.CHIP 1/16W 680 OHM TAPE	0
R6N4	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7G5	0790051R	RES.CHIP 1/16W 10K OHM	0
R700	0790024R	RES.CHIP 1/16W 100 OHM	0	R7G6	0790051R	RES.CHIP 1/16W 10K OHM	0
R701	0790024R	RES.CHIP 1/16W 100 OHM	0	R7G7	0790044R	RES.CHIP 1/16W 3.3K OHM	0
R702	0790024R	RES.CHIP 1/16W 100 OHM	0	R7H5	0790064R	RES.CHIP 1/16W 100K OHM	0
R703	0790024R	RES.CHIP 1/16W 100 OHM	0	R7K0	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R704	0790024R	RES.CHIP 1/16W 100 OHM	0	R7K2	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0
R705	0790024R	RES.CHIP 1/16W 100 OHM	0	R7K3	AQ00202R	RES.CHIP 1/16W 2.0K OHM TAPE	0
R709	0790047R	RES.CHIP 1/16W 5.6K OHM	0	R7K4	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R711	0790064R	RES.CHIP 1/16W 100K OHM	0	R7K5	0790024R	RES.CHIP 1/16W 100 OHM	0
R714	0790047R	RES.CHIP 1/16W 5.6K OHM	0	R7K7	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0
R719	0790016R	RES.CHIP 1/16W 27 OHM	0	R7K8	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0
R729	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7K9	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0
R730	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7L0	0790024R	RES.CHIP 1/16W 100 OHM	0
R750	0790024R	RES.CHIP 1/16W 100 OHM	0	R7L1	0790059R	RES.CHIP 1/16W 47K OHM	0
R751	0790064R	RES.CHIP 1/16W 100K OHM	0	R7L3	0790024R	RES.CHIP 1/16W 100 OHM	0
R752	0790064R	RES.CHIP 1/16W 100K OHM	0	R7L4	0790054R	RES.CHIP 1/16W 18K OHM	0
R753	0790064R	RES.CHIP 1/16W 100K OHM	0	R7L6	0790047R	RES.CHIP 1/16W 5.6K OHM	0
R754	0790064R	RES.CHIP 1/16W 100K OHM	0	R7L8	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R755	0790064R	RES.CHIP 1/16W 100K OHM	0	R7L9	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R756	0790064R	RES.CHIP 1/16W 100K OHM	0	R7M3	0790054R	RES.CHIP 1/16W 18K OHM	0
R757	0790064R	RES.CHIP 1/16W 100K OHM	0	R7M5	0790024R	RES.CHIP 1/16W 100 OHM	0
R758	0790024R	RES.CHIP 1/16W 100 OHM	0	R7M7	0790047R	RES.CHIP 1/16W 5.6K OHM	0
R759	0790024R	RES.CHIP 1/16W 100 OHM	0	R7M8	0790051R	RES.CHIP 1/16W 10K OHM	0
R760	0790024R	RES.CHIP 1/16W 100 OHM	0	R7M9	0790051R	RES.CHIP 1/16W 10K OHM	0
R766	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7N0	0790051R	RES.CHIP 1/16W 10K OHM	0
R767	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7N3	0790052R	RES.CHIP 1/16W 12K OHM	0
R768	AQ00228R	RES.CHIP 1/16W 20K OHM TAPE	0	R7N4	0790039R	RES.CHIP 1/16W 1.5K OHM	0
R770	0790051R	RES.CHIP 1/16W 10K OHM	0	R7N5	0790051R	RES.CHIP 1/16W 10K OHM	0
R772	AQ00164R	CHIP RESITOR 1/16W 75OHM TAPE	0	R7N6	0790054R	RES.CHIP 1/16W 18K OHM	0
R774	0790019R	RES.CHIP 1/16W 47 OHM	0	R7N7	0790047R	RES.CHIP 1/16W 5.6K OHM	0
R778	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7N8	0790024R	RES.CHIP 1/16W 100 OHM	0
