

**SONY**<sup>®</sup>

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COLOR VIDEO CAMERA

**SSC-DC50A/50AP**

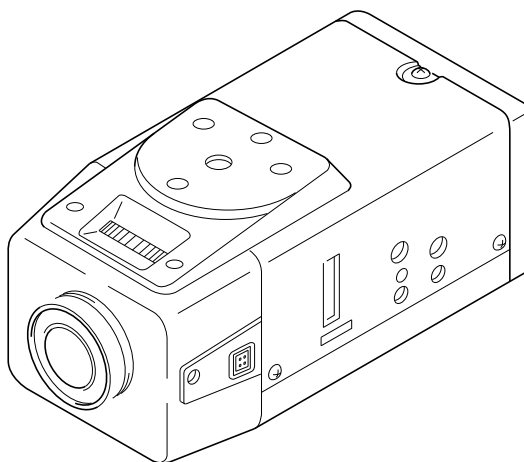
**SSC-DC54A/54AP**

**SSC-DC58AP**

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**SERVICE MANUAL**

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**ExwaveHAD**<sup>™</sup>

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### **SAFETY RELATED COMPONENT WARNING**

Components identified by shading and  $\triangle$  marked on the schematic diagrams and parts list are critical to safe operation. Replace these components with SONY parts whose part numbers appear as shown in this manual or in supplements published by SONY.



**SONY**

3-864-780-11 (1)

## Color Video Camera

### Operation Instructions

Before operating the unit, please read these instructions thoroughly and retain them for future reference.

### Mode d'emploi

Avant de faire fonctionner cet appareil, lisez attentivement le présent mode d'emploi et conservez-le pour toute référence ultérieure.

### Manual de instrucciones

Antes de utilizar la unidad, lea las instrucciones con atención y consérvelas para su consulta en el futuro.

**ExwaveHAD™****SSC-DC50A/50AP/54A/54AP/58AP**

Sony Corporation © 1998 Printed in Japan

### Owner's Record

The model and serial numbers are located on the bottom. Record these numbers in the spaces provided below.

Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

### WARNING

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

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



NOTICE FOR THE SSC-DC50A/54A

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

### For the customers in the U.S.A. (SSC-DC50A/54A only)

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

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

This device requires shielded interface cable to comply with FCC emission limits.

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

### AVERTISSEMENT

**Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.**

**Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.**

### ADVERTENCIA

**Para prevenir el riesgo de incendios o de electrocución, no exponga la unidad a la lluvia ni a la humedad. Para evitar descargas eléctricas, no abra la unidad. En caso de avería, solicite el servicio de personal cualificado únicamente.**

### English

### Features

This SSC-DC50A/50AP/54A/54AP/58AP color video camera is equipped with a 1/2 inch Exwave HAD™ (Exwave Hole-Accumulated Diode) CCD (Charge Coupled Device), and also has the following features:

- High sensitivity (Minimum illumination: 0.8 lux, F1.2)
  - CCD-IRIS™\* function
  - Automatic white balance tracking and adjustment
  - 8-level electronic shutter
  - External synchronization
  - Auto-iris lens controlled by video signal or DC power supply
  - Automatic backlight compensation through Smart Control™\* (operates when AGC switch is in the "ON" position)
  - The SSC-DC50A/50AP has a power multiplex feature
  - The SSC-DC54A/54AP/58AP has a line lock function
- \* Exwave HAD, CCD IRIS and Smart Control are registered trademarks of Sony Corporation.

### Notes on Use

#### Power supply

The SSC-DC50A/50AP must always be operated with a 12 V DC power supply\* or the YS-W150/150P/250/250P camera adaptor (not supplied). The SSC-DC54A/54AP must always be operated with a 24V AC class 2 power supply.\* SSC-DC58AP must always be operated with a 220 to 240 V AC power supply.

\* In the U.S.A., use a UL-listed class 2 power supply. In Canada, use a CSA-certified Class 2 power supply.

#### Handling

Be careful not to spill water or other liquids on the unit, or allow combustible or metallic objects to fall inside the body. If used with foreign matter inside, the camera is liable to fail, or be a cause of fire or electric shock.

#### Operation and storage locations

Avoid aiming the camera at very bright objects such as the sun or electric lights for an extended period. Avoid operating or storing the unit in the following locations.

- Extremely hot or cold places (operating temperature -10°C to + 50°C (14°F to 122°F))
- Damp or dusty places
- Where it is exposed to rain
- Where it is subject to strong vibration
- Close to generators of powerful electromagnetic radiation such as radio or TV transmitters.
- Where it is subject to fluorescent light reflections
- Where it is subject to unstable (flickering, etc.) lighting conditions.

#### Care of the unit

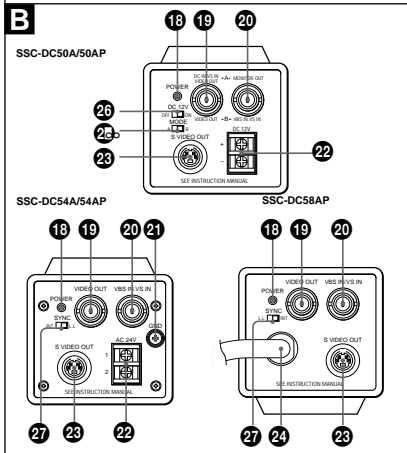
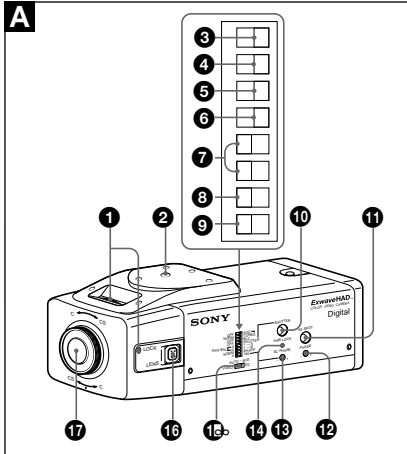
- Remove dust or dirt on the surface of the lens or CCD with a blower.
- Use a dry, soft cloth to clean the body. If it is very dirty, use a cloth dampened with a small quantity of neutral detergent, then wipe dry.
- Avoid using volatile solvents such as thinners, alcohol, benzene, and insecticides. They may damage the surface finish and/or impair the operation of the camera.

#### Other

- When using automatic backlight compensation, hunting may occur.
- If you use the CCD-IRIS function in locations where the camera is exposed to fluorescent light, a slow color change may occur.
- If AGC is turned on while in the TURBO mode, bright objects may be colored. In the event of any problems with the operation of the camera, contact your Sony dealer.

# SECTION 1 OPERATING INSTRUCTIONS

This section is extracted  
from operation manual.



**Location and Function of Parts**

**Top/Front/Side Illustration A**

- 1 Flangeback adjustment ring and locking screw**  
Use this ring to adjust the flangeback (the distance between the lens mounting plane and the image plane).  
Use the locking screw to lock the focal length.
- 2 Tripod adaptor**  
The tripod adaptor can be attached to either the top or bottom of the camera using the four attached screws (1/4" UNC-20, length = 4.5 ± 0.2 mm). On the SSC-DC50A/54A, the tripod adaptor is attached on top of the main body. On the SSC-DC50AP/54AP/58AP, it is attached underneath the main body.
- 3 AGC (automatic gain control) ON/OFF switch**  
The automatic gain function automatically adjusts picture gain in accordance with the brightness of the subject.
- 4 Gain up switch**  
Switching the Gain up switch to the TURBO mode while the AGC switch is on increases gain by up to 6dB over the NORM (normal) mode.
- 5 BLC (back lighting compensation) ON/OFF switch**  
When switched on, this function adjusts exposure to compensate for situations where the subject is lit from behind.
- 6 SHUTTER ON/OFF switch**  
Turning the switch on enables the 8-level electronic shutter and the CCD IRIS.

- 7 White Balance Mode switch**  
**AWB (Auto White Balance):** Set WHT BAL A to 1; B to 1. The LOCK button 11 can be used in this mode. This switch sets the appropriate white balance if the adjustment setting has been set in the memory.  
**5600K (Fixed mode):** Set WHT BAL A to 0; B to 1  
White balance mode for daylight.  
**ATW (Auto Tracing White balance):** Set WHT BAL A to 1; B to 0. The camera automatically adjusts the white balance according to the color temperature of the light source. This is particularly effective if the white balance is not functioning in the ATWpro mode.  
**ATWpro (Auto Tracing White balance Pro):** Set WHT BAL A to 0; B to 0. The unit automatically adjusts the white balance according to the color temperature (2500K–6000K) of the light source.
- 8 Aperture switch**  
Set in the "SHARP" mode to sharpen the outline and produce a clearer picture.
- 9 0-180 switch**  
When VBS is locked, you can change the range by adjusting the subcarrier phase.
- 10 Shutter Speed/CCD IRIS Mode switch**  
By setting the rotary switch, you can set the shutter speed (0-7) and the CCD IRIS mode (8, 9). If the SHUTTER ON/OFF switch 6 is OFF, this switch is disabled.  
0: 1/60 (1/50)\*, 1: 1/100 (1/120)\*, 2: 1/250, 3: 1/500, 4: 1/1000, 5: 1/2000, 6: 1/4000, 7: 1/10000, 8: Normal CCD IRIS function, 9: CCD IRIS with forced back light compensation  
\* Numbers within the parentheses are for SSC-DC50AP/54AP/58AP
- 11 AE SPOT switch**  
By setting the rotary switch (0-7), you can set the image frame for the automatic exposure control. (See Illustration C. The shaded part indicates the image frame that has been set.)  
0: Whole screen, 1: Center (small), 2: Lower left, 3: Lower right, 4: Center (bottom), 5: Upper left, 6: Upper right, 7: Center (Large)  
When an image frame is selected (1-7 on the rotary switch), the frame is displayed for 1 second on the monitor screen. The rotary switch settings 8 and 9 have the following function (the image frame mode is fixed to Full Screen):  
8: Forced backlight compensation, 9: Excessive forward light compensation

- 12 PHASE volume**  
You can adjust the horizontal/vertical phase shift.
- 13 SC PHASE (Sub Carrier Phase) volume**  
With the 0-180 switch 9, you can adjust a burst phase shift when VBS is locked.

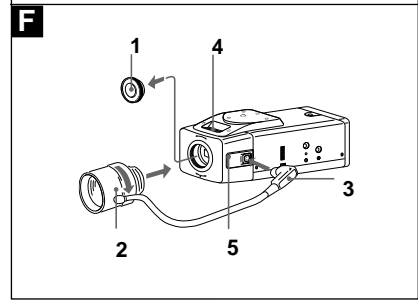
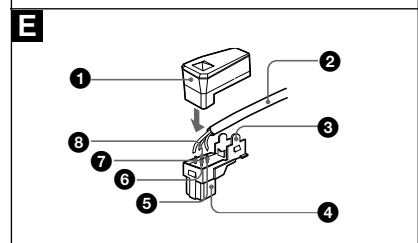
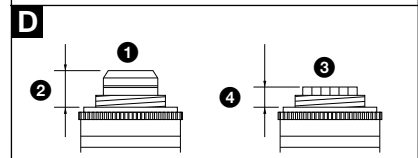
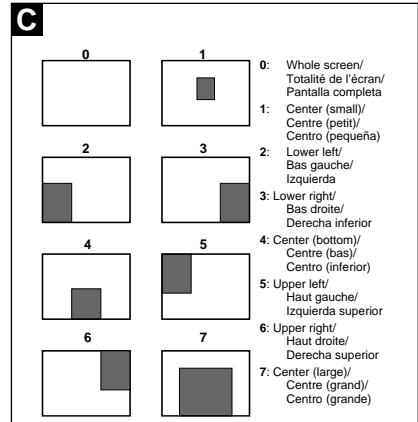
- Note**  
If you use the camera with multiplexed power sources, you cannot lock VBS. You can lock VS with the multiplexed power sources.
- 14 AWB LOCK button**  
If the White Balance Mode switch 7 has been set to AWB, and if the all of the monitor screen displays a white object, this button automatically adjusts the white balance according to the color temperature of the light source; the adjustment setting is saved in the memory.
- 15 Auto iris lens selection switch (DC/VIDEO)**  
Switch for selecting the control signal for the auto iris lens.  
DC: For auto iris lenses controlled by DC signals  
VIDEO: For auto iris lenses controlled by video signals

- Notes**
  - When the DC/VIDEO switch is set to VIDEO, the backlight compensation function may not work properly.
  - When the DC/VIDEO switch is set to VIDEO, "hunting" may occur. If this occurs, use the LEVEL L/H adjustment screw on the lens to change the incident light level. When adjusting the incident light level, set the ALC (Automatic Light Control) adjustment screw to Av.
- 16 Lens connector (4 pin socket)**  
Supplies power and control signals to an auto iris lens (not supplied).
- 17 Lens mount**  
Use to mount an appropriate C-mount or a CS-mount lens. To attach a C-mount/CS-mount lens, turn the flangeback adjustment ring 1 to the appropriate position. The factory setting is C mount.

**Rear Illustration B**

- 18 Power indicator**
  - 19 [SSC-DC50A/50AP] DC IN (power input) /VS IN (external synchronization signal input)/VIDEO OUT (composit video signal output) or VIDEO OUT connector (BNC type)**
  - 20 [SSC-DC54A/54AP/58AP] VIDEO OUT (composit video signal output) connector (BNC type)**
  - 21 [SSC-DC50A/50AP] MONITOR OUT (monitor output) or VBS IN /VS IN (external synchronization signal input) connector (BNC type)**
  - 22 [SSC-DC54A/54AP/58AP] VBS IN/VS IN connector (BNC type)**
  - 23 GND (ground) terminal (SSC-DC54A/54AP)**
  - 24 [SSC-DC50A/50AP] DC 12V (power input) terminal (DC 12V ± 10%)**
  - 25 [SSC-DC54A/54AP] AC 24 V (power input) terminal**
  - 26 S VIDEO OUT connector**  
Y/C output connector
  - 27 Power cable (AC 220 – 240 V) (SSC-DC58AP)**
  - 28 Mode (power mode) change switch (SSC-DC50A/50AP)**  
Power source changes as follows.
- | MODE | Connector              | Connector   | Power source          |
|------|------------------------|-------------|-----------------------|
| A    | DC IN/VS IN /VIDEO OUT | MONITOR OUT | YS-W150/150P/250/250P |
| B    | VIDEO OUT              | VBS/VS IN   | DC 12 V               |

- 29 POWER ON/OFF switch (SSC-DC50A/50AP)**  
Use this switch to turn the power supply on and off. When using a DC 12 V power supply, set this switch to ON. This switch does not function when using YS-W150/150P/250/250P camera adapter (not supplied).
- 30 SYNC switch (SSC-DC54A/54AP/58AP)**  
Use this switch for synchronization. Set to INT to use internal synchronization. Set to LL to use the line lock function.



**Installation**

**Suitable lenses**  
The lens must be either a C- or a CS-mount type of less than 1 kg. The protrusion behind the mounting surface must be within the following limits: 1 C-mount lens, 2 9 mm or less, 3 CS-mount lens, 4 4 mm or less

**Changing the plug on an auto iris lens cable**

The camera is supplied with a plug to fit the LENS connector. To connect an auto-iris lens, first replace the plug on the lens cable with the supplied plug.

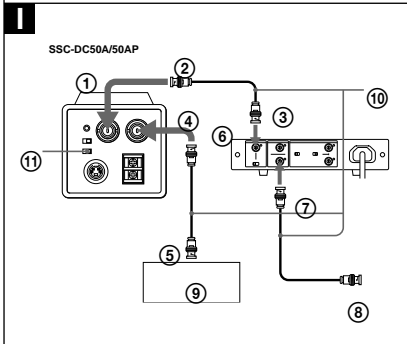
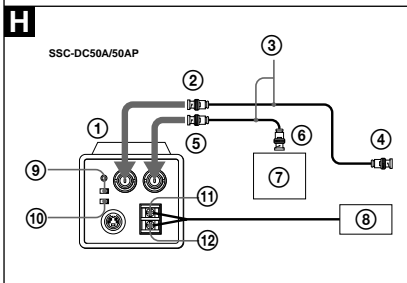
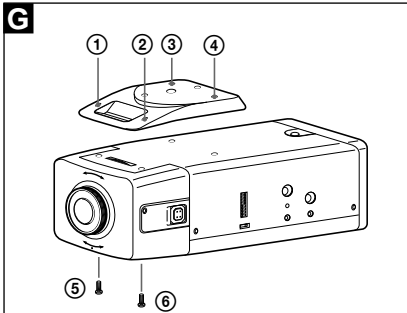
- 1 Detach the old plug from the lens cable.
- 2 Solder the lens cable to the pins of the supplied plug. (For cable pin assignment, refer to the instruction manual for the lens.)

Pin	Control	Assignment
1	Cover	
2	Lens cable	
3	Rib (if the cable is thick, cut this off.)	
4	Plug (unit accessory)	
5	Pin 4	Video signal control / Ground
6	Pin 2	DC control / Ground / DC control / Control +
7	Pin 1	Video signal control / Power supply (DC9V 50mA) / DC control / Control -
8	Pin 3	Video signal control / Video signal / DC control / Drive +

**Fitting the lens**

- 1 Unscrew the lens mount cap.
- 2 Screw in the lens, and turn it until it is secured.
- 3 Insert the lens plug in the LENS connector.  
When fitting a manual-iris lens, omit step 3.
- 4 Adjust the flangeback by turning the C/Cs adjustment ring.
- 5 Tighten the locking screw.

**Caution**  
When mounting the lens, loosen the securing nut on the side and turn the flangeback adjustment to the "C" position. Mounting a C-mount lens with the adjustment ring in the "CS" position may damage the optical filter. Keep the lens mount cap on the camera when not attaching a lens.



### Installing the camera

When mounting the camera on a tripod, attach the tripod adaptor to either the top or bottom of the camera. Use a 1/4" UNC-20 screw to mount the camera on a tripod.

#### Fitting the camera tripod adaptor **G**

- Loosen screws ①-④ that secure the tripod adaptor. Remove the adaptor carefully, and do not pull at the screws.
- Remove screws ⑤ and ⑥.
- Attach the tripod adaptor on the opposite side, and insert screws ⑤ and ⑥ on the surface from which the adaptor was removed.

### Connections

#### Connecting the SSC-DC50A/50AP

Set the MODE switch to B. When the connections have been made, set the DC 12V power supply switch to ON.

#### Note

To prevent short circuits, do not let the exposed ends of the mains lead wires touch each other when connecting to the mains lead terminals.

#### Using an external synchronization signal **H**

- |                                    |   |
|------------------------------------|---|
| ① SSC-DC50A/50AP (rear)            | ⑦ Synchronization signal (e.g., switcher) |
| ② VIDEO OUT connector              | ⑧ Power supply                            |
| ③ 75 ohm coaxial cable             | ⑨ DC 12 V switch (set to ON)              |
| ④ VIDEO INPUT connector            | ⑩ MODE switch (set to B)                  |
| ⑤ VS IN connector                  | ⑪ +12 V                                   |
| ⑥ Synchronization output connector | ⑫ GND (ground)                            |

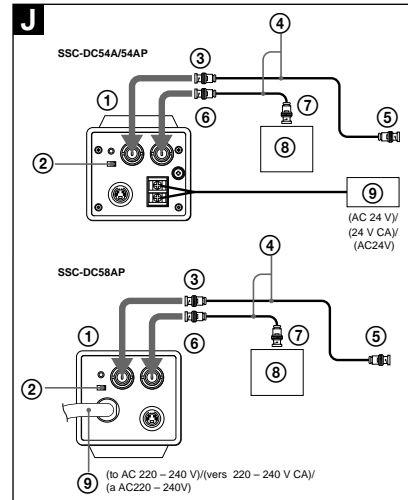
#### Using an internal synchronization signal **I**

To operate with an internal synchronization signal, no connection to the synchronization signal source (⑥, ⑦ and ⑧ above) is necessary.

#### Using a YS-W150/150P/250/250P camera adapter (not supplied) (Power multiplex) **I**

Set the MODE switch to A. When the connections have been made, set the YS-W150/150P/250/250P power supply switch to ON.

- |  |   |
|--|---|
| ① SSC-DC50A/50AP (rear)                | ⑦ VIDEO OUT connector                             |
| ② DC IN. VS IN/VIDEO OUT connector     | ⑧ VIDEO INPUT connector (monitor input connector) |
| ③ CAMERA IN connector                  | ⑨ Portable monitor                                |
| ④ MONITOR OUT connector                | ⑩ 75 ohm coaxial cable                            |
| ⑤ VIDEO INPUT connector                | ⑪ MODE switch (set to A)                          |
| ⑥ YS-W150/150P/250/250P camera adapter | ⑫ YS-W150/150P/250/250P camera adapter            |



#### Connecting the SSC-DC54A/54AP/58AP **J**

Using an external synchronization signal

- |                              |   |
|------------------------------|---|
| ① SSC-DC54A/54AP/58AP (rear) | ⑦ Synchronization output connector        |
| ② VIDEO OUT connector        | ⑧ Synchronization signal (e.g., switcher) |
| ③ 75 ohm coaxial cable       | ⑨ Power supply                            |
| ④ VIDEO INPUT connector      |   |
| ⑤ VS IN connector            |   |

#### Using an internal synchronization signal

To operate with an internal synchronization signal, set the L.L/INT switch ② to INT. Connecting the synchronization signal source (⑥, ⑦, ⑧) is not necessary.

#### Using an AC 24 V power supply (SSC-DC54A/54AP)

- When using a power supply without ground lead (two-lead type), connect the output of the power supply to the AC 24V 1 and 2 terminals of the camera.
- When using a power supply with ground lead (three-lead type), connect the ground lead to the GND terminal and the other two leads to the AC 24V 1 and 2 terminals of the camera.

### Phase Adjustment

When using more than one camera, adjust the phase according to the following procedure.

#### Vertical phase (L.L mode) (SSC-DC54A/54AP/58AP)

The picture may roll vertically if the vertical phase is not set. Use the PHASE volume to adjust the vertical phase.

#### Horizontal phase (VS/VBS lock mode)

The picture may shift horizontally when using an extended cable. Use the PHASE volume to adjust the horizontal phase.

### CCD Characteristics

The following conditions may be observed when using a CCD camera are not due to any fault within the camera.

#### Vertical smear

This phenomenon occurs when viewing a very bright object.

#### Patterned noise

This is a fixed pattern which may appear over the entire monitor screen when the camera is operated a high temperature.

#### Jagged picture

When viewing stripes, straight lines, or similar patterns, the image on the screen may appear jagged.

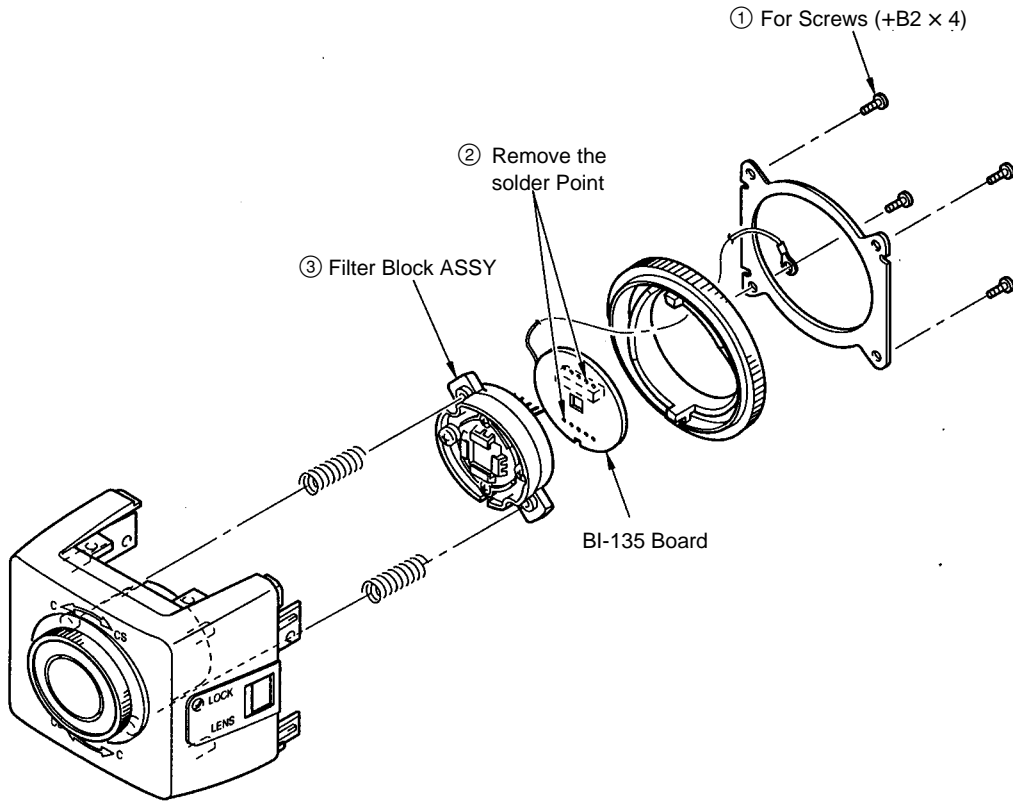
### Specifications

Image device	1/2" interline transfer type CCD
Effective picture elements	DC50A/54A: 768 (horizontal) × 494 (vertical) DC50AP/54AP/58AP: 752 (horizontal) × 582 (vertical)
Lens mount	C-mount/CS-mount adjustable
Signal system	DC50A/54A: NITS color system DC50AP/54AP/58AP: PAL color system
Synchronization system	DC50A/50AP: INT/VBS/VS/MPX-VS DC54A/54AP/58AP: INT/VBS/VS/Line Lock
External synchronization signal	VBS/VS (sync level: 0.3-5.0 Vp-p, 75 ohm)
Horizontal resolution	470 TV lines
Minimum illumination	0.8 lux, F1.2 (with AGC set to ON in TURBO mode)
Video output	1 Vp-p, 75 ohm, negative sync
Video S/N	50 dB or more (with AGC set to OFF, Weight ON)
Electronic shutter	8 levels 1/60 (1/50)*, 1/100 (1/120)*, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
White balance	AWB/5600K/ATW/ATWpro (switchable)
Automatic gain control (AGC)	ON/OFF switchable
Power requirements	DC 12 V ±10% DC 24 V ±5 V (when YS-W150/150P/250/250P is in use) AC 24 V (60 Hz)
Power consumption	DC54A: AC 24 V (50 Hz) DC54AP: AC 24 V (50 Hz) DC58AP: AC 220 - 240 V (50 Hz) DC50A/50AP: 4.5 W (DC 12V for power source) 5.5 W (when YS-W150/150P/250/250P is in use) DC54A/54AP: 6 W DC58AP: 5.5 W
Operating temperature	-10°C to +50°C (14°F to 122°F)
Operating humidity	20 to 80%
Storage temperature	-40°C to +60°C (-40°F to 140°F)
Storage humidity	20 to 95%
Shock resistance	70 G
Mass	DC50A(P)/DC54A(P): 600 g (1 lb 5 oz) DC58AP: 900 g (1 lb 16 oz) DC50A(P)/DC54A(P): 64 × 57 × 137 (wh/d) mm DC58AP: 64 × 57 × 162 (wh/d) mm (2 7/8 × 2 1/4 × 5 1/2 inches)
Dimensions	
Supplied accessories	4-pin plug for auto iris lens (1) Lens mount cap (1) Operating Instructions (1)

Design and specifications are subject to change without notice.

## SECTION 2 SERVICE INFORMATION

### 2-1. REMOVAL OF FILTER BLOCK ASSY



### 2-2. INITIAL SWITCH SETTING

   : factory setting

#### • Rear panel

SSC-DC50A/50AP (CT-194 Board)

SW501 DC12V OFF ↔ ON

SW502 MODE A ↔ B

SSC-DC54A/54AP (CT-195 Board)

SSC-DC58AP (CT-201 Board)

SW601 SYNC LL ↔ INT

#### • Side panel (FC-75 Board)

SW401 AUTO-IRIS VIDEO ↔ DC

SW403 SHUTTER (SSC-DC50A)

0

(SSC-DC50AP/54A/54AP/  
58AP)

8

SW404 AE SPOT

0

SW405

OFF ↔ AGC

NORM ↔ TURBO

OFF ↔ BLC

(SSC-DC50A) OFF ↔ SHUTTER

(SSC-DC50AP/54A/54AP/58AP)

OFF ↔ SHUTTER

WHT BAL A 0 ↔ 1

B 0 ↔ 1

NORM ↔ SHARP

0 ↔ 180

• C/CS adjusting ring C ↔ CS

### 2-3. EXTENSION HARNESS

[FC Board ↔ PR Board]

• J-6431-170-A EXTENSION FLEX CABLE

## SECTION 3

### OPERATIONAL DESCRIPTION

#### 3-1. BI-135 BOARD

The signal (IC101 pin 10) output from the CCD imager (IC101) passes through the buffer (Q101), and it is output to the PR-229 board from CN101 pin 2. H1, H2, and V1, V2, V3, V4 pulses are CCD drive pulses supplied from the PR-229 board.

#### 3-2. PR-229 BOARD

##### (1) Main signal processing circuits

The CCD-OUT signal (CN202 pin 13) from the BI-135 board is input to IC203 pins 25 and 26, then it is subjected to the correlative double sampling (CDS), and further it is amplified in the AGC circuit and output from the pin 8. Then, it is input to the IC209 pin 39, and A/D conversion is executed.

10 bits of A/D output (IC209 pins 1-5, 8-12) are input to the DSP CORE signal processing circuit (IC212 pins 94-85). After digital signal processing, D/A conversion is executed, and analog Y and C output signals are attained (IC212 pin 20: Y, pin 21: C).

These Y and C signals pass through the filters respectively (FL202: Y, FL201: C), then they are added, passed through amplifier (IC226), and output from CN203 pin 10 and 12.

##### (2) Microcomputer peripheral circuits

The microcomputer (IC217) sets all parameters for digital signal processing circuit (in IC212), and saves some data in the E<sup>2</sup>PROM (IC215).

Also, it makes a digital control of analog data through D/A converter (IC210).

##### (3) CCD drive pulse signal circuits

Receiving main clock of 28 MHz, the timing generator (IC206) generates the CCD drive pulses and the pulses for sample hold.

Also, a synchronizing signal necessary for the timing generator is got from the sync. signal generator in the IC212.

##### (4) External Synchronizing circuits

This camera can operate with the VBS/VS sync and MPX-VS sync [SSC-DC50A/50AP] or LL sync [SSC-DC54A/54AP/58AP].

(VBS) A burst signal is extracted from the sync source VBS signal entered from CN203-14 pin to detect whether a burst is present or not (VBS or VS). If a burst signal is detected. It is entered to the IC212-61 pin. The output of phase comparison with internal subcarrier

(IC212-47 pin) is reflected to the internal subcarrier VCXO (near X203) through LPF at the IC219 periphery. Also, sync source signal is entered to the IC212-60 pin to comprise VReset/H-PLL. Sync detection is done by IC232.

(VS) Sync source VS signal from CN203-14 pin is entered to the IC212-60 pin to comprise VReset/H-PLL. This H phase comparison output (IC212-63 pin) is reflected to the LC type VCO for internal master (in the vicinity of IC208) through LPF at the IC227 periphery. Sync detection is done by IC232.

(MPX-VS) Sync source VS signal separated from the superposed line in the PS-477 board is got from CN203-14 pin. This signal is processed in the same manner as (VS).

(LL) V pulse (line frequency sync) from CN203-16 pin is entered to the IC212-61 pin. This V pulse and internal VD comprise PLL. This V phase comparison output (IC212-63 pin) is reflected to the LC type VCO for internal master (in the vicinity of IC208) through LPF at the IC227 periphery.

##### (5) VS servo circuit

This circuit controls the gain (IC201-2 pin) of VS signal (IC201-3 pin) for lens drive via EVR under control of the microcomputer (IC212).

#### 3-3. PS-477 BOARD

##### (1) Power supply circuit

Using DC 12 V from the power input terminal or DC voltage (28 V typ) separated from the superposed line, the DC-DC converter and series regulator (IC804) generate 3.3 V, 5 V, 9 V, 15 V, and -9 V.

