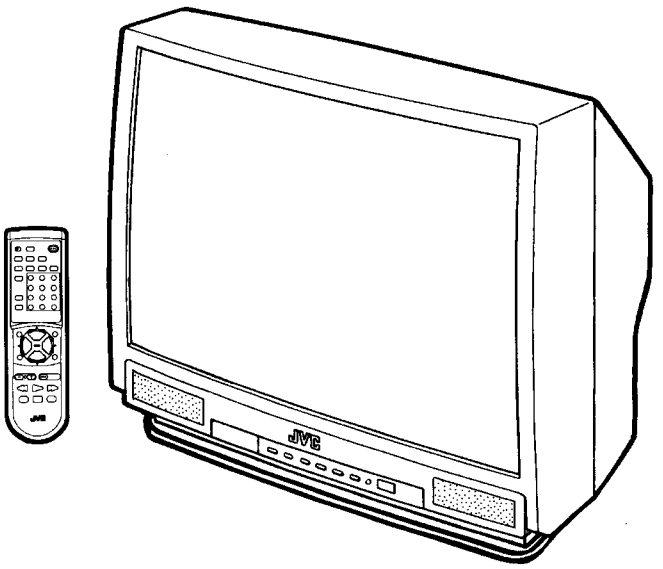
JVC

SERVICE MANUAL

COLOR TELEVISION

BASIC CHASSIS
GV2

AV-36050 (PH)



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No.51592
Aug. 1999

SPECIFICATIONS

Items	Contents
Dimensions (W × H × D)	86.0cm × 76.5cm × 60.3cm
Mass	67.8kg
TV System and Color system	
TV RF System	CCIR(M)
Color System	NTSC
Sound System	BTSC (Multi Channel Sound)
TV Receiving Channels and Frequency	
VL Band	(02～06) 54MHz～88MHz
VH Band	(07～13) 174MHz～216MHz
UHF Band	(14～69) 470MHz～806MHz
CATV Receiving Channels and Frequency	
Low Band	(02～06)
High Band	(07～13)
Mid Band	(14～22)
Super Band	(23～36) (54MHz～804MHz)
Hyper Band	(37～64)
Ultra Band	(65～94, 100～125)
Sub Mid Band	(01, 96～99)
TV/CATV Total Channel	180 Channels
Intermediate Frequency	
Video IF Carrier	45.75MHz
Sound IF Carrier	41.25MHz (4.5MHz)
Color Sub Carrier	3.58MHz
Power Input	120V AC, 60Hz
Power Consumption	130W
Picture Tube	38" (90cm) measured diagonally, Full Square
High Voltage	31kV±1.3kV (at zero beam current)
Speaker	8 × 12cm Oval type × 2
Audio Power Output	3W+3W
Input (1 / 2)	Video : 1Vp-p 75Ω (RCA pin jack) Audio : 500mVrms (-4dBs), High Impedance (RCA pin jack) S-Video Y : 1Vp-p positive (negative sync provided, when terminated with 75Ω) C : 0.286Vp-p (burst signal, when terminated with 75Ω)
Audio Output (Variable / Fix : Selectable)	Variable : More then 0～1550mVrms (+6dBs) Low Impedance (400Hz when modulated 100%) (RCA pin jack) Fix : 500mVrms(-4dBs) Low Impedance (400Hz when modulated 100%) (RCA pin jack)
AV Compulink EX Input	3.5mm mini jack
Antenna terminal	75Ω (VHF / UHF) Terminal, F-Type connector
Remote Control Unit	RM-C341-3A (AA / R6 / UM-3 battery × 2)

Design & specifications are subject to change without notice.

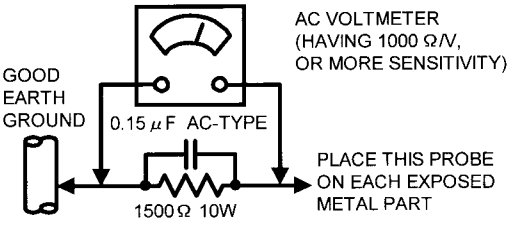
SAFETY PRECAUTIONS

1. The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual.** The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.
4. **Use isolation transformer when hot chassis.**
   The chassis and any sub-chassis contained in some products are connected to one side of the AC power line. An isolation transformer of adequate capacity should be inserted between the product and the AC power supply point while performing any service on some products when the HOT chassis is exposed.
5. **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
   Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.
   If above note will not be kept, a fuse or any parts will be broken.
6. If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
7. The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
8. Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
9. When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.
10. **Isolation Check**
    (Safety for Electrical Shock Hazard)
    After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

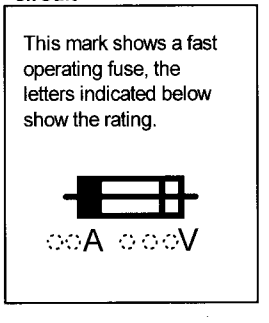
(1) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 1100V AC (r.m.s.) for a period of one second.
(. . . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

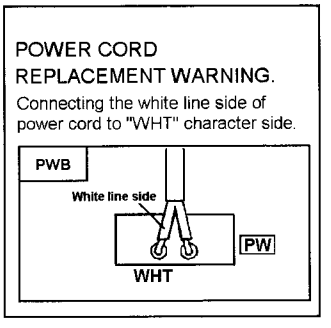
(2) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

● **Alternate Check Method**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



11. **High voltage hold down circuit check.**
    After repair of the high voltage hold down circuit, this circuit shall be checked to operate correctly.
    See item "**How to check the high voltage hold down circuit**".





FEATURES

- New chassis design enables use of a main board with simplified circuitry.
- Digital comb filter Improved picture quality.
- Provided with 2 tuner (TV/CATV, PIP).
- Full-square CRT (cathode ray tube) reproduces fine textured picture in every detail.
- With AV COMPU LINK EX terminal.
- Closed-caption broadcasts can be viewed.
- With AUDIO. VIDEO INPUT terminal.
- S-VIDEO input terminal for taking best advantage of Super VHS.
- Variable / Fix audio output terminal.
- Built-in PIPsystem.
- I^2C bus control utilizes single chip ICs.
- Built- in V-CHIP system.

SPECIFICATIONS

MODEL	AV-36050	AV-32050	AV-27050	AV-36020	AV-32020	AV-32015
Type	Color Television					
Reception Format	NTSC system, BTSC system (Multichannel Sound)					
Reception Range	VHF 2 to 13, UHF 14 to 69 Sub Mid, Mid, Super, Hyper and Ultra bands (181 channel frequency synthesizer system)					
Power Source	AC 120V, 60Hz					
Power Consumption	130 W / 1.9 A		120 W / 1.7 A	125 W / 1.8 A		
Screen Size	36"/90 cm measured diagonally, full square	32"/80 cm measured diagonally, full square	27"/68 cm measured diagonally, full square	36"/90 cm measured diagonally, full square	32"/80 cm measured diagonally, full square	
Audio Output	3W + 3W					
Speakers	3 3/16" x 4 3/4" 8 x 12 cm oval x 2	2" x 4 3/4" 5 x 12 cm oval x 2	2" x 4 3/4" 5 x 12 cm oval x 2	3 3/16" x 4 3/4" 8 x 12 cm oval x 2	2" x 4 3/4" 5 x 12 cm oval x 2	
Antenna Terminal	75 ohms (VHF/UHF) terminal (F-type connector)					
External Input Jacks	Video: 1 Vp-p, 75 ohms Audio: 500 mVrms (-4 dBs), high impedance					
S-Video Input Jack	Y: 1Vp-p positive, 75 ohms (negative sync provided) C: 0.286 Vp-p (burst signal), 75 ohms					—
Audio Output Jacks	More than 0 to 1550 mVrms (+6 dBs), low impedance (400 Hz when modulated 100%)					—
AV Compu Link Jack	3.5 mm mini jack x 1					—
Dimensions (inches) (W x H x D) – (cm)	33 7/8 x 30 1/8 x 23 3/4 86.0 x 76.5 x 60.3cm	30 1/4 x 26 1/4 x 21 1/2 76.8 x 66.7 x 54.7 cm	25 3/4 x 23 3/8 x 20 1/2 65.4 x 59.1 x 51.8cm	33 7/8 x 30 1/8 x 23 3/4 86.0 x 76.5 x 60.3cm	30 1/4 x 26 1/4 x 21 1/2 76.8 x 66.7 x 54.7cm	30 1/4 x 26 1/4 x 21 1/2 76.8 x 66.7 x 54.7cm
Weight (lbs.) Weight (kg.)	149.2 (lbs.) 67.8 (kg.)	112.2 (lbs.) 51.0 (kg.)	67.8 (lbs.) 30.8 (kg.)	149.2 (lbs.) 67.8 (kg.)	112.2 (lbs.) 51.0 (kg.)	112.2 (lbs.) 51.0 (kg.)
Accessories	Remote control x 1 • AA batteries x 2					

Specifications subject to change without notice.

JVC®

Color Television User's Guide

For Models:
AV-36050
AV-36020
AV-32050
AV-32020
AV-32015
AV-27050

OPERATING INSTRUCTIONS [AV-32020(PH) AV-36050(PH)]

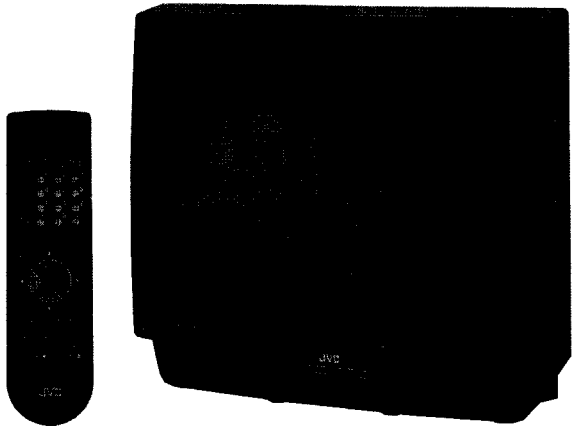


Illustration of AV-32050 and RM-C341

IMPORTANT NOTE TO THE CUSTOMER:
In the spaces below, enter the model and serial number for your television (located on the rear of the television cabinet).
Staple your sales receipt or invoice to the inside cover of this guide.
Keep this user's guide in a convenient place for future reference.
Keep the carton and original packaging for future use.

Model Number _____

Serial Number _____

JVC COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.
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Wayne, New Jersey 07470

JVC®

JVC CANADA, INC.
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Canada M1X 1A7

LCT0307-001A-A
1298-TN-JII-JIM

Aug.1999

IMPORTANT SAFETY PRECAUTIONS

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: To reduce the risk of electric shock. do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS TV SET TO RAIN OR MOISTURE.

CAUTION: TO INSURE PERSONAL SAFETY, OBSERVE THE FOLLOWING RULES REGARDING THE USE OF THIS UNIT.

1. Operate only from the power source specified on the unit.
2. Avoid damaging the AC plug and power cord.
3. Avoid Improper installation and never position the unit where good ventilation is unattainable.
4. Do not allow objects or liquid into the cabinet openings.
5. In the event of trouble, unplug the unit and call a service technician. Do not attempt to repair it yourself or remove the rear cover.

Changes or modifications not approved by JVC could void the warranty.

* When you don't use this TV set for a long period of time, be sure to disconnect both the power plug from the AC outlet and antenna for your safety.

* To prevent electric shock do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

IMPORTANT SAFEGUARDS

CAUTION:

Please read and retain for your safety.
Electrical energy can perform many useful functions. This TV set has been engineered and manufactured to assure your personal safety. But *improper use can result in potential electrical shock or fire hazards.* In order not to defeat the safeguards incorporated in this TV set, observe the following basic rules for its installation, use and servicing.
And also follow all warnings and instructions marked on your TV set.

INSTALLATION

1 Your TV set is equipped with a polarized AC line plug (one blade of the plug is wider than the other).

(POLARIZED-TYPE)

This safety feature allows the plug to fit into the power outlet only one way. Should you be unable to insert the plug fully into the outlet, try reversing the plug.
Should it still fail to fit, contact your electrician.

2 Operate the TV set only from a power source as indicated on the TV set or refer to the operating instructions for this information. If you are not sure of the type of power supply to your home, consult your TV set dealer or local power company. For battery operation, refer to the operating instructions.

3 Overloaded AC outlets and extension cords are dangerous, and so are frayed power cords and broken plugs. They may result in a shock or fire hazard. Call your service technician for replacement.

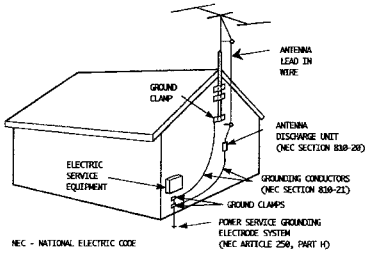
4 Do not allow anything to rest on or roll over the power cord, and do not place the TV set where power cord is subject to traffic or abuse. This may result in a shock or fire hazard.

5 Do not use this TV set near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near swimming pool, etc.

6 If an outside antenna is connected to the TV set, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection requirements for the grounding electrode.

7 An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE



8 TV sets are provided with ventilation openings in the cabinet to allow heat generated during operation to be released. Therefore:
- — Never block the bottom ventilation slots of a portable TV set by placing it on a bed, sofa, rug, etc.
- — Never place a TV set in a "built-in" enclosure unless proper ventilation is provided.
- — Never cover the openings with a cloth or other material.
- — Never place the TV set near or over a radiator or heat register.

9 To avoid personal injury:
- — Do not place a TV set on a sloping shelf unless properly secured.
- — Use only a cart or stand recommended by the TV set manufacturer.
- — Do not try to roll a cart with small casters across thresholds or deep pile carpets.
- — Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.

USE

10 Caution children about dropping or pushing objects into the TV set through cabinet openings. Some internal parts carry hazardous voltages and contact can result in a fire or electrical shock.

11 Unplug the TV set from the wall outlet before cleaning. Do not use liquid or an aerosol cleaner.

12 Never add accessories to a TV set that has not been designed for this purpose. Such additions may result in a hazard.

13 For added protection of the TV set during a lightning storm or when the TV set is to be left unattended for an extended period of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to product due to lightning storms or power line surges.

14 A TV set and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the TV set and cart combination to overturn.

SERVICE

15 Unplug this TV set from the wall outlet and refer servicing to qualified service personnel under the following conditions:
- A. When the power cord or plug is damaged or frayed.
- B. If liquid has been spilled into the TV set.
- C. If the TV set has been exposed to rain or water.
- D. If the TV set does not operate normally by following the operating instructions. Adjust only those controls that are covered in the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV set to normal operation.
- E. If the TV set has been dropped or damaged in any way.
- F. When the TV set exhibits a distinct change in performance — this indicates a need for service.

16 Do not attempt to service this TV set yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

17 When replacement parts are required, have the service technician verify in writing that the replacement parts he uses have the same safety characteristics as the original parts. Use of manufacturer's specified replacement parts can prevent fire, shock, or other hazards.

18 Upon completion of any service or repairs to this TV set, please ask the service technician to perform the safety check described in the manufacturer's service literature.

19 When a TV set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the TV set.

20 Note to CATV system installer.
This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

WELCOME!

Congratulations on your new television purchase! We thank you for choosing JVC.

We know you are anxious to start watching your new television, but before you operate it, please read this guide and then keep it handy for future reference. After all, you just bought a great TV with a lot of terrific features, you should know what each feature is and how to use it properly!

Please note as you read through this guide, that there are illustrations of select models for your reference. There are several models in this guide and therefore each illustration will not be of the model you own. Just be sure to look for the similar feature on your TV.

Again, congratulations and thank you for choosing JVC! Enjoy!

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CONNECTIONS CHECKLIST — READ ME FIRST!

The Connections Checklist section of this guide is a list of ideas to keep in mind when you set out to perform your connections. It is designed to help us not-so-technically advanced individuals. If you read this section, and can't identify the plugs, connectors, and components you have, do not be afraid to seek help.

1) Refer to the connection instructions in the user's guide for each component you plan to connect. They will provide more detailed information about their products, and they will tell you what plugs and cables are required.

2) Most A/V input jacks and plugs are color coded:

- Yellow plugs are Video connections
- Red plugs are for Right Audio connections
- White plugs are Left Audio (Mono) connections

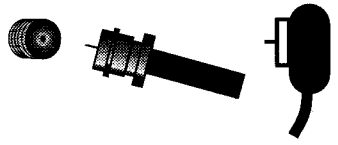
3) Perform one hookup at a time. If you have many accessories to connect, make sure each connection is correct by checking to see that it works properly before attempting the next connection. (For example, always start with the RF or Cable connections, make sure it works, then move on to video or VCR connections.)

4) Unplug the power cord between each connection.

5) Each jack on the back of the TV is labeled. If you read these instructions and still do not fully understand the connections process, seek assistance.

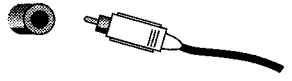
6) The AV Compu Link Cable is supplied with the JVC device which you want to connect. If you do not have one, but you do have a JVC Compu Link capable VCR or HiFi, contact your local JVC dealer.

RF Connectors



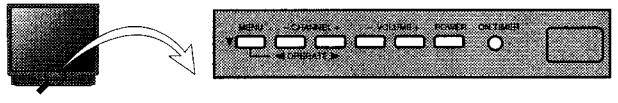
S-Video Plug

A/V Input Plug



AV Compu Link Cable

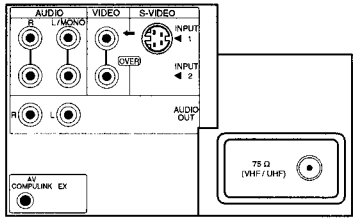
FRONT PANEL DIAGRAMS



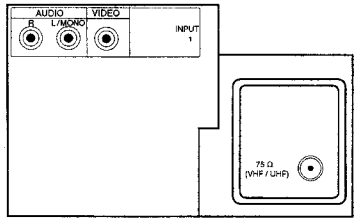
FRONT PANEL DIAGRAM
AV-36020 • AV-32050
AV-32020 • AV-32015
AV-27050

FRONT PANEL DIAGRAM
AV-36050

REAR PANEL DIAGRAMS



REAR PANEL DIAGRAM
AV-36050 • AV-32050 • AV-27050
AV-36020 • AV-32020
(The rear panels for the above modes are nearly identical. The only difference between them is a small difference in the size of RF panels.)



REAR PANEL DIAGRAM
AV-32015

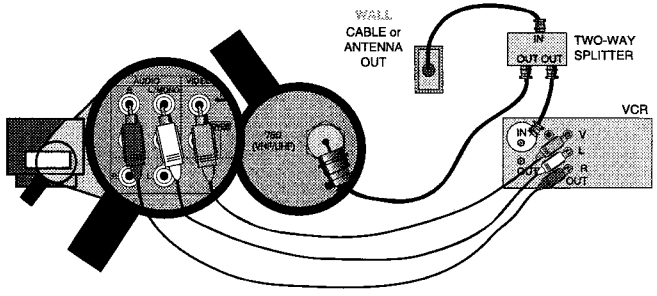
CABLE & VCR CONNECTIONS

There are three basic types of antenna or cable hookups. For VCR hookup only, see the Quick Setup Guide.

1) If you have an antenna, or a cable TV system that does not require you to use a cable box to tune the channels, use **Diagram #1.**
2) If you have a cable system that requires you to use a cable box to access ***all*** channels, use **Diagram #2.**
3) If you have a cable system that requires you to use a cable box to access ***certain*** premium channels, but not regular basic channels, use **Diagram # 3.**

For information on working Picture in Picture (PIP), please see the PIP section on page 28

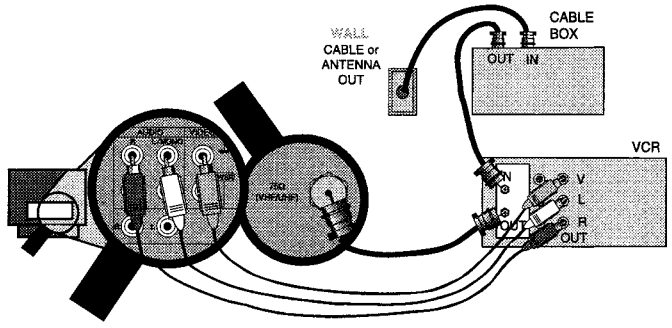
#1



1) Connect cable or antenna RF wire *out* from the wall, *in* to the splitter RF input.
2) Connect RF wire *Out* from the splitter RF output, *in* to the VCR RF input.
3) Connect RF wire *Out* from the splitter RF output, *in* to the TV VHF/UHF input.
4) Connect yellow video cable *out* from the VCR Video output, *in* to the TV Video input jack.
5) Connect white audio cable *out* from the VCR Left Audio output, *in* to the TV Left Audio input jack.
6) Connect red audio cable *out* from the VCR Right Audio output, *in* to the TV Right Audio input jack.
❒ *If your VCR is mono it has only one audio out jack, connect it to TV L/Mono input.*

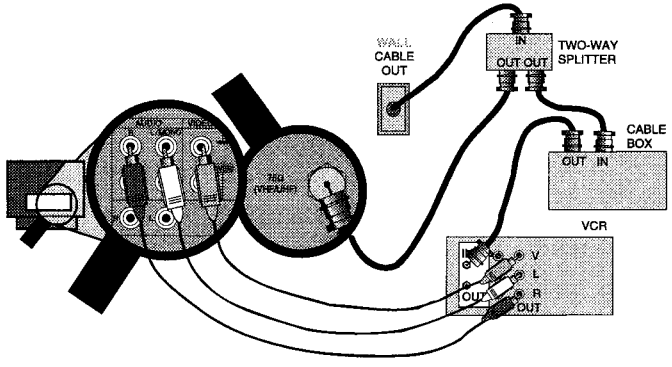
CABLE & VCR CONNECTIONS CONTINUED

#2



1) Connect the cable RF wire *out* from the wall, *in* to the cable box input.
2) Connect RF wire *Out* from the cable box RF output, *in* to the VCR RF input.
3) Connect RF wire *Out* from the VCR RF output, *in* to the TV VHF/UHF input.
4) Connect yellow video cable *out* from the VCR Video output, *in* to the TV Video input jack.
5) Connect white audio cable *out* from the VCR Left audio output, *in* to the TV Left Audio input jack.
6) Connect red audio cable *out* from the VCR Right Audio output, *in* to the TV Right Audio input jack.
❒ *If your VCR is mono it has only one audio out jack, connect it to TV L/Mono input.*

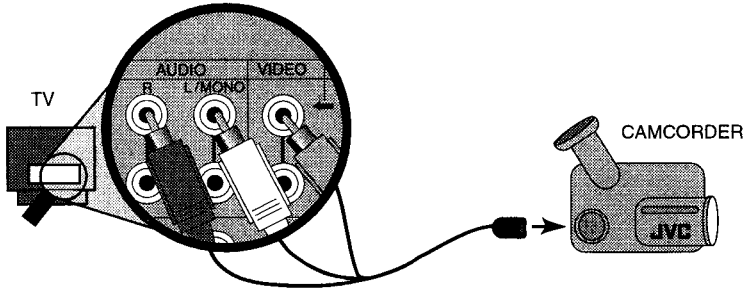
#3



1) Connect Cable RF wire *out* from wall, *in* to splitter RF input.
2) Connect RF *Out* from splitter RF output, *in* to cable box RF input.
3) Connect RF wire *Out* from cable box RF output, *in* to VCR RF input.
4) Connect RF wire *Out* from splitter RF output, *in* to TV VHF/UHF input.
5) Connect yellow video cable *out* from VCR Video output, *in* to TV Video input jack.
6) Connect white audio cable *out* from VCR Left audio output, *in* to TV Left Audio input jack.
7) Connect red audio cable *out* from VCR Right Audio output, *in* to TV Right Audio input jack.
❒ *If your VCR is mono it has only one audio out jack, connect it to TV L/Mono input.*

CONNECTING TO A CAMCORDER

Play your home movies back through your TV by connecting your camcorder to the TV's A/V Inputs.



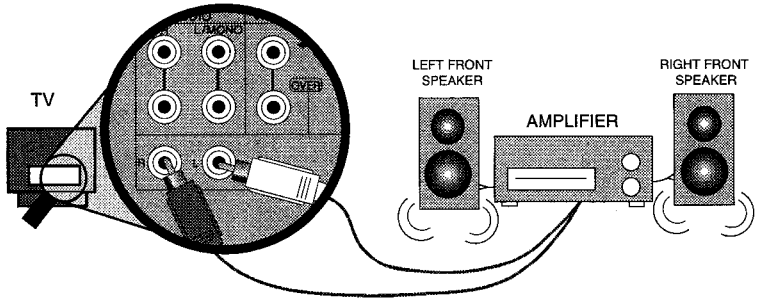
1) White audio cable *out* from camcorder, *in* to TV Left Audio input jack.
2) Yellow video cable *out* from camcorder, *in* to TV Video input jack.
3) If you have a stereo model camcorder, connect the Red Audio cable *out* from the camcorder, *in* to the TV Right Audio input jack.

TO CONNECT TO S-VHS ACCESSORIES:

Keep the audio connections the same as for a non-S-VHS VCR or camcorder (above), and use the special S-VHS cable that came with the VCR or Camcorder.

1) S-VHS Plug *out* from VCR, *in* to TV's S-Video input.

CONNECTING TO AN EXTERNAL AMPLIFIER



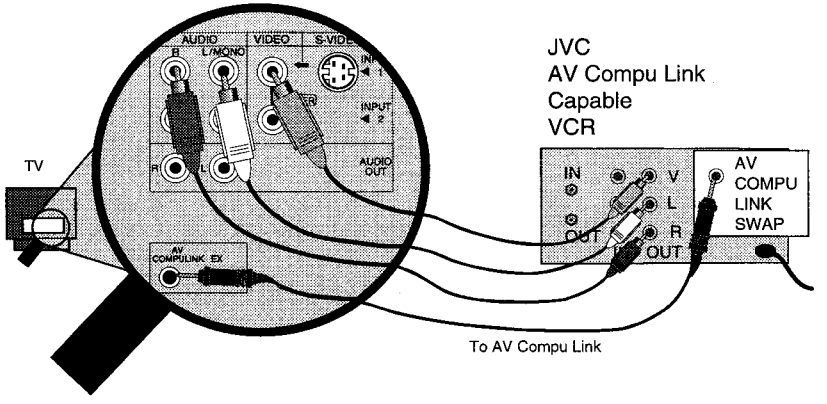
1) White audio cable *out* from TV Left Audio output jack, *in* to Amplifier [Left] input.
2) Red audio cable *out* from TV Right Audio output jack, *in* to Amplifier [Right] input.

NOTE: A) Set the TV Speaker to OFF (page 25), switch the audio output to VARI (page 25), and adjust the sound with the TV remote's VOLUME button.

CONNECTING TO JVC AV COMPU LINK CAPABLE COMPONENTS

AV Compu Link makes playing video tapes totally automatic. Simply insert a pre-recorded tape* into the JVC brand VCR, and the VCR automatically turns on and starts playing. At the same time, the VCR sends an AV Compu Link signal to the television telling it to turn on and switch to the correct video input.

NOTE: *The AV Compu Link cable may be included with the AV Compu Link capable accessory you intend to connect. If it is not, contact an authorized JVC Service Center for Part # EWP 805-012.*



NOTES:

A) The AV Compu Link cable has a male 3.5 mm (mono) mini plug on each end.

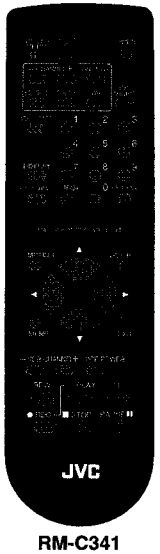
B) If your JVC brand VCR has A Code/B Code Remote Control Switching (see your VCR instructions), using VCR A Code will switch the TV to Video Input 1. If you use Input 1 for Video out from the cable box, use Input 2 here. Using B Code will switch the TV to Video Input 2.

C) To connect a JVC HiFi receiver or amplifier for a completely automated home theater, see the HiFi receiver's instructions for detailed hookup diagrams.

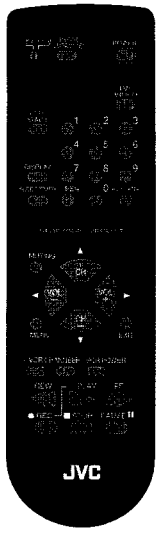
** In order for the VCR to start playback automatically, the recording tabs must be removed from the VHS tape. If the tab is in place, automatic switching starts when you push the VCR PLAY button.*

*** AV COMPULINK EX is compatible with the following 1998 receivers: RX-664V, RX-665V, RX-774V, RX-884V, RX-1024V, and later receiver models.*

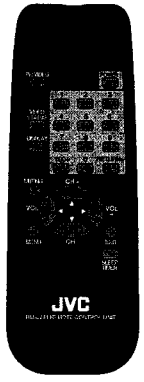
REMOTE CONTROLS



RM-C341
AV-36050 • AV-32050
AV-27050



RM-C345
AV-36020 • AV-32020



RM-C241
AV-32015

CHANGING THE BATTERIES

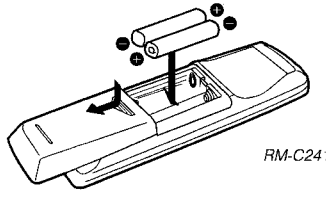
Be sure to use only size AA batteries.

1. Push down or raise the latch on the remote's back cover to remove it.
2. Insert the two supplied AA batteries, carefully noting the "+" and "–" markings on the batteries and remote control. To avoid a short circuit, insert "–" end first.
3. Snap the cover back into place.

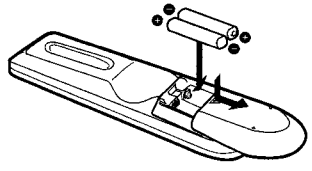
❒ *If the remote control acts erratically, replace the batteries. Typical battery life is usually about six months to one year.*

❒ *We recommend alkaline batteries for a longer battery life.*

RM-C341/RM-C345 USERS NOTE:
When you change the batteries, try to complete the task within three minutes. If it takes longer than 3 minutes, the remote control codes for your VCR and/or Cable box will have to be reset (page 12).



RM-C241



RM-C341 • RM-C345

POWER

❒ Make sure that the TV/CATV switch is set to TV. Switch to CATV only to operate a cable box.
❒ Press the POWER button on the remote control or the TV front panel. The On Timer lamp will glow red.
❒ The first time you turn on the TV, the "Plug In Menu" will appear. You should turn to the Plug In Menu section (page 15) now to learn more about this menu.
❒ To turn the power off, press the POWER button again. The On Timer lamp will go out.
❒ When the TV is off, the On-Timer lamp remains on while the On/Off Timer function is active, but at a reduced brightness.

ADJUSTING VOLUME

1. Use the VOLUME –/+ buttons (◀▶) on the front panel or remote control. Use the VOLUME – (◀) button to lower the volume. Press the VOLUME + button (▶) raise the volume.

2. Press the MUTING button to instantly turn the volume off to zero. To restore the volume to the previous volume level, simply press the MUTING button again.

CHANGING CHANNELS

1 10 key direct access.

Press the numbers on the remote's 10 key pad. For single-digit channel numbers press 0 then the number. For channels above 100, press the 100+ button plus the 2-digit number.

2 CHANNEL –/+ button (▲▼).

Press the CHANNEL –/+ button, it will scan the channels in order.

❒ *NOTE: After you operate the Auto Tuner Setup (page 15), all of the blank, or empty, channels will be removed from scanning so that there is no noise or channel snow when you scan, only active channels.*

3 Return.

Press and release the RETURN+ button to return to the previous channel. First, select a channel (game #1). Then, select another channel (game #2) with the 10 key pad and push the RETURN+ button to flip directly back and forth.

4 Return+ .

Press and hold down the RETURN+ button for three seconds. The message, "RETURN CHANNEL PROGRAMMED !" will appear and you can scan as you wish. Press RETURN+ again and you will go back to the Return+ channel.

To cancel a Return+ channel, press and hold down the RETURN+ button for another three seconds and the message, "RETURN CHANNEL CANCELLED !" appears.

❒ *Pressing a number key or turning the set off will also cancel a Return+ channel.*

SETTING THE CATV & VCR CODES

Many CATV & VCR brands have more than one code. If the first code in the list does not work, try the other codes listed. If your CATV box or your VCR do not respond to any of the codes listed for the manufacturer and search code function, use the remote control for that accessory to operate it.

CABLE BOX OR SATELLITE SETUP FOR RM-C341 AND RM-C345

The remote is programmed with the CATV and Satellite codes for power on and off, 10 key, and channel up and down.

1) Determine the correct code from the "CATV & Satellite Codes" chart below.
2) Slide the 2-Way Mode Selector Switch to CATV.
3) Press and hold down the DISPLAY button.
4) Enter the 3-digit code with the 10 key pad while continuing to hold down the DISPLAY button.
5) Release the DISPLAY button.
6) Confirm the operation of the cable box.

Note : If your cable box or satellite box does not respond to any code on the chart, use the Search Codes Function below.

CATV & Satellite Codes

CABLE BOXES	CODES
ABC	024
Archer	032, 025
Cableview	051, 032
Citizen	022, 051
Curtis	058, 059
Diamond	024, 032, 025
Eagle	029
Eastern	034
GC Brand	032, 051
Gemini	022, 043
General Instrument	065,024, 025, 026, 027, 020, 021, 022, 057, 023
Hamlin	040, 041, 042, 045
Hitachi	049, 024
Jerrold	065, 024, 025, 026, 027, 020, 021, 022, 057, 023
Macom	049, 050, 051, 054
Magnavox	033
Memorex	030
Movietime	032, 051
Oak	039, 037, 048
Panasonic	055, 056, 060
Paragon	063
Philips	028, 029, 030, 052, 053, 031, 069
Pioneer	047, 062
Pulsar	051, 032

CABLE BOXES	CODES
Puser	032
RCA	061
Realistic	032
Regal	058, 064, 040, 041, 042, 045, 068
Regency	034
Rembrandt	037, 032, 051, 038
Samsung	051
Scientific Atlanta	057, 058, 059
SLMark	051, 047
Sprucer	051, 056
Stargate	032, 051
Telecaption	067
Teleview	047, 051
Texscan	044
Tocom	035, 036, 066
Toshiba	050
Unika	032, 025
Universal	022, 032
Videoway	052
Viewstar	029, 030
Zenith	063, 046
Zenith/Drake Satellite	046

DIGITAL SATELLITE SYSTEMS	CODES
Echostar	100
G.E.	106
Gradiente	112
Hitachi	104, 111
HNS (Hughes)	104
Panasonic	105
Philips	102, 103
Primestar	108
RCA	106, 109, 110
Sony	107
Toshiba	101
Uniden	102, 103

Search Codes Function :

1) Slide the 2-Way Mode Selector Switch to CATV.
2) Press the TV POWER and RETURN+ buttons simultaneously for more than three seconds, then release.
3) Press TV POWER and check if the accessory responds.
4) If there was a response, press RETURN+. If there was no response, repeat Step 3 until there is a response. If you repeat Step 3 more than 70 times and there is still no response, use the accessory remote.

