



SERVICE MANUAL

NTSC

AP43 Chassis

PA

No. 0041

50UX18B/19K
46UX16B/17K

R/C: CLU-850GR

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CAUTION: Before servicing this chassis, it is important that the service technician read the "Safety Precaution" and "Product Safety Notices" in this Service Manual.

SAFETY NOTICE

USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by a Δ on the schematics and on the parts list in this Service Data and its supplements and bulletins. Before servicing the chassis, it is important that the service technician read and follow the "Safety Precautions" and "Product Safety Notices" in this Service Manual.

*For continued x-radiation protection, replace picture tube with original type of Hitachi approved equivalent type.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

PROJECTION COLOR TELEVISION

May 1994 HHEA - MANUFACTURING DIVISION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

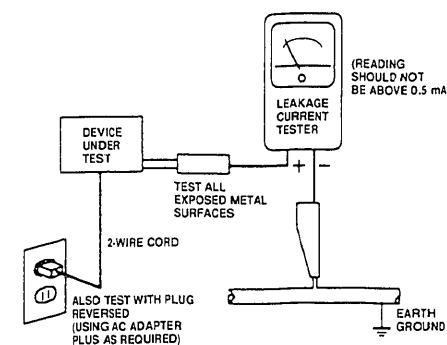
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health and Safety Code, Section 25249.5).

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

This television receiver provides display of television closed captioning in accordance with section 5.119 of the FCC rules.

SAFETY PRECAUTIONS

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including but not limited to the following items:
 - a. Be sure that no built-in protective devices are defective and/or have been deleted during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**
 - b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to (1) spacing between the picture tube and cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.
 - c. **Antenna Cold Check** — With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohms or greater than 5.2 megohms, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.
 - d. **Leakage Current Hot Check** — With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.0 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.1 milliamps. Reverse the instrument power cord plug in the outlet and repeat test.

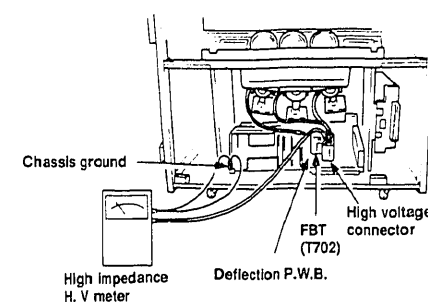


AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

- e. **High Voltage** — This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit may correctly be operated.
- f. **Serviceman Warning** — With minimum contrast and brightness, operating high voltage in this receiver is lower than 31.6kV. In case any component having influence on high voltage is replaced, confirm that high voltage with minimum contrast and brightness is lower than 31.6kV. To measure H.V. use a high impedance H.V. meter. Connect (-) to chassis earth and (+) to the CRT anode button. (See the following connection diagram.)

Note: Turn power switch off without fail before the connection to the anode button is made.



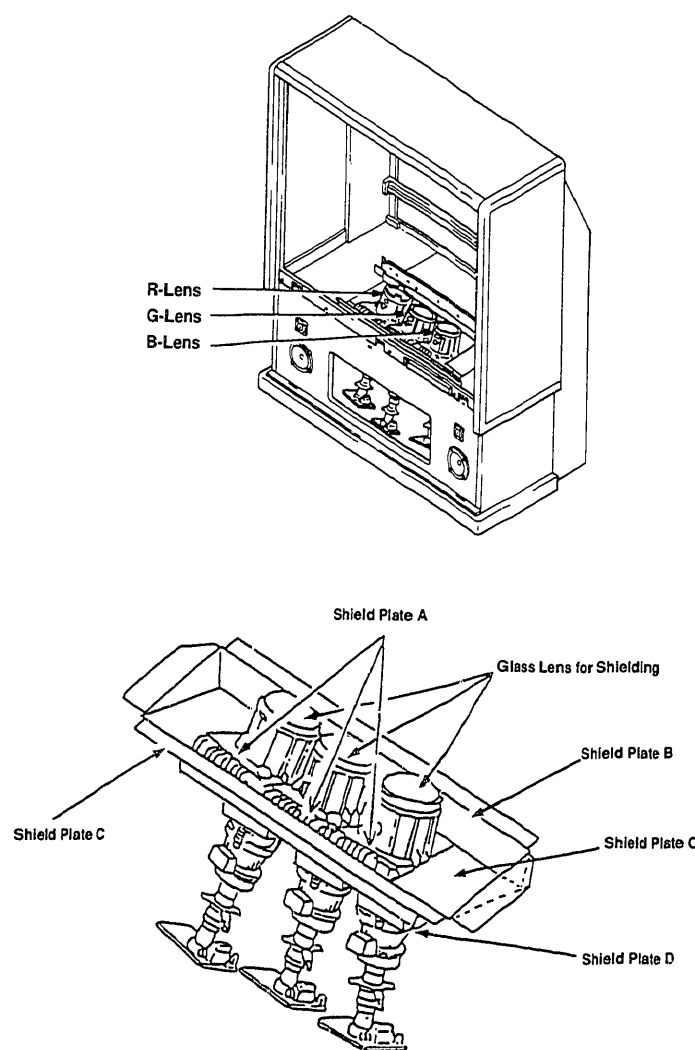
g. X-radiation — TUBE: The primary source of X radiation in this receiver is the picture tube. The tube utilized for the above mentioned function in this chassis is specially constructed to limit X radiation emissions. For continued X radiation protection, the replacement tube must be the same type as the original, HITACHI approved type.

When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage component.

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

h. X-Radiation Shield —

- 1) This receiver is provided X-ray shield plates for the protection of X-radiation. Do not remove X-ray shield plates A, B, C, or D shown in Fig. 1 unnecessarily, when troubleshooting and/or making test measurements.
- 2) To prevent X-radiation, after replacement of picture tube and lens, confirm these components to be fixed correctly to bracket and cabinet, and not to be taken off easily.



Detailing X-radiation shield.
Fig. 1

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the picture tube.

3. **Design Alteration Warning —** Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including but not limited to, circuit modifications and the addition of items such as auxiliary audio and/or video output connectors, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.

4. **Picture Tube Implosion Protection Warning —** The picture tube in this receiver employs integral implosion protection. For continued implosion protection, replace the picture tube only with one of the same type number. Do not remove, install, or otherwise handle the picture tube in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while picture tubes are handled. Keep the picture tube away from your body. Do not handle the picture tube by its neck.

5. **Hot Chassis Warning —** a. Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and may be safely serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground. b. Some TV receiver chassis normally have 85V AC (RMS) between chassis and earth ground regardless of the AC plug polarity. These chassis can be safely serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection. c. Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: a. near sharp edges, b. near thermally hot parts — be sure that leads and components do not touch thermally hot parts, c. the AC supply, d. high voltage and e. antenna wiring. Always inspect in all areas for pinched, out-of-place, or frayed wiring. Do not change spacing between components, and between components and the printed circuit board. Check AC power cord for damage.

7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

8. **PRODUCT SAFETY NOTICE —** Many TV electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified Hitachi service data by shading on schematics and by a (!) in the parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part in Hitachi service data parts list might create shock, fire, and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate. For the latest information, always consult the appropriate current Hitachi service literature. A subscription to, or additional copies of Service literature may be obtained at a nominal charge from Hitachi.

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the SAFETY PRECAUTIONS on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Guidelines

1. Always unplug the instrument AC power cord from the AC power source before:
 - a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.
 - b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.
 - c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.

Caution: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

 - d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc.) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc." The H.V. Distribution Box has an internal 400M Ω resistor (bleeder resistor) connected from the high voltage to ground. After power is removed from the instrument the high voltage will discharge through the high voltage bleeder resistor. If the tubes have high voltage after power is removed, then the bleeder resistor is defective or the bleeder ground is disconnected.
3. Discharge the picture tube's anode at any of the R, G, or B outputs on the High Voltage distribution box only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube high voltage distribution box R, G, or B output, using an insulating handle to avoid personal contact with high voltage.
4. Do not spray chemical on or near this instrument or any of its assemblies.
5. Unless specified otherwise in these service data, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength). **Caution:** This is a flammable mixture. Unless specified otherwise in these service data, lubrication of contacts is not required.
6. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service data might be equipped.

7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
8. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.
9. Use with this instrument only the test fixtures specified in this service data.

CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

Electrostatically Sensitive (ES) Devices

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

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

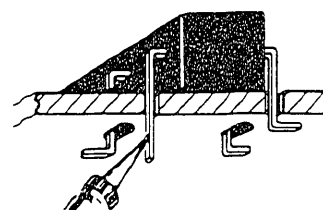
1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F.
2. Use an appropriate gauge of resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well tinned.
4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following unsoldering technique.
 - a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).
 - b. Heat the component lead until the solder melts. Quickly draw away the melted solder with an anti-static, suction-type solder removal device or with solder braid.

CAUTION: Work quickly to avoid overheating the circuit board printed foil.

6. Use the following soldering technique.
 - a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).
 - b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.
 - c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.

CAUTION: Work quickly to avoid overheating the circuit board printed foil or components.

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



Use Soldering Iron to Pry Leads

IC Removal/Replacement

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

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.
2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to the areas.)

"Small-signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.
3. Bend into a "U" shape the replacement transistor leads.
4. Connect the replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact, then solder each connection.

Power Output Transistor Devices Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heatsink mounting screw (if so equipped).
3. Carefully remove the transistor from the circuit board.
4. Insert new transistor in circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicularly to the circuit board.
3. Observing diode polarity, wrap each lead out of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two "original" leads. If they are not shiny, reheat them and, if necessary, apply additional solder.

Fuses and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of circuit board hollow stake.
2. Securely crimp leads of replacement component around stake 1/8 inch from top.
3. Solder the connections.

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

Circuit Board Foil Repair

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

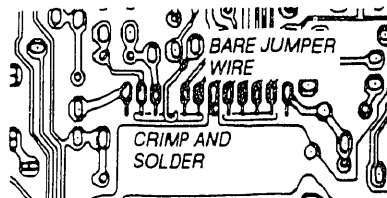
In Critical Copper Pattern Areas

High component/copper pattern density and/or special voltage/current characteristics make the spacing and integrity of copper pattern in some circuit board areas more critical than in others. The circuit foil in these areas is designated as Critical Copper Pattern and is identified and illustrated in this service data in the section titled Safety Related Copper Pattern (see data in the section titled Safety Related Copper Pattern (see table of contents for page number). Because Critical Copper Pattern requires special soldering techniques to ensure the maintenance of reliability and safety standards, contact your Hitachi personnel.

At IC Connections

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

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.



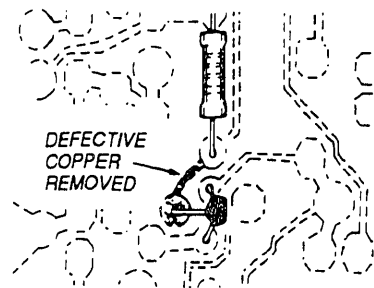
Install Jumper Wire and Solder

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

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

At Other connections

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



Insulated Jumper Wire

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure that a hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both sides of the pattern break and locate the nearest component that is directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the lead of the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.

CAUTION: Be sure the insulated jumper wire is dressed so that it does not touch components or sharp edges.

Frequency Synthesis (FS) Tuning Systems

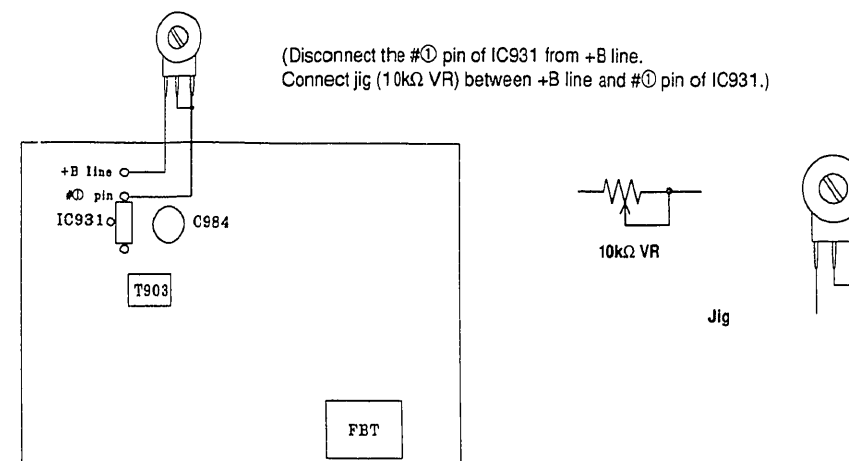
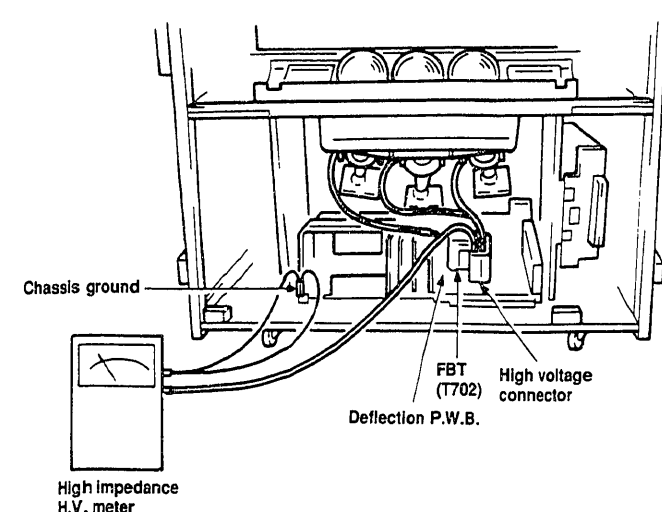
1. Always unplug the instrument AC power cord before disconnecting or reconnecting FS tuning system cables and before removing or inserting FS tuning system modules.
2. The FS tuner must never be disconnected from the FS tuning control module while power is applied to the instrument.
3. When troubleshooting intermittent problems that might be caused by defective cable connection(s) to the FS tuning system, remove the instrument AC power as soon as the defective connector is found and finish confirming the bad connection with a continuity test. This procedure will reduce the probability of electrical overstress of the FS system semi-conductor components.

TECHNICAL CAUTIONS

High Voltage limiter circuit operation check.

1. Turn off TV and connect jig as shown in Figure 2. Adjust jig fully counter-clockwise for minimum resistance.
2. Set the AC input to 120V AC and turn on TV.
3. Confirm test pattern on CRT is a usable picture, then slowly adjust jig until the picture disappears and TV shuts down.

4. When the limiter circuit is operating properly, High Voltage will be less than 35.5kV at 0.6mA when TV shuts down.
5. Turn off set immediately after checking circuit operation.
6. Unplug set for one minute to reset shutdown circuit. Remove jig and voltmeter.



Deflection/Power Supply P.C.B.
Fig. 2

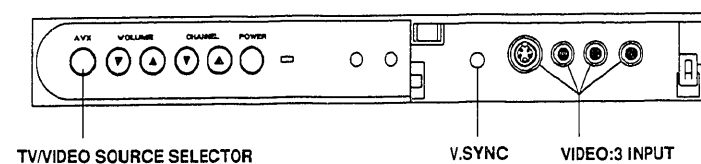
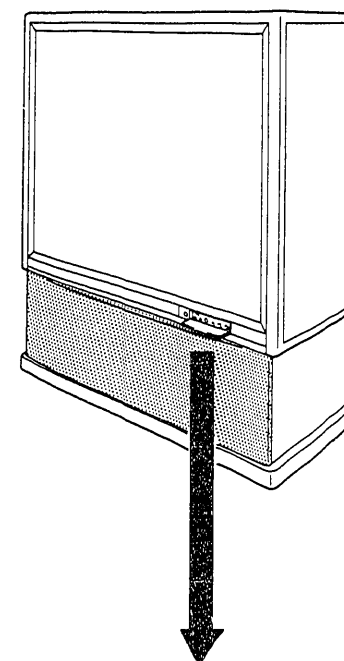
SPECIFICATIONS

Model:	50UX18B 50UX19K 46UX16B 46UX17K	Anode Voltage:	30.0 kV (Zero Beam Current)
Cathode-Ray Tube:	80° deflection 7 inch 180CZB22(K)R/180CZB22(K)G/ 180CZB22(K)B	Brightness:	500 ft-Nominal - 46" 420 ft-Nominal - 50" (Peak White)
Power Input:	120 volts AC, 60Hz	Speakers:	2 Woofers - 5 inch (12 cm) round 2 Tweeters - 2 inch (5 cm) round
Power Consumption:	230 watts - Maximum 160 watts - Operating	Dimension:	46UX16B/17K 50UX18B/19K Height (in.) 49-1/2 51-7/8 Width (in.) 41-1/8 44-1/8 Depth (in.) 27 27-1/2 Weight (lbs.) 221 250
Antenna Impedance:	75 ohm Unbalanced VHF/UHF/CATV	Circuit Board Assemblies:	CPT (B) P.C.B. CPT (G) P.C.B. CPT (R) P.C.B. Convergence Correction P.C.B. Signal P.C.B. Deflection/Power Supply P.C.B. SP Terminal P.C.B. Control P.C.B. Surround P.C.B. MTS P.C.B. P-in-P Sub P.C.B. Terminal P.C.B. S. contrast P.C.B. V.M. P.C.B.
Receiving Channel:	CH VHF 2-13 EXT. Mid (A-2)-(A-1), 4+ CATV Mid A-1 CATV Super J-W CATV Hyper (W+29)-(W+53)		
Intermediate Frequency:	Picture I-F Carrier 45.75 MHz Sound I-F Carrier 41.25 MHz Color Sub Carrier 42.17 MHz		
Video Input:	1 Volt-p 75 ohm		
Video Output:	1 Volt-p 75 ohm		
Audio Input:	0.4 volt rms, 40 k ohm		
Stereo Audio Output:	0.4 volt rms, 1 k ohm		
Audio Output Power:	Front — 12 watts rms per channel, 8 ohm impedance. Max output — 15 watts Rear — 5 watts per channel, 8 ohm impedance. Max output — 7 watts.		

CIRCUIT PROTECTION

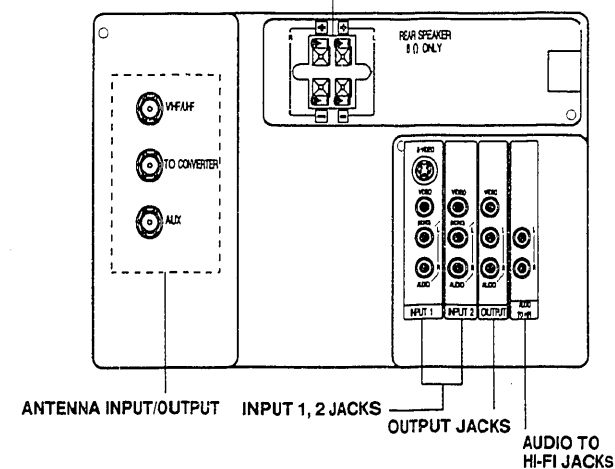
Fuse (or Device)	Circuit Protected	Physical Location
F601 1.6A/125V DC	Vertical	Power/Defl. Circuit Board
F901 5A/125V AC	Main Fuse	Power/Defl. Circuit Board
F903 5A/125V DC	Main Fuse	Power/Defl. Circuit Board
F931 3A/125V DC (MINIFUSE)	Rear Audio Output	Power/Defl. Circuit Board
F932 4A/125V DC	Vertical	Power/Defl. Circuit Board
F933 3A/125V DC (MINIFUSE)	Convergence	Power/Defl. Circuit Board
F934 3A/125V DC (MINIFUSE)	12V Supply	Power/Defl. Circuit Board
F935 4A/125V DC	11V Supply	Power/Defl. Circuit Board
F936 3A/125V DC (MINIFUSE)	Front Audio Output	Power/Defl. Circuit Board
F937 1.6A/125V DC	130V (+B) Supply	Power/Defl. Circuit Board

GENERAL INFORMATION



Control Panel
Fig. 3

REAR SPEAKER TERMINAL

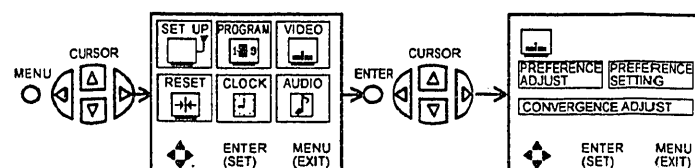


Rear Connections Panel
Fig. 4

ADJUSTING FOR PICTURE AND SOUND FUNCTIONS

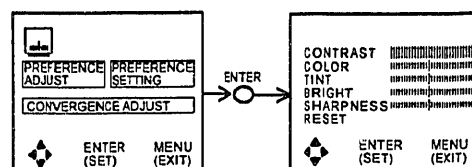


Select VIDEO to adjust picture settings, improve picture quality, and to adjust convergence.



PREFERENCE ADJUST

Use this feature to adjust contrast, color, etc.

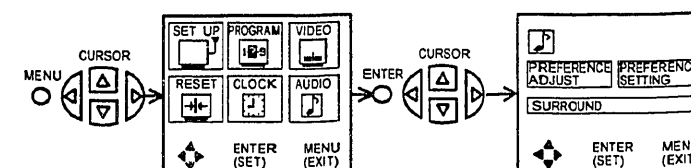


Press the CURSOR buttons to select and make adjustments. The function to be adjusted will be in magenta.

- CONTRAST** — Use this function to change the contrast between black and white levels in the picture. This adjustment will only affect the picture when the PICTURE SETTING AI is OFF. (Use PREFERENCE SETTING to turn AI off.)
- TINT** — Use this function to adjust flesh tones so that they appear natural.
- COLOR** — Use this function to adjust the level of color in the picture.
- BRIGHT** — Use this function to adjust overall picture brightness.
- SHARPNESS** — Use this function to adjust the amount of fine detail in the picture. This adjustment will only affect the picture when PICTURE SETTING AI is OFF. (Use PREFERENCE SETTING to turn AI off.)
- RESET** — When RESET is selected, press ENTER to return video adjustments to factory preset conditions.

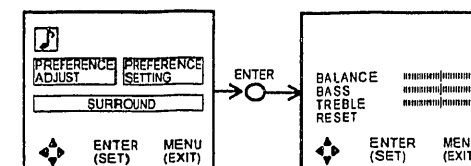


Select AUDIO to adjust the TV to your preference, to improve the sound quality, and to select special sound effects.



PREFERENCE ADJUSTMENT

Use this to set balance, bass, and treble.



Press the CURSOR buttons to select and make adjustments. The function to be adjusted will be in magenta.

- BALANCE** — This function will control the left to right balance of the TV internal speakers, the AUDIO TO HI-FI output, and the surround speakers.
- BASS** — This function controls the low frequency audio to all speakers.
- TREBLE** — This function controls the high frequency audio to all speakers.
- RESET** — When RESET is selected, press ENTER to return audio adjustments to factory preset conditions.

SELF CHECK REPAIR CODES

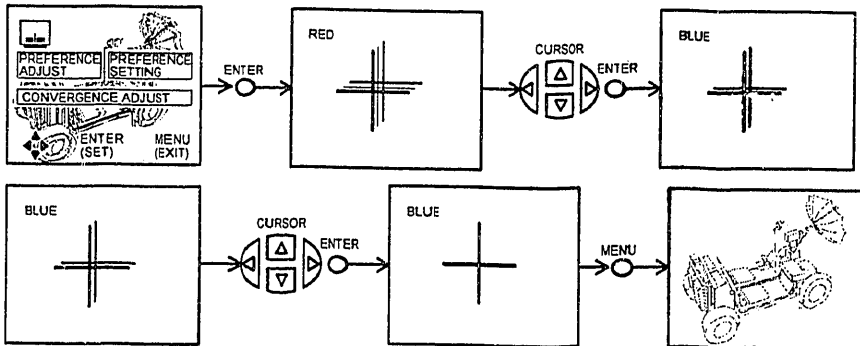
Press the **AVX** and **POWER** buttons on the control panel at the same time.

CODE	DETECTION CONTENTS	DETECTION TIME	REMARK
40	Abnormal horizontal deflection	---	---
41	Flyback Transformer loading on 12V line	---	---
50	Power Relay off	---	Abnormal condition causing relay to turn off
10	Check for PLL lock	Not locked in 2 sec.	During selection time
11	Check for AFC operation	Not finished in 2 sec.	During selection time
60	Check for AC input	At uP reset time	AC input (50/60Hz) not detected at reset time
31	Check IC0001 operation	At uP reset time	Check for out of range operation

Note: Code 10 or 11 may appear if TV is turned on without an antenna source connected.

CONVERGENCE ADJUSTMENT

Press MENU on the remote control for the On Screen Display. Use the Cursor buttons to select VIDEO and then press ENTER.



Press the CURSOR ▲, ▼ to move the color displayed up or down.
Press the CURSOR ◀, ▶ to move the color displayed left or right.
Press ENTER to change the color.
Press MENU to exit.

CAUTIONS WHEN CONNECTING/DISCONNECTING THE HV CONNECTOR

Perform the following when the HV connector (anode connector) is removed or inserted for CPT replacement, etc.

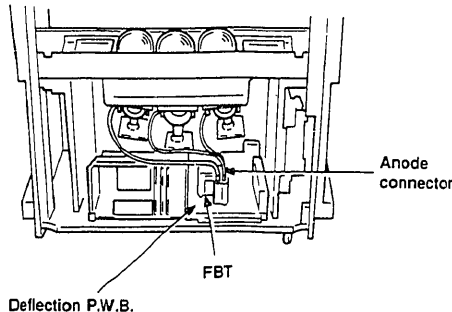


Fig. 5

During Removal

1. Insert a small flat-bladed screwdriver (adjustment screwdriver: 5-7 mm wide and 0.2-0.3 mm thick) into section (A) in Fig. 6 and then push it in the direction of arrow (B). The lock will release with a click. (The state in Fig. 8 (1) will change to that in Fig. 8 (2).)

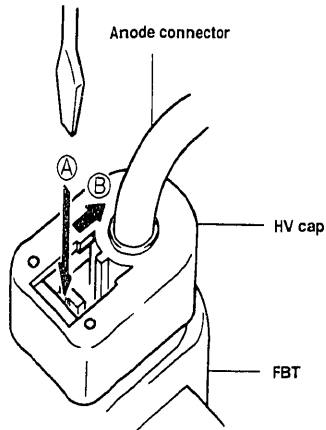


Fig. 6

2. Remove the HV cap and remove the anode connector (Fig. 7).

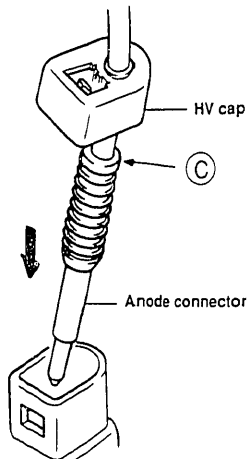
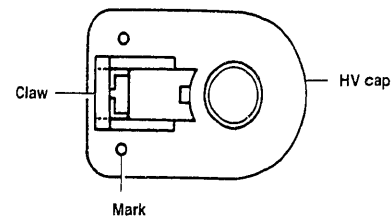


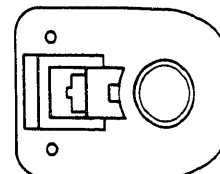
Fig. 7

During Insertion

1. Insert the anode connector deep into the FBT (to section ③ in Fig. 7) and then push the HV cap into the FBT until it clicks.
2. Make sure the connector is securely inserted. (Check that the claw is at the mark on the HV cap shown as in Fig. 8 (1).)



(1) Lock on
(When connector is inserted)



(2) Release
(When connector is removed)

Fig. 8

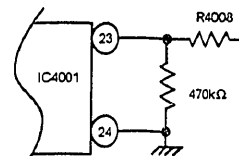
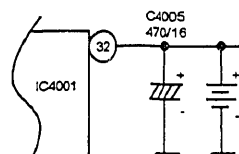
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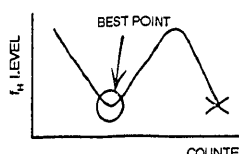
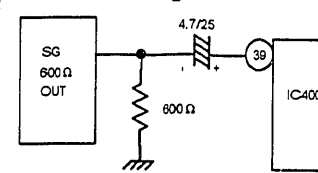
1. ASSEMBLED P.W.B. ADJUSTMENT (MTS P.W.B.)

MTS Demodulating Circuit Adjustment

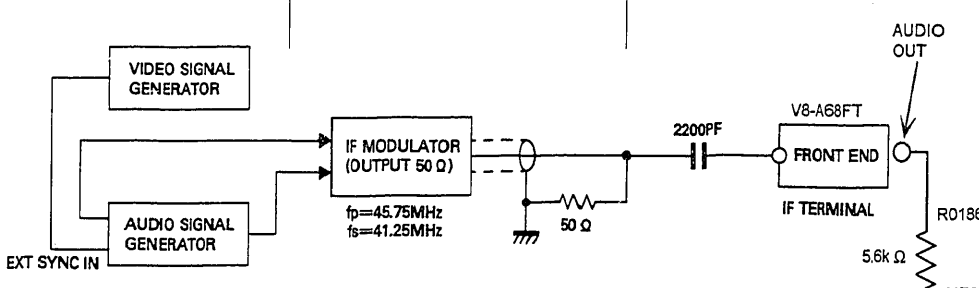
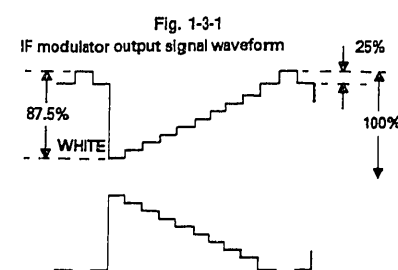
1.1. Stereo VCO Adjustment (R4007)

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Set R4114 fully counterclockwise (2) Set S2-connector pin ① to MTS GND (3) Connect 470kΩ resistor across IC4001 pin ②③ and ②④ (4) Connect a frequency counter to IC4001 pin ④①. Use 1:1 probe. Probe standard: $R_i \geq 1M\Omega$ $C_i \leq 15pF$ (5) No signal input at IC4001 pin ③⑨ (6) Apply +9.0V $\pm 0.1V$ to IC4001 pin ③②.	(1) Adjust R4007 to 15.73kHz $\pm 0.01kHz$. (2) Remove 470kΩ resistor after adjustment.	 Fig. 1.1.1.  Fig. 1.1.2.

1.2. Filter Adjustment (R4114)

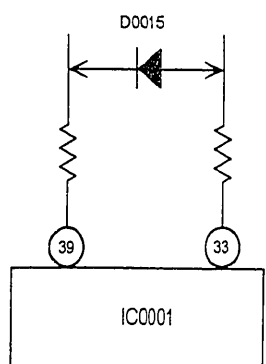
Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Set R4114 fully counterclockwise (2) Apply signal to IC4001 pin ③⑨. Sound Generator output impedance = 600Ω $f = 15.73kHz$ Sinusoidal $V = 100V_{rms}$ (3) Connect oscilloscope to IC4001 pin ③⑤. (4) Apply +9.0V $\pm 0.1V$ to IC4001 pin ③②.	(1) Adjust R4114 so that the waveform at pin ③⑤ is minimum as shown.	 Fig. 1.2.1.  Fig. 1.2.2.

1.3. Separation Adjustment (R4009, R4010)

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Apply the signal to F/E IF input terminal of the signal P.W.B. using the jig shown below.  * Video and audio signal should be synchronized.	(2) Connect oscilloscope to IC4001 pin (4). (3) Apply +9V±0.1V to IC4001 pin (32). (4) Set "SURROUND" OSD to "OFF" and "MTS" mode to "STEREO."  Fig. 1-3-1 IF modulator output signal waveform Fig. 1-3-2	IF modulator output level and P/S P=106±3dB μ (50Ω termination) S LEVEL: -3dB with respect to P S/N ratio of the F/E video output should be 45dB or less at this time. Sound input signals - Noise reduction encoder: ON - Stereo signal: ① R=0 (L only), 300 Hz, 30% modulation (Note 2) ② R=0 (L only), 3 KHz, 30% modulation - Monaural signal: ③ Monaural, 400Hz, 100% modulation - Sap signal: ④ Sap, 30% modulation (Note 2) (1) Select the audio input signal (3) and adjust R0188 so that the reading of the AC voltmeter $V_o=150\text{mVrms} \pm 5\text{mVrms}$. (Refer to Chassis Assembly Adjustment, Input level adjustment 1.3.1 (R0188). (2) Select sound input signal (1) and adjust R4009 for 300Hz minimum. (3) Select sound input signal (2) and adjust R4010 for 3kHz minimum. (4) Repeat (1) - (3). Adjust within +1dB of minimum point. - No pilot signal. - Noise reduction is off mode. - Separation point may deviate if input level is not regularly adjusted. (Note 1) The frequency characteristic of the sound modulator must be ±1% from 50Hz to 100kHz (Note 2) Turn off noise reduction (NR), set 30% modulation, then turn (NR) on. Set modulation at audio signal generator output, not IF modulator output.

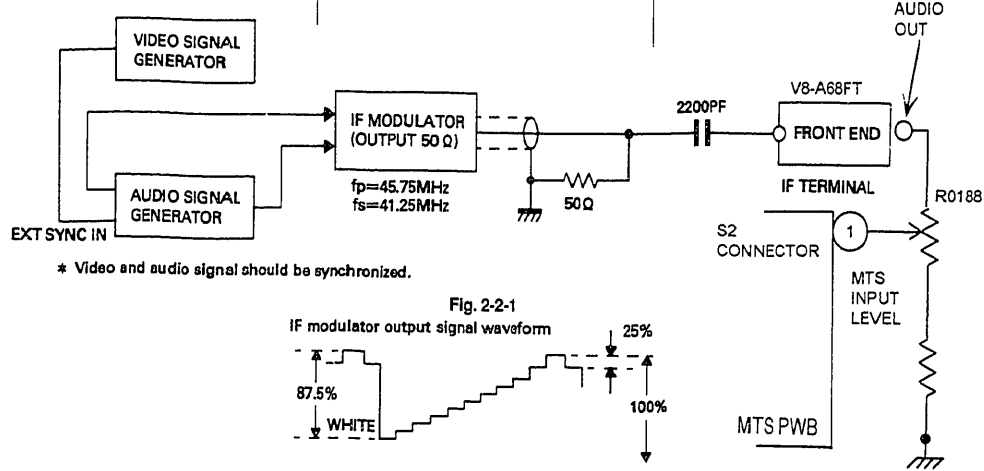
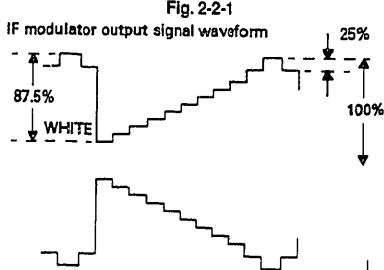
2. CHASSIS ASSEMBLY ADJUSTMENT (SIGNAL BLOCK)

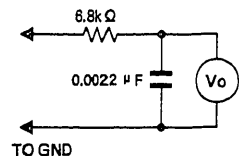
2.1. Memory Initialization

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Refer to signal printed circuit board to locate D0015 on copper pattern side. (Look for cut-out section of IC0001 shield.)	(1) Connect jig diode D0015 (1SS270) across IC0001 pin (33) and (39) for one second, then remove. (2) A reset tone, "beep" will be heard from the left speaker and channel "03" will be displayed on the OSD.	The TV will be set to factory shipping conditions.  Fig. 2.1.1. Do not unplug set or press any buttons during this operation.

2.2. MTS Demodulating Circuit Adjustment

2.2.1 Input level adjustment (R0188)

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Apply the signal to F/E IF input terminal of the signal P.W.B. using the jig shown below.  * Video and audio signal should be synchronized. 	(1) Select the audio input signal ③ and adjust R0188 so that the reading of the AC voltmeter $V_o=150\text{mVrms} \pm 5\text{mVrms}$.	• No pilot signal. • Noise reduction is off mode. (Note 2) Turn off noise reduction (NR), set 30% modulation, then turn (NR) on. Set modulation at audio signal generator output, not IF modulator output.
IF modulator output level and P/S $P=106 \pm 3\text{dB} \mu$ (50Ω termination) S LEVEL: -3dB with respect to P S/N ratio of the F/E video output should be 45dB or less at this time. Audio modulation contents - Noise reduction encoder: ON - Stereo signal: ① R=0 (L only), 300 Hz, 30% modulation (Note 2) ② R=0 (L only), 3 KHz, 30% modulation - Monaural signal: ③ Monaural, 400Hz, 100% modulation - Sap signal: ④ Sap, 30% modulation (Note 2)	Fig. 2-2-1 Fig. 2-2-2	

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(2) Connect the AC voltmeter (V_o) to pin ③ of IC4001 via the jig shown below.  Fig. 2-2-3 (Use the VP950C AC voltmeter made by Matsushita or equivalent.) (3) Apply the D.C. +9V±0.1V to IC4001 pin ③. (4) Connect the D.C. +9V±0.1V. (F/E: +B.)		

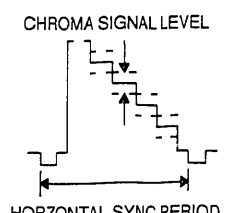
2.2.2. Separation check

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Connect the same jig as that input level adjustment. (Disconnect the AC voltmeter connected to IC4001.) (2) Connect the oscilloscope to pin ③ : (L) and pin ④ : (R) of IC4001. (3) Same as in items 2-2-1. (3) and (4). (4) Set the MTS OSD to STEREO.	(1) Select the audio input signal ① and check that L/R separation of 300Hz component is 15dB or more. (2) Select the audio input signal ② and check that L/R separation of 3kHz component is 15dB or more. (R<L)	When the audio input signal ①/② is received, "STEREO" should be displayed on the screen. (Note 1) Use an audio modulator with frequency characteristics of 50Hz to 100kHz ±1%.

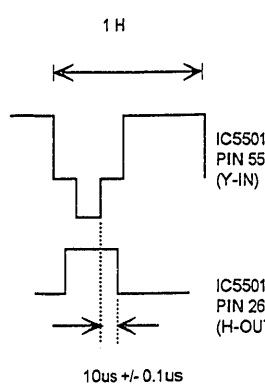
2.2.3. SAP reception check

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Same as in items 2-2-2 (1) - (4). (2) Set the MTS mode to SAP.	(1) Select the audio input signal ①. The output level at this time is represented by VST. (2) Select the audio input signal ④. Check that the output level at this time is almost the same as VST. ("SAP" should be displayed at this time.)	(Note 2) Turn the noise reduction encoder (NR) off and set to 30% modulation and then turn the NR on. Set the modulation using the output from the low frequency signal generator and leave the audio modulation VR of the IF modulator as it is.

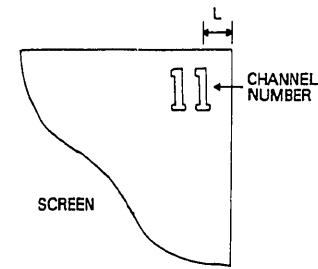
2.3. Comb filter adjustment

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Receive the color bar signal at the regular tuning point. (2) Connect the oscilloscope to the emitter of Q3503. (3) Set the brightness to Max (+31) and set the other controls to typ (0). (4) Set the AI to OFF.	(1) Check that the residual signal level is 50mVp-p or less. (Note) The chrome signal level is the point shown below.  CHROMA SIGNAL LEVEL HORIZONTAL SYNC PERIOD Fig. 2-3.	- Use a 10:1 probe. - Use an oscilloscope with a 20mV/div resolution.

2.4. Horizontal coarse AFC adjustment

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Receive the reverse cross-hatch pattern signal. (Cross-hatch lines are black.) (2) Connect the oscilloscope to IC5501 pin (55) (Y-In) and pin (26) (Horizontal pulse out).	(1) Adjust R5564 (AFC) for 10μs delay between pin (55) and (26).	 1 H IC5501 PIN 55 (Y-IN) IC5501 PIN 26 (H-OUT) 10us +/- 0.1us Fig. 2-4

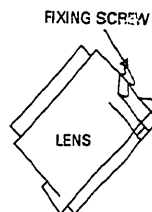
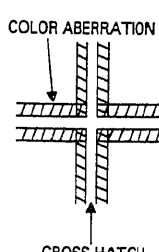
2.5. On-screen display position check

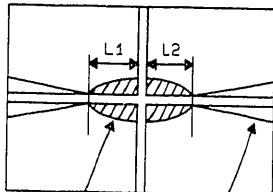
Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Receive the TV broadcast signal. (2) Press the RECALL button of the remote control transmitter to display the channel number.	(1) Check that the right end of the displayed number is at the position shown below.  SCREEN CHANNEL NUMBER Fig. 2-5	$L = 120 \pm 10 \text{ mm}$

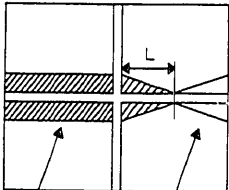
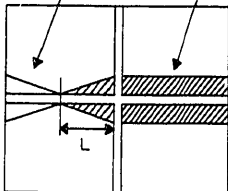
3. FINAL ASSEMBLY ADJUSTMENT

3.1. OPTICAL SYSTEM ADJUSTMENT

3.1.1. Focus adjustment

Preparation for adjustment	Adjustment procedure	Remarks/Waveform								
(1) The set can face in any direction, west, east, north or south. (2) Receive the cross-hatch pattern signal. CONTRAST: MAXIMUM BRIGHTNESS: CENTER (3) The electrical focus adjustment should have been completed. (4) The centering DY inclination should have been adjusted.	(1) Loosen the fixing screw on the lens cylinder so that the lens cylinder can be turned. (Be careful not to loosen too much. If it is loosened too much, rattling when tightening becomes greater and the focus may drift.) After completing steps (5), (6) and (7) below, tighten the fixing screws for each lens with a torque of 7 - 12kg/cm. (2) Apply covers to 2 of R, G and B lenses, and project a single color on the screen and adjust in sequence. (The adjustment order of R, G and B is only an example.) (3) For each of the R, G and B lenses, observe the color aberration generated on the outer circumference of the cross-hatch bright line at the center section ± 3 pitches vertically and horizontally from the center. (4) If the lens adjustment knob is turned clockwise, viewed from the front, the color aberration changes as follows. <table border="1"> <tr> <th>Lens</th> <th>Change of color aberration</th> </tr> <tr> <td>R lens</td> <td>Orange $\rightarrow$ Crimson</td> </tr> <tr> <td>G lens</td> <td>Blue $\rightarrow$ Red</td> </tr> <tr> <td>B lens</td> <td>Purple $\rightarrow$ Green</td> </tr> </table>	Lens	Change of color aberration	R lens	Orange $\rightarrow$ Crimson	G lens	Blue $\rightarrow$ Red	B lens	Purple $\rightarrow$ Green	(1) Fixing screw  Fig. 3-1-1 (2) Color aberration  Fig. 3-1-2
Lens	Change of color aberration									
R lens	Orange $\rightarrow$ Crimson									
G lens	Blue $\rightarrow$ Red									
B lens	Purple $\rightarrow$ Green									

Preparation for adjustment	Adjustment procedure	Remarks/Waveform						
	(5) In case of G lens Set to the point where the chromatic aberration switches from blue to red. If the chromatic aberration appearing all over the screen is not the same, observe the horizontal bright line at the center of the screen and set to the position where red chromatic aberration slightly appears (reference value: 1-3mm) within the cross-hatch pitches specified in Table below. When the red chromatic aberration appearing at both sides of the bright line is not equal, observe the side with larger chromatic aberration when adjusting.  RED CHROMATIC ABERRATION (REFERENCE VALUE: 1-3mm) BLUE CHROMATIC ABERRATION Fig. 3-1-3 <table><tr><th>Set Size</th><th>Pitch between L1 & L2</th></tr><tr><td>46"</td><td>5.0 cross-hatch pitches</td></tr><tr><td>50"</td><td>6.0 cross-hatch pitches</td></tr></table> Fig. 3-1-4	Set Size	Pitch between L1 & L2	46"	5.0 cross-hatch pitches	50"	6.0 cross-hatch pitches	(3) Since the G light is very important for picture quality and performance, pay special attention in its adjustment. Note: Be careful not to touch the lens with your fingers when adjusting.
Set Size	Pitch between L1 & L2							
46"	5.0 cross-hatch pitches							
50"	6.0 cross-hatch pitches							

Preparation for adjustment	Adjustment procedure	Remarks/Waveform						
	(6) In case of R lens Set to the position where the chromatic aberration changes from orange to crimson. As shown below, observe the horizontal bright line at the center and set to the position where the crimson chromatic aberration slightly appears (reference value: 1-3mm) within the cross-hatch pitches specified in Table below. Change the signal and fine-adjust in the same way as the G lens.  CRIMSON CHROMATIC ABERRATION ORANGE CHROMATIC ABERRATION Fig. 3-1-5 <table border="1"><thead><tr><th>Set Size</th><th>Pitch between L1 & L2</th></tr></thead><tbody><tr><td>46"</td><td>5.0 cross-hatch pitches</td></tr><tr><td>50"</td><td>6.0 cross-hatch pitches</td></tr></tbody></table>	Set Size	Pitch between L1 & L2	46"	5.0 cross-hatch pitches	50"	6.0 cross-hatch pitches	(4) Setting to the center between orange and crimson is optimum.
Set Size	Pitch between L1 & L2							
46"	5.0 cross-hatch pitches							
50"	6.0 cross-hatch pitches							
	(7) In case of B lens Set to the position where the chromatic aberration changes from purple to green. GREEN CHROMATIC ABERRATION PURPLE CHROMATIC ABERRATION 	(5) Setting to the center between purple and green is optimum.						

3.2. SIGNAL SYSTEM ADJUSTMENT

3.2.1. White balance adjustment

- (1) Screen adjustment
- (2) High brightness white balance
- (3) Low brightness white balance

Screen adjustment VRs	Drive adjustment VRs
Red: R804R	Red: R813R
Green: R804G	Green: R813G
Blue: R804B	

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Start adjustment 20 minutes or more after the power is turned on. (2) The vertical incident illumination on the screen should be 20 lux or less. (3) Receive the white raster. (4) Set the drive adjustment VRs (red and green) to their mechanical centers. (5) Turn the screen adjustment VRs (red, green, blue) fully counter-clockwise. (6) Set the S5502 switch to the bottom as viewed from the front of the signal P.W.B. (Set to SERVICE side.)	(1) Gradually turn the screen adjustment VRs (red, green, blue) clockwise and set them where the red, green and blue slightly bright lines just appear evenly on the screen. (2) Return S5502 to the NORMAL side. (3) Set the brightness and black level controls to minimum and turn the sub brightness adjustment VR (R3540) and set so that the white raster can be seen slightly. (4) Set the brightness and black level controls to maximum. (5) Adjust the high brightness white balance using the drive adjustment VRs (red, green). (6) Set the brightness to 3ft-L amount or less using the brightness and black level controls. (7) Adjust the low brightness white balance using the screen adjustment VRs (red, green, blue). (Visually adjust.) (8) Check that high brightness white balance is obtained. If it does not, return to step (5).	Note: When adjusting the white balance, if the horizontal single raster is to be obtained using S5502, <u>check that the screen adjustment VRs are turned fully counter-clockwise.</u> <u>Since the phosphorescent surface of the CRT is likely to be burnt, be careful.</u> White balance: 7500°K + 0MPCD Color coordinate: X 0.301 Y 0.310

3.2.2. Sub brightness adjustment (R3540)

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Start adjustment 20 minutes or more after the power is turned on. Receive the color bar signal. (2) Set the contrast and color controls to minimum. (3) Set the brightness to -6 (-3 position shown on the display). (4) The vertical incident illumination on the screen should be 20 lux or less.	(1) Adjust so that the points A1 and A2 sink to black and A3 slightly above it rises using the sub brightness adjustment VR (R3540).	

W	Y	CY	G	MG	R	BL
75%						
A7	A6	A5	A4	A3	A2	A1
b						
c						
d						
Q	I	W 100%		BLK		

GRAY SCALE

Should sink to black

Should rise slightly from black

Fig. 3-2-2

3.2.3. Sub picture adjustment (R350-B, R351-G, R352-R)

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Start adjustment after power is on for 20 minutes. (2) Use a white raster signal for adjustment. (3) Press "FREEZE" on the remote control to display the sub picture. (4) Set contrast to center, brightness minimum, AI off.	(1) Connect oscilloscope to TP802B and adjust R350 to match blue level of main and sub pictures. (2) Repeat for TP802G and R351 for green, TP802R and R352 for red.	If the sub picture has a signal sag, adjust level at center point.

1 V

MAIN PICTURE WHITE

SUB PICTURE WHITE

1 V

VERTICAL SAG

CENTER POINT

3.2.4. Surround operation check

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
Input the following audio signals to the audio input of the VIDEO INPUT terminals. • When checking surround: L CH: 400Hz sine wave 475mVrms R CH: 5kHz sine wave 475mVrms • Set the AUDIO PREFERENCE SETTING for INT. SPEAKERS: ON. • Set the volume controls of FRONT and REAR to around their centers. • Set the BASS, TREBLE and BALANCE to TYP.		Note: Front waveform: Front speaker output of the set Rear waveform: Rear speaker output of the set

3.2.4.1 Surround off check

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
	(1) Set to SURROUND: OFF and check that the waveform shown below is obtained.	Note: Rear amplitude will be about 1/2 of the Front amplitude.