##### (2) Superposed circuit

In this circuit, the camera video (IC602 pin 1) is superposed with the superposed line (CN801 pin 10) and also a low pass filter is composed so as to take DC voltage and to supply it to the power circuit.

Then, the external sync. pulse is separated at a differential operation circuit.

The selector (IC 802) switches the superposed sync. signal and VBS/VS signal.

### **3-4. FC-75 BOARD**

#### **(1) Auto iris DC servo circuit**

IC401 controls the lens drive signal according to the illuminance of the subject. SW401 switches VS servo and DC servo.

#### **(2) Various function select switches**

DIP switch (SW405), rotary switches (SW403, 404), slide switch (SW401), and tactile switch (SW402) are arranged.

### **3-5. IR-29 BOARD**

A noise filter and auto iris lens connector are arranged on this board.

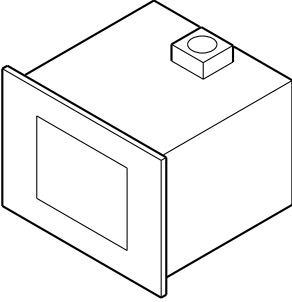
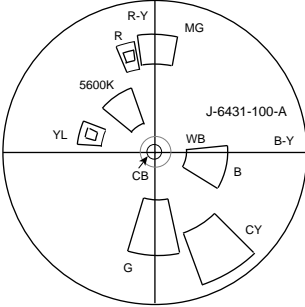
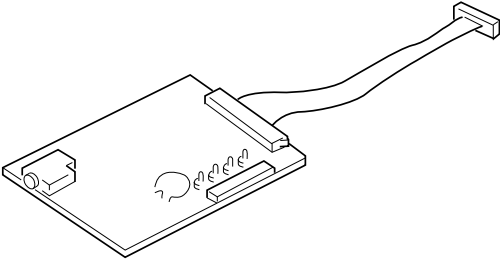
### **3-6. CT-194 (SSC-DC50A/50AP) /195 (SSC-DC54A/54AP) /201 (SSC-DC58AP) BOARD**

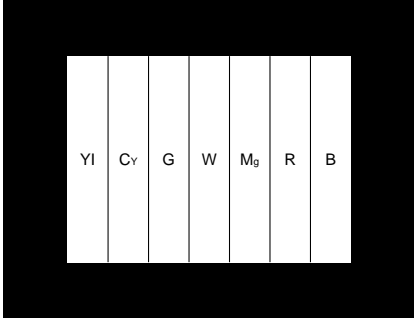
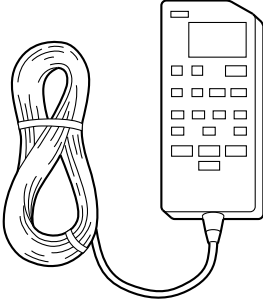
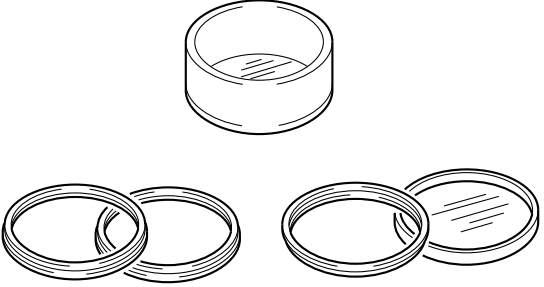
Input/output pins, control switches, and variable resistors for adjustment are arranged on this board.

# SECTION 4 ADJUSTMENT

## 4-1. PREPARATIONS

### 4-1-1. Equipment Required

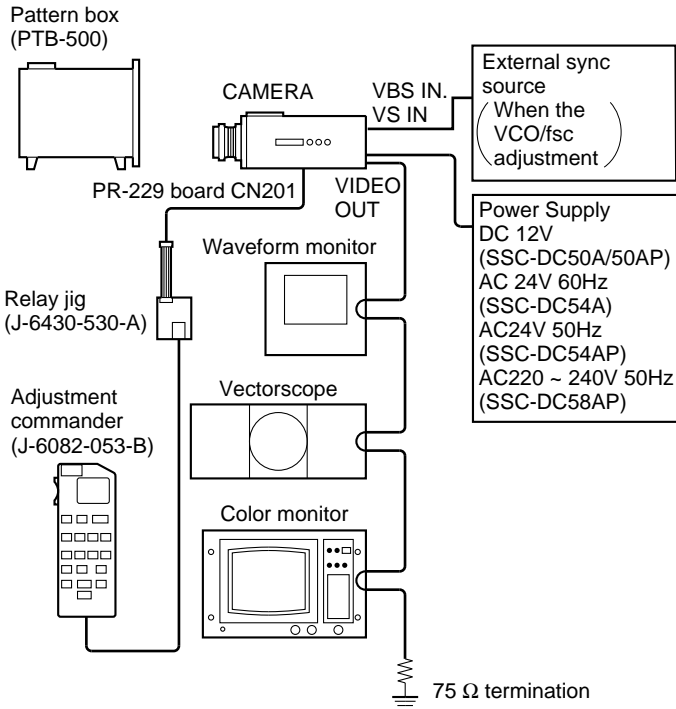
J-6029-140-B	Pattern Box PTB-500
· Light source for test chart	
	
J-6431-100-A	Vectorscope Scale
· For color adjustment	
	
Copy the last page on a transparent sheet.	
J-6430-530-A	Adjustment Commander Relay Jig
	

J-6020-250-A	Color Bar Chart
· For color adjustment	
	
J-6082-053-B	Camera Adjustment Commander
· RM-95 partly converted	
	
J-6080-053-A	Color Temperature Correction Filter C14
· For the confirmation after the adjustment	
	

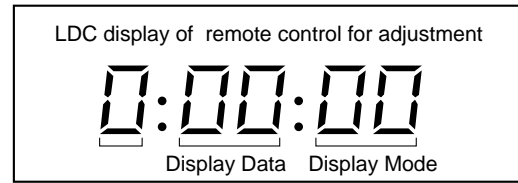
- ND Filter  
ND25 (25 %) 50 by 50 mm square
- Make the transmission factor to 6.25 % with double ND filter.

- Oscilloscope
- Frequency Counter
- Digital Voltmeter
- Vectorscope
- Waveform Monitor
- Color Monitor

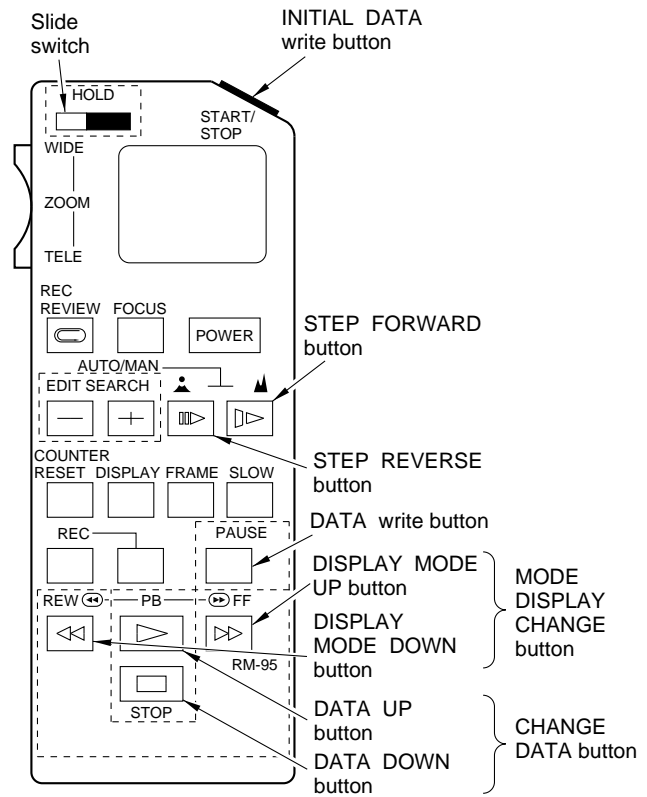
### 4-1-2. Connection for Adjustment



### 4-1-3. Adjustment Commander



Remote control for adjustment  
RM-95 (J-6082-053-B)

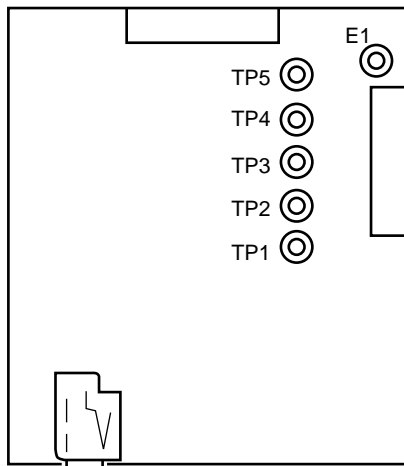




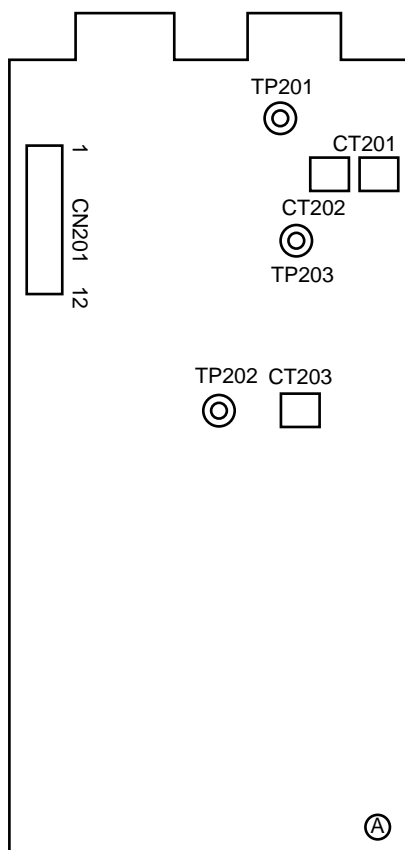
#### 4-1-4. Terminals to Determine Signals for Adjustment

The signals required for adjustment are available at the test pins on the Adjustment Commander Relay Jig.

- TP1: CCD LEVEL
- TP2: A/D IN
- TP3: V SUB
- TP4: V PG
- TP5: IRIS OUT
- E1 : GND

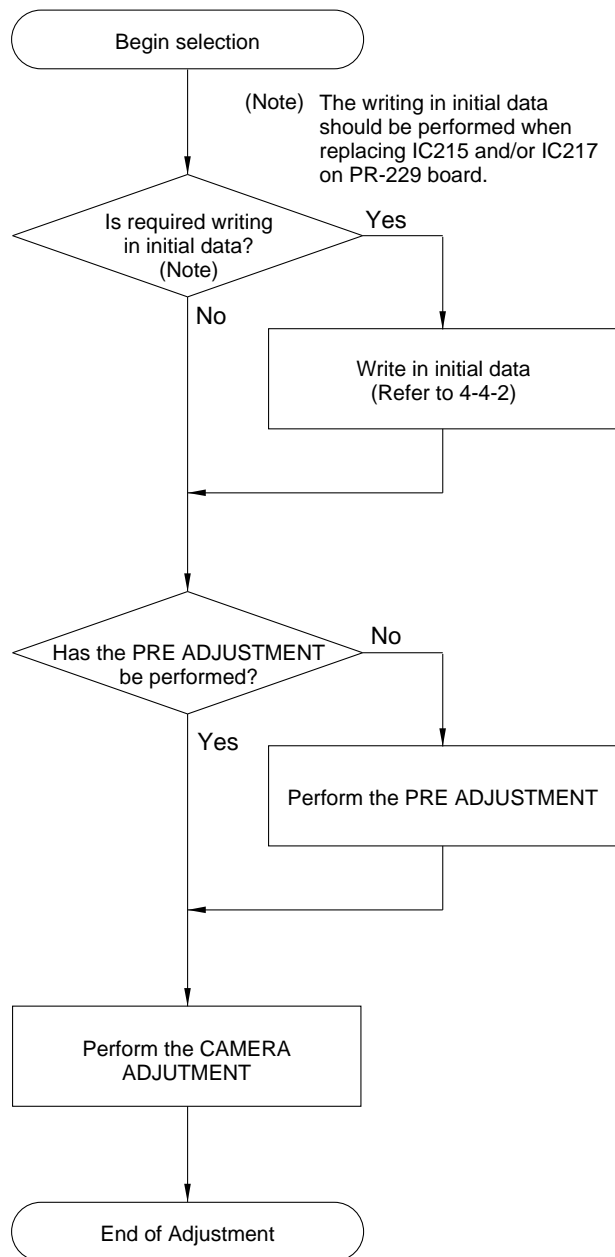


– Commander Relay Jig –



– PR-229 Board –

#### 4-1-5. Chart to Select Items Requiring Adjustment

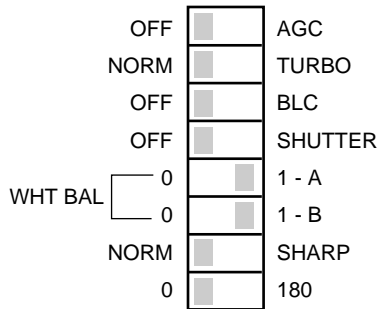


## 4-2. ADJUSTMENT METHOD

### 4-2-1. Preparations for Adjustment

(1) Setting switches:

- [SSC-DC50A/50AP]  
Set the Mode switch on the rear panel of the camera to B position.
- [SSC-DC54A/54AP/58AP]  
Set the SYNC switch on the rear panel of the camera to INT positions.
- Set the DIP switches on the side panel of the camera to shown as below.



- Slide the sliding switch (HOLD) in the upper part of the commander to the right side.

(2) Turn on the camera.

(3) Connecting the Commander:

Use a relay jig to connect the commander to the connector (CN201) on the PR-229 board so that the relay jig will have Pin 1 (white) coincide with Pin 1 (on the front panel side) of the connector.

### 4-2-2. Writing in Initial Data

(1) Press the START/STOP button in the upper part of the commander.

(2) The numerals indicated on the LCD of the commander will go out for a few seconds and then will reappear.

\* In this stage, if the commander's LCD display remains out and cannot be restored, there is an abnormality somewhere in the circuitry. Do not proceed to adjustment without correcting the abnormality.

If writing in initial data has been performed, be sure to confirming data as follows.

- (3) Press the MODE DISPLAY CHANGE button on the commander to display Mode "5F". Subsequently, press the CHANGE DATA button to display Data "01".
- (4) Press the DATA write button of the commander.
- (5) The numerals indicated on the LCD of the commander will go out for a few seconds and then will reappear.

## 4-3. PRE ADJUSTMENT

### 4-3-1. 28MHz Adjustment

<b>Subject</b>	Free
<b>Measurement point</b>	PR Board TP201
<b>Equipment</b>	Frequency Counter
<b>Adjustment point</b>	PR Board CT201
<b>Adjustment value</b>	28.636363 MHz $\pm$ 80 Hz (NTSC)
	28.375000 MHz $\pm$ 80 Hz (PAL)
<b>Adjustment procedures</b>	Operate an internal SYNC mode.

### 4-3-2. VCO Adjustment

<b>Subject</b>	Unnecessary
<b>Measurement point</b>	Oscilloscope (DC 500 mV, 0.2 $\mu$ S)
<b>Equipment</b>	PR Board TP203
<b>Adjustment point</b>	PR Board CT202
<b>Adjustment value</b>	1.7 $\pm$ 0.1 V
<b>Adjustment procedures</b>	Input the external sync signal to the VS IN connector.

### 4-3-3. fsc Adjustment

<b>Subject</b>	Free
<b>Measurement point</b>	PR Board TP202
<b>Equipment</b>	Frequency Counter
<b>Adjustment point</b>	PR Board CT203
<b>Adjustment value</b>	3.579545 MHz $\pm$ 20 Hz (NTSC)
	4.433618 MHz $\pm$ 20 Hz (PAL)
<b>Adjustment procedures</b>	Input the external SYNC signal without Burst signal to VS IN connector

## 4-4. CAMERA ADJUSTMENT

### 4-4-1. Setting up the Prepare for Adjustment Mode

- ① Press the MODE DISPLAY CHANGE button on the commander to display Mode "5F". Subsequently, press the CHANGE DATA button to display Data "01".
- ② Press the MODE DISPLAY CHANGE button on the commander to display Mode "61". Subsequently, press the CHANGE DATA button to display Data "01".

<b>Subject</b>	Unnecessary
<b>Measurement point</b>	Nothing

#### 4-4-2. SYNC Level Adjustment

- ① Press the STEP FORWARD button on the commander three times. As a result, the displayed mode will change to "2B".
- ② Close the lens opening.
- ③ Press the CHANGE DATA button so that the determined voltage will fall within the standard range.

<b>Subject</b>	Free
<b>Measurement point</b>	SYNC level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Display Mode</b>	2B
<b>Specification</b>	40 ± 4 IRE (NTSC) 286 ± 30 mV (PAL)
<b>Lens opening</b>	Close

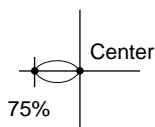


#### 4-4-3. Burst Level Adjustment

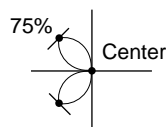
- ① Press the STEP FORWARD button on the commander once. As a result, the displayed mode will change to "2C".
- ② Press the CHANGE DATA button so that the burst level will be 75 %.

<b>Subject</b>	Free
<b>Equipment</b>	Vector scope
<b>Display Mode</b>	2C
<b>Specification</b>	Burst level is 75 %

(NTSC)



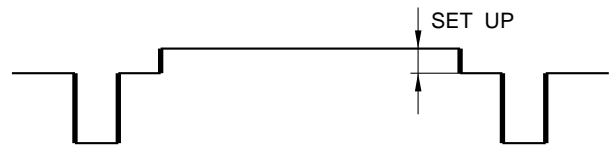
(PAL)



#### 4-4-4. SET UP Adjustment

- ① Press the step forward button of the commander once. The mode indicator will display "00".
- ② Press the data change button to ensure the measured voltage is within the specified value range.

<b>Subject</b>	Close 'C'
<b>Measurement point</b>	SET UP level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Display Mode</b>	00
<b>Specification</b>	7.0 ± 2.0 IRE (NTSC) 20 ± 15 mV (PAL)



#### 4-4-5. 0 dB Adjustment

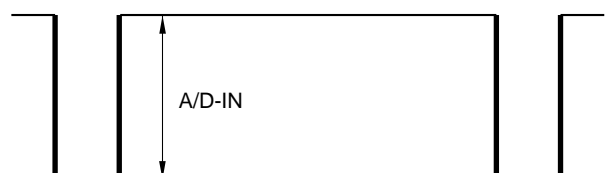
- ① Press the STEP FORWARD button on the commander once. As a result, the displayed mode will change to "5A".
- ② Shoot the all-white pattern, and adjust the lens iris so that the CCD LEVEL (TP1) is 250 ± 20 mV p-p.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	Relay Jig TP1 (CCD LEVEL)
<b>Equipment</b>	Oscilloscope (AC 50 mV, 10 μs)
<b>Display Mode</b>	5A
<b>Specification</b>	250 ± 20 mV



- ③ Press the data change button to ensure the measured voltage is within the specified value range.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	Relay Jig TP2 (A/D-IN)
<b>Equipment</b>	Oscilloscope (AC 200 mV, 10 μs)
<b>Display Mode</b>	5A
<b>Specification</b>	800 <sup>+60</sup> / <sub>-40</sub> mV



#### 4-4-6. Auto-Iris VS Level Adjustment

- ① Press the step forward button of the commander once.  
The mode indicator will display "2D".
- ② Keep the lens iris at 4-4-5 ②.
- ③ Press the data change button to ensure that the measured voltage is within the specified value range.

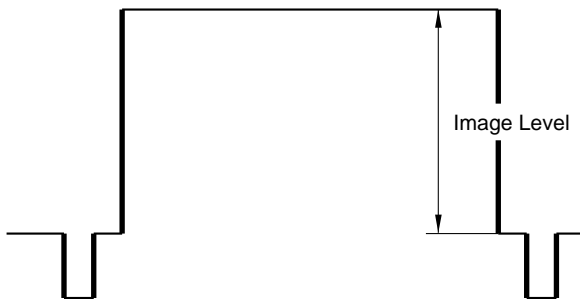
<b>Subject</b>	All white pattern
<b>Measurement point</b>	Relay Jig TP5 (IRIS OUT)
<b>Equipment</b>	Oscilloscope (AC 100 mV, 10 μs)
<b>Display Mode</b>	2D
<b>Specification</b>	700 ±40 mV



#### 4-4-7. AGC MAX Adjustment

- ① Press the step forward button of the commander once.  
The mode indicator will display "5C".
- ② Install the ND filter (6.25 %).  
\* Keep the lens iris at 4-4-6 .
- ③ Press the data change button to ensure that the measured voltage is within the specified value range.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	VIDEO OUT image level
<b>Equipment</b>	Waveform Monitor
<b>Display Mode</b>	5C
<b>Specification</b>	65 ±3 IRE (NTSC) 455 ±20 mV (PAL)



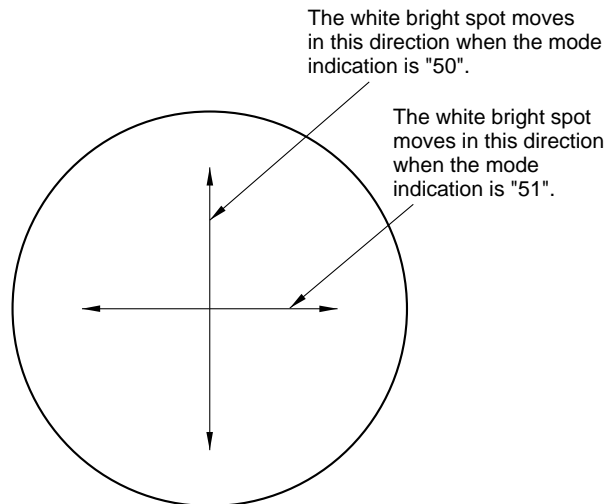
#### 4-4-8. WB (3200K preset) Adjustment

- ① Press the step forward button of the commander once.  
The mode indicator will display "50".
- ② Remove the ND filter. Adjust the lens iris so that the VIDEO-OUT image level is set at 65 ±3 IRE (NTSC) or 455 ±20 mV (PAL).

<b>Subject</b>	All white pattern
<b>Measurement point</b>	Image level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Display Mode</b>	50
<b>Specification</b>	65 ±3 IRE (NTSC) 455 ±20 mV (PAL)

- ③ Alternately switch the mode between "50" and "51" by pressing the MODE DISPLAY CHANGE button, and while doing so, press the data change button so that the white bright spot is placed over the origin of the vector scope.

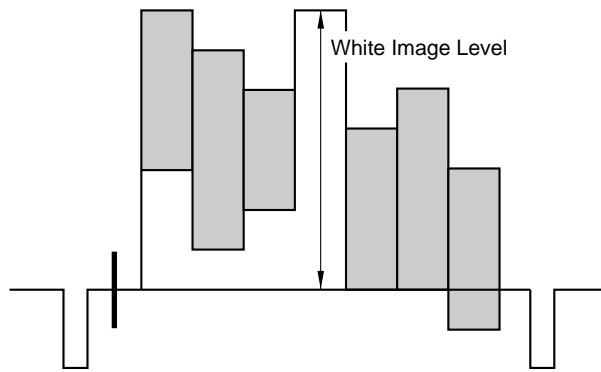
<b>Subject</b>	All white pattern
<b>Measurement point</b>	VIDEO OUT white bright spot
<b>Equipment</b>	Vectorscope
<b>Display Mode</b>	50, 51
<b>Specification</b>	The white bright spot is placed over the origin of the vectorscope.



#### 4-4-9. Color Reproduction

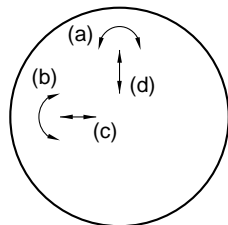
- ① Press the step forward button once. The mode indicator will display “03”.
- ② Shoot the color bar chart.
- ③ Adjust the lens iris so that the VIDEO-OUT white image level is set to  $90 \pm 2.5$  IRE (NTSC) or  $630 \pm 15$  mV (PAL).

<b>Subject</b>	Color Bar Chart
<b>Measurement point</b>	White image level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Display Mode</b>	03
<b>Specification</b>	$90 \pm 2.5$ IRE (NTSC) $630 \pm 15$ mV (PAL)



- ④ Switching the mode between “03”, “04”, “05” and “06” by pressing the MODE DISPLAY CHANGE button and while doing so, press the data change button so that the center of the bright spot for each color is placed in it’s respective reproduction range.

<b>Subject</b>	Color Bar Chart
<b>Measurement point</b>	Respective color bright spot of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Display Mode</b>	03, 04, 05, 06
<b>Specification</b>	The center of the bright spot for each color is in it’s respective reproduction range



- (a) Moving direction of the bright spot when mode is “03”
- (b) Moving direction of the bright spot when mode is “04”
- (c) Moving direction of the bright spot when mode is “05”
- (d) Moving direction of the bright spot when mode is “06”

#### 4-4-10. WB Data Take-in

- ① Press the commander’s step forward button once. The mode indicator will display “63” and the data indicator will displays “02”.
- ② Shoot the all-white pattern.
- ③ Adjust the lens iris so that the image level of the VIDEO-OUT value is set to  $65 \pm 3$  IRE (NTSC) or  $455 \pm 20$  mV (PAL).

<b>Subject</b>	All white pattern
<b>Measurement point</b>	White image level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Display Mode</b>	63
<b>Specification</b>	$65 \pm 3$ IRE (NTSC) $455 \pm 20$ mV (PAL)

- ④ Press the data up button of the commander so that the data indicator displays “03”.
  - ⑤ Make sure that the data indicator of the commander automatically displays “FF”.
- \* If the data indicator does not display “FF”, there may be a defective part in the circuit. Repair it, then repeat these steps.

#### 4-4-11. Data Write

- ① Press the step forward button of the commander once. The LCD indicator will turn off for a few seconds, then turn on. Make sure that the data indicator displays “00”. (The mode indicator should still display “63”.)
- \* If the LCD indicator turns off and does not turns on, or the data indicator does not display “00”, there may be a defective part in the circuit. Repair it, then repeat these steps.

**Note:** In this time, do not press the DATA write (PAUSE) button.

## 4-5. AFTER ADJUSTMENT CHECK

To check the values after adjustment, remove the commander and the commander junction fixture from the camera. Turn off the camera, then turn it on again before checking.

### 4-5-1. Checking SYNC Level Adjustment

Check to see if the measured voltage is within the specified range.

<b>Subject</b>	Free
<b>Measurement point</b>	SYNC level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Specification</b>	40 ±4 IRE (NTSC) 286 ±30 mV (PAL)
<b>Lens iris</b>	Close

### 4-5-2. Checking Burst Level Adjustment

Check to see if the measured voltage is within the specified range.

<b>Subject</b>	Free
<b>Equipment</b>	Vector scope
<b>Specification</b>	Burst level is 75 %

### 4-5-3. Checking SET UP Adjustment

- ① Turn OFF the AGC switch on the side panel of the camera.
- ② Check to see if the measured voltage is within the specified value range.

<b>Subject</b>	Free
<b>Measurement point</b>	SET UP level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Specification</b>	7.0 ±2.0 IRE (NTSC) 20 ±15 mV (PAL)
<b>Lens iris</b>	Close

### 4-5-4. Checking 0 db Adjustment

- ① Turn OFF the AGC and CCD-IRIS switches on the side panel of the camera.
- ② Shoot the all-white pattern and adjust the lens iris so that the CCD LEVEL is the specified value.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	PR Board CN201 ① pin (CCD LEVEL)
<b>Equipment</b>	Oscilloscope (AC 50 mV, 10 μs)
<b>Specification</b>	250 ±20 mV

- ③ Check to see if the AD/-IN value (CN302 ② pin) is within the specified value range.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	PR Board CN201 ② pin (A/D-IN)
<b>Equipment</b>	Oscilloscope (AC 200 mV, 10 μs)
<b>Specification</b>	800 <sup>+60</sup> <sub>-40</sub> mV

- \* If there is a point where specified value for step ③ is satisfied while varying the iris within the specified value range for step ②, the adjustment is correct.

### 4-5-5. Checking Auto Iris VS Level

- ① (Same as 4-5-4 ①.)
- ② (Same as 4-5-4 ②.)
- ③ Check to see if the measured voltage is within the Specified range.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	PR Board CN201 ⑥ pin (IRIS OUT)
<b>Equipment</b>	Oscilloscope (AC 200 mV, 10 μs)
<b>Specification</b>	700 ±40 mV

- \* If there is a point where the specified value for step ③ is satisfied while varying the lens iris within the specified value range for step ②, the adjustment is correct.

### 4-5-6. Checking AGC Adjustment

- ① Turn OFF the AGC and CCD-IRIS switches on the side panel of the camera.
- ② Shoot the all-white pattern and adjust the lens iris so that the VIDEO-OUT image level is the specified value.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	Image level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Specification</b>	100 ±2 IRE (NTSC) 700 ±15 mV (PAL)

- ③ Set the ND filter (transmission factor: 6.25 %).
- ④ Turn ON the AGC switch on the side panel of the camera, and turn NORM the TURBO/NORM switch
- ⑤ Shoot the all-white pattern. Check to see if the VIDEO-OUT image level is within the specified value range.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	Image level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Specification</b>	65 ± 5 IRE (NTSC) 455 ± 35 mV (PAL)

\* If there is a point where the specified value for step ⑤ is satisfied while varying the lens iris within the specified value range for step ②, the adjustment is correct.  
Or, if there is a point where the specified value for step ⑤ is satisfied while varying the VIDEO LEVEL on the side panel, the adjustment is correct.

#### 4-5-7. Checking WB adjustment (3200K preset and data take-in)

##### Checking ATW operation

- ① Set the WB switch on the camera side panel to the ATW-PRO position, and turn OFF the AGC and CCD-IRIS Switches.
- ② Set the C14 filter.
- ③ Shoot the all-white pattern. Adjust the iris diaphragm so that the VIDEO-OUT image level is set within the specified value range.

<b>Subject</b>	All white pattern
<b>Measurement point</b>	Image level of VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Specification</b>	65 ± 3 IRE (NTSC) 455 ± 20 mV (PAL)

- ④ Check to see if the white bright spot on the vector scope converges to meet the specified value.

<b>Subject</b>	All white pattern	
<b>Measurement point</b>	White bright spot of VIDEO OUT	
<b>Equipment</b>	Vectorscope	
<b>Specification</b>	<b>Convergence time</b>	Within 30 seconds
	<b>Convergence spot</b>	Within a radius of 15 % of the vector scope's diameter of the origin (Suppose the vectorscope's diameter is 100 %.)

- ⑤ Remove the C14 filter and perform step 3 and step 4.

#### 4-5-8. Checking Color Reproduction Adjustment

- ① Turn OFF the AGC and CCD-IRIS switches on the side panel of the camera.
- ② Shoot the color bar chart.
- ③ Adjust the iris diaphragm so that the VIDEO-OUT white image level is set within the specified value range.

<b>Subject</b>	Color Bar Chart
<b>Measurement point</b>	White image level VIDEO OUT
<b>Equipment</b>	Waveform Monitor
<b>Specification</b>	90 ± 2.5 IRE (NTSC) 630 ± 15 mV (PAL)

- ④ Check to see if the center of the bright spot of each of the colors is within the color reproduction range.

<b>Subject</b>	Color Bar Chart
<b>Measurement point</b>	Respective color bright spot of VIDEO OUT
<b>Equipment</b>	Vector scope
<b>Specification</b>	The center of the bright spot for each color is in it's respective reproduction range.

\* If there is a point where the specified value for step ④ is satisfied while varying the lens iris within the specified value range for step ③, the adjustment is correct.





# SECTION 5

## SERVICE OVERVIEW

### 5-1. NOTES ON SPARE PARTS

**(1) Safety Related Components Warning**

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

**(2) Standardization of Parts**

Repair parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".

This manual's exploded views and electrical spare parts list are indicating the part numbers of "the standardized genuine parts at present" .