VCR SETUP FOR RM-C341 AND RM-C345

The remote is pre-programmed with the VCR codes for power on and power off, play, stop, fast-forward, rewind, and channel up and down.

1) Determine the correct code from the "VCR Codes" chart (below).
2) Slide the 2-Way Mode Selector Switch to TV.
3) Press and hold down the DISPLAY button.
4) Enter the 3-digit code with the 10 key pad while continuing to hold down the DISPLAY button.
5) Release the DISPLAY button.
6) Confirm the operation of the VCR.

❒ When you record a channel, press the PLAY button while continuing to hold down the REC button.

Note : If your VCR does not respond to any code on the chart, use the Search Codes Function below.

VCR Codes

VCRs	CODES
Admiral	035
Aiwa	027, 032
Akai	029, 072, 073, 074
Audio Dynamic	003, 005
Bell & Howell	063, 071
Broksonic	020, 026
Canon	023, 025
CCE	043
Citizen	064
Craig	063, 029, 064
Curtis Mathes	045, 024, 027
Daewoo	043, 059, 024
DBX	003, 004, 005
Dimensia	045
Emerson	043, 026, 077, 061, 025, 042, 020, 076
Fisher	063, 066, 067, 065, 071
Funai	027, 026, 020, 000
GE	033, 045, 024
Go Video	037, 051, 049, 050, 089
Goldstar	064
Gradiente	083, 084, 081, 000, 001
Hitachi	023, 045, 058, 027, 081
Instant Replay	024, 023
Jensen	003
JVC	000, 001, 002, 003, 004, 005
Kenwood	003, 004, 064, 005
LXI	027, 064, 058, 065, 066, 063, 067

VCRs	CODES
Magnavox	031, 023, 024, 086
Marantz	003, 004, 005
Marta	064,
Memorex	024, 067
MGA	038, 040, 047, 048, 041, 042
Minolta	058, 045
Mitsubishi	038, 040, 047, 048, 041, 042, 078, 090
Multitech	047, 027, 062
NEC	003, 004, 005, 000
Olympic	024, 023
Optimus	028, 021, 035, 064
Orion	026, 020
Panasonic	023, 024, 021, 022
Penney	024, 058, 045, 063, 003, 004, 005
Pentax	058, 005, 045
Philco	031, 024, 027, 023, 026, 020, 043
Philips	031, 023, 024, 086
Pioneer	023
Proscan	045, 058, 023,024, 031, 046, 059, 060, 033, 087
Quasar	021, 022, 023, 024
Radio Shack	033, 024, 063, 036, 067, 040, 027
RCA	033, 045, 058, 023, 024, 031, 046, 059, 060, 083, 085, 087
Realistic	024, 063, 036, 067, 040, 027

VCRs	CODES
Samsung	037, 060, 062, 033, 089
Sansui	003, 026, 020, 052
Sanyo	063, 067, 091, 071
Scott	059, 060, 062, 067, 038, 040, 047, 048, 026, 020
Sears	063, 064, 065, 066, 058
Shintom	075
Sharp	035, 036, 080, 088
Signature 2000	027, 035
Singer	075
Sony	028, 029, 030, 053, 054, 055
SV2000	027
Sylvania	031, 023, 024, 027
Symphonic	027, 081
Tashiro	064
Tatung	003, 004, 005
Teac	003, 004, 027, 005
Technics	021, 022, 023, 024
Teknika	024, 027, 070
Toshiba	059, 046, 079
Vector Research	005
Wards	035, 036, 067, 044, 064
Yamaha	063, 003, 004, 005
Zenith	044, 082, 064

Search Codes Function :

1) Slide the 2-Way Mode Selector Switch to TV.
2) Press the VCR POWER and RETURN+ buttons simultaneously for more than three seconds, then release.
3) Press VCR POWER and check if the accessory responds.
4) If there was a response, press RETURN+. If there was no response, repeat Step 3 until there is a response. If you repeat Step 3 more than 80 times and there is still no response, use the accessory remote.

THE SYMBOLS USED IN THIS GUIDE

▲▼ Whenever you see up and down arrows is this book, press the MENU UP or MENU DOWN button to:

- Move vertically in the main menu,
- Move through a submenu,
- Move to the next letter, number, or other choice in a submenu, or
- Back up to correct an error, or
- Channel Up or Down

◀▶ Whenever you see left and right arrows, press the MENU LEFT or MENU RIGHT button to:

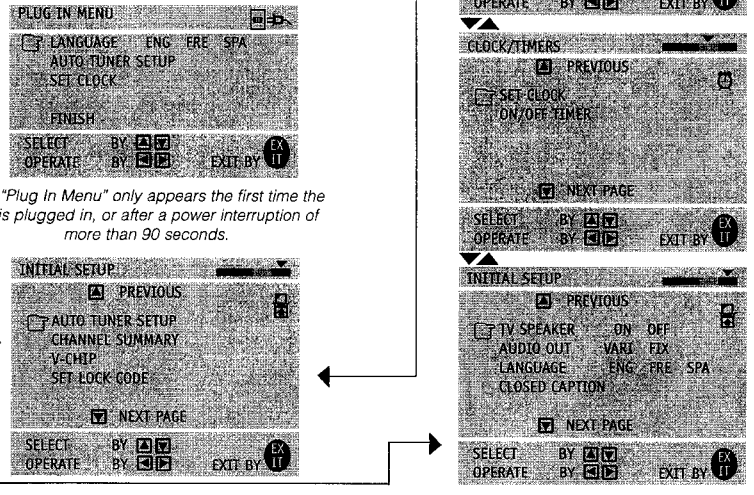
- Select the highlighted item, or
- Select the options in a submenu, or
- Volume Up or Down

The "Press Button" means you should press that button on the remote control.

The "Helping Hand" points to the highlighted or selected item in a menu.

To use the Menu, press the MENU button and then use the ▲▼ and ◀▶ buttons to move around the menu as described above. If you continue pressing the MENU button, the display will skip to the next menu screen.

Note1: *The menu screens shown in this book are representations of the menu screens on your set, not exact replications.*
Note2: *The "V-Chip" feature appears only on 50 series models.*
Note3: *"TV Speaker" and "Audio Out" appear on all but AV-32015.*



The "Plug In Menu" only appears the first time the TV is plugged in, or after a power interruption of more than 90 seconds.

PLUG IN MENU

The Plug In Menu comes up automatically when you first turn on the TV after plugging it in. The Plug In Menu sets the default preferences for you for:

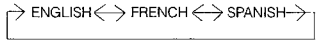
- ❒ The Language in which you want the onscreen displays to appear.
- ❒ The Auto Tuner Setup of channels to be included in scan.
- ❒ Set the clock to the proper time so that your timer functions will work.

LANGUAGE

Your JVC television allows you to choose from English, French, or Spanish on-screen menus and displays.

▲▼ To LANGUAGE

◀▶ To choose the language



AUTO TUNER SETUP

During Auto Tuner Setup, the TV will automatically scan through all available channels and memorize the active ones so that when you scan, you do not pick up weak or noisy channels.

▲▼ To AUTO TUNER SETUP
◀▶ To operate

◀▶ To choose CABLE or AIR
▲▼ To move to START
◀▶ To start programming

Programming takes approximately 1 to 2 minutes

Note: Noise Muting will not work while Auto Tuner Setup is working.

NOTES:
We recommend that you do not exit the Plug In Menu before completing the setup so that your preferences are set right away.

If you do exit, don't panic, you can set these preferences later with the regular menu.

NOTE:
You must have the clock set to operate the On/Off Timer.

SET CLOCK

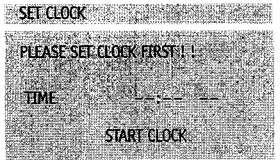
The Clock is the heart of all timer functions. The clock must be set before the timer functions work.

▲▼ To SET CLOCK
◀▶ To operate

◀▶ To set the hour (AM/PM)
▼ To move to minutes
◀▶ To set the minutes
▼ To move to START CLOCK when done with settings
◀▶ To start the clock

CLOCK — ON/OFF TIMER MESSAGE

If you do not set the clock but attempt to use the On/Off Timer, you will get the following message:



◀▶ To set the hour (AM/PM)
▼ To move to minutes
◀▶ To set the minutes
▼ To move to START CLOCK when done with settings
◀▶ To start the clock

FINISH

Once you have set up the items in the Plug In Menu you must select Finish.

▲▼ To FINISH
◀▶ To exit

Note: You can reset the preferences that you set here in the Plug In Menu via the regular JVC Menu system.

CHANNEL SUMMARY

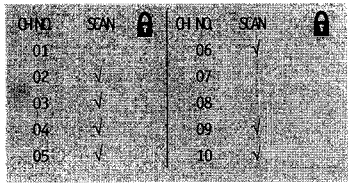
You can add or delete channels from channel scanning. You can also lock out any "unauthorized" viewers from one or up to all 125 channels.

Press the MENU Button
▲▼ To CHANNEL SUMMARY
◀▶ To operate

Note: Noise Muting will not work while you are in the Channel Summary menu.

SCAN

You can manually set channels to scan that were too weak to be picked up during Auto Tuner Setup. Conversely, if a channel was too weak to receive a good picture but was picked up anyway, delete it by removing the √. (If you have not performed the Auto Tuner Setup described on page 15, do so now.)



CHANNEL -/+ to select the channel
▲▼ To the SCAN column
◀▶ To include or delete from scan
EXIT when finished

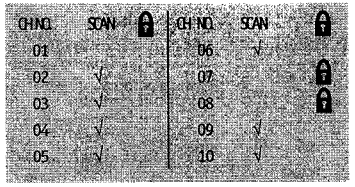
Note: Channels set to scan will be marked with an √.

Note: Some cable systems experience interference from radio frequencies on Cable Channel 95. If you like, you can delete this channel from scanning by removing the √.

Continued above...

CHANNEL GUARD - LOCK

▲▼ To CHANNEL SUMMARY
◀▶ To operate



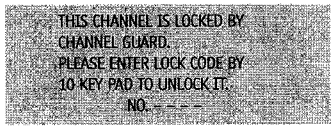
▲▼ To the Lock column
The access code zero (0) to lock or unlock that channel

Use the CHANNEL -/+ button to go to any other channel you want to lock

EXIT when finished

CHANNEL GUARD AND V-CHIP MESSAGE:

This message appears when a viewer attempts to watch a guarded channel or a channel blocked by V-Chip:



To watch a channel you have locked, enter the lock code using the 10 key pad. If the wrong lock code is entered, this message will appear:

Note: See "Set Lock Code", for more information.

NOTES:

Initial Setup Menu items:

- *Auto Tuner Setup, and*
- *Language are described in detail in the Plug In Menu section.*

In the Channel Summary:

To move up and down a column (e.g. from channel to channel) use the CHANNEL -/+ button.

To move from item to item (e.g. from channel number to scan to lock) use the MENU Up/Down buttons.

NOTE:

V-Chip is available on the following models only:

- *AV-36050*
- *AV-32050*
- *AV-27050*

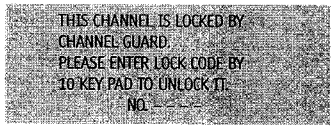
The V-Chip section is 4 pages long.

If you have another model, you can skip to page 22 to the Picture Adjust Section.

V-CHIP

Your TV is equipped with V-Chip Technology which enables TV Parental Guideline and Movie (MPAA) Guideline controls. V-Chip technology allows you to program your TV to receive, or not receive, programs based on content according to the guidelines.

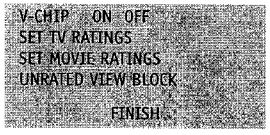
When a viewer attempts to watch a blocked channel this message appears:



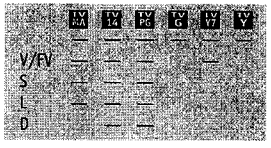
To watch a channel you have locked, enter the lock code using the 10 key pad.

To set up the TV Parental Guideline Ratings...

- Press the MENU button
- ▲▼ To V-CHIP
- ◀▶ To operate (Lock icon appears)
- Press ZERO to access V-Chip menu



- ◀▶ To turn V-Chip ON or OFF
- ▲▼ To move to SET TV RATINGS



VIEWING GUIDELINES

- ❒ V/FV is for VIOLENCE / FANTASY VIOLENCE
- ❒ S stands for SEXUAL CONTENT
- ❒ L stands for strong LANGUAGE
- ❒ D stands for suggestive DIALOG

U.S. PARENTAL RATING SYSTEMS Programs with the following Ratings are appropriate for Children.

- ❒ **TV Y is Appropriate for All Children.** Programs are created for very young viewers and should be suitable for all ages, including children ages 2 - 6.
- ❒ **TV Y7 is for Older Children.** Most parents would find such programs suitable for children 7 and above. There may exist some mild fantasy violence or comedic violence. Children should be able to discern reality from fantasy.

Programs with the following Ratings are appropriate for the entire audience.

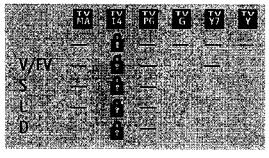
- ❒ **TV G stands for General Audience.** Most parents would find these programs suitable for all age groups. They contain little or no violence, no strong language, and little or no sexual dialog or situations.
- ❒ **TV PG Parental Guidance Suggested.** May contain some, but not much, strong language, limited violence, and some suggestive sexual dialog or situations. It is recommended that parents watch these programs first, or with their children.
- ❒ **TV 14 Parents Strongly Cautioned.** Programs contain some material that may be unsuitable for children under the age of 14 including possible intense violence, sexual situations, strong coarse language, or intensely suggestive dialog. Parents are cautioned against unattended viewing by children under 14.
- ❒ **TV MA Mature Audiences Only.** These programs are specifically for adults and may be unsuitable for anyone under 17 years of age. TV MA programs may have extensive V, S, L, or D.

Directions to Block Viewing:
Line up the cursor in the column (TV PG, TV G, etc.) with the content row (V/FV, S, etc.) and press the ▲or▼ to move the cursor to the correct location, and press ◀ or ▶ to turn the locking feature on or off. An item is locked if the icon 🔒 appears instead of a "—".

An example. To block viewers under 14 from all shows:

Move the cursor to the top row of that column and add a lock icon. Once you've put a lock on the top row, everything in that column is automatically locked.

- ▲▼ To the TV 14 Column
- ◀▶ To turn on the lock



- Press EXIT when done

Note: If you want to change the setup, move the cursor to the top column and change to "—" and then you can select individual categories to block.

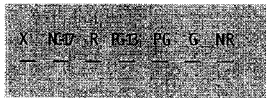
Special Notes about V-Chip:

1) Some programs do not have a rating signal, therefore, even if you setup V-Chip, those programs will not be locked. Parents are cautioned to preview the contents of these programs or movies.

2) Canadian Viewers: V-Chip function is based on specifications for the US and therefore may not work properly in Canada.

To set up Movie Ratings...

- Press the MENU button
- ▲▼ To V-CHIP
- ◀▶ To operate (Lock icon 🔒 appears)
- Press ZERO to access V-Chip setup options
- ▲▼ To SET MOVIE RATINGS
- ◀▶ To enter movies menu



- ❒ **NR - Not Rated.** This is a film that has no rating. In many cases these films were imported from other countries. Other NR films may be from amateur producers who didn't intend to have their film widely released. *NR (Not Rated) Programming may contain all types of programming including chhildren's programming, foreign programs, or adult material.*
- ❒ **G – General Audience.** In the opinion of the review board, these films contain nothing in the way of sexual content, violence, or language that would be unsuitable for audiences of any age.
- ❒ **PG – Parental Guidance.** Parental Guideance means the movie may contain some contents such as mild violence, some brief nudity, and strong language. The contents are not deemed intense.
- ❒ **PG-13 – Parents Strongly Cautioned.** For parents with children under 13, they are cautioned that the content of movies with this rating is more explicit in sexual, language, and violence content than PG.

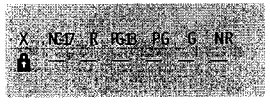
- ❒ **R Restricted.**
  These films contain material that is explicit in nature and is not recommended for unsupervised children under the age of 17.
- ❒ **NC-17 No One Under 17.**
  These movies are considered what most parents would feel is too adult for their children to view and can consist of strong language, nudity, violence, and suggestive and explicit subject matters.
- ❒ **X No One under 18.**
  Innappropriate for anyone under 18.

Directions to Block Movie Viewing:

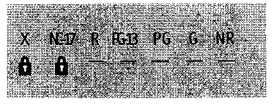
In order to block viewers from any or all of these sorts of contents, press the ▲or▼to move the cursor to the correct location, and press ◀ or ▶ to turn the locking feature on or off. An item is locked if the 🔒 icon appears instead of a "—".

To block viewers under X and NC-17 rated from shows:

▲▼ To the X Column
◀▶ To turn on the lock



▲▼ To the NC-17 Column
◀▶ To turn on the lock



Press EXIT when done

Notes About Unrated Programs:

Unrated programming refers to any programming that does not contain a rating signal. Programming on television stations which do not broadcast ratings signal will be in the "Unrated Programming" category.

Examples of Unrated programs:

Emergency Bulletins
Locally originated programming
News
Political Programs
Public Service Announcements
Religious Programs
Sports
Weather
Some Commercials

Note: TV programs or movies that do not have rating signal will be blocked if the Unrated Category is set to LOCK.

Directions to Block Unrated Programs:

You can block programs that are not rated.

Press the MENU button
▲▼ To V-CHIP
◀▶ To operate
Press ZERO to access V-Chip setup options
▲▼ To UNRATED

◀▶ To View or Block
Press EXIT when done

Special Notes about V-Chip:

1) In order for V-Chip settings to take effect, **V-Chip settings must be turned ON in the V-Chip menu (page 18).**

2) You can automatically unblock all of your restrictions by turning V-Chip settings OFF in the V-Chip menu (page 18).

3) You can always unblock a restriction by re-entering the V-Chip menu and removing the lock icon.

Accessing V-Chip Information:

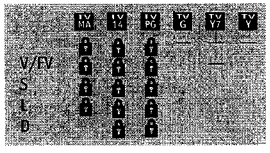
To access Rating information about a certain program, press the V-CHIP button while viewing that program, this appears:

If you decide you want to block this category of viewing, press "0" while the above screen is visible, and all programs from that category will be locked.

Example 1:

If you want to set your V-Chip settings to block *all* programming above TV PG:

Press 0 (zero) when TV-PG is displayed

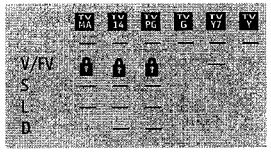


All Programming above TV PG will be blocked!

Example 2:

If you want to set your V-Chip settings to block all programming above a current setting such as TV PG-V (with violence):

Press 0 (zero) when TV-PG - V is displayed



All Programming above TV PG with Violence will be blocked!

Note:
For Childrens programming you can block TV-Y and Y programs by Pressing "0" when Y is displayed during a program. Programming for audiences other than children's audiences will not be affected.

SET LOCK CODE

The Lock Code locks and unlocks Channel Guard and V-Chip settings. Write this four digit number down and keep it safe!

Press the MENU button
▲▼ To SET LOCK CODE
◀▶ To operate

🔒
The padlock icon appears

ZERO (*the access code is zero)*

◀▶ To choose the number
▲▼ To move to the next place

Continue to follow these directions for all four numbers

▲▼ To FINISH
◀▶ To save settings and exit

Note: If you forget the Lock Code you can set another one this same way.

Note: After a power interruption you must reset the lock code.

NOTES:

To exit the Picture Adjust menu at any time press the Exit button.

TINT

Adjust the levels of red and green.

- Press the MENU Button
- ▲▼ To TINT
- ▶ To accentuate green
- ◀ To accentuate red
- ▲▼ To move to the next

COLOR

Adjust both the vividness and subtlety of the color.

- Press the MENU Button
- ▲▼ To COLOR
- ▶ To make colors more vivid
- ◀ To subdue colors
- ▲▼ To move to the next

PICTURE

Picture allows you to adjust the picture's range of black and white.

- Press the MENU Button
- ▲▼ To PICTURE
- ▶ To increase contrast
- ◀ To decrease contrast
- ▲▼ To move to the next

BRIGHT

Adjust the degree of light and dark.

- Press the MENU Button
- ▲▼ To BRIGHT
- ▶ To lighten the picture
- ◀ To darken the picture
- ▲▼ To move to the next

DETAIL

Adjust the level of detail in the picture.

- Press the MENU Button
- ▲▼ To DETAIL
- ▶ To make the picture sharper
- ◀ To make the picture smoother
- ▲▼ To move to the next

NOISE MUTING

Inserts a blue screen and eliminates noise from channels that are not broadcasting or are too weak.

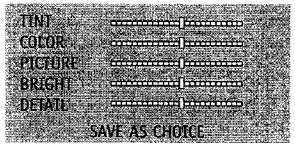
- Press the MENU Button
- ▲▼ To NOISE MUTING
- ◀▶ To turn ON/OFF

Note: Noise Muting will not work when you operate the Auto Tuner Setup or Channel Summary.

SET VIDEO STATUS

Save a set of Picture Settings and access later as "Choice".

- Press the MENU Button
- ▲▼ To SET VIDEO STATUS
- ◀▶ To operate



- ◀▶ To operate the TINT option
- ▲▼ To move to the next option

Repeat the above steps to set each option.

- ▲▼ To SAVE AS CHOICE
- ◀▶ To save settings and exit

Note: Access your "Choice" settings by pressing the VIDEO STATUS button on the remote control.

BASS

The Bass level adjustment feature allows you to raise or lower the level of lower frequencies in the TV's sound.

- Press the MENU Button
- ▲▼ To BASS
- ▶ To emphasize bass
- ◀ To reduce bass
- ▲▼ To move to next

TREBLE

The Treble level adjustment feature allows you to raise or lower the level of higher frequencies in the TV's sound.

- Press the MENU Button
- ▲▼ To TREBLE
- ▶ To increase treble
- ◀ To decrease treble
- ▲▼ To move to next

BALANCE

The Balance adjustment feature allows you to center the TV's sound to your needs.

- Press the MENU Button
- ▲▼ To BALANCE
- ▶ To shift the speaker balance to the right
- ◀ To shift the speaker balance to the left
- ▲▼ To move to next

MTS (Multi-Channel Television Sound)

MTS technology gives you a choice among stereo, mono, and Second Audio Programs (SAP).

- Press the MENU Button
- ▲▼ To MTS
- ◀▶ Select the mode

(The ON AIR arrow tells you if the current signal contains Stereo or SAP)

Note: Keep the TV in STEREO mode to get the fullest sound quality.

Note: SAP will allow you to hear an alternative soundtrack, if available.

Note: Choose MONO to reduce excess noise in a program or channel.

NOTE:

MTS has no effect on normal sound broadcasts.

Some Sound Advice

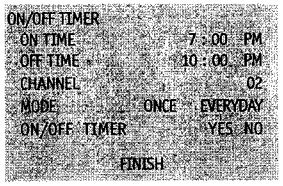
You can tell if a program is broadcast in stereo by the position of the ON AIR arrow in the MTS menu. Unfortunately, it is common for some cable companies to squash the transmission of stereo programs to mono because they only have mono equipment. If your TV is connected to a cable system, the sound is at the mercy of that cable company — if they broadcast in mono, you receive mono sound regardless of the original stereo programming.

Fortunately, most programs that are broadcast in stereo are aired on the major television networks. If you connect your TV to an antenna instead of cable, and set the Tuner Mode in the Auto Tuner Setup to "Air" instead of "Cable," you will be able to pick up stereo broadcasts in stereo.

ON/OFF TIMER

YOU tell the TV to turn on and off. Use it as an alarm to wake up, as a program reminder, or to simulate that you're home when you're out of the house.

Press the MENU Button
▲▼ To ON/OFF TIMER
◀▶ To operate

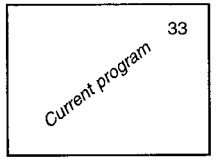


◀▶ To set the hour (AM/PM) you want the TV to turn on
▼ To move to minutes
◀▶ To set the minutes
▼ To accept ON TIME and to move to OFF TIME (set time again)
▼ To move to CHANNEL
◀▶ To select channel
▼ To move to MODE
◀▶ Choose ONCE or EVERYDAY
▼ To YES NO
◀▶ Choose YES for on, NO for off
▼ To FINISH
◀▶ To save settings

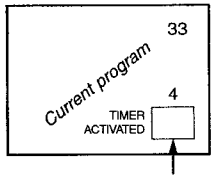
Note: In order for ON/OFF Timer to work, the clock must be set. After a power interruption the clock will be cancelled.

Note: ON/OFF Timer cannot be set to locked or guarded channels.

Note: A Timer Preview window (50 series only) will appear in the PIP, lower right corner of your screen, 7 seconds before the Timer changes the current channel to the timed program channel.

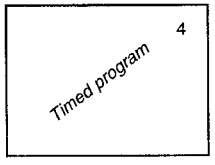


Timer activates



(Preview of ON/OFF Timer program)

7 seconds later...



Timer activates

TV SPEAKER

You can listen to the TV speakers, or if your set is connected to a stereo, turn them off to listen to the stereo's speakers.

Press the MENU Button
▲▼ To TV SPEAKER
◀▶ To turn the speaker ON or OFF

EXIT when finished

Note: TV Speaker will be cancelled after a power interruption.

Note: Before you set TV Speaker from Off to On, **make certain that the volume level is low!** If the volume is high, the sound will be extremely loud when you turn it on.

AUDIO OUT

Select fixed level or variable level audio output signals.

Press the MENU Button
▲▼ To AUDIO OUT

◀▶ To VARI or FIX

VARI: Adjust the volume of the external speaker by using the TV's VOLUME +/– button or remote control.

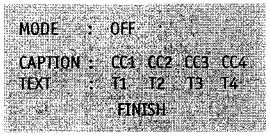
FIX: Adjust the volume of the external speaker with the audio device controls.

Note: When using external amplifiers and speakers, shut off the TV Speakers (above).

CLOSED CAPTION

If they are included in a program, you can view closed captions or text information.

Press the MENU button
▲▼ To CLOSED CAPTION
◀▶ To operate



◀▶ To select CAPTION, TEXT or OFF
▲▼ To CAPTION or TEXT
◀▶ To select a caption (CC1 to CC4) or text channel (T1 to T4)
▼ To accept that selection and move to FINISH
◀▶ To exit and save settings

Note: If you turn the Mode to Caption or Text, that mode will automatically begin once you exit and save the settings.

Note: Captions are usually found on CC1 and text on T1. The other caption and text channels are workable but are for future purposes.

Note: If a black box covers half of the screen, Text Mode is on. Select OFF to turn it off.

Note: Closed captioning may not correctly operate when the signal received is weak or when you are playing a video tape.

NOTE:

Regarding the operation of the Language feature, refer to page 15.

TV Speaker and Audio Out are available on models:

- *AV-36050*
- *AV-36020*
- *AV-32050*
- *AV-32020*
- *AV-27050*

MENU

The MENU button allows you to access the onscreen menu system. Another complete discussion of these buttons and the menu system is located on page 14.

Once you press the menu button, the CHANNEL –/+ (▲▼) and VOLUME –/+ (◀▶) buttons work to operate the menu system.

- Press (▲▼) to move up and down in the menu system.
- Press (◀▶) to operate a feature in the menu system.

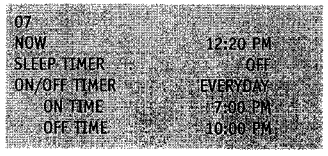
EXIT

The EXIT button lets you leave the menu system or turn off PIP when you press it.

DISPLAY

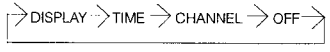
The onscreen display shows the current status of timers and inputs.

DISPLAY



- ❑ The channel or AV input (Ch. 07)
- ❑ Current time (12:20 PM)
- ❑ Sleep Timer minutes remaining (Off)
- ❑ On/Off Timer status (Everyday, on at 7:00 PM, off at 10:00 PM)

Note: Each press of the DISPLAY button changes the display mode:



If you select time or channel, the time or channel (or video input) will remain on the screen.

VIDEO STATUS

The VIDEO STATUS button lets you select the "Choice" settings of the Set Video Status menu, or reset to factory settings.

"Standard" resets the picture settings to factory standard levels.

"Choice" consists of the settings that you saved in the Set Video Status menu, page 22.

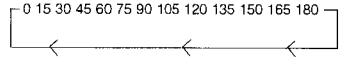
"Theater" for a film-like look to video.

VIDEO STATUS

SLEEP TIMER

The Sleep Timer will turn off the TV for you in case you fall asleep. Program it to work in intervals of 15 minutes up to 180 minutes.

SLEEP TIMER



SLEEP TIMER MESSAGE:

20 seconds prior to the automatic shut-off, this message will appear:

You then have 20 seconds to press the Sleep Timer button to delay turn off for another 15 minutes.

HYPER SURROUND

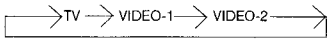
Create a deep, 3-dimensional sound effect by channeling the sound through the TV's front firing speakers.

HYPER SURROUND

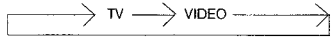
TV/VIDEO

TV/VIDEO controls the TV's input mode.

TV/VIDEO



Model AV-32015 has one Video input.



100 +

The 100+ button lets you access all channels above Channel 99.

To move to Channel 124:

100+

2 (two)

4 (four)

VCR BUTTONS

RM-C341 and RM-C345 ONLY. *This remote will control your VCR. You can play, rewind and fast-forward, record, pause, stop, move channel up and down, and power on and off.*

Note: This remote is preset with the code 000 to control a JVC VCR. For any other brand, you must set up the manufacturer's code (page 12.)

MUTING

The MUTING button turns the sound off completely when you press it. Press it again to restore the volume to the previous level.

RETURN+

There are two kinds of Return...

Return+ — Set a "Return Channel" to return to after scanning with CHANNEL -/+.

RETURN+ and hold for 3 seconds

Scan with CHANNEL -/+

RETURN+

Note: To cancel a Return channel, press and hold Return+ for another 3 seconds until "RETURN CHANNEL CANCELLED!" appears.

Return — Return to the last channel viewed after moving to another channel via the 10 key pad.

RETURN+

Move to another channel with the 10 key pad.

RETURN+

Note: When PIP is on, the RETURN+ button function affects only the main screen.

NUMBER BUTTONS 10 KEY PAD

Change channels with the 10 key pad.

For example, to move to Channel 7:

0 (zero)

7 (seven)

NOTES

Hyper Surround and VCR buttons are available on the following models only:

- *AV-36050*
- *AV-36020*
- *AV-32050*
- *AV-32020*
- *AV-27050*

You can find another discussion of Return and Return+ on page 11.

NOTES:

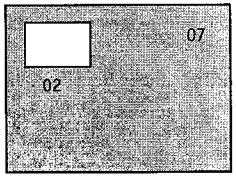
Picture in Picture is available on the following models only:

- *AV-36050*
- *AV-32050*
- *AV-27050*

ON/MOVE (Picture in Picture)

PIP allows you to view two pictures simultaneously.

(PIP) ON/MOVE



EXIT to turn PIP off

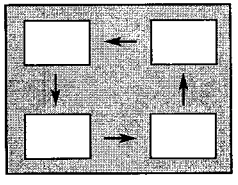
Note: The PIP channel and main screen channel will appear in the display momentarily right after you turn on PIP. You can leave them up permanently by pressing DISPLAY until you reach the mode.

Note: The PIP Screen is 1/9 of the regular screen size.

Once PIP is turned on, the ON/MOVE button operates the Move feature.

You can move the PIP window to any of the TV's four corners.

ON/MOVE



Note: Each press of the ON/MOVE button will shift the PIP window one position.

Note: When the PIP screen has no signal, the PIP window will be blue.

FREEZE

You can freeze the picture in the main screen into the PIP window.

FREEZE

Note: When the PIP is off, pressing FREEZE takes a snapshot of the main screen and puts it into the PIP window... great for catching those mail order addresses.

Note: When the PIP is on FREEZE stops the PIP picture.

SWAP

You can swap the PIP picture and the main picture.

SWAP

CHANNEL -/+ For PIP

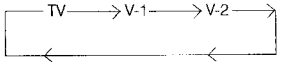
Change the channel in the PIP window.

CH -/+

SOURCE

You can select the source for the PIP window.

SOURCE



PIP NOTES

50 Series models have 2 Tuner PIP and can see two signals at once. This means you can view two channels at the same time.

In order for PIP to work, the TV must be set to "TV mode".

If you use your VCR to play a video, the VCR will automatically switch your input to VCR mode. In VCR mode, the TV sees only one signal, that of the VCR. In order to view PIP, you then need to press the TV/VCR button on your VCR remote to switch back to TV mode.

