

SERVICE MANUAL

AA-2H CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
KV-32FV1	RM-Y167	US	SCC-S18B-A
KV-32FV1	RM-Y167	CND	SCC-S19B-A
KV-34FVL1	RM-Y167	E	SCC-S20B-A
KV-36FV1	RM-Y167	US	SCC-S18C-A
KV-36FV1	RM-Y167	CND	SCC-S19C-A



KV-36FV1



RM-Y167



TRINITRON® COLOR TV
SONY®

SPECIFICATIONS

	KV-32FV1 KV-34FVL1	KV-36FV1
Power requirements	120V,60Hz	
Number of inputs/outputs		
Video ¹⁾	3	
S Video ²⁾	2	
Audio ³⁾	4	
Audio Out ⁴⁾	1	
Monitor Out	1	
TV out ^{1) 3)}	1	
S-link	3	
Y, PB, PR ⁵⁾	1	
Speaker output (W)	15Wx2	
Power Consumption (W)		
In use (max.)	240W	
In standby	2W	
Dimensions (W/H/D) (mm)	889.4 X 685.6 x 600.7 mm	1010 X 761.2 X 630.9 mm
(in.)	35 ^{7/16} x 27 x 23 ^{21/32} in	39 ^{13/16} x 30 x 24 ^{15/16} in
Mass (kg.)	79 kg	107 kg
(lbs.)	175 lbs	236 lbs

⁽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 408mVrms (fix); Impedance (Output): 2 kilohms⁽⁵⁾ Y: 1.0 Vp-p, 75 ohms, sync negative; PB: 0.7 Vp-p, 75 ohms; PR: Vp-p, 75 ohms

Television system	American TV standard, NTSC		
Channel coverage	VHF	:	2-13
	UHF	:	14-69
	CATV	:	1-125
Antenna	75-ohm external antenna terminal for VHF / UHF		
Picture tube	FD Trinitron® tube		
Visible Screen Size	32-inch picture measured diagonally (KV-32FV1/34FVL1)		
	36-inch picture measured diagonally (KV-36FV1)		
Actual Screen Size	34-inch picture measured diagonally (KV-32FV1/34FVL1)		
	38-inch picture measured diagonally (KV-36FV1)		
Supplied Accessories	Remote control RM-Y167, Battery size AA (R6) 2		
Optional accessories	Connecting cables		
	RK-74A, RK-G69HG,		
	VMC-10HG, VMC-720M,		
	VMC-810S/820S, YC-15V/30V,		
	TV Stand SU-32FD1, SU-36FD1 U/V mixer EAC-66		

●[®] 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.

The word "SRS" and the SRS symbol (●) are registered trademarks of SRS Labs, Inc.

** Design and specifications are subject to change without notice.

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CAUTION!

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

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.


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.


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.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  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 AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE 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)

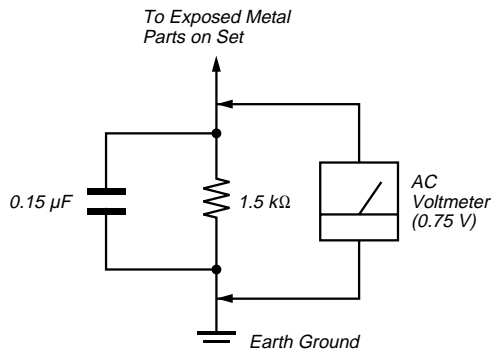


Fig. A. Using an AC voltmeter to check AC leakage.

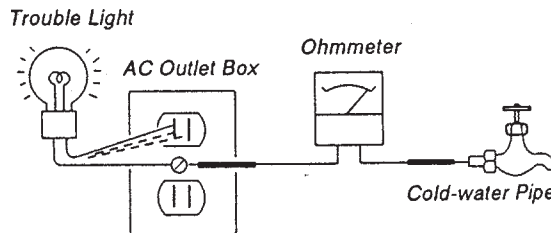
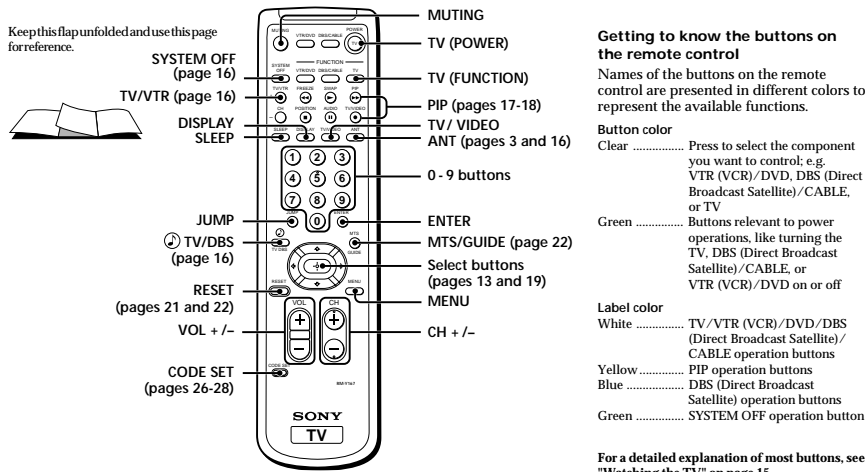


Fig B. Checking for earth ground.

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

SECTION 1 GENERAL

Remote Control



Connecting and Installing the TV (continued)

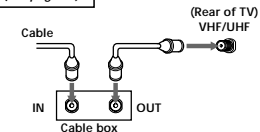
Cable Box Connections

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

Cable box

- 1 Connect the coaxial connector from your cable to the IN on your cable box.
- 2 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. (see page 24)



Cable box and cable

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.

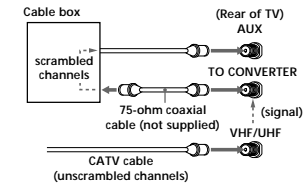
Notes

- Your Sony remote control can be programmed to operate your cable box. (see page 26)
- 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. (see page 24)



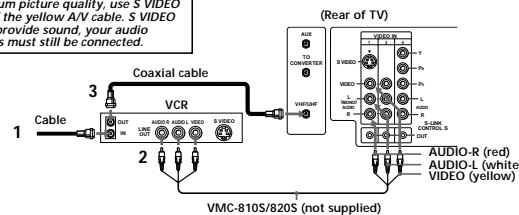
VCR Connections

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.

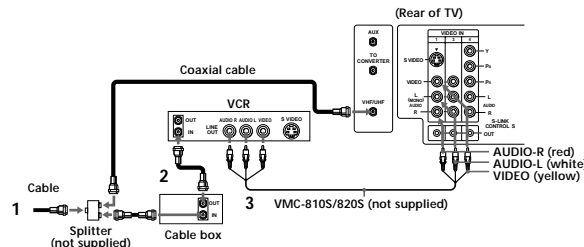
* If you are connecting a monaural VCR, connect only the single white audio output to the left input on your TV.

For optimum picture quality, use S VIDEO instead of the yellow A/V cable. S VIDEO does not provide sound, your audio connectors must still be connected.



Connecting a VCR and TV with a cable box

- 1 Connect the single (input) jack of the Splitter to your incoming cable connection, and 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.



Connecting and Installing the TV (continued)

Connecting two VCRs

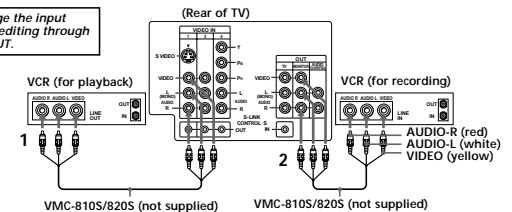
MONITOR OUT gives you the ability to use a second VCR to record a program being played by the primary VCR or to perform tape editing and dubbing.

- 1 Connect the VCR intended for playback using the connection instructions on page 4 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.

Notes

- If you will be connecting your A/V receiver to external speakers, you do not need to connect AUDIO OUT on your A/V receiver to AUDIO IN on your TV.
- You cannot record signals from equipment connected to the Y, Pb, Pr input.

Do not change the input signal while editing through MONITOR OUT.



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Using Special Sony Features

Using the CONTROL S feature

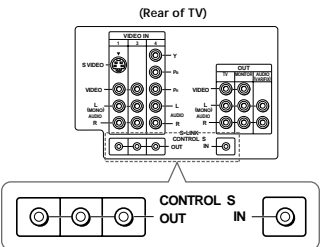
CONTROL S allows you to control your TV and other Sony equipment with one remote control.

To control your other Sony equipment with your TV's remote control, connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack on the TV with the CONTROL S cable.

To control other Sony equipment with your TV's remote control, see the next page.

Note

- You can also program your remote control to control other equipment. (see "Operating Video Equipment" on page 26)



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Watching the TV

All of the TV features can be accessed via the remote control. The following chart will explain the function of the buttons found on your remote control.



REFER TO THE ILLUSTRATION OF THE REMOTE CONTROL ON THE INSIDE FRONT COVER OF THIS MANUAL AS YOU REVIEW THIS CHART

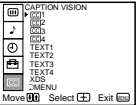
	Press when you want to turn equipment on and off.
	Press when you want to control connected components with your remote control. (see pages 26-28 for instructions on programming your remote control)
	Use for direct channel selection. Press 0-9 to select a channel, the channel will change after 2 seconds, or you can press ENTER for immediate selection.
	Press to scan through the channels. <i>Keeping the CH + or - pressed allows you to rapidly scan to the desired channel.</i>
	Press to alternate or <i>jump</i> back and forth between two channels. You can jump between the last two channels selected with the 0-9 keys.
	Press to mute the sound (MUTING will appear on the screen). Press again or press VOL + to restore sound.
	Press repeatedly until the TV displays the approximate time in minutes (30, 60, or 90) that you want the TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears.

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Using Your New TV (continued)

	Press repeatedly to cycle through available displays: Status Channel number, current time, channel caption (if set) are displayed. CAPTION VISION/XDS Closed Captioning or XDS will be displayed if the broadcaster offers this service. (see right) To cancel the display, press DISPLAY until DISPLAY OFF appears.
	Press repeatedly to cycle through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3 and VIDEO 4
	Press to change the VHF/UHF input to the AUX input. (For detailed connection information, see "Cable and antenna" or "Cable box and cable" on pages 3-4.) Press to change between VIDEO and TV mode.
	Press when you are finished using a VCR and you want to switch to the TV input. Your VCR power will remain on.
	Press this button to cycle through the Multi-channel TV Sound (MTS) options: STEREO, SAP, MONO (see page 22) GUIDE is a feature of DBS, refer to your DBS operation instructions.
	The SYSTEM OFF button allows you to power off all Sony equipment at once.
	Press to turn ON or OFF one of the following audio effects: SIMULATED : Adds a surround-like effect to mono programs. SRS : Produces a dynamic three dimensional sound for stereo signals. AUTO SRS : Automatically detects whether a stereo or mono signal is being received and switches the TV effect between SRS and SIMULATED. OFF : Normal stereo or mono reception. TV/DBS is a feature of DBS, refer to your DBS operating instructions.

CAPTION VISION (Closed Caption)



CAPTION VISION can be used for programs that are broadcast with closed caption.
To access CAPTION VISION:
1 Press MENU.
2 Press to scroll to , then press .

3 Choose a CAPTION VISION option.
4 Access CAPTION VISION through your DISPLAY button. (see left)

CC1, 2, 3 or 4
Shows you a printed version of the dialog or sound effects of a program. (The mode should be set to CC1 for most programs)

TEXT1, 2, 3 or 4
Shows you network/station information presented using either half or the whole screen.

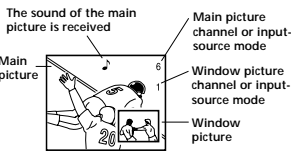
XDS (Extended Data Service)
Shows a network name, program name, program length, and time of the show if the broadcaster offers this service.

Note

- Poor reception of TV programs can cause errors in CAPTION VISION and XDS. Captions may appear with a white box or other errors instead of intended text.

Watching two programs at one time - PIP

These models are equipped with dual tuners. This means that PIP is "ready to use".



Notes



- You must press TV (FUNCTION) before you can control PIP with the yellow labeled buttons.
- The AUX input cannot be viewed in the window picture.



REFER TO THE ILLUSTRATION OF THE REMOTE CONTROL ON THE INSIDE FRONT COVER OF THIS MANUAL AS YOU REVIEW THIS CHART

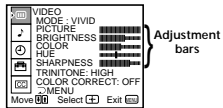
	Press once to display the window picture (1/9 size). Press again to reduce the size of the window picture (1/16 size). Press a third time to turn off the window picture.
	Press repeatedly to cycle through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4
	Press to alternate sound between the main picture and the window picture. A will appear to indicate which picture is receiving sound.
	Press to change the channel in the window picture.
	Press to move the location of the window picture (counterclockwise) around the main picture.

Using Your New TV (continued)

FREEZE 	Press to freeze the window picture. This function is great for copying down phone numbers, addresses, recipes, etc. <i>Press FREEZE again to restore the picture.</i>
SWAP 	Press to switch the audio and video of the main picture and the window picture. Each time you press SWAP, the picture and sound of the two will be swapped.

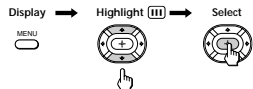
18

Using the VIDEO menu



For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 19.

To select the VIDEO menu:



To restore the factory VIDEO settings

Press RESET while the VIDEO menu is displayed.

MODE <i>Customized picture viewing</i>	VIVID: Select for enhanced picture contrast and sharpness. SPORTS: Select for a bright picture. MOVIE: Select for a finely detailed picture. STANDARD: Select to receive a standard picture. You can alter VIDEO menu settings (e.g. PICTURE, HUE) for each MODE. Select each mode individually and then press RESET to restore factory settings.
PICTURE <i>Picture contrast</i>	Adjust left to decrease picture contrast and soften the color. Adjust right to increase picture contrast and create more vivid color.
BRIGHTNESS <i>Picture adjustment</i>	Adjust left to darken the picture. Adjust right to brighten the picture.
COLOR <i>Color saturation</i>	Adjust left to decrease color intensity or saturation. Adjust right to increase color intensity or saturation.
HUE <i>Color tones</i>	Adjust left to increase the red tones. Adjust right to decrease the red tones.
SHARPNESS <i>Picture detail</i>	Adjust left to soften the picture detail. Adjust right to sharpen the picture detail.
TRINITONE <i>White intensity adjustment</i>	HIGH: Select to give the white colors a blue tint. MEDIUM: Select to give the white colors a neutral tint. NTSC STD: Select to give the white colors a red tint.
COLOR CORRECT <i>Color ratio adjustment</i>	Select ON to emphasize reds and blues. Select OFF to emphasize greens.

