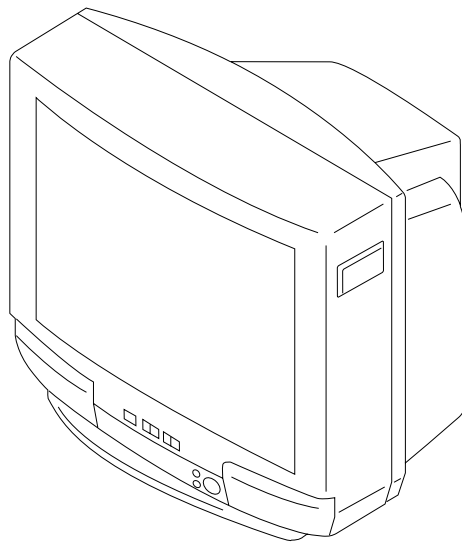


# SERVICE MANUAL

# BG-1S (D) CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
<i>KV-G21L3</i>	<i>RM-883</i>	<i>ME</i>	<i>SCC-J35Y-A</i>

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
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TRINITRON® COLOR TV  
**SONY®**

**SPECIFICATIONS**

		<b>Note</b>
<b>Power requirements</b>	110-240 V AC, 50/60 Hz	
<b>Power consumption (W)</b>	Indicated on the rear of the TV	
<b>Television system</b>	B/G	
<b>Color system</b>	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58 (AV IN)	
<b>Channel coverage</b>	VHF: E2 to E12/UHF: E21 to E69/CATV: S01 to S03, S1 to S41	
<b>Audio output (speaker)</b>	3W	
<b>Inputs</b>	Antenna: 75 ohms	
	VIDEO IN jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500mVrms, high impedance	
<b>Outputs</b>	Earphone jack: minijack	
	MONITOR OUT jacks: phono jacks Video: 1 Vp-p, 75 ohms Audio: 500 mVrms	
<b>Picture tube</b>	21 in.	
<b>Tube size (cm)</b>	54	Measured diagonally
<b>Screen size (cm)</b>	51	Measured diagonally
<b>Dimensions (w/h/d, mm)</b>	527 × 464 × 471	
<b>Mass (kg)</b>	22	

Design and specifications are subject to change without notice.

**CAUTION**

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

**SAFETY-RELATED COMPONENT WARNING!!**

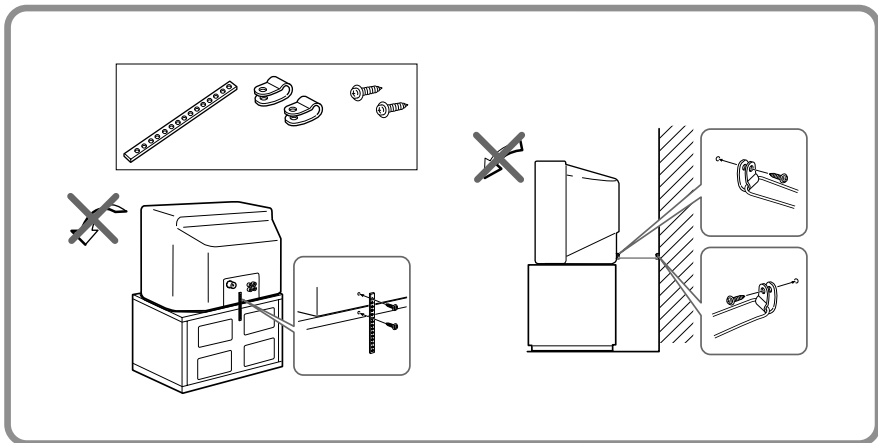
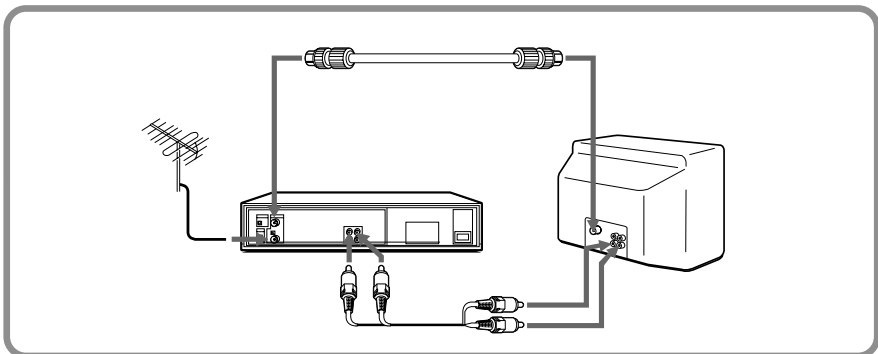
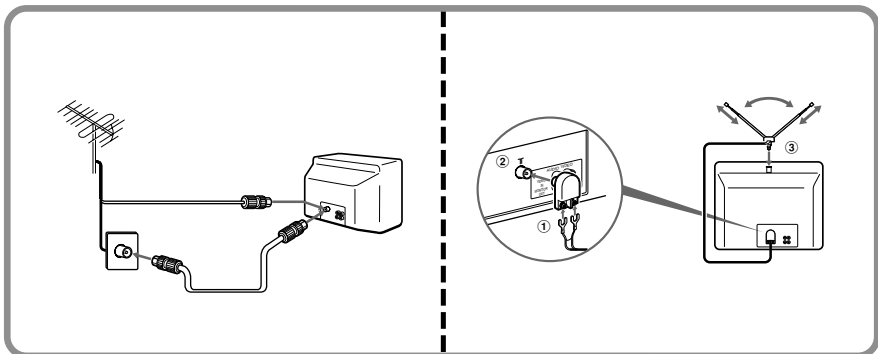
COMPONENTS IDENTIFIED BY SHADING AND MARK  $\triangle$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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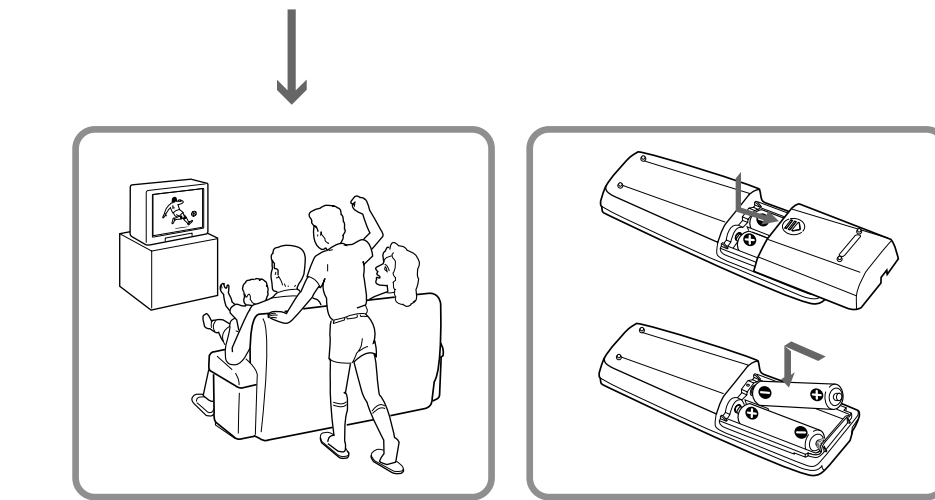
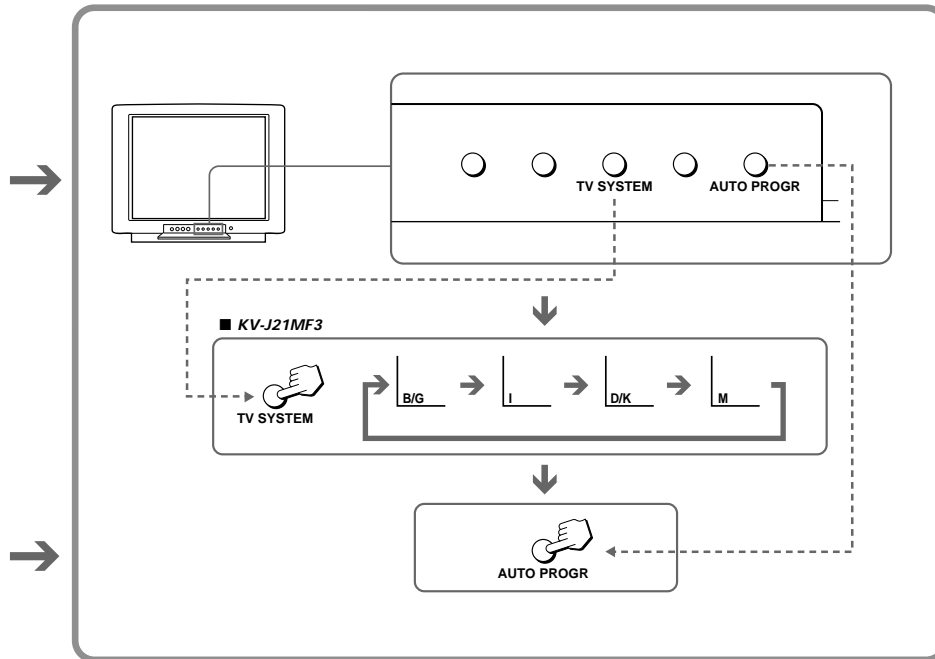
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**SECTION 1**  
**GENERAL**

The operating instructions mentioned here are partial abstracts from the Operating Instructions Manual. The page numbers of the Operating Instruction Manual remain as in the manual.



2

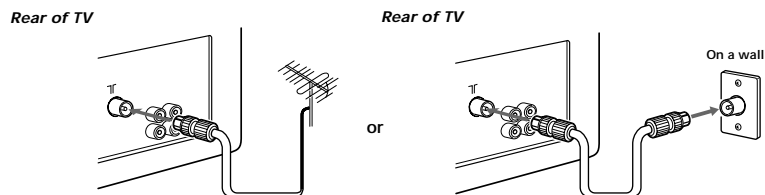


3

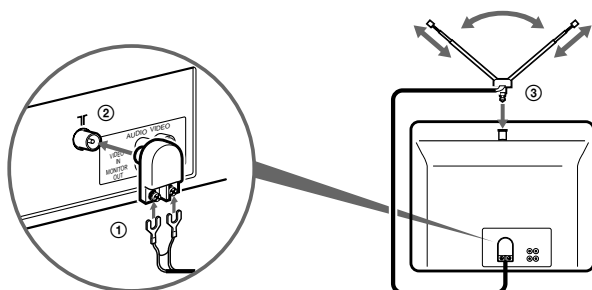
# Connections

## Connecting a VHF antenna or a combination VHF/UHF antenna — 75-ohm coaxial cable (round)

Attach an optional IEC antenna connector to the 75-ohm coaxial cable. Plug the connector into the  $\Upsilon$  (antenna) socket at the rear of the TV.



## Connecting an indoor antenna



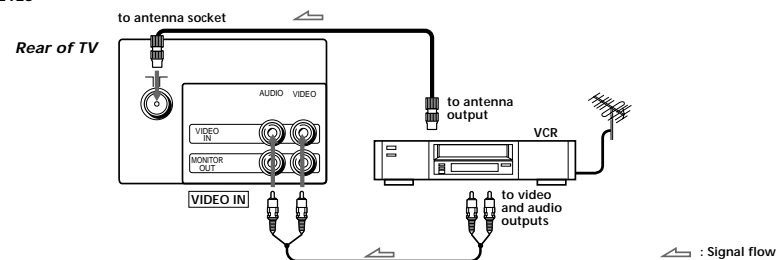
**Note**  
 • You are advised to use an outdoor antenna for better reception.

## Connecting optional equipment

You can connect optional audio/video equipment to your TV such as a VCR, multi disc player, camcorder, video game or stereo system.

### Connecting video equipment using video input jacks

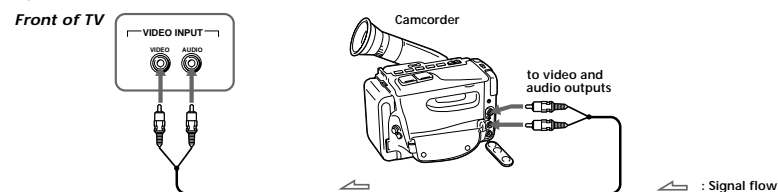
■ KV-G21L3



### When connecting a monaural VCR

Connect the yellow plug to VIDEO and the black plug to AUDIO-L (MONO).

■ KV-G21L3



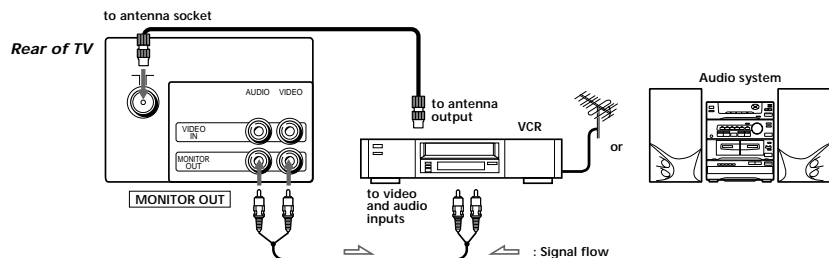
### When using the video input jacks

Do not connect video equipment to the video input jacks at the front and the rear of your TV simultaneously; otherwise the picture will not be displayed properly on the screen.

EN

## Connecting audio/video equipment using MONITOR OUT jacks

### ■ KV-G21L3



### When recording through the MONITOR OUT jacks

If you change the channel or video input while recording with a VCR, the channel or video input you are recording also will be changed.

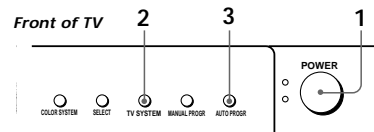
## Presetting channels

You can preset up to 100 TV channels in numerical sequence from program position 1 automatically.

To change the channel for a particular program position or to receive a channel with a weak signal, you can preset the channel manually. You can also disable program position.

You can preset TV channels using the buttons on the TV or the remote commander.

### Presetting channels automatically using the buttons on the TV

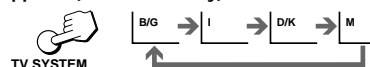


#### 1 Press POWER to turn on the TV.

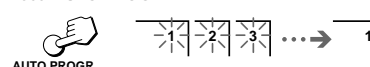


When the TV is turned on in standby mode, press POWER on the remote commander.

#### 2 Press TV SYSTEM until your local TV system appears (KV-J21MF3 only).



#### 3 Press AUTO PROGR.



### To start presetting channels automatically from the specified program position

- 1 Press MANUAL PROGR.
- 2 Press TV SYSTEM to select your local TV system (KV-J21MF3 only).
- 3 Press PROGR +/- to select the program position.
- 4 Press AUTO PROGR.

### Presetting channels manually using the buttons on the TV

- 1 Press MANUAL PROGR.
- 2 Press PROGR +/- on the remote commander until the required program position appears on the screen.
- 3 Press TV SYSTEM until your local TV system appears (KV-J21MF3 only).
- 4 Press VOLUME +/- until the required channel picture appears on the screen.
- 5 Press MANUAL PROGR.

### If the TV system is not properly selected (KV-J21MF3 only).

The color of the picture may be poor and/or the sound may be noisy. In this case, select the appropriate TV system.

- 1 Press PROGR +/- on the remote commander to select the program position.
- 2 Press TV SYSTEM until the picture and sound become normal.

### Notes (KV-J21MF3 only).

- If you do not know your local TV system, consult your nearest authorized service center or dealer.
- The setting of the TV SYSTEM is memorized for each program position.

### Disabling program positions using the buttons on the TV

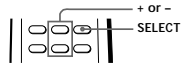
By disabling unused or unwanted program positions, you can skip those positions when you press PROGR +/- on the remote commander.

- 1 Press PROGR +/- on the remote commander until the unused or unwanted program position appears on the screen.
- 2 Press MANUAL PROGR.
- 3 Press PIC MODE on the remote commander.
- 4 Press MANUAL PROGR.

### To cancel the skip setting

Preset the channel manually or automatically again.

## Presetting channels automatically using the remote commander



- 1 Press POWER to turn on the TV.

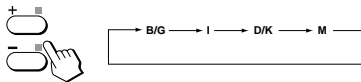


When the TV is turned on in standby mode, press POWER on the remote commander.

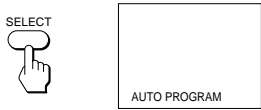
- 2 Press SELECT until "TV SYSTEM" appears (KV-J21MF3 only).



- 3 Press + or - to select your local TV system (KV-J21MF3 only).



- 4 Press SELECT until "AUTO PROGRAM" appears.



- 5 Press + or - .