PROBLEMS	CHECK
No power	• See if the power cord became unplugged. • Perhaps you have experienced a blown circuit breaker or fuse or a power outage.
No picture or sound	• The antenna could be disconnected. • The Input mode (TV or video) could not be set properly, refer to page 27. • The tuner mode (in the menu selection) could be set improperly, refer to page 15. • The station may be having difficulties, check to see if other channels are operating normally.
Remote control is not operating	• Check that the batteries are still working and properly installed. • Make sure there are no objects blocking a clear path from the remote to the TV. • Check that the 2-way mode selector switch is in the proper position — set to TV to view television.
You cannot select a certain channel	• Maybe you are too far from the TV, you must be within 23 feet (or 7 meters). • Make sure the channels are programmed. See Channel Summary, page 17. • Perhaps the channel is locked, select it with the 10 key pad and follow instructions.
Power turns off	• Perhaps the On/Off Timer is set, press the power button, check page 24. • The power was interrupted or the power cord unplugged. • The Sleep Timer may be set, see page 26.
The clock is wrong	• The clock needs to be reset. See page 16.
PICTURE	**CHECK**
Poor color quality	• Tint and color may be improperly adjusted. Check page 22. • Video Status mode may be set to an inappropriate setting. Check page 22.
Lines or streaks across the screen	• There could be interference from another energy consuming appliance, such as a computer, another TV or VCR. Move any other such appliances farther away from the TV.
Spotted picture	• There could be interference from a running high wattage appliance such as a hair-dryer, vacuum cleaner, or neon sign. You will have to move the antenna away from the source of the interference or change it to a coaxial cable which is less prone to interference.
Double picture (Ghosts)	• A building or airplane can reflect the original signal producing a second, delayed one. Adjust the antenna position.
Snowy picture/ Image noise	• The antenna may be damaged, disconnected or turned. Check the antenna connection, pages 6 to 7. If it is damaged, you will have to replace it.
Screen is 80% black	• Closed Caption Text Mode is on.
SOUND	**CHECK**
Bilingual or stereo programs can't be heard	• Make sure the MTS mode is properly set. Refer to page 23 for details on setting MTS Modes.
No sound from TV speakers at all	• TV Speakers may be turned off in the menu, see page 25.
NOT A PROBLEM	**DON'T WORRY ABOUT THIS, IT'S NORMAL**
Static electricity	• It is normal to feel a surge of static electricity if you brush over or touch the screen.
Occasional crackling sounds	• It is normal for the TV to emit crackling sounds when turned on or off. Unless the sound or picture become abnormal, this is fine.

LIMITED WARRANTY

JVC

For Canadian model televisions, see separate sheets for Warranty/Garantie and JVC Authorized Service Centers in Canada.

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP from the date of original purchase for the period as shown below (the "Warranty Period"). The picture tube is covered for two years.

Model No.	Serial No.	Parts	Labor
		1 YEAR	1 YEAR

This limited warranty is valid only in the fifty (50) United States, The District of Columbia and the Commonwealth of Puerto Rico.

JVC WILL:

If this product is found to be defective, repair or replace defective parts at no charge to the original owner. Such repairs will be made during regular business hours only at JVC authorized service centers. All parts repaired or replaced are warrantied for the remainder of this Warranty Period only. All products and parts should be brought to an authorized service center on a carry-in basis except for those models with a screen size larger than 25 inches which are covered on an in-home basis.

YOU MUST:

• Return your products to a JVC authorized service center with a copy of your bill of sale. For the authorized JVC service center nearest you, call toll free (800) 537-5722.

• If service is not locally available, box the product carefully, preferably in its original container, and ship it, insured, to the nearest authorized service center with a copy of the bill of sale and a letter of explanation as to the problem. Call the toll free number above for the address.

WHAT IS NOT COVERED:

1) Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if connected to any attachment not provided with the products, or if the model or serial number has been altered, tampered with, or removed;
2) Initial installation, removal for repair, and reinstallation after repair is not covered;
3) Operational adjustments covered in the Owner's manual, normal maintenance, video and audio head cleaning;
4) Damage that occurs during shipment, due to an act of God, or of consequence to cosmetic changes;
5) Signal reception problems and failures due to line power surges;
6) Video Pick-up Tubes/CCD Image Sensor, Cartridge, Stylus (Needle) are covered for 90 days from the date of purchase;
7) Accessories, and;
8) Batteries (except for rechargeable batteries which are covered for 90 days from date of purchase.)

There are no express warranties except as listed above.

THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILTY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN.

JVC SHALL NOT BE LIABLE FOR THE LOSS OF USE OF THIS PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion of incidental or consequential damages or limitations on how long the warranty lasts, so these may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary state to state.

If you have questions concerning your JVC product, please contact our Customer Relations Department:
JVC COMPANY OF AMERICA 1700 Valley Road
DIVISION OF JVC AMERICAS CORP. Wayne, New Jersey 07470

Refurbished products carry a separate warranty. This warranty does not apply for details of refurbished product warranty. Please refer to the refurbished product warranty information packaged with each refurbished product.

AUTHORIZED SERVICE CENTERS

QUALITY JVC SERVICE

HOW TO LOCATE YOUR JVC SERVICE CENTER

TOLL FREE: 1 (800) 537-5722
http://www.jvcservice.com

Dear Customer;
In order to receive the most satisfaction from your purchase, read the instruction booklet before operating the unit. In the event that repair is necessary, or for the address nearest your location, please refer to the factory service center list below or within the Continental United States, call 1-800-537-5722 for your authorized servicer. Remember to retain your Bill of Sale for Warranty Service.

— JVC

JVC SERVICE & ENGINEERING COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.

FACTORY SERVICE CENTER LOCATIONS

Dear customer;

In order to receive the most satisfaction from your purchase, read this guide before operating the unit, and before calling for service make sure you check the Troubleshooting pages at the end of this book. In the event that repair is necessary, or for the address nearest you, please refer to the factory service center list below, or within the continental United States, call the toll free number above for an authorized service center. Remember to retain your bill of sale for warranty service.

107 Little Falls Road
Fairfield, NJ 07004-2105
(973) 808-9279

1500 Lakes Parkway
Lawrenceville, GA 30243-5857
(404) 339-2522

705 Enterprise Street
Aurora, IL 60504-8149
(630) 851-7855

5665 Corporate Avenue
Cypress, CA 90630-0024
(714) 229-8011

2969 Mapunapuna Place
Honolulu, HA 96819-2040
(808) 833-5828

10700 Hammerly Suite 110
Houston, TX 77043
(713) 935-9331

13 Cummings Park
Woburn, MA 01801
(781) 376-9100

8192 State Road 84
Davie, FL 33324
(954) 472-1960

890 Dubuque Avenue
South San Francisco, CA 94080-1804
(650) 871-2666

Sophisticated electronic products may require occasional service. Just as quality is a keyword in the engineering and production of the wide array of JVC products, service is key to maintaining the high level of performance for which JVC is world famous. The JVC service and engineering organization stands behind our products.

NATIONAL HEADQUARTERS
JVC SERVICE & ENGINEERING COMPANY OF AMERICA
DIVISION OF JVC AMERICAS CORP.
1700 Valley Road
Wayne, New Jersey 07470

IF YOU SHIP THE PRODUCT

Pack your JVC unit in the original carton or one of equivalent size and strength. Enclose, with the unit, a letter stating the problem or symptom that exists and also a copy of the receipt or bill of sale you received when you purchased your JVC unit. Print your home return address on the outside and inside of the carton, Send to the appropriate JVC Factory Service Center as listed above.

Don't service it yourself.

CAUTION

To prevent electrical shock, do not open the cabinet. No user serviceable parts inside. Refer to qualified service personnel.

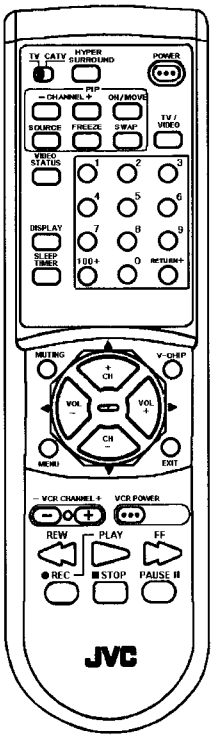
ACCESSORIES

To purchase accessories for your JVC product, you may contact your local JVC Dealer. Or from the 48 Continental United States call toll free : 1 (800) 882-2345

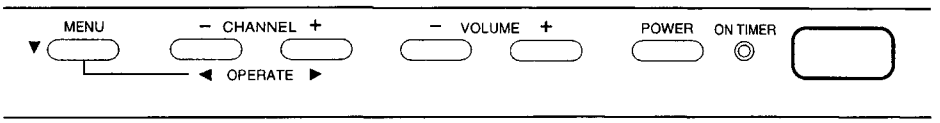
VP9908
DP4053

FUNCTIONS

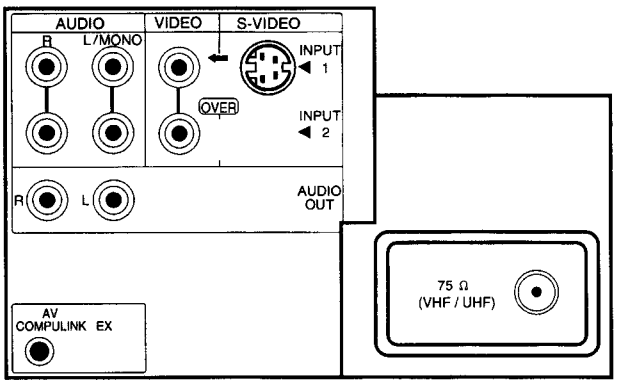
■ REMOTE CONTROL UNIT (RM-C341-3A)



■ FRONT PANEL



■ REAR PANEL



SPECIFIC SERVICE INSTRUCTIONS

DISASSEMBLY PROCEDURE

REMOVING THE REAR COVER

1. Unplug the power supply cord.
2. Remove the 11 screws marked Ⓐ as shown in Fig.2.
3. Remove the rear cover toward you.

* When reinstalling the rear cover, carefully push it inward after inserting the chassis into the rear cover groove.

REMOVING THE CHASSIS

- After removing the rear cover.

1. Slightly raise the both sides of the chassis by hand and remove the 2 claws under the both sides of the chassis from the front cabinet.
2. Draw the chassis backward along the rail in the arrow direction marked Ⓑ as shown in the Fig.2.
   (If necessary, take off the wire clamp, connectors etc.)

* When conducting a check with power supplied, be sure to confirm that the CRT earth wire is connected to the CRT SOCKET PWB and the MAIN PWB.

REMOVING THE TERMINAL BOARD

- After removing the rear cover.

1. Remove the 3 screws marked Ⓒ as shown in Fig.2.
2. After removing the claw marked Ⓔ in the direction of arrow mark as shown in Fig.1.
3. When you pull out the TERMINAL BOARD in the direction of arrow marked Ⓕ as shown in Fig.1, it can be removed.
   At that time, the connector of the ANTENNA SPLITTER and the TUNER comes out.
4. Thus the connector should be securely inserted when the TERMINAL BOARD is installed again.

REMOVING THE FRONT CONTROL PW BOARD

- After removing the rear cover and chassis.

1. Remove the 2 screws marked Ⓓ as shown in Fig.2.
2. Then remove the FRONT CONTROL PWB.

REMOVING THE SPEAKER

- After removing the rear cover and chassis.

1. Remove the 2 screws marked Ⓖ as shown in Fig.2.
2. Follow the same steps when removing the other hand speaker.

CHECKING THE MAIN PW BOARD

1. To check the backside of the MAIN PW Board.
   (1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
   (2) Erect the chassis vertically so that you can easily check the backside of the MAIN PW Board.

[CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PWB.
- Before turning on power, make sure that the CRT earth wire and other connectors are properly connected.

WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire.
2. Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

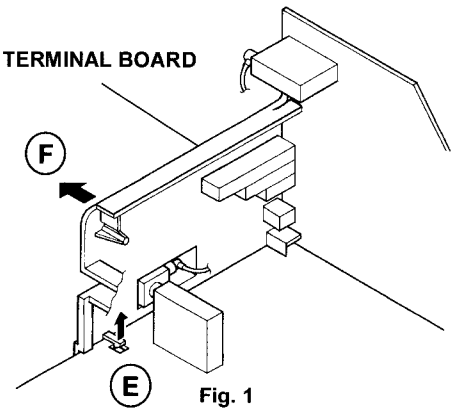


Fig. 1

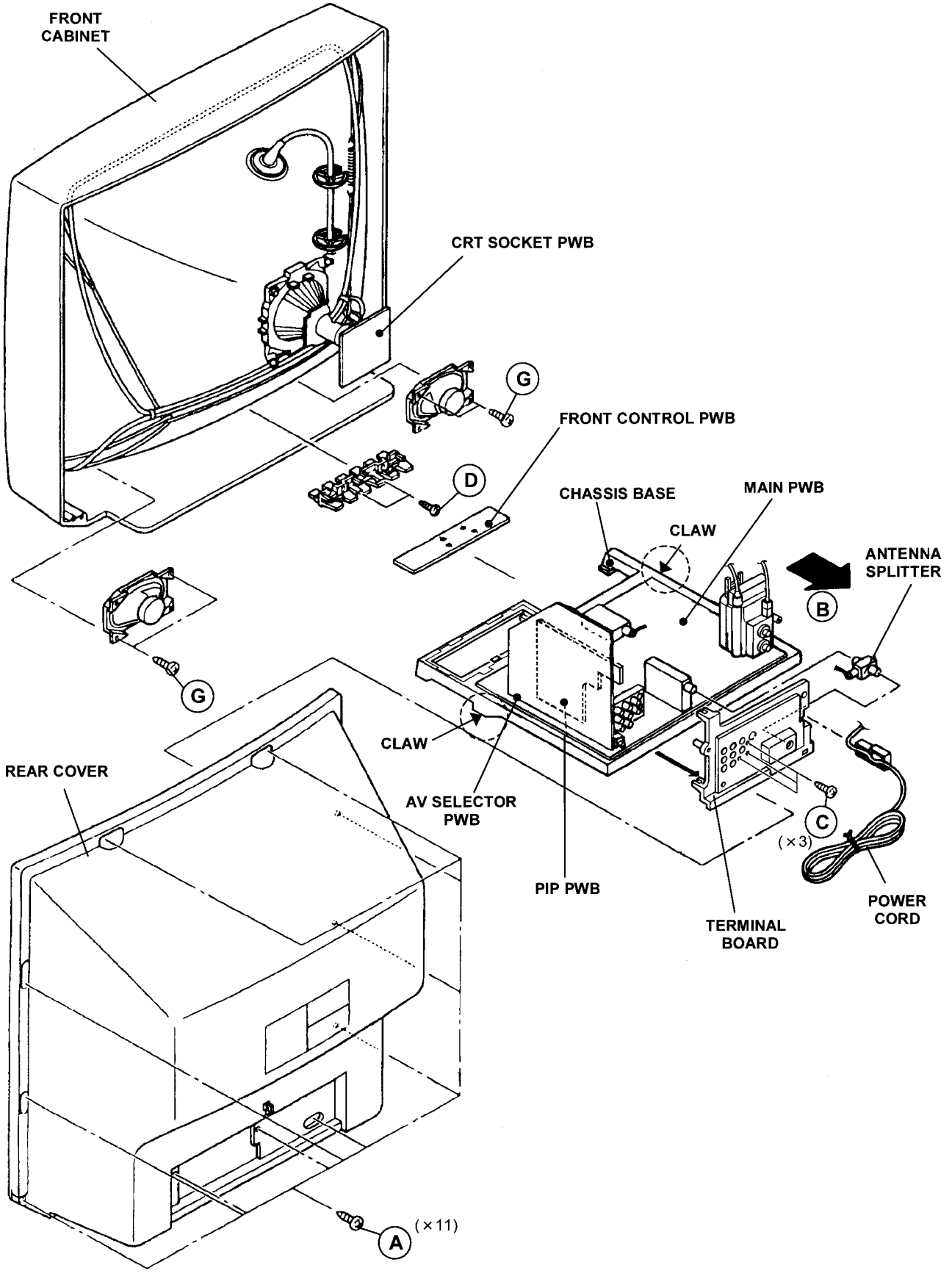

FRONT CABINET
CRT SOCKET PWB
G
FRONT CONTROL PWB
D
CHASSIS BASE
MAIN PWB
CLAW
ANTENNA SPLITTER
B
G
CLAW
REAR COVER
AV SELECTOR PWB
C
(×3)
PIP PWB
POWER CORD
TERMINAL BOARD
A
(×11)

Fig. 2

REMOVING THE CRT

* Replacement of the CRT should be performed by 2 or more persons.
- After removing the rear cover, chassis etc..,
1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.3).
2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.4.
3. Remove 4 screws marked by arrows with a box type screw driver as shown in Fig.4.
- Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.5.
- The CRT should be assembled according to the opposite sequence of its dismounting steps.
* The CRT change table should preferably be smaller that the CRT surface, and its height be about 35cm.

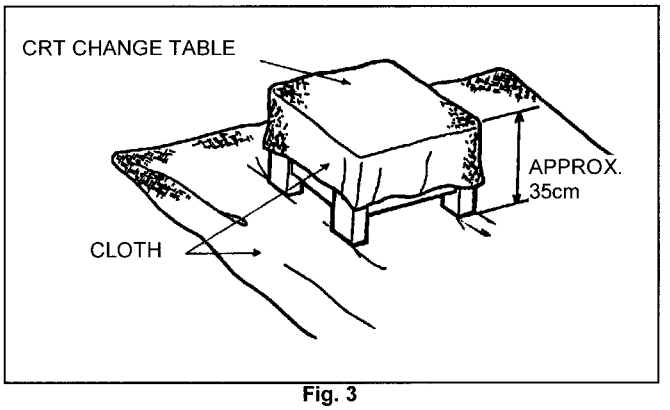


Fig. 3

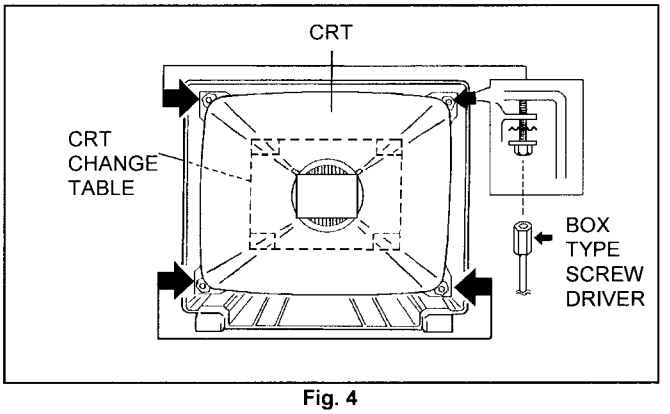


Fig. 4

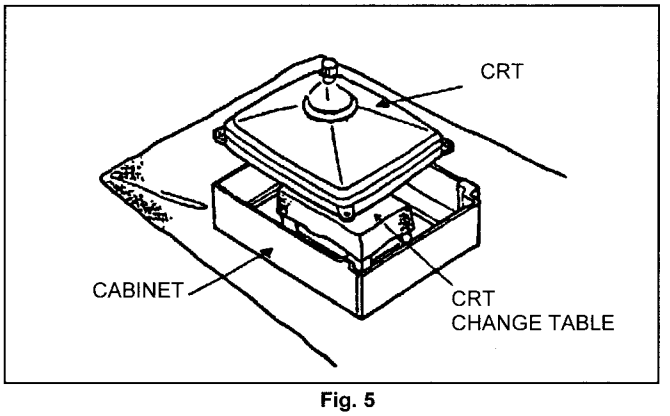


Fig. 5

COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

- Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismounting them, be sure to coat silicon grease for electrical insulation as shown in Fig.6.
  Wipe around the anode button with clean and dry cloth. (Fig.6)
  Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not stick to the anode button. (Fig.7)

★ **Silicon grease product No. KS - 650N**

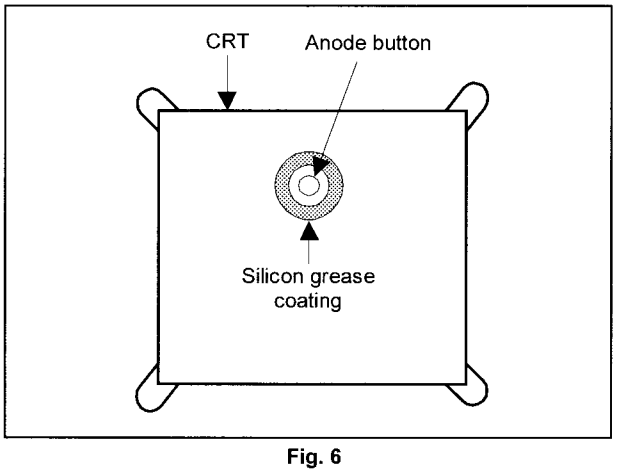


Fig. 6

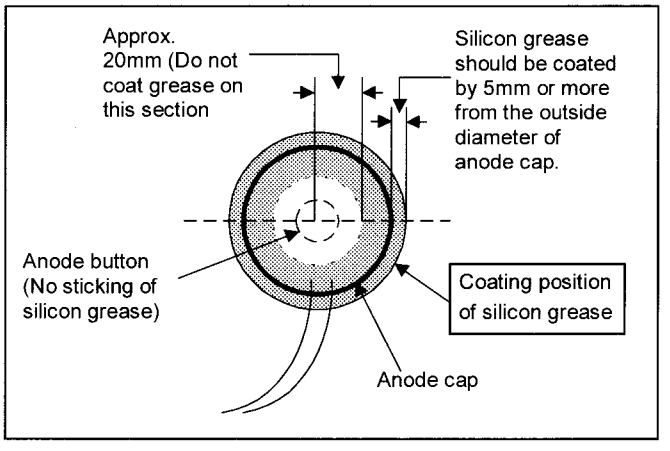


Fig. 7

MEMORY IC REPLACEMENT

1. Memory IC

This model use a memory IC.
This memory IC stores data for proper operation of the video and deflection circuits.
When replacing, be sure to use an IC containing this (initial value) data.

2. Memory IC replacement procedure

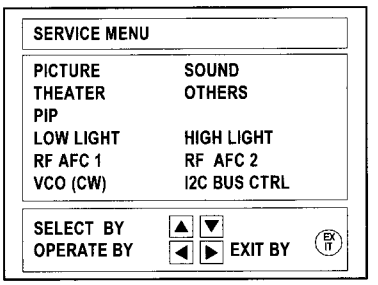
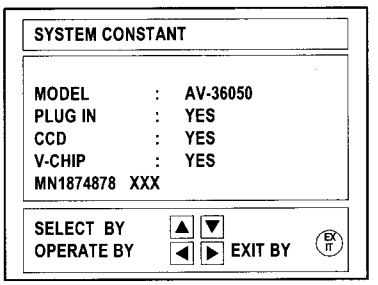
Procedure	Screen display
(1) Power off Switch off the power and disconnect the power cord from the outlet.	
(2) Replace the memory IC Initial value must be entered into the new IC.	
(3) Power on Connect the power cord to the outlet and switch on the power.	
(4) System constant check and setting 1) Press SLEEP TIMER key and, while the indication of "SLEEP TIMER 0 MIN." is being displayed, Press DISPLAY key and VIDEO STATUS key on the remote control unit simultaneously. 2) The SERVICE MENU screen of Fig.1 is displayed. 3) While the SERVICE MENU is displayed, again simultaneously press the DISPLAY and VIDEO STATUS keys to display the Fig.2 SYSTEM CONSTANT screen. 4) Refer to the SYSTEM CONSTANT table and check the setting items. Where these differ, select the setting item with the MENU UP/DOWN (▲/▼) key and adjust the setting with the MENU LEFT/RIGHT (◀ /▶) keys. (The letters of the selected item are displayed in yellow.) 5) After adjusting, release the MENU LEFT/RIGHT (◀ /▶) key to store the setting value. 6) Press the EXIT key twice to return the normal screen.	 Fig.1  Fig.2
(5) Receive channel setting Refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the receive channels (Channels Preset) as described.	
(6) User settings Check the user setting items according to Table 2. Where these do not agree, refer to the OPERATING INSTRUCTIONS (USER'S GUIDE) and set the items as described.	
(7) SERVICE MENU setting Verify what to set in the SERVICE MENU, and set whatever is necessary. (Fig.1) Refer to the SERVICE ADJUSTMENT for setting.	

TABLE 1 (System Constant setting)

Setting item	Setting constant	Setting value
MODEL	AV-27050 → AV-32050 → AV-36050 → AV-32015 ← AV-36020 ← AV-32020 ←	AV-36050
PLUG IN	YES → NO	YES
CCD	YES → NO	YES
V-CHIP	YES → NO	YES

TABLE 2 (User setting)

Setting item	Setting value	Setting item	Setting value
1. Use remote controller keys			
POWER	OFF	DISPLAY	OFF
CHANNEL	CH-02	VIDEO STATUS	STANDARD
VOLUME	Proper sound volume	SLEEP TIMER	0
TV/VIDEO	TV	PIP SOURCE	CH-04
HYPER SURROUND	OFF	PIP POSITION	Lower left
		V-CHIP	OFF
2. Settings of MENU			
PICTURE ADJUST		**CLOCK / TIMERS**	
TINT	CENTER	SET CLOCK	Unnecessary to set
COLOR	CENTER	ON/OFF TIMER	NO
PICTURE	CENTER		
BRIGHT	CENTER	**INITIAL SETUP**	
DETAIL	CENTER	TV SPEAKER	ON
		AUDIO OUT	FIX
NOISE MUTING	ON	LANGUAGE	ENG
SET VIDEO STATUS	ALL CENTER	CLOSED CAPTION	OFF
SOUND ADJUST		AUTO TUNER SET UP	TUNER MODE : AIR
BASS	CENTER	CHANNEL SUMMARY	Unnecessary to set
TREBLE	CENTER	V-CHIP	OFF
BALANCE	CENTER	SET LOCK CODE	Unnecessary to set
MTS	STEREO		

SERVICE ADJUSTMENTS

ADJUSTMENT PREPARATION:

1. **You can make the necessary adjustments for this unit with either the Remote Control Unit or with the adjustment tools and parts as given below.**
2. **Adjustment with the Remote Control Unit is made on the basis of the initial setting values ; however, the new setting values which set the screen to its optimum condition may differ from the initial settings.**
3. Make sure that AC power is turned on correctly.
4. Turn on the power for the set and test equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. Never touch any adjustment parts which are not specified in the list for this adjustment-variable resistors, transformers, condensers, etc.
7. Presetting before adjustment.
   Unless otherwise specified in the adjustment instructions, preset the following functions with the Remote Control Unit :

(1) VIDEO STATUS	STANDARD	(2) HYPER SURROUND	OFF
(3) TINT / COLOR / PICTURE / BRIGHT / DETAIL	CENTER	(4) BASS, TREBLE, BALANCE	CENTER

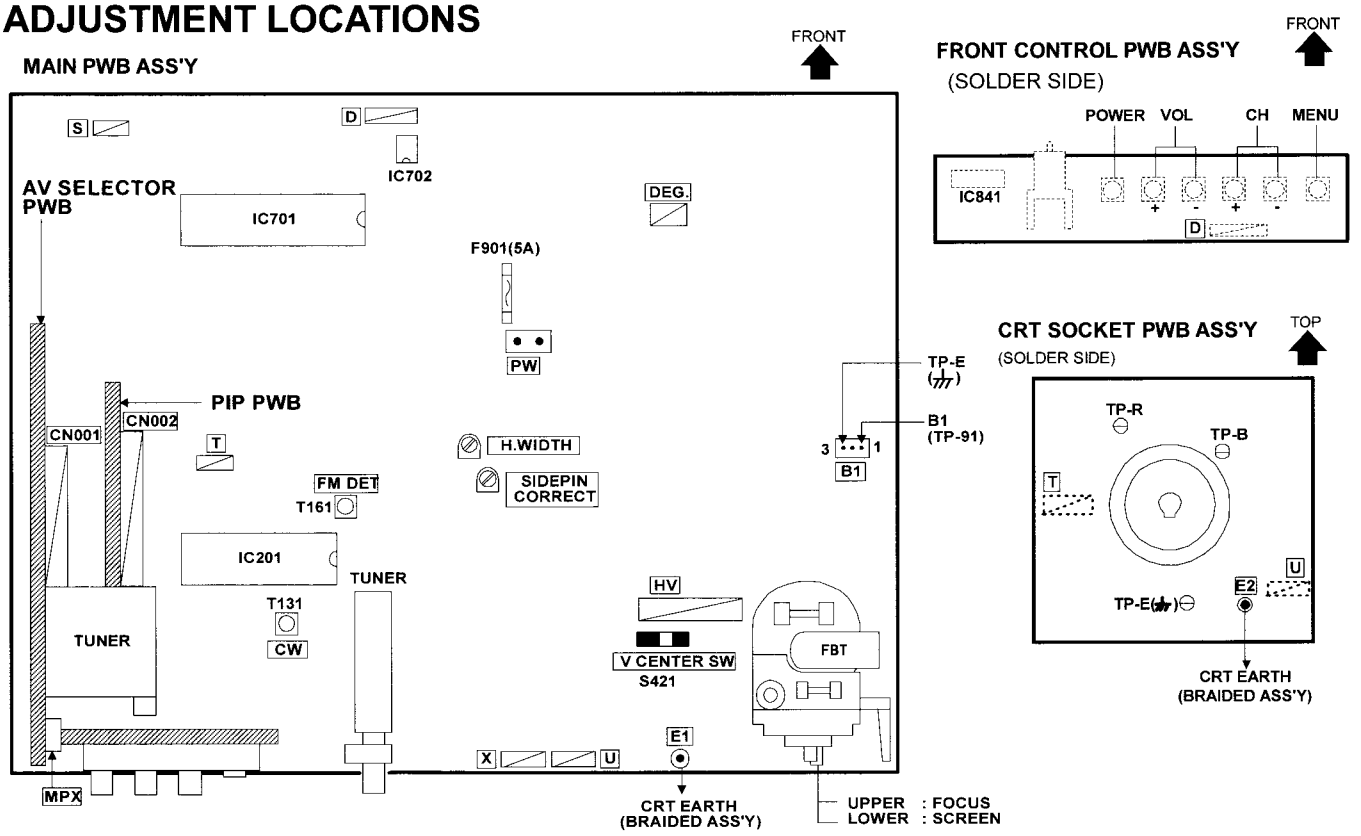
MEASURING INSTRUMENT

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [NTSC]
4. Remote control unit
5. TV audio multiplex signal generator
6. Frequency counter

ADJUSTMENT ITEMS

Check of B1 POWER SUPPLY	WHITE BALANCE (Low Light)	PIP CIRCUIT (4 ITEMS)
IF VCO	WHITE BALANCE (High Light)	MTS INPUT LEVEL check
RF. AGC	SUB BRIGHT	MTS STEREO VCO
FOCUS	SUB CONTRAST	MTS SAP VCO
V.CENTER, V.SIZE and V.POSITION	SUB COLOR	MTS FILTER check
		MTS SEPARATION
H.WIDTH, SIDEPIN, CORRECT and H.POSITION	SUB TINT	

ADJUSTMENT LOCATIONS



BASIC OPERATION OF SERVICE MENU

1. TOOL OF SERVICE MENU OPERATION

Operate the SERVICE MENU with the REMOTE CONTROL UNIT.

2. SERVICE MENU INTEMS

In general, basic setting(adjustments) items or verifications are performed in the SERVICE MENU.

- PICTURE ····· This sets the setting values (adjustment values) of the VIDEO/CHROMA and DEFLECTION circuits.
- SOUND ····· This sets the setting values (adjustment values) of the AUDIO circuit.
- THEATER ····· This is used when the THEATER MODE is adjusted.
- OTHERS ····· This is used when the OTHER MODE is adjusted.
- PIP ····· This sets the setting values (adjustment values) of the PICTURE-IN-PICTURE circuit. (PIP in means as Picture in Picture)
- LOW LIGHT ····· This sets the setting values (adjustment values) of the WHITE BALANCE circuit.
- HIGH LIGHT ····· This sets the setting values (adjustment values) of the WHITE BALANCE circuit.
- RF AFC 1 ····· This is used when the RF AFC 1 MODE is verified. **[Do not adjust]**
- RF AFC 2 ····· This is used when the RF AFC 2 MODE is verified. **[Do not adjust]**
- VCO (CW) ····· This is used when the IF VCO is adjusted.
- I^2C BUS CTRL ····· This is used when ON/OFF of the I^2C BUS CTRL is set. **[Fixed ON]**

3. Basic Operations of the SERVICE MENU

(1) How to enter the SERVICE MENU.

Press SLEEP TIMER key and, while the indication of "SLEEP TIMER 0 MIN." is being displayed, press DISPLAY key and VIDEO STATUS key on the remote control unit simultaneously to enter the SERVICE MENU screen ① shown in the next figure page.

(2) SERVICE MENU screen selection

Press the UP/DOWN (▲/▼) key of the MENU to select any of the following items.

(The letters of the selected items are displayed in yellow.)

- PICTURE
- THEATER
- PIP
- LOW LIGHT
- RF AFC 1
- VCO (CW)
- SOUND
- OTHERS
- HIGH LIGHT
- RF AFC 2
- I^2C BUS CTRL

(3) Enter the any setting (adjustment) mode

- **PICTURE, SOUND and OTHERS mode**

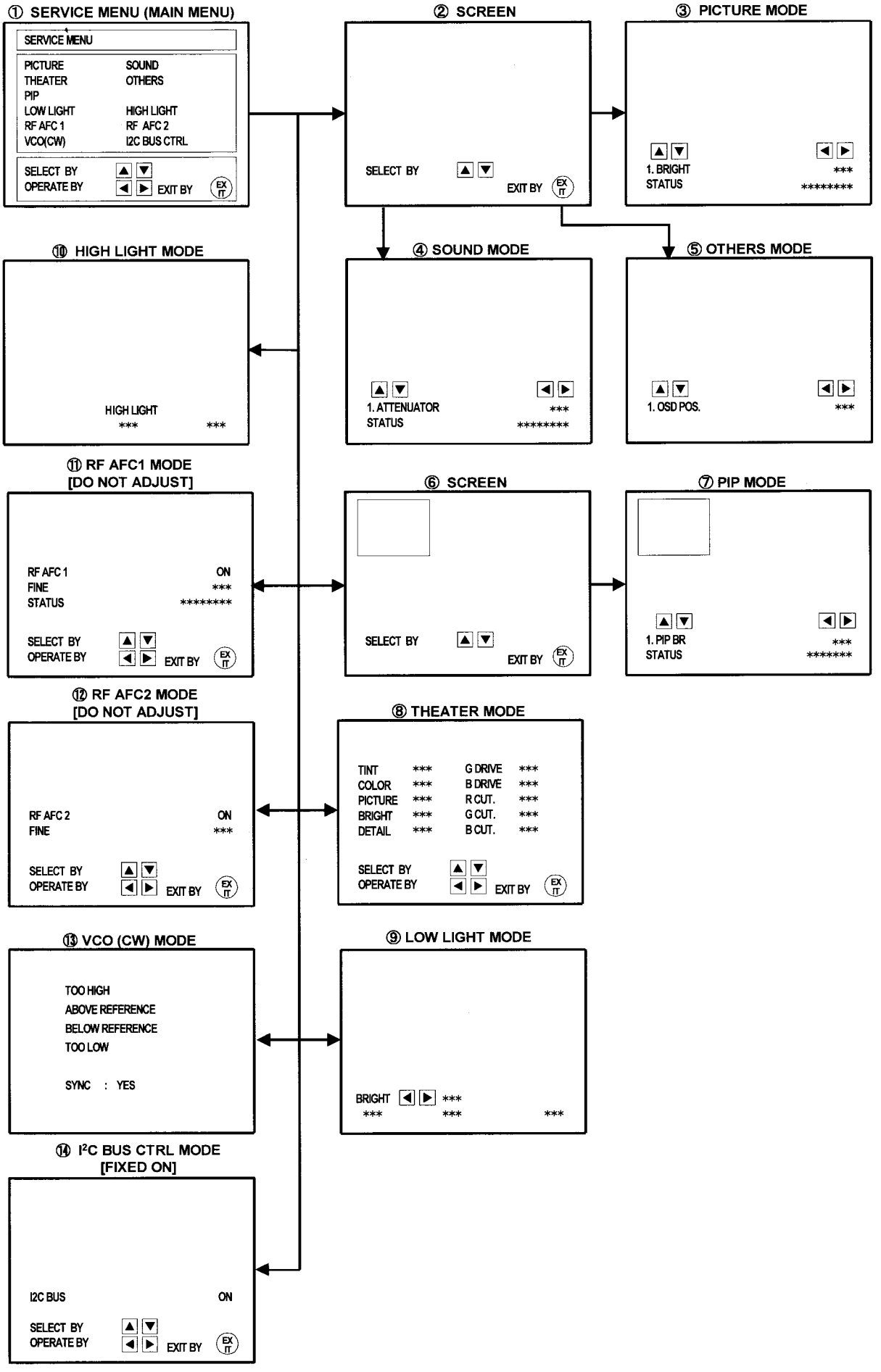
1) If select any of PICTURE, SOUND or OTHERS items, and the LEFT / RIGHT (◀ /▶) key is pressed from SERVICE MENU (MAIN MENU), the screen ② will be displayed as shown in figure page later.
2) Then the UP / DOWN (▲/▼) key is pressed, the PICTURE mode screen ③ or the SOUND mode screen ④ or the OTHERS mode screen ⑤ is displayed, and the PICTURE, SOUND or OTHERS setting can be performed.