R779	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7N9	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R780	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P1	0790024R	RES.CHIP 1/16W 100 OHM	0
R781	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P2	0790024R	RES.CHIP 1/16W 100 OHM	0
R782	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P3	0790024R	RES.CHIP 1/16W 100 OHM	0
R783	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P4	0790024R	RES.CHIP 1/16W 100 OHM	0
R787	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P5	0790024R	RES.CHIP 1/16W 100 OHM	0
R788	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P6	0790024R	RES.CHIP 1/16W 100 OHM	0
R789	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P7	0790024R	RES.CHIP 1/16W 100 OHM	0
R790	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P8	0790024R	RES.CHIP 1/16W 100 OHM	0
R791	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7P9	0790024R	RES.CHIP 1/16W 100 OHM	0
R792	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7S0	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0
R796	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7S1	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0
R797	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7U0	0790051R	RES.CHIP 1/16W 10K OHM	0
R798	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7U1	0790051R	RES.CHIP 1/16W 10K OHM	0
R799	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7U4	0790041R	RES.CHIP 1/16W 1.8K OHM	0
R7A0	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7U5	0790024R	RES.CHIP 1/16W 100 OHM	0
R7A1	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R7U6	0790047R	RES.CHIP 1/16W 5.6K OHM	0
R7A3	AQ00339R	RES.CHIP 1/16W 47 OHM TAPE	0	R7U8	0790047R	RES.CHIP 1/16W 5.6K OHM	0
R7A4	AQ00202R	RES.CHIP 1/16W 2.0K OHM TAPE	0	R7U9	0790035R	RES.CHIP 1/16W 680 OHM	0
R7A5	0790024R	RES.CHIP 1/16W 100 OHM	0	R7V0	0790051R	RES.CHIP 1/16W 10K OHM	0
R7A7	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0	R7X4	0790064R	RES.CHIP 1/16W 100K OHM	0
R7A8	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0	R805	0790037R	RES.CHIP 1/16W 1.0K OHM	0
R7A9	AQ00331R	RES.CHIP 1/16W 10 OHM TAPE	0	R806	AQ00232R	RES.CHIP 1/16W 27K OHM TAPE	0
R7C0	0790024R	RES.CHIP 1/16W 100 OHM	0	R812	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R7C1	0790059R	RES.CHIP 1/16W 47K OHM	0	R815	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R7C2	0790055R	RES.CHIP 1/16W 22K OHM	0	R817	0790024R	RES.CHIP 1/16W 100 OHM	0
R7C3	0790055R	RES.CHIP 1/16W 22K OHM	0	R818	AQ00238R	RES.CHIP 1/16W 47K OHM TAPE	0
R7C4	0790055R	RES.CHIP 1/16W 22K OHM	0	R819	AQ00247R	RES.CHIP 1/16W 100K OHM TAPE	0
R7E4	0790024R	RES.CHIP 1/16W 100 OHM	0	R820	AQ00221R	RES.CHIP 1/16W 10K OHM TAPE	0