21

Using Your Menus

Learning menu selection

Use the MENU button to access a menu and use the arrow buttons (▲ or ▼) to alter settings. Use the following example, in which we activate the CABLE, to learn how to modify settings.

1 Press the MENU button.

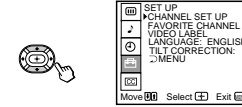
The main menu appears.



2 Press ▲ or ▼ to highlight the desired menu (in this case SET UP) and press ENTER to select it.

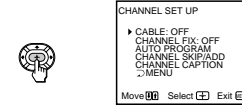


3 Press ▲ or ▼ to move to the desired option.

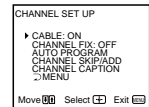


4 Press ENTER.

Options for your selection will be highlighted.



5 Press ▲ or ▼ to make your selection and press ENTER.



When you are finished making changes to the selected menu, choose MENU to return to the main menu.



Notes

- Pressing MENU on the remote control will allow you to exit from the menus at any time.
- If menu items are "grayed out", press the ANT button on your remote control until a channel number appears.

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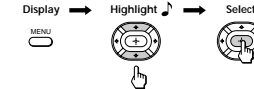
Using Your Menus (continued)

Using the AUDIO menu



For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 19.

To select the AUDIO menu:



To restore the factory AUDIO settings

Press RESET while the AUDIO menu is displayed.

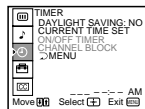
Tips

- Press ENTER to cycle through your audio EFFECT options.
- Press MTS on your remote control to cycle through the MTS options.

TREBLE	Adjust left or right to decrease or increase higher pitched sound.
BASS	Adjust left or right to decrease or increase low pitched sounds.
BALANCE	Adjust left or right to emphasize left and right speaker volume.
EFFECT <i>Enhanced audio options</i>	Press ▲ or ▼ to cycle through the following audio effects: SIMULATED: Adds a surround-like effect to mono programs. SRS: Produces a dynamic three dimensional sound for stereo signals. AUTO SRS: Automatically detects whether a stereo or mono signal is being received and switches the TV effect between SRS and SIMULATED. OFF: Normal stereo or mono reception.
MTS <i>Enjoy stereo, bilingual and mono programs</i>	MTS: Press ▲ or ▼ to select one of the following options: MONO: Select to reduce noise during stereo broadcasts for areas of weak reception. SAP: Select to listen to bilingual broadcast. (Non-SAP programs will be muted when this feature is selected) STEREO: Select when viewing a broadcast in stereo.
SPEAKER <i>Custom selection of audio output source</i>	ON: Select to listen to the sound from the TV speakers with or without a separate stereo system. OFF: Select to turn off the TV speakers and listen to the TV's sound only through external audio system speakers.
AUDIO OUT <i>Use to control the TV's volume through a stereo</i>	AUDIO OUT can only be set when SPEAKER is set to OFF. VARIABLE: Sound output varies according to the TV settings. <i>Useful when you want to use your TV's remote control to adjust the output of a separate audio system.</i> FIXED: Sound output is held at a fixed level through your stereo. <i>Use your A/V receiver's remote control to adjust the volume.</i>

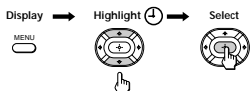
22

Using the TIMER menu



For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 19.

To select the TIMER menu:



To cancel the ON/OFF TIMER function

Press RESET while the ON/OFF TIMER menu is displayed.

Tip

Set DAYLIGHT SAVING time before setting the clock.

DAYLIGHT SAVING Automatically adjusts the time	Spring: Select YES to compensate for Daylight Saving Time. <i>The current time moves one hour ahead.</i> Fall: Select NO at the end of Daylight Saving Time. <i>The current time moves back one hour.</i>
CURRENT TIME SET Necessary for the ON/OFF TIMER	With the CURRENT TIME SET menu open: 1 Press . 2 Press or until the current day is displayed. 3 Press to select. 4 Press or until the current hour and AM/PM is displayed. Press to select. 5 Press or until the current minute is displayed, press . The clock is set. Press MENU to exit. <i>Any loss of power will cause these settings to be erased.</i>
ON/OFF TIMER Wake up or scheduled viewing	With the ON/OFF TIMER menu open: 1 Choose the ON/OFF TIMER you would like to set and press . 2 Press or until the desired day or range of days is displayed. Press to select. 3 Indicate the time that you want the TV to turn on (hour, then minutes) by pressing or and then . 4 Set the time duration (maximum of 6 hours) by pressing or and then . 5 Press or until you reach the desired channel. Press to select. The ON/OFF TIMER is now set. Press MENU to exit. <i>When you perform AUTO PROGRAM, all ON/OFF TIMER settings will be erased.</i>
CHANNEL BLOCK Prevent access to certain channels	You will be able to block two channels for a period of up to 12 hours. FOLLOW STEPS 1-5 OF ON/OFF TIMER ABOVE To erase your CHANNEL BLOCK settings, press RESET while in the CHANNEL BLOCK window. Performing AUTO PROGRAM will erase your CHANNEL BLOCK settings.

23

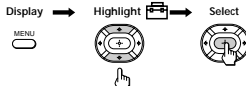
Using Your Menus (continued)

Using the SET UP menu



For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 19.

To select the SET UP menu:



Notes

- The FAVORITE CHANNEL feature is not available for the AUX input.
- Your remote control can be programmed to operate your cable box. (see page 28)
- After setting CABLE, you will need to run AUTO PROGRAM.
- ON/OFF TIMER and CHANNEL BLOCK settings will be erased when CHANNEL FIX is set.

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CHANNEL SET UP

Basic set up options for viewing

With the CHANNEL SET UP menu open:
Press or to access a feature, then press .

CABLE: Select ON if your TV is connected to a cable system.

CHANNEL FIX: Press or to set the TV's input to one of the following options:

2-6: When a cable box is connected to the VHF/UHF input. Press DBS/CABLE (FUNCTION) and then CH +/- to change channels through your cable box.

AUX 2-6: When a cable box is connected to AUX and a cable or antenna is connected to VHF/UHF. You can alternate between the two inputs by pressing ANT on the remote control.

VIDEO 1: When you have connected video equipment (e.g. A/V receiver) and you want the TV input fixed to it. You will be able to alternate between video sources using the A/V receiver.

OFF: When you want to turn CHANNEL FIX off.

AUTO PROGRAM: Instructs the TV to program all receivable channels.

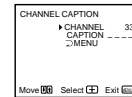
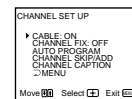
CHANNEL SKIP/ADD: With the CHANNEL SKIP/ADD window open:

- Select the desired channel.
- Press to SKIP or ADD (only one option will be available).

CHANNEL CAPTION: Label up to 12 channels with their call letters (up to four letters).

With the CHANNEL CAPTION menu open:

- Press and then or to access the desired channel, and press again.
- Press or to display the first letter or number of the caption and press to select it.
- Press to activate. To erase a caption, press RESET.



FAVORITE CHANNEL Quick access to favorite channels	Setting FAVORITE CHANNEL: 1 Press and then or to select AUTO or MANUAL. (Selecting AUTO will display the last five channels chosen with the remote control's 0-9 buttons.) 2 Press or to move the cursor to 1, 2, 3, 4 or 5 and press . <p>Using FAVORITE CHANNEL: 1 Press when in normal viewing mode. Your FAVORITE CHANNEL options will appear. 2 Press or to access the channel you want to watch, and press .</p> <p>If PREVIEW is ON, a window picture displays your favorite channels as you cycle through the options.</p>	
VIDEO LABEL Label connected equipment for easy recognition	With the VIDEO LABEL window open: 1 Press or to access the input mode you want to label and press . <p>VIDEO LABEL Options: VIDEO 1/2/3: VHS, 8mm, BETA, LD, GAME, DBS, DVD, WEB, RECEIVER, DTV, SKIP VIDEO 4: DVD, DTV, SKIP When VIDEO LABEL is set to WEB, the picture will darken, creating an ideal picture for WebTV viewing. If you select SKIP, your TV will skip this connection when you cycle through video sources using the TV/VIDEO button.</p>	
LANGUAGE	Select from available languages to display all menus in your language of choice.	
TILT CORRECTION	Press or to correct any tilt of the picture between +5 and -5 and press .	

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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.
- 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 Mathes	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
Minolta	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	332, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 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 scan	To resume normal playback, press again or press .
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 function of your remote, you can use it to program other video equipment (e.g. DVD, MDP, or second VCR), (see page 26)

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  ,  ,  ,  .

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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 the 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

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Troubleshooting

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

You want to restore the TV's factory settings		<ul style="list-style-type: none"> • First, turn the TV on. Then while pressing the RESET button on the remote control, press the POWER button on the TV. The TV will turn itself off and then back on. When the TV turns on again, all settings will be reset, and the Easy Setup Guide will appear.
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 be inserted correctly. • 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 21) • Check your VIDEO LABEL settings. (see page 25)
Good picture, no sound	<ul style="list-style-type: none"> • Sound may be set to MUTEING. • Your TV may be set to SAP. • Speaker may not be set correctly. 	<ul style="list-style-type: none"> • Press MUTEING. • Check the MTS setting in the AUDIO menu. (see page 22) • Check your SPEAKER settings. (see page 22)
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 21)

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Troubleshooting (continued)

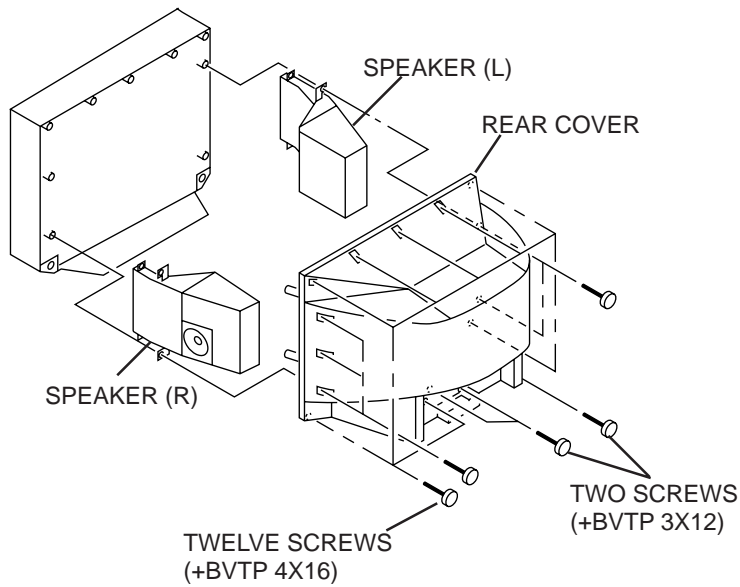
Only snow and noise appear on the screen	<ul style="list-style-type: none"> • CABLE may not be set correctly in the SET UP menu. • Antenna/cable connections may not be correct. • TV may be set to AUX mode. 	<ul style="list-style-type: none"> • Ensure that you have selected the correct CABLE mode in the SET UP menu. (see page 24) • 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 24) • Use AUTO PROGRAM to add receivable channels that are not presently in TV memory. (see page 24)
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 24) • Use AUTO PROGRAM to add receivable channels that are not presently in TV memory. (see page 24)
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 24)

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) or (416) 499-SONY (7669) (customers in Canada only).