FRONT

L

R

REAR

L

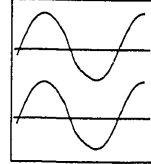
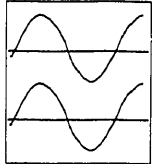
R

(5kHz)

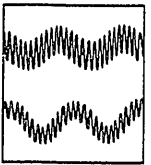
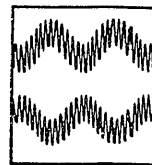
(400Hz)

Fig. 3-2-4-1

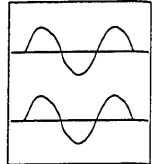
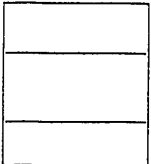
3.2.4.2 Surround off/monaural check

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
	Check that the following waveform is obtained. The amplitudes of 4 channels are equal. FRONT  L REAR  L (400Hz) (400Hz) Fig. 3-2-4-2	Note: Monaural check can be omitted.

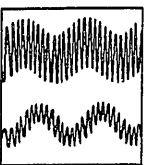
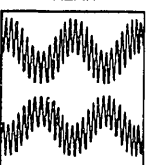
3.2.4.3 Matrix surround check

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
	(1) Set to SURROUND; MATRIX. - Check that the following waveforms are obtained. - Front: Check that the phases of R and L are different and 400Hz is superimposed on 5kHz. The amplitudes of R and L are different. - Rear: Check that the phases of R and L are opposite and 400Hz is superimposed on 5kHz. The amplitudes of R and L are different. FRONT  L REAR  L Fig. 3-2-4-3	

3.2.4.4 Matrix surround/monaural check

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
	Check that the following waveforms are obtained. - Front: R and L waveforms are almost equal. - Rear: R and L waveforms are almost equal. FRONT  L REAR  L Fig. 3-2-4-4	

3.2.4.5 Hall surround check

Preparation for adjustment	Adjustment procedure	Remarks/Waveform
	(1) Set to SURROUND; HALL. - Check that the following waveforms are obtained. - Front: Check that the phases of R and L signals are different and 400Hz is superimposed on 5kHz. - Rear: Check that the R and L are opposite and 400Hz is superimposed on 5kHz. The R and L amplitudes are equal. FRONT  L REAR  L Fig. 3-2-4-5	Note: Amplitude levels of front R and L are not even depending on the P.W.B.

3.2.4.6 Hall surround/monaural check

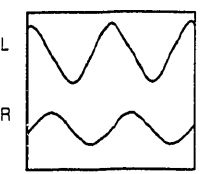
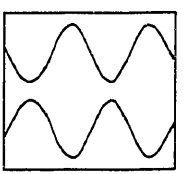
Preparation for adjustment	Adjustment procedure	Remarks/Waveform
	Check that the following waveforms are obtained. • Front: The phases of R and L are different. The amplitudes are different. • Rear: The phases of R and L are opposite. The amplitudes of R and L are equal.	Note: The monaural check can be omitted. Amplitude levels of front R and L are not even depending on the P.W.B.
FROM  REAR 		

Fig. 3-2-4-6

3.2.4.7 Dolby surround check

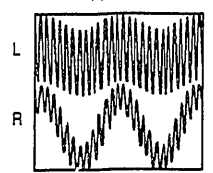
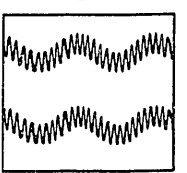
Preparation for adjustment	Adjustment procedure	Remarks/Waveform
	(1) Set to SURROUND: DOLBY. • Check that the following waveforms are obtained. • Front: 400Hz is superimposed on 5kHz. • Rear: R and L are the same signal and 400Hz is superimposed on 5kHz.	Note: MODE: PRO-LOGIC CENTER: PHANTOM Set as above.
FRONT  REAR 		

Fig. 3-2-4-7

3.2.4.8 Dolby surround/monaural check

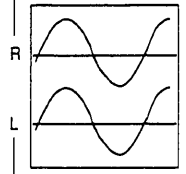
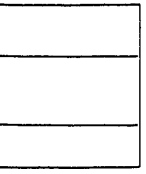
Preparation for adjustment	Adjustment procedure	Remarks/Waveform
	Check that the following waveforms are obtained. • Front: R and L are the same signal. • Rear: (Almost no output from both R and L.)	Note: Front side check can be omitted.
FRONT  REAR 		

Fig. 3-2-4-8

3.2.5 Shoot balance adjustment (R3566)

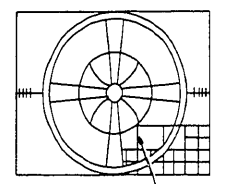
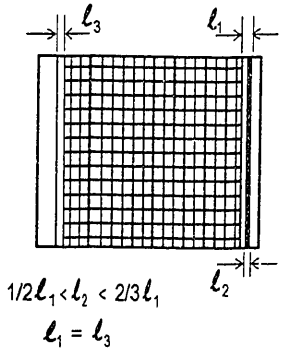
Preparation for adjustment	Adjustment procedure	Remarks/Waveform
(1) Receive the reverse cross-hatch pattern signal. (Cross-hatch lines are black.) (2) Set the video condition to factory reset. (3) Turn the shoot balance adjustment VR (R3566) fully counter-clockwise.	Gradually turn the shoot balance adjustment VR (R3566) clockwise and adjust so that the width of pre-shoot and over-shoot of the vertical line (black) shown below in the circle pattern are balanced. (Visually adjust.)	Directly observe the screen by eye without using a mirror.
 observe the vertical line to adjust		

Fig. 3-2-5

3.2.6. Horizontal AFC adjustment

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) Receive the reverse cross-hatch signal (cross-hatch lines are black). (2) Set CONTRAST to maximum BRIGHTNESS to center. (3) Lens focus should be completed. (4) Electrical focus should be coarse adjusted. (5) Dynamic convergence should be coarse adjusted. (6) Raster inclination should be completed.	(1) Project only green color. Cover R & B lenses or short 2P mini connectors on CPT P.W.B.'s. (2) Adjust H-size to minimum. R763 fully counterclockwise. (3) Adjust green centering magnet (located on DY) to shift picture left to display edge of raster. (4) Adjust AFC (R5564) so foldover of front porch occurs. Amount of foldover is 1/2 to 2/3 of front porch (l_1). 	(1) If raster edge cannot be seen, adjust GH-Pin (R2131) fully counterclockwise. (2) Front and back porch of video should be equal. (3) If adjustment is difficult with test pattern, follow adjustment 2-4.

3.3. DEFLECTION SYSTEM ADJUSTMENT

3.3.1. Raster inclination adjustment (Deflection yoke)

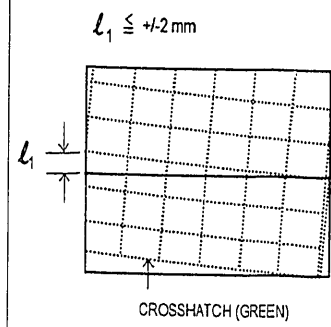
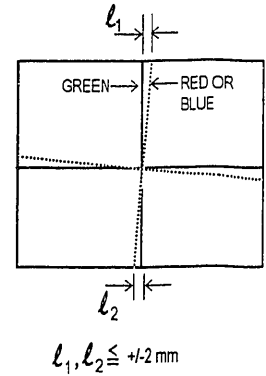
Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) The set can face east or west. (2) Input the single cross test signal. (3) CONTRAST: MAX BRIGHTNESS: CENTER (4) The lens focus adjustment should have been completed. (5) The electric focus should have been coarse adjusted. (6) The dynamic convergence should have been coarse adjusted. Set the red horizontal skew (R2109) and blue horizontal skew (R2111) adjustment VRs to the mechanical center of their rotation angles.	(1) Apply covers to the R and B lenses and project only green light. (2) Turn the G deflection yoke and adjust the vertical raster inclination. (3) Then, remove the cover of R or B lens and project red or blue light and green light together on the screen. (4) Turn the deflection yoke of R or B and set so that the inclination of R or B light with respect to the green light is as shown below on the top and bottom sides. (5) After raster inclination adjustment, fixing screw of DY should be screwed with 12 ± 2 kg-cm torque.	 

Fig. 3-3-2

3.3.2. Raster position adjustment

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) The same as item 3-3-1 (1) ~ (6). (2) The raster inclination adjustment should have been completed. (3) Set red vertical skew (R2110) and blue vertical skew (R2112) to center position. (4) Raster inclination should be adjusted. (5) Horizontal AFC should be adjusted. (6) Apply marking using the tape, etc. at the positions on the screen as shown in Fig. 3-3-2.	(1) Apply covers to the R lens and B lens, and project only green light on the screen. (2) Use the green centering magnet and adjust so that the vertical and horizontal lines of the cross pattern match the position where the markings have been applied. (3) Then remove the cover of R lens or B lens, and project the red or blue light and green light on the screen. (4) Turn the R or B centering magnet to match the color with the green light.	Note: Spec for green centering vertical direction $\pm 3\text{mm}$ horizontal direction $\pm 2.5\text{mm}$ Center of test pattern with respect to geometrical center of screen: horizontal within 30 mm vertical within 20mm Red and Blue centering with respect to green is $\pm 2\text{mm}$ in both horizontal and vertical directions.

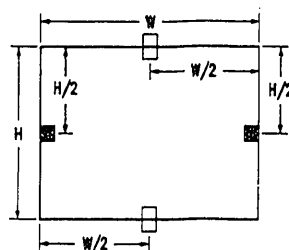
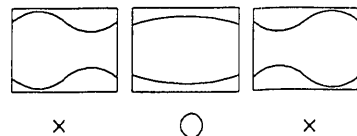


Fig. 3-3-2.

3.3.3. Pincushion distortion and keystone distortion correction (Refer to Figs. 3-4-3 and 3-4-4)

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) The screen can face any direction, north, south, east and west. (2) Display the cross-hatch pattern signal. (3) The focus adjustment of the G lens should have been completed. (4) The G raster (deflection yoke) inclination should have been adjusted. (5) The vertical amplitude and horizontal amplitude should have been coarse adjusted.	(1) Project only G on the screen using any one of following procedures. (a) Apply covers to the R and B lenses. (b) Short-circuit 2P sub mini connectors plug pins of the R and B CPT P.W.B. (2) Adjust the horizontal line of the G according to the procedure shown in Table 3-1. (3) Adjust the vertical line of the G according to the procedure shown in Table 3-2.	(1) The positions of the adjustment VRs are shown in Fig. 3-4-4. The movement of the bright line corresponding to each VR is shown in Fig. 3-4-3. (2) After this adjustment, check the raster position, vertical amplitude and horizontal amplitude of the G and adjust finally.

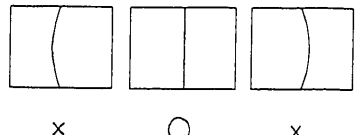
Table 3-1. The pincushion and keystone distortion correction of the horizontal green line (refer to Figs. 3-4-3 and 3-4-4).

No.	Adjustment item	Adj. VR	Adjustment details
1	Upper/lower horizontal line	Upper/lower pincushion distortion phase GV-PIN-PHASE	R2372 (1) Set the upper and lower line to the barrel pattern using the GV-PIN (R2132) and GV-U-PIN (R2138). (2) Turn R2372 and adjust so that the curves of the upper and lower lines are balanced on the left and right at the center of the screen.  (3) At this time, perform the following adjustments together. (a) Remove the inclination of the lower horizontal line using the GV-KEY (R2134). (b) Remove the inclination of the upper horizontal line using the GV-U-KEY (R2136).
2	Lower horizontal line	Upper/lower pincushion distortion GV-PIN	Correct the bow distortion of the lower horizontal line and make it a straight line.
3		Upper/lower keystone distortion GV-KEY	Remove the inclination of the lower horizontal line.
4	Upper horizontal line	Upper pincushion distortion GV-U-PIN	Correct the bow distortion of the upper horizontal line and make it a straight line.
5		Upper keystone distortion GV-U-KEY	Remove the inclination of the upper horizontal line.

Note 1. Adjustment procedure of the horizontal line (1) Phase (R2372), (2) Lower and then (3) Upper line.

Note 2. Adjust repeatedly as occasion demands.

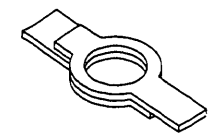
Table 3-2. The pincushion and keystone distortion correction of the vertical green line (refer to Figs. 3-4-3 and 3-4-4).

No.	Adjustment item	Adj. VR	Adjustment details
1	Center vertical line Left/right pincushion distortion phase GH-PIN-PHASE	R2183	(1) Approximately correct the bow distortion at both the left and right sides using GH-PIN (R2131) and GH-L-PIN (R2137). (2) Turn R2183 to correct the bow distortion of the center vertical line and to make it a straight line.  x ○ x Fig. 3-3-3-2
2	Right vertical line Left/right pincushion distortion GH-PIN	R2131	Correct the bow distortion of the right side vertical line and make it a straight line.
3	Left/right keystone distortion GH-KEY	R2133	Remove the inclination of the vertical line on the right side.
4	Left side vertical line Left pincushion distortion GH-L-PIN	R2137	Correct the bow distortion of the left side vertical line and make it a straight line.
5	Left keystone distortion GH-L-KEY	R2135	Remove the inclination of the vertical line on the left side.

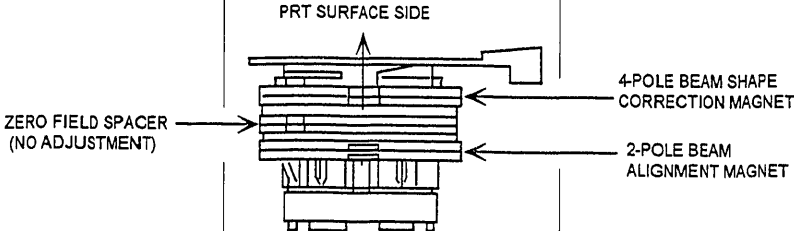
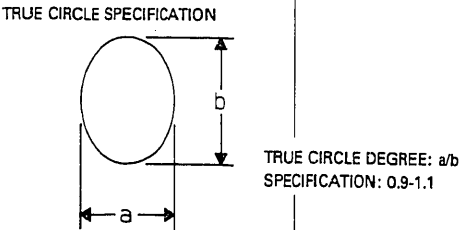
Note 1. Adjustment procedure of the vertical line (1) Phase (R2183), (2) Lines on right and then left side.

Note 2. Adjust repeatedly as occasion demands.

3.3.4.1. Beam alignment

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) Adjust at least 30 minutes after turning on power switch. (2) The static convergence data should be cleared (see section 2-1). (3) Raster inclination, centering, horizontal and vertical amplitudes and optical focus adjustment should be completed. (4) Contrast: Max. Other items: Typ. (5) Receive cross-hatch signals. (Use of internal cross-hatch signals allowed.) (6) Short-circuit all metal parts (metal fittings, centering magnet) installed on the projection tubes to GNDs of the projection tubes. <u>Since metal parts are charged with electricity, shocks may be caused if they are not short-circuited.</u>	(1) Green (G) tube beam alignment adjustment. Short-circuit 2P subminiature connector plug pins of Red (R) and Blue (B) on the CPT boards and project only Green (G) tube. (2) Put Green (G) tube beam alignment magnet to the cancel state as shown below.  The state that long and short knobs of the 2P magnet are aligned. Fig. 3-3-4-2 (3) Turn the Green (G) static focus (Focus Pack) counterclockwise all the way and make sure of position of cross-hatch center on screen. (4) Turn Green (G) static focus (Focus Pack) clockwise all the way. (5) Turn two magnets forming alignment magnet in any desired direction and move cross-hatch center to position found in (3). (6) If image position does not shift when Green (G) static focus (Focus Pack) is turned, Green (G) beam alignment has been completed. (7) If image position shifts when Green (G) static focus (Focus Pack) is turned, repeat (2)-(6). (8) Conduct beam alignment for Red (R) and Blue (B) in the same way. Red (R) focus: Focus Pack CP702 Blue (B) focus: Focus Pack CP702 (9) Upon completion of adjustment, fix beam alignment magnets with white paint.	Halo state. Blooming state.

3.3.4.2. Beam shape adjustment

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) The beam alignment should have been completed. (2) The raster inclination, centering, horizontal/vertical amplitude and optical focus adjustments should have been completed. (3) Contrast: Max. Other time: Typ. (4) Input the dot signal.	(1) Green PRT beam shape adjustment. Short-circuit 2P submini connectors on Red and Blue CPT P.W.B.s to project only the Green beam (2) Turn the green static focus fully clockwise. (3) Make the dot at the screen center a true circle using the 4-pole magnet shown below. (4) Also adjust the Red and Blue PRT beam shapes according to the steps (1) to (3). (5) After the adjustment is completed, return R, G and B static VRs to the Just focus point.	Blooming
		
		

3.3.4.3. Static focus adjustment

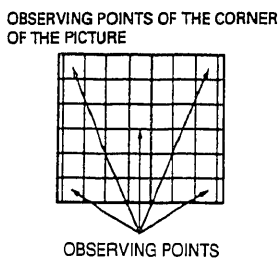
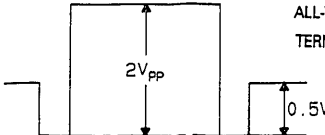
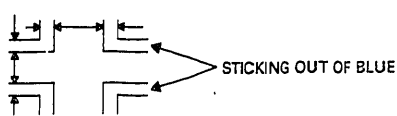
Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) The raster inclination, centering, horizontal/vertical amplitude and optical/electrical focus beam alignment should have been adjusted. (2) The static convergence data should be cleared. (3) Contrast: More than MAX-5 STEP Brightness: Center (Reset point) (4) Receive the cross-hatch pattern signal. (5) Apply covers to the lenses of colors other than the color to be adjusted and project a single color.	(1) Red (R), Green (G) and Blue (B) static focus adjustment. Vary the static focus VR (focus pack CP702) and make the center of the cross-hatch pattern clearest. (2) Observe the corners of the picture and check that the focus does not get conspicuously worse.	
		

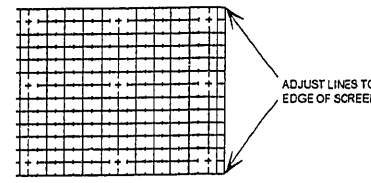
Fig. 3-3-4-4

3.3.5. Blue defocus adjustment

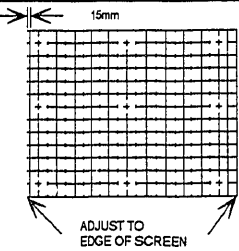
Preparation for Adjustment	Adjustment procedure	Remarks/Waveform						
(1) Optical and electrical focus adjustment should have been completed. (2) The convergence adjustment should have been completed. Coarse-adjustment is acceptable for convergence. (3) Brightness: Max. Other items: Typ.	(1) Input an all-white signal shown below to VIDEO input. (2) Short-circuit 2P sub-mini connectors on the red and green CPT P.W.B.s to display only the blue beam. (3) Turn the B static (Focus Pack) fully clockwise. (4) Measure the brightness at the center of the screen and turn the B static (Focus Pack) counter-clockwise to adjust the brightness of blue as shown in Table below. (5) After the adjustment is completed, if blue exceeds the specification, turn and adjust focus so that the sticking out part of blue satisfies the specification.	Cautions Correct the brightness gauge and amplitude of the all-white signal periodically. The aperture angle of the brightness gauge is 1°.						
 ALL-WHITE SIGNAL WAVEFORM TERMINATION CONDITION: OPEN  STICKING OUT OF BLUE UNEVENNESS SPECIFICATION: $\pm 1\text{cd/m}^2$								
Fig. 3-3-5 Defocus brightness specification <table><tr><th>Screen Size</th><th>Brightness of Blue</th></tr><tr><td>46"</td><td>45 cd/m²</td></tr><tr><td>50"</td><td>38 cd/m²</td></tr></table>			Screen Size	Brightness of Blue	46"	45 cd/m ²	50"	38 cd/m ²
Screen Size	Brightness of Blue							
46"	45 cd/m ²							
50"	38 cd/m ²							

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform						
	Defocus sticking out specification <table><tr><th>Screen Size</th><th>Blue sticking out</th></tr><tr><td>46"</td><td>2.0 mm</td></tr><tr><td>50"</td><td>2.0 mm</td></tr></table> Condition: User controls are set to the initial set positions (for shipment) Measuring point Screen center	Screen Size	Blue sticking out	46"	2.0 mm	50"	2.0 mm	Use a cross-hatch pattern to check (Select CONVERGENCE ADJUST from the VIDEO menu then press the "100" key.)
Screen Size	Blue sticking out							
46"	2.0 mm							
50"	2.0 mm							

3.3.6. Vertical amplitude adjustment (R622)

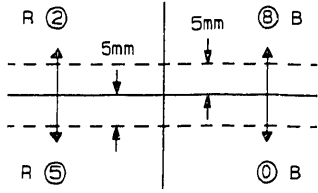
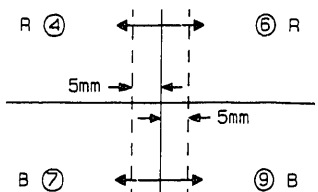
Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) Start adjustment more than 5 minutes after the power is turned on. (2) The pincushion distortion and the horizontal keystone distortion adjustment should have been completed. (3) Receive the broadcast signal. (4) Select the internal cross-hatch from the CONVERGENCE ADJUST menu, then press the "100" key on the remote control. (5) Set the contrast control to maximum and brightness control to center. (6) Apply cover to the R and B lenses or short-circuit the 2P sub-mini plug pins to the R and B CPT P.W.B. and project only Green on the screen.	(1) Turn R622 and adjust as shown in Fig. 3-3-6.  Fig. 3-3-6	

3.3.7. Horizontal amplitude adjustment (R635)

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) The same as items 3-3-6 (1) ~ (6).	(1) Turn the size control VR (R635) and adjust so that the second vertical line of the cross-hatch pattern is set 15mm from the left edge of the screen and the last vertical line (line 15) is set to the right edge of the screen.  Fig. 3-3-7	

3.4. CONVERGENCE ADJUSTMENT

3.4.1. Static convergence adjustment

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) The screen can face east or west. (2) Display the cross pattern signal or the cross-hatch pattern signal. (3) R, G and B lens focus adjustment and R, G and B raster inclination adjustment should have been completed. (4) The following adjustment for G raster should have been completed. (5) R and B raster position (centering magnet) adjustment should have been completed. (6) The dynamic convergences should have been coarse adjusted previously.	(1) Set to the CONVERGENCE mode using the MENU button of the remote control transmitter. (2) Check that the variable range of the static convergence adjustment is obtained as shown below using the cursor buttons of the remote control transmitter. (3) RV, BV  Fig. 3-4-1 RH, BH  Fig. 3-4-2 If the adjustment cannot be done, turn the centering magnets for R and B and re-adjust the R and B raster position.	(1) Refer to page 14 for static convergence adjustment. (2) Press the "100" key to display a complete cross-hatch. (3) Static convergence is set to standard mode during memory initialization.

3.4.2. Dynamic convergence adjustment

Preparation for Adjustment	Adjustment procedure	Remarks/Waveform
(1) The screen can face any direction, north, south, east and west. (2) Start adjustment 20 minutes or more after the power switch is turned on. (3) Display the cross-hatch pattern signal. (4) The following adjustments should have been completed for R, G and B. (a) Lens focus (b) Raster (deflection yoke) inclination (c) Raster position (5) The following adjustments should have been completed for the G raster. (a) Pincushion distortion (b) Keystone distortion (c) Vertical amplitude (d) Horizontal amplitude (6) Horizontal AFC adjustment should be completed. (7) Contrast: Max. Brightness: Center (8) Static convergence should be set to standard mode (memory initialization).	(1) R adjustment Match the R with the G following the procedure shown in Tables 3-4-1 and 3-4-2. At the same time, perform the static convergence adjustment of R. (2) B adjustment Match the B with the G following the procedure shown in Tables 3-4-1 and 3-4-2. At the same time, perform the static convergence adjustment of B. (3) Adjust repeatedly so that the amount of misconvergence of all colors is minimized. (a) If convergence of the vertical line at the right end is drifted, match it using R2193 (red) or R2195 (blue). (b) If convergence of the vertical line at the left end is drifted, match it using R2194 (red) or R2196 (blue). (4) After adjustment, re-adjust R and B raster position. (5) After the static convergence adjustment and dynamic convergence adjustment are completed, fix the centering magnet (located on the R and B deflection yokes) using white paint.	(1) When adjusting the R, turn off the B using any one of the following procedures as required. (a) short-circuit the 2P subminiature connector plug pins on the B CPT P.W.B. (b) Apply cover to the B lens. (2) When adjusting the B, turn off the R using any one of the following procedures as required. (a) short-circuit the 2P subminiature connector plug pins on the R CPT P.W.B. (b) Apply cover to the R lens. (3) The position of VRs and the movement of the bright lines are shown in Fig. 3-4-3 and Fig. 3-4-4.

Table 3-4-1. Dynamic convergence adjustment of the horizontal line (RED/BLUE)

No.	Adjustment item		Adj. VR		Adjustment details
			RED	BLUE	
1	Horizontal center line	Vertical skew V-SKEW	R2110	R2112	Remove the inclination of the horizontal center line.
2		Vertical bow V-BOW	R2114	R2116	Correct the bow distortion of the horizontal center line and make it a straight line.
3	Lower horizontal line	Upper/lower pincushion distortion V-PIN	R2126	R2128	Correct the bow distortion of the lower horizontal line and make it a straight line.
4		Upper/lower keystone distortion V-KEY	R2118	R2120	Remove the inclination of the lower horizontal line.
5	Upper horizontal line	Upper pincushion distortion V-U-PIN	R2141	R2142	Correct the bow distortion of the upper horizontal line and make it a straight line.
6		Upper keystone distortion V-U-KEY	R2122	R2124	Remove the inclination of the upper horizontal line.
7	Upper/lower horizontal line	Vertical size V-SIZE	R2102	R2104	Match the upper/lower horizontal line with the green line by changing the vertical size.
8		Vertical linearity V-LIN	R2106	R2108	Match the upper/lower horizontal line with the green line by changing the linearity.

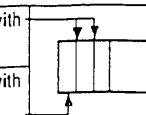
Note

1. Adjustment procedure of the horizontal lines (1) Center, (2) Lower, (3) Upper and then (4) Upper/Lower.
2. Accurately match the horizontal center lines (red/blue) with the green line using the centering magnets (item 3-3-2).
3. Including centering magnets, adjust repeatedly as required.

Table 3-4-2. Dynamic convergence adjustment of the vertical line (RED/BLUE)

No.	Adjustment item		Adj. VR		Adjustment details
			RED	BLUE	
1	Vertical Center line	Horizontal skew H-SKEW	R2109	R2111	Remove the inclination of the vertical center line.
2		Horizontal bow H-BOW	R2113	R2115	Correct the bow distortion of the vertical center line and make it a straight line.
3	Right side vertical line	Left/right pincushion distortion H-PIN	R2125	R2127	Correct the bow distortion of the right side vertical line and make it a straight line.
4		Left/right keystone distortion H-KEY	R2117	R2119	Remove the inclination of the right side vertical line.
5		Horizontal size H-SIZE	R2101	R2103	Match the 3rd vertical line from the right end with the green line.
6		Horizontal linearity H-LIN	R2105	R2107	Match the 2nd vertical line from the right end with the green line.
7		Right end line linearity H-R-LIN	R2193	R2195	Match the right end line with the green line.

No.	Adjustment item		Adj. VR		Adjustment details
			RED	BLUE	
8	Left vertical line	Left pincushion distortion H-L-PIN	R2129	R2130	Correct the bow distortion of the left side vertical line and make it a straight line.
9		Left keystone distortion H-L-KEY	R2121	R2123	Remove the inclination of the vertical line on the left side.
10		Left horizontal size H-L-SIZE	R2139	R2140	Match the left side vertical line with the green line.
11		Left end line linearity H-L-LIN	R2194	R2196	Match the left end vertical line with the green line.



Note

1. Adjustment procedure of the vertical lines (1) Center, (2) Right, and then (3) Left line.
2. Accurately match the vertical center lines (red/blue) with the green line using the centering magnets (item 3-3-2).
3. The right end/left end line adjustment VRs shown in Items 7 and 11 of above table, R2193, R2195, R2194 and R2196, should have been set to the mechanical centers previously.
4. Including centering magnets, adjust repeatedly as required.

MOVEMENT OF THE BRIGHT LINE

(This shows the movement of the bright line corresponding to the adjustment VR.)

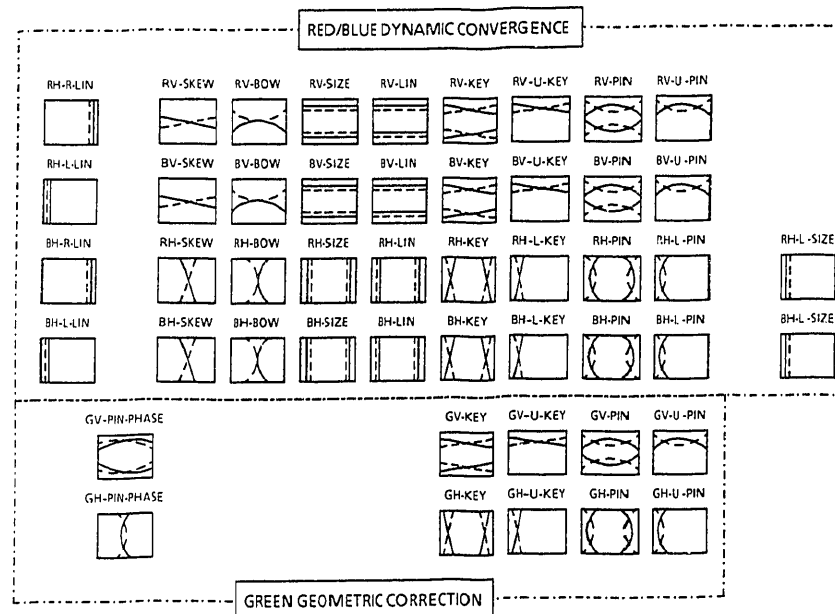


Fig. 3-4-3

LAYOUT OF THE ADJUSTMENT VR

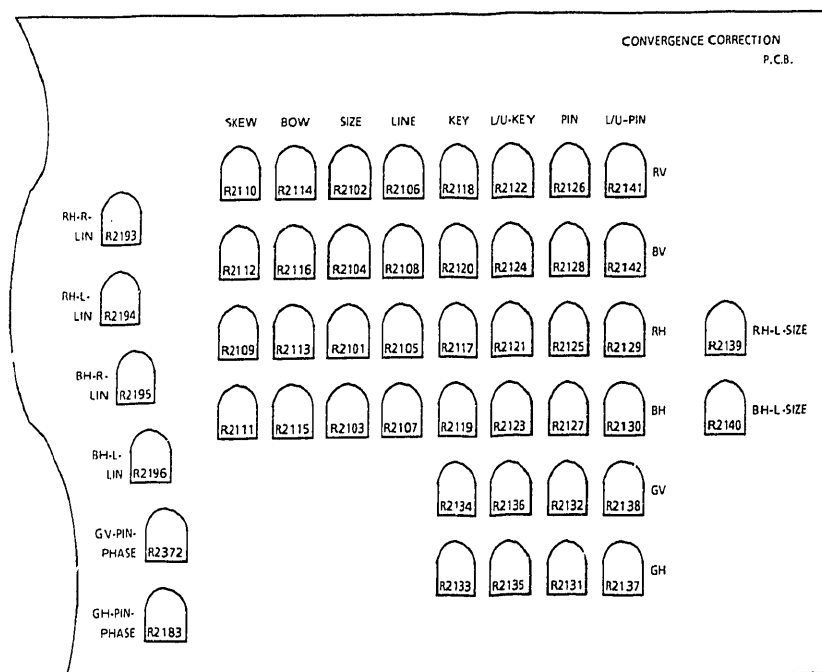
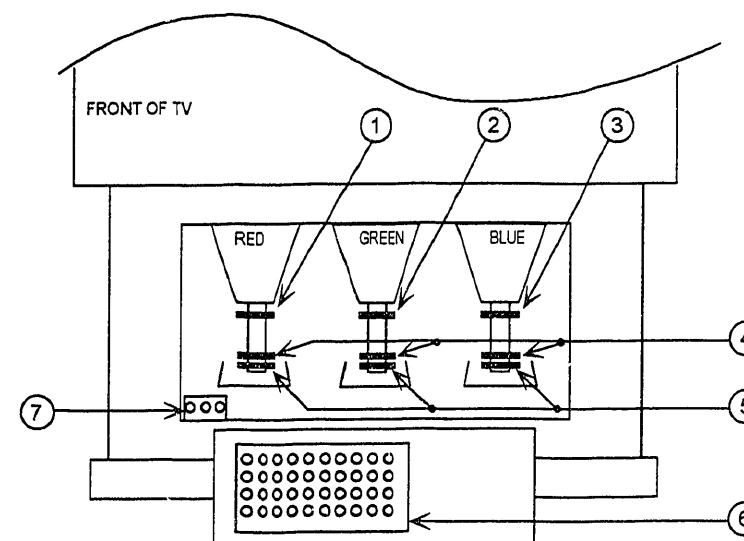


Fig. 3-4-4

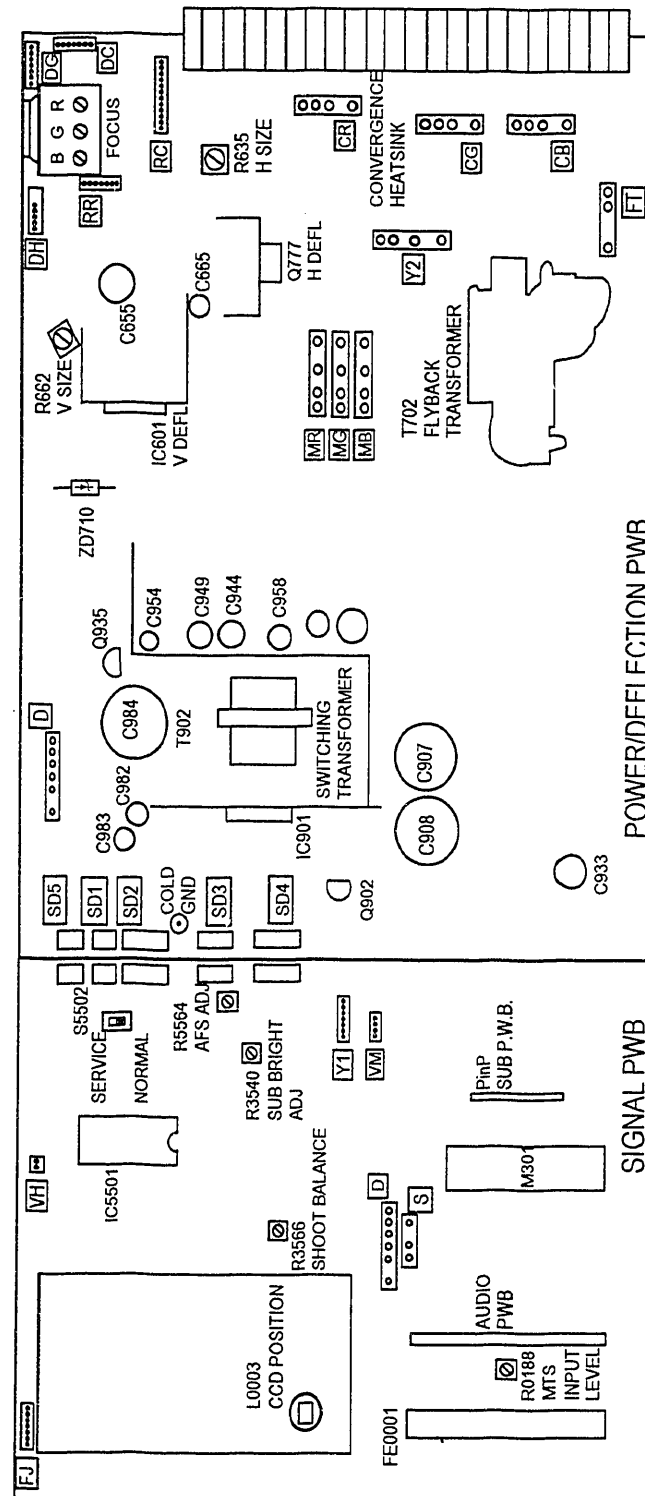
4. ADJUSTMENT POINT

4.1. CRT, cabinet locations

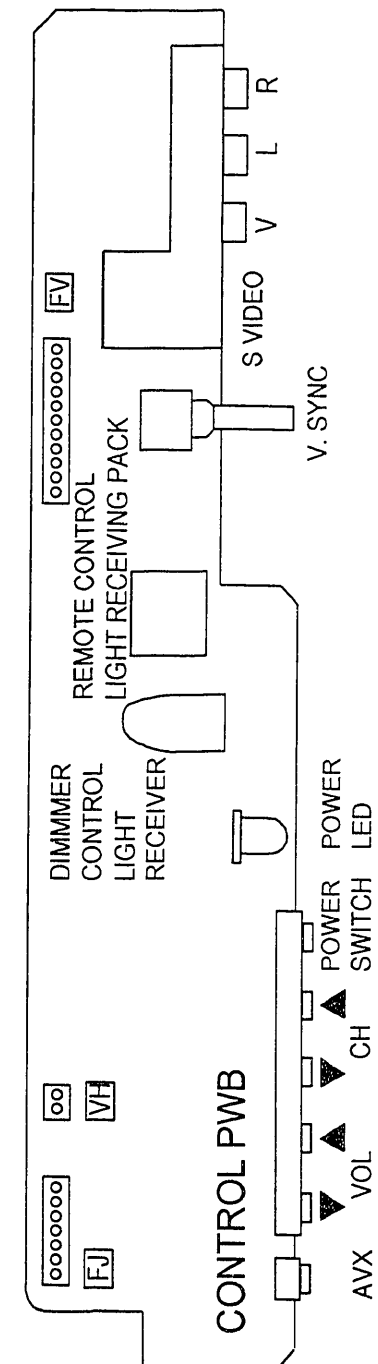
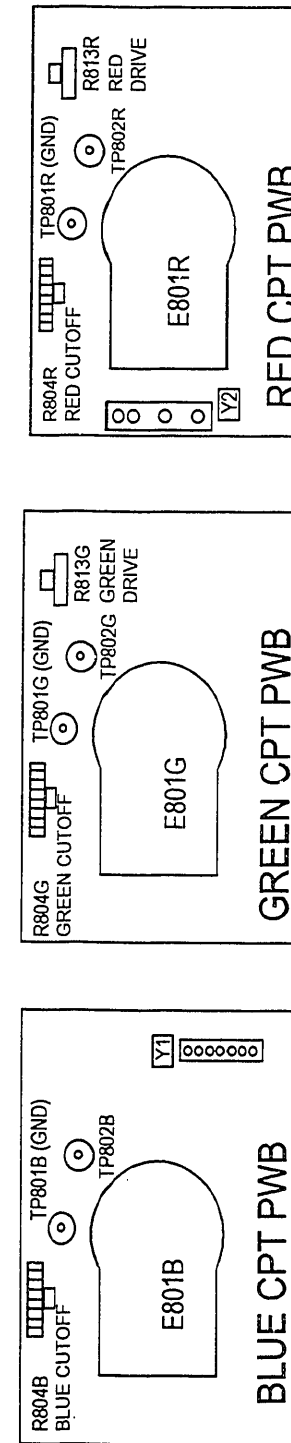


1. CENTERING MAGNET FOR RED PRT
2. CENTERING MAGNET FOR GREEN PRT
3. CENTERING MAGNET FOR BLUE PRT
4. 4-POLE MAGNET FOR BEAM FORM ADJUSTMENT
5. BEAM ALIGNMENT MAGNET
6. CONVERGENCE CORRECTION PWB
7. FOCUS PACK

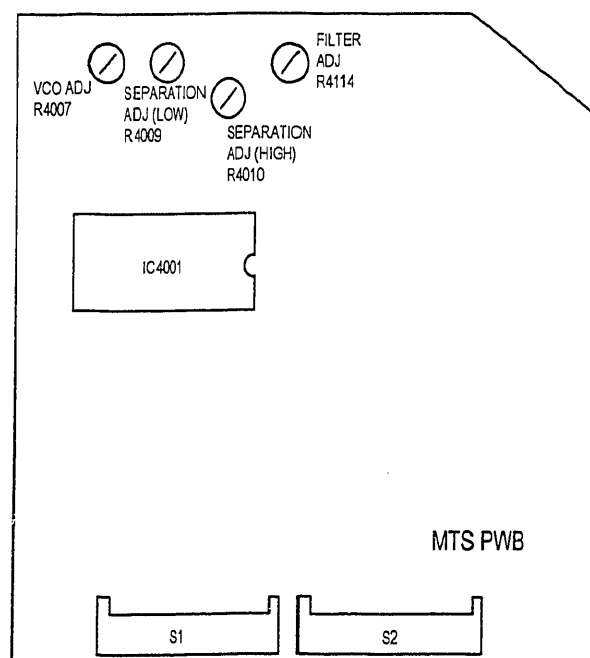
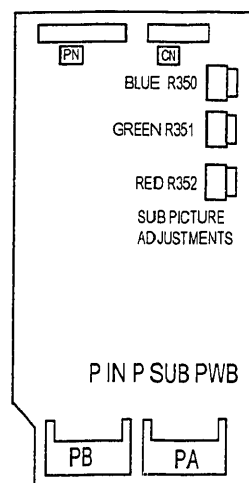
4.2. Signal P.W.B., power/deflection P.W.B. adjustment points



4.3. CPT P.W.B., control P.W.B. adjustment points

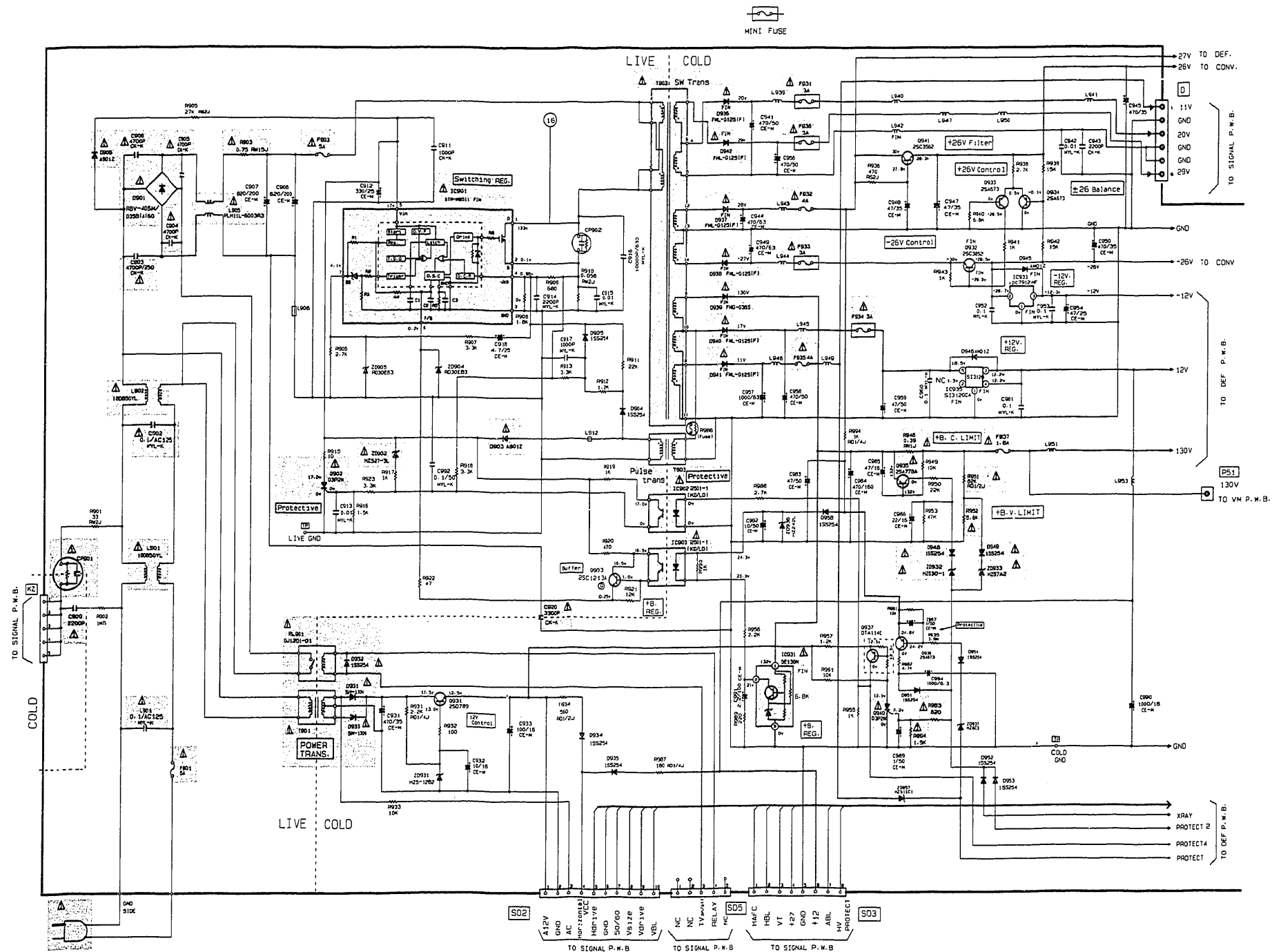


4.4. P-in-P sub P.W.B., MTS P.W.B. adjustment points



BASIC CIRCUIT DIAGRAM

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



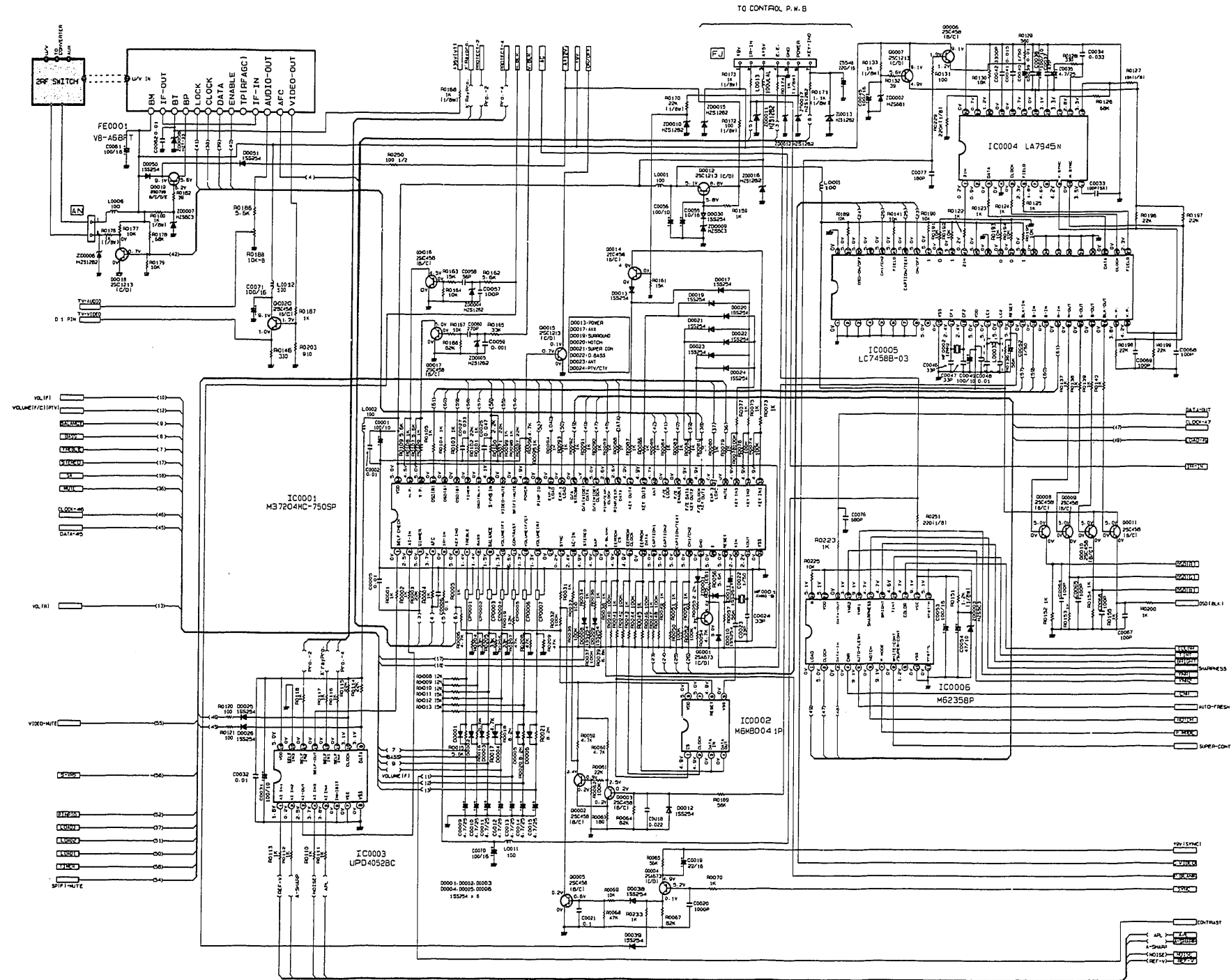
AP43 POWER SUPPLY

• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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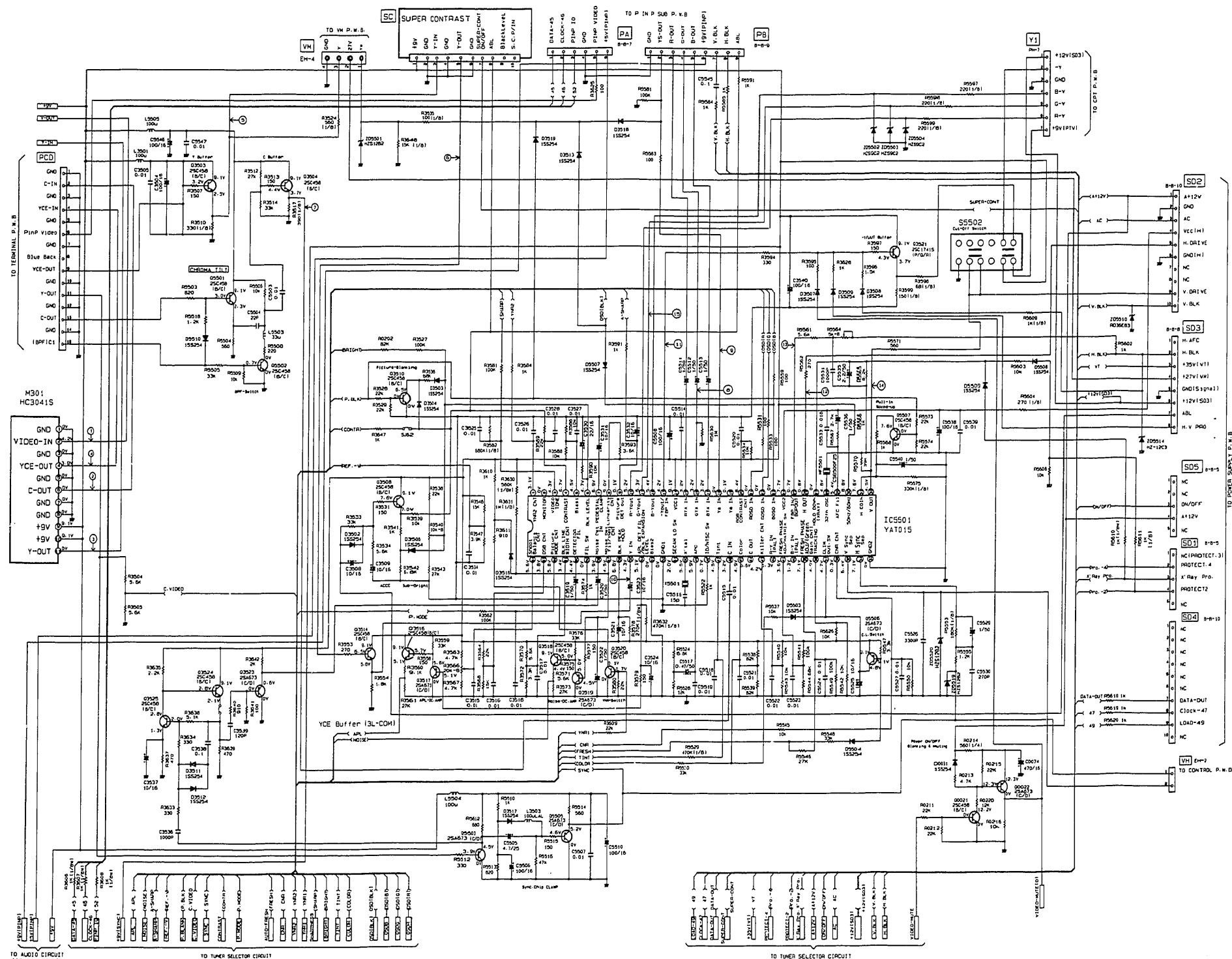
AP43 CHASSIS SIGNAL P.W.B. (1/3)

• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

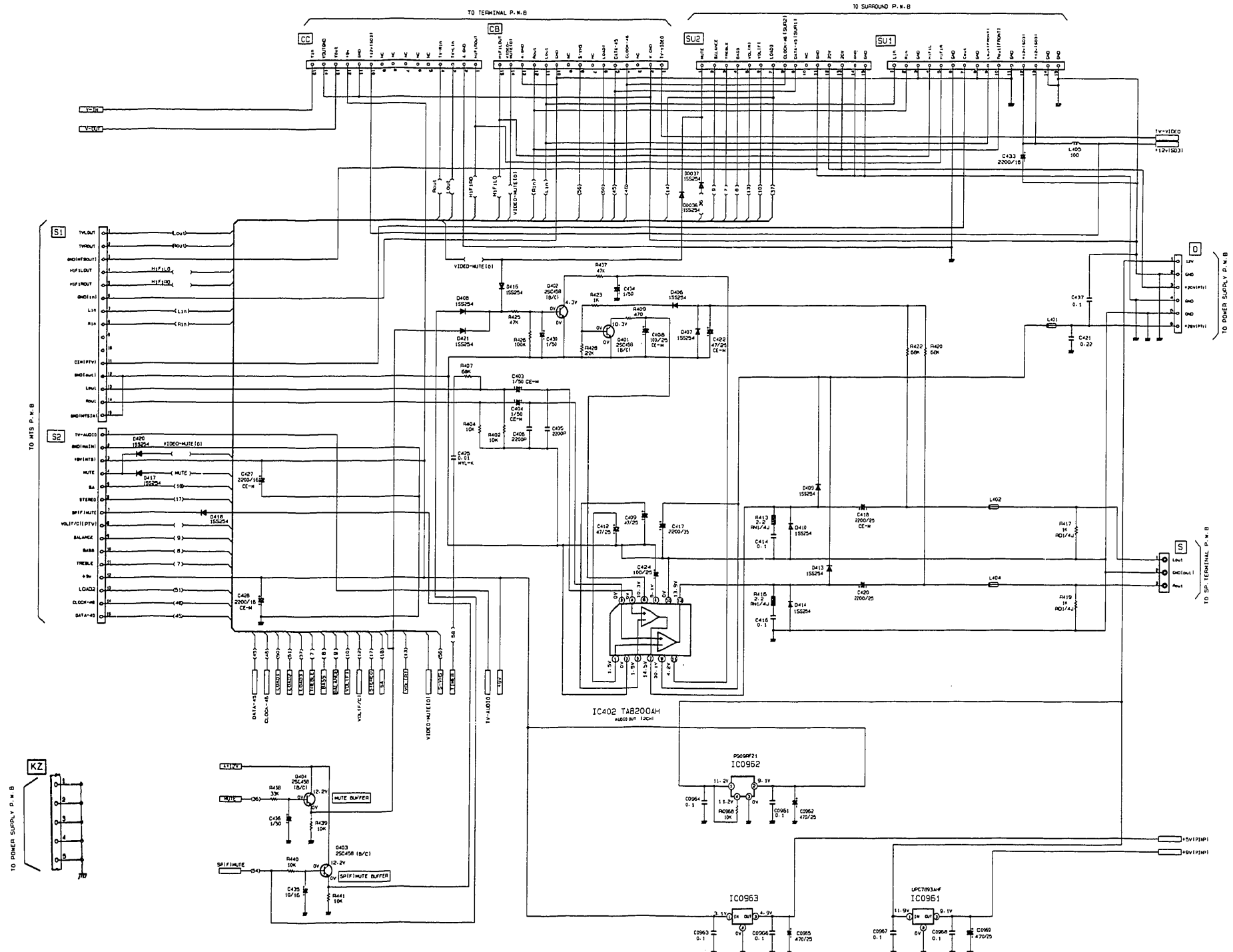
PRODUCT SAFETY NOTE: Components marked with a  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the **PRODUCT SAFETY NOTICE** of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



AP43 CHASSIS SIGNAL P.W.B. (2/3)

BASIC CIRCUIT DIAGRAM

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



AP43 CHASSIS SIGNAL P.W.B. (3/3)

• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

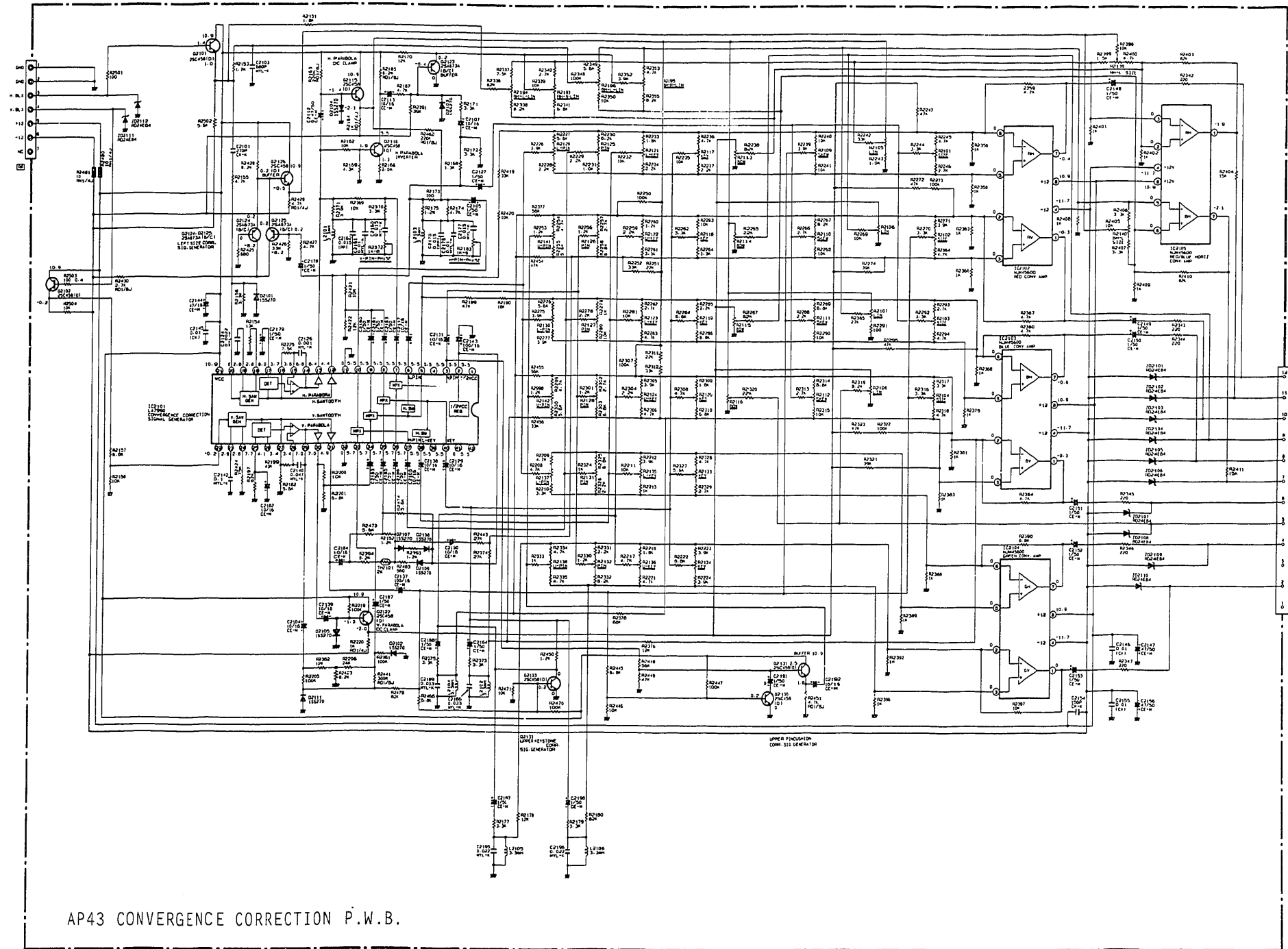
PRODUCT SAFETY NOTE: Components marked with a and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the **PRODUCT SAFETY NOTICE** of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



- All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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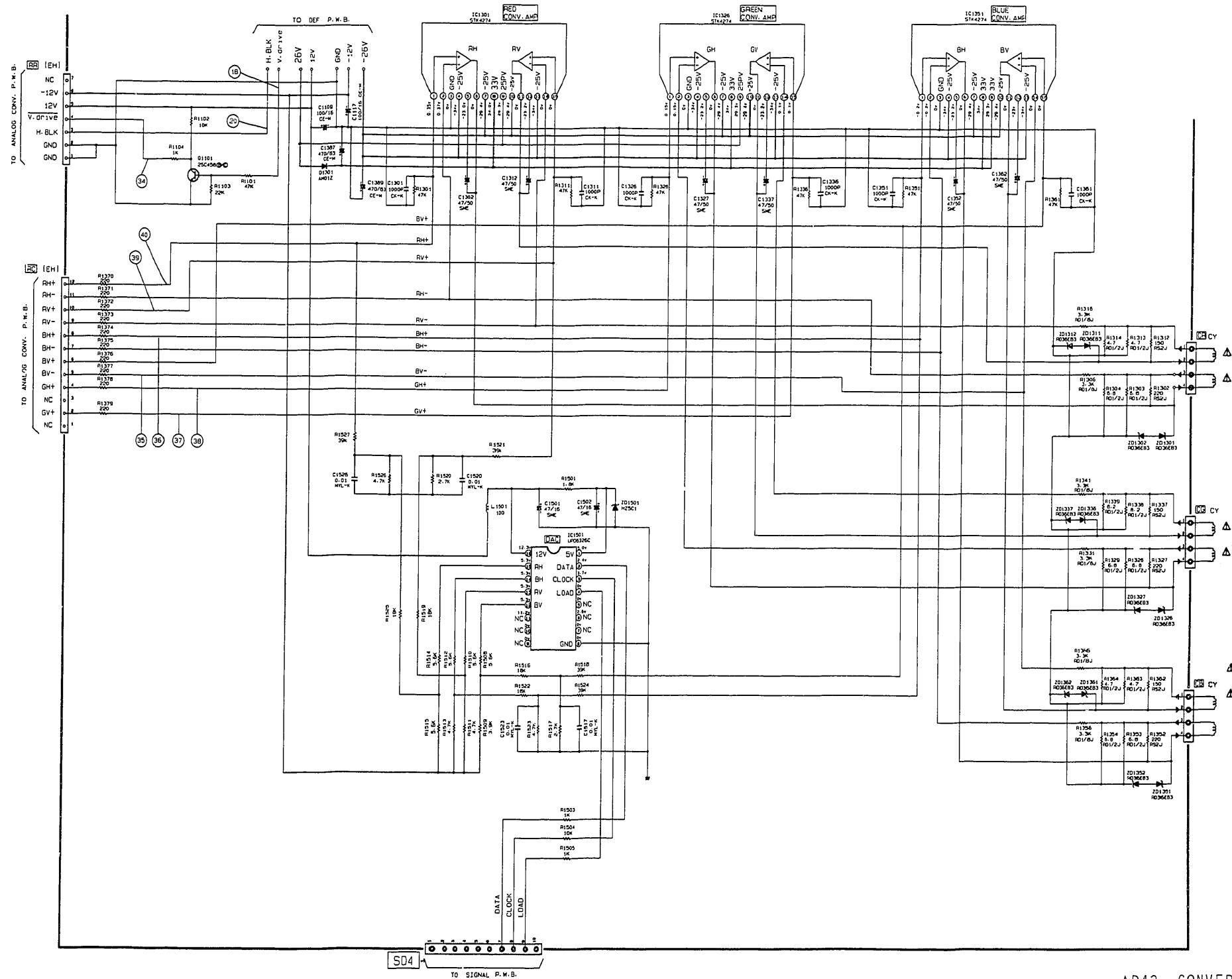
AP43 CONVERGENCE CORRECTION P.W.B.

• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

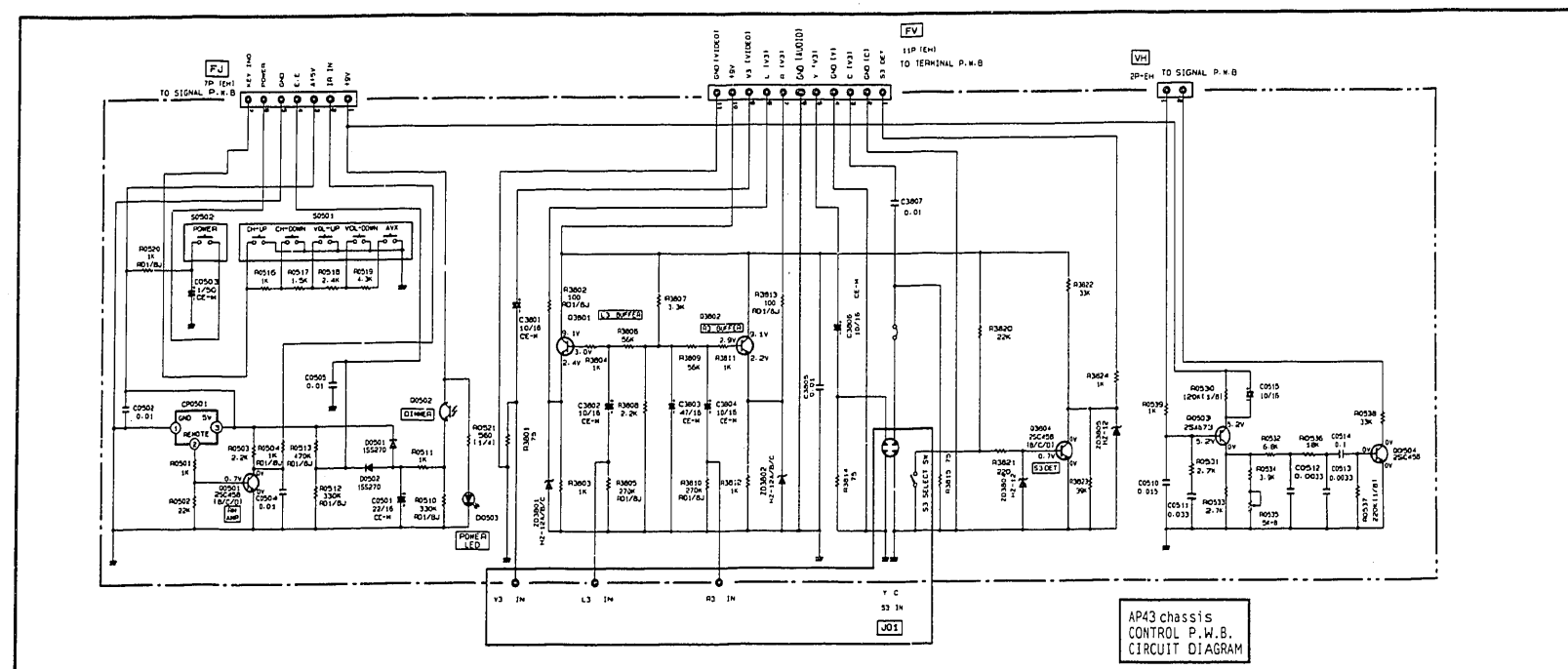
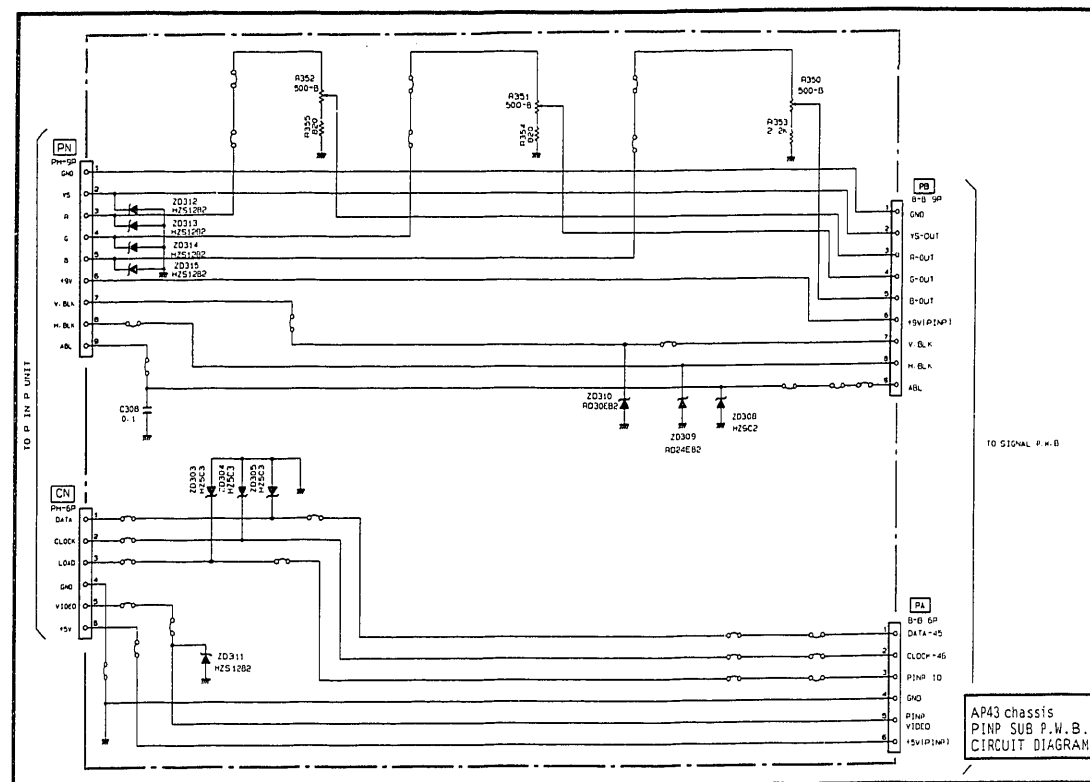
PRODUCT SAFETY NOTE: Components marked with a Δ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

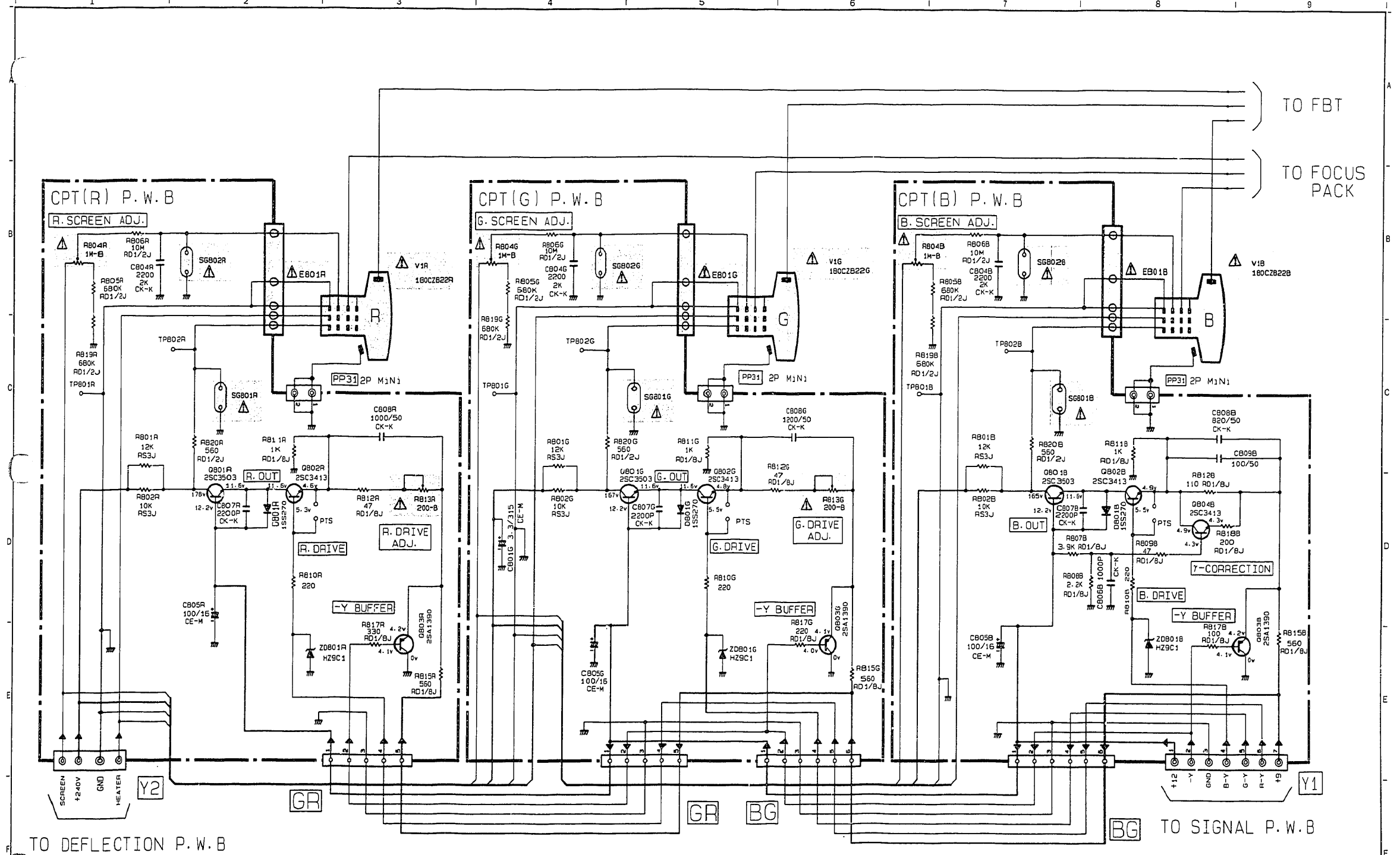
PRODUCT SAFETY NOTE: Components marked with a and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the **PRODUCT SAFETY NOTICE** of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



• All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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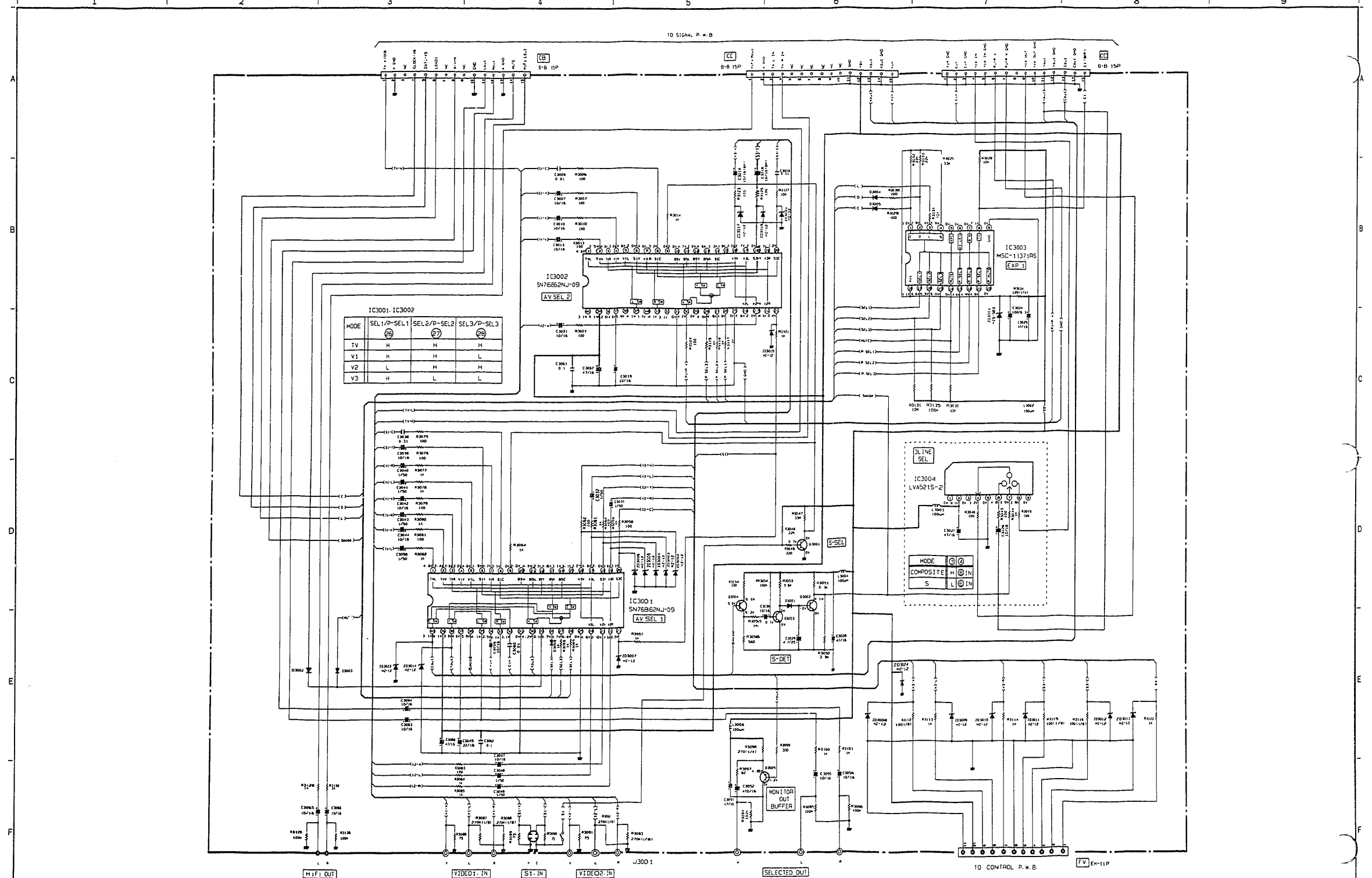


• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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



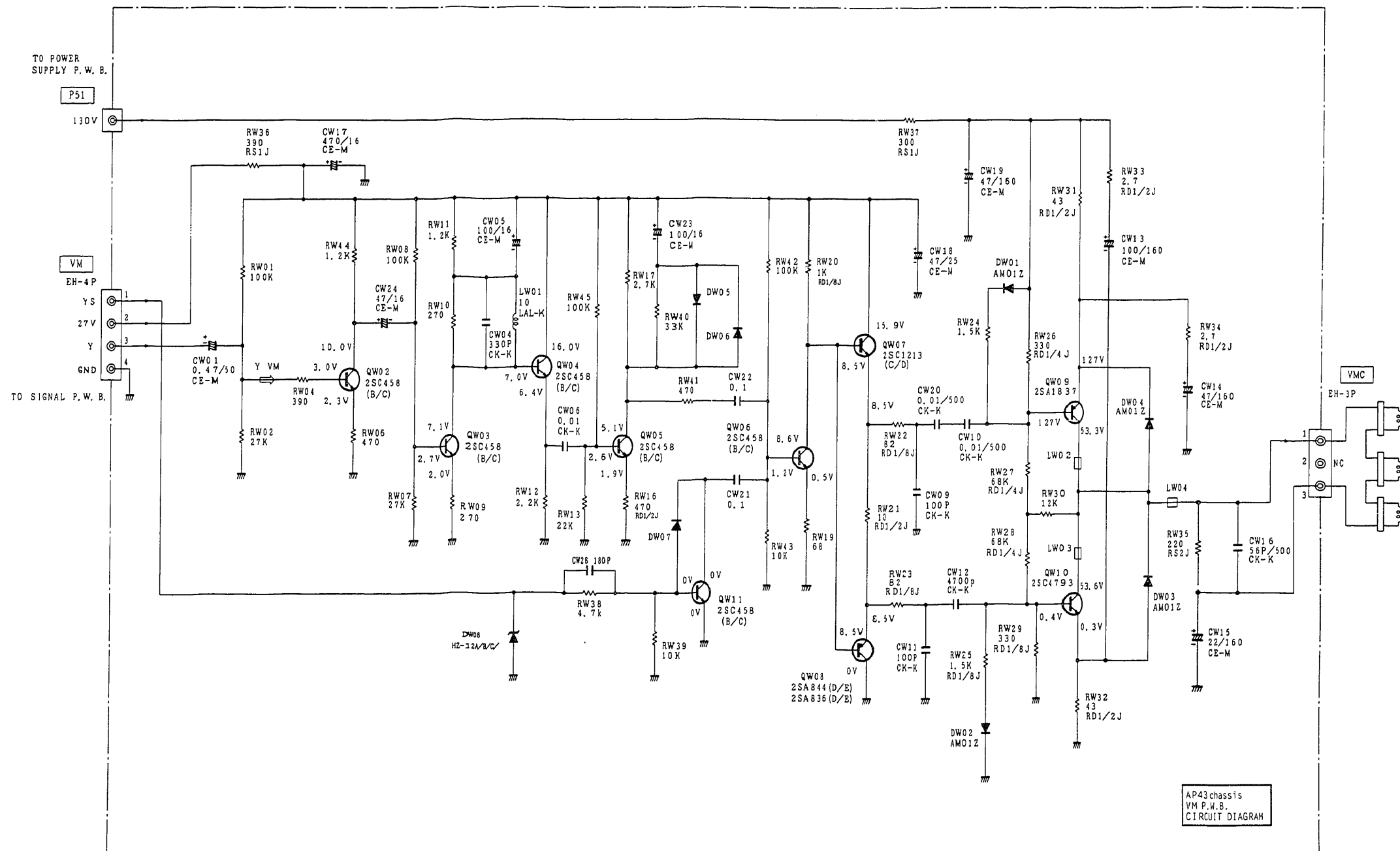
AP43 TERMINAL P.W.B.

• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

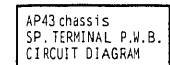
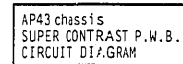
PRODUCT SAFETY NOTE: Components marked with a Δ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



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• All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

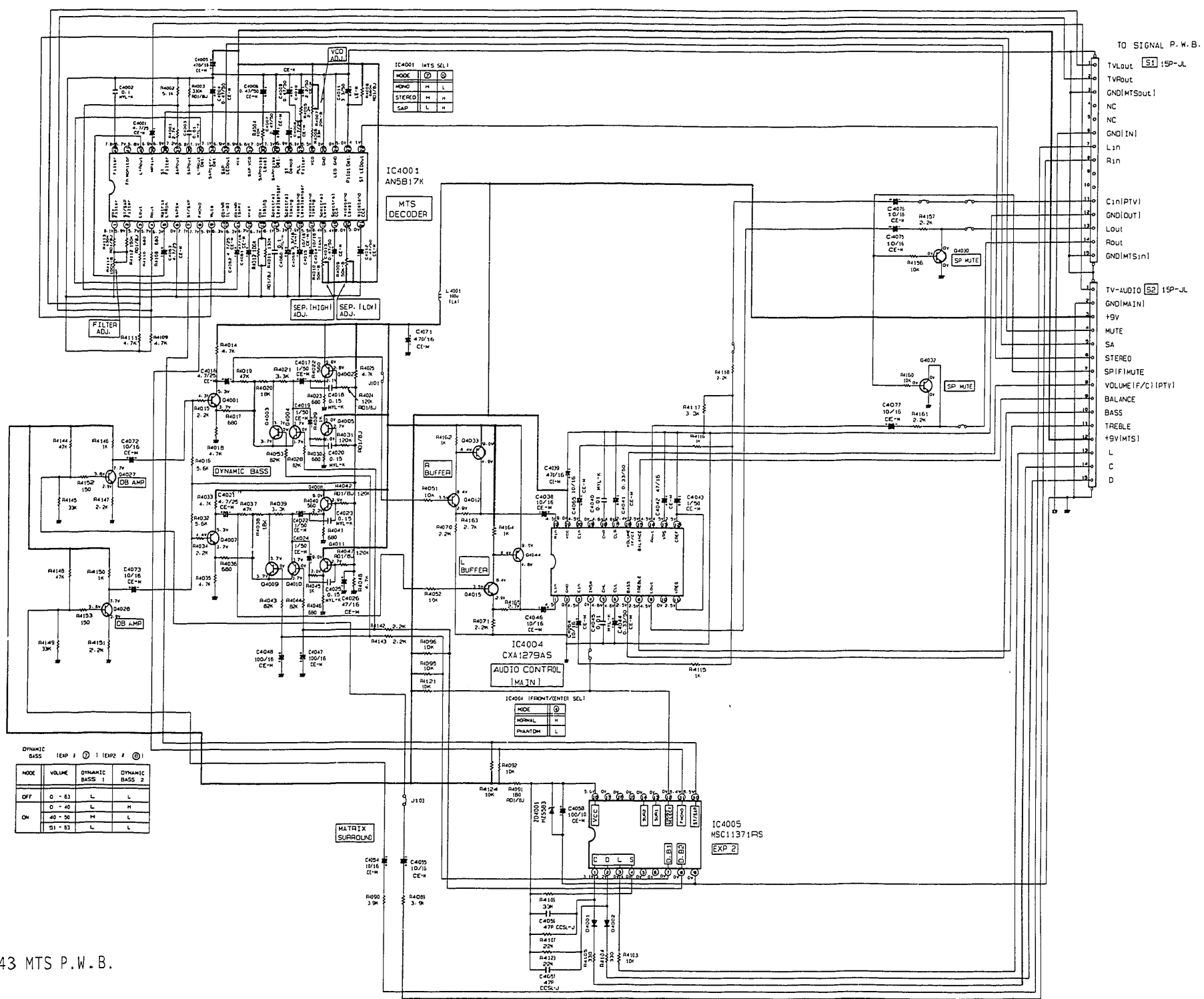
PRODUCT SAFETY NOTE: Components marked with a and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the **PRODUCT SAFETY NOTICE** of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



- All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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AP43 MTS P.W.B.

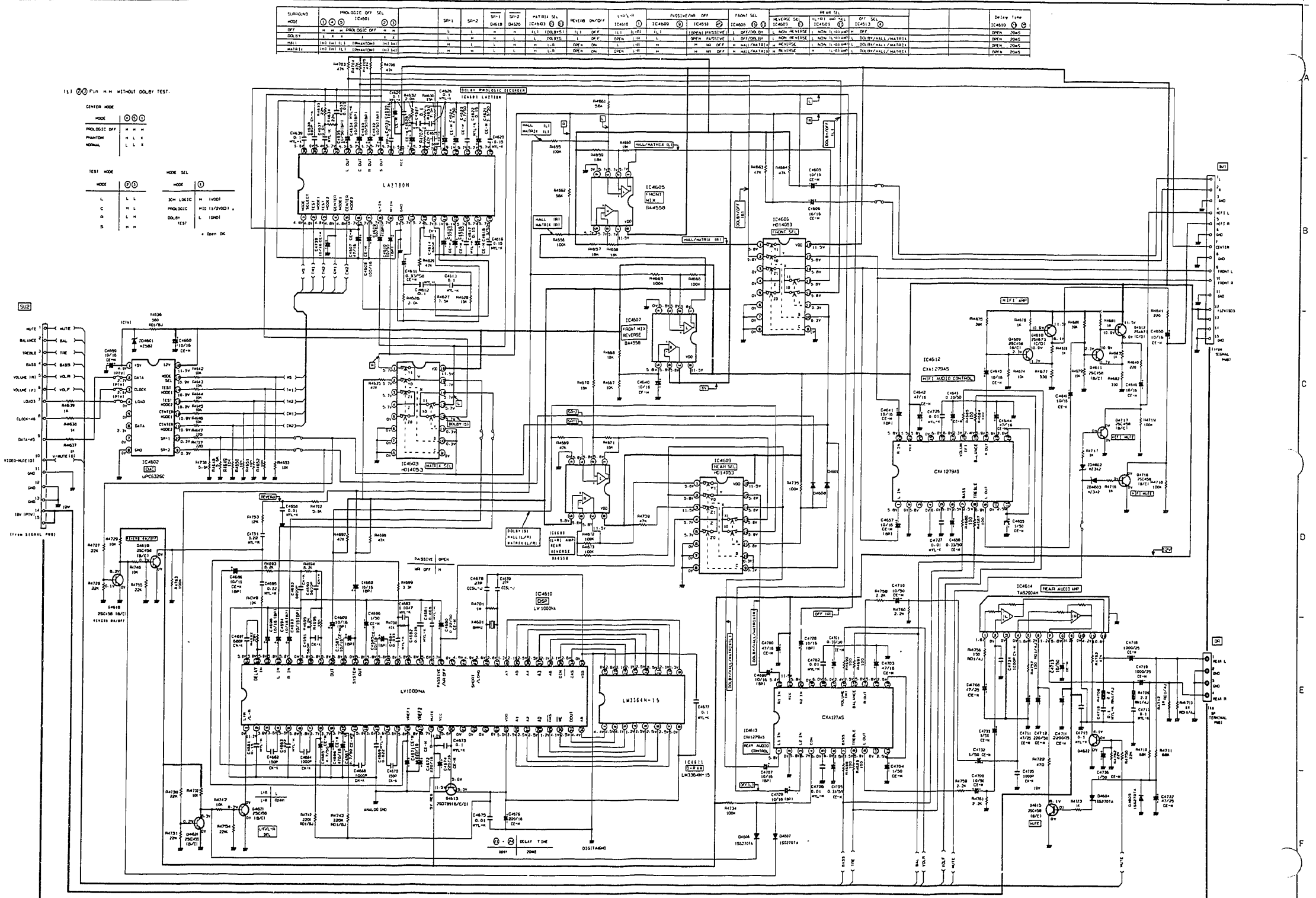
• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

BASIC CIRCUIT DIAGRAM

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

1 2 3 4 5 6 7 8 9



1 2 3 4 5 6 7 8 9

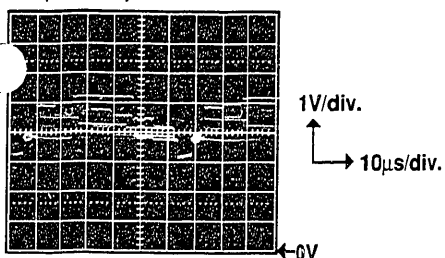
• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

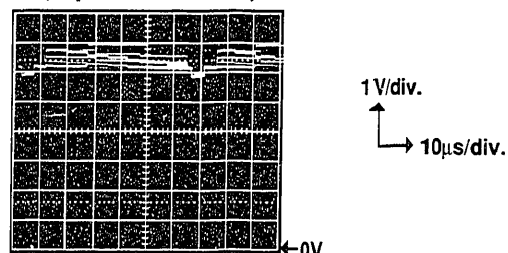
AP43 SURROUND P.W.B.

