

SERVICE MANUAL

AA-2D CHASSIS

<u>MODEL</u>	<u>DEST.</u>	<u>COMMANDER</u>	<u>CHASSIS NO.</u>
KV-32S65	US	RM-Y167	SCC-S07K-A
KV-32S65	CND	RM-Y167	SCC-S08M-A
KV-35S65	US	RM-Y167	SCC-S07M-A
KV-35S65	CND	RM-Y167	SCC-S08N-A



KV-32S65



RM-Y167



TRINITRON® COLOR TV
SONY®

SPECIFICATIONS

	KV-32S65	KV-35S65
Power requirements	120V,60Hz	120V,60Hz
Number of inputs/outputs		
Video ¹⁾	2	2
S Video ²⁾	1	1
Audio ³⁾	2	2
Audio Out ⁴⁾	1	1
Monitor Out	-	-
TV out	-	-
S-Link	Yes	Yes
Speaker output(W)	5W x 2	5W x 2
Power Consumption(W)		
In use(Max)	180W	210W
In standby	2W	3W
Dimensions(W/H/D)		
(mm)	791 x 707 x 604.5mm	870 x 761 x 653mm
(in)	31 x 27 ^{13/16} x 23 ^{3/4}	34 ^{1/4} x 30 x 25 ^{5/8}
Mass		
(kg)	73kg	83kg
(lbs)	160.5 lbs	183lbs

Television system

American TV standard

Channel coverage

VHF:2-13/UHF:14-69/CATV:1-125

Visible screen size

32-inch picture measured (KV-32S65)

35-inch picture measured (KV-35S65)

Antenna

75 ohm external terminal for VHF/UHF

Supplied Accessories

Remote commander (w/2 size AA (R6) batteries)

RM-Y167

Optional Accessory

Connecting Cables: VMC-810S/820S

VMC-720M, YC-15V/30V, RK-74A

TV-Stand: SU-32A3, SU-35A3

VHF/UHF Mixer: EAC-66

¹⁾ 1 Vp-p 75 ohms unbalanced, sync negative

²⁾ Y: 1 Vp-p 75 ohms unbalanced, sync negative

C: 0.286 Vp-p (Burst signal), 75 ohms

³⁾ 500 mVrms (100% modulation), Impedance: 47 kilohms

⁴⁾ More than 408 mVrms at the maximum volume setting (variable)

More than 408 mVrms at the maximum volume setting (fix)

Impedance: 50 kilohms

(●)® SRS (SOUND RETRIEVAL SYSTEM)

The (●) SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

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Design and specifications are subject to change without notice.

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WARNINGS AND CAUTIONS

CAUTION!

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

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK \triangle ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RESQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE \triangle SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNEIMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT SUSPECTE.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

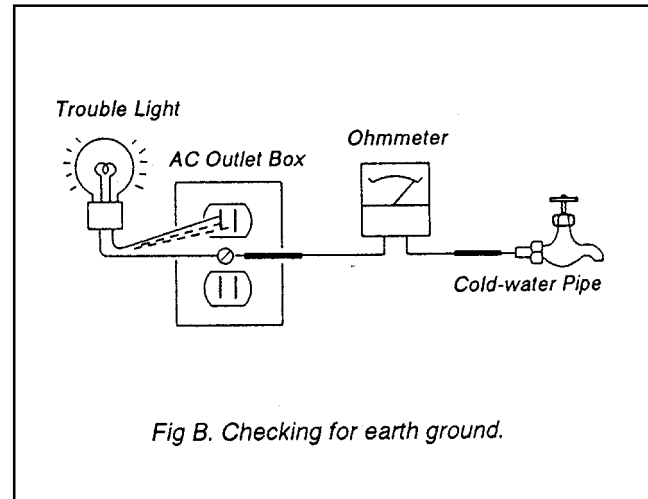
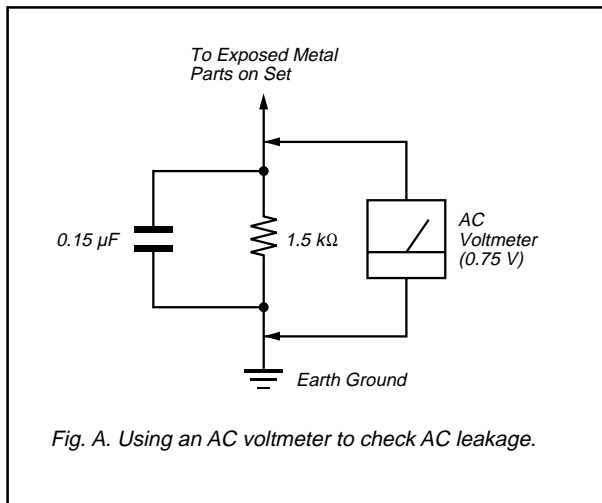
LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampere). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



SECTION 1 GENERAL

The instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers shown reflect those of the Operating Instruction Manual.

Welcome!

Thank you for purchasing the Sony Trinitron® Color TV. This manual is written for the models listed below. Before reading, check the model number located on the front of this manual or on the rear of your TV.

Model KV-35S45 is used for menu and illustration purposes. Differences in operation are indicated in the text; for example, "KV-35S45 only".

Model Number	Single-line PIP (PIP available to PIP)	Multi-line PIP (PIP available to PIP)	PIP (PIP available to PIP)	SHOWNING	PICTURE CHANNEL WITH MEMORY	AUXILIARY CHANNEL CONTROL
KV-32S40	•			•		
KV-32S45		•		•	•	
KV-32V40		•	•	•	•	•
KV-32V65		•	•	•	•	•
KV-35S40				•		
KV-35S45	•			•		
KV-35S65		•		•	•	
KV-35V65		•	•	•	•	•

Precautions

Safety

- Operate the TV only with 120 V AC.
- The plug is designed, for safety purposes, to fit in the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- If any liquid or solid object should fall inside the cabinet, unplug the TV immediately and have it checked by qualified personnel before operating it further.
- If you will not be using the TV for several days, disconnect power by pulling the plug itself. Never pull on the cord.

For details concerning safety precautions, see the supplied leaflet "IMPORTANT SAFEGUARDS".

Installing

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.

Using This Manual

This manual is divided into four major sections. We recommend that you carefully review the contents of each section in the order presented to ensure that you fully understand the operation of your new TV.

1 Connecting and Installing the TV

This section guides you through your initial set up. It shows how to connect to your antenna or cable, and connect any accessories or components.

2 Basic Set Up

This section teaches you the basic skills needed to operate your new TV. It shows you how to operate special functions of the remote control.

3 Using your New TV

This section shows you how to begin using your new TV. It shows how to use the Easy Set Up Guide feature, and how to use your remote control.

4 Using your Menus

This section teaches you how to access on-screen menus and adjust your TV's settings.

Instructions in this manual are written for the remote control. Similar controls may be found on the TV console.

Connecting and Installing the TV

Making Connections

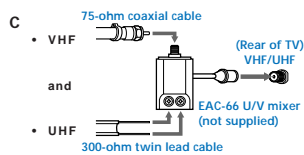
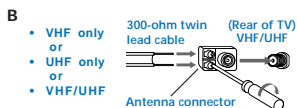
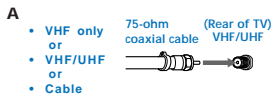
Refer to the table below, it will direct you to the diagram suitable to the components you will be connecting.

If you will be connecting	See page
Cable or antenna only	5
Cable and antenna (KV-32S65, 32V65, 35S65, 35V65 only)	5
Cable box	6
Cable box and cable to view scrambled channels (KV-32S65, 32V65, 35S65, 35V65 only)	6
VCR and cable or antenna	7
VCR and cable box	7
Direct Broadcast Satellite Receiver (DBS)	8
VCR and Direct Broadcast Satellite Receiver (DBS)	8
Digital Versatile Disc player (DVD)	9
Audio system	9
A/V receiver	10
Two VCR's for tape editing (KV-32V40, 32V65, 35V65 only)	10
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S-Link connections (KV-32S65, 32V65, 35S65, 35V65 only)	12

Cable or Antenna Connections

Connecting directly to cable or an antenna

The connection you choose will depend on the cable found in your home. Newer homes will be equipped with standard coaxial cable (see A); older homes will probably have 300-ohm twin lead cable (see B); still other homes may contain both (see C).

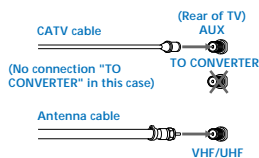


Cable and antenna

- KV-32S65, 32V65, 35S65, 35V65 only

If your cable provider does not feature local channels, you may find this set up convenient for viewing both local and cable channels.

Select cable or antenna mode by pressing ANT on the remote control. You will be able to alternate between the two input sources.



Note

- In order to receive channels with an antenna, you will need to turn your CABLE to OFF (see page 26) and perform the AUTO PROGRAM function.

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Connecting and Installing the TV (continued)

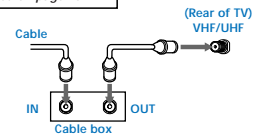
Cable Box Connections

Some pay cable TV systems use scrambled or encoded signals that require a cable box to view all channels.

Cable box

- Connect the coaxial connector from your cable to the IN on your cable box.
- Using a coaxial cable, connect OUT on your cable box to VHF/UHF on your TV.

If you will be controlling all channel selection through your cable box, you should consider using the CHANNEL FIX feature discussed on page 26.



Cable box and cable

- KV-32S65, 32V65, 35S65, 35V65 only

For this set up, you can switch between scrambled channels (through your cable box), and normal (CATV) channels by pressing ANT on your remote control.

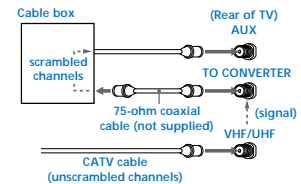
Notes

- Your Sony remote control can be programmed to operate your cable box. (see page 32)
- When using PIP, you cannot view the AUX input in the window picture.

Tip

Pressing ANT switches between these inputs.

If you are connecting a cable box through the AUX input and would like to switch between the AUX and normal (CATV) input you should consider using the CHANNEL FIX feature discussed on page 26.



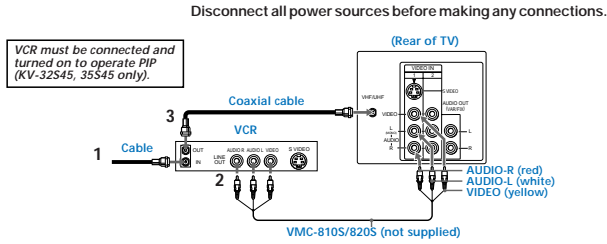
6

VCR Connections

Connecting an antenna/cable TV system with a VCR

- 1 Attach the coaxial connector from your cable or antenna to IN on your VCR.
- 2 Using A/V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.*
- 3 Using a coaxial connector, connect OUT on your VCR to VHF/UHF on your TV.

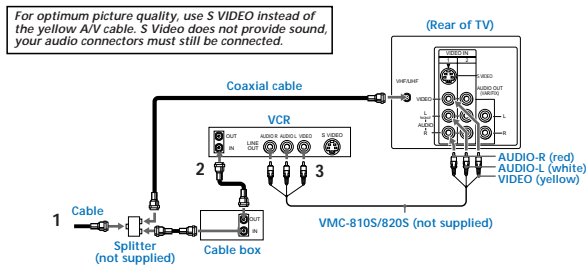
* If you are connecting a monaural VCR, connect only the single white audio output to the left input on your TV.



Connecting a VCR and TV with a cable box

You will need a splitter (not supplied) for the following connection.

- 1 Connect the single (input) jack of the splitter to your incoming cable connection. Connect the other two (output) jacks (using coaxial cable) to IN on your cable box and VHF/UHF on your TV.
- 2 Using a coaxial connector, connect OUT on your cable box to IN on your VCR.
- 3 Using A/V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.



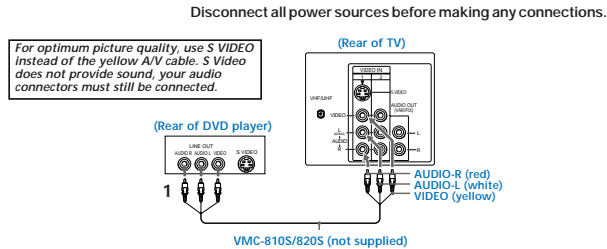
7

Additional Connections

The following connections are for accessories that will enhance your viewing options.

Connecting a DVD Player

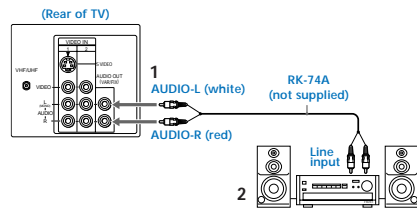
- 1 Using A/V connectors, connect LINE OUT on your DVD to VIDEO IN on your TV.



Connecting an audio system

For enhanced sound, connect your audio system to your TV.

- 1 Using AUDIO connectors, connect AUDIO OUT on your TV to one of the unused line inputs (e.g. TV, AUX, TAPE 2) on your stereo.
- 2 Set your stereo to the chosen line input. Refer to page 24 of this manual for additional audio setup instructions.



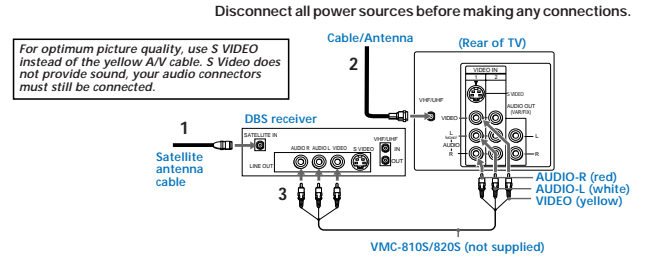
9

Connecting and Installing the TV (continued)

DBS Connections

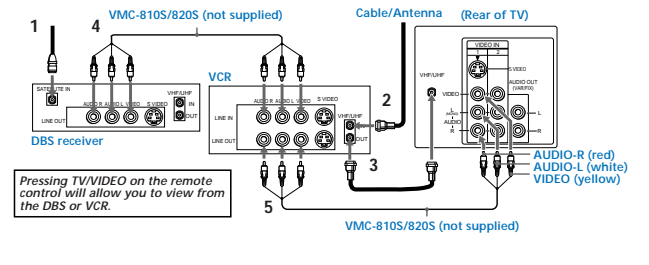
Connecting a DBS (Direct Broadcast Satellite) receiver

- 1 Connect the cable from your satellite antenna to your DBS receiver.
- 2 Attach the coaxial connector from your cable or antenna to VHF/UHF IN on your TV.
- 3 Using A/V connectors, connect AUDIO and VIDEO OUT on your DBS receiver to AUDIO and VIDEO IN on your TV.



Connecting a DBS (Direct Broadcast Satellite) receiver and a VCR

- 1 Connect the cable from your satellite antenna to your DBS receiver.
- 2 Attach the coaxial connector from your cable or antenna to VHF/UHF IN on your VCR.
- 3 Using a coaxial connector, connect VHF/UHF OUT on your VCR to VHF/UHF IN on your TV.
- 4 Using A/V connectors, connect AUDIO and VIDEO OUT on your DBS receiver to AUDIO and VIDEO IN on your VCR.
- 5 Using A/V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.



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Connecting and Installing the TV (continued)

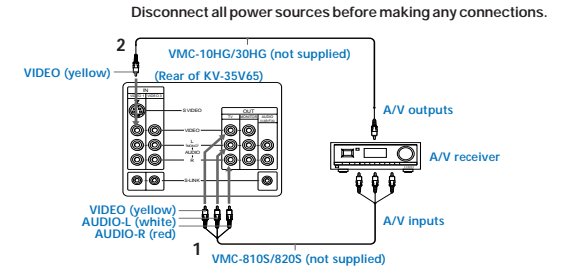
Connecting an A/V receiver

- KV-32V65, 35V65 only

- 1 Using A/V cables, connect TV OUT on your TV to TV IN on your A/V receiver.
- 2 Using a single video connector, connect Monitor OUT on your A/V receiver to VIDEO 1 IN on your TV.

Tip

You may want to use CHANNEL FIX to set your TV's input to the A/V receiver. See page 26.

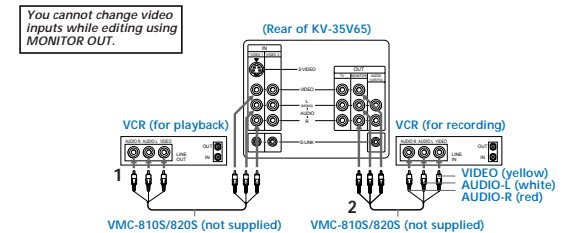


Connecting two VCRs

- KV-32V40, 32V65, 35V65 only

MONITOR OUT gives you the ability to use a second VCR to record a program being played by the primary VCR or to perform tape editing and dubbing.

- 1 Connect the VCR intended for playback using the setup instructions on page 7 of this manual.
- 2 Using A/V connectors, connect AUDIO and VIDEO IN on your VCR intended for recording to MONITOR AUDIO and VIDEO OUT on your TV.



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Connecting a camcorder

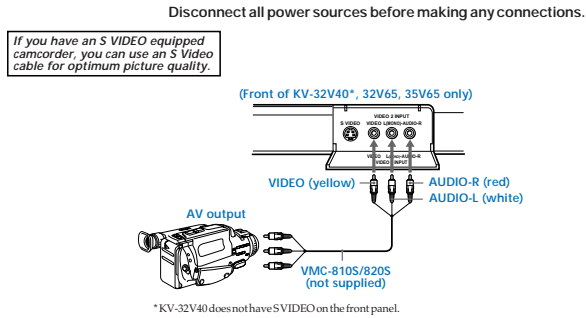
This connection is convenient for viewing a picture directly from your camcorder.

Using A/V connectors, connect AUDIO and VIDEO OUT on your camcorder to AUDIO and VIDEO IN on your TV.

Connection can also be made directly to your A/V input located on the rear of your TV.

Note

- If you are connecting a monaural camcorder, connect only the single white audio output to the left input on your TV.



11

Connecting and Installing the TV (continued)

S-Link connections

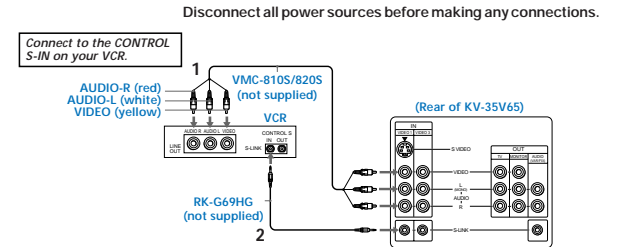
- KV-32S65, 32V65, 35S65, 35V65 only

S-Link is designed to allow your Sony components to "communicate".

Connecting S-Link to a VCR

S-Link will automatically power on the TV and switch to the correct video input when a tape is inserted in the VCR.

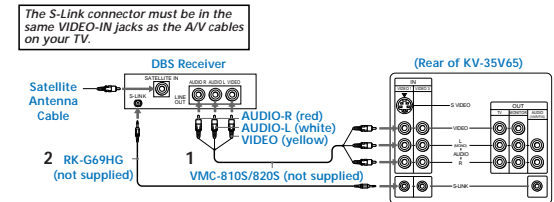
- Using A/V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.
- Using an S-Link connector (mono mini plug), connect S-LINK/CONTROL S-IN on your VCR to S-LINK on your TV.



Connecting S-Link to a DBS

S-Link will automatically power on the TV and switch to the correct video input when you power on the DBS.

- Using A/V connectors, connect AUDIO and VIDEO OUT on your DBS to AUDIO and VIDEO IN on your TV.
- Using an S-Link connector (mono mini plug), connect S-LINK on your DBS to S-LINK on your TV.



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Operating Video Equipment

Programming the remote

You can use the supplied remote control to operate Sony or non-Sony video equipment.

- Press CODE SET.
- Press VTR/DVD (FUNCTION).
- Use the 0-9 buttons to key in the manufacturer's code number from the following chart.

4 Press ENTER.

VCR code numbers

Manufacturer	Code
Sony	301, 302, 303
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathis	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Mitsubishi	305, 304
Mitsubishi/MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signatone 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

Operating a VCR Buttons on the remote control

To turn on or off	Press VTR/DVD (POWER).
To select a channel directly	Press the 0 - 9 buttons.
To change channels	Press CH +/-.
To record	Press ▶ and ● simultaneously.
To play	Press ▶ .
To stop	Press ■ .
To fast forward	Press ▶▶ .
To rewind the tape	Press ◀◀ .
To pause	Press .
To resume normal playback, press again or press ▶	
To scan	Press ▶▶ or ◀◀ during playback.
To resume normal playback, release the button.	
To change input mode	Press TV/VTR.

Tips

- In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied remote control. In this case, please use the equipment's own remote control.
- When you remove the batteries, the code number may revert to the factory setting.
- The code numbers for Sony VCR's are assigned at the factory as follows:

VHS VCR	301
	(preset code for the supplied remote control)
8 mm VCR	302
Beta, ED Beta VCRs	303

MDP (Multi Disc Player) code numbers

Manufacturer	Code
Sony	701
Panasonic	704, 710
Pioneer	702

Operating an MDP Buttons on the remote control

To turn on or off	Press VTR/DVD (POWER).
To play	Press ▶ .
To stop	Press ■ .
To pause	Press .
To resume normal playback, press again or press ▶	
To scan	Press ▶▶ or ◀◀ during playback.
To resume normal playback, press ▶ .	
To search the chapter forward or backward	Press CH +/-.

Tip

If you will not be programming a DBS or cable box into the DBS/CABLE input, you can use it to program other video equipment (e.g. DVD, MDP, or second VCR). (see page 30)

DVD (Digital Versatile Disc) code numbers

Manufacturer	Code
Sony	751
Panasonic	753
Pioneer	752
RCA	755
Toshiba	754

Operating a DVD player Buttons on the remote control

To turn on or off	Press VTR/DVD (POWER).
To play	Press ▶ .
To stop	Press ■ .
To pause	Press .
To resume normal playback, press again or press ▶	
To scan	Press ▶▶ or ◀◀ during playback.
To resume normal playback, press ▶ .	
To search the chapter forward or backward	Press CH +/-.

To select chapters directly	0-9 + ENTER.
MENU	Press to display DVD menu.
To move cursor in menu	Use your arrow buttons ↑ , ↓ , ← , → .

Operating a Cable Box or DBS Receiver

Programming the remote

You can program the supplied remote control to operate a cable box or DBS receiver.

- 1 Press CODE SET.
- 2 Press DBS/CABLE (FUNCTION).
- 3 Use the 0-9 buttons to key in the manufacturer's code number from the following chart.
- 4 Press ENTER.

For more details on operating the cable box or DBS receiver

Refer to the operating instructions that were supplied with the equipment.

If the remote control doesn't work

- First, try repeating the setup procedures using the other codes listed for your equipment.
- Tips** 🗨️
- If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
 - If you enter a new code number, the code number you previously entered at that setting is erased.
 - In some rare cases, you may not be able to operate your equipment with the supplied remote control. In this case, use the equipment's supplied remote control.
 - Whenever you remove the batteries the code numbers may revert to the factory setting.

Cable box code numbers

Manufacturer	Code
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

DBS receiver code numbers

Manufacturer	Code
Sony	801 (preset code for remote control)
General Electric	802
Hitachi	805
Hughes	804
Panasonic	803
RCA/PROSCAN	802, 808
Toshiba	806, 807

Troubleshooting

Consult the table below; it suggests solutions to specific problems.

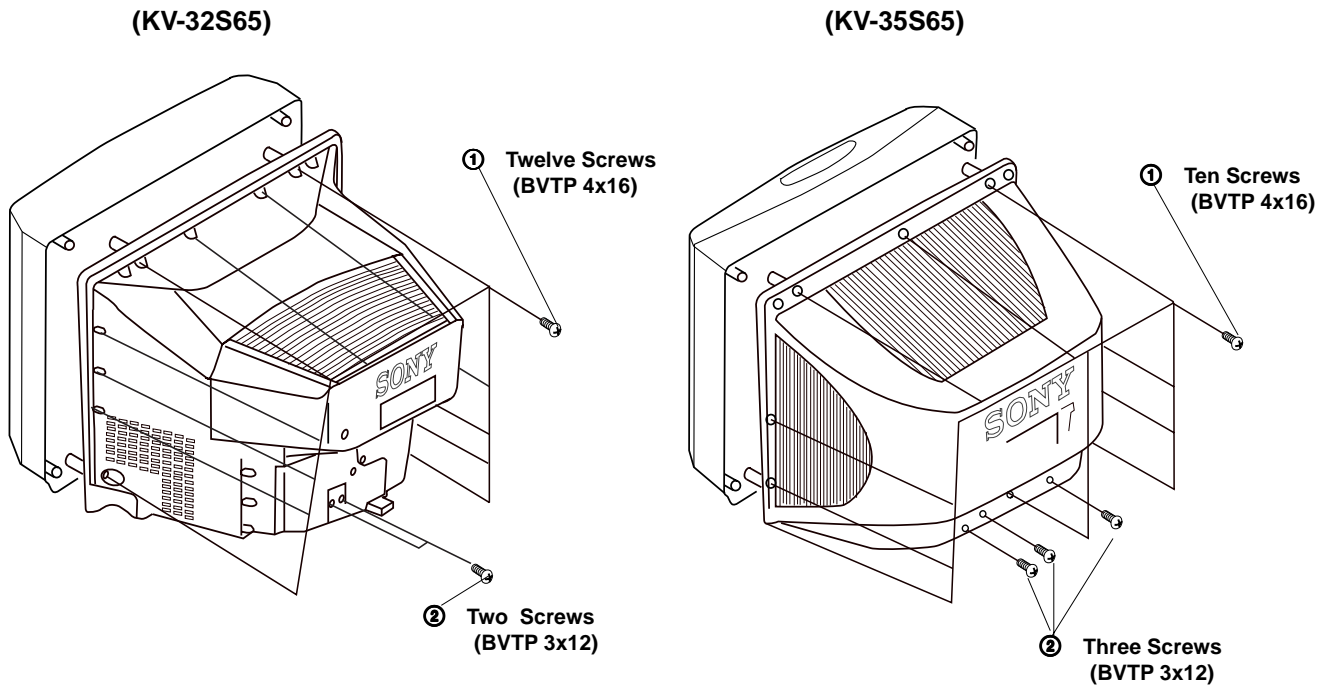
Problem	What it could be	What you can do
Cannot operate single tuner PIP (KV-32S45, 35S45)	<ul style="list-style-type: none"> • VCR may not be connected to your TV properly. • VCR may not be turned on. • The remote control may not be programmed to operate the VCR. 	<ul style="list-style-type: none"> • Ensure that you have set your VCR correctly. (see page 7) • Program your remote control to operate the VCR. (see page 30)
A red light keeps flashing on the TV for more than a few seconds	<ul style="list-style-type: none"> • Your TV may need service. 	<ul style="list-style-type: none"> • Call your local Sony service center.
TV makes a noise when turned on	<ul style="list-style-type: none"> • This is a normal function of your TV. 	
Screen is not lit and there is no sound	<ul style="list-style-type: none"> • Power cord may not be plugged in. • Batteries may not have been placed with the correct polarity. • TV/VIDEO setting may be incorrect. 	<ul style="list-style-type: none"> • Press TV/VIDEO until you receive a channel.
Poor or no picture (screen lit), good sound	<ul style="list-style-type: none"> • VIDEO menu settings may not be adjusted correctly. • Antenna/cable connections may be faulty. • VIDEO LABEL inputs may be set to WEB. (This label darkens the screen for ideal WebTV viewing) 	<ul style="list-style-type: none"> • Readjust your VIDEO menu settings. (see page 22) • Check your VIDEO LABEL settings. (see page 28)
Good picture, no sound	<ul style="list-style-type: none"> • Sound may be set to MUTING. • Your TV may be set to SAP. • Speaker may not be set correctly. 	<ul style="list-style-type: none"> • Press MUTE. • Check the MTS setting in the AUDIO menu. (see page 23) • Check your SPEAKER settings. (see page 23)
No color	<ul style="list-style-type: none"> • Color settings may not be adjusted correctly. 	<ul style="list-style-type: none"> • Adjust the COLOR settings in the VIDEO menu. (see page 22)