- 6 Press + or - .

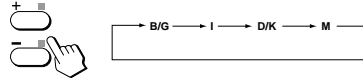


## Presetting channels manually using the remote commander

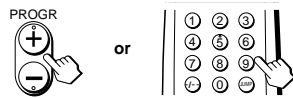
- 1 Press SELECT until "TV SYSTEM" appears (KV-J21MF3 only).



- 2 Press + or - to select your local TV system (KV-J21MF3 only).



- 3 Press PROGR +/- or a number button until the required program appears on the screen.



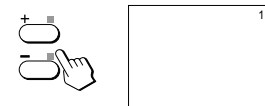
- 4 Press SELECT until "MANUAL PROGRAM" appears.



- 5 Press + or - .



- 6 Press + or - .



The selected channel appears on the screen.

- 7 Press SELECT to return to normal screen.



## If you are not satisfied with the picture and sound quality

You may be able to further improve the picture and sound quality by using fine tuning as below:

- 1 Select the program position you want to adjust.
- 2 Press SELECT until "MANUAL PROGRAM" appears on the screen.
- 3 Press + or - on the remote commander once.
- 4 Press DISP until "FINE" appears on the screen.
- 5 Press + or - continuously until you are satisfied with the picture and sound quality.
- 6 Press SELECT to return to normal screen.

## Watching the TV

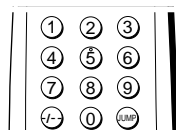
### 1 Press POWER to turn on the TV.



When the TV is turned on in standby mode, press POWER on the remote commander.

### 2 Select the TV program you want to watch.

**To select a program position directly**  
Press the number button.



**To select a two-digit program position, press "-/-" before pressing the number buttons.**

For example: to select program position 25, press "-/-," and then "2" and "5."



**To scan through program positions**

Press PROGR +/- until the program position you want appears.

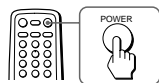


### 3 Press VOL +/- to adjust the volume.



## Turning off the TV

**To turn off the TV temporarily**  
Press POWER on the remote commander. The STANDBY indicator on the TV lights up.



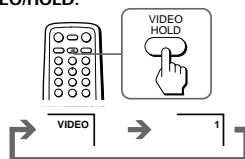
**To turn off the TV completely**  
Press POWER on the TV.

If the power on the TV is turned off in standby mode, the STANDBY indicator on the TV may remain alight for a while.

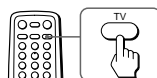


## Watching the video input

Press VIDEO/HOLD.



**To watch TV**  
Press TV.



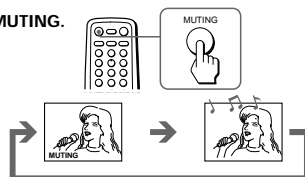
## Switching back quickly to the previous channel

Press JUMP.



## Muting the sound

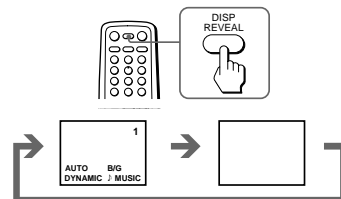
Press MUTING.



## Displaying on-screen information

Press DISP/REVEAL.

The program position, local system, and TV settings are displayed on the screen.

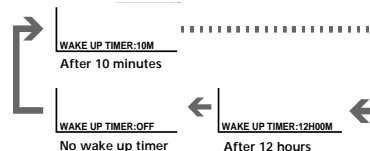
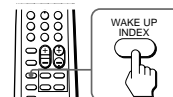


## Setting the Wake Up Timer

You can set the TV to automatically turn on as you have programmed.

### 1 Press WAKE UP/INDEX repeatedly to set the timer.

The on-screen display appears and the WAKE UP indicator on the TV lights up.



### 2 If you want a particular TV program or video input to be displayed using the Wake Up Timer, select the TV program or video input.

### 3 Press POWER on the remote commander or set the Sleep Timer to turn off the TV in standby mode.

To cancel the Wake Up Timer, press WAKE UP/INDEX repeatedly until "WAKE UP TIMER: OFF" appears, or turn off the main power of the TV.

#### Notes

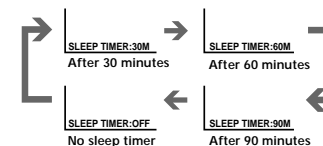
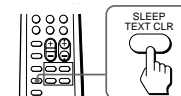
- The Wake Up Timer starts immediately after the on-screen display disappears.

- The last TV program position or video input just before the TV turns into standby mode will appear when the TV is turned on using the Wake Up Timer.
- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up Timer, the TV automatically turns into standby mode. If you want to continue watching the TV, press any button or control on the remote commander or the TV.

## Setting the Sleep Timer

You can set the TV to automatically turn off as you have programmed.

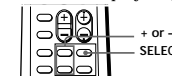
Press SLEEP/TEXT CLR.



To cancel the Sleep Timer, press SLEEP/TEXT CLR repeatedly until "SLEEP TIMER: OFF" appears, or turn off the TV.

## Changing the on-screen display language

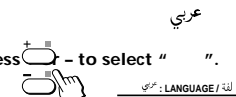
You can use buttons on the remote commander or the TV to change the on-screen display language.



### 1 Press SELECT until the screen appears as follows



### 2 Press + or - to select "عربي" (Arabic).



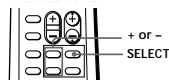
#### Note

- You can also use SELECT and VOLUME +/- on the TV to

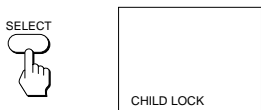


# Using the Child Lock feature

You can prevent a child from watching certain program positions by using the buttons on the remote commander.



- 1 Select the TV program you want to lock.
- 2 Press SELECT until "CHILD LOCK" appears on the screen.



- 3 Press + or - until "LOCKED" appears on the screen.



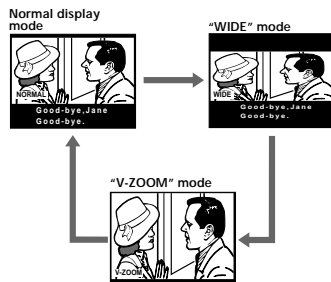
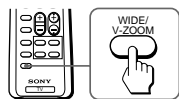
**Notes**

- To unlock the program position, repeat steps 1 to 3 as above until "LOCKED" disappears from the screen.
- To prevent your child from unlocking the program position, keep the remote commander away from your child.

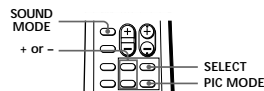
# Watching the picture in wide mode

You can adjust the display mode accordingly to fit the programs to your TV screen size.

Press WIDE/V-ZOOM repeatedly until the wide display mode you want appears on the screen.



# Adjusting the sound and picture

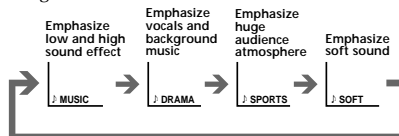


## Selecting the sound mode

■ KV-J21MF3 only  
Press SOUND MODE until the mode you want appears.



Each time you press SOUND MODE, the screen changes as follows:



**Note on the SOUND MODE button (KV-G21L3)**

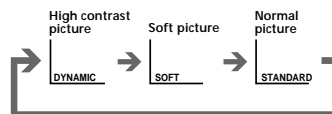
- The sound mode feature is unavailable for your TV. Thus, the SOUND MODE button on the remote commander is not used for your TV.

## Selecting the picture mode

Press PIC MODE until the mode you want appears.



Each time you press PIC MODE, the screen changes as follows:



**Note**

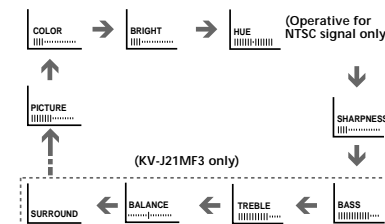
- If you change the picture and sound mode after the following adjustments, the adjustment changes in accordance with the picture and sound mode.

## Adjusting the sound and picture settings

- 1 Press SELECT until the item you want to adjust appears.



Each time you press SELECT, the screen changes as follows:



- 2 Press + or - to adjust the item.

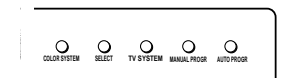


- 3 To adjust other items, repeat steps 1 and 2.

**Notes**

- You can also use SELECT and VOLUME +/- on the TV to adjust the sound and picture settings.
- The on-screen display for BASS, TREBLE, BALANCE and SURROUND are available for KV-J21MF3 only.
- SURROUND is only applicable to a stereo signal. When receiving a monaural signal, please turn off SURROUND for the best sound (KV-J21MF3 only).

**Front of TV**



**If the picture color is abnormal when receiving programs through the antenna terminal**

Change the "TV SYSTEM" (KV-J21MF3 only) or "COLOR SYSTEM" setting or adjust the "COLOR" level in the on-screen display until the color becomes normal.

**If the picture color is abnormal when receiving programs through the video input jack**

Change the "COLOR SYSTEM" setting or adjust the "COLOR" level in the on-screen display until the color becomes normal.

**Note**

- Normally set "COLOR SYSTEM" to "AUTO".

**If the sound is distorted or noisy when receiving programs through the antenna terminal (KV-J21MF3 only)**

Change the "TV SYSTEM" setting in the on-screen display until the sound becomes clear.

## Troubleshooting

If you have any problems, read this manual again and check the countermeasure for each of the symptoms listed below.

If the problem persists, contact your nearest authorized service center or dealer.

### Snowy picture Noisy sound



- ➔ Check the antenna.
- ➔ Check the antenna connection on the TV and on the wall.
- ➔ Check the TV SYSTEM setting (KV-J21MF3 only).

### Dotted lines or stripes



- ➔ This may be caused by local interference (e.g. cars, neon signs and hair dryers). Adjust the antenna for minimum interference.

### Double images or "ghosts"



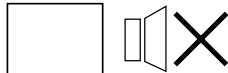
- ➔ This may be caused by reflections from nearby mountains or buildings. A highly directional antenna may improve the picture.

### No color



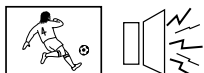
- ➔ Adjust the COLOR level in the on-screen display.
- ➔ Check the COLOR SYSTEM setting.

### No picture No sound



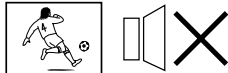
- ➔ Press POWER.
- ➔ Check the antenna connection.
- ➔ Check the VCR connections.
- ➔ Check the power cord connection.
- ➔ Check the standby mode.

### Good picture Noisy sound



- ➔ Check the TV SYSTEM setting (KV-J21MF3 only).
- ➔ Reduce the TREBLE level or select the "SOFT" sound mode (KV-J21MF3 only).

### Good picture No sound



- ➔ Press VOLUME +.
- ➔ Press MUTEING.

### TV cabinet creaks

- ➔ Even if the picture or the sound is normal, changes in the room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.

### Note on the remote commander

- The supplied remote commander is used on several models of the TV. If you do not find instructions for some controls that are on the remote commander, that means your TV does not employ the features of those controls, e.g. TEXT.

### Note on the TV system

- The TV SYSTEM button is not used on the KV-G21L3 model.

### Notes

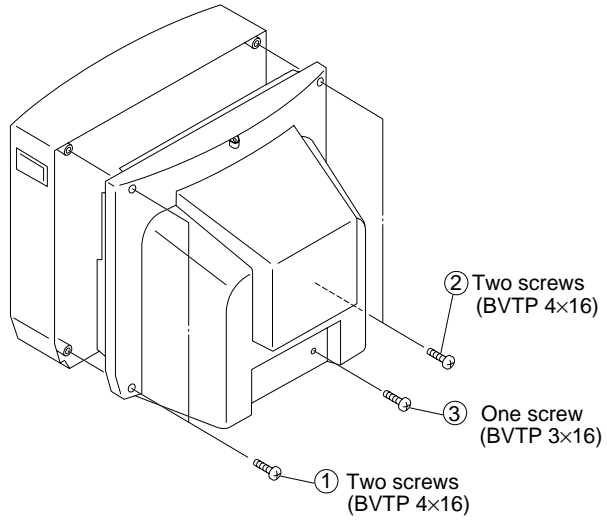
- When you switch on the TV, you may hear the "boon" sound that is caused by the demagnetization of the TV. This does not indicate a malfunction.
- The picture color may become abnormal if you change the direction of your TV. To obtain the normal picture color, press POWER on the TV to switch off the TV for five minutes and then switch it on again.

### WARNING

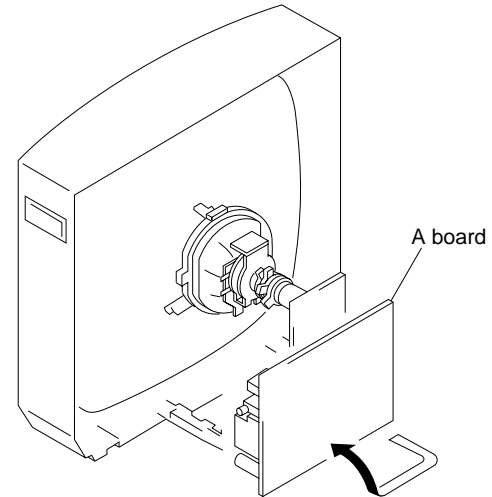
Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

## SECTION 2 DISASSEMBLY

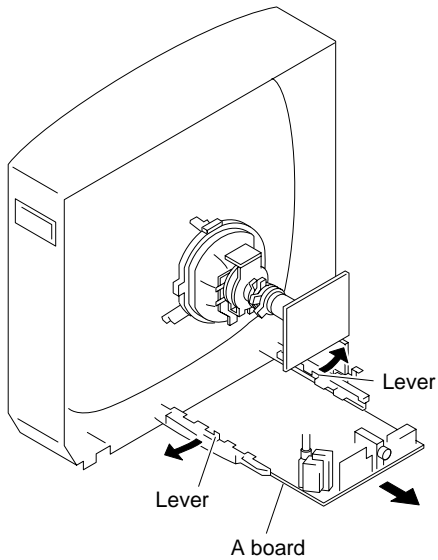
### 2-1. REAR COVER REMOVAL

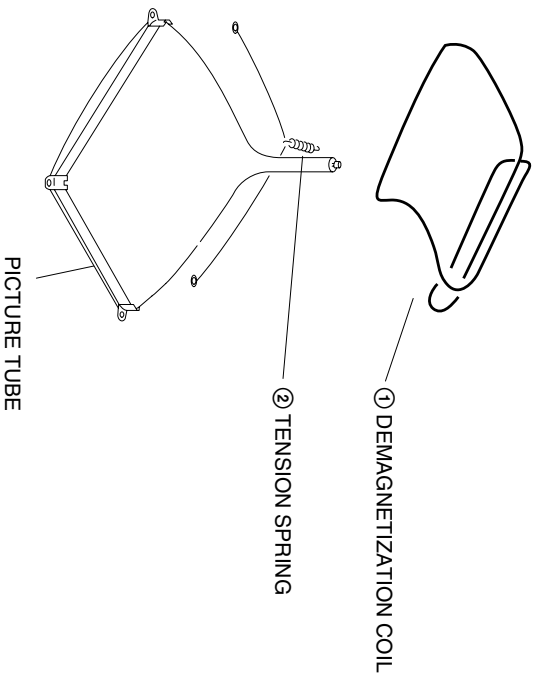


### 2-3. SERVICE POSITION



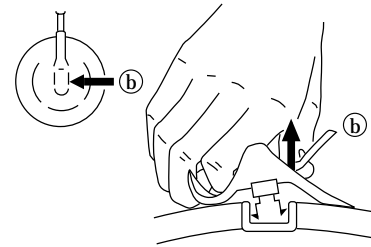
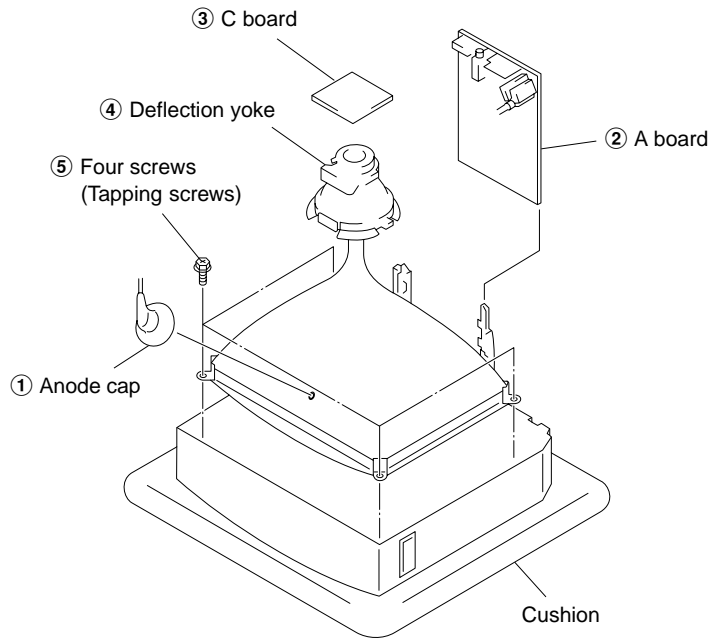
### 2-2. A BOARD REMOVAL



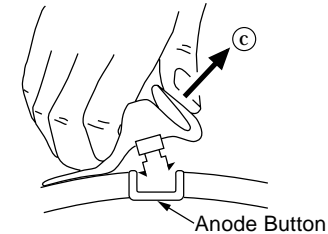


!112-02-0-1\_ES29

## 2-6. PICTURE TUBE REMOVAL



- ② Using a thumb press down then pull up the rubber cap firmly in the direction indicated by the arrow (b).