R7E5	0790024R	RES.CHIP 1/16W 100 OHM	0	R822	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R7E6	0790064R	RES.CHIP 1/16W 100K OHM	0	R823	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R7F0	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0	R833	AQ00194R	RES.CHIP 1/16W 1.0K OHM TAPE	0

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SYMBOL	PART No.	DESCRIPTION	LC57
R834	AQ00221R	RES.CHIP 1/16W 10K OHM TAPE	0
R837	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R838	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R854	0790024R	RES.CHIP 1/16W 100 OHM	0
R855	0790024R	RES.CHIP 1/16W 100 OHM	0
R856	0790024R	RES.CHIP 1/16W 100 OHM	0
R857	0790024R	RES.CHIP 1/16W 100 OHM	0
R858	0790024R	RES.CHIP 1/16W 100 OHM	0
R859	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
R860	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
		CRYSTAL & FILTERS	
X604	BL01181R	CSCTE16M0V51-R0	0
X606	BE00412R	3218 CHIP LC FILTER	0
X607	BE00412R	3218 CHIP LC FILTER	0
X608	BE00412R	3218 CHIP LC FILTER	0
X614	BE00412R	3218 CHIP LC FILTER	0
X615	BE00412R	3218 CHIP LC FILTER	0
X616	BE00412R	3218 CHIP LC FILTER	0
X700	BE00391R	SMD LC FILTER MEA3216L50R0	0
X702	BE00412R	3218 CHIP LC FILTER	0
X703	BE00391R	SMD LC FILTER MEA3216L50R0	0
X704	BE00412R	3218 CHIP LC FILTER	0
X800	BE00412R	3218 CHIP LC FILTER	0
X801	BE00412R	3218 CHIP LC FILTER	0
X802	BE00412R	3218 CHIP LC FILTER	0
X803	BE00412R	3218 CHIP LC FILTER	0
X804	BE00412R	3218 CHIP LC FILTER	0
X805	BE00412R	3218 CHIP LC FILTER	0
		CONNECTORS, JACKS	
P7A0	EA02263R	PLUG 54104-3631	0
P7A2	EA02134R	5P SMT PH CONNE. POST -LF-	0
P7F0	EA02263R	PLUG 54104-3631	0
P7K0	EA02263R	PLUG 54104-3631	0
PDD	EA02421U	30P LVDS-IF CONNECTER	0
PDE	EA02132R	3P SMT PH CONNE. POST -LF-	0
PDJ	EA02136R	7P SMT PH CONNE. POST -LF-	0
PDP	EA02139R	10P SMT PH CONNE. POST -LF-	0
PDT	EA02141R	11P SMT PH CONNE. POST -LF-	0
PSL	EA02135R	6P SMT PH CONNE. POST -LF-	0
		MISCELLANEOUS	
#001	MD09371	LC5X DRIVE SHIELD LOW	0
#002	MD09391	LC5X DRIVE CON COV A	0
#003	MD09401	LC5X DRIVE CON COV B	0
#004	MD09411	LC5X DRIVE CON COV C	0
#010	MC00704	HEAT SINK GEL SHEET 1 SILICON COH4000	0
#012	MC00811	LC47 DRIVE HEAT SINK	0
A	JP08483	LC57 DRIVE PWB ASY	0
B	JA05944	LC5X DRIVE PWB #4	0
		CONTROL PWB	
		CAPACITORS	
CM02	0880044R	CAP.-POLYESTER 0.01UF-KEB 50V	0
CM04	0880039R	CAP.-POLYESTER 0.0047UF-KEB50V	0
CM06	0880194R	CAP.-POLYESTER 0.1UF-J 50V	0
CM09	0880044R	CAP.-POLYESTER 0.01UF-KEB 50V	0
CM10	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
CM11	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	0
CM12	0800318R	CAP.-ELECTRO. 47UF-M 25V	0
CM17	0800325R	CAP.-ELECTRO. 100UF-M 10V	0
		DIODES	
DM03	CH02673	LED SM35176 (GREEN)	0
DM04	2348212M	ZENER DIODE MTZ-J15B	0
DM07	2348212M	ZENER DIODE MTZ-J15B	0
DM08	2348212M	ZENER DIODE MTZ-J15B	0
DM09	2348212M	ZENER DIODE MTZ-J15B	0
DM10	2348212M	ZENER DIODE MTZ-J15B	0
DM11	2348212M	ZENER DIODE MTZ-J15B	0
DM12	2348123M	ZENER MTZJ-6.2C TA	0