**(3) Stock of Parts**

Parts marked with "o" SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

**(4) Units for Capacitors, Inductors and Resistors**

The following units are assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

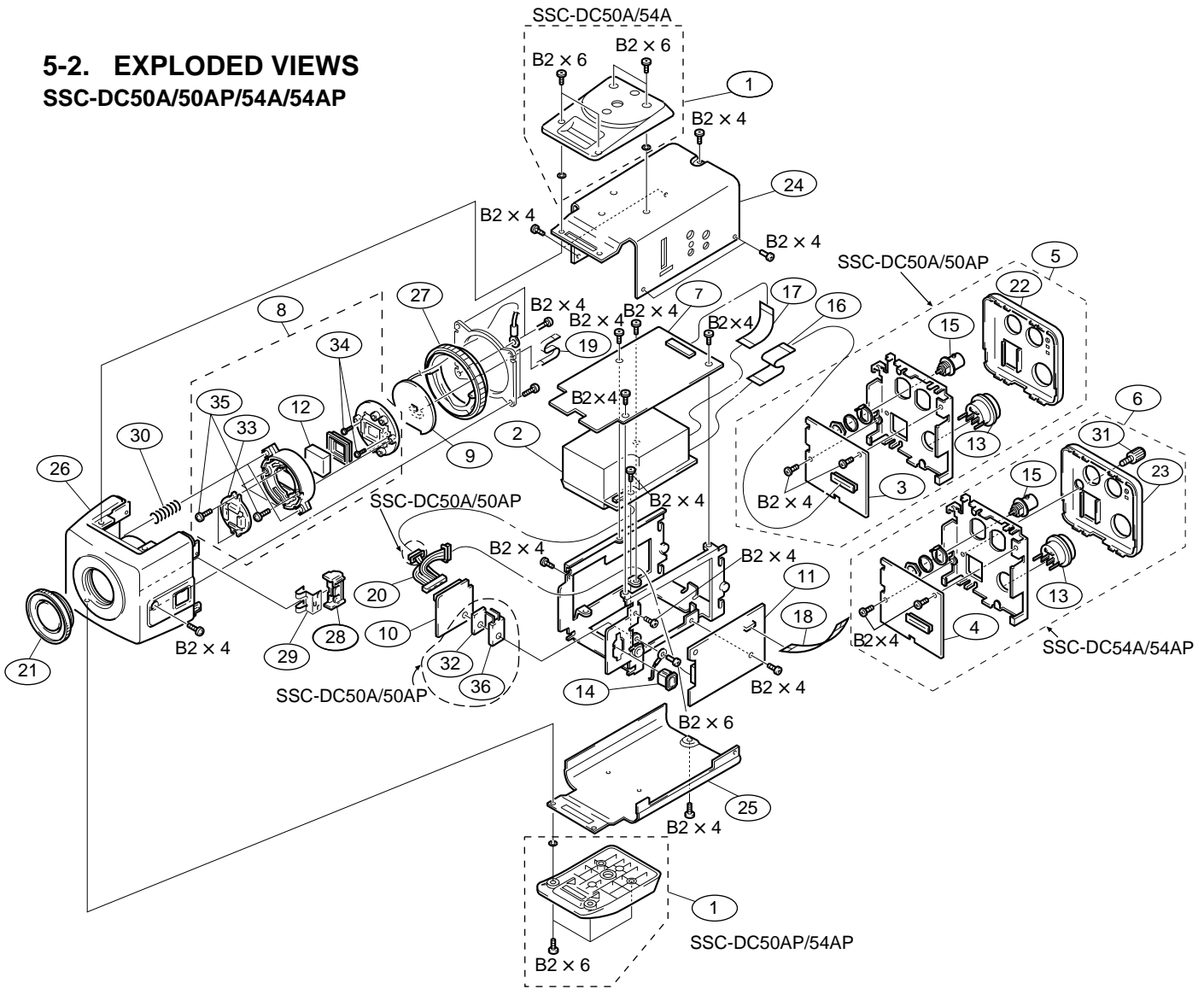
Capacitors :  $\mu\text{F}$

Inductors :  $\mu\text{H}$

Resistors :  $\Omega$

## 5-2. EXPLODED VIEWS

### SSC-DC50A/50AP/54A/54AP



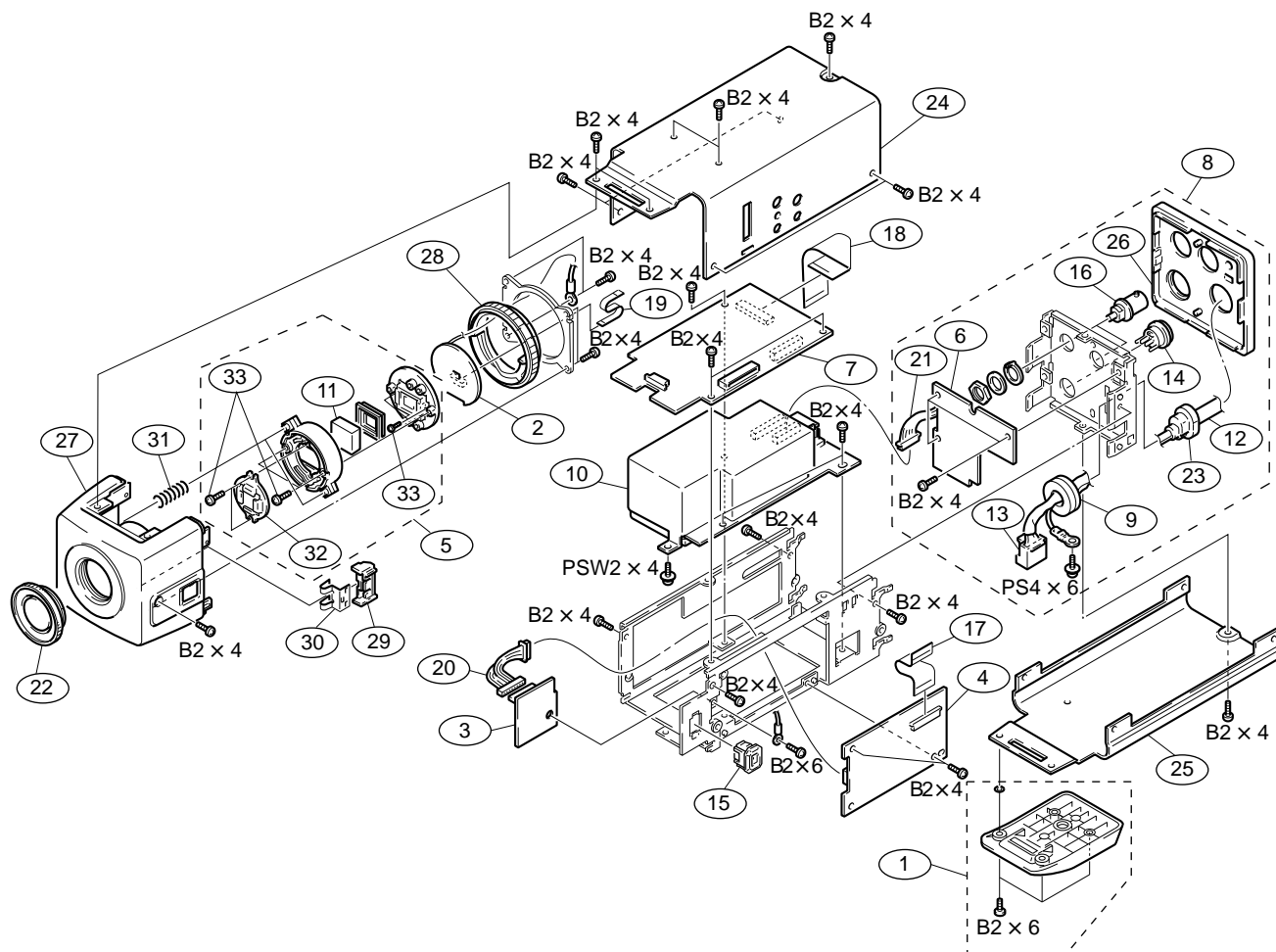
No. Part No. SP Description

1	A-8310-252-A	o ADAPTOR ASSY, TRI
2	A-8315-318-A	s MOUNTED CIRCUIT BOARD, PS-477 (SSC-DC50A/50AP)
△ 1-475-251-11	s CONVERTER UNIT, AC-DC (SSC-DC54A/54AP)	
3	A-8315-322-A	o MOUNTED CIRCUIT BOARD, CT-194
4	A-8315-264-A	o MOUNTED CIRCUIT BOARD, CT-195
5	A-8315-325-A	o REAR BLOCK ASSY (SSC-DC50A/50AP)
6	A-8315-265-A	o REAR BLOCK ASSY (SSC-DC54A/54AP)
7	A-8320-245-A	o MOUNTED CIRCUIT BOARD, PR-229ND (SSC-DC50A)
	A-8320-227-A	o MOUNTED CIRCUIT BOARD, PR-229NA (SSC-DC54A)
	A-8320-251-A	o MOUNTED CIRCUIT BOARD, PR-229PD (SSC-DC50AP)
	A-8320-266-A	o MOUNTED CIRCUIT BOARD, PR-229PA (SSC-DC54AP)
8	A-8320-247-A	o FILTER BLOCK ASSY (SSC-DC50A/54A)
	A-8320-264-A	o FILTER BLOCK ASSY (SSC-DC50AP/54AP)
9	A-8320-259-A	o MOUNTED CIRCUIT BOARD, BI-135
10	A-8320-260-A	o MOUNTED CIRCUIT BOARD, IR-29
11	A-8320-261-A	o MOUNTED CIRCUIT BOARD, FC-75
12	1-547-381-12	s FILTER BLOCK, OPTICAL
13	1-566-850-11	s CONNECTOR, (S) TERMINAL 4P
14	1-580-172-11	s CONNECTOR, MICRO (RECEPTACLE) 4P
15	1-580-724-11	s CONNECTOR, BNC

No. Part No. SP Description

16	1-766-287-11	s WIRE, FLEXIBLE CARD
17	1-769-275-11	s WIRE, FLEXIBLE CARD
18	1-782-538-11	s CABLE, FLEXIBLE FLAT (28 CORE)
19	1-790-157-11	o CABLE, FLEXIBLE FLAT (14 CORE)
20	1-957-799-11	o HARNESS (CONNECTOR CB1) (SSC-DC50A/50AP)
	1-957-800-11	o HARNESS (CONNECTOR CB2) (SSC-DC54A/54AP)
21	2-042-385-00	s CAP, C MOUNT
22	3-608-575-01	o PANEL (DC), REAR (SSC-DC50A/50AP)
23	3-608-569-01	o PANEL (AC), REAR (SSC-DC54A/54AP)
24	3-608-576-21	o CASE, UPPER
25	3-608-577-01	o CASE, LOWER
26	3-679-547-01	o PANEL, FRONT
27	3-679-549-03	o RING, ADJUST
28	3-679-555-01	o LOCKBASE, RING
29	3-679-561-01	o SPRING, LOCK BASE
30	3-679-565-01	o SPRING, COMPRESSION
31	3-706-165-00	s SCREW
32	4-386-536-01	s SHEET, SILICON (SSC-DC50A/50AP)
33	4-393-836-01	o BRACKET (COL), FILTER
34	7-627-551-28	s SCREW, PRECISION +P 1.4X2.5
35	7-627-853-88	s PRECISION SCREW +P 2X8 TYPE 3
36	8-729-306-92	s TRANSISTOR 2SD669A-C
	7-621-772-10	s SCREW +B 2X4
	7-621-772-30	s SCREW +B 2X6

# SSC-DC58AP



No.	Part No.	SP Description
1	A-8310-252-A	o ADAPTOR ASSY, TRI
2	A-8320-259-A	o MOUNTED CIRCUIT BOARD, BI-135
3	A-8320-260-A	o MOUNTED CIRCUIT BOARD, IR-29
4	A-8320-261-A	o MOUNTED CIRCUIT BOARD, FC-75
5	A-8320-264-A	o FILTER BLOCK ASSY
6	A-8320-265-A	o MOUNTED CIRCUIT BOARD, CT-201
7	A-8320-266-A	o MOUNTED CIRCUIT BOARD, PR-229PA
8	A-8320-269-A	o REAR BLOCK ASSY
9	1-239-231-11	s FILTER, DATA LINE
10	Δ 1-418-080-11	s CONVERTER UNIT, AC-DC
11	1-547-381-12	s FILTER BLOCK, OPTICAL
12	Δ 1-551-044-91	s CORD, POWER (3 CORE)
13	1-562-211-11	s HOUSING, CONNECTOR 3P
14	1-566-850-11	s CONNECTOR, (S) TERMINAL 4P
15	1-580-172-11	s CONNECTOR, MICRO (RECEPTACLE) 4P
16	1-580-724-11	s CONNECTOR, BNC
17	1-782-538-11	s CABLE, FLEXIBLE FLAT (28 CORE)
18	1-790-156-11	o WIRE, FLAT TYPE (16 CORE)
19	1-790-157-11	o CABLE, FLEXIBLE FLAT (14 CORE)
20	1-957-800-11	o HARNESS, SUB (CONNECTOR CB2)

No.	Part No.	SP Description
21	1-957-898-11	o HARNESS (CONNECTOR ASSY 9)
22	2-042-385-00	s CAP, C MOUNT
23	Δ 3-005-073-00	s BUSHING
24	3-614-856-01	o CASE, UPPER
25	3-614-857-01	o CASE, LOWER
26	3-614-860-01	o PANEL, REAR
27	3-679-547-01	o PANEL, FRONT
28	3-679-549-03	o RING, ADJUST
29	3-679-555-01	o LOCKBASE, RING
30	3-679-561-01	o SPRING, LOCK BASE
31	3-679-565-01	o SPRING, COMPRESSION
32	4-393-836-01	o BRACKET (COL), FILTER
33	7-627-551-28	s SCREW,PRECISION +P 1.4X2.5
34	7-627-853-88	s PRECISION SCREW +P 2X8 TYPE 3
	3-730-141-01	s SCREW PSW 2X4
	7-621-772-10	s SCREW +B 2X4
	7-621-772-30	s SCREW +B 2X6
	7-682-660-09	s SCREW +PS 4X6

### 5-3. ELECTRICAL PARTS LIST

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CT-194 BOARD  
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Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8315-322-A	o MOUNTED CIRCUIT BOARD, CT-194
CN501	1-691-503-11	o CONNECTOR, FPC 14P, MALE
CN503	1-537-315-11	s TERMINAL BOARD
D501	8-719-980-40	s DIODE SLR-34MG3F
D502	8-719-109-89	s DIODE RD5.6ES-B2
D503	8-719-109-89	s DIODE RD5.6ES-B2
D504	8-719-110-83	s DIODE RD36E-B2
D505	8-719-110-83	s DIODE RD36E-B2
D506	8-719-109-89	s DIODE RD5.6ES-B2
D507	8-719-109-89	s DIODE RD5.6ES-B2
D508	8-719-109-89	s DIODE RD5.6ES-B2
D509	8-719-109-89	s DIODE RD5.6ES-B2
F501	Δ 1-532-775-51	s FUSE, MICRO (SECONDARY)
FL501	1-236-071-11	s ENCAPSULATED COMPONENT
R501	1-249-421-11	s CARBON 2.2K 5% 1/4W
R503	1-215-394-00	s METAL 75 1% 1/6W
SW501	1-572-529-11	s SWITCH, SLIDE
SW502	1-572-528-11	s SWITCH, SLIDE

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CT-195 BOARD  
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Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8315-264-A	o MOUNTED CIRCUIT BOARD, CT-195
C601	1-165-379-11	s CERAMIC 0.0022uF 10% 500
C602	1-165-379-11	s CERAMIC 0.0022uF 10% 500
CN601	1-691-503-11	o CONNECTOR, FPC 14P, MALE
CN603	1-537-315-11	s TERMINAL BOARD
D601	8-719-980-40	s DIODE SLR-34MG3F
D602	8-719-109-89	s DIODE RD5.6ES-B2
D603	8-719-109-89	s DIODE RD5.6ES-B2
D604	8-719-109-89	s DIODE RD5.6ES-B2
D605	8-719-109-89	s DIODE RD5.6ES-B2
D606	8-719-109-89	s DIODE RD5.6ES-B2
D607	8-719-109-89	s DIODE RD5.6ES-B2
D608	8-719-109-89	s DIODE RD5.6ES-B2
D609	8-719-109-89	s DIODE RD5.6ES-B2
F601	Δ 1-532-737-11	s FUSE 0.5A 125V
FH601	1-533-189-11	s HOLDER, FUSE
FH602	1-533-189-11	s HOLDER, FUSE
R601	1-249-421-11	s CARBON 2.2K 5% 1/4W
R602	1-249-435-11	s CARBON 33K 5% 1/4W
R604	1-215-394-00	s METAL 75 1% 1/6W
SW601	1-572-529-11	s SWITCH, SLIDE

-----  
CT-201 BOARD  
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Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8320-265-A	o MOUNTED CIRCUIT BOARD, CT-201
CN601	1-957-898-11	o HARNESS (CONNECTOR ASSY 9)
D601	8-719-980-40	s DIODE SLR-34MG3F
D602	8-719-109-89	s DIODE RD5.6ES-B2
D603	8-719-109-89	s DIODE RD5.6ES-B2
D604	8-719-109-89	s DIODE RD5.6ES-B2
D605	8-719-109-89	s DIODE RD5.6ES-B2
D606	8-719-109-89	s DIODE RD5.6ES-B2
D607	8-719-109-89	s DIODE RD5.6ES-B2
D608	8-719-109-89	s DIODE RD5.6ES-B2
D609	8-719-109-89	s DIODE RD5.6ES-B2
R601	1-249-421-11	s CARBON 2.2K 5% 1/4W
R602	1-249-435-11	s CARBON 33K 5% 1/4W
R604	1-215-394-00	s METAL 75 1% 1/6W
SW601	1-572-529-11	s SWITCH, SLIDE

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 FC-75 BOARD  
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Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8320-261-A	o MOUNTED CIRCUIT BOARD, FC-75
C401	1-104-914-11	s TANTALUM 22uF 20% 16V
C402	1-165-176-11	s CERAMIC, CHIP 0.047uF 10% 16V
C403	1-162-966-11	s CERAMIC, CHIP 0.0022uF 10% 50V
C404	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C405	1-104-913-11	s TANTALUM, CHIP 10uF 20% 16V
C406	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C407	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C408	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C409	1-104-914-11	s TANTALUM 22uF 20% 16V
C410	1-163-021-91	s CERAMIC 0.01uF 10% 50V
C411	1-163-021-91	s CERAMIC 0.01uF 10% 50V
C412	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
CN401	1-573-768-21	o CONNECTOR (1.5MM)(SMD) 5P MALE
CN402	1-573-368-11	s CONNECTOR, FFC/FPC 28P, FEMALE
IC401	8-759-545-66	s IC NJM3414AMP(TE2)
L401	1-412-030-11	s INDUCTOR CHIP 22uH
L402	1-414-656-11	s INDUCTOR 0uH
L403	1-414-656-11	s INDUCTOR 0uH
L404	1-414-656-11	s INDUCTOR 0uH
L405	1-414-656-11	s INDUCTOR 0uH
L406	1-414-656-11	s INDUCTOR 0uH
L407	1-412-030-11	s INDUCTOR CHIP 22uH
Q401	8-729-427-74	s TRANSISTOR XP4601
R401	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R402	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R403	1-216-835-11	s METAL, CHIP 15K 5% 1/16W
R404	1-216-847-11	s METAL, CHIP 150K 5% 1/16W
R405	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R406	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R407	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R408	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R409	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R410	1-216-835-11	s METAL, CHIP 15K 5% 1/16W
R411	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R412	1-216-847-11	s METAL, CHIP 150K 5% 1/16W
R413	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R414	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R415	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R416	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R417	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R418	1-218-871-11	s RES, CHIP 10K 0.5% 1/16W
R419	1-218-871-11	s RES, CHIP 10K 0.5% 1/16W
R420	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R421	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R422	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R423	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R424	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R425	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R426	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R427	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R428	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
RV401	1-237-038-11	s RES, ADJ, METAL 50K
RV402	1-237-038-11	s RES, ADJ, METAL 50K

(FC-75 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
SW401	1-771-140-11	s SWITCH, SLIDE
SW402	1-571-188-21	s SWITCH, TACTIL (REFLOW TYPE)
SW403	1-692-066-11	s SWITCH, ROTARY
SW404	1-692-066-11	s SWITCH, ROTARY
SW405	1-570-623-11	s SWITCH, DIP 8-CKT

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 IR-29 BOARD  
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Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8320-260-A	o MOUNTED CIRCUIT BOARD, IR-29
L701	1-412-027-11	s INDUCTOR CHIP 2.2uH
L702	1-414-656-11	s INDUCTOR 0uH
L703	1-414-656-11	s INDUCTOR 0uH
L704	1-414-656-11	s INDUCTOR 0uH
L705	1-414-656-11	s INDUCTOR 0uH
L706	1-414-760-21	s FERRITE 0uH
L707	1-414-760-21	s FERRITE 0uH
L708	1-414-760-21	s FERRITE 0uH
L709	1-414-760-21	s FERRITE 0uH

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 PR-229 BOARD [SSC-DC50A/50AP]  
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Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8320-245-A	o MOUNTED CIRCUIT BOARD, PR-229ND (SSC-DC50A)
1pc	A-8320-251-A	o MOUNTED CIRCUIT BOARD, PR-229PD (SSC-DC50AP)
C201	1-107-686-11	s TANTALUM, CHIP 4.7uF 20% 16V
C202	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C203	1-135-177-21	s TANTALUM, CHIP 1uF 10% 25V
C204	1-135-177-21	s TANTALUM, CHIP 1uF 10% 25V
C205	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C206	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C207	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C209	1-162-915-11	s CERAMIC, CHIP 10PF 0.5PF 50V
C210	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C212	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C213	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C214	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C215	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C216	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C217	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C218	1-135-212-21	s TANTALUM, CHIP 2.2uF 10% 35V
C219	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C220	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C221	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C222	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C223	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C224	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C225	1-162-911-11	s CERAMIC, CHIP 6PF 50V
C226	1-216-864-11	s METAL, CHIP 0 5% 1/16W
C227	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C228	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C229	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C230	1-104-478-11	s TANTALUM, CHIP 10uF 20% 35V
C231	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C232	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C233	1-115-467-11	s CERAMIC 0.22uF 10% 10V
C234	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C235	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C236	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C237	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C238	1-162-919-11	s CERAMIC, CHIP 22PF 5% 50V
C240	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C241	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C242	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C243	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C244	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C246	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C247	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C248	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C249	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C250	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C251	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C252	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C253	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C254	1-162-921-11	s CERAMIC, CHIP 33PF 5% 50V
C255	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C256	1-162-918-11	s CERAMIC, CHIP 18PF 5% 50V
C257	1-162-908-11	s CERAMIC, CHIP 3PF 0.25PF 50V
C258	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C259	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V

## (PR-229 BOARD [SSC-DC50A/50AP])

Ref. No. or Q'ty	Part No.	SP Description
C260	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C261	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C262	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C263	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C264	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C265	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C266	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C267	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C268	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C269	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C270	1-110-569-11	s TANTAL 47uF 20% 6.3
C271	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C272	1-104-919-11	s TANTALUM, CHIP 10uF 20% 25V
C273	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C274	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C275	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C276	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C277	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C278	1-104-850-11	s TANTAL 6.8uF 20% 10V
C279	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C280	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C281	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C282	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C283	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C284	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C285	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C286	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C287	1-162-911-11	s CERAMIC, CHIP 6PF 50V
C288	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C289	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C290	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C291	1-162-911-11	s CERAMIC, CHIP 6PF 50V
C292	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C293	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C294	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C295	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C296	1-104-850-11	s TANTAL 6.8uF 20% 10V
C297	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C298	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C299	1-162-919-11	s CERAMIC, CHIP 22PF 5% 50V
C300	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C301	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C302	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C303	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C304	1-162-919-11	s CERAMIC, CHIP 22PF 5% 50V (SSC-DC50A)
C305	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C306	1-162-918-11	s CERAMIC, CHIP 18PF 5% 50V
C307	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C308	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C309	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C310	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C311	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C312	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C313	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C314	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C315	1-162-964-11	s CERAMIC, CHIP 0.001uF 10% 50V
C316	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C317	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V

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Ref. No. or Q'ty	Part No.	SP Description
C318	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C319	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C320	1-162-919-11	s CERAMIC, CHIP 22PF 5% 50V
C321	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C322	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C323	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C324	1-135-091-00	s TANTALUM, CHIP 1uF 20% 16V
C325	1-164-315-11	s CERAMIC 470PF 5% 50V
C326	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C327	1-135-091-00	s TANTALUM, CHIP 1uF 20% 16V
C328	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C329	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C330	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C331	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C332	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C333	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C334	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C335	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C336	1-135-091-00	s TANTALUM, CHIP 1uF 20% 16V
C337	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C338	1-162-922-11	s CERAMIC, CHIP 39PF 5% 50V
C339	1-162-915-11	s CERAMIC, CHIP 10PF 0.5PF 50V
C340	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C341	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C342	1-111-253-11	s TANTAL 100uF 20% 6.3
C343	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C344	1-110-569-11	s TANTAL 47uF 20% 6.3
C345	1-115-467-11	s CERAMIC 0.22uF 10% 10V
C346	1-135-091-00	s TANTALUM, CHIP 1uF 20% 16V
C347	1-162-915-11	s CERAMIC, CHIP 10PF 0.5PF 50V
C348	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C349	1-111-253-11	s TANTAL 100uF 20% 6.3
C350	1-135-210-11	s TANTALUM, CHIP 4.7uF 10% 10V
C351	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C352	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C353	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C354	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C355	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C356	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C357	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C358	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C359	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C360	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C361	1-128-403-11	s ELECT 47uF 20% 35V
C362	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C363	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C364	1-115-467-11	s CERAMIC 0.22uF 10% 10V
C365	1-162-927-11	s CERAMIC, CHIP 100PF 5% 50V
C366	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C367	1-135-091-00	s TANTALUM, CHIP 1uF 20% 16V
C368	1-162-915-11	s CERAMIC, CHIP 10PF 0.5PF 50V
C369	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C370	1-111-253-11	s TANTAL 100uF 20% 6.3
C371	1-162-964-11	s CERAMIC, CHIP 0.001uF 10% 50V
C372	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C373	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C374	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C375	1-126-392-11	s ELECT, CHIP 100uF 20% 6.3V
C376	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V

## (PR-229 BOARD [SSC-DC50A/50AP])

Ref. No. or Q'ty	Part No.	SP	Description
C377	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C378	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C379	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C380	1-164-218-11	s	CERAMIC 180PF 5% 50V
C381	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C382	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C383	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C384	1-162-964-11	s	CERAMIC, CHIP 0.001uF 10% 50V
C385	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C386	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C387	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C388	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C389	1-164-218-11	s	CERAMIC 180PF 5% 50V
C390	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C391	1-164-380-11	s	CERAMIC 51PF 5% 50V(SSC-DC50A)
C391	1-162-922-11	s	CERAMIC 39PF 5% 50V(SSC-DC50AP)
C392	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C393	1-164-315-11	s	CERAMIC 470PF 5% 50V
C394	1-115-412-11	s	CERAMIC 680pF 5% 25V
C395	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C396	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C397	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C398	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C399	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C401	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C402	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V(SSC-DC50A)
C403	1-110-569-11	s	TANTAL 47uF 20% 6.3
C404	1-135-210-11	s	TANTALUM, CHIP 4.7uF 10% 10V
C405	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C407	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
CN201	1-764-007-11	o	PIN, CONNECTOR (SMD) 12P
CN202	1-573-354-11	s	CONNECTOR, FFC/FPC 14P, FEMALE
CN203	1-695-930-21	o	CONNECTOR, FPC 16P, FEMALE
CN204	1-764-534-21	s	CONNECTOR, FFC/FPC (ZIF) 28P, FEMAL
CT201	1-141-373-11	s	CAP, CHIP TRIMMER
CT202	1-141-369-22	s	CAP, CHIP TRIMMER
CT203	1-141-373-11	s	CAP, CHIP TRIMMER
D202	8-719-404-49	s	DIODE MA111
D204	8-719-404-49	s	DIODE MA111
D205	8-719-404-49	s	DIODE MA111(SSC-DC50A)
D206	8-719-404-49	s	DIODE MA111
D207	8-719-031-68	s	DIODE HVU359TRF
D208	8-719-404-49	s	DIODE MA111
D209	8-719-988-37	s	DIODE HVU350F
D210	8-719-031-68	s	DIODE HVU359TRF
D211	8-719-058-24	s	DIODE RB501V-40TE-17
D212	8-719-404-49	s	DIODE MA111
D213	8-719-404-49	s	DIODE MA111
FL201	1-233-668-21	s	FILTER, BANDPASS
FL202	1-239-352-11	s	FILTER, LOW-PASS
IC201	8-759-196-69	s	IC BA7655AF-E2
IC202	8-759-196-93	s	IC TC7SH00FU-TE85R
IC203	8-752-073-11	s	IC CXA2006Q-T4
IC204	8-759-271-88	s	IC TC7SHU04FU-TE85R
IC205	8-759-196-93	s	IC TC7SH00FU-TE85R
IC206	8-752-388-60	s	IC CXD2480R-T4
IC207	8-759-082-59	s	IC TC7W32FU(TE12R)

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Ref. No. or Q'ty	Part No.	SP	Description
IC208	8-759-271-88	s	IC TC7SHU04FU-TE85R
IC209	8-759-335-30	s	IC HD49315AFEB
IC210	8-759-064-36	s	IC MB88346BPFV
IC211	8-759-510-71	s	IC BA10358F-E2
IC212	8-752-388-59	s	IC CXD2163R-T6
IC213	8-759-271-86	s	IC TC7SH04FU-TE85R
IC214	8-759-542-98	s	IC S-80827ALUP-EAQ-T2
IC215	8-759-464-95	s	IC AK6420AF-E2
IC216	8-759-523-97	s	IC TC74VHC123AFT(EL)
IC217	8-752-899-48	s	IC CXP87132-082R
IC218	8-759-058-54	s	IC TC7S00FU(TE85R)
IC219	8-759-443-02	s	IC TC75W51FU-TE12R
IC220	8-759-523-02	s	IC TC74HC4053AFT(EL)
IC221	8-759-058-54	s	IC TC7S00FU(TE85R)
IC222	8-759-058-54	s	IC TC7S00FU(TE85R)
IC223	8-759-523-78	s	IC TC74VHC00FT(EL)
IC224	8-759-066-56	s	IC TA75W393FU
IC225	8-759-262-03	s	IC MC14577CF
IC226	8-759-262-03	s	IC MC14577CF
IC227	8-759-271-88	s	IC TC7SHU04FU-TE85R
IC228	8-759-082-60	s	IC TC7S66FU
IC229	8-759-058-54	s	IC TC7S00FU(TE85R)
IC230	8-759-277-63	s	IC TC7W14FU(TE12R)
IC231	8-759-523-97	s	IC TC74VHC123AFT(EL)
IC232	8-759-710-12	s	IC NJM2230M
IC233	8-759-271-86	s	IC TC7SH04FU-TE85R
IC234	8-759-066-56	s	IC TA75W393FU
IC235	8-759-523-97	s	IC TC74VHC123AFT(EL)
IC236	8-759-196-93	s	IC TC7SH00FU-TE85R
IC237	8-759-196-93	s	IC TC7SH00FU-TE85R(SSC-DC50A)
IC238	8-759-196-93	s	IC TC7SH00FU-TE85R
IC239	8-759-271-88	s	IC TC7SHU04FU-TE85R
IC240	8-759-082-60	s	IC TC7S66FU
IC241	8-759-082-60	s	IC TC7S66FU
IC242	8-759-196-97	s	IC TC7SH32FU-TE85R
L201	1-412-030-11	s	INDUCTOR CHIP 22uH
L202	1-412-030-11	s	INDUCTOR CHIP 22uH
L203	1-412-030-11	s	INDUCTOR CHIP 22uH
L204	1-412-030-11	s	INDUCTOR CHIP 22uH
L205	1-412-030-11	s	INDUCTOR CHIP 22uH
L206	1-412-030-11	s	INDUCTOR CHIP 22uH
L207	1-412-030-11	s	INDUCTOR CHIP 22uH
L208	1-412-030-11	s	INDUCTOR CHIP 22uH
L209	1-410-373-31	s	INDUCTOR CHIP 2.2uH
L210	1-412-030-11	s	INDUCTOR CHIP 22uH
L211	1-412-030-11	s	INDUCTOR CHIP 22uH
L212	1-412-030-11	s	INDUCTOR CHIP 22uH
L213	1-412-030-11	s	INDUCTOR CHIP 22uH
L214	1-412-030-11	s	INDUCTOR CHIP 22uH
L216	1-412-030-11	s	INDUCTOR CHIP 22uH
L217	1-412-032-11	s	INDUCTOR CHIP 100uH
L218	1-412-030-11	s	INDUCTOR CHIP 22uH
L219	1-412-030-11	s	INDUCTOR CHIP 22uH
L220	1-412-030-11	s	INDUCTOR CHIP 22uH
L221	1-412-030-11	s	INDUCTOR CHIP 22uH
L222	1-412-030-11	s	INDUCTOR CHIP 22uH
L223	1-412-030-11	s	INDUCTOR CHIP 22uH
L224	1-412-030-11	s	INDUCTOR CHIP 22uH
L225	1-412-030-11	s	INDUCTOR CHIP 22uH



