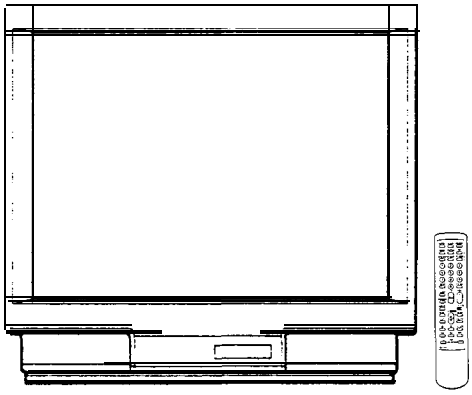
KV-27TS35
RM-Y102

SERVICEMANUAL

US Model
Chassis No. SCC-E54H-A

Canadian Model
Chassis No. SCC-E65E-A



LN-1 CHASSIS

MODELS OF THE SAME SERIES	
KV-27TS35	
KV-27TS27/27TS31	
KV-27TW75/27TW76	

SPECIFICATIONS

Television system American TV standards

Channel coverage VHF: 2 – 13
UHF: 14 – 69
Cable TV: 1 – 125

Picture tube Microblack™ Trinitron® tube
27-inch picture measured diagonally
28-inch picture tube measured diagonally

Antenna 75-ohm external antenna terminal for VHF/UHF

Input VIDEO and S VIDEO
S VIDEO IN (S terminal)
Y: 1 Vp-p, 75-ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal), 75-ohms
Video (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative
Audio (phono jacks): 500 mVrms (100% modulation)
Impedance: 47 kilohms

output AUDIO OUT (VARIABLE) (phono jacks)
More than 408 mVrms at the maximum volume setting (variable)
Impedance: 5 kilohms

Speaker output 5 W x 2

Power requirements 120 V AC, 60 Hz

Power consumption 170W
5W Standby mode

Dimensions (w / h / d) 660.5x602.5 x468 mm
(26⅜ x 23¾ x 18⅜ in.)

Weight 46 kg
(99 lbs 4 oz)

Supplied accessories
Remote commander RM-Y 102 (1) with 2 size AA (R6) EVEREADY batteries

Recommended accessories
U/V mixer EAC-66
Connecting cable
VMC-810/820S, YC-15 V/30 V, RK-74A

Design and specifications are subject to change without notice.

MICROFILM

996479501

TRINITRON® COLOR TV
SONY®

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 . . . . . RESET

BRIGHTNESS control . . . . . center

Preparations :

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

3-1. BEAM LANDING

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

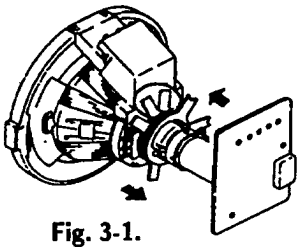


Fig. 3-1.

Perform the adjustments in order as follows :

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

Note : Test Equipment Required.

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

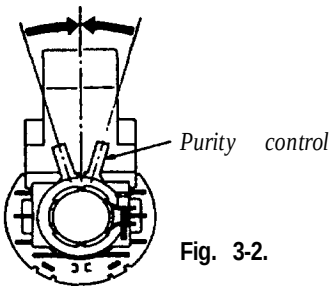


Fig. 3-2.

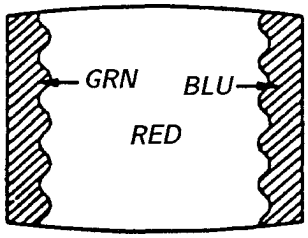


Fig. 3-3.