Problem	What it could be	What you can do
Only snow and noise appear on the screen	<ul style="list-style-type: none"> • CABLE may not be set correctly in the SET UP menu. • Antenna/cable connections may not be correct. • TV may be set to AUX mode. 	<ul style="list-style-type: none"> • Ensure that you have selected the correct CABLE mode in the SET UP menu. (see page 26) • Press ANT on your remote control to change the input mode. (see page 16)
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none"> • CABLE setting may not be correct in the SET UP menu. 	<ul style="list-style-type: none"> • Ensure that CABLE is set to OFF in the SET UP menu. (see page 26) • Use AUTO PROGRAM to add receivable channels that are not presently in TV memory. (see page 26)
Cannot receive any channels when using cable	<ul style="list-style-type: none"> • CABLE setting may not be set correctly in the SET UP menu. 	<ul style="list-style-type: none"> • Ensure that CABLE is set to ON in the SET UP menu. (see page 26) • Use AUTO PROGRAM to add receivable channels that are not presently in TV memory. (see page 26)
Cannot gain enough volume when using a cable box	<ul style="list-style-type: none"> • Volume may not be adjusted on your cable box. 	<ul style="list-style-type: none"> • Press TV (FUNCTION) and adjust the TV's volume.
TV is fixed to one channel	<ul style="list-style-type: none"> • CHANNEL FIX settings may not be correct. 	<ul style="list-style-type: none"> • Check your CHANNEL FIX settings. (see page 26)

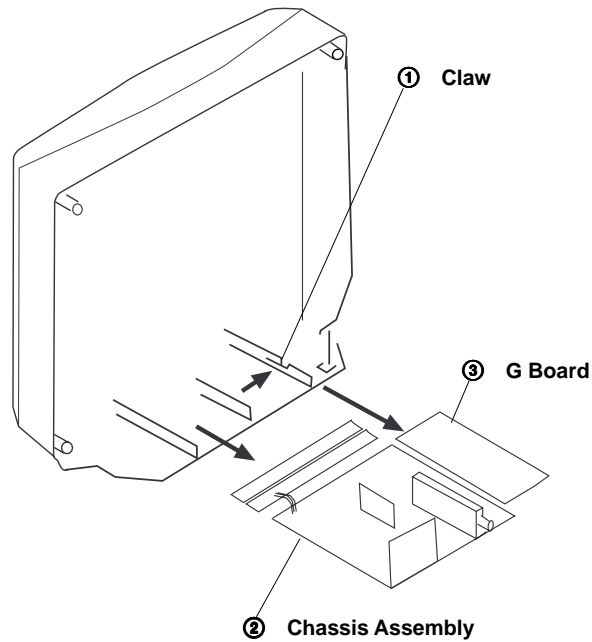
If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Direct Response Center at 1-800-222-SONY (7669). (U.S. residents only)

SECTION 2 DISASSEMBLY

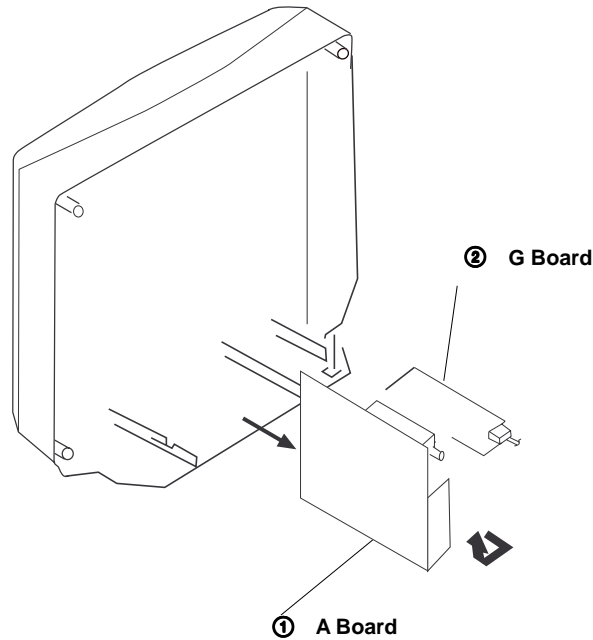
2-1. REAR COVER REMOVAL



2-2. CHASSIS ASSEMBLY REMOVAL



2-3. SERVICE POSITION

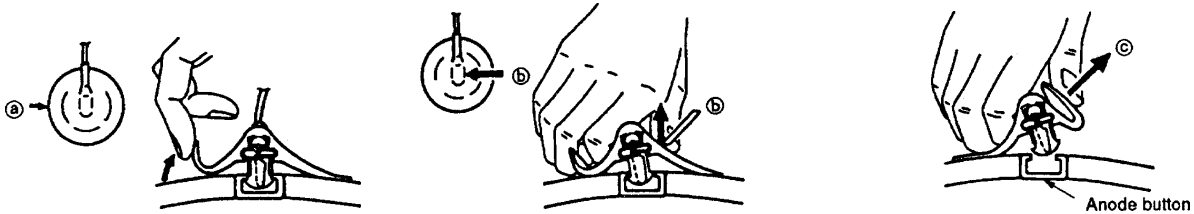


ANODE-CAP REMOVAL

WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electrical shock, discharge CRT before attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.

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

REMOVAL PROCEDURES



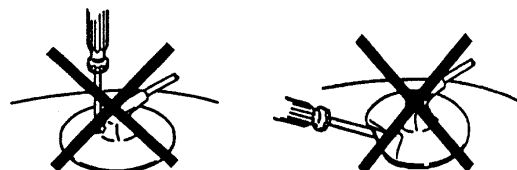
① Turn up one side of the rubber cap in the direction indicated by arrow ①.

② Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ②.

③ When one side of the rubber cap separates from the anode button, the anode-cap can be removed by turning the rubber cap and pulling it in the direction of arrow ③.

HOW TO HANDLE AN ANODE-CAP

- ① Do not use sharp objects which may cause damage to the surface of the anode-cap.
- ② Do not squeeze the rubber covering too hard to avoid damaging the anode-cap. A material fitting called a shatter-hook terminal is built into the rubber.
- ③ Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.

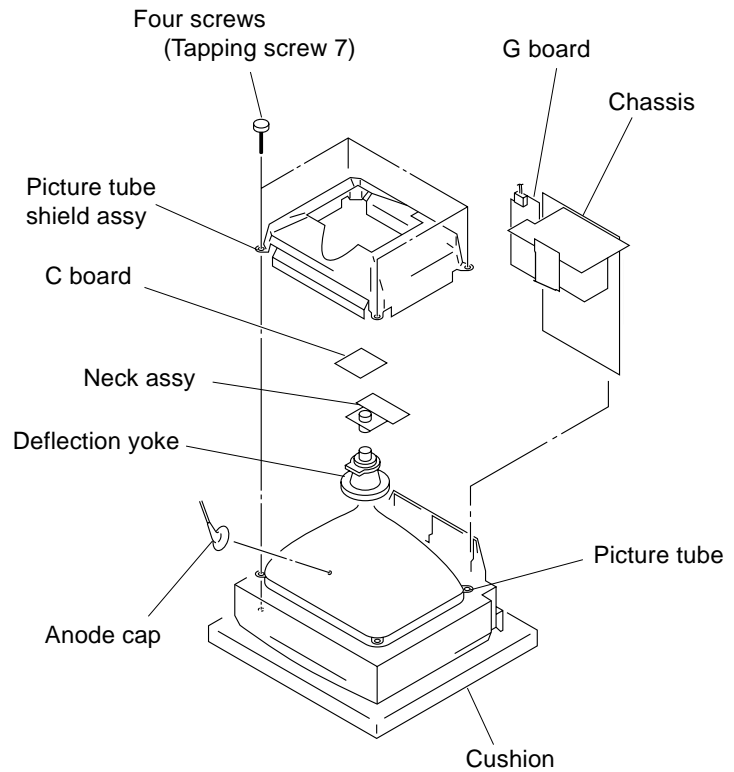
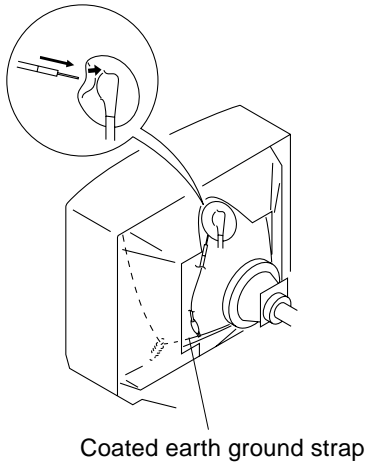


2-4-1. PICTURE TUBE REMOVAL (KV-32S65)

WARNING -- Before removing anode cap:

High voltage remains in the CRT even after the power is disconnected.

To avoid electrical shock, discharge CRT before attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.

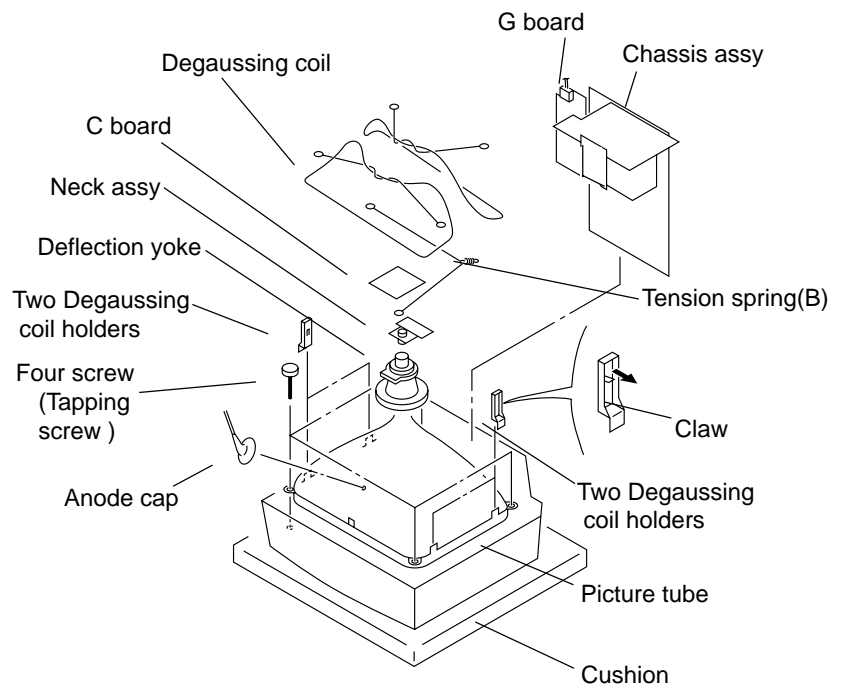
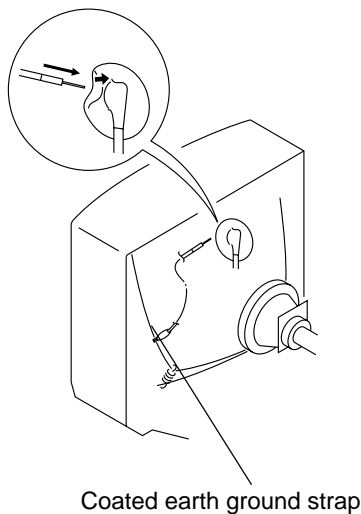


2-4-2. PICTURE TUBE REMOVAL (KV-35S65)

WARNING -- Before removing anode cap:

High voltage remains in the CRT even after the power is disconnected.

To avoid electrical shock, discharge CRT before attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.



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.

The controls and switch should be set as follows unless otherwise noted:

PICTURE control normal

BRIGHTNESS control normal

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)/White Balance

Note: Test Equipment Required

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

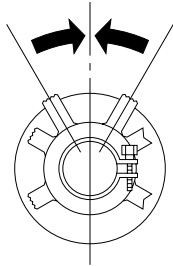
3-1. BEAM LANDING

Preparation:

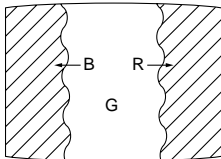
- Input a white pattern signal.
- Face the picture tube in a East or West direction to reduce the influence of geomagnetism.

NOTE: Do not use the hand degausser because it magnetizes the CRT .

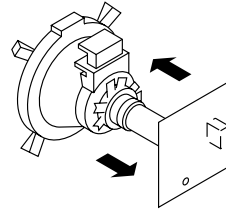
1. Input white pattern from pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



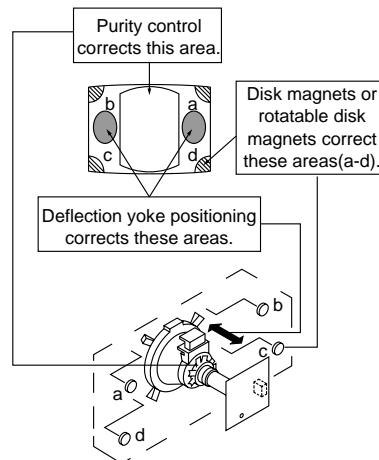
3. Input green pattern from pattern generator.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.



6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. When landing at the corner is not right, adjust by using the disk magnets.



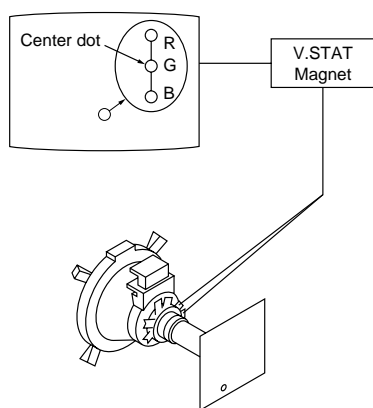
3-2. CONVERGENCE

Preparation:

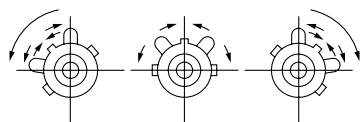
- Before starting, perform FOCUS, V. LIN and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Input dot pattern.

(1) Vertical and Horizontal Static Convergence

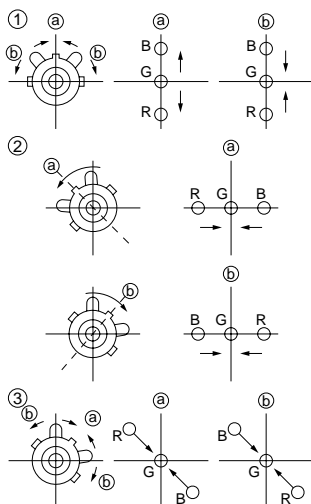
1. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement)



Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



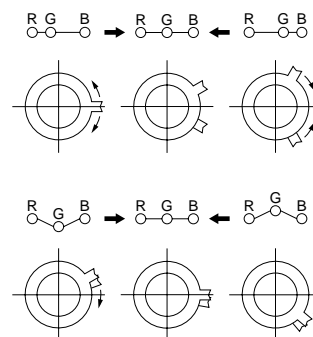
2. When the V. STAT magnet is moved in the direction of arrow (a) and (b), red, green, and blue dots move as shown below:



Operation of BMC (Hexapole) Magnet

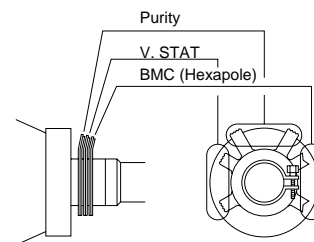
The respective dot positions resulting from moving each magnet interact, so perform adjustment while tracking.

Use the VSTAT tabs to adjust the red, green, and blue dots so they line up at the center of the screen (move the dots in a horizontal direction.)



Y Separation Axis Correction Magnet Adjustment

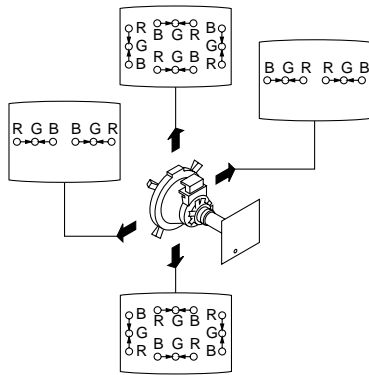
1. Input cross-hatch pattern, adjust PICTURE to minimum and BRIGHTNESS to normal.
2. Adjust the deflection yoke upright so it touches the CRT.
3. Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical from top to bottom (open state).



4. Return the deflection yoke to its original position.

(2) Dynamic Convergence Adjustment

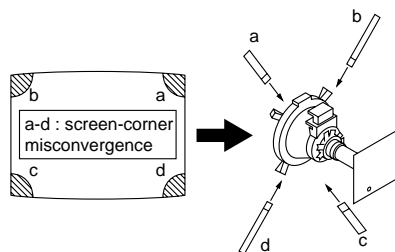
- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
1. Slightly loosen deflection yoke screw.
 2. Remove deflection yoke spacers.
 3. Move the deflection yoke for best convergence as shown below:



4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

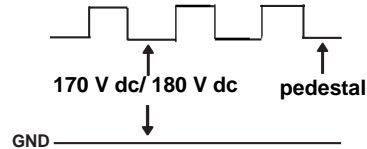
(3) Screen-corner Convergence

Affix a permalloy assembly corresponding to the misconverged areas:



3-4. SCREEN (G2)

1. Input dot pattern from the pattern generator.
2. Set the PICTURE and BRIGHT controls at normal.
3. Adjust S BRT, G CUT, B CUT in service mode with an oscilloscope so that voltages on the red, green, and blue cathodes are 170Vdc for 35" and 180Vdc for 32".
4. Observe the screen and adjust SCREEN (G2) VR to obtain the faintly visible background of dot signal.



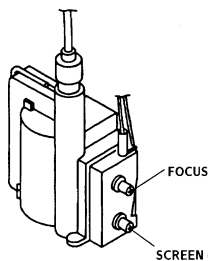
3-5. WHITE BALANCE ADJUSTMENTS

NO.	Disp.	Item	Avg/32"	Avg/35"
16	GDRV	Green Drive	33	45
17	BDRV	Blue Drive	33	45
18	GCUT	Green Cut-off	3	6
19	BCUT	Blue Cut-off	2	6
23	SBRT	Sub Bright	14	10

1. Input an entire white signal.
2. Set to Service adjustment Mode.
3. Set DCOL to "0"
4. Set the PICTURE and BRIGHT to minimum.
5. Adjust with SBRT if necessary.
6. Select GCUT and BCUT with **[1]** and **[4]**.
7. Adjust with **[3]** and **[6]** for the best white balance.
8. Set the PICTURE and BRIGHT to maximum.
9. Select GDRV and BDRV with **[1]** and **[4]**.
10. Adjust with **[3]** and **[6]** for the best white balance.
11. Reset DCOL to "1".
12. Write into the memory by pressing **[MUTING]** then **[ENTER]****.

3-3. FOCUS

Adjust FOCUS control for best picture.



SECTION 4 SAFETY RELATED ADJUSTMENTS

R530, R531 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

Always perform the following adjustments when replacing the following components marked with a ■ mark on the schematic diagram:

A BOARD:	IC351, IC501, D519, D520, D521, C531, C532, R387, R529, R530, R531, R532, R533, R550, T503
-----------------	--

G BOARD:	IC643, R661
-----------------	-------------

Step 1 Preparation before Confirmation

Turn the POWER switch ON.

Input a white signal and set the PICTURE and BRIGHT controls to maximum.

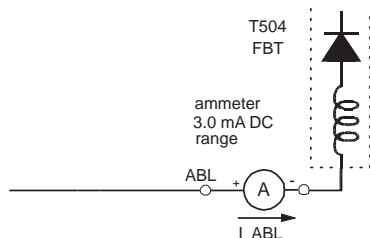
Confirm that the voltage at the check terminal of TP85 is more than 18.0 V DC when the set is operating normally.

At AC input: 120.0 ± 2.0 VAC

Step 2

Input a white signal and verify that I ABL is within the specified range: 2160 ± 100 μ A.

At AC input: 120.0 ± 2.0 VAC



Step 3

Record the voltage between TP85 and ground.

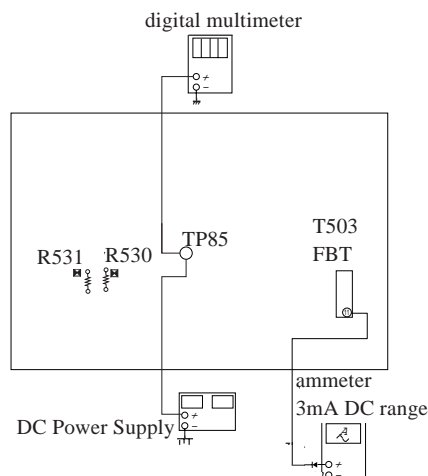
Step 4

Using an external DC power supply, apply voltage between TP85 and ground.

Increase the voltage gradually and confirm that the holddown works (raster disappears) at lower than the voltage recorded in Step 3.

Lower than 22.05 V DC

At AC input: 120.0 ± 2.0 VAC



A BOARD - CONDUCTOR SIDE

Step 5

Confirm that a voltage of more than 18.0 V DC appears between TP85 and ground.

At AC input: 120.0 ± 2.0 VAC

B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

Always perform the following adjustments when replacing the following components marked with ■ on the schematic diagram:

G BOARD: IC643, R661

- 1) Using Variac, apply AC input voltage: 130 ± 2.0 VAC
- 2) Input a monoscope signal.
- 3) Set the PICTURE control and the BRIGHT control to initial reset value.
- 4) Confirm the voltage of G BOARD CN641 between pin ① to ground is less than 135.5 ± 1.0 V DC.
- 5) If step 4 is not satisfied, replace the R661 and repeat the above steps.

SECTION 5 CIRCUIT ADJUSTMENTS

ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use Remote Commander (RM-Y167) to perform the following circuit adjustments:

NOTE : Test Equipment Required:

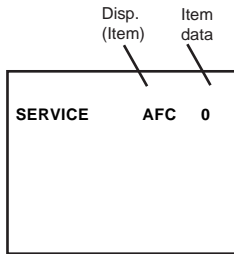
1. Pattern Generator
2. Frequency Counter
3. Digital Multimeter
4. Audio OSC

(1) Method of Setting the Service Adjustment Mode

SERVICE MODE PROCEDURE

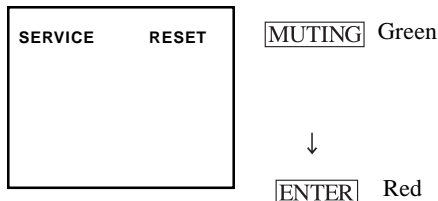
1. Standby mode. (Power off)
2. **DISPLAY** → **5** → **VOL(+)** → **POWER** on the Remote Commander.
(Press each button within a second.)

SERVICE ADJUSTMENT MODE IN

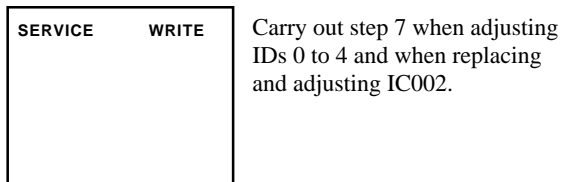


3. The CRT displays the item being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. Press **MUTING** then **ENTER** to write into memory**.

SERVICE ADJUSTMENT MODE MEMORY



7. Press **8** then **ENTER** on the Remote Commander to initialize.

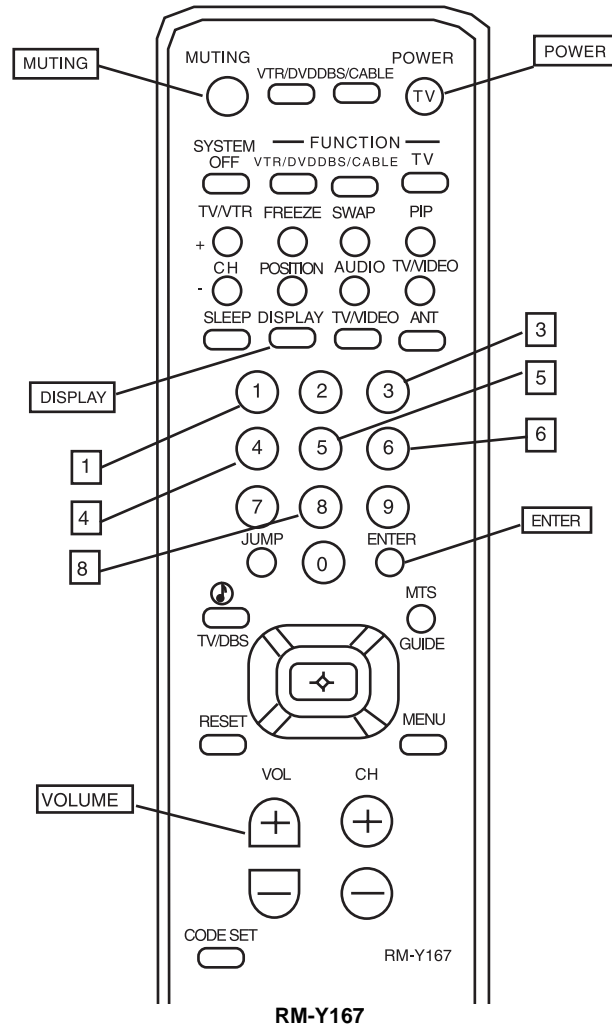


8. Turn set off and on to exit. * CAUTION: Wait at least 10 seconds before turning off set.

(2) Memory Write Confirmation Method

1. After adjustment, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again to confirm they were adjusted.

(3) Adjust Buttons and Indicator



WARNING: Do NOT turn off the power or AC immediately after pressing **MUTING then **ENTER**. Wait at least 10 seconds.

(4) Service Data

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data	Average Data		Comments
						32"	35"	
VP CXA2095S								
1	VPOS	V-Position	0-63	Adj	20	23	33	0:Down, 63:Up
2	VSIZ	V-Size	0-63	Adj	20	27	52	0:Min, 63:Max
3	VCOM	V-Compensation	0-3	Fix	1	1		0:Min, 3:Max
4	VLIN	V-Linearity	0-15	Adj	7	9		0:Min, 15:Max
5	VSCO	S-Correction	0-15	Adj	7	6	9	0:Min, 15:Max
6	HPOS	H-Position	0-15	Adj	7	11	10	0:Right, 15:Left
7	HSIZ	H-Size	0-63	Adj	20	23	39	0:Min, 63:Max
8	PAMP	Pin Compensation	0-63	Adj	31	27	19	0:Min, 63:Max
9	UPIN	Upper Corner Pin	0-15	Adj	7	4	7	0:Min, 15:Max
10	LPIN	Lower Corner Pin	0-15	Adj	7	6	10	0:Min, 15:Max
11	PPHA	Pin Phase	0-15	Adj	7	4	5	0:Min(small picture), 15:Max
12	AFC	AFC	0-3	Fix	2	2		0:Freerun, 1:Min, 3:Max
13	VBOW	AFC Bow	0-15	Adj	7	6	5	0:Right, 15:Left
14	VANG	AFC Angle	0-15	Adj	7	6	4	0:Right, 15:Left
15	REF	Reference Line	0-3	Fix	2	2		0:22H(Rch), 3:16H(Rch)
16	GDRV	Green Drive	0-63	Adj	31	22	35	0:Min, 63:Max
17	BDRV	Blue Drive	0-63	Adj	31	30	26	0:Min, 63:Max
18	GCUT	Green Cutoff	0-15	Adj	7	5	8	0:Min, 15:Max
19	BCUT	Blue Cutoff	0-15	Adj	7	7	6	0:Min, 15:Max
20	SCON	Sub Contrast	0-15	Adj	7	10	8	0:Min, 15:Max
21	SHUE	Sub Hue (RF only)	0-15	Adj	7	7 (flat-1)	8 (flat-1)	0:+10deg, 15:-10deg
22	1SHU	Sub Hue (composite & S-video)	0-15	Adj	7	7	7	0:+10deg, 15:-10deg
23	SCOL	Sub Color (RF only)	0-15	Adj	7	11 (flat+2)	9 (flat+2)	0:Min, 15:Max
24	1SCO	Sub Color (composite & S-video)	0-15	Adj	7	14	13	0:Min, 15:Max
25	SBRT	Sub Brightness	0-63	Adj	31	26		0:Min, 63:Max
26	SSHP	Sub Sharpness (RF & Composite video)	0-15	Fix by model	7	8	8	0:Min, 15:Max
27	1SSP	Sub Sharpness (S-video only)	0-15	Fix by model	7	10	10	0:Min, 15:Max
28	GMMA	Gamma Correction	0-3	Fix by model	1	0	0	0:Off, 1:Min, 3:Max
29	CDM2	Countdown Mode 2	0-1	Fix	0	0		0: Normal 1: High Speed Countdown Response
30	EYSW	External Y Switch	0-1	Fix	0	0		0: Normal 1: EYin disabled
31	DPIX	Dynamic Picture	0,1	Fix	1	1		0:Off, 1:On
32	Y-DC	DC Transmission Ratio	0,1	Fix	1	1		0:100%, 1:82%
33	ABLM	ABL Mode	0,1	Fix	1	1		0:PictureABL, 1:Picture/BrightnessABL
34	AXIS	Color Demodulation Axis	0,1	Fix	1	1		0:Japan, 1:US
35	NOTC	Chroma Trap Filter	0,1	Fix	0	0		0:Off, 1:On
36	CROM	Chroma Trap Adjust	0-15	Fix	7	7		0:+300kHz, 1:-300kHz
37	TOT	TOT Filter (RF only)	0,1	Fix	1	1		0:Off, 1:On
38	1TOT	TOT Filter (Composite & S-video)	0,1	Fix	1	0		0:Off, 1:On
39	PREL	Pre/Overshoot Ratio (RF & Composite)	0-3	Fix by model	3	1		0: 2:1, 3: 5:1
40	1PRE	Pre/Overshoot Ratio (S-video only)	0-3	Fix by model	3	3		0: 2:1, 3: 5:1
41	SHPF	Sharpness fo (RF & Composite)	0-3	Fix by model	2	1		0:2.5MHz, 3:4.0MHz
42	1SPF	Sharpness fo (S-video only)	0-3	Fix by model	2	3		0:2.5MHz, 3:4.0MHz
43	RON	Red Off	0,1	Fix	1	1		0:Off, 1:On
44	GON	Green Off	0,1	Fix	1	1		0:Off, 1:On
45	BON	Blue Off	0,1	Fix	1	1		0:Off, 1:On
46	DCOL	Dynamic Color	0,1	Fix	0	1 (adjusts @ 0, but shipped as 1)		0:Off, 1:On
47	CDMD	V Countdown Mode	0,1	Fix	0	0		0:Auto, 1:Fix
48	HBSW	H Blanking Switch	0,1	Fix	0	0		0:Off, 1:On
49	LBLK	Left Blanking	0-15	Fix	0	7		0:Min, 15:Max
50	RBLK	Right Blanking	0-15	Fix	0	7		0:Min, 15:Max
AP CXA2021								
51	SVOL	Sub Volume	0-15	Fix	0	6		0:-0 Volume steps, 15:-15 Volume steps
52	SBAL	Sub Balance	0-15	Adj	7	7		0: +Right, 15:+Left
53	SBAS	Sub Bass	0-15	Fix by model	7	8	8	0:-7 Steps, 15: +8 steps
54	STRE	Sub Treble	0-15	Fix by model	7	10	10	0:-7 Steps, 15: +8 steps
MM1311/1313								
55	AUSW	Audio Att Sw	0,1	Fix	1	1		0:-6dB, 1:0dB (Only for VIDEO input)

Service Data (cont.)