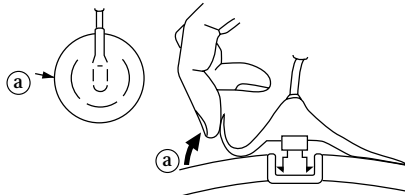


- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c).

### •REMOVAL OF ANODE-CAP

NOTE : After removing the anode short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

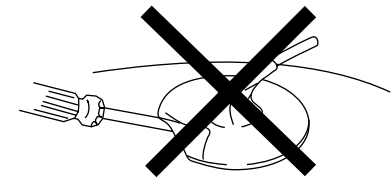
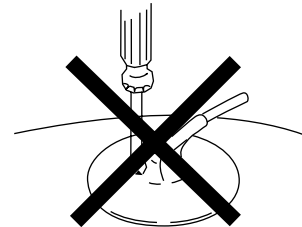
### •REMOVING PROCEDURES



- ① Turn up one side of the rubber cap in the direction indicated by the arrow (a).

### • HOW TO HANDLE AN ANODE-CAP

- ① Do not damage the surface of anode-caps with sharp shaped objects
- ② Do not press the rubber too hard so as not to damage the inside of anode-caps  
A metal fitting called the shatter-hook terminal is built into the rubber.
- ③ Do not turn the foot of rubber over too hard  
The shatter-hook terminal will stick out or damage the rubber.



## SECTION 3 SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted:  
 PICTURE control ..... normal  
 BRIGHTNESS control ..... normal

Perform the adjustments in the following order

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

**Note :** Test Equipment Required:

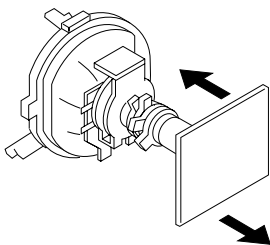
1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

**Preparation :**

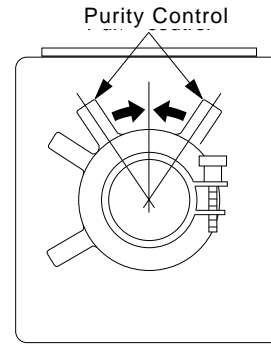
- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the power and degauss with the degausser.

**3-1. BEAM LANDING**

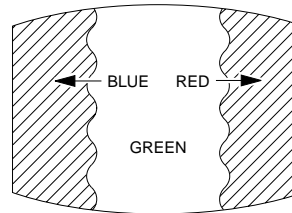
1. Input a white signal with the pattern generator.  
 Contrast } normal  
 Brightness }
2. Set the pattern generator raster signal to a green raster.
3. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.  
 (See Figures 3-1 through 3-3.)
4. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 3-1.)
5. Switch the raster signal to blue, then to red and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screw.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it.  
 (See Figure 3-4.)



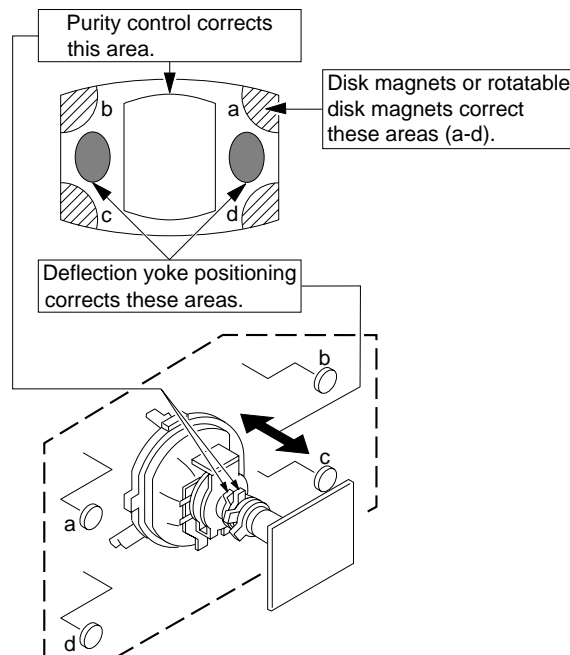
**Fig. 3-1**



**Fig. 3-2**



**Fig. 3-3**



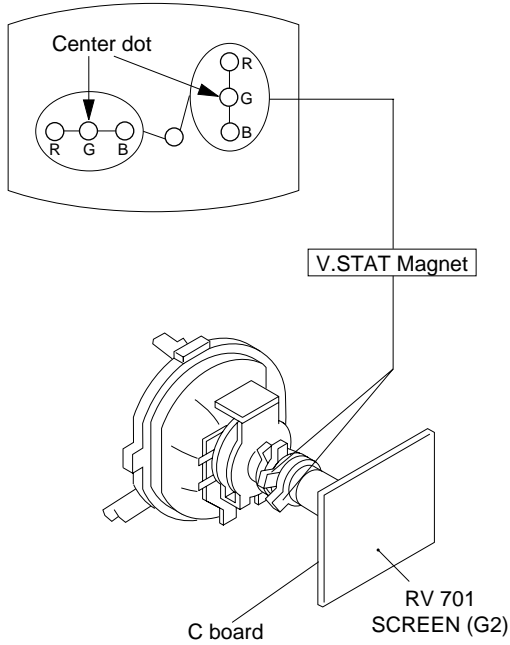
**Fig. 3-4**

### 3-2. CONVERGENCE

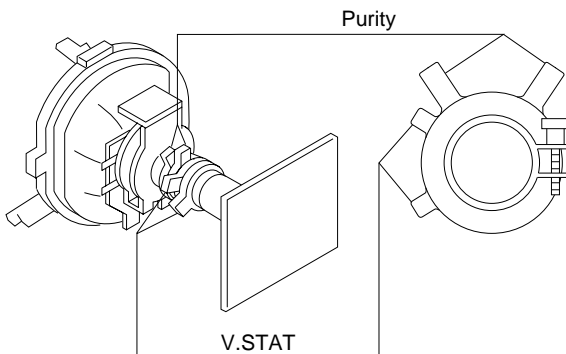
**Preparation :**

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

**(1) Horizontal and Vertical Static Convergence**

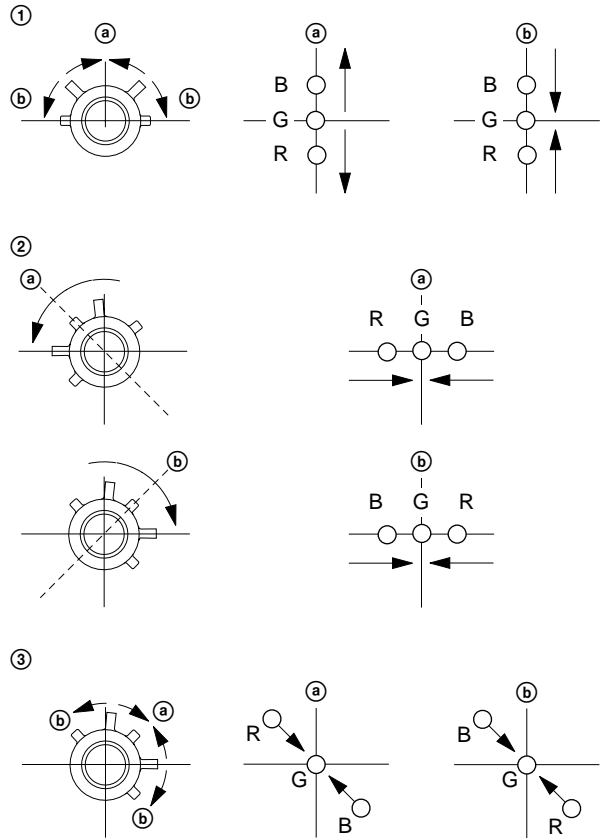


1. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue points are on top of each other at the center of the screen.
2. (Moving horizontally), adjust the H.STAT magnet so that the red, green and blue points are on top of each other at the center of the screen.
3. Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



- Operation of V.STAT magnet.

If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green and blue points move as shown below.



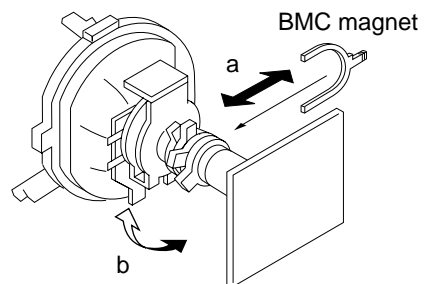
- Operation of BMC (Hexapole) magnet.

If the blue or red point does not converge with the other two points, perform following steps:

Move BMC magnet (a) to correct insufficient H.static convergence.

Rotate BMC magnet (b) to correct insufficient V.static convergence

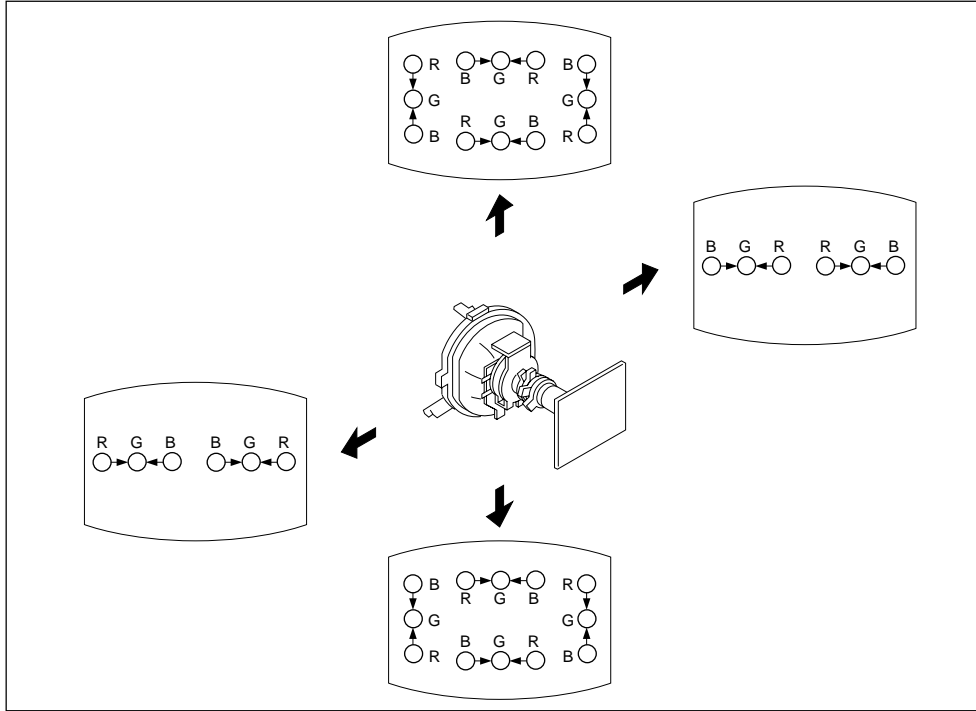
In either case, repeat Beam Landing Adjustment.



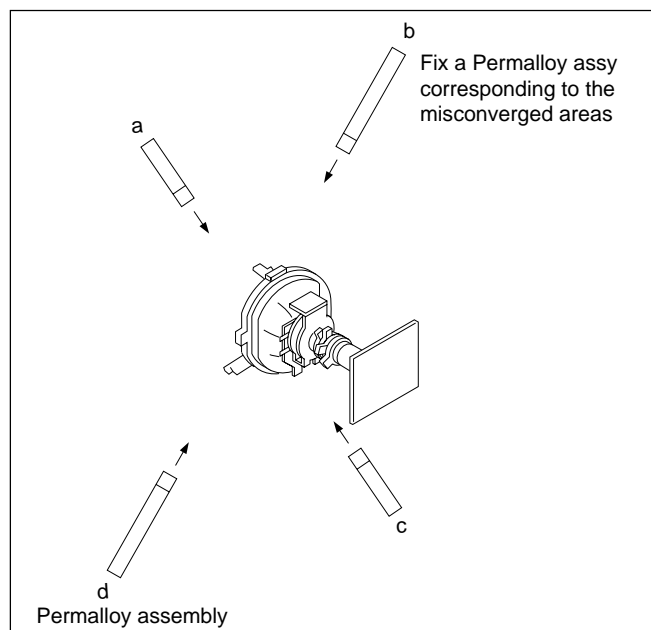
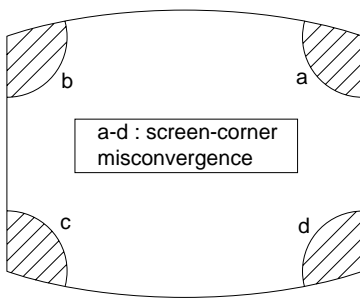
**(2) Dynamic Convergence Adjustment**

**Preparation :**

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
  2. Remove the deflection yoke spacer.
  3. Move the deflection yoke as shown in the figure below and optimize the convergence.
  4. Tighten the deflection yoke screws.
  5. Install the deflection yoke spacer.



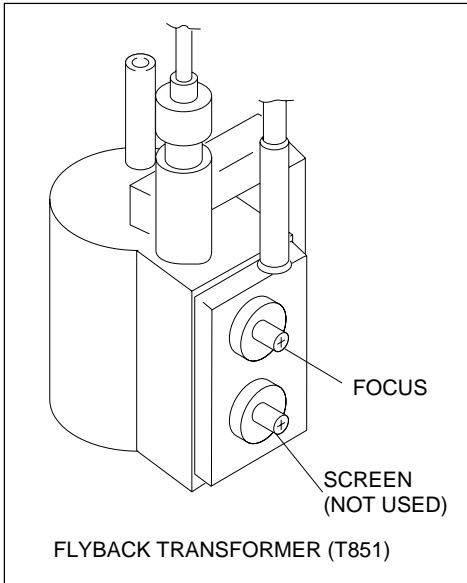
**(3) Screen-corner Convergence**



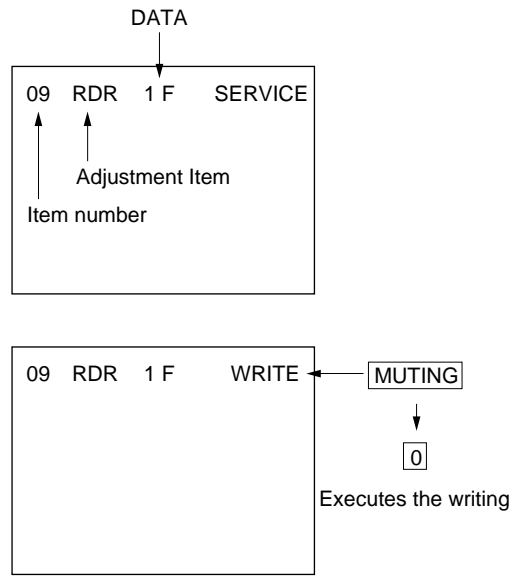


### 3-3. FOCUS ADJUSTMENT

Adjust FOCUS control on the flyback transformer for the best focus.



**Note:** Screen VR is not use.



#### a. AN ITEM OF ADJUSTMENT

Item number	Adjustment item	Initial DATA	Note
09	RDR	25	WHITE POINT R
0A	GDR	20	WHITE POINT G
0B	BDR	20	WHITE POINT B

#### b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press **POWER** button on the commander) and then press **POWER** button again, hereupon it becomes TV mode.

#### c. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN) to select the item of adjustments.
- 3) Press **MUTING** button and it will indicate WRITE on screen.
- 4) Press **0** button to write into memory.

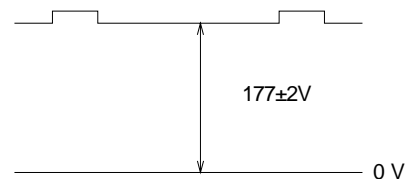
#### d. MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again to confirm adjustments were made.