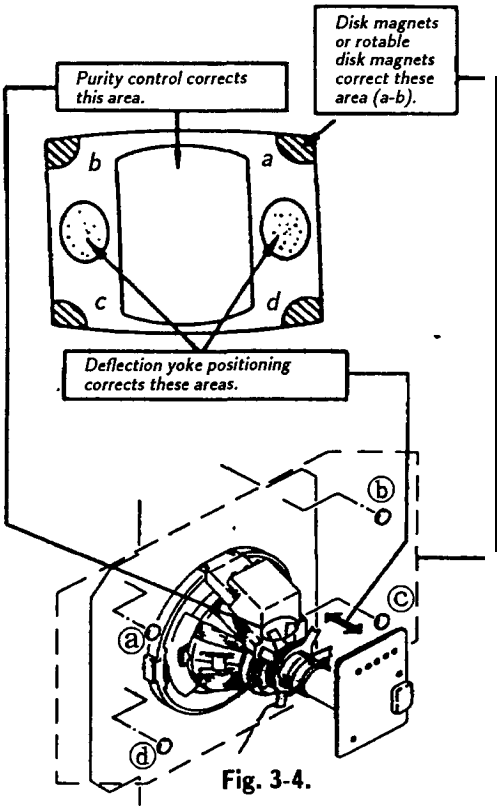


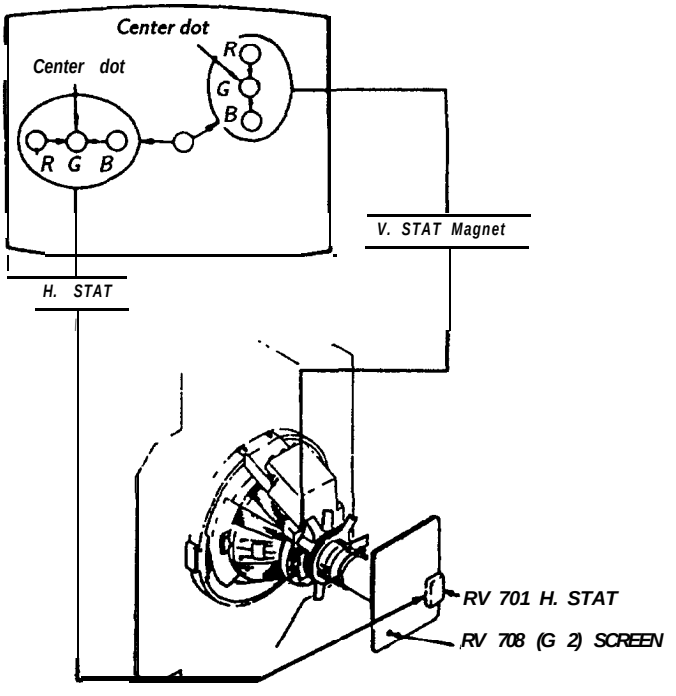
Fig. 3-4.

3-2. CONVERGENCE

Preparation :

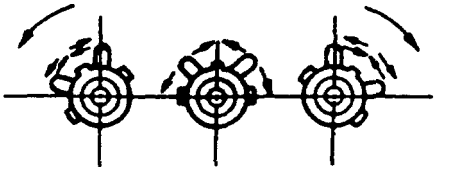
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

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

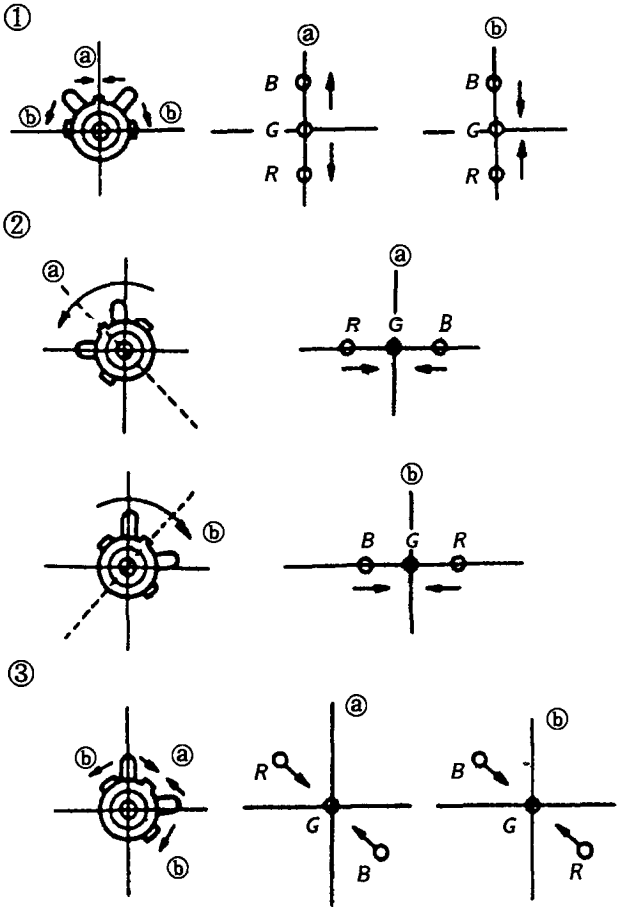


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

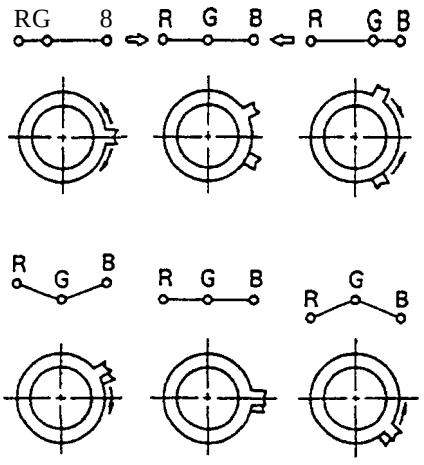
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



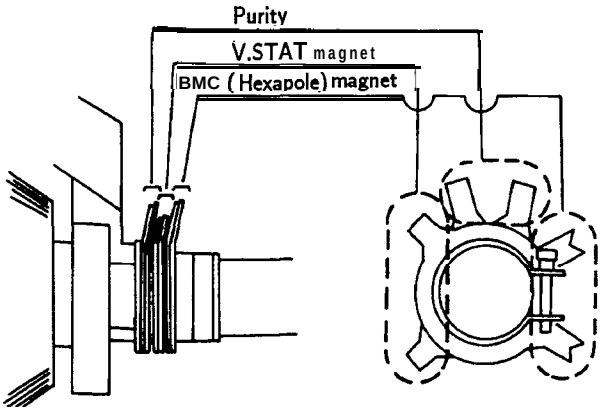
4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
  Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