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data	Average Data		Comments
						32"	35"	
PI SDA9288								
56	PYSD	Select Delay	0-15	Fix by P-bd	3	3		0:Right, 15:Left
57	PIPH	PIP H-position	0-127	Fix	78	78		0:Right, 127:Left
58	PIPV	PIP V-position	0-63	Fix	18	18		0:Up, 63:Down
59	PYDL	PIP Y-delay	0-7	Fix	0	0		0:Right, 7:Left
60	PHDL	H-pulse delay	0-15	Fix by P-bd	3	0		0:Right, 15:Left
61	PMVD	Main V-pulse delay	0-31	Fix	16	16		7-21: Available (1-6/22-31 Not Avail)
62	PIVD	Inset V-pulse delay	0-31	Fix	22	22		16-28 Available (1-15/29-31 Not Avail)
63	PCON	Inset Contrast	0-15	Fix	7	7		0:Min, 15:Max
64	FRMY	Frame Y	0-15	Fix	7	7		0:Dark, 15:Bright
65	CHRI	Input Polarity	0,1	Fix by P-bd	1	1		0:+(B-Y)+(R-Y), 1:-(B-Y)-(R-Y)
66	CHRO	Output Polarity	0,1	Fix	1	1		0:+(B-Y)+(R-Y), 1:-(B-Y)-(R-Y)
67	IPER	Inset Pedestal R-Y	0-15	Fix	0	0		0:Center, 7:Max, 8:Min
68	IPEB	Inset Pedestal B-Y	0-15	Fix	0	0		0:Center, 7:Max, 8:Min
69	PCPS	CLPS Bit Control	0,1	Fix	0	0		0:Depend on HSIDEL, 1:Not depend
70	PCPF	CLPFIX Bit Control	0,1	Fix	0	0		0: 3Clamp line, 1: 2Clamp line
71	PSEL	SELDOWN Bit Control	0,1	Fix by P-bd	1	1		0:Open out, 1:TTL out
72	PPLL	PLL Filter Bits	0-3	Fix	0	0		Fixed value only
73	PVNR	VSPISQ VSP NR	0-1	Fix	0	1		SDA9288 IC bypass use 1
IC CXA2019								
74	ISCO	CDec Sub Contrast	0-15	Fix	7	15		PiP sub contrast
75	ISHP	CDec Sharpness	0-15	Fix	7	8		PiP sharpness
76	ISCL	CDec Sub Color	0-15	Fix	7	9		PiP sub color
77	ISHU	CDec Sub Hue	0-15	Fix	7	6		PiP sub hue
78	ITOT	CDec TOT on	0,1	Fix	0	1		PIP TOT 0:Off, 1:On
79	IAFC	CDec AFC	0-3	Fix	2	2		0:Max, 2:Min, 3:Freerun
80	ICD2	CDec Countdown Mode2	0,1	Fix	0	0		0:Standard, 1:Fast
81	IYDR	CDec Y drive	0-31	Fix	15	7		PiP Y-drive gain
82	IVPE	CDec V pedestal	0-15	Fix	7	6		PiP V-ped DC
83	IUPE	CDec U pedestal	0-15	Fix	7	6		PiP U-ped DC
84	IRVP	CDec RV pedestal	0-15	Fix	7	6		PiP V-ped DC (re-input)
85	IRUP	CDec RU pedestal	0-15	Fix	7	6		PiP U-ped DC (re-input)
86	IDCT	CDec DC transfer	0-7	Fix	2	0		PiP DC transfer 0:Max, 7:Min
87	IRYD	CDec RY drive	0-31	Fix	15	20		PiP RY Drive (re-input)
88	IABO	CDec ABL off	0,1	Fix	1	1		PiP ABL (RY-OUT) 0:On, 1:Off
89	IPRE	CDec Pre/Over shoot	0-3	Fix	3	3		PiP Pre/over shoot 0: 1:1, 1: 4:1
90	IRUD	CDec RU Drive	0-31	Fix	15	20		PiP RU-gain out 0:-6dB, 31:+3.3bD
91	IABL	CDec ABL	0,1	Fix	1	1		PiP ABL gain 0:Std, 1:Min
92	IABC	CDec ABL Cent	0-3	Fix	1	1		PiP ABL Center 0:Min, 1:Max
93	IRVD	CDec RV drive	0-31	Fix	15	17		PiP RY Drive (re-input)
94	IDLY	CDec Delay	0-3	Fix	0	0		PiP Y-delay 0:0ns, 1:60ns, 2:120ns, 3:180ns
95	ISCR	CDec SCP BGR	0-3	Fix	0	0		PiP SCP riseup phase 0:+0.4us, 1:cent, 2:-0.8us
96	ISCF	CDec SCP BGF	0-3	Fix	0	0		PiP SCP falldown phase 0:+0.4us, 1:cent, 2:-0.8us
CC CXP8584a-011s								
97	CRIL	CC CRI count low	0-15	Fix	2	2		7 Clock Run-In Lower Limit (field 1)
98	CFLD	CC Caption Fixed Field Count		Fix	5	5		Fixed value only
99	CCDI	CC CCD int	0-7	Fix	3	3		Fixed value only
100	CRIP	CC CRI & polarity	0-7	Fix	4	4		Fixed value only
101	CRIT	CC CRI time constant	0-3	Fix	1	1		Fixed value only
102	CSB1	CC Sync Slice Bias 1	0-3	Fix	3	3		Fixed value only
103	CSB2	CC Synce Slice Bias 2	0-7	Fix	4	4		Fixed value only
104	CREP	CC CRI signal end position	0-255	Fix	142	142		Fixed value only
105	CSDS	CC Data start delay	0-31	Fix	8	8		Fixed value only
106	CCDS	CC Caption data threshold	0-31	Fix	9	9		Fixed value only
107	CHMK	CC P8_HMASK	0-63	Fix	42	42		Hmask
108	CHSY	CC P8_HSYC	0-255	Fix	136	136		Hsync
109	DISP	TV OSD H Position	0-63	Adj	1	23		0:Off, 1:Left, 63: Right
110	RTCO	Rotation Coil	0-63	Fix	32	32		Fixed value only

Service Data (cont.)

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data	Average Data		Comments
						32"	35"	
ID MAP								
111	ID-0	ID-0 (Language/Color Systems)	0-255	Fix by model	89	refer to NVM ID Chart		See ID map
112	ID-1	ID-1 (Input/Output Configuration)	0-255	Fix by model	55			See ID map
113	ID-2	ID-2 (Audio)	0-255	Fix by model	175			See ID map
114	ID-3	ID-3 (OSD/Timer/V-chip/Ch Fix)	0-255	Fix by model	0			See ID map
115	ID-4	ID-4 (CC/Spot Killer/etc)	0-255	Fix by model	155			See ID map
116	ID-5	ID-5 (V-series Features/etc)	0-255	Fix by model	141			See ID map
117	ID-6	ID-6 (PiP/Ant Sw related)	0-255	Fix by model	6			See ID map
118	ID-7	ID-7 (Special Models/etc)	0-255	Fix by model	0			See ID map

SERVICE IDO 25

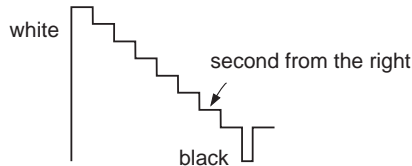
Note: Items 1-118 show adjustment order

(5) Feature ID Map

	KV-	DESTINATION	ID-0	ID-1	ID-2	ID-3	ID-4	ID-5	ID-6	ID-7
1	32S65	(US/CND)	89	21	31	10	27	133	6	0
2	35S65	(US/CND)	89	21	31	10	155	133	6	0

SUB BRIGHT ADJUSTMENT (SBRT)

1. Set to Service adjustment Mode.
2. Input a gray scale pattern signal.
3. Set the PICTURE to minimum, and BRIGHT to normal.
4. Select SBRT with **[1]** and **[4]**.
5. Adjust SUB BRIGHT level with **[3]** and **[6]** so that the stripe second from the right is faintly visible.
6. Write into the memory by pressing **[MUTING]** then **[ENTER]****.

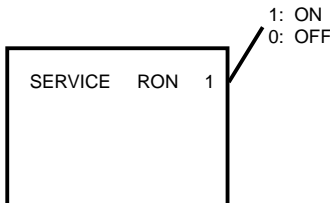


SUB CONTRAST ADJUSTMENT (SCON)

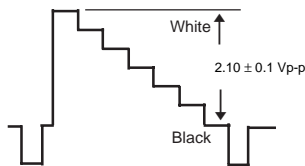
1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Select the item DCOL to "0" level.
4. Set the conditions as follows.

PICTURE MAX
 COLOR MIN
 BRIGHT CENTER

R ON ON (1)
 G ON OFF (0)
 B ON OFF (0)



5. Connect an oscilloscope probe to C Board, CN1761 pin ① (RED OUT).
6. Select SCON with **[1]** and **[4]**.
7. Adjust with **[3]** and **[6]** for: 2.10 ± 0.01 Vp-p.



8. Reset the item DCOL to "1" level.
9. Write the memory by pressing **[MUTING]** then **[ENTER]****.

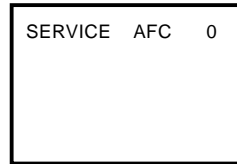
10. Return the following back to normal after adjustment.

PICTURE MAX
 COLOR CENTER
 BRIGHT CENTER

R ON ON (1)
 G ON ON (1)
 B ON ON (1)

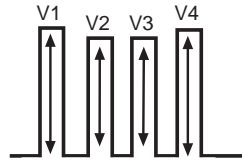
DISPLAY POSITION ADJUSTMENT (DISP)

1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Select DISP with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for adjustment of characters to center.
5. Write the memory by pressing **[MUTING]** then **[ENTER]****.



SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

1. Input a color-bar signal.
2. Set to Service adjustment Mode.
3. Connect oscilloscope probe to C Board, CN1761 Pin③ (BLUE OUT).
4. Select SHUE and SCOL with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the $V1 = V4 \pm 0.1$ Vp-p (SCOL) and $V2 = V3 \pm 0.1$ Vp-p (SHUE).



6. Change data according to the following table;

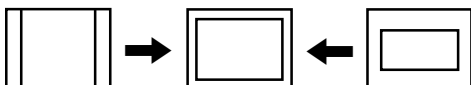
	SCOL	SHUE
32"	+2 steps	-1 steps
35"	+2 steps	-1 steps

7. Write into the memory by pressing **[MUTING]** then **[ENTER]****.

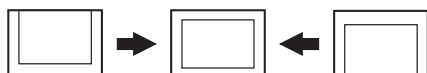
****WARNING:** Do NOT turn off the power or AC immediately after pressing **[MUTING]** then **[ENTER]**. Wait at least 10 seconds.

V. SIZE ADJUSTMENT (VSIZ)

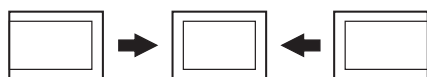
1. Input a cross-hatch signal.
2. Set to Service adjustment mode.
3. Select VSIZ with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best vertical size.
5. Write into the memory by pressing **[MUTING]** then **[ENTER]****.

V. SIZE**V. POSITION ADJUSTMENT (VPOS)**

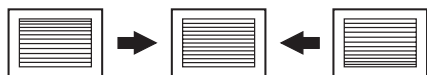
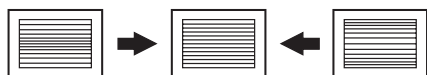
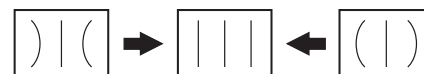
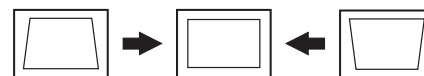
1. Input a cross-hatch signal.
2. Set to Service adjustment Mode.
3. Select VPOS with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best vertical center.
5. Write into the memory by pressing **[MUTING]** then **[ENTER]****.

V. POSITION**H. POSITION ADJUSTMENT (HPOS)**

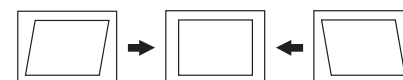
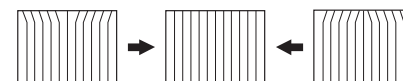
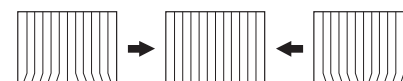
1. Input a cross-hatch signal.
2. Set the Service adjustment Mode.
3. Select HPOS with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best horizontal center.
5. Write into the memory by pressing **[MUTING]** then **[ENTER]****.

H. POSITION**V LINEARITY (VLIN), V CORRECTION (VSCO), PIN AMP (PAMP) AND PIN PHASE (PPHA) ADJUSTMENTS**

1. Input a cross-hatch signal.
2. Set to Service adjustment Mode.
3. Select VLIN, VSCO, PAMP, and PPHA with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best picture.
5. Write the memory by Pressing **[MUTING]** then **[ENTER]****.

V LINEARITY (VLIN)**VS CORRECTION (VSCO)****PIN AMP (PAMP)****PIN PHASE (PPHA)****V ANGLE (VANG), V BOW (VBOW), UPPER PIN (UPIN) AND LOW PIN (LPIN) ADJUSTMENTS**

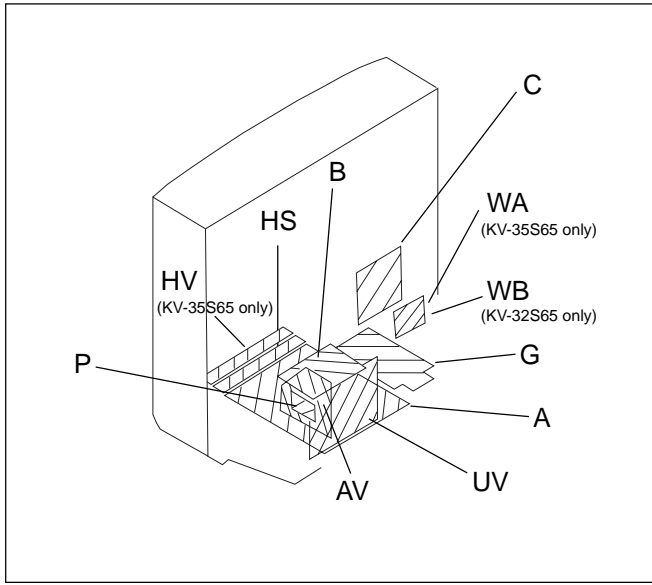
1. Input a cross hatch signal.
2. Set to Service adjustment Mode.
3. Select VVANG, VBOW, UPIN, and LPIN with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best picture.
5. Write the memory by Pressing **[MUTING]** then **[ENTER]****.

V ANGLE (VANG)**V BOW (VBOW)****UPPER PIN (UPIN)****LOW PIN (LPIN)****P BOARD ADJUSTMENTS****PIP V. POSITION (PIPV), PIP H. POSITION (PIPH)**

1. Input a color bar signal.
2. Set to service adjustment mode.
3. Select PHOP with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best balanced position at four corner P in P display position.
5. Adjust P in P put at lower right position.
6. Write the memory by Pressing **[MUTING]** then **[ENTER]****.

WARNING: Do NOT turn off the power or AC immediately after pressing **[MUTING] then **[ENTER]**. Wait at least 10 seconds.

6-2. CIRCUIT BOARDS LOCATION



6-3. PRINTED WRING BOARDS AND SCHEMATIC DIAGRAMS

Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50VV or less are not indicated except for electrolytics and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms.
 $\text{K}\Omega=1000\Omega$, $\text{M}\Omega=1000\text{k}\Omega$
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
 Rating electrical power : $\frac{1}{4}\text{W}$

- $\frac{1}{4}\text{W}$ in resistance, $\frac{1}{10}\text{W}$ and $\frac{1}{8}\text{W}$ in chip resistance.
- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
 Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R530 and R531 adjustment on Page 15.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced()	Adjustment()
IC351,IC501,D519,D520,D521 C531,C532,R387,R529,R530,R531, R532,R533,R550,T503.....A BOARD IC643,R661.....G BOARD	R530,R531

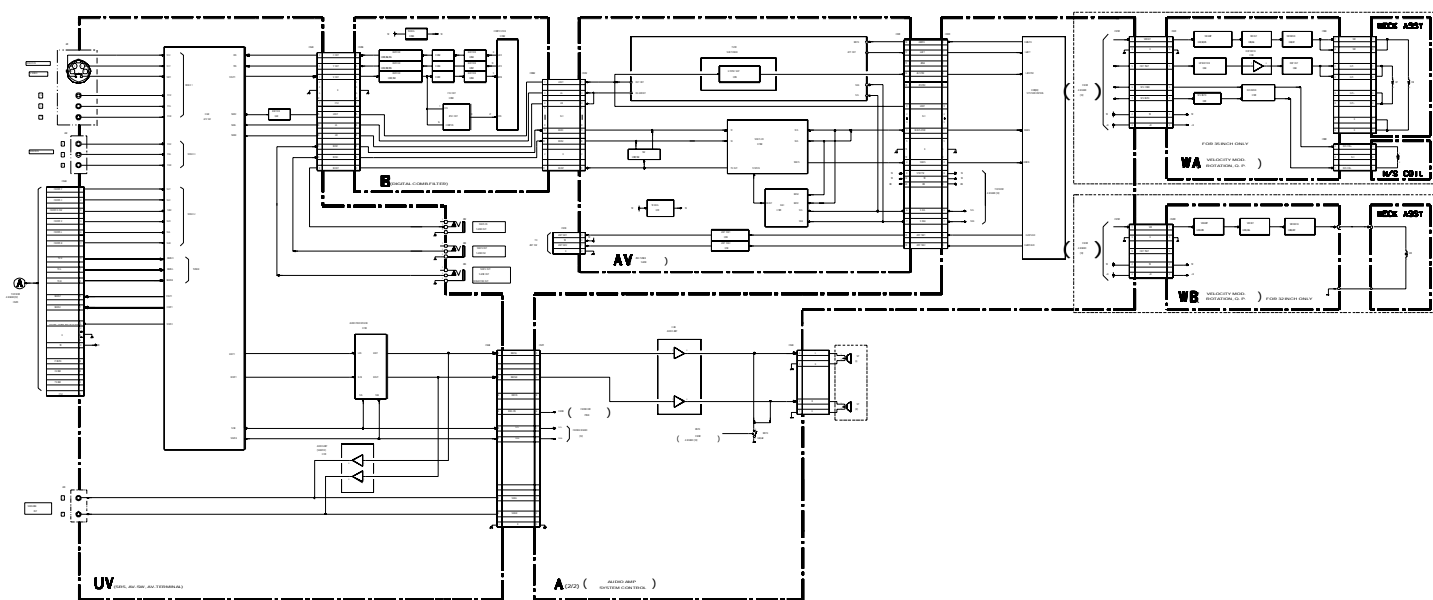
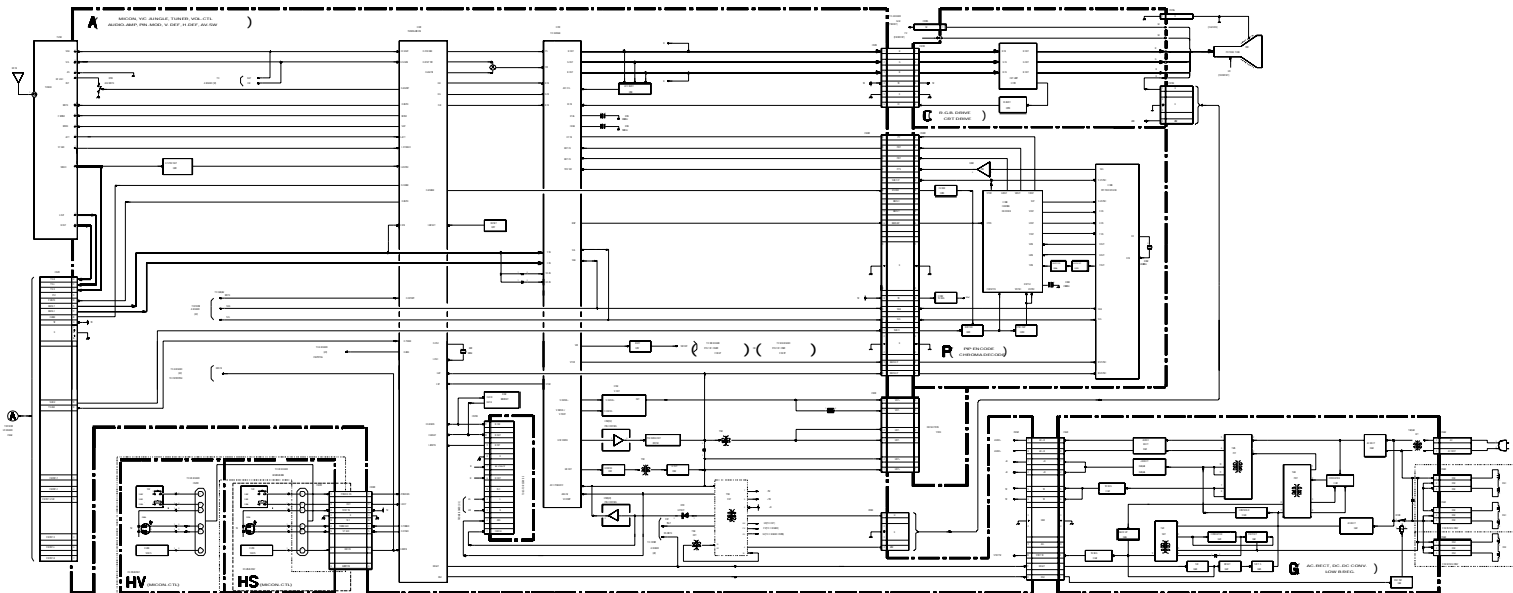
- Readings are taken with a color-bar signal input.
- Readings are taken with a $10\text{M}\Omega$ digital multimeter.
- Voltages are DC with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
 S : Measurement impossibility.
- : B+line.
- : B-line.
 (Actual measured value may be different).
- : signal path. (RF)
- Circled numbers are waveform references.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: ※	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

The symbol display is on the component side.
 The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.
 The symbol indicate fast operating fuse.
 Replace only with fuse of same rating as marked.

Les composants identifiés par un tramé et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
 Le symbole indique une fusible a action rapide. Doit etre remplacée par une fusible de meme valeur, comme maque.