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Ref. No. or Q'ty	Part No.	SP	Description
L226	1-412-030-11	s	INDUCTOR CHIP 22uH
L227	1-412-030-11	s	INDUCTOR CHIP 22uH
L228	1-412-030-11	s	INDUCTOR CHIP 22uH
L229	1-412-027-11	s	INDUCTOR CHIP 2.2uH
L230	1-412-027-11	s	INDUCTOR CHIP 2.2uH
L231	1-412-030-11	s	INDUCTOR CHIP 22uH
L232	1-410-385-11	s	INDUCTOR, CHIP 22uH
Q201	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q202	8-729-907-00	s	TRANSISTOR DTC114EU
Q204	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q205	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q206	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q207	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q208	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q209	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q210	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q211	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q212	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q213	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q214	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q215	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q216	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q217	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q218	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q219	8-729-427-74	s	TRANSISTOR XP4601
Q220	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q221	8-729-427-70	s	TRANSISTOR XP4401-TXE
Q222	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q223	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q224	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q225	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q226	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q227	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q228	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q229	8-729-907-00	s	TRANSISTOR DTC114EU
R201	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R202	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R203	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R204	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R205	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R206	1-218-856-11	s	METAL, CHIP 2.4K 0.50% 1/16W
R207	1-218-855-11	s	RES, CHIP 2.2K 0.5% 1/16W
R208	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R209	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R210	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R211	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R212	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R213	1-218-876-11	s	RES, CHIP 16K 0.5% 1/16W
R214	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R215	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R216	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R217	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R219	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R221	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R222	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R223	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R224	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R225	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W

(PR-229 BOARD [SSC-DC50A/50AP])

Ref. No. or Q'ty	Part No.	SP	Description
R226	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R227	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R228	1-218-876-11	s	RES, CHIP 16K 0.5% 1/16W
R229	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R230	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R231	1-218-847-11	s	RES, CHIP 1K 0.5% 1/16W
R232	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R233	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R234	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R235	1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
R236	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R237	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R238	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R239	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R240	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R241	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R242	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R243	1-218-883-11	s	METAL, CHIP 33K 0.50% 1/16W
R244	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R245	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R246	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R247	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R248	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R249	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R250	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R251	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R252	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W (SSC-DC50AP)
R253	1-218-847-11	s	RES, CHIP 1K 0.5% 1/16W
R254	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R255	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R256	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R257	1-216-864-11	s	METAL, CHIP 0 5% 1/16W(SSC-DC50A)
R258	1-216-864-11	s	METAL, CHIP 0 5% 1/16W(SSC-DC50A)
R259	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R260	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W (SSC-DC50AP)
R261	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R262	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R263	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R264	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R265	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R266	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R267	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R268	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R269	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R270	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R271	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R272	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R273	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R274	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R275	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R276	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R277	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R278	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R279	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R280	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R281	1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
R282	1-216-816-11	s	METAL, CHIP 390 5% 1/16W

## (PR-229 BOARD [SSC-DC50A/50AP])

Ref. No. or Q'ty	Part No.	SP Description
R283	1-216-817-11	s METAL, CHIP 470 5% 1/16W
R284	1-218-840-11	s METAL, CHIP 510 0.50% 1/16W
R285	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R286	1-216-817-11	s METAL, CHIP 470 5% 1/16W
R287	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R288	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R289	1-216-817-11	s METAL, CHIP 470 5% 1/16W
R290	1-218-840-11	s METAL, CHIP 510 0.50% 1/16W
R291	1-218-883-11	s METAL, CHIP 33K 0.50% 1/16W
R292	1-218-880-11	s RES, CHIP 24K 0.5% 1/16W
R293	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R294	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R295	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R296	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R297	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R298	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R299	1-216-841-11	s METAL, CHIP 47K 5% 1/16W
R300	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R301	1-216-845-11	s METAL, CHIP 100K 5% 1/16W
R302	1-216-822-11	s METAL, CHIP 1.2K 5% 1/16W
R303	1-218-878-11	s RES, CHIP 20K 0.5% 1/16W
R304	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R305	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R306	1-216-841-11	s METAL, CHIP 47K 5% 1/16W
R308	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R309	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R310	1-218-285-11	s METAL, CHIP 75 5% 1/16W
R311	1-216-845-11	s METAL, CHIP 100K 5% 1/16W
R312	1-216-822-11	s METAL, CHIP 1.2K 5% 1/16W
R313	1-218-877-11	s RES, CHIP 18K 0.5% 1/16W
R314	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R315	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R316	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R317	1-218-285-11	s METAL, CHIP 75 5% 1/16W
R318	1-216-816-11	s METAL, CHIP 390 5% 1/16W
R319	1-216-864-11	s METAL, CHIP 0 5% 1/16W
R320	1-216-817-11	s METAL, CHIP 470 5% 1/16W
R321	1-218-840-11	s METAL, CHIP 510 0.50% 1/16W
R322	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R323	1-216-822-11	s METAL, CHIP 1.2K 5% 1/16W
R324	1-216-857-11	s METAL, CHIP 1M 5% 1/16W
R325	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R326	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R327	1-216-837-11	s METAL, CHIP 22K 5% 1/16W
R328	1-216-837-11	s METAL, CHIP 22K 5% 1/16W
R329	1-216-817-11	s METAL, CHIP 470 5% 1/16W
R330	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R331	1-216-809-11	s METAL, CHIP 100 5% 1/16W
R332	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R333	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R334	1-216-839-11	s METAL, CHIP 33K 5% 1/16W
R335	1-216-841-11	s METAL, CHIP 47K 5% 1/16W
R336	1-216-843-11	s METAL, CHIP 68K 5% 1/16W
R337	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R338	1-216-822-11	s METAL, CHIP 1.2K 5% 1/16W
R339	1-216-845-11	s METAL, CHIP 100K 5% 1/16W
R340	1-216-817-11	s METAL, CHIP 470 5% 1/16W
R341	1-218-285-11	s METAL, CHIP 75 5% 1/16W
R342	1-216-833-11	s METAL, CHIP 10K 5% 1/16W

## (PR-229 BOARD [SSC-DC50A/50AP])

Ref. No. or Q'ty	Part No.	SP Description
R343	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R344	1-216-840-11	s METAL, CHIP 39K 5% 1/16W
R345	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R346	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R347	1-216-835-11	s METAL, CHIP 15K 5% 1/16W
R348	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R349	1-216-823-11	s METAL, CHIP 1.5K 5% 1/16W
R350	1-216-824-11	s METAL, CHIP 1.8K 5% 1/16W
R351	1-216-819-11	s METAL, CHIP 680 5% 1/16W
R352	1-216-838-11	s METAL, CHIP 27K 5% 1/16W
R353	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R354	1-216-864-11	s METAL, CHIP 0 5% 1/16W(SSC-DC50AP)
R355	1-216-847-11	s METAL, CHIP 150K 5% 1/16W
R356	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R357	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R358	1-218-855-11	s RES, CHIP 2.2K 0.5% 1/16W
R359	1-216-815-11	s METAL, CHIP 330 5% 1/16W
R360	1-216-823-11	s METAL, CHIP 1.5K 5% 1/16W
R361	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R362	1-216-811-11	s METAL, CHIP 150 5% 1/16W
R363	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R364	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R365	1-216-835-11	s METAL, CHIP 15K 5% 1/16W
R366	1-216-827-11	s METAL, CHIP 3.3K 5% 1/16W
R367	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R368	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R369	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R370	1-218-875-11	s RES, CHIP 15K 0.5% 1/16W
R371	1-218-873-11	s METAL, CHIP 12K 0.50% 1/16W
R372	1-216-857-11	s METAL, CHIP 1M 5% 1/16W
R373	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R374	1-216-819-11	s METAL, CHIP 680 5% 1/16W
R375	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R376	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R377	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R380	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R382	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R383	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R384	1-216-857-11	s METAL, CHIP 1M 5% 1/16W
R385	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
X201	1-760-320-11	s CRYSTAL(SSC-DC50A)
X201	1-760-321-11	s CRYSTAL(SSC-DC50AP)
X202	1-760-314-11	s CRYSTAL 11.89510400MHz
X203	1-579-994-12	s CRYSTAL 14.31818MHz(SSC-DC50A)
X203	1-579-995-12	s CRYSTAL 17.73447500MHz(SSC-DC50AP)

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8320-227-A	o MOUNTED CIRCUIT BOARD, PR-229NA (SSC-DC54A)
1pc	A-8320-266-A	o MOUNTED CIRCUIT BOARD, PR-229PA (SSC-DC54AP/58AP)
C201	1-107-686-11	s TANTALUM, CHIP 4.7uF 20% 16V
C202	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C203	1-135-177-21	s TANTALUM, CHIP 1uF 10% 25V
C204	1-135-177-21	s TANTALUM, CHIP 1uF 10% 25V
C205	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C206	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C207	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C209	1-162-915-11	s CERAMIC, CHIP 10PF 0.5PF 50V
C210	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C212	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C213	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C214	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C215	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C216	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C217	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C218	1-135-212-21	s TANTALUM, CHIP 2.2uF 10% 35V
C219	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C220	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C221	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C222	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C223	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C224	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C225	1-162-911-11	s CERAMIC, CHIP 6PF 50V
C226	1-216-864-11	s METAL, CHIP 0 5% 1/16W
C227	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C228	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C229	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C230	1-104-478-11	s TANTAL 10uF 20% 35V
C231	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C232	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C233	1-115-467-11	s CERAMIC 0.22uF 10% 10V
C234	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C235	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C236	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C237	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C238	1-162-919-11	s CERAMIC, CHIP 22PF 5% 50V
C240	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C241	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C242	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C243	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C244	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C246	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C247	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C248	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C249	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C250	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C251	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C252	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C253	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C254	1-162-921-11	s CERAMIC, CHIP 33PF 5% 50V
C255	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C256	1-162-918-11	s CERAMIC, CHIP 18PF 5% 50V
C257	1-162-908-11	s CERAMIC, CHIP 3PF 0.25PF 50V
C258	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C259	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V

Ref. No. or Q'ty	Part No.	SP Description
C260	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C261	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C262	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C263	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C264	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C265	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C266	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C267	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C268	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C269	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C270	1-110-569-11	s TANTAL 47uF 20% 6.3
C271	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C272	1-104-919-11	s TANTALUM, CHIP 10uF 20% 25V
C273	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C274	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C275	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C276	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C277	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C278	1-104-850-11	s TANTAL 6.8uF 20% 10V
C279	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C280	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C281	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C282	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C283	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C284	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C285	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C286	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C287	1-162-911-11	s CERAMIC, CHIP 6PF 50V
C288	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C289	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C290	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C291	1-162-911-11	s CERAMIC, CHIP 6PF 50V
C292	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C293	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C294	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C295	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C296	1-104-850-11	s TANTAL 6.8uF 20% 10V
C297	1-135-259-11	s TANTALUM, CHIP 10uF 20% 6.3V
C298	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C299	1-162-919-11	s CERAMIC, CHIP 22PF 5% 50V
C300	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C301	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C302	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C303	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C304	1-162-919-11	s CERAMIC, CHIP 22PF 5% 50V (SSC-DC54A)
C305	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C306	1-162-918-11	s CERAMIC, CHIP 18PF 5% 50V
C307	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C308	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C309	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C310	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C311	1-164-156-11	s CERAMIC, CHIP 0.1uF 25V
C312	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C313	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V
C314	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C315	1-162-964-11	s CERAMIC, CHIP 0.001uF 10% 50V
C316	1-104-851-11	s TANTALUM, CHIP 10uF 20% 10V
C317	1-162-970-11	s CERAMIC, CHIP 0.01uF 10% 25V

Ref. No. or Q'ty	Part No.	SP	Description
C318	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C319	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C320	1-162-919-11	s	CERAMIC, CHIP 22PF 5% 50V
C321	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C322	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C323	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C324	1-135-091-00	s	TANTALUM, CHIP 1uF 20% 16V
C325	1-164-315-11	s	CERAMIC 470PF 5% 50V
C326	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C327	1-135-091-00	s	TANTALUM, CHIP 1uF 20% 16V
C328	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C329	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C330	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C331	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C332	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C333	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C334	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C335	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C336	1-135-091-00	s	TANTALUM, CHIP 1uF 20% 16V
C337	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C338	1-162-922-11	s	CERAMIC, CHIP 39PF 5% 50V
C339	1-162-915-11	s	CERAMIC, CHIP 10PF 0.5PF 50V
C340	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C341	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C342	1-111-253-11	s	TANTAL 100uF 20% 6.3
C343	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C344	1-110-569-11	s	TANTAL 47uF 20% 6.3
C345	1-115-467-11	s	CERAMIC 0.22uF 10% 10V
C346	1-135-091-00	s	TANTALUM, CHIP 1uF 20% 16V
C347	1-162-915-11	s	CERAMIC, CHIP 10PF 0.5PF 50V
C348	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C349	1-111-253-11	s	TANTAL 100uF 20% 6.3
C350	1-135-210-11	s	TANTALUM, CHIP 4.7uF 10% 10V
C351	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C352	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C353	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C354	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C355	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C356	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C357	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C358	1-104-852-11	s	TANTALUM, CHIP 22uF 20% 10V
C359	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C360	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C361	1-128-403-11	s	ELECT 47uF 20% 35V
C362	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C363	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C364	1-115-467-11	s	CERAMIC 0.22uF 10% 10V
C365	1-162-927-11	s	CERAMIC, CHIP 100PF 5% 50V
C366	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C367	1-135-091-00	s	TANTALUM, CHIP 1uF 20% 16V
C368	1-162-915-11	s	CERAMIC, CHIP 10PF 0.5PF 50V
C369	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C370	1-111-253-11	s	TANTAL 100uF 20% 6.3
C371	1-162-964-11	s	CERAMIC, CHIP 0.001uF 10% 50V
C372	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C373	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C374	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C375	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C376	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V

Ref. No. or Q'ty	Part No.	SP	Description
C377	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C378	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C379	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C380	1-164-218-11	s	CERAMIC 180PF 5% 50V
C381	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C382	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C383	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C384	1-162-964-11	s	CERAMIC, CHIP 0.001uF 10% 50V
C385	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C386	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C387	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C388	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C389	1-164-218-11	s	CERAMIC 180PF 5% 50V
C390	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C391	1-164-380-11	s	CERAMIC, CHIP 51PF 5% 50V (SSC-DC54A)
C391	1-162-922-11	s	CERAMIC, CHIP 39PF 5% 50V (SSC-DC54AP/58AP)
C392	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C393	1-164-315-11	s	CERAMIC 470PF 5% 50V
C394	1-115-412-11	s	CERAMIC 680pF 5% 25V
C395	1-104-851-11	s	TANTALUM, CHIP 10uF 20% 10V
C396	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C397	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C398	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C399	1-135-259-11	s	TANTALUM, CHIP 10uF 20% 6.3V
C401	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V
C402	1-164-156-11	s	CERAMIC, CHIP 0.1uF 25V (SSC-DC54A)
C403	1-110-569-11	s	TANTAL 47uF 20% 6.3
C404	1-135-210-11	s	TANTALUM, CHIP 4.7uF 10% 10V
C405	1-162-970-11	s	CERAMIC, CHIP 0.01uF 10% 25V
C407	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
CN201	1-764-007-11	o	PIN, CONNECTOR (SMD) 12P
CN202	1-573-354-11	s	CONNECTOR, FFC/FPC 14P, FEMALE
CN203	1-695-930-21	o	CONNECTOR, FPC 16P, FEMALE
CN204	1-764-534-21	s	CONNECTOR, FFC/FPC (ZIF) 28P, FEMAL
CT201	1-141-373-11	s	CAP, CHIP TRIMMER
CT202	1-141-369-22	s	CAP, CHIP TRIMMER
CT203	1-141-373-11	s	CAP, CHIP TRIMMER
D202	8-719-404-49	s	DIODE MA111
D204	8-719-404-49	s	DIODE MA111
D205	8-719-404-49	s	DIODE MA111(SSC-DC54A)
D206	8-719-404-49	s	DIODE MA111
D207	8-719-031-68	s	DIODE HVU359TRF
D208	8-719-404-49	s	DIODE MA111
D209	8-719-988-37	s	DIODE HVU350F
D210	8-719-031-68	s	DIODE HVU359TRF
D211	8-719-058-24	s	DIODE RB501V-40TE-17
D212	8-719-404-49	s	DIODE MA111
D213	8-719-404-49	s	DIODE MA111
FL201	1-233-668-21	s	FILTER, BANDPASS
FL202	1-239-352-11	s	FILTER, LOW-PASS
IC201	8-759-196-69	s	IC BA7655AF-E2
IC202	8-759-196-93	s	IC TC7SH00FU-TE85R
IC203	8-752-073-11	s	IC CXA2006Q-T4
IC204	8-759-271-88	s	IC TC7SHU04FU-TE85R
IC205	8-759-196-93	s	IC TC7SH00FU-TE85R

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Ref. No. or Q'ty	Part No.	SP	Description
IC206	8-752-388-60	s	IC CXD2480R-T4
IC207	8-759-082-59	s	IC TC7W32FU(Te12R)
IC208	8-759-271-88	s	IC TC7SHU04FU-TE85R
IC209	8-759-335-30	s	IC HD49315AFEB
IC210	8-759-064-36	s	IC MB88346BPFV
IC211	8-759-510-71	s	IC BA10358F-E2
IC212	8-752-388-59	s	IC CXD2163R-T6
IC213	8-759-271-86	s	IC TC7SH04FU-TE85R
IC214	8-759-542-98	s	IC S-80827ALUP-EAQ-T2
IC215	8-759-464-95	s	IC AK6420AF-E2
IC216	8-759-523-97	s	IC TC74VHC123AFT(EL)
IC217	8-752-899-48	s	IC CXP87132-082R
IC218	8-759-058-54	s	IC TC7S00FU(TE85R)
IC219	8-759-443-02	s	IC TC75W51FU-TE12R
IC220	8-759-523-02	s	IC TC74HC4053AFT(EL)
IC221	8-759-058-54	s	IC TC7S00FU(TE85R)
IC222	8-759-058-54	s	IC TC7S00FU(TE85R)
IC223	8-759-523-78	s	IC TC74VHC00FT(EL)
IC224	8-759-066-56	s	IC TA75W393FU
IC225	8-759-262-03	s	IC MC14577CF
IC226	8-759-262-03	s	IC MC14577CF
IC227	8-759-271-88	s	IC TC7SHU04FU-TE85R
IC228	8-759-082-60	s	IC TC7S66FU
IC229	8-759-058-54	s	IC TC7S00FU(TE85R)
IC230	8-759-277-63	s	IC TC7W14FU(Te12R)
IC231	8-759-523-97	s	IC TC74VHC123AFT(EL)
IC232	8-759-710-12	s	IC NJM2230M
IC233	8-759-271-86	s	IC TC7SH04FU-TE85R
IC234	8-759-066-56	s	IC TA75W393FU
IC235	8-759-523-97	s	IC TC74VHC123AFT(EL)
IC236	8-759-196-93	s	IC TC7SH00FU-TE85R
IC237	8-759-196-93	s	IC TC7SH00FU-TE85R(SSC-DC54A)
IC238	8-759-196-93	s	IC TC7SH00FU-TE85R
IC239	8-759-271-88	s	IC TC7SHU04FU-TE85R
IC240	8-759-082-60	s	IC TC7S66FU
IC241	8-759-082-60	s	IC TC7S66FU
IC242	8-759-196-97	s	IC TC7SH32FU-TE85R
L201	1-412-030-11	s	INDUCTOR CHIP 22uH
L202	1-412-030-11	s	INDUCTOR CHIP 22uH
L203	1-412-030-11	s	INDUCTOR CHIP 22uH
L204	1-412-030-11	s	INDUCTOR CHIP 22uH
L205	1-412-030-11	s	INDUCTOR CHIP 22uH
L206	1-412-030-11	s	INDUCTOR CHIP 22uH
L207	1-412-030-11	s	INDUCTOR CHIP 22uH
L208	1-412-030-11	s	INDUCTOR CHIP 22uH
L209	1-410-373-31	s	INDUCTOR CHIP 2.2uH
L210	1-412-030-11	s	INDUCTOR CHIP 22uH
L211	1-412-030-11	s	INDUCTOR CHIP 22uH
L212	1-412-030-11	s	INDUCTOR CHIP 22uH
L213	1-412-030-11	s	INDUCTOR CHIP 22uH
L214	1-412-030-11	s	INDUCTOR CHIP 22uH
L216	1-412-030-11	s	INDUCTOR CHIP 22uH
L217	1-412-032-11	s	INDUCTOR CHIP 100uH
L218	1-412-030-11	s	INDUCTOR CHIP 22uH
L219	1-412-030-11	s	INDUCTOR CHIP 22uH
L220	1-412-030-11	s	INDUCTOR CHIP 22uH
L221	1-412-030-11	s	INDUCTOR CHIP 22uH
L222	1-412-030-11	s	INDUCTOR CHIP 22uH

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Ref. No. or Q'ty	Part No.	SP	Description
L223	1-412-030-11	s	INDUCTOR CHIP 22uH
L224	1-412-030-11	s	INDUCTOR CHIP 22uH
L225	1-412-030-11	s	INDUCTOR CHIP 22uH
L226	1-412-030-11	s	INDUCTOR CHIP 22uH
L227	1-412-030-11	s	INDUCTOR CHIP 22uH
L228	1-412-030-11	s	INDUCTOR CHIP 22uH
L229	1-412-027-11	s	INDUCTOR CHIP 2.2uH
L230	1-412-027-11	s	INDUCTOR CHIP 2.2uH
L231	1-412-030-11	s	INDUCTOR CHIP 22uH
L232	1-410-385-11	s	INDUCTOR, CHIP 22uH
Q201	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q202	8-729-907-00	s	TRANSISTOR DTC114EU
Q204	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q205	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q206	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q207	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q208	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q209	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q210	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q211	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q212	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q213	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q214	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q215	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q216	8-729-117-73	s	TRANSISTOR 2SC4178-F14
Q217	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q218	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q219	8-729-427-74	s	TRANSISTOR XP4601
Q220	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q221	8-729-427-70	s	TRANSISTOR XP4401-TXE
Q222	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q223	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q224	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q225	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q226	8-729-230-63	s	TRANSISTOR 2SC4116YG
Q227	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q228	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q229	8-729-907-00	s	TRANSISTOR DTC114EU
R201	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R202	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R203	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R204	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R205	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R206	1-218-856-11	s	METAL, CHIP 2.4K 0.5% 1/16W
R207	1-218-855-11	s	RES, CHIP 2.2K 0.5% 1/16W
R208	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R209	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W
R210	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R211	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R212	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R213	1-218-876-11	s	RES, CHIP 16K 0.5% 1/16W
R214	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R215	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R216	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R217	1-216-807-11	s	METAL, CHIP 68 5% 1/16W
R219	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R221	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R222	1-216-840-11	s	METAL, CHIP 39K 5% 1/16W

Ref. No. or Q'ty	Part No.	SP	Description
R223	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R224	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R225	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R226	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R227	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R228	1-218-876-11	s	RES, CHIP 16K 0.5% 1/16W
R229	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R230	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R231	1-218-847-11	s	RES, CHIP 1K 0.5% 1/16W
R232	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R233	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R234	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R235	1-216-838-11	s	METAL, CHIP 27K 5% 1/16W
R236	1-218-881-11	s	METAL, CHIP 27K 0.50% 1/16W
R237	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R238	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R239	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R240	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R241	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R242	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R243	1-218-883-11	s	METAL, CHIP 33K 0.50% 1/16W
R244	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R245	1-216-813-11	s	METAL, CHIP 220 5% 1/16W
R246	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R247	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R248	1-216-797-11	s	METAL, CHIP 10 5% 1/16W
R249	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R250	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R251	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R252	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W (SSC-DC54AP/58AP)
R253	1-218-847-11	s	RES, CHIP 1K 0.5% 1/16W
R254	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R255	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R256	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R257	1-216-864-11	s	METAL, CHIP 0 5% 1/16W(SSC-DC54A)
R258	1-216-864-11	s	METAL, CHIP 0 5% 1/16W(SSC-DC54A)
R259	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R260	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W (SSC-DC54AP/58AP)
R261	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R262	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R263	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R264	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R265	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R266	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R267	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R268	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R269	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R270	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R271	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R272	1-216-831-11	s	METAL, CHIP 6.8K 5% 1/16W
R273	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R274	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R275	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R276	1-216-827-11	s	METAL, CHIP 3.3K 5% 1/16W
R277	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R278	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R279	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W

Ref. No. or Q'ty	Part No.	SP	Description
R280	1-216-835-11	s	METAL, CHIP 15K 5% 1/16W
R281	1-216-836-11	s	METAL, CHIP 18K 5% 1/16W
R282	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R283	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R284	1-218-840-11	s	METAL, CHIP 510 0.50% 1/16W
R285	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R286	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R287	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R288	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R289	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R290	1-218-840-11	s	METAL, CHIP 510 0.50% 1/16W
R291	1-218-883-11	s	METAL, CHIP 33K 0.50% 1/16W
R292	1-218-880-11	s	RES, CHIP 24K 0.5% 1/16W
R293	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R294	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R295	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R296	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R297	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R298	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R299	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R300	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R301	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R302	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R303	1-218-878-11	s	RES, CHIP 20K 0.5% 1/16W
R304	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R305	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R306	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R308	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R309	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R310	1-218-285-11	s	METAL, CHIP 75 5% 1/16W
R311	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W
R312	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R313	1-218-877-11	s	RES, CHIP 18K 0.5% 1/16W
R314	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R315	1-216-833-11	s	METAL, CHIP 10K 5% 1/16W
R316	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R317	1-218-285-11	s	METAL, CHIP 75 5% 1/16W
R318	1-216-816-11	s	METAL, CHIP 390 5% 1/16W
R319	1-216-864-11	s	METAL, CHIP 0 5% 1/16W
R320	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R321	1-218-840-11	s	METAL, CHIP 510 0.50% 1/16W
R322	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R323	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R324	1-216-857-11	s	METAL, CHIP 1M 5% 1/16W
R325	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R326	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R327	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R328	1-216-837-11	s	METAL, CHIP 22K 5% 1/16W
R329	1-216-817-11	s	METAL, CHIP 470 5% 1/16W
R330	1-216-825-11	s	METAL, CHIP 2.2K 5% 1/16W
R331	1-216-809-11	s	METAL, CHIP 100 5% 1/16W
R332	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R333	1-216-829-11	s	METAL, CHIP 4.7K 5% 1/16W
R334	1-216-839-11	s	METAL, CHIP 33K 5% 1/16W
R335	1-216-841-11	s	METAL, CHIP 47K 5% 1/16W
R336	1-216-843-11	s	METAL, CHIP 68K 5% 1/16W
R337	1-216-821-11	s	METAL, CHIP 1K 5% 1/16W
R338	1-216-822-11	s	METAL, CHIP 1.2K 5% 1/16W
R339	1-216-845-11	s	METAL, CHIP 100K 5% 1/16W

(PR-229 BOARD [SSC-DC54A/54AP/58AP])

Ref. No. or Q'ty	Part No.	SP Description
R340	1-216-817-11	s METAL, CHIP 470 5% 1/16W
R341	1-218-285-11	s METAL, CHIP 75 5% 1/16W
R342	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R343	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R344	1-216-840-11	s METAL, CHIP 39K 5% 1/16W
R345	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R346	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R347	1-216-835-11	s METAL, CHIP 15K 5% 1/16W
R348	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R349	1-216-823-11	s METAL, CHIP 1.5K 5% 1/16W
R350	1-216-824-11	s METAL, CHIP 1.8K 5% 1/16W
R351	1-216-819-11	s METAL, CHIP 680 5% 1/16W
R352	1-216-838-11	s METAL, CHIP 27K 5% 1/16W
R353	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R354	1-216-864-11	s METAL, CHIP 0 5% 1/16W (SSC-DC54AP/58AP)
R355	1-216-847-11	s METAL, CHIP 150K 5% 1/16W
R356	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R357	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R358	1-218-855-11	s RES, CHIP 2.2K 0.5% 1/16W
R359	1-216-815-11	s METAL, CHIP 330 5% 1/16W
R360	1-216-823-11	s METAL, CHIP 1.5K 5% 1/16W
R361	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R362	1-216-811-11	s METAL, CHIP 150 5% 1/16W
R363	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R364	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R365	1-216-835-11	s METAL, CHIP 15K 5% 1/16W
R366	1-216-827-11	s METAL, CHIP 3.3K 5% 1/16W
R367	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R368	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R369	1-216-821-11	s METAL, CHIP 1K 5% 1/16W
R370	1-218-875-11	s RES, CHIP 15K 0.5% 1/16W
R371	1-218-873-11	s METAL, CHIP 12K 0.50% 1/16W
R372	1-216-857-11	s METAL, CHIP 1M 5% 1/16W
R373	1-216-825-11	s METAL, CHIP 2.2K 5% 1/16W
R374	1-216-819-11	s METAL, CHIP 680 5% 1/16W
R375	1-216-829-11	s METAL, CHIP 4.7K 5% 1/16W
R376	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R377	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R380	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R382	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R383	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
R384	1-216-857-11	s METAL, CHIP 1M 5% 1/16W
R385	1-216-833-11	s METAL, CHIP 10K 5% 1/16W
X201	1-760-320-11	s CRYSTAL(SSC-DC54A)
X201	1-760-321-11	s CRYSTAL(SSC-DC54AP/58AP)
X202	1-760-314-11	s CRYSTAL 11.89510400MHZ
X203	1-579-224-11	s CRYSTAL(SSC-DC54A)
X203	1-579-995-12	s CRYSTAL 17.73447500MHZ (SSC-DC54AP/58AP)