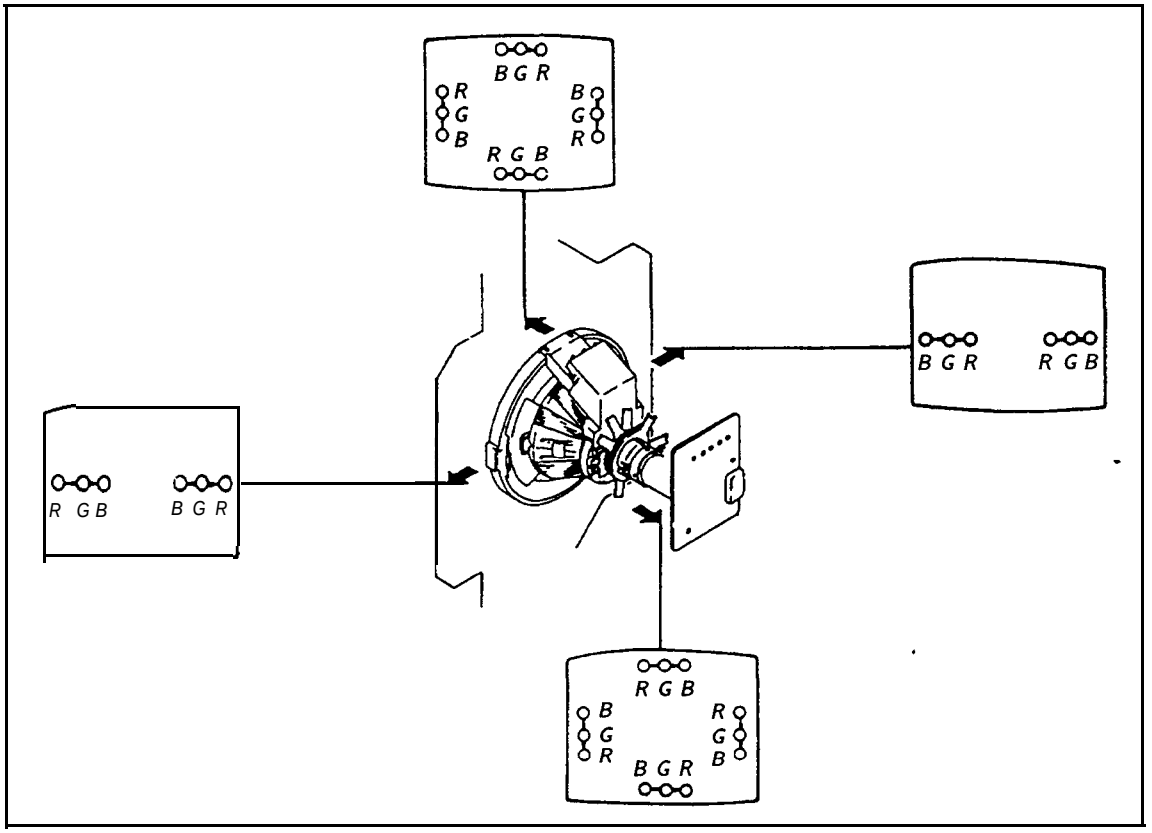


(2) Dynamic Convergence Adjustment

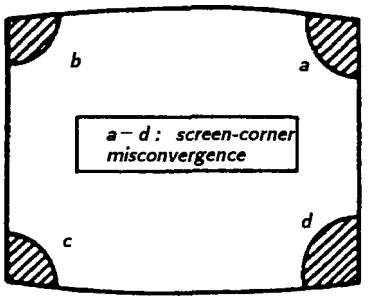
Preparations :

- 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 defelection yoke spacer.

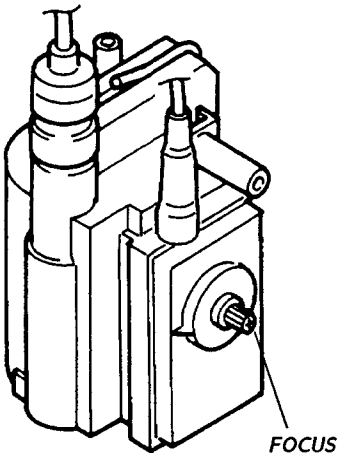


(3) Screen-corner Convergence

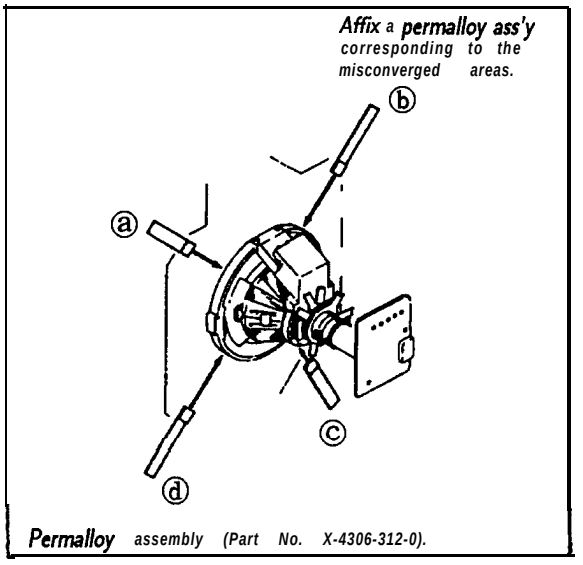


3-3. FOCUS ADJUSTMENT

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



FLYBACK TRANSFORMER (T 503)



3-4. WHITE BALANCE

[Screen G 2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 180 V DC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 708 (Screen) to the point just before the return lines disappear.