WAVEFORMS AT EACH SECTION

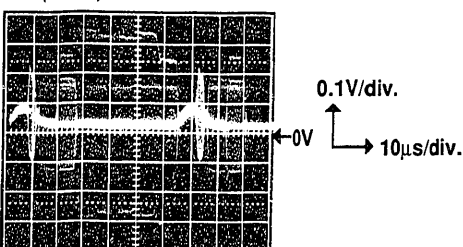
① M301 pin 2
(Video in)



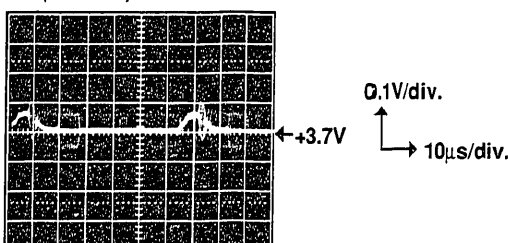
⑥ SC-connector pin 5
(Super Contrast Y-out)



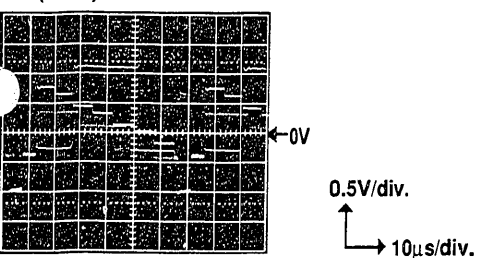
② M301 pin 6
(C-out)



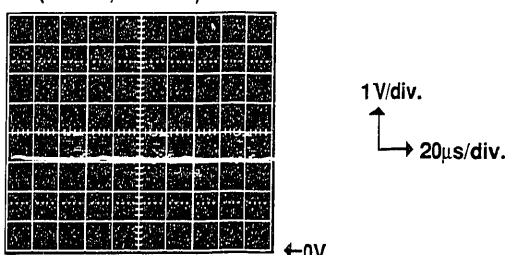
⑦ Q3504 emitter
(C-buffer)



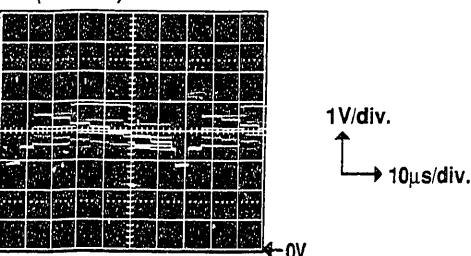
③ M301 pin 11
(Y-out)



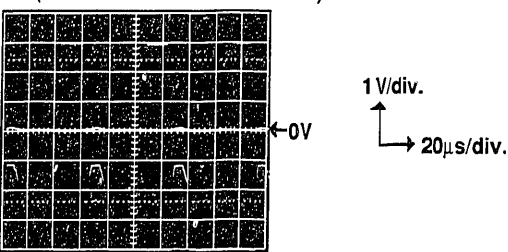
⑧ IC5501 pin 16
(GTX in, PinP on)



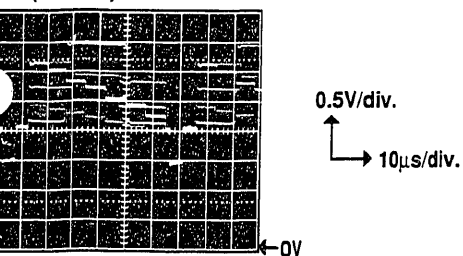
④ M301 pin 4
(YCE-out)



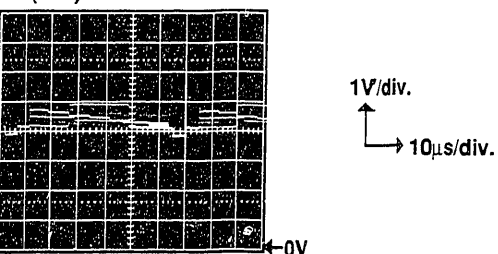
⑨ IC5501 pin 18
(Ys-PinP with H.Blk. reference)



⑤ Q3503 Emitter
(Y-buffer)

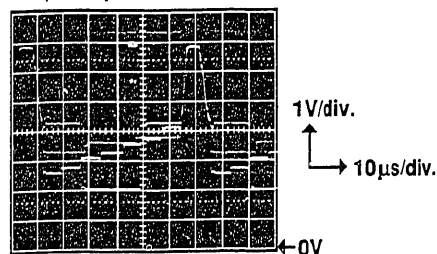


⑩ IC5501 pin 55
(Y-in)

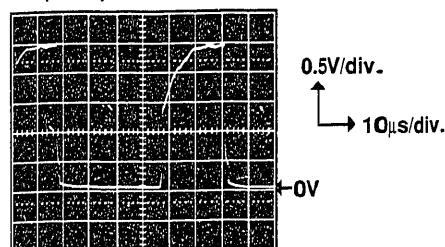


WAVEFORMS AT EACH SECTION

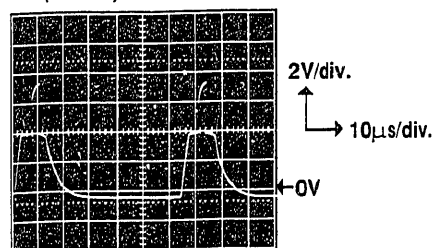
⑪ IC5501 pin 13
(-Y out)



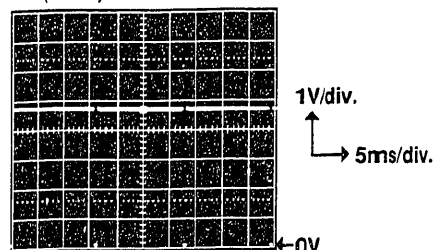
⑫ IC5501 pin 26
(H-out)



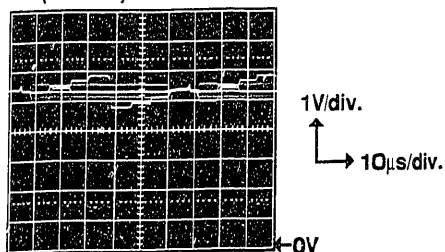
⑬ IC5501 pin 25
(FB Pin)



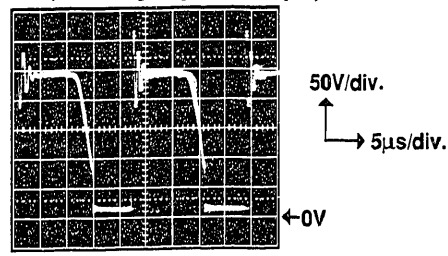
⑭ IC5501 pin 32
(V out)



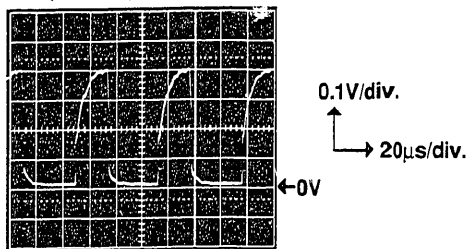
⑮ IC5501 pin 11
(G-Y out)



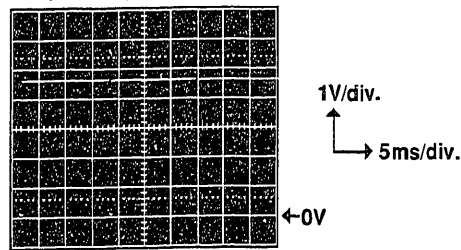
⑯ IC901 pin 1
(Switching Regulator Output)



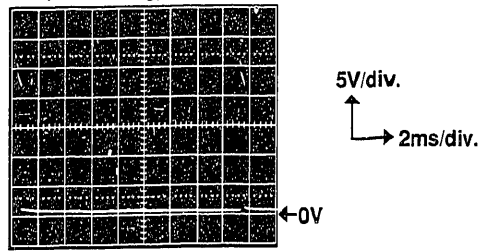
⑰ SD2 connector pin 5
(H. Drive)



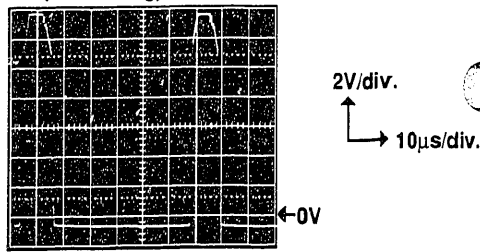
⑱ SD2 connector pin 9
(V. Drive)



⑲ SD2 connector pin 10
(V. Blanking)

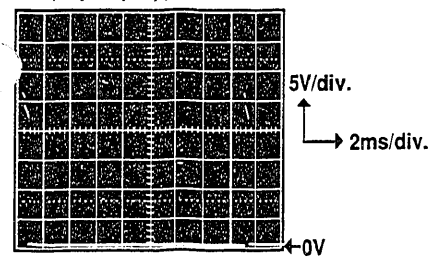


⑳ SD3 connector pin 2
(H. Blanking)

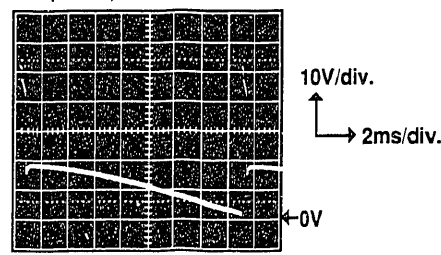


WAVEFORMS AT EACH SECTION

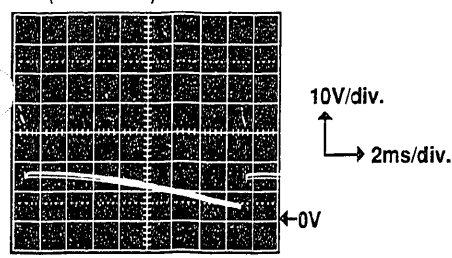
㉑ IC601 pin 9
(V. pump-up)



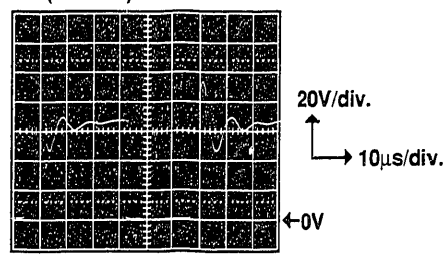
㉒ IC601 pin 12
(V.-out)



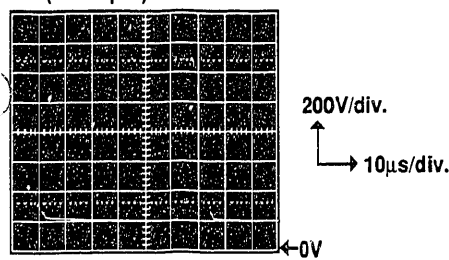
㉓ MB-connector pin 1
(V.DY-Blue)



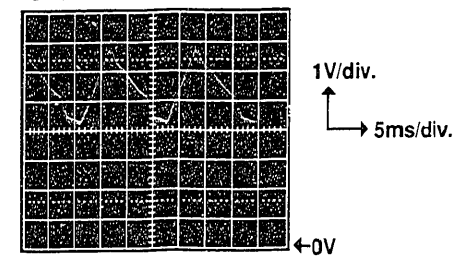
㉔ Q701 Collector
(H. Drive)



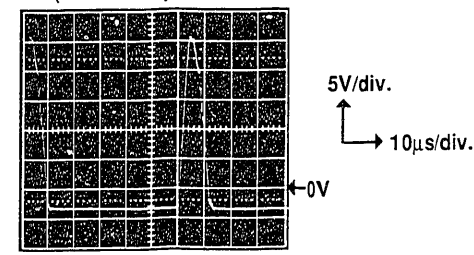
㉕ Q777 Collector
(H. Output)



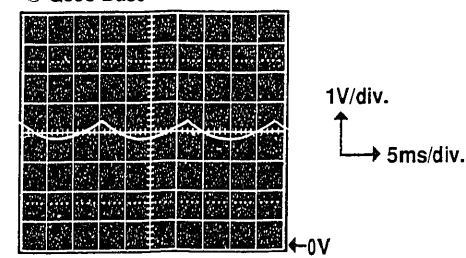
㉖ Q710 Collector



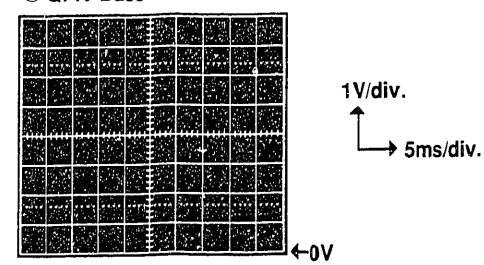
㉗ FBT pin H
(CPT Heater)



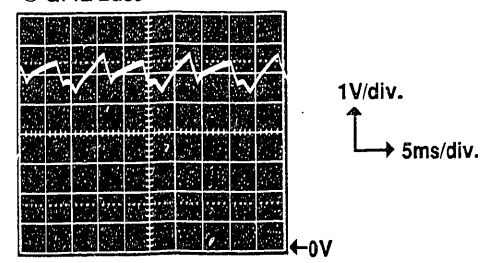
㉘ Q609 Base



㉙ Q717 Base

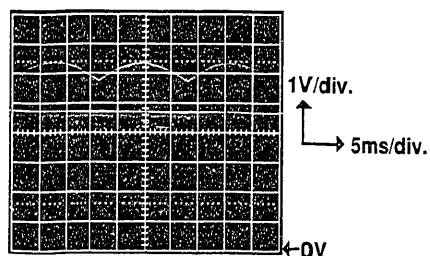


㉚ Q712 Base

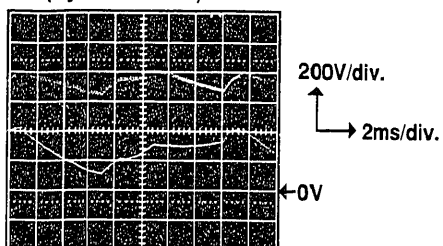


WAVEFORMS AT EACH SECTION

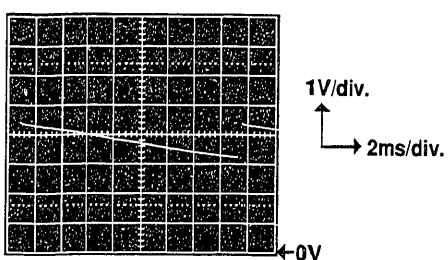
31 Q711 Emitter



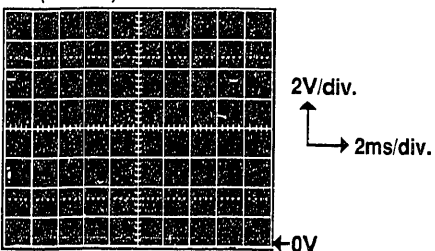
32 Q780 Collector (Dynamic Focus)



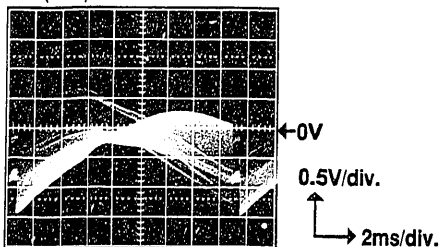
33 Q607 Base



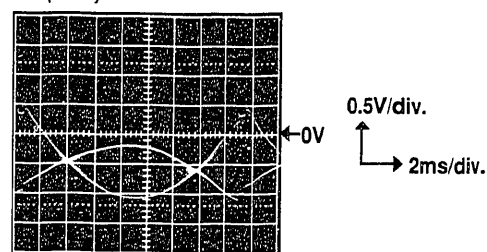
34 FR connector pin 4 (V Drive)



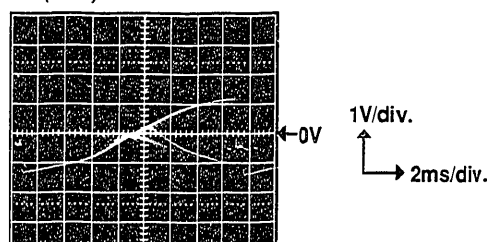
35 IC1351 pin 14 (BV-)



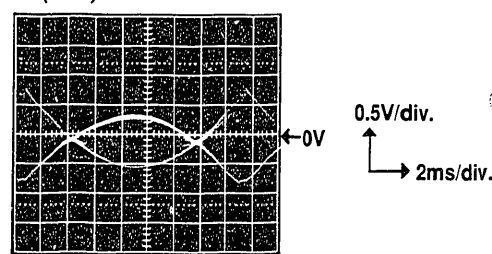
36 IC1351 pin 1 (BH+)



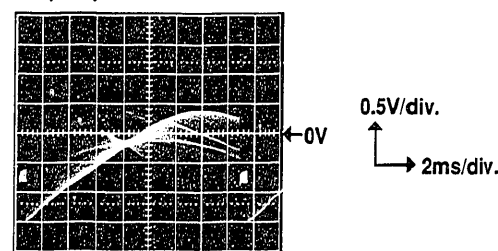
37 IC1326 pin 15 (GV+)



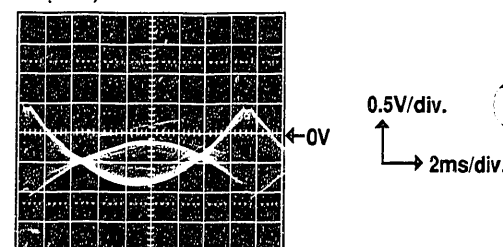
38 IC1326 pin 1 (GH+)



39 IC1301 pin 15 (RV+)

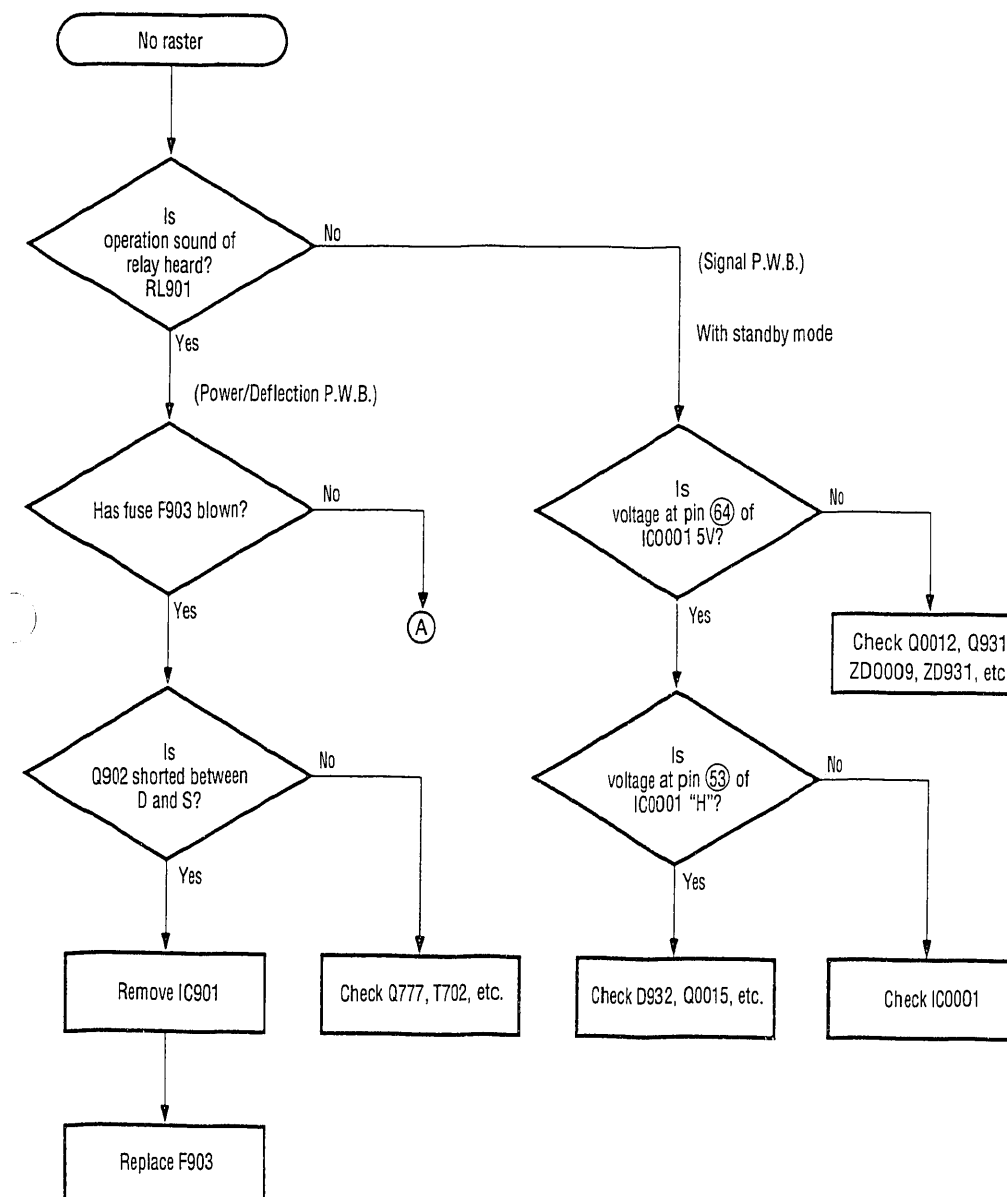


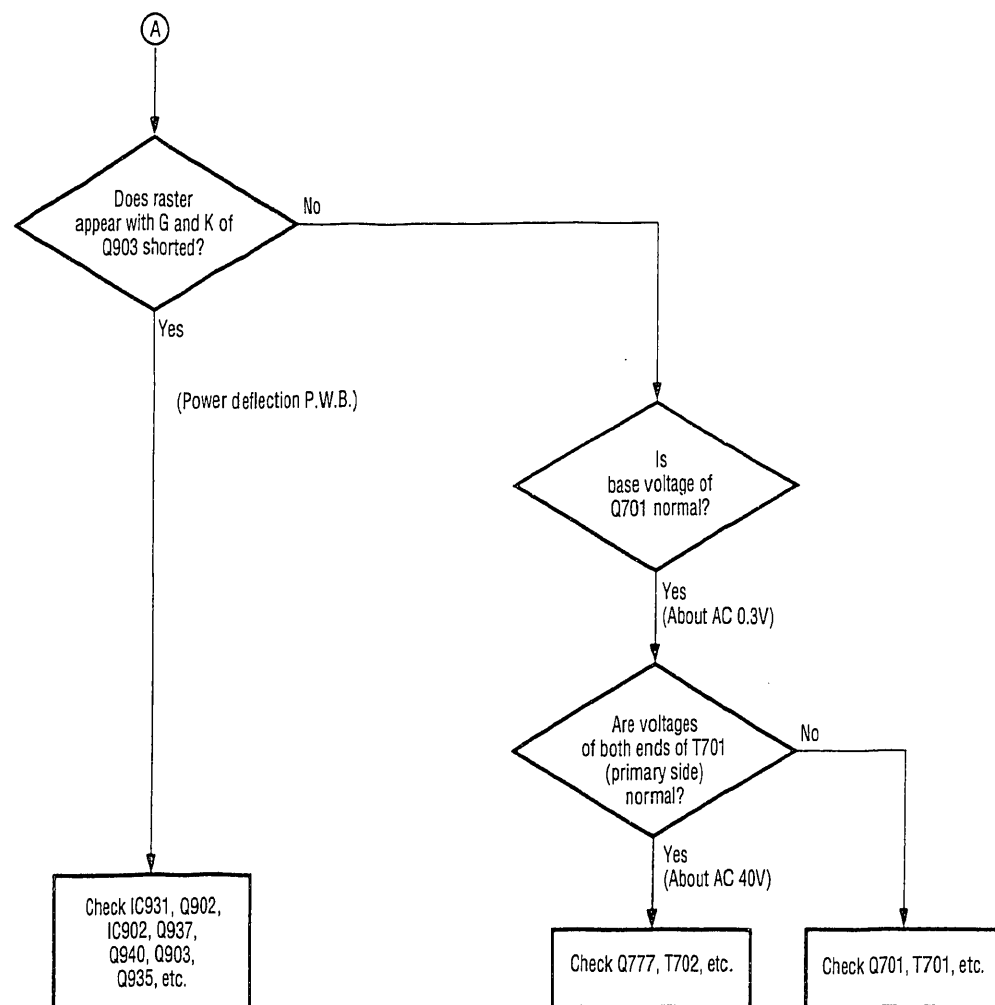
40 IC1301 pin 1 (RH+)



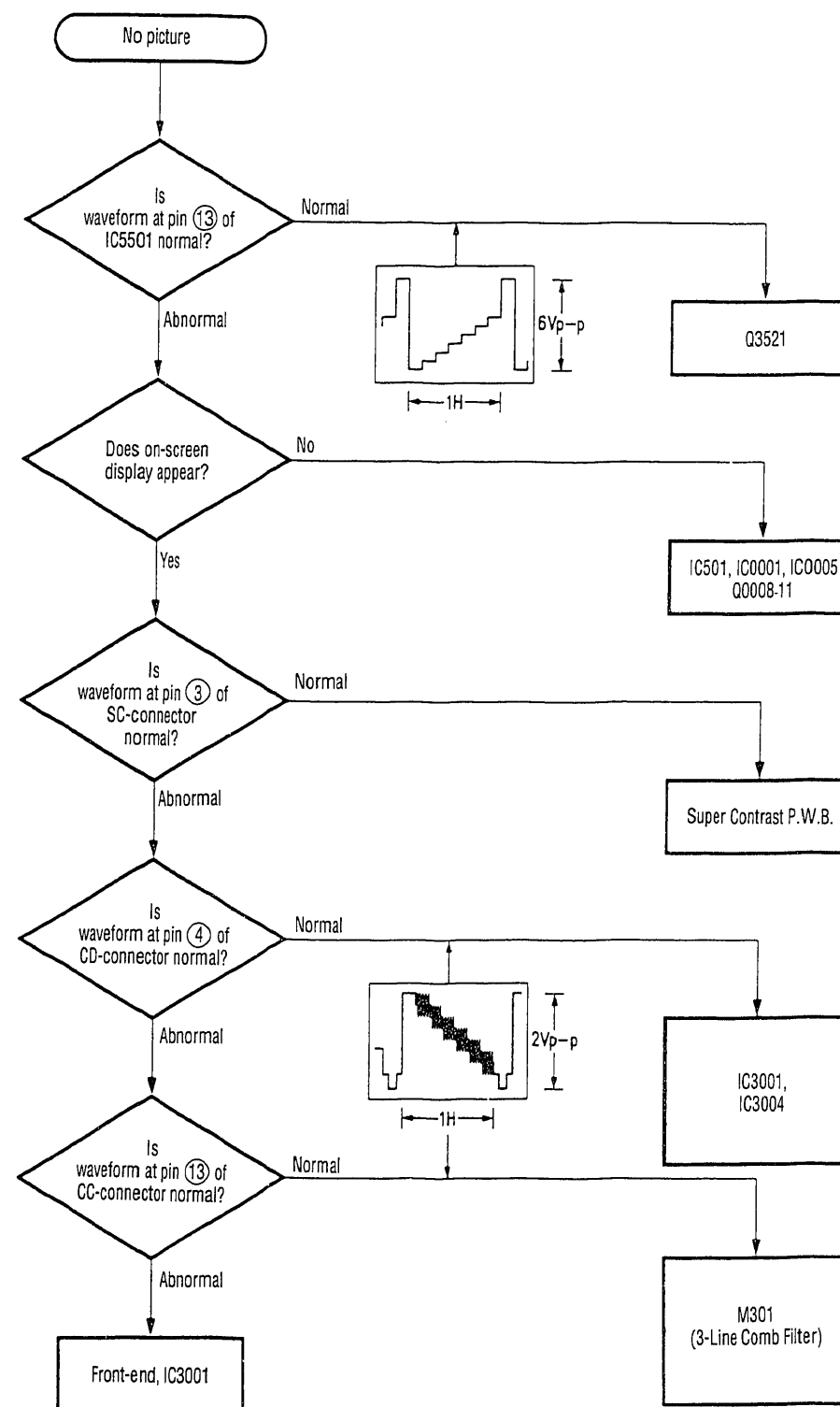
TROUBLESHOOTING

1. No raster

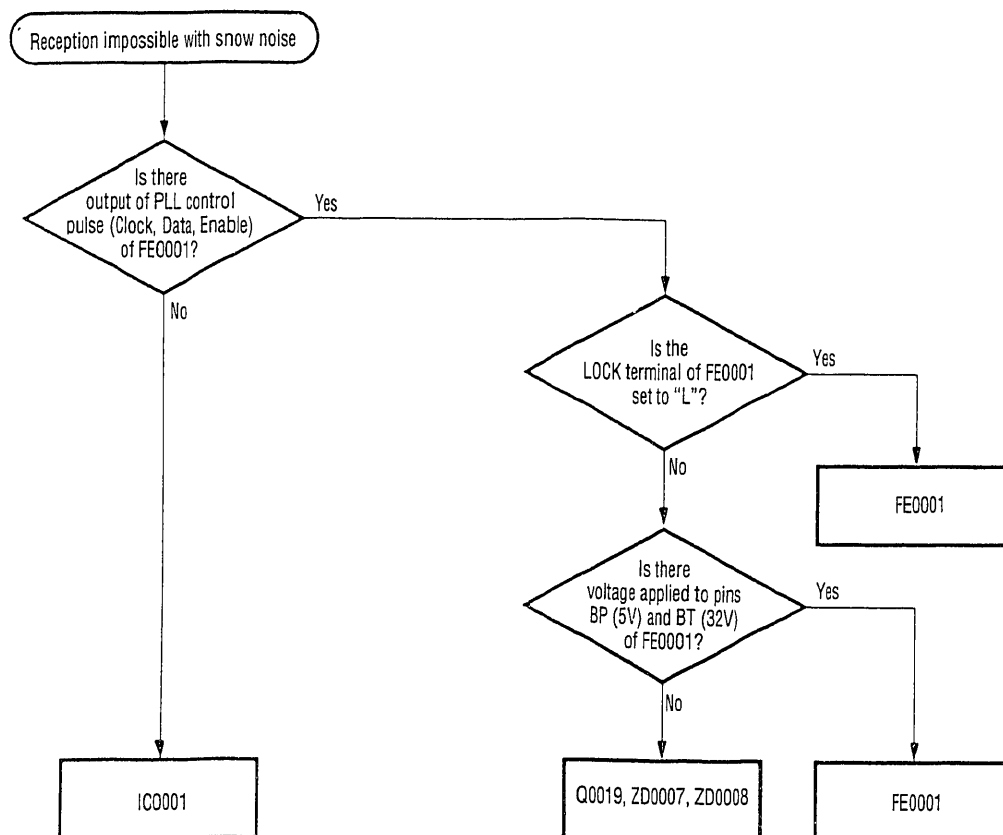




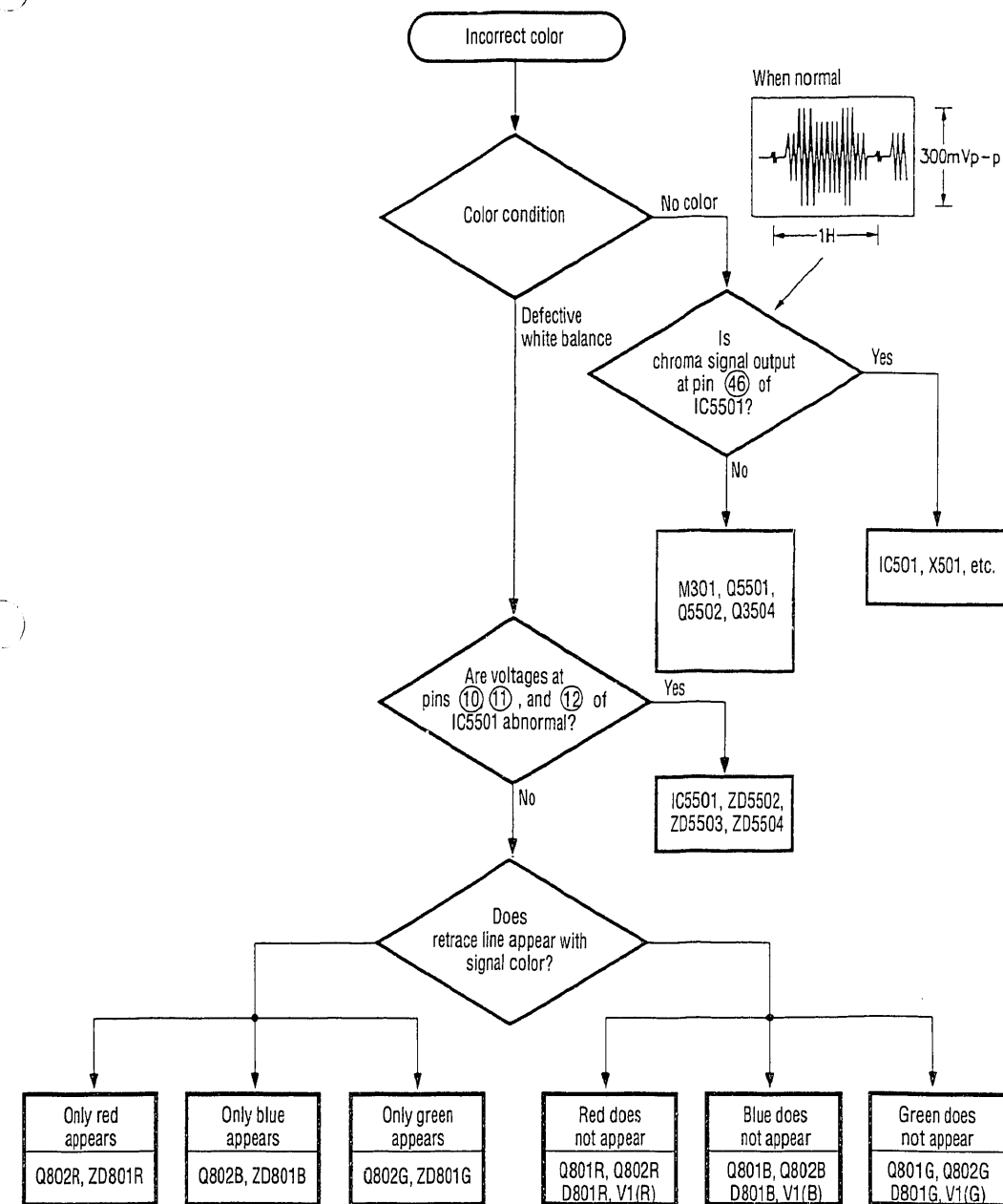
2. No picture



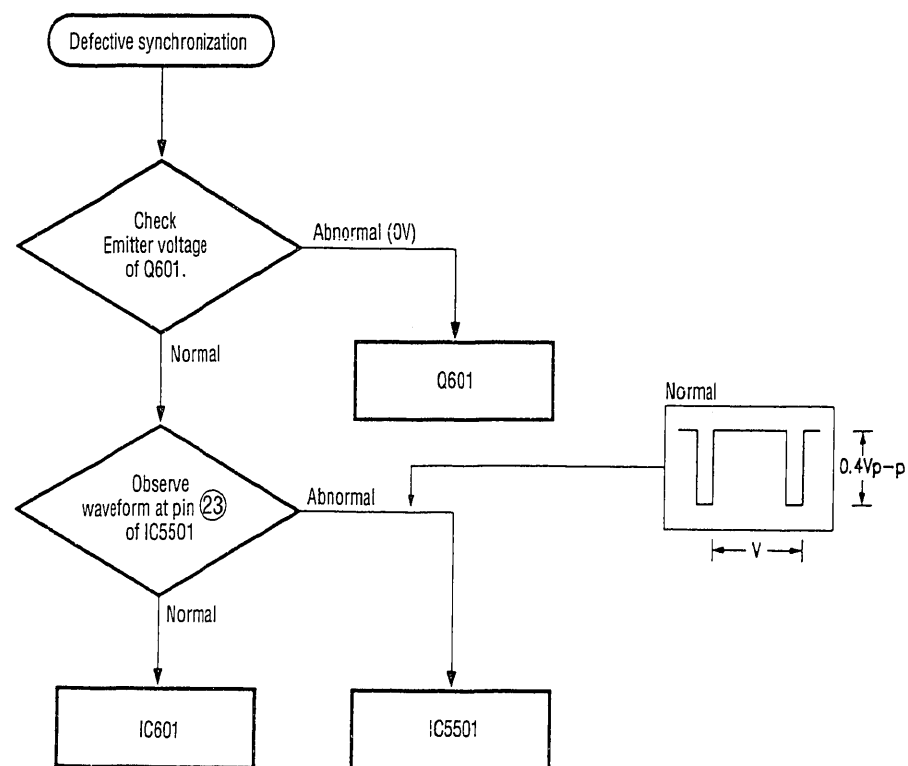
3. Reception impossible with snow noise



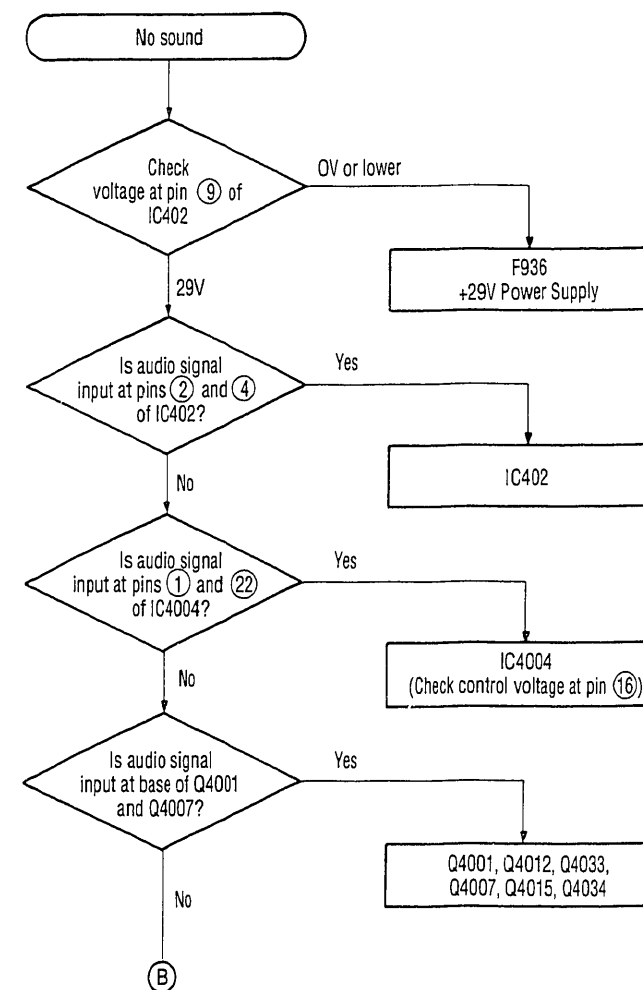
4. Incorrect color



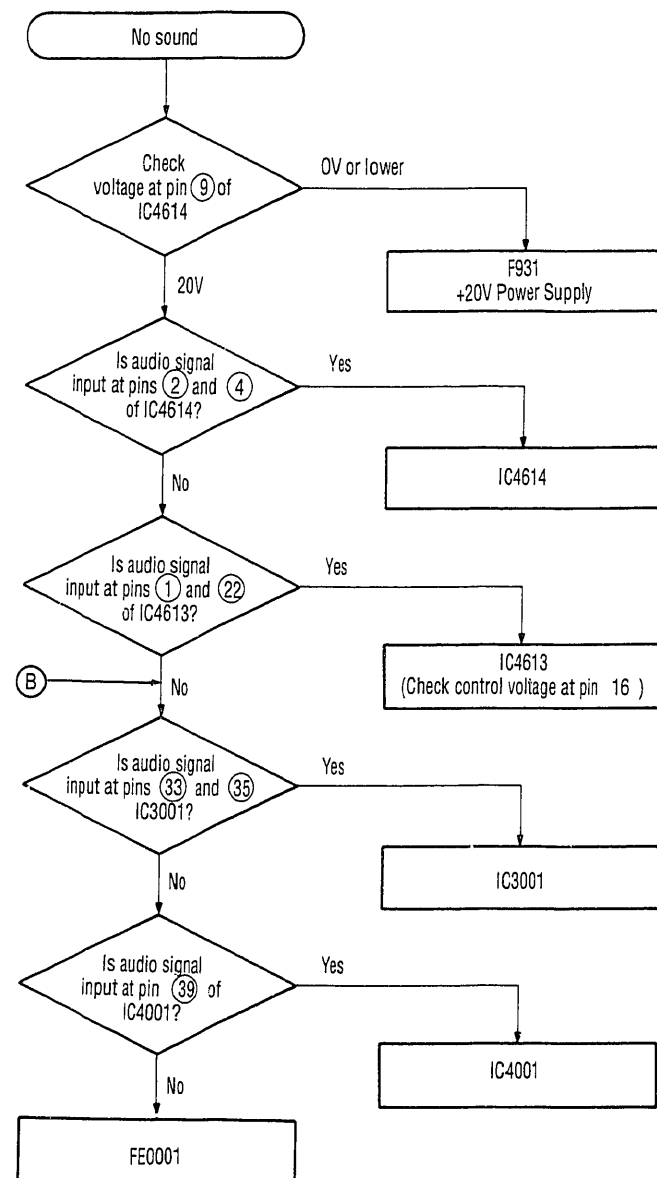
5. Defective synchronization



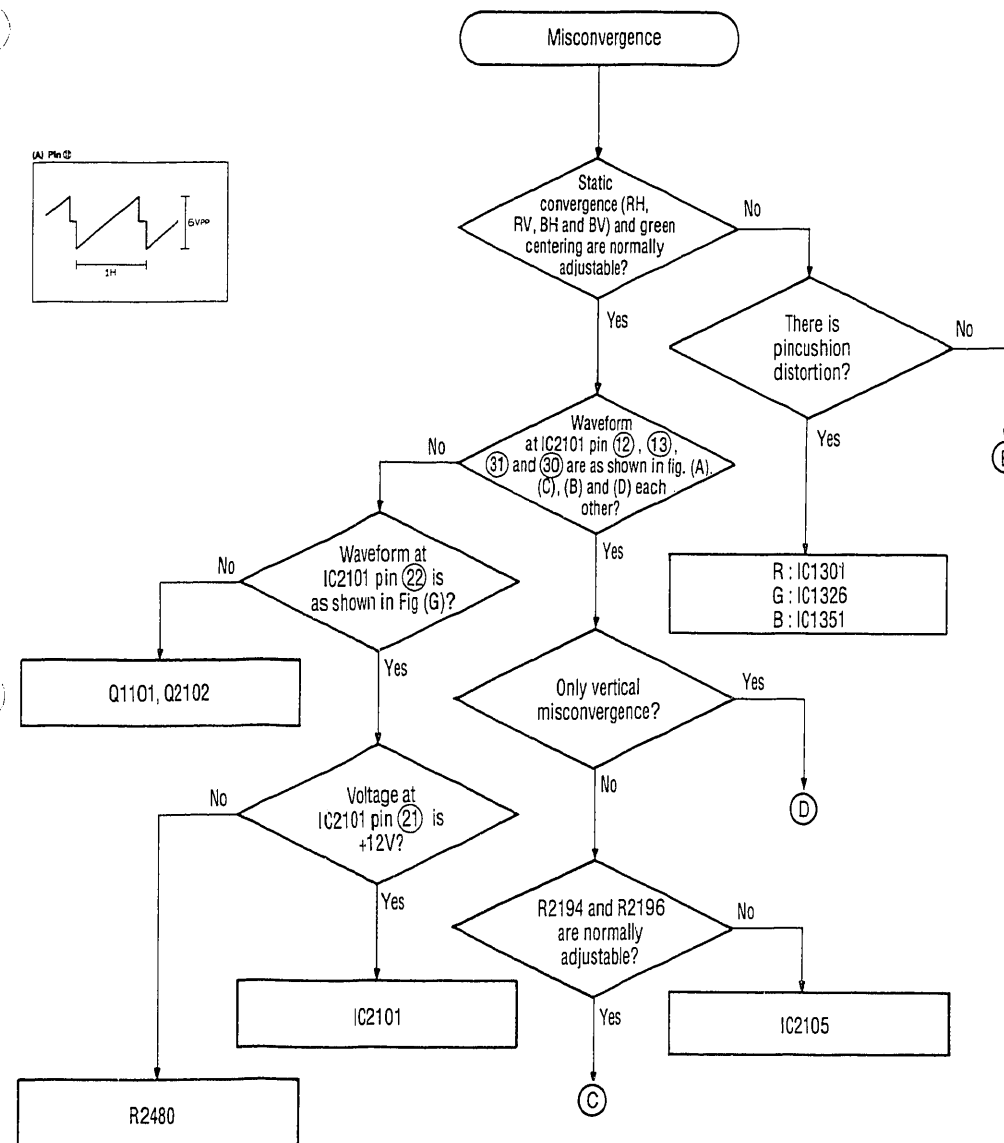
6-1. No sound (when Surround OFF) (1) Front audio circuit

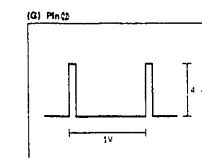
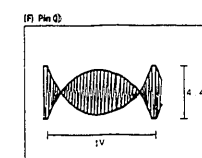
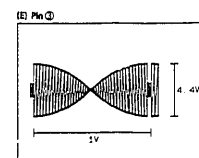
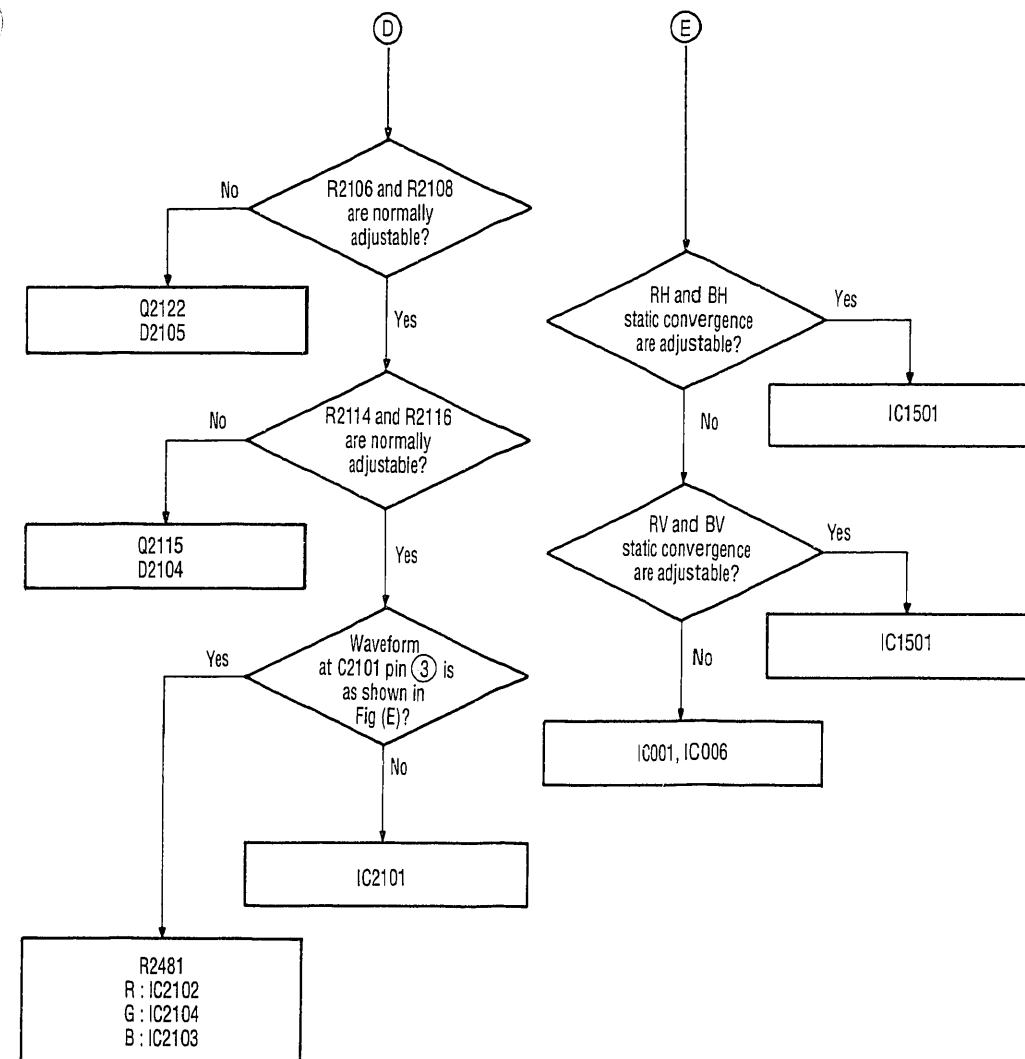
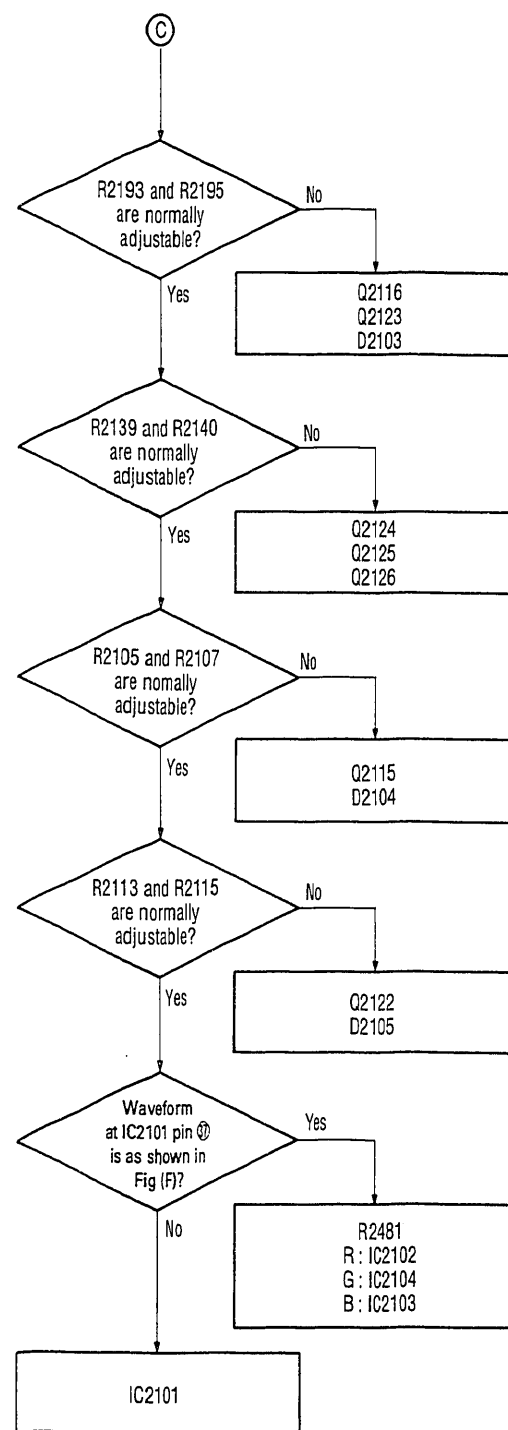