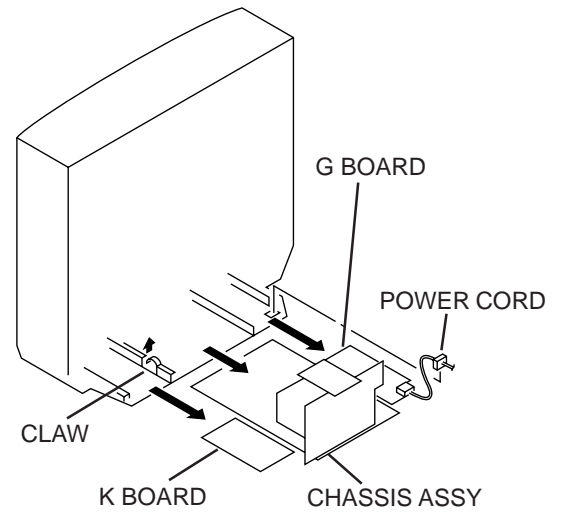
30

SECTION 2 DISASSEMBLY

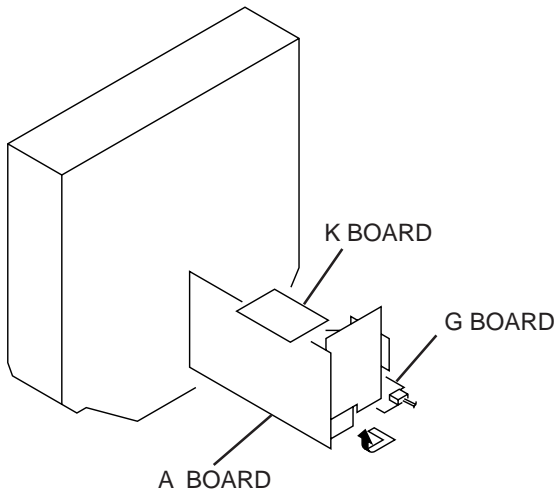
2-1. REAR COVER AND SPEAKER REMOVAL



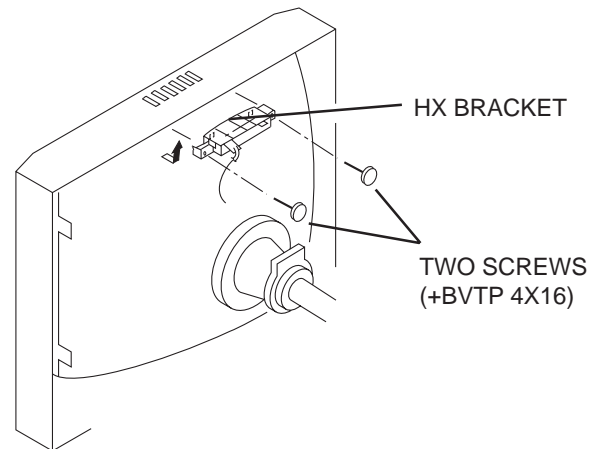
2-2. CHASSIS ASSEMBLY REMOVAL



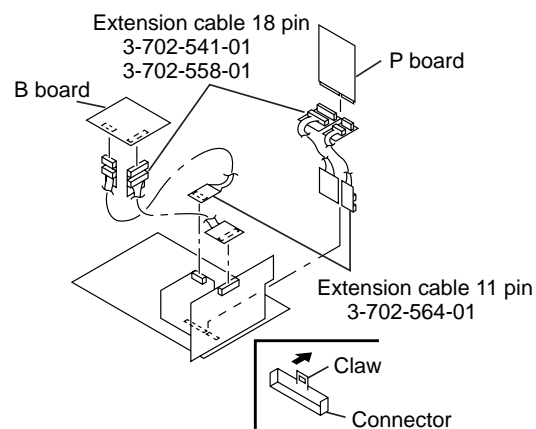
2-3. SERVICE POSITION



2-4. HX BRACKET REMOVAL



2-5. EXTENSION CABLE

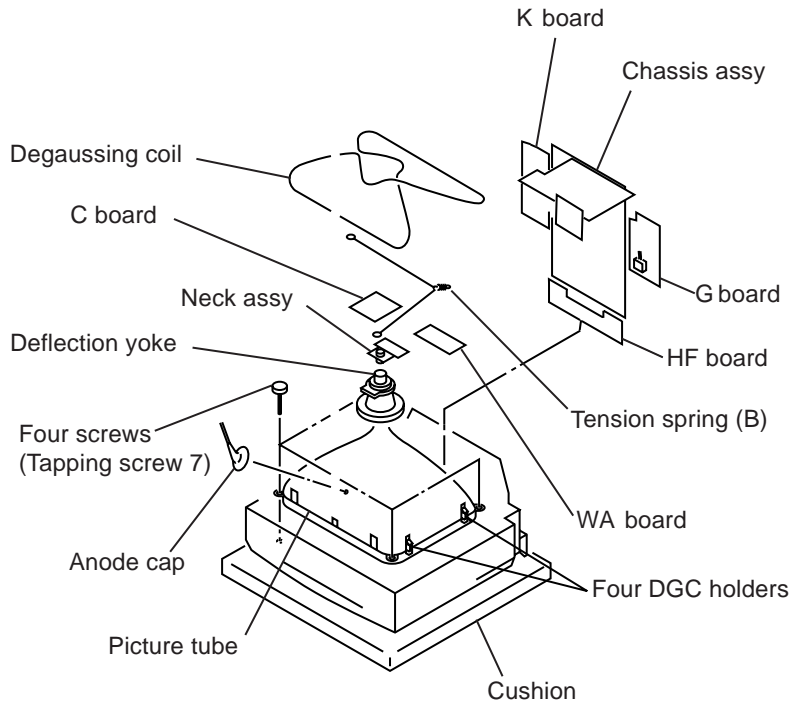
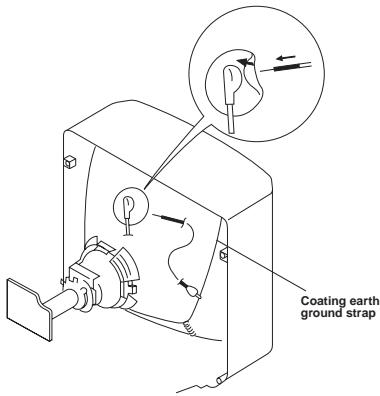


2-6. PICTURE TUBE REMOVAL

WARNING

BEFORE REMOVING ANODE CAP

H.V. remains in the CRT even after the power is disconnected. Discharge CRT before attempting to remove the anode cap to avoid electrical shock. Short between anode and CRT coating earth ground strap.

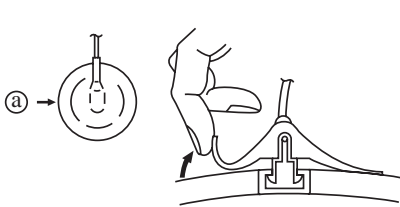


ANODE-CAP REMOVAL

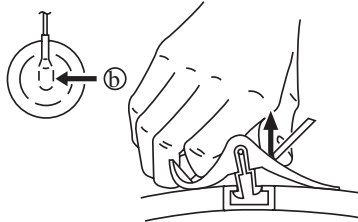
WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electrical shock, discharge CRT before attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.

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.

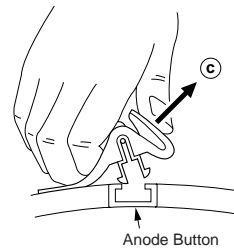
REMOVAL PROCEDURES



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



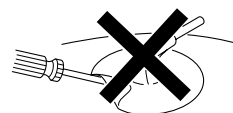
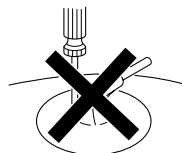
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow (b).



- 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 (c).

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.



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.

Set the controls and switch as follows unless otherwise noted:

VIDEO MODE: STANDARD

PICTURE control 100%

BRIGHTNESS control 50%

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

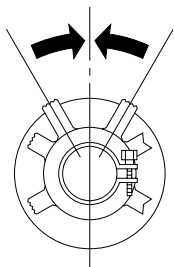
3-1. BEAM LANDING

Preparation:

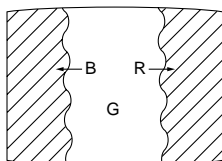
- Input a white pattern signal.
- Face the picture tube in a East or West direction to reduce the influence of geomagnetism.

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

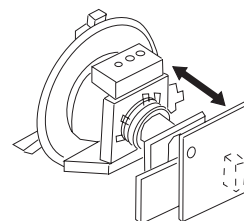
1. Input white pattern from pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



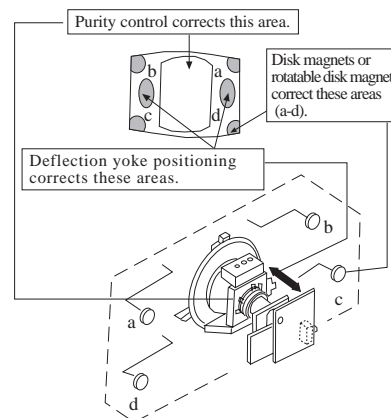
3. Input green pattern from pattern generator.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



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.



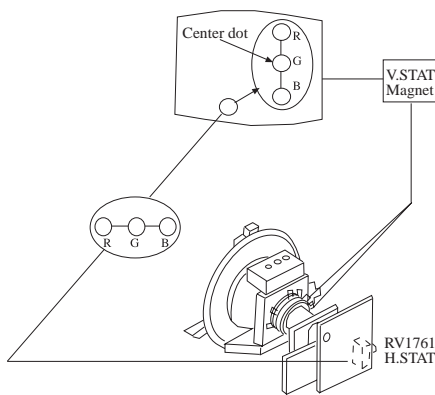
3-2. CONVERGENCE

Preparation:

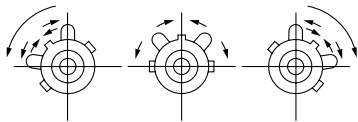
- Before starting, perform FOCUS, V. LIN and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Input dot pattern.

(1) Vertical and Horizontal Static Convergence

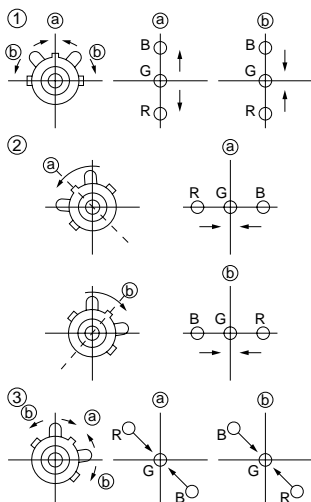
1. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement Adjust HSTAT RV to converge.



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



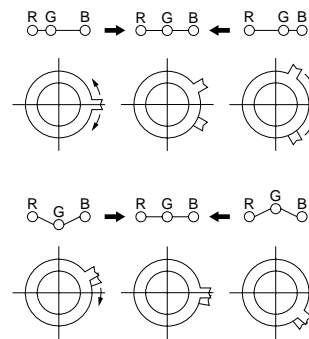
2. When the V. STAT magnet is moved in the direction of arrow (a) and (b), red, green, and blue dots move as shown below:



Operation of BMC (Hexapole) Magnet

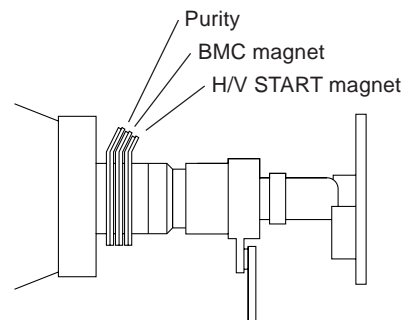
The respective dot positions resulting from moving each magnet interact, so perform adjustment while tracking.

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

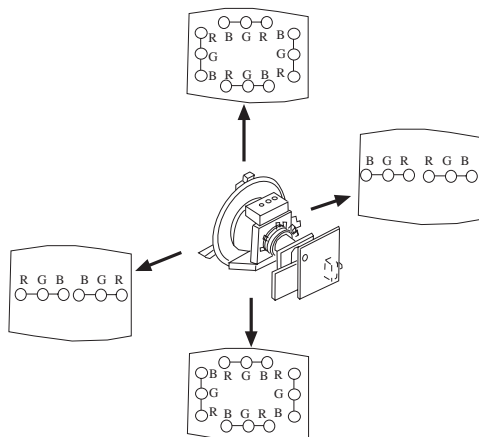
1. Input cross-hatch pattern, adjust PICTURE to minimum and BRIGHTNESS to normal.
2. Adjust the deflection yoke upright so it touches the CRT.
3. Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical from top to bottom (open state).



4. Return the deflection yoke to its original position.

(2) Dynamic Convergence Adjustment

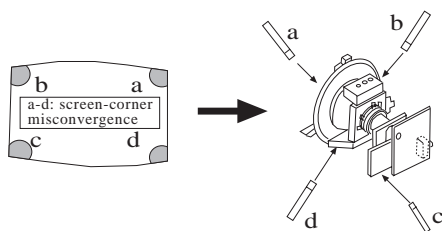
- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
- Slightly loosen deflection yoke screw.
 - Remove deflection yoke spacers.
 - Move the deflection yoke for best convergence as shown below:



- Tighten the deflection yoke screw.
- Install the deflection yoke spacers.
- Adjust vertical red and blue convergence with VLT (VR).
- Adjust horizontal red and blue convergence with YCH (VR).

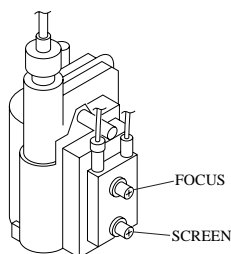
(3) Screen-corner Convergence

Affix a permalloy assembly to correspond with the misconverged areas:



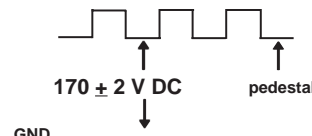
3-3. FOCUS

Adjust FOCUS control for best picture.



3-4. SCREEN (G2)

- Input dot pattern from the pattern generator.
- Set the PICTURE and BRIGHT controls at normal.
- Adjust S BRT, G CUT, B CUT in service mode with an oscilloscope so that voltages on the red, green, and blue cathodes are $170V \pm 2 V$ DC.
- Observe the screen and adjust SCREEN (G2) VR on FBT to obtain the faintly visible background of dot signal.



3-5. WHITE BALANCE ADJUSTMENTS

NO.	Disp.	Item	Average
18	GDRV	Green Drive	36
19	BDRV	Blue Drive	25
20	GCUT	Green Cut-off	3
21	BCUT	Blue Cut-off	10
29	SBRT	Sub Bright	30

- Input an entire white signal.
- Set to Service adjustment Mode.
- Set the PICTURE and BRIGHT to minimum.
- Adjust with SBRT if necessary.
- Select GCUT and BCUT with [1] and [4].
- Adjust with [3] and [6] for the best white balance.
- Set the PICTURE and BRIGHT to maximum.
- Select GDRV and BDRV with [1] and [4].
- Adjust with [3] and [6] for the best white balance.
- After adjusting the white balance, adjust the white balance video four as follows:

NO.	Disp.	Item	
22	4GDR	Green Drive	GDRV+2
23	4BDR	Blue Drive	BDRV +1
24	4GCT	Green Cut-off	GCUT
25	4BCT	Blue Cut-off	BCUT-1

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

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.

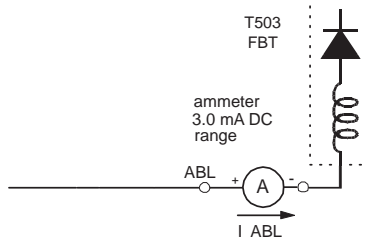
Confirm that the voltage at the check terminal of TP85 is more than 23.0 V DC when the set is operating normally.

At AC input: 120.0 ± 2.0 VAC

Step 2

Input a white signal and verify that I ABL is within the specified range: 2175 ± 100 μ A.

At AC input: 120.0 ± 2.0 VAC



Step 3

Record the voltage between TP85 and ground.

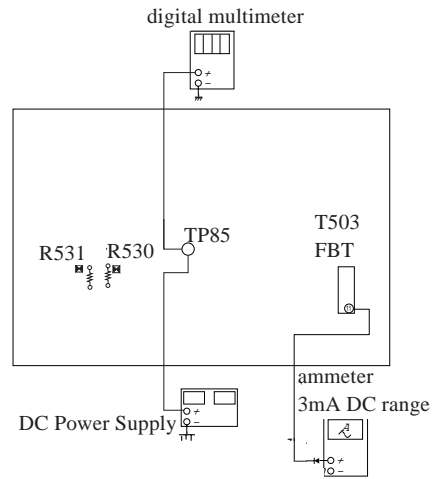
Step 4

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

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

Lower than 27.24 V DC

At AC input: 120.0 ± 2.0 VAC



A BOARD - CONDUCTOR SIDE

Step 5

Confirm that a voltage of more than 23.0 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 BRIGHTNESS control to initial reset value.
- 4) Confirm the voltage of G BOARD CN641 between pin ① to ground is less than 136.5 ± 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:

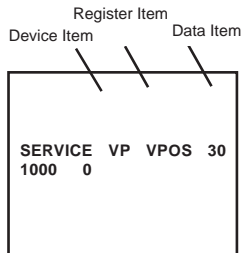
1. Pattern Generator
2. Frequency Counter
3. Digital Multimeter
4. Audio OSC

(1) Setting the Service Adjustment Mode

SERVICE MODE PROCEDURE

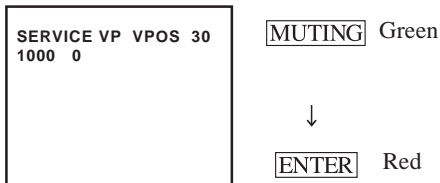
1. Standby mode. (Power off)
2. **[DISPLAY]** → **[5]** → **[VOL (+)]** → **[POWER]** on the Remote Commander. (Press each button within a second.)