- **PIP mode**

1) If select the PIP item, and the LEFT / RIGHT(◀/ ▶) key is pressed from SERVICE MENU (MAIN MENU), the screen ⑥ will be displayed as shown in figure page later.
2) Then UP / DOWN (▲/▼) key is pressed, the PIP mode screen ⑦ is displayed, and the PIP setting can be performed.

- **THEATER, LOW LIGHT, HIGH LIGHT, RF AFC 1, RF AFC 2, VCO (CW) and I^2C BUS CTRL mode**

1) If select any of THEATER / LOW LIGHT / HIGH LIGHT / RF AFC 1 / RF AFC 2 / VCO (CW) / I^2C BUS CTRL items, and the LEFT / RIGHT (◀ /▶) key is pressed from SERVICE MENU (MAIN MENU), the screens ⑧⑨⑩⑪⑫⑬⑭ will be displayed as shown in figure page later.
2) Then the settings or verifications can be performed.

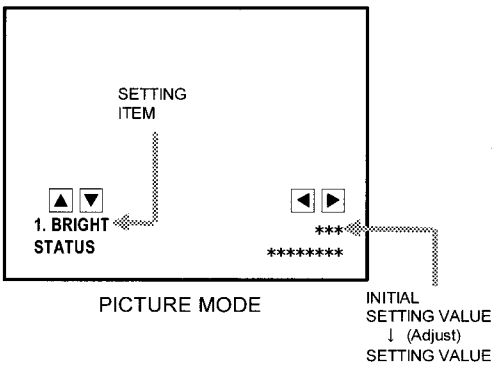

① SERVICE MENU (MAIN MENU)
SERVICE MENU
PICTURE
SOUND
THEATER
OTHERS
PIP
LOW LIGHT
HIGH LIGHT
RF AFC 1
RF AFC 2
VCO(CW)
I2C BUS CTRL
SELECT BY
OPERATE BY
EXIT BY
② SCREEN
SELECT BY
EXIT BY
③ PICTURE MODE
1. BRIGHT
STATUS
④ SOUND MODE
1. ATTENUATOR
STATUS
⑤ OTHERS MODE
1. OSD POS.
⑥ SCREEN
SELECT BY
EXIT BY
⑦ PIP MODE
1. PIP BR
STATUS
⑧ THEATER MODE
TINT
COLOR
PICTURE
BRIGHT
DETAIL
G DRIVE
B DRIVE
R CUT.
G CUT.
B CUT.
SELECT BY
OPERATE BY
EXIT BY
⑨ LOW LIGHT MODE
BRIGHT
⑩ HIGH LIGHT MODE
HIGH LIGHT
⑪ RF AFC1 MODE
[DO NOT ADJUST]
RF AFC 1
ON
FINE
STATUS
⑫ RF AFC2 MODE
[DO NOT ADJUST]
RF AFC 2
ON
FINE
⑬ VCO (CW) MODE
TOO HIGH
ABOVE REFERENCE
BELOW REFERENCE
TOO LOW
SYNC : YES
⑭ I²C BUS CTRL MODE
[FIXED ON]
I2C BUS
ON

(4) Setting method

1) UP / DOWN (▲/▼) key of the MENU
   Select the SETTING ITEM.

2) LEFT / RIGHT (◀/▶) key of the MENU
   Setting(adjust) the SETTING VALUE of the SETTING ITEM.
   When the key is released the SETTING VALUE will be stored (memorized).

3) EXIT key
   Returns to the previous screen.



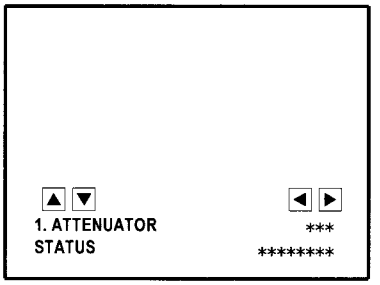
PICTURE MODE

(5) Releasing SERVICE MENU

1) After returning to the SERVICE MENU upon completion of the setting (adjustment) work, press the EXIT key again.

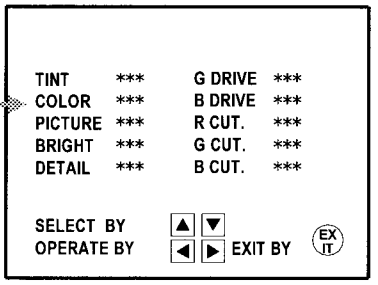
★ The settings for LOW LIGHT and HIGH LIGHT are described in the WHITE BALANCE page of ADJUSTMENT.

★ The setting for VCO(CW) are described in the IF VCO page of ADJUSTMENT.

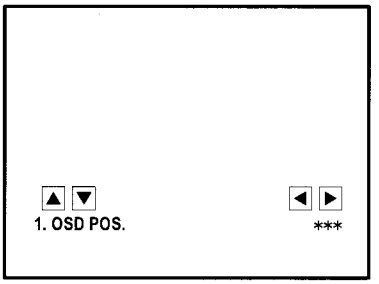


SOUND MODE

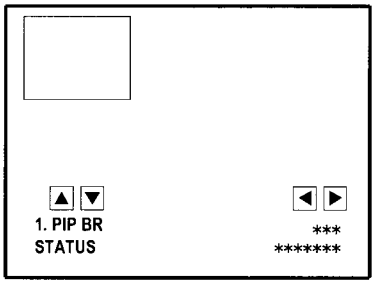
The letters of the selected items are displayed in yellow.



THEATER MODE



OTHERS MODE



PIP MODE

INITIAL SETTING VALUE OF SERVICE MENU

1. **Adjustment of the SERVICE MENU is made on the basis of the initial setting values ; however, the new setting values which set the screen in its optimum condition may differ from the initial setting.**
2. **Do not change the initial Setting Values of the Setting (Adjustment) items not listed in "ADJUSTMENT".**

- **PICTURE MODE**

✧ The four setting items in the video mode No.8 EXT BRI., No.9 EXT PIC., No.12 EXT TINT and No.13 EXT COLOR are linked to the items in the TV MODE No.1 BRIGHT, No.2 PICTURE, No.6 TINT and No.7 COLOR, respectively. When the setting items in the TV mode are adjusted, the values in the setting items in the video mode are revised automatically to the same values in the TV mode. (The initial setting values given in ( ) are off-set values.)

✧ When the four items (No.8, 9, 12 and 13) are adjusted in the video mode, the setting values in each item are revised independently.

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	BRIGHT	000~127	064
2.	PICTURE	000~127	094
3.	WPS (WHITE PEAK SUPPRESSOR)	000 / 001	001
4.	TV DETAIL	000~063	040
5.	TV BPF (TV B.P.FILTER)	000 / 001	001
6.	TINT	000~127	065
7.	COLOR	000~127	052
8.	EXT BRIGHT	±025	(+002)
9.	EXT PICT.	±025	(±000)
10.	EXT DETAIL	000~063	038
11.	EXT BPF (EXT B.P.FILTER)	000 / 001	001
12.	EXT TINT	±025	(+005)
13.	EXT COLOR	±025	(+004)
14.	V SIZE	000~063	034
15.	V CENTER	000~007	000
16.	H POSITION	000~031	022
17.	H AFC	000 / 001	000
18.	BLANKING	000 / 001	000
19.	RF AGC	000~063	035
20.	PIF VCO	000~127	064

- **SOUND MODE**

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	ATTENUATOR	000~063	050
2.	BALANCE	000~063	032
3.	NOISE DET.	000 / 001	001
4.	IN LEVEL (INPUT LEVEL)	000~063	027
5.	FH MONITOR	000 / 001	000
6.	STEREO VCO	000~063	023
7.	PILOT CAN. (PILOT CANCELER)	000 / 001	000
8.	FILTER	000~063	030
9.	LOW SEP. (LOW SEPARATION)	000~063	028
10.	HI SEP. (HIGH SEPARATION)	000~063	019
11.	5FH MON. (5FH MONITOR)	000 / 001	000
12.	SAP VCO	000~063	027
13.	IN GAIN (INPUT GAIN)	000 / 001	000
14.	FIL.OFFSET	±010	±000

- **THEATER MODE**

Setting (Adjustment) item	Variable range	Initial setting value
TINT	±20	±00
COLOR	±20	-02
PICTURE	-30～+20	-15
BRIGHT	±20	±00
DETAIL	±15	-03
G DRIVE	-99～+50	-25
B DRIVE	-99～+50	-72
R CUT. (R CUTOFF)	±10	±00
G CUT. (G CUTOFF)	±10	±00
B CUT. (B CUTOFF)	±10	±00

- **OTHERS MODE**

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	OSD POS.	000～007	000
2.	CCD POS. (CLOSED CAPTION DECODER POS.)	000～015	002
3.	EOSEL	000 / 001	000
4.	F1_FIELD	000 / 001	000
5.	F1_LINE21	000～015	008
6.	F2_LINE21	000～015	008
7.	OSD STABI.	000 / 001	000
8.	SYNC SEP.	000 / 001	001
9.	MENU COLOR	-030～±000	-010
10.	MENU PICT.	-030～±000	-012
11.	MENU BRI.	-030～±000	-012

- **PIP MODE**

No.	Setting (Adjustment) item	Variable range	Initial setting value
1.	PIP BR	000～015	007
2.	PIP PICT	000～075	044
3.	PIP TINT	000～063	035
4.	PIP COL	000～015	009
5.	P R CUT	000～015	000
6.	P G CUT	000～015	000
7.	P B CUT	000～015	000
8.	P R DR	000～255	134
9.	P G DR	000～255	134
10.	P B DR	000～255	134
11.	LEFT POS.	000～255	016
12.	RIGHT POS.	000～255	021
13.	UPPER POS.	000～127	012
14.	LOWER POS.	000～127	011
15.	PICT LOCK	000 / 001	000
16.	SELDEL	000～015	000
17.	AGCFIX	000 / 001	001
18.	AGCADST	000 / 001	001
19.	AGC	000～015	006
20.	VSPDEL	000～031	000
21.	VSPISQ	000 / 001	001
22.	YCOR	000 / 001	001
23.	XFREQF	000 / 001	001

- **LOW LIGHT MODE**

Setting (Adjustment) item	Variable range	Initial setting value
R CUTOFF	000~255	020
G CUTOFF	000~255	020
B CUTOFF	000~255	020

- **HIGH LIGHT MODE**

Setting (Adjustment) item	Variable range	Initial setting value
G DRIVE	000~255	128
B DRIVE	000~255	128

- **RF AFC 1 MODE**

Setting (Adjustment) item	Variable range	Initial setting value
RF AFC 1	ON/OFF	ON (DO NOT ADJUST)
FINE	-77~+77	± × ×

- **RF AFC 2 MODE**

Setting (Adjustment) item	Variable range	Initial setting value
RF AFC 2	ON/OFF	ON (DO NOT ADJUST)
FINE	-77~+77	± × ×

- **I^2C BUS CTRL MODE**

Setting (Adjustment) item	Variable range	Initial setting value
I^2C BUS	ON/OFF	**[Fixed ON]**

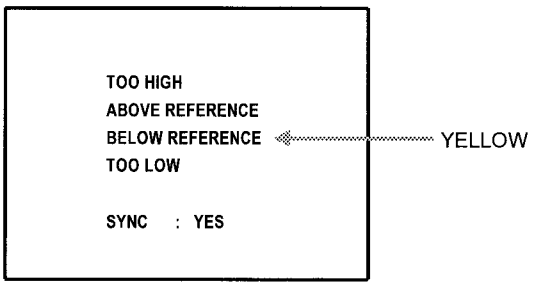
■ ADJUSTMENTS

B1 POWER SUPPLY

Item	Measuring instrument	Test point	Adjustment part	Description
Check of B1 POWER SUPPLY	DC Voltmeter	B1 (【B1】 Connector 【1】 pin) (TP-91) TP-E(⏚) (【B1】 Connector 【3】 pin)		1. Receive a black-and-white signal. (Color off) 2. Connect the DC Voltmeter to 【B1】 connector 【1】 pin (TP-91) and TP-E(⏚) (B1 connector 【3】 pin). 3. Confirm that the voltage is DC134V±2V.

ADJUSTMENT OF IF. VCO

Item	Measuring instrument	Test point	Adjustment part	Description
IF VCO adjustment			CW TRANSF. (T131) [VCO(CW)] MODE	● Under normal conditions, no adjustment is required. 1. Receive a NTSC broadcast. (Use channels without offset frequency). 2. Select the VCO (CW) mode from the SERVICE MENU. 3. Confirm the color change (yellow) from "TOO HIGH" to "TOO LOW" by CW TRANSF. and "SYNC : YES" being shown on the screen. Then, adjust CW TRANSF. until " BELOW REFERENCE" mark turns yellow and confirm again " SYNC : YES" being shown on the screen.



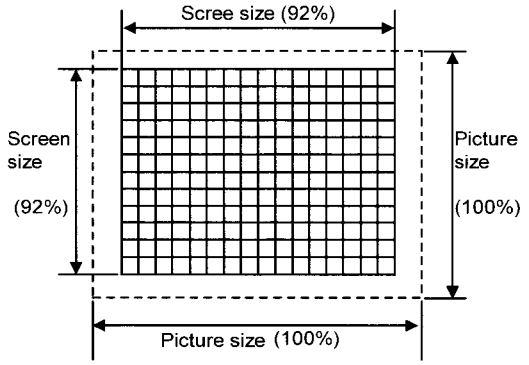
ADJUSTMENT OF RF AGC

Item	Measuring instrument	Test point	Adjustment part	Description
RF. AGC adjustment			No.19 RF AGC	1. Receive a broadcast. 2. Select "No.19 RF AGC" of the PICTURE MODE. 3. Press the MUTE key and turn off color. 4. With the MENU LEFT key, get noise in the screen picture. (0 side of setting value) 5. Press the MENU RIGHT key and stop when noise disappears from the screen. 6. Change to other channels and make sure that there Is no irregularity. 7. Press the MUTE key and get color out.

ADJUSTMENT OF FOCUS

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS adjustment	Signal generator		FOCUS VR [built-in FBT]	1. Receive a crosshatch signal. 2. While looking at the screen, adjust FOCUS VR so that the vertical and horizontal lines will be clear and in fine detail. 3. Make sure that the picture is in focus even when the screen gets darkened.

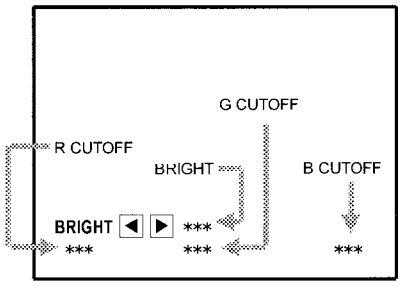
ADJUSTMENT OF DEFLECTION CIRCUIT

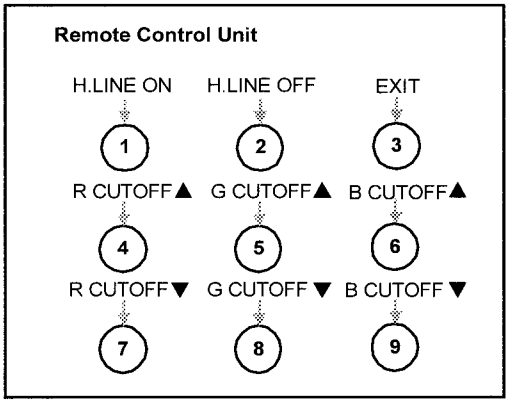
Item	Measuring instrument	Test point	Adjustment part	Description
V.CENTER, V.SIZE and V.POSITION adjustment	**Signal generator**		**No.14 V SIZE** **No.15 V CENTER** **V.CENTER SW (S1421)**	1. Receive a crosshatch signal. 2. Make sure that the "No.15 V CENTER" of the PICTURE SERVICE MODE is 0. 3. Use the LEFT/RIGHT keys of the MENU to set the initial setting value for the No.14 V SIZE. 4. Adjust the vertical SCREEN size to 92% with the No.14 V SIZE and S1421 (V.CENTER SW). 
H.WIDTH, SIDEPIN CORRECT and H.POSITION adjustment	**Signal generator**		**No.16 H POSITION** **SIDEPIN CORRECT VR (R1579)** **H.WIDTH VR (R1581)**	1. Receive a crosshatch signal. 2. Adjust the SIDEPIN CORRECT. VR(R1579) so that vertical lines at both side of the crosshatch are straight. 3. Select the "No.16 H POSITION" of the PICTURE SERVICE MODE. 4. Press the LEFT/RIGHT keys of the MENU to set the initial setting values for the "No.16 H POSITION". 5. Adjust the "No.16 H POSITION" until the screen will be horizontally centered. 6. Adjust the H.WIDTH VR(R1581) so that 92% of the overall crosshatch is displayed on the screen. 7. As required, repeat above steps 2 and 6.

ADJUSTMENT OF VIDEO / CHROMA CIRCUIT

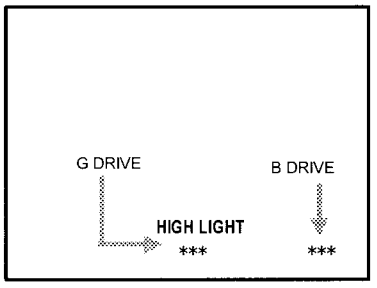
Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (Low Light) adjustment	**Signal generator**		**BRIGHT** **R CUTOFF** **G CUTOFF** **B CUTOFF** **SCREEN VR**	1. Receive a black-and-white signal. (Color off) 2. Select the [LOW LIGHT] MODE from the SERVICE MENU. 3. Set the initial setting value of "BRIGHT" with the LEFT/RIGHT key of the remote control unit. 4. Set the initial setting value of "R CUTOFF", "G CUTOFF" and "B CUTOFF" with the ④ to ⑨ keys of the remote control unit. 5. Display a single horizontal line by pressing the ① key of the remote control unit. 6. Turn the screen VR all the way to the left. 7. Turn the screen VR gradually to the right from the left until either one of the red, blue or green colors appears faintly. 8. Adjust the two colors which did not appear until the single horizontal line that is displayed becomes white using the ④ to ⑨ keys of the remote control unit. 9. Turn the screen VR to where the single horizontal line glows faintly. 10. Press the ② key to return to the regular screen. * The ③ EXIT key is the cancel key for the WHITE BALANCE.
WHITE BALANCE (High Light) adjustment	**Signal generator**		**G DRIVE** **B DRIVE**	1. Receive a black-and-white signal. (Color off) 2. Select the [HIGH LIGHT] MODE in the SERVICE MENU. 3. Set the initial setting value of "G DRIVE" and "B DRIVE" with the ⑤, ⑥, ⑧ and ⑨ keys of the remote control unit. 4. Adjust the screen until it becomes white using the ⑤, ⑥, ⑧ and ⑨ keys of the remote control unit. * The ③ EXIT key is the cancel key for the WHITE BALANCE.

[LOW LIGHT] MODE





[HIGH LIGHT] MODE



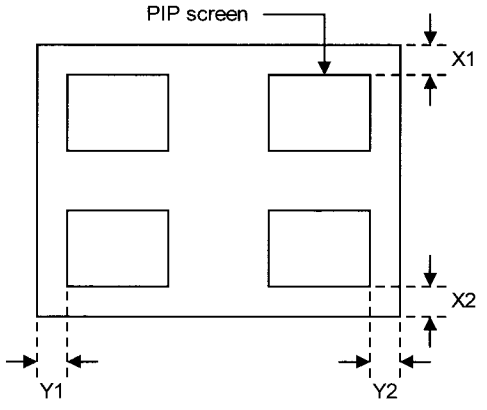
Remote Control Unit

①key : H.LINE ON
②key : H.LINE OFF
③key : EXIT
⑤key : G DRIVE ▲
⑥key : B DRIVE ▲
⑧key : G DRIVE ▼
⑨key : B DRIVE ▼

Item	Measuring instrument	Test point	Adjustment part	Description
SUB BRIGHT adjustment			**No.1 BRIGHT**	1. Receive a broadcast. 2. Select "No.1 BRIGHT" of the PICTURE MODE. 3. Set the initial setting value of the "No.1 BRIGHT" with the LEFT/RIGHT key of the MENU. 4. If the brightness is not the best with the initial setting value, make fine adjustment of the "No.1 BRIGHT" until you get the optimum brightness.
SUB CONTRAST adjustment			**No.2 PICTURE**	1. Receive a broadcast. 2. Select "No.2 PICTURE" of the PICTURE MODE. 3. Set the initial setting value of the "No.2 PICTURE" with the LEFT/RIGHT key of the MENU. 4. If the contrast is not the best with the initial setting value, make fine adjustment of the "No.2 PICTURE" until you get the optimum contrast.
SUB COLOR adjustment			**No.7 COLOR**	1. Receive a broadcast. 2. Select "No.7 COLOR" of the PICTURE MODE. 3. Set the initial setting value of the "No.7 COLOR" with the LEFT/RIGHT key of the MENU. 4. If the color is not the best with the Initial setting value, make fine adjustment of the "No.7 COLOR" until you get the optimum color.
SUB TINT adjustment			**No.6 TINT**	1. Receive a broadcast. 2. Select "No.6 TINT" of the PICTURE MODE. 3. Set the initial setting value of the "No.6 TINT" with the LEFT/RIGHT key of the MENU. 4. If the tint is not the best with the initial setting value, make fine adjustment of the "No.6 TINT" until you get the optimum tint.

ADJUSTMENT OF PIP CIRCUIT

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>PIP WHITE BALANCE adjustment</td><td>Signal generator</td><td></td><td>No.9 P G DR
No.10 P B DR</td><td>• Except for that the value of “No.2 PIP PICT” in the PIP SERVICE MODE falls within the range between 030～045, “No.9 P G DR” and “No.10 P B DR” cannot be adjusted.
1. Receive a black-and-white signal.(Color off)
2. Select the “No.9 P G DR, No.10 P B DR” of the PIP SERVICE MODE.
3. Set the corresponding initial setting values with the LEFT/RIGHT key of the menu.
4. Adjust the “No.9 P G DR, No.10 P B DR” until the screen becomes white.</td></tr>
<tr><td>PIP DISPLAY POSITION adjustment</td><td>Signal generator</td><td></td><td>No.11 LEFT POS.
No.12 RIGHT POS.
No.13 UPPER POS.
No.14 LOWER POS.</td><td>1. Receive a black-and-white signal.(Color off)
2. Select the “No.11 LEFT POS.” of the PIP SERVICE MODE.
3. Set the initial setting value of the No.11 LEFT POS.” with the LEFT/RIGHT key of the menu.
4. Adjust the “No.11 LEFT POS.” so that the position of the PIP screen edge of left will be at Y1 as shown.
5. Adjust the corresponding modes of “No.12, No.13, No.14” with the same steps as 2～4 above.</td></tr>
</table>



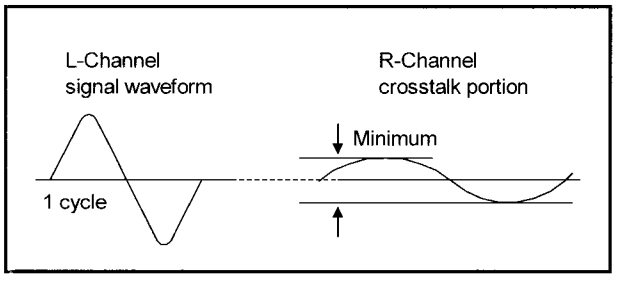
PIP SERVICE MODE No.	Item	PIP Setting position Approx. (mm)
No.11	LEFT POSITION (Y1)	45
No.12	RIGHT POSITION (Y2)	45
No.13	UPPER POSITION (X1)	35
No.14	LOWER POSITION (X2)	35

Item	Measuring instrument	Test point	Adjustment part	Description
PIP SUB CONTRAST adjustment			**No.2 PIP PICT**	• When the value of "No.15 PIP LOCK" in the PIP SERVICE MODE indicates 001, the value of "No.2 PIP PICT" can be adjusted only within the range between 030~045. 1. Receive a broadcast. 2. Select "No.2 PIP PICT" of the PIP SERVICE MODE. 3. Set the initial setting value of the "No.2 PIP PICT" with the LEFT/RIGHT key of the menu. 4. If the contrast Is not the best will the Initial setting value, make fine adjustment of the "No.2 PIP PICT" until you get the optimum contrast.
PIP SUB BRIGHT adjustment			**No.1 PIP BR**	1. Receive a broadcast. 2. Select "No.1 PIP BR" of the PIP SERVICE MODE. 3. Set the initial setting value of the "No.1 PIP BR" with the LEFT/RIGHT key of the menu. 4. If the brightness is not the best with the initial setting value, make fine adjustment of the "No.1 PIP BR" until you get the optimum brightness.

ADJUSTMENT OF MTS CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
MTS INPUT LEVEL check			**No.4 IN LEVEL**	1. Select the "No.4 IN LEVEL" of the SOUND MODE. 2. Verify that the "No.4 IN LEVEL" is set at its initial setting value.
MTS STEREO VCO adjustment	**Signal generator** **Frequency counter**	**【MPX】 Connector 【2】 pin RTV [AV SELECTOR PWB]**	**No.5 FH MONITER** **No.6 STEREO VCO**	1. Receive a RF signal (nonmodulated sound signal) from the antenna terminal. 2. Select the "No.5 FH MONITER" of SOUND MODE, and change the setting value from 0 to 1. 3. Connect the Frequency Counter to pin 【2】 of 【MPX】 connector. 4. Select the "No.6 STEREO VCO". 5. Set the initial setting value of the "No.6 STEREO VCO" with the LEFT/RIGHT key of the menu. 6. Adjust the "No.6 STEREO VCO" so that the Frequency Counter will display 15.73kHz±0.1kHz. 7. Select the "No.5 FH MONITER" of the SOUND MODE, and reset the setting value from 1 to 0.

Item	Measuring instrument	Test point	Adjustment part	Description
MTS SAP VCO adjustment	**Signal generator**	**【MPX】 Connector 【4】 pin SDA 【3】 pin GND 【2】 pin RTV [AV SELECTOR PWB]**	**No.11 5FH MON.** **No.12 SAP VCO**	1. Receive a RF signal (non modulated sound signal) from the antenna terminal. 2. Connect between pin【4】of【MPX】connector and GND (Pin【3】of【MPX】connector) through 1MΩ Resistor. 3. Select the "No.11 5FH MON." of the SOUND MODE, and reset the setting value from 0 to 1. 4. Connect the Frequency Counter to pin【2】(R.OUT) of【MPX】connector. 5. Select the "No.12 SAP VCO". 6. Set the initial setting value of "No.12 SAP VCO" with the LEFT/RIGHT key of the menu. 7. Adjust the "No.12 SAP VCO" so that the Frequency Counter will display 78.67kHz±0.5kHz. 8. Select the "No.11 5FH MON." of the SOUND MODE, and reset the setting value from 1 to 0.
MTS FILTER check			**No.8 FILTER**	1. Select the "No.8 FILTER" of the SOUND MODE. 2. Verify that the "No.8 FILTER" is set at its initial setting value.
MTS SEPARATION adjustment	**TV audio multiplex signal generator** **Oscilloscope**	**【MPX】 Connector 【1】 pin LTV 【2】 pin RTV [AV SELECTOR PWB]**	**No.9 LOW SEP.** **No.10 HI SEP.**	1. Input a stereo L signal (300Hz) from the TV audio multiplex signal generator to the antenna terminal. 2. Connect an oscilloscope to pin【1】(L OUT) of【MPX】connector, and display one cycle portion of the 300Hz signal. 3. Change the connection of the oscilloscope to pin【2】(R OUT) of【MPX】connector, and enlarge the voltage axis. 4. Select the "No.9 LOW SEP." of the SOUND MODE. 5. Set the initial setting value of the "No.9 LOW SEP." with the LEFT/RIGHT key of the menu. 6. Adjust the "No.9 LOW SEP." so that the stroke element of the 300Hz signal will become minimum. 7. Change the signal to 3kHz, and similarly adjust the "No.10 HI SEP.".



HOW TO CHECK THE HIGH VOLTAGE HOLD DOWN CIRCUIT

1. HIGH VOLTAGE HOLD DOWN CIRCUIT

After repairing the high voltage hold down circuit shown in Fig. 1.
This circuit shall be checked to operate correctly.

2. CHECKING OF THE HIGH VOLTAGE HOLD DOWN CIRCUIT

(1) Turn the POWER SW ON.
(2) As shown in Fig.2, set the resistor (between 【X】 connector 【1】 & 【3】).
(3) Make sure that the screen picture disappears.
(4) Temporarily unplug the power cord.
(5) Remove the resistor (between 【X】 connector 【1】 & 【3】).
(6) Again plug the power cord, make sure that the normal picture is displayed on the screen.

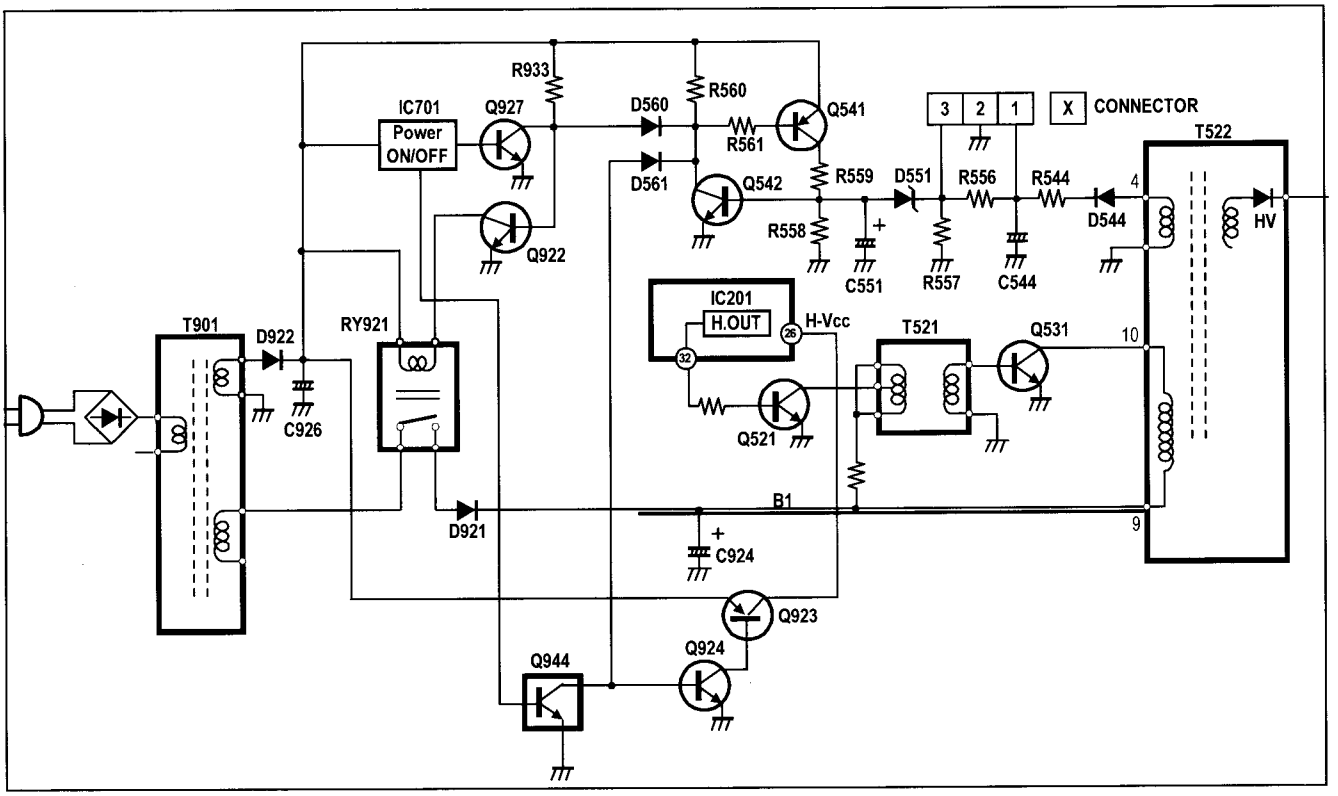


Fig.1

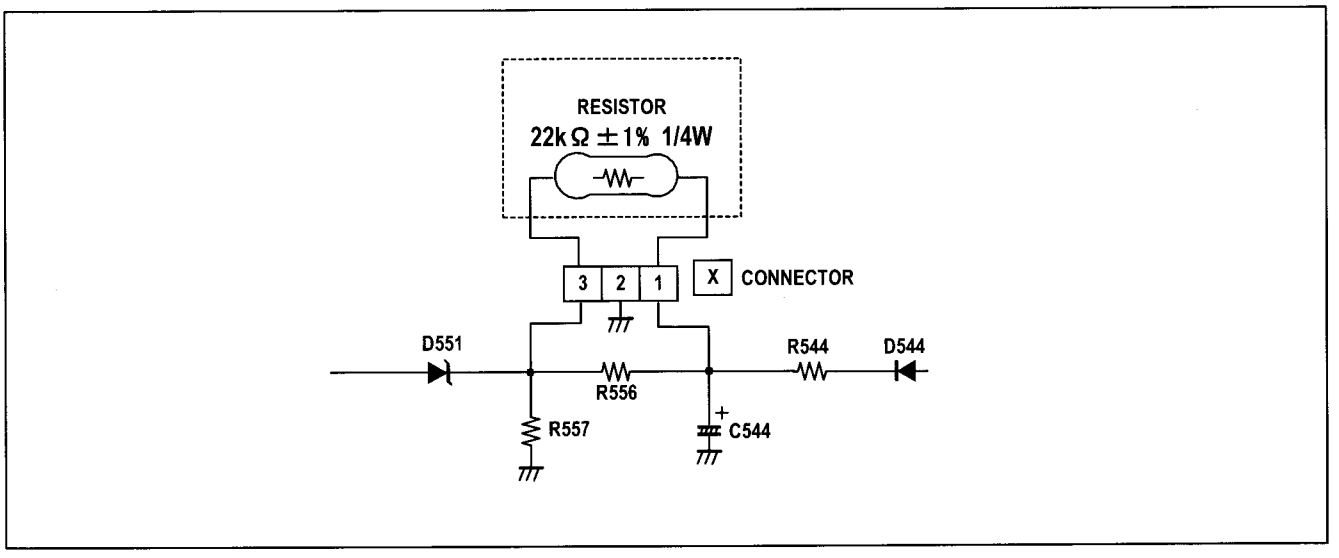


Fig.2

SELF CHECK FUNCTIONS

1. Outline

This model has self check functions given below. When a malfunction has been detected, the POWER is turned off and the LED flashes to inform of the failure . The malfunction is detected by the signal input state of the control line connected to the microcomputer.