PS-477 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8315-318-A	s MOUNTED CIRCUIT BOARD, PS-477
1pc	7-621-772-30	s SCREW +B 2x6
1pc	7-622-205-05	s NUT M2 TYPE2
C801	1-104-478-11	s TANTAL 10uF 20% 35V
C802	1-163-021-91	s CERAMIC 0.01uF 10% 50V
C803	1-107-876-11	s ELECT 330uF 20% 10V
C804	1-107-876-11	s ELECT 330uF 20% 10V
C805	1-107-894-11	s ELECT 220uF 20% 35V
C806	1-163-259-91	s CERAMIC 220pF 5% 50V
C807	1-126-403-11	s ELECT 3.3uF 20% 50V
C808	1-107-914-11	s ELECT 1000uF 20% 35V
C809	1-163-021-91	s CERAMIC 0.01uF 10% 50V
C810	1-126-168-11	s ELECT 1000uF 25% 6.3
C811	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C812	1-163-021-91	s CERAMIC 0.01uF 10% 50V
C813	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C814	1-126-398-11	s ELECT, CHIP 4.7uF 20% 35V
C815	1-126-400-11	s ELECT, CHIP 22uF 20% 35V
C816	1-163-037-11	s CERAMIC, CHIP 0.022uF 10% 25V
C817	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C818	1-163-131-00	s CERAMIC, CHIP 390PF 5% 50V
C819	1-163-253-11	s CERAMIC, CHIP 120PF 5% 50V
C820	1-163-251-11	s CERAMIC, CHIP 100PF 5% 50V
C821	1-126-391-11	s ELECT, CHIP 47uF 20% 6.3V
C822	1-163-133-00	s CERAMIC, CHIP 470PF 5% 50V
C823	1-110-666-11	s ELECT 22uF 20% 6.3
C824	1-117-229-11	s TANTALUM 10uF 20% 10V
C825	1-117-231-91	s TANTALUM 6.8uF 20% 16V
C826	1-126-390-11	s ELECT, CHIP 22uF 20% 6.3V
C827	1-117-231-91	s TANTALUM 6.8uF 20% 16V
C828	1-126-402-11	s ELECT, CHIP 2.2uF 20% 50V
C829	1-126-397-11	s ELECT, CHIP 33uF 20% 25V
C830	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C831	1-164-004-11	s CERAMIC, CHIP 0.1uF 10% 25V
C832	1-110-666-11	s ELECT 22uF 20% 6.3
C833	1-126-396-11	s ELECT, CHIP 47uF 20% 16V
C834	1-104-478-11	s TANTAL 10uF 20% 35V
C836	1-164-161-11	s CERAMIC, CHIP 0.0022uF 10% 100V
C837	1-104-823-11	s TANTALUM, CHIP 47uF 20% 16V
C838	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
C839	1-104-852-11	s TANTALUM, CHIP 22uF 20% 10V
CN801	1-766-290-21	s CONNECTOR, FPC 14P, FEMALE
CN802	1-580-057-11	o PIN, CONNECTOR 4P
CN803	1-569-119-11	s CONNECTOR, FPC (Z1F(I)TYPE)16P
D801	8-719-510-11	s DIODE D1FS4
D802	8-719-059-51	s DIODE MA3J142E0LSO
D803	8-719-510-11	s DIODE D1FS4
D804	8-719-036-65	s DIODE RD2.0SB-T1
D805	8-719-017-77	s DIODE MA8030
D806	8-719-027-78	s DIODE MA796
IC801	8-759-260-57	s IC TL1451ACPW-E05
IC802	8-759-082-61	s IC TC4W53FU
IC803	8-759-710-88	s IC NJM431U
IC804	8-759-054-12	s IC PQ09RF11
L801	1-411-227-21	s INDUCTOR 100uH
L802	1-424-653-11	s COIL, CHOKE 10uH
L803	1-412-030-11	s INDUCTOR CHIP 22uH

## (PS-477 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
L804	1-411-227-21	s	INDUCTOR 100uH
L805	1-414-265-21	s	INDUCTOR 4.7uH
L806	1-414-275-11	s	INDUCTOR 220uH
L807	1-414-275-11	s	INDUCTOR 220uH
L808	1-412-027-11	s	INDUCTOR CHIP 2.2uH
L809	1-412-030-11	s	INDUCTOR CHIP 22uH
L810	1-412-030-11	s	INDUCTOR CHIP 22uH
Q801	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q802	8-729-231-74	s	TRANSISTOR 2SC4116GL
Q803	8-729-028-73	s	TRANSISTOR DTAL14EUA-T106
Q804	8-729-028-73	s	TRANSISTOR DTAL14EUA-T106
Q805	8-729-402-13	s	TRANSISTOR XN1501
Q806	8-729-231-74	s	TRANSISTOR 2SC4116GL
Q807	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q808	8-729-230-60	s	TRANSISTOR 2SA1586YG
Q809	8-729-216-22	s	TRANSISTOR 2SA1162
Q810	8-729-230-49	s	TRANSISTOR 2SC2712-YG
Q811	8-729-804-51	s	TRANSISTOR 2SB1122-S
Q812	8-729-823-83	s	TRANSISTOR FP101
Q813	8-729-144-56	s	TRANSISTOR 2SC3617
Q814	8-729-144-56	s	TRANSISTOR 2SC3617
R801	1-216-091-00	s	METAL, CHIP 56K 5% 1/10W
R802	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R803	1-216-091-00	s	METAL, CHIP 56K 5% 1/10W
R804	1-208-799-11	s	METAL, CHIP 5.1K 0.50% 1/10W
R805	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R806	1-216-065-91	s	RES, CHIP 4.7K 5% 1/10W
R807	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R808	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R809	1-216-069-00	s	METAL, CHIP 6.8K 5% 1/10W
R810	1-216-049-91	s	METAL, CHIP 1K 5% 1/10W
R811	1-216-065-91	s	RES, CHIP 4.7K 5% 1/10W
R812	1-216-091-00	s	METAL, CHIP 56K 5% 1/10W
R813	1-216-097-91	s	RES, CHIP 100K 5% 1/10W
R814	1-220-256-11	s	RES, CHIP 75 5% 1/4W
R815	1-208-801-11	s	METAL, CHIP 6.2K 0.50% 1/10W
R816	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W
R817	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R818	1-216-097-91	s	RES, CHIP 100K 5% 1/10W
R819	1-216-065-91	s	RES, CHIP 4.7K 5% 1/10W
R820	1-216-069-00	s	METAL, CHIP 6.8K 5% 1/10W
R821	1-216-033-00	s	METAL, CHIP 220 5% 1/10W
R822	1-216-101-00	s	METAL, CHIP 150K 5% 1/10W
R823	1-216-049-91	s	METAL, CHIP 1K 5% 1/10W
R824	1-216-081-00	s	METAL, CHIP 22K 5% 1/10W
R825	1-216-689-11	s	METAL, CHIP 39K 0.5% 1/10W
R826	1-216-065-91	s	RES, CHIP 4.7K 5% 1/10W
R827	1-216-055-00	s	METAL, CHIP 1.8K 5% 1/10W
R828	1-216-295-91	s	METAL, CHIP 0 5% 1/10W
R829	1-216-049-91	s	METAL, CHIP 1K 5% 1/10W
R830	1-216-047-91	s	RES, CHIP 820 5% 1/10W
R831	1-208-813-11	s	RES, CHIP 20K 0.5% 1/10W
R832	1-216-049-91	s	METAL, CHIP 1K 5% 1/10W
R833	1-216-053-00	s	METAL, CHIP 1.5K 5% 1/10W
R834	1-216-061-00	s	METAL, CHIP 3.3K 5% 1/10W
R835	1-216-067-00	s	METAL, CHIP 5.6K 5% 1/10W
R836	1-216-069-00	s	METAL, CHIP 6.8K 5% 1/10W
R837	1-216-065-91	s	RES, CHIP 4.7K 5% 1/10W

## (PS-477 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R838	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R839	1-216-049-91	s	METAL, CHIP 1K 5% 1/10W
R840	1-216-049-91	s	METAL, CHIP 1K 5% 1/10W
R841	1-216-049-91	s	METAL, CHIP 1K 5% 1/10W
R842	1-216-057-00	s	METAL, CHIP 2.2K 5% 1/10W
R843	1-216-037-00	s	METAL, CHIP 330 5% 1/10W
R844	1-216-295-91	s	METAL, CHIP 0 5% 1/10W
R845	1-216-049-91	s	METAL, CHIP 1K 5% 1/10W
R846	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R847	1-217-671-11	s	METAL 1 5% 1/10W
R848	1-217-671-11	s	METAL 1 5% 1/10W
R849	1-208-814-11	s	METAL, CHIP 22K 0.50% 1/10W
R850	1-208-802-11	s	RES, CHIP 6.8K 0.5% 1/10W
R851	1-216-085-00	s	METAL, CHIP 33K 5% 1/10W
R852	1-216-079-00	s	METAL, CHIP 18K 5% 1/10W
R853	1-216-073-00	s	METAL, CHIP 10K 5% 1/10W
R854	1-208-830-11	s	RES, CHIP 100K 0.5% 1/10W
R855	1-208-830-11	s	RES, CHIP 100K 0.5% 1/10W
T801	1-450-976-11	s	TRANSFORMER, CONVERTER



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 FRAME [SSC-DC50A/50AP]  
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Ref. No. or Q'ty	Part No.	SP Description
CN502	1-566-850-11	s CONNECTOR, (S) TERMINAL 4P "S VIDEO OUT"
CN504	1-580-724-11	s CONNECTOR, BNC "A:MONITOR OUT" "B:VBS IN, VS IN"
CN505	1-580-724-11	s CONNECTOR, BNC "A:DC IN, VS IN, VIDEO OUT" "B:VIDEO OUT"
CN702	1-580-172-11	s CONNECTOR,MICRO 4P, FEMALE "LENS"
HN1	1-790-157-11	o CABLE, FLEXIBLE FLAT (14 CORE)
HN2	1-766-287-11	s WIRE, FLEXIBLE CARD
HN3	1-769-275-11	s WIRE, FLEXIBLE CARD
HN4	1-782-538-11	s CABLE, FLEXIBLE FLAT (28 CORE)
HN5	1-957-799-11	o HARNESS (CONNECTOR CB1)

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 FRAME [SSC-DC54A/54AP]  
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Ref. No. or Q'ty	Part No.	SP Description
CN602	1-566-850-11	s CONNECTOR, (S) TERMINAL 4P "S VIDEO OUT"
CN604	1-580-724-11	s CONNECTOR, BNC "VBS IN, VS IN"
CN605	1-580-724-11	s CONNECTOR, BNC "VIDEO OUT"
CN702	1-580-172-11	s CONNECTOR,MICRO 4P, FEMALE "LENS"
HN1	1-790-157-11	o CABLE, FLEXIBLE FLAT (14 CORE)
HN3	1-769-275-11	s WIRE, FLEXIBLE CARD
HN4	1-782-538-11	s CABLE, FLEXIBLE FLAT (28 CORE)
HN5	1-957-799-11	o HARNESS (CONNECTOR CB1)
HN6	1-766-287-11	s WIRE, FLEXIBLE CARD

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 FRAME [SSC-DC58AP]  
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Ref. No. or Q'ty	Part No.	SP Description
1pc	1-418-080-11	s CONVERTER UNIT, AC-DC
1pc	1-551-044-91	s CORD, POWER (3 CORE)
CN203	1-562-211-11	s HOUSING, VH, 3P
CN602	1-566-850-11	s CONNECTOR, (S) TERMINAL 4P "S VIDEO OUT"
CN604	1-580-724-11	s CONNECTOR, BNC "VBS IN, VS IN"
CN605	1-580-724-11	s CONNECTOR, BNC "VIDEO OUT"
CN702	1-580-172-11	s CONNECTOR,MICRO 4P, FEMALE "LENS"
FC1	1-239-231-11	s FILTER, DATA LINE
HN1	1-790-157-11	o CABLE, FLEXIBLE FLAT (14 CORE)
HN3	1-790-156-11	s WIRE, FLEXIBLE CARD
HN4	1-782-538-11	s CABLE, FLEXIBLE FLAT (28 CORE)
HN5	1-957-800-11	o HARNESS (CONNECTOR CB2)
HN7	1-957-898-11	o HARNESS (CONNECTOR ASSY 9)

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 PACKING MATERIALS & SUPPLIED ACCESSORIES  
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Ref. No. or Q'ty	Part No.	SP Description
1pc	1-580-173-11	s CONNECTOR, MICRO (PLUG) 4P
1pc	3-864-780-11	s MANUAL, INSTRUCTION
1pc	3-864-780-21	s MANUAL, INSTRUCTION



## SECTION 6

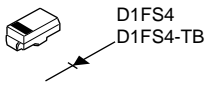
# SEMICONDUCTOR PIN ASSIGNMENTS

Semiconductors of which functions are equivalent are described here. For parts replacement, refer to the section of Spare Parts in this manual. The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

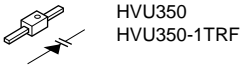
ここに記載されている半導体は、それぞれの機能を等価的に表したものです。なお、互換性のない型名を併記していることがありますので、部品を交換するときは、Spare Partsの章を参照してください。  
等価回路はICメーカーのデータブックに従いました。

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HVU350-1TRF .....	6-2	2SB1122-S-TD .....	6-2	CXD2163R-T6 .....	6-4		
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				TC7S66FU .....	6-10		
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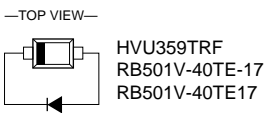
## DIODE



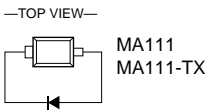
D1FS4  
D1FS4-TB



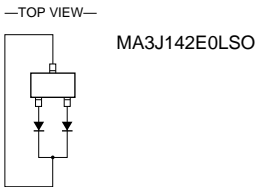
HVU350  
HVU350-1TRF



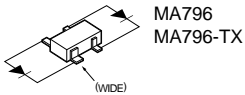
HVU359TRF  
RB501V-40TE-17  
RB501V-40TE17



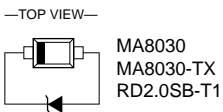
MA111  
MA111-TX



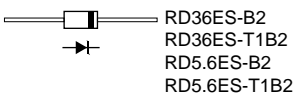
MA3J142E0LSO



MA796  
MA796-TX

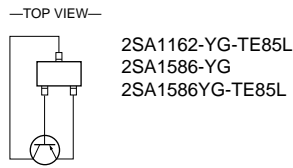


MA8030  
MA8030-TX  
RD2.0SB-T1

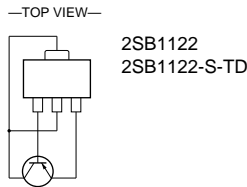


RD36ES-B2  
RD36ES-T1B2  
RD5.6ES-B2  
RD5.6ES-T1B2

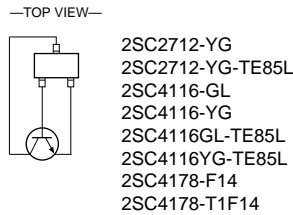
## TRANSISTOR



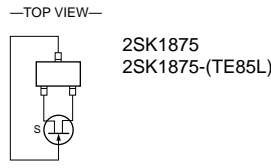
2SA1162-YG-TE85L  
2SA1586-YG  
2SA1586YG-TE85L



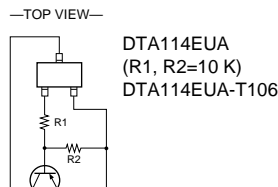
2SB1122  
2SB1122-S-TD



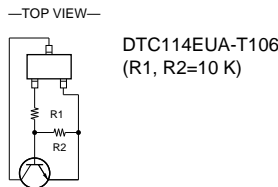
2SC2712-YG  
2SC2712-YG-TE85L  
2SC4116-GL  
2SC4116-YG  
2SC4116GL-TE85L  
2SC4116YG-TE85L  
2SC4178-F14  
2SC4178-T1F14



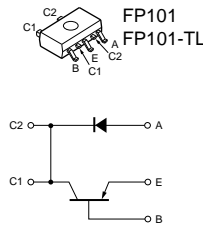
2SK1875  
2SK1875-(TE85L)



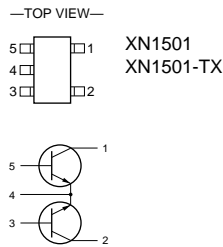
DTA114EUA  
(R1, R2=10 K)  
DTA114EUA-T106



DTC114EUA-T106  
(R1, R2=10 K)



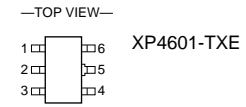
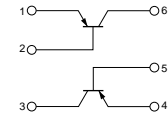
FP101  
FP101-TL



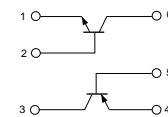
XN1501  
XN1501-TX



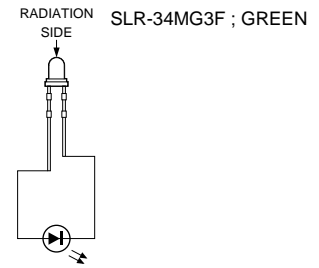
XP4401-TXE



XP4601-TXE



## LED

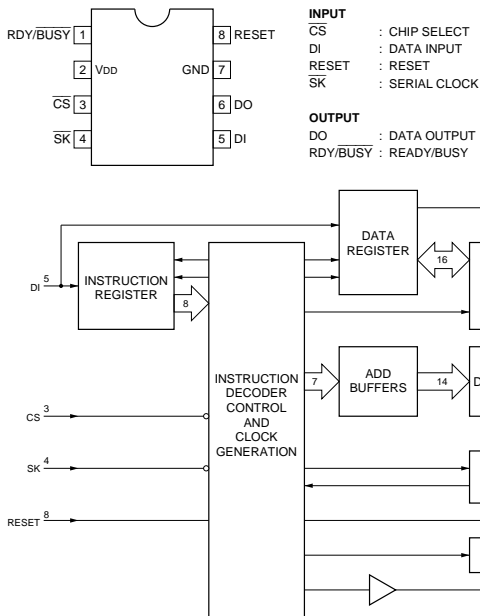


SLR-34MG3F ; GREEN

IC

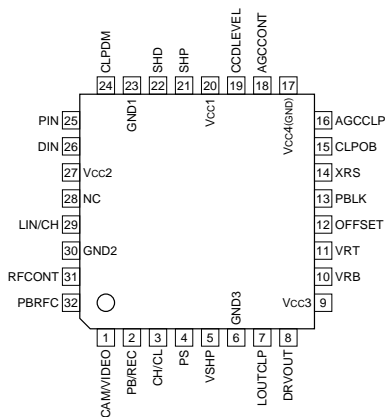
AK6420AF-E2 (ASAHI KASEI MICRO SYSTEM)

C-MOS 2,048 (128 × 16)-BIT ELECTRICALLY ERASABLE PROM  
—TOP VIEW—



CXA2006Q-T4 (SONY)

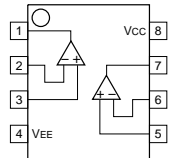
DIGITAL CCD CAMERA HEAD AMPLIFIER  
—TOP VIEW—



- INPUT**  
 AGCCLP : AGC CLAMP  
 AGCCONT : AGC GAIN CONTROL  
 CAM/VIDEO : CAMERA/VIDEO SELECT CONTROL  
 CH/CL : CHROMA HIGH/LOW SELECT CONTROL  
 CLPDM : DUMMY PIXEL CLAMP  
 CLPOB : OPTICAL BLACK CLAMP  
 DIN : CCD SIGNAL  
 LIN/CH : COMPOSITE VIDEO (LIN)/HIGH CHROMA (CH)  
 LOUTCLP : COMPOSITE VIDEO CLAMP  
 OFFSET : OFFSET CONTROL  
 PBRFC : CHROMA/COMPOSITE SELECT CONTROL  
 PBLK : PRE-BLANKING PULSE  
 PBRFC : LOW CHROMA (CL)  
 PIN : CCD SIGNAL  
 PS : POWER SAVE CONTROL  
 RFCONT : LOW CHROMA GAIN CONTROL  
 SHD : DATA LEVEL SAMPLE HOLD  
 SHP : PRE-SET LEVEL SAMPLE HOLD  
 VSH : VIDEO SAMPLE HOLD PULSE  
 XRS : CAMERA SAMPLE HOLD
- OUTPUT**  
 CCDLEVEL : SHD MONITOR  
 DRVOUT : A/D CONVERTER DRIVE  
 VRB : 2 V REGULATOR  
 VRT : 4 V REGULATOR

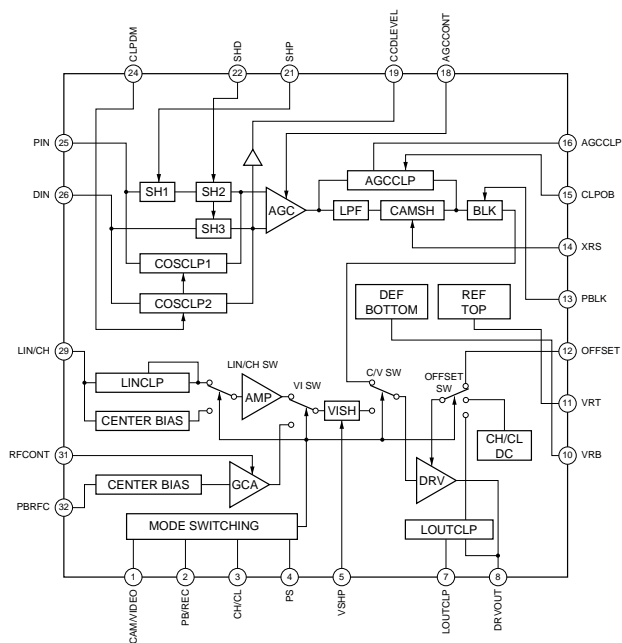
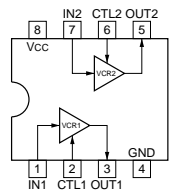
BA10358F-E2 (ROHM)FLAT PACKAGE  
NJM3414AMP(TE2) (JRC)  
UPC358G2-E2

DUAL OPERATIONAL AMPLIFIERS  
(SINGLE-SUPPLY TYPE)  
—TOP VIEW—



BA7655AF-E2 (ROHM)FLAT PACKAGE

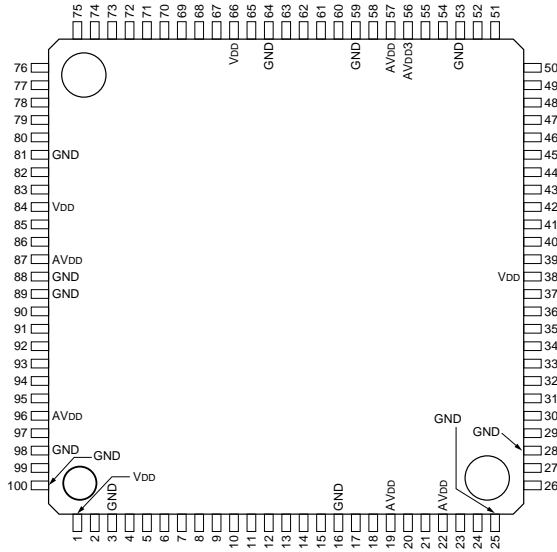
VOLTAGE CONTROL VARIABLE GAIN AMPLIFIER  
—TOP VIEW—



CXD2163R-T6 (SONY)

C-MOS SIGNAL PROCESSOR FOR SINGLE-PANEL CCD COLOR CAMERAS

—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	—	Vdd	26	I	VREFC	51	O	FLD	76	O	CSTG
2	I	SIFSEL	27	I	VBC	52	O	SYNC	77	O	TGVD
3	—	GND	28	—	GND	53	—	GND	78	O	TGHD
4	I	AEME	29	I/O	DCK	54	O	OSCO	79	I	ID
5	I	FLON	30	O	YO7	55	I	OSCI	80	I	MCK
6	I	BLCOF	31	O	YO6	56	—	AVdd3	81	—	GND
7	I	MIRIS	32	O	YO5	57	—	AVdd	82	I	AESHUT
8	I	AEREF	33	O	YO4	58	I	ISET	83	O	CLP1
9	I	AGCMAX	34	O	YO3	59	—	GND	84	—	Vdd
10	I	GAMMA	35	O	YO2	60	I	HRI	85	I	AD9
11	I	AWB1	36	O	YO1	61	I	VRI	86	I	AD8
12	I	AWB2	37	O	YO0	62	I/O	LRI	87	I	AD7
13	I	AWB3	38	—	Vdd	63	O	PCOMP	88	I	AD6
14	I	VBY	39	O	CO7	64	—	GND	89	I	AD5
15	I	VREFY	40	O	CO6	65	I	XCLP	90	I	AD4
16	—	GND	41	O	CO5	66	—	Vdd	91	I	AD3
17	O	IREFY	42	O	CO4	67	I	SKC	92	I	AD2
18	I	VGX	43	O	CO3	68	I	SI	93	I	AD1
19	—	AVdd	44	O	CO2	69	O	SO	94	I	AD0
20	O	IOY	45	O	CO1	70	I	XCS	95	I	VRT
21	O	IOC	46	O	CO0	71	O	CASCK	96	—	AVdd
22	—	AVdd	47	O	NRB	72	I	CASI	97	I	SHIN
23	I	VGC	48	O	FSCO	73	O	CASO	98	—	GND
24	O	IREFC	49	O	HD	74	O	CSROM	99	I	VRB
25	—	GND	50	O	VD	75	O	CSEVR	100	—	GND

INPUT

- AD9 - AD0 : DIGITAL DATA FROM EXTERNAL A/D
- AEME : AE MODE SELECT
- AEREF : AE LEVEL SELECT (AUTO) /FIX GAIN SELECT (MANUAL)
- AESHUT : H=SHUTTER SPEED MANUAL AND AGC AUTO MODE
- AGCMAX : AGC MAX GAIN SELECT (AUTO)/FIX GAIN SELECT (MANUAL)
- AWB1 : AWB MODE SELECT (L = AUTO, H = MANUAL)
- AWB2 : ATW/PUSH-LOCK SELECT (AUTO) /FIX WB MODE SELECT (MANUAL)
- AWB3 : PUSH-LOCK SIGNAL (AUTO) /FIX WB MODE SELECT (MANUAL)
- BLCOF : BACKLIGHT CORRECTION OFF (AUTO) /SHUTTER SPEED CONTROL (MANUAL)
- CASI : SERIAL DATA FOR CAMERA'S PERIPHERAL IC (TO EEPROM)
- FLON : FLICKERLESS MODE (AUTO) /SHUTTER SPEED CONTROL (MANUAL)
- GAMMA : GAMMA CORRECTION (L = ON, H = OFF)
- HRI : EXTERNAL SYNC (COMPOSITE VIDEO/H RESET)
- ID : LINE IDENTIFICATION
- ISET : CURRENT SOURCE
- MCK : MASTER CLOCK
- MIRIS : IRIS MODE SELECT (AUTO) /SHUTTER SPEED CONTROL (MANUAL)
- OSCI : 4fsc OSCILLATOR
- SKC : SERIAL CLOCK
- SHIN : ANALOG SIGNAL FOR INTERNAL A/D CONVERTER
- SI : RS-232C SERIAL DATA
- SIFSEL : SERIAL INTERFACE MODE SELECT
- VBC : EXTERNAL CAPACITOR
- VBY : EXTERNAL CAPACITOR
- VGC : EXTERNAL CAPACITOR
- VGX : EXTERNAL CAPACITOR
- VRB : REFERENCE BOTTOM VOLTAGE FOR INTERNAL A/D CONVERTER
- VREFC : REFERENCE VOLTAGE SETTING
- VREFY : REFERENCE VOLTAGE SETTING
- VRI : EXTERNAL SYNC (EXTERNAL BURST/ V RESET)
- VRT : REFERENCE TOP VOLTAGE FOR INTERNAL A/D CONVERTER
- XCLR : CLEAR
- XCS : CHIP SELECT

OUTPUT

- CASCK : SERIAL CLOCK FOR CAMERA'S PERIPHERAL IC (TO TG, EVR, EEPROM)
- CASO : SERIAL DATA FOR CAMERA'S PERIPHERAL IC (TO TG, EVR, EEPROM)
- CLP1 : CLAMP PULSE FOR ANALOG OPTICAL BLACK LEVEL
- CO7 - CO0 : CHROMA DIGITAL
- CSEVR : CHIP SELECT FOR CAMERA'S PERIPHERAL IC (TO EVR)
- CSROM : CHIP SELECT FOR CAMERA'S PERIPHERAL IC (TO EEPROM)
- CSTG : CHIP SELECT FOR CAMERA'S PERIPHERAL IC (TO TG)
- FLD : FIELD IDENTIFICATION
- FSCO : SUBCARRIER
- HD : HORIZONTAL SYNC
- IOC : CHROMA SIGNAL
- IOY : Y SIGNAL
- IREFC : REFERENCE CURRENT SETTING
- IREFY : REFERENCE CURRENT SETTING
- NRB : COLOR DISCRIMINATION SIGNAL
- OSCO : 4fsc OSCILLATOR
- PCOMP : HPLL/VPLL PHASE COMPARATOR OUTPUTS
- SO : RS-232C SERIAL DATA
- SYNC : COMPOSITE SYNC
- TGHD : HORIZONTAL SYNC FOR TG
- TGVD : VERTICAL SYNC FOR TG
- VD : VERTICAL SYNC
- YO7 - YO0 : Y DIGITAL

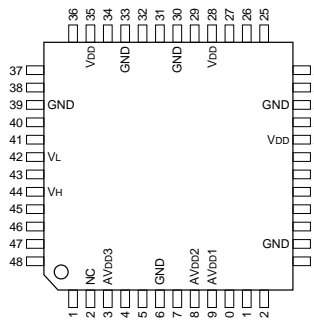
INPUT/OUTPUT

- DCK : DIGITAL OUTPUT YO/CO CLOCK
- LRI : EXTERNAL SYNC (LALT OUTPUT/LALT RESET INPUT/INTERNAL SC INPUT)

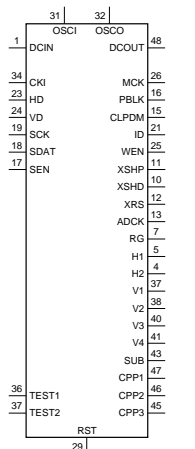
CXD2480R-T4 (SONY)

C-MOS TIMING CONTROLLER WITH CCD DRIVERS

—TOP VIEW—



PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I	DCIN	25	O	WEN
2	—	NC	26	O	MCK
3	—	AVdd3	27	I	TEST2
4	O	H2	28	—	Vdd
5	O	H1	29	I	RST
6	—	GND	30	—	GND
7	O	RG	31	I	OSCI
8	—	AVdd2	32	O	OSCO
9	—	AVdd1	33	—	GND
10	O	XSHD	34	I	CKI
11	O	XSHP	35	—	Vdd
12	O	XRS	36	I	TEST1
13	O	ADCK	37	O	V1
14	—	GND	38	O	V2
15	O	LLPDM	39	—	GND
16	O	PBLK	40	O	V3
17	I	SEN	41	O	V4
18	I	SDAT	42	—	VL
19	I	SCK	43	O	SUB
20	—	Vdd	44	—	VH
21	O	ID	45	O	CPP3
22	—	GND	46	O	CPP2
23	I	HD	47	O	CPP1
24	I	VD	48	O	DCOUT

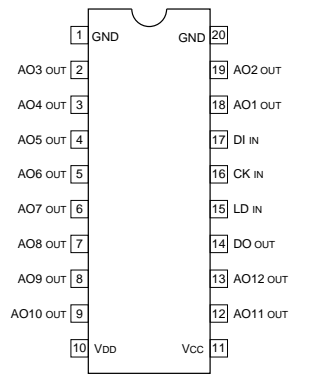
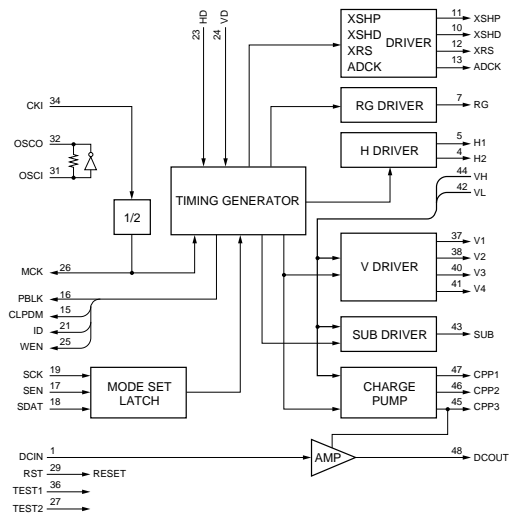


- INPUT**
- CKI : CLOCK
  - DCIN : OPERATIONAL AMPLIFIER INPUT FOR GENERATING THE SUB CLAMP VOLTAGE
  - HD : HORIZONTAL SYNC SIGNAL
  - OSCI : OSCILLATOR
  - RST : RESET
  - SCK : SERIAL COMMUNICATION CLOCK
  - SDAT : SERIAL COMMUNICATION DATA
  - SEN : SERIAL COMMUNICATION STROBE
  - TEST1, TEST2 : TEST
  - VD : VERTICAL SYNC SIGNAL
- OUTPUT**
- ADCK : A/D CONVERTER CLOCK
  - CLPDM : CLAMP PULSE FOR CCD DUMMY SIGNAL
  - CPP1 - CPP3 : CHARGE PUMP CAPACITORS
  - DCOUT : OPERATIONAL AMPLIFIER OUTPUT FOR GENERATING THE SUB CLAMP VOLTAGE
  - H1, H2 : CCD HORIZONTAL REGISTER DRIVE PULSES
  - ID : LINE IDENTIFICATION SIGNAL
  - MCK : MODULATION CLOCK (1/2 CKI)
  - OSCO : OSCILLATOR
  - PBLK : BLANKING CLEANING PULSE
  - RG : CCD RESET GATE DRIVE PULSE
  - SUB : CCD ELECTRON-CHARGE DRAIN PULSE
  - V1 - V4 : CCD VERTICAL REGISTER DRIVE PULSES
  - WEN : WRITE ENABLE SIGNAL (ONLY IN LOW-SPEED SHUTTER OPERATION)
  - XRS : A/D CONVERTER SAMPLE AND HOLD PULSE
  - XSHD : SAMPLE AND HOLD PULSE FOR DATA
  - XSHP : SAMPLE AND HOLD PULSE FOR PRECHARGING