DM18	CH02671	LED SR3517F6 (RED)	0
DM19	CH02671	LED SR3517F6 (RED)	0

SYMBOL	PART No.	DESCRIPTION	LC57
		MODULES	
HM01	CZ01171	GP1UM281RK0F	0
		JUMPER WIRES	
KM01	2784381M	0.60MM TAPED JUMP.WIRE	0
KM05	2784381M	0.60MM TAPED JUMP.WIRE	0
KM07	2784381M	0.60MM TAPED JUMP.WIRE	0
KM51	2784381M	0.60MM TAPED JUMP.WIRE	0
KM52	2784381M	0.60MM TAPED JUMP.WIRE	0
KM53	2784381M	0.60MM TAPED JUMP.WIRE	0
KM54	2784381M	0.60MM TAPED JUMP.WIRE	0
KM55	2784381M	0.60MM TAPED JUMP.WIRE	0
KM56	2784381M	0.60MM TAPED JUMP.WIRE	0
KM57	2784381M	0.60MM TAPED JUMP.WIRE	0
KM58	2784381M	0.60MM TAPED JUMP.WIRE	0
KMA1	2784381M	0.60MM TAPED JUMP.WIRE	0
KMA2	2784381M	0.60MM TAPED JUMP.WIRE	0
KMJ1	2784381M	0.60MM TAPED JUMP.WIRE	0
KMJ2	2784381M	0.60MM TAPED JUMP.WIRE	0
KMJ3	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK1	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK2	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK3	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK4	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK5	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK6	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK7	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK8	2784381M	0.60MM TAPED JUMP.WIRE	0
KMK9	2784381M	0.60MM TAPED JUMP.WIRE	0
		TRANSISTORS	
QM01	CF02981R	2SC5343YT_PF	0
QM03	CF02981R	2SC5343YT_PF	0
QM04	CF02981R	2SC5343YT_PF	0
QM05	CF02981R	2SC5343YT_PF	0
QM10	CF02981R	2SC5343YT_PF	0
QM11	CF02981R	2SC5343YT_PF	0
QM12	CF02981R	2SC5343YT_PF	0
		RESISTORS	
RM03	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	0
RM04	0100065M	RES.-CARBON FLM 1/8W 1K-JB	0
RM06	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
RM07	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	0
RM08	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB	0
RM09	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	0
RM13	AT03871M	1KOHM 1/2W RDS50 CARBON FILM RESISTOR	0
RM15	0700054M	RES.-CARBON FLM 1/16W 10K-JB	0
RM20	0100041M	RES.-CARBON FLM 1/8W 100-JB	0
RM21	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
RM22	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
RM23	0700064M	RES.-CARBON FLM 1/16W 56K-JB	0
RM24	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	0
RM25	0100123M	RES.-CARBON FLM 1/8W 270K-JB	0
RM26	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	0
RM27	0700064M	RES.-CARBON FLM 1/16W 56K-JB	0
RM28	0100123M	RES.-CARBON FLM 1/8W 270K-JB	0
RM29	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
RM30	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
RM31	0100041M	RES.-CARBON FLM 1/8W 100-JB	0
RM35	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
RM41	0700032M	RES.-CARBON FLM 1/16W 220-JB	0
RM42	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	0
RM43	0700059M	RES.-CARBON FLM 1/16W 27K-JB	0
RM71	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	0