2. Self check items

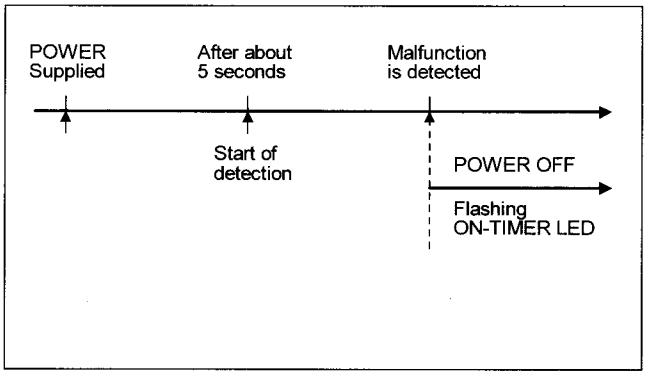
Check item	Details of detection	Method of detection	State of malfunction
Over-current protection (HAZARD)	Operation of B1 protector circuit.	The microcomputer detects at 1 second intervals. If NG is detected for more than 1 ms, a malfunction is interpreted.	When a malfunction has been detected, the POWER is turned off. While the POWER is being turned off , the power key of the remote controller is not operational until the power code is taken out and put in again.

3. Self check indicating function

The self-check function begins detection about 5 seconds after power is supplied.

In the event a malfunction is detected, the power is cut off immediately.

At this time, the ON-TIMER LED flashes to inform of the malfunction.



[ON-TIMER LED indication]

The ON-TIMER LED flashes at 0.5 seconds intervals.

REPLACEMENT OF CHIP COMPONENT

■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

■ SOLDERING IRON

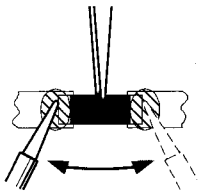
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

■ REPLACEMENT STEPS

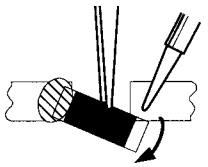
1. How to remove Chip parts

◆ **Resistors, capacitors, etc.**

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



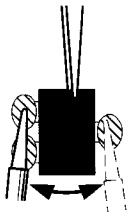
(2) Shift with tweezers and remove the chip part.



◆ **Transistors, diodes, variable resistors, etc.**

(1) Apply extra solder to each lead.

(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

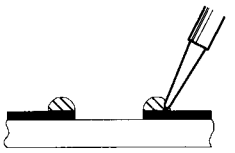


Note : After removing the part, remove remaining solder from the pattern.

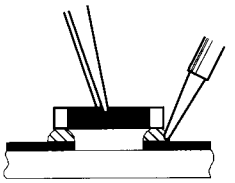
2. How to install Chip parts

◆ **Resistors, capacitors, etc.**

(1) Apply solder to the pattern as indicated in the figure.



(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

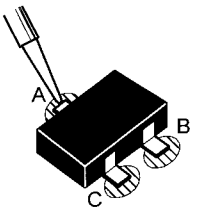


◆ **Transistors, diodes, variable resistors, etc.**

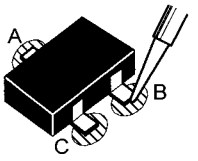
(1) Apply solder to the pattern as indicated in the figure.

(2) Grasp the chip part with tweezers and place it on the solder.

(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



AV-36050(PH) STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Color bar signal
(2)Setting positions of each knob/button and variable resistor	:Original setting position when shipped
(3)Internal resistance of tester	:DC 20kΩ/V
(4)Oscilloscope sweeping time	:H ⇒ 20μS/div :V ⇒ 5mS/div :Others ⇒ Sweeping time is specified
(5)Voltage values	:All DC voltage values

＊Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

●In the PW board :R1209→R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

●Resistance value

No unit	:[Ω]
K	:[KΩ]
M	:[MΩ]

●Rated allowable power

No indication	:1/10 [W]
Others	:As specified

●Type

No indication	:Carbon resistor
OMR	:Oxide metal film resistor
MFR	:Metal film resistor
MPR	:Metal plate resistor
UNFR	:Uninflammable resistor
FR	:Fusible resistor

*Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

●Capacitance value

1 or higher	:[pF]
less than 1	:[μF]

●Withstand voltage

No indication	:DC50[V]
Others	:DC withstand voltage [V]
AC indicated	:AC withstand voltage [V]

*Electrolytic Capacitors

47/50[Example]:Capacitance value [μF]/withstand voltage[V]

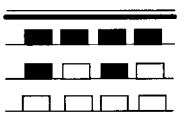
●Type

No indication	:Ceramic capacitor
MY	:Mylar capacitor
MM	:Metalized mylar capacitor
PP	:Polypropylene capacitor
MPP	:Metalized polypropylene capacitor
MF	:Metalized film capacitor
TF	:Thin film capacitor
BP	:Bipolar electrolytic capacitor
TAN	:Tantalum capacitor

(3)Coils

No unit	:[μH]
Others	:As specified

(4)Power Supply



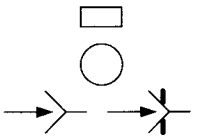
:B1
:B2(12V)
:9V
:5V

*Respective voltage values are indicated

(5)Test point

:Test point
:Only test point display

(6)Connecting method



:Connector
:Wrapping or soldering
:Receptacle

(7)Ground symbol

⊥	:LIVE side ground
⏚	:ISOLATED(NEUTRAL) side ground
⏚	:EARTH ground
▽	:DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇**Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

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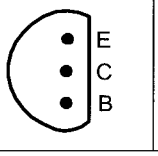
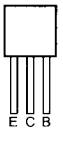
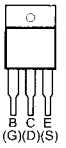
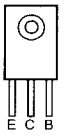
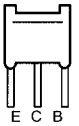
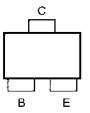
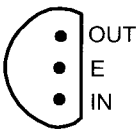
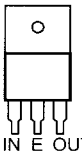
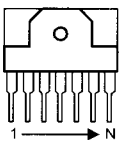
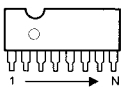
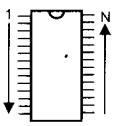
SEMICONDUCTOR SHAPES

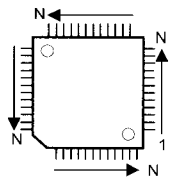
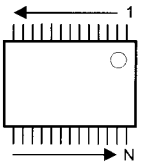
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

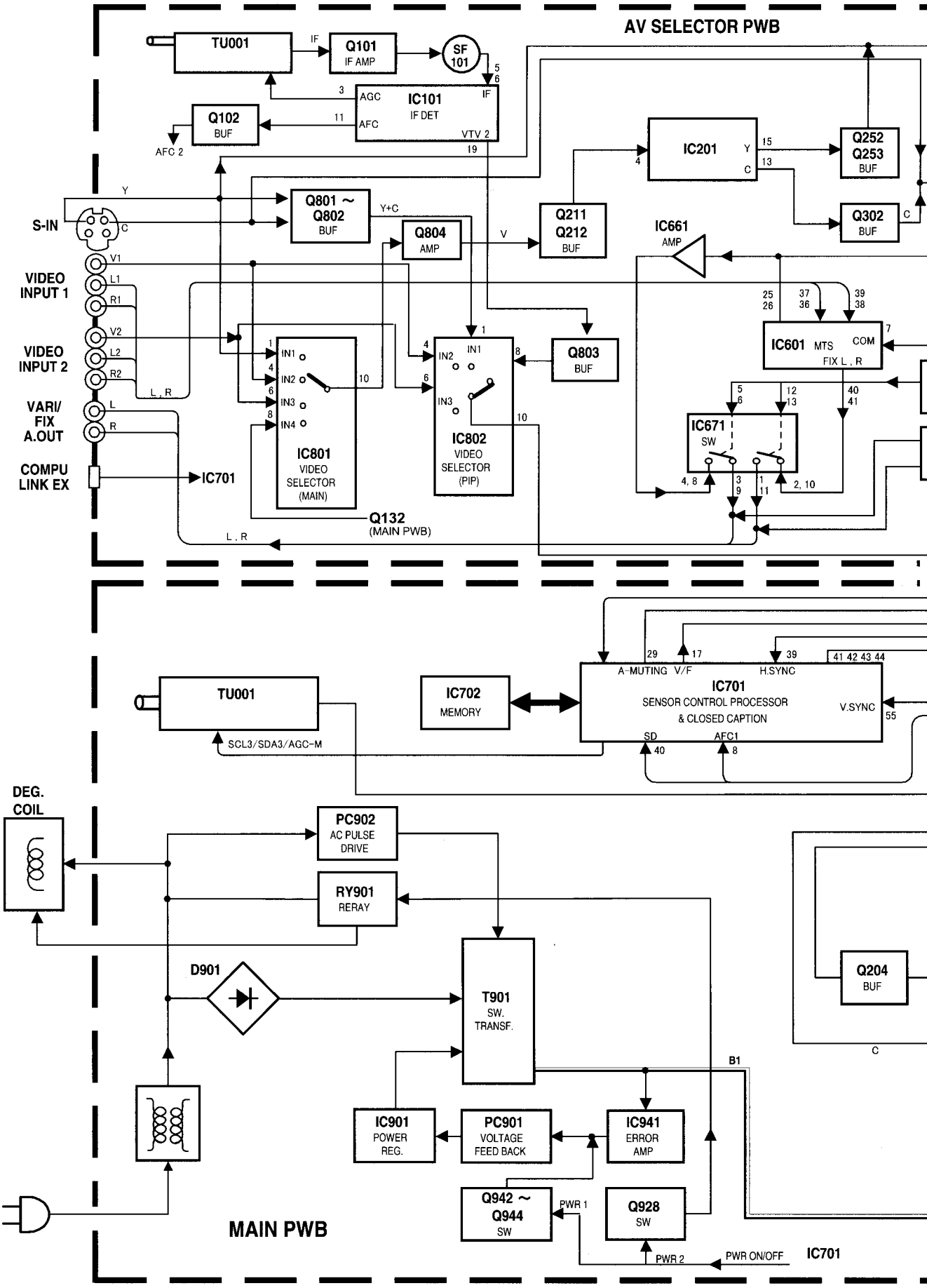
IC

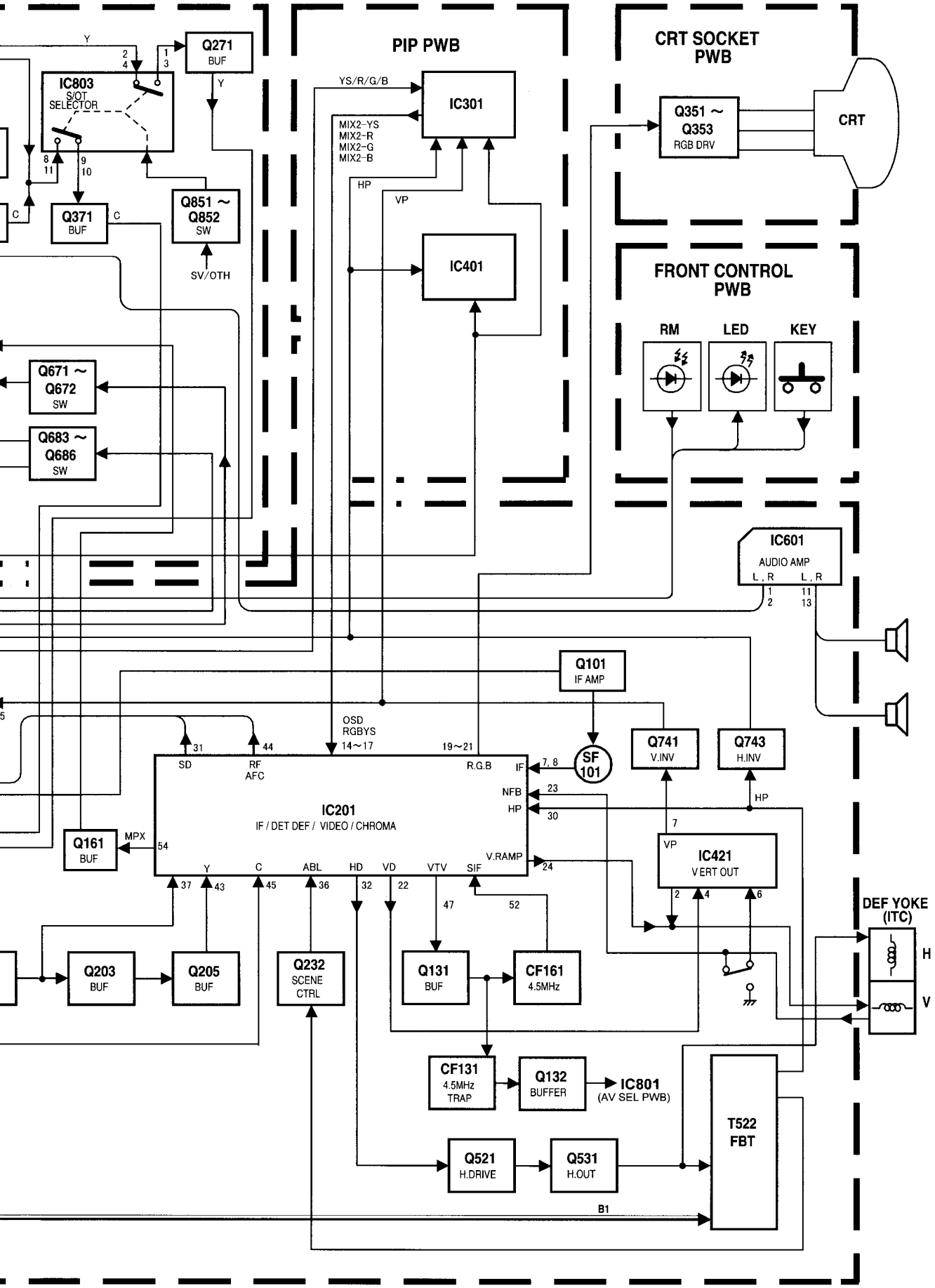
BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

BLOCK DIAGRAM



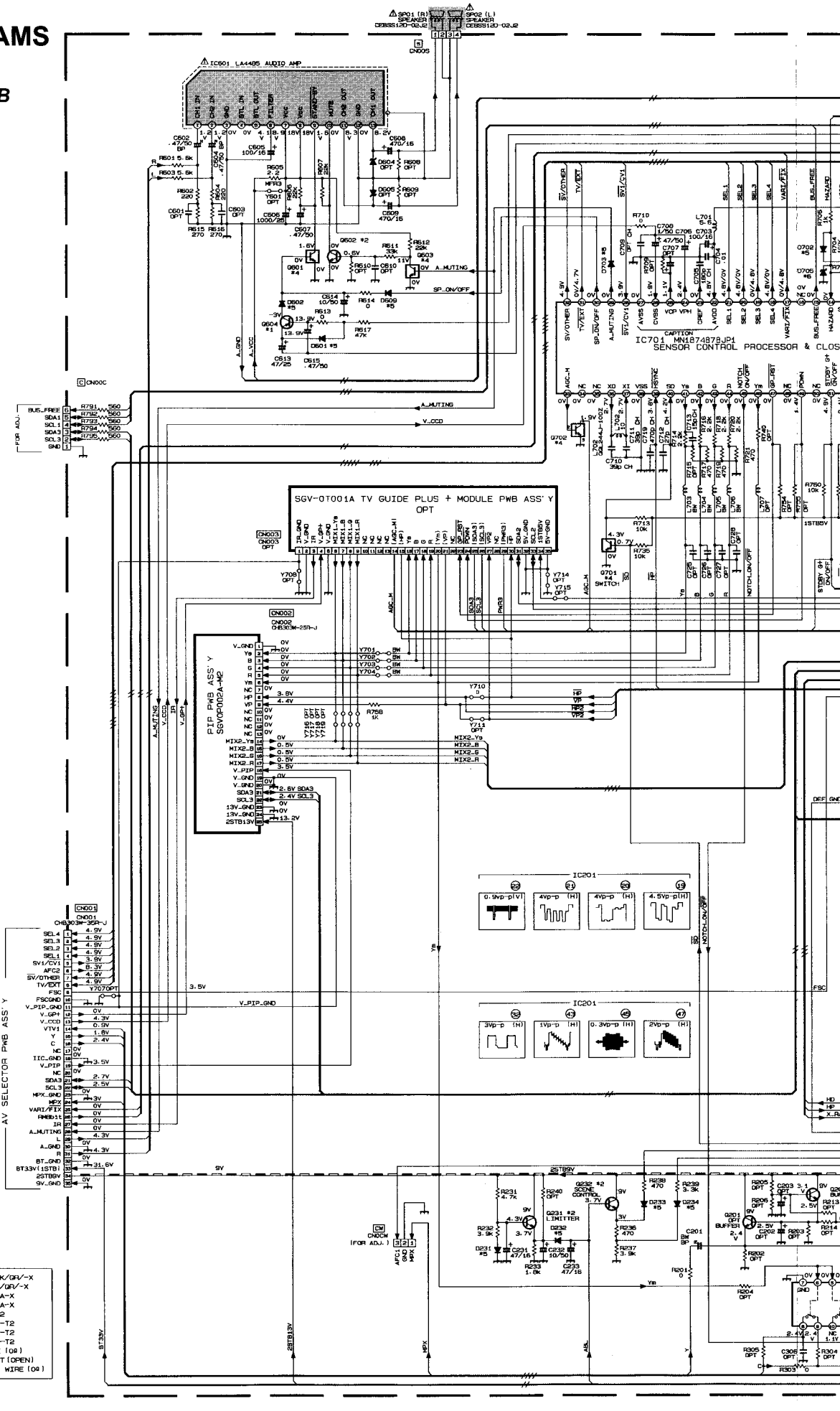

PIP PWB
CRT SOCKET PWB
FRONT CONTROL PWB
IC803
S/OT SELECTOR
Q271
BUF
IC301
YS/R/G/B
MIX2-YS
MIX2-R
MIX2-G
MIX2-B
HP
VP
IC401
Q351 ~ Q353
RGB DRV
CRT
Q371
BUF
Q851 ~ Q852
SW
SV/OTH
RM
LED
KEY
Q671 ~ Q672
SW
Q683 ~ Q686
SW
IC601
AUDIO AMP
Q101
IF AMP
OSD
RGBYS
14~17
19~21
SD
RF AFC
R.G.B
IF
SF 101
Q741
V.INV
Q743
H.INV
NFB
IC201
IF / DET DEF / VIDEO / CHROMA
V.RAMP
IC421
VERT OUT
Q161
BUF
MPX
Y
C
ABL
HD
VD
VTV
SIF
DEF YOKE (ITC)
H
V
Q203
BUF
Q205
BUF
Q232
SCENE CTRL
Q131
BUF
CF161
4.5MHz
CF131
4.5MHz TRAP
Q132
BUFFER
IC801
(AV SEL PWB)
T522
FBT
Q521
H.DRIVE
Q531
H.OUT
B1

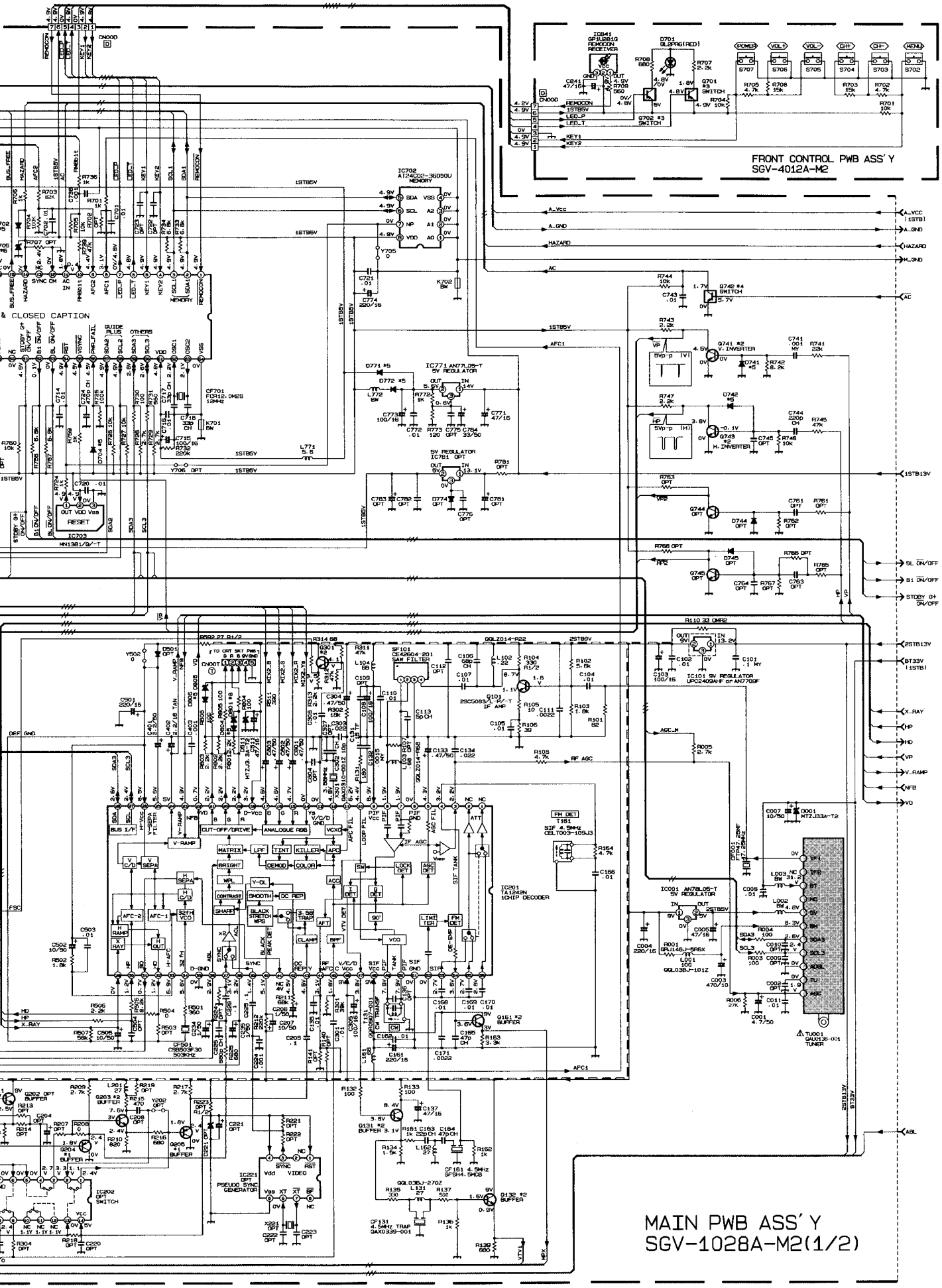
CIRCUIT DIAGRAMS

MAIN PWB &

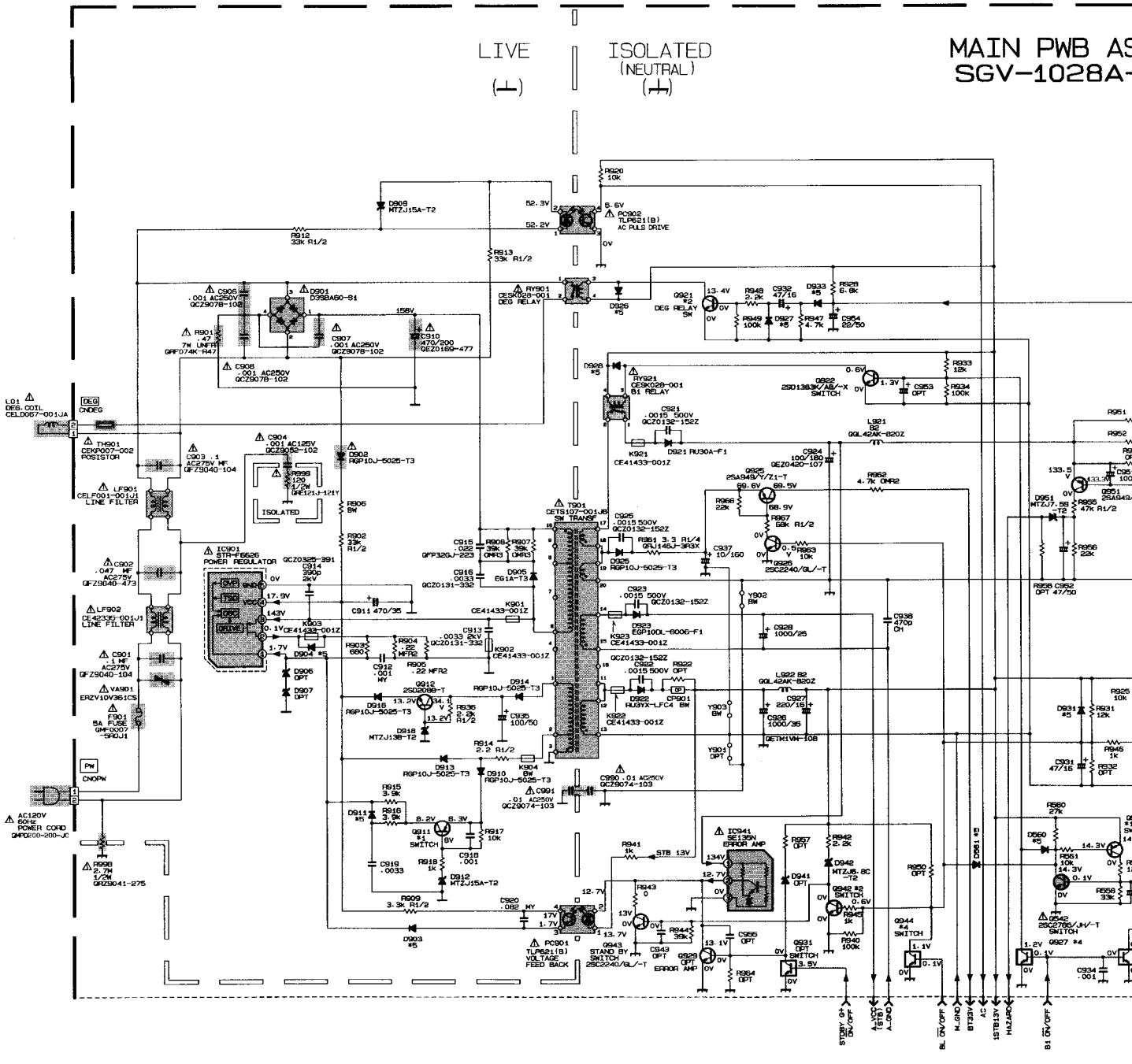
FRONT CONTROL PWB

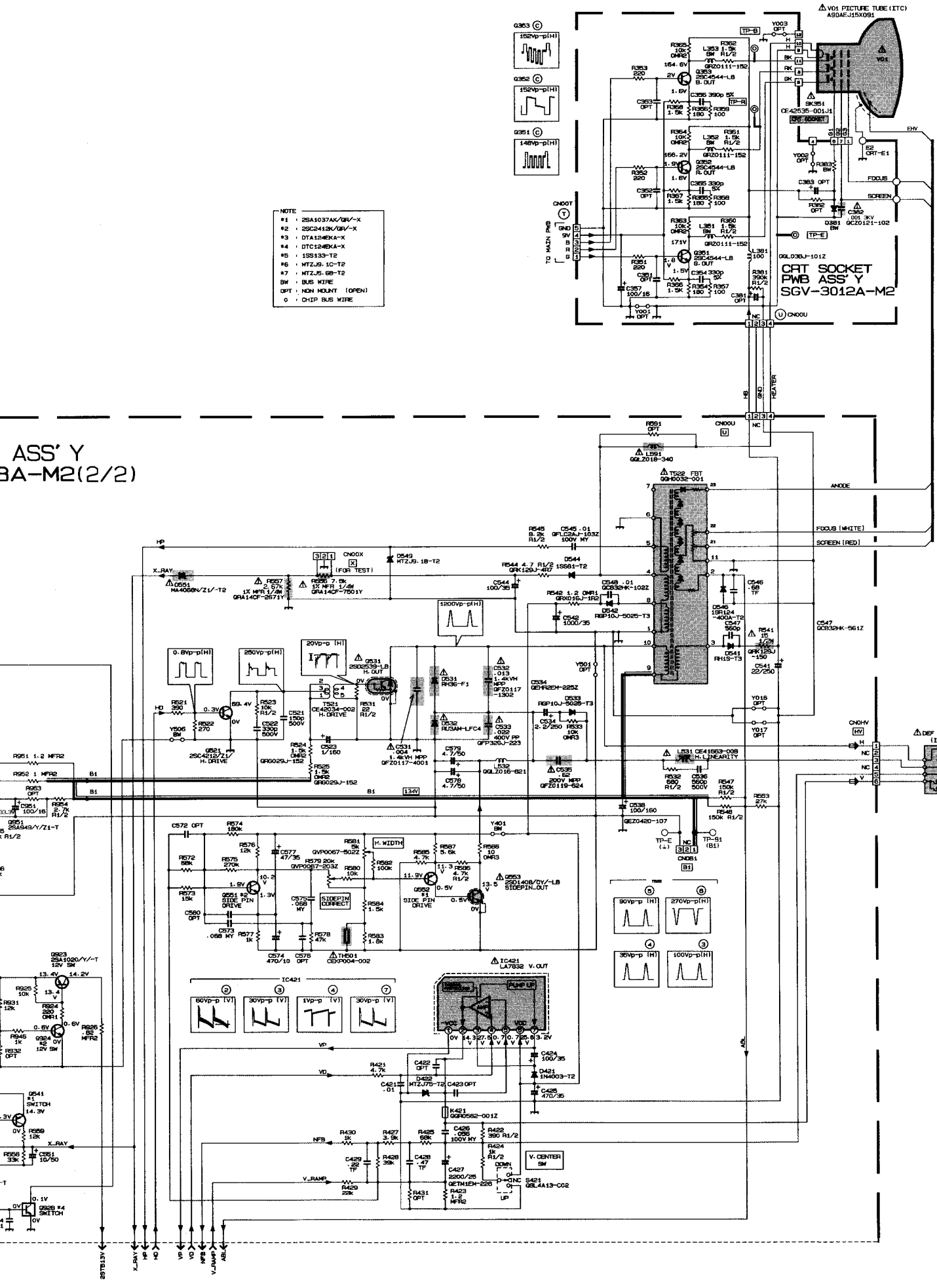
CIRCUIT DIAGRAM



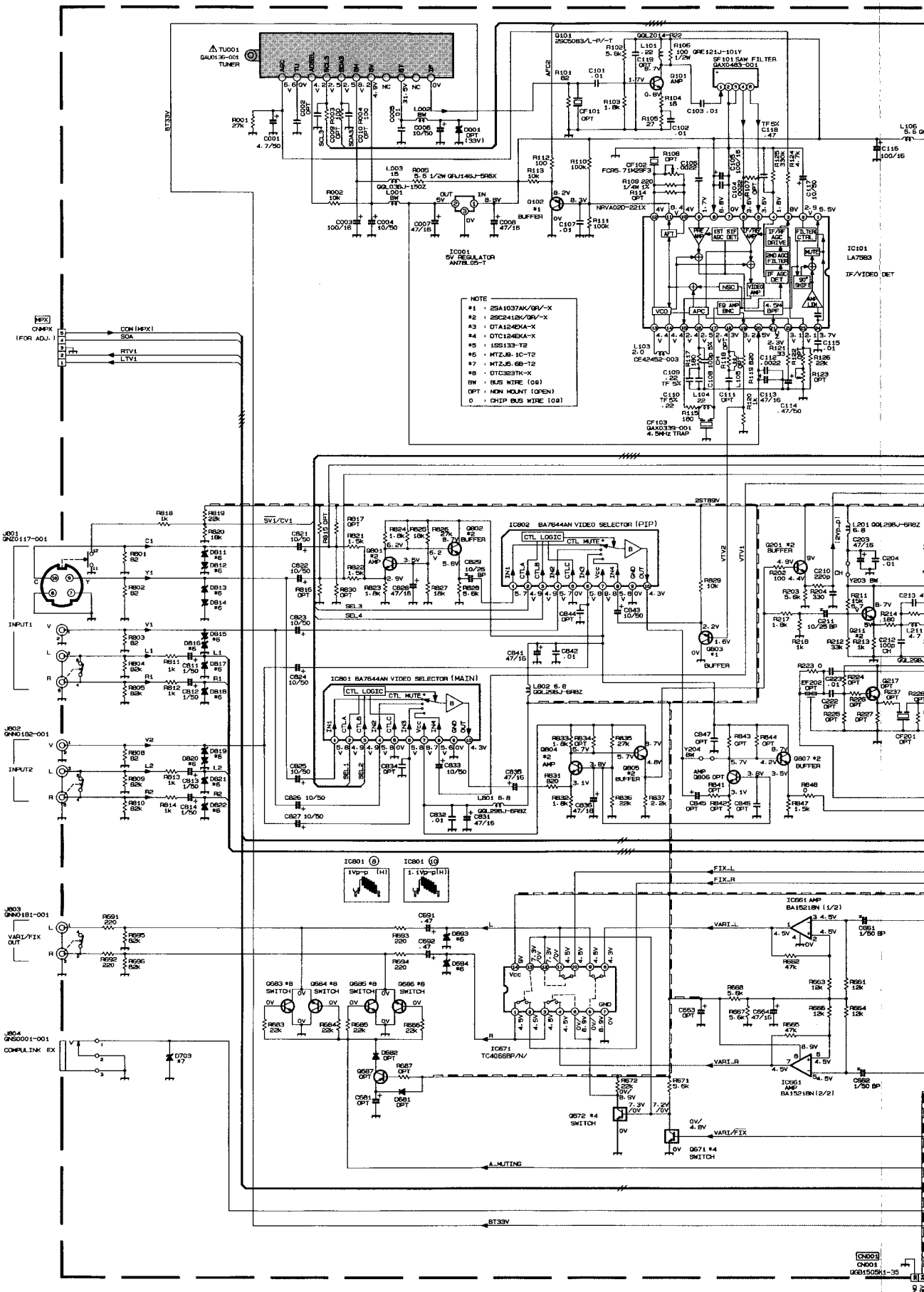

FRONT CONTROL PWB ASS'Y
SGV-4012A-M2
MAIN PWB ASS'Y
SGV-1028A-M2(1/2)