SERVICE ADJUSTMENT MODE IN

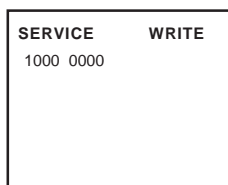


3. The CRT displays the item being adjusted.
4. Press **[2]** or **[5]** on the Remote Commander to select the device item.
5. Press **[1]** or **[4]** on the Remote Commander to select the item.
6. Press **[3]** or **[6]** on the Remote Commander to change the data.
7. To recover the latest values, press "0" then **[ENTER]**.
8. Press **[MUTING]** then **[ENTER]** to write into memory.

SERVICE ADJUSTMENT MODE MEMORY



9. Press **[8]** then **[ENTER]** on the Remote Commander to reset.



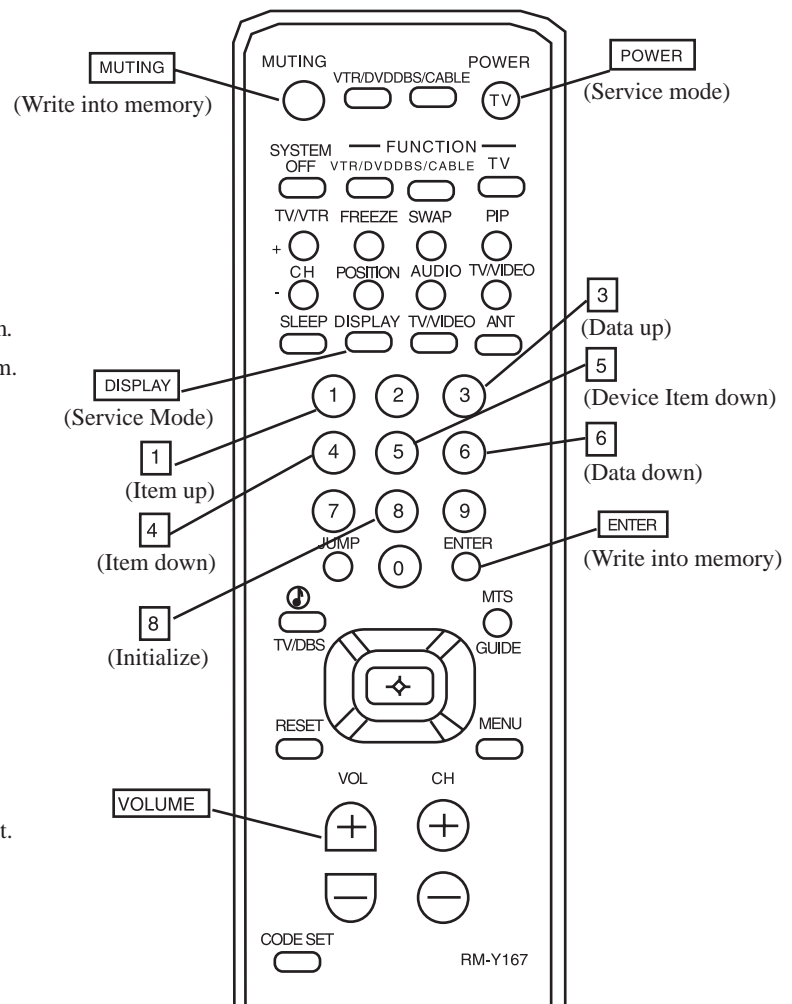
Carry out step 8 when adjusting IDs 0 to 4 and when replacing and adjusting IC102.

10. Turn set off and on to exit.

(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



RM-Y167

(4) Service Data (1/4)

No.	Register Name	Description	Data Length	Initial Data	Average Data	COMMENT
VP CXA2095AS						
1	VPOS	V-Position	0-63	20	21	Adjust
2	VSIZ	V-Size	0-63	20	38	Adjust
3	PVSZ	V-Size	0-63	20	31	Adjust
4	VCOM	V-Compensation	0-3	1	1	Fix
5	VLIN	V-Linearity	0-15	7	12	Adjust
6	VSCO	S-Correction	0-15	7	8	Adjust
7	HPOS	H-Position	0-15	7	14	Adjust
8	HSIZ	H-Size	0-63	18	23	Adjust
9	PHSZ	H-Size	0-63	20	9	Adjust
10	PAMP	PIN-Compensation	0-63	31	19	Adjust
11	UPIN	Upper-CornerPin	0-15	7	6	Adjust
12	LPIN	Lower-CornerPin	0-15	7	8	Adjust
13	PPHA	Pin-Phase	0-15	7	3	Adjust
14	AFC	AFC	0-3	2	2	Fix
15	VBOW	AFC-Bow	0-15	7	8	Adjust
16	VANG	AFC-Angle	0-15	7	3	Adjust
17	REF	Reference-Position	0-3	2	2	Fix
18	GDRV	Green-Drive	0-63	31	31	Adjust
19	BDRV	Blue-Drive	0-63	31	25	Adjust
20	GCUT	Green-Cutoff	0-15	7	3	Adjust
21	BCUT	Blue-Cutoff	0-15	7	10	Adjust
22	4GDR	Green-Drive	0-63	31	29	Adjust
23	4BDR	Blue-Drive	0-63	31	24	Adjust
24	4GCT	Green-Cutoff	0-15	7	8	Adjust
25	4BCT	Blue-Cutoff	0-15	7	11	Adjust
26	SCON	Sub-Contrast	0-15	7	6	Adjust
27	SHUE	Sub-Hue	0-15	7	6	Adjust
28	SCOL	Sub-Color	0-15	7	7	Adjust
29	SBRT	Sub-Brightness	0-63	31	30	Adjust
30	SSHP	Sub-Sharpness	0-15	7	7	Fix
31	CDM2	Count Down Mode2	0, 1	1	1	Fix
32	DPIX	Dynamic-Picture	0, 1	1	1	Fix
33	Y-DC	DC-Transmission	0, 1	1	1	Fix
34	ABLM	ABL	0, 1	1	1	Fix
35	NOTC	ChromaTrap	0, 1	0	0	Fix
36	CROM	ChromaTrap-Adjust	0-15	7	7	Fix
37	TOT	TOT-Filter	0, 1	1	1	Fix
38	PREL	Pre/Over-Shoot	0-3	0	0	Fix
39	SHPF	Sharpness-f0	0-3	2	2	Fix
40	RON	Red-Off	0, 1	1	1	Fix
41	GON	Green-Off	0, 1	1	1	Fix
42	BON	Blue-Off	0, 1	1	1	Fix
43	CDMD	V-Countdown	0, 1	0	0	Fix
44	HBSW	HBLKSW	0, 1	0	0	Fix
45	LBLK	Left Blanking	0-15	7	7	Fix
46	RBLK	Right Blanking	0-15	7	7	Fix
AP BH3856						
47	SVOL	Sub-Volume	0-15	0	0	Fix
48	SBAL	Sub-Balance	0-15	7	7	Fix
49	SBAS	Sub-Bass	0-15	7	7	(Fix by Model)
50	STRE	Sub-Treble	0-15	7	7	(Fix by Model)
TS TC9447F						
51	TB0U	B0h Upper 8bit	0-255	0	0	Fix
52	TB0L	B0h Lower 8bit	0-255	0	0	Fix
53	TB1U	B1h Upper 8bit	0-255	0	0	Fix
54	TB1L	B1h Lower 8bit	0-255	0	0	Fix
55	TB2U	B2h Upper 8bit	0-255	57	57	Fix
56	TB2L	B2h Lower 8bit	0-255	0	0	Fix
57	TBFU	BFh Upper 8bit	0-255	166	166	Fix
58	TBFL	BFh Lower 8bit	0-255	0	0	Fix
59	TC0U	C0h Upper 8bit	0-255	90	90	Fix
60	TC0L	C0h Lower 8bit	0-255	0	0	Fix
61	TC1U	C1h/C7h Upper 8bit	0-255	79	49	Fix
62	TC1L	C1h/C7h Lower 8bit	0-255	0	0	Fix
63	MADU	ADh Upper 8bit	0-255	64	64	Fix
64	MADL	ADh Lower 8bit	0-255	0	0	Fix
65	MB0U	B0h Upper 8bit	0-255	92	92	Fix
66	MB0L	B0h Lower 8bit	0-255	0	0	Fix

Service Data (2/4)

No.	Register Name	Description	Data Length	Initial Data	Average Data	Adj/Fix
3D uPD6488						
67	CGAN	CGAIN	0, 1	1	1	Fix
68	AVAP	AVAPON	0, 1	1	1	Fix
69	MS	MS0/MS1	0-2	0	0	Fix
70	YDLL	YDELAY-L	0-7	2	2	Fix
71	HRD8	HRD08	0, 1	0	0	Fix
72	HRD7	HRD00-07	0-255	12	12	Fix
73	DYCO	DYCOR	0-15	5	5	Fix
74	DYGA	DYGAIN	0-15	8	8	Fix
75	DCCO	DCCOR	0-15	3	3	Fix
76	DCCG	DCGAIN	0-15	7	7	Fix
77	VTR0	VTR0/VTR1	0-2	0	0	Fix
78	VTRH	VTRH	0-2	2	2	Fix
79	VTRR	VTRR	0-15	7	7	Fix
80	SELJ	SELJ	0, 1	1	1	Fix
81	HSDR	HSDR	0-15	7	7	Fix
82	WSCO	WSCOR	0-15	15	15	Fix
83	LDSR	LDSREF	0-15	7	7	Fix
84	WSD1	WSDR1	0-15	15	15	Fix
85	WSD2	WSDR2	0-15	15	15	Fix
86	VAPG	VAPGAIN	0-7	4	4	Fix
87	VAPI	VAPINV	0-31	15	15	Fix
88	MDTE	MDTES	0, 1	0	0	Fix
89	YTM8	YTM87	0, 1	0	0	Fix
90	DYTR	DYTRAP	0, 1	1	1	Fix
91	VHG	VHG	0-3	3	3	Fix
92	YH87	YH87	0, 1	0	0	Fix
93	YSG	YSG	0, 1	1	1	Fix
94	YTG	YTG	0-3	1	1	Fix
95	VTMR	YTMREF	0-15	12	12	Fix
96	VHRE	VHREF	0-15	11	11	Fix
97	YT1R	YT1REF	0-15	2	2	Fix
98	CT2Y	CT2YT	0, 1	0	0	Fix
99	CTG	CTG	0-3	1	1	Fix
100	CTMR	CTMREF	0-15	10	10	Fix
101	CT2R	CT2REF	0-15	10	10	Fix
102	CT1R	CT1REF	0-15	7	7	Fix
PI TA1226N						
103	SHPR	Sharpness	0-127	59	59	Fix
104	SRTS	SRT Start Position	0, 1	3	3	Fix
105	GIRE	Gamma Start Point	0-3	3	3	Fix
106	GCUR	Gamma Curve	0, 1	0	0	Fix
107	RS	RS	0-7	0	0	Fix
108	RTC	RTC	0-7	4	4	Fix
DC CXA2026AS						
109	DCSF	DCSHIFT	0-63	32	41	Fix or Adjust
110	UYBW	UYBOW	0-63	31	31	Fix
111	LYBW	LYBOW	0-63	31	31	Fix
112	HAMP	HAMP	0-63	23	9	Fix or Adjust
113	UCBW	UCBOW	0-63	14	14	Fix
114	LCBW	LCBOW	0-63	14	14	Fix
115	UMBH	UMBH	0-63	15	15	Fix
116	LMBH	LMBH	0-63	15	15	Fix
117	PWM	PWM	0-63	63	63	Fix
118	HTLT	HTILT	0-63	63	63	Fix
119	UTLT	UTILT	0-63	63	63	Fix
120	LTLT	LTILT	0-63	63	63	Fix
121	HDTY	HDUTY	0-4	3	3	Fix
122	TOFF	TILT OFF	0,1	1	1	Fix
123	DAC0	DAC0	0-255	255	255	Fix
124	DAC1	DAC1	0-255	255	255	Fix

Service Data (3/4)