### 3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

#### 1. G2 (SCREEN) ADJUSTMENT (RV701)

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G and B of the C board cathode to the oscilloscope.
- 4) Adjust G2 (RV701) volume to the value below.



#### 2. WHITE BALANCE ADJUSTMENTS

- 1) Set to Service Mode.
- 2) Input an entire white signal.
- 3) Set the PICTURE to maximum.
- 4) Select RDR(09) with **1** and **4**, and then set the level to 25 with **3** and **6**.
- 5) Select GDR(0A) and BDR(0B) with **1** and **4** and adjust the level with **3** and **6** for the best white balance.
- 6) Write into the memory by pressing **MUTING** then **0**.

## SECTION 4

### SELF DIAGNOSIS FUNCTION

If no acknowledgement is returned from a device which is turned "ON", the device has a problem.  
In this case, one of the LED's responding to the problem device will flicker a defined number of times.

Flickering is operated by lighting the LED's for 60ss each time.

The flickering frequency responding to each failed device is shown below.

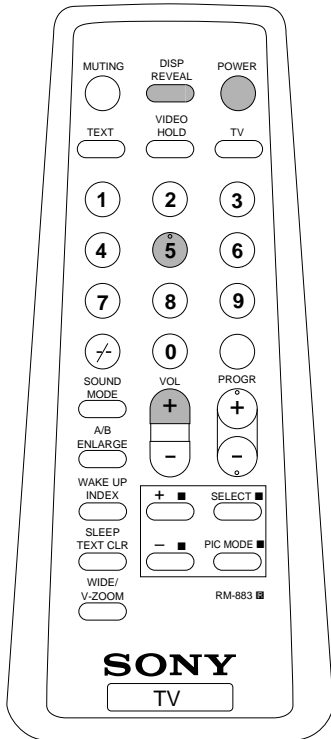
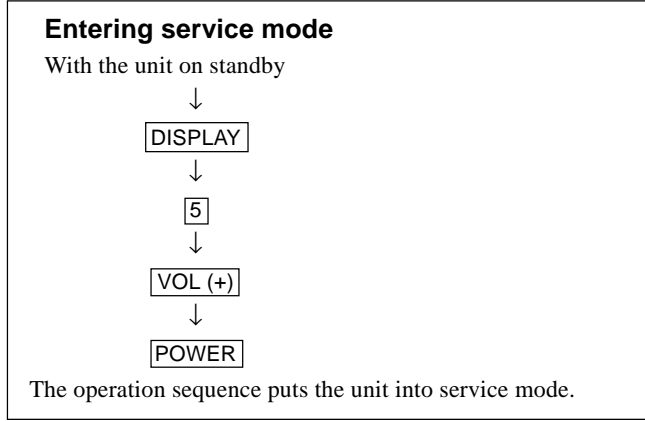
<b>Device</b>	NONVOLATILE MEMORY	—	Y/C JUNGLE	—	—	—
<b>Flickering Frequency</b>	1	—	3	—	—	—

All the devices are checked one after another from the left of the table.  
If an error is found, the responding LED will start flickering.  
So, if more than 1 device have failed, only the one on the left side will flicker.

## SECTION 5 CIRCUIT ADJUSTMENTS

### 5-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-883 that comes with this unit.

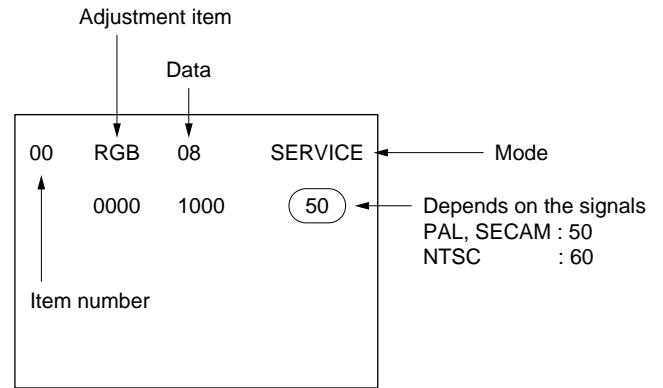


RM-883

[1], [4]	Raise/lower the service item number
[3], [6]	Raise/lower the data
MUTING	Writes
[0]	Executes the writing

- [7], [0] All data becomes the values in memory
- [8], [0] All user control goes to the standard state
- [5], [0] Service data initialization (Be sure not to use usually).
- [2], [0] Write 50Hz adjustment data to 60Hz, or viceversa.

The screen display is :



[1], [4]	Select the adjustment item.
↓	
[3], [6]	Raise/lower the data.
↓	
MUTING	Writes
↓	
[0]	Executes the writing.

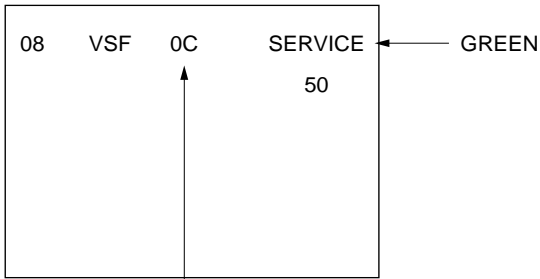
## 5-2. ADJUSTMENT METHOD

Item Number 08

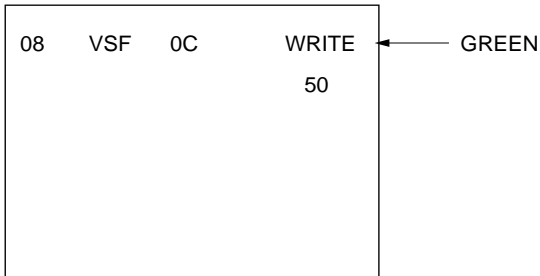
This explanation uses V-SHIFT as an example.

1. Select 08 V-SHIFT with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is 0F for PAL reception.)
4. Write with the [MUTING] button. (The SERVICE display will change to WRITE)
5. Execute the writing with the [0] button. (The WRITE display will be changed back to SERVICE.)

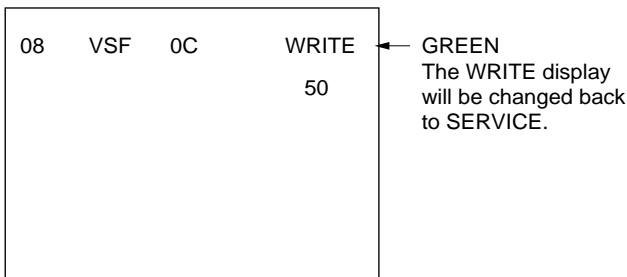
Use the same method for Items Number 00-33. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].



Adjust with the [3] and [6] buttons.



Written with the [MUTING].



Write executed with [0].

Adjustment Item Table

Item number	Adjustment Item	Data range	Initial data	Standard data	Note	Device
00	HSF	00-3F	24		V SHIFT	(TDA8375)
01	HSZ	00-3F	23		H SIZE	(TDA8375)
02	PAP	00-3F	21		PIN AMPLITUDE	(TDA8375)
03	CNP	00-3F	29		CORNER PIN	(TDA8375)
04	TLT	00-3F	20		TILT	(TDA8375)
05	VSL	00-3F	20		V SLOPE	(TDA8375)
06	VAP	00-3F	1D		V AMPLITUDE	(TDA8375)
07	SCR	00-3F	20		S CORRECTION	(TDA8375)
08	VSF	00-3F	20		V SHIFT	(TDA8375)
09	RDR	00-3F	25		WHITE POINT R	(TDA8375)
0A	GDR	00-3F	20		WHITE POINT G	(TDA8375)
0B	BDR	00-3F	20		WHITE POINT B	(TDA8375)
0C	F0	00-03	00	TV/Video/Text	∅-1TIME CONSTANT	(TDA8375)
0D	AGC	00-3F	30		AGC TAKE OVER	(TDA8375)
0E	VSW	00-01	00		VIDEO MUTE	(TDA8375)
0F	FOR	00-03	03		FORCED FIELD FREQ.	(TDA8375)
10	DL	00-01	00		INTERLACE	(TDA8375)
11	POC	00-01	00		SYNCHRO MODE FIX	(TDA8375)
12	VID	00-01	00		VIDEO IDENT MODE	(TDA8375)
13	HCO	00-01	00		EHT TRACKING MODE	(TDA8375)
14	EVG	00-01	00		ENABLE V GUARD	(TDA8375)
15	SBL	00-01	00		SERVICE BLANKING	(TDA8375)
16	PRD	00-01	00		OVER-VOLTAGE INPUT	(TDA8375)
17	COR	00-01	00	TV/Video/Text	NOISE CORING PEAK	(TDA8375)
18	PMX	00-3F	2D	TV/Video	PICTURE MAX DATA	(TDA8375)
19	PMI	00-3F	00		PICTURE MIN DATA	(TDA8375)
1A	SBR	00-7F	4B		SUB-BRIGHTNESS	(TDA8375)
1B	SHU	00-0F	07		SUB-HUE	(TDA8375)
1C	SSH	00-03	01		SUB-SHARPNESS	(TDA8375)
1D	SC1	00-3F	1F		SUB-COLOR LOWER	(TDA8375)
1E	SC2	00-3F	0D		SUB-COLOR HIGHER	(TDA8375)
1F	AIP	00-7F	3F		ADJUSTMENT IF-PLL	(TDA8375)
20	VZM	00-3F	19		VERTICAL ZOOM	(TDA8375)
21	TXP	00-0F	09		TEXT PICTURE	(SAA5281)
22	MXP	00-0F	0D		TEXT MIX MODE PICTURE	(SAA5281)
23	BKP	00-3F	00		BLK OFF PICTURE	(μ-CON)
24	ODL	00-FF	10		POWER ON DELAY	(μ-CON)
25	OFR	00-0F	00		STBY → ON RGB OUT	(μ-CON)
26	OFM	00-0F	00		MAIN POWER RGB OUT	(μ-CON)
27	OSH	00-3F	0A		OSD POSITION H	(μ-CON)
28	MUT	00-01	01		NO SYNC. MUTE	(μ-CON)
29	ABL	00-01	01		BRIGHT ABL	(μ-CON)
2A	DTV	00-01	00		DISABLE TV SYSTEM KEY	(μ-CON)
2B	SCM	00-01	01		SECAM TRAP ACTIVE	(μ-CON)
2C	ROC	00-0F	07		ROTATION CENTER	(μ-CON)
2D	ROS	00-07	03		ROTATION STEP WIDTH	(μ-CON)
2E	DVM	00-01	00		DISABLE VM	(μ-CON)
2F	POM	00-01	00		PORT MUTE	(μ-CON)
30	FBT	00-01	00		C/M FOR FBT LAYER SHORT	(μ-CON)
31	OP0	00-FF	40		OPTION 0	(μ-CON)
32	OP1	00-FF	06		OPTION 1	(μ-CON)
33	OP2	00-FF	00		OPTION 2	(μ-CON)

**NOTE**

- Standard Data. Those are the standard data values written on the microprocessor. Therefore, the data values of the modes are stored respectively in the memory.  
In case of a device replacement, adjustment by rewriting the data value is necessary for some items.
- 50 ..... 50 Hz data
- 60 ..... 60 Hz data
- Standard data listed on the Adjustment Item Table are reference values.

**ITEM INFORMATION**

- 10. DL: TV/MIX Mode 0=Interlace 1=Non-interlace, TEXT Mode 0=Non-interlace 1=Interlace
- 29. ABL: Bright ABL ON/OFF ON=1 OFF=0
- 31. OP0 • 32. OP1 • 33. OP2:  
Input data are different according to models.  
AV INPUT : 00→NO MODEL, 01→ MONO, CXA1315, 10/11→ STEREO, TDA8424  
TV System : 00→ Multi model, 01→ B/G, 10→ D/K.I, 11→ B/G D/K  
NTSC, SECAM, Chin

**No. 31 OP0 \* Input data are different according to models**

Item	-	AV Input		Sharp 50%	Remote Preset	Auto Program	Arabic	Reserved
KV-G21L3	0	0	1	0	1	1	1	0

**No. 32 OP1**

Item	Video Text	Volume 1	Thai B	TV System		NT3.58	SECAM	Reserved
KV-G21L3	0	0	0	0	1	1	1	0

**No. 33 OP2**

Item	-	Sound mode	Child Lock	Sound Effect	High Dev.	100 Prg	4:3 Wide	S. Video
KV-G21L3	0	0	1	0	0	1	1	0

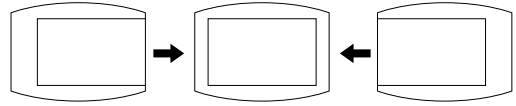
### 5-3. A BOARD, ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons **[5]** and **[0]** (Data Initialize), and **[2]** and **[0]** (Data Copy) to initialize the data.
3. Call each item number, and check if the respective screen shows the normal picture.  
In case some items are not well-adjusted, give them fine adjustment.  
Write the data per each item number (**[MUTING]** + **[0]**).
4. Select item numbers and “31” (OP0), “32” (OP1) and “33” (OP2) and set the bit per model with command buttons **[3]** and **[6]**.
5. Press commander buttons **[8]** and **[0]** (Test Normal) to return all user adjustments to the data that was set on shipment from the factory. (= Cancel Service Mode.)

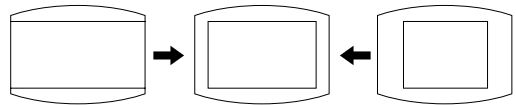
### 5-4. PICTURE DISTORTION ADJUSTMENT

Item Number 00 – 08

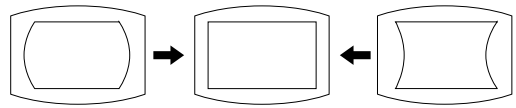
00 HSF (H SHIFT)



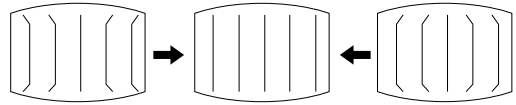
01 HSZ (H SIZE)



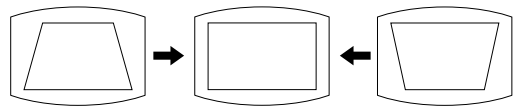
02 PAP (PIN AMPLITUDE)



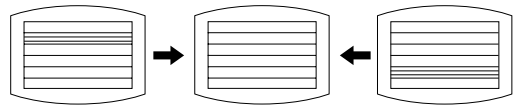
03 CNP (CORNER PIN)



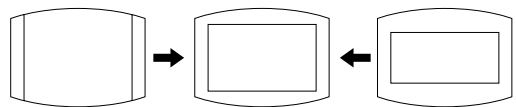
04 TLT (TILT)



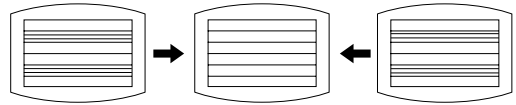
05 VSL (V SLOPE)



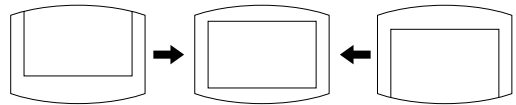
06 VAP (V AMPLITUDE)



07 SCR (S CORRECTION)



08 VSF (V SHIFT)



**MEMO**

Dotted lines for writing.