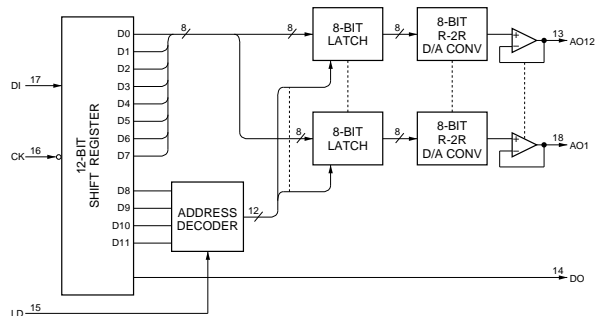
MB88346BPFV (FUJITSU) FLAT PACKAGE (SMALL)  
MB88346BPFV-EF

C-MOS 8-BIT D/A CONVERTER

—TOP VIEW—

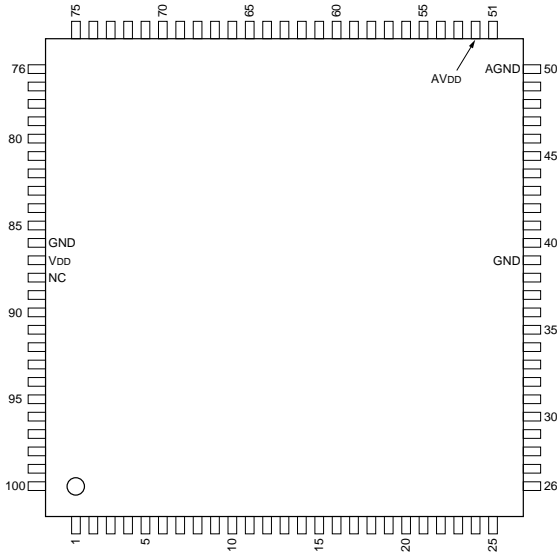


- AO1 - AO12 : 8-BIT D/A OUTPUTS
- CK : CLOCK INPUT
- DI : SERIAL DATA INPUT
- DO : DATA OUTPUT
- LD : DATA LOAD CONTROL INPUT (H : LOAD)



CXP87132-082R (SONY)

C-MOS 8-BIT 1-CHIP MICROCOMPUTER  
—TOP VIEW—



PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	O	PB3/PPO011	26	I/O	PD2	51	—	AVREF	76	I/O	PE0/INT0/XOUT
2	O	PB2/PPO010	27	I/O	PD1	52	—	AVDD	77	I/O	PI7/SI1
3	O	PB1/PPO009	28	I/O	PD0	53	I	PF3/AN7	78	I/O	PI6/SO1
4	O	PB0/PPO008	29	O	PH7	54	I	PF2/AN6	79	I/O	PI5/SCK1
5	I/O	PC7/RTO7	30	O	PH6	55	I	PF1/AN5	80	I/O	PI4/INT1
6	I/O	PC6/RTO6	31	O	PH5	56	I	PF0/AN4	81	I/O	PI3/TO
7	I/O	PC5/RTO5	32	O	PH4	57	I	AN3	82	I/O	PI2/PWM
8	I/O	PC4/RTO4	33	O	PH3	58	I	AN2	83	I/O	PI1/PO
9	I/O	PC3/RTO3	34	O	PH2	59	I	AN1	84	I	PI0/PCK/OSCI
10	I/O	PC2/PPO018	35	O	PH1	60	I	AN0	85	I/O	PK0/OSCO
11	I/O	PC1/PPO017	36	O	PH0	61	I	PG7/EX11/PMSK	86	—	GND
12	I/O	PC0/PPO016	37	I	MP	62	I	PG6/EX10	87	—	VDD
13	I/O	PJ7	38	I/O	RST	63	I	PG5/SYNC1	88	—	NC
14	I/O	PJ6	39	—	GND	64	I	PG4/SYNC0/PMI	89	O	PA7/PPO007/PPO107
15	I/O	PJ5	40	—	XTAL	65	I	PG3/PBCTL	90	O	PA6/PPO006/PPO106
16	I/O	PJ4	41	I	EXTAL	66	I	PG2/DFG	91	O	PA5/PPO005/PPO105
17	I/O	PJ3	42	I	CS0	67	I	PG1/DFG	92	O	PA4/PPO004/PPO104
18	I/O	PJ2	43	I	SI0	68	I	PG0/CFG	93	O	PA3/PPO003/PPO103
19	I/O	PJ1	44	O	SO0	69	O	PE7/DAB1	94	O	PA2/PPO002/PPO102
20	I/O	PJ0	45	I/O	SCK0	70	O	PE6/DAB0	95	O	PA1/PPO001/PPO101
21	I/O	PD7	46	I/O	PF7/AN11	71	O	PE5/DAA1	96	O	PA0/PPO000/PPO100
22	I/O	PD6	47	I/O	PF6/AN10	72	O	PE4/DAA0	97	O	PB7/PPO015
23	I/O	PD5	48	I/O	PF5/AN9	73	O	PE3/PWM1	98	O	PB6/PPO014
24	I/O	PD4	49	I/O	PF4/AN8	74	O	PE2/PWM0	99	O	PB5/PPO013/PPO113
25	I/O	PD3	50	—	AGND	75	I	PE1/EC/INT2	100	O	PB4/PPO012/PPO112

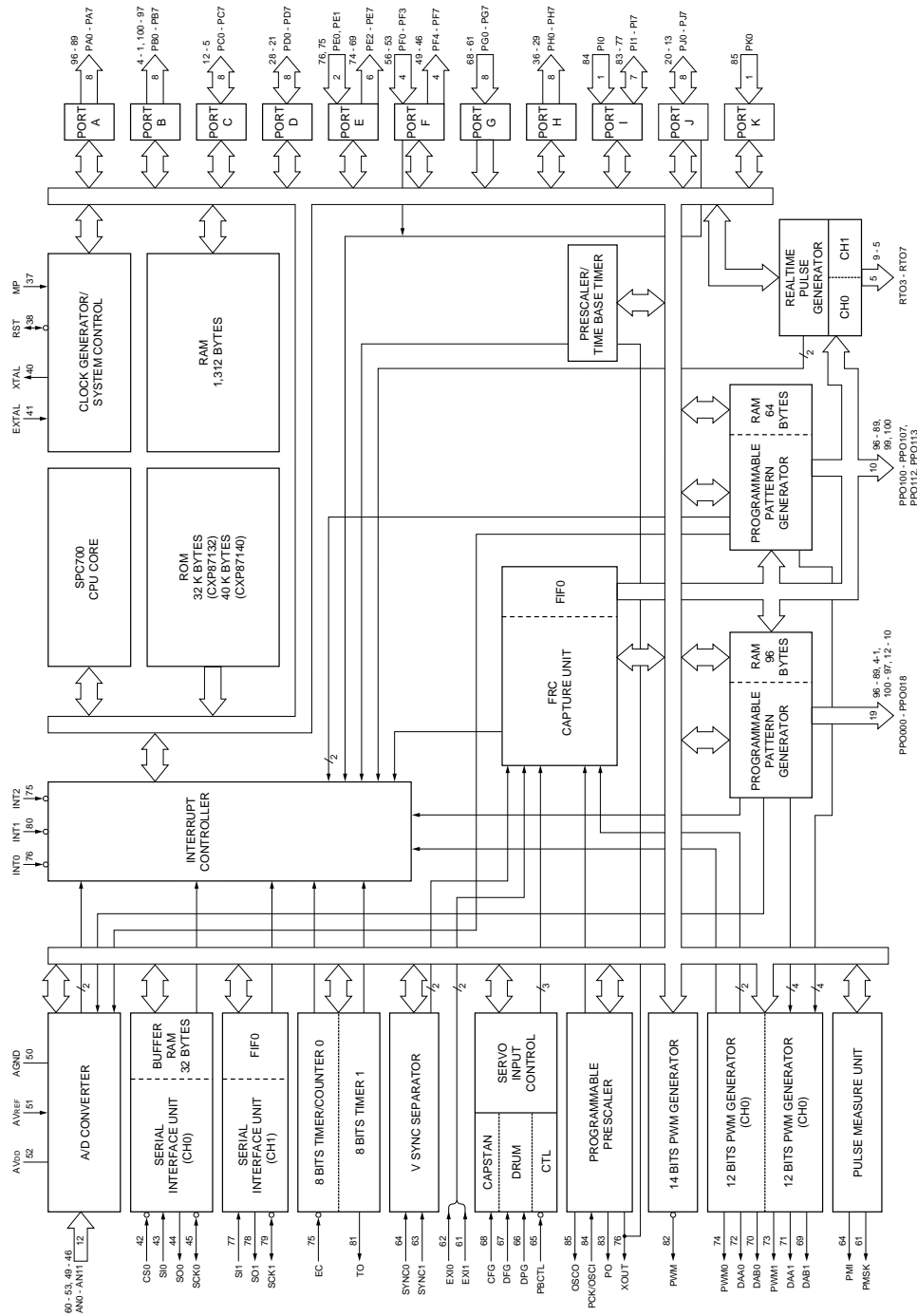
- INPUT**
- AN0 - AN11 : A/D CONVERTER'S ANALOG INPUTS
  - CFG : CAPSTAN FG INPUT
  - CS0 : SERIAL INTERFACE CHANNEL 0 SELECT INPUT
  - DFG, DFG : DRUM PG AND FG INPUTS
  - EC : EVENT CONTROL INPUT FOR TIMER/COUNTER
  - EXI0, EXI1 : FRC CAPTURE UNIT'S EXTERNAL INPUTS
  - EXTAL : CRYSTAL CONNECTION OR EXTERNAL CLOCK INPUT FOR SYSTEM CLOCK GENERATOR
  - INT0 - INT2 : INTERRUPT REQUEST INPUTS (FALLING EDGE ACTIVE)
  - MP : MICROPROCESSOR MODE INPUT
  - OSCI : CRYSTAL CONNECTION OF OSCILLATION CIRCUIT FOR PRESCALER
  - PBCTL : PLAYBACK CTL PULSE INPUT
  - PCK : PRESCALER'S EXTERNAL CLOCK INPUT
  - PE0, PE1 : INPUTS OF PORT E (PE2 - PE7 ; OUTPUTS)
  - PF0 - PF3 : INPUTS OF PORT F (PF4 - PF7 ; OUTPUTS)
  - PG0 - PG7 : INPUTS OF PORT G
  - PI0 : INPUT OF PORT I (PI1 - PI7 ; INPUTS/OUTPUTS)
  - PK0 : INPUT OF PORT K
  - PMI : INSTRUMENTATION PULSE INPUT OF PULSE MEASURE UNIT
  - PMSK : INSTRUMENTATION ENABLE INPUT OF PULSE MEASURE UNIT
  - SI0, SI1 : SERIAL DATA INPUTS (CHANNEL 0 AND CHANNEL 1)
  - SYNC0, SYNC1 : COMPOSITE SYNC SIGNAL INPUTS

- OUTPUT**
- DAA0, DAB0 : DA GATE PULSE OUTPUTS (12 BITS PWM CHANNEL 0)
  - DAA1, DAB1 : DA GATE PULSE OUTPUTS (12 BITS PWM CHANNEL 1)
  - OSCO : CRYSTAL CONNECTION OF OSCILLATION CIRCUIT FOR PRESCALER
  - PA0 - PA7 : OUTPUTS OF PORT A
  - PB0 - PB7 : OUTPUTS OF PORT B
  - PE2 - PE7 : OUTPUTS OF PORT E (PE0, PE1 ; INPUTS)
  - PF4 - PF7 : OUTPUTS OF PORT F (PF0 - PF3 ; INPUTS)
  - PH0 - PH7 : OUTPUTS OF PORT H (N-CH OPEN DRAIN OUTPUTS)
  - PPO000 - PPO018 : PPO100 - PPO107, PPO112, PPO113
  - PROGRAMMABLE PATTERN GENERATOR OUTPUTS
  - PO : PRESCALER OUTPUT
  - PWM : PULSE WIDTH MODULATION OUTPUT
  - PWM0, PWM1 : 12 BITS PULSE WIDTH MODULATION OUTPUTS (CHANNEL 0 AND CHANNEL 1)
  - RTO3 - RTO7 : REALTIME PULSE GENERATOR OUTPUTS
  - SO0, SO1 : SERIAL DATA OUTPUTS (CHANNEL 0 AND CHANNEL 1)
  - TO : TIMER/COUNTER OUTPUT (DUTY 50%)
  - XOUT : 1/2 DIVISION FREQUENCY OUTPUT OF XTAL OR OSKO
  - XTAL : CRYSTAL CONNECTION FOR SYSTEM CLOCK GENERATOR

- INPUT/OUTPUT**
- PC0 - PC7 : INPUTS/OUTPUTS OF PORT C (BIT PROGRAMMABLE)
  - PD0 - PD7 : INPUTS/OUTPUTS OF PORT D (4 BITS PROGRAMMABLE)
  - PI1 - PI7 : INPUTS/OUTPUTS OF PORT I (BIT PROGRAMMABLE, PI0 ; INPUT)
  - PJ0 - PJ7 : INPUTS/OUTPUTS OF PORT J (BIT PROGRAMMABLE)
  - RST : SYSTEM RESET INPUT AND POWER ON RESET OUTPUT
  - SCK0, SCK1 : SERIAL CLOCK INPUTS/OUTPUTS (CHANNEL 0 AND CHANNEL 1)

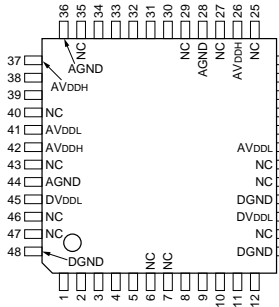
- OTHER**
- AGND : A/D CONVERTER'S GROUND
  - AVDD : A/D CONVERTER'S VDD
  - AVREF : A/D CONVERTER'S REFERENCE VOLTAGE INPUT





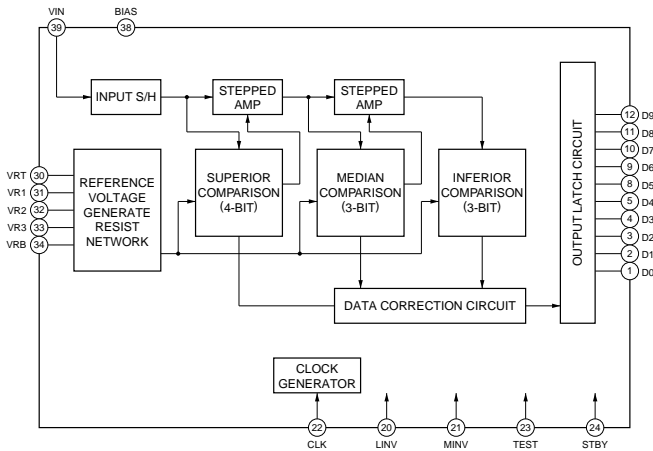
**HD49315AFEB (HITACHI)**  
C-MOS 10-BIT A/D CONVERTER

—TOP VIEW—



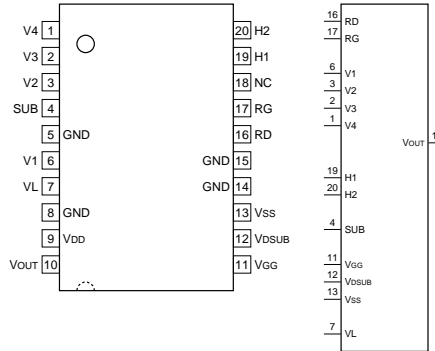
PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	O	D0	13	—	DGND	25	—	NC	37	—	AVDDH
2	O	D1	14	—	NC	26	—	AVDDH	38	—	BIAS
3	O	D2	15	—	DVDDL	27	—	NC	39	I	VIN
4	O	D3	16	—	DGND	28	—	AGND	40	—	NC
5	O	D4	17	—	NC	29	—	NC	41	—	AVDDL
6	—	NC	18	—	NC	30	I	VRT	42	—	AVDDH
7	—	NC	19	—	AVDDL	31	—	VR1	43	—	NC
8	O	D5	20	I	LINV	32	—	VR2	44	—	AGND
9	O	D6	21	I	MINV	33	—	VR3	45	—	DVDDL
10	O	D7	22	I	CLK	34	I	VRB	46	—	NC
11	O	D8	23	I	TEST	35	—	NC	47	—	NC
12	O	D9	24	I	STBY	36	—	AGND	48	—	DGND

- INPUT**
- CLK : CLOCK
  - LINV, MINV : DIGITAL OUT INVERT CONTROL
  - STBY : STANDBY MODE CONTROL
  - TEST : TEST MODE CONTROL
  - VIN : ANALOG
  - VR1 - VR3 : REFERENCE VOLTAGE MEDIUM TAP
  - VRB : REFERENCE VOLTAGE LOWER SIDE
  - VRT : REFERENCE VOLTAGE HIGH SIDE
- OUTPUT**
- D0 - D9 : DIGITAL
- OTHER**
- BIAS : BIAS

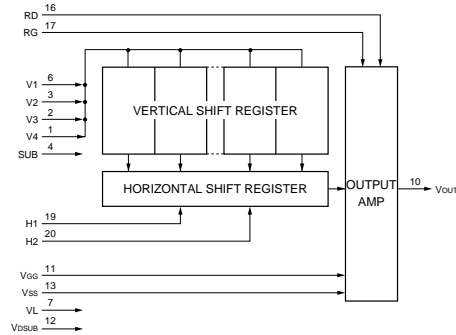


**ICX248AK-1 (SONY)**  
**ICX249AK-1 (SONY)**  
1/2-INCH CCD IMAGE BLOCK

—TOP VIEW—



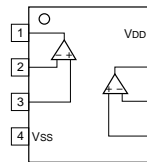
- INPUT**
- H1, H2 : HORIZONTAL REGISTER TRANSFER CLOCK
  - RD : RESET DRAIN BIAS
  - RG : REST GATE CLOCK
  - SUB : OVERFLOW DRAIN
  - V1 - V4 : VERTICAL REGISTER TRANSFER CLOCK
  - VdsUB : BIAS AMP
  - Vgg : OUTPUT AMP GATE BIAS
  - VL : PROTECTION TRANSISTOR BIAS
  - Vss : OUTPUT AMP SOURCE
- OUTPUT**
- Vout : SIGNAL



**MC14577CF (MOTOROLA) FLAT PACKAGE**  
**MC14577CFEL**

C-MOS DUAL VIDEO AMPLIFIERS

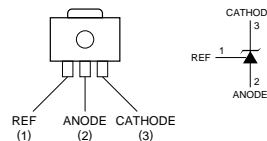
—TOP VIEW—



**NJM431U (JRC)**  
**NJM431U-TE1**

ADJUSTABLE PRECISION SHUNT REGULATOR

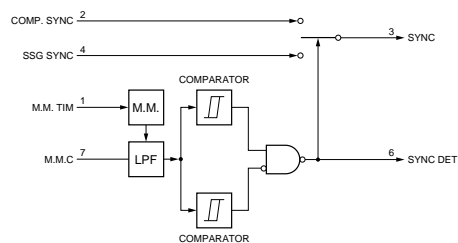
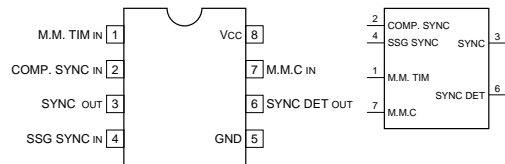
—FRONT VIEW—



**NJM2230M (JRC)FLAT PACKAGE  
NJM2230M(TE2)**

**VIDEO SIGNAL DETECTOR**

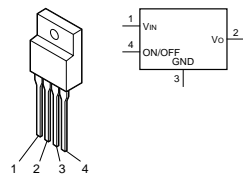
—TOP VIEW—



**PQ09RA1 (SHARP)+9 V  
PQ09RF11**

**POSITIVE VOLTAGE REGULATOR (1A)**

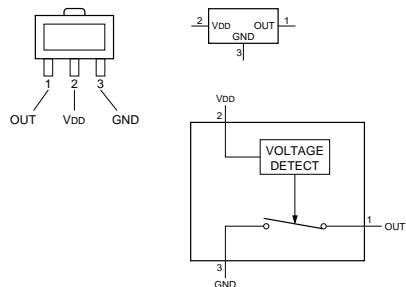
—TOP VIEW—



**S-80827ALUP-EAQ-T2 (SEIKO I&E)2.7 V**

**C-MOS VOLTAGE DETECTOR WITH N-CHANNEL OPEN DRAIN OUTPUT**

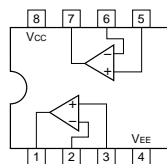
—TOP VIEW—



**TA75W393FU (TOSHIBA)  
TA75W393FU-TE12R**

**DUAL COMPARATORS**

—TOP VIEW—

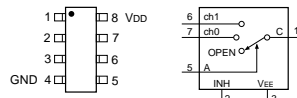


**SSC-DC50A/54A (UC)  
SSC-DC50AP/54AP/58AP (CE)**

**TC4W53FU (TOSHIBA)CHIP PACKAGE  
TC4W53FU(TE12R)**

**C-MOS 2-CHANNEL MULTIPLEXER/DEMULTIPLEXER**

—TOP VIEW—

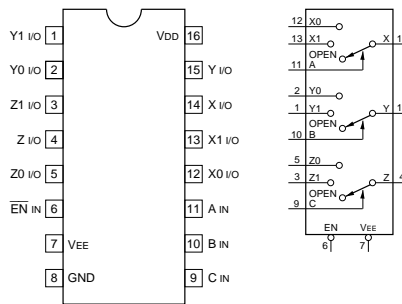


CONT. INPUT	A	ON CHANNEL	
INH	0	ch0	0 : LOW LEVEL
	0	ch1	1 : HIGH LEVEL
	1	OPEN	x : DON'T CARE

**TC74HC4053AFT(EL) (TOSHIBA)FLAT PACKAGE**

**C-MOS TRIPLE 2-CHANNEL ANALOG MULTIPLEXER/DEMULTIPLEXER**

—TOP VIEW—



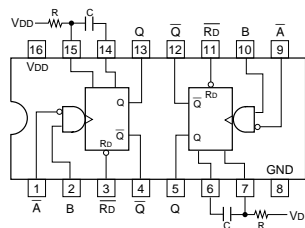
EN	SELECT			ON CHANNEL
	C	B	A	
0	0	0	0	Z0 Y0 X0
0	0	0	1	Z0 Y0 X1
0	0	1	0	Z0 Y1 X0
0	0	1	1	Z0 Y1 X1
0	1	0	0	Z1 Y0 X0
0	1	0	1	Z1 Y0 X1
0	1	1	0	Z1 Y1 X0
0	1	1	1	Z1 Y1 X1
1	x	x	x	OPEN

0 : LOW LEVEL  
1 : HIGH LEVEL  
x : DON'T CARE

**TC74VHC123AFT(EL) (TOSHIBA)FLAT PACKAGE**

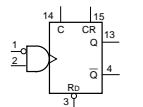
**C-MOS DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATORS**

—TOP VIEW—



INPUTS	OUTPUTS			
Rd	A	B	Q	Q-bar
0	x	x	0	1
1	1	x	0	1
1	x	0	0	1
1	0	1	1	0
1	1	1	1	0
1	0	1	1	0

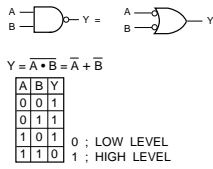
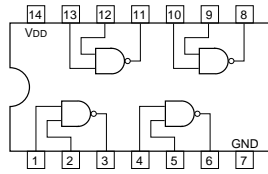
OUTPUT PULSE WIDTH = 0.46 CR  
0 : LOW LEVEL  
1 : HIGH LEVEL  
x : DON'T CARE



TC74VHC00FT(EL) (TOSHIBA)FLAT PACKAGE

C-MOS QUAD 2-INPUT NAND GATES

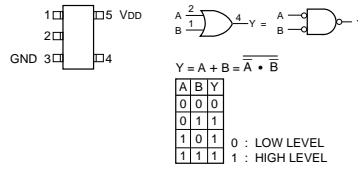
—TOP VIEW—



TC7S32FU-TE85R (TOSHIBA)FLAT PACKAGE

C-MOS 2-INPUT OR GATE

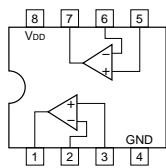
—TOP VIEW—



TC75W51FU-TE12R (TOSHIBA)

C-MOS DUAL OPERATIONAL AMPLIFIER

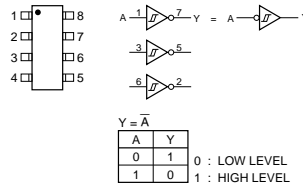
—TOP VIEW—



TC7W14FU(TE12R) (TOSHIBA)CHIP PACKAGE

C-MOS HEX INVERTERS

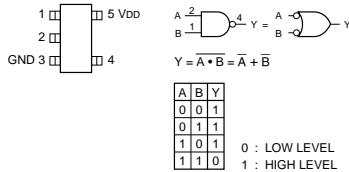
—TOP VIEW—



TC7S00FU(TE85R) (TOSHIBA)CHIP PACKAGE  
TC7SH00FU-TE85R (TOSHIBA)FLAT PACKAGE

C-MOS 2-INPUT NAND GATE

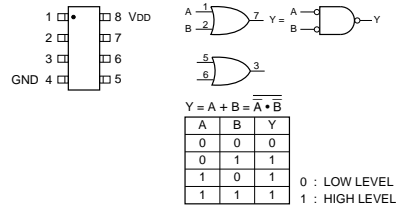
—TOP VIEW—



TC7W32FU (TOSHIBA)CHIP PACKAGE  
TC7W32FU(TE12R)

C-MOS DUAL 2-INPUT OR GATE

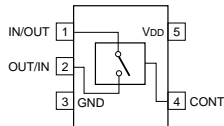
—TOP VIEW—



TC7S66FU (TOSHIBA)  
TC7S66FU(TE85R)

C-MOS ANALOG SWITCH

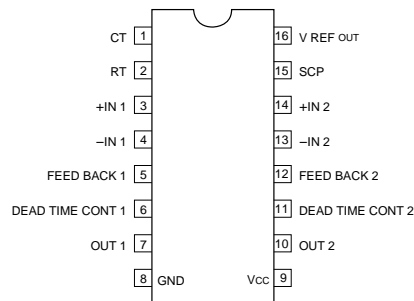
—TOP VIEW—



TL1451ACPW-E05 (TI)

DUAL PWM POWER CONTROLLER

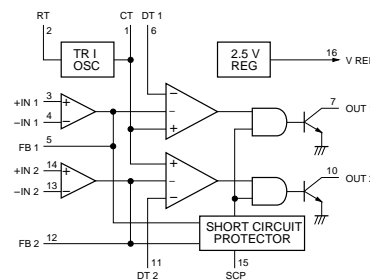
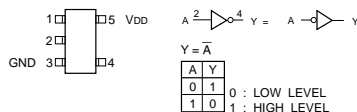
—TOP VIEW—