A BOARD (*) MARK LIST

REF. NO.	LOC.	KV-32S65	KV-35S65
C069	C-11	#	10MF
C370	G-14	0.022MF	0.047MF
C513	J-14	0.056MF	0.033MF
C514	J-15	0.62MF	0.82MF
C520	K-13	1000PF	0.0022MF
C521	L-12	0.0022MF	0.0033MF
C537	I-17	470MF	1000MF
C539	I-17	470MF	1000MF
C542	K-17	#	0.047MF
C1501	J-15	0.12MF	#
CN1941	F-18	5P	8P
L541	K-17	#	1-406-677-11
R069	C-11	#	10K
R085	C-11	#	10K
R365	G-14	150K	100K
R374	G-14	1.5M	1M
R511	I-16	68	100
R515	K-12	27K	15K
R523	L-13	10K	8.2K
R529	M-13	22K	18K
R531	M-13	68K	220K
R533	M-12	47K	33K
R535	K-11	150K	180K
R541	J-17	#	0.47
R542	K-18	#	22
R546	I-17	22K	18K
T502	J-15	1-424-545-11	1-429-408-11
T503	I-18	NX-2609	NX-3005
T504	K-18	#	1-413-059-00

#: NOT MOUNTED

A BOARD LOCATOR LIST

DIODE	
D001	A6
D002	D4
D003	A6
D004	C3
D005	D1
D006	E2
D011	A5
D013	C5
D014	D4
D015	C4
D353	D7
D356	E3
D360	E7
D362	E8
D368	C8
D462	F1
D501	I3
D502	I9
D503	I9
D504	I8
D505	I6
D506	I6
D507	I3
D515	H5
D516	H3
D518	I3
D519	F9
D520	G3
D521	G3
D530	F10
D531	F11
D534	G9
D561	G8
D562	G3
D1102	B10
D1103	B12
D1247	E12
D1248	E12
D1263	D9
D1264	E10
IC	
IC001	B4
IC002	C3
IC003	E1
IC351	D5
IC461	F5
IC501	H3
IC561	G8
IC1261	D11
IC1401	E11
IC1402	E11

TRANSISTOR	
Q001	A6
Q002	C5
Q003	I2
Q004	I2
Q010	D4
Q011	D4
Q012	D4
Q013	E4
Q014	E4
Q015	D3
Q016	D3
Q017	A5
Q301	D8
Q302	C7
Q303	C7
Q354	E8
Q356	D4
Q357	E5
Q358	E8
Q461	G3
Q462	G4
Q501	J4
Q502	J9
Q511	H3
Q512	H4
Q551	I3
Q552	I3
Q561	F7
Q562	F7
Q563	H3
Q1102	B12
Q1103	A10
Q1231	E13
Q1232	E13
Q1261	C12
Q1262	C12
Q1263	B12

A BOARD IC VOLTAGE LIST

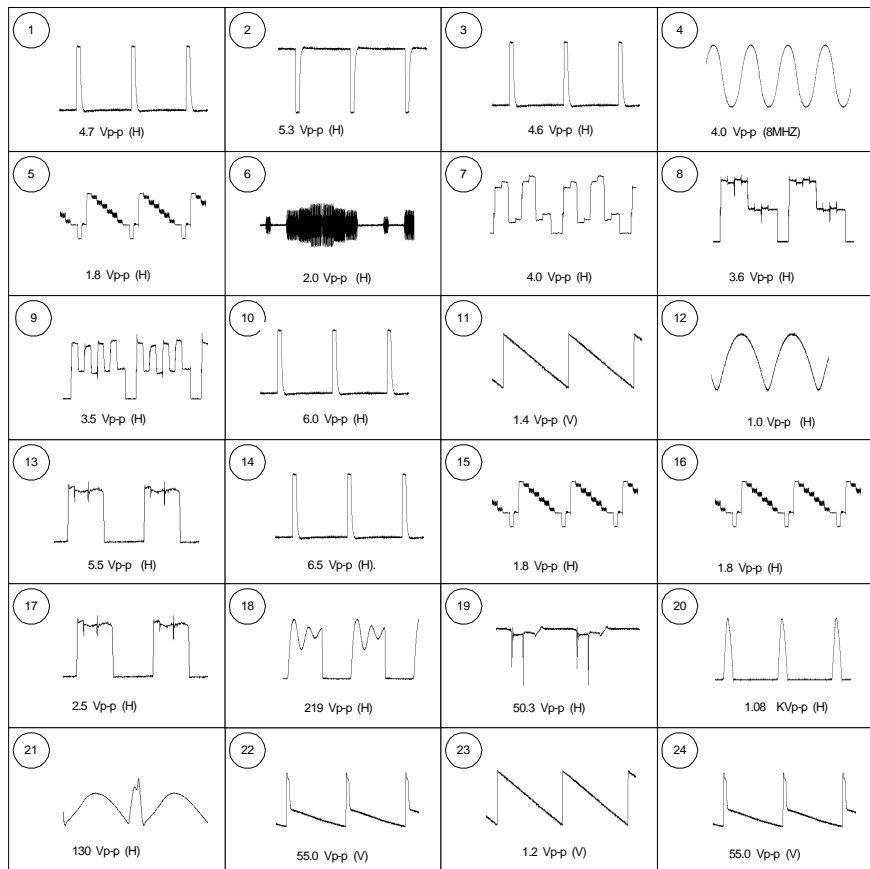
IC001		IC351		IC501	
pin	volt	pin	volt	pin	volt
1	0	1	2.0	1	3.3
2	4.7	2	5.3	2	7.6
3	NC	3	4.0	3	8.2
4	NC	4	0	4	-16.0
5	4.7	5	4.0	5	2.1
6	4.0	6	8.7	6	2.9
7	0.05	7	0	7	-15.8
8	0.04	8	4.7	8	11.8
9	NC	9	0.2	IC561	
10	NC	10	6.3	pin	volt
11	NC	11	6.0	1	1.4
12	4.7	12	5.9	2	11.8
13	3.8	13	GND	3	-13.9
14	1.1	14	0	4	-16.0
15	4.7	15	0	5	0.05
16	GND	16	5.0	6	12.8
17	2.2	17	0	7	1.5
18	2.2	18	5.0	All voltages are in V	
19	0	19	4.0		
20	4.7	20	2.1		
21	2.9	21	4.4		
22	2.6	22	1.9		
23	0	23	4.8		
24	0	24	1.8		
25	GND	25	3.4		
26	1.5	26	2.5		
27	2.4	27	8.6		
28	2.3	28	0.6		
29	4.7	29	2.9		
30	0.8	30	2.9		
31	0	31	3.7		
32	0	32	4.2		
33	NC	33	4.6		
34	NC	34	8.8		
35	NC	35	3.1		
36	0.2	36	3.3		
37	0	37	3.9		
38	0	38	4.1		
39	0	39	2.3		
40	0	40	GND		
41	0	41	2.6		
42	0	42	2.7		
43	0	43	3.9		
44	2.6	44	3.3		
45	2.7	45	5.9		
46	4.7	46	0.4		
47	4.7	47	NC		
48	GND	48	NC		
49	GND	IC461			
50	4.7	pin	volt		
51	0	1	1.3		
52	0	2	0.7		
53	4.7	3	12.4		
54	4.7	4	0.7		
55	4.7	5	1.3		
56	4.7	6	0		
57	4.7	7	NC		
58	0.06	8	11.3		
59	3.0	9	22.7		
60	3.4	10	11.3		
61	0	11	NC		
62	4.4				
63	NC				
64	4.5				

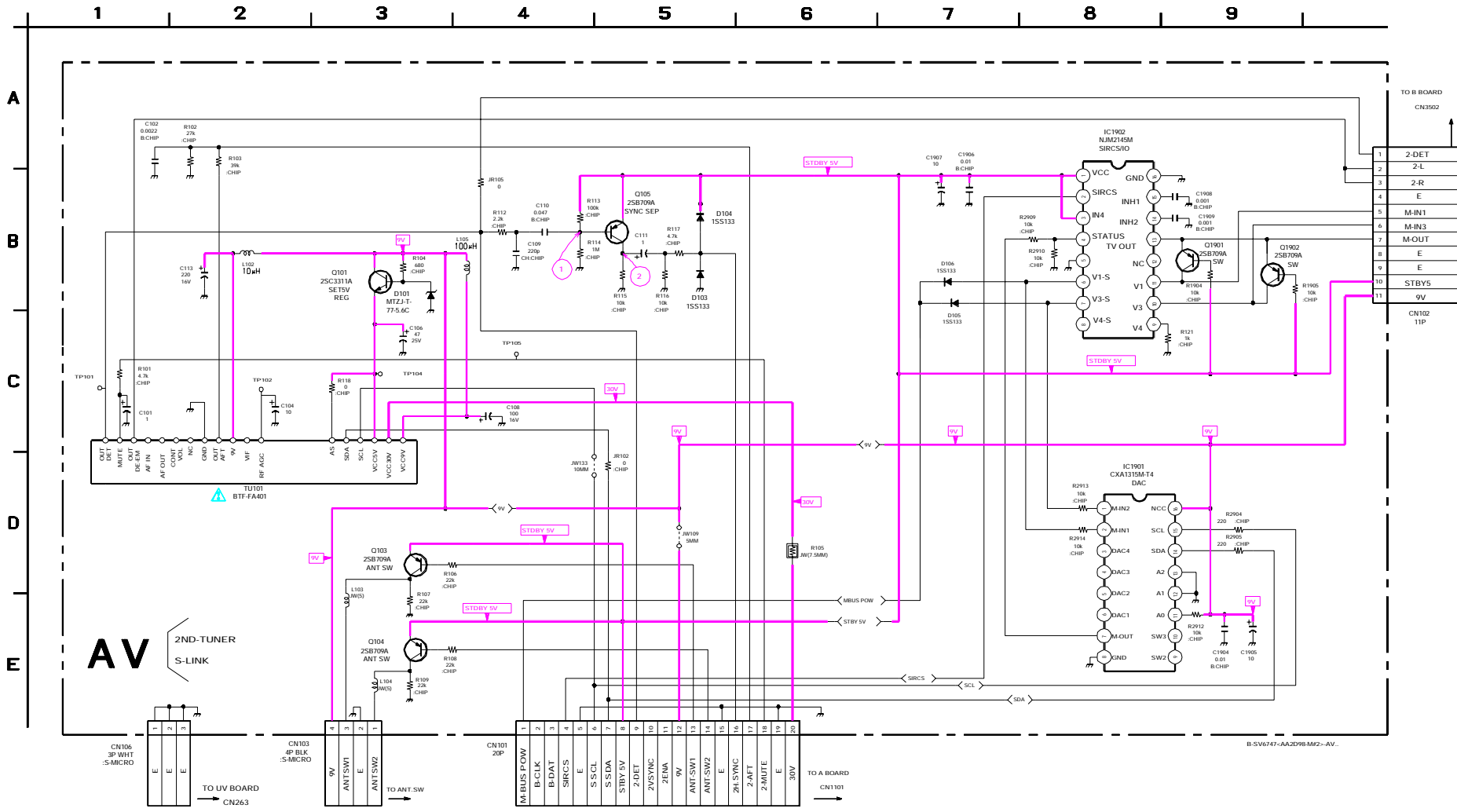
A BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q001	4.9	0.7	4.8
Q002	4.2	8.7	4.8
Q003	-0.4	3.8	GND
Q004	0.6	GND	3.8
Q010	0	8.7	0
Q011	0	8.7	0
Q012	0	8.7	0
Q013	-0.04	0	GND
Q014	-0.06	0	GND
Q015	0	0	GND
Q016	5.7	8.8	5.0
Q017	4.1	4.7	4.8
Q301	3.6	GND	1.6
Q302	3.6	GND	1.7
Q303	3.6	GND	1.8
Q354	0.4	GND	0.2
Q356	4.8	GND	5.4
Q357	3.6	8.7	2.9
Q358	1.6	8.7	1.7
Q461	0	22.6	0
Q462	22.6	0.7	22.7
Q501	-0.7	109	GND
Q502	-0.2	132.6	GND
Q511	-15.9	-12.3	-16.1
Q512	-16.4	-30.7	-16.1
Q551	2.8	0	2.8
Q552	0	2.8	GND
Q561	0	2.9	GND
Q562	-0.3	0	GND
Q563	135	0	135.4
Q1102	5.6	8.6	30
Q1103	0	6.9	GND

All voltages are in V

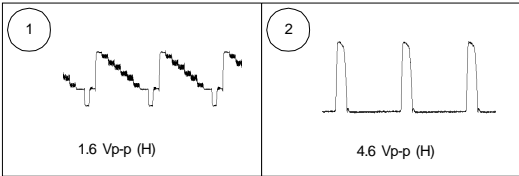
• A BOARD WAVEFORMS





B-SV6747-AA2098-M2--AV..

• AV- BOARD WAVEFORMS



AV BOARD TRANSISTOR VOLTAGE LIST

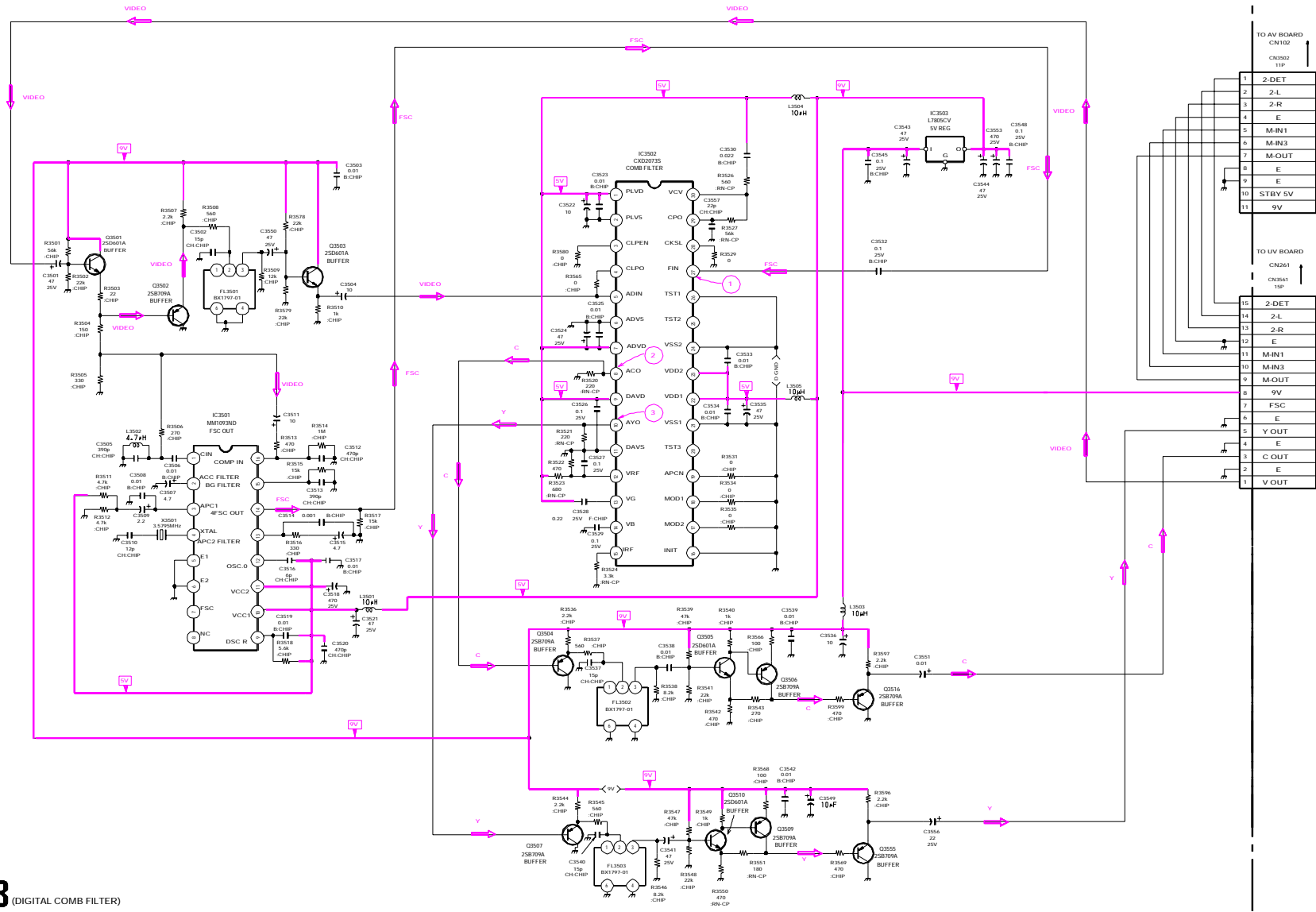
	B	C	E
Q101	4.6	8.6	4.0
Q103	4.2	4.7	4.9
Q104	5.0	0.0	4.9
Q105	5.1	0.80	4.9
Q860	0.68	0.2	0.0
Q862	0.70	0.05	0.0
Q864	2.9	4.9	2.4
Q1901	4.9	0.0	0.0
Q1902	-0.1	0.0	0.0
Q1905	5.2	0.80	4.9

All voltages are in V

AV BOARD IC VOLTAGE LIST

IC1902	
pin	volt
1	4.9
2	4.6
3	-0.1
4	0.0
5	GND
6	0.0
7	0.0
8	NC
9	0.0
10	0.0
11	0.0
12	NC
13	0.0
14	0.5
15	0.5
16	GND
IC1901	
pin	volt
1	0.0
2	0.0
3	NC
4	NC
5	NC
6	NC
7	0.4
8	GND
9	NC
10	NC
11	8.6
12	GND
13	GND
14	0.0
15	0.0
16	8.6

All voltages are in V



B (DIGITAL COMB FILTER)

B BOARD IC VOLTAGE LIST

IC3501		IC3502		18	0
pin	volt	pin	volt	19	0
1	3.5	1	5.0	20	NC
2	0	2	GND	21	GND
3	0	3	0	22	5.0
4	0	4	1.5	23	5.0
5	GND	5	1.5	24	GND
6	GND	6	0.0	25	NC
7	NC	7	5.0	26	GND
8	NC	8	1.1	27	2.3
9	0	9	5.0	28	5.0
10	5.0	10	1.1	29	2.2
11	5.0	11	0	30	2.2
12	3.3	12	2.0	IC3503	
13	2.4	13	2.7	pin	volt
14	3.0	14	0.9	1	NC
15	0.7	15	2.0	2	8.8
16	0	16	GND	3	0
		17	0	4	GND
				6	GND

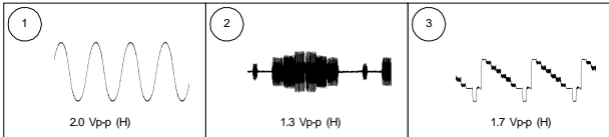
All voltages are in V

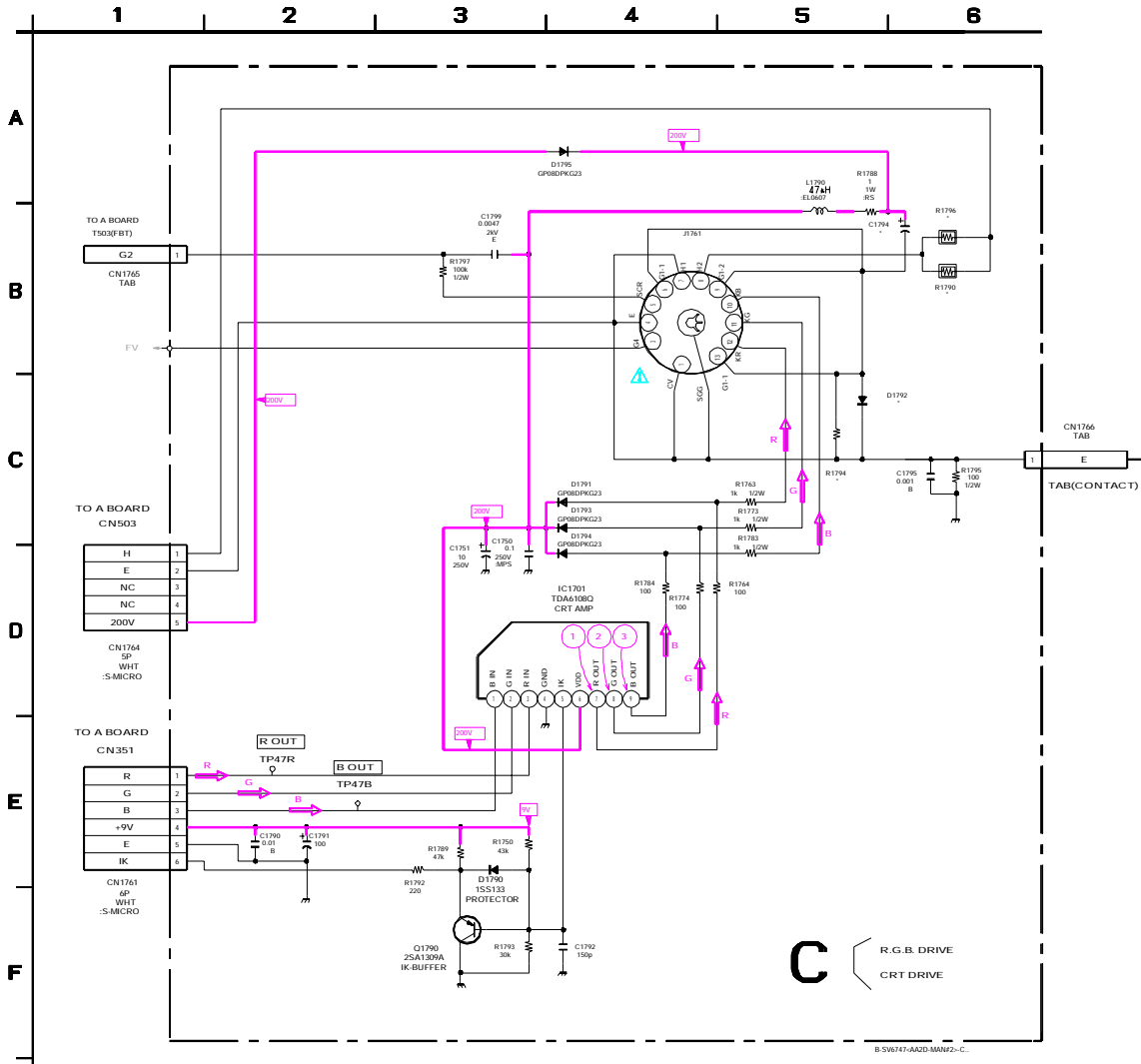
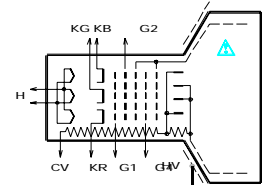
B BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3501	2.1	8.7	1.4
Q3502	1.4	GND	2.0
Q3503	4.2	8.8	3.5
Q3504	1.1	GND	1.7
Q3505	2.7	7.8	2.1
Q3506	7.8	3.0	8.4
Q3507	1.0	GND	1.7
Q3509	7.8	2.9	8.4
Q3510	2.7	7.8	2.1
Q3516	3.0	GND	3.7
Q3555	2.7	GND	3.4

All voltages are in V

B BOARD WAVEFORMS



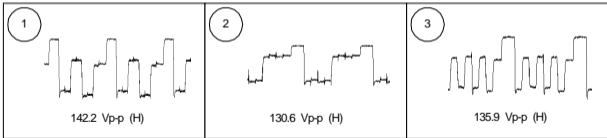


C BOARD (*) MARK LIST

REF. NO.	KV-35S65	KV-32S65
C1794	4.7	#
D1792	GPO8DPKG23	JW (15.0MM)
R1790	1	5.6
R1794	560K	JW (10.0MM)
R1796	1	5.6

#: NOT MOUNTED

C BOARD WAVEFORMS



C BOARD IC VOLTAGE LIST

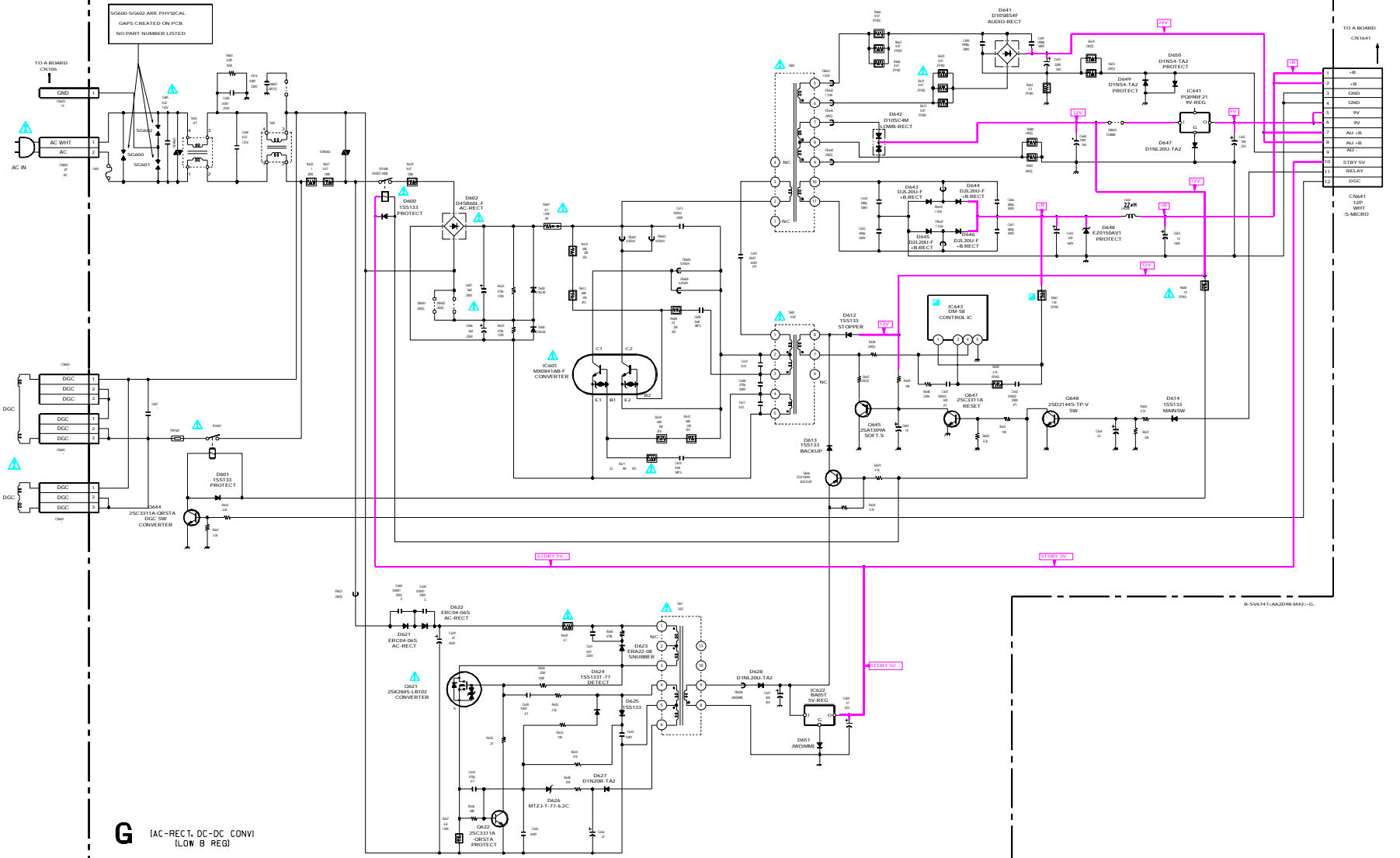
IC1701	
pin	volt
1	1.8
2	1.9
3	2.1
4	GND
5	5.5
6	203.1
7	136.7
8	146.2
9	1.1

All voltages are in V

C BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1790	5.4	GND	4.9

All voltages are in V



G (AC-RECT, DC-DC CONV) (LOW B REG)

B-5M747-AA2D8-MF2-G

G BOARD LOCATOR LIST

DIODE	
D600	D-3
D601	E-1
D602	H-3
D603	G-4
D604	H-4
D612	C-3
D613	D-2
D614	A-4
D621	F-3
D622	G-2
D623	F-2
D624	F-2
D625	F-2
D626	F-1
D627	F-2
D628	D-1
D631	D-2
D632	E-1
D641	B-3
D642	B-3
D643	B-4
D644	C-4
D645	B-4
D646	C-4
D647	D-2
D648	C-4
D649	A-2
D650	A-2
D651	D-1
IC	
IC601	G-4
IC622	D-1
IC641	B-2
IC643	C-2
TRANSISTOR	
Q621	F-2
Q622	G-2
Q644	E-1
Q645	D-2
Q646	C-1
Q647	D-2
Q648	A-3
TRANSFORMER	
T601	I-3
T602	J-5
T603	E-3
T605	C-3
T621	E-2

G BOARD IC VOLTAGE LIST

IC601	
pin	volt
C1	151.4
C2	300.8
B2	149.0
B1	-1.75
E1	GND
E2	151.2
IC641	
pin	volt
IN	11.1
OUT	8.9
G	GND
IC643	
1	134
2	NC
3	2.4
4	8.5
5	GND

All voltages are in V

G BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q622	0.5	1.75	GND
Q644	0	11.1	GND
Q645	11.1	GND	8.5
Q646	6.0	6.7	6.7
Q647	0	11.1	GND
Q648	0.7	0.04	GND

All voltages are in V

G BOARD TRANSISTOR VOLTAGE LIST

	S	D	G
Q621	0	152.4	1.75

All voltages are in V

G BOARD (*) MARK LIST

REF. NO.	KV-35S65	KV-32S65
C601	0.22	#
CN601	3P	#
CN603	3P	#
CN604	#	3P

#: NOT MOUNTED

1

2

3

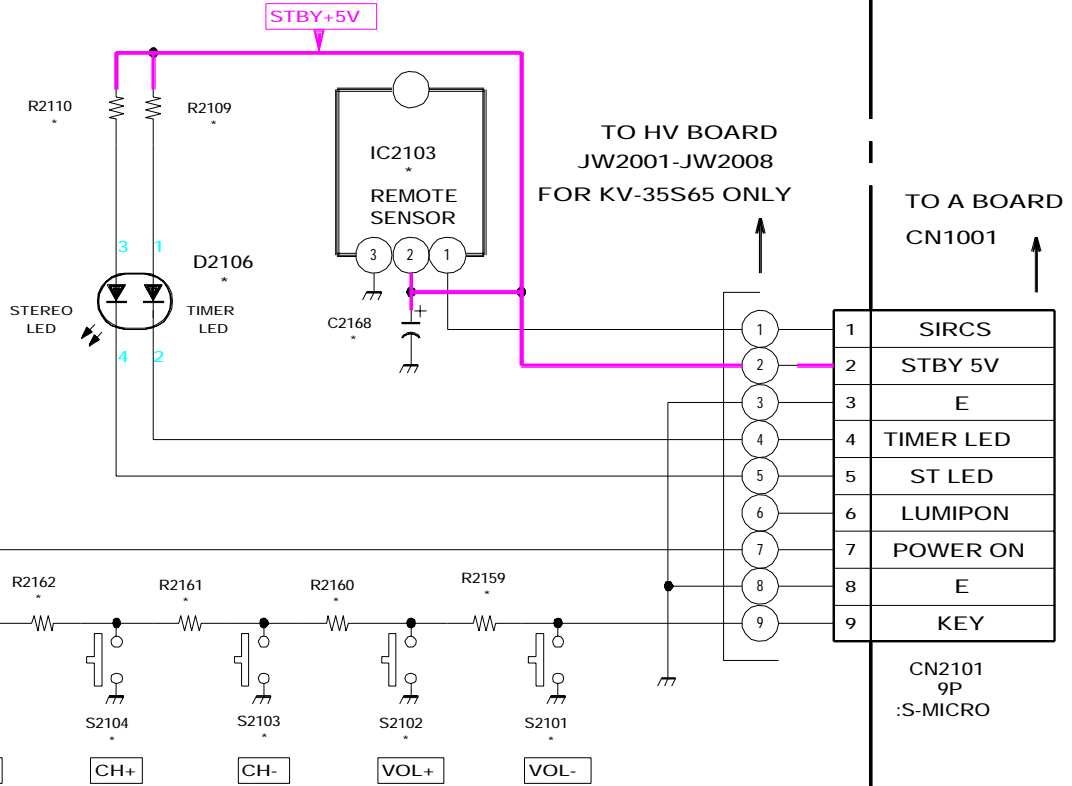
4

A

B

C

HS [MICON-CTL]