No.	Register Name	Description	Data Length	Initial Data	Average Data	Adj/Fix
PP SAB9076						
125	SMT6	SMART6	0, 1	1	1	Fix
126	SKP6	SKIP6	0, 1	0	0	Fix
127	BGHP	BGhfp	0-15	7	8	Adjust
128	BGVP	BGvfp	0-15	8	8	Adjust
129	MAHP	MAhfp	0-15	6	6	Adjust
130	MAVP	MAvfp	0-255	24	24	Adjust
131	SAHP	SAhfp	0-15	3	3	Fix
132	SAVP	SAvfp	0-255	24	24	Fix
133	VPED	PedestV	0-15	14	0	Fix
134	UPED	PedestU	0-15	14	0	Fix
135	MDEC	Main Decoder Setting	0- 32	18	18	Fix
136	SDEC	Sub Decoder Setting	0- 32	16	16	Fix
137	DISS	Display Setting	0-126	2	2	Fix
138	BSIZ	Border Size	0-255	34	34	Fix
139	POFH	PIP Offset H	0- 15	11	11	Fix
140	POFV	PIP Offset V	0- 15	6	6	Fix
141	DHPS	Display H Position Start	0- 15	4	5	Fix
142	P&PV	SDhfp , MDhfp under P&P	0-255	62	62	Fix
143	BBR0	BorderColor0 Brightness	0-3	1	1	Fix
144	BCL0	BorderColor0 Color	0-7	7	7	Fix
145	BBR2	BorderColor2 Brightness	0-3	2	2	Fix
146	BCL2	BorderColor2 Color	0-7	6	6	Fix
147	BBR3	BackgroundColor Brightness	0-3	0	0	Fix
148	BCL3	BackgroundColor Color	0-7	7	7	Fix
SP SDA9288						
149	PYSD	Select Delay	0-15	3	3	Fix
150	PIPH	PIP H-Position	0-127	78	78	Fix
151	PIPV	PIP V-Position	0-63	18	18	Fix
152	PYDL	PIP Y-delay	0-7	0	0	Fix
153	PHDL	H-pulse delay	0-15	3	3	Fix
154	PMVD	Main V-pulse delay	0-31	16	16	Fix
155	PIVD	Inset V-pulse delay	0-31	22	22	Fix
156	PCON	Inset Contrast	0-15	7	7	Fix
157	FRMY	Frame Y	0-15	7	7	Fix
158	CHRI	Input Polarity	0,1	1	1	Fix
159	CHRO	Output Polarity	0,1	1	1	Fix
160	IPER	Inset Pedestal R-Y	0-15	0	0	Fix
161	IPEB	Inset Pedestal B-Y	0-15	0	0	Fix
162	PCPS	CLPS Blt Control	0,1	0	0	Fix
163	PCPF	CLPFIX Blt Control	0,1	0	0	Fix
164	PSEL	SELDOWN Bit Control	0,1	1	1	Fix
165	PPLL	PLL Filter Bits	0-3	1	0	Fix
166	PVNR	PVNR bit	0, 1	0	1	Fix
MC CXA2019						
167	MHUE	HUE	0-63	26	26	Fix
168	MCOL	COLOR	0-63	35	35	Fix
169	MSCO	SUB CONT	0-15	7	7	Adjust
170	MSCL	SUB COLOR	0-15	7	7	Adjust
171	MSHU	SUB HUE	0-15	7	7	Adjust
172	MTOT	TOT ON	0, 1	1	1	Fix
173	MTRP	TRAP ON	0, 1	0	0	Fix
174	MTRA	CTRAPADJ	0-15	7	7	Fix
175	MCD2	CD MODE2	0, 1	1	1	Fix
176	MFSC	FSC OUT	0, 1	1	1	Fix
177	MYDR	Y DRIVE	0-31	22	22	Fix
178	MVPE	V PED	0-15	7	7	Adjust
179	MUPE	U PED	0-15	7	7	Adjust
180	MRVP	RV PED	0-15	0	0	Fix
181	MRUP	RU PED	0-15	0	0	Fix
182	MDCT	DC TRAN	0-7	0	0	Fix
183	MRYD	RY DRIVE	0-31	31	31	Fix
184	MPRE	PRE OVER	0-3	0	0	Fix
185	MRUD	RU DRIVE	0-31	15	15	Fix
186	MRVD	RV DRIVE	0-31	15	15	Fix
187	MDLY	DELAY	0-3	0	0	Fix
188	MSCR	SCP BGR	0-3	1	1	Fix
189	MSCF	SCP BGF	0-3	1	1	Fix

Service Data (4/4)

No.	Register Name	Description	Data Length	Initial Data	Average Data	Adj/Fix
IC CXA2019						
190	ICYC	CV/YC	0,1	1	0	(Fix by model)
191	IHUE	HUE	0-63	24	24	Fix
192	ICOL	COLOR	0-63	37	37	Fix
193	ISCO	SUB CONT	0-15	6	5	Adjust(FD7)
194	ISCL	SUB COLOR	0-15	7	6	Adjust(FD7)
195	ISHU	SUB HUE	0-15	7	13	Adjust(FD7)
196	ITOT	TOT ON	0, 1	1	1	Fix
197	ITRP	TRAP ON	0, 1	0	1	Fix
198	ITRA	CTRAPADJ	0-15	7	7	Fix
199	ICD2	CD MODE2	0, 1	1	1	Fix
200	IYDR	Y DRIVE	0-31	24	31	Fix
201	IVPE	V PED	0-15	7	6	Adjust (FD7)
202	IUPE	U PED	0-15	7	6	Adjust (FD7)
203	IRVP	RV PED	0-15	0	6	Fix
204	IRUP	RU PED	0-15	2	6	Fix
205	IDCT	DC TRAN	0-7	0	1	Fix
206	IRYD	RY DRIVE	0-31	31	12	Fix
207	IPRE	PRE OVER	0-3	0	0	Fix
208	IRUD	RU DRIVE	0-31	15	15	Fix
209	IRVD	RV DRIVE	0-31	15	15	Fix
210	IDLY	DELAY	0-3	0	0	Fix
211	ISCR	SCP BGR	0-3	1	1	Fix
212	ISCF	SCP BGF	0-3	1	1	Fix
DA CXA1315						
213	RTCO	DAC0(Rotation Coil)	0-63	32	32	Fix
214	2HUE	DAC1(CXA2039 Hue)	0-63	28	28	Adjust
215	2COL	DAC2(CXA2039 COL)	0-63	31	42	Adjust
CC CXP858						
216	CRIL	CRI Count Low	0-15	2	2	Fix
217	CFLD	Feild Count for VCR FF,REV	0-15	5	5	Fix
218	CCDI	CCD INT	0-7	3	3	Fix
219	CRIP	CRI & Parity	0-7	4	4	Fix
220	CRIT	CRI Time Constant	0-3	1	1	Fix
221	CSB1	Sync Slice Bias 1	0-3	3	3	Fix
222	CSB2	Sync Slice Bias 2	0-7	4	4	Fix
223	CREP	CRI Signal End Position	0-256	142	142	Fix
224	CDSD	Data Start Delay	0-31	8	8	Fix
225	CCDS	Caption Data Threshold	0-31	9	9	Fix
226	CHMK	p8_hmask	0- 63	42	42	Fix
227	CHSY	p8_hsync	0-255	136	136	Fix
OP CXP858						
228	DISP	OSD Position	0-63	1	13	(Touch Up)
229	PDPS	PIP Display Position Start	0-63	1	35	(Touch Up)
230	PDP0	PIP Display Position 0	0-3	1	1	(Touch Up)
231	PDP1	PIP Display Position 1	0-7	4	4	(Touch Up)
232	PDP2	PIP Display Position 2	0-7	4	3	(Touch Up)
OP CXA2025Color						
233	KILS	Color Killer SW	0, 1	1	1	Fix
ID MAP						
234	ID-0	ID-0 (Language: 89/25/9)	0-255	89	See ID Map	Fix by Model
235	ID-1	ID-1	0-255	47	See ID Map	Fix
236	ID-2	ID-2 (Audio Effect)	0-255	63	See ID Map	Fix by Model
237	ID-3	ID-3 ((Front Control: 0/64)	0-255	0	See ID Map	Fix by Model
238	ID-4	ID-4 (Auto Shut Off:139/171)	0-255	139	See ID Map	Fix by Model
239	ID-5	ID-5	0-255	173	See ID Map	Fix
240	ID-6	ID-6 (PinP/P&P)	0-255	6	See ID Map	Fix by Model
241	ID-7	ID-7	0-255	0	See ID Map	Fix

SERVICE IDO 25

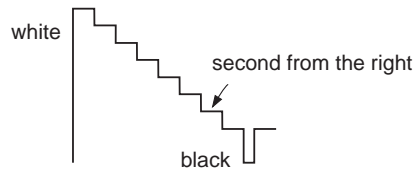
Note: Items 1-241 show adjustment order

(5) Feature ID Map

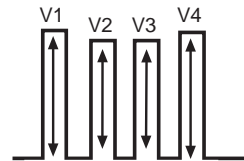
	KV -	DESTINATION	ID - 0	ID - 1	ID - 2	ID - 3	ID - 4	ID - 5	ID - 6	ID - 7
1	32FV1	US	89	63	47	0	139	173	6	0
2	32FV1	CND	89	63	47	0	139	173	6	0
3	34FVL1	E	25	63	47	64	171	173	6	0
4	36FV1	US	89	63	47	0	139	173	6	0
5	36FV1	CND	89	63	47	0	139	173	6	0

SUB BRIGHT ADJUSTMENT (SBRT)

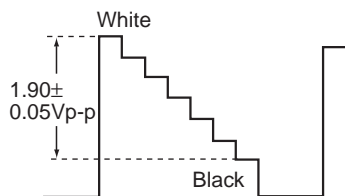
1. Set to Service adjustment Mode.
2. Input a gray scale pattern signal.
3. Set the PICTURE to minimum, and BRIGHT to normal.
4. Select SBRT with **[1]** and **[4]**.
5. Adjust SUB BRIGHT level with **[3]** and **[6]** so that the stripe second from the right is faintly visible.
6. Write into the memory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

**SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)**

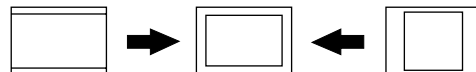
1. Input a color bar signal.
2. Set to Service adjustment Mode and set to
VIDEO mode = STANDARD
PICTURE = 100%
COLOR = 50%
HUE = 50%.
3. Connect an oscilloscope to CN351 Pin ③ of A Board.
4. Select SHUE and SCOL with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the V1 = V4 (SCOL) and V2 = V3 (SHUE).
6. Write SHUE data 1 step down and SCOL data 2 steps up.
7. Write into the memory by pressing **[MUTING]** then **[ENTER]**.

**SUB CONTRAST ADJUSTMENT (SCON)**

1. Input a 75% color-bar signal.
2. Set to VIDEO mode = STANDARD, COLOR = minimum, PICTURE = 100%.
GON = 0 (OFF), BON = 0 (OFF).
3. Set to Service adjustment Mode and Connect an oscilloscope pin ① of CN351 on A Board.
4. Select SCON with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the $1.90 \pm 0.05V_{p-p}$ of level.
6. Write into the memory by **[MUTING]** then **[ENTER]**.

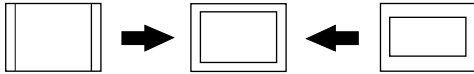
**H. SIZE ADJUSTMENT (HSIZ)**

1. Input a monoscope signal.
2. Set to Service adjustment Mode.
3. Select HSIZ with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best Horizontal size.
5. Write into the memory by pressing **[MUTING]** then **[ENTER]**.

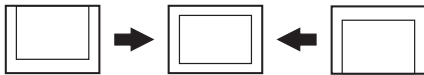
H. SIZE

V. SIZE ADJUSTMENT (VSIZ)

1. Input a monoscope 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].

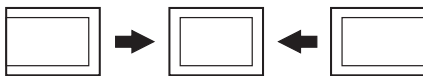
V. SIZE**V. POSITION ADJUSTMENT (VPOS)**

1. Input a monoscope 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].

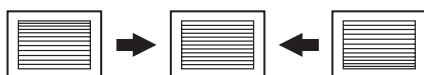
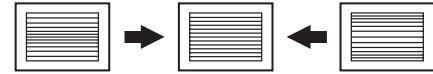
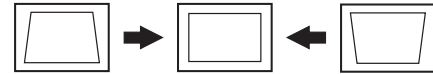
V. POSITION**H. POSITION ADJUSTMENT (HPOS)**

Perform this adjustment after H. FREQUENCY ADJ. (HFRE).

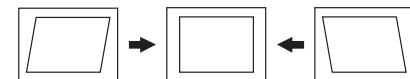
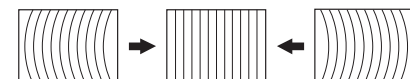
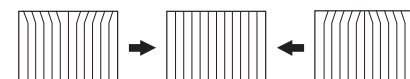
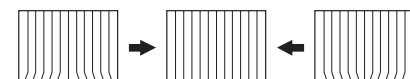
1. Input a monoscope signal.
2. Set the Service adjustment Mode.
3. Select HPOS with [1] and [4].
4. Adjust with [3] and [6] for the best horizontal center.
5. Write into the memory by pressing [MUTING] then [ENTER].

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**

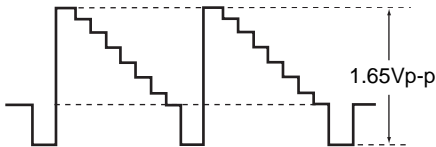
1. Input a cross hatch signal.
2. Set to Service adjustment Mode.
3. Select VVANG, VBOW, UPIN, and LPIN with [1] and [4].
4. Adjust with [3] and [6] for the best picture.
5. Write the memory by Pressing [MUTING] then [ENTER].

V ANGLE (VANG)**V BOW (VBOW)****UPPER PIN (UPIN)****LOW PIN (LPIN)****A BOARD****Y/B-Y/R-Y LEVEL ADJUSTMENT**

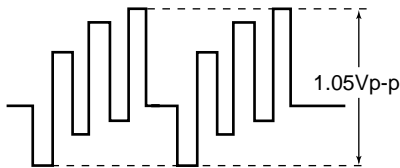
1. Set: VIDEO mode = STANDARD
PICTURE = 100%
COLOR = 50%
HUE = 50%
2. Set a select Video 4 (DVD) Mode.
3. Input a 75% color bar signal.

- Connect an oscilloscope to CN351 pin ③ on A board.
- Set to Service Mode and select 2COL and 2HUE with [1] and [4].
- Adjust with [3] and [6] for 2COL and 2HUE so that even flat signal.
- After adjust write 2HUE data 4 steps down.
- Write into the memory by pressing [MUTING] then [ENTER] .

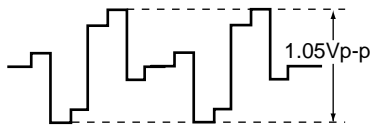
(75 ohms open level)
Y LEVEL (INPUT)



B-Y LEVEL (INPUT)

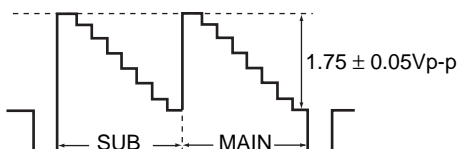


R-Y LEVEL (INPUT)



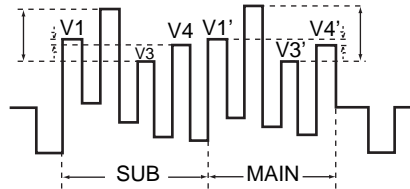
P&P SUB CONTRAST ADJUSTMENT (MSCO, ISCO)

- Input a 75% color-bar signal.
- Set: VIDEO mode = STANDARD
PICTURE = 100%
COLOR = minimum
GON = 0 (OFF), BON = 0 (OFF),
TRINITONE = medium.
- Set P&P mode.
- Connect an oscilloscope to CN1103 pin ④ of A board and GND.
- Set to Service Mode and select MSCO (main window) and ISCO (sub window) with [1] and [4].
- Adjust with [3] and [6] for the $1.75 \pm 0.05V_{p-p}$ of level.
- Write into the memory by pressing [MUTING] then [ENTER].