TC7SH04FU (TOSHIBA)CHIP PACKAGE  
TC7SH04FU-TE85R  
TC7SHU04FU-TE85R (TOSHIBA)CHIP PACKAGE

C-MOS INVERTER

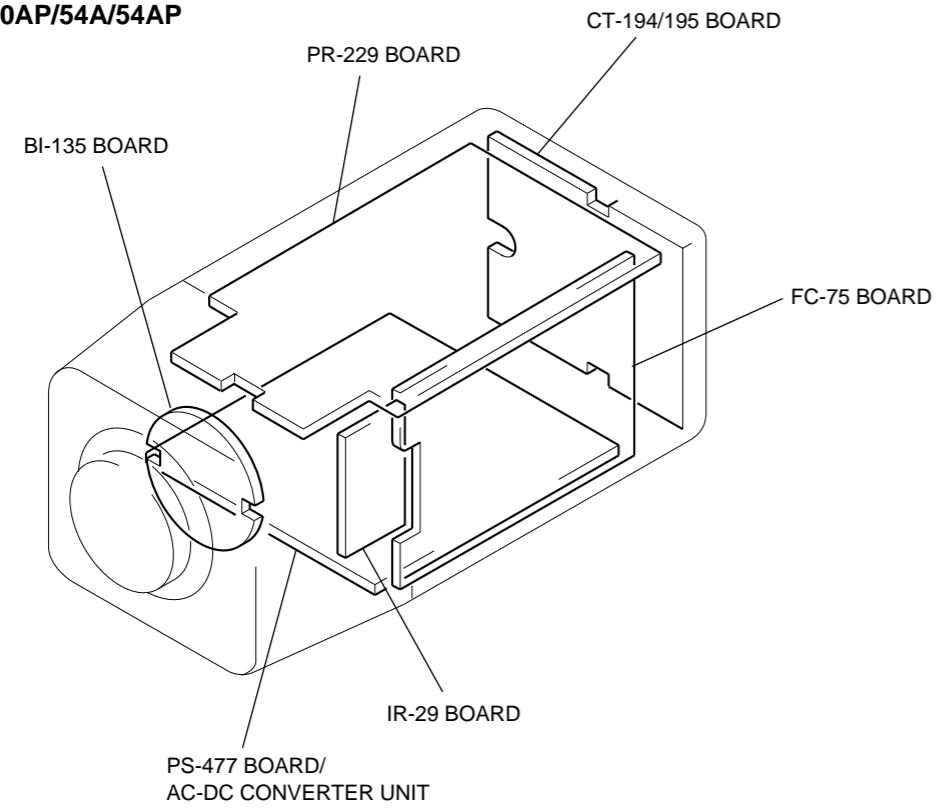
—TOP VIEW—



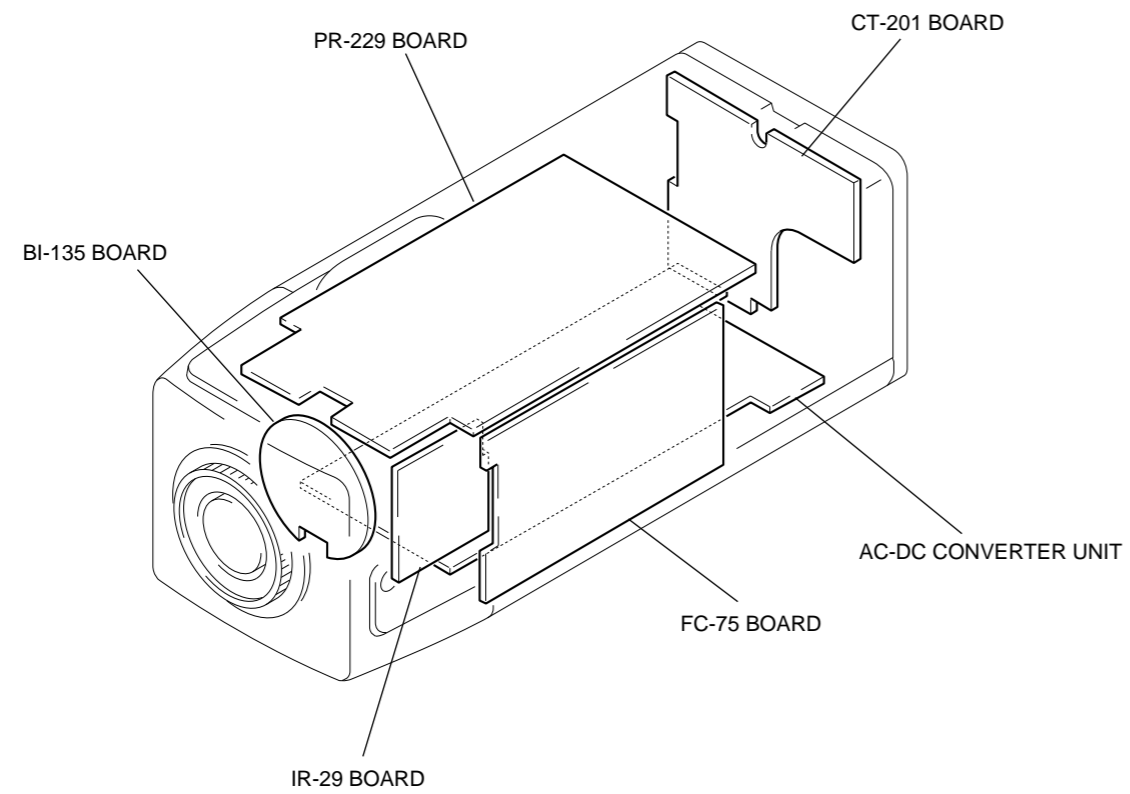
# SECTION 7 DIAGRAMS

## 7-1. BOARD LOCATION

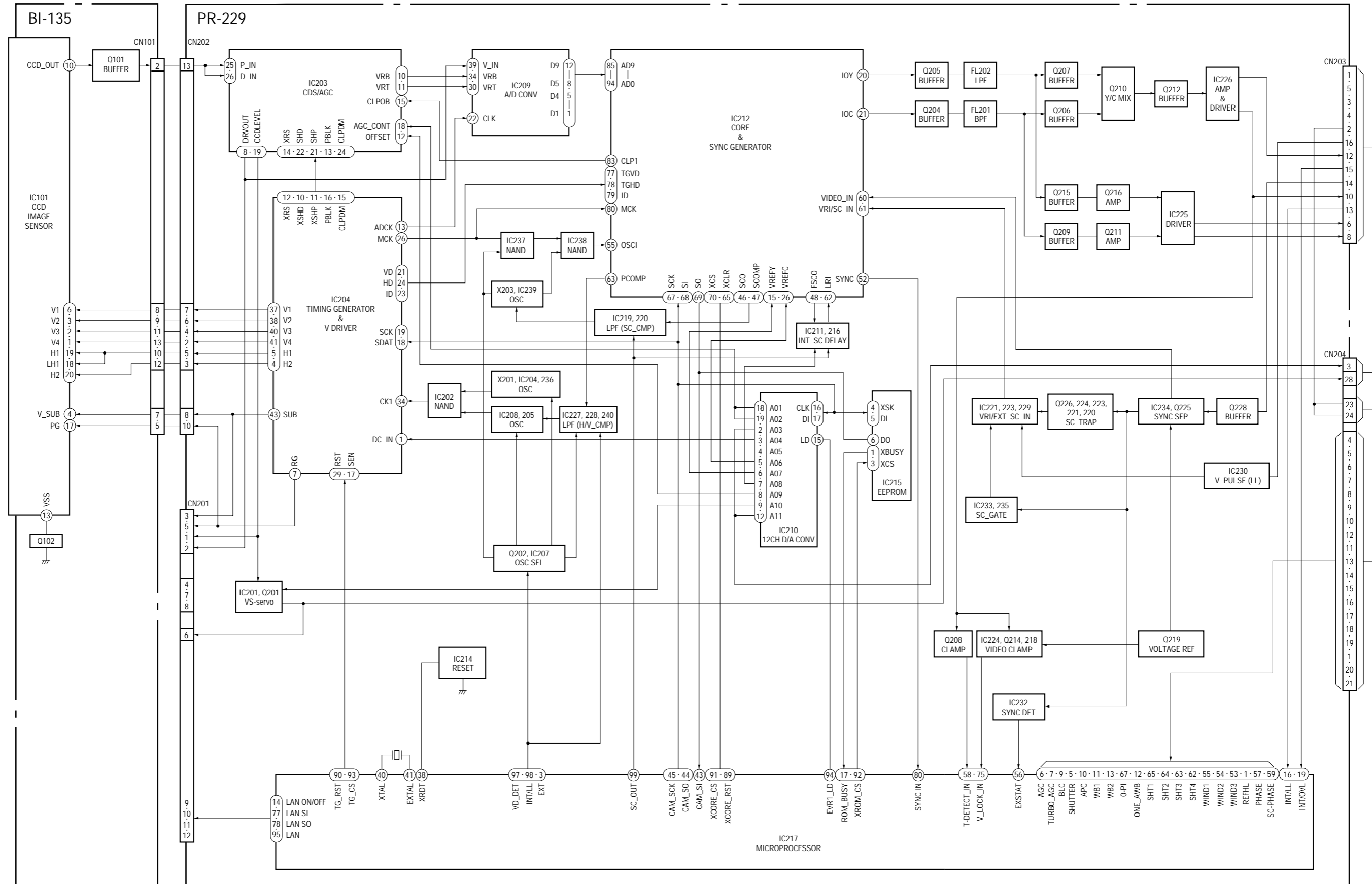
### SSC-DC50A/50AP/54A/54AP



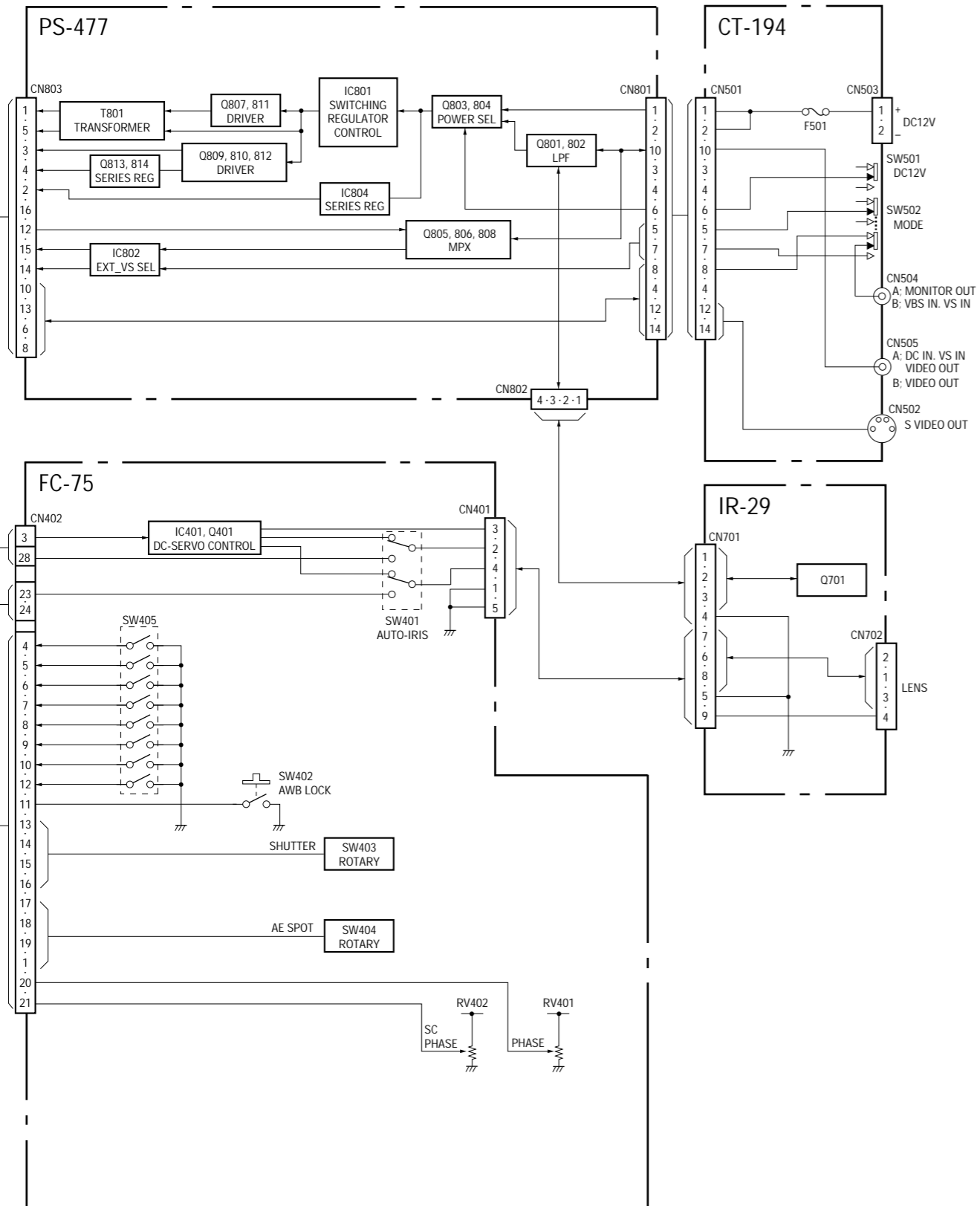
### SSC-DC58AP



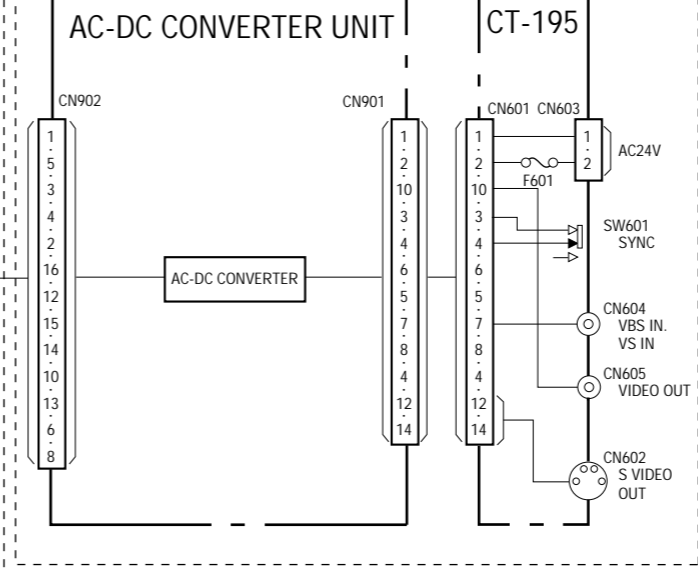
7-2. BLOCK DIAGRAM



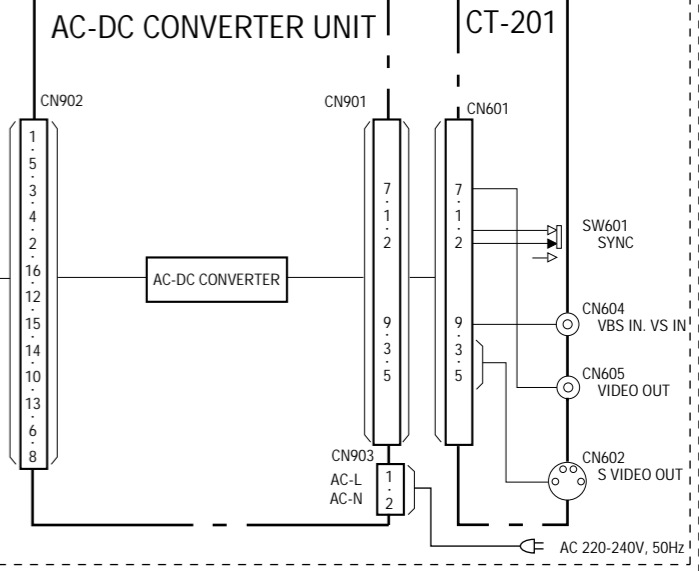
DXC-200A/SSC-DC50A/DC50AP



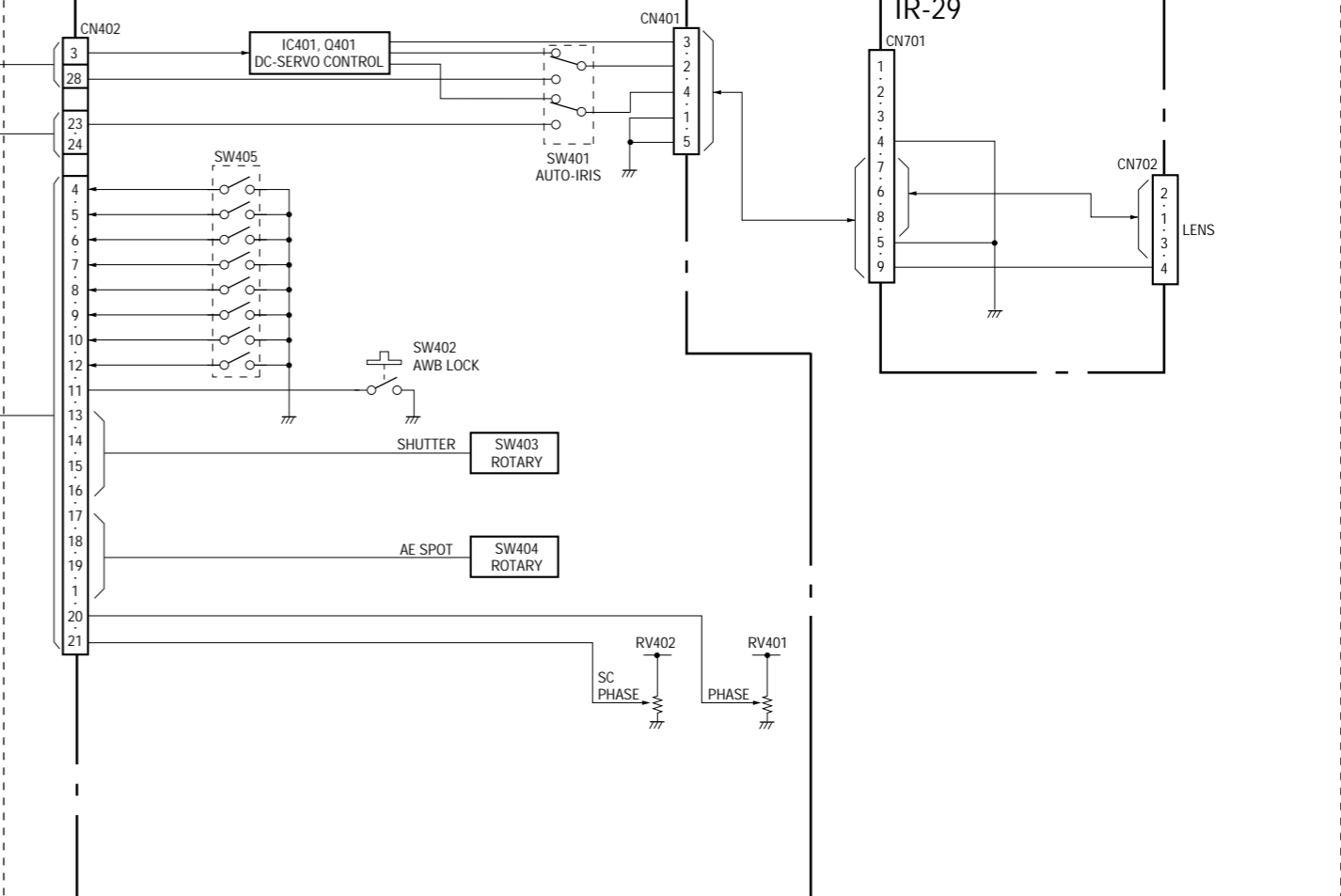
SSC-DC54A/DC54AP



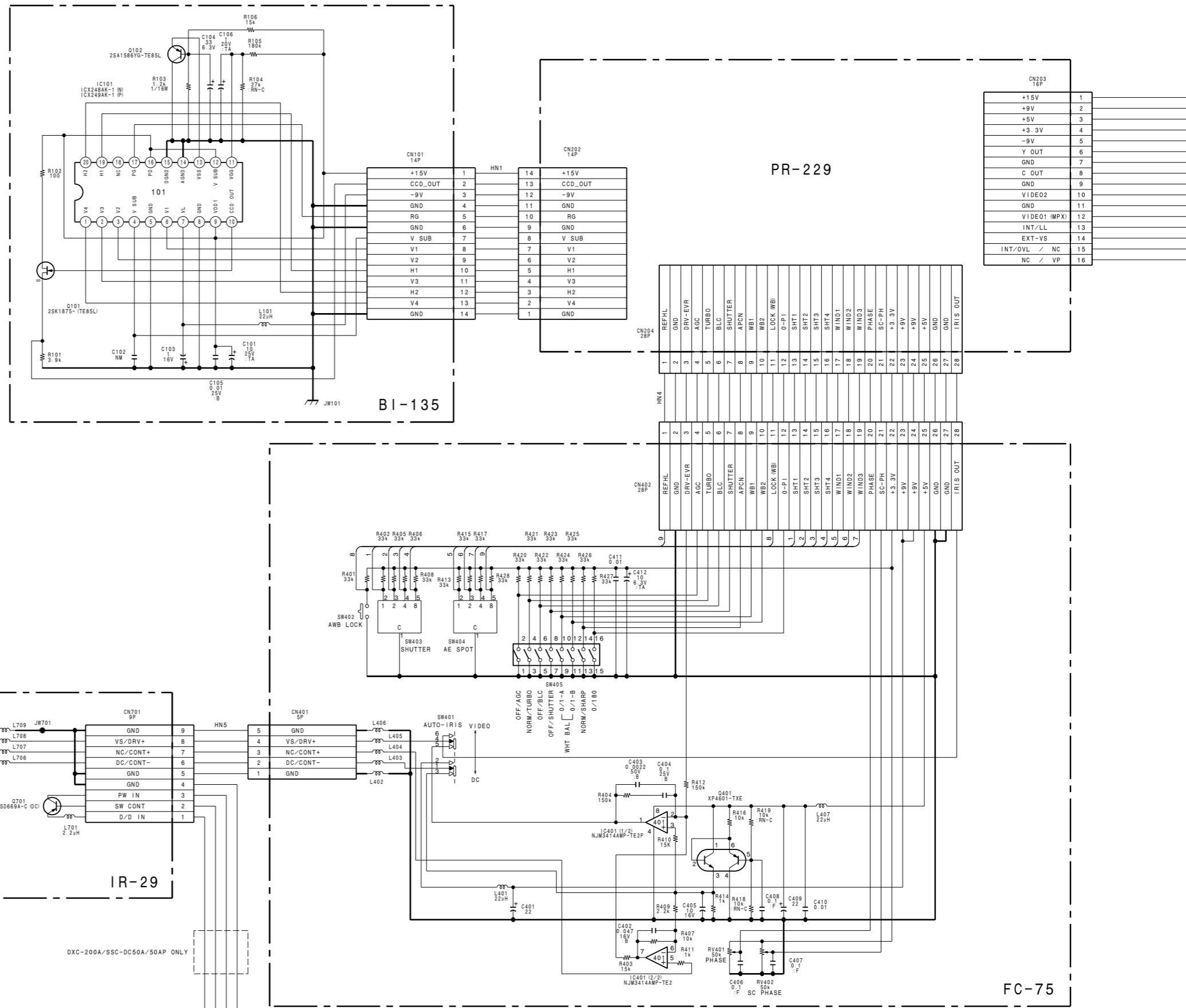
SSC-DC58AP



FC-75

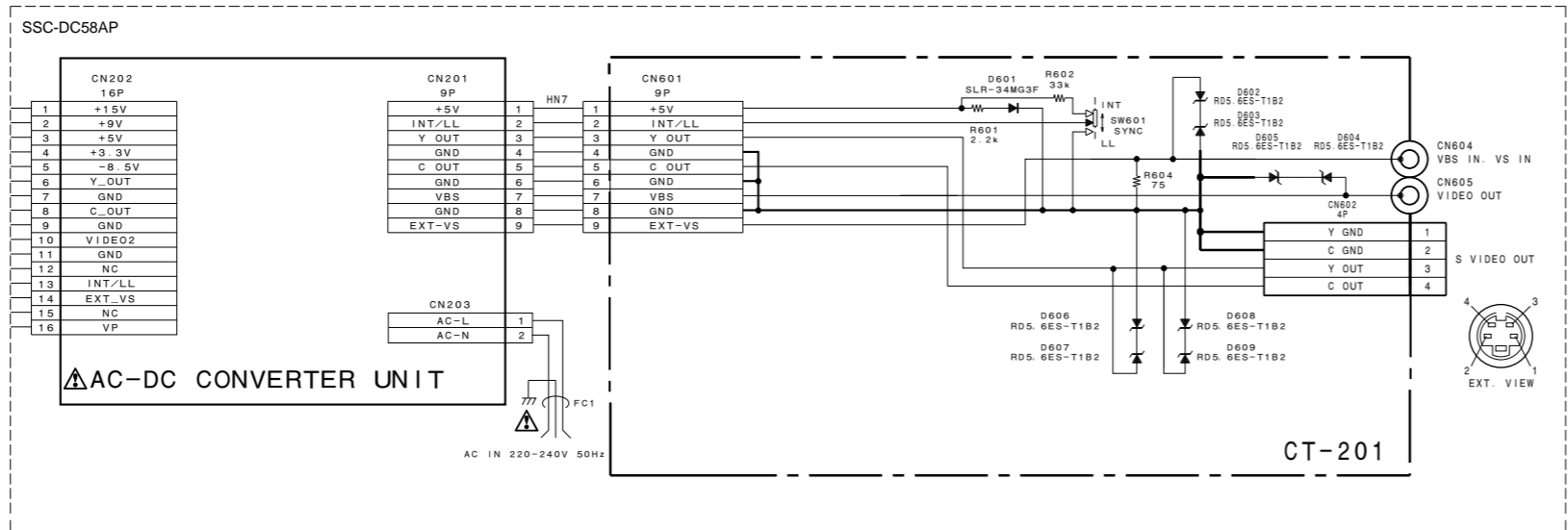
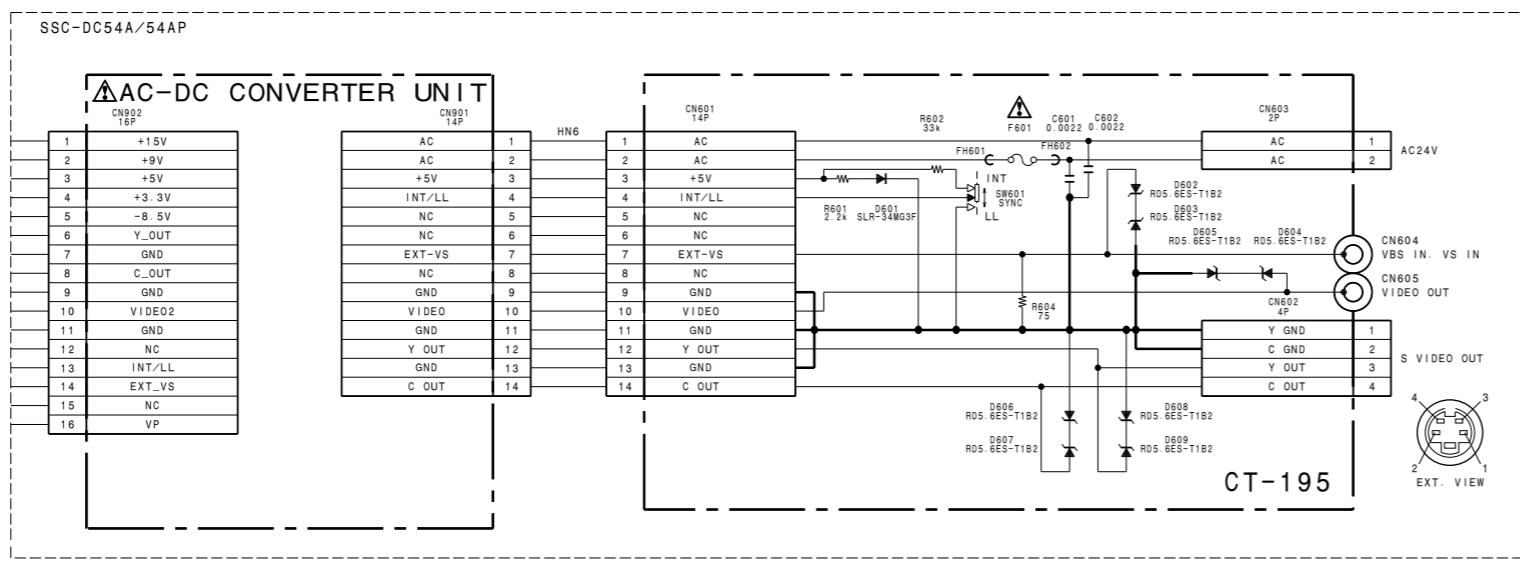
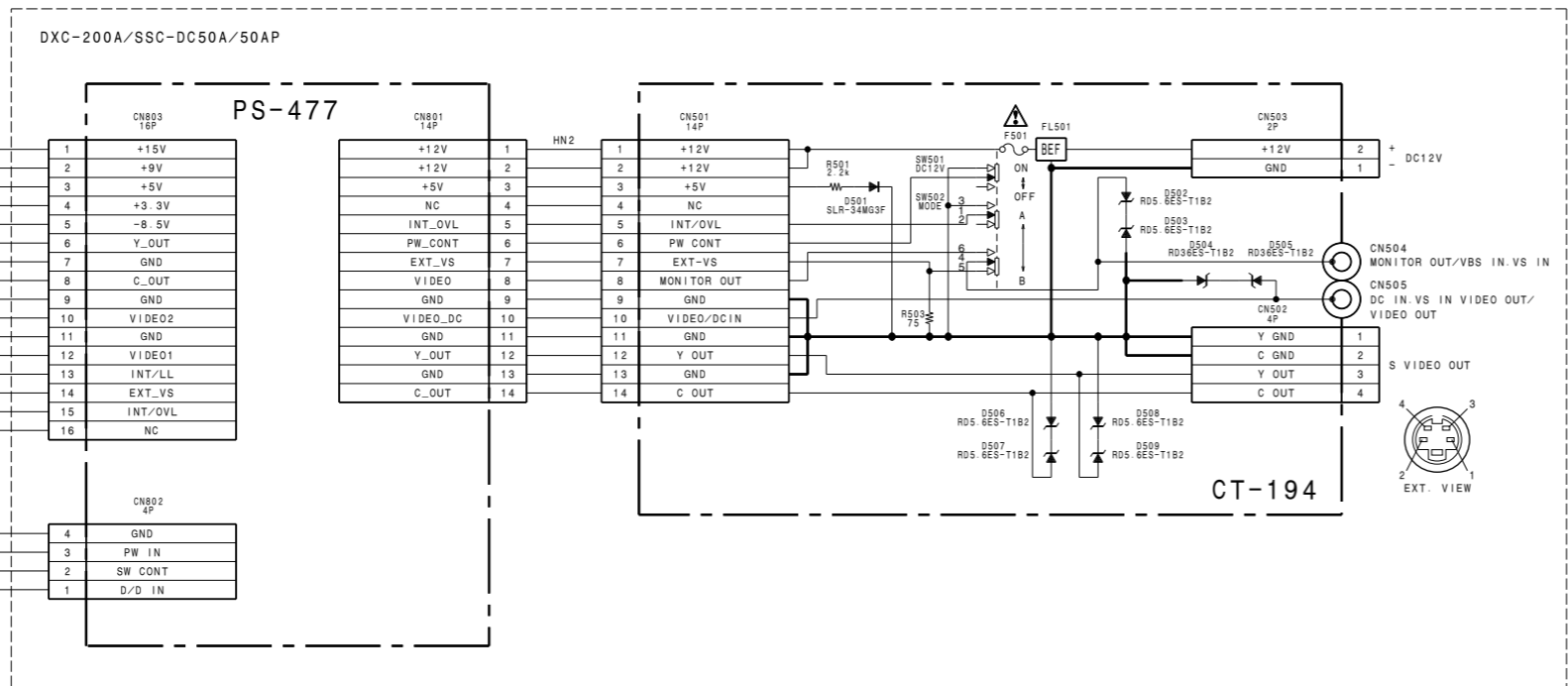


7-3. SCHEMATIC DIAGRAMS AND PRINTED CIRCUIT BOARDS  
 FRAME BI-135 BOARD, IR-29 BOARD, FC-75 BOARD, CT-194 BOARD, CT-195 BOARD





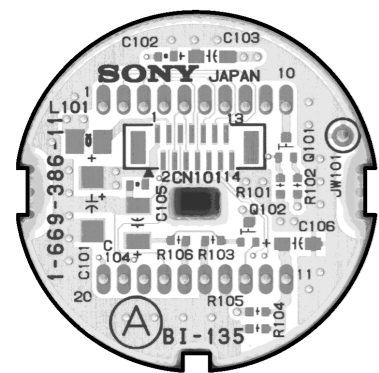
(N) : NTSC (DXC-200A/SSC-DC50A/54A)  
 (P) : PAL (SSC-DC50AP/54AP/58AP)  
 (DC) : DC POWER (DXC-200A/SSC-DC50A/50AP)  
 (AC) : AC POWER (SSC-DC54A/54AP/58AP)  
 NM: NO MOUNT