[White balance adjustment]

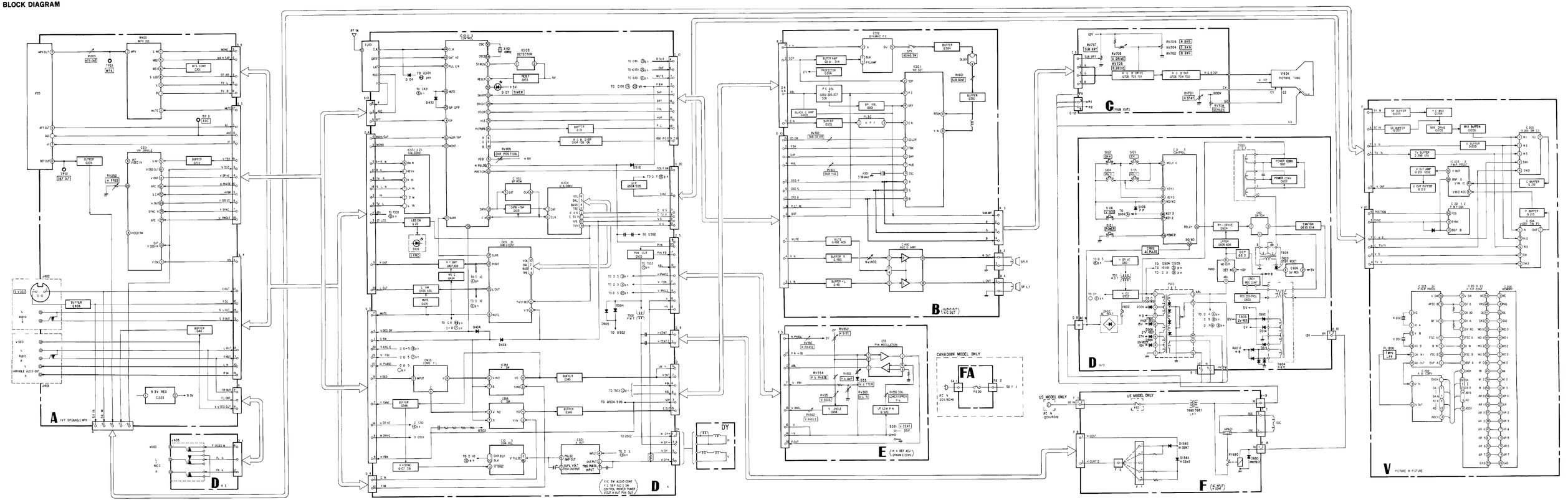
1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use the RV 703 (B Drive) and RV 705 (G Drive) to adjust white balance.

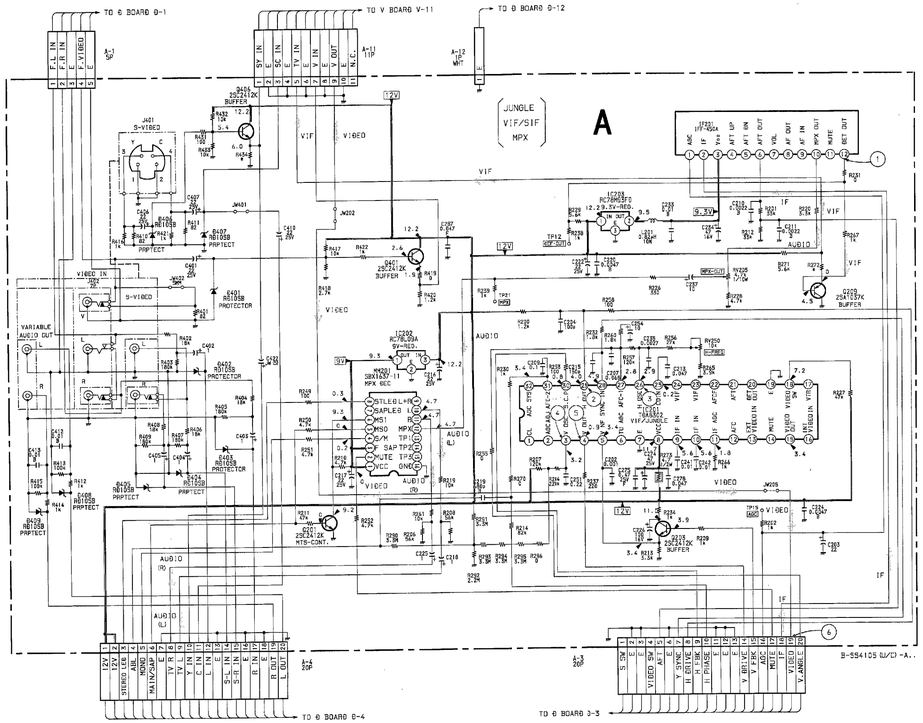
In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