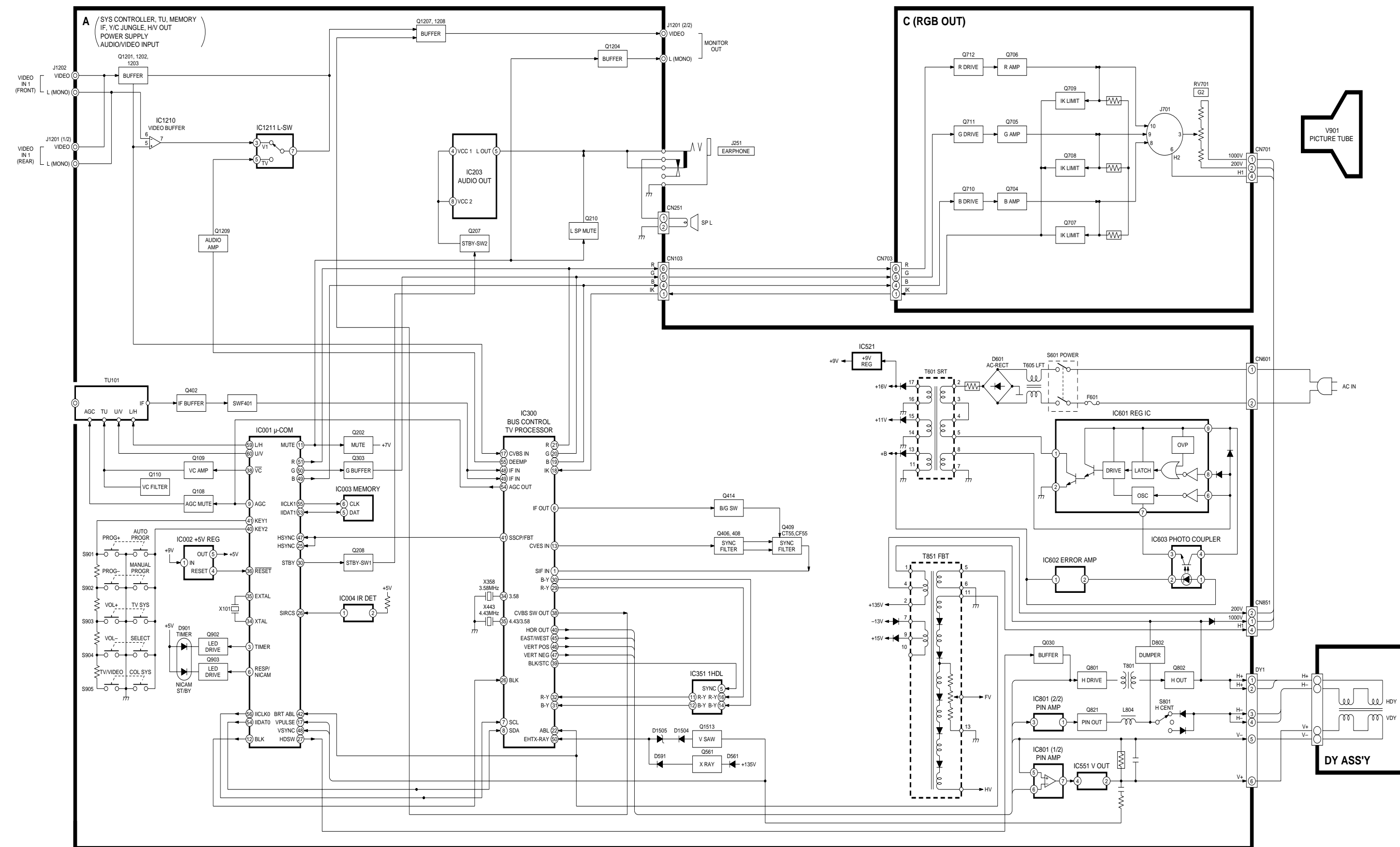
**SECTION 6  
DIAGRAMS**

**KV-G21L3  
RM-883**

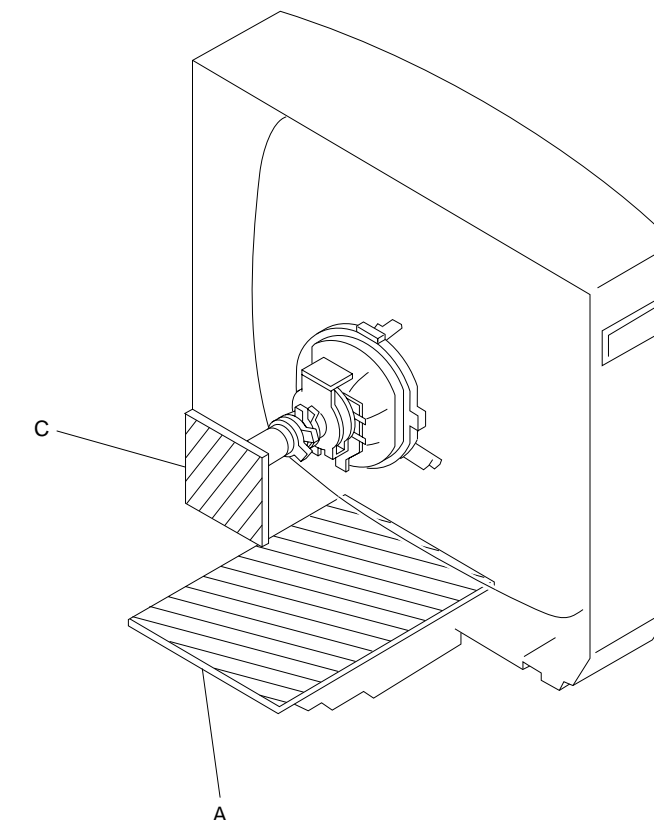
**KV-G21L3  
RM-883**

**KV-G21L3  
RM-883**

**6-1. BLOCK DIAGRAMS**



**6-2. CIRCUIT BOARDS LOCATION**



**6-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS**

- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.
  - All electrolytic capacitors are rated at 50V unless otherwise noted.
  - All resistors are in ohms.
  - Indication of resistance which does not have rating electrical power is as follows.
    - Pitch: 5 mm
    - Rating electrical power 1/4W (CHIP: 1/10W)
  - $\square$  : nonflammable resistor.
  - $\Delta$  : internal component.
  - $\square$  : panel designation or adjustment for repair.
  - All variable and adjustable resistors have characteristic curve B unless otherwise noted.
  - Readings are taken with a color-bar signal input.
    - no mark : PAL
    - ( ) : SECAM
    - [ ] : NTSC 3.58
    - « » : NTSC 4.43
  - Readings are taken with a 10 M digital m ultimeter.
  - Voltage is dc with respect to ground unless otherwise noted.
  - Voltage variations may be noted due to normal production tolerances.
  - All voltages are in V.
  - \* : Cannot be measured.
  - Circled numbers are waveform reference.
  - $\text{---}$  : B + bus.
  - $\text{---}$  : B - bus.
  - $\Rightarrow$  : signal path.

<b>Reference information</b>		
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: X	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

**Note: The component identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.**

PRINTED WIRING BOARD

**A** MAIN TUNER, VIF, SIF, AV SW Y/C DECODE JUNGLE,  
POWER SUPPLY, DEFLECTION

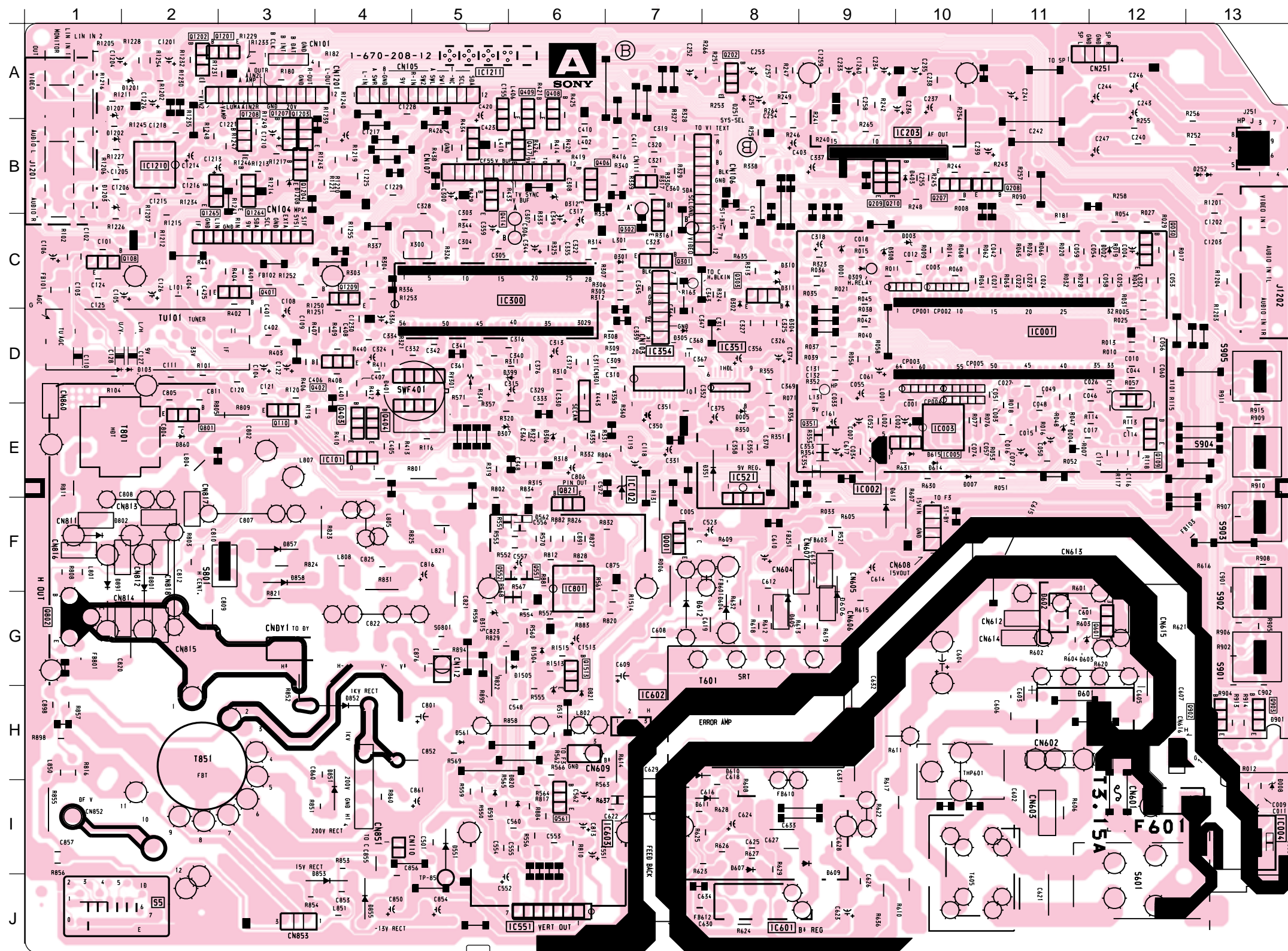
A BOARD

IC		DIODE	
IC001	D-11	D001	C-9
IC002	E-9	D002	C-12
IC003	E-10	D003	C-10
IC004	I-13	D004	E-11
IC005	E-10	D005	E-8
IC101	E-4	D006	H-13
IC102	E-7	D007	E-10
IC203	B-10	D008	I-13
IC300	C-5	D103	D-2
IC351	D-8	D251	A-8
IC354	D-7	D252	B-13
IC521	E-8	D301	C-7
IC551	J-6	D302	C-8
IC601	J-8	D304	D-8
IC602	H-7	D305	D-7
IC603	I-6	D306	E-6
IC801	F-6	D307	E-5
IC1210	B-2	D308	C-9
IC1211	A-5	D309	C-9
		D310	C-8
		D311	C-8
		D312	B-6
		D315	G-5
		D351	E-8
		D399	D-5
		D401	D-4
		D403	B-10
		D513	H-6
		D551	I-5
		D561	H-5
		D562	F-6
		D591	I-5
		D601	H-11
		D602	G-11
		D603	G-12
		D604	G-8
		D605	G-8
		D606	G-9
		D607	I-8
		D609	I-9
		D610	H-8
		D611	I-7
		D612	G-7
		D613	E-9
		D614	E-10
		D615	E-10
		D801	F-2
		D802	F-1
		D820	H-6
		D821	H-6
		D851	H-4
		D852	H-4
		D853	I-3
		D855	J-4
		D857	F-3
		D858	F-3
		D860	E-2
		D891	F-1
		D901	H-13
		D1201	A-2
		D1202	B-1
		D1203	B-1
		D1207	A-1
		D1208	B-3
		D1265	B-2
		D1208	B-3
		D1504	G-6
		D1505	G-6

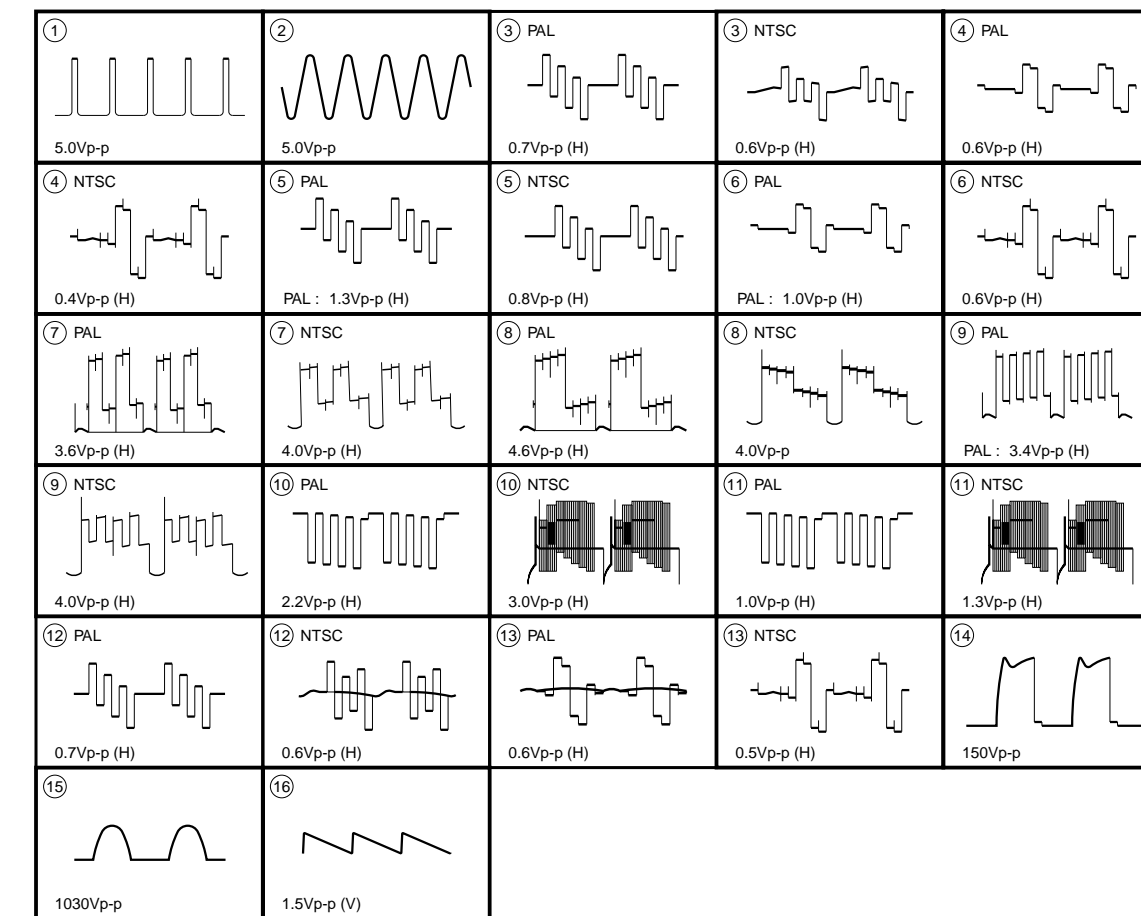
  

TRANSISTOR	
Q001	F-7
Q030	C-12
Q108	C-2
Q109	E-12
Q110	E-3
Q202	A-8
Q207	B-10
Q208	B-11
Q209	B-9
Q210	B-9
Q301	C-7
Q302	C-7
Q303	C-8
Q351	E-9
Q401	C-3
Q402	D-3
Q403	E-4
Q404	E-4
Q406	B-6
Q408	A-6
Q409	A-6
Q414	C-5
Q417	B-6
Q551	F-6
Q552	F-5
Q561	I-6
Q601	G-11
Q801	E-2
Q802	G-1
Q821	E-6
Q902	H-13
Q903	H-13
Q1201	A-2
Q1202	A-2
Q1203	A-3
Q1204	B-3
Q1207	A-3
Q1208	A-3
Q1209	C-4
Q1264	B-3
Q1265	B-2
Q1513	G-6

- A Board -



A BOARD IC001 CXP750097-006S



**NOTE:**  
The circuit indicated at left contains high voltage of over 600 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.