(2) Rear audio circuit

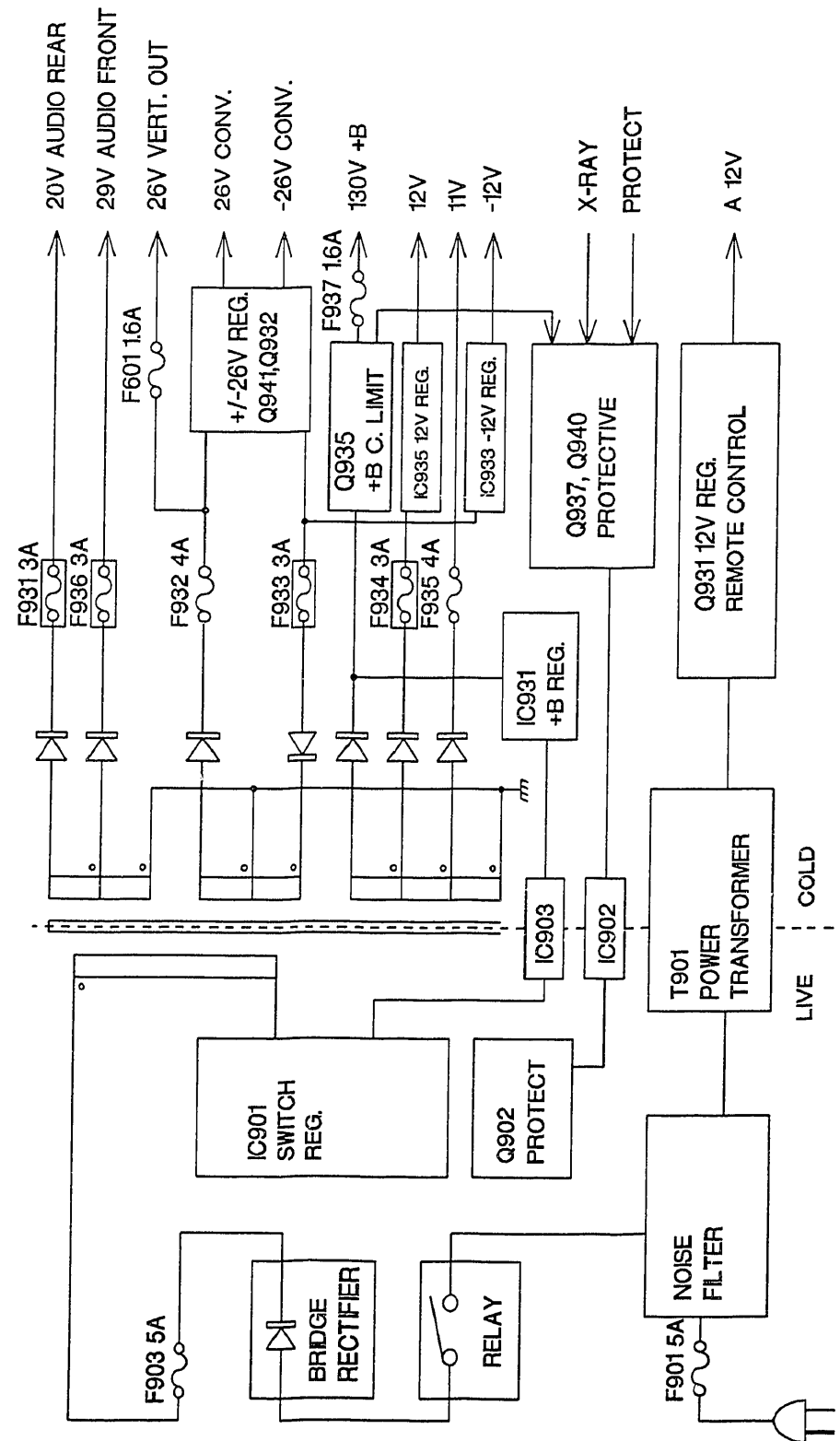


7. Misconvergence

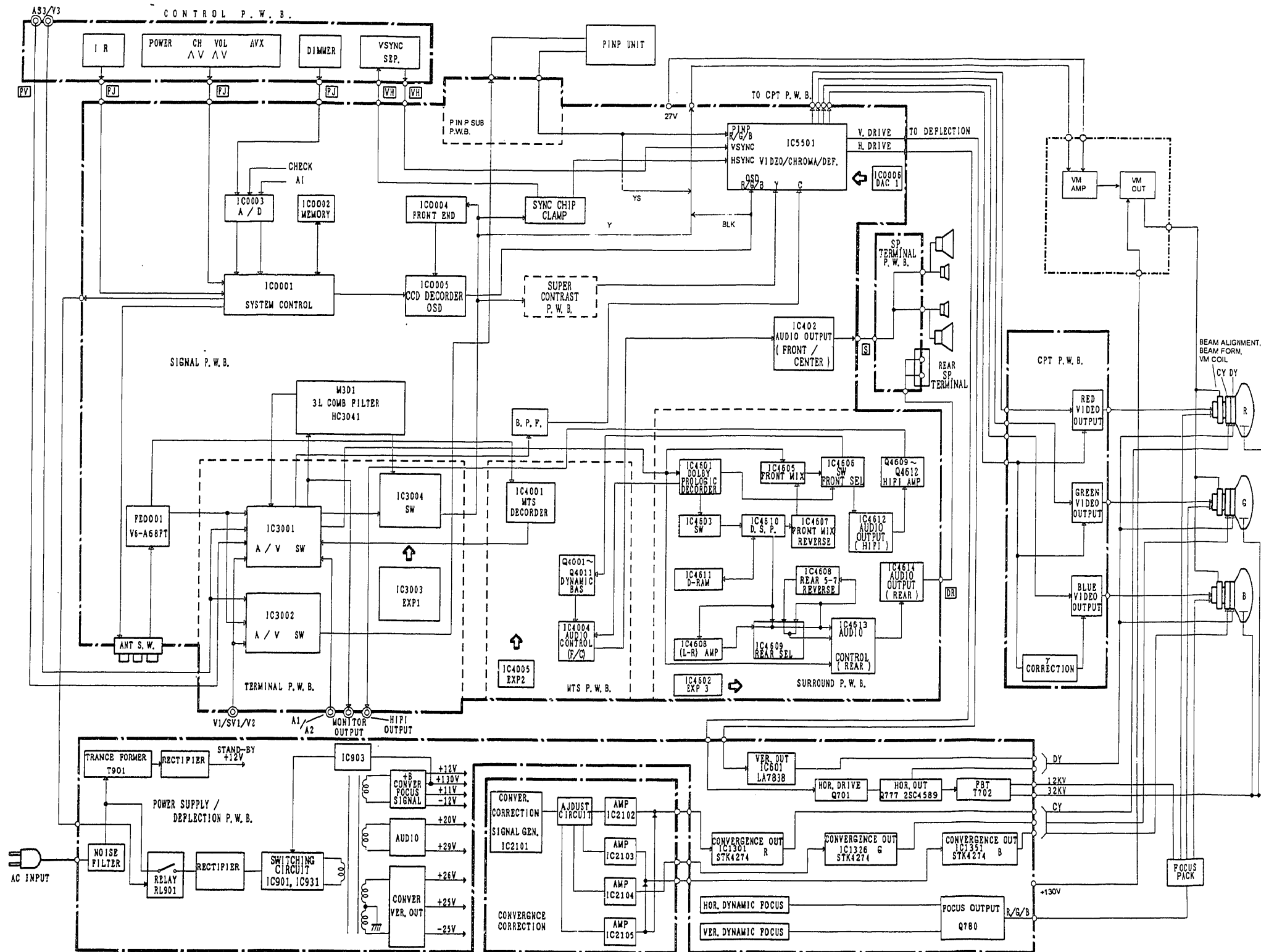




PROTECTION CIRCUIT BLOCK DIAGRAM

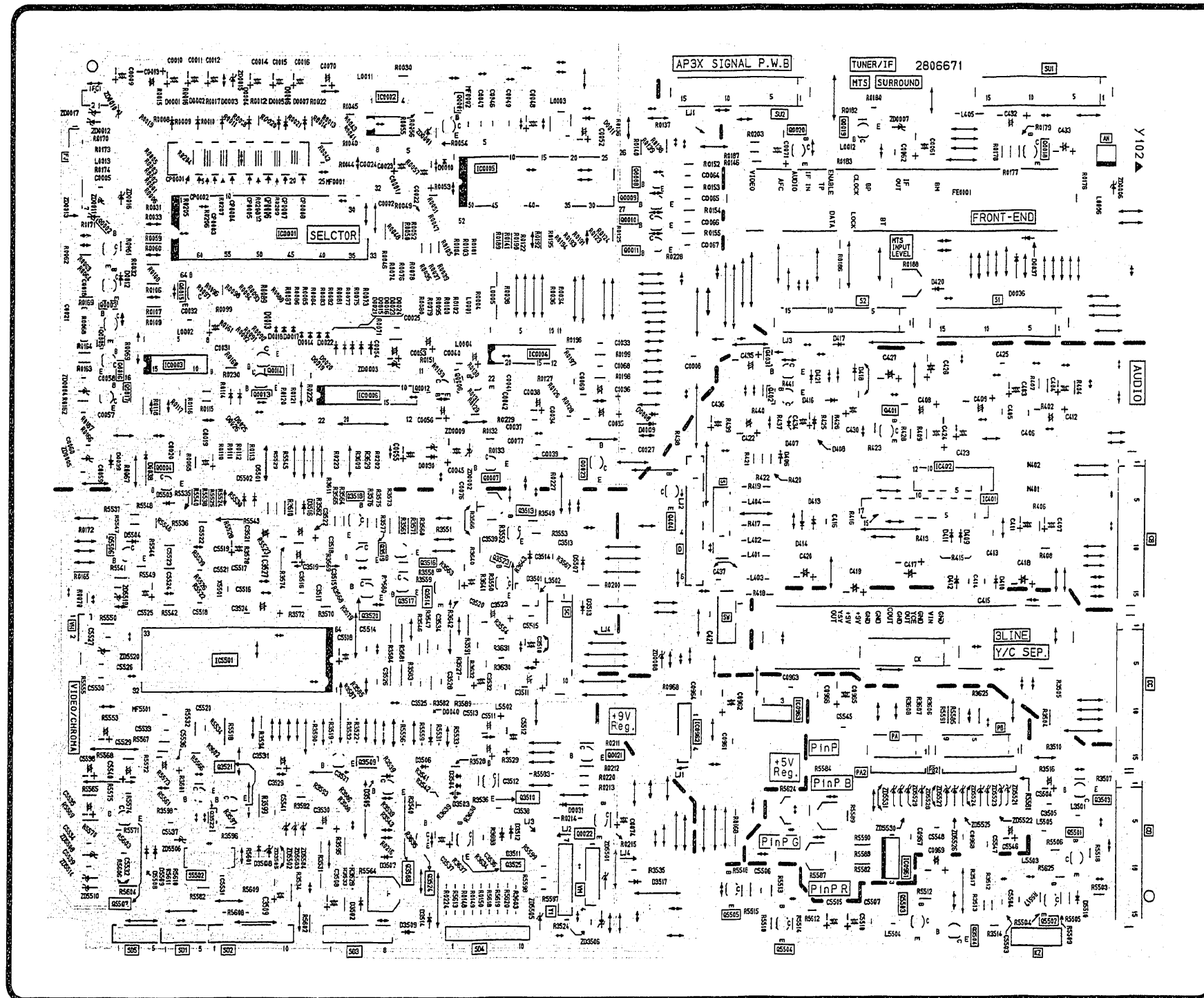


BLOCK DIAGRAM



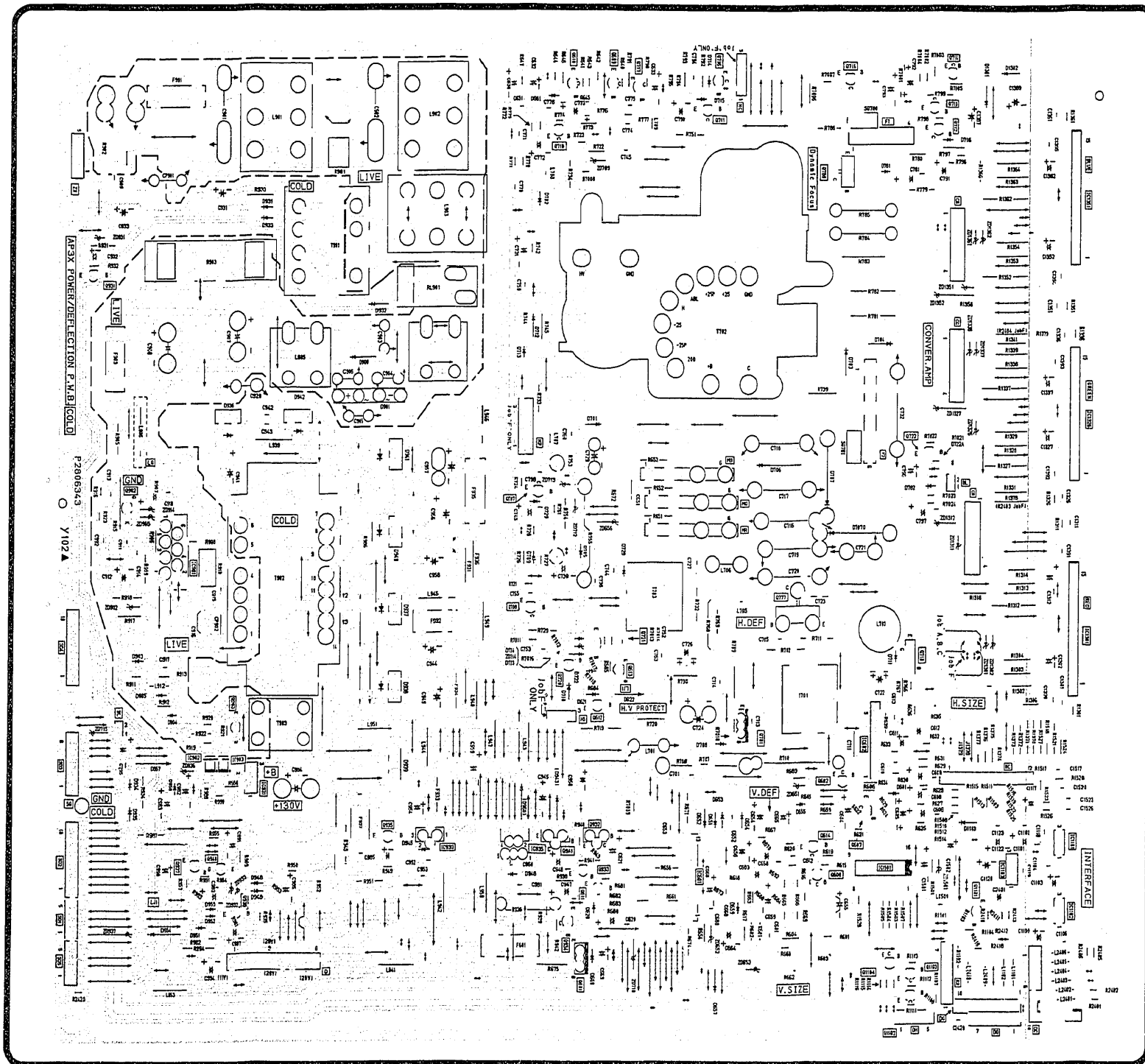
PRINTED CIRCUIT BOARD

SIGNAL P.C.B.



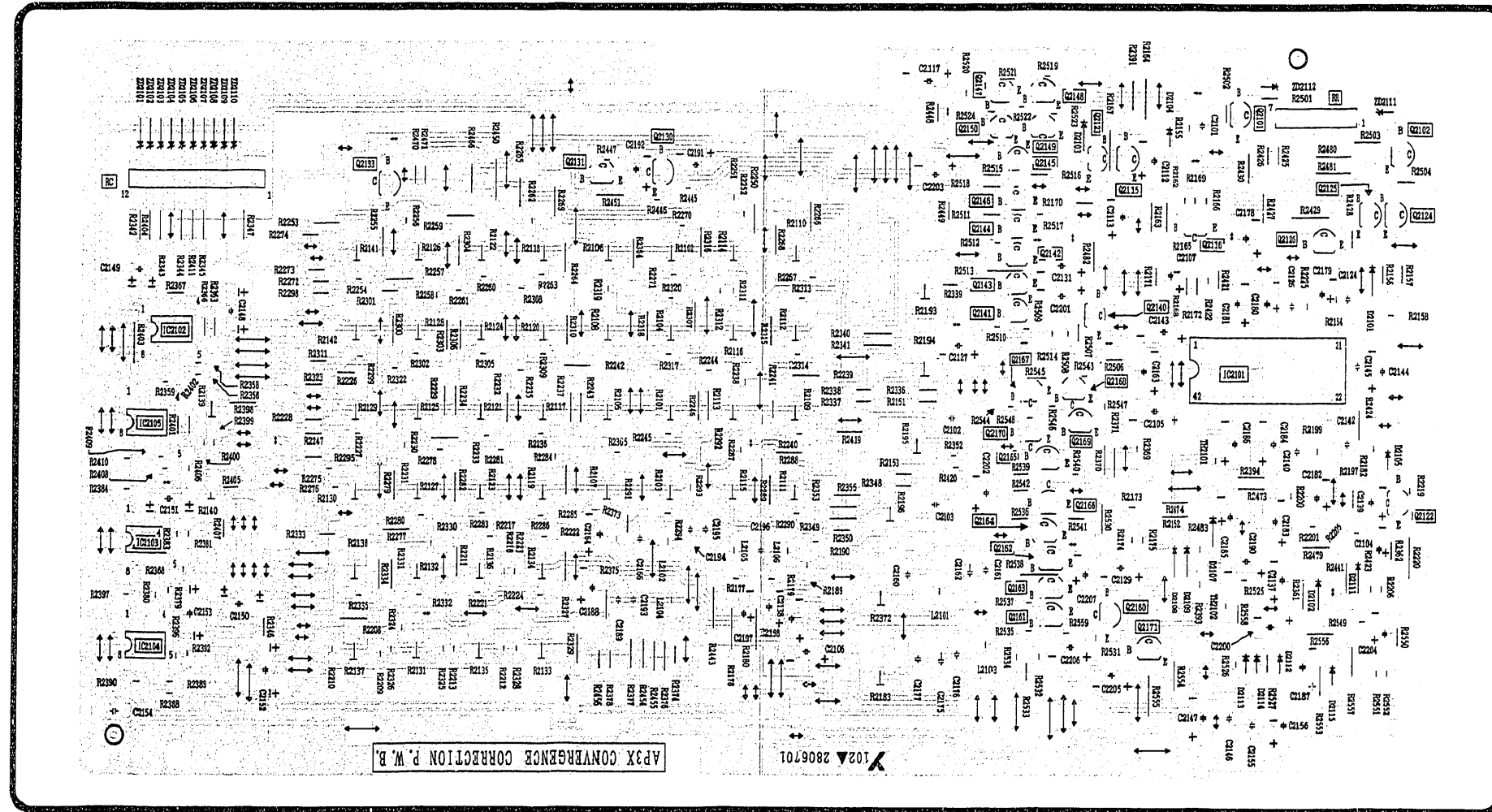
PRINTED CIRCUIT BOARD

POWER/DEFLECTION P.C.B.



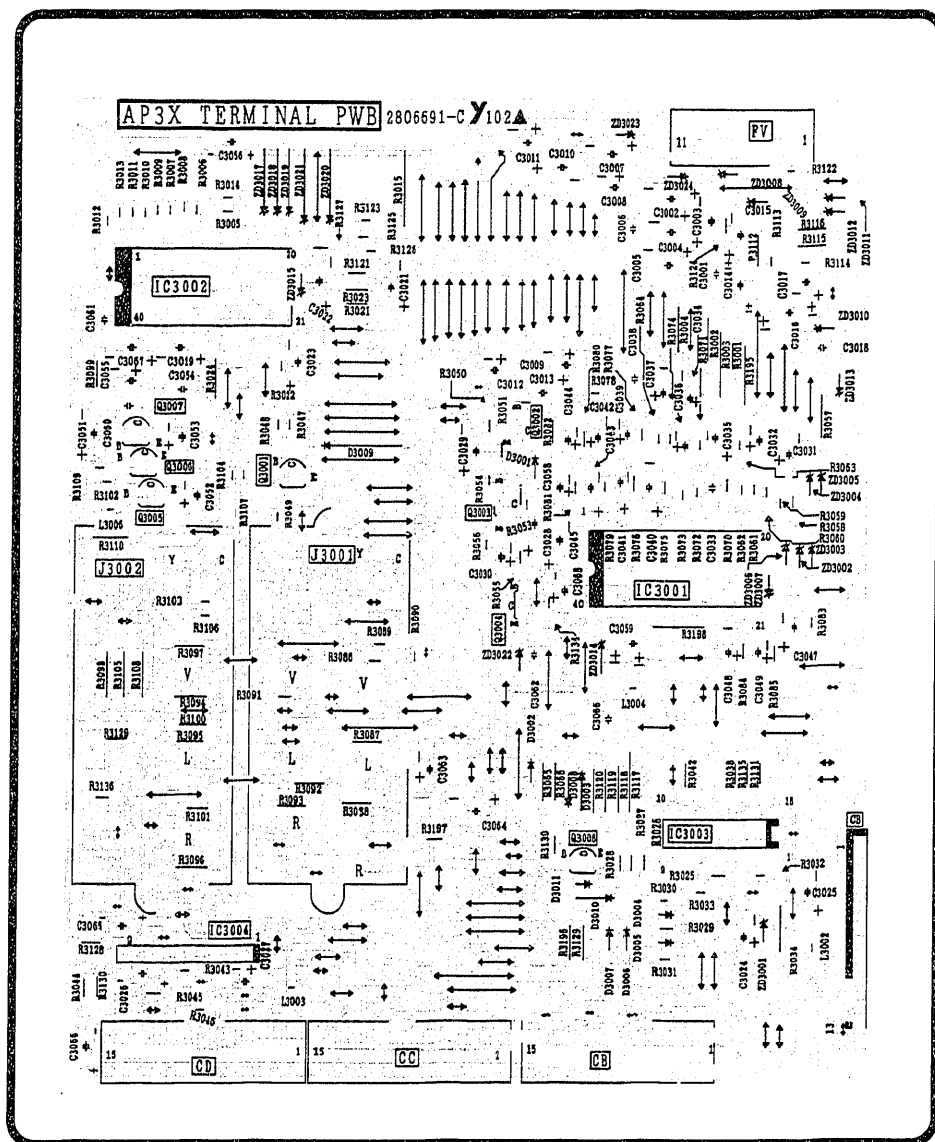
PRINTED CIRCUIT BOARD

CONVERGENCE CORRECTION P.C.B.

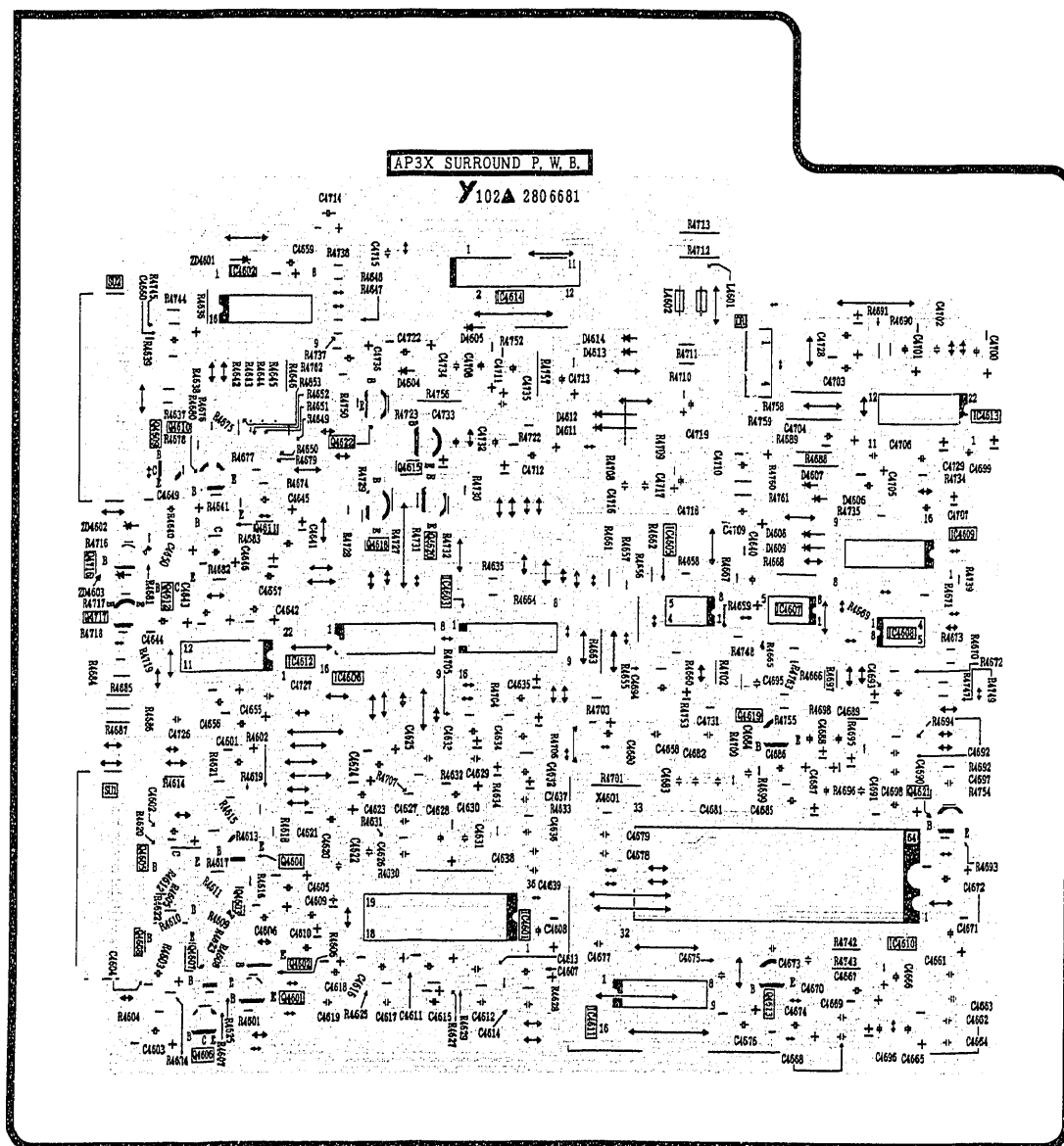


PRINTED CIRCUIT BOARD

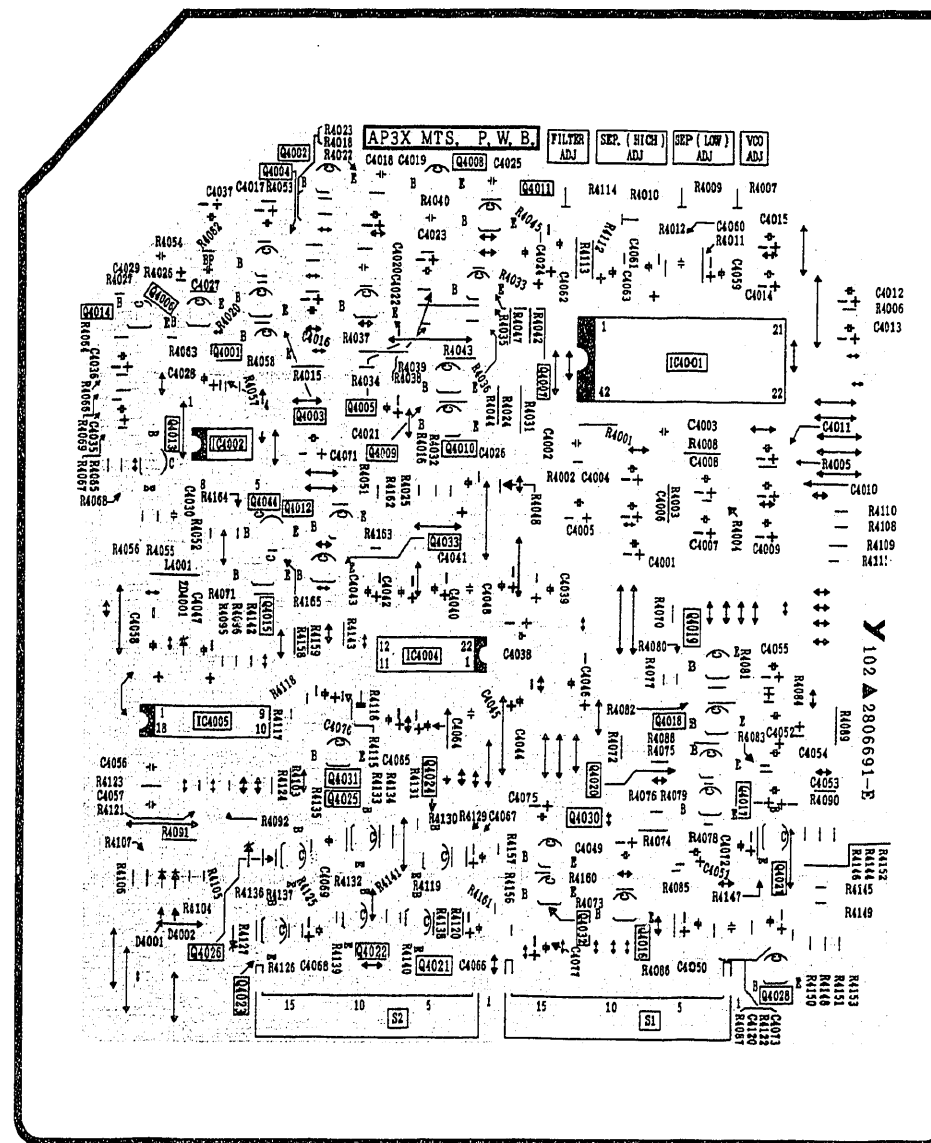
TERMINAL P.C.B.



SURROUND P.C.B.

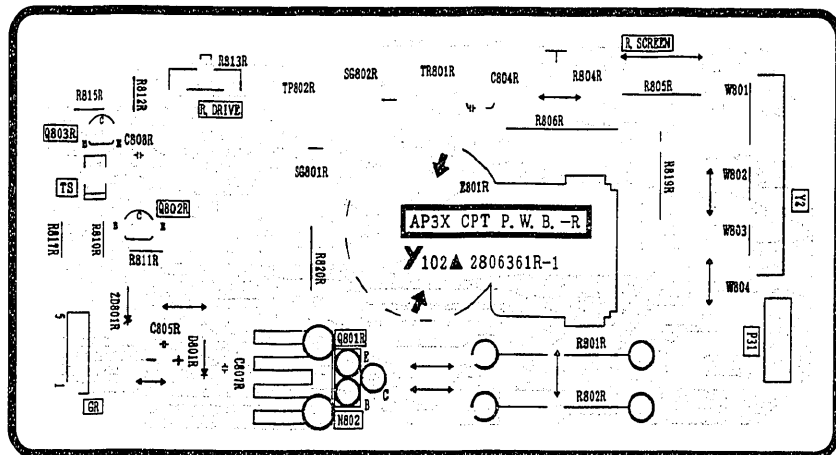


MTS P.C.B.

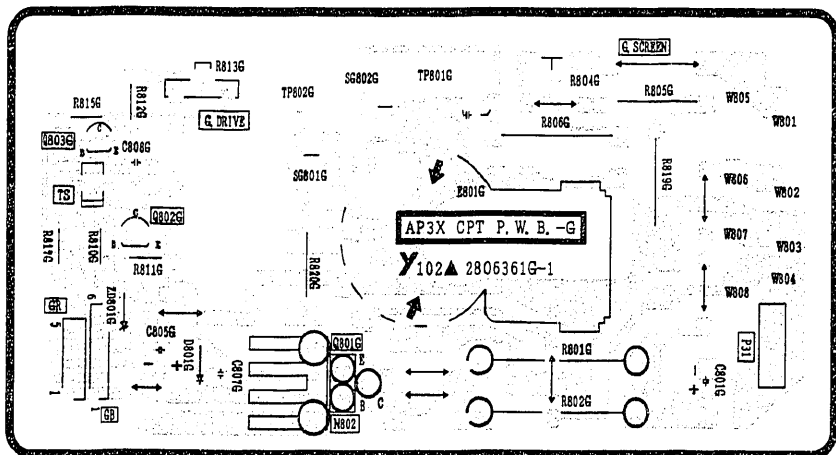


PRINTED CIRCUIT BOARD

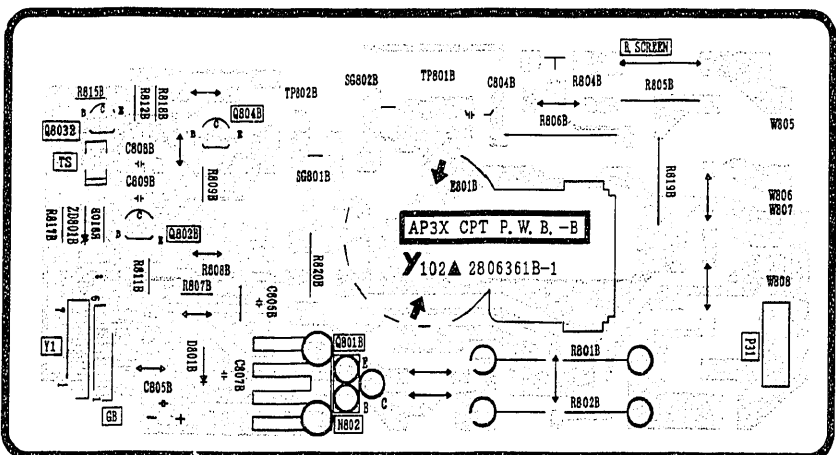
RED C.P.T. P.C.B.



GREEN C.P.T. P.C.B.

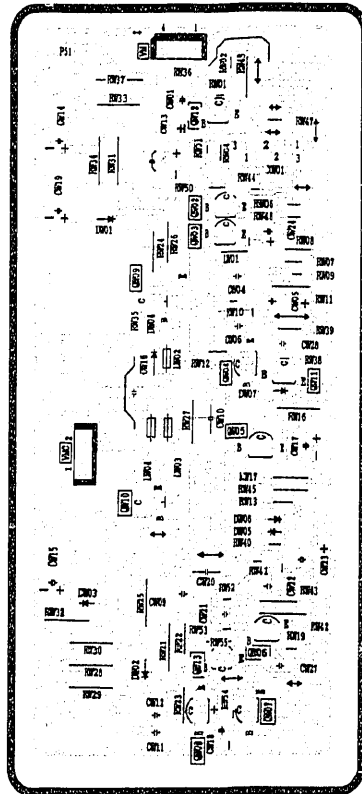


BLUE C.P.T. P.C.B.

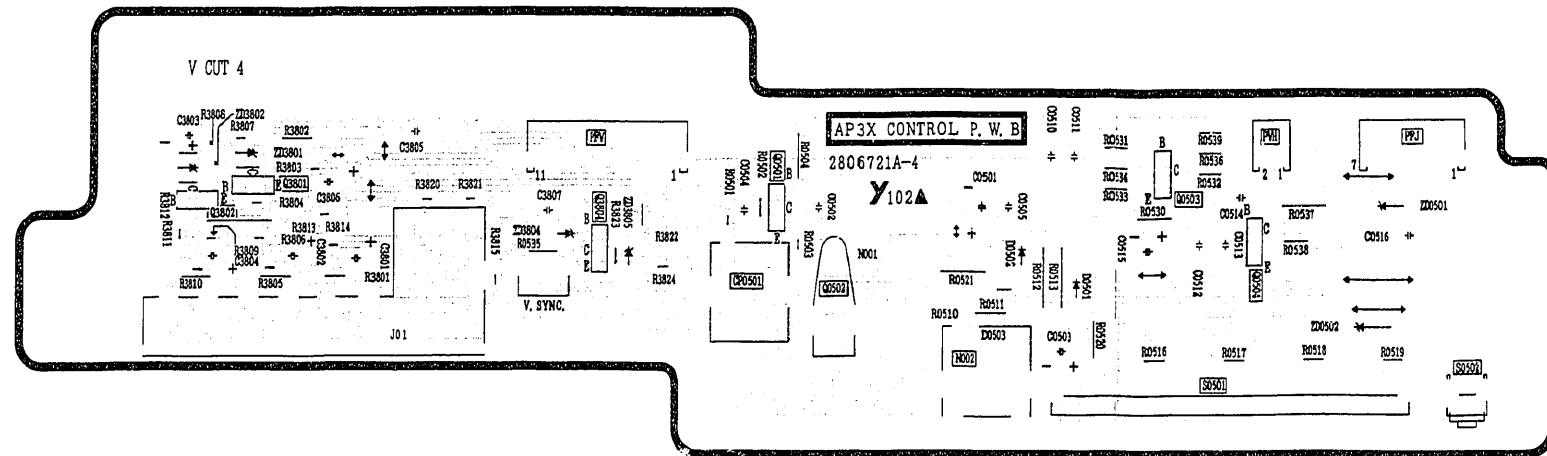


PRINTED CIRCUIT BOARD

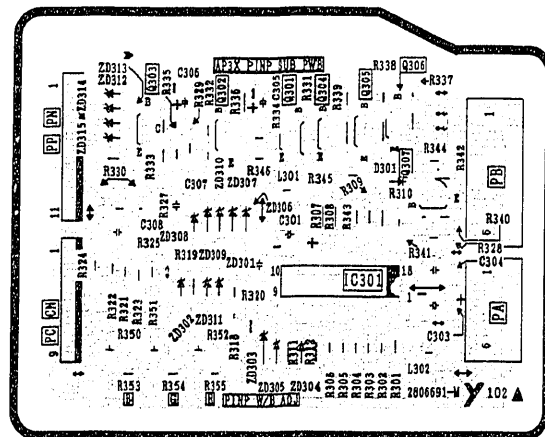
VM P.W.B.



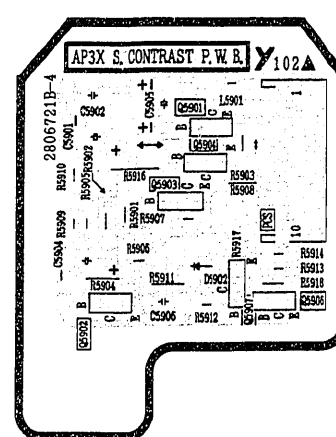
CONTROL P.C.B.



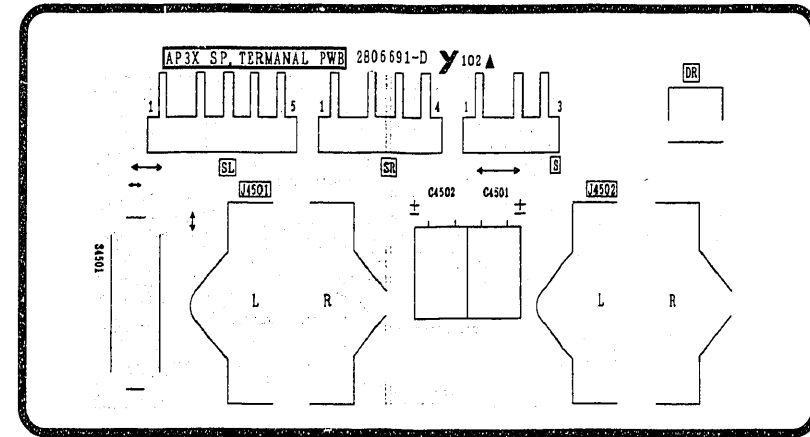
P IN P SUB P.C.B.



SUPER CONTRAST P.C.B.



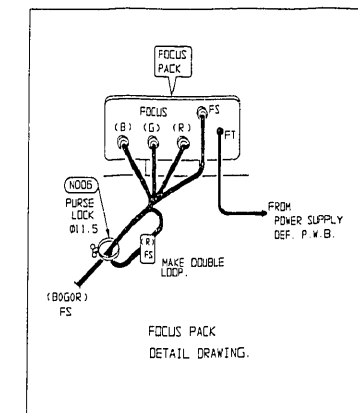
SPEAKER TERMINAL P.C.B.



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



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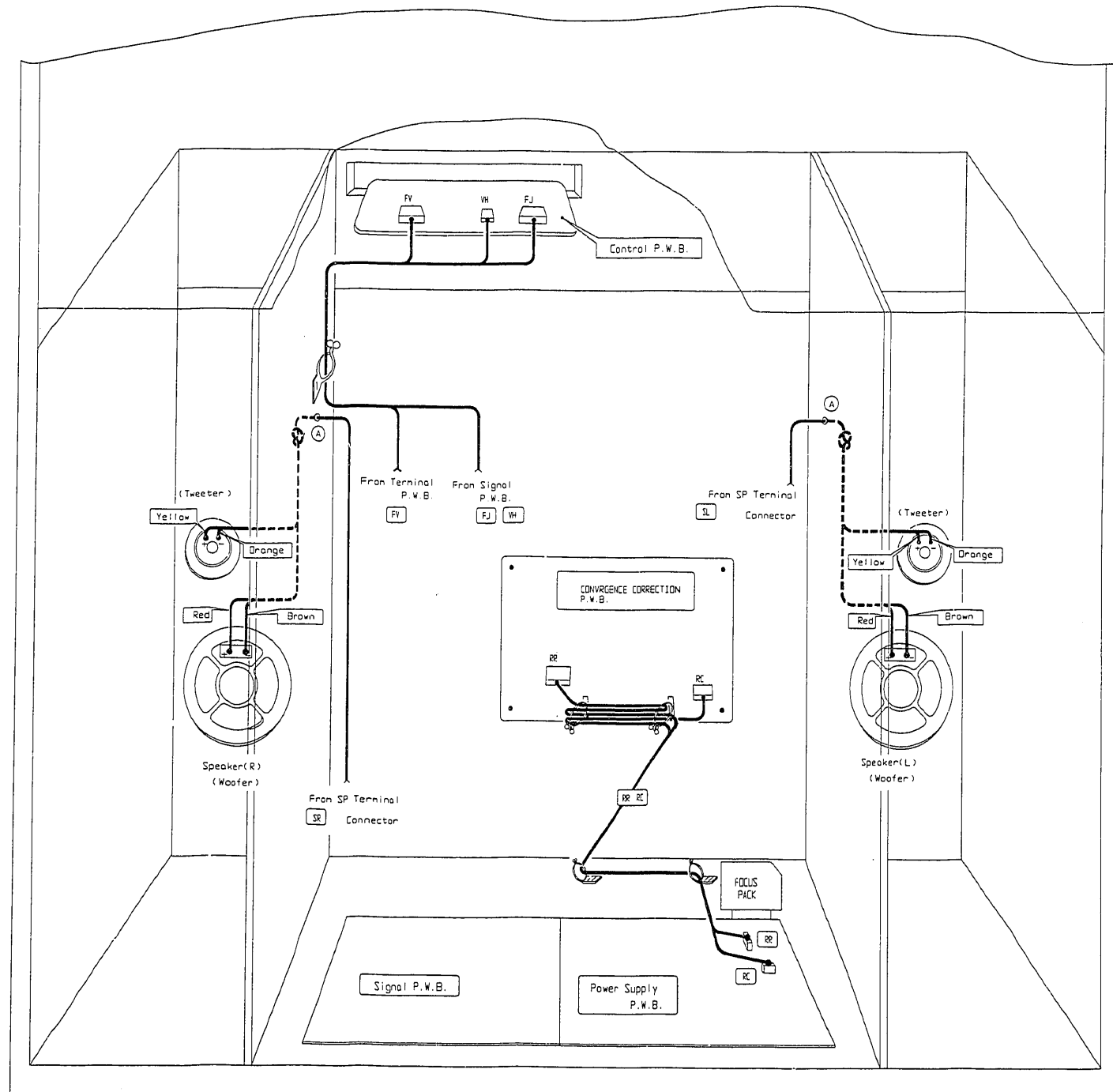
[illegible]

NOTE: DON'T LET ANODE LEAD TOUCH OTHER WIRES

BASIC CIRCUIT DIAGRAM

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

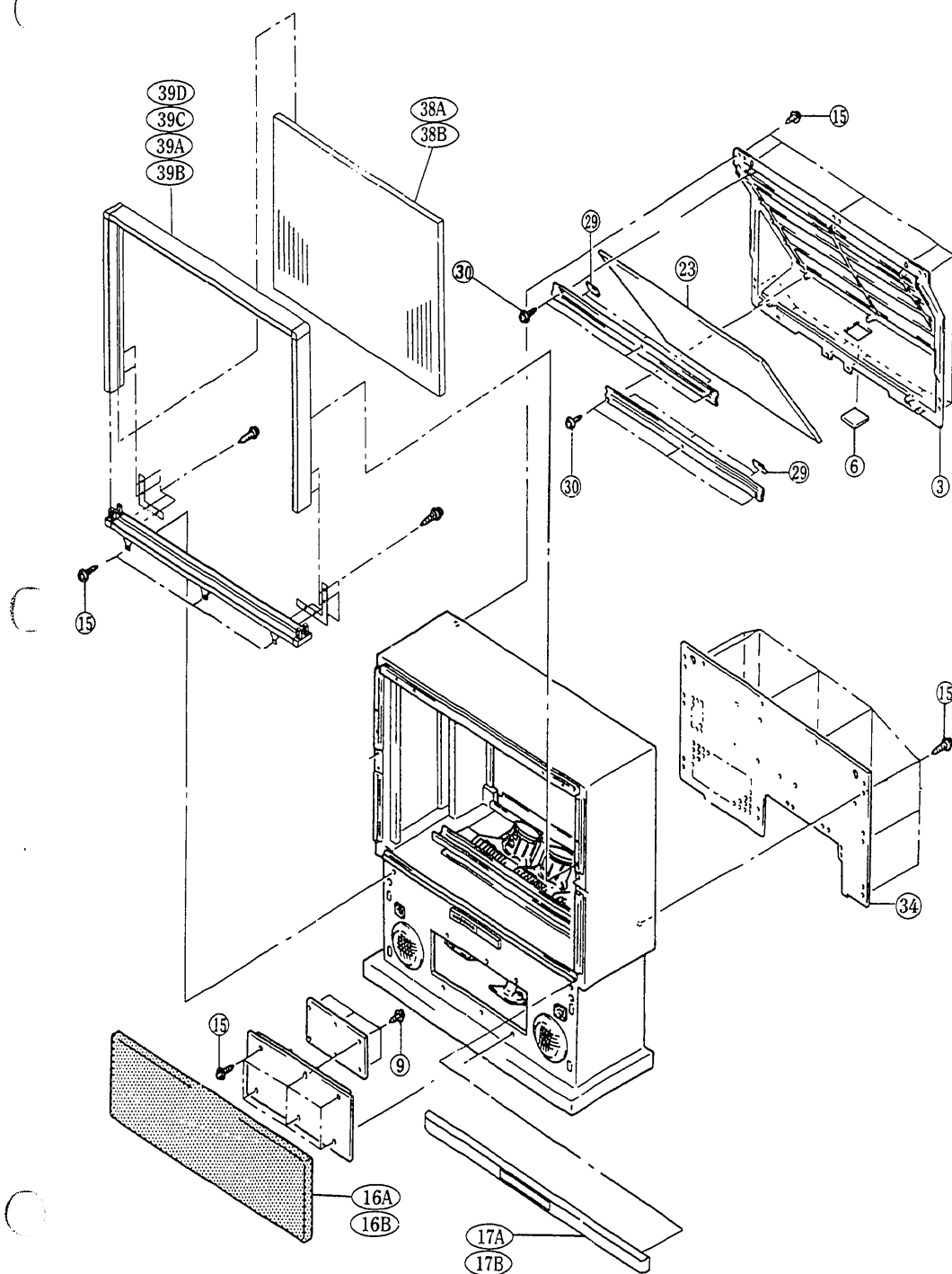
AP43 CHASSIS WIRING DRESS DRAWING.