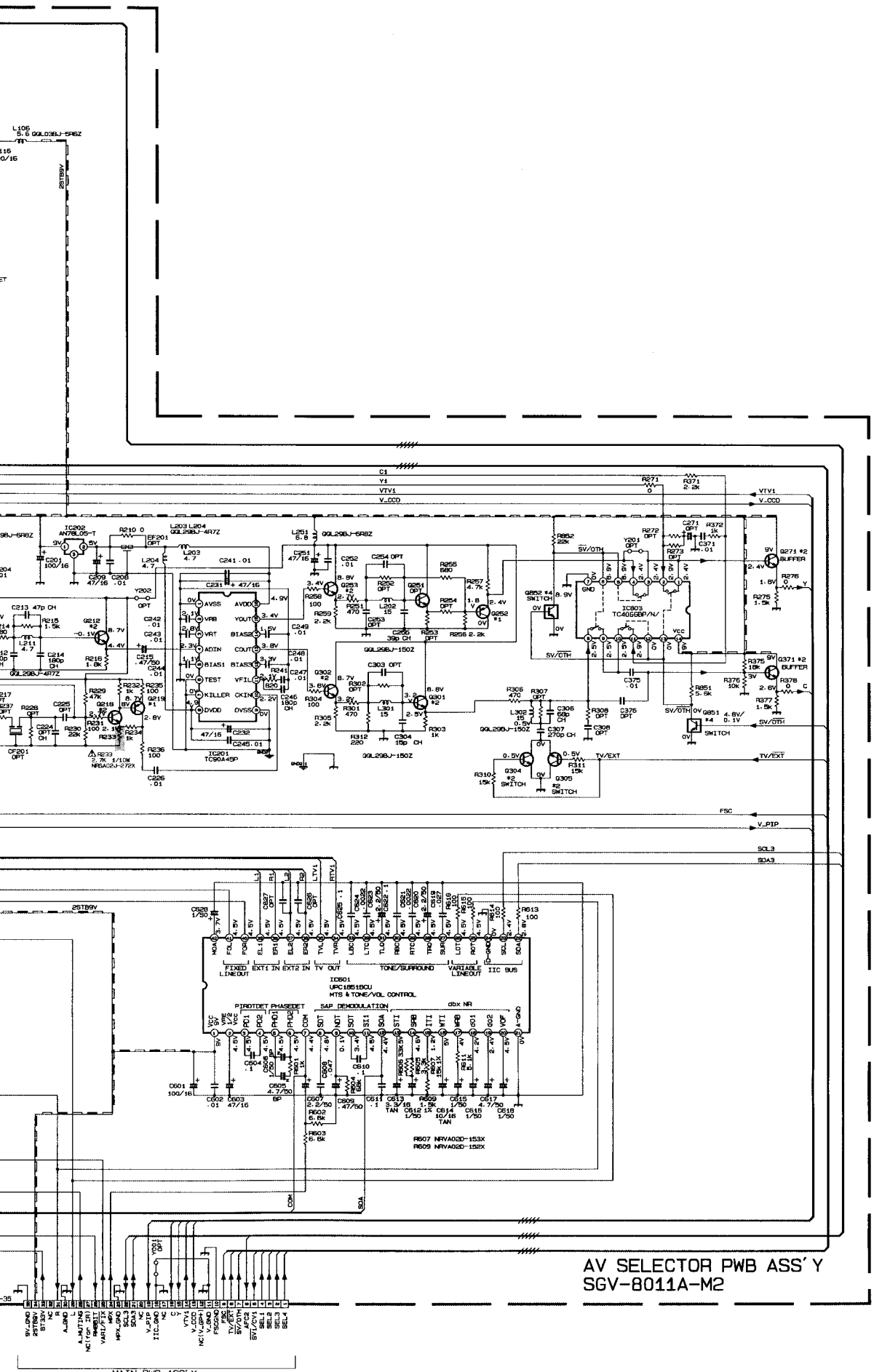
MAIN PWB & CRT SOCKET PWB CIRCUIT DIAGRAM



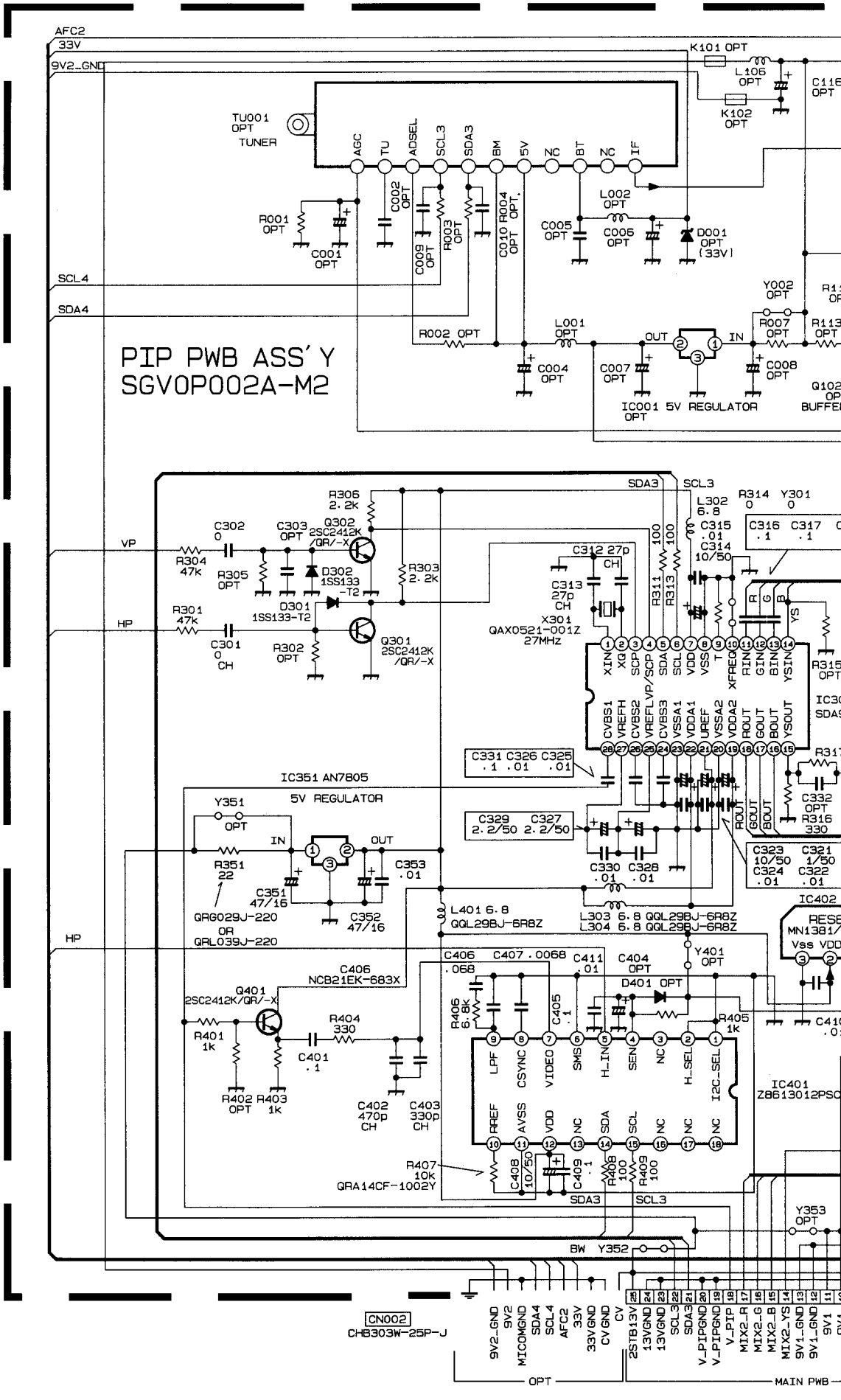

CRT SOCKET PWB ASS' Y SGV-3012A-M2
ASS' Y
BA-M2(2/2)
NOTE
#1 : 2SA1037AK/GR/-X
#2 : 2SC2412K/GR/-X
#3 : DTA124EKA-X
#4 : DTC124EKA-X
#5 : 1SS133-T2
#6 : MTZJ9.1C-T2
#7 : MTZJ5.6B-T2
BW : BUS WIRE
OPT : NON MOUNT (OPEN)
0 : CHIP BUS WIRE
ANODE
FOCUS (WHITE)
SCREEN (RED)
DEF YOKE (ITC)
TO MAIN PWB
HEATER
X_RAY
V_RAMP
V. CENTER SW
SIDEPIN CORRECT
H. WIDTH
SIDE PIN DRIVE
SIDEPIN_OUT
H. DRIVE
H. LINEARITY
V. OUT
SWITCH

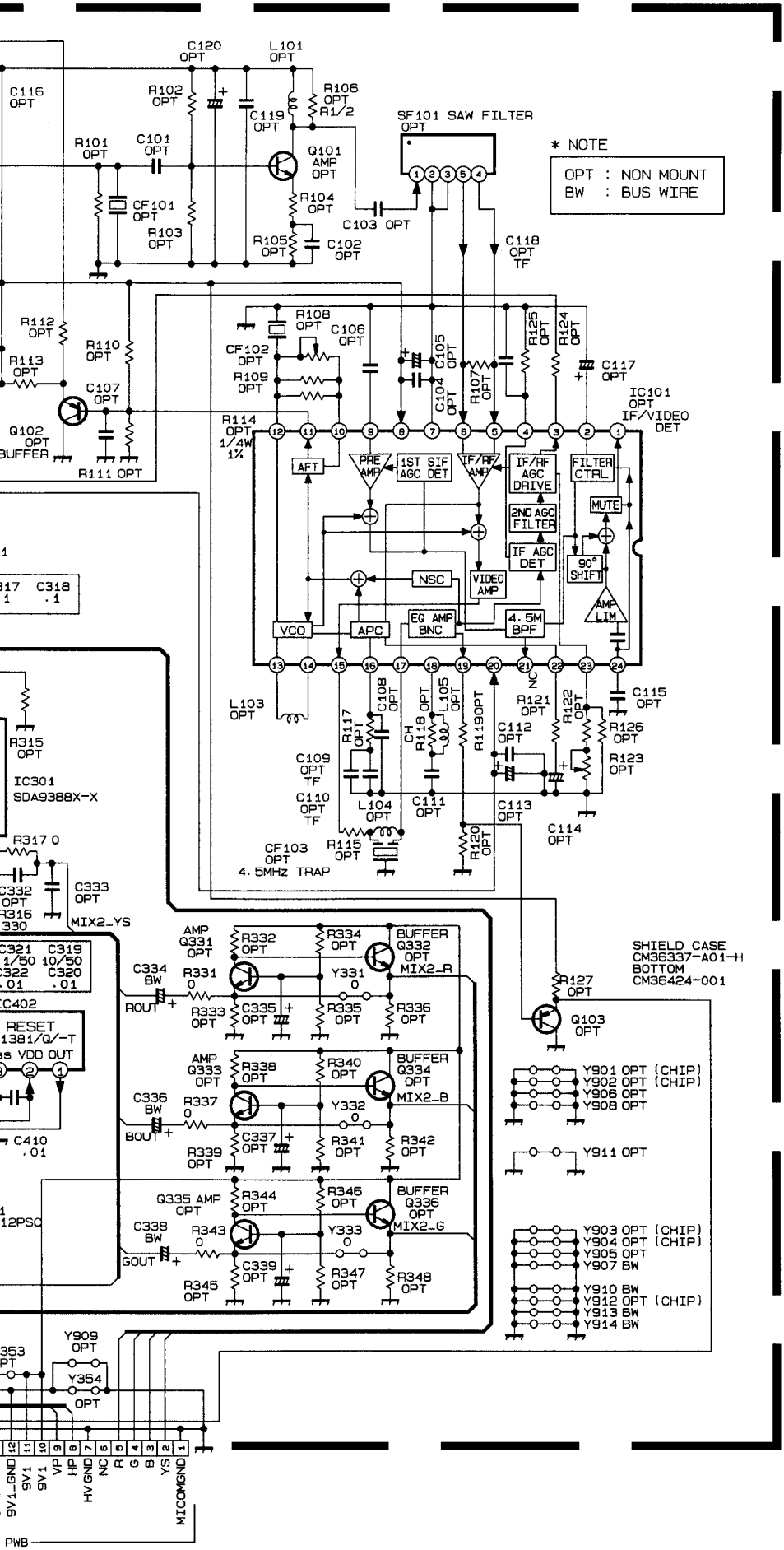
AV SELECTOR PWB CIRCUIT DIAGRAM




AV SELECTOR PWB ASS'Y
SGV-8011A-M2
MAIN PWB ASS'Y

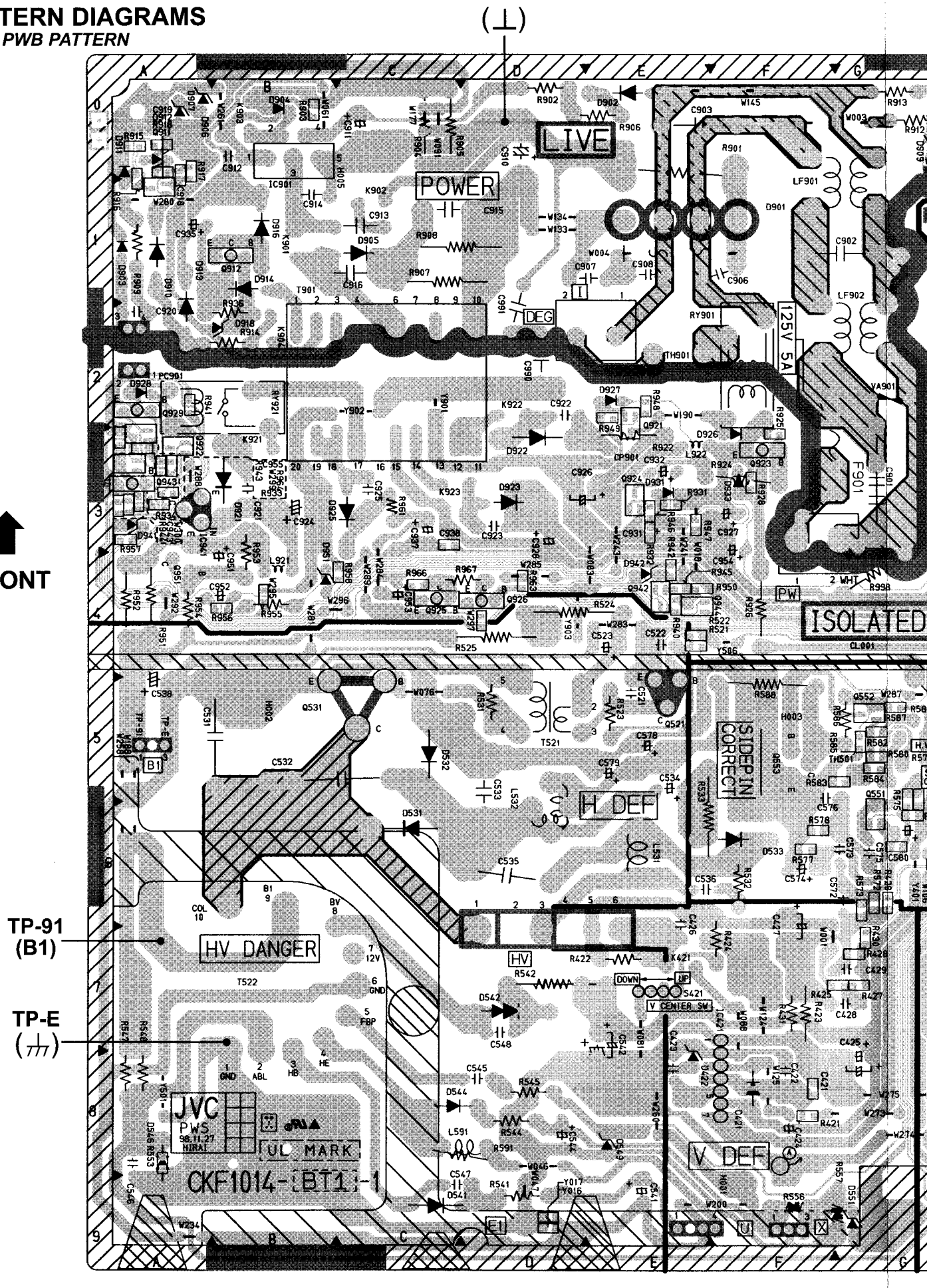
PIP PWB CIRCUIT DIAGRAM

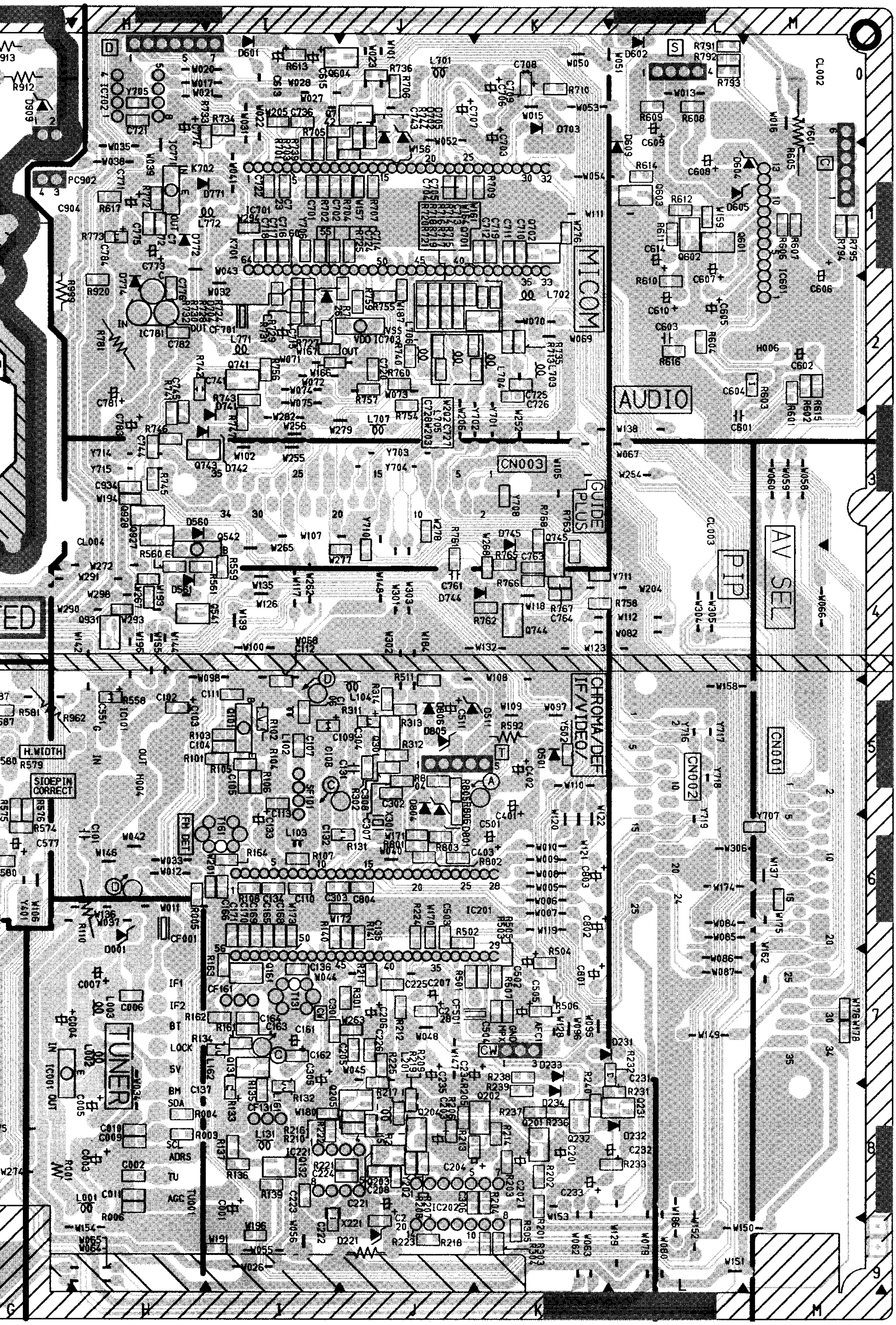



* NOTE
OPT : NON MOUNT
BW : BUS WIRE
SF101 SAW FILTER OPT
IC101 OPT IF/VIDEO DET
IC301 SDA9388X-X
AFT
PRE AMP
1ST SIF AGC DET
IF/RF AMP
IF/RF AGC DRIVE
2ND AGC FILTER
IF AGC DET
FILTER CTRL
MUTE
90° SHIFT
AMP LIM
NSC
VIDEO AMP
VCO
APC
EQ AMP BNC
4.5M BPF
CF103 OPT 4.5MHz TRAP
SHIELD CASE CM36337-A01-H BOTTOM CM36424-001
Q103 OPT
Y901 OPT (CHIP)
Y902 OPT (CHIP)
Y906 OPT
Y908 OPT
Y911 OPT
Y903 OPT (CHIP)
Y904 OPT (CHIP)
Y905 OPT
Y907 BW
Y910 BW
Y912 OPT (CHIP)
Y913 BW
Y914 BW
Y909 OPT
Y354 OPT
9V1_GND
9V1
9V1
VP
HP
HV GND
NC
R
G
B
YS
MICOMGND
PWB

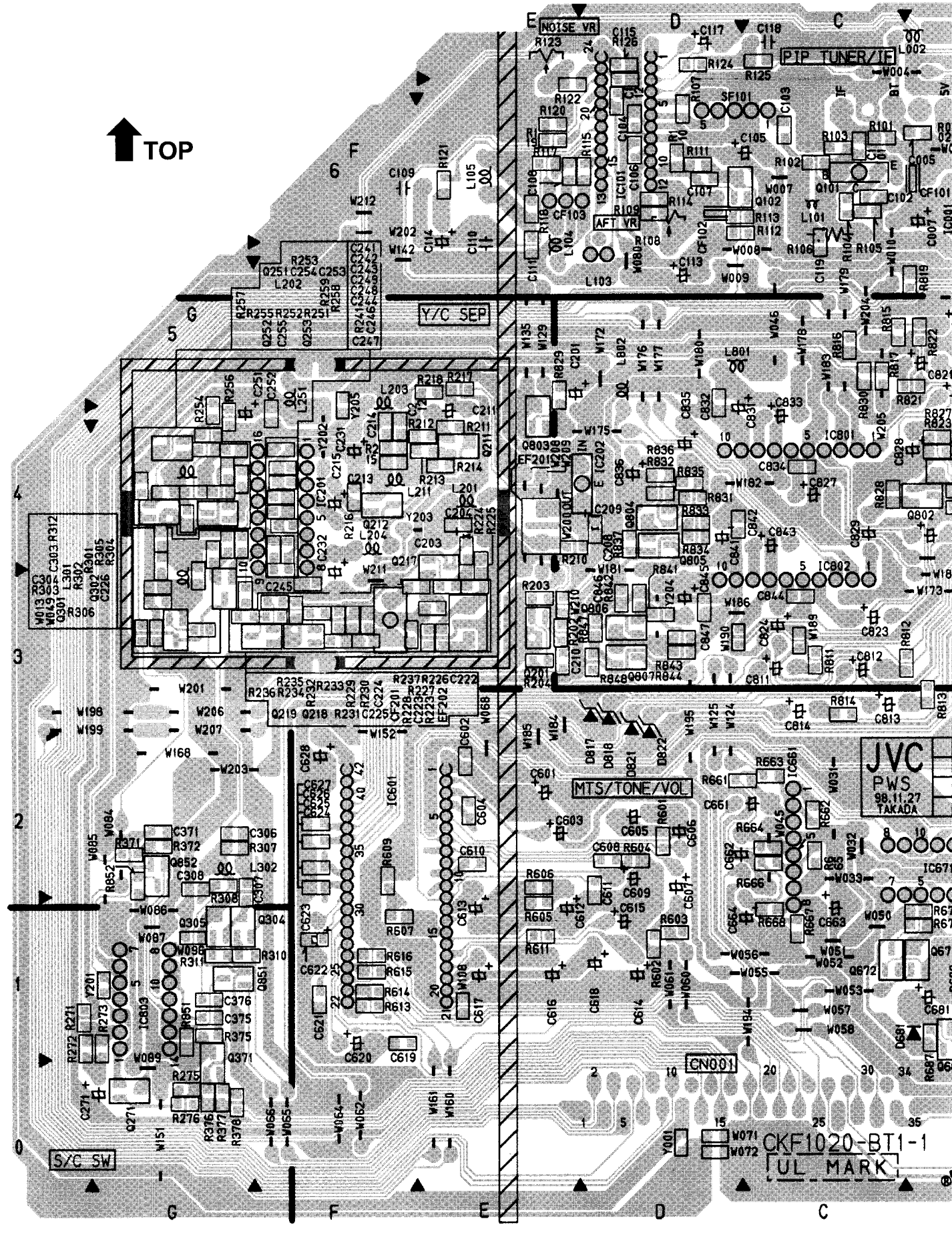
PATTERN DIAGRAMS

MAIN PWB PATTERN

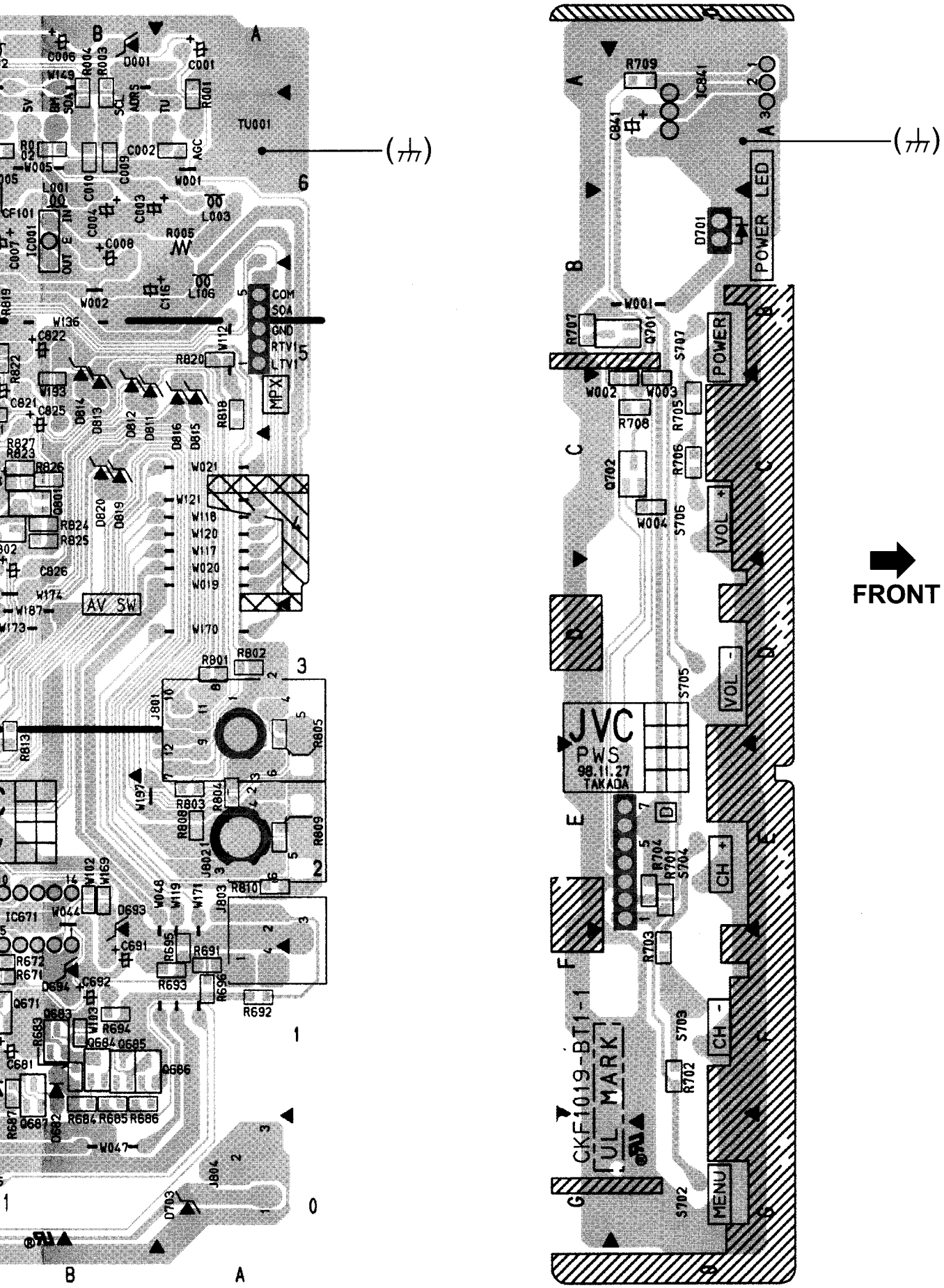



MICOM
AUDIO
CN003
GUIDE PLUS
PIP
AV SEL
CHROMA/DEF IF/VIDEO/
CN002
CN001
TUNER
H.WIDTH
SIDEPIN CORRECT
FM DET

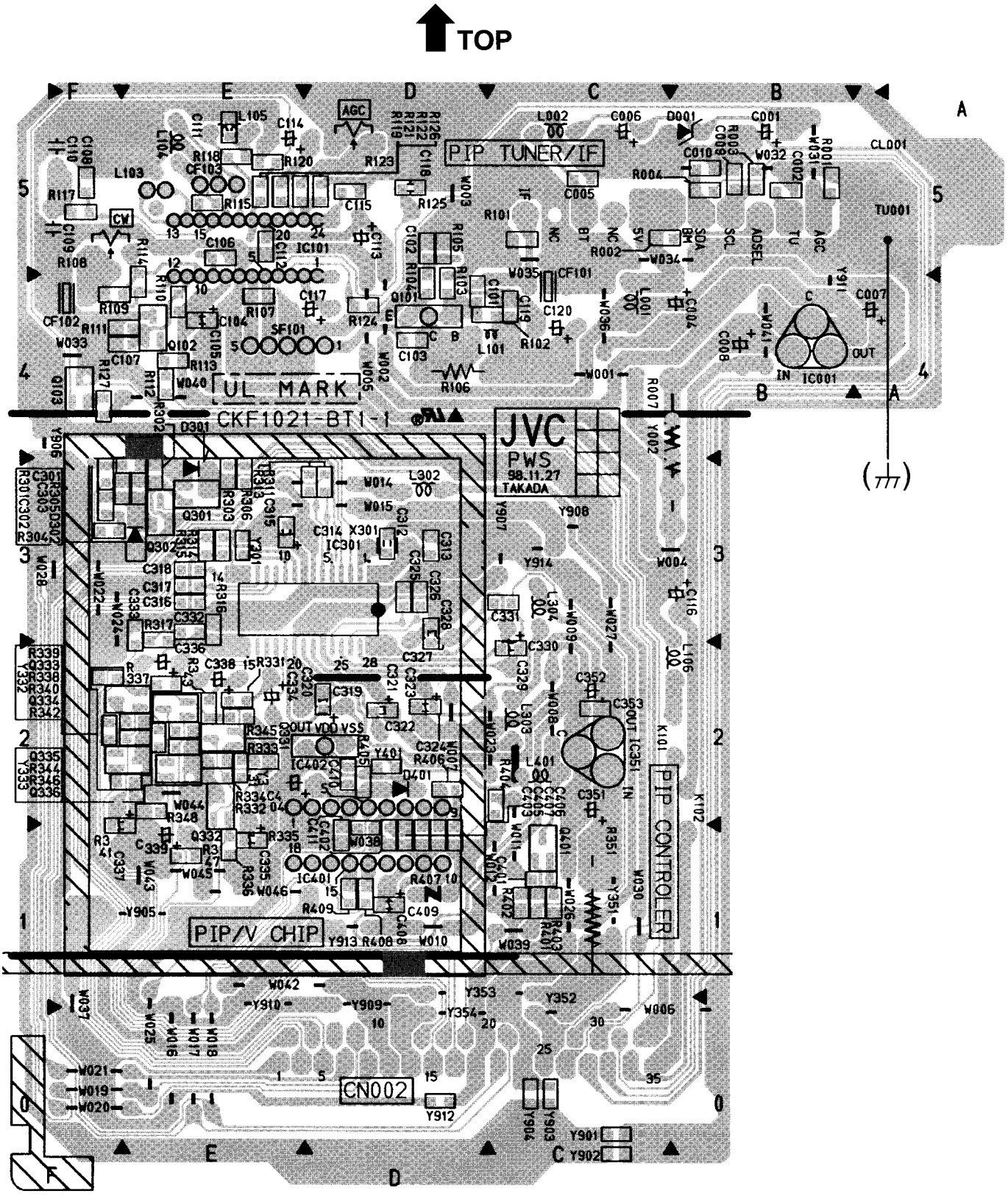
AV SELECTOR PWB PATTERN



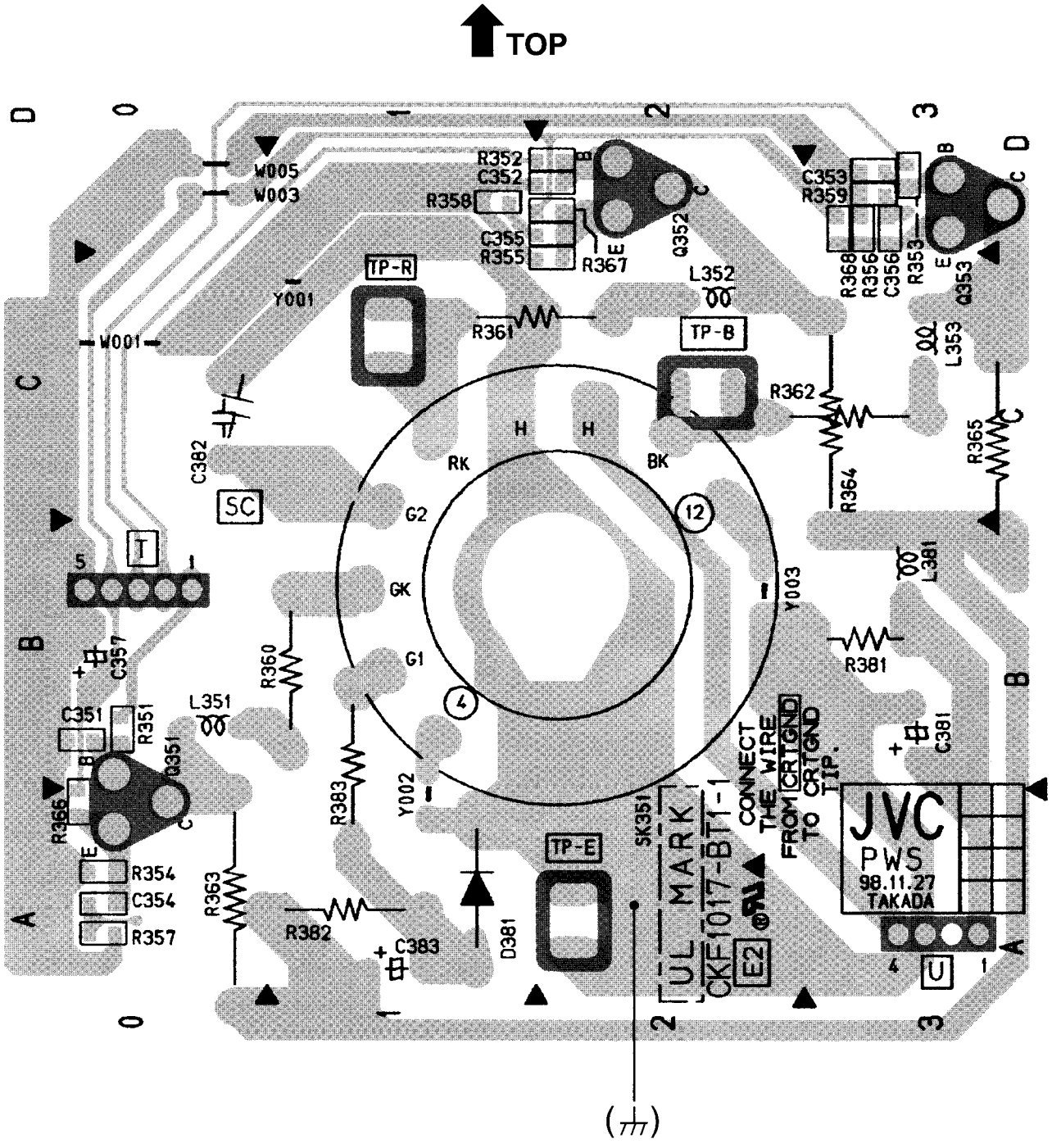
FRONT CONTROL PWB PATTERN



PIP PWB PATTERN



CRT SOCKET PWB PATTERN



CHANNEL CHART

MODE		BAND	CHANNEL	TUNER BAND
TV	CATV		DISP.	
○	○	VL	02 03 04 05 06	I
		VH	07 08 09 10 11 12 13	II
×	○	MID	14 15	I
			16 17 18 19 20 21 22	II
		SUPER	23 24 25 26 27 28 29 30 31 32 33 34 35 36	
		HYPER	37 38 39 40 41 42 43 44 45 46 47	
			48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64	IV
		ULTRA	65 66 67 68 69 70	

MODE		BAND	CHANNEL	TUNER BAND
TV	CATV		DISP.	
×	○	ULTRA	71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125	IV
		SUB MID	01 96 97 98 99	I
○	×	UHF	14 ⟨ 69	IV
TOTAL 180CH { VHF 124CH { UHF 56CH				

NOTE:
TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES.
SPECIAL ADAPTERS MAY BE REQUIRED.