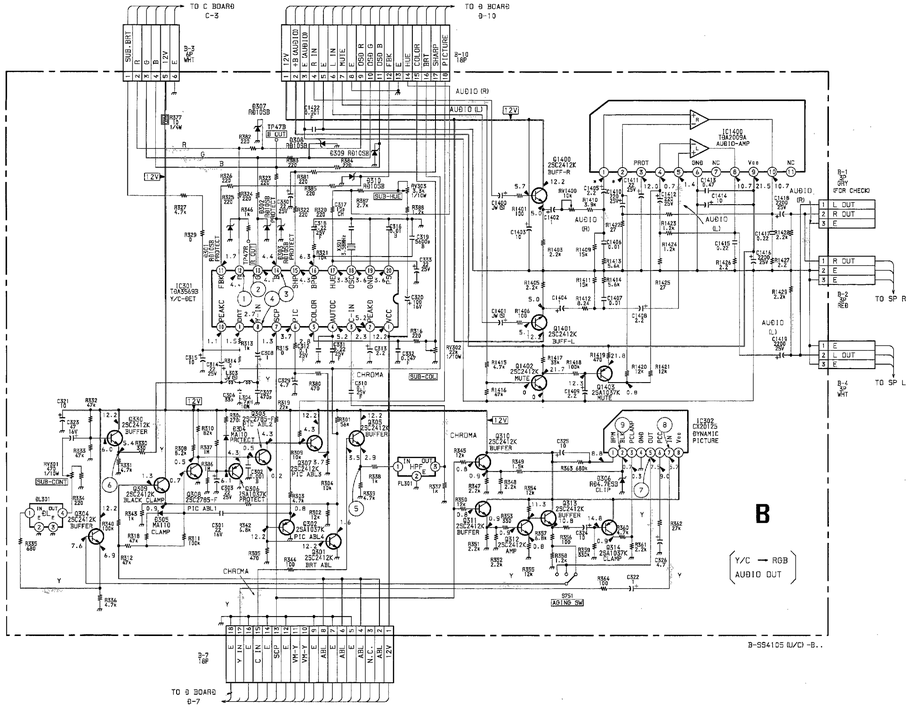
KV-27TS35 RM-Y102 KV-27TS35 RM-Y102

SECTION 6
DIAGRAMS

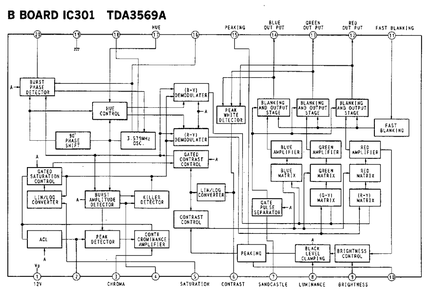
6-1. BLOCK DIAGRAM



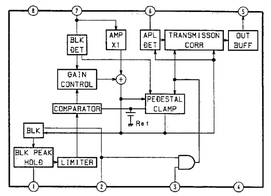




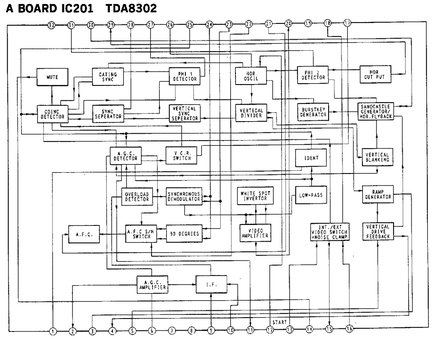
B BOARD IC301 TDA3569A

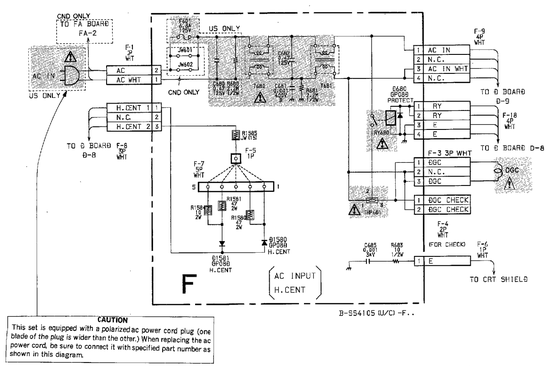


B BOARD IC302 CX20125



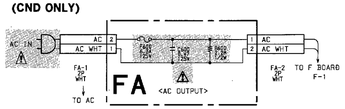
A BOARD IC201 TDA8302

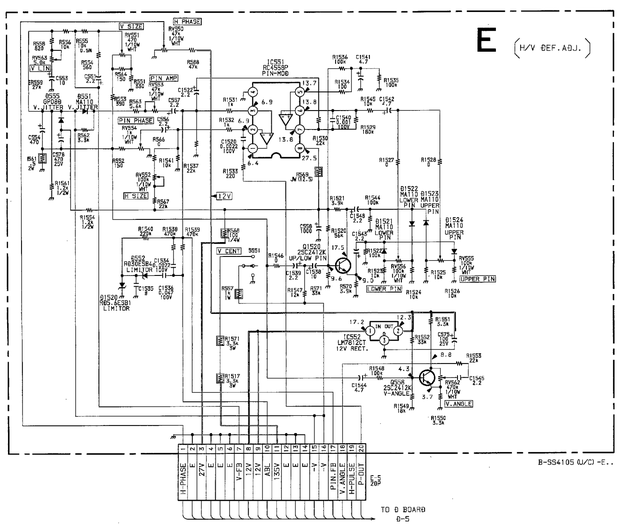




CAUTION
This set is equipped with a polarized ac power cord plug (one blade of the plug is wider than the other.) When replacing the ac power cord, be sure to connect it with specified part number as shown in this diagram.