RM72	AT03871M	1KOHM 1/2W RDS50 CARBON FILM RESISTOR	0
RM73	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	0
RM74	AT03871M	1KOHM 1/2W RDS50 CARBON FILM RESISTOR	0
RM75	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	0
RM77	0700059M	RES.-CARBON FLM 1/16W 27K-JB	0
		SWITCHES	
SM02	FE10402R	PUSH SWITCH SKQNAB	0
SM03	FE10402R	PUSH SWITCH SKQNAB	0

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL	PART No.	DESCRIPTION	LC57
SM04	FE10402R	PUSH SWITCH SKQNAB	0
SM05	FE10402R	PUSH SWITCH SKQNAB	0
SM06	FE10402R	PUSH SWITCH SKQNAB	0
SM07	FE10402R	PUSH SWITCH SKQNAB	0
SM08	FE10402R	PUSH SWITCH SKQNAB	0
SS01	FH00171	SWITCH SSCTA11900	0
SS02	FH00171	SWITCH SSCTA11900	0
		CONNECTORS, JACKS	
JM02	EU01351	TERMINAL S*3P T-355971-01	0
PDJ	2675286	PH CONNE. 7P	0
PFF2A	ED02823	2.5MM PITCH 5P XA PLUG (H)	0
PFF2B	ED02823	2.5MM PITCH 5P XA PLUG (H)	0
PFT1	ED02832	2.5MM PITCH 13P XA PLUG (H)	0
PFT2	ED00391	PLUG 11P WITH LOCK	0
PJJ	2959056	PIN POST(7P)	0
PTW1	2675284	PIN POST (PH 5P)	0
PTW2	2675284	PIN POST (PH 5P)	0
		MISCELLANEOUS	
A	JT25003	LC57 CONTROL PWB ASY	0
B	JK09054	LC5X CONTROL-V PWB#4	0
		SENSOR PWB	
		CAPACITORS	
CL01	AA01141R	CERAMIC CAPACITOR(0.1UF 16V)	0
		DIODES	
DL01	CC00144R	CHIP DIODE RD5.6UM(B-T)	0
DL02	CC00144R	CHIP DIODE RD5.6UM(B-T)	0
		INTEGRATED CIRCUITS (IC's)	
IL01	CK52151R	EMC1001	0
		COILS	
LL01	BA00714R	3225 CHIP COIL 100UH	0
		RESISTORS	
RL01	0790057R	RES.CHIP 1/16W 33K OHM	0
RL02	0790024R	RES.CHIP 1/16W 100 OHM	0
RL03	0790024R	RES.CHIP 1/16W 100 OHM	0
RL04	0790051R	RES.CHIP 1/16W 10K OHM	0
RL05	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
RL06	0790001R	CHIP RESISTOR RECJUMPER-1-16C16T1608	0
		CONNECTORS, JACKS	
PTEM1	EA02133R	4P SMT PH CONNE. POST -LF-	0
PTM2A	EA02345R	6P 1.0MM PITCH CONNE. -501568-	0
PTM2B	EA02325R	6P 1.0MM PITCH CONNE. 501331-0	0
		MISCELLANEOUS	
A	JT25453	LC57 SENSOR PWB ASY	0
B	JK09064	LC5X SENSOR PWB #4	0
		FINAL ASS'Y	
		SPEAKERS	
U401	GK01401	SP-06CM C057FT514-10	0
U402	GK01391	SP-06X12D C123RB503-10	0
U403	GK01401	SP-06CM C057FT514-10	0
U404	GK01391	SP-06X12D C123RB503-10	0
		ACCESSORIES	
E203	FQ00021	DRY BATTERY(R6P-AA)	0
E301	HL02073	REMOTE CONTROL UNIT-CLU-4352UG2	0
N201	QR64621	50V720 INST.BOOK #1	0
N202	QT47721	NATIONAL WARRANTY CARD	0
N203	QT44782	LCD/PTV CANADA WARRANTY CARD #2	0
N206	QT47051	50V720 EASY GRAP	0

SYMBOL	PART No.	DESCRIPTION	LC57
		CONNECTORS, JACKS	
E003	3785502	V LOCK 11.5	0
EAN	2973729S	CO-04C-C2R5-221	0
ETU1	2979173	PLUG WITH COAXIAL CABLE	0
ETU2	2979178	CO-1C-C****321	0
ETU3	2979178	CO-1C-C****321	0
E999 ⚠	EV00558	COD VM0284-192-C-NON Pb	0
EDE	EF24344	3J PH CONNE. L=270MM #1N	0
EDJ	2908795	7J PH CONNECTOR 820MM	0
EDM	EW08471	LVDS CABLE L=600MM	0
EDT	2908914	11J PH CONNECTOR 750MM	0
EFA1	EF23364	3J SMP-EH CONNE. L= 650MM	0
EFF3	EF23672	5P XA-XARR CONNECTOR 150MM	0