HS BOARD (*) MARK LIST

REF. NO.	LOC.	KV-35S65	KV-32S65
C2168	B-3	#	100MF
C2169	C-1	#	0.47MF
D2106	B-2	#	LED
IC2103	B-3	#	SBX1981-51
R2109	B-3	#	220
R2110	B-2	#	220
R2159	C-3	#	820
R2160	C-3	#	1K
R2161	C-2	#	1.8K
R2162	C-2	#	4.7K
R2163	C-2	#	10K
S2101	C-3	#	SWITCH, TACTILE
S2102	C-3	#	SWITCH, TACTILE
S2103	C-3	#	SWITCH, TACTILE
S2104	C-2	#	SWITCH, TACTILE
S2105	C-2	#	SWITCH, TACTILE
S2106	C-2	#	SWITCH, TACTILE
S2107	C-1	#	SWITCH, TACTILE

#: NOT MOUNTED

1

2

3

4

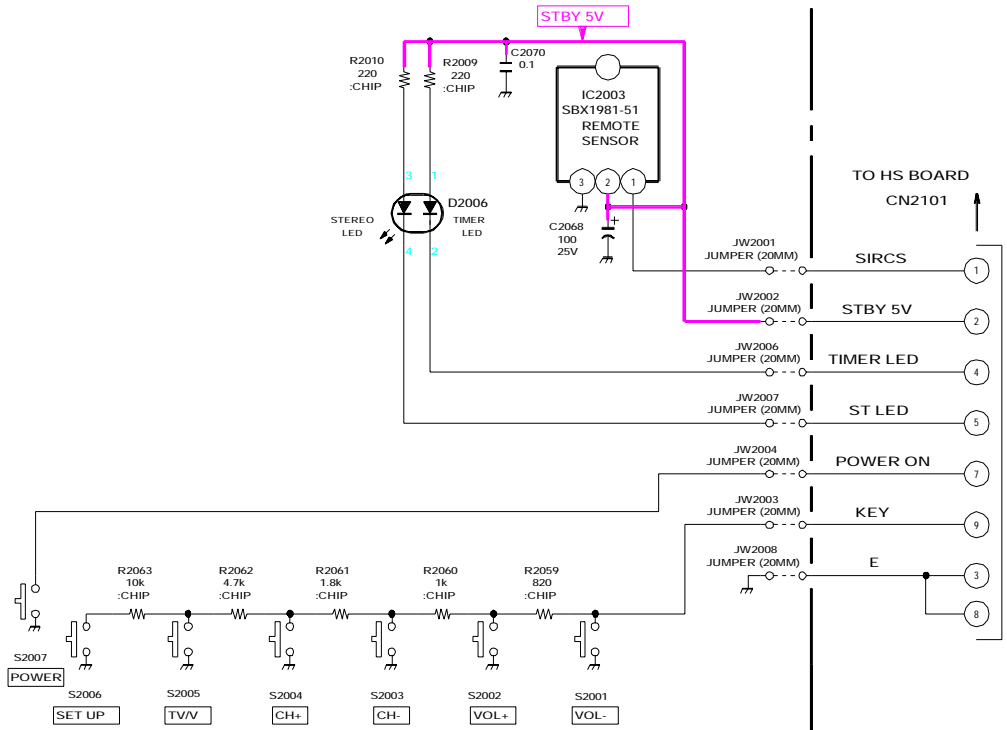
A

B

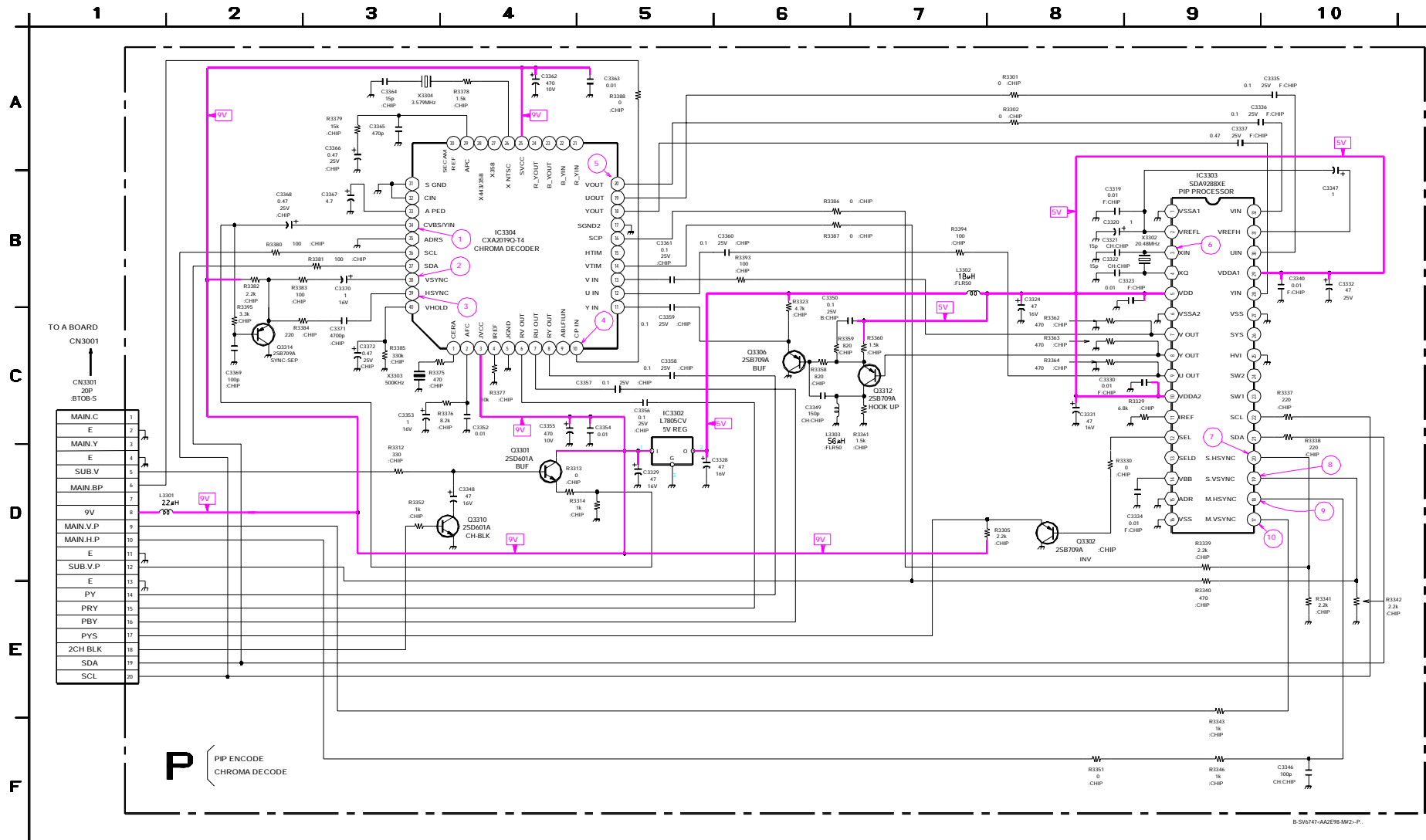
C

D

E



HV [MICON-CTL]

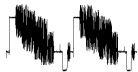


TO A BOARD
CN3001

MAIN.C	1
E	2
MAIN.Y	3
E	4
SUB.V	5
MAIN.BP	6
9V	7
MAIN.V.P	8
MAIN.H.P	9
E	10
SUB.V.P	11
E	12
P.Y	13
P.R.Y	14
P.B.Y	15
P.Y.S	16
2CH BLK	17
SDA	18
SCL	19
	20

P PIP ENCODE
CHROMA DECODE

• P BOARD WAVEFORMS



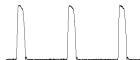
2.6 Vp-p (H)



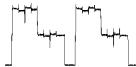
2.1 Vp-p (8MHz)



2.3 Vp-p (H)



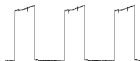
3.2 Vp-p (H)



1.0 Vp-p (H)



3.9 Vp-p (V)



3.4 Vp-p (H)



4.0 Vp-p (V)



6.5 Vp-p (H)



6.2 Vp-p (V)

**P BOARD IC
VOLTAGE LIST**

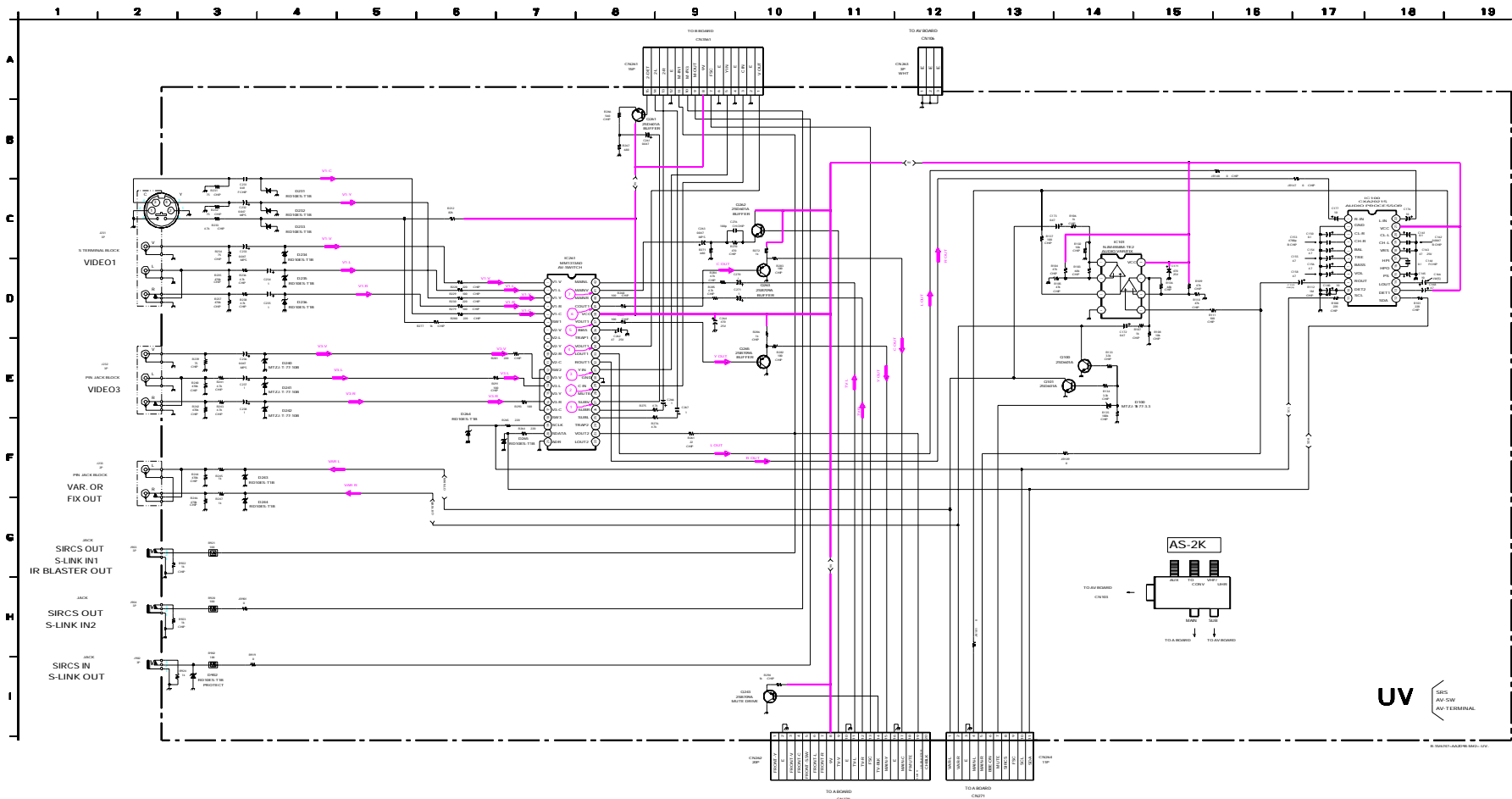
IC3302		IC3304	
pin	volt	pin	volt
1	8.6	1	2.2
2	4.9	2	3.9
3	GND	3	8.6
IC3303		4	1.7
pin	volt	5	GND
1	GND	6	2.8
2	2.9	7	2.8
3	2.4	8	2.8
4	2.4	9	NC
5	4.9	10	0.4
6	GND	11	3.8
7	0.4	12	4.1
8	0	13	4.2
9	0	14	0.1
10	0	15	NC
11	1.9	16	0.6
12	0	17	GND
13	NC	18	3.3
14	-2.9	19	2.8
15	GND	20	2.8
16	GND	21	NC
17	0.6	22	NC
18	0.3	23	NC
19	0.0	24	NC
20	0.5	25	8.6
21	4.7	26	2.3
22	4.8	27	NC
23	NC	28	NC
24	NC	29	4.9
25	GND	30	NC
26	NC	31	GND
27	GND	32	GND
28	2.1	33	4.0
29	4.9	34	4.7
30	2.2	35	GND
31	3.9	36	4.8
32	2.2	37	4.7
		38	3.7
		39	2.5
		40	2.6

All voltages are in V

**P BOARD TRANSISTOR
VOLTAGE LIST**

	B	C	E
Q3301	5.1	8.6	4.5
Q3302	0	GND	0.6
Q3306	0.6	GND	1.3
Q3310	0	4.9	GND
Q3312	0.2	0	0.7
Q3314	4.5	GND	5.1

All voltages are in V



UV

UV BOARD WAVEFORMS



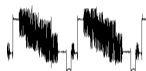
1.0 Vpp (H)



2.0 Vpp (H)



2.0 Vpp (H)



1.8 Vpp (H)



1.8 Vpp (H)



2.0 Vpp (H)



1.0 Vpp (H)

**UV BOARD
LOCATOR LIST**

CONNECTOR		IC	
CN261	A-5	IC100	A-7
CN262	F-8	IC101	C-8
CN263	A-3	IC102	B-7
CN264	F-2	IC103	D-7
CN265	A-7	IC261	C-4
DIODE		TRANSISTOR	
D100	B-8	Q100	B-8
D231	B-5	Q101	B-8
D232	B-5	Q231	D-3
D233	B-5	Q232	C-2
D234	B-5	Q233	E-3
D235	B-5	Q234	D-3
D236	B-5	Q235	C-2
D237	E-3	Q236	C-3
D238	E-3	Q237	C-3
D239	E-3	Q238	C-3
D240	C-5	Q239	C-3
D241	C-5	Q240	B-2
D242	C-5	Q241	B-3
D243	F-3	Q242	A-3
D244	F-3	Q243	F-5
D245	E-3	Q261	A-4
D246	E-2	Q262	A-4
D264	F-1	Q263	B-3
D265	F-1	Q265	B-4
D902	B-1		

**UV BOARD TRANSISTOR
VOLTAGE LIST**

	B	C	E
Q100	0.2	0	GND
Q101	0.2	0	GND
Q243	0	GND	0.7
Q262	5.1	8.7	4.3
Q263	3.3	GND	3.9
Q265	4.2	GND	4.9

All voltages are in V

**UV BOARD IC
VOLTAGE LIST**

IC100		4	4.0
pin	volt	5	4.7
1	4.3	6	0.5
2	0	7	4.7
3	4.3	8	4.0
4	4.3	9	4.7
5	4.3	10	4.0
6	4.3	11	4.7
7	4.3	12	4.6
8	3.2	13	4.7
9	4.3	14	4.0
10	1.5	15	0
11	4.7	16	4.0
12	4.7	17	4.6
13	5.6	18	NC
14	4.3	19	4.7
15	4.3	20	4.7
16	4.3	21	GND
17	4.3	22	4.0
18	4.3	23	5.3
19	4.3	24	NC
20	4.3	25	4.0
21	8.7	26	4.0
22	4.3	27	5.3
IC101		28	NC
pin	volt	29	4.7
1	4.2	30	GND
2	4.3	31	5.7
3	4.3	32	4.0
4	0	33	4.0
5	4.3	34	5.0
6	4.3	35	NC
7	4.2	36	4.1
8	8.7	37	4.1
IC261		38	8.7
pin	volt	39	3.3
1	4.7	40	4.0
2	4.0	41	5.1
3	5.1	42	4.0

All voltages are in V

WA BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q943	2.9	8.7	2.3
Q944	2.6	8.7	2.0
Q945	2.6	5.6	2.0
Q946	133.7	67.2	134.2
Q947	0.9	67.3	0.4
Q963	4.5	GND	5.1
Q965	5.6	8.7	5.6
Q966	5.6	GND	5.6
Q981	0.0	3.7	GND

All voltages are in V

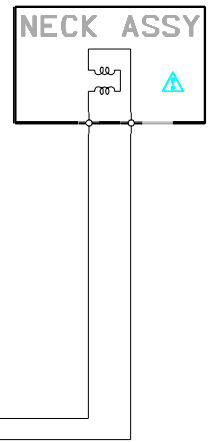
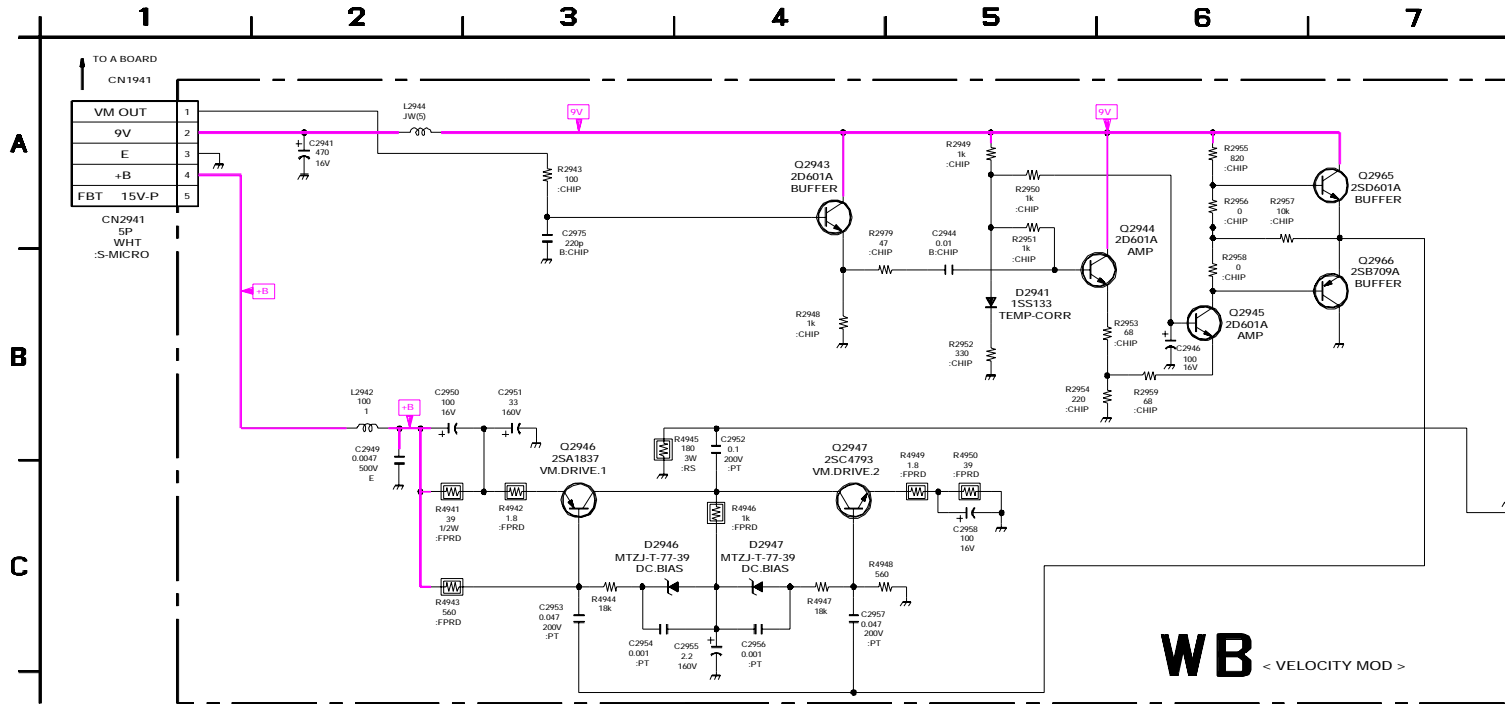
	D	G	S
Q962	11.2	3.7	GND

All voltages are in V

WA BOARD IC VOLTAGE LIST

IC961	
pin	volt
1	3.7
2	4.0
3	7.5
4	GND
5	4.6
6	4.2
7	4.6
8	8.7
IC981	
pin	volt
1	5.0
2	4.2
3	4.4
4	GND
5	3.7
6	3.7
7	3.7
8	8.7

All voltages are in V



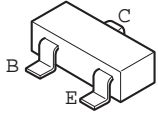
WB BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q2943	3.0	8.9	2.4
Q2944	2.6	8.9	2.0
Q2945	2.7	5.7	2.0
Q2946	133.5	67.5	134.1
Q2947	0.9	67.5	0.4
Q2965	5.7	8.9	5.7
Q2966	5.7	GND	5.7

All voltages are in V

6-4. SEMICONDUCTORS

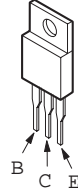
DTC114EK
2SC1623-L5L6
2SA1330-06
2SA1162-G
2SD601A-Q



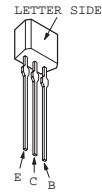
2SC3209LK



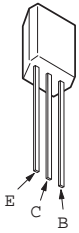
2SA1837
2SC4159-E



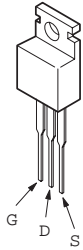
2SA1175-HFE
2SC2785-HFE



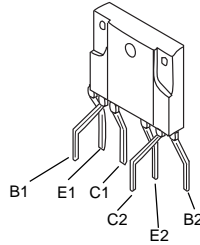
2SD2144S-V



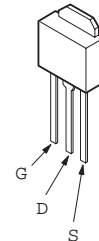
IRF614



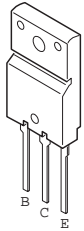
MX0841



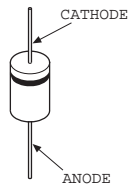
2SK2845-LB102



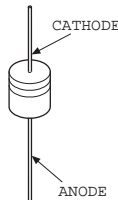
2SC5148



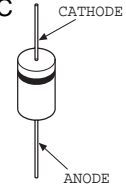
ERC06-15S
ISSI33T-77



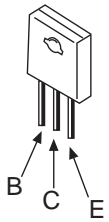
D1NS4
D1N20R
MTZJ-3.3
MTZJ-33A
RD10ESB2
RD39ES-B2
RD5.6ESB2
RD6.2ESB2



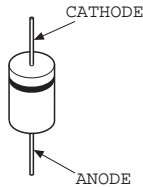
D2L20U
EL1Z
EZD150AV1
GP08D
MTZJ-T-77-4.3C
EGP20G



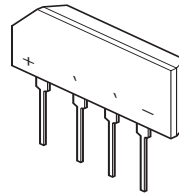
2SC4834M



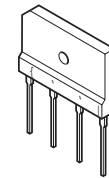
EGP30D
ERD29-08J



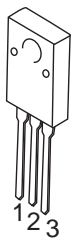
D10SBS4F



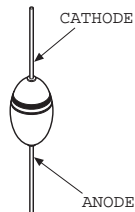
D4SB60L
D1NL40-TA2



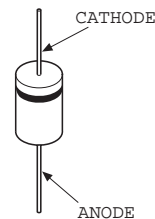
D10SC4M



U05G



D1NL20U



SECTION 7 EXPLODED VIEW

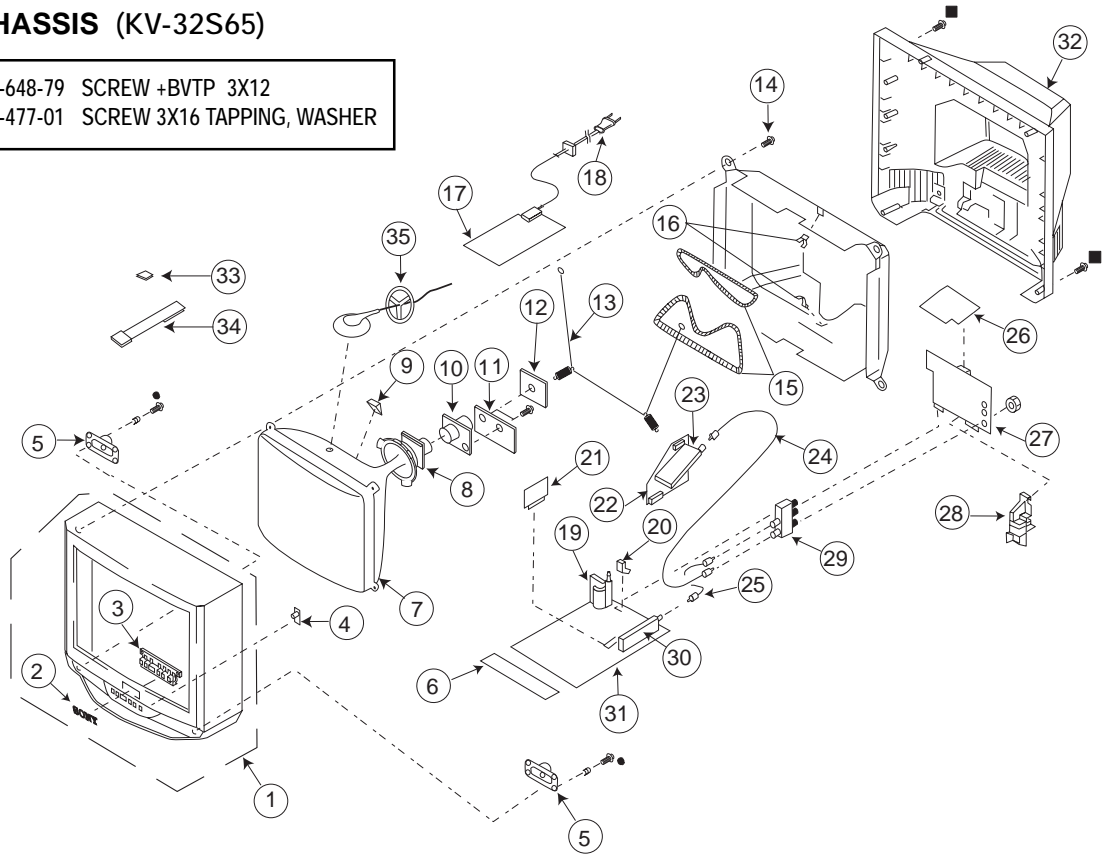
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The component parts of an assembly are indicated by the reference numbers in the remarks column.
- Items marked with an asterisk "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and "Δ" are critical for safety. Replace only with specified part number.