P&P SUB COLOR, SUB HUE ADJUSTMENT (MCOL, MSHU, ICOL, ISHU)

- Input a 75% Color-bar signal.
- Set: VIDEO mode = STANDARD
PICTURE = 100%
COLOR = 50%
HUE = 50%,
TRITONE = medium.
- Set P&P mode.
- Connect an oscilloscope to CN1103 pin ⑤ of A board and GND.
- Set to Service Mode and select MCOL, MSHU (main window) and ICOL, ISHU (sub window) with [1] and [4].
- Adjust with [3] and [6].
- After adjust write MSHU and ISHU data 1 step down.
- Write into the memory by pressing [MUTING] then [ENTER] .



SUB COLOR

$$V1-V4 = \pm 0.1V$$

$$V1'-V4' = \pm 0.1V$$

SUB HUE

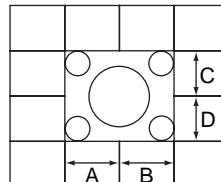
$$V3-V2 = \pm 0.1V \rightarrow 1 \text{ STEP DOWN}$$

$$V3'-V2' = \pm 0.1V \rightarrow 1 \text{ STEP DOWN}$$

P&P ACQUISITION ADJUSTMENT (MAHP, MAVP)

- Input a Monoscope signal.
- Set PICTURE = 100%.
- Set P&P mode and set CHANNEL INDEX mode.
- Set to Service Mode and select MAHP and MAVP with [1] and [4].
- Adjust with [3] and [6] for the best center (main window).
- Write the memory by pressing [MUTING] then [ENTER] .

NEED TO ADJUST AFTER GEOMETRIC ADJUST



$$A-B = \pm 0.2 \text{ sg}$$

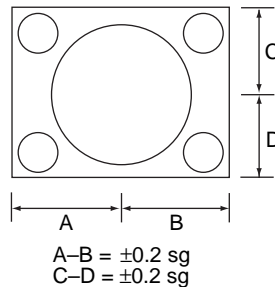
$$C-D = \pm 0.2 \text{ sg}$$

BACKGROUND POSITION ADJUSTMENT (BGHP, BGVP)

NOTE: Prior to this adjustment, the P&P ACQUISITION ADJUSTMENT must be performed (see previous page).

1. Input a monoscope signal.
2. Set VIDEO mode = STANDARD.
3. Freeze a main picture.
4. Set to Service Mode and select BGHP (pp), BGVP (pp) with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the best center.
6. Write into the memory by pressing **[MUTING]** then **[ENTER]**.

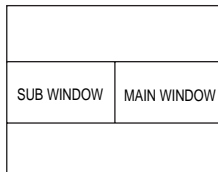
FREEZED
•NEED TO ADJUST AFTER P&P (MAIN)
ACQUISITION ADJUST



P&P WHITE BALANCE ADJUSTMENT (MUPE, MVPE, IUPE, IVPE)

1. Input a 40 IRE white signal.
2. Set to VIDEO mode = STANDARD.
3. Set to P&P mode.
4. Set to Service Mode and select MUPE MVPE (main window), IUPE IVPE (sub window) with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for white balance.
6. Write into the memory by pressing **[MUTING]** then **[ENTER]**.

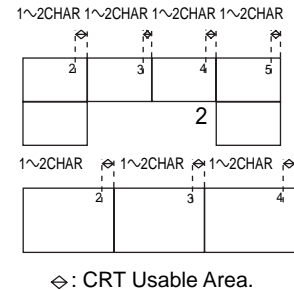
NEED TO ADJUST AFTER
MAIN PICTURE (NOT P&P)
W/B ADJUST



*9300 degrees K +8 MPCD

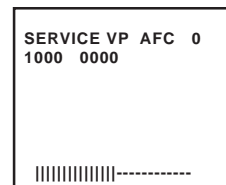
P&P OSD ADJUSTMENT (PDPS)

1. Input a monoscope signal.
2. Set to channel INDEX mode.
3. Adjust so right side edge of P&P OSD is 1 ~ 2 characters from border.
ADJUST.....PDPS (OP)
If necessary, adjust PDP 0
PDP 1
PDP 2
4. Push the P&P off.
5. Push the return key for favorite channel.
6. Confirm 1 ~ 2 characters distance.
7. Write the memory by pressing **[MUTING]** then **[ENTER]**.



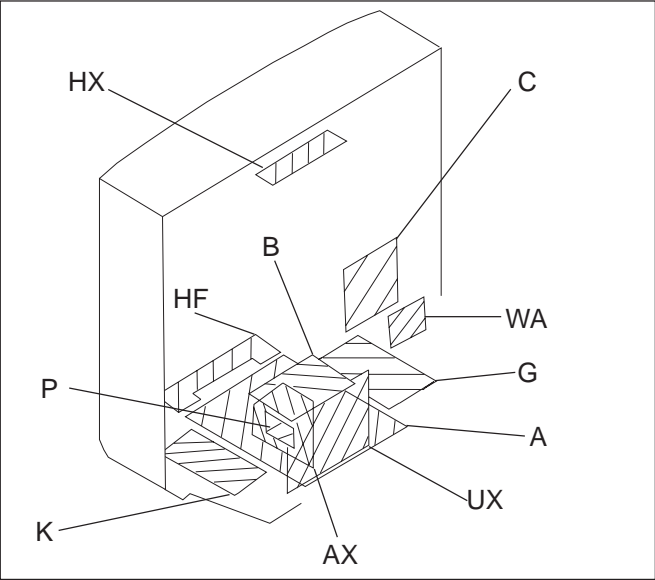
OSD POSITION ADJUSTMENT (DISP)

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 the bar center.
5. Write into the memory by pressing **[MUTING]** then **[ENTER]**.



SECTION 6
DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION



6-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- All capacitors are in μF unless otherwise noted. pF : μF 50WV 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 16.)
- When replacing the part in below table, be sure to perform the related adjustment.
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10M Ω digital multimeter.
- Voltages are DC with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.

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

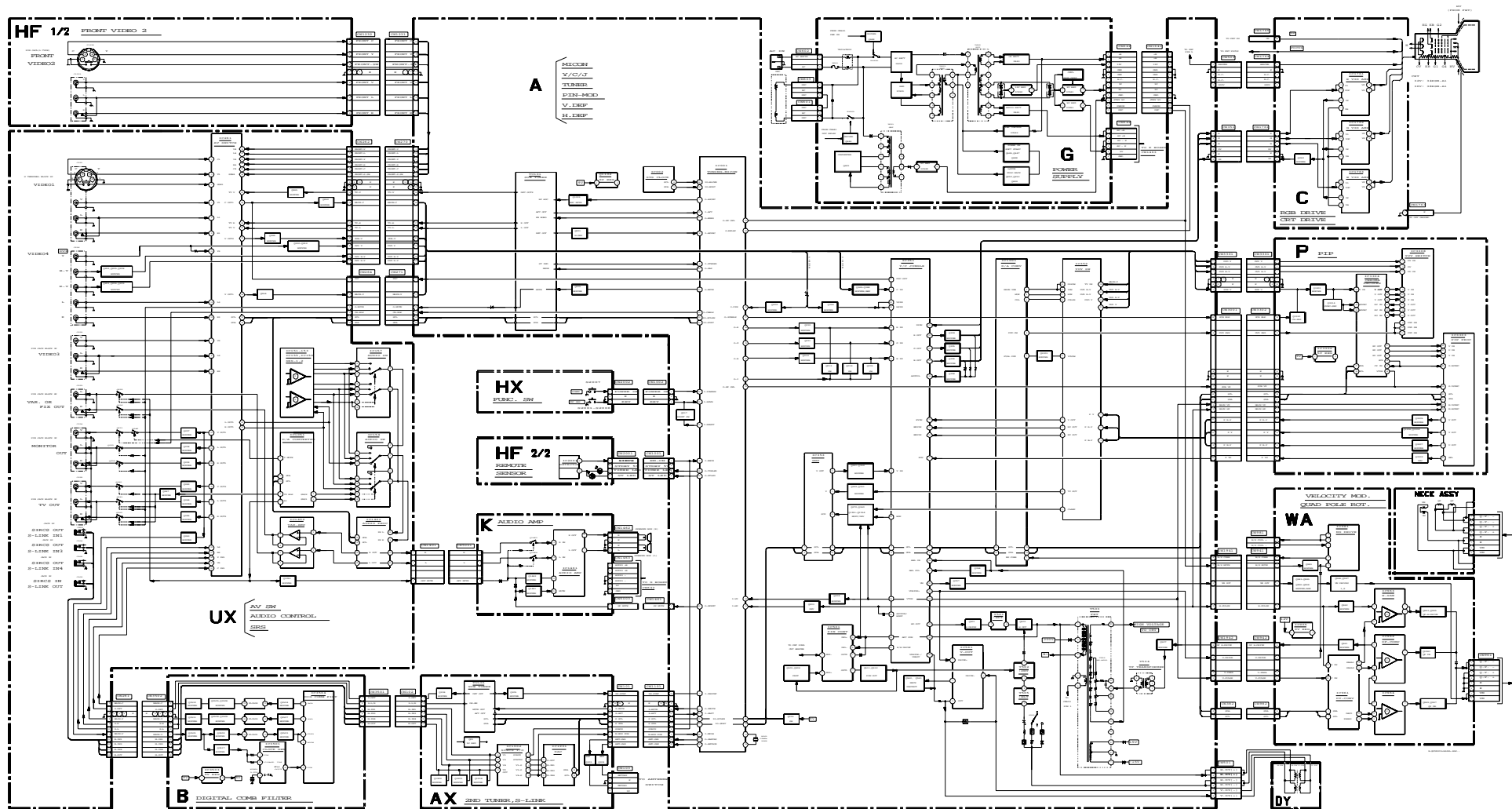
- All voltages are in V.
- S : Measurement impossibility.
- : B+line.
- : B-line.
(Actual measured value may be different).
- : signal path. (RF)
- Circled numbers are waveform references.

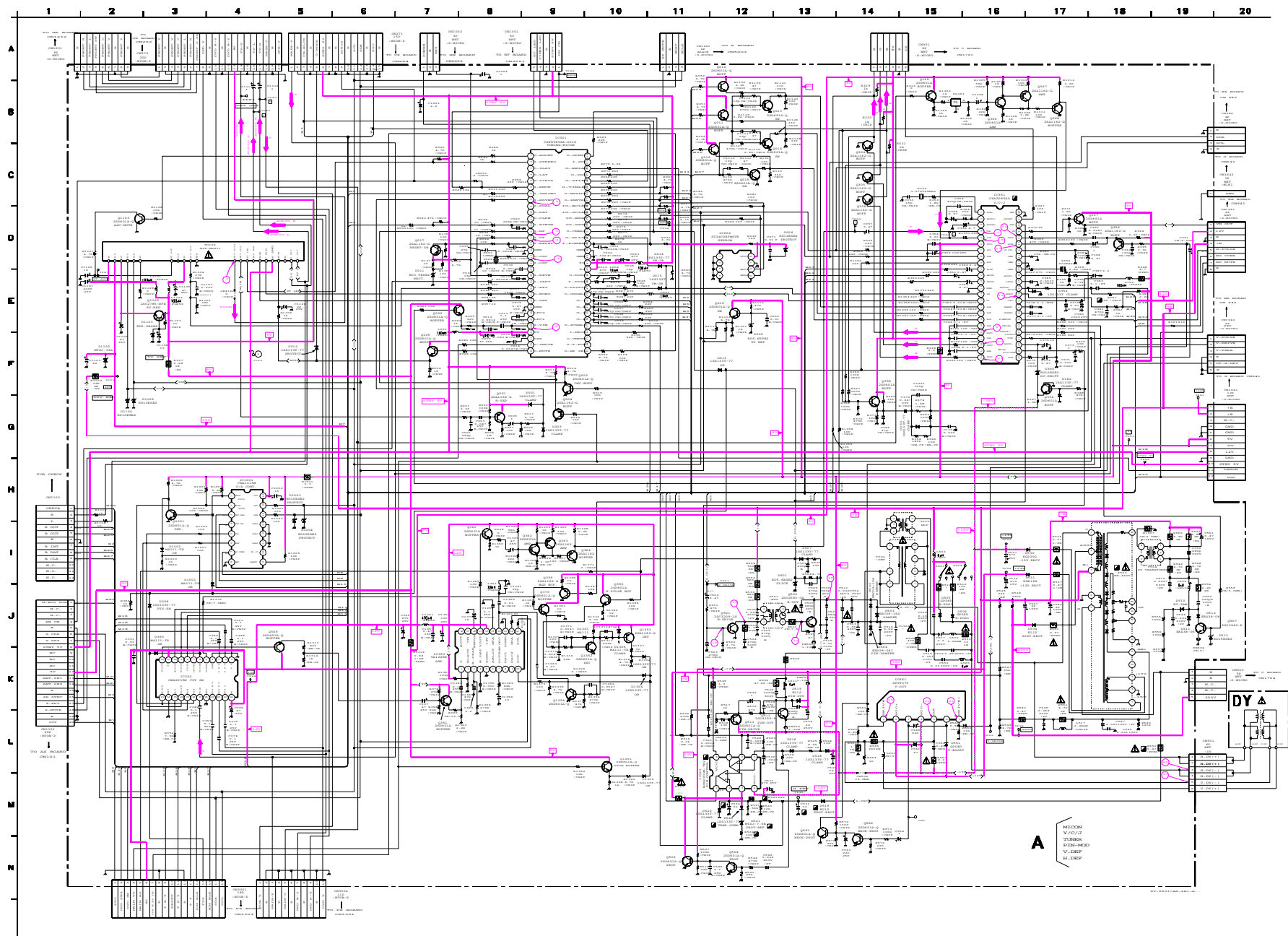
Reference information

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

The symbol display is on the component side.
The components identified by shading and mark 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 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 étre remplacée par une fusible de meme yaleur, comme maque.