## SECTION 7 EXPLODED VIEW

KV-G21L3  
RM-883

KV-G21L3  
RM-883

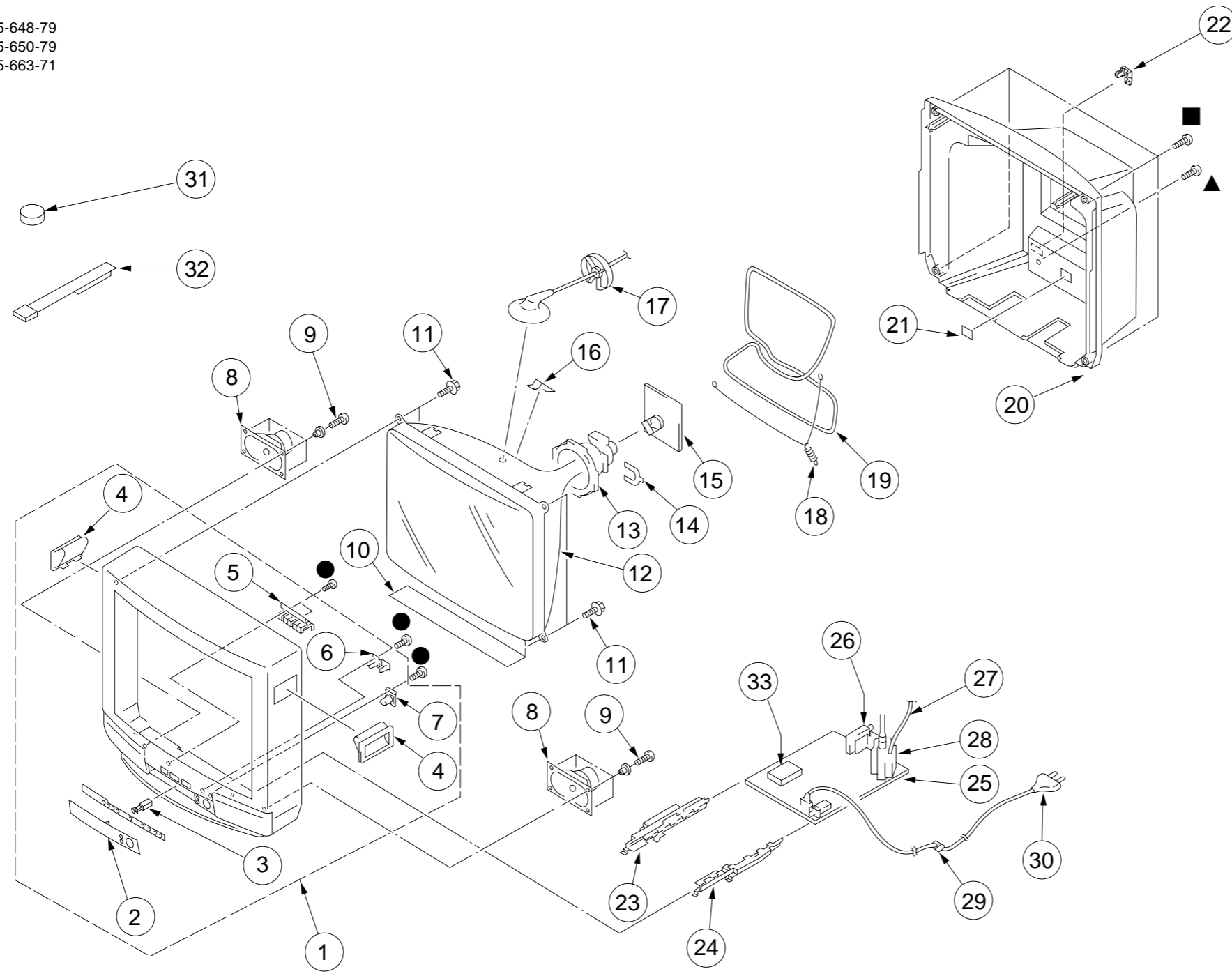
**NOTE:**

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

**7-1. CHASSIS**

- : BVTP3 × 12 7-685-648-79
- ▲ : BVTP3 × 16 7-685-650-79
- : BVTP4 × 16 7-685-663-71



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4037-408-1	BEZNET ASSY	2-7
2	4-063-053-21	DOOR , CONTROL (PAINTING)	
3	4-627-936-01	LOCK, MINIATURE SIDE	
4	4-048-691-11	HANDLE	
5	4-048-687-01	BUTTON, MULTI	
6	4-049-123-01	GUIDE, LIGHT	
7	4-048-688-01	BUTTON, POWER	
8	1-504-305-11	SPEAKER (5X12CM)	
9	4-043-388-11	SCREW, STEP TAPPING	
10	4-054-468-01	SHEET, BLOTTING	
11	4-365-808-01	SCREW (5), TAPPING	
12	$\Delta$ 8-738-774-05	PICTURE TUBE (A51JUH71X)	
13	8-451-280-33	DEFLECTION YOKE (Y21PXA2)	
14	1-452-277-00	MAGNET, BMC	
15	* A-1332-019-A	C BOARD MOUNTED	
16	4-046-600-11	SPACER, DY	
17	* 3-704-372-41	HOLDER, HV CABLE	
18	4-369-318-61	SPRING, TENSION	
19	$\Delta$ 1-409-942-11	COIL, DEMAGNETIZATION	
20	$\Delta$ 4-063-054-01	COVER, REAR	
21	4-049-416-11	BLIND, SHEET	
22	4-049-130-21	CLAMP, CODE	
23	* 4-048-690-01	RAIL (L), GUIDE	
24	* 4-048-689-01	RAIL (R), GUIDE	
25	* A-1299-117-A	A BOARD COMPLETE	
26	8-598-323-50	TUNER BT-AG401	
27	$\Delta$ 1-900-700-05	LEAD ASSY, FOCUS	
28	$\Delta$ 1-453-193-21	TRANSFORMER ASSY, FLYBACK(NX-1742//M3A)	
29	$\Delta$ 4-389-778-31	HOLDER, AC CORD	
30	$\Delta$ 1-574-062-61	CORD, POWER (WITH CONNECTOR)2.5A/250V	
31	1-452-032-00	MAGNET,DISC	
32	4-051-736-41	PIECE A(90), CONV, CORRECT	
33	* 4-367-524-32	CASE, SHIELD (LID UPPER)	



# SECTION 8

## ELECTRICAL PARTS LIST

A

A

## NOTE:

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

## RESISTORS

• All resistors are in ohms  
• F : nonflammable

## CAPACITORS

• MF :  $\mu$ F, PF :  $\mu$  $\mu$ F

## COILS

• MMH :  $\mu$ H, UH :  $\mu$ H

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
* A-1299-117-A	COMPLETE PWB, A	*****		C102	1-136-165-00	MYLAR	0.1MF 5% 50V
* 1-580-798-11	CONNECTOR PIN (DY) 6P			C105	1-126-934-11	ELECT	220MF 20% 16V
4-382-854-01	SCREW (M3X8), P, SW (+)			C106	1-126-964-51	ELECT	10MF 20% 50V
4-382-854-11	SCREW (M3X10), P, SW (+)			C108	1-126-767-11	ELECT	1000MF 20% 16V
				C109	1-102-125-00	CERAMIC	0.0047MF 10% 50V
				C111	1-102-074-00	CERAMIC	0.001MF 10% 50V
				C114	1-102-973-00	CERAMIC	100PF 5% 50V
				C115	1-102-947-00	CERAMIC	10PF 0.5PF 50V
				C116	1-136-165-00	MYLAR	0.1MF 5% 50V
				C117	1-102-973-00	CERAMIC	100PF 5% 50V
				C118	1-126-965-11	ELECT	22MF 20% 50V
				C119	1-136-153-00	MYLAR	0.01MF 5% 50V
				C120	1-130-493-00	MYLAR	0.068MF 5% 50V
				C121	1-130-493-00	MYLAR	0.068MF 5% 50V
				C122	1-126-933-11	ELECT	100MF 20% 16V
				C124	1-136-165-00	MYLAR	0.1MF 5% 50V
				C125	1-136-165-00	MYLAR	0.1MF 5% 50V
				C234	1-104-664-11	ELECT	47MF 20% 16V
				C235	1-126-933-11	ELECT	100MF 20% 16V
				C236	1-126-949-11	ELECT	220MF 20% 35V
				C237	1-126-933-11	ELECT	100MF 20% 16V
				C238	1-137-188-51	MYLAR	0.15MF 5% 50V
				C241	1-126-942-61	ELECT	1000MF 20% 25V
				C242	1-136-153-00	MYLAR	0.01MF 5% 50V
				C243	1-126-964-51	ELECT	10MF 20% 50V
				C244	1-126-942-61	ELECT	1000MF 20% 25V
				C253	1-126-933-11	ELECT	100MF 20% 16V
				C258	1-130-494-11	MYLAR	0.082MF 5% 50V
				C300	1-104-664-11	ELECT	47MF 20% 16V
				C304	1-136-165-00	MYLAR	0.1MF 5% 50V
				C305	1-136-165-00	MYLAR	0.1MF 5% 50V
				C306	1-136-165-00	MYLAR	0.1MF 5% 50V
				C307	1-136-165-00	MYLAR	0.1MF 5% 50V
				C308	1-136-165-00	MYLAR	0.1MF 5% 50V
				C309	1-136-165-00	MYLAR	0.1MF 5% 50V
				C310	1-136-165-00	MYLAR	0.1MF 5% 50V
				C311	1-102-951-00	CERAMIC	15PF 5% 50V
				C312	1-102-951-00	CERAMIC	15PF 5% 50V
				C313	1-126-933-11	ELECT	100MF 20% 16V
				C314	1-102-121-00	CERAMIC	0.0022MF 10% 50V
				C315	1-126-960-11	ELECT	1MF 20% 50V
				C316	1-102-125-00	CERAMIC	0.0047MF 10% 50V
				C317	1-126-961-11	ELECT	2.2MF 20% 50V
				C319	1-136-165-00	MYLAR	0.1MF 5% 50V
				C320	1-136-165-00	MYLAR	0.1MF 5% 50V
				C321	1-136-165-00	MYLAR	0.1MF 5% 50V
				C323	1-101-880-00	CERAMIC	47PF 5% 50V

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C324	1-126-961-11	ELECT	2.2MF 20% 50V	C607	1-161-830-00	CERAMIC	0.0047MF 99% 500V
C325	1-102-947-00	CERAMIC	10PF 0.5PF 50V	C608	1-104-332-11	CERAMIC	470PF 10% 2KV
C326	1-102-949-00	CERAMIC	12PF 5% 50V	C609	1-124-347-51	ELECT	100MF 20% 160V
C327	1-102-947-00	CERAMIC	10PF 0.5PF 50V	C611	$\Delta$ 1-113-900-11	CERAMIC	470PF 10% 250V
C328	1-136-153-00	MYLAR	0.01MF 5% 50V	C613	1-102-824-00	CERAMIC	470PF 5% 50V
C329	1-130-478-00	MYLAR	0.0039MF 5% 50V	C614	1-126-943-11	ELECT	2200MF 20% 25V
C330	1-136-165-00	MYLAR	0.1MF 5% 50V	C616	1-102-228-00	CERAMIC	470PF 10% 500V
C331	1-126-964-51	ELECT	10MF 20% 50V	C618	1-102-114-00	CERAMIC	470PF 10% 50V
C332	1-136-165-00	MYLAR	0.1MF 5% 50V	C621	$\Delta$ 1-104-705-11	MYLAR	0.1MF 20% 250V
C333	1-136-165-00	MYLAR	0.1MF 5% 50V	C622	1-107-368-11	MYLAR	0.047MF 99% 200V
C334	1-102-123-00	CERAMIC	0.0033MF 10% 50V	C623	1-126-934-11	ELECT	220MF 20% 16V
C335	1-102-973-00	CERAMIC	100PF 5% 50V	C624	1-126-767-11	ELECT	1000MF 20% 16V
C336	1-126-964-51	ELECT	10MF 20% 50V	C625	1-102-074-00	CERAMIC	0.001MF 10% 50V
C337	1-126-933-11	ELECT	100MF 20% 16V	C627	1-162-116-00	CERAMIC	680PF 10% 2KV
C339	1-101-361-00	CERAMIC	150PF 5% 50V	C628	1-102-824-00	CERAMIC	470PF 5% 50V
C340	1-102-074-00	CERAMIC	0.001MF 10% 50V	C630	$\Delta$ 1-113-900-11	CERAMIC	470PF 10% 250V
C341	1-102-973-00	CERAMIC	100PF 5% 50V	C631	1-161-830-00	CERAMIC	0.0047MF 99% 500V
C342	1-136-165-00	MYLAR	0.1MF 5% 50V	C632	$\Delta$ 1-113-900-11	CERAMIC	470PF 10% 250V
C344	1-126-964-51	ELECT	10MF 20% 50V	C633	1-161-754-00	CERAMIC	0.001MF 10% 3KV
C349	1-126-964-51	ELECT	10MF 20% 50V	C634	1-102-114-00	CERAMIC	470PF 10% 50V
C350	1-104-664-11	ELECT	47MF 20% 16V	C801	1-123-024-21	ELECT	33MF 160V
C351	1-136-165-00	MYLAR	0.1MF 5% 50V	C802	1-107-364-11	MYLAR	0.01MF 10% 200V
C352	1-136-169-00	MYLAR	0.22MF 5% 50V	C804	1-102-074-00	CERAMIC	0.001MF 10% 50V
C358	1-136-165-00	MYLAR	0.1MF 5% 50V	C805	1-102-244-00	CERAMIC	220PF 10% 500V
C359	1-126-933-11	ELECT	100MF 20% 16V	C806	1-126-960-11	ELECT	1MF 20% 50V
C361	1-102-074-00	CERAMIC	0.001MF 10% 50V	C807	1-136-569-11	FILM	1.2MF 5% 200V
C362	1-162-211-31	CERAMIC	33PF 5% 50V	C808	1-129-746-00	FILM	0.039MF 5% 400V
C367	1-136-165-00	MYLAR	0.1MF 5% 50V	C809	1-162-115-00	CERAMIC	330PF 10% 2KV
C368	1-136-165-00	MYLAR	0.1MF 5% 50V	C810	1-106-365-00	MYLAR	0.0082MF 99% 200V
C369	1-136-165-00	MYLAR	0.1MF 5% 50V	C811	1-162-318-11	CERAMIC	0.001MF 10% 500V
C370	1-136-165-00	MYLAR	0.1MF 5% 50V	C812	1-136-081-00	FILM	0.012MF 3% 2KV
C374	1-126-967-11	ELECT	47MF 20% 50V	C816	1-107-636-11	ELECT	10MF 20% 160V
C375	1-126-967-11	ELECT	47MF 20% 50V	C820	1-161-754-00	CERAMIC	0.001MF 10% 2KV
C402	1-136-153-00	MYLAR	0.01MF 5% 50V	C821	1-104-999-11	MYLAR	0.1MF 10% 200V
C403	1-126-968-11	ELECT	100MF 20% 50V	C822	1-136-111-00	FILM	1MF 5% 200V
C405	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C823	1-136-153-00	MYLAR	0.01MF 5% 50V
C406	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C825	1-107-364-11	MYLAR	0.01MF 10% 200V
C407	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C850	1-126-941-11	ELECT	470MF 20% 25V
C408	1-102-125-00	CERAMIC	0.0047MF 10% 50V	C852	1-104-574-11	CERAMIC	0.0047MF 10% 2KV
C410	1-102-961-00	CERAMIC	27PF 5% 50V	C853	1-162-318-11	CERAMIC	0.001MF 10% 500V
C411	1-101-888-00	CERAMIC	68PF 5% 50V	C854	1-126-941-11	ELECT	470MF 20% 25V
C423	1-102-820-00	CERAMIC	330PF 5% 50V	C856	1-162-318-11	CERAMIC	0.001MF 10% 500V
C501	1-102-228-00	CERAMIC	470PF 10% 500V	C857	1-136-159-00	MYLAR	0.033MF 5% 50V
C523	1-126-933-11	ELECT	100MF 20% 16V	C860	1-102-228-00	CERAMIC	470PF 10% 500V
C548	1-106-220-00	MYLAR	0.1MF 10% 100V	C861	1-107-654-11	ELECT	33MF 20% 250V
C551	1-126-948-11	ELECT	100MF 20% 35V	C875	1-128-562-11	ELECT	47MF 20% 100V
C552	1-126-948-11	ELECT	100MF 20% 35V	C876	1-107-369-11	MYLAR	0.068MF 10% 100V
C553	1-102-127-00	CERAMIC	0.0068MF 10% 50V	C891	1-102-116-00	CERAMIC	680PF 10% 50V
C554	1-102-244-00	CERAMIC	220PF 10% 500V	C898	1-137-150-11	MYLAR	0.01MF 10% 100V
C555	1-101-804-00	CERAMIC	10PF 5% 500V	C901	1-102-824-00	CERAMIC	470PF 5% 50V
C562	1-126-933-11	ELECT	100MF 20% 16V	C902	1-102-824-00	CERAMIC	470PF 5% 50V
C602	1-161-830-00	CERAMIC	0.0047MF 99% 500V	C1201	1-126-933-11	ELECT	100MF 20% 16V
C603	1-161-830-00	CERAMIC	0.0047MF 99% 500V	C1202	1-136-165-00	MYLAR	0.1MF 5% 50V
C604	1-117-752-11	ELECT(BLOCK)	330MF 20% 450V	C1204	1-126-933-11	ELECT	100MF 20% 16V
C605	1-161-830-00	CERAMIC	0.0047MF 99% 500V	C1205	1-136-165-00	MYLAR	0.1MF 5% 50V
C606	1-161-830-00	CERAMIC	0.0047MF 99% 500V	C1210	1-126-933-11	ELECT	100MF 20% 16V
				C1213	1-126-960-11	ELECT	1MF 20% 50V