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines —— in the Parts No. columns will not be supplied .
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied .

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS		CAPACITORS	
C R	Carbon Resistor	C CAP.	Ceramic Capacitor
F R	Fusible Resistor	E CAP.	Electrolytic Capacitor
P R	Plate Resistor	M CAP.	Mylar Capacitor
V R	Variable Resistor	HV CAP.	High Voltage Capacitor
HV R	High Voltage Resistor	MF CAP.	Metalized Film Capacitor
MF R	Metal Film Resistor	MM CAP.	Metalized Mylar Capacitor
MG R	Metal Glazed Resistor	MP CAP.	Metalized Polystyrol Capacitor
MP R	Metal Plate Resistor	PP CAP.	Polypropylene Capacitor
OM R	Metal Oxide Film Resistor	PS CAP.	Polystyrol Capacitor
CMF R	Coating Metal Film Resistor	TF CAP.	Thin Film Capacitor
UNF R	Non-Flammable Resistor	MPP CAP.	Metalized Polypropylene Capacitor
CH V R	Chip Variable Resistor	TAN. CAP.	Tantalum Capacitor
CH MG R	Chip Metal Glazed Resistor	CH C CAP.	Chip Ceramic Capacitor
COMP. R	Composition Resistor	BP E CAP.	Bi-Polar Electrolytic Capacitor
LPTC R	Linear Positive Temperature Coefficient Resistor	CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
		CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
		CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
		CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

TOLERANCES									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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- AV SELECTOR PW BOARD ASS'Y ····· 37
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■ PACKING PARTS LIST ····· 42

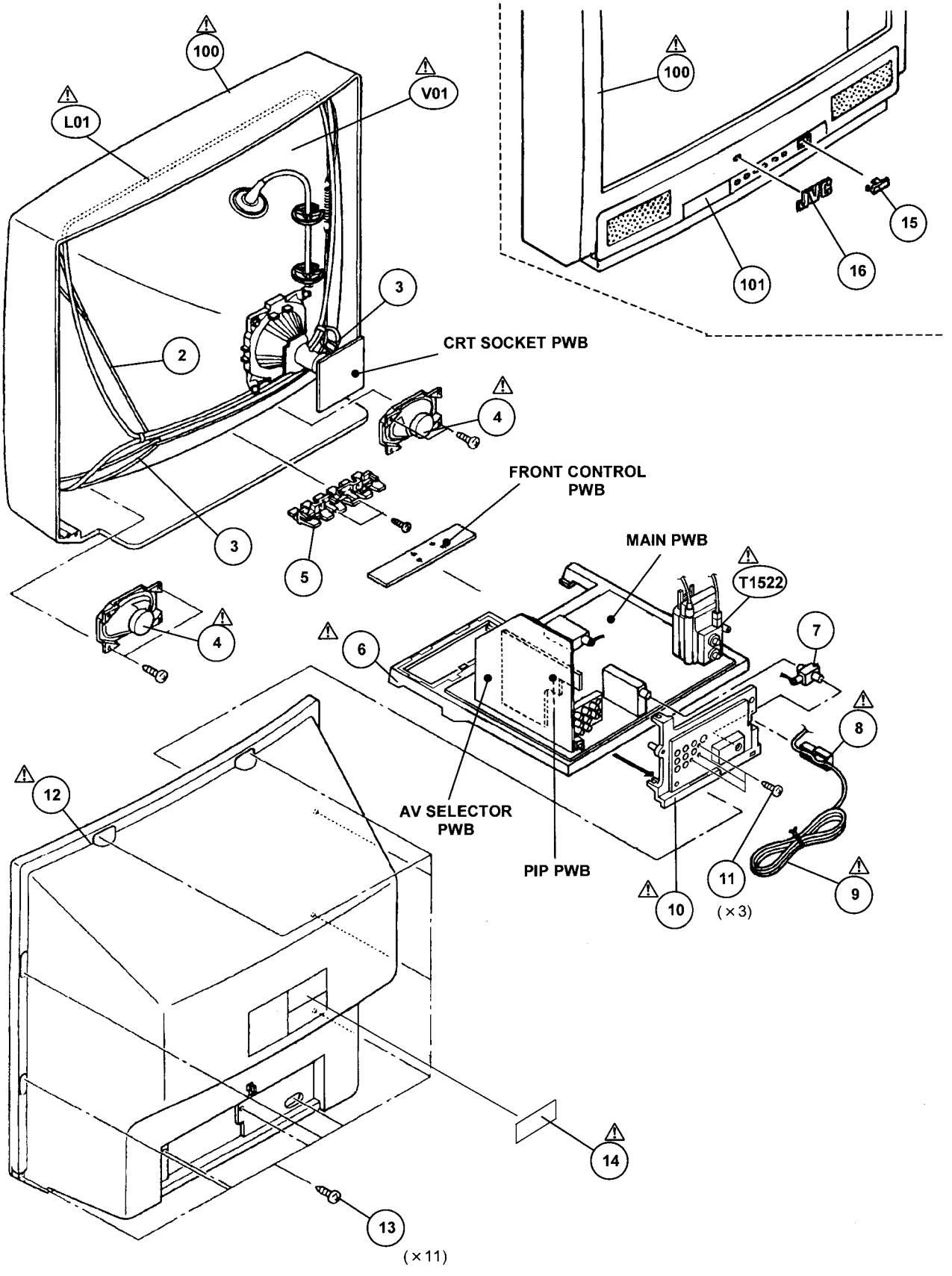
USING P.W. BOARD & REMOTE CONTROL UNIT

Model / P.W.B ASS'Y	AV-36050 (PH)
MAIN P.W.B	SGV-1028A-M2
CRT SOCKET P.W.B	SGV-3012A-M2
FRONT CONTROL P.W.B	SGV-4012A-M2
AV SELECTOR P.W.B	SGV-8011A-M2
PIP P.W.B	SGV0P002A-M2
REMOTE CONTROL UNIT	RM-C341-3A

EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	L01	CELD067-001JA	DEGAUSSING COIL		*
⚠	V01	A90AEJ15X091	PICTURE TUBE(C)	(Inc.DY)	*
⚠	T1522	QQH0032-001	F B T	(Within NAIN PWB)	*
	2	CHGB0027-0A	BRAIDED ASSY		*
	3	CHGB0016-0C	BRAIDED SUB WIRE	(×2)	*
⚠	4	CEBSS12D-02J2	SPEAKER	(×2)SP01,SP02	*
	5	CM35776-B01-H	PUSH KNOB		*
⚠	6	CM12689-B01-VA	CHASSIS BASE		*
	7	CEGA008-001	ANT.SPLITTER		*
⚠	8	CM48140-A03-A	CORD CLAMP		*
⚠	9	QMPD200-200-JC	POWER CORD	CN10PW (Within MAIN PWB)	
⚠	10	LC20087-002C-A	TERMINAL BOARD		*
	11	QYSBSB3010Z	TAPPING SCREW	(×3)	*
⚠	12	CM12634-D02-MA	REAR COVER		*
	13	QYSBSFG4016Z	TAPPING SCREW	(×11)	*
⚠	14	CM23034-001-A	RATING LABEL		*
	15	CM35983-001-H	REMOCON WINDOW		*
	16	CM46084-A01	BRAND MARK		
⚠	100	CM12747-A0F-MA	FRONT CABINET	(Inc.No.101)	*
	101	CM36162-006-A	DOOR		

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST

MAIN PW BOARD ASS'Y (SGV-1028A-M2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
	VARIABLE RESISTOR				
	R1579	QVP0067-203Z	VR(SIDEPIN CORRECT)	20kΩ	*
	R1581	QVP0067-502Z	V R(H.WIDTH)	5kΩ	*
	RESISTOR				
	R1001	QRJ146J-5R6X	C R	5.6Ω 1/4W J	*
	R1003-04	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R1005	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
	R1006	NRSA02J-273X	MG R	27kΩ 1/10W J	*
	R1101	NRSA02J-820X	MG R	82Ω 1/10W J	*
	R1102	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
	R1103	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
	R1104	QRE121J-331Y	C R	330Ω 1/2W J	*
	R1105	NRSA02J-100X	MG R	10Ω 1/10W J	*
	R1106	NRSA02J-390X	MG R	39Ω 1/10W J	*
	R1108	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R1110	QRL029J-330	OM R	33Ω 2W J	*
	R1131	NRSA02J-181X	MG R	180Ω 1/10W J	*
	R1132-33	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R1134	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
	R1135	NRSA02J-331X	MG R	330Ω 1/10W J	*
	R1136	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1137	NRSA02J-561X	MG R	560Ω 1/10W J	*
	R1139	NRSA02J-681X	MG R	680Ω 1/10W J	*
	R1161-62	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1163	NRSA02J-332X	MG R	3.3kΩ 1/10W J	*
	R1164	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R1201	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R1208	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R1209	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
	R1210	NRSA02J-821X	MG R	820Ω 1/10W J	*
	R1211	NRSA02J-683X	MG R	68kΩ 1/10W J	*
	R1212	NRSA02J-224X	MG R	220kΩ 1/10W J	*
	R1215	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R1216	NRSA02J-681X	MG R	680Ω 1/10W J	*
	R1217	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
	R1225	NRSA02J-681X	MG R	680Ω 1/10W J	*
	R1231	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R1232	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
	R1233	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
	R1236	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R1237	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
	R1238	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R1239	NRSA02J-332X	MG R	3.3kΩ 1/10W J	*
	R1301	NRSA02J-393X	MG R	39kΩ 1/10W J	*
	R1302	NRSA02J-183X	MG R	18kΩ 1/10W J	*
	R1303	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R1311-12	NRSA02J-473X	MG R	47kΩ 1/10W J	*
	R1313	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1314	NRSA02J-680X	MG R	68Ω 1/10W J	*
	R1421	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R1422	QRE121J-391Y	C R	390Ω 1/2W J	*
	R1423	QRT029J-1R2	MF R	1.2Ω 2W J	*
	R1424	QRE121J-102Y	C R	1kΩ 1/2W J	*
	R1425	NRSA02J-683X	MG R	68kΩ 1/10W J	*
	R1427	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
	R1428	NRSA02J-393X	MG R	39kΩ 1/10W J	*
	R1429	NRSA02J-223X	MG R	22kΩ 1/10W J	*
	R1430	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1501	NRSA02J-361X	MG R	360Ω 1/10W J	*
	R1502	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
	R1504	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R1505	NRSA02J-822X	MG R	8.2kΩ 1/10W J	*
	R1506	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1507	NRSA02J-563X	MG R	56kΩ 1/10W J	*
	R1511	NRSA02J-391X	MG R	390Ω 1/10W J	*
	R1521	NRSA02J-391X	MG R	390Ω 1/10W J	*
	R1522	NRSA02J-271X	MG R	270Ω 1/10W J	*
	R1523	QRE121J-103Y	C R	10kΩ 1/2W J	*
	R1524-25	QRG029J-152	OM R	1.5kΩ 2W J	*
	R1531	QRE121J-220Y	C R	22Ω 1/2W J	*
	R1532	QRE121J-681Y	C R	680Ω 1/2W J	*
	R1533	QRL039J-103	OM R	10kΩ 3W J	*
⚠	R1541	QRK129J-150	C R	15Ω 1/2W J	*
	R1542	QRX01GJ-1R2	MF R	1.2Ω 1W J	*
	R1544	QRK129J-4R7	C R	4.7Ω 1/2W J	*
	R1545	QRE121J-822Y	C R	8.2kΩ 1/2W J	*
	R1547-48	QRE121J-154Y	C R	150kΩ 1/2W J	*
	R1553	NRSA02J-273X	MG R	27kΩ 1/10W J	*
⚠	R1556	QRA14CF-7501Y	MF R	7.5kΩ 1/4W F	*
⚠	R1557	QRA14CF-2671Y	MF R	2.67kΩ 1/4W F	*
	R1558	NRSA02J-333X	MG R	33kΩ 1/10W J	*
	R1559	NRSA02J-123X	MG R	12kΩ 1/10W J	*
	R1560	NRSA02J-273X	MG R	27kΩ 1/10W J	*
	R1561	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1572	NRSA02J-683X	MG R	68kΩ 1/10W J	*
	R1573	NRSA02J-153X	MG R	15kΩ 1/10W J	*
	R1574	NRSA02J-184X	MG R	180kΩ 1/10W J	*
	R1575	NRSA02J-274X	MG R	270kΩ 1/10W J	*
	R1576	NRSA02J-123X	MG R	12kΩ 1/10W J	*
	R1577	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1578	NRSA02J-473X	MG R	47kΩ 1/10W J	*
	R1580	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1582	NRSA02J-104X	MG R	100kΩ 1/10W J	*
	R1583	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
	R1584	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
	R1585	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R1586	QRE121J-472Y	C R	4.7kΩ 1/2W J	*
	R1587	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
	R1588	QRL039J-100	OM R	10Ω 3W J	*
	R1592	QRE121J-270Y	C R	27Ω 1/2W J	*
	R1601	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
	R1602	NRSA02J-221X	MG R	220Ω 1/10W J	*
	R1603	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
	R1604	NRSA02J-221X	MG R	220Ω 1/10W J	*
	R1605	QRT039J-2R2	MF R	2.2Ω 3W J	*
	R1606-07	NRSA02J-223X	MG R	22kΩ 1/10W J	*
	R1611	NRSA02J-333X	MG R	33kΩ 1/10W J	*
	R1612	NRSA02J-223X	MG R	22kΩ 1/10W J	*
	R1613	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R1614	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R1615-16	NRSA02J-271X	MG R	270Ω 1/10W J	*
	R1617	NRSA02J-473X	MG R	47kΩ 1/10W J	*
	R1701	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1703	NRSA02J-823X	MG R	82kΩ 1/10W J	*
	R1704	NRSA02J-104X	MG R	100kΩ 1/10W J	*
	R1705	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1706	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1710	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R1713	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1714	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1715	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1716	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1717	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R1718	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R1719	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R1720	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1721	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R1724	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1725	NRSA02J-104X	MG R	100kΩ 1/10W J	*
	R1726-27	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1728-29	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
	R1730	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R1731	NRSA02J-561X	MG R	560Ω 1/10W J	*
	R1732	NRSA02J-224X	MG R	220kΩ 1/10W J	*
	R1733-34	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
	R1735	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1736	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1739	NRSA02J-473X	MG R	47kΩ 1/10W J	*
	R1741	NRSA02J-223X	MG R	22kΩ 1/10W J	*
	R1742	NRSA02J-822X	MG R	8.2kΩ 1/10W J	*
	R1743	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1744	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1745	NRSA02J-473X	MG R	47kΩ 1/10W J	*
	R1746	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1747	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1756-57	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
	R1758-59	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1760	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1772	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1773	NRSA02J-121X	MG R	120Ω 1/10W J	*
	R1791-95	NRSA02J-561X	MG R	560Ω 1/10W J	*
	R1801-03	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1804-06	NRSA02J-101X	MG R	100Ω 1/10W J	*
⚠	R1901	QRF074K-R47	UNF R	0.47 Ω 7W K	*
	R1902	QRE121J-333Y	C R	33kΩ 1/2W J	*
	R1903	NRSA02J-681X	MG R	680Ω 1/10W J	*
	R1904-05	QRT029J-R22	MF R	0.22Ω 2W J	*
	R1907-08	QRL039J-393	OM R	39kΩ 3W J	*
	R1909	QRE121J-332Y	C R	3.3kΩ 1/2W J	*
	R1912-13	QRE121J-333Y	C R	33kΩ 1/2W J	*
	R1914	QRE121J-2R2Y	C R	2.2Ω 1/2W J	*
	R1915-16	NRSA02J-392X	MG R	3.9kΩ 1/10W J	*
	R1917	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1918	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1920	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1924	QRG01GJ-221	OM R	220Ω 1W J	*
	R1925	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1926	QRT029J-R82	MF R	0.82Ω 2W J	*
	R1928	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
	R1931	NRSA02J-123X	MG R	12kΩ 1/10W J	*
	R1933	NRSA02J-123X	MG R	12kΩ 1/10W J	*
	R1934	NRSA02J-104X	MG R	100kΩ 1/10W J	*
	R1936	QRE121J-222Y	C R	2.2kΩ 1/2W J	*
	R1940	NRSA02J-104X	MG R	100kΩ 1/10W J	*
	R1941	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1942	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1943	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R1944	NRSA02J-393X	MG R	39kΩ 1/10W J	*
	R1945-46	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R1947	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R1948	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R1949	NRSA02J-104X	MG R	100kΩ 1/10W J	*
	R1951	QRT029J-1R2	MF R	1.2Ω 2W J	*
	R1952	QRT029J-1R0	MF R	1.0Ω 2W J	*
	R1954	QRE121J-272Y	C R	2.7kΩ 1/2W J	*
	R1955	QRE121J-473Y	C R	47kΩ 1/2W J	*
	R1956	NRSA02J-223X	MG R	22kΩ 1/10W J	*
	R1961	QRJ146J-3R3X	C R	3.3Ω 1/4W J	*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R1962	QRL029J-472	OM R	4.7kΩ 2W J	*
	R1963	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R1966	NRSA02J-223X	MG R	22kΩ 1/10W J	*
	R1967	QRE121J-683Y	C R	68kΩ 1/2W J	*
⚠	R1998	QRZ9041-275	C R	2.7MΩ 1/2W K	*
⚠	R1999	QRE121J-121Y	C R	120Ω 1/2W J	*
	CAPACITOR				
	C1001	QETN1HM-475Z	E CAP.	4.7µF 50V M	*
	C1003	QETN1AM-477Z	E CAP.	470µF 10V M	*
	C1004	QETN1CM-227Z	E CAP.	220µF 16V M	*
	C1005	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C1006	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1007	QETN1HM-106Z	E CAP.	10µF 50V M	*
	C1011	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1101	QFLC1HJ-104Z	M CAP.	0.1µF 50V J	*
	C1102	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1103	QETN1CM-107Z	E CAP.	100µF 16V M	*
	C1104-05	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1106	NDC21HJ-680X	C CAP.	68pF 50V J	*
	C1107	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1108	QETN1CM-107Z	E CAP.	100µF 16V M	*
	C1110	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1111	NCB21HK-222X	C CAP.	2200pF 50V K	*
	C1113	NDC21HJ-5R0X	C CAP.	5.0pF 50V J	*
	C1131	QFV71HJ-154Z	MF CAP.	0.15µF 50V J	*
	C1132	QFN31HJ-152Z	M CAP.	1500pF 50V J	*
	C1133	QETN1HM-474Z	E CAP.	0.47µF 50V M	*
	C1134	NCB21HK-223X	C CAP.	0.022µF 50V K	*
	C1135	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1137	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C1161	QETN1CM-227Z	E CAP.	220µF 16V M	*
	C1162	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1163	NDC21HJ-220X	C CAP.	22pF 50V J	*
	C1164-65	NDC21HJ-470X	C CAP.	47pF 50V J	*
	C1166	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1168-70	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1171	NCB21HK-222X	C CAP.	2200pF 50V K	*
	C1205	NCB21HK-104X	CHIP CAP.	0.1µF 50V K	*
	C1206	QETN1HM-105Z	E CAP.	1µF 50V M	*
	C1207	QETN1HM-106Z	E CAP.	10µF 50V M	*
	C1224	NCB21HK-102X	C CAP.	1000pF 50V K	*
	C1225	NCB21HK-104X	CHIP CAP.	0.1µF 50V K	*
	C1226	NDC21HJ-681X	C CAP.	680pF 50V J	*
	C1228	NCB21HK-104X	CHIP CAP.	0.1µF 50V K	*
	C1231	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C1232	QETN1HM-106Z	E CAP.	10µF 50V M	*
	C1233	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C1234-35	QETN1HM-105Z	E CAP.	1µF 50V M	*
	C1301	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1302	NDC21HJ-100X	C CAP.	10pF 50V J	*
	C1303	NCB21HK-223X	C CAP.	0.022µF 50V K	*
	C1304	QETN1HM-474Z	E CAP.	0.47µF 50V M	*
	C1305	QETN1CM-107Z	E CAP.	100µF 16V M	*
	C1308	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1401	QETN1HM-225Z	E CAP.	2.2µF 50V M	*
	C1402	QBHC1CK-225Z	TAN.CAP.	2.2µF 16V K	
	C1403	NCB21HK-102X	C CAP.	1000pF 50V K	*
	C1421	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1424	QETN1VM-107Z	E CAP.	100µF 35V M	*
	C1425	QETN1VM-477Z	E CAP.	470µF 35V M	*
	C1426	QFLC2AK-563Z	M CAP.	0.056µF 100V K	*
	C1427	QETM1EM-228	E CAP.	2200µF 25V M	*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	CAPACITOR				
	C1428	QFV71HJ-474Z	MF CAP.	0.47µF 50V J	*
	C1429	QFV71HJ-224Z	MF CAP.	0.22µF 50V J	*
	C1501	QETN1CM-227Z	E CAP.	220µF 16V M	*
	C1502	QETN1HM-106Z	E CAP.	10µF 50V M	*
	C1503	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1505	QETN1HM-106Z	E CAP.	10µF 50V M	*
	C1511	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C1521	QCB32HK-151Z	C CAP.	150pF 500V K	*
	C1522	QCB32HK-331Z	C CAP.	330pF 500V K	*
	C1523	QETN2CM-105Z	E CAP.	1µF 160V M	*
⚠	C1531	QFZ0117-4001	MPP CAP.	4000pF1.4kVH±2.5%	*
⚠	C1532	QFZ0117-1302	MPP CAP.	0.013µF1.4kVH±2.5%	*
⚠	C1533	QFP32GJ-223	PP CAP.	0.022µF 400V J	*
	C1534	QEHR2EM-225Z	E CAP.	2.2µF 250V M	
⚠	C1535	QFZ0119-624	MPP CAP.	0.62µF 200V ±3%	*
	C1536	QCB32HK-561Z	C CAP.	560pF 500V K	*
	C1538	QEZ0420-107	E CAP.	100µF 160V M	*
	C1541	QETN2EM-226Z	E CAP.	22µF 250V M	*
	C1542	QETM1VM-108	E CAP.	1000µF 35V M	*
	C1544	QETN1VM-107Z	E CAP.	100µF 35V M	*
	C1545	QFLC2AJ-103Z	M CAP.	0.01µF 100V J	*
	C1546	QFV71HJ-684Z	MF CAP.	0.68µF 50V J	*
	C1547	QCB32HK-561Z	C CAP.	560pF 500V K	*
	C1548	QCB32HK-102Z	C CAP.	1000pF 500V K	*
	C1551	QETN1HM-106Z	E CAP.	10µF 50V M	*
	C1573	QFLC1HJ-683Z	M CAP.	0.068µF 50V J	*
	C1574	QETN1AM-477Z	E CAP.	470µF 10V M	*
	C1575	QFLC1HJ-683Z	M CAP.	0.068µF 50V J	*
	C1577	QETN1VM-476Z	E CAP.	47µF 35V M	*
	C1578-79	QEM61HK-475Z	E CAP.	4.7µF 50V K	
	C1602	QENC1HM-474Z	BP E CAP.	0.47µF 50V M	*
	C1604	QENC1HM-474Z	BP E CAP.	0.47µF 50V M	*
	C1605	QETN1CM-107Z	E CAP.	100µF 16V M	*
	C1606	QETN1EM-108Z	E CAP.	1000µF 25V M	*
	C1607	QETN1HM-474Z	E CAP.	0.47µF 50V M	*
	C1608-09	QETN1CM-477Z	E CAP.	470µF 16V M	*
	C1613	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C1614	QETN1HM-106Z	E CAP.	10µF 50V M	*
	C1615	QETN1HM-474Z	E CAP.	0.47µF 50V M	*
	C1701-02	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1703	QETN1CM-107Z	E CAP.	100µF 16V M	*
	C1704	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1705	NDC21HJ-181X	C CAP.	180pF 50V J	*
	C1706	QETN1HM-474Z	E CAP.	0.47µF 50V M	*
	C1708	QETN1HM-105Z	E CAP.	1µF 50V M	*
	C1710-11	NDC21HJ-390X	C CAP.	39pF 50V J	*
	C1712	NDC21HJ-270X	C CAP.	27pF 50V J	*
	C1713	NDC21HJ-150X	C CAP.	15pF 50V J	*
	C1714	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1715	QETN1CM-107Z	E CAP.	100µF 16V M	*
	C1716	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1717-18	NDC21HJ-330X	C CAP.	33pF 50V J	*
	C1719	NDC21HJ-471X	C CAP.	470pF 50V J	*
	C1720-21	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1724	NDC21HJ-471X	C CAP.	470pF 50V J	*
	C1736	NCB21HK-102X	C CAP.	1000pF 50V K	*
	C1741	QFN31HJ-102Z	M CAP.	1000pF 50V J	*
	C1743	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1744	NDC21HJ-221X	C CAP.	220pF 50V J	*
	C1771	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C1772	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C1773	QETN1CM-107Z	E CAP.	100µF 16V M	*
	C1774	QETN1CM-227Z	E CAP.	220µF 16V M	*
	C1784	QETN1HM-336Z	E CAP.	33µF 50V M	*
	C1801-03	QETN1HM-474Z	E CAP.	0.47µF 50V M	*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	CAPACITOR				
⚠	C1901	QFZ9040-104	MF CAP.	0.1µFAC275V M	*
⚠	C1902	QFZ9040-473	MF CAP.	0.047µFAC275V M	*
⚠	C1903	QFZ9040-104	MF CAP.	0.1µFAC275V M	*
⚠	C1904	QCZ9052-102	C CAP.	1000pFAC125V M	*
⚠	C1906	QCZ9078-102	C CAP.	1000pFAC250V M	*
⚠	C1907	QCZ9078-102	C CAP.	1000pFAC250V M	*
⚠	C1908	QCZ9078-102	C CAP.	1000pFAC250V M	*
⚠	C1910	QEZ0169-477	E CAP.	470µF 200V M	*
	C1911	QETN1VM-477Z	E CAP.	470µF 35V M	*
	C1912	QFN31HJ-102Z	M CAP.	1000pF 50V J	*
	C1913	QCZ0131-332	C CAP.	3300pF 2kV K	*
	C1914	QCZ0325-391	C CAP.	390pF 2kV K	*
	C1915	QFP32GJ-223	PP CAP.	0.022µF 400V J	*
	C1916	QCZ0131-332	C CAP.	3300pF 2kV K	*
	C1918	NCB21HK-102X	C CAP.	1000pF 50V K	*
	C1919	NCB21HK-332X	C CAP.	3300pF 50V K	*
	C1920	QFLC1HJ-823Z	M CAP.	0.082µF 50V J	*
	C1921-23	QCZ0132-152Z	C CAP.	1500pF 500V K	*
	C1924	QEZ0420-107	E CAP.	100µF 160V M	*
	C1925	QCZ0132-152Z	C CAP.	1500pF 500V K	*
	C1926	QETM1VM-108	E CAP.	1000µF 35V M	*
	C1927	QETN1CM-227Z	E CAP.	220µF 16V M	*
	C1928	QETN1EM-108Z	E CAP.	1000µF 25V M	*
	C1931-32	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C1934	NCB21HK-102X	C CAP.	1000pF 50V K	*
	C1935	QETN1HM-107Z	E CAP.	100µF 50V M	*
	C1937	QETN2CM-106Z	E CAP.	10µF 160V M	*
	C1938	NDC21HJ-471X	C CAP.	470pF 50V J	*
	C1951	QETN1CM-107Z	E CAP.	100µF 16V M	*
	C1952	QETN1HM-476Z	E CAP.	47µF 50V M	*
	C1954	QETN1HM-226Z	E CAP.	22µF 50V M	*
⚠	C1990	QCZ9074-103	C CAP.	0.01µFAC250V M	*
⚠	C1991	QCZ9074-103	C CAP.	0.01µFAC250V M	*
	TRANSFORMER				
	T1131	QQR0907-001	IFT		*
	T1161	CELT003-109J3	S.I.F.TRANSF.		*
	T1521	CE42034-002	H.DRIVE TRANSF.		*
⚠	T1522	QQH0032-001	F B T		*
⚠	T1901	CETS107-001J8	SW TRANSF.		*
	COIL				
	L1001	QQL03BJ-101Z	COIL	100µH	*
	L1102	QQLZ014-R22	PEAKING COIL	0.22µH	*
	L1103	QQLZ014-R68	PEAKING COIL	0.68µH	*
	L1104	QQL03BJ-680Z	COIL	68µH	*
	L1131	QQL03BJ-270Z	COIL	27µH	*
	L1161	QQL03BJ-680Z	COIL	68µH	*
	L1162	QQL03BJ-220Z	COIL	22µH	*
	L1201	QQL03BJ-270Z	COIL	27µH	*
⚠	L1531	CE41663-00B	LINEARITY COIL		*
	L1532	QQLZ016-821	CHOKE COIL		*
⚠	L1591	QQLZ018-340	HEATER CHOKE		*
	L1701	QQL03BJ-5R6Z	COIL	5.6µH	*
	L1702	QQL244J-100Z	COIL	10µH	*
	L1771	QQL03BJ-5R6Z	COIL	5.6µH	*
	L1921-22	QQL42AK-820Z	COIL	82µH	*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	DIODE				
	D1001	MTZJ33A-T2	ZENER DIODE		*
	D1231-34	1SS133-T2	SI.DIODE		*
	D1421	1N4003-T2	SI.DIODE		*
	D1422	MTZJ75-T2	ZENER DIODE		*
	D1511	MTZJ3.3A-T2	ZENER DIODE		*
⚠	D1531	RH3G-F1	SI.DIODE		*
⚠	D1532	RU3AM-LFC4	SI.DIODE		*
	D1533	RGP10J-5025-T3	SI.DIODE		*
	D1541	RH1S-T3	SI.DIODE		*
	D1542	RGP10J-5025-T3	SI.DIODE		*
	D1544	1SS81-T2	SI.DIODE		*
	D1546	1SR124-400A-T2	SI.DIODE		*
	D1549	MTZJ9.1B-T2	ZENER DIODE		*
⚠	D1551	MA4068N/Z1/-T2	ZENER DIODE		*
	D1560-61	1SS133-T2	SI.DIODE		*
	D1601-02	1SS133-T2	SI.DIODE		*
	D1609	1SS133-T2	SI.DIODE		*
	D1702-04	1SS133-T2	SI.DIODE		*
	D1705	MTZJ9.1C-T2	ZENER DIODE		*
	D1741-42	1SS133-T2	SI.DIODE		*
	D1771-72	1SS133-T2	SI.DIODE		*
	D1801	MTZJ5.1B-T2	ZENER DIODE		*
	D1804	1SS133-T2	SI.DIODE		*
⚠	D1901	D3SBA60-S1	BRIDGE DIODE		*
⚠	D1902	RGP10J-5025-T3	SI.DIODE		*
	D1903-04	1SS133-T2	SI.DIODE		*
	D1905	EG1A-T3	SI.DIODE		*
	D1909	MTZJ15A-T2	ZENER DIODE		*
	D1910	RGP10J-5025-T3	SI.DIODE		*
	D1911	1SS133-T2	SI.DIODE		*
	D1912	MTZJ15A-T2	ZENER DIODE		*
	D1913-14	RGP10J-5025-T3	SI.DIODE		*
	D1916	RGP10J-5025-T3	SI.DIODE		*
	D1918	MTZJ13B-T2	ZENER DIODE		*
	D1921	RU3OA-F1	SI.DIODE		*
	D1922	RU3YX-LFC4	SI.DIODE		*
	D1923	EGP10DL-6006-F1	SI.DIODE		
	D1925	RGP10J-5025-T3	SI.DIODE		*
	D1926-28	1SS133-T2	SI.DIODE		*
	D1931	1SS133-T2	SI.DIODE		*
	D1933	1SS133-T2	SI.DIODE		*
	D1942	MTZJ6.8C-T2	ZENER DIODE		*
	D1951	MTZJ7.5S-T2	ZENER DIODE		*
	TRANSISTOR				
	Q1101	2SC5083/L-P/-T	SI.TRANSISTOR		*
	Q1131-32	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1161	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1203	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1204-05	2SA1037AK/QR/-X	SI.TRANSISTOR		*
	Q1231-32	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1301	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1521	2SC4212/Z1/	SI.TRANSISTOR		*
⚠	Q1531	2SD2539-LB	SI.TRANSISTOR	H.OUT	*
	Q1541	2SA1037AK/QR/-X	SI.TRANSISTOR		*
⚠	Q1542	2SC2785/JH/-T	SI.TRANSISTOR		*
	Q1551	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1552	2SA1037AK/QR/-X	SI.TRANSISTOR		*
⚠	Q1553	2SD1408/OY/-LB	SI.TRANSISTOR		*
	Q1601	DTC124EKA-X	DIGI.TRANSISTOR		*
	Q1602	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1603	DTC124EKA-X	DIGI.TRANSISTOR		*
	Q1604	2SA1037AK/QR/-X	SI.TRANSISTOR		*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	TRANSISTOR				
	Q1701-02	DTC124EKA-X	DIGI.TRANSISTOR		*
	Q1741	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1742	DTC124EKA-X	DIGI.TRANSISTOR		*
	Q1743	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1911	2SA1037AK/QR/-X	SI.TRANSISTOR		*
	Q1912	2SD2088-T	SI.TRANSISTOR		*
	Q1921	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1922	2SD1383K/AB/-X	SI.TRANSISTOR		*
	Q1923	2SA1020/Y/-T	SI.TRANSISTOR		*
	Q1924	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1925	2SA949/Y/Z1-T	SI.TRANSISTOR		*
	Q1926	2SC2240/GL/-T	SI.TRANSISTOR		*
	Q1927-28	DTC124EKA-X	DIGI.TRANSISTOR		*
	Q1942	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q1943	2SC2240/GL/-T	SI.TRANSISTOR		*
	Q1944	DTC124EKA-X	DIGI.TRANSISTOR		*
	Q1951	2SA949/Y/Z1-T	SI.TRANSISTOR		*
	IC				
	IC1001	AN78L05-T	I.C.(MONO-ANA)		*
	IC1101	UPC2409AHF	I.C.(MONO-ANA)		
	IC1201	TA1242N	I.C.(MONO-ANA)		
⚠	IC1421	LA7832	I.C.(MONO-ANA)		*
⚠	IC1601	LA4485	I.C.(MONO-ANA)		*
	IC1701	MN1874878JP1	I.C.(MICRO-COMP)		*
	IC1702	AT24C02-3605OU	I.C.	(SERVICE)	
	IC1703	MN1381/Q/-T	I.C.(MONO-ANA)		*
	IC1771	AN77L05-T	I.C.(MONO-ANA)		*
⚠	IC1901	STR-F6626	I C		
⚠	IC1941	SE135N	I.C.(HYBRID)		*
	OTHERS				
	CF1001	QAX0349-001	CERAMIC FILTER		
	CF1131	QAX0339-001	CERAMIC FILTER		*
	CF1161	SFSH4.5MCB	CERAMIC FILTER		*
	CF1501	CSB503F30-T2	CER.RESONATOR		*
	CF1701	FCR12.0M2S	CER.RESONATOR		*
	CN1001	CHB303W-35R-J	RECEPTACLE		*
⚠	CN1OPW	QMPD200-200-JC	POWER CORD		*
	CN1DEG	CH42145-802T	VH POST HEADER		*
⚠	F1901	QMF0007-5R0J1	FUSE	5.0A	*
	K1421	QQR0582-001Z	BEADS CORE		*
	K1901-03	CE41433-001Z	BEADS CORE		*
	K1921-23	CE41433-001Z	BEADS CORE		*
⚠	LF1901	CELF001-001J1	LINE FILTER		*
⚠	LF1902	CE42335-001J1	LINE FILTER		*
⚠	PC1901	TLP621(B)	I.C.(PH.COUPLER)		*
⚠	PC1902	TLP621(B)	I.C.(PH.COUPLER)		*
⚠	RY1901	CESK028-001	RELAY		*
⚠	RY1921	CESK028-001	RELAY		*
	S1421	QSL4A13-C02	LEVER SWITCH	(V.CENTER SW)	*
	SF1101	CE42604-201	SAW FILTER		
⚠	TH1501	CEKP004-002	P.THERMISTOR		*
⚠	TH1901	CEKP007-002	P.THERMISTOR		*
⚠	TU1001	QAU0136-001	TUNER		*
⚠	VA1901	ERZV10V361CS	VARISTOR		*
	W1156-57	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1159	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1161	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1164	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1166-67	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1170-71	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*