A BOARD IC VOLTAGE LIST

IC001	
pin	volt
1	0.0
2	4.8
3	NC
4	NC
5	NC
6	4.8
7	0.0
8	0.0
9	NC
10	NC
11	NC
12	4.8
13	3.9
14	1.1
15	4.8
16	GND
17	2.3
18	2.1
19	0.0
20	4.8
21	2.3
22	2.0
23	0.0
24	0.0
25	GND
26	1.6
27	2.6
28	2.2
29	4.0
30	0.0
31	0.0
32	0.0
33	4.8
34	NC
35	NC
36	0.1
37	0.0
38	0.0
39	0.0
40	0.0
41	0.0
42	0.0
43	0.0
44	2.7
45	2.7
46	4.8
47	4.8
48	GND
49	GND
50	4.8
51	0.0

52	0.0
53	4.0
54	4.0
55	4.0
56	4.0
57	4.8
58	0.0
59	3.5
60	3.5
61	0.0
62	4.6
63	NC
64	4.6
IC002	
pin	volt
1	GND
2	GND
3	GND
4	GND
5	4.0
6	4.0
7	GND
8	4.8
IC351	
pin	volt
1	2.0
2	5.7
3	4.1
4	4.7
5	4.0
6	9.1
7	4.0
8	4.0
9	0.2
10	6.6
11	6.3
12	6.3
13	GND
14	0.0
15	0.0
16	5.2
17	5.2
18	5.2
19	4.7
20	1.7
21	4.7
22	1.7
23	4.9
24	1.6
25	3.5
26	3.7
27	9.0
28	0.7

29	3.1
30	3.1
31	3.8
32	4.4
33	4.8
34	9.2
35	3.6
36	3.5
37	4.3
38	4.4
39	2.5
40	GND
41	2.7
42	2.7
43	4.0
44	3.2
45	6.2
46	0.8
47	6.1
48	GND
IC352	
pin	volt
1	6.0
2	6.0
3	6.0
4	GND
5	1.9
6	1.5
7	9.3
8	3.8
9	4.1
10	3.8
11	9.3
12	3.6
13	0.1
14	GND
15	2.5
16	5.6
17	4.6
18	0.1
19	6.3
20	GND
21	5.9
22	5.9
23	5.9
24	9.3
IC353	
pin	volt
1	4.5
2	3.7
3	3.8
4	4.5
5	GND

6	2.8
7	4.5
8	NC
9	NC
10	0.9
11	4.0
12	4.0
13	GND
14	11.3
15	5.5
16	11.6
17	7.6
18	0.5
19	3.5
20	1.0
IC501	
pin	volt
1	3.5
2	1.2
3	8.4
4	-14.3
5	2.3
6	3.0
7	-14.5
8	14.5
IC561	
pin	volt
1	1.2
2	14.5
3	-12.7
4	-14.3
5	-0.1
6	14.7
7	1.2
IC1001	
pin	volt
1	0.2
2	0.2
3	0.3
4	0.3
5	5.6
6	4.6
7	4.8
8	GND
9	9.4
10	NC
11	GND
12	GND
13	GND
14	4.0
15	4.0
16	9.4

All voltages are in V

A BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q001	4.8	0.7	4.8
Q002	4.8	9.5	4.2
Q003	0.0	3.9	GND
Q004	0.7	GND	1.2
Q010	0.0	4.8	0.0
Q011	0.0	9.5	0.0
Q012	0.0	9.5	0.0
Q013	0.0	0.0	0.0
Q014	0.0	0.0	GND
Q015	0.0	0.0	GND
Q016	5.8	9.5	5.1
Q017	4.2	4.8	4.8
Q304	1.6	GND	2.3
Q305	1.6	GND	2.3
Q306	1.6	GND	2.2
Q351	6.7	9.2	6.0
Q354	0.4	GND	-0.2
Q356	5.1	GND	5.7
Q357	3.7	9.5	3.1
Q358	2.1	9.1	2.2
Q359	1.2	GND	1.9
Q360	0.1	11.6	0.7
Q361	7.6	11.6	6.9
Q362	3.2	10.8	2.6

	B	C	E
Q363	10.8	4.9	11.4
Q364	5.0	GND	5.6
Q365	5.0	9.2	4.4
Q366	2.6	8.5	1.9
Q367	8.5	3.4	9.1
Q368	3.4	GND	4.0
Q369	3.6	9.2	2.9
Q370	1.9	11.6	1.4
Q501	-0.9	97.0	GND
Q502	-0.2	132.0	GND
Q503	0.0	8.4	GND
Q504	-1.0	0.0	GND
Q507	0.7	0.0	GND
Q511	-14.0	-11.0	-14.0
Q512	-14.5	19.7	-14.3
Q561	0.0	3.0	GND
Q562	-0.1	0.0	GND
Q1001	0.2	2.1	GND
Q1102	5.7	8.9	5.1
Q1103	0.0	5.9	GND
Q1351	0.6	9.2	0.4
Q1352	-1.1	10.3	GND
Q1353	11.8	0.6	11.6
Q1354	-0.2	0.0	GND

All voltages are in V

A IC VOLTAGE

A BOARD LOCATOR LIST

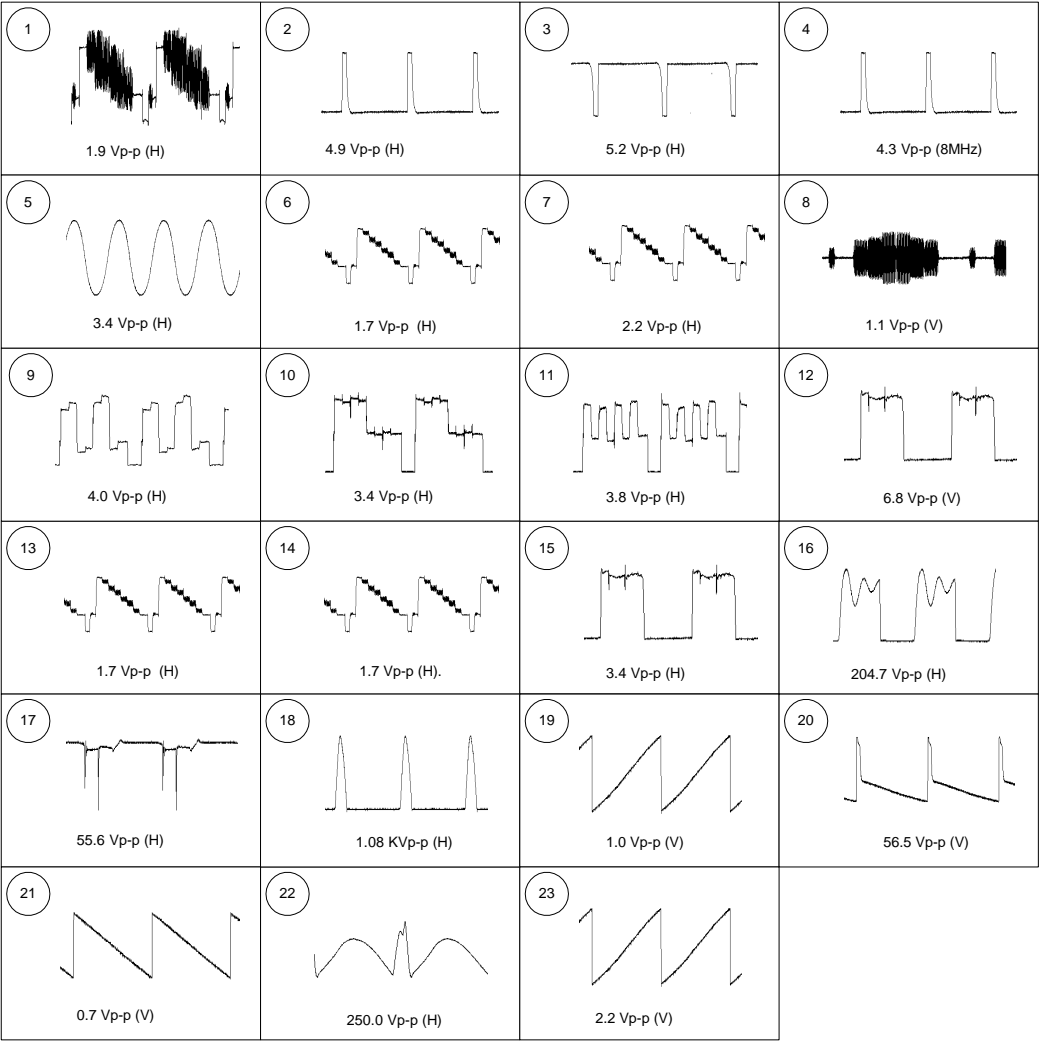
DIODE		IC353	D-11
D001	B-5	IC501	G-2
D002	D-2	IC561	H-6
D003	A-5	IC1001	D-9
D004	C-2	TRANSISTOR	
D011	A-5	Q001	B-5
D012	C-1	Q002	C-4
D013	C-5	Q003	H-1
D014	D-2	Q004	H-1
D015	C-3	Q005	B-5
D353	D-7	Q010	D-4
D356	E-3	Q011	D-4
D360	E-7	Q012	D-3
D362	E-7	Q013	E-3
D368	C-7	Q014	E-3
D501	H-2	Q015	E-3
D502	I-8	Q016	D-2
D503	I-8	Q017	A-5
D504	J-7	Q304	C-7
D505	I-6	Q305	C-7
D506	I-5	Q306	C-7
D507	H-2	Q351	C-11
D510	F-8	Q354	E-7
D511	F-8	Q356	C-4
D512	F-9	Q357	E-4
D513	F-9	Q358	E-7
D515	G-4	Q359	E-13
D516	H-2	Q360	E-13
D518	H-2	Q363	E-12
D519	G-9	Q364	E-12
D520	F-2	Q365	C-12
D521	F-2	Q366	B-10
D522	G-2	Q367	B-10
D530	G-8	Q368	C-9
D531	G-9	Q369	D-10
D534	G-8	Q370	E-12
D561	H-7	Q501	I-2
D1001	C-6	Q502	J-9
D1002	C-7	Q503	G-2
D1003	E-10	Q504	G-3
D1004	A-7	Q507	F-9
D1005	A-7	Q511	H-2
D1301	D-13	Q512	F-3
D1302	D-12	Q561	G-5
D1304	D-12	Q562	G-5
D1305	D-12	Q1001	C-6
D1306	D-13	Q1102	B-12
IC		Q1103	A-10
IC001	B-3	Q1351	C-10
IC002	C-3	Q1352	E-13
IC351	D-4	Q1353	D-13
IC352	D-10	Q1354	D-12