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CHASSIS (KV-32S65)

- 7-685-648-79 SCREW +BVTP 3X12
 - 4-388-477-01 SCREW 3X16 TAPPING, WASHER



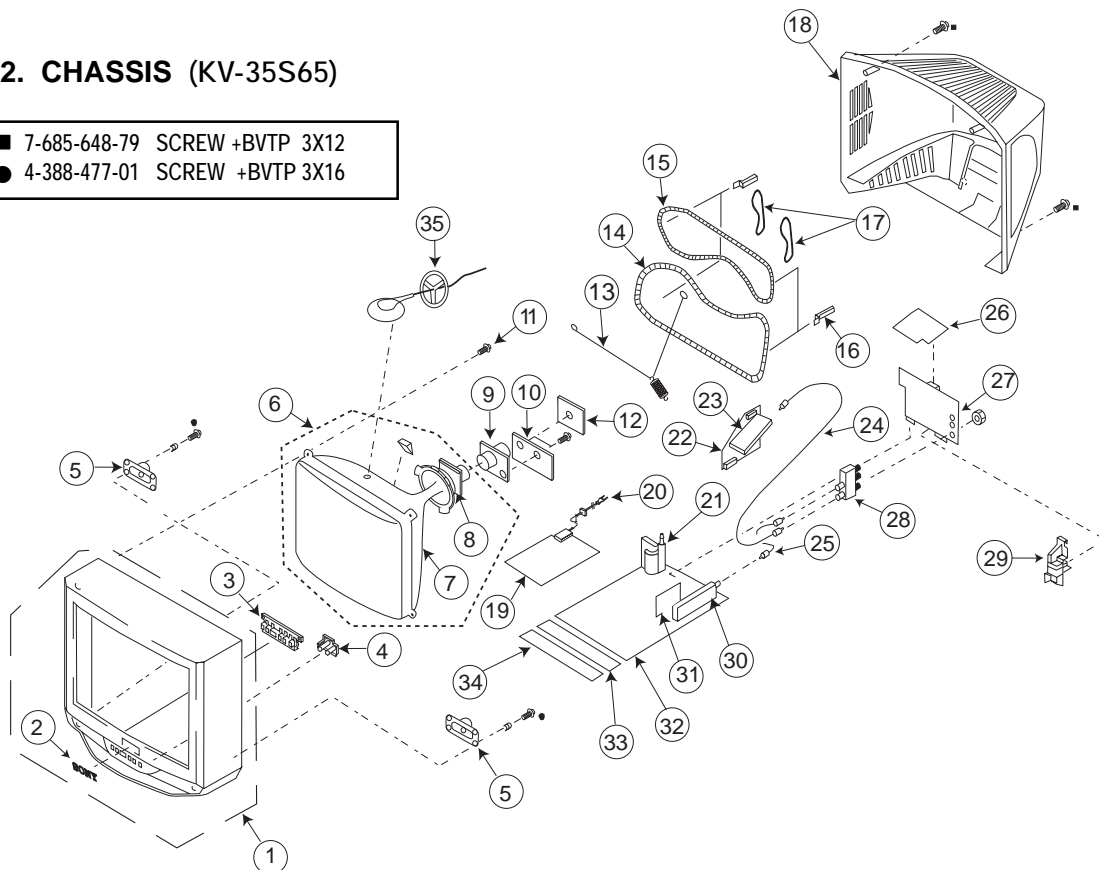
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4035-773-2	BEZNET ASSY	2-3	21	* A-1195-138-A	P BOARD, COMPLETE	
2	4-046-160-11	EMBLEM (NO.9), SONY		22	* A-1298-612-A	AV BOARD, COMPLETE	
3	4-063-573-01	BUTTON, MULTI		23	Δ 8-598-430-00	TUNER, FSS BTF-FA401	
4	4-063-570-01	GUIDE, LED		24	* 1-556-945-21	CABLE, P-P	
5	1-504-531-11	SPEAKER (13.1X6.2CM)		25	* 1-557-056-31	CABLE, P-P	
6	* A-1372-519-A	HS BOARD, COMPLETE		26	* A-1135-949-A	B BOARD, COMPLETE	
7	Δ 8-733-757-05	CRT 34FX2T		27	* A-1394-910-A	UV BOARD, COMPLETE	
8	Δ 8-451-482-11	DY Y34FXA2-V		28	* 4-052-905-01	V5/6 BRACKET	
9	4-053-005-01	SPACER, DY		29	8-598-414-00	ANTENNA SWITCH	
10	Δ 1-452-579-21	NECK ASSY		30	Δ 8-598-431-00	TUNER, FSS BTF-WA411	
11	* A-1372-508-A	WB BOARD, MOUNTED		31	* A-1298-667-A	A BOARD, COMPLETE	
12	* A-1331-837-A	C BOARD, MOUNTED		32	4-064-760-11	COVER, REAR	
13	4-036-329-01	SPRING (B), TENSION		33	1-452-885-11	MAGNET, LANDING	
14	4-041-268-01	SCREW (7), TAPPING		34	4-062-047-01	PIECE A(110), CONV. CORRECTION	
15	Δ 1-402-952-11	COIL, DEMAGNETIZATION		35	3-704-372-31	HOLDER, HV	
16	* 4-371-629-01	STOPPER WIRE					
17	* A-1316-389-A	G BOARD, COMPLETE					
18	Δ 1-751-059-11	POWER CORD W/CONNECTOR					
19	Δ 1-453-207-11	TRANSFORMER, FBT ASSY NX-2609//X4C					
20	4-064-530-01	CLIP, CHASSIS					

The components identified by shading and "Δ" mark are critical for safety. Replace only with specified part number.

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.

7-2. CHASSIS (KV-35S65)

- 7-685-648-79 SCREW +BVTP 3X12
- 4-388-477-01 SCREW +BVTP 3X16



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4035-598-1	BEZNET ASSY	2	21	Δ X-4034-797-1	TRANSFORMER, FBT ASSY NX-3005//J1C	
2	4-046-160-11	EMBLEM (NO. 9), SONY		22	* A-1298-612-A	AV BOARD, COMPLETE	
3	4-058-053-11	BUTTON, MULTI		23	Δ 8-598-430-00	TUNER, FSS BTF-FA401	
4	4-058-054-01	BAR, OPTICAL		24	* 1-556-945-21	CABLE, P-P	
5	1-504-531-11	SPEAKER (13.1X6.2CM)		25	* 1-557-056-31	CABLE, P-P	
6	Δ 8-733-761-61	ITC 37GXT-A1	7-8	26	* A-1135-949-A	B BOARD, COMPLETE	
7	Δ 8-733-761-05	CRT 37GXT		27	* A-1394-910-A	UV BOARD, COMPLETE	
8	Δ 8-451-480-11	DY Y37GXA-X		28	8-598-414-00	ANTENNA SWITCH	
9	Δ 8-453-007-11	NA324-M		29	* 4-052-905-01	V5/6 BRACKET	
10	* A-1372-462-A	WA BOARD, MOUNTED		30	Δ 8-598-431-00	TUNER, FSS BTF-WA411	
11	4-046-765-01	SCREW, (7) TAPPING		31	* A-1195-138-A	P BOARD, COMPLETE	
12	* A-1331-843-A	C BOARD, MOUNTED		32	* A-1298-666-A	A BOARD, COMPLETE	
13	4-036-329-01	SPRING (B), TENSION		33	* A-1372-523-A	HV BOARD, COMPLETE	
14	Δ 1-411-881-11	COIL, DEMAGNETIC		34	* A-1372-507-A	HS BOARD, COMPLETE	
15	Δ 1-411-882-11	COIL, DEMAGNETIC		35	3-704-372-31	HOLDER, HV	
16	* 4-052-900-02	HOLDER, DGC					
17	4-059-585-01	TIE, CABLE					
18	4-058-052-31	COVER, REAR					
19	* A-1316-399-A	G BOARD, COMPLETE					
20	Δ 1-751-059-11	CORD, POWER W/CONNECTOR					

SECTION 8 ELECTRICAL PARTS LIST

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A BOARD <u>VARIANT</u> PARTS LIST: Parts that belong <u>only</u> to the model specified.....	64

Refer to the designated variant parts list when seeking a part indicated by an asterisk (*) on the A board schematic or by the word "variant" on the common parts list.

AV BOARD <u>COMPLETE</u> PARTS LIST (All Models)	65
B BOARD <u>COMPLETE</u> PARTS LIST (All Models)	65
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UV BOARD <u>COMPLETE</u> PARTS LIST (All Models)	72
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SECTION 8 ELECTRICAL PARTS LIST

Note:

The components identified by shading and mark **Δ** are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par un trame et une marque **Δ** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by **Δ** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

• 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 = μ F

INDUCTORS

- UH = μ H, MMH = mH

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
A							
		* A-1298-667-A	A BOARD, COMPLETE (KV-32S65 only)				
		* A-1298-666-A	A BOARD, COMPLETE (KV-35S65 only)				
	4-382-854-11	SCREW (M3X10), P, S (+)					
		CAPACITOR					
C001	1-163-259-91	CERAMIC CHIP	220PF	5%	50V		
C003	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V		
C005	1-126-960-11	ELECT	1MF	20%	50V		
C009	1-126-967-11	ELECT	47MF	20%	50V		
C010	1-163-033-91	CERAMIC CHIP	0.022MF		50V		
C012	1-216-033-00	RES, CHIP	220	5%	1/10W		
C013	1-216-121-91	RES, CHIP	1M	5%	1/10W		
C014	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V		
C023	1-163-259-91	CERAMIC CHIP	220PF	5%	50V		
C028	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V		
C029	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V		
C030	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V		
C035	1-163-237-11	CERAMIC CHIP	27PF	5%	50V		
C036	1-163-231-11	CERAMIC CHIP	15PF	5%	50V		
C037	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		
C038	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		
C039	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		
C040	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		
C051	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V		
C053	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V		
C056	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		
C061	1-163-033-91	CERAMIC CHIP	0.022MF		50V		
C062	1-163-033-91	CERAMIC CHIP	0.022MF		50V		
C063	1-126-935-11	ELECT	470MF	20%	16V		
C069		VARIANT (SEE VARIANT PARTS LIST ON P. 64)					
C070	1-126-967-11	ELECT	47MF	20%	50V		
C071	1-164-096-11	CERAMIC CHIP	0.01MF		50V		
C072	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V		
C075	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V		
C353	1-163-231-11	CERAMIC CHIP	15PF	5%	50V		
C354	1-163-133-00	CERAMIC CHIP	470PF	5%	50V		
C355	1-126-959-11	ELECT	0.47MF	20%	50V		
C356	1-126-963-11	ELECT	4.7MF	20%	50V		
C357	1-126-959-11	ELECT	0.47MF	20%	50V		
C358	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V		
C359	1-126-933-11	ELECT	100MF	20%	16V		
C363	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V		
C364	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V		
C365	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V		
C366	1-130-495-00	FILM	0.1MF	5%	50V		
C367	1-130-495-00	FILM	0.1MF	5%	50V		
C368	1-130-495-00	FILM	0.1MF	5%	50V		
C369	1-163-243-11	CERAMIC CHIP	47PF	5%	50V		
C370		VARIANT (SEE VARIANT PARTS LIST ON P. 64)					
C371	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V		
C372	1-126-959-11	ELECT	0.47MF	20%	50V		
C373	1-126-960-11	ELECT	1MF	20%	50V		
C376	1-126-964-11	ELECT	10MF	20%	50V		
C377	1-130-495-00	FILM	0.1MF	5%	50V		
C378	1-130-495-00	FILM	0.1MF	5%	50V		
C379	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V		
C380	1-126-935-11	ELECT	470MF	20%	16V		
C381	1-163-003-11	CERAMIC CHIP	330PF	10%	50V		
C383	1-130-495-00	FILM	0.1MF	5%	50V		
C385	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V		
C386	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V		
C387	1-126-961-11	ELECT	2.2MF	20%	50V		
C388	1-126-959-11	ELECT	0.47MF	20%	50V		
C390	1-126-960-11	ELECT	1MF	20%	50V		
C391	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V		
C392	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		
C461	1-126-933-11	ELECT	100MF	20%	16V		
C462	1-126-961-11	ELECT	2.2MF	20%	50V		
C463	1-126-961-11	ELECT	2.2MF	20%	50V		
C464	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V		
C466	1-104-666-11	ELECT	220MF	20%	25V		

Note:

The components identified with shading and a critical symbol (Δ) are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

COMMON PARTS LIST



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q512	Δ 8-729-809-29	TRANSISTOR 2SC4159-E		R047	1-249-417-11	CARBON 1K 5%	1/4W
Q551	8-729-216-22	TRANSISTOR 2SA1162-G		R048	1-249-417-11	CARBON 1K 5%	1/4W
Q552	8-729-422-27	TRANSISTOR 2SD601A-Q		R049	1-249-417-11	CARBON 1K 5%	1/4W
Q561	8-729-422-27	TRANSISTOR 2SD601A-Q		R052	1-216-061-00	RES, CHIP 3.3K 5%	1/10W
Q562	8-729-422-27	TRANSISTOR 2SD601A-Q		R053	1-216-061-00	RES, CHIP 3.3K 5%	1/10W
Q563	8-729-105-08	TRANSISTOR 2SA1330-06		R054	1-216-061-00	RES, CHIP 3.3K 5%	1/10W
Q1102	8-729-119-78	TRANSISTOR 2SC2785-HFE		R055	1-216-097-91	RES, CHIP 100K 5%	1/10W
Q1103	8-729-422-27	TRANSISTOR 2SD601A-Q		R056	1-216-033-00	RES, CHIP 220 5%	1/10W
	RESISTOR			R057	1-249-417-11	CARBON 1K 5%	1/4W
R001	1-216-045-00	RES, CHIP 680 5%	1/10W	R058	1-216-033-00	RES, CHIP 220 5%	1/10W
R002	1-247-815-91	CARBON 220 5%	1/4W	R064	1-216-033-00	RES, CHIP 220 5%	1/10W
R003	1-216-097-91	RES, CHIP 100K 5%	1/10W	R065	1-216-033-00	RES, CHIP 220 5%	1/10W
R004	1-216-121-91	RES, CHIP 1M 5%	1/10W	R066	1-216-033-00	RES, CHIP 220 5%	1/10W
R006	1-247-815-91	CARBON 220 5%	1/4W	R067	1-216-041-00	RES, CHIP 470 5%	1/10W
R007	1-216-073-00	RES, CHIP 10K 5%	1/10W	R068	1-247-815-91	CARBON 220 5%	1/4W
R008	1-247-815-91	CARBON 220 5%	1/4W	R069		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R009	1-216-073-00	RES, CHIP 10K 5%	1/10W	R070	1-249-421-11	CARBON 2.2K 5%	1/4W
R010	1-216-037-00	RES, CHIP 330 5%	1/10W	R071	1-247-815-91	CARBON 220 5%	1/4W
R011	1-216-065-91	RES, CHIP 4.7K 5%	1/10W	R072	1-216-033-00	RES, CHIP 220 5%	1/10W
R012	1-216-033-00	RES, CHIP 220 5%	1/10W	R073	1-216-033-00	RES, CHIP 220 5%	1/10W
R013	1-216-065-91	RES, CHIP 4.7K 5%	1/10W	R074	1-216-033-00	RES, CHIP 220 5%	1/10W
R014	1-216-065-91	RES, CHIP 4.7K 5%	1/10W	R075	1-216-033-00	RES, CHIP 220 5%	1/10W
R015	1-216-073-00	RES, CHIP 10K 5%	1/10W	R076	1-216-033-00	RES, CHIP 220 5%	1/10W
R016	1-216-073-00	RES, CHIP 10K 5%	1/10W	R077	1-216-033-00	RES, CHIP 220 5%	1/10W
R019	1-249-425-11	CARBON 4.7K 5%	1/4W	R078	1-249-417-11	CARBON 1K 5%	1/4W
R020	1-216-065-91	RES, CHIP 4.7K 5%	1/10W	R079	1-216-033-00	RES, CHIP 220 5%	1/10W
R021	1-216-033-00	RES, CHIP 220 5%	1/10W	R080	1-216-065-91	RES, CHIP 4.7K 5%	1/10W
R022	1-249-429-11	CARBON 10K 5%	1/4W	R081	1-216-025-91	RES, CHIP 100 5%	1/10W
R023	1-216-089-91	RES, CHIP 47K 5%	1/10W	R082	1-216-025-91	RES, CHIP 100 5%	1/10W
R024	1-249-381-11	CARBON 1 5%	1/4W F	R083	1-249-429-11	CARBON 10K 5%	1/4W
R025	1-163-010-11	CERAMIC CHIP 0.0012MF 10%	50V	R084	1-216-049-91	RES, CHIP 1K 5%	1/10W
R026	1-163-038-91	CERAMIC CHIP 0.1MF	25V	R085		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R027	1-249-389-11	CARBON 4.7 5%	1/4W F	R087	1-247-815-91	CARBON 220 5%	1/4W
R028	1-249-417-11	CARBON 1K 5%	1/4W	R090	1-216-033-00	RES, CHIP 220 5%	1/10W
R029	1-216-025-91	RES, CHIP 100 5%	1/10W	R092	1-249-429-11	CARBON 10K 5%	1/4W
R030	1-249-425-11	CARBON 4.7K 5%	1/4W	R093	1-249-387-11	CARBON 3.3 5%	1/4W F
R031	1-247-815-91	CARBON 220 5%	1/4W	R094	1-249-381-11	CARBON 1 5%	1/4W F
R032	1-247-815-91	CARBON 220 5%	1/4W	R096	1-216-347-11	METAL OXIDE 0.68 5%	1W F
R036	1-216-049-91	RES, CHIP 1K 5%	1/10W	R097	1-216-065-91	RES, CHIP 4.7K 5%	1/10W
R037	1-216-049-91	RES, CHIP 1K 5%	1/10W	R099	1-216-065-91	RES, CHIP 4.7K 5%	1/10W
R038	1-216-049-91	RES, CHIP 1K 5%	1/10W	R101	1-249-381-11	CARBON 1 5%	1/4W F
R039	1-247-807-31	CARBON 100 5%	1/4W	R131	1-216-035-00	RES, CHIP 270 5%	1/10W
R040	1-247-815-91	CARBON 220 5%	1/4W	R132	1-216-115-00	RES, CHIP 560K 5%	1/10W
R041	1-216-065-91	RES, CHIP 4.7K 5%	1/10W	R133	1-216-039-00	RES, CHIP 390 5%	1/10W
R042	1-216-065-91	RES, CHIP 4.7K 5%	1/10W	R135	1-216-073-00	RES, CHIP 10K 5%	1/10W
R044	1-216-033-00	RES, CHIP 220 5%	1/10W	R136	1-216-073-00	RES, CHIP 10K 5%	1/10W
R045	1-247-815-91	CARBON 220 5%	1/4W	R137	1-216-049-91	RES, CHIP 1K 5%	1/10W
R046	1-247-815-91	CARBON 220 5%	1/4W	R353	1-208-788-11	RES, CHIP 1.8K 0.50%	1/10W
				R354	1-216-077-00	RES, CHIP 15K 5%	1/10W



COMMON PARTS LIST

Note:

The components identified with shading and a critical symbol (▲) are critical for safety. Replace only with part number specified.

Note:

The components identified by ▲ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R355	1-216-033-00	RES, CHIP	220 5% 1/10W	R471	1-216-069-00	RES, CHIP	6.8K 5% 1/10W
R356	1-216-033-00	RES, CHIP	220 5% 1/10W	R472	1-216-055-00	RES, CHIP	1.8K 5% 1/10W
R358	1-247-815-91	CARBON	220 5% 1/4W	R473	1-249-398-11	CARBON	27 5% 1/4W
R359	1-247-815-91	CARBON	220 5% 1/4W	R474	1-216-077-00	RES, CHIP	15K 5% 1/10W
R360	1-247-815-91	CARBON	220 5% 1/4W	R475	1-249-430-11	CARBON	12K 5% 1/4W
R361	1-216-025-91	RES, CHIP	100 5% 1/10W	R476	1-249-430-11	CARBON	12K 5% 1/4W
R362	1-216-025-91	RES, CHIP	100 5% 1/10W	R477	1-249-398-11	CARBON	27 5% 1/4W
R363	1-216-025-91	RES, CHIP	100 5% 1/10W	R478	1-249-418-11	CARBON	1.2K 5% 1/4W F
R364	1-216-101-00	RES, CHIP	150K 5% 1/10W	R479	1-249-418-11	CARBON	1.2K 5% 1/4W F
R365		VARIANT (SEE VARIANT PARTS LIST ON P. 64)		R480	1-249-385-11	CARBON	2.2 5% 1/4W F
R366	1-216-089-91	RES, CHIP	47K 5% 1/10W	R481	1-249-385-11	CARBON	2.2 5% 1/4W F
R367	1-216-097-91	RES, CHIP	100K 5% 1/10W	R482	1-249-421-11	CARBON	2.2K 5% 1/4W
R368	1-249-441-11	CARBON	100K 5% 1/4W	R483	1-249-421-11	CARBON	2.2K 5% 1/4W
R369	1-216-097-91	RES, CHIP	100K 5% 1/10W	R501	1-216-037-00	RES, CHIP	330 5% 1/10W
R370	1-249-417-11	CARBON	1K 5% 1/4W	R502	1-216-061-00	RES, CHIP	3.3K 5% 1/10W
R371	1-216-053-00	RES, CHIP	1.5K 5% 1/10W	R503	1-249-426-11	CARBON	5.6K 5% 1/4W F
R372	1-216-113-00	RES, CHIP	470K 5% 1/10W	R504	▲ 1-215-915-11	METAL OXIDE	470 5% 3W F
R373	1-216-073-00	RES, CHIP	10K 5% 1/10W	R505	1-249-431-11	CARBON	15K 5% 1/4W
R374		VARIANT (SEE VARIANT PARTS LIST ON P. 64)		R506	1-215-861-00	METAL OXIDE	47 5% 1W F
R375	1-216-025-91	RES, CHIP	100 5% 1/10W	R507	1-249-401-11	CARBON	47 5% 1/4W
R376	1-216-073-00	RES, CHIP	10K 5% 1/10W	R508	1-249-427-11	CARBON	6.8K 5% 1/4W
R379	1-216-033-00	RES, CHIP	220 5% 1/10W	R509	1-247-750-11	CARBON	680 5% 1/2W F
R380	1-247-815-91	CARBON	220 5% 1/4W	R510	▲ 1-215-860-11	METAL OXIDE	33 5% 1W F
R381	1-247-815-91	CARBON	220 5% 1/4W	R511		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R382	1-216-033-00	RES, CHIP	220 5% 1/10W	R512	▲ 1-215-886-11	METAL OXIDE	100 5% 2W F
R383	1-216-049-91	RES, CHIP	1K 5% 1/10W	R515		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R384	1-216-109-00	RES, CHIP	330K 5% 1/10W	R516	1-216-057-00	RES, CHIP	2.2K 5% 1/10W
R385	1-249-422-11	CARBON	2.7K 5% 1/4W	R517	1-249-415-11	CARBON	680 5% 1/4W
R386	1-216-049-91	RES, CHIP	1K 5% 1/10W	R518	1-216-073-00	RES, CHIP	10K 5% 1/10W
R387	1-216-049-91	RES, CHIP	1K 5% 1/10W	R519	1-249-411-11	CARBON	330 5% 1/4W
R388	1-216-089-91	RES, CHIP	47K 5% 1/10W	R521	▲ 1-215-915-11	METAL OXIDE	470 5% 3W F
R389	1-216-067-00	RES, CHIP	5.6K 5% 1/10W	R523		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R390	1-216-035-00	RES, CHIP	270 5% 1/10W	R524	1-249-429-11	CARBON	10K 5% 1/4W
R391	1-208-810-11	RES, CHIP	15K 0.50% 1/10W	R525	1-216-071-00	RES, CHIP	8.2K 5% 1/10W
R392	1-216-025-91	RES, CHIP	100 5% 1/10W	R528	1-216-081-00	RES, CHIP	22K 5% 1/10W
R393	1-216-043-91	RES, CHIP	560 5% 1/10W	R529		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R394	1-216-059-00	RES, CHIP	2.7K 5% 1/10W	▲ R530	▲ 1-208-808-11	RES, CHIP	12K 0.50% 1/10W
R395	1-216-061-00	RES, CHIP	3.3K 5% 1/10W	R531		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R396	1-249-417-11	CARBON	1K 5% 1/4W	R532	1-208-760-11	RES, CHIP	120 0.50% 1/10W
R397	1-249-425-11	CARBON	4.7K 5% 1/4W	R533		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R461	1-216-065-91	RES, CHIP	4.7K 5% 1/10W	R535		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R462	1-216-089-91	RES, CHIP	47K 5% 1/10W	R536	▲ 1-249-2377-11	CARBON	0.47 5% 1/4W F
R463	1-249-435-11	CARBON	33K 5% 1/4W	R537	▲ 1-249-377-11	CARBON	0.47 5% 1/4W F
R464	1-216-097-91	RES, CHIP	100K 5% 1/10W	R538	1-247-887-00	CARBON	220K 5% 1/4W
R465	1-249-413-11	CARBON	470 5% 1/4W	R541		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R466	1-249-388-11	CARBON	3.9 5% 1/4W F	R542		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R467	1-216-069-00	RES, CHIP	6.8K 5% 1/10W	R543	1-249-377-11	CARBON	0.47 5% 1/4W F
R469	1-216-055-00	RES, CHIP	1.8K 5% 1/10W	R546		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R470	1-216-077-00	RES, CHIP	15K 5% 1/10W	R547	1-215-457-00	METAL	33K 1% 1/4W

Note:

The components identified with shading and a critical symbol (Δ) are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par un triangle et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

COMMON PARTS LIST



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R549	1-215-437-00	METAL	4.7K 1% 1/4W	R1351	1-247-815-91	CARBON	220 5% 1/4W
R550 Δ	1-249-377-11	CARBON	0.47 5% 1/4W F	R1352	1-247-815-91	CARBON	220 5% 1/4W
R551 Δ	1-215-873-00	METAL OXIDE	4.7K 5% 1W F	R1353	1-247-815-91	CARBON	220 5% 1/4W
R552	1-216-069-00	RES, CHIP	6.8K 5% 1/10W	R1354	1-216-033-00	RES, CHIP	220 5% 1/10W
R553 Δ	1-249-377-11	CARBON	0.47 5% 1/4W F	R1355	1-216-025-91	RES, CHIP	100 5% 1/10W
R554	1-216-057-00	RES, CHIP	2.2K 5% 1/10W	R1356	1-216-025-91	RES, CHIP	100 5% 1/10W
R561	1-216-073-00	RES, CHIP	10K 5% 1/10W	R1357	1-216-025-91	RES, CHIP	100 5% 1/10W
R563 Δ	1-216-351-00	METAL OXIDE	1.5 5% 1W F	R1358	1-247-807-31	CARBON	100 5% 1/4W
R564	1-249-393-11	CARBON	10 5% 1/4W	R1359	1-216-025-91	RES, CHIP	100 5% 1/10W
R565 Δ	1-215-890-11	METAL OXIDE	470 5% 2W F	R1360	1-216-069-00	RES, CHIP	6.8K 5% 1/10W
R566	1-216-073-00	RES, CHIP	10K 5% 1/10W	R1361	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
R567 Δ	1-249-385-11	CARBON	2.2 5% 1/4W F	R1362	1-216-295-91	SHORT	
R568	1-216-073-00	RES, CHIP	10K 5% 1/10W	SWITCH			
R569	1-216-073-00	RES, CHIP	10K 5% 1/10W	S501	1-572-707-11	SWITCH, LEVER	
R570	1-216-097-91	RES, CHIP	100K 5% 1/10W	TRANSFORMER			
R571	1-216-081-00	RES, CHIP	22K 5% 1/10W	T501	1-437-210-11	TRANSFORMER, HORIZONTAL DRIVE	
R572	1-216-081-00	RES, CHIP	22K 5% 1/10W	T502		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R573	1-216-097-91	RES, CHIP	100K 5% 1/10W	T503		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R574 Δ	1-216-365-00	METAL OXIDE	0.47 5% 2W F	T504		VARIANT (SEE VARIANT PARTS LIST ON P. 64)	
R575	1-216-113-00	RES, CHIP	470K 5% 1/10W	TUNER			
R576	1-216-073-00	RES, CHIP	10K 5% 1/10W	TU102 Δ	8-598-431-00	TUNER, FSS	BTF-WA411
R577	1-216-097-91	RES, CHIP	100K 5% 1/10W	CRYSTAL			
R578	1-208-784-11	RES, CHIP	1.2K 0.50% 1/10W	X001	1-578-774-11	VIBRATOR, CRYSTAL	
R579	1-208-842-11	RES, CHIP	330K 0.50% 1/10W	X353	1-567-505-11	OSCILLATOR, CRYSTAL	
R580	1-249-441-11	CARBON	100K 5% 1/4W	X354	1-577-611-11	OSCILLATOR, CERAMIC CHIP	
R1101	1-216-049-91	RES, CHIP	1K 5% 1/10W				
R1102	1-215-900-11	METAL OXIDE	22K 5% 2W F				
R1103	1-216-051-00	RES, CHIP	1.2K 5% 1/10W				
R1104	1-216-083-00	RES, CHIP	27K 5% 1/10W				
R1105	1-216-689-11	RES, CHIP	39K 5% 1/10W				
R1106	1-216-049-91	RES, CHIP	1K 5% 1/10W				
R1107	1-216-065-91	RES, CHIP	4.7K 5% 1/10W				
R1108	1-216-073-00	RES, CHIP	10K 5% 1/10W				
R1109	1-216-019-00	RES, CHIP	56 5% 1/10W				
R1110	1-216-019-00	RES, CHIP	56 5% 1/10W				
R1111	1-216-019-00	RES, CHIP	56 5% 1/10W				
R1115	1-216-045-00	RES, CHIP	680 5% 1/10W				
R1117	1-249-425-11	CARBON	4.7K 5% 1/4W				
R1118	1-249-425-11	CARBON	4.7K 5% 1/4W				
R1120	1-216-057-00	RES, CHIP	2.2K 5% 1/10W				
R1121	1-216-035-00	RES, CHIP	270 5% 1/10W				
R1122	1-216-115-00	RES, CHIP	560K 5% 1/10W				
R1123	1-216-039-00	RES, CHIP	390 5% 1/10W				
R1125	1-216-057-00	RES, CHIP	2.2K 5% 1/10W				
R1126	1-216-035-00	RES, CHIP	270 5% 1/10W				
R1127	1-216-115-00	RES, CHIP	560K 5% 1/10W				
R1128	1-216-039-00	RES, CHIP	390 5% 1/10W				
R1130	1-216-057-00	RES, CHIP	2.2K 5% 1/10W				