The components identified by shading  
and mark  $\triangle$  are critical for safety.  
Replace only with part number specified.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C1214	1-126-964-51	ELECT	10MF 20% 50V	D513	8-719-109-84	DIODE RD5.1ESB1	
C1217	1-126-933-11	ELECT	100MF 20% 16V	D551	8-719-908-03	DIODE GP08D	
C1218	1-102-976-00	CERAMIC	180PF 5% 50V	D561	8-719-911-19	DIODE 1SS119-25	
C1221	1-137-194-51	MYLAR	0.47MF 5% 50V	D591	8-719-911-19	DIODE 1SS119-25	
C1226	1-126-934-11	ELECT	220MF 20% 16V	D601	8-719-510-53	DIODE D4SB60L	
C1228	1-126-960-11	ELECT	1MF 20% 50V	D604	8-719-301-64	DIODE RU4DS	
C1229	1-137-194-51	MYLAR	0.47MF 5% 50V	D606	8-719-510-73	DIODE S3L20UF4	
C1230	1-136-165-00	MYLAR	0.1MF 5% 50V	D607	8-719-510-26	DIODE D1NL20-TA	
C1513	1-126-968-11	ELECT	100MF 20% 50V	D609	8-719-510-26	DIODE D1NL20-TA	
		<FILTER>		D610	8-719-510-26	DIODE D1NL20-TA	
CF55	1-567-099-00	FILTER, CERAMIC		D611	8-719-510-26	DIODE D1NL20-TA	
		<CONNECTOR>		D801	8-719-945-80	DIODE ERC06-15S	
CN101	* 1-560-124-00	PLUG, CONNECTOR (2.5MM) 4P		D802	8-719-900-26	DIODE ERD29-08J	
CN103	* 1-564-509-11	PLUG, CONNECTOR 6P		D851	8-719-302-43	DIODE EL1Z	
CN251	* 1-564-507-11	PLUG, CONNECTOR 4P		D852	8-719-028-72	DIODE RGP02-17EL-6433	
CN601	* 1-580-843-11	PIN, CONNECTOR (POWER)		D853	8-719-302-43	DIODE EL1Z	
CN602	* 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D855	8-719-302-43	DIODE EL1Z	
CN603	* 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D857	8-719-908-03	DIODE GP08D	
CN851	* 1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		D858	8-719-908-03	DIODE GP08D	
		<COMPOSITION CIRCUIT BLOCK>		D860	8-719-911-19	DIODE 1SS119-25	
CP001	1-233-747-11	CIRCUIT BLOCK, COMPOSITION		D901	8-719-054-60	DIODE LNK0220022G	
CP002	1-233-749-11	CIRCUIT BLOCK, COMPOSITION		D1201	8-719-121-26	DIODE RD9.1ESL2	
CP003	1-233-748-11	CIRCUIT BLOCK, COMPOSITION		D1202	8-719-121-26	DIODE RD9.1ESL2	
CP004	1-233-750-11	CIRCUIT BLOCK, COMPOSITION		D1207	8-719-121-26	DIODE RD9.1ESL2	
CP005	1-233-749-11	CIRCUIT BLOCK, COMPOSITION		D1208	8-719-121-26	DIODE RD9.1ESL2	
		<TRIMMER>		D1504	8-719-911-19	DIODE 1SS119-25	
CT55	1-404-801-11	TRAP, CERAMIC		D1505	8-719-109-81	DIODE RD4.7ESB2	
		<DIODE>				<FUSE>	
D001	8-719-109-81	DIODE RD4.7ESB2		F601	$\triangle$ 1-532-237-00	FUSE, TIME-LAG (BET) 3.15A/250V	
D002	8-719-911-19	DIODE 1SS119-25				<FERRITE BEAD>	
D003	8-719-911-19	DIODE 1SS119-25		FB101	1-410-397-21	FERRITE 1.1UH	
D005	8-719-109-84	DIODE RD5.1ESB1		FB102	1-410-397-21	FERRITE 1.1UH	
D008	8-719-109-89	DIODE RD5.6ESB2		FB601	1-410-397-21	FERRITE 1.1UH	
D103	8-719-016-42	DIODE MC932		FB603	1-410-397-21	FERRITE 1.1UH	
D251	8-719-911-19	DIODE 1SS119-25		FB610	1-410-397-21	FERRITE 1.1UH	
D252	8-719-016-42	DIODE MC932		FB612	1-410-397-21	FERRITE 1.1UH	
D301	8-719-911-19	DIODE 1SS119-25		FB801	1-410-397-21	FERRITE 1.1UH	
D305	8-719-072-56	DIODE HSS81				<#####>	
D306	8-719-911-19	DIODE 1SS119-25		FH01	1-533-223-11	CLIP, FUSE	
D307	8-719-911-19	DIODE 1SS119-25		FH02	1-533-223-11	CLIP, FUSE	
D308	8-719-109-54	DIODE RD2.2ESB2				<IC>	
D310	8-719-911-19	DIODE 1SS119-25		IC001	8-752-898-53	IC CXP85220A-068S	
D311	8-719-109-54	DIODE RD2.2ESB2		IC002	8-759-805-37	IC L78LR05D-MA	
D312	8-719-110-08	DIODE RD8.2ESB2		IC003	8-759-370-34	IC ST24C08FB6	
D315	8-719-121-26	DIODE RD9.1ESL2		IC004	8-742-134-00	HYB IC SBX1981-51P	
D351	8-719-908-03	DIODE GP08D		IC102	8-759-157-40	IC UPC574J	
D399	8-719-121-26	DIODE RD9.1ESL2		IC203	8-759-339-60	IC TA8248K	
D403	8-719-911-19	DIODE 1SS119-25		IC300	8-759-365-26	IC TDA8375A	
				IC351	8-759-565-19	IC TDA4665T/V5-112	



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REF.NO.	PART NO.	DESCRIPTION	REMARK
IC354	8-759-251-56	IC TDA8395T	
IC521	8-759-195-63	IC PQ09RE11	
IC551	8-759-801-98	IC LA7830	
IC601	8-749-014-00	IC STR-S6707N	
IC602	8-749-921-89	IC SE115N	
IC603	$\Delta$ 8-749-010-64	PHOTO COUPLER PC123F2	
IC801	8-759-145-58	IC UPC4558C	
IC1210	8-759-145-58	IC UPC4558C	
IC1211	8-759-711-23	IC NJM2234L	
<JACK>			
J251	1-770-785-11	JACK	
J1201	1-770-660-11	JACK BLOCK, PIN 4P	
J1202	1-695-238-11	JACK BLOCK, PIN 2P	
<COIL>			
L001	1-414-928-21	INDUCTOR 1UH	
L002	1-410-509-51	INDUCTOR 10UH	
L003	1-408-605-31	INDUCTOR 15UH	
L101	1-414-934-21	INDUCTOR 10UH	
L301	1-408-598-31	INDUCTOR 3.9UH	
L401	1-410-498-11	INDUCTOR 1.2UH	
L402	1-410-510-11	INDUCTOR 12UH	
L406	1-410-507-11	INDUCTOR 6.8UH	
L410	1-410-501-51	INDUCTOR 2.2UH	
L802	1-412-527-11	INDUCTOR 15UH	
L804	1-459-075-00	INDUCTOR 3.3MMH	
L805	1-459-769-13	COIL, HORIZONTAL LINEARITY	
L807	1-459-390-00	INDUCTOR 390UH	
L808	1-412-553-11	INDUCTOR 3.3MMH	
L821	1-459-111-00	INDUCTOR 10MMH	
L850	1-408-947-00	INDUCTOR 2.2MMH	
<TRANSISTOR>			
Q030	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q108	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q109	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q110	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q202	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q207	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q208	8-729-030-02	TRANSISTOR DTC144ESA	
Q210	8-729-029-92	TRANSISTOR DTC143ESA	
Q301	8-729-029-66	TRANSISTOR DTC114ESA	
Q302	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q303	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q402	8-729-922-66	TRANSISTOR 2SC2410SN	
Q406	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q408	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q409	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q414	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q561	8-729-200-17	TRANSISTOR 2SA1091-R	
Q801	8-729-140-50	TRANSISTOR 2SC3209LK	
Q802	8-729-821-87	TRANSISTOR 2SD1878-CA	
Q821	8-729-209-15	TRANSISTOR 2SD2012	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q902	8-729-030-02	TRANSISTOR DTC144ESA	
Q903	8-729-030-02	TRANSISTOR DTC144ESA	
Q1201	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q1202	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q1203	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q1204	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1207	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q1208	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q1209	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q1513	8-729-119-79	TRANSISTOR 2SC2785-FEK	
<RESISTOR>			
R007	1-247-855-31	CARBON 10K	5% 1/4W
R008	1-249-417-11	CARBON 1K	5% 1/4W
R010	1-249-417-11	CARBON 1K	5% 1/4W
R012	1-249-401-11	CARBON 47	5% 1/4W
R013	1-249-417-11	CARBON 1K	5% 1/4W
R015	1-247-825-31	CARBON 560	5% 1/4W
R016	1-249-417-11	CARBON 1K	5% 1/4W
R017	1-247-839-31	CARBON 2.2K	5% 1/4W
R018	1-249-409-11	CARBON 220	5% 1/4W
R019	1-247-883-00	CARBON 150K	5% 1/4W
R021	1-247-847-31	CARBON 4.7K	5% 1/4W
R025	1-247-839-31	CARBON 2.2K	5% 1/4W
R026	1-247-839-31	CARBON 2.2K	5% 1/4W
R027	1-247-847-31	CARBON 4.7K	5% 1/4W
R028	1-247-807-31	CARBON 100	5% 1/4W
R029	1-247-847-31	CARBON 4.7K	5% 1/4W
R031	1-249-417-11	CARBON 1K	5% 1/4W
R033	1-249-417-11	CARBON 1K	5% 1/4W
R035	1-249-417-11	CARBON 1K	5% 1/4W
R036	1-249-417-11	CARBON 1K	5% 1/4W
R038	1-249-409-11	CARBON 220	5% 1/4W
R040	1-249-409-11	CARBON 220	5% 1/4W
R041	1-247-807-31	CARBON 100	5% 1/4W
R042	1-249-412-11	CARBON 390	5% 1/4W
R045	1-247-839-31	CARBON 2.2K	5% 1/4W
R047	1-247-807-31	CARBON 100	5% 1/4W
R048	1-247-807-31	CARBON 100	5% 1/4W
R053	1-247-839-31	CARBON 2.2K	5% 1/4W
R054	1-247-855-31	CARBON 10K	5% 1/4W
R057	1-249-417-11	CARBON 1K	5% 1/4W
R060	1-249-411-11	CARBON 330	5% 1/4W
R061	1-247-839-31	CARBON 2.2K	5% 1/4W
R062	1-247-839-31	CARBON 2.2K	5% 1/4W
R063	1-247-839-31	CARBON 2.2K	5% 1/4W
R065	1-249-409-11	CARBON 220	5% 1/4W
R066	1-249-409-11	CARBON 220	5% 1/4W
R068	1-247-807-31	CARBON 100	5% 1/4W
R071	1-249-411-11	CARBON 330	5% 1/4W
R076	1-247-807-31	CARBON 100	5% 1/4W
R077	1-247-807-31	CARBON 100	5% 1/4W
R090	1-247-855-31	CARBON 10K	5% 1/4W
R101	1-247-847-31	CARBON 4.7K	5% 1/4W
R102	1-249-417-11	CARBON 1K	5% 1/4W
R113	1-247-863-31	CARBON 22K	5% 1/4W
R114	1-247-823-31	CARBON 470	5% 1/4W

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REF.NO.	PART NO.	DESCRIPTION			REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
R115	1-247-863-31	CARBON	22K	5%	1/4W	R356	1-249-417-11	CARBON	1K	5%	1/4W
R116	1-247-863-31	CARBON	22K	5%	1/4W	R360	1-259-884-11	CARBON	4.7M	5%	1/4W
R117	1-247-863-31	CARBON	22K	5%	1/4W	R403	1-249-403-11	CARBON	68	5%	1/4W
R118	1-247-863-31	CARBON	22K	5%	1/4W	R406	1-247-847-31	CARBON	4.7K	5%	1/4W
R119	1-249-420-11	CARBON	1.8K	5%	1/4W	R407	1-249-424-11	CARBON	3.9K	5%	1/4W
R120	1-247-891-00	CARBON	330K	5%	1/4W	R408	1-249-420-11	CARBON	1.8K	5%	1/4W
R131	1-216-464-11	METAL OXIDE	18K	5%	2W F	R409	1-247-807-31	CARBON	100	5%	1/4W
R180	1-249-409-11	CARBON	220	5%	1/4W	R414	1-247-823-31	CARBON	470	5%	1/4W
R181	1-249-409-11	CARBON	220	5%	1/4W	R416	1-249-409-11	CARBON	220	5%	1/4W
R182	1-249-409-11	CARBON	220	5%	1/4W	R419	1-249-417-11	CARBON	1K	5%	1/4W
R240	1-247-825-31	CARBON	560	5%	1/4W	R420	1-249-412-11	CARBON	390	5%	1/4W
R242	1-247-823-31	CARBON	470	5%	1/4W	R421	1-249-409-11	CARBON	220	5%	1/4W
R243	1-247-855-31	CARBON	10K	5%	1/4W	R424	1-247-839-31	CARBON	2.2K	5%	1/4W
R244	1-247-855-31	CARBON	10K	5%	1/4W	R425	1-249-412-11	CARBON	390	5%	1/4W
R245	1-249-426-11	CARBON	5.6K	5%	1/4W	R426	1-249-407-11	CARBON	150	5%	1/4W
R248	1-247-839-31	CARBON	2.2K	5%	1/4W	R429	1-249-412-11	CARBON	390	5%	1/4W
R250	1-247-823-31	CARBON	470	5%	1/4W	R433	1-247-863-31	CARBON	22K	5%	1/4W
R252	1-249-411-11	CARBON	330	5%	1/4W	R434	1-247-823-31	CARBON	470	5%	1/4W
R253	1-247-855-31	CARBON	10K	5%	1/4W	R438	1-247-823-31	CARBON	470	5%	1/4W
R254	1-249-389-11	CARBON	4.7	5%	1/4W	R440	1-249-407-11	CARBON	150	5%	1/4W
R258	1-216-396-11	METAL OXIDE	3.9	5%	3W F	R521	1-249-417-11	CARBON	1K	5%	1/4W
R265	1-247-847-31	CARBON	4.7K	5%	1/4W	R552	1-247-883-00	CARBON	150K	5%	1/4W
R266	1-249-437-11	CARBON	47K	5%	1/4W	R553	1-247-863-31	CARBON	22K	5%	1/4W
R303	1-247-807-31	CARBON	100	5%	1/4W	R554	1-102-074-00	CERAMIC	0.001MF	10%	50V
R304	1-247-807-31	CARBON	100	5%	1/4W	R555	1-247-855-31	CARBON	10K	5%	1/4W
R305	1-247-807-31	CARBON	100	5%	1/4W	R556	1-249-417-11	CARBON	1K	5%	1/4W
R306	1-247-807-31	CARBON	100	5%	1/4W	R557	1-249-420-11	CARBON	1.8K	5%	1/4W
R307	1-247-807-31	CARBON	100	5%	1/4W	R561	1-247-839-31	CARBON	2.2K	5%	1/4W
R308	1-249-409-11	CARBON	220	5%	1/4W	R562	1-249-419-11	CARBON	1.5K	5%	1/4W F
R309	1-249-409-11	CARBON	220	5%	1/4W	R563	1-260-126-11	CARBON	180K	5%	1/2W
R310	1-249-441-11	CARBON	100K	5%	1/4W	R564	1-249-438-11	CARBON	56K	5%	1/4W
R311	1-249-430-11	CARBON	12K	5%	1/4W	R565	1-249-438-11	CARBON	56K	5%	1/4W
R312	1-247-807-31	CARBON	100	5%	1/4W	R566	1-247-847-31	CARBON	4.7K	5%	1/4W
R313	1-247-843-11	CARBON	3.3K	5%	1/4W	R569	1-260-354-71	CARBON	150K	5%	1/2W
R316	1-247-847-31	CARBON	4.7K	5%	1/4W	R571	1-249-409-11	CARBON	220	5%	1/4W
R317	1-249-417-11	CARBON	1K	5%	1/4W	R601	1-202-961-11	CEMENTED	1.8	5%	10W
R318	1-247-881-00	CARBON	120K	5%	1/4W	R602	1-202-961-11	CEMENTED	1.8	5%	10W
R319	1-259-877-11	CARBON	1.2M	5%	1/4W	R605	1-216-396-11	METAL OXIDE	3.9	5%	3W F
R320	1-249-434-11	CARBON	27K	5%	1/4W	R606	1-215-915-11	METAL OXIDE	470	5%	3W F
R321	1-215-459-00	METAL	39K	1%	1/4W	R610	1-215-924-00	METAL OXIDE	15K	5%	3W F
R322	1-249-434-11	CARBON	27K	5%	1/4W	R611	1-202-933-61	FUSIBLE	0.1	10%	1/2W F
R326	1-249-424-11	CARBON	3.9K	5%	1/4W	R613	1-219-134-11	FUSIBLE	0.1	10%	1/4W
R330	1-247-825-31	CARBON	560	5%	1/4W	R614	1-215-877-11	METAL OXIDE	22K	5%	1W F
R331	1-247-897-11	CARBON	560K	5%	1/4W	R616 $\Delta$	1-247-289-00	CARBON	8.2M	5%	1W
R332	1-249-409-11	CARBON	220	5%	1/4W	R617	1-215-924-00	METAL OXIDE	15K	5%	3W F
R333	1-249-431-11	CARBON	15K	5%	1/4W	R619	1-219-134-11	FUSIBLE	0.1	10%	1/4W
R334	1-247-823-31	CARBON	470	5%	1/4W	R622	1-217-192-21	METAL	0.22	10%	2W
R335	1-247-855-31	CARBON	10K	5%	1/4W	R623	1-247-807-31	CARBON	100	5%	1/4W
R336	1-247-839-31	CARBON	2.2K	5%	1/4W	R624	1-216-446-00	METAL OXIDE	18	5%	2W F
R339	1-215-408-00	METAL	300	1%	1/4W	R625	1-249-424-11	CARBON	3.9K	5%	1/4W
R340	1-249-411-11	CARBON	330	5%	1/4W	R626	1-249-420-11	CARBON	1.8K	5%	1/4W
R341	1-249-417-11	CARBON	1K	5%	1/4W	R627	1-249-417-11	CARBON	1K	5%	1/4W
R344	1-259-880-11	CARBON	2.2M	5%	1/4W	R628	1-249-417-11	CARBON	1K	5%	1/4W
R351	1-249-393-11	CARBON	10	5%	1/4W	R629	1-249-399-11	CARBON	33	5%	1/4W
R355	1-249-393-11	CARBON	10	5%	1/4W	R632	1-249-381-11	CARBON	1	5%	1/4W