(CND ONLY)



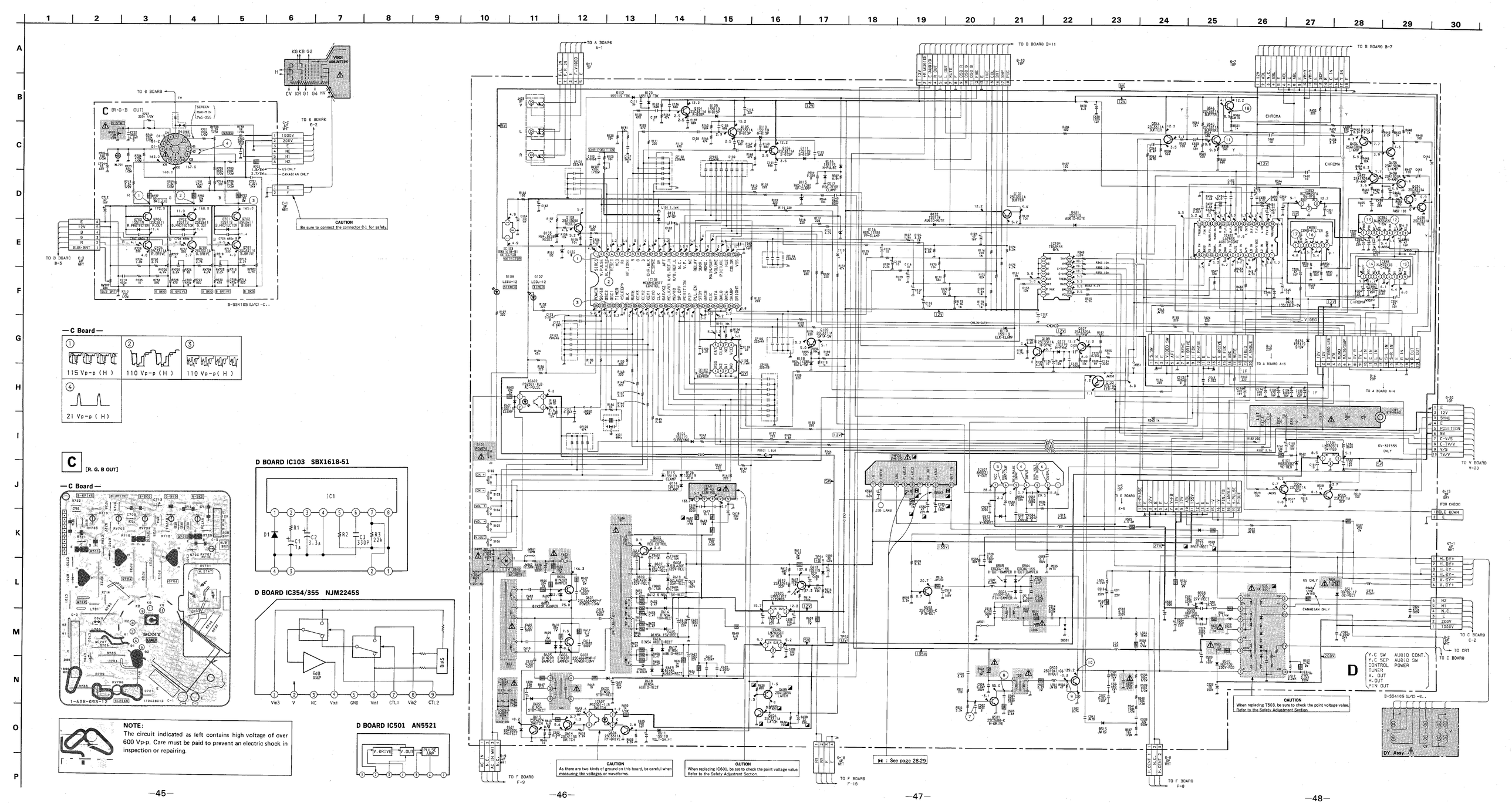


— A Board —

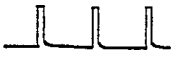
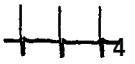
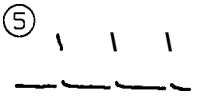
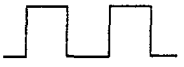
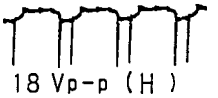
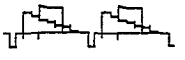
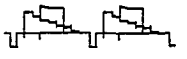
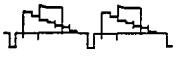
① 1.95 Vp-p (H)	② 8 Vp-p (H)	③ 2 Vp-p (H)
④ 1.8 Vp-p (V)	⑤ 2.1 Vp-p (V)	⑥ 2 Vp-p (H)

— B Board —

① 6 Vp-p (H)	② 4.8 Vp-p (H)	③ 4.8 Vp-p (H)
④ 0.4 Vp-p (H)	⑤ 1.9 Vp-p (H)	⑥ 0.45 Vp-p (H)
⑦ 1 Vp-p (H)	⑧ 1.1 Vp-p (H)	⑨ 4.4 Vp-p (H)