VARIANT PARTS LIST

Note:

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Note:

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REF.NO.	PART NO.	DESCRIPTION	REMARK
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The parts in this column belong to the following model(s) only:
KV-32S65

CAPACITOR

C370	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C513 Δ	1-130-895-00	FILM	5.6MF	5%	400V
C514 Δ	1-104-844-11	FILM	0.62MF	5%	200V
C520	1-164-645-11	CERAMIC CHIP	1000PF	10%	500V
C521	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C537	1-126-941-11	ELECT	470MF	20%	25V
C539 Δ	1-126-935-11	ELECT	470MF	20%	16V
C1501	1-115-462-11	FILM	0.12MF	5%	200V

CONNECTOR

CN1941*	1-564-508-11	PLUG, CONNECTOR	5P
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RESISTOR

R365	1-216-101-00	RES, CHIP	150K	5%	1/10W
R374	1-216-125-00	RES, CHIP	1.5M	5%	1/10W
R511 Δ	1-215-885-00	METAL OXIDE	68	5%	2W
R515	1-216-083-00	RES, CHIP	27K	5%	1/10W
R523	1-216-073-00	RES, CHIP	10K	5%	1/10W
R529	1-208-814-11	RES, CHIP	22K	0.50%	1/10W
\boxtimes R531 Δ	1-208-826-11	RES, CHIP	68K	0.50%	1/10W
R533 Δ	1-215-902-11	METAL OXIDE	47K	5%	1W
R535	1-216-101-00	RES, CHIP	150K	5%	1/10W
R546	1-215-453-00	METAL OXIDE	22K	1%	1/4W

TRANSFORMER

T502 Δ	1-424-545-11	TRANSFORMER FERRITE (PMT)
T503 Δ	1-453-207-11	FLYBACK TRANSFORMER ASSY, NX-2609//X4C

REF.NO.	PART NO.	DESCRIPTION	REMARK
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The parts in this column belong to the following model(s) only:
KV-35S65

CAPACITOR

C069	1-126-964-11	ELECT	10MF	20%	50V
C370	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C513 Δ	1-129-720-00	FILM	0.033MF	5%	630V
C514 Δ	1-136-540-11	FILM	0.82MF	5%	200V
C520	1-101-821-00	CERAMIC CHIP	0.0022MF		500V
C521	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C537	1-126-942-61	ELECT	1000MF	20%	25V
C539 Δ	1-126-942-61	ELECT	1000MF	20%	25V
C542	1-106-383-00	MYLAR	0.047MF	10%	200V

CONNECTOR

CN1941	1-564-511-11	PLUG, CONNECTOR	8P
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COIL

L541	1-406-677-11	INDUCTOR
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RESISTOR

R069	1-216-073-00	RES, CHIP	10K	5%	1/10W
R085	1-216-073-00	RES, CHIP	10K	5%	1/10W
R365	1-216-097-91	RES, CHIP	100K	5%	1/10W
R374	1-216-121-91	RES, CHIP	1M	5%	1/10W
R511 Δ	1-215-886-11	METAL OXIDE	100	5%	2W
R515	1-216-077-00	RES, CHIP	15K	5%	1/10W
R523	1-216-071-00	RES, CHIP	8.2K	5%	1/10W
R529	1-208-812-11	RES, CHIP	18K	0.50%	1/10W
\boxtimes R531 Δ	1-208-838-11	RES, CHIP	220K	0.50%	1/10W
R533 Δ	1-215-878-00	METAL OXIDE	33K	5%	1W
R535	1-216-103-00	RES, CHIP	180K	5%	1/10W
R541 Δ	1-249-377-11	CARBON	0.47	5%	1/4W
R542 Δ	1-249-397-11	CARBON	22	5%	1/4W
R546	1-215-451-00	METAL OXIDE	18K	1%	1/4W

TRANSFORMER

T502 Δ	1-429-408-11	TRANSFORMER FERRITE (PMT)
T503 Δ	X-4034-797-1	FLYBACK TRANSFORMER ASSY, NX-3005//J1C
T504	1-413-059-00	TRANSFORMER FERRITE (DFT)

Note:

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Note:

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

COMPLETE PARTS LIST

AV	B
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REF.NO.	PART NO.	DESCRIPTION	REMARK
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AV

* A-1298-612-A AV BOARD, COMPLETE

CAPACITOR

C101	1-126-960-11	ELECT	1MF	20%	50V
C102	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C104	1-126-964-11	ELECT	10MF	20%	50V
C106	1-104-664-11	ELECT	47MF	20%	25V
C108	1-126-933-11	ELECT	100MF	20%	16V
C109	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C110	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V
C111	1-126-960-11	ELECT	1MF	20%	50V
C113	1-126-934-11	ELECT	220MF	20%	16V
C1904	1-102-129-00	CERAMIC CHIP	0.01MF	10%	50V
C1905	1-126-964-11	ELECT	10MF	20%	50V
C1906	1-102-129-00	CERAMIC CHIP	0.01MF	10%	50V
C1907	1-126-964-11	ELECT	10MF	20%	50V
C1908	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1909	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V

CONNECTOR

CN101	1-573-301-21	CONNECTOR, BOARD TO BOARD	20P
CN102	1-573-979-21	CONNECTOR, BOARD TO BOARD	11P
CN103	* 1-564-507-11	PLUG, CONNECTOR	4P
CN106	* 1-564-506-11	PLUG, CONNECTOR	3P

DIODE

D101	8-719-109-89	DIODE RD5.6ESB2
D103	8-719-991-33	DIODE 1SS133T-77
D104	8-719-991-33	DIODE 1SS133T-77
D105	8-719-991-33	DIODE 1SS133T-77
D106	8-719-991-33	DIODE 1SS133T-77

IC

IC1901	8-752-058-68	IC CXA1315M
IC1902	8-759-470-63	IC NJM2145M-TE2

CHIP CONDUCTOR

JR102	1-216-295-91	SHORT
JR103	1-216-295-91	SHORT
JR105	1-216-295-91	SHORT

COIL

L102	1-410-470-11	INDUCTOR	10UH
L105	1-408-421-00	INDUCTOR	100UH

REF.NO.	PART NO.	DESCRIPTION	REMARK
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TRANSISTOR

Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q103	8-729-216-22	TRANSISTOR 2SA1162-G
Q104	8-729-216-22	TRANSISTOR 2SA1162-G
Q105	8-729-216-22	TRANSISTOR 2SA1162-G
Q1901	8-729-216-22	TRANSISTOR 2SA1162-G

Q1902	8-729-216-22	TRANSISTOR 2SA1162-G
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RESISTOR

R101	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R102	1-216-083-00	RES, CHIP	27K	5%	1/10W
R103	1-216-689-11	RES, CHIP	39K	5%	1/10W
R104	1-216-045-00	RES, CHIP	680	5%	1/10W
R106	1-216-081-00	RES, CHIP	22K	5%	1/10W

R107	1-216-081-00	RES, CHIP	22K	5%	1/10W
R108	1-216-081-00	RES, CHIP	22K	5%	1/10W
R109	1-216-081-00	RES, CHIP	22K	5%	1/10W
R112	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R113	1-216-097-91	RES, CHIP	100K	5%	1/10W

R114	1-216-121-91	RES, CHIP	1M	5%	1/10W
R115	1-216-073-00	RES, CHIP	10K	5%	1/10W
R116	1-216-073-00	RES, CHIP	10K	5%	1/10W
R117	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R118	1-216-295-91	SHORT			

R121	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1904	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1905	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2904	1-216-033-00	RES, CHIP	220	5%	1/10W
R2905	1-216-033-00	RES, CHIP	220	5%	1/10W

R2909	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2910	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2912	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2913	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2914	1-216-073-00	RES, CHIP	10K	5%	1/10W

TUNER

TU101 Δ	8-598-430-00	TUNER, FSS BTF-FA401
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B

* A-1135-949-A B BOARD, COMPLETE

CAPACITOR

C3501	1-104-664-11	ELECT	47MF	20%	25V
C3502	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3503	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3504	1-126-964-11	ELECT	10MF	20%	50V
C3505	1-163-131-00	CERAMIC CHIP	390PF	5%	50V



COMPLETE PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C3506	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	CONNECTOR			
C3507	1-126-963-11	ELECT	4.7MF 20% 50V	CN3502	1-573-978-21	CONNECTOR, BOARD TO BOARD	11P
C3508	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	CN3561*	1-691-616-21	CONNECTOR, BOARD TO BOARD	15P
C3509	1-126-961-11	ELECT	2.2MF 20% 50V	FILTER			
C3510	1-163-229-11	CERAMIC CHIP	12PF 5% 50V	FL3501	1-239-847-11	FILTER, LOW PASS	
C3511	1-126-964-11	ELECT	10MF 20% 50V	FL3502	1-239-847-11	FILTER, LOW PASS	
C3512	1-163-133-00	CERAMIC CHIP	470PF 5% 50V	FL3503	1-239-847-11	FILTER, LOW PASS	
C3513	1-163-131-00	CERAMIC CHIP	390PF 5% 50V	IC			
C3514	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V	IC3501	8-759-065-82	IC MM1093ND	
C3515	1-126-963-11	ELECT	4/7MF 20% 50V	IC3502	8-752-385-80	IC CXD2073S	
C3516	1-163-089-00	CERAMIC CHIP	6PF 0.5PF 50V	IC3503	8-759-231-53	IC TA7805S	
C3517	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	COIL			
C3518	1-126-941-11	ELECT	470MF 20% 25V	L3501	1-410-470-11	INDUCTOR	10UH
C3519	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	L3502	1-410-466-41	INDUCTOR	4.7UH
C3520	1-163-133-00	CERAMIC CHIP	470PF 5% 50V	L3503	1-410-470-11	INDUCTOR	10UH
C3521	1-104-664-11	ELECT	47MF 20% 25V	L3504	1-410-470-11	INDUCTOR	10UH
C3522	1-126-964-11	ELECT	10MF 20% 50V	L3505	1-410-470-11	INDUCTOR	10UH
C3523	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	TRANSISTOR			
C3524	1-104-664-11	ELECT	47MF 20% 25V	Q3501	8-729-422-27	TRANSISTOR 2SD601A-Q	
C3525	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	Q3502	8-729-216-22	TRANSISTOR 2SA1162-G	
C3526	1-163-038-91	CERAMIC CHIP	0.1MF 25V	Q3503	8-729-422-27	TRANSISTOR 2SD601A-Q	
C3527	1-163-038-91	CERAMIC CHIP	0.1MF 25V	Q3504	8-729-216-22	TRANSISTOR 2SA1162-G	
C3528	1-164-222-11	CERAMIC CHIP	0.22MF 25V	Q3505	8-729-422-27	TRANSISTOR 2SD601A-Q	
C3529	1-163-038-91	CERAMIC CHIP	0.1MF 25V	Q3506	8-729-216-22	TRANSISTOR 2SA1162-G	
C3530	1-163-037-11	CERAMIC CHIP	0.022MF 10% 50V	Q3507	8-729-216-22	TRANSISTOR 2SA1162-G	
C3532	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	Q3509	8-729-216-22	TRANSISTOR 2SA1162-G	
C3533	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	Q3510	8-729-422-27	TRANSISTOR 2SD601A-Q	
C3534	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	Q3516	8-729-216-22	TRANSISTOR 2SA1162-G	
C3535	1-104-664-11	ELECT	47MF 20% 25V	Q3555	8-729-216-22	TRANSISTOR 2SA1162-G	
C3536	1-126-964-11	ELECT	10MF 20% 50V	RESISTOR			
C3537	1-163-231-11	CERAMIC CHIP	15PF 5% 50V	R3501	1-216-091-00	RES, CHIP	56K 5% 1/10W
C3538	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	R3502	1-216-081-00	RES, CHIP	22K 5% 1/10W
C3539	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	R3503	1-216-009-00	RES, CHIP	22 5% 1/10W
C3540	1-163-231-11	CERAMIC CHIP	15PF 5% 50V	R3504	1-216-029-00	RES, CHIP	150 5% 1/10W
C3541	1-104-664-11	ELECT	47MF 20% 25V	R3505	1-216-037-00	RES, CHIP	330 5% 1/10W
C3542	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	R3506	1-216-035-00	RES, CHIP	270 5% 1/10W
C3543	1-104-664-11	ELECT	47MF 20% 25V	R3507	1-216-057-00	RES, CHIP	2.2K 5% 1/10W
C3544	1-104-664-11	ELECT	47MF 20% 25V	R3508	1-216-043-91	RES, CHIP	560 5% 1/10W
C3545	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	R3509	1-216-075-00	RES, CHIP	12K 5% 1/10W
C3548	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	R3510	1-216-049-91	RES, CHIP	1K 5% 1/10W
C3549	1-126-964-11	ELECT	10MF 20% 50V	R3511	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
C3550	1-104-664-11	ELECT	47MF 20% 25V	R3512	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
C3551	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V				
C3553	1-126-941-11	ELECT	470MF 20% 25V				
C3556	1-128-551-11	ELECT	22MF 20% 25V				
C3557	1-163-235-11	CERAMIC CHIP	22PF 5% 50V				



COMPLETE PARTS LIST

Note:

The components identified with shading and a critical symbol (Δ) are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
RESISTOR							
R1750	1-247-870-11	CARBON	43K 5% 1/4W	C624	1-126-961-11	ELECT	2.2MF 20% 50V
R1763	1-260-099-11	CARBON	1K 5% 1/2W	C628 Δ	1-113-924-11	CERAMIC CHIP	0.0047MF 20% 250V
R1764	1-247-807-31	CARBON	100 5% 1/4W	C629 Δ	1-107-680-91	ELECT	22MF 20% 450V
R1773	1-260-099-11	CARBON	1K 5% 1/2W	C630	1-130-471-00	MYLAR	0.001MF 5% 50V
R1774	1-247-807-31	CARBON	100 5% 1/4W	C631	1-137-605-11	FILM	0.01MF 10% 250V
R1783	1-260-099-11	CARBON	1K 5% 1/2W	C633	1-130-471-00	MYLAR	0.001MF 5% 50V
R1784	1-247-807-31	CARBON	100 5% 1/4W	C634	1-130-467-00	MYLAR	470PF 5% 50V
R1788	1-216-349-00	METAL OXIDE	1 5% 1W F	C635	1-130-471-00	MYLAR	0.001MF 5% 50V
R1789	1-249-437-11	CARBON	47K 5% 1/4W	C636	1-126-965-11	ELECT	22MF 20% 50V
R1790	1-216-378-11	METAL OXIDE	5.6 5% 2W F	C637	1-126-940-11	ELECT	330MF 20% 25V
	(KV-32S65 only)			C640 Δ	1-113-924-11	CERAMIC CHIP	0.0047MF 20% 250V
R1790	1-216-369-00	METAL OXIDE	1 5% 2W F	C641	1-128-550-11	ELECT	2200MF 20% 50V
	(KV-35S65 only)			C643	1-107-641-11	ELECT	220MF 20% 160V
R1792	1-247-815-91	CARBON	220 5% 1/4W	C647	1-104-665-11	ELECT	100MF 20% 25V
R1793	1-247-866-11	CARBON	30K 5% 1/4W	C650	1-104-664-11	ELECT	47MF 20% 25V
R1794	1-260-132-11	CARBON	560K 5% 1/2W	C651	1-137-366-11	FILM	0.0022MF 5% 50V
	(KV-35S65 only)			C652	1-106-351-00	MYLAR	0.0022MF 20% 200V
R1795	1-260-087-11	CARBON	100 5% 1/2W	C653	1-107-636-11	ELECT	10MF 20% 160V
R1796	1-216-378-11	METAL OXIDE	5.6 5% 2W F	C654	1-164-625-11	CERAMIC CHIP	680PF 10% 500V
	(KV-32S65 only)			C655	1-164-625-11	CERAMIC CHIP	680PF 10% 500V
R1796	1-216-369-00	METAL OXIDE	1 5% 2W F	C656	1-164-625-11	CERAMIC CHIP	680PF 10% 500V
	(KV-35S65 only)			C657	1-164-625-11	CERAMIC CHIP	680PF 10% 500V
R1797	1-260-123-11	CARBON	100K 5% 1/2W	C660	1-126-767-11	ELECT	1000MF 20% 16V
				C690	1-164-645-11	CERAMIC CHIP	1000PF 10% 500V
				C691	1-164-645-11	CERAMIC CHIP	1000PF 10% 500V
CAPACITOR				CONNECTOR			
C601	1-136-346-21	FILM	0.22MF 20% 125V	CN601 *	1-573-963-11	PIN, CONNECTOR (PC BOARD)	3P (KV-35S65 only)
	(KV-35S65 only)			CN602 *	1-580-844-11	PIN, CONNECTOR (POWER)	
C602	1-126-964-11	ELECT	10MF 20% 50V	CN604 *	1-508-765-00	PIN, CONNECTOR (5MM PITCH)	3P (KV-32S65 only)
C603 Δ	1-113-903-11	CERAMIC CHIP	0.001MF 20% 250V	CN603 *	1-573-963-11	PIN CONNECTOR (PC BOARD)	3P (KV-35S65 only)
C604 Δ	1-136-346-21	FILM	0.22MF 20% 125V	CN641 *	1-564-515-11	PLUG, CONNECTOR	12P
C605 Δ	1-136-346-21	FILM	0.22MF 20% 125V	CN643 *	1-508-784-00	PIN, CONNECTOR (5MM PITCH)	1P
C606 Δ	1-117-894-11	ELECT	560MF 20% 250V				
C607 Δ	1-117-894-11	ELECT	560MF 20% 250V	DIODE			
C608	1-165-127-11	CERAMIC CHIP	470PF 10% 500V	D600 Δ	8-719-991-33	DIODE 1SS133T-77	
C609	1-136-175-00	FILM	0.68MF 5% 50V	D601	8-719-991-33	DIODE 1SS133T-77	
C610	1-136-175-00	FILM	0.68MF 5% 50V	D602 Δ	8-719-510-53	DIODE D4SB60L	
C611	1-136-169-00	FILM	0.22MF 5% 50V	D603	8-719-052-90	DIODE D1NL40-TA2	
C612	1-136-169-00	FILM	0.22MF 5% 50V	D604	8-719-052-90	DIODE D1NL40-TA2	
C613	1-164-646-11	CERAMIC CHIP	2200PF 10% 500V	D612	8-719-991-33	DIODE 1SS133T-77	
C615	1-129-722-00	FILM	0.047MF 5% 630V	D613	8-719-991-33	DIODE 1SS133T-77	
C616 Δ	1-113-903-11	CERAMIC CHIP	0.001MF 20% 250V	D614	8-719-991-33	DIODE 1SS133T-77	
				D621 Δ	8-719-911-55	DIODE U05G	
				D622 Δ	8-719-911-55	DIODE U05G	
				D623	8-719-055-18	DIODE ERA22-08TP3	
				D624	8-719-991-33	DIODE 1SS133T-77	
				D625	8-719-991-33	DIODE 1SS133T-77	
				D626	8-719-109-93	DIODE RD6.2ESB2	



- * A-1316-389-A G BOARD, COMPLETE (KV-32S65 only)
- * A-1316-399-A G BOARD, COMPLETE (KV-35S65 only)

- 1-533-223-11 HOLDER, FUSE
- 4-382-854-11 SCREW (M3X10), P, SW (+)

Note:

The components identified with shading and a critical symbol (Δ) are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par un triangle et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

COMPLETE PARTS LIST



REF.NO.	PART NO.	DESCRIPTION	REMARK
D627	8-719-510-48	DIODE D1N20R	
D628	8-719-063-70	DIODE D1NL20U	
D641	8-719-052-92	DIODE D10SBS4F	
D642	Δ 8-719-510-12	DIODE D10SC4M	
D643	8-719-028-45	DIODE D2L20U	
D644	8-719-028-45	DIODE D2L20U	
D645	8-719-028-45	DIODE D2L20U	
D646	8-719-028-45	DIODE D2L20U	
D647	8-719-063-70	DIODE D1NL20U	
D648	8-719-057-52	DIODE EZ0150AV1	
D649	8-719-510-02	DIODE D1NS4	
D650	8-719-510-02	DIODE D1NS4	
FUSE			
F601	Δ 1-576-193-11	FUSE	6.3A/125V
FERRITE BEAD			
FB601	1-410-396-41	FERRITE	0.45UH
FB602	1-410-396-41	FERRITE	0.45UH
FB603	1-410-396-41	FERRITE	0.45UH
FB604	1-410-396-41	FERRITE	0.45UH
FB641	1-410-397-21	FERRITE	1.1UH
FB642	1-410-397-21	FERRITE	1.1UH
FB645	1-410-397-21	FERRITE	1.1UH
FB647	1-410-397-21	FERRITE	1.1UH
IC			
IC601	Δ 8-729-041-12	TRANSISTOR MX0841AB-F	
IC622	8-759-450-47	IC BA05T	
IC641	8-759-198-03	IC PQ09RF21	
IC643	8-749-012-13	IC DM-58	
COIL			
L642	1-412-529-11	INDUCTOR	22UH
TRANSISTOR			
Q621	Δ 8-729-044-30	TRANSISTOR 2SK2845-LB102	
Q622	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q644	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q645	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q646	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q647	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q648	8-729-922-39	TRANSISTOR 2SD2144S-V	
RESISTOR			
R603	Δ 1-219-776-11	CARBON	2.2M 10% 1/2W
R607	Δ 1-202-933-61	FUSIBLE	0.1 10% 1/2W F
R608	Δ 1-216-373-11	METAL OXIDE	2.2 5% 2W F
R611	Δ 1-216-373-11	METAL OXIDE	2.2 5% 2W F

REF.NO.	PART NO.	DESCRIPTION	REMARK
R612	1-215-903-11	METAL OXIDE	68K 5% 2W F
R613	1-215-903-11	METAL OXIDE	68K 5% 2W F
R614	1-215-903-11	METAL OXIDE	68K 5% 2W F
R615	1-215-903-11	METAL OXIDE	68K 5% 2W F
R618	1-249-425-11	CARBON	4.7K 5% 1/4W
R619	1-249-425-11	CARBON	4.7K 5% 1/4W
R620	1-249-425-11	CARBON	4.7K 5% 1/4W
R621	1-249-429-11	CARBON	10K 5% 1/4W
R622	1-247-863-91	CARBON	22K 5% 1/4W
R623	Δ 1-205-943-11	CEMENTED	1 5% 20W
R624	1-260-131-11	CARBON	470K 5% 1/2W
R625	1-260-131-11	CARBON	470K 5% 1/2W
R626	1-249-425-11	CARBON	4.7K 5% 1/4W
R627	Δ 1-220-797-11	CEMENTED	0.47 5% 10W
R628	1-240-205-91	CARBON	22M 5% 1/2W
R629	Δ 1-220-797-11	CEMENTED	0.47 5% 10W
R632	1-249-421-11	CARBON	2.2K 5% 1/4W
R633	1-249-429-11	CARBON	10K 5% 1/4W
R634	1-249-437-11	CARBON	47K 5% 1/4W
R635	1-247-791-91	CARBON	22 5% 1/4W
R636	1-249-415-11	CARBON	680 5% 1/4W
R637	1-260-302-51	CARBON	6.8 5% 1/2W
R638	1-249-413-11	CARBON	470 5% 1/4W
R639	Δ 1-249-389-11	CARBON	4.7 5% 1/4W F
R640	1-215-485-00	METAL	470K 1% 1/4W
R641	1-247-843-11	CARBON	3.3K 5% 1/4W
R642	1-247-843-11	CARBON	3.3K 5% 1/4W
R643	1-249-387-11	CARBON	3.3 5% 1/4W F
R648	1-247-887-00	CARBON	220K 5% 1/4W
R649	1-249-425-11	CARBON	4.7K 5% 1/4W F
R659	1-249-429-11	CARBON	10K 5% 1/4W
R660	Δ 1-249-393-11	CARBON	10 5% 1/4W F
R661	1-249-419-11	CARBON	1.5K 5% 1/4W F
R666	Δ 1-249-377-11	CARBON	0.47 5% 1/4W F
R667	Δ 1-249-377-11	CARBON	0.47 5% 1/4W F
R668	Δ 1-249-377-11	CARBON	0.47 5% 1/4W F
R670	Δ 1-249-377-11	CARBON	0.47 5% 1/4W F
R671	Δ 1-249-377-11	CARBON	0.47 5% 1/4W F
R672	Δ 1-249-377-11	CARBON	0.47 5% 1/4W F
RELAY			
RY600	Δ 1-755-266-11	RELAY, AC POWER	
RY601	Δ 1-755-146-11	RELAY, AC POWER	
TRANSFORMER			
T601	Δ 1-426-717-11	TRANSFORMER, LINE FILTER (LFT)	
T602	Δ 1-426-717-11	TRANSFORMER, LINE FILTER (LFT)	
T603	Δ 1-429-992-21	TRANSFORMER, CONVERTER (PRT)	
T605	Δ 1-429-415-11	TRANSFORMER, CONVERTER (PIT)	

G

HS

HV

COMPLETE PARTS LIST

Note:

The components identified with shading and a critical symbol (Δ) are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
T621	Δ 1-431-852-11	TRANSFORMER, CONVERTER	(SRT)	<u>SWITCH</u>			
<u>THERMISTOR</u>				S2101	1-692-431-21	SWITCH, TACTILE (KV-32S65 only)	
THP601	Δ 1-809-539-11	THERMISTOR, POSITIVE		S2102	1-692-431-21	SWITCH, TACTILE (KV-32S65 only)	
<u>VARISTOR</u>				S2103	1-692-431-21	SWITCH, TACTILE (KV-32S65 only)	
VDR601	Δ 1-801-074-41	VARISTOR ERZV10D271		S2104	1-692-431-21	SWITCH, TACTILE (KV-32S65 only)	
VDR602	1-801-074-41	VARISTOR ERZV10D271		S2105	1-692-431-21	SWITCH, TACTILE (KV-32S65 only)	
HS				S2106	1-692-431-21	SWITCH, TACTILE (KV-32S65 only)	
* A-1372-519-A	HS BOARD, COMPLETE	(KV-32S65 only)		S2107	1-692-431-21	SWITCH, TACTILE (KV-32S65 only)	
* A-1372-507-A	HS BOARD, COMPLETE	(KV-35S65 only)		HV			
<u>CAPACITOR</u>				* A-1372-523-A	HV BOARD, COMPLETE	(KV-35S65 only)	
C2168	1-104-665-11	ELECT	100MF 20% 25V	<u>CAPACITOR</u>			
		(KV-32S65 only)		C2068	1-104-665-11	ELECT	100MF 20% 25V
C2169	1-126-959-11	ELECT	0.47MF 20% 50V	C2070	1-165-319-11	CERAMIC CHIP	0.1MF 50V
		(KV-32S65 only)		<u>DIODE</u>			
<u>CONNECTOR</u>				D2006	1-810-039-11	LED UNIT	
CN2101	1-564-524-11	PLUG, CONNECTOR	9P	<u>IC</u>			
<u>DIODE</u>				IC2003	8-742-014-11	HYB IC SBX1981-51	
D2106	1-810-039-11	LED UNIT	(KV-32S65 only)	<u>RESISTOR</u>			
<u>IC</u>				R2009	1-216-033-00	RES, CHIP	220 5% 1/10W
IC2103	8-742-014-11	HYB IC SBX1981-51	(KV-32S65 only)	R2010	1-216-033-00	RES, CHIP	220 5% 1/10W
<u>RESISTOR</u>				R2059	1-216-047-91	RES, CHIP	820 5% 1/10W
R2109	1-216-033-00	RES, CHIP	220 5% 1/10W	R2060	1-216-049-91	RES, CHIP	1K 5% 1/10W
		(KV-32S65 only)		R2061	1-216-055-00	RES, CHIP	1.8K 5% 1/10W
R2110	1-216-033-00	RES, CHIP	220 5% 1/10W	R2062	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
		(KV-32S65 only)		R2063	1-216-073-00	RES, CHIP	10K 5% 1/10W
R2159	1-216-047-91	RES, CHIP	820 5% 1/10W	<u>SWITCH</u>			
		(KV-32S65 only)		S2001	1-692-431-21	SWITCH, TACTILE	
R2160	1-216-049-91	RES, CHIP	1K 5% 1/10W	S2002	1-692-431-21	SWITCH, TACTILE	
		(KV-32S65 only)		S2003	1-692-431-21	SWITCH, TACTILE	
R2161	1-216-055-00	RES, CHIP	1.8K 5% 1/10W	S2004	1-692-431-21	SWITCH, TACTILE	
		(KV-32S65 only)		S2005	1-692-431-21	SWITCH, TACTILE	
R2162	1-216-065-91	RES, CHIP	4.7K 5% 1/10W	S2006	1-692-431-21	SWITCH, TACTILE	
		(KV-32S65 only)		S2007	1-692-431-21	SWITCH, TACTILE	
R2163	1-216-073-00	RES, CHIP	10K 5% 1/10W				
		(KV-32S65 only)					

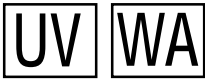
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> P </div>							
* A-1195-138-A P BOARD, COMPLETE							
<u>CAPACITOR</u>							
C3319	1-163-031-11	CERAMIC CHIP	0.01MF	50V			
C3320	1-126-960-11	ELECT	1MF	20%	50V		
C3321	1-163-231-11	CERAMIC CHIP	15PF	5%	50V		
C3322	1-163-231-11	CERAMIC CHIP	15PF	5%	50V		
C3323	1-163-031-11	CERAMIC CHIP	0.01MF		50V		
C3324	1-104-664-11	ELECT	47MF	20%	16V		
C3328	1-104-664-11	ELECT	47MF	20%	16V		
C3329	1-104-664-11	ELECT	47MF	20%	16V		
C3330	1-163-031-11	CERAMIC CHIP	0.01MF		50V		
C3331	1-104-664-11	ELECT	47MF	20%	16V		
C3332	1-104-664-11	ELECT	47MF	20%	25V		
C3334	1-163-031-11	CERAMIC CHIP	0.01MF		50V		
C3335	1-163-038-91	CERAMIC CHIP	0.1MF		25V		
C3336	1-163-038-91	CERAMIC CHIP	0.1MF		25V		
C3337	1-164-005-11	CERAMIC CHIP	0.47MF		25V		
C3340	1-163-031-11	CERAMIC CHIP	0.01MF		50V		
C3346	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		
C3347	1-126-960-11	ELECT	1MF	20%	50V		
C3348	1-104-664-11	ELECT	47MF	20%	16V		
C3349	1-163-121-00	CERAMIC CHIP	150PF	5%	50V		
C3350	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V		
C3352	1-163-031-11	CERAMIC CHIP	0.01MF		50V		
C3353	1-164-346-11	CERAMIC CHIP	1MF		16V		
C3354	1-163-031-11	CERAMIC CHIP	0.01MF		50V		
C3355	1-126-925-11	ELECT	470MF	20%	10V		
C3356	1-163-038-91	CERAMIC CHIP	0.1MF		25V		
C3357	1-163-038-91	CERAMIC CHIP	0.1MF		25V		
C3358	1-163-038-91	CERAMIC CHIP	0.1MF		25V		
C3359	1-163-038-91	CERAMIC CHIP	0.1MF		25V		
C3360	1-163-038-91	CERAMIC CHIP	0.1MF		25V		
C3361	1-163-038-91	CERAMIC CHIP	0.1MF		25V		
C3362	1-126-925-11	ELECT	470MF	20%	10V		
C3363	1-163-031-11	CERAMIC CHIP	0.01MF		50V		
C3364	1-163-231-11	CERAMIC CHIP	15PF	5%	50V		
C3365	1-163-133-00	CERAMIC CHIP	470PF	5%	50V		
C3366	1-164-005-11	CERAMIC CHIP	0.47MF		25V		
C3367	1-126-963-11	ELECT	4.7MF	20%	50V		
C3368	1-164-005-11	CERAMIC CHIP	0.47MF		25V		
C3369	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		
C3370	1-164-346-11	CERAMIC CHIP	1MF		16V		
C3371	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V		
C3372	1-164-005-11	CERAMIC CHIP	0.47MF		25V		
<u>CONNECTOR</u>							
CN3301*	1-764-816-11	CONNECTOR, BOARD TO BOARD			20P		
<u>IC</u>							
IC3302	8-759-231-53	IC TA7805S					
IC3303	8-759-533-89	IC SDA9288XE-GEG-B121					
IC3304	8-752-086-80	IC CXA2019AQ-T4					
<u>COIL</u>							
L3301	1-408-607-31	INDUCTOR			22UH		
L3302	1-410-473-11	INDUCTOR			18UH		
L3303	1-408-612-31	INDUCTOR			56UH		
<u>TRANSISTOR</u>							
Q3301	8-729-422-27	TRANSISTOR 2SD601A-Q					
Q3302	8-729-216-22	TRANSISTOR 2SA1162-G					
Q3306	8-729-216-22	TRANSISTOR 2SA1162-G					
Q3310	8-729-422-27	TRANSISTOR 2SD601A-Q					
Q3312	8-729-216-22	TRANSISTOR 2SA1162-G					
Q3314	8-729-216-22	TRANSISTOR 2SA1162-G					
<u>RESISTOR</u>							
R3301	1-216-295-91	SHORT					
R3302	1-216-295-91	SHORT					
R3305	1-216-057-00	RES, CHIP	2.2K	5%	1/10W		
R3312	1-216-037-00	RES, CHIP	330	5%	1/10W		
R3313	1-216-295-91	SHORT					
R3314	1-216-049-91	RES, CHIP	1K	5%	1/10W		
R3323	1-216-065-91	RES, CHIP	4.7K	5%	1/10W		
R3329	1-216-069-00	RES, CHIP	6.8K	5%	1/10W		
R3330	1-216-295-91	SHORT					
R3337	1-216-033-00	RES, CHIP	220	5%	1/10W		
R3338	1-216-033-00	RES, CHIP	220	5%	1/10W		
R3339	1-216-057-00	RES, CHIP	2.2K	5%	1/10W		
R3340	1-216-041-00	RES, CHIP	470	5%	1/10W		
R3341	1-216-057-00	RES, CHIP	2.2K	5%	1/10W		
R3342	1-216-057-00	RES, CHIP	2.2K	5%	1/10W		
R3343	1-216-049-91	RES, CHIP	1K	5%	1/10W		
R3346	1-216-049-91	RES, CHIP	1K	5%	1/10W		
R3351	1-216-295-91	SHORT					
R3352	1-216-049-91	RES, CHIP	1K	5%	1/10W		
R3358	1-216-047-91	RES, CHIP	820	5%	1/10W		
R3359	1-216-047-91	RES, CHIP	820	5%	1/10W		
R3360	1-216-053-00	RES, CHIP	1.5K	5%	1/10W		
R3361	1-216-053-00	RES, CHIP	1.5K	5%	1/10W		



COMPLETE PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R3362	1-216-041-00	RES, CHIP	470 5% 1/10W	C231	1-163-031-11	CERAMIC CHIP	0.01MF 50V
R3363	1-216-041-00	RES, CHIP	470 5% 1/10W	C232	1-136-161-00	FILM	0.047MF 5% 50V
R3364	1-216-041-00	RES, CHIP	470 5% 1/10W	C233	1-136-161-00	FILM	0.047MF 5% 50V
R3375	1-216-041-00	RES, CHIP	470 5% 1/10W	C234	1-126-960-11	ELECT	1MF 20% 50V
R3376	1-216-071-00	RES, CHIP	8.2K 5% 1/10W	C235	1-126-960-11	ELECT	1MF 20% 50V
R3377	1-216-073-00	RES, CHIP	10K 5% 1/10W	C236	1-136-161-00	FILM	0.047MF 5% 50V
R3378	1-208-786-11	RES, CHIP	1.5K 0.50% 1/10W	C237	1-126-960-11	ELECT	1MF 20% 50V
R3379	1-216-077-00	RES, CHIP	15K 5% 1/10W	C238	1-126-960-11	ELECT	1MF 20% 50V
R3380	1-216-025-91	RES, CHIP	100 5% 1/10W	C261	1-136-161-00	FILM	0.047MF 5% 50V
R3381	1-216-025-91	RES, CHIP	100 5% 1/10W	C262	1-104-664-11	ELECT	47MF 20% 25V
R3382	1-216-057-00	RES, CHIP	2.2K 5% 1/10W	C263	1-136-161-00	FILM	0.047MF 5% 50V
R3383	1-216-025-91	RES, CHIP	100 5% 1/10W	C264	1-126-941-11	ELECT	470MF 20% 25V
R3384	1-216-033-00	RES, CHIP	220 5% 1/10W	C266	1-126-960-11	ELECT	1MF 20% 50V
R3385	1-216-109-00	RES, CHIP	330K 5% 1/10W	C267	1-126-960-11	ELECT	1MF 20% 50V
R3386	1-216-295-91	SHORT		C270	1-126-960-11	ELECT	1MF 20% 50V
R3387	1-216-295-91	SHORT		C271	1-126-960-11	ELECT	1MF 20% 50V
R3388	1-216-295-91	SHORT		C276	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
R3393	1-216-025-91	RES, CHIP	100 5% 1/10W	CONNECTOR			
R3394	1-216-025-91	RES, CHIP	100 5% 1/10W	CN261	* 1-691-632-21	CONNECTOR, BOARD TO BOARD	15P
R3395	1-216-061-00	RES, CHIP	3.3K 5% 1/10W	CN262	1-573-301-21	CONNECTOR, BOARD TO BOARD	20P
CRYSTAL				CN263	* 1-564-506-11	PLUG, CONNECTOR	3P
X3302	1-760-095-21	VIBRATOR, CRYSTAL		CN264	1-573-979-21	CONNECTOR, BOARD TO BOARD	11P
X3303	1-577-611-11	OSCILLATOR, CERAMIC CHIP		DIODE			
X3304	1-567-505-11	OSCILLATOR, CRYSTAL		D100	8-719-981-99	DIODE MTZJ-3.3	
UV				D231	8-719-110-17	DIODE RD10ESB2	
* A-1394-910-A UV BOARD, COMPLETE				D232	8-719-110-17	DIODE RD10ESB2	
CAPACITOR				D233	8-719-110-17	DIODE RD10ESB2	
C150	1-126-956-91	ELECT	0.1MF 20% 50V	D234	8-719-110-17	DIODE RD10ESB2	
C153	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	D235	8-719-110-17	DIODE RD10ESB2	
C154	1-126-963-11	ELECT	4.7MF 20% 50V	D236	8-719-110-17	DIODE RD10ESB2	
C155	1-126-963-11	ELECT	4.7MF 20% 50V	D240	8-719-110-17	DIODE RD10ESB2	
C156	1-126-963-11	ELECT	4.7MF 20% 50V	D241	8-719-110-17	DIODE RD10ESB2	
C158	1-126-963-11	ELECT	4.7MF 20% 50V	D242	8-719-110-17	DIODE RD10ESB2	
C160	1-126-964-11	ELECT	10MF 20% 50V	D243	8-719-110-17	DIODE RD10ESB2	
C161	1-126-956-91	ELECT	0.1MF 20% 50V	D244	8-719-110-17	DIODE RD10ESB2	
C162	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	D264	8-719-110-17	DIODE RD10ESB2	
C163	1-104-664-11	ELECT	47MF 20% 25V	D265	8-719-110-17	DIODE RD10ESB2	
C164	1-165-319-11	CERAMIC CHIP	0.1MF 50V	D902	8-719-110-17	DIODE RD10ESB2	
C165	1-126-964-11	ELECT	10MF 20% 50V	IC			
C168	1-126-963-11	ELECT	4.7MF 20% 50V	IC100	8-752-072-39	IC CXA2021S	
C171	1-126-941-11	ELECT	470MF 20% 25V	IC101	8-759-100-96	IC UPC4558G2	
C172	1-126-959-11	ELECT	0.47MF 20% 50V	IC261	8-759-534-81	IC MM1313AD	
C173	1-126-959-11	ELECT	0.47MF 20% 50V	JACK			
C176	1-126-964-11	ELECT	10MF 20% 50V	J231	1-750-515-11	TERMINAL BLOCK, S	3P
C177	1-126-964-11	ELECT	10MF 20% 50V	J232	1-750-517-11	JACK BLOCK, PIN	3P

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
J233	1-750-516-11	JACK BLOCK, PIN	2P	R212	1-249-440-11	CARBON	82K 5% 1/4W
J902	1-764-143-11	JACK	3P	R228	1-216-033-00	RES, CHIP	220 5% 1/10W
J903	1-764-143-11	JACK	3P	R229	1-216-025-91	RES, CHIP	100 5% 1/10W
J904	1-764-143-11	JACK	3P	R230	1-216-033-00	RES, CHIP	220 5% 1/10W
CHIP CONDUCTOR				R231	1-216-022-00	RES, CHIP	75 5% 1/10W
JR101	1-216-295-91	SHORT		R232	1-216-022-00	RES, CHIP	75 5% 1/10W
JR109	1-216-295-91	SHORT		R233	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
JR147	1-216-295-91	SHORT		R234	1-216-022-00	RES, CHIP	75 5% 1/10W
JR148	1-216-295-91	SHORT		R235	1-216-113-00	RES, CHIP	470K 5% 1/10W
JR201	1-216-295-91	SHORT		R236	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
JR204	1-216-295-91	SHORT		R237	1-216-113-00	RES, CHIP	470K 5% 1/10W
JR205	1-216-295-91	SHORT		R238	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
JR269	1-216-295-91	SHORT		R239	1-216-022-00	RES, CHIP	75 5% 1/10W
JR270	1-216-295-91	SHORT		R240	1-216-113-00	RES, CHIP	470K 5% 1/10W
JR272	1-216-295-91	SHORT		R241	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
JR273	1-216-295-91	SHORT		R242	1-216-113-00	RES, CHIP	470K 5% 1/10W
JR274	1-216-295-91	SHORT		R243	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
JR276	1-216-295-91	SHORT		R244	1-216-113-00	RES, CHIP	470K 5% 1/10W
JR901	1-216-295-91	SHORT		R245	1-249-417-11	CARBON	1K 5% 1/4W
TRANSISTOR				R246	1-216-113-00	RES, CHIP	470K 5% 1/10W
Q100	8-729-422-27	TRANSISTOR 2SD601A-Q		R247	1-249-417-11	CARBON	1K 5% 1/4W
Q101	8-729-422-27	TRANSISTOR 2SD601A-Q		R261	1-216-009-00	RES, CHIP	22 5% 1/10W
Q243	8-729-216-22	TRANSISTOR 2SA1162-G		R264	1-247-815-91	CARBON	220 5% 1/4W
Q261	8-729-422-27	TRANSISTOR 2SD601A-Q		R265	1-247-815-91	CARBON	220 5% 1/4W
Q262	8-729-422-27	TRANSISTOR 2SD601A-Q		R266	1-216-043-91	RES, CHIP	560 5% 1/10W
Q263	8-729-216-22	TRANSISTOR 2SA1162-G		R267	1-249-415-11	CARBON	680 5% 1/4W
Q265	8-729-216-22	TRANSISTOR 2SA1162-G		R268	1-216-025-91	RES, CHIP	100 5% 1/10W
RESISTOR				R269	1-216-025-91	RES, CHIP	100 5% 1/10W
R100	1-216-033-00	RES, CHIP	220 5% 1/10W	R270	1-216-041-00	RES, CHIP	470 5% 1/10W
R101	1-216-033-00	RES, CHIP	220 5% 1/10W	R271	1-249-415-11	CARBON	680 5% 1/4W
R102	1-216-073-00	RES, CHIP	10K 5% 1/10W	R272	1-249-417-11	CARBON	1K 5% 1/4W
R103	1-216-093-00	RES, CHIP	68K 5% 1/10W	R275	1-249-425-11	CARBON	4.7K 5% 1/4W
R104	1-216-089-91	RES, CHIP	47K 5% 1/10W	R276	1-249-425-11	CARBON	4.7K 5% 1/4W
R105	1-216-089-91	RES, CHIP	47K 5% 1/10W	R277	1-216-049-91	RES, CHIP	1K 5% 1/10W
R106	1-216-049-91	RES, CHIP	1K 5% 1/10W	R279	1-216-025-91	RES, CHIP	100 5% 1/10W
R107	1-216-049-91	RES, CHIP	1K 5% 1/10W	R280	1-216-033-00	RES, CHIP	220 5% 1/10W
R108	1-216-073-00	RES, CHIP	10K 5% 1/10W	R281	1-216-033-00	RES, CHIP	220 5% 1/10W
R109	1-216-089-91	RES, CHIP	47K 5% 1/10W	R282	1-216-025-91	RES, CHIP	100 5% 1/10W
R110	1-216-089-91	RES, CHIP	47K 5% 1/10W	R283	1-216-025-91	RES, CHIP	100 5% 1/10W
R111	1-216-025-91	RES, CHIP	100 5% 1/10W	R284	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
R112	1-216-121-91	RES, CHIP	1M 5% 1/10W	R285	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
R133	1-216-061-00	RES, CHIP	3.3K 5% 1/10W	R286	1-216-049-91	RES, CHIP	1K 5% 1/10W
R134	1-216-061-00	RES, CHIP	3.3K 5% 1/10W	R291	1-216-025-91	RES, CHIP	100 5% 1/10W
R135	1-216-097-91	RES, CHIP	100K 5% 1/10W	R293	1-216-025-91	RES, CHIP	100 5% 1/10W
R136	1-216-093-00	RES, CHIP	68K 5% 1/10W	R294	1-216-049-91	RES, CHIP	1K 5% 1/10W
R137	1-216-025-91	RES, CHIP	100 5% 1/10W	R902	1-249-405-11	CARBON	100 5% 1/4W F
				R919	1-216-295-91	SHORT	
				R920	1-249-405-11	CARBON	100 5% 1/4W F
				R921	1-249-405-11	CARBON	100 5% 1/4W F



COMPLETE PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R922	1-216-049-91	RES, CHIP	1K 5% 1/10W				
R923	1-216-049-91	RES, CHIP	1K 5% 1/10W				
R924	1-216-049-91	RES, CHIP	1K 5% 1/10W				
WA				IC			
				IC961	8-759-700-07	IC NJM2903M	
				IC981	8-759-603-37	IC M5216P	
WA				COIL			
				L942	1-215-863-11	METAL OXIDE	100 5% 1W F
				L962	1-406-989-21	INDUCTOR	0UH
				L963	1-406-675-11	INDUCTOR	0UH
WA				TRANSISTOR			
				Q943	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q944	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q945	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q946	8-729-017-05	TRANSISTOR 2SA1837	
				Q947	8-729-017-06	TRANSISTOR 2SC4793	
				Q962	8-729-931-45	TRANSISTOR IRF614	
				Q963	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q965	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q966	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q981	8-729-422-27	TRANSISTOR 2SD601A-Q	
WA				RESISTOR			
				R943	1-216-025-91	RES, CHIP	100 5% 1/10W
				R948	1-216-049-91	RES, CHIP	1K 5% 1/10W
				R949	1-216-049-91	RES, CHIP	1K 5% 1/10W
				R950	1-216-049-91	RES, CHIP	1K 5% 1/10W
				R951	1-216-049-91	RES, CHIP	1K 5% 1/10W
				R952	1-216-037-00	RES, CHIP	330 5% 1/10W
				R953	1-216-021-00	RES, CHIP	68 5% 1/10W
				R954	1-216-033-00	RES, CHIP	220 5% 1/10W
				R955	1-216-047-91	RES, CHIP	820 5% 1/10W
				R956	1-216-295-91	SHORT	
				R957	1-216-073-00	RES, CHIP	10K 5% 1/10W
				R958	1-216-295-91	SHORT	
				R959	1-216-021-00	RES, CHIP	68 5% 1/10W
				R960	1-216-689-11	RES, CHIP	39K 5% 1/10W
				R961	1-216-073-00	RES, CHIP	10K 5% 1/10W
				R962	1-216-057-00	RES, CHIP	2.2K 5% 1/10W
				R963	1-216-097-91	RES, CHIP	100K 5% 1/10W
				R964	1-216-073-00	RES, CHIP	10K 5% 1/10W
				R965	1-216-073-00	RES, CHIP	10K 5% 1/10W
				R966	1-216-097-91	RES, CHIP	100K 5% 1/10W
				R967	1-216-065-91	RES, CHIP	4.7K 5% 1/10W
				R968	1-216-083-00	RES, CHIP	27K 5% 1/10W
				R969	1-216-295-91	SHORT	
				R970	1-216-033-00	RES, CHIP	220 5% 1/10W
				R971	1-247-899-11	CARBON	680K 5% 1/4W

Note:

The components identified with shading and a critical symbol (Δ) are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

COMPLETE PARTS LIST



REF.NO.	PART NO.	DESCRIPTION	REMARK
R972	1-216-073-00	RES, CHIP 10K 5%	1/10W
R973	1-216-121-91	RES, CHIP 1M 5%	1/10W
R974	1-216-073-00	RES, CHIP 10K 5%	1/10W
R975 Δ	1-216-446-00	METAL OXIDE 18 5%	2W F
R976 Δ	1-216-423-11	METAL OXIDE 27 5%	1W F
R979	1-216-017-91	RES, CHIP 47 5%	1/10W
R981	1-216-081-00	RES, CHIP 22K 5%	1/10W
R982	1-216-081-00	RES, CHIP 22K 5%	1/10W
R983	1-216-081-00	RES, CHIP 22K 5%	1/10W
R984	1-216-081-00	RES, CHIP 22K 5%	1/10W
R987	1-216-049-91	RES, CHIP 1K 5%	1/10W
R988	1-216-295-91	SHORT	
R989	1-216-304-11	RES, CHIP 3.3 5%	1/10W
R992	1-216-073-00	RES, CHIP 10K 5%	1/10W
R1941	1-260-311-51	CARBON 39 5%	1/2W
R1942	1-249-384-11	CARBON 1.8 5%	1/4W F
R1943	1-249-414-11	CARBON 560 5%	1/4W F
R1944	1-249-432-11	CARBON 18K 5%	1/4W
R1945	1-216-476-11	METAL OXIDE 180 5%	3W F
R1946	1-249-417-11	CARBON 1K 5%	1/4W F
R1947	1-249-432-11	CARBON 18K 5%	1/4W
R1948	1-249-414-11	CARBON 560 5%	1/4W
R1949	1-249-384-11	CARBON 1.8 5%	1/4W F
R1950	1-249-400-11	CARBON 39 5%	1/4W F



* A-1372-508-A WB BOARD, MOUNTED (KV-32S65 only)

4-382-854-11 SCREW (M3X10), P, SW (+)

CAPACITOR

C2941	1-126-935-11	ELECT 470MF 20%	16V
C2944	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C2946	1-126-933-11	ELECT 100MF 20%	16V
C2949	1-161-830-00	CERAMIC CHIP 0.0047MF	500V
C2950	1-126-933-11	ELECT 100MF 20%	16V
C2951	1-107-638-11	ELECT 33MF 20%	160V
C2952	1-104-999-11	MYLAR 0.1MF 10%	200V
C2953	1-106-383-00	MYLAR 0.047MF 10%	200V
C2954	1-137-364-11	FILM 0.001MF 5%	50V
C2955	1-107-667-11	ELECT 2.2MF 20%	160V
C2956	1-137-364-11	FILM 0.001MF 5%	50V
C2957	1-106-383-00	MYLAR 0.047MF 10%	200V
C2958	1-126-933-11	ELECT 100MF 20%	16V
C2975	1-163-001-11	CERAMIC CHIP 220PF 10%	50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
CONNECTOR			
CN2941*	1-564-508-11	PLUG, CONNECTOR	5P
DIODE			
D2941	8-719-991-33	DIODE 1SS133T-77	
D2946	8-719-110-88	DIODE RD39ESB2	
D2947	8-719-110-88	DIODE RD39ESB2	
COIL			
L2942	1-215-863-11	METAL OXIDE 100 5%	1W F
TRANSISTOR			
Q2943	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2944	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2945	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2946	8-729-017-05	TRANSISTOR 2SA1837	
Q2947	8-729-017-06	TRANSISTOR 2SC4793	
Q2965	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2966	8-729-216-22	TRANSISTOR 2SA1162-G	
RESISTOR			
R2943	1-216-025-91	RES, CHIP 100 5%	1/10W
R2948	1-216-049-91	RES, CHIP 1K 5%	1/10W
R2949	1-216-049-91	RES, CHIP 1K 5%	1/10W
R2950	1-216-049-91	RES, CHIP 1K 5%	1/10W
R2951	1-216-049-91	RES, CHIP 1K 5%	1/10W
R2952	1-216-037-00	RES, CHIP 330 5%	1/10W
R2953	1-216-021-00	RES, CHIP 68 5%	1/10W
R2954	1-216-033-00	RES, CHIP 220 5%	1/10W
R2955	1-216-047-91	RES, CHIP 820 5%	1/10W
R2956	1-216-295-91	SHORT	
R2957	1-216-073-00	RES, CHIP 10K 5%	1/10W
R2958	1-216-295-91	SHORT	
R2959	1-216-021-00	RES, CHIP 68 5%	1/10W
R2979	1-216-017-91	RES, CHIP 47 5%	1/10W
R4941	1-260-311-51	CARBON 39 5%	1/2W
R4942	1-249-384-11	CARBON 1.8 5%	1/4W F
R4943	1-249-414-11	CARBON 560 5%	1/4W F
R4944	1-249-432-11	CARBON 18K 5%	1/4W
R4945	1-216-476-11	METAL OXIDE 180 5%	3W F
R4946	1-249-417-11	CARBON 1K 5%	1/4W F
R4947	1-249-432-11	CARBON 18K 5%	1/4W
R4948	1-249-414-11	CARBON 560 5%	1/4W
R4949	1-249-384-11	CARBON 1.8 5%	1/4W F
R4950	1-249-400-11	CARBON 39 5%	1/4W F

ACCESSORIES AND PACKING MATERIALS

<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>	<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
<u>32S65</u>				<u>35S65</u>			
<u>ACCESSORIES AND PACKING MATERIALS</u>				<u>ACCESSORIES AND PACKING MATERIALS</u>			
4-041-259-01		BAG, PROTECTION		4-053-658-01		BAG, PROTECTION	
4-063-179-01		CARTON, INDIVIDUAL		4-056-782-01		CARTON, INDIVIDUAL	
4-063-180-01		CUSHION, UPPER ASSY		4-056-783-01		CUSHION, UPPER ASSY	
4-063-181-01		CUSHION, LOWER ASSY		4-056-784-01		CUSHION, LOWER ASSY	
3-862-568-21		MANUAL, INSTRUCTION		3-862-568-21		MANUAL, INSTRUCTION	
<u>REMOTE COMMANDER</u>				<u>REMOTE COMMANDER</u>			
1-475-802-11		REMOTE COMMANDER (RM-Y167)		1-475-802-11		REMOTE COMMANDER (RM-Y167)	
4-978-977-01		BATTERY COVER (FOR REMOTE)		4-978-977-01		BATTERY COVER (FOR REMOTE)	