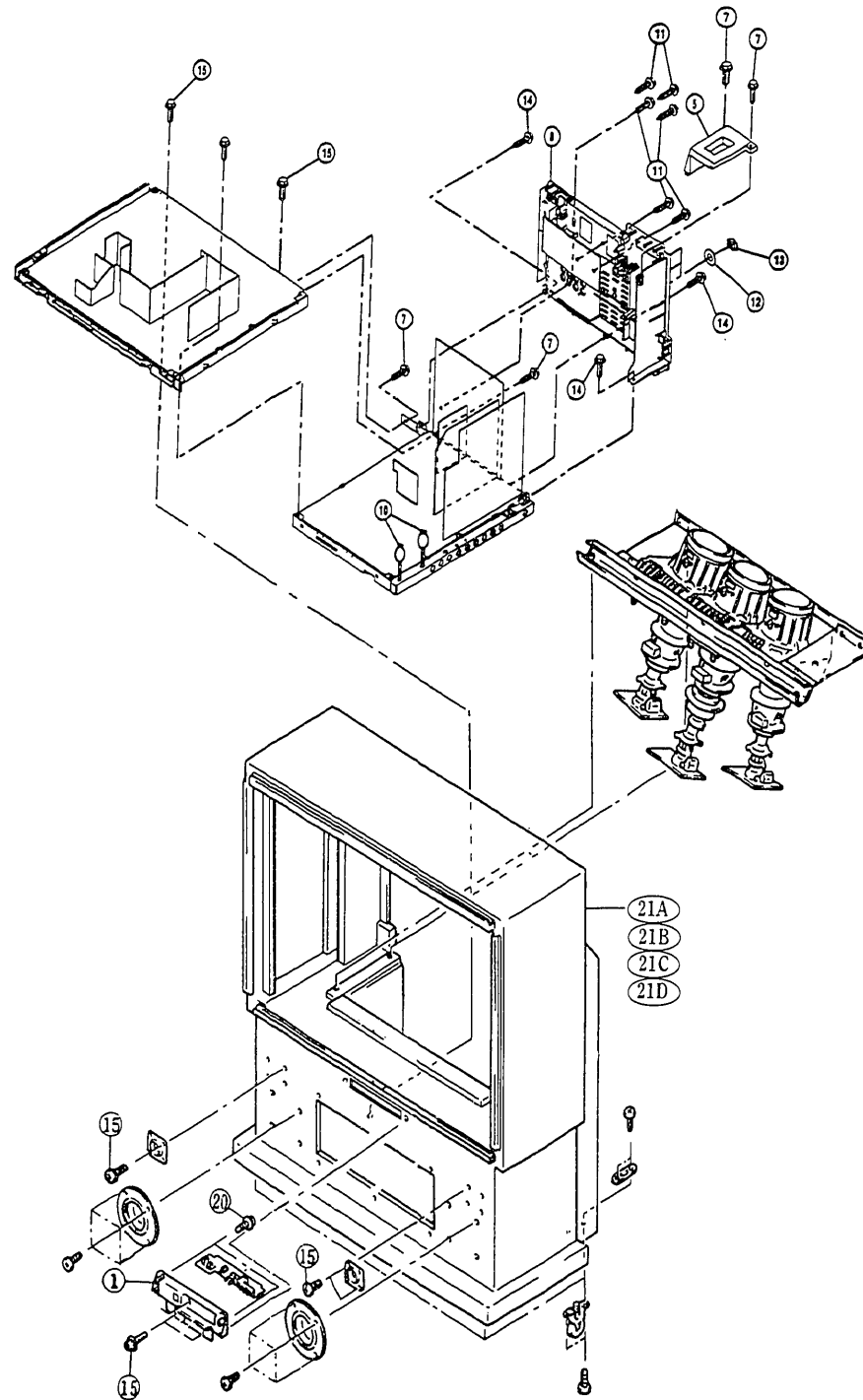
• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

• All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

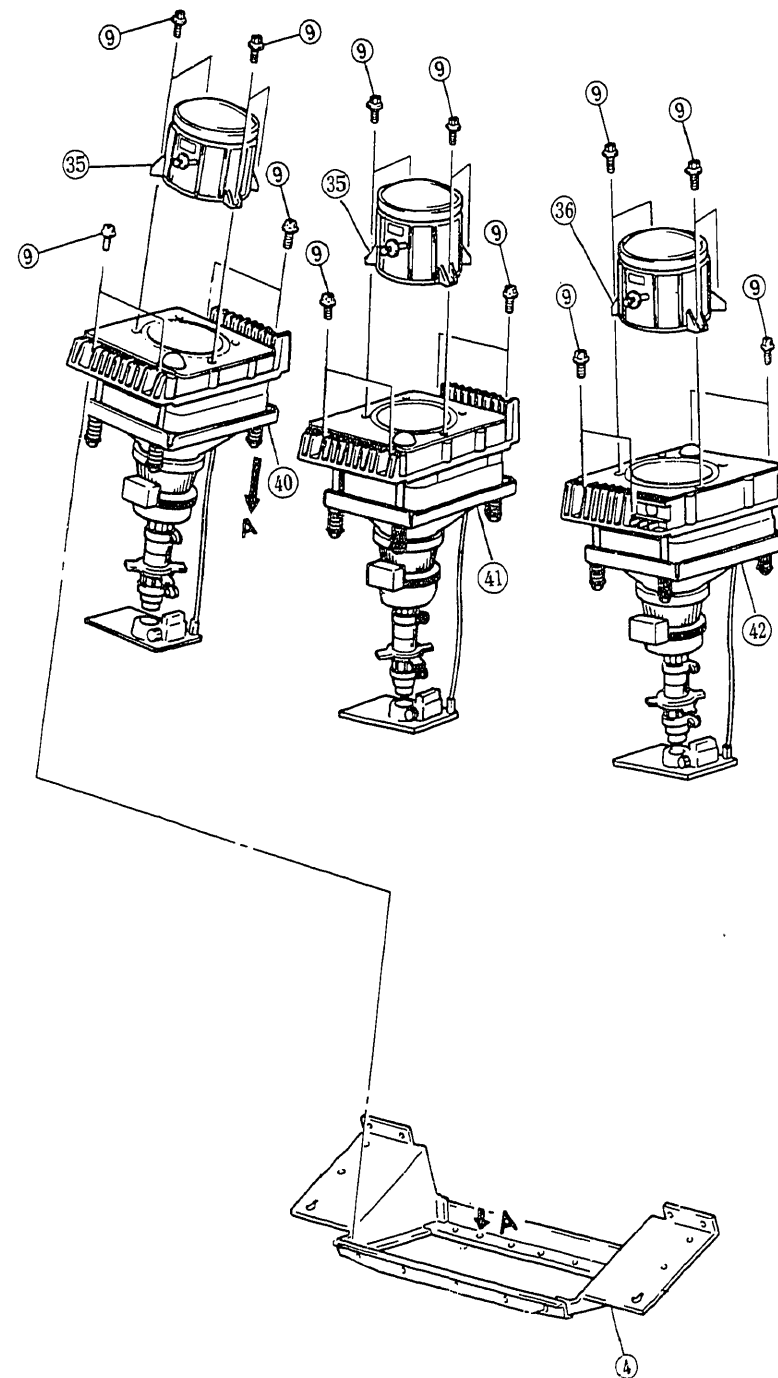
EXPLODED VIEW (1 / 3)



EXPLODED VIEW (2 / 3)



EXPLODED VIEW (3 / 3)



REPLACEMENT PARTS LIST

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

ABBREVIATIONS

Capacitors..... CD: Ceramic Disc, PF: PF, EL: EL, PP: Polypropylene,
PR: Paper, TA: Tantalum, TM: Trimmer
Resistors..... CF: CF, CC: Carbon Composition, MF: Metal oxide Film,
VR: Variable Resistor, WW: Wire Wound, FR: Fuse Resistor, MG: Metal Glazed
Semiconductors.... TR: Transistor, DI: diode, ZD: Zener Diode, VA: Varistor, TH: Thermistor,
IC: Integrated Circuit

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
CAPACITORS					
CW01	0284621R	EL 0.47MF 50V	C0027	0880051	PF 0.033MF +-10% 50V
CW04	0890081R	CD 330PF +-10% 50V	C0031	0800048	EL 100MF 10V
CW05	800049	EL 100MF 16V	C0032	0244171	CD 0.01MF +80-20% 50V
CW06	880044	PF 0.01MF 16V	C0033	0890074	CD 100PF +-5% 50V
CW09	890074	CD 100PF +-5% 50V	C0034	0880051	PF 0.033MF +-10% 50V
CW10	244541	CD 0.01MF +-10% 500V	C0035	800009	EL 4.7MF 25V
CW11	890074	CD 100PF +-5% 50V	C0036	0800009	EL 4.7MF 25V
CW12	244509	CD 4700PF +-5% 50V	C0037	0890069	CD 47PF +-5% 50V
CW13	253960	EL 100MF 160V	C0038	0800048	EL 100MF 10V
CW14	0253959F	EL 47MF 160V	C0039	0244171	CD 0.01MF +80-20% 50V
CW15	253957	EL 22MF 160V	C0040	0800003	EL 1MF 50V
CW16	247848	CD 56PF +-5% 500V	C0041	0880046	PF 0.015MF +-10% 50V
CW17	800074	EL 47MF 16V	C0042	0244107	CD 3300PF +-10% 50V
CW18	800042	EL 47MF 25V	C0045	0800049	EL 100MF 16V
CW19	0253959F	EL 47MF 160V	C0046	0890067	CD 33PF +-5% 50V
CW20	244541	CD 0.01MF +-10% 500V	C0047	0890067	CD 33PF +-5% 50V
CW21	276717	PF 0.1MF +-5% 50V	C0048	0800048	EL 100MF 10V
CW22	276717	PF 0.1MF +-5% 50V	C0049	0244171	CD 0.01MF +80-20% 50V
CW23	800049	EL 100MF 16V	C0052	0800003	EL 1MF 50V
CW24	800041	EL 47MF 16V	C0053	0800049	EL 100MF 16V
CW28	890077	CD 180PF +-10% 50V	C0054	0800039	EL 47MF 10V
C0001	0800048	EL 100MF 10V	C0055	0800015	EL 10MF 16V
C0002	0244171	CD 0.01MF +80-20% 50V	C0056	0800048	EL 100MF 10V
C0005	0244171	CD 0.01MF +80-20% 50V	C0057	0890074	CD 100PF +-5% 50V
C0006	276717	PF 0.1MF +-5% 50V	C0058	0890071	CD 56PF +-5% 50V
C0009	0800009	EL 4.7MF 25V	C0059	0890087	CD 1000PF +-10% 50V
C0010	0800009	EL 4.7MF 25V	C0060	0890079R	CD 270PF +-10% 50V
C0011	0800009	EL 4.7MF 25V	C0061	0800049	EL 100MF 16V
C0012	0800009	EL 4.7MF 25V	C0062	0244171	CD 0.01MF +80-20% 50V
C0013	0800009	EL 4.7MF 25V	C0064	0890074	CD 100PF +-5% 50V
C0014	0800009	EL 4.7MF 25V	C0065	0890074	CD 100PF +-5% 50V
C0015	0800009	EL 4.7MF 25V	C0066	0890074	CD 100PF +-5% 50V
C0018	0880048	PF 0.022MF +-10% 50V	C0067	0890074	CD 100PF +-5% 50V
C0019	800023	EL 22MF 16V	C0068	0890074	CD 100PF +-5% 50V
C0020	0890087	CD 1000PF +-10% 50V	C0069	0890074	CD 100PF +-5% 50V
C0021	276717	PF 0.1MF +-5% 50V	C0070	0800049	EL 100MF 16V
C0022	0800003	EL 1MF 50V	C0071	0800049	EL 100MF 16V
C0023	0890067	CD 33PF +-5% 50V	C0074	0800074	EL 470MF 16V
C0024	0890067	CD 33PF +-5% 50V	C0076	890033	CD 680PF +-10% 50V
C0025	0880053	PF 0.047MF +-10% 50V	C0077	0890077	CD 180PF +-10% 50V
			C0501	0800023	EL 22MF 16V
			C0502	0244171	CD 0.01MF +80-20% 50V

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C0503	0800003	EL 1MF 50V	C2129	0800015	EL 10MF 16V
C0504	0244171	CD 0.01MF +80-20% 50V	C2131	0800015	EL 10MF 16V
C0505	0244171	CD 0.01MF +80-20% 50V	C2137	0800049	EL 100MF 16V
C0510	0880011	PF 0.015MF +-10% 50V	C2138	0800015	EL 10MF 16V
C0511	880013	PF 0.033MF +-10% 50V	C2139	0800015	EL 10MF 16V
C0512	0880006	PF 3300PF +-10% 50V	C2140	0880014	PF 0.047MF +-10% 50V
C0513	0880006	PF 3300PF +-10% 50V	C2142	0880016	PF 0.1MF +-10% 50V
C0514	0880016	PF 0.1MF +-10% 50V	C2143	0800049	EL 100MF 16V
C0515	0800015	EL 10MF 16V	C2144	0800041	EL 47MF 16V
C0516	0880016	PF 0.1MF +-10% 50V	C2145	0244141	CD 0.01MF +-10% 50V
C0961	276717	PF 0.1MF +-5% 50V	C2146	0244141	CD 0.01MF +-10% 50V
C0962	0800075	EL 470MF 25V	C2147	0800041	EL 47MF 16V
C0963	276717	PF 0.1MF +-5% 50V	C2148	0284623R	EL 1MF 50V
C0964	276717	PF 0.1MF +-5% 50V	C2149	0284623R	EL 1MF 50V
C0965	0800075	EL 470MF 25V	C2150	0284623R	EL 1MF 50V
C0966	276717	PF 0.1MF +-5% 50V	C2151	0284623R	EL 1MF 50V
C0967	276717	PF 0.1MF +-5% 50V	C2152	0284623R	EL 1MF 50V
C0968	276717	PF 0.1MF +-5% 50V	C2153	0284623R	EL 1MF 50V
C0969	0800075	EL 470MF 25V	C2154	0244229	CD 150PF +-10% 50V
C1109	0800049	EL 100MF 16V	C2155	0244141	CD 0.01MF +-10% 50V
C1117	0800049	EL 100MF 16V	C2156	0800044	EL 47MF 50V
C1301	0890087	CD 1000PF +-10% 50V	C2160	0880011	PF 0.015MF +-10% 50V
C1302	0800044	EL 47MF 50V	C2161	0880009	PF 0.01MF +-10% 50V
C1311	0890087	CD 1000PF +-10% 50V	C2162	0299029	PF 0.015MF +-2% 100V
C1312	0800044	EL 47MF 50V	C2163	0800003	EL 1MF 50V
C1326	0890087	CD 1000PF +-10% 50V	C2164	0800003	EL 1MF 50V
C1327	0800044	EL 47MF 50V	C2166	880013	PF 0.033MF +-10% 50V
C1336	0890087	CD 1000PF +-10% 50V	C2175	0299029	PP 0.015MF +-2% 100V
C1337	0800044	EL 47MF 50V	C2176	0880009	PF 0.01MF +-10% 50V
C1351	0890087	CD 1000PF +-10% 50V	C2177	0880011	PF 0.015MF +-10% 50V
C1352	0800044	EL 47MF 50V	C2178	0800003	EL 1MF 50V
C1361	0890087	CD 1000PF +-10% 50V	C2179	0800003	EL 1MF 50V
C1362	0800044	EL 47MF 50V	C2180	0800003	EL 1MF 50V
C1387	0258178G	EL 470MF 63V	C2181	0800003	EL 1MF 50V
C1389	0258178G	EL 470MF 63V	C2182	0800015	EL 10MF 16V
C1501	0800041	EL 47MF 16V	C2183	0800003	EL 1MF 50V
C1502	0800041	EL 47MF 16V	C2184	0800015	EL 10MF 16V
C1517	0880044	PF 0.01MF +-10% 50V	C2185	0800003	EL 1MF 50V
C1520	0880044	PF 0.01MF +-10% 50V	C2186	0800003	EL 1MF 50V
C1523	0880044	PF 0.01MF +-10% 50V	C2187	0800003	EL 1MF 50V
C1526	0880044	PF 0.01MF +-10% 50V	C2188	0800003	EL 1MF 50V
C2101	0244136	CD 270PF +-10% 50V	C2189	880013	PF 0.033MF +-10% 50V
C2103	0880001	PF 680PF +-10% 50V	C2190	0800015	EL 10MF 16V
C2104	0800015	EL 10MF 16V	C2191	0800003	EL 1MF 50V
C2105	0800003	EL 1MF 50V	C2192	0800015	EL 10MF 16V
C2106	0800015	EL 10MF 16V	C2195	0880012	PF 0.022MF +-10% 50V
C2107	0800015	EL 10MF 16V	C2196	0880012	PF 0.022MF +-10% 50V
C2112	0800001	EL 0.47MF 50V	C2197	0800003	EL 1MF 50V
C2113	0800015	EL 10MF 16V	C2198	0800003	EL 1MF 50V
C2117	0800015	EL 10MF 16V	C3006	0244171	CD 0.01MF +80-20% 50V
C2124	0880005	PF 2200PF +-10% 50V	C3007	0800015	EL 10MF 16V
C2126	0299001	PP 0.001MF +-2% 100V	C3010	0800015	EL 10MF 16V
C2127	0800003	EL 1MF 50V	C3013	0800015	EL 10MF 16V

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C3014	0284638	EL 10MF 16V	C3523	0800015	EL 10MF 16V
C3016	0284638	EL 10MF 16V	C3524	0800015	EL 10MF 16V
C3018	0244171	CD 0.01MF +80-20% 50V	C3525	0244171	CD 0.01MF +80-20% 50V
C3019	0800023	EL 22MF 16V	C3526	0244171	CD 0.01MF +80-20% 50V
C3021	0800015	EL 10MF 16V	C3527	0244171	CD 0.01MF +80-20% 50V
C3024	0800047	EL 100MF 6.3V	C3528	0244171	CD 0.01MF +80-20% 50V
C3025	0800041	EL 47MF 16V	C3530	0800023	EL 22MF 16V
C3026	0800015	EL 10MF 16V	C3531	0800015	EL 10MF 16V
C3027	0800041	EL 47MF 16V	C3532	0800015	EL 10MF 16V
C3028	0800041	EL 47MF 16V	C3534	0244171	CD 0.01MF +80-20% 50V
C3029	0800009	EL 4.7MF 25V	C3536	0890087	CD 1000PF +-10% 50V
C3030	0800015	EL 10MF 16V	C3537	0800015	EL 10MF 16V
C3031	0800003	EL 1MF 50V	C3538	276717	PF 0.1MF +-5% 50V
C3032	0800003	EL 1MF 50V	C3539	0890075	CD 120PF +-5% 50V
C3038	0244171	CD 0.01MF +80-20% 50V	C3540	0800049	EL 100MF 16V
C3039	0800015	EL 10MF 16V	C3801	0800015	EL 10MF 16V
C3040	0800003	EL 1MF 50V	C3802	0800015	EL 10MF 16V
C3041	0800003	EL 1MF 50V	C3803	0800041	EL 47MF 16V
C3042	0800015	EL 10MF 16V	C3804	0800015	EL 10MF 16V
C3043	0800003	EL 1MF 50V	C3805	0244171	CD 0.01MF +80-20% 50V
C3044	0800015	EL 10MF 16V	C3806	0800015	EL 10MF 16V
C3045	0800023	EL 22MF 16V	C3807	0244171	CD 0.01MF +80-20% 50V
C3047	0800015	EL 10MF 16V	C4001	0800009	EL 4.7MF 25V
C3048	0800003	EL 1MF 50V	C4002	276717	PF 0.1MF +-5% 50V
C3049	0800003	EL 1MF 50V	C4003	0880044	PF 0.01MF +-10% 50V
C3051	0800041	EL 47MF 16V	C4004	0800001	EL 0.47MF 50V
C3052	0800074	EL 470MF 16V	C4005	0800074	EL 470MF 16V
C3055	0800015	EL 10MF 16V	C4006	0800001	EL 0.47MF 50V
C3056	0800015	EL 10MF 16V	C4007	0800001	EL 0.47MF 50V
C3058	0800003	EL 1MF 50V	C4008	0800009	EL 4.7MF 25V
C3059	0284638	EL 10MF 16V	C4009	0800001	EL 0.47MF 50V
C3060	0244171	CD 0.01MF +80-20% 50V	C4010	0800005	EL 2.2MF 50V
C3061	276717	PF 0.1MF +-5% 50V	C4011	0800007	EL 3.3MF 50V
C3062	276717	PF 0.1MF +-5% 50V	C4012	0800001	EL 0.47MF 50V
C3063	0800015	EL 10MF 16V	C4013	0800001	EL 0.47MF 50V
C3064	0800015	EL 10MF 16V	C4014	0292714F	TA 10MF +-10% 16V
C3065	0800015	EL 10MF 16V	C4015	0800015	EL 10MF 16V
C3066	0800015	EL 10MF 16V	C4016	0800009	EL 4.7MF 25V
C3067	0800041	EL 47MF 16V	C4017	0800003	EL 1MF 50V
C3068	0800041	EL 47MF 16V	C4018	0276719	PF 0.15MF +-5% 50V
C308	276717	PF 0.1MF +-5% 50V	C4019	0800003	EL 1MF 50V
C3504	0800049	EL 100MF 16V	C4020	0276719	PF 0.15MF +-5% 50V
C3505	0244171	CD 0.01MF +80-20% 50V	C4021	0800009	EL 4.7MF 25V
C3508	0800015	EL 10MF 16V	C4022	0800003	EL 1MF 50V
C3509	0800015	EL 10MF 16V	C4023	0276719	PF 0.15MF +-5% 50V
C3515	0244171	CD 0.01MF +80-20% 50V	C4024	0800003	EL 1MF 50V
C3516	0244171	CD 0.01MF +80-20% 50V	C4025	0276719	PF 0.15MF +-5% 50V
C3517	0244171	CD 0.01MF +80-20% 50V	C4026	0800041	EL 47MF 16V
C3518	0244171	CD 0.01MF +80-20% 50V	C403	0800003	EL 1MF 50V
C3519	0800003	EL 1MF 50V	C4038	0800015	EL 10MF 16V
C3520	0800003	EL 1MF 50V	C4039	0800074	EL 470MF 16V
C3521	0800015	EL 10MF 16V	C404	0800003	EL 1MF 50V
C3522	0800003	EL 1MF 50V	C4040	0880044	PF 0.01MF +-10% 50V

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C4041	0253943	EL 0.33MF 50V	C4607	0800041	EL 47MF 16V
C4042	0800041	EL 47MF 16V	C4608	0800049	EL 100MF 16V
C4043	0800003	EL 1MF 50V	C4609	0284638	EL 10MF 16V
C4044	0253943	EL 0.33MF 50V	C4610	0284638	EL 10MF 16V
C4045	0880044	PF 0.01MF +-10% 50V	C4611	0800105	EL 0.33MF 50V
C4046	0800015	EL 10MF 16V	C4612	0276717	PF 0.1MF +-5% 50V
C4047	0800049	EL 100MF 16V	C4613	0276717	PF 0.1MF +-5% 50V
C4048	0800049	EL 100MF 16V	C4614	0890085	CD 680PF +-10% 50V
C405	0244105	CD 2200PF +-10% 50V	C4615	0800012	EL 4.7MF 50V
C4054	0800015	EL 10MF 16V	C4616	0800012	EL 4.7MF 50V
C4055	0800015	EL 10MF 16V	C4617	0276719	PF 0.15MF +-5% 50V
C4056	0890069	CD 47PF +-5% 50V	C4618	0800007	EL 3.3MF 50V
C4057	0890069	CD 47PF +-5% 50V	C4619	0276719	PF 0.15MF +-5% 50V
C4058	0800048	EL 100MF 10V	C4620	0276719	PF 0.15MF +-5% 50V
C4059	0292712F	TA 3.3MF 16V	C4621	0800007	EL 3.3MF 50V
C406	0244105	CD 2200PF +-10% 50V	C4622	0276719	PF 0.15MF +-5% 50V
C4060	276717	PF 0.1MF +-5% 50V	C4623	0800012	EL 4.7MF 50V
C4061	0800041	EL 47MF 16V	C4624	0800012	EL 4.7MF 50V
C4062	0800009	EL 4.7MF 25V	C4625	0890085	CD 680PF +-10% 50V
C4063	0800009	EL 4.7MF 25V	C4626	0276717	PF 0.1MF +-5% 50V
C4064	0800015	EL 10MF 16V	C4627	0276717	PF 0.1MF +-5% 50V
C4065	0800015	EL 10MF 16V	C4628	0800105	EL 0.33MF 50V
C4071	0800074	EL 470MF 16V	C4629	0276717	PF 0.1MF +-5% 50V
C4072	0800015	EL 10MF 16V	C4630	0800049	EL 100MF 16V
C4073	0800015	EL 10MF 16V	C4631	0880066	PF 0.47MF +-10% 50V
C4075	0800015	EL 10MF 16V	C4632	0284638	EL 10MF 16V
C4076	0800015	EL 10MF 16V	C4633	0284638	EL 10MF 16V
C4077	0800015	EL 10MF 16V	C4634	0284638	EL 10MF 16V
C408	0800051	EL 100MF 25V	C4635	0284638	EL 10MF 16V
C409	0800042	EL 47MF 25V	C4636	0880046	PF 0.015MF +-10% 50V
C412	0800042	EL 47MF 25V	C4637	0880044	PF 0.01MF +-10% 50V
C414	0276717	PF 0.1MF +-5% 50V	C4638	0890085	CD 680PF +-10% 50V
C416	0276717	PF 0.1MF +-5% 50V	C4639	0276717	PF 0.1MF +-5% 50V
C417	0253934	EL 2200MF 35V	C4640	0800015	EL 10MF 16V
C418	0258192F	EL 2200MF 25V	C4641	0284638	EL 10MF 16V
C420	0258192F	EL 2200MF 25V	C4642	0800041	EL 47MF 16V
C421	0276721	PF 0.22MF +-5% 50V	C4643	0800105	EL 0.33MF 50V
C422	0800042	EL 47MF 25V	C4644	0800041	EL 47MF 16V
C424	0800051	EL 100MF 25V	C4645	0800015	EL 10MF 16V
C425	0244171	CD 0.01MF +80-20% 50V	C4646	0800015	EL 10MF 16V
C427	0800087	EL 2200MF 16V	C4649	0800015	EL 10MF 16V
C428	0800087	EL 2200MF 16V	C4650	0800015	EL 10MF 16V
C430	0800003	EL 1MF 50V	C4655	0800003	EL 1MF 50V
C432	0800066	EL 330MF 16V	C4656	0800105	EL 0.33MF 50V
C433	0800087	EL 2200MF 16V	C4657	0284638	EL 10MF 16V
C434	0800003	EL 1MF 50V	C4658	0880044	PF 0.01MF +-10% 50V
C435	0800015	EL 10MF 16V	C4659	0800015	EL 10MF 16V
C436	0800003	EL 1MF 50V	C4660	0800015	EL 10MF 16V
C437	0276717	PF 0.1MF +-5% 50V	C4661	0860059	PF 0.15MF 50V
C4501	0258616	EL 2.2MF 50V	C4662	0890076	CD 150PF +-10% 50V
C4502	0258616	EL 2.2MF 50V	C4663	0880048	PF 0.022MF +-10% 50V
C4605	0800015	EL 10MF 16V	C4664	0890087	CD 1000PF +-10% 50V
C4606	0800015	EL 10MF 16V	C4665	0800012	EL 4.7MF 50V

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C4666	0800074	EL 470MF 16V	C4719	0800083	EL 1000MF 25V
C4667	0800012	EL 4.7MF 50V	C4722	0800042	EL 47MF 25V
C4668	0890087	CD 1000PF +-10% 50V	C4726	0880044	PF 0.01MF +-10% 50V
C4669	0880048	PF 0.022MF +-10% 50V	C4727	0880044	PF 0.01MF +-10% 50V
C4670	0890076	CD 150PF +-10% 50V	C4728	0284638	EL 10MF 16V
C4671	0800058	EL 220MF 16V	C4729	0284638	EL 10MF 16V
C4672	0800058	EL 220MF 16V	C4731	0276721	PF 0.22MF +-5% 50V
C4673	0276717	PF 0.1MF +-5% 50V	C4732	0284623R	EL 1MF 50V
C4674	0800058	EL 220MF 16V	C4733	0284623R	EL 1MF 50V
C4675	0880044	PF 0.01MF +-10% 50V	C4734	0880031	PF 1000PF +-10% 50V
C4676	0800058	EL 220MF 16V	C4735	0880031	PF 1000PF +-10% 50V
C4677	0276717	PF 0.1MF +-5% 50V	C4736	0800003	EL 1MF 50V
C4678	0890119	CD 27PF +-5% 50V	C4739	0800015	EL 10MF 16V
C4679	0890119	CD 27PF +-5% 50V	C4740	880044	PF 0.01MF +-10% 50V
C4680	0800103	EL 0.22MF 50V	C5503	0244171	CD 0.01MF +-80-20% 50V
C4681	0880055	PF 0.068MF +-10% 50V	C5504	0246448	CD 22PF +-5% 50V
C4682	0880038R	PF 3900PF +-10% 50V	C5505	0800009	EL 4.7MF 25V
C4683	0880039	PF 4700PF +-10% 50V	C5506	0800049	EL 100MF 16V
C4684	0880051	PF 0.033MF +-10% 50V	C5507	0244171	CD 0.01MF +-80-20% 50V
C4685	0284638	EL 10MF 16V	C5508	0800049	EL 100MF 16V
C4686	0800003	EL 1MF 50V	C5510	0800049	EL 100MF 16V
C4687	0284638	EL 10MF 16V	C5511	0800003	EL 1MF 50V
C4688	0284638	EL 10MF 16V	C5512	0800003	EL 1MF 50V
C4689	0284638	EL 10MF 16V	C5513	0800003	EL 1MF 50V
C4690	0880041	PF 5600PF +-10% 50V	C5514	0244171	CD 0.01MF +-80-20% 50V
C4691	0890084	CD 560PF +-10% 50V	C5515	0244171	CD 0.01MF +-80-20% 50V
C4692	0880042	PF 6800PF +-10% 50V	C5516	0890116	CD 15PF +-5% 50V
C4693	0284638	EL 10MF 16V	C5517	0800001	EL 0.47MF 50V
C4694	0284638	EL 10MF 16V	C5518	0244171	CD 0.01MF +-80-20% 50V
C4695	0276721	PF 0.22MF +-5% 50V	C5519	0244171	CD 0.01MF +-80-20% 50V
C4696	0284638	EL 10MF 16V	C5520	0244171	CD 0.01MF +-80-20% 50V
C4697	0890085	CD 680PF +-10% 50V	C5521	0244171	CD 0.01MF +-80-20% 50V
C4698	0800015	EL 10MF 16V	C5522	0244171	CD 0.01MF +-80-20% 50V
C4699	0284638	EL 10MF 16V	C5523	0244171	CD 0.01MF +-80-20% 50V
C4700	0800041	EL 47MF 16V	C5524	0244171	CD 0.01MF +-80-20% 50V
C4701	0800105	EL 0.33MF 50V	C5525	0800015	EL 10MF 16V
C4702	0880044	PF 0.01MF +-10% 50V	C5526	0244107	CD 3300PF +-10% 50V
C4703	0800041	EL 47MF 16V	C5527	0244171	CD 0.01MF +-80-20% 50V
C4704	0800003	EL 1MF 50V	C5529	0800003	EL 1MF 50V
C4705	0800105	EL 0.33MF 50V	C5530	0890079R	CD 270PF +-10% 50V
C4706	0880044	PF 0.01MF +-10% 50V	C5531	0890087	CD 1000PF +-10% 50V
C4707	0284638	EL 10MF 16V	C5533	0880047	PF 0.018MF +-10% 50V
C4708	0800042	EL 47MF 25V	C5535	0800005	EL 2.2MF 50V
C4709	0800018	EL 10MF 50V	C5536	0800003	EL 1MF 50V
C4710	0800018	EL 10MF 50V	C5538	0800049	EL 100MF 16V
C4711	0800042	EL 47MF 25V	C5539	0244171	CD 0.01MF +-80-20% 50V
C4712	0800059	EL 220MF 25V	C5540	0800003	EL 1MF 50V
C4713	0800018	EL 10MF 50V	C5545	0276717	PF 0.1MF +-5% 50V
C4714	0252969	EL 220MF 25V	C5546	0800049	EL 100MF 16V
C4715	0276717	PF 0.1MF +-5% 50V	C5547	0244171	CD 0.01MF +-80-20% 50V
C4716	0276717	PF 0.1MF +-5% 50V	C5548	800058	EL 220MF 16V
C4717	0276717	PF 0.1MF +-5% 50V	C5901	0800049	EL 100MF 16V
C4718	0800083	EL 1000MF 25V	C5902	0244171	CD 0.01MF +-80-20% 50V

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C5904	0800015	EL 10MF 16V	C744	0880048	PF 0.022MF +-10% 50V
C5905	0284638	EL 10MF 16V	C745	0276717	PF 0.1MF +-5% 50V
C5906	0890089	CD 1500PF +-10% 50V	C750	0890087	CD 1000PF +-10% 50V
C604	0800023	EL 22MF 16V	C752	0890084	CD 560PF +-10% 50V
C605	0284647R	EL 22MF 16V	C753	0880051	PF 0.033MF +-10% 50V
C606	0800003	EL 1MF 50V	C755	0244109	CD 4700PF +-10% 50V
C608	0284446R	EL 1MF 50V	C760	0243503	CD 150PF +-10% 500V
C609	0284446R	EL 1MF 50V	C763	0890089	CD 1500PF +-10% 50V
C610	276721	PF 0.22MF +-5% 50V	C770	0890082R	CD 390PF +-10% 50V
C611	0800041	EL 47MF 16V	C771	0880044	PF 0.01MF +-10% 50V
C612	0284647R	EL 22MF 16V	C772	0800015	EL 10MF 16V
C613	0244109	CD 4700PF +-10% 50V	C773	0284642R	EL 10MF 50V
C620	0800003	EL 1MF 50V	C775	0880041	PF 5600PF +-10% 50V
C621	0284449R	EL 4.7MF 50V	C776	0890083	CD 470PF +-10% 50V
C630	0800015	EL 10MF 16V	C781	0800041	EL 47MF 16V
C631	276721	PF 0.22MF +-5% 50V	C790	0800074	EL 470MF 16V
C632	0800015	EL 10MF 16V	C791	0800074	EL 470MF 16V
C633	0800015	EL 10MF 16V	C792	284638	EL 10MF 16V
C651	0279859	PF 0.1MF +-10% 100V	C793	0800015	EL 10MF 16V
C652	0880051	PF 0.033MF +-10% 50V	C794	0244109	CD 4700PF +-10% 50V
C653	0880044	PF 0.01MF +-10% 50V	C795	0284449R	EL 4.7MF 50V
C654	0800069	EL 330MF 50V	C796	0800041	EL 47MF 16V
C655	0252969	EL 220MF 25V	C797	0800049	EL 100MF 16V
C656	0800069	EL 330MF 50V	C801G	0257543	EL 3.3MF 315V
C658	0800049	EL 100MF 16V	C804B	0244889	CD 2200PF +-10% 2KV
C659	0284446R	EL 1MF 50V	C804G	0244889	CD 2200PF +-10% 2KV
Δ C660	0298261R	TA 1MF +-10% 35V	C804R	0244889	CD 2200PF +-10% 2KV
C664	0800067	EL 330MF 25V	C805B	0800326	EL 100MF 16V
C665	0800015	EL 10MF 16V	C805G	0800326	EL 100MF 16V
C668	0880044	PF 0.01MF +-10% 50V	C805R	0800326	EL 100MF 16V
C669	0800043	EL 47MF 35V	C806B	0244501	CD 1000PF +-10% 500V
C701	0880044	PF 0.01MF +-10% 50V	C807B	0244105	CD 2200PF +-10% 50V
C711	0299926	PP 0.1MF +-10% 200V	C807G	0244105	CD 2200PF +-10% 50V
C713	0244501	CD 1000PF +-10% 500V	C807R	0244105	CD 2200PF +-10% 50V
C714	0243507	CD 330PF +-10% 500V	C808B	0244120	CD 820PF +-10% 50V
C715	0890028	CD 330PF +-10% 50V	C808G	0244102	CD 1200PF +-10% 50V
Δ C716	0299929	PP 0.18MF +-10% 200V	C808R	0244139	CD 1000PF +-10% 50V
Δ C717	0262426F	PP 9100PF +-5% 1.8KV	C809B	0244227R	CD 100PF +-10% 50V
Δ C718	0262415F	PP 3600PF +-5% 1.8KV	Δ C901	0279718	PF 0.1MF +-10% 125V
Δ C719	0299929	PP 0.18MF +-10% 200V	Δ C902	0279718	PF 0.1MF +-10% 125V
Δ C720	0299929	PP 0.18MF +-10% 200V	Δ C903	0248593F	CD 4700PF +-80-20% 250V
Δ C721	0299918	PP 0.022MF +-10% 200V	Δ C904	0248593F	CD 4700PF +-80-20% 250V
C722	0259473	EL 6.8MF 25V	Δ C905	0248593F	CD 4700PF +-80-20% 250V
Δ C723	0244211F	CD 1000PF +-10% 2KV	Δ C906	0248593F	CD 4700PF +-80-20% 250V
C724	0259153	EL 220MF 160V	C907	0259167	EL 820MF 200V
C726	0284634R	EL 4.7MF 50V	C908	0259167	EL 820MF 200V
C727	0244504	CD 1800PF +-10% 500V	Δ C909	0249486	CD 2200PF +-20%
C729	0253983F	EL 33MF	C911	0890087	CD 1000PF +-10% 50V
C731	0800053	EL 100MF 50V	C912	0800067	EL 330MF 25V
C732	0299636	PP 0.068MF +-5% 1600V	C913	0880044	PF 0.01MF +-10% 50V
C738	0243510	CD 560PF +-10% 500V	C914	0880035	PF 2200PF +-10% 50V
C739	0800018	EL 10MF 50V	C915	0880044	PF 0.01MF +-10% 50V
C743	0800003	EL 1MF 50V	C916	0299981	PP 0.01MF +-5% 630V