EFA3	EF24782	5J XAP-SMP CONNECTOR 950MM	0
EFA4	EF24781	5J XAP-SMP CONNECTOR 390MM	0
EFA6	EF24771	5J SMP-XAP CONNECTOR 950MM	0
EFT1	EF23662	13P XA-XARR CONNECTOR 560MM	0
EFT2	EF22134	11P XA CONNECTOR 750MM	0
EPDE	EF24121	4J VH CONNECTOR 470MM #2.4N	0
EPL	EF08429	3J VH CONNE. L=390MM #2NC	0
ESL	EF23323	6P PH-SH CONNECTOR 750MM	0
ESP1	EF22807	8P XAP-SMR CONNE. L=500MM	0
ESP2	EF24761	7P XAP-5P SMR CONNECTOR 600MM	0
ETEM1	2908704	4J PH CONNECTOR 750MM	0
ETW	EF23315	5P PH-PH CONNECTOR 1300/800MM	0
EUSB	EW08451	4J USB CABLE L=1	0
ESPL	EF24872	5J SMP-FASTON CONNECTOR 2100/1	0
ESPR	EF24881	4J SM-FASTON CONNECTOR 750/600	0
EFF2	EF03231S	5P CONNECTOR L=180	0
EFT	EF20973	13P XA CONNECTOR 220MM	0
		MISCELLANEOUS	
EANT	HP00774	ANTENNA SWITCH BOX YAA41-0188N	0
ELAMP	EZ01368	CORD LAMP CCT9402 LC5X	0
NA001	UX21517	LAMP120W **CH 1**	0
NFAN	GS01092	D06R-05SS6	0
S001	FH00275	THERMAL SWITCH (SMALL PROTECTO	0
		PWB ASS'Y	
#	UE24553	LC57 CHASSIS ASY	0
#	UE24613	LC57 DIGITAL CORE B.ASY	0
A	JT24983	LC57 SIGNAL PWB ASY	0
A	JP08483	LC57 DRIVE PWB ASY	0
A	JP08493	LC57 MAIN DIGITAL PWB ASY	0
A	JP08503	LC57 SUBDIGITAL PWB ASY	0
A	JT24993	LC57 POWER PWB ASY	0
A	JT25003	LC57 CONTROL PWB ASY	0
A	JT25453	LC57 SENSOR PWB ASY	0
		OTHER ASS'Y	
#	KR03238	50V SCREEN ASY(TP) L	0
#	NT05041	50V720 FRAME ASY	0
#	UE25307	50V720 OPTICAL B.ASY **CH 3**	0
#	UE25331	LC57 CONTROL B.ASY	0
#	KS20271	50V720 MIRROR COVER ASY	0

QUICK REFERENCE PARTS LIST
IC'S & UNITS

No.	Symbol	Part No.	Description	Function	PWB ASSY	LC57	Remarks
1	A013	JP08493	LC57 MAIN DIGITAL PWB ASY	MAIN DIGITAL ASS'Y	MAIN DIGITAL	0	
2	A023	JP08503	LC57 SUBDIGITAL PWB ASY	SUB DIGITAL ASS'Y	SUB DIGITAL	0	
3	HM01	CZ01241	GP1FM514TZ0F	IR TRANSMITTING/ RECEIVER FOR DIGITAL AUDIO INTERFACE	SUBDIGITAL	0	
4	IM01	CK37218R	MONO IC TK11150CSCL	5 V VOLTAGE REGULATOR W ON/OFF SW (OPT AUDIO)	SUBDIGITAL	0	
5	IM02	CK50961R	SN74CB3T3306DCUR	DUAL FET BUS SWITCH (LEVEL CONVERTER 3.3V <=> 5V)	SUBDIGITAL	0	
6	IM03	CK38326R	IC SN74LVC1G32DCKR	SINGLE 2-INPUT POSITIVE-OR GATE	SUBDIGITAL	0	
7	IP02	CK38851R	MAX5026EUT-T	PWM STEP UP DC-DC CONVERTER (+34 V FOR VT)	SUBDIGITAL	0	
8	IP05	CK52131R	ANALOG MONOLITHIC IC(VT221H)	INTEGRATED STEP DOWN SWITCHING REGULATOR (D+3.3V)	SUBDIGITAL	0	
9	IP12	CK51331R	TK11100CSCB-G	ADJ POSITIVE LOW DROPOUT REGULATOR IC (ANALOG +5V)	SUBDIGITAL	0	
10	IPG1	CK33543R	ANALOG MONOLITHIC IC(PST9227N	SYSTEM RESET IC	SUBDIGITAL	0	
11	IPS1	CK52141R	ANALOG MONOLITHIC IC(SC4517AI	STEP DOWN SWITCHING REGULATOR (ANALOG +5V)	SUBDIGITAL	0	
12	IR01	CK50051R	MAX4788EXS-T	50mA/100mA CURRENT-LIMIT SWITCHES (FOR SD/MMC)	SUBDIGITAL	0	
13	IR03	CK38325R	DIGITAL MONOLITHIC IC (SN74LVC1G17DCKR)	SINGLE SCHMITT TRIGGER BUFFER	SUBDIGITAL	0	
14	IT01	CK37218R	MONO IC TK11150CSCL	5 V VOLTAGE REGULATOR W ON/OFF SW (FOR IF LOGIC)	SUBDIGITAL	0	