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REF.NO.	PART NO.	DESCRIPTION	REMARK
R636	1-215-924-00	METAL OXIDE	15K 5% 3W F
R801	1-215-920-11	METAL OXIDE	3.3K 5% 3W F
R802	1-249-385-11	CARBON	2.2 5% 1/4W F
R803	1-247-839-31	CARBON	2.2K 5% 1/4W
R804	1-249-417-11	CARBON	1K 5% 1/4W
R805	1-247-863-31	CARBON	22K 5% 1/4W
R809	1-247-756-11	CARBON	2.2K 5% 1/2W F
R811	1-216-343-00	METAL OXIDE	0.33 5% 1W F
R812	1-215-447-00	METAL	12K 1% 1/4W
R816	1-249-435-11	CARBON	33K 5% 1/4W
R820	1-249-419-11	CARBON	1.5K 5% 1/4W
R821	1-215-911-11	METAL OXIDE	100 5% 3W F
R822	1-216-429-00	METAL OXIDE	270 5% 1W F
R823	1-249-931-11	CARBON	2.2K 5% 1/4W F
R825	1-249-392-11	CARBON	8.2 5% 1/4W F
R826	1-249-422-11	CARBON	2.7K 5% 1/4W
R827	1-249-440-11	CARBON	82K 5% 1/4W
R828	1-249-424-11	CARBON	3.9K 5% 1/4W
R829	1-249-419-11	CARBON	1.5K 5% 1/4W
R831	1-215-863-11	METAL OXIDE	100 5% 1W F
R832	1-247-839-31	CARBON	2.2K 5% 1/4W
R834	1-247-855-31	CARBON	10K 5% 1/4W
R851	1-249-382-11	CARBON	1.2 5% 1/4W F
R852	1-249-923-11	CARBON	1K 5% 1/4W F
R853	1-249-377-11	CARBON	0.47 5% 1/4W F
R854	1-249-377-11	CARBON	0.47 5% 1/4W F
R855	1-202-818-00	SOLID	1K 20% 1/2W
R856	1-247-855-31	CARBON	10K 5% 1/4W
R857	1-249-438-11	CARBON	56K 5% 1/4W
R858	1-216-370-11	METAL OXIDE	1.2 5% 2W F
R860	1-247-887-00	CARBON	220K 5% 1/4W
R881	1-247-825-31	CARBON	560 5% 1/4W
R882	1-249-422-11	CARBON	2.7K 5% 1/4W
R883	1-247-903-00	CARBON	1M 5% 1/4W
R895	1-216-349-00	METAL OXIDE	1 5% 1W F
R898	1-247-839-31	CARBON	2.2K 5% 1/4W
R902	1-247-847-31	CARBON	4.7K 5% 1/4W
R904	1-247-847-31	CARBON	4.7K 5% 1/4W
R905	1-249-417-11	CARBON	1K 5% 1/4W
R906	1-249-417-11	CARBON	1K 5% 1/4W
R907	1-249-420-11	CARBON	1.8K 5% 1/4W
R908	1-249-420-11	CARBON	1.8K 5% 1/4W
R909	1-247-843-11	CARBON	3.3K 5% 1/4W
R910	1-247-843-11	CARBON	3.3K 5% 1/4W
R911	1-249-428-11	CARBON	8.2K 5% 1/4W
R913	1-247-823-31	CARBON	470 5% 1/4W
R914	1-247-823-31	CARBON	470 5% 1/4W
R915	1-249-428-11	CARBON	8.2K 5% 1/4W
R1201	1-249-404-00	CARBON	82 5% 1/4W
R1202	1-249-417-11	CARBON	1K 5% 1/4W
R1203	1-249-437-11	CARBON	47K 5% 1/4W
R1205	1-249-404-00	CARBON	82 5% 1/4W
R1206	1-249-437-11	CARBON	47K 5% 1/4W
R1211	1-249-403-11	CARBON	68 5% 1/4W
R1212	1-249-417-11	CARBON	1K 5% 1/4W
R1215	1-247-895-00	CARBON	470K 5% 1/4W
R1216	1-247-895-00	CARBON	470K 5% 1/4W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R1217	1-247-823-31	CARBON	470 5% 1/4W
R1219	1-247-855-31	CARBON	10K 5% 1/4W
R1220	1-249-417-11	CARBON	1K 5% 1/4W
R1221	1-247-855-31	CARBON	10K 5% 1/4W
R1227	1-249-436-11	CARBON	39K 5% 1/4W
R1228	1-249-417-11	CARBON	1K 5% 1/4W
R1229	1-247-823-31	CARBON	470 5% 1/4W
R1230	1-247-855-31	CARBON	10K 5% 1/4W
R1231	1-249-417-11	CARBON	1K 5% 1/4W
R1232	1-249-424-11	CARBON	3.9K 5% 1/4W
R1233	1-247-839-31	CARBON	2.2K 5% 1/4W
R1235	1-249-436-11	CARBON	39K 5% 1/4W
R1239	1-249-389-11	CARBON	4.7 5% 1/4W F
R1240	1-247-807-31	CARBON	100 5% 1/4W
R1241	1-249-417-11	CARBON	1K 5% 1/4W
R1243	1-249-407-11	CARBON	150 5% 1/4W
R1246	1-249-411-11	CARBON	330 5% 1/4W
R1247	1-247-823-31	CARBON	470 5% 1/4W
R1248	1-249-417-11	CARBON	1K 5% 1/4W
R1249	1-247-823-31	CARBON	470 5% 1/4W
R1250	1-247-901-11	CARBON	820K 5% 1/4W
R1251	1-247-901-11	CARBON	820K 5% 1/4W
R1252	1-247-839-31	CARBON	2.2K 5% 1/4W
R1253	1-249-418-11	CARBON	1.2K 5% 1/4W
R1255	1-247-855-31	CARBON	10K 5% 1/4W
R1513	1-247-855-31	CARBON	10K 5% 1/4W
R1514	1-247-847-31	CARBON	4.7K 5% 1/4W
R1515	1-247-807-31	CARBON	100 5% 1/4W
<SWITCH>			
S601	$\Delta$ 1-571-433-21	SWITCH, PUSH (AC POWER)	
S801	1-572-707-11	SWITCH, LEVER	
S901	1-570-577-11	SWITCH, PUSH	
S902	1-570-577-11	SWITCH, PUSH	
S903	1-570-577-11	SWITCH, PUSH	
S904	1-570-577-11	SWITCH, PUSH	
S905	1-570-577-11	SWITCH, PUSH	
<SPARK GAP>			
SG801	1-519-422-11	GAP, SPARK	
<#####>			
SWF401	1-577-169-12	SAWF	
<TRANSFORMER>			
T601	$\Delta$ 1-429-137-42	TRANSFORMER, CONVERTER (SRT)	
T605	$\Delta$ 1-431-747-11	TRANSFORMER, LINE FILTER	
T801	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
T851	$\Delta$ 1-453-193-21	TRANSFORMER ASSY, FLYBACK (NX-1742/M34)	
<THERMISTOR>			
THP601	$\Delta$ 1-808-059-31	THERMISTOR, POSITIVE	



The components identified by shading  
and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
		<TUNER>				<JACK>	
TU101	8-598-323-50	VSS TUNER BT-AG401		J701	$\Delta$ 1-251-239-11	SOCKET, CRT	
		<CRYSTAL>				<COIL>	
X101	1-577-082-11	VIBRATOR, CERAMIC		L701	1-410-667-31	INDUCTOR 22UH	
X300	1-411-752-11	COIL				<TRANSISTOR>	
X358	1-781-132-21	VIBRATOR, CRYSTAL		Q704	8-729-326-11	TRANSISTOR 2SC2611	
X443	1-567-504-11	VIBRATOR, CRYSTAL		Q705	8-729-326-11	TRANSISTOR 2SC2611	
*****				Q706	8-729-326-11	TRANSISTOR 2SC2611	
	* A-1332-019-A	MOUNTED PWB, C		Q707	8-729-200-17	TRANSISTOR 2SA1091-O	
		*****		Q708	8-729-200-17	TRANSISTOR 2SA1091-O	
	4-382-854-11	SCREW (M3X10), P, SW (+)		Q709	8-729-200-17	TRANSISTOR 2SA1091-O	
		<CAPACITOR>		Q710	8-729-230-91	TRANSISTOR 2SC3113-B-TP	
C701	1-162-114-00	CERAMIC 0.0047MF	2KV	Q711	8-729-230-91	TRANSISTOR 2SC3113-B-TP	
C702	1-102-074-00	CERAMIC 0.001MF	10% 50V	Q712	8-729-230-91	TRANSISTOR 2SC3113-B-TP	
C703	1-107-651-11	ELECT 4.7MF	20% 250V			<RESISTOR>	
C704	1-130-202-00	FILM 0.022MF	5% 400V	R702	1-244-941-00	CARBON 680K	5% 1/2W
C708	1-102-114-00	CERAMIC 470PF	10% 50V	R703	1-249-496-11	CARBON 100K	5% 1/2W
C709	1-102-114-00	CERAMIC 470PF	10% 50V	R705	1-216-393-00	METAL OXIDE 2.2	5% 3W F
C710	1-102-114-00	CERAMIC 470PF	10% 50V	R710	1-215-922-11	METAL OXIDE 6.8K	5% 3W F
C712	1-102-115-00	CERAMIC 560PF	10% 50V	R711	1-260-339-11	CARBON 8.2K	5% 1/2W
C713	1-102-115-00	CERAMIC 560PF	10% 50V	R712	1-215-922-11	METAL OXIDE 6.8K	5% 3W F
C714	1-102-115-00	CERAMIC 560PF	10% 50V	R713	1-260-339-11	CARBON 8.2K	5% 1/2W
C716	1-126-968-11	ELECT 100MF	20% 50V	R714	1-215-922-11	METAL OXIDE 6.8K	5% 3W F
C736	1-102-114-00	CERAMIC 470PF	10% 50V	R715	1-260-339-11	CARBON 8.2K	5% 1/2W
C737	1-102-114-00	CERAMIC 470PF	10% 50V	R719	1-215-480-00	METAL 300K	1% 1/4W
C746	1-102-114-00	CERAMIC 470PF	10% 50V	R720	1-249-923-11	CARBON 1K	5% 1/4W F
		<CONNECTOR>		R721	1-215-489-00	METAL 680K	1% 1/4W
CN701	* 1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		R722	1-249-923-11	CARBON 1K	5% 1/4W F
CN703	* 1-564-509-11	PLUG, CONNECTOR 6P		R723	1-215-479-00	METAL 270K	1% 1/4W
CN704	1-695-915-11	TAB (CONTACT)		R724	1-249-923-11	CARBON 1K	5% 1/4W F
		<DIODE>		R725	1-249-419-11	CARBON 1.5K	5% 1/4W
D701	8-719-911-19	DIODE 1SS119-25		R726	1-249-419-11	CARBON 1.5K	5% 1/4W
D702	8-719-911-19	DIODE 1SS119-25		R727	1-249-419-11	CARBON 1.5K	5% 1/4W
D703	8-719-911-19	DIODE 1SS119-25		R728	1-249-407-11	CARBON 150	5% 1/4W
D707	8-719-911-19	DIODE 1SS119-25		R729	1-249-408-11	CARBON 180	5% 1/4W
D708	8-719-911-19	DIODE 1SS119-25		R730	1-249-408-11	CARBON 180	5% 1/4W
D709	8-719-911-19	DIODE 1SS119-25		R731	1-247-807-31	CARBON 100	5% 1/4W
D710	8-719-911-19	DIODE 1SS119-25		R732	1-247-807-31	CARBON 100	5% 1/4W
D711	8-719-911-19	DIODE 1SS119-25		R733	1-247-807-31	CARBON 100	5% 1/4W
D712	8-719-911-19	DIODE 1SS119-25		R734	1-247-739-11	CARBON 100	5% 1/2W
D716	8-719-911-19	DIODE 1SS119-25		R738	1-247-807-31	CARBON 100	5% 1/4W
D717	8-719-121-26	DIODE RD9.1ESL2		R739	1-247-807-31	CARBON 100	5% 1/4W
				R740	1-247-807-31	CARBON 100	5% 1/4W
				R755	1-249-418-11	CARBON 1.2K	5% 1/4W
				R756	1-249-418-11	CARBON 1.2K	5% 1/4W
				R757	1-249-418-11	CARBON 1.2K	5% 1/4W



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<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
		<VARIABLE RESISTOR>	
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
*****			
		MISCELLANEOUS	
		*****	
$\triangle$	1-409-942-11	COIL, DEMAGNETIZATION	
	1-417-154-11	MATCHING TRANSFORMER, ANTENNA	
	1-452-032-00	MAGNET, DISC	
	1-452-277-00	MAGNET, BMC	
	1-501-730-41	ANTENNA, TELESCOPIC	
$\triangle$	1-574-062-61	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
$\triangle$	1-900-700-05	LEAD ASSY, FOCUS	
	8-451-280-33	DEFLECTION YOKE (Y21PXA2)	
$\triangle$	8-738-774-05	PICTURE TUBE (A51JUH71X)	
*****			

<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
		ACCESSORIES AND PACKING MATERIALS	
		*****	
	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)	
	3-862-021-21	MANUAL, INSTRUCTION	
	4-392-004-21	CLIP	
	4-392-003-31	BAND, HOLD	
*	4-050-141-01	INDIVIDUAL CARTON	
* 4-053-003-01		BAG, PROTECTION	
* 4-067-570-01		CUSHION (UPPER) (ASSY)	
* 4-067-571-01		CUSHION (LOWER) (ASSY)	
*****			
		REMOTE COMMANDER	
		*****	
	1-475-800-11	REMOTE COMMANDER (RM-883)	