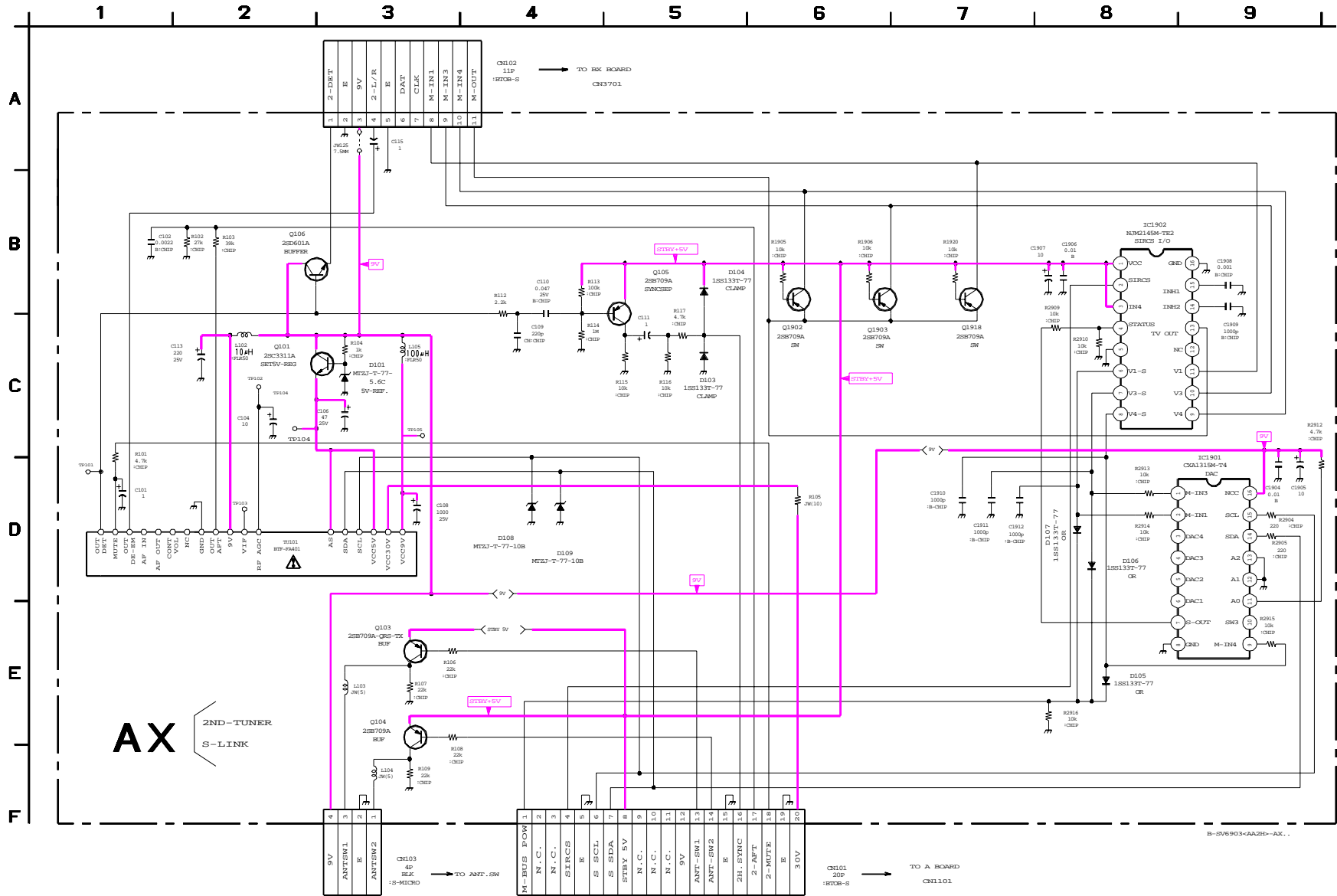
A BOARD (*) MARK LIST

	KV-32FV1 KV-34FVL1	KV-36FV1
C1501	#	.1MF 200V
R511	68 2W	100 2W
R526	#	10K 2W
R533	47K 1W	33K 1W

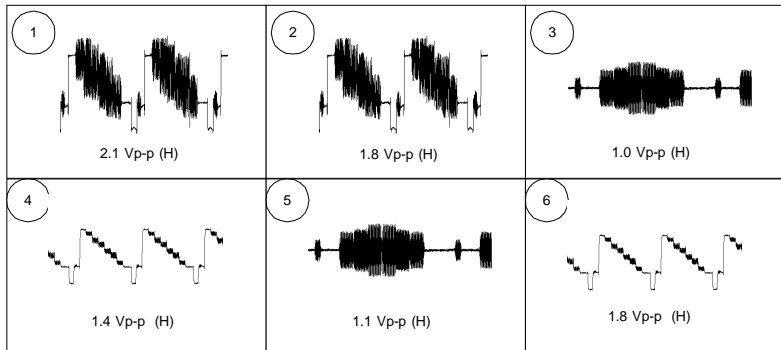
= Not Mounted

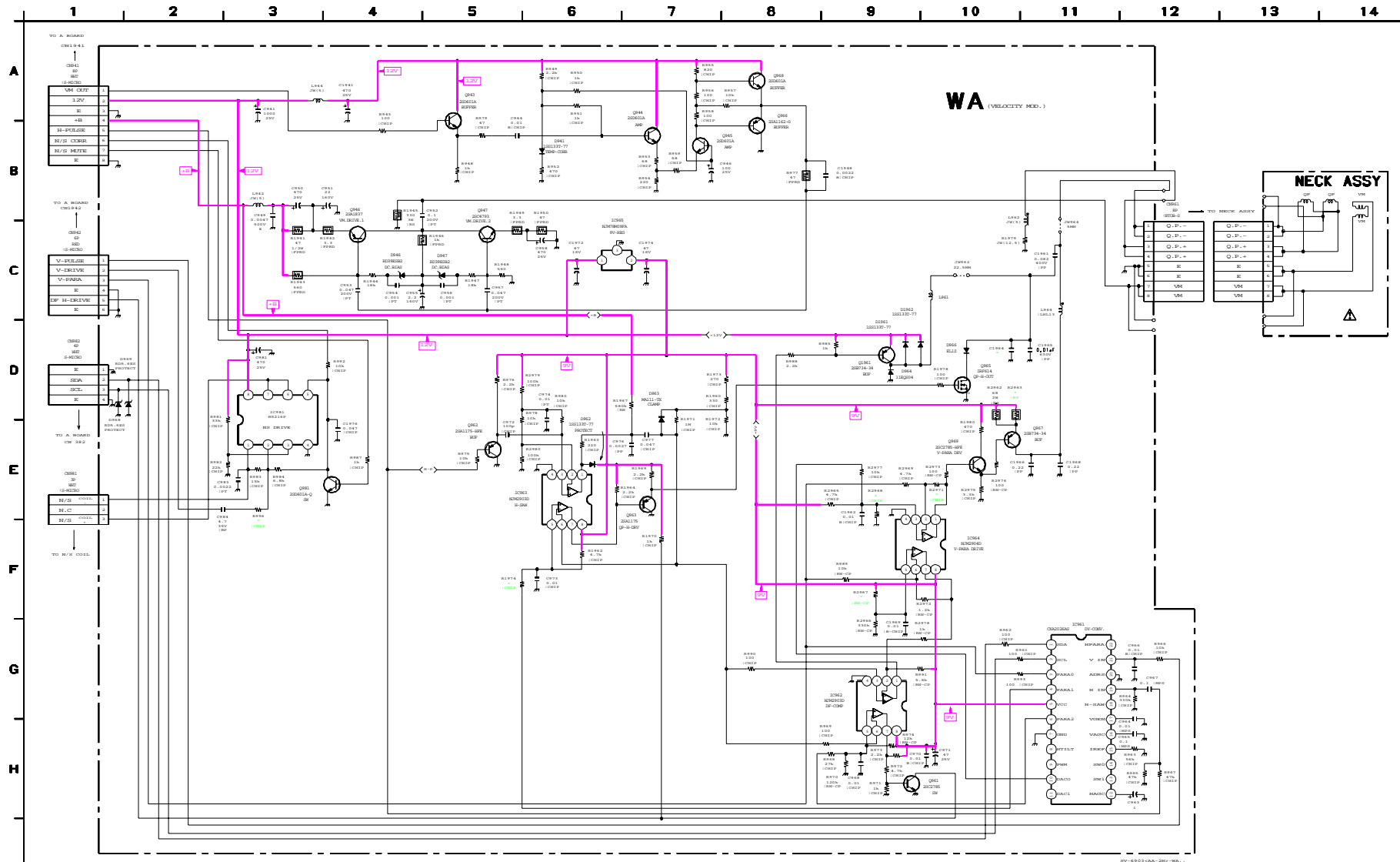
• A BOARD WAVEFORMS





- B BOARD WAVEFORMS





WA BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q943	3.1	11.6	2.4
Q944	2.5	11.6	1.9
Q945	2.5	8.1	1.9
Q946	134.3	67.2	134.9
Q947	0.9	67.2	0.4
Q961	0.4	0.7	GND
Q962	0.5	GND	1.1

	B	C	E
Q963	6.1	GND	6.2
Q966	8.1	GND	8.4
Q967	6.1	6.0	6.8
Q968	8.7	11.6	8.3
Q969	5.5	11.3	6.0
Q981	0.0	4.7	GND
Q1961	0.0	0.0	11.6

All voltages are in V

WA BOARD TRANSISTOR VOLTAGE LIST

	G	S	D
Q965	0.7	GND	6.2

All voltages are in V

WA BOARD IC VOLTAGE LIST

IC961	
pin	volt
1	4.0
2	4.0
3	4.0
4	4.0
5	9.0
6	4.3
7	GND
8	NC
9	NC
10	7.7
11	NC
12	6.7
13	NC
14	NC
15	2.0
16	4.0
17	5.0
18	NC
19	3.5
20	GND
21	0.6
22	NC
IC962	
pin	volt
1	0.0
2	0.9
3	0.9
4	GND
5	0.8
6	7.1
7	4.7
8	9.0

IC963	
pin	volt
1	5.6
2	4.4
3	4.4
4	GND
5	5.0
6	5.0
7	5.0
8	9.0
IC964	
pin	volt
1	5.6
2	4.5
3	4.5
4	GND
5	5.0
6	5.0
7	5.0
8	9.0
IC965	
pin	volt
IN	11.6
OUT	9.1
GND	GND
IC981	
pin	volt
1	4.7
2	4.7
3	4.7
4	0
5	4.7
6	4.7
7	4.7
8	11.6

All voltages are in V

WA BOARD (*) MARK LIST

	KV-32FV1 KV-34FVL1	KV-36FV1
R2967	240K 1/10W	220K 1/10W

C BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1761	4.1	0.1	3.4

All voltages are in V

C BOARD IC VOLTAGE LIST

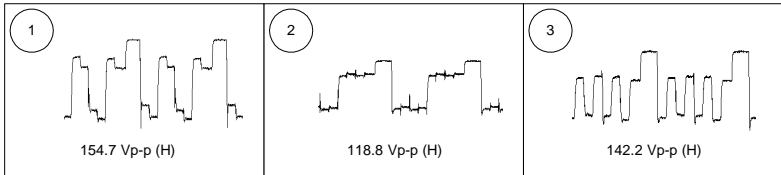
IC1761	
pin	volt
1	3.4
2	9.1
3	3.3
4	GND
5	7.1
6	212.0
7	144.0
8	146.0
9	143.0

IC1762	
pin	volt
1	3.4
2	9.1
3	3.4
4	GND
5	6.3
6	212.2
7	147.2
8	149.6
9	145.9

IC1763	
pin	volt
1	3.4
2	9.1
3	3.4
4	GND
5	4.1
6	212.0
7	146.0
8	147.8
9	145.0

All voltages are in V

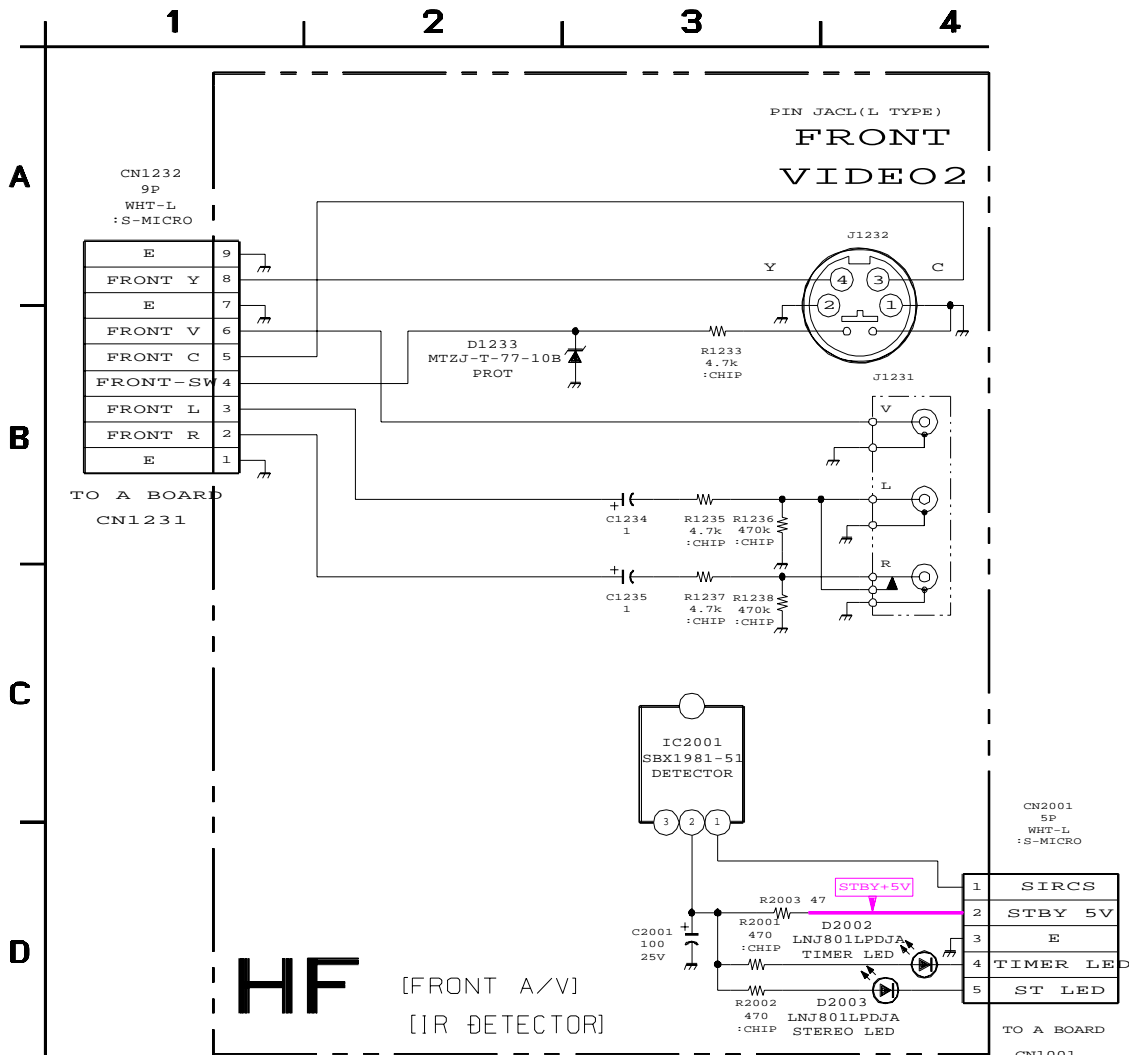
. C BOARD WAVEFORMS



G BOARD

LOCATOR LIST

DIODE	
D600	A-5
D601	A-8
D602	C-3
D603	C-7
D604	E-7
D605	A-8
D606	A-9
D607	D-7
D608	E-7
D612	B-8
D613	A-7
D614	B-11
D621	C-5
D622	C-5
D623	B-6
D624	B-6
D625	A-6
D626	A-5
D627	A-6
D628	A-7
D629	D-3
D630	D-4
D641	B-9
D642	C-9
D643	D-8
D647	D-10
D648	D-9
D651	C-9
D652	C-8
D653	E-8
D698	B-5
D699	B-6
IC	
IC601	D-5
IC622	A-8
IC641	D-11
IC643	C-8
IC650	B-10
IC651	A-10
TRANSISTOR	
Q621	B-6
Q622	B-5
Q623	D-7
Q624	A-9
Q644	B-11
Q645	B-7
Q646	A-8
Q647	A-8
Q648	B-11
Q649	C-10
Q650	C-10
Q651	D-7
Q652	E-7
Q653	E-7



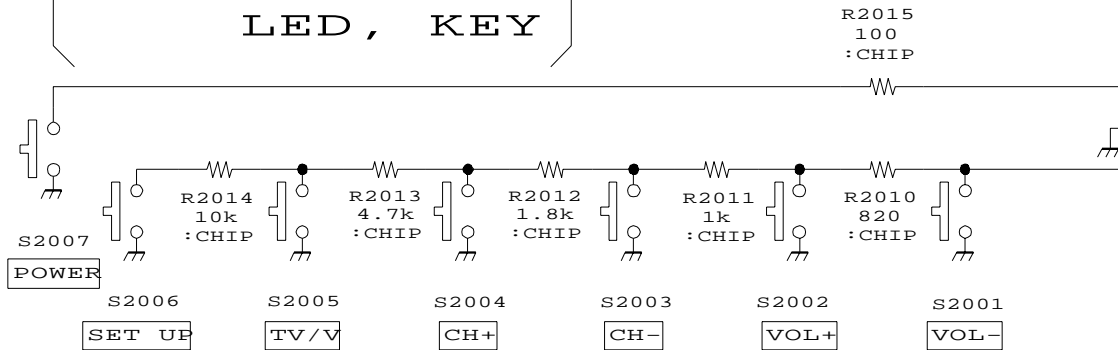
1

2

3

A

HX

REMOTE SENSOR,
LED, KEYTO A BOARD
CN1002CN2002
3P
WHT-L
:S-MICRO

1	POWER ON
2	E
3	KEY

A

B

C

D

E

F

1

2

3

4

5

6

7

8

9

10

TO A BOARD

CN3301

CN3301

11P

SUB V	1
E	2
MAIN-Y	3
E	4
MAIN-C	5
E	6
DVD B-Y	7
E	8
DVD R-Y	9
E	10
DVD Y	11