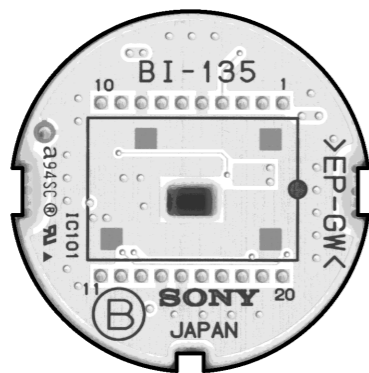
SSC-DC50A/54A  
 SSC-DC50AP/54AP/58AP

1  
2  
3  
4  
5

**BI-135 BOARD**

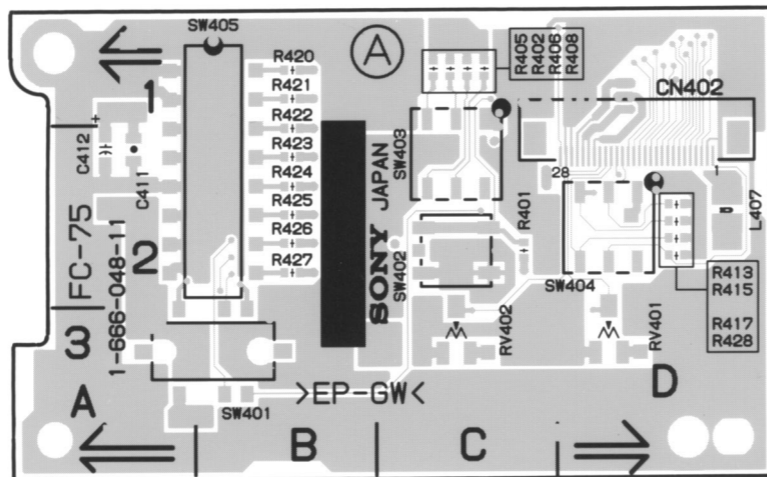


**BI-135 -A SIDE-**  
SUFFIX: -11

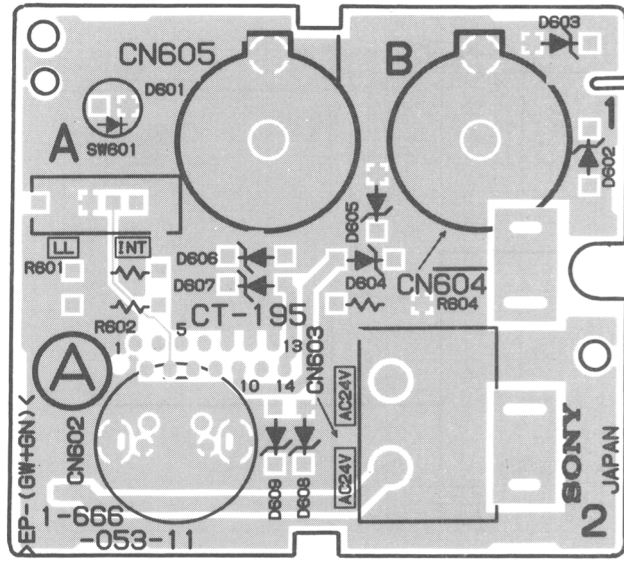


**BI-135 -B SIDE-**  
SUFFIX: -11

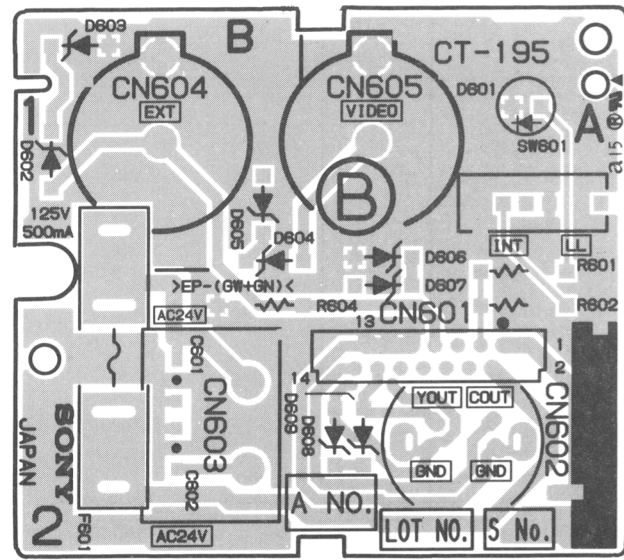
**FC-75 BOARD**



CT-195 BOARD

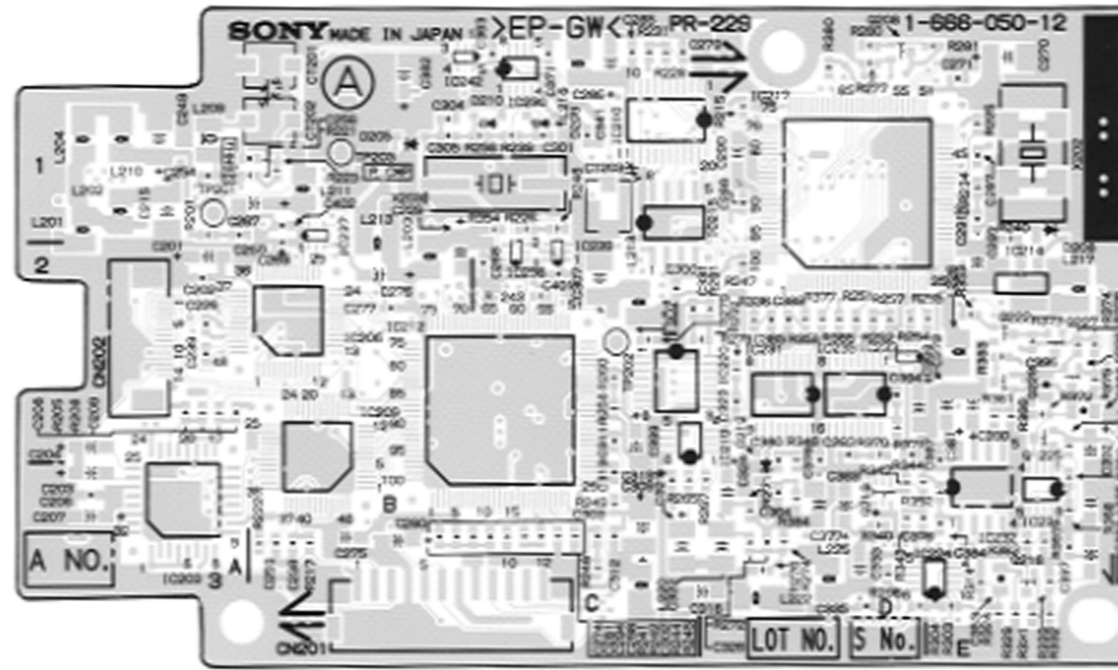


CT-195 -A SIDE-  
SUFFIX: -11

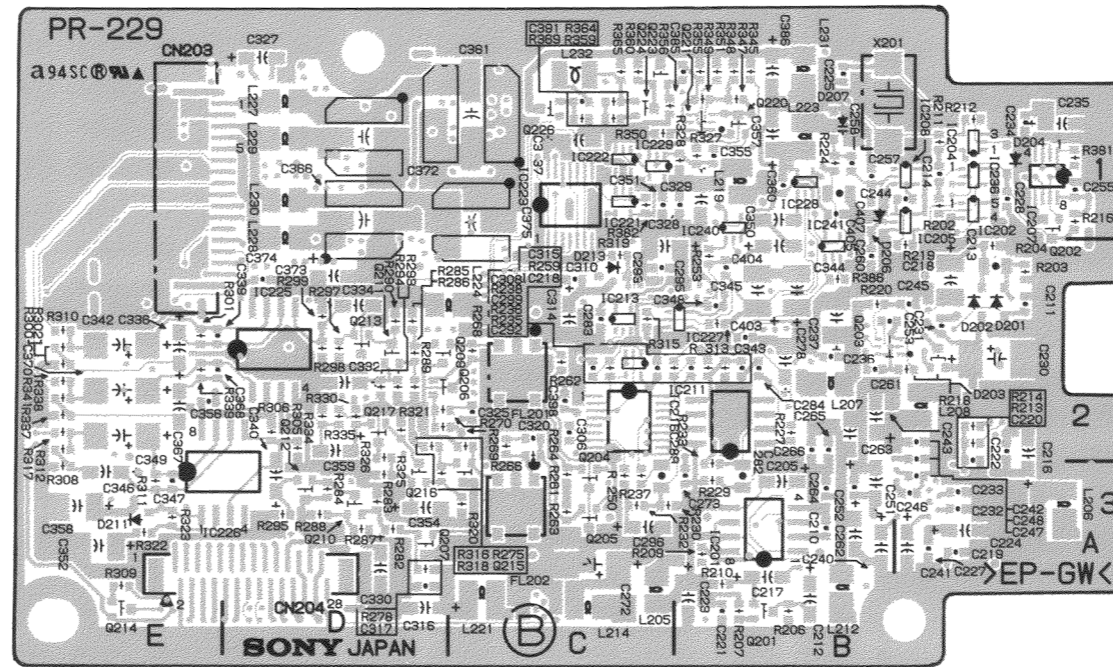


CT-195 -B SIDE-  
SUFFIX: -11

PR-229 BOARD



PR-229 -A SIDE-  
SUFFIX: -12



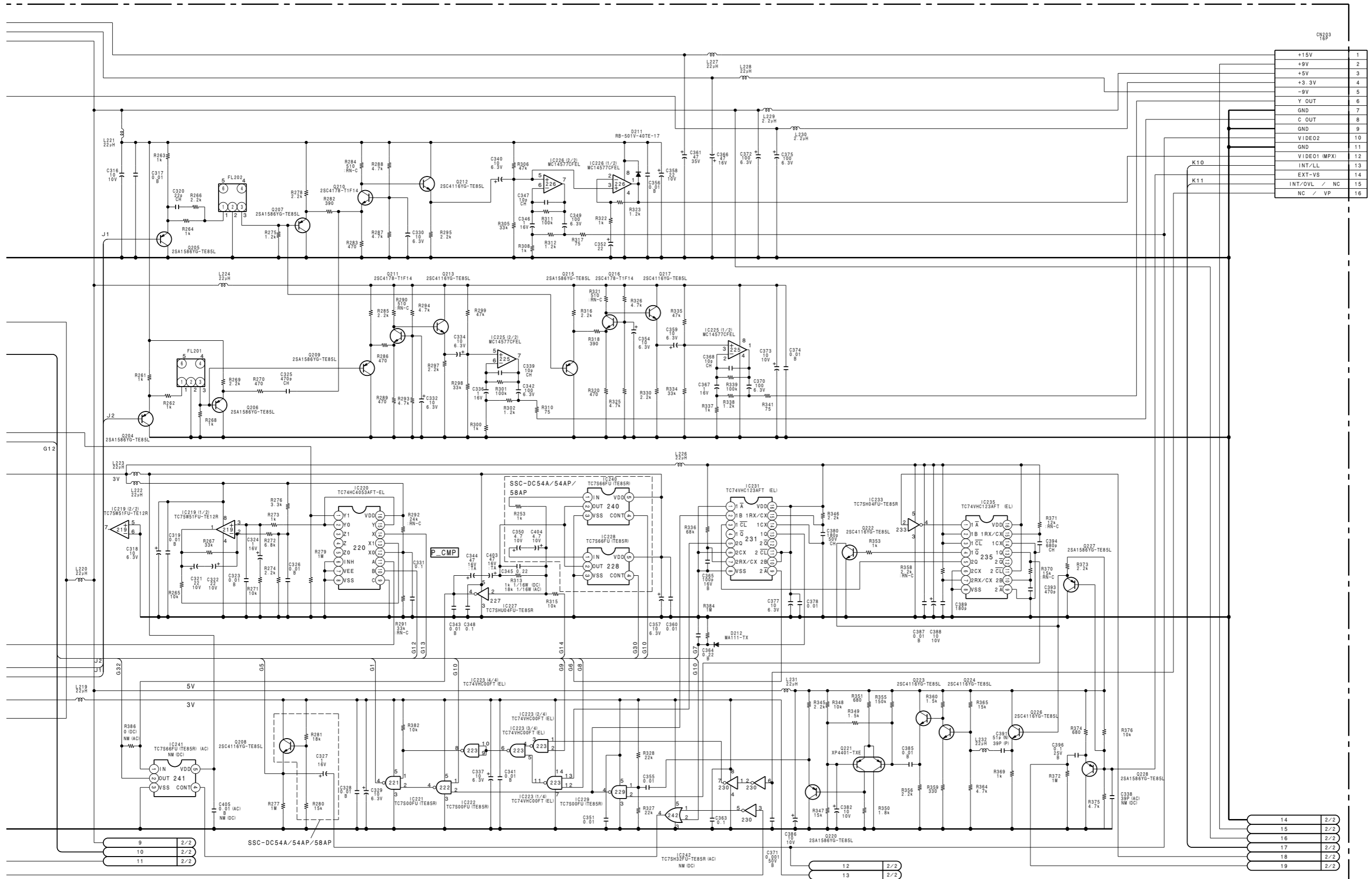
PR-229 -B SIDE-  
SUFFIX: -12

PR-229 BOARD

* : B SIDE			
CN201	B3	L225	D3
CN202	A2	L226	E2
CN203	*E1	L227	*D1
CN204	*D3	L228	*D1
CT201	B1	L229	*D1
CT202	B1	L230	*D1
CT203	C1	L231	*B1
D201	*A2	L232	*C1
D202	*A2	Q201	*B3
D203	*A2	Q202	*A1
D204	*A1	Q203	*B2
D205	B1	Q204	*C3
D206	*B1	Q205	*C3
D207	*B1	Q206	*D2
D208	E1	Q207	*D3
D209	C1	Q208	D1
D210	C1	Q209	*D2
D211	*E3	Q210	*D3
D212	D3	Q211	*D2
D213	*C2	Q212	*D3
FL201	*C2	Q213	*D2
FL202	*C3	Q214	*E3
IC201	*B3	Q215	*C3
IC202	*A1	Q216	*D3
IC203	A3	Q217	*D2
IC204	*A1	Q218	E3
IC205	*A1	Q219	D3
IC206	B2	Q220	*B1
IC207	*A1	Q221	*B1
IC208	*A1	Q222	E2
IC209	B2	Q223	*C1
IC210	C1	Q224	*C1
IC211	*B2	Q225	E2
IC212	C2	Q226	*C1
IC213	*C2	Q227	E2
IC214	E2	Q228	E2
IC215	C1	Q229	E2
IC216	*C2	X201	*B1
IC217	D1	X202	E1
IC218	*C2	X203	C1
IC219	C2		
IC220	C2		
IC221	*C1		
IC222	*C1		
IC223	*C1		
IC224	E3		
IC225	*D2		
IC226	*D3		
IC227	*B2		
IC228	*B1		
IC229	*C1		
IC230	C1		
IC231	D2		
IC232	E3		
IC233	D2		
IC234	E3		
IC235	D2		
IC236	*A1		
IC237	B1		
IC238	C2		
IC239	C2		
IC240	*B1		
IC241	*B1		
IC242	B1		
L201	A1		
L202	A1		
L203	B2		
L204	A1		
L205	*C3		
L206	*A3		
L207	*B2		
L208	*A2		
L209	A1		
L210	A1		
L211	B1		
L212	*B3		
L213	B1		
L214	*C3		
L216	C1		
L217	E2		
L218	C2		
L219	*B1		
L220	C3		
L221	*C3		
L222	D3		
L223	*B1		
L224	*C2		



PR-229 BOARD PR-229 BOARD



+15V	1
+9V	2
+5V	3
+3.3V	4
-9V	5
Y OUT	6
GND	7
C OUT	8
GND	9
VIDEO2	10
GND	11
VIDEO1 (MPX)	12
INT/LL	13
EXT-VS	14
INT/OVL / NC	15
NC / VP	16

SSC-DC50A/54A  
SSC-DC50AP/54AP/58AP

7-9 7-9

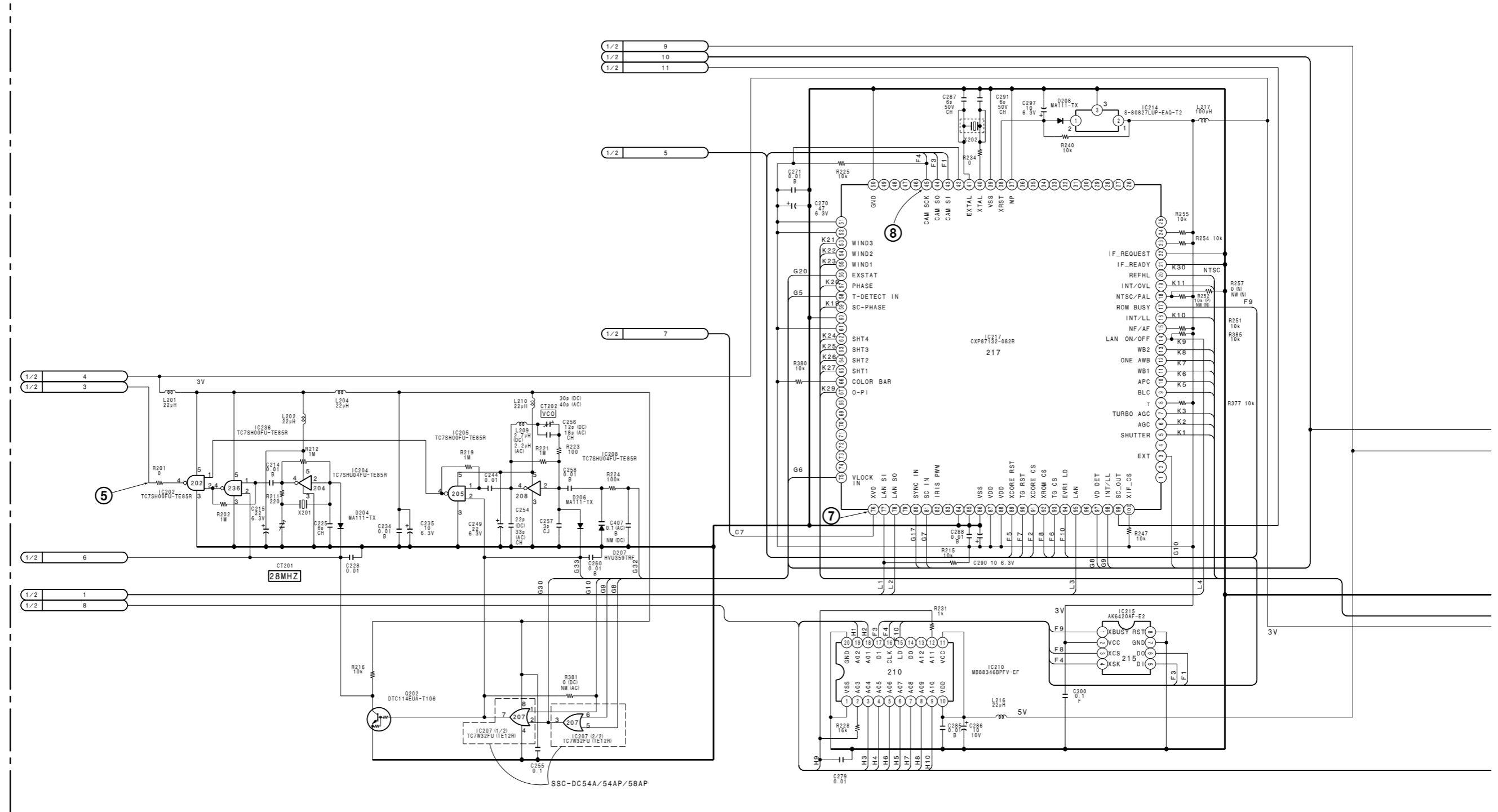
(N) : NTSC (DCX-200A/SSC-DC50A/54A)  
(P) : PAL (SSC-DC50AP/54AP/58AP)  
(DC) : DC POWER (DCX-200A/SSC-DC50A/50AP)  
(AC) : AC POWER (SSC-DC54A/54AP/58AP)  
NM: NO MOUNT

PR-229 (1/2)

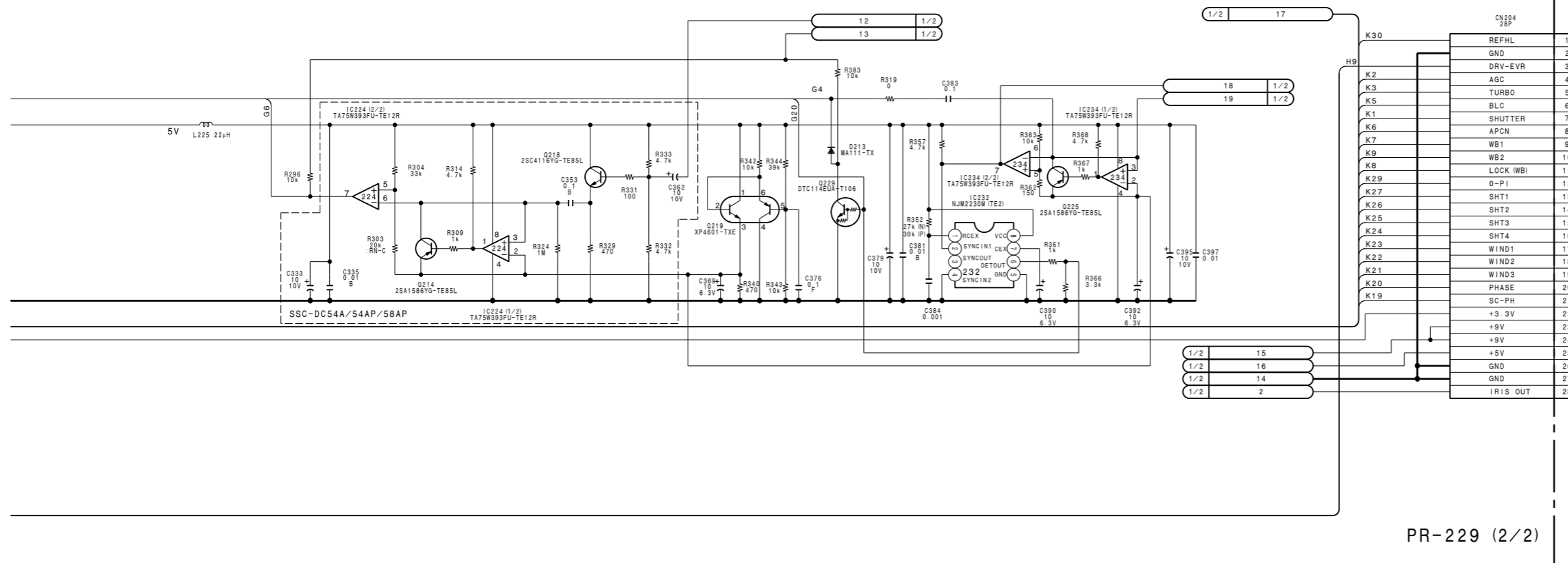
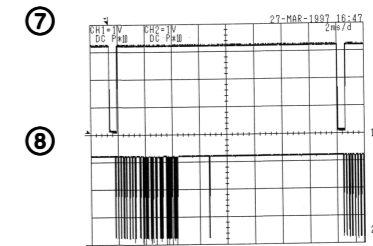
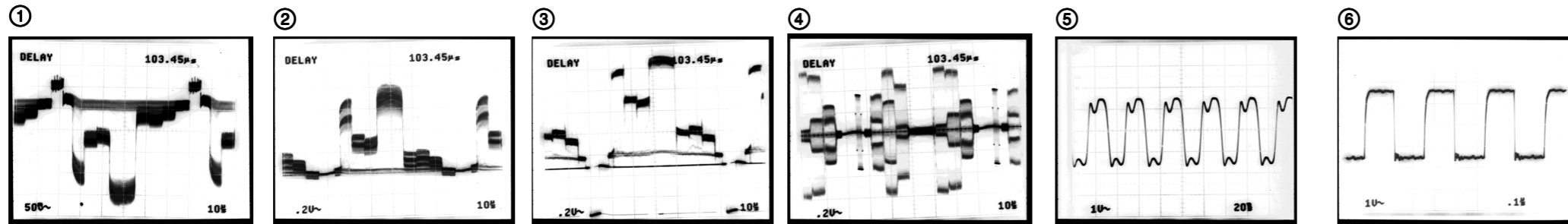
A B C D E F G H



- Waveforms are taken with an oscilloscope.
- Circled numbers refer to waveforms.
- Waveforms are measured in condition below.



WAVEFORM —PR 229—



PR-229 (2/2)

SSC-DC50A/54A  
SSC-DC50AP/54AP/58AP

7-11

7-11

A

B

C

D

E

F

G

H

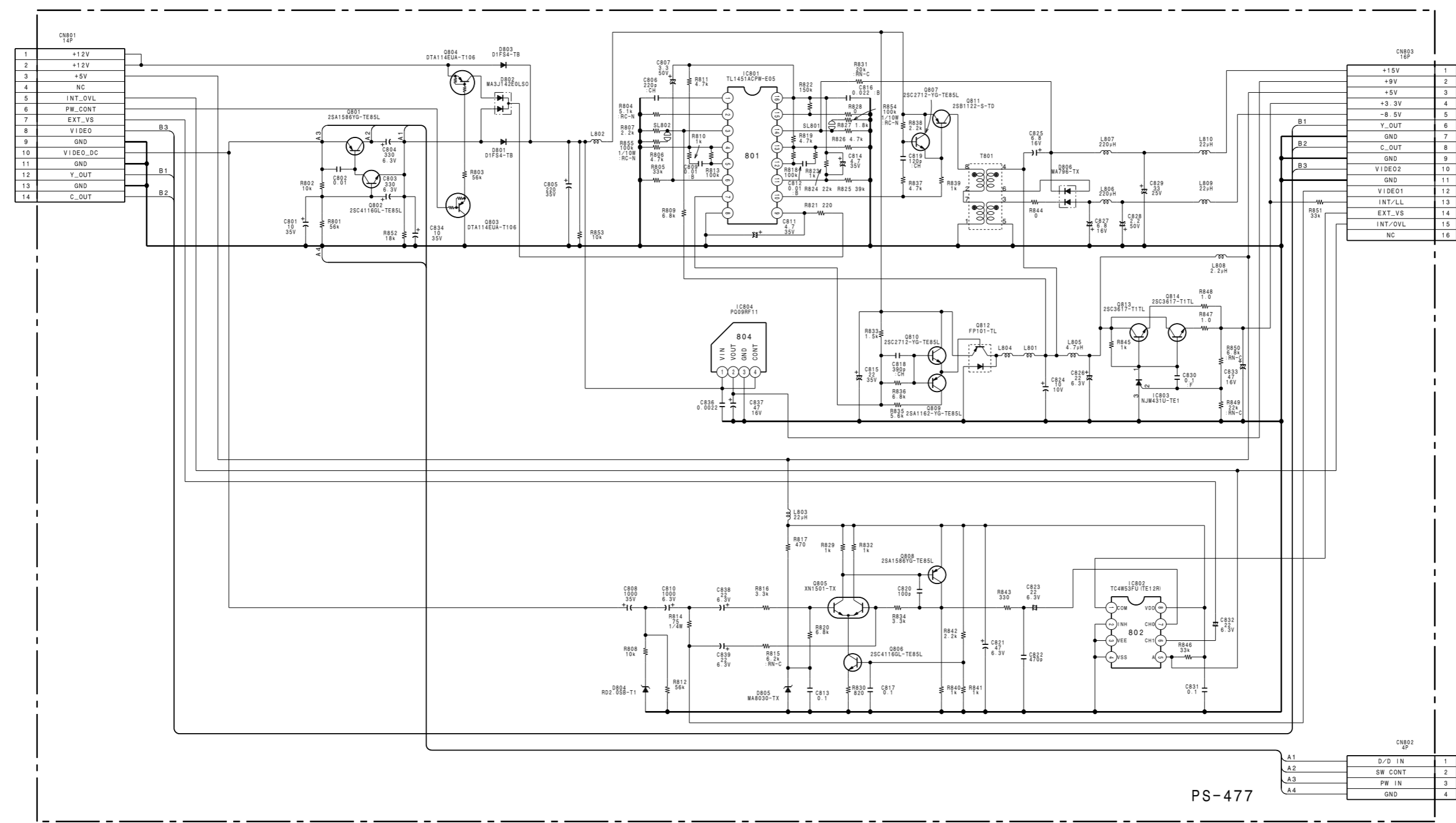
1

2

3

4

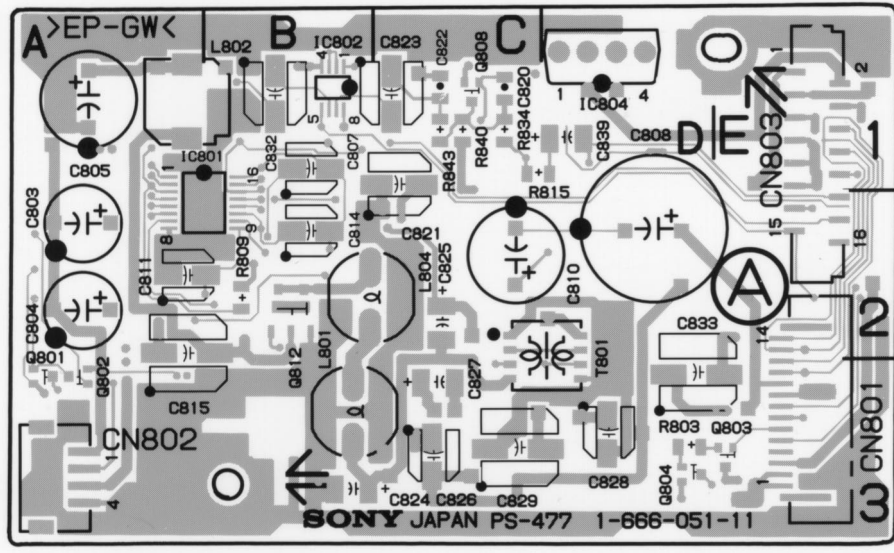
5



PS-477



PS-477 BOARD



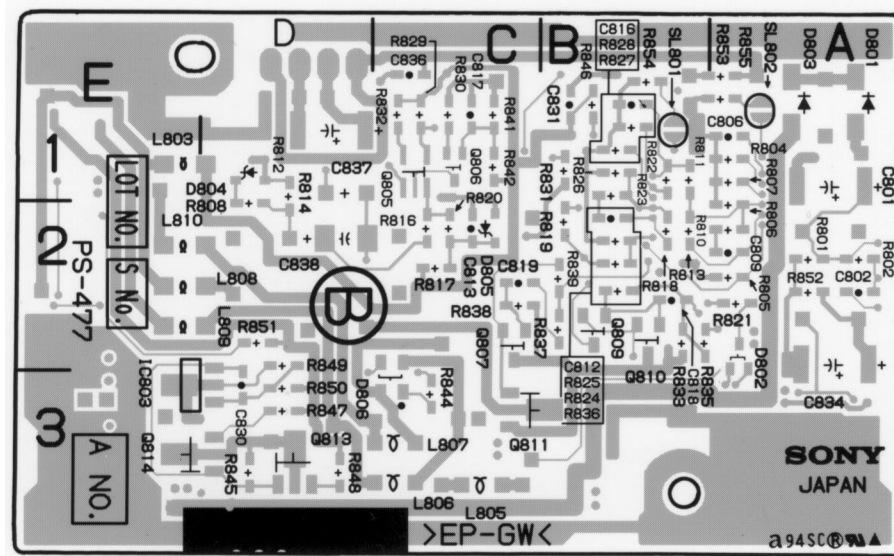
PS-477 -A SIDE-

SUFFIX: -11

PS-477

\*: B SIDE

CN801	E3
CN802	A3
CN803	E1
D801	*A1
D802	*A2
D803	*A1
D804	*D1
D805	*C2
D806	*C3
IC801	B2
IC802	B1
IC803	*E3
L801	B3
L802	A1
L803	*E1
L804	C2
L805	*C3
L806	*C3
L807	*C3
L808	*E2
L809	*E2
L810	*E2
Q801	A3
Q802	A3
Q803	E3
Q804	D3
Q805	*C1
Q806	*C1
Q807	*C2
Q808	C1
Q809	*B2
Q810	*B2
Q811	*C3
Q812	B2
Q813	*D3
Q814	*E3
T801	D2



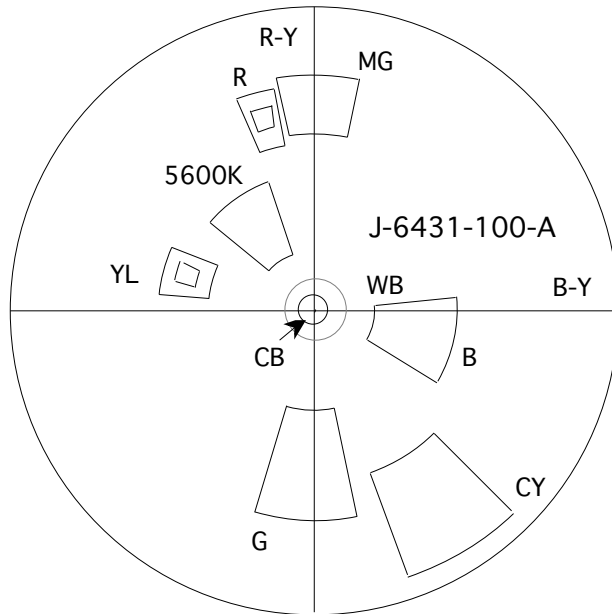
PS-477 -B SIDE-

SUFFIX: -11

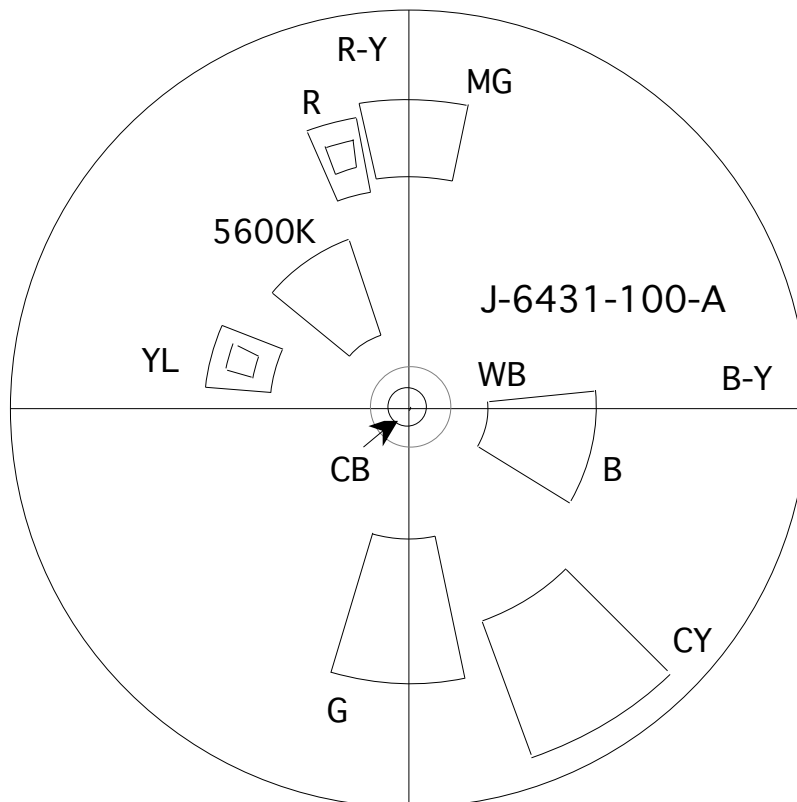


# VECTOR SCOPE SCALE

DIAMETER 80mm



DIAMETER 106mm



SSC-DC50A/54A (UC), E  
SSC-DC50AP/54AP/58AP (CE), E  
9-977-362-01

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**Broadcasting & Professional Systems Company**

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