⚠	Symbol No.	Part No.	Part Name	Description	Local
	OTHERS				
	W1175-76	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1178	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1180	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1187	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1191	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1193-94	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1201	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1205	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1263	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1267	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1276-78	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1294-95	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1297	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	W1300	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	X1301	QAX0310-001Z	CRYSTAL		*
	Y1502	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	Y1705	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	Y1710	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*

CRT SOCKET PW BOARD ASS'Y (SGV-3012A-M2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R3351-53	NRSA02J-221X	MG R	220Ω 1/10W J	*
	R3354-56	NRSA02J-181X	MG R	180Ω 1/10W J	*
	R3357-59	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R3360-62	QRZ0111-152	C R	1.5kΩ 1/2W K	*
	R3363-65	QRG029J-103	OM R	10kΩ 2W J	*
	R3366-68	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
	R3381	QRE121J-394Y	C R	390kΩ 1/2W J	*
	CAPACITOR				
	C3354-55	NCS21HJ-331X	C CAP.	330pF 50V J	*
	C3356	NCS21HJ-391X	C CAP.	390pF 50V J	*
	C3357	QETN1CM-107Z	E CAP.	100μF 16V M	*
⚠	C3382	QCZ0121-102	C CAP.	1000pF 3kV Z	*
	COIL				
	L3381	QQL03BJ-101Z	COIL	100μH	*
	TRANSISTOR				
	Q3351-53	2SC4544-LB	SI.TRANSISTOR		*
	OTHERS				
⚠	SK3351	CE42535-001J1	C.R.T.SOCKET		*

FRONT CONTROL PW BOARD ASS'Y (SGV-4012A-M2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R4701	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R4702	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R4703	NRSA02J-153X	MG R	15kΩ 1/10W J	*
	R4704	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R4705	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R4706	NRSA02J-153X	MG R	15kΩ 1/10W J	*
	R4707	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R4708	NRSA02J-681X	MG R	680Ω 1/10W J	*
	R4709	NRSA02J-561X	MG R	560Ω 1/10W J	*
	CAPACITOR				
	C4841	QETN1EM-476Z	E CAP.	47μF 25V M	*
	DIODE				
	D4701	GL2PR6	L.E.D.(RED)		*
	TRANSISTOR				
	Q4701-02	DTA124EKA-X	DIGI.TRANSISTOR		*
	IC				
	IC4841	GP1U281Q	IFR DETECT UNIT		*
	OTHERS				
		CM46978-A01-H	L.E.D.HOLDER		*
	S4702	QSP1A11-C19Z	PUSH SWITCH	(MENU)	*
	S4703	QSP1A11-C19Z	PUSH SWITCH	(CH -)	*
	S4704	QSP1A11-C19Z	PUSH SWITCH	(CH +)	*
	S4705	QSP1A11-C19Z	PUSH SWITCH	(VOL -)	*
	S4706	QSP1A11-C19Z	PUSH SWITCH	(VOL +)	*
	S4707	QSP1A11-C19Z	PUSH SWITCH	(POWER)	*
	W4002-04	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*

AV SELECTOR PW BOARD ASS'Y (SGV-8011A-M2)

⚠	Symbol No.	Part No.	Part Name	Description	Local
	RESISTOR				
	R8001	NRSA02J-273X	MG R	27kΩ 1/10W J	*
	R8002	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R8003-04	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R8005	QRJ146J-5R6X	C R	5.6Ω 1/4W J	*
	R8101	NRSA02J-820X	MG R	82Ω 1/10W J	*
	R8102	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
	R8103	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
	R8104	NRSA02J-180X	MG R	18Ω 1/10W J	*
	R8105	NRSA02J-270X	MG R	27Ω 1/10W J	*
	R8106	QRE121J-101Y	C R	100Ω 1/2W J	*
	R8109	NRVA02D-221X	MF R	220Ω 1/10W D	*
	R8110-11	NRSA02J-104X	MG R	100kΩ 1/10W J	*
	R8112	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R8113	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R8115	NRSA02J-181X	MG R	180Ω 1/10W J	*
	R8117	NRSA02J-181X	MG R	180Ω 1/10W J	*
	R8119	NRSA02J-821X	MG R	820Ω 1/10W J	*
	R8120	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R8121	NRSA02J-330X	MG R	33Ω 1/10W J	*
	R8124	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R8125	NRSA02J-334X	MG R	330kΩ 1/10W J	*
	R8126	NRSA02J-223X	MG R	22kΩ 1/10W J	*
	R8202	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R8203	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
	R8204	NRSA02J-331X	MG R	330Ω 1/10W J	*
	R8210	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R8211	NRSA02J-153X	MG R	15kΩ 1/10W J	*
	R8212	NRSA02J-333X	MG R	33kΩ 1/10W J	*
	R8213	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R8214	NRSA02J-181X	MG R	180Ω 1/10W J	*
	R8215	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
	R8216-17	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
	R8218	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R8223	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R8229	NRSA02J-473X	MG R	47kΩ 1/10W J	*
	R8230	NRSA02J-223X	MG R	22kΩ 1/10W J	*
	R8231	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R8232	NRSA02J-102X	MG R	1kΩ 1/10W J	*
⚠	R8233	NRSA02J-272X	MG R	2.7kΩ 1/10W J	*
	R8234	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R8235-36	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R8241	NRSA02J-821X	MG R	820Ω 1/10W J	*
	R8251	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R8255	NRSA02J-681X	MG R	680Ω 1/10W J	*
	R8256	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
	R8257	NRSA02J-472X	MG R	4.7kΩ 1/10W J	*
	R8258	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R8259	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R8271	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R8275	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
	R8276	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*
	R8301	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R8303	NRSA02J-102X	MG R	1kΩ 1/10W J	*
	R8304	NRSA02J-101X	MG R	100Ω 1/10W J	*
	R8305	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R8306	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R8310-11	NRSA02J-153X	MG R	15kΩ 1/10W J	*
	R8312	NRSA02J-221X	MG R	220Ω 1/10W J	*
	R8371	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
	R8372	NRSA02J-471X	MG R	470Ω 1/10W J	*
	R8375	NRSA02J-183X	MG R	18kΩ 1/10W J	*
	R8376	NRSA02J-103X	MG R	10kΩ 1/10W J	*
	R8377	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
	R8378	NRSA02J-0R0X	MG R	0.0Ω 1/10W J	*

⚠ Symbol No.	Part No.	Part Name	Description	Local
RESISTOR				
R8601	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8602-03	NRSA02J-682X	MG R	6.8kΩ 1/10W J	*
R8604	NRSA02J-683X	MG R	68kΩ 1/10W J	*
R8605	NRSA02J-332X	MG R	3.3kΩ 1/10W J	*
R8606	NRSA02J-333X	MG R	33kΩ 1/10W J	*
R8607	NRVA02D-153X	MF R	15kΩ 1/10W D	*
R8609	NRVA02D-152X	MF R	1.5kΩ 1/10W D	*
R8611	NRSA02J-512X	MG R	5.1kΩ 1/10W J	*
R8613-16	NRSA02J-101X	MG R	100Ω 1/10W J	*
R8661	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R8662	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R8663-64	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R8665	NRSA02J-473X	MG R	47kΩ 1/10W J	*
R8666	NRSA02J-123X	MG R	12kΩ 1/10W J	*
R8667-68	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R8671	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R8672	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R8683-86	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R8691-94	NRSA02J-221X	MG R	220Ω 1/10W J	*
R8695-96	NRSA02J-823X	MG R	82kΩ 1/10W J	*
R8801	NRSA02J-820X	MG R	82Ω 1/10W J	*
R8802	NRSA02J-750X	MG R	75Ω 1/10W J	*
R8803	NRSA02J-820X	MG R	82Ω 1/10W J	*
R8804-05	NRSA02J-823X	MG R	82kΩ 1/10W J	*
R8808	NRSA02J-820X	MG R	82Ω 1/10W J	*
R8809-10	NRSA02J-823X	MG R	82kΩ 1/10W J	*
R8811-14	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8818	NRSA02J-102X	MG R	1kΩ 1/10W J	*
R8819	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R8820	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R8821-22	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
R8823-24	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
R8825	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R8826	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R8827	NRSA02J-183X	MG R	18kΩ 1/10W J	*
R8828	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R8829	NRSA02J-103X	MG R	10kΩ 1/10W J	*
R8831	NRSA02J-821X	MG R	820Ω 1/10W J	*
R8832-33	NRSA02J-182X	MG R	1.8kΩ 1/10W J	*
R8835	NRSA02J-273X	MG R	27kΩ 1/10W J	*
R8836	NRSA02J-223X	MG R	22kΩ 1/10W J	*
R8837	NRSA02J-222X	MG R	2.2kΩ 1/10W J	*
R8847	NRSA02J-152X	MG R	1.5kΩ 1/10W J	*
R8848	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
R8851	NRSA02J-562X	MG R	5.6kΩ 1/10W J	*
R8852	NRSA02J-223X	MG R	22kΩ 1/10W J	*
CAPACITOR				
C8001	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C8003	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8004	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8005	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8006	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8007-08	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8101-03	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8104	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8105	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8106	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8107	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8108	NDC21HJ-101X	C CAP.	100pF 50V J	*
C8109-10	QFV71HJ-224Z	MF CAP.	0.22μF 50V J	*
C8112	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8113	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8115	NCB21HK-103X	C CAP.	0.01μF 50V K	*

⚠ Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR				
C8114	QETN1HM-474Z	E CAP.	0.47μF 50V M	*
C8116	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8117	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8118	QFV71HJ-474Z	MF CAP.	0.47μF 50V J	*
C8201	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8203	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8204	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8208	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8209	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8210	NDC21HJ-221X	C CAP.	220pF 50V J	*
C8211	QENC1EM-106Z	BP E CAP.	10μF 25V M	*
C8212	NDC21HJ-101X	C CAP.	100pF 50V J	*
C8213	NDC21HJ-470X	C CAP.	47pF 50V J	*
C8214	NDC21HJ-181X	C CAP.	180pF 50V J	*
C8215	QETN1HM-474Z	E CAP.	0.47μF 50V M	*
C8223	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8226	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8231-32	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8241-45	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8246	NDC21HJ-181X	C CAP.	180pF 50V J	*
C8247-49	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8251	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8252	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8255	NDC21HJ-390X	C CAP.	39pF 50V J	*
C8304	NDC21HJ-150X	C CAP.	15pF 50V J	*
C8306	NDC21HJ-680X	C CAP.	68pF 50V J	*
C8307	NDC21HJ-271X	C CAP.	270pF 50V J	*
C8371	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8375	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8601	QETN1CM-107Z	E CAP.	100μF 16V M	*
C8602	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8603	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8604	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C8605	QENC1HM-475Z	BP E CAP.	4.7μF 50V M	*
C8606	QENC1HM-105Z	BP E CAP.	1μF 50V M	*
C8607	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C8608	NCB21HK-473X	C CAP.	0.047μF 50V K	*
C8609	QETN1HM-474Z	E CAP.	0.47μF 50V M	*
C8610-11	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C8612	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8613	QBTC1CK-335Z	TAN.CAP.	3.3μF 16V K	
C8614	QBTC1CK-106Z	TAN.CAP.	10μF 16V K	
C8615-16	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8617	QETN1HM-475Z	E CAP.	4.7μF 50V M	*
C8618	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8619	NCB21HK-273X	C CAP.	0.027μF 50V K	*
C8620	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C8621	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8622	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C8623	QETN1HM-225Z	E CAP.	2.2μF 50V M	*
C8624	NCB21HK-222X	C CAP.	2200pF 50V K	*
C8625	NCB21HK-104X	CHIP CAP.	0.1μF 50V K	*
C8628	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8661-62	QENC1HM-105Z	BP E CAP.	1μF 50V M	*
C8664	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8691-92	QETN1HM-474Z	E CAP.	0.47μF 50V M	*
C8811-14	QETN1HM-105Z	E CAP.	1μF 50V M	*
C8821-27	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8828	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8829	QENC1EM-106Z	BP E CAP.	10μF 25V M	*
C8831	QETN1EM-476Z	E CAP.	47μF 25V M	*
C8832	NCB21HK-103X	C CAP.	0.01μF 50V K	*
C8833	QETN1HM-106Z	E CAP.	10μF 50V M	*
C8835-36	QETN1EM-476Z	E CAP.	47μF 25V M	*

⚠	Symbol No.	Part No.	Part Name	Description	Local
CAPACITOR					
	C8841	QETN1EM-476Z	E CAP.	47µF 25V M	*
	C8842	NCB21HK-103X	C CAP.	0.01µF 50V K	*
	C8843	QETN1HM-106Z	E CAP.	10µF 50V M	*
COIL					
	L8003	QQL03BJ-150Z	COIL	15µH	*
	L8101	QQLZ014-R22	PEAKING COIL	0.22µH	*
	L8103	CE42452-003	COIL		*
	L8104	QQL03BJ-220Z	COIL	22µH	*
	L8106	QQL03BJ-5R6Z	COIL	5.6µH	*
	L8201	QQL29BJ-6R8Z	PEAKING COIL	6.8µH	*
	L8202	QQL29BJ-150Z	PEAKING COIL	15µH	*
	L8203-04	QQL29BJ-4R7Z	PEAKING COIL	4.7µH	*
	L8211	QQL29BJ-4R7Z	PEAKING COIL	4.7µH	*
	L8251	QQL29BJ-6R8Z	PEAKING COIL	6.8µH	*
	L8301-02	QQL29BJ-150Z	PEAKING COIL	15µH	*
	L8801-02	QQL29BJ-6R8Z	PEAKING COIL	6.8µH	*
DIODE					
	D8693-94	MTZJ9.1C-T2	ZENER DIODE		*
	D8703	MTZJ5.6B-T2	ZENER DIODE		*
	D8811-22	MTZJ9.1C-T2	ZENER DIODE		*
TRANSISTOR					
	Q8101	2SC5083/L-P/-T	SI.TRANSISTOR		*
	Q8102	2SA1037AK/QR/-X	SI.TRANSISTOR		*
	Q8201	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8211-12	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8218	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8219	2SA1037AK/QR/-X	SI.TRANSISTOR		*
	Q8252	2SA1037AK/QR/-X	SI.TRANSISTOR		*
	Q8253	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8271	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8301-02	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8304-05	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8371	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8671-72	DTC124EKA-X	DIGI.TRANSISTOR		*
	Q8683-86	DTC323TK-X	DIGI.TRANSISTOR		*
	Q8801-02	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8803	2SA1037AK/QR/-X	SI.TRANSISTOR		*
	Q8804-05	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8807	2SC2412K/QR/-X	SI.TRANSISTOR		*
	Q8851-52	DTC124EKA-X	DIGI.TRANSISTOR		*

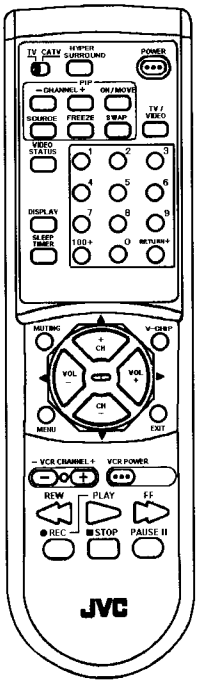
⚠	Symbol No.	Part No.	Part Name	Description	Local
IC					
	IC8001	AN78L05-T	I.C.(MONO-ANA)		*
	IC8101	LA7583	I.C.(MONO-ANA)		*
	IC8201	TC90A45P	I C		
	IC8202	AN78L05-T	I.C.(MONO-ANA)		*
	IC8601	UPC1851BCU	I C		
	IC8661	BA15218N	I.C.(MONO-ANA)		*
	IC8671	TC4066BP/N/	I.C.(DIGI-MOS)		*
	IC8801-02	BA7644AN	I.C.(MONO-ANA)		*
	IC8803	TC4066BP/N/	I.C.(DIGI-MOS)		*
OTHERS					
	CF8102	FCR5.71M2SF3	CER.RESONATOR		*
	CF8103	QAX0339-001	CERAMIC FILTER		*
	CN8001	CHB303W-35P-J	PLUG		*
	J8801	QNZ0117-001	PIN JACK		*
	J8802	QNN0182-001	PIN JACK		*
	J8803	QNN0181-001	PIN JACK		*
	J8804	QNS0001-001	JACK		*
	SF8101	QAX0483-001	SAW FILTER		*
⚠	TU8001	QAU0136-001	TUNER		*
	W8013	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8049	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8071-72	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8096	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8102-03	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8108	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8169	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8189-90	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8193	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*
	W8210	NRSA02J-0ROX	MG R	0.0Ω 1/10W J	*

PIP PW BOARD ASS'Y (SGV0P002A-M2)

⚠	Symbol No.	Part No.	Part Name	Description			Local
RESISTOR							
	R0301	NRSA02J-473X	MG R	47kΩ	1/10W	J	*
	R0303	NRSA02J-222X	MG R	2.2kΩ	1/10W	J	*
	R0304	NRSA02J-473X	MG R	47kΩ	1/10W	J	*
	R0306	NRSA02J-222X	MG R	2.2kΩ	1/10W	J	*
	R0311	NRSA02J-101X	MG R	100Ω	1/10W	J	*
	R0313	NRSA02J-101X	MG R	100Ω	1/10W	J	*
	R0314	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*
	R0316	NRSA02J-331X	MG R	330Ω	1/10W	J	*
	R0317	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*
	R0331	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*
	R0337	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*
	R0343	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*
	R0351	QRG029J-220	OM R	22 Ω	2W	J	*
	R0401	NRSA02J-102X	MG R	1kΩ	1/10W	J	*
	R0403	NRSA02J-102X	MG R	1kΩ	1/10W	J	*
	R0404	NRSA02J-331X	MG R	330Ω	1/10W	J	*
	R0405	NRSA02J-102X	MG R	1kΩ	1/10W	J	*
	R0406	NRSA02J-682X	MG R	6.8kΩ	1/10W	J	*
	R0407	QRA14CF-1002Y	MF R	10kΩ	1/4W	F	*
	R0408-09	NRSA02J-101X	MG R	100Ω	1/10W	J	*
CAPACITOR							
	C0301-02	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*
	C0312-13	NDC21HJ-270X	C CAP.	27pF	50V	J	*
	C0314	QETN1HM-106Z	E CAP.	10μF	50V	M	*
	C0315	NCB21HK-103X	C CAP.	0.01μF	50V	K	*
	C0316-18	NCB21HK-104X	CHIP CAP.	0.1μF	50V	K	*
	C0319	QETN1HM-106Z	E CAP.	10μF	50V	M	*
	C0320	NCB21HK-103X	C CAP.	0.01μF	50V	K	*
	C0321	QETN1HM-105Z	E CAP.	1μF	50V	M	*
	C0322	NCB21HK-103X	C CAP.	0.01μF	50V	K	*
	C0323	QETN1HM-106Z	E CAP.	10μF	50V	M	*
	C0324-26	NCB21HK-103X	C CAP.	0.01μF	50V	K	*
	C0327	QETN1HM-225Z	E CAP.	2.2μF	50V	M	*
	C0328	NCB21HK-103X	C CAP.	0.01μF	50V	K	*
	C0329	QETN1HM-225Z	E CAP.	2.2μF	50V	M	*
	C0330	NCB21HK-103X	C CAP.	0.01μF	50V	K	*
	C0331	NCB21HK-104X	CHIP CAP.	0.1μF	50V	K	*
	C0351-52	QETN1EM-476Z	E CAP.	47μF	25V	M	*
	C0353	NCB21HK-103X	C CAP.	0.01μF	50V	K	*
	C0401	NCB21HK-104X	CHIP CAP.	0.1μF	50V	K	*
	C0402	NDC21HJ-471X	C CAP.	470pF	50V	J	*
	C0403	NDC21HJ-331X	C CAP.	330pF	50V	J	*
	C0405	NCB21HK-104X	CHIP CAP.	0.1μF	50V	K	*
	C0406	NCB21EK-683X	C CAP.	0.068μF	25V	K	*
	C0407	NCB21HK-682X	C CAP.	6800pF	50V	K	*
	C0408	QETN1HM-106Z	E CAP.	10μF	50V	M	*
	C0409	NCB21HK-104X	CHIP CAP.	0.1μF	50V	K	*
	C0410-11	NCB21HK-103X	C CAP.	0.01μF	50V	K	*

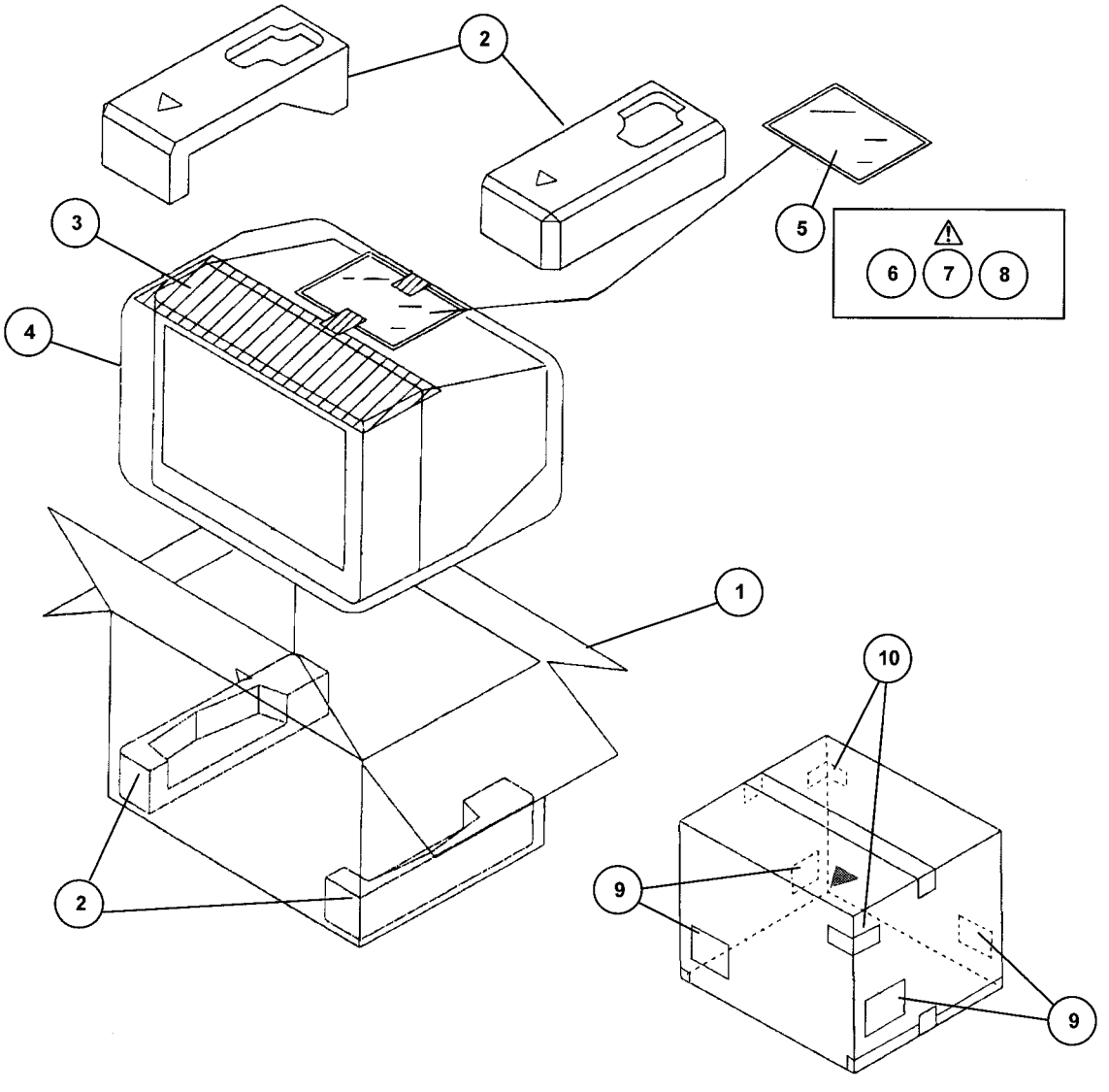
⚠	Symbol No.	Part No.	Part Name	Description			Local
COIL							
	L0302-03	QQL29BJ-6R8Z	PEAKING COIL	6.8μH			*
	L0304	QQL29BJ-6R8Z	PEAKING COIL	6.7μH			*
	L0401	QQL29BJ-6R8Z	PEAKING COIL	6.8μH			*
DIODE							
	D0301-02	1SS133-T2	SI.DIODE				*
TRANSISTOR							
	Q0301-02	2SC2412K/QR/-X	SI.TRANSISTOR				*
	Q0401	2SC2412K/QR/-X	SI.TRANSISTOR				*
IC							
	IC0301	SDA9388X-X	I C				*
	IC0351	AN7805	I.C.(MONO-ANA)				*
	IC0401	Z8613012PSC	I C				*
	IC0402	MN1381/Q/-T	I.C.(MONO-ANA)				*
OTHERS							
	W0038	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*
	X0301	QAX0521-001Z	X TAL				*
	Y0301	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*
	Y0331-33	NRSA02J-0R0X	MG R	0.0Ω	1/10W	J	*

REMOTE CONTROL UNIT PARTS LIST (RM-C341-3A)



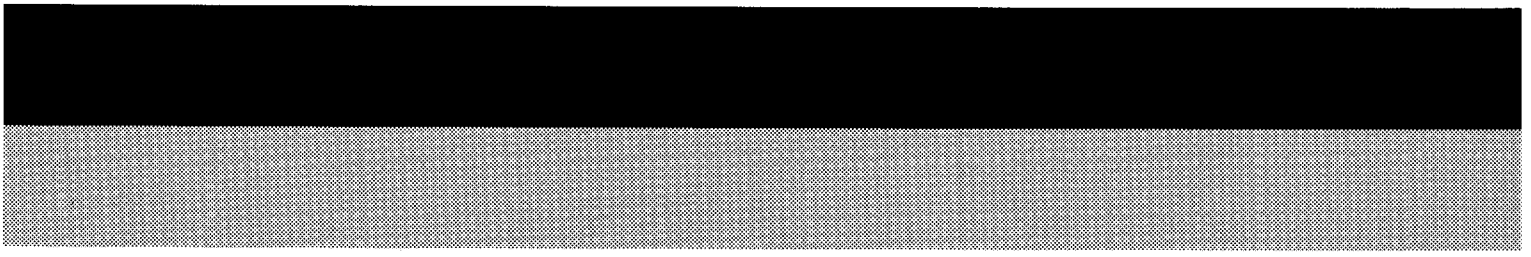
⚠ Ref.No.	Part No.	Part Name	Description	Local
	UR52EC1286A	BATTERY COVER	(RM-C341-3A)	*

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	CP11499-C19-A	PACKING CASE		*
	2	CP11387-00D-A	PACKING CUSHION	4pcs in 1set	*
	3	CP30055-A02-A	TOP COVER		*
	4	CP30056-004-A	POLY BAG		*
	5	QPA02503505	POLY BAG		*
	6	RM-C341-3A	REMOCON UNIT		*
⚠	7	LCT0307-001A-A	INST BOOK	(ENGLISH)	*
	8	LCT0412-001A-A	QUICK SETUP GUID		*
	9	CM36654-004-A	LABEL	(×4)	*
	10	CM36616-001-A	CORNER LABEL	2pcs in 1set	*



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AV36050(PHM) #999

Printed in Japan
VP 9908
DP4053