15	IT02	CK37605R	IC TK11250CM	5 V VOLTAGE REGULATOR W ON/OFF SW (FOR DIG TUNER)	SUBDIGITAL	0	
16	IT04	CK37218R	MONO IC TK11150CSCL	5 V VOLTAGE REGULATOR W ON/OFF SW (FOR OOB LOGIC)	SUBDIGITAL	0	
17	IT05	CK51131R	UPC2711TB	5V MMIC WIDEBAND AMPLIFIER (FOR OOB)	SUBDIGITAL	0	
18	IT06	CK51151R	UPC3221GV	5 V AGC AMPLIFIER	SUBDIGITAL	0	
19	IT07	CK51141R	UPC3220GR	CATV OUT-OF-BAND TUNER	SUBDIGITAL	0	
20	IT08	CK51121U	THEATER313	DIGITAL RECEIVER	SUBDIGITAL	0	
21	IT09	CK37211R	MONO IC TK11118CSCL	1.8 V VOLTAGE REGULATOR W ON/OFF SW (FOR IT08)	SUBDIGITAL	0	
22	IT13	CK50071R	TPS62040DGQR	HIGH EFFICIENCY STEP DOWN CONVERTER (1.1 V FOR IT08)	SUBDIGITAL	0	
23	IV04	CK51591R	WM8521H9GED/RV	STEREO DAC WITH INTEGRATED OUTPUT STAGE	SUBDIGITAL	0	
24	IV05	CK38328R	IC SN74LVC1G125DCKR	SINGLE BUS BUFFER GATE WITH 3-STATE OUTPUTS	SUBDIGITAL	0	
25	IW01	CK37218R	MONO IC TK11150CSCL	5 V VOLTAGE REGULATOR W ON/OFF SW (FOR POD IF)	SUBDIGITAL	0	
26	IW02	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	OCTAL BUFFER/DRIVER WITH 3-STATE OUTPUTS (FOR POD IF)	SUBDIGITAL	0	
27	IW03	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	OCTAL BUFFER/DRIVER WITH 3-STATE OUTPUTS (FOR POD IF)	SUBDIGITAL	0	
28	IW04	CK38327R	DIGITAL MONOLITHIC IC (SN74LVC1G86DCKR)	SINGLE 2-INPUT EXCLUSIVE-OR GATE	SUBDIGITAL	0	
29	IW05	CK51161R	PI5C32X245BEX	16-BIT, 2-PORT BUS SWITCH	SUBDIGITAL	0	
30	IW06	CK38378R	DIGITAL MONO IC SI-3012KM	1 A, LOW DROPOUT, 5V/3.3 V REGULATOR (FOR POD IF)	SUBDIGITAL	0	
31	IW07	CK38326R	IC SN74LVC1G32DCKR	SINGLE 2-INPUT POSITIVE-OR GATE	SUBDIGITAL	0	
32	IW08	CK38917R	DIGITAL MONOLITHIC IC (SN74LVC32APWR)	QUADRUPLE 2-INPUT POSITIVE-OR GATES	SUBDIGITAL	0	
33	IW09	CK36321R	SN74LVC125APW	QUADRUPLE BUS BUFFER GATE WITH 3-STATE OUT (POD IF)	SUBDIGITAL	0	
34	IW10	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	OCTAL BUFFER/DRIVER WITH 3-STATE OUTPUTS (FOR POD IF)	SUBDIGITAL	0	
35	IW11	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	OCTAL BUFFER/DRIVER WITH 3-STATE OUTPUTS (FOR POD IF)	SUBDIGITAL	0	
36	IW12	CK08271R	DIGITAL MONOLITHIC IC (SN74LVC244PW)	OCTAL BUFFER/DRIVER WITH 3-STATE OUTPUTS (FOR POD IF)	SUBDIGITAL	0	
37	IXJ1	CK51331R	TK11100CSCB-G	ADJ POSITIVE LOW DROPOUT REGULATOR IC (ANALOG +9V)	SUBDIGITAL	0	
38	UT01	HJ00541	ENV56N01D5F	DIGITAL TUNER	SUBDIGITAL	0	
39	I001	CK50991U	M306H3MC-067FP	TV SUB μCON	SIGNAL	0	
40	I002	CK51111R	BD37A41FVM	VOLTAGE DETECTOR IC W/ WATCHDOG TIMER	SIGNAL	0	
41	I004	CK37216R	MONO IC TK11133CSCL	3.3 V VOLTAGE REGULATOR WITH ON/OFF SWITCH	SIGNAL	0	
42	I005	CK50951R	SN74CB3T3125PWR	QUADRUPLE FET BUS SWITCH	SIGNAL	0	
43	I301	CP05163S	IC SI-3090F(LF1111)	LOW DROPOUT VOLTAGE 9.3 V IC REGULATOR	SIGNAL	0	
44	I302	CK37605R	IC TK11250CM	5 V VOLTAGE REGULATOR W ON/OFF SW	SIGNAL	0	
45	I401	CK39882U	MM1630CQ	VIDEO SELECTOR IC	SIGNAL	0	
46	I501	CK39891R	MM1631XJBE	AUDIO SELECTOR IC	SIGNAL	0	