C [R·G·B OUT]
— C Board —
115 Vp-p (H)
110 Vp-p (H)
110 Vp-p (H)
21 Vp-p (H)
1-638-093-12
D BOARD IC103 SBX1618-51
D BOARD IC354/355 NJM2245S
D BOARD IC501 AN5521
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.
TO A BOARD A-1
TO B BOARD B-11
TO B BOARD B-7
TO B BOARD B-2
TO B BOARD B-5
TO A BOARD A-3
TO A BOARD A-4
TO V BOARD V-20
TO C BOARD C-2
TO CRT
TO C BOARD
TO F BOARD F-9
TO F BOARD F-16
TO F BOARD F-8
CAUTION
Be sure to connect the connector C-1 for safety.
CAUTION
As there are two kinds of ground on this board, be careful when measuring the voltages or waveforms.
CAUTION
When replacing IC601, be sure to check the point voltage value. Refer to the Safety Adjustment Section.
CAUTION
When replacing T503, be sure to check the point voltage value. Refer to the Safety Adjustment Section.
: See page 28-29
D
Y.C SW
Y.C SEP
CONTROL
TUNER
V. OUT
H. OUT
PIN OUT
AUDIO CONT.
AUDIO SW
POWER
DY Assy
KV-32S55
KV-32S55 ONLY
CANADIAN ONLY
US ONLY
CHROMA
FOR CHECK
B-5541O5 (U/C1-C..
B-5541O5 (U/C1-E..

-D Board —

① 	②  5 V P-P (H)	③  5 V P-P (4MHz)
④  3.5 Vp-p (V)	⑤  3.8 Vp-p (V)	⑥  28 VP-P (V)
⑦  7 V P-P (H)	⑧  280 V P-P (H)	⑨  18 Vp-p (H)
⑩  900 VP-P (H)	⑪  1.9 V P-P (H)	⑫  1.9 Vp-p (H)
⑬  0.9 VP-P (H)	⑭  1.9 Vp-p (H)	⑮  0.95 VP-P (H)
⑯  1.95 VP-P (H)	⑰  1.9 Vp-p (H)	⑱  1.2 V P-P (H)

— D Board —

IC

IC101	B-3
IC102	c-3
IC103	C-1
IC104	C-6
IC105	C-B
IC352	B-1 2
IC354	B-1 2
IC355	B-10
IC431	C-7
IC501	E.7
IC601	E-2
IC602	F-2
IC605	E-2
IC606	F.2
IC607	F-5

TRANSISTOR

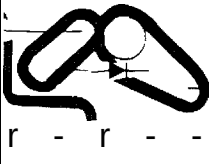
Q101	B-5
Q103	A-2
Q104	A-3
Q105	A-4
Q106	A-3
Q107	A-9
Q108	A-8
Q109	G5
Q122	C-7
Q344	A-9
Q345	B-10
Q346	B-10
Q434	B-9
Q435	B-10
Q436	B-9
4437	B.9
Q438	B-9
Q439	B-9
Q501	G7
Q502	G-10
Q503	F-6
Q504	D-5
4505	D5
4601	G-4
Q602	G-6
Q603	F-3
Q604	E-6
Q605	D-6
Q606	D-6
4610	D-4
Q613	F-6
Q614	F.6

DIODE

D101	D-10
D103	A-2
0104	G3
D106	D3
D107	D1
D108	C-1
D109	A-4
D110	A.5
D111	A-5
D112	c-5
D113	c-3
D114	C-3
D115	A.2
D116	B-2
D117	A-8
D118	B-5
D119	c-5
D120	A-4
D413	A-8
D432	B 4
D433	C-8
D434	C-8
D504	G-9
D505	F-9
D506	G-9
D507	E-11
D508	E-11
D509	E-11
D510	F-10
D511	F-10
D512	E-8
D515	E-9
D516	B-5
D517	c.5
D601	G-2
D602	G-2
D603	G-4
D604	G-5
D605	G-6
D606	G-6
D607	E-4
D608	E-4
D609	E-3
D610	E-3
D611	E-6
D612	E-4
D613	D-4
D614	E-5
D615	E-5
D616	E-5
D617	E-5
D618	E-5
D619	E-6
D620	F-2
D621	F-5
D622	G-4

VARIABLE RESISTOR

RV101	B-3



NOTE:

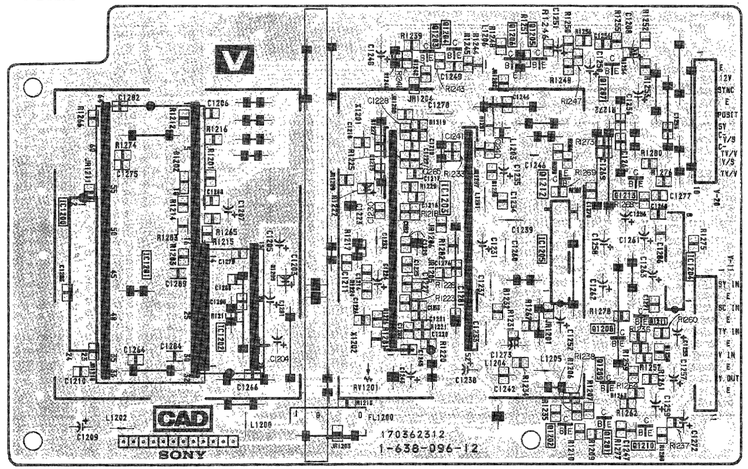
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