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C917	0880031	PF 1000PF $\pm 10\%$ 50V	RW21	0113701	CF 10 OHM $\pm 5\%$ 1/2W
C918	0800009	EL 4.7MF 25V	RW22	0100039	CF 82 OHM $\pm 5\%$ 1/8W
Δ C920	0249487	CD 3300PF $\pm 20\%$	RW23	0100039	CF 82 OHM $\pm 5\%$ 1/8W
C931	0800075	EL 470MF 25V	RW24	0114165	CF 1.5K OHM $\pm 5\%$ 1/4W
C932	0800015	EL 10MF 16V	RW25	0100069	CF 1.5K OHM $\pm 5\%$ 1/8W
C933	0800049	EL 100MF 16V	RW26	0114143	CF 330 OHM $\pm 5\%$ 1/4W
C941	0258175	EL 470MF 31.5V	RW27	0114221	CF 68K OHM $\pm 5\%$ 1/4W
C942	0880044	PF 0.01MF $\pm 10\%$ 50V	RW28	0114221	CF 68K OHM $\pm 5\%$ 1/4W
C943	0244105	CD 2200PF $\pm 10\%$ 50V	RW29	0100053	CF 330 OHM $\pm 5\%$ 1/8W
C944	0258178G	EL 470MF 63V	RW30	0113776	CF 12K OHM $\pm 5\%$ 1/2W
C945	0284439	EL 470MF 35V	RW31	0113716	CF 43 OHM $\pm 5\%$ 1/2W
C947	0800043	EL 47MF 35V	RW32	0113716	CF 43 OHM $\pm 5\%$ 1/2W
C948	0800043	EL 47MF 35V	RW33	0113686	CF 2.7 OHM $\pm 5\%$ 1/2W
C949	0258178G	EL 470MF 63V	RW34	0113686	CF 2.7 OHM $\pm 5\%$ 1/2W
C950	0284439F	EL 470MF 35V	RW35	0110229	CF 220 OHM $\pm 5\%$ 2W
C952	0276717	PF 0.1MF $\pm 5\%$ 50V	RW36	0110135	CF 390 OHM $\pm 5\%$ 1W
C953	0276717	PF 0.1MF $\pm 5\%$ 50V	RW37	0110132	CF 300 OHM $\pm 5\%$ 1W
C954	0800042	EL 47MF 25V	RW38	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W
C956	0258175	EL 470MF 31.5V	RW39	0700054	CF 10K OHM $\pm 5\%$ 1/16W
C957	0258179G	EL 1000MF 6	RW40	0700061	CF 33K OHM $\pm 5\%$ 1/16W
C958	0258175	EL 470MF 31.5V	RW41	0700036	CF 470 OHM $\pm 5\%$ 1/16W
C959	0800044	EL 47MF 50V	RW42	0700037	CF 100K OHM $\pm 5\%$ 1/16W
C960	0276717	PF 0.1MF $\pm 5\%$ 50V	RW43	0700054	CF 10K OHM $\pm 5\%$ 1/16W
C981	0276717	PF 0.1MF $\pm 5\%$ 50V	RW44	0700042	CF 1.2K OHM $\pm 5\%$ 1/16W
C982	0800018	EL 10MF 50V	RW45	0700067	CF 100K OHM $\pm 5\%$ 1/16W
C983	0800044	EL 47MF 50V	R0001	0700041	CF 1K OHM $\pm 5\%$ 1/16W
C984	0258697	EL 470MF 160V	R0002	0700041	CF 1K OHM $\pm 5\%$ 1/16W
C985	0800041	EL 47MF 16V	R0003	0700058	CF 22K OHM $\pm 5\%$ 1/16W
C986	0800023	EL 22MF 16V	R0004	0700041	CF 1K OHM $\pm 5\%$ 1/16W
C987	0800003	EL 1MF 50V	R0005	0700041	CF 1K OHM $\pm 5\%$ 1/16W
C989	0800003	EL 1MF 50V	R0006	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W
C990	0800082	EL 1000MF 16V	R0008	0700055	CF 12K OHM $\pm 5\%$ 1/16W
C991	0258121R	EL 2.2MF 100V	R0009	0700055	CF 12K OHM $\pm 5\%$ 1/16W
C992	0880044	PF 0.01MF $\pm 10\%$ 50V	R0010	0700055	CF 12K OHM $\pm 5\%$ 1/16W
C994	0800079	EL 1000MF 6.3V	R0011	0700056	CF 15K OHM $\pm 5\%$ 1/16W
		RESISTORS	R0012	0700056	CF 15K OHM $\pm 5\%$ 1/16W
RW01	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0013	0700056	CF 15K OHM $\pm 5\%$ 1/16W
RW02	0700059	CF 27K OHM $\pm 5\%$ 1/16W	R0015	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W
RW04	0700035	CF 390 OHM $\pm 5\%$ 1/16W	R0016	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W
RW06	0700036	CF 470 OHM $\pm 5\%$ 1/16W	R0017	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W
RW07	0700059	CF 27K OHM $\pm 5\%$ 1/16W	R0018	0700053	CF 8.2K OHM $\pm 5\%$ 1/16W
RW08	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0019	0700055	CF 12K OHM $\pm 5\%$ 1/16W
RW09	0700033	CF 270 OHM $\pm 5\%$ 1/16W	R0020	0700053	CF 8.2K OHM $\pm 5\%$ 1/16W
RW10	0700033	CF 270 OHM $\pm 5\%$ 1/16W	R0021	0700053	CF 8.2K OHM $\pm 5\%$ 1/16W
RW11	0700042	CF 1.2K OHM $\pm 5\%$ 1/16W	R0031	0700041	CF 1K OHM $\pm 5\%$ 1/16W
RW12	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R0032	0700067	CF 100K OHM $\pm 5\%$ 1/16W
RW13	0700058	CF 22K OHM $\pm 5\%$ 1/16W	R0033	0700027	CF 100 OHM $\pm 5\%$ 1/16W
RW16	0113742	CF 470 OHM $\pm 5\%$ 1/2W	R0034	0700041	CF 1K OHM $\pm 5\%$ 1/16W
RW17	0700046	CF 2.7K OHM $\pm 5\%$ 1/16W	R0035	0700067	CF 100K OHM $\pm 5\%$ 1/16W
RW19	0700025	CF 68 OHM $\pm 5\%$ 1/16W	R0036	0700041	CF 1K OHM $\pm 5\%$ 1/16W
RW20	0100065	CF 1K OHM $\pm 5\%$ 1/8W	R0037	0700067	CF 100K OHM $\pm 5\%$ 1/16W
			R0038	0700041	CF 1K OHM $\pm 5\%$ 1/16W
			R0039	700052	CF 6.8K OHM $\pm 5\%$ 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R0040	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0096	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W
R0041	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0097	0700058	CF 22K OHM $\pm 5\%$ 1/16W
R0042	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0098	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0043	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0099	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0044	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0100	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W
R0045	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0101	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0046	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0102	0700058	CF 22K OHM $\pm 5\%$ 1/16W
R0047	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0103	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0048	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0104	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0049	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0105	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0050	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0106	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0051	0700051	CF 1K OHM $\pm 5\%$ 1/16W	R0107	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W
R0052	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0108	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0053	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0109	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W
R0054	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W	R0110	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0055	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R0111	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0056	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W	R0112	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0057	0700064	CF 56K OHM $\pm 5\%$ 1/16W	R0113	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0059	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W	R0114	700058	CF 22K OHM $\pm 5\%$ 1/16W
R0060	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W	R0115	700058	CF 22K OHM $\pm 5\%$ 1/16W
R0061	0700058	CF 22K OHM $\pm 5\%$ 1/16W	R0116	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0062	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0117	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0063	0700031	CF 180 OHM $\pm 5\%$ 1/16W	R0118	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0064	0700066	CF 82K OHM $\pm 5\%$ 1/16W	R0120	700027	CF 100 OHM $\pm 5\%$ 1/16W
R0065	700064	CF 56K OHM $\pm 5\%$ 1/16W	R0121	700027	CF 100 OHM $\pm 5\%$ 1/16W
R0067	700066	CF 82K OHM $\pm 5\%$ 1/16W	R0122	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0068	700063	CF 47K OHM $\pm 5\%$ 1/16W	R0123	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0069	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R0124	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0070	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0125	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0071	0700058	CF 22K OHM $\pm 5\%$ 1/16W	R0126	0700065	CF 68K OHM $\pm 5\%$ 1/16W
R0073	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0127	0119635	MF 15K OHM $\pm 1\%$ 1/8W
R0074	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0128	0700034	CF 330 OHM $\pm 5\%$ 1/16W
R0075	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0129	0700037	CF 560 OHM $\pm 5\%$ 1/16W
R0076	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0130	0700057	CF 18K OHM $\pm 5\%$ 1/16W
R0077	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0131	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R0078	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R0132	0700022	CF 39 OHM $\pm 5\%$ 1/16W
R0079	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0133	0100065	CF 1K OHM $\pm 5\%$ 1/8W
R0080	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0136	0700064	CF 56K OHM $\pm 5\%$ 1/16W
R0081	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0137	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0082	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0138	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0083	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0139	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0084	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0140	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0085	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0141	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R0086	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0146	0100053	CF 330 OHM $\pm 5\%$ 1/8W
R0087	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0151	0100067	CF 1.2K OHM $\pm 5\%$ 1/8W
R0088	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0152	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0089	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0153	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0090	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0154	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0091	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0155	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0092	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0159	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R0093	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0161	0700056	CF 15K OHM $\pm 5\%$ 1/16W
R0094	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0162	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W
R0095	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R0163	0700056	CF 15K OHM $\pm 5\%$ 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R0164	0700054	CF 10K OHM +-5% 1/16W	R0251	100049	CF 220 OHM +-5% 1/8W
R0165	0700061	CF 33K OHM +-5% 1/16W	R0501	0700041	CF 1K OHM +-5% 1/16W
R0166	0700066	CF 82K OHM +-5% 1/16W	R0502	0700058	CF 22K OHM +-5% 1/16W
R0167	0700054	CF 10K OHM +-5% 1/16W	R0503	0700045	CF 2.2K OHM +-5% 1/16W
R0168	0100065	CF 1K OHM +-5% 1/8W	R0504	0100065	CF 1K OHM +-5% 1/8W
R0169	0700064	CF 56K OHM +-5% 1/16W	R0510	0100125	CF 330K OHM +-5% 1/8W
R0170	0100097	CF 22K OHM +-5% 1/8W	R0511	0700041	CF 1K OHM +-5% 1/16W
R0171	0100056	CF 1.1K OHM +-5% 1/8W	R0512	0100125	CF 330K OHM +-5% 1/8W
R0172	0100041	CF 100 OHM +-5% 1/8W	R0513	0100129	CF 470K OHM +-5% 1/8W
R0173	0100065	CF 1K OHM +-5% 1/8W	R0516	0700041	CF 1K OHM +-5% 1/16W
R0174	0100065	CF 1K OHM +-5% 1/8W	R0517	0700043	CF 1.5K OHM +-5% 1/16W
R0176	0100065	CF 1K OHM +-5% 1/8W	R0518	0187074	CF 2.4K OHM +-5% 1/16W
R0177	0700054	CF 10K OHM +-5% 1/16W	R0519	0187080	CF 4.3K OHM +-5% 1/16W
R0178	0700065	CF 68K OHM +-5% 1/16W	R0520	0100065	CF 1K OHM +-5% 1/8W
R0179	0700054	CF 10K OHM +-5% 1/16W	R0521	0114149	CF 560 OHM +-5% 1/4W
R0180	0100065	CF 1K OHM +-5% 1/8W	R0530	0100115	CF 120K OHM +-5% 1/8W
R0182	0700022	CF 39 OHM +-5% 1/16W	R0531	0700046	CF 2.7K OHM +-5% 1/16W
R0186	0700051	CF 5.6K OHM +-5% 1/16W	R0532	0700052	CF 6.8K OHM +-5% 1/16W
R0187	0700041	CF 1K OHM +-5% 1/16W	R0533	0700046	CF 2.7K OHM +-5% 1/16W
R0188	0150287	VR 10K OHM-B	R0534	0700048	CF 3.9K OHM +-5% 1/16W
R0189	0700054	CF 10K OHM +-5% 1/16W	R0535	0159922	VR 5K OHM-B
R0190	0700054	CF 10K OHM +-5% 1/16W	R0536	0700057	CF 18K OHM +-5% 1/16W
R0191	0700054	CF 10K OHM +-5% 1/16W	R0537	0100121	CF 220K OHM +-5% 1/8W
R0192	0700054	CF 10K OHM +-5% 1/16W	R0538	0700061	CF 33K OHM +-5% 1/16W
R0193	0700054	CF 10K OHM +-5% 1/16W	R0539	0700041	CF 1K OHM +-5% 1/16W
R0194	0700054	CF 10K OHM +-5% 1/16W	R0968	0700054	CF 10K OHM +-5% 1/16W
R0195	0700054	CF 10K OHM +-5% 1/16W	R1101	0700063	CF 47K OHM +-5% 1/16W
R0196	0700058	CF 22K OHM +-5% 1/16W	R1102	0700054	CF 10K OHM +-5% 1/16W
R0197	0700058	CF 22K OHM +-5% 1/16W	R1103	0700058	CF 22K OHM +-5% 1/16W
R0198	0700058	CF 22K OHM +-5% 1/16W	R1104	0700041	CF 1K OHM +-5% 1/16W
R0199	0700058	CF 22K OHM +-5% 1/16W	R1301	0700063	CF 47K OHM +-5% 1/16W
R0200	0700041	CF 1K OHM +-5% 1/16W	R1302	0110229	MF 220 OHM +-5% 2W
R0202	0700066	CF 82K OHM +-5% 1/16W	R1303	0113696	CF 6.8 OHM +-5% 1/2W
R0203	0187064	CF 910 OHM +-5% 1/16W	R1304	0113696	CF 6.8 OHM +-5% 1/2W
R0204	0700061	CF 33K OHM +-5% 1/16W	R1306	0100077	CF 3.3K OHM +-5% 1/8W
R0205	0700061	CF 33K OHM +-5% 1/16W	R1311	0700063	CF 47K OHM +-5% 1/16W
R0206	0700061	CF 33K OHM +-5% 1/16W	R1312	0110225	MF 150 OHM +-5% 2W
R0207	0700063	CF 47K OHM +-5% 1/16W	R1313	0113692	CF 4.7 OHM +-5% 1/2W
R0208	0700063	CF 47K OHM +-5% 1/16W	R1314	0113692	CF 4.7 OHM +-5% 1/2W
R0209	0700063	CF 47K OHM +-5% 1/16W	R1316	0100077	CF 3.3K OHM +-5% 1/8W
R0211	0700058	CF 22K OHM +-5% 1/16W	R1326	0700063	CF 47K OHM +-5% 1/16W
R0212	0700058	CF 22K OHM +-5% 1/16W	R1327	0110229	MF 220 OHM +-5% 2W
R0213	0700049	CF 4.7K OHM +-5% 1/16W	R1328	0113696	CF 6.8 OHM +-5% 1/2W
R0214	0114149	CF 560 OHM +-5% 1/4W	R1329	0113696	CF 6.8 OHM +-5% 1/2W
R0215	0700058	CF 22K OHM +-5% 1/16W	R1331	0100077	CF 3.3K OHM +-5% 1/8W
R0216	0700054	CF 10K OHM +-5% 1/16W	R1336	0700063	CF 47K OHM +-5% 1/16W
R0220	0700055	CF 12K OHM +-5% 1/16W	R1337	0110225	MF 150 OHM +-5% 2W
R0223	0700041	CF 1K OHM +-5% 1/16W	R1338	0113698	CF 8.2 OHM +-5% 1/2W
R0225	0700054	CF 10K OHM +-5% 1/16W	R1339	0113698	CF 8.2 OHM +-5% 1/2W
R0226	0100121	CF 220K OHM +-5% 1/8W	R1341	0100077	CF 3.3K OHM +-5% 1/8W
R0229	0100121	CF 220K OHM +-5% 1/8W	R1351	0700063	CF 47K OHM +-5% 1/16W
R0233	703041	CF 1K OHM +-5% 1/2W	R1352	0110229	MF 220 OHM +-5% 2W
R0250	113725	CF 100 OHM +-5% 1/8W	R1353	0113696	CF 6.8 OHM +-5% 1/2W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R1354	0113696	CF 6.8 OHM +-5% 1/2W	R2111	0150136	VR 5K OHM-B
R1356	0100077	CF 3.3K OHM +-5% 1/8W	R2112	0150136	VR 5K OHM-B
R1361	0700063	CF 47K OHM +-5% 1/16W	R2113	0150136	VR 5K OHM-B
R1362	0110225	MF 150 OHM +-5% 2W	R2114	0150136	VR 5K OHM-B
R1363	0113692	CF 4.7 OHM +-5% 1/2W	R2115	0150136	VR 5K OHM-B
R1364	0113692	CF 4.7 OHM +-5% 1/2W	R2116	0150136	VR 5K OHM-B
R1366	0100077	CF 3.3K OHM +-5% 1/8W	R2117	0150136	VR 5K OHM-B
R1370	0700032	CF 220 OHM +-5% 1/16W	R2118	0150136	VR 5K OHM-B
R1371	0700032	CF 220 OHM +-5% 1/16W	R2119	0150136	VR 5K OHM-B
R1372	0700032	CF 220 OHM +-5% 1/16W	R2120	0150136	VR 5K OHM-B
R1373	0700032	CF 220 OHM +-5% 1/16W	R2121	0150136	VR 5K OHM-B
R1374	0700032	CF 220 OHM +-5% 1/16W	R2122	0150136	VR 5K OHM-B
R1375	0700032	CF 220 OHM +-5% 1/16W	R2123	0150136	VR 5K OHM-B
R1376	0700032	CF 220 OHM +-5% 1/16W	R2124	0150136	VR 5K OHM-B
R1377	0700032	CF 220 OHM +-5% 1/16W	R2125	0150136	VR 5K OHM-B
R1378	0700032	CF 220 OHM +-5% 1/16W	R2126	0150136	VR 5K OHM-B
R1379	0700032	CF 220 OHM +-5% 1/16W	R2127	0150136	VR 5K OHM-B
R1501	0700044	CF 1.8K OHM +-5% 1/16W	R2128	0150136	VR 5K OHM-B
R1503	0700041	CF 1K OHM +-5% 1/16W	R2129	0150136	VR 5K OHM-B
R1504	0700054	CF 10K OHM +-5% 1/16W	R2130	0150136	VR 5K OHM-B
R1505	0700041	CF 1K OHM +-5% 1/16W	R2131	0150136	VR 5K OHM-B
R1507	0700041	CF 1K OHM +-5% 1/16W	R2132	0150136	VR 5K OHM-B
R1508	0700051	CF 5.6K OHM +-5% 1/16W	R2133	0150136	VR 5K OHM-B
R1509	0700048	CF 3.9K OHM +-5% 1/16W	R2134	0150136	VR 5K OHM-B
R1510	0700051	CF 5.6K OHM +-5% 1/16W	R2135	0150136	VR 5K OHM-B
R1511	0700049	CF 4.7K OHM +-5% 1/16W	R2136	0150136	VR 5K OHM-B
R1512	0700051	CF 5.6K OHM +-5% 1/16W	R2137	0150136	VR 5K OHM-B
R1513	0700049	CF 4.7K OHM +-5% 1/16W	R2138	0150136	VR 5K OHM-B
R1514	0700051	CF 5.6K OHM +-5% 1/16W	R2139	0150136	VR 5K OHM-B
R1515	0700051	CF 5.6K OHM +-5% 1/16W	R2140	0150136	VR 5K OHM-B
R1516	0700057	CF 18K OHM +-5% 1/16W	R2141	0150136	VR 5K OHM-B
R1517	0700046	CF 2.7K OHM +-5% 1/16W	R2142	0150136	VR 5K OHM-B
R1518	0700082	CF 39K OHM +-5% 1/16W	R2151	0700044	CF 1.8K OHM +-5% 1/16W
R1519	0700057	CF 18K OHM +-5% 1/16W	R2152	0700042	CF 1.2K OHM +-5% 1/16W
R1520	0700046	CF 2.7K OHM +-5% 1/16W	R2153	0700042	CF 1.2K OHM +-5% 1/16W
R1521	0700062	CF 39K OHM +-5% 1/16W	R2154	0187092	CF 13K OHM +-5% 1/16W
R1522	0700057	CF 18K OHM +-5% 1/16W	R2155	0700049	CF 4.7K OHM +-5% 1/16W
R1523	0700049	CF 4.7K OHM +-5% 1/16W	R2156	0700047	CF 3.3K OHM +-5% 1/16W
R1524	0700062	CF 39K OHM +-5% 1/16W	R2157	0700052	CF 6.8K OHM +-5% 1/16W
R1525	0700057	CF 18K OHM +-5% 1/16W	R2158	0700054	CF 10K OHM +-5% 1/16W
R1526	0700049	CF 4.7K OHM +-5% 1/16W	R2162	0700054	CF 10K OHM +-5% 1/16W
R1527	0700062	CF 39K OHM +-5% 1/16W	R2163	0100121	CF 220K OHM +-5% 1/8W
R1528	0700054	CF 10K OHM +-5% 1/16W	R2164	0114161	CF 1K OHM +-5% 1/4W
R2101	0150136	VR 5K OHM-B	R2165	0100087	CF 8.2K OHM +-5% 1/8W
R2102	0150136	VR 5K OHM-B	R2166	0187072	CF 2K OHM +-5% 1/16W
R2103	0150136	VR 5K OHM-B	R2167	0700049	CF 4.7K OHM +-5% 1/16W
R2104	0150136	VR 5K OHM-B	R2168	0187068	CF 1.3K OHM +-5% 1/16W
R2105	0150136	VR 5K OHM-B	R2169	0187080	CF 4.3K OHM +-5% 1/16W
R2106	0150136	VR 5K OHM-B	R2170	0700055	CF 12K OHM +-5% 1/16W
R2107	0150136	VR 5K OHM-B	R2171	0700047	CF 3.3K OHM +-5% 1/16W
R2108	0150136	VR 5K OHM-B	R2172	0700047	CF 3.3K OHM +-5% 1/16W
R2109	0150136	VR 5K OHM-B	R2173	0700067	CF 100K OHM +-5% 1/16W
R2110	0150136	VR 5K OHM-B	R2174	0700049	CF 4.7K OHM +-5% 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R2175	0700042	CF 1.2K OHM $\pm$ 5% 1/16W	R2245	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2177	0700047	CF 3.3K OHM $\pm$ 5% 1/16W	R2246	0700046	CF 2.7K OHM $\pm$ 5% 1/16W
R2178	0700055	CF 12K OHM $\pm$ 5% 1/16W	R2247	0700063	CF 47K OHM $\pm$ 5% 1/16W
R2179	0700047	CF 3.3K OHM $\pm$ 5% 1/16W	R2250	0700067	CF 100K OHM $\pm$ 5% 1/16W
R2180	0700066	CF 82K OHM $\pm$ 5% 1/16W	R2251	0700058	CF 22K OHM $\pm$ 5% 1/16W
R2182	0700051	CF 5.6K OHM $\pm$ 5% 1/16W	R2252	0700061	CF 33K OHM $\pm$ 5% 1/16W
R2183	0150134	VR 1K OHM-B	R2253	0700042	CF 1.2K OHM $\pm$ 5% 1/16W
R2189	0700055	CF 12K OHM $\pm$ 5% 1/16W	R2254	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2190	0700057	CF 18K OHM $\pm$ 5% 1/16W	R2255	0700051	CF 5.6K OHM $\pm$ 5% 1/16W
R2193	0150136	VR 5K OHM-B	R2256	0700042	CF 1.2K OHM $\pm$ 5% 1/16W
R2194	0150136	VR 5K OHM-B	R2257	0700046	CF 2.7K OHM $\pm$ 5% 1/16W
R2195	0150136	VR 5K OHM-B	R2258	0700052	CF 6.8K OHM $\pm$ 5% 1/16W
R2196	0150136	VR 5K OHM-B	R2259	0700045	CF 2.2K OHM $\pm$ 5% 1/16W
R2197	0700066	CF 82K OHM $\pm$ 5% 1/16W	R2260	0700042	CF 1.2K OHM $\pm$ 5% 1/16W
R2199	0187104	CF 43K OHM $\pm$ 5% 1/16W	R2261	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2200	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2262	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2201	0700052	CF 6.8K OHM $\pm$ 5% 1/16W	R2263	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2205	0700067	CF 100K OHM $\pm$ 5% 1/16W	R2264	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2206	0187098	CF 24K OHM $\pm$ 5% 1/16W	R2265	0700058	CF 22K OHM $\pm$ 5% 1/16W
R2208	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2266	0700046	CF 2.7K OHM $\pm$ 5% 1/16W
R2209	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2267	0700053	CF 8.2K OHM $\pm$ 5% 1/16W
R2210	0700047	CF 3.3K OHM $\pm$ 5% 1/16W	R2268	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2211	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2269	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2212	0700048	CF 3.9K OHM $\pm$ 5% 1/16W	R2270	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2213	0700041	CF 1K OHM $\pm$ 5% 1/16W	R2271	0700048	CF 3.9K OHM $\pm$ 5% 1/16W
R2217	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2272	0700063	CF 47K OHM $\pm$ 5% 1/16W
R2218	0700044	CF 1.8K OHM $\pm$ 5% 1/16W	R2273	0700067	CF 100K OHM $\pm$ 5% 1/16W
R2219	0700067	CF 100K OHM $\pm$ 5% 1/16W	R2274	0700062	CF 39K OHM $\pm$ 5% 1/16W
R2220	0114161	CF 1K OHM $\pm$ 5% 1/4W	R2275	0700048	CF 3.9K OHM $\pm$ 5% 1/16W
R2221	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2276	0700051	CF 5.6K OHM $\pm$ 5% 1/16W
R2222	0700052	CF 6.8K OHM $\pm$ 5% 1/16W	R2277	0700048	CF 3.9K OHM $\pm$ 5% 1/16W
R2223	0700048	CF 3.9K OHM $\pm$ 5% 1/16W	R2278	0700045	CF 2.2K OHM $\pm$ 5% 1/16W
R2224	0700048	CF 3.9K OHM $\pm$ 5% 1/16W	R2279	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2225	0187086	CF 7.5K OHM $\pm$ 5% 1/16W	R2280	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2226	0700048	CF 3.9K OHM $\pm$ 5% 1/16W	R2281	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2227	0700051	CF 5.6K OHM $\pm$ 5% 1/16W	R2282	0700046	CF 2.7K OHM $\pm$ 5% 1/16W
R2228	0700045	CF 2.2K OHM $\pm$ 5% 1/16W	R2283	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2229	0700045	CF 2.2K OHM $\pm$ 5% 1/16W	R2284	0700052	CF 6.8K OHM $\pm$ 5% 1/16W
R2230	0700053	CF 8.2K OHM $\pm$ 5% 1/16W	R2285	0700045	CF 2.2K OHM $\pm$ 5% 1/16W
R2231	0700041	CF 1K OHM $\pm$ 5% 1/16W	R2286	0700052	CF 6.8K OHM $\pm$ 5% 1/16W
R2232	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2287	0700066	CF 82K OHM $\pm$ 5% 1/16W
R2233	0700044	CF 1.8K OHM $\pm$ 5% 1/16W	R2288	0700045	CF 2.2K OHM $\pm$ 5% 1/16W
R2234	0700045	CF 2.2K OHM $\pm$ 5% 1/16W	R2289	0700052	CF 6.8K OHM $\pm$ 5% 1/16W
R2235	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2290	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2236	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2291	0700027	CF 100 OHM $\pm$ 5% 1/16W
R2237	0700045	CF 2.2K OHM $\pm$ 5% 1/16W	R2292	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2238	0700066	CF 82K OHM $\pm$ 5% 1/16W	R2293	0700046	CF 2.7K OHM $\pm$ 5% 1/16W
R2239	0700048	CF 3.9K OHM $\pm$ 5% 1/16W	R2294	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2240	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2295	0700063	CF 47K OHM $\pm$ 5% 1/16W
R2241	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2298	0700042	CF 1.2K OHM $\pm$ 5% 1/16W
R2242	0700061	CF 33K OHM $\pm$ 5% 1/16W	R2299	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2243	0700041	CF 1K OHM $\pm$ 5% 1/16W	R2300	0700051	CF 5.6K OHM $\pm$ 5% 1/16W
R2244	0700047	CF 3.3K OHM $\pm$ 5% 1/16W	R2301	0700042	CF 1.2K OHM $\pm$ 5% 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R2302	0700046	CF 2.7K OHM $\pm$ 5% 1/16W	R2358	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2303	0700052	CF 6.8K OHM $\pm$ 5% 1/16W	R2359	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2304	0700045	CF 2.2K OHM $\pm$ 5% 1/16W	R2361	0700067	CF 100K OHM $\pm$ 5% 1/16W
R2305	0700048	CF 3.9K OHM $\pm$ 5% 1/16W	R2362	0700055	CF 12K OHM $\pm$ 5% 1/16W
R2306	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2363	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2307	0700067	CF 100K OHM $\pm$ 5% 1/16W	R2364	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2308	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2365	0700059	CF 27K OHM $\pm$ 5% 1/16W
R2309	0700044	CF 1.8K OHM $\pm$ 5% 1/16W	R2366	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2310	0700052	CF 6.8K OHM $\pm$ 5% 1/16W	R2367	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2311	0700058	CF 22K OHM $\pm$ 5% 1/16W	R2368	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2312	0700061	CF 33K OHM $\pm$ 5% 1/16W	R2369	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2313	0700046	CF 2.7K OHM $\pm$ 5% 1/16W	R2370	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2314	0700052	CF 6.8K OHM $\pm$ 5% 1/16W	R2371	0700048	CF 3.9K OHM $\pm$ 5% 1/16W
R2315	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2372	0150134	VR 1K OHM-B
R2316	0700047	CF 3.3K OHM $\pm$ 5% 1/16W	R2373	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2317	0700047	CF 3.3K OHM $\pm$ 5% 1/16W	R2374	0700059	CF 27K OHM $\pm$ 5% 1/16W
R2318	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2375	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2319	0700053	CF 8.2K OHM $\pm$ 5% 1/16W	R2376	0700055	CF 12K OHM $\pm$ 5% 1/16W
R2320	0700058	CF 22K OHM $\pm$ 5% 1/16W	R2377	0700064	CF 56K OHM $\pm$ 5% 1/16W
R2321	0700062	CF 39K OHM $\pm$ 5% 1/16W	R2378	0700065	CF 68K OHM $\pm$ 5% 1/16W
R2322	0700067	CF 100K OHM $\pm$ 5% 1/16W	R2379	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2323	0700063	CF 47K OHM $\pm$ 5% 1/16W	R2380	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2324	0700041	CF 1K OHM $\pm$ 5% 1/16W	R2381	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2325	0700052	CF 6.8K OHM $\pm$ 5% 1/16W	R2383	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2326	0700045	CF 2.2K OHM $\pm$ 5% 1/16W	R2384	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2327	0700051	CF 5.6K OHM $\pm$ 5% 1/16W	R2388	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2328	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2389	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2329	0700046	CF 2.7K OHM $\pm$ 5% 1/16W	R2390	0700052	CF 6.8K OHM $\pm$ 5% 1/16W
R2330	0700042	CF 1.2K OHM $\pm$ 5% 1/16W	R2391	0700062	CF 39K OHM $\pm$ 5% 1/16W
R2331	0700045	CF 2.2K OHM $\pm$ 5% 1/16W	R2392	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2332	0700053	CF 8.2K OHM $\pm$ 5% 1/16W	R2393	0700042	CF 1.2K OHM $\pm$ 5% 1/16W
R2333	0700041	CF 1K OHM $\pm$ 5% 1/16W	R2394	0700053	CF 8.2K OHM $\pm$ 5% 1/16W
R2334	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2396	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2335	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2397	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2336	0700066	CF 82K OHM $\pm$ 5% 1/16W	R2398	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2337	0187086	CF 7.5K OHM $\pm$ 5% 1/16W	R2399	0700043	CF 1.5K OHM $\pm$ 5% 1/16W
R2338	0700053	CF 8.2K OHM $\pm$ 5% 1/16W	R2400	0700049	CF 4.7K OHM $\pm$ 5% 1/16W
R2339	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2401	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2340	0700046	CF 2.7K OHM $\pm$ 5% 1/16W	R2402	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2341	0700052	CF 6.8K OHM $\pm$ 5% 1/16W	R2403	0700066	CF 82K OHM $\pm$ 5% 1/16W
R2342	0700032	CF 220 OHM $\pm$ 5% 1/16W	R2404	0700056	CF 15K OHM $\pm$ 5% 1/16W
R2343	0700032	CF 220 OHM $\pm$ 5% 1/16W	R2405	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2344	0700032	CF 220 OHM $\pm$ 5% 1/16W	R2406	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2345	0700032	CF 220 OHM $\pm$ 5% 1/16W	R2407	0700047	CF 3.3K OHM $\pm$ 5% 1/16W
R2346	0700032	CF 220 OHM $\pm$ 5% 1/16W	R2408	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2347	0700032	CF 220 OHM $\pm$ 5% 1/16W	R2409	0700041	CF 1K OHM $\pm$ 5% 1/16W
R2348	0700067	CF 100K OHM $\pm$ 5% 1/16W	R2410	0700066	CF 82K OHM $\pm$ 5% 1/16W
R2349	0700051	CF 5.6K OHM $\pm$ 5% 1/16W	R2411	0700056	CF 15K OHM $\pm$ 5% 1/16W
R2350	0700054	CF 10K OHM $\pm$ 5% 1/16W	R2419	0700061	CF 33K OHM $\pm$ 5% 1/16W
R2352	0700048	CF 3.9K OHM $\pm$ 5% 1/16W	R2420	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2353	0700049	CF 4.7K OHM $\pm$ 5% 1/16W	R2421	0700054	CF 10K OHM $\pm$ 5% 1/16W
R2355	0700053	CF 8.2K OHM $\pm$ 5% 1/16W	R2422	0700055	CF 12K OHM $\pm$ 5% 1/16W
R2356	0700041	CF 1K OHM $\pm$ 5% 1/16W	R2423	0700053	CF 8.2K OHM $\pm$ 5% 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R2424	0187110	CF 75K OHM +5% 1/16W	R3047	0700061	CF 33K OHM +5% 1/16W
R2425	0700038	CF 680 OHM +5% 1/16W	R3048	0700058	CF 22K OHM +5% 1/16W
R2426	0700061	CF 33K OHM +5% 1/16W	R3049	0700032	CF 220 OHM +5% 1/16W
R2427	0700049	CF 4.7K OHM +5% 1/16W	R3050	0700048	CF 3.9K OHM +5% 1/16W
R2428	0700053	CF 8.2K OHM +5% 1/16W	R3051	0700047	CF 3.3K OHM +5% 1/16W
R2429	0114177	CF 4.7K OHM +5% 1/4W	R3053	0700051	CF 5.6K OHM +5% 1/16W
R2430	0100075	CF 2.7K OHM +5% 1/8W	R3054	0700067	CF 100K OHM +5% 1/16W
R2441	0100124	CF 300K OHM +5% 1/8W	R3055	0700041	CF 1K OHM +5% 1/16W
R2443	0700059	CF 27K OHM +5% 1/16W	R3056	0700037	CF 560 OHM +5% 1/16W
R2445	0700052	CF 6.8K OHM +5% 1/16W	R3057	0700041	CF 1K OHM +5% 1/16W
R2446	0700054	CF 10K OHM +5% 1/16W	R3058	0700027	CF 100 OHM +5% 1/16W
R2447	0700067	CF 100K OHM +5% 1/16W	R3059	0700041	CF 1K OHM +5% 1/16W
R2448	0700064	CF 56K OHM +5% 1/16W	R3060	0700027	CF 100 OHM +5% 1/16W
R2449	0700063	CF 47K OHM +5% 1/16W	R3061	0700041	CF 1K OHM +5% 1/16W
R2450	0700042	CF 1.2K OHM +5% 1/16W	R3062	0700027	CF 100 OHM +5% 1/16W
R2451	0100081	CF 4.7K OHM +5% 1/8W	R3064	0700041	CF 1K OHM +5% 1/16W
R2454	0700063	CF 47K OHM +5% 1/16W	R3065	0700041	CF 1K OHM +5% 1/16W
R2455	0700064	CF 56K OHM +5% 1/16W	R3066	0700041	CF 1K OHM +5% 1/16W
R2456	0700061	CF 33K OHM +5% 1/16W	R3075	0700027	CF 100 OHM +5% 1/16W
R2466	0700052	CF 6.8K OHM +5% 1/16W	R3076	0700027	CF 100 OHM +5% 1/16W
R2470	0700067	CF 100K OHM +5% 1/16W	R3077	0700041	CF 1K OHM +5% 1/16W
R2471	0700054	CF 10K OHM +5% 1/16W	R3078	0700041	CF 1K OHM +5% 1/16W
R2473	0700051	CF 5.6K OHM +5% 1/16W	R3079	0700027	CF 100 OHM +5% 1/16W
R2474	0700051	CF 5.6K OHM +5% 1/16W	R3080	0700041	CF 1K OHM +5% 1/16W
R2479	0700066	CF 82K OHM +5% 1/16W	R3081	0700027	CF 100 OHM +5% 1/16W
R2480	0119514	FR 10 OHM +5% 1/4W	R3082	0700041	CF 1K OHM +5% 1/16W
R2481	0119514	FR 10 OHM +5% 1/4W	R3083	0700027	CF 100 OHM +5% 1/16W
R2482	0100121	CF 220K OHM +5% 1/8W	R3084	0700041	CF 1K OHM +5% 1/16W
R2483	0700037	CF 560 OHM +5% 1/16W	R3085	0700041	CF 1K OHM +5% 1/16W
R2501	0700027	CF 100 OHM +5% 1/16W	R3086	0187038	CF 75 OHM +5% 1/16W
R2502	0700051	CF 5.6K OHM +5% 1/16W	R3087	0100123	CF 270K OHM +5% 1/8W
R2503	0700027	CF 100 OHM +5% 1/16W	R3088	0100123	CF 270K OHM +5% 1/8W
R2504	0700054	CF 10K OHM +5% 1/16W	R3089	0187038	CF 75 OHM +5% 1/16W
R3006	0700027	CF 100 OHM +5% 1/16W	R3090	0187038	CF 75 OHM +5% 1/16W
R3007	0700027	CF 100 OHM +5% 1/16W	R3091	0187038	CF 75 OHM +5% 1/16W
R3010	0700027	CF 100 OHM +5% 1/16W	R3092	0100123	CF 270K OHM +5% 1/8W
R3013	0700027	CF 100 OHM +5% 1/16W	R3093	0100123	CF 270K OHM +5% 1/8W
R3014	0700041	CF 1K OHM +5% 1/16W	R3094	0700067	CF 100K OHM +5% 1/16W
R3021	0700027	CF 100 OHM +5% 1/16W	R3095	0700067	CF 100K OHM +5% 1/16W
R3024	0700027	CF 100 OHM +5% 1/16W	R3096	0700067	CF 100K OHM +5% 1/16W
R3025	0700061	CF 33K OHM +5% 1/16W	R3097	0187036M	CF 620 OHM +5% 1/16W
R3028	0700054	CF 10K OHM +5% 1/16W	R3098	0114141	CF 270 OHM +5% 1/4W
R3029	0700027	CF 100 OHM +5% 1/16W	R3099	0700034	CF 330 OHM +5% 1/16W
R3030	0700027	CF 100 OHM +5% 1/16W	R3100	0700041	CF 1K OHM +5% 1/16W
R3031	0700054	CF 10K OHM +5% 1/16W	R3101	0700041	CF 1K OHM +5% 1/16W
R3032	0700058	CF 22K OHM +5% 1/16W	R3112	0100041	CF 100 OHM +5% 1/8W
R3033	0700058	CF 22K OHM +5% 1/16W	R3113	0700041	CF 1K OHM +5% 1/16W
R3034	0114133	CF 120 OHM +5% 1/4W	R3114	0700041	CF 1K OHM +5% 1/16W
R3038	0700054	CF 10K OHM +5% 1/16W	R3115	0100041	CF 100 OHM +5% 1/8W
R3043	0700027	CF 100 OHM +5% 1/16W	R3116	0100041	CF 100 OHM +5% 1/8W
R3044	0700041	CF 1K OHM +5% 1/16W	R3117	0700041	CF 1K OHM +5% 1/16W
R3045	0700027	CF 100 OHM +5% 1/16W	R3118	0700041	CF 1K OHM +5% 1/16W
R3046	0700027	CF 100 OHM +5% 1/16W	R3119	0700041	CF 1K OHM +5% 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R3121	0700041	CF 1K OHM +5% 1/16W	R3567	0700049	CF 4.7K OHM +5% 1/16W
R3122	0700041	CF 1K OHM +5% 1/16W	R3568	0700056	CF 15K OHM +5% 1/16W
R3123	0700027	CF 100 OHM +5% 1/16W	R3570	0700051	CF 5.6K OHM +5% 1/16W
R3125	0700027	CF 100 OHM +5% 1/16W	R3571	0700051	CF 5.6K OHM +5% 1/16W
R3127	0700027	CF 100 OHM +5% 1/16W	R3572	0700047	CF 3.3K OHM +5% 1/16W
R3128	0700041	CF 1K OHM +5% 1/16W	R3573	0700059	CF 27K OHM +5% 1/16W
R3129	0700067	CF 100K OHM +5% 1/16W	R3574	0700041	CF 1K OHM +5% 1/16W
R3130	0700041	CF 1K OHM +5% 1/16W	R3575	0700029	CF 150 OHM +5% 1/16W
R3131	0700054	CF 10K OHM +5% 1/16W	R3576	0700061	CF 33K OHM +5% 1/16W
R3134	0700034	CF 330 OHM +5% 1/16W	R3577	0700029	CF 150 OHM +5% 1/16W
R3135	0700067	CF 100K OHM +5% 1/16W	R3578	0100123	CF 270K OHM +5% 1/8W
R3136	0700067	CF 100K OHM +5% 1/16W	R3579	0700029	CF 150 OHM +5% 1/16W
R350	0150111	VR 1K OHM-B	R3580	0700058	CF 22K OHM +5% 1/16W
R3504	0700051	CF 5.6K OHM +5% 1/16W	R3581	0700067	CF 100K OHM +5% 1/16W
R3505	0700051	CF 5.6K OHM +5% 1/16W	R3582	0100133	CF 680K OHM +5% 1/8W
R3507	0700029	CF 150 OHM +5% 1/16W	R3584	0700041	CF 1K OHM +5% 1/16W
R351	0150110	VR 500 OHM-B	R3586	0700054	CF 10K OHM +5% 1/16W
R3510	0100053	CF 330 OHM +5% 1/8W	R3588	0700054	CF 10K OHM +5% 1/16W
R3512	0700059	CF 27K OHM +5% 1/16W	R3589	0700058	CF 22K OHM +5% 1/16W
R3513	0700029	CF 150 OHM +5% 1/16W	R3590	0700054	CF 10K OHM +5% 1/16W
R3514	0700061	CF 33K OHM +5% 1/16W	R3591	0700041	CF 1K OHM +5% 1/16W
R3517	0100055	CF 390 OHM +5% 1/8W	R3593	0187078	CF 3.6K OHM +5% 1/16W
R3524	100059	CF 560 OHM +5% 1/8W	R3594	0700034	CF 330 OHM +5% 1/16W
R352	0150110	VR 500 OHM-B	R3595	0700027	CF 100 OHM +5% 1/16W
R3527	0700067	CF 100K OHM +5% 1/16W	R3596	0700043	CF 1.5K OHM +5% 1/16W
R3528	0700058	CF 22K OHM +5% 1/16W	R3597	0700029	CF 150 OHM +5% 1/16W
R3529	0700058	CF 22K OHM +5% 1/16W	R3598	0100037	CF 68 OHM +5% 1/8W
R353	700041	CF 1K OHM +5% 1/16W	R3599	0100045	CF 150 OHM +5% 1/8W
R3531	0700029	CF 150 OHM +5% 1/16W	R3606	0100065	CF 1K OHM +5% 1/8W
R3533	0700061	CF 33K OHM +5% 1/16W	R3607	0100065	CF 1K OHM +5% 1/8W
R3534	0700051	CF 5.6K OHM +5% 1/16W	R3608	0100065	CF 1K OHM +5% 1/8W
R3535	100041	CF 100 OHM +5% 1/8W	R3609	0700058	CF 22K OHM +5% 1/16W
R3536	0700065	CF 68K OHM +5% 1/16W	R3610	0700041	CF 1K OHM +5% 1/16W
R3538	0700058	CF 22K OHM +5% 1/16W	R3611	187064	CF 910 OHM +5% 1/16W
R3539	0700054	CF 10K OHM +5% 1/16W	R3625	0700027	CF 100 OHM +5% 1/16W
R354	700036	CF 470 OHM +5% 1/16W	R3628	0700041	CF 1K OHM +5% 1/16W
R3540	0150114	VR 10K OHM-B	R3630	0100131	CF 560K OHM +5% 1/8W
R3541	0700041	CF 1K OHM +5% 1/16W	R3631	0179536	MG 1M OHM +5% 1/8W
R3542	0700052	CF 6.8K OHM +5% 1/16W	R3632	0100129	CF 470K OHM +5% 1/8W
R3543	0700059	CF 27K OHM +5% 1/16W	R3633	0700034	CF 330 OHM +5% 1/16W
R3546	0700056	CF 15K OHM +5% 1/16W	R3634	0700034	CF 330 OHM +5% 1/16W
R3547	0700048	CF 3.9K OHM +5% 1/16W	R3635	0700045	CF 2.2K OHM +5% 1/16W
R355	700036	CF 470 OHM +5% 1/16W	R3637	0700036	CF 470 OHM +5% 1/16W
R3553	0700033	CF 270 OHM +5% 1/16W	R3638	0187082	CF 5.1K OHM +5% 1/16W
R3554	0700044	CF 1.8K OHM +5% 1/16W	R3639	0700036	CF 470 OHM +5% 1/16W
R3558	0700029	CF 150 OHM +5% 1/16W	R3640	0187064	CF 910 OHM +5% 1/16W
R3559	0700061	CF 33K OHM +5% 1/16W	R3641	0700027	CF 100 OHM +5% 1/16W
R3560	0187088	CF 9.1K OHM +5% 1/16W	R3642	0187072	CF 2K OHM +5% 1/16W
R3561	0700059	CF 27K OHM +5% 1/16W	R3644	0700063	CF 47K OHM +5% 1/16W
R3562	0700067	CF 100K OHM +5% 1/16W	R3647	700041	CF 1K OHM +5% 1/16W
R3563	0700049	CF 4.7K OHM +5% 1/16W	R3648	100093	CF 15K OHM +5% 1/8W
R3564	0700058	CF 22K OHM +5% 1/16W	R3801	0187038	CF 75 OHM +5% 1/16W
R3566	0150115	VR 20K OHM-B	R3802	0100041	CF 100 OHM +5% 1/8W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R3803	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4038	0700057	CF 18K OHM $\pm 5\%$ 1/16W
R3804	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4039	0700047	CF 3.3K OHM $\pm 5\%$ 1/16W
R3805	0100123	CF 270K OHM $\pm 5\%$ 1/8W	R404	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R3806	0700054	CF 56K OHM $\pm 5\%$ 1/16W	R4040	0700037	CF 560 OHM $\pm 5\%$ 1/16W
R3807	0700047	CF 3.3K OHM $\pm 5\%$ 1/16W	R4041	0700038	CF 680 OHM $\pm 5\%$ 1/16W
R3808	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R4042	0100115	CF 120K OHM $\pm 5\%$ 1/8W
R3809	0700054	CF 56K OHM $\pm 5\%$ 1/16W	R4043	0700066	CF 82K OHM $\pm 5\%$ 1/16W
R3810	0100123	CF 270K OHM $\pm 5\%$ 1/8W	R4044	0700066	CF 82K OHM $\pm 5\%$ 1/16W
R3811	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4045	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R3812	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4046	0700038	CF 680 OHM $\pm 5\%$ 1/16W
R3813	0100041	CF 100 OHM $\pm 5\%$ 1/8W	R4047	0100115	CF 120K OHM $\pm 5\%$ 1/8W
R3814	0187038	CF 75 OHM $\pm 5\%$ 1/16W	R4048	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W
R3815	0187038	CF 75 OHM $\pm 5\%$ 1/16W	R4051	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R3820	0700058	CF 22K OHM $\pm 5\%$ 1/16W	R4052	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R3821	0700032	CF 220 OHM $\pm 5\%$ 1/16W	R4053	0700066	CF 82K OHM $\pm 5\%$ 1/16W
R3822	0700061	CF 33K OHM $\pm 5\%$ 1/16W	R407	0700055	CF 68K OHM $\pm 5\%$ 1/16W
R3823	0700062	CF 39K OHM $\pm 5\%$ 1/16W	R4070	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W
R3824	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4071	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W
R4001	0700046	CF 2.7K OHM $\pm 5\%$ 1/16W	R4089	0700048	CF 3.9K OHM $\pm 5\%$ 1/16W
R4002	0187082	CF 5.1K OHM $\pm 5\%$ 1/16W	R409	0700036	CF 470 OHM $\pm 5\%$ 1/16W
R4003	0100125	CF 330K OHM $\pm 5\%$ 1/8W	R4090	0700048	CF 3.9K OHM $\pm 5\%$ 1/16W
R4004	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4091	0100047	CF 180 OHM $\pm 5\%$ 1/8W
R4005	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R4092	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R4006	0700061	CF 33K OHM $\pm 5\%$ 1/16W	R4095	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R4007	0150157	VR 200K OHM-B RV-6	R4096	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R4008	0100133	CF 680K OHM $\pm 5\%$ 1/8W	R4103	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R4009	0150290	VR 50K OHM (B)	R4104	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4010	0150290	VR 50K OHM (B)	R4105	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4011	0100116	CF 130K OHM $\pm 5\%$ 1/8W	R4106	0700061	CF 33K OHM $\pm 5\%$ 1/16W
R4012	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R4107	0700058	CF 22K OHM $\pm 5\%$ 1/16W
R4014	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W	R4108	0700038	CF 680 OHM $\pm 5\%$ 1/16W
R4015	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R4109	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W
R4016	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W	R4110	0700038	CF 680 OHM $\pm 5\%$ 1/16W
R4017	0700038	CF 680 OHM $\pm 5\%$ 1/16W	R4111	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W
R4018	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W	R4112	0100117	CF 150K OHM $\pm 5\%$ 1/8W
R4019	0700063	CF 47K OHM $\pm 5\%$ 1/16W	R4113	0100116	CF 130K OHM $\pm 5\%$ 1/8W
R402	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4114	0150160	VR 10K OHM-B $\pm 30\%$
R4020	0700057	CF 18K OHM $\pm 5\%$ 1/16W	R4115	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R4021	0700047	CF 3.3K OHM $\pm 5\%$ 1/16W	R4116	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R4022	0700037	CF 560 OHM $\pm 5\%$ 1/16W	R4117	0700061	CF 33K OHM $\pm 5\%$ 1/16W
R4023	0700038	CF 680 OHM $\pm 5\%$ 1/16W	R4118	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W
R4024	0100115	CF 120K OHM $\pm 5\%$ 1/8W	R4121	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R4025	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W	R4123	0700058	CF 22K OHM $\pm 5\%$ 1/16W
R4028	0700066	CF 82K OHM $\pm 5\%$ 1/16W	R4124	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R4029	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R413	01195051	FR 2.2 OHM $\pm 5\%$ 1/4W
R4030	0700038	CF 680 OHM $\pm 5\%$ 1/16W	R4142	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W
R4031	0100115	CF 120K OHM $\pm 5\%$ 1/8W	R4143	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W
R4032	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W	R4144	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4033	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W	R4145	0700061	CF 33K OHM $\pm 5\%$ 1/16W
R4034	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R4146	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R4035	0700049	CF 4.7K OHM $\pm 5\%$ 1/16W	R4147	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W
R4036	0700038	CF 680 OHM $\pm 5\%$ 1/16W	R4148	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4037	0700063	CF 47K OHM $\pm 5\%$ 1/16W	R4149	0700061	CF 33K OHM $\pm 5\%$ 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R4150	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4653	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R4151	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R4655	0700067	CF 100K OHM $\pm 5\%$ 1/16W
R4152	0700029	CF 150 OHM $\pm 5\%$ 1/16W	R4656	0700067	CF 100K OHM $\pm 5\%$ 1/16W
R4153	0700029	CF 150 OHM $\pm 5\%$ 1/16W	R4657	0700057	CF 18K OHM $\pm 5\%$ 1/16W
R4156	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4658	0700057	CF 18K OHM $\pm 5\%$ 1/16W
R4157	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R4659	0700057	CF 18K OHM $\pm 5\%$ 1/16W
R416	01195051	FR 2.2 OHM $\pm 5\%$ 1/4W	R4660	0700057	CF 18K OHM $\pm 5\%$ 1/16W
R4160	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4661	0700054	CF 56K OHM $\pm 5\%$ 1/16W
R4161	0700045	CF 2.2K OHM $\pm 5\%$ 1/16W	R4662	0700064	CF 56K OHM $\pm 5\%$ 1/16W
R4162	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4663	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4163	0700046	CF 2.7K OHM $\pm 5\%$ 1/16W	R4664	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4164	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4665	0700067	CF 100K OHM $\pm 5\%$ 1/16W
R4165	0700046	CF 2.7K OHM $\pm 5\%$ 1/16W	R4666	0700067	CF 100K OHM $\pm 5\%$ 1/16W
R417	0114161	CF 1K OHM $\pm 5\%$ 1/4W	R4667	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R419	0114161	CF 1K OHM $\pm 5\%$ 1/4W	R4668	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R420	0700065	CF 68K OHM $\pm 5\%$ 1/16W	R4669	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R422	0700065	CF 68K OHM $\pm 5\%$ 1/16W	R4670	0700057	CF 18K OHM $\pm 5\%$ 1/16W
R423	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4671	0700057	CF 18K OHM $\pm 5\%$ 1/16W
R425	0700063	CF 47K OHM $\pm 5\%$ 1/16W	R4672	0700067	CF 100K OHM $\pm 5\%$ 1/16W
R426	0700067	CF 100K OHM $\pm 5\%$ 1/16W	R4673	0700067	CF 100K OHM $\pm 5\%$ 1/16W
R428	0700058	CF 22K OHM $\pm 5\%$ 1/16W	R4674	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R437	0700063	CF 47K OHM $\pm 5\%$ 1/16W	R4675	0700062	CF 39K OHM $\pm 5\%$ 1/16W
R438	0700061	CF 33K OHM $\pm 5\%$ 1/16W	R4676	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R439	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4677	0700034	CF 330 OHM $\pm 5\%$ 1/16W
R440	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4678	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R441	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4679	0700054	CF 10K OHM $\pm 5\%$ 1/16W
R4626	0187072	CF 2K OHM $\pm 5\%$ 1/16W	R4680	0700062	CF 39K OHM $\pm 5\%$ 1/16W
R4627	0187086	CF 7.5K OHM $\pm 5\%$ 1/15W	R4681	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R4628	0700056	CF 15K OHM $\pm 5\%$ 1/16W	R4682	0700034	CF 330 OHM $\pm 5\%$ 1/16W
R4629	0700063	CF 47K OHM $\pm 5\%$ 1/16W	R4683	0700041	CF 1K OHM $\pm 5\%$ 1/16W
R4630	0700056	CF 15K OHM $\pm 5\%$ 1/16W	R4684	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4631	0187086	CF 7.5K OHM $\pm 5\%$ 1/16W	R4685	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4632	0187072	CF 2K OHM $\pm 5\%$ 1/16W	R4686	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4633	0700058	CF 22K OHM $\pm 5\%$ 1/16W	R4687	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4634	0700058	CF 22K OHM $\pm 5\%$ 1/16W	R4688	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4635	0700063	CF 47K OHM $\pm 5\%$ 1/16W	R4689	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4636	0100059	CF 560 OHM $\pm 5\%$ 1/8W	R4690	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4637	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4691	0700027	CF 100 OHM $\pm 5\%$ 1/16W
R4638	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4692	0700062	CF 39K OHM $\pm 5\%$ 1/16W
R4639	0700041	CF 1K OHM $\pm 5\%$ 1/16W	R4693	0700053	CF 8.2K OHM $\pm 5\%$ 1/16W
R4640	0700032	CF 220 OHM $\pm 5\%$ 1/16W	R4694	0700053	CF 8.2K OHM $\pm 5\%$ 1/16W
R4641	0700032	CF 220 OHM $\pm 5\%$ 1/16W	R4695	0700053	CF 8.2K OHM $\pm 5\%$ 1/16W
R4642	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4696	0700056	CF 15K OHM $\pm 5\%$ 1/16W
R4643	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4697	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4644	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4698	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4645	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4699	0700047	CF 3.3K OHM $\pm 5\%$ 1/16W
R4646	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4700	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4647	0700032	CF 220 OHM $\pm 5\%$ 1/16W	R4701	0179536	MG 1M OHM $\pm 5\%$ 1/8W
R4648	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W	R4702	0700051	CF 5.6K OHM $\pm 5\%$ 1/16W
R4649	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4703	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4650	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4704	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4651	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4705	0700063	CF 47K OHM $\pm 5\%$ 1/16W
R4652	0700054	CF 10K OHM $\pm 5\%$ 1/16W	R4706	0700063	CF 47K OHM $\pm 5\%$ 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R4707	0700063	CF 47K OHM +5% 1/16W	R5516	0700063	CF 47K OHM +5% 1/16W
R4708	01195051	FR 2.2 OHM +5% 1/4W	R5517	0700036	CF 470 OHM +5% 1/16W
R4709	01195051	FR 2.2 OHM +5% 1/4W	R5518	0700042	CF 1.2K OHM +5% 1/16W
R4710	0700065	CF 68K OHM +5% 1/16W	R5522	0700041	CF 1K OHM +5% 1/16W
R4711	0700065	CF 68K OHM +5% 1/16W	R5524	0700052	CF 6.8K OHM +5% 1/16W
R4712	0114161	CF 1K OHM +5% 1/4W	R5528	0700055	CF 12K OHM +5% 1/16W
R4713	0114161	CF 1K OHM +5% 1/4W	R5529	0100129	CF 470K OHM +5% 1/8W
R4716	0700041	CF 1K OHM +5% 1/16W	R5530	0700061	CF 33K OHM +5% 1/16W
R4717	0700041	CF 1K OHM +5% 1/16W	R5531	0700027	CF 100 OHM +5% 1/16W
R4718	0700067	CF 100K OHM +5% 1/16W	R5533	0700027	CF 100 OHM +5% 1/16W
R4719	0700067	CF 100K OHM +5% 1/16W	R5534	0700054	CF 10K OHM +5% 1/16W
R4722	0700036	CF 470 OHM +5% 1/16W	R5537	0700054	CF 10K OHM +5% 1/16W
R4723	0700041	CF 1K OHM +5% 1/16W	R5538	700066	CF 82K OHM +5% 1/16W
R4727	0700058	CF 22K OHM +5% 1/16W	R5539	0700066	CF 82K OHM +5% 1/16W
R4728	0700058	CF 22K OHM +5% 1/16W	R5540	0700054	CF 10K OHM +5% 1/16W
R4729	0700054	CF 10K OHM +5% 1/16W	R5541	0700067	CF 100K OHM +5% 1/16W
R4730	0700058	CF 22K OHM +5% 1/16W	R5542	0700054	CF 10K OHM +5% 1/16W
R4731	0700058	CF 22K OHM +5% 1/16W	R5543	0700054	CF 10K OHM +5% 1/16W
R4732	0700054	CF 10K OHM +5% 1/16W	R5544	0700065	CF 68K OHM +5% 1/16W
R4734	0700067	CF 100K OHM +5% 1/16W	R5545	0700054	CF 10K OHM +5% 1/16W
R4735	0700067	CF 100K OHM +5% 1/16W	R5546	0700059	CF 27K OHM +5% 1/16W
R4737	0700032	CF 220 OHM +5% 1/16W	R5547	0700047	CF 3.3K OHM +5% 1/16W
R4738	0700051	CF 5.6K OHM +5% 1/16W	R5548	0700061	CF 33K OHM +5% 1/16W
R4739	0700063	CF 47K OHM +5% 1/16W	R5549	0700067	CF 100K OHM +5% 1/16W
R4742	0100121	CF 220K OHM +5% 1/8W	R5550	0700054	CF 10K OHM +5% 1/16W
R4743	0100121	CF 220K OHM +5% 1/8W	R5553	0100119	CF 180K OHM +5% 1/8W
R4747	0700054	CF 10K OHM +5% 1/16W	R5555	0700042	CF 1.2K OHM +5% 1/16W
R4748	0700054	CF 10K OHM +5% 1/16W	R5559	0700027	CF 100 OHM +5% 1/16W
R4749	0700054	CF 10K OHM +5% 1/16W	R5561	0700051	CF 5.6K OHM +5% 1/16W
R4750	0700058	CF 22K OHM +5% 1/16W	R5562	0700033	CF 270 OHM +5% 1/16W
R4752	0700063	CF 47K OHM +5% 1/16W	R5564	0150113	VR 5K OHM-B RS-6
R4753	0700055	CF 12K OHM +5% 1/16W	R5565	0700053	CF 8.2K OHM +5% 1/16W
R4754	0700058	CF 22K OHM +5% 1/16W	R5566	0700041	CF 1K OHM +5% 1/16W
R4755	0700058	CF 22K OHM +5% 1/16W	R5567	0700046	CF 2.7K OHM +5% 1/16W
R4756	0114135	CF 150 OHM +5% 1/4W	R5568	0700041	CF 1K OHM +5% 1/16W
R4757	0114135	CF 150 OHM +5% 1/4W	R5570	0700062	CF 39K OHM +5% 1/16W
R4758	0700045	CF 2.2K OHM +5% 1/16W	R5571	0700037	CF 560 OHM +5% 1/16W
R4759	0700045	CF 2.2K OHM +5% 1/16W	R5573	0700058	CF 22K OHM +5% 1/16W
R4760	0700045	CF 2.2K OHM +5% 1/16W	R5574	0700058	CF 22K OHM +5% 1/16W
R4761	0700045	CF 2.2K OHM +5% 1/16W	R5575	0100125	CF 330K OHM +5% 1/8W
R4762	0700058	CF 22K OHM +5% 1/16W	R5581	0700067	CF 100K OHM +5% 1/16W
R4763	0700067	CF 100K OHM +5% 1/16W	R5583	0700027	CF 100 OHM +5% 1/16W
R5503	0700039	CF 820 OHM +5% 1/16W	R5584	0700041	CF 1K OHM +5% 1/16W
R5504	700037	CF 560 OHM +5% 1/16W	R5585	0700041	CF 1K OHM +5% 1/16W
R5505	0700061	CF 33K OHM +5% 1/16W	R5591	0700041	CF 1K OHM +5% 1/16W
R5506	0700054	CF 10K OHM +5% 1/16W	R5597	0100049	CF 220 OHM +5% 1/8W
R5508	700032	CF 200 OHM +5% 1/16W	R5598	0100049	CF 220 OHM +5% 1/8W
R5509	0700054	CF 10K OHM +5% 1/16W	R5599	0100049	CF 220 OHM +5% 1/8W
R5510	0700041	CF 1K OHM +5% 1/16W	R5602	0700041	CF 1K OHM +5% 1/16W
R5512	0700034	CF 330 OHM +5% 1/16W	R5603	0700054	CF 10K OHM +5% 1/16W
R5513	0700039	CF 820 OHM +5% 1/16W	R5604	0100051	CF 270 OHM +5% 1/8W
R5514	0700037	CF 560 OHM +5% 1/16W	R5606	0700054	CF 10K OHM +5% 1/16W
R5515	0700029	CF 150 OHM +5% 1/16W	R5609	0100065	CF 1K OHM +5% 1/8W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R5610	0100065	CF 1K OHM +5% 1/8W	R656	0100053	CF 330 OHM +5% 1/8W
R5611	0100065	CF 1K OHM +5% 1/8W	R660	0700064	CF 56K OHM +5% 1/16W
R5612	0700038	CF 680 OHM +5% 1/16W	R661	0700054	CF 10K OHM +5% 1/16W
R5618	0700041	CF 1K OHM +5% 1/16W	Δ R662	0150115	VR 20K OHM-B
R5619	0700041	CF 1K OHM +5% 1/16W	R663	0187110	CF 75K OHM +5% 1/16W
R5620	0700041	CF 1K OHM +5% 1/16W	R664	0700038	CF 680 OHM +5% 1/16W
R5625	0700032	CF 220 OHM +5% 1/16W	R665	0119722	MF 1 OHM +5% 1W
R5626	0700054	CF 10K OHM +5% 1/16W	R666	0119722	MF 1 OHM +5% 1W
R5630	179536	MG 1M OHM +5% 1/8W	R667	0700051	CF 5.6K OHM +5% 1/16W
R5901	700034	CF 330 OHM +5% 1/16W	R668	0700061	CF 33K OHM +5% 1/16W
R5902	0700024	CF 56 OHM +5% 1/16W	R669	0700064	CF 56K OHM +5% 1/16W
R5903	0700047	CF 3.3K OHM +5% 1/16W	R670	0700065	CF 68K OHM +5% 1/16W
R5904	0700041	CF 1K OHM +5% 1/16W	R671	0113766	CF 4.7K OHM +5% 1/2W
R5905	0700054	CF 10K OHM +5% 1/16W	R672	0110129	MF 220 OHM +5% 1W
R5906	0700039	CF 820 OHM +5% 1/16W	R673	0700061	CF 33K OHM +5% 1/16W
R5907	0700048	CF 3.9K OHM +5% 1/16W	R674	0114135	CF 150 OHM +5% 1/4W
R5908	0700041	CF 1K OHM +5% 1/16W	R675	0113758	CF 2.2K OHM +5% 1/2W
R5909	0700047	CF 3.3K OHM +5% 1/16W	R680	0700057	CF 18K OHM +5% 1/16W
R5910	0700045	CF 2.2K OHM +5% 1/16W	R681	0700041	CF 1K OHM +5% 1/16W
R5911	0700027	CF 100 OHM +5% 1/16W	R682	0700041	CF 1K OHM +5% 1/16W
R5912	0700047	CF 3.3K OHM +5% 1/16W	R683	0700067	CF 100K OHM +5% 1/16W
R5913	0700041	CF 1K OHM +5% 1/16W	R684	0700052	CF 6.8K OHM +5% 1/16W
R5914	0700054	CF 10K OHM +5% 1/16W	R685	0700051	CF 5.6K OHM +5% 1/16W
R5916	0700054	CF 10K OHM +5% 1/16W	R691	0700027	CF 100 OHM +5% 1/16W
R5917	0187080	CF 4.3K OHM +5% 1/16W	R7001	0700056	CF 15K OHM +5% 1/16W
R5918	0700052	CF 6.8K OHM +5% 1/16W	R7002	0700053	CF 8.2K OHM +5% 1/16W
R621	0700054	CF 10K OHM +5% 1/16W	R7003	0700041	CF 1K OHM +5% 1/16W
R622	0700049	CF 4.7K OHM +5% 1/16W	R7004	0700061	CF 33K OHM +5% 1/16W
R623	0700032	CF 220 OHM +5% 1/16W	R7005	0700049	CF 4.7K OHM +5% 1/16W
R624	0700043	CF 1.5K OHM +5% 1/16W	R7006	0700054	CF 10K OHM +5% 1/16W
R626	0700041	CF 1K OHM +5% 1/16W	R7007	0700054	CF 10K OHM +5% 1/16W
R627	0700052	CF 6.8K OHM +5% 1/16W	R7008	0700054	CF 10K OHM +5% 1/16W
R628	0700054	CF 10K OHM +5% 1/16W	R7009	0700044	CF 1.8K OHM +5% 1/16W
R629	0700045	CF 2.2K OHM +5% 1/16W	R7010	0700041	CF 1K OHM +5% 1/16W
R630	0700065	CF 68K OHM +5% 1/16W	R7011	0700057	CF 18K OHM +5% 1/16W
R631	0700051	CF 5.6K OHM +5% 1/16W	R7012	0700061	CF 33K OHM +5% 1/16W
R632	0700046	CF 2.7K OHM +5% 1/16W	R7013	0700051	CF 5.6K OHM +5% 1/16W
R634	0700027	CF 100 OHM +5% 1/16W	R7014	0700058	CF 22K OHM +5% 1/16W
R635	0150112	VR 2K OHM-B	R7016	0700054	CF 10K OHM +5% 1/16W
R636	0700066	CF 82K OHM +5% 1/16W	R7017	0700054	CF 10K OHM +5% 1/16W
R639	0700051	CF 5.6K OHM +5% 1/16W	R7018	0700066	CF 82K OHM +5% 1/16W
R640	0700046	CF 2.7K OHM +5% 1/16W	R7021	0700064	CF 56K OHM +5% 1/16W
R641	0700027	CF 100 OHM +5% 1/16W	R7022	0700054	CF 10K OHM +5% 1/16W
R642	0700049	CF 4.7K OHM +5% 1/16W	R7023	0700054	CF 10K OHM +5% 1/16W
R643	0700054	CF 10K OHM +5% 1/16W	R7024	0700057	CF 18K OHM +5% 1/16W
R644	0700037	CF 560 OHM +5% 1/16W	R707	0700039	CF 820 OHM +5% 1/16W
R645	0700066	CF 82K OHM +5% 1/16W	Δ R708	0110355	MF 2.7K OHM +5% 3W
R646	0700049	CF 4.7K OHM +5% 1/16W	R709	0113770	CF 6.8K OHM +5% 1/2W
R647	0700057	CF 18K OHM +5% 1/16W	Δ R710	0110351	MF 1.8K OHM +5% 3W
R651	0113725	CF 100 OHM +5% 1/2W	R711	0119688	MF 0.22 OHM +5% 1W
R652	0113725	CF 100 OHM +5% 1/2W	R712	0100031	CF 39 OHM +5% 1/8W
R653	0113725	CF 100 OHM +5% 1/2W	R719	0113785	CF 27K OHM +5% 1/2W
R654	0100065	CF 1K OHM +5% 1/8W	R720	0113793	CF 56K OHM +5% 1/2W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R721	0700049	CF 4.7K OHM +5% 1/16W	R802B	0110369	MF 10K OHM +5% 3W
R722	0100091	CF 12K OHM +5% 1/8W	R802G	0110369	MF 10K OHM +5% 3W
R723	0700044	CF 1.8K OHM +5% 1/16W	R802R	0110369	MF 10K OHM +5% 3W
R724	0700052	CF 6.8K OHM +5% 1/16W	Δ R804B	0151635	VR 1M OHM-B
R726	0700048	CF 3.9K OHM +5% 1/16W	Δ R804G	0151635	VR 1M OHM-B
R727	0700048	CF 3.9K OHM +5% 1/16W	Δ R804R	0151635	VR 1M OHM-B
R728	0700047	CF 3.3K OHM +5% 1/16W	R805B	0179535	MG 680K OHM +5% 1/2W
R729	0113729	CF 150 OHM +5% 1/2W	R805G	0179535	MG 680K OHM +5% 1/2W
R730	0110101	MF 15 OHM +5% 1W	R805R	0179535	MG 680K OHM +5% 1/2W
R732	0110129	MF 220 OHM +5% 1W	R806B	0179529	MG 10M OHM +5% 1/2W
R733	01195121	FR 1 OHM +5% 1/4W	R806G	0179529	MG 10M OHM +5% 1/2W
R734	0119514	FR 10 OHM +5% 1/4W	R806R	0179529	MG 10M OHM +5% 1/2W
R739	0110251	MF 1.8K OHM +5% 2W	R807B	0100079	CF 3.9K OHM +5% 1/8W
Δ R742	0700063	CF 47K OHM +5% 1/16W	R808B	0100073	CF 2.2K OHM +5% 1/8W
R744	0100127	CF 390K OHM +5% 1/8W	R809B	0100033	CF 47 OHM +5% 1/8W
R745	0114149	CF 560 OHM +5% 1/4W	R810B	0100049	CF 220 OHM +5% 1/8W
R751	0113719	CF 56 OHM +5% 1/2W	R810G	0100049	CF 220 OHM +5% 1/8W
R753	0110361	MF 4.7K OHM +5% 3W	R810R	0100049	CF 220 OHM +5% 1/8W
R754	0113766	CF 4.7K OHM +5% 1/2W	R811B	0100065	CF 1K OHM +5% 1/8W
R755	0110363	MF 5.6K OHM +5% 3W	R811G	0100065	CF 1K OHM +5% 1/8W
R766	0700041	CF 1K OHM +5% 1/16W	R811R	0100065	CF 1K OHM +5% 1/8W
R767	0100079	CF 3.9K OHM +5% 1/8W	R812B	0100044	CF 130 OHM +5% 1/8W
R768	0110225	MF 150 OHM +5% 2W	R812G	0100033	CF 47 OHM +5% 1/8W
R769	0114177	CF 4.7K OHM +5% 1/4W	R812R	0100033	CF 47 OHM +5% 1/8W
R770	0700046	CF 2.7K OHM +5% 1/16W	Δ R813G	01513341	VR 200 OHM-B
R771	0700063	CF 47K OHM +5% 1/16W	Δ R813R	01513341	VR 200 OHM-B
R772	0700054	CF 10K OHM +5% 1/16W	R815B	0100059	CF 560 OHM +5% 1/8W
R773	0100113	CF 100K OHM +5% 1/8W	R815G	0100059	CF 560 OHM +5% 1/8W
R774	0187098	CF 24K OHM +5% 1/16W	R815R	0100059	CF 560 OHM +5% 1/8W
R775	0700043	CF 1.5K OHM +5% 1/16W	R817B	0100041	CF 100 OHM +5% 1/8W
R776	0700051	CF 5.6K OHM +5% 1/16W	R817G	0100049	CF 220 OHM +5% 1/8W
R777	0700043	CF 1.5K OHM +5% 1/16W	R817R	0100053	CF 330 OHM +5% 1/8W
R779	0100065	CF 1K OHM +5% 1/8W	R818B	0100048	CF 200 OHM +5% 1/8W
R780	0100041	CF 100 OHM +5% 1/8W	R819B	0179535	MG 680K OHM +5% 1/2W
R781	0110279	MF 27K OHM +5% 2W	R819G	0179535	MG 680K OHM +5% 1/2W
R782	0110279	MF 27K OHM +5% 2W	R819R	0179535	MG 680K OHM +5% 1/2W
R783	0110279	MF 27K OHM +5% 2W	R820B	0113744	CF 560 OHM +5% 1/2W
R784	0110279	MF 27K OHM +5% 2W	R820G	0113744	CF 560 OHM +5% 1/2W
R785	0110279	MF 27K OHM +5% 2W	R820R	0113744	CF 560 OHM +5% 1/2W
R786	0114213	CF 33K OHM +5% 1/4W	R901	0144151	WW 33 OHM +5% 2W
R790	0700053	CF 8.2K OHM +5% 1/16W	R902	0139015	CC 1M OHM +20% 1/2W
R791	0700047	CF 3.3K OHM +5% 1/16W	Δ R903	0147804	WW 0.75 OHM 16W
R792	0700059	CF 27K OHM +5% 1/16W	R905	0110279	MF 27K OHM +5% 2W
R793	0700059	CF 27K OHM +5% 1/16W	R906	0700046	CF 2.7K OHM +5% 1/16W
R794	0700045	CF 2.2K OHM +5% 1/16W	R907	0700047	CF 3.3K OHM +5% 1/16W
R795	0700033	CF 270 OHM +5% 1/16W	R909	0700044	CF 1.8K OHM +5% 1/16W
R796	0700041	CF 1K OHM +5% 1/16W	R909	0700038	CF 680 OHM +5% 1/16W
R797	0700052	CF 6.8K OHM +5% 1/16W	R910	0148009	WW 0.056 OHM 2W
R798	0700058	CF 22K OHM +5% 1/16W	R911	0700058	CF 22K OHM +5% 1/16W
R799	0700058	CF 22K OHM +5% 1/16W	R912	0700042	CF 1.2K OHM +5% 1/16W
R801B	0110371	MF 12K OHM +5% 3W	R913	0700047	CF 3.3K OHM +5% 1/16W
R801G	0110371	MF 12K OHM +5% 3W	R915	0700014	CF 10 OHM +5% 1/16W
R801R	0110371	MF 12K OHM +5% 3W	R916	0700043	CF 1.5K OHM +5% 1/16W