47	I591	CP05163S	IC SI-3090F(LF1111)	LOW DROPOUT VOLTAGE 9.3 V IC REGULATOR	SIGNAL	0	
48	IA02	2004752	TA8200AHQ	DUAL AUDIO POWER AMPLIFIER	SIGNAL	0	
49	IF02	CP05163F	IC SI-3090F	LOW DROPOUT VOLTAGE 9.3 V IC REGULATOR	SIGNAL	0	
50	IF03	CK39652R	IC SI-3090F	LOW DROPOUT VOLTAGE 9.3 V IC REGULATOR	SIGNAL	0	
51	U301	HC00642	ENGE6403DF	ANALOG TUNER	SIGNAL	0	
52	I901	CP08515F	ANALOG MONOLITHIC IC STR-A6159	POWER IC	POWER	0	
53	I902	CP08541U	STR-T2268	POWER IC	POWER	0	
54	I903	CP07851	MONO IC TLP421	OPTOCOUPLER	POWER	0	
55	I904	CP07851	MONO IC TLP421	OPTOCOUPLER	POWER	0	
56	I905	CP07851	MONO IC TLP421	OPTOCOUPLER	POWER	0	
57	I906	CP07851	MONO IC TLP421	OPTOCOUPLER	POWER	0	
58	I941	CP08351R	IC NJM2380L(T1)	SHUNT REGULATOR	POWER	0	
59	I942	CP08551U	S7805PI	5 V FIXED VOLTAGE REGULATOR	POWER	0	
60	Q982	CF02962F	TRS.TF561S-A-LF610	THYRISTOR	POWER	0	
61	T901	BT02272	SWITCHING TRANSFORMER EI16F05J	SWITCHING TRANSFORMER	POWER	0	
62	T902	BT02283	SWITCHING TRANSFORMER	SWITCHING TRANSFORMER	POWER	0	
63	I601	CK52831U	LC5X_DRIVE_MICRO(M30620MCP-291	DRIVE mCON	DRIVE	0	
64	I602	CK39651R	DIGITAL MONOLITHIC IC (BR24L64)	4 x 16 BIT EEPROM	DRIVE	0	
65	I603	CK37051R	ANALOG MONOLITHIC IC(BD4729G)	RESET IC	DRIVE	0	
66	I700	CK51761U	DIGITAL MONOLITHIC IC (THC63LVD104A)	90 MHz 30 BITS COLOR LVDS RECEIVER	DRIVE	0	
67	I750	CK38931U	IC L3E07070K0A	LCD TIMING GENERATOR	DRIVE	0	
68	I7A0	CK39631U	IC L3E06110D0A	LCD DRIVER (SAMPLE & HOLD)	DRIVE	0	
69	I7A2	CK06371R	ANALOG MONOLITHIC IC(BA4560F)	DUAL HIGH SLEW RATE OPERATIONAL AMPLIFIER	DRIVE	0	
70	I7F0	CK39631U	IC L3E06110D0A	LCD DRIVER (SAMPLE & HOLD)	DRIVE	0	

QUICK REFERENCE PARTS LIST
IC'S & UNITS

No.	Symbol	Part No.	Description	Function	PWB ASSY	LC57	Remarks
71	I7K0	CK39631U	IC L3E06110D0A	LCD DRIVER (SAMPLE & HOLD)	DRIVE	0	
72	I7K1	CK18641R	IC BA10358F-E2/-T1	DUAL GROUND SENSE OP-AMP	DRIVE	0	
73	I7K3	CK18641R	IC BA10358F-E2/-T1	DUAL GROUND SENSE OP-AMP	DRIVE	0	
74	I800	CK38379R	ANALOG MONO SI-3010KM-TL	1 A, LOW-DROPOUT, VOLTAGE REGULATOR	DRIVE	0	
75	I801	CK38379R	ANALOG MONO SI-3010KM-TL	1 A, LOW-DROPOUT, VOLTAGE REGULATOR	DRIVE	0	
76	I802	CK38372R	DIGITAL MONO IC SI-3018KM	LOW-DROPOUT, 1.8 V VOLTAGE REGULATOR	DRIVE	0	
77	I803	CK38375R	DIGITAL MONO IC SI-3033KM	LOW-DROPOUT, 3.3 V VOLTAGE REGULATOR	DRIVE	0	
78	I804	CK37193R	MONO IC SI-3033LSA-TL	LOW-VOLTAGE, HIGH-CURRENT 3.3 V LINEAR REGULATOR	DRIVE	0	
79	I808	CK38375R	DIGITAL MONO IC SI-3033KM	1 A, LOW-DROPOUT, 3.3 V VOLTAGE REGULATOR	DRIVE	0	
80	DM15	CH02721	PHOTODIODE PNZ313B	IR RECEIVER	CONTROL	0	
81	HM01	CZ01171	GP1UM281RK0F	IR RECEIVER	CONTROL	0	
82	IL01	CK52151R	EMC1001	THERMAL SENSOR	SENSOR	0	
83	EANT	HP00774	ANTENNA SWITCH BOX YAA41-0188N	ANTENNA SWITCH BOX	FINAL ASSY	0	
84	NFAN	GS01092	D06R-05SS6	COOLING FAN	FINAL ASSY	0	

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