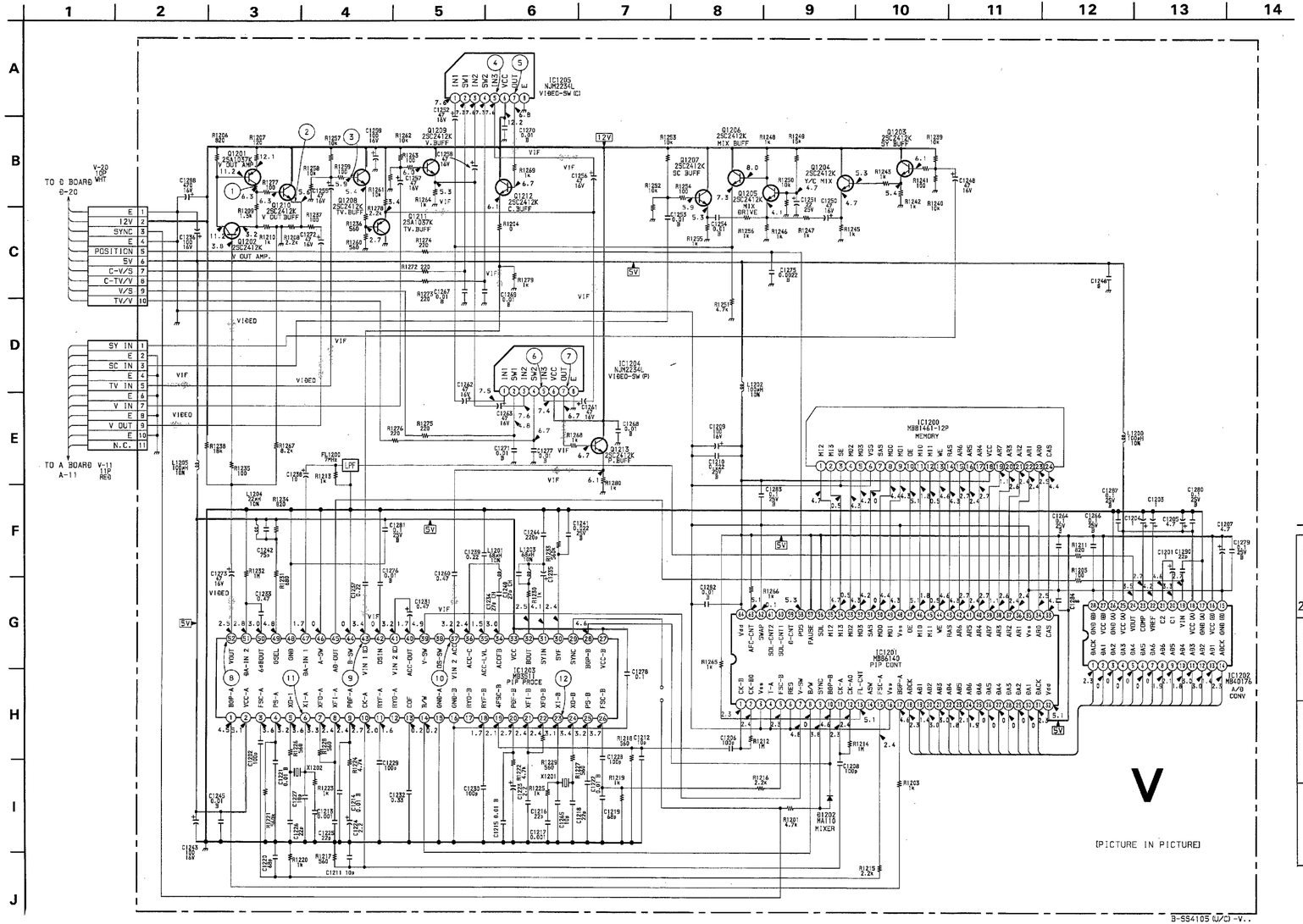
KV-27TS35
RM-Y102

KV-27TS35
RM-Y102

V [PICTURE IN PICTURE]

— V Board —

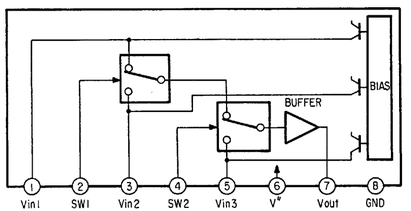




— V Board —

① 2.1 Vp-p (H)	② 2.1 Vp-p (H)	③ 2 Vp-p (H)
④ 1 Vp-p (H)	⑤ 1 Vp-p (H)	⑥ 1Vp-p (H)
⑦ 1 Vp-p (H)	⑧ Vp-p ( )	⑨ Vp-p ( )
⑩ Vp-p ( )	⑪ 0.2 Vp-p(0.075MS)	⑫ 0.59Vp-p(0.075MS)

V BOARD IC1205 NJM2234L



NOTES



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