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R917	0700041	CF 1K OHM +5% 1/16W	IC1351	2003191	IC STK4274 (LINEAR)
R918	0700047	CF 3.3K OHM +5% 1/16W	IC1501	2380391	IC UPD6326C
R919	0700041	CF 1K OHM +5% 1/16W	IC2101	2383191	IC LA7990
R920	0700036	CF 470 OHM +5% 1/16W	IC2102	2914051	IC NJM4560D
R921	0700055	CF 12K OHM +5% 1/16W	IC2103	2914051	IC NJM4560D
R922	0700023	CF 47 OHM +5% 1/16W	IC2104	2914051	IC NJM4560D
R923	0700047	CF 3.3K OHM +5% 1/16W	IC2105	2914051	IC NJM4560D
R931	0114169	CF 2.2K OHM +5% 1/4W	IC3001	2004793	IC SN76862ANJ-09
R932	0700027	CF 100 OHM +5% 1/16W	IC3002	2004793	IC SN76862ANJ-09
R933	0700054	CF 10K OHM +5% 1/16W	IC3003	2917391	IC MSC11371RS
R934	0113719	CF 56 OHM +5% 1/2W	IC3004	2003221	IC LVA521S-2 (LINEAR)
R935	0700048	CF 3.9K OHM +5% 1/16W	IC301	2005581	IC M62359P
R936	0110237	MF 470 OHM +5% 2W	IC4001	2004591	IC AN5817K (LINEAR)
R938	0113760	CF 2.7K OHM +5% 1/2W	IC4004	2004362	IC CXA1279AS
R939	0700056	CF 15K OHM +5% 1/16W	IC4005	2917391	IC MSC11371RS
R940	0700052	CF 6.8K OHM +5% 1/16W	IC402	2004751	IC TA8200AH
R941	0700041	CF 1K OHM +5% 1/16W	IC4601	2004831	IC LA2780N
R942	0700056	CF 15K OHM +5% 1/16W	IC4602	2380391	IC UPD6326C
R943	0700041	CF 1K OHM +5% 1/16W	IC4603	2362651	IC HD14053BP
Δ R948	0119693	MF 0.39 OHM +5% 1W	IC4605	2362602	IC HA17458/UPC4558
R949	0700054	CF 10K OHM +5% 1/16W	IC4606	2362651	IC HD14053BP
R950	0700058	CF 22K OHM +5% 1/16W	IC4607	2362602	IC HA17458/UPC4558
Δ R951	0113797	CF 82K OHM +5% 1/2W	IC4608	2362602	IC HA17458/UPC4558
Δ R952	0700051	CF 5.6K OHM +5% 1/16W	IC4609	2362651	IC HD14053BP
R953	0700063	CF 47K OHM +5% 1/16W	IC4610	2004242	IC LV1000NA
R955	0700041	CF 1K OHM +5% 1/16W	IC4611	CP00181	IC LC32256P-80 (HHEA MD)
R956	0700045	CF 2.2K OHM +5% 1/16W	IC4612	2004362	IC CXA1279AS
R957	0700042	CF 1.2K OHM +5% 1/16W	IC4613	2004362	IC CXA1279AS
R981	0700054	CF 10K OHM +5% 1/16W	IC4614	2004751	IC TA8200AH
R982	0700049	CF 4.7K OHM +5% 1/16W	IC5501	2020321	IC YAT015
Δ R983	0700039	CF 820 OHM +5% 1/16W	IC601	2003541	IC LA7838 (LINEAR)
Δ R984	0700043	CF 1.5K OHM +5% 1/16W	IC602	2380651	IC AN5551
R986	0119514	FR 10 OHM +5% 1/4W	Δ IC901	2373343	MODULE STR-M6511
R987	0114137	CF 180 OHM +5% 1/4W	Δ IC902	2000465	IC PS2501-1 (KD/LD) (PHOTO COUPLER)
R988	0700046	CF 2.7K OHM +5% 1/16W	Δ IC903	2000465	IC PS2501-1 (KD/LD) (PHOTO COUPLER)
R989	0700032	CF 220 OHM +5% 1/16W	Δ IC931	2381344	IC SE130N
R990	0700041	CF 1K OHM +5% 1/16W	IC933	2003413	IC UPC7912HF
R991	0700054	CF 10K OHM +5% 1/16W	IC935	2000632	IC SI-3120CA
R994	0114161	CF 1K OHM +5% 1/4W			
		ICs			TRANSISTORS
IC0001	CP00191	IC M37204MB-750SP (HHEA MD)	QW02	2320598	TR 2SC458B/C/D
IC0002	2007831	IC M6M80041 P	QW03	2320598	TR 2SC458B/C/D
IC0003	2366301	IC UPD4052BC	QW04	2320598	TR 2SC458B/C/D
IC0004	2004952	IC LA7945N	QW05	2320598	TR 2SC458B/C/D
IC0005	2001753	IC LC7458B-03	QW06	2320598	TR 2SC458B/C/D
IC0006	2008721	IC M62358P	QW07	2320643	TR 2SC1213C
IC0961	2003423	IC UPC7893AHF (LINEAR)	QW08	2321351	TR 2SA836/844 D/E
IC0962	2004665	IC PQ09RF21	QW09	2315381	TR 2SA1837
IC0963	2003421	IC UPC7805AHF	QW10	2315391	TR 2SC4793
IC1301	2003191	IC STK4274 (LINEAR)	QW11	2320598	TR 2SC458B/C/D
IC1326	2003191	IC STK4274 (LINEAR)	Q0001	2320637	TR 2SA673C/D SI 80MHZ 400MW
			Q0002	2320591	TR 2SC458B/C SI 230MHZ 200MW

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
Q0003	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q3524	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0004	2320637	TR 2SA673C/D SI 80MHZ 400MW	Q3525	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0005	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q3801	2320598	TR 2SC458B/C/D SI 230MHZ 200MW
Q0006	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q3802	2320598	TR 2SC458B/C/D SI 230MHZ 200MW
Q0007	2320643	TR 2SC1213C SI 80MHZ 400MW	Q3804	2320598	TR 2SC458B/C/D SI 230MHZ 200MW
Q0008	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4001	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0009	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4002	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0010	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4003	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0011	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4004	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0012	2320643	TR 2SC1213C SI 80MHZ 400MW	Q4005	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0014	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4007	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0015	2320643	TR 2SC1213C SI 80MHZ 400MW	Q4008	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0016	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4009	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0017	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q401	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0018	2320643	TR 2SC1213C SI 80MHZ 400MW	Q4010	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0019	2323521	TR 2SD789 B/C/D/E	Q4011	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0020	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4012	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0021	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4015	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0022	2320637	TR 2SA673C/D SI 80MHZ 400MW	Q402	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0501	2320598	TR 2SC458B/C/D SI 230MHZ 200MW	Q4027	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0502	2312992	PHOTO TRANSISTOR PRT-38PT3F(M)	Q4028	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0503	2320637	TR 2SA673C/D SI 80MHZ 400MW	Q403	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q0504	2320598	TR 2SC458B/C/D SI 230MHZ 200MW	Q4030	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q1101	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4032	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q2101	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q4033	2320637	TR 2SA673C/D SI 80MHZ 400MW
Q2102	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q4034	2320637	TR 2SA673C/D SI 80MHZ 400MW
Q2115	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q404	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q2116	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q4609	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q2122	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q4610	2320637	TR 2SA673C/D SI 80MHZ 400MW
Q2123	2320681	TR 2SA673A B/C SI 80MHZ 400MW	Q4611	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q2124	2320681	TR 2SA673A B/C SI 80MHZ 400MW	Q4612	2320637	TR 2SA673C/D SI 80MHZ 400MW
Q2125	2320681	TR 2SA673A B/C SI 80MHZ 400MW	Q4613	2323521	TR 2SD789 B/C/D/E
Q2126	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q4615	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q2130	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q4618	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q2131	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q4619	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q2133	2320595	TR 2SC458(D) SI 230MHZ 200MW	Q4620	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3001	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4621	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3002	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4622	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3003	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4716	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3004	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q4717	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3005	2320637	TR 2SA673C/D SI 80MHZ 400MW	Q5501	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3503	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q5502	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3504	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q5503	2320637	TR 2SA673C/D SI 80MHZ 400MW
Q3508	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q5505	2320637	TR 2SA673C/D SI 80MHZ 400MW
Q3510	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q5506	2320637	TR 2SA673C/D SI 80MHZ 400MW
Q3514	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q5507	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3516	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q5901	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3517	2320637	TR 2SA673C/D SI 80MHZ 400MW	Q5902	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3518	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q5903	2320637	TR 2SA673C/D SI 80MHZ 400MW
Q3519	2320637	TR 2SA673C/D SI 80MHZ 400MW	Q5904	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3520	2320591	TR 2SC458B/C SI 230MHZ 200MW	Q5906	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3521	2326021	TR 2SC1741S	Q5907	2320591	TR 2SC458B/C SI 230MHZ 200MW
Q3523	2320637	TR 2SA673C/D SI 80MHZ 400MW	Q601	2312171	TR 2SC3852

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
Q607	2320591	TR 2SC458B/C SI 230MHZ 200MW	DW07	2398611	DI1SS254
Q809	2320591	TR 2SC458B/C SI 230MHZ 200MW	DW08	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
Q610	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0001	2398611	DI1SS254
Q611	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0002	2398611	DI1SS254
Q612	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0003	2398611	DI1SS254
Q613	2320637	TR 2SA673C/D SI 80MHZ 400MW	D0004	2398611	DI1SS254
Δ Q701	2326216	TR 2SC3116 S/T	D0005	2398611	DI1SS254
Q707	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0006	2398611	DI1SS254
Q708	2320637	TR 2SA673C/D SI 80MHZ 400MW	D0008	2398611	DI1SS254
Q710	2312171	TR 2SC3852	D0009	2398611	DI1SS254
Q711	2320663	TR 2SC1213AC SI 80MHZ 400MW	D0010	2398611	DI1SS254
Q712	2320663	TR 2SC1213AC SI 80MHZ 400MW	D0011	2398611	DI1SS254
Q713	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0012	2398611	DI1SS254
Q714	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0013	2398611	DI1SS254
Q715	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0017	2398611	DI1SS254
Q716	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0019	2398611	DI1SS254
Q717	2320663	TR 2SC1213AC SI 80MHZ 400MW	D0020	2398611	DI1SS254
Q718	2320663	TR 2SC1213AC SI 80MHZ 400MW	D0021	2398611	DI1SS254
Q720	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0022	2398611	DI1SS254
Q721	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0023	2398611	DI1SS254
Q722	2320637	TR 2SA673C/D SI 80MHZ 400MW	D0024	2398611	DI1SS254
Δ Q777	2315273	TRANSISTOR 2SC4589-04	D0025	2398611	DI1SS254
Δ Q780	2314991	TRANSISTOR 2SC4630	D0026	2398611	DI1SS254
Q801B	2312651	TR 2SC3503 C/D/E/F	D0030	2398611	DI1SS254
Q801G	2312651	TR 2SC3503 C/D/E/F	D0031	2398611	DI1SS254
Q801R	2312651	TR 2SC3503 C/D/E/F	D0036	2398611	DI1SS254
Q802B	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0037	2398611	DI1SS254
Q802G	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0038	2398611	DI1SS254
Q802R	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0039	2398611	DI1SS254
Q803B	2320637	TR 2SA673C/D SI 80MHZ 400MW	D0050	2398611	DI1SS254
Q803G	2320637	TR 2SA673C/D SI 80MHZ 400MW	D0051	2398611	DI1SS254
Q803R	2320637	TR 2SA673C/D SI 80MHZ 400MW	D0501	2398611	DI1SS254
Q804B	2320591	TR 2SC458B/C SI 230MHZ 200MW	D0502	2398611	DI1SS254
Δ Q902	2323782	TR 03P2M	D0503	2339691	LED SLH-56VC77F
Q903	2320665	TR 2SC1213A(D)	D1301	23394911	DI AM01Z
Q931	2323521	TR 2SD789 B/C/D/E	D2101	23383211	DI1SS270
Q932	2312171	TR 2SC3852	D2102	23383211	DI1SS270
Q933	2320637	TR 2SA673C/D SI 80MHZ 400MW	D2103	23383211	DI1SS270
Q934	2320637	TR 2SA673C/D SI 80MHZ 400MW	D2104	23383211	DI1SS270
Δ Q935	2321112	TR 2SA778A	D2105	23383211	DI1SS270
Q937	2326862	TR DTA114ES	D2107	23383211	DI1SS270
Q938	2320637	TR 2SA673C/D SI 80MHZ 400MW	D2108	23383211	DI1SS270
Δ Q940	2323782	TR 03P2M	D2109	23383211	DI1SS270
Q941	2312171	TR 2SC3852	D2111	23383211	DI1SS270
DIODES					
DW01	23394911	DI AM01Z	D3001	2398611	DI1SS254
DW02	23394911	DI AM01Z	D3002	2398611	DI1SS254
DW03	23394911	DI AM01Z	D3003	2398611	DI1SS254
DW04	23394911	DI AM01Z	D3004	2398611	DI1SS254
DW05	2398611	DI1SS254	D3005	2398611	DI1SS254
DW06	2398611	DI1SS254	D3008	2398611	DI1SS254
			D3502	2398611	DI1SS254
			D3503	2398611	DI1SS254
			D3504	2398611	DI1SS254

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
D3505	2398611	DI 1SS254	D660	23394911	DI AM01Z
D3506	2398611	DI 1SS254	D661	2398611	DI 1SS254
D3507	2398611	DI 1SS254	Δ D701	CH00031M	DI AU02V1 (HHEA MD)(HHSC MD)
D3508	2398611	DI 1SS254	Δ D702	CH00031M	DI AU02V1 (HHEA MD)(HHSC MD)
D3509	2398611	DI 1SS254	D703	CH0041M	DI ES1FV1 (HHEA MD)
D3511	2398611	DI 1SS254	D704	CH0041M	DI ES1FV1 (HHEA MD)
D3512	2398611	DI 1SS254	D705	CH00031M	DI AU02V1 (HHEA MD)(HHSC MD)
D3513	2398611	DI 1SS254	Δ D706	2348511	DIODE RS3FS
D3516	2398611	DI 1SS254	D707	2359371	DI S3L60 (HHEA MD)
D3517	2398611	DI 1SS254	D7070	2359371	DI S3L60 (HHEA MD)
D3518	2398611	DI 1SS254	D708	2398611	DI 1SS254
D3519	2398611	DI 1SS254	D709	2398611	DI 1SS254
D4001	2398611	DI 1SS254	D710	2334581	DI ES1A SI
D4002	2398611	DI 1SS254	D711	2398611	DI 1SS254
D406	2398611	DI 1SS254	D712	23394911	DI AM01Z
D407	2398611	DI 1SS254	D713	2398611	DI 1SS254
D408	2398611	DI 1SS254	D714	2398611	DI 1SS254
D409	2398611	DI 1SS254	D715	2398611	DI 1SS254
D410	2398611	DI 1SS254	D716	2398611	DI 1SS254
D413	2398611	DI 1SS254	D722	2398611	DI 1SS254
D414	2398611	DI 1SS254	D722A	2398611	DI 1SS254
D416	2398611	DI 1SS254	D723	2398611	DI 1SS254
D417	2398611	DI 1SS254	D724	2398611	DI 1SS254
D418	2398611	DI 1SS254	D728	2398611	DI 1SS254
D420	2398611	DI 1SS254	D729	2398611	DI 1SS254
D421	2398611	DI 1SS254	D781	2398611	DI 1SS254
D4604	2398611	DI 1SS254	D782	2349661M	DIODE SM-1XN02
D4605	2398611	DI 1SS254	D801B	23383211	DI 1SS270
D4606	2398611	DI 1SS254	D801G	23383211	DI 1SS270
D4607	2398611	DI 1SS254	D801R	23383211	DI 1SS270
D4608	2398611	DI 1SS254	Δ D901	2342061	DI D3SB(A)60
D4609	2398611	DI 1SS254	Δ D903	23394811	DI AS01Z
D4611	2398611	DI 1SS254	D904	2398611	DI 1SS254
D4612	2398611	DI 1SS254	D905	2398611	DI 1SS254
D4613	2398611	DI 1SS254	Δ D906	23394811	DI AS01Z
D4614	2398611	DI 1SS254	Δ D931	2349661M	DIODE SM-1XN02
D5503	2398611	DI 1SS254	Δ D932	2398611	DI 1SS254
D5504	2398611	DI 1SS254	Δ D933	2349661M	DIODE SM-1XN02
D5507	2398611	DI 1SS254	D934	2398611	DI 1SS254
D5508	2398611	DI 1SS254	D935	2398611	DI 1SS254
D5509	2398611	DI 1SS254	Δ D936	2338944	DI FML-G12S(F)
D5510	2398611	DI 1SS254	Δ D937	2338944	DI FML-G12S(F)
D5902	2398611	DI 1SS254	Δ D938	2338944	DI FML-G12S(F)
D601	2398611	DI 1SS254	Δ D939	2338932	DI FMG-G36S
D620	2398611	DI 1SS254	Δ D940	2338944	DI FML-G12S(F)
D621	2398611	DI 1SS254	Δ D941	2338944	DI FML-G12S(F)
D622	2398611	DI 1SS254	Δ C342	2338944	DI FML-G12S(F)
D651	CH00031M	DI AU02V1 (HHEA MD)(HHSC MD)	D945	23394911	DI AM01Z
D652	23394911	DI AM01Z	D946	23394911	DI AM01Z
D653	23394911	DI AM01Z	Δ D948	2398611	DI 1SS254
D654	23394911	DI AM01Z	Δ D949	2398611	DI 1SS254
D657	2398611	DI 1SS254	D951	2398611	DI 1SS254
D659	2398611	DI 1SS254	D952	2398611	DI 1SS254

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D953	2398611	DI 1SS254	ZD3008	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
D954	2398611	DI 1SS254	ZD3009	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
D958	2398611	DI 1SS254	ZD3010	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0001	2334122	ZD RD5.1EB1 SI	ZD3011	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0002	2339844	ZD HZS6B1	ZD3012	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0003	2339839	ZD HZS5C3	ZD3013	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0004	2339885	ZD HZS12B2	ZD3014	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0005	2339885	ZD HZS12B2	ZD3015	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0006	2339885	ZD HZS12B2	ZD3017	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0007	2339849	DIODE-ZENER HZS6C3	ZD3019	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0008	2335991	ZD HZT-33	ZD3021	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0009	2339839	ZD HZS5C3	ZD3022	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0010	2339885	ZD HZS12B2	ZD3024	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD0011	2339885	ZD HZS12B2	ZD303	2331799	ZD HZ5(C)3 SI
ZD0012	2339885	ZD HZS12B2	ZD304	2331799	ZD HZ5(C)3 SI
ZD0013	2339885	ZD HZS12B2	ZD305	2331799	ZD HZ5(C)3 SI
ZD0015	2339885	ZD HZS12B2	ZD308	2339668M	ZD HZS9C2TA
ZD0016	2339885	ZD HZS12B2	ZD309	2334285	DIODE-ZENER RD24EB4
ZD0017	2339885	ZD HZS12B2	ZD310	2334323M	DIODE-ZENER RD36EB2
ZD0501	2339885	ZD HZS12B2	ZD311	2339885	ZD HZS12B2
ZD0502	2339885	ZD HZS12B2	ZD312	2339885	ZD HZS12B2
ZD1301	2334324	ZD RD36EB3	ZD313	2339885	ZD HZS12B2
ZD1302	2334324	ZD RD36EB3	ZD314	2339885	ZD HZS12B2
ZD1311	2334324	ZD RD36EB3	ZD315	2339885	ZD HZS12B2
ZD1312	2334324	ZD RD36EB3	ZD3801	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD1326	2334324	ZD RD36EB3	ZD3802	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD1327	2334324	ZD RD36EB3	ZD3804	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD1336	2334324	ZD RD36EB3	ZD3805	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD1337	2334324	ZD RD36EB3	ZD4001	2339836	DIODE-ZENER HZS5B3
ZD1351	2334324	ZD RD36EB3	ZD4601	2331795	ZD HZ-5 (B2)
ZD1352	2334324	ZD RD36EB3	ZD4602	2339812M	DIODE-ZENER HZS3A2
ZD1361	2334324	ZD RD36EB3	ZD4603	2339812M	DIODE-ZENER HZS3A2
ZD1362	2334324	ZD RD36EB3	ZD5501	2339885	ZD HZS12B2
ZD1501	2331797	ZD HZ5C1	ZD5502	2339668M	ZD HZS9C2TA
ZD2101	2334285	DIODE-ZENER RD24EB4	ZD5503	2339668M	ZD HZS9C2TA
ZD2102	2334285	DIODE-ZENER RD24EB4	ZD5504	2339668M	ZD HZS9C2TA
ZD2103	2334285	DIODE-ZENER RD24EB4	ZD5510	2334324	ZD RD36E53
ZD2104	2334285	DIODE-ZENER RD24EB4	ZD5514	2331849	ZD HZ-12(C3)
ZD2105	2334295	DIODE-ZENER RD24EB4	ZD5519	2339885	ZD HZS12B2
ZD2106	2334285	DIODE-ZENER RD24EB4	ZD5520	2339885	ZD HZS12B2
ZD2107	2334285	DIODE-ZENER RD24EB4	ZD651	2331807	ZD HZ-6 (C1)
ZD2108	2334285	DIODE-ZENER RD24EB4	ZD652	2331154	ZD HZ12 (A1-3/B1-3/C1-3)
ZD2109	2334285	DIODE-ZENER RD24EB4	ZD653	2334243	ZD RD16E(B2)
ZD2110	2334285	DIODE-ZENER RD24EB4	ZD656	2334305	ZD RD30E (B4)
ZD2111	2334285	DIODE-ZENER RD24EB4	ZD709	2339612M	ZD HZS3BLL-TA
ZD3001	2339836	DIODE-ZENER HZS5B3	Δ ZD710	2335461	ZD HZ24 (2L)
ZD3002	2331154	ZD HZ12 (A1-3/B1-3/C1-3)	ZD712	2334334	ZD RD39EB3
ZD3003	2331154	ZD HZ12 (A1-3/B1-3/C1-3)	ZD713	2339889	ZD HZS12C3
ZD3004	2331154	ZD HZ12 (A1-3/B1-3/C1-3)	ZD714	2339825	ZD HZS4B2
ZD3005	2331154	ZD HZ12 (A1-3/B1-3/C1-3)	ZD715	2339889	ZD HZS12C3
ZD3006	2331154	ZD HZ12 (A1-3/B1-3/C1-3)	ZD801B	2331827	ZD HZ-9 (C1)
ZD3007	2331154	ZD HZ12 (A1-3/B1-3/C1-3)	ZD801G	2331827	ZD HZ-9 (C1)
			ZD801R	2331827	ZD HZ-9 (C1)

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
Δ ZD902	2339223	ZD HZS27-3L			COILS
ZD904	2334304	ZD RD30EB3			
ZD905	2334304	ZD RD30EB3	LW01	2122943	LA AXIAL COIL 10 MICRO H $\pm$ 10%
ZD931	2339885	ZD HZS12B2	LW02	2123468	FERRITE BEADS CORE LEAD 0.8
Δ ZD932	2339231	ZD HZS30-1L	LW03	2123468	FERRITE BEADS CORE LEAD 0.8
Δ ZD933	2339042	ZD HZS7A2L	LW04	2123468	FERRITE BEADS CORE LEAD 0.8
ZD936	2335461	ZD HZ24 (2L)	L0001	2122956	LA AXIAL COIL 100 MICRO H $\pm$ 10%
ZD937	2331809	ZD HZ-6 (C3)	L0002	2122956	LA AXIAL COIL 100 MICRO H $\pm$ 10%
ZD957	2339877	ZD HZS-11C1	L0003	2146091	COIL-OSC
			L0005	2122956	LA AXIAL COIL 100 MICRO H $\pm$ 10%
			L0006	2122956	LA AXIAL COIL 100 MICRO H $\pm$ 10%
		TRANSFORMERS	L0011	2122956	LA AXIAL COIL 100 MICRO H $\pm$ 10%
Δ T701	2260291	HORIZONTAL DRIVE TRANSFORMER	L0012	2122956	LA AXIAL COIL 100 MICRO H $\pm$ 10%
Δ T702	2436493	FLYBACK TRANSFORMER	L0013	2122956	LA AXIAL COIL 100 MICRO H $\pm$ 10%
Δ T703	2272762	SPC TRANSFORMER	L1501	2120482	FILTER COIL 100 MICRO H $\pm$ 10%
Δ T901	2213993	POWER TRANSFORMER	L2101	2120484	FILTER COIL
Δ T902	2215594	SWITCHING TRANSFORMER	L2102	2120484	FILTER COIL
T903	2215861	POWER TRANSFORMER	L2103	2120484	FILTER COIL
			L2104	2120484	FILTER COIL
		FUSES	L2105	2120484	FILTER COIL
Δ F601	2722353	FUSE 1.6A	L2106	2120484	FILTER COIL
Δ F901	2722358	FUSE 5A	L3002	2120489	FILTER COIL 100 MICRO H $\pm$ 10%
Δ F903	2722358	FUSE 5A	L3003	2120482	FILTER COIL 100 MICRO H $\pm$ 10%
Δ F931	2722387M	FUSE 3A	L3004	2120489	FILTER COIL 100 MICRO H $\pm$ 10%
Δ F932	2722357	FUSE 4A	L3006	2125721	CHOKE COIL (HHEA MD)(HSCC MD)
Δ F933	2722387M	FUSE 3A	L3501	2120482	FILTER COIL 100 MICRO H $\pm$ 10%
Δ F934	2722387M	FUSE 3A	L3503	2122956	LA AXIAL COIL 100 MICRO H $\pm$ 10%
Δ F935	2722357	FUSE 4A	L4001	2122253	LA AXIAL COIL 100 MICRO H
Δ F936	2722387M	FUSE 3A	L401	2123461	FERRITE BEADS CORE
Δ F937	2722353	FUSE 1.6A	L402	2123461	FERRITE BEADS CORE
			L404	2123461	FERRITE BEADS CORE
		COMPOUND COMPONENTS	L405	2122253	LA AXIAL COIL 100 MICRO H
CP0001	2791754	DSS306-55B101M	L4601	2123461	FERRITE BEADS CORE
CP0002	2791754	DSS306-55B101M	L4602	2123461	FERRITE BEADS CORE
CP0003	2791754	DSS306-55B101M	L5502	2120482	FILTER COIL 100 MICRO H $\pm$ 10%
CP0004	2791754	DSS306-55B101M	L5503	2122949	LA AXIAL COIL 33 MICRO H $\pm$ 10%
CP0005	2791754	DSS306-55B101M	L5504	2120482	FILTER COIL 100 MICRO H $\pm$ 10%
CP0006	2791754	DSS306-55B101M	L5505	2120482	FILTER COIL 100 MICRO H $\pm$ 10%
CP0007	2791754	DSS306-55B101M	L5901	2120482	FILTER COIL 100 MICRO H $\pm$ 10%
CP0501	2381126	REMOTE CONTROL RECEIVER SPS-409-1F	L701	2121181	FILTER COIL
Δ CP702	0150668	FOCUS PACK MHF174-09	L703	2275381	CHOKE COIL
Δ CP901	2793312	CAPRISTOR	L705	2120486	FILTER COIL 4700 MICRO H $\pm$ 5%
Δ CP901A	2784342	CONDENSER COVER	L706	2124511	LINEARITY COIL
CP902	2793312	CAPRISTOR	L707	2122095	FILTER COIL 27 MICRO H
MF0001	2163972	CERAMIC FILTER 6MHZ	L708	2120482	FILTER COIL 100 MICRO H $\pm$ 10%
MF0002	2168831	CRYSTAL	L709	2122094	FIXED COIL
MF5501	2786685	CRYSTAL	Δ L901	2123507	LINE FILTER
M301	2375401	CHIP BOARD HC3041 (3-LINE DIGITAL COMB)	Δ L902	2123507	LINE FILTER
M302	JPO0241	PSA KC-001SP IN P UNIT (HHEA MD)	Δ L905	2124365	COIL
			L906	2122653	FERRITE BEADS CORE
			L912	2123469M	FERRITE BEADS CORE READ 2.3
			L939	2161152	FILTER COIL

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
L940	2161152	FILTER COIL	16A	H310771	SPEAKER GRILL (50UX)
L941	2161152	FILTER COIL	16B	H310773	SPEAKER GRILL (46UX)
L942	2161152	FILTER COIL	17A	PH00572	DECO PANEL (50UX)
L943	2161152	FILTER COIL	17B	PH00571	DECO PANEL (46UX)
L944	2161152	FILTER COIL	20	4137975	4X16 ZAR SCREW
L945	2161152	FILTER COIL	21A	QD00422	CABINET ASS'Y (50UX19K)
L946	2161152	FILTER COIL	21B	QD00412	CABINET ASS'Y (50UX18B)
L947	2161152	FILTER COIL	21C	QD00421	CABINET ASS'Y (46UX17K)
L949	2161152	FILTER COIL	21D	QD00411	CABINET ASS'Y (46UX16B)
L950	2161152	FILTER COIL	23	4288069	K55 MIRROR
L951	2161152	FILTER COIL	29	4618172	RUBBER SPACER
L953	2161152	FILTER COIL	30	4524912	HEXAGON FLANGEHEAD 4X16
			34	H512098	LOWER REAR BD (HHEA MD)
		SWITCHES	Δ 35	3708417	SP LENS S-ASS'Y (R)(G)
			Δ 36	3708418	SP LENS S-ASS'Y (B)
S0501	2633321	5 KEY TACT SWITCH	38A	3189761	SCREEN ASS'Y (50UX)
S0502	2632901	KEY SWITCH	38B	3189762	SCREEN ASS'Y (46UX)
S5502	2621051	SLIDE SWITCH	39A	NT00072	SCREEN FRAME (50UX19K)
			39B	NT00062	SCREEN FRAME (50UX18B)
		MISCELLANEOUS	39C	NT00071	SCREEN FRAME (46UX17K)
			39D	NT00061	SCREEN FRAME (46UX16B)
1	3204544	CONT PNL ASS'Y (W/O INDOOR P.) (HHEA MD)	4527821	M6 BOLT	
	3827871	INDOOR PLATE (HHEA MD) (HSCC MD)	4520515	4X30 SPECIAL SCREW	
	3821732	CONTROL DOOR (W/O DOOR PLATE) (HHEA MD)	3744172	CLUMT 20	
	3827872	DOOR PLATE (HHEA MD) (HSCC MD)	Δ 40	4869321	LENS CRT ASS'Y R (HHEA MD) (HSCC MD)
	3875771	LATCH 4T02	Δ 41	4869322	LENS CRT ASS'Y G (HHEA MD) (HSCC MD)
	3273431	CONTROL BUTTON (HHEA MD) (HSCC MD)	Δ 42	4869323	LENS CRT ASS'Y B (HHEA MD) (HSCC MD)
	4159427	3X10 TAPPING SCREW WITH WASHER	EANT	HC00021	ANTENNA SWITCH (HHEA MD)
	4518772	3X12 TNE	ERR	2902266	7P SUB MINI PLUG PIN
3	3462209	BACK COVER (HHEA MD) (HSCC MD)	Δ E101	2444877	DEFLECTION YOKE (HHEA MD) (HSCC MD)
4	4492091	LENS CRT METAL	E104	2776542	VM MAGNET (HHEA MD)
	4524915	HEXAGON HEAD B-TAP.SCREW 4X20	E301	2573971	REM. CONTROL CLU-850GR (HHEA MD) (HSCC MD)
	4492171	UNIT COVER	Δ E801B	2698671	CPT SOCKET
	4524911	HEXAGON FLANGEHEAD 4X12	Δ E801G	2698671	CPT SOCKET
5	3873612	PWB HOLDER	Δ E801R	2698671	CPT SOCKET
6	3811971	BACK COVER DOOR	E802	2661756	1P PLUG PIN WITH BASE
7	4519512	TAPPING SCREW 4X16 MM	EP51	2997979	1J MINI CONNECTOR
8	3204811	TERMINAL HOLDER ASS'Y	EVM	2976362	4J EH CONNECTOR
9	4524911	HEXAGON FLANGEHEAD 4X12	EVMC	EF01201	VM COIL CONNECTOR
	3204182	R/C LENS (HHEA MD) (HSCC MD)	FE0001	2429691	FRONTEND V8-A68FT
	3725352	BOARD HOLDER	J01	2983111	3PJACK WITH S TERMINAL
10	3744173	CLAMPER	J3001	2672891	6P PIN JACK WITH S TERMINAL
11	4519503	3X12 TAPPING SCREW	J3002	2672894	5P PIN JACK
12	4329271	WASHER (F)	J4502	2672901	4P PUSH TERMINAL
13	4522901	NUT	ND901	4520883	M3X12 SCREW WITH WASHER
14	4520232	4X16 DT SCREW	ND936	2771892	FERRITE BEADS CORE 004
	3700921	LAMP LENS (HHEA MD) (HSCC MD)	ND939	4520893	M3X12 SCREW WITH WASHER
	3742021	LEAD HOLDER(CABINET)	NF601	2721351	FUSE HOLDER
	4336491	CASTER METAL	NF901	2721351	FUSE HOLDER
	4159427	3X10 TAPPING SCREW WITH WASHER	NF903	2721351	FUSE HOLDER
	4519512	TAPPING SCREW 4X16 MM	NF932	2721351	FUSE HOLDER
	4526351	SPACER (CABINET)	NF935	2721351	FUSE HOLDER
15	4520771	4X18 TAPPING SCREW WITH WASHER	NF937	2721351	FUSE HOLDER

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NIC901	4520883	M3X12 SCREW WITH WASHER	N801	3763751	SK BINDER
NIC933	4520883	M3X12 SCREW WITH WASHER	N803	4520881	M3X8 SCREW WITH WASHER
NIC935	4520883	M3X12 SCREW WITH WASHER	Δ N9	2745414	POWER SUPPLY CORD
NI131B	4520885	M3X16 SCREW	N9BFN	4520883	M3X12 SCREW WITH WASHER
NI131C	4518772	3X12 TNE	N9N	4520881	M3X8 SCREW WITH WASHER
NI601B	4520883	M3X12 SCREW WITH WASHER	N9NN	4770601	3 FLANGE NUT
NQ710B	4520883	M3X12 SCREW WITH WASHER	N9NR	4520883	M3X12 SCREW WITH WASHER
NQ777B	4520883	M3X12 SCREW WITH WASHER	N901	3772201	AC CORD HOLDER
NQ777C	2771892	FERRITE BEADS CORE 004	N907	3739671	CORD HOLDER
NQ777D	2771893	FERRITE BEADS CORE	PAN	2663821	2P PLUG PIN
NQ780B	4520883	M3X12 SCREW WITH WASHER	PCB	2661753	PIN PLUG WITH BASE
NQ932	4520883	M3X12 SCREW WITH WASHER	PCG	2661753	PIN PLUG WITH BASE
NQ941	4520883	M3X12 SCREW WITH WASHER	PCR	2661753	PIN PLUG WITH BASE
NT902	4518772	3X12 TNE	PD	2663135	PLUG PIN WITH BASE (6P)
NWQ2	4520883	M3X12 SCREW W/ WASHER	PDR	2902263	4P SUB MINI PLUG PIN
N003	3700342	WIRE CLAMP	PFJ	2902266	7P SUB MINI PLUG PIN
N0962A	4520883	M3X12 SCREW WITH WASHER	PKZ	2674631	5P CONNECTOR
N0963A	4520883	M3X12 SCREW WITH WASHER	PMB	2665272	4P PLUG PIN WITH BASE
N1030	4159427	3X10 TAPPING SCREW WITH WASHER	PMG	2665272	4P PLUG PIN WITH BASE
N1031D	4518772	3X12 TNE	PMR	2665272	4P PLUG PIN WITH BASE
N1032D	8815124	WASHER LOCK 3MM	PP31	2661751	PLUG PIN WITH BASE
N1033	4518772	3X12 TNE	PP51	2661756	1P PLUG PIN WITH BASE
N104	4520883	M3X12 SCREW WITH WASHER	PRR	2902266	7P SUB MINI PLUG PIN
N1055	4159425	3X16 TAPPING SCREW	PS	2661752	PLUG PIN
N1060	3746482	WIRE CLAMP	PS	2661942	CONNECTOR
N1075	4159427	3X10 TAPPING SCREW WITH WASHER	PSD1	2674631	5P CONNECTOR
N151B	4526322	MBX10 SCREW	PSD2	2674635	10P CONNECTOR
N151G	4526322	MBX10 SCREW	PSD3	2674634	8P CONNECTOR
N151R	4526322	MBX10 SCREW	PSD4	2674635	10P CONNECTOR
N155	4524911	HEXAGON FLANGEHEAD 4X12	PSD5	2674631	5P CONNECTOR
N157B	4524913	HEXAGON FLANGEHEAD 4X12 R	PSL	2661944	CONNECTOR
N157G	4524913	HEXAGON FLANGEHEAD 4X12 R	PTS	2663821	2P PLUG PIN
N157R	4524913	HEXAGON FLANGEHEAD 4X12 R	PVM	2902263	4P SUB MINI PLUG PIN
N201	QR01111	INSTRUCTION MANUAL (HHEA MD)	P1VM	2902263	4P SUB MINI PLUG PIN
N241B	4526102	4X18 SCREW	P51	2661756	1P PLUG PIN WITH BASE
N241G	4526102	4X18 SCREW	Δ RL901	2640572	POWER RELAY
N241R	4526102	4X18 SCREW	SG780	2340039	SPARK GAP
N244B	4526101	4X12 SCREW	SG781	2340039	SPARK GAP
N244G	4526101	4X12 SCREW	Δ SG801B	2340039	SPARK GAP
N244R	4526101	4X12 SCREW	Δ SG801G	2340039	SPARK GAP
N245B	4518253	3X10 TAPPING SCREW FOR PLASTIC	Δ SG801R	2340039	SPARK GAP
N245G	4518253	3X10 TAPPING SCREW FOR PLASTIC	Δ SG802B	2340039	SPARK GAP
N245R	4518253	3X10 TAPPING SCREW FOR PLASTIC	Δ SG802G	2340039	SPARK GAP
N302	4520883	M3X12 SCREW WITH WASHER	Δ SG802R	2340039	SPARK GAP
N402A	4520881	M3X12 SCREW WITH WASHER	Δ SP401	GK00022	SPEAKER 120MM (HHEA MD)
N408B	3332021	EARTH SPRING	Δ SP402	GK00022	SPEAKER 120MM (HHEA MD)
N408G	3332021	EARTH SPRING	Δ SP403	2414942	SPEAKER (HHEA MD) (HSCC MD)
N408R	3332021	EARTH SPRING	Δ SP404	2414942	SPEAKER (HHEA MD) (HSCC MD)
N409B	4159411	3X8 KNURL TAPPING SCREW	TH2101	2340552	THERMISTOR
N409G	4159411	3X8 KNURL TAPPING SCREW	W811B	2692461	FOCUS LEAD WIRE (HHEA MD) (HSCC MD)
N409R	4159411	3X8 KNURL TAPPING SCREW	W811G	2692461	FOCUS LEAD WIRE (HHEA MD) (HSCC MD)
N4614A	4520883	M3X12 SCREW WITH WASHER	W811R	2692461	FOCUS LEAD WIRE (HHEA MD) (HSCC MD)
N6020	3881321	ADHESION	X4601	2786585	CRYSTAL
			X5501	2791501	CRYSTAL HC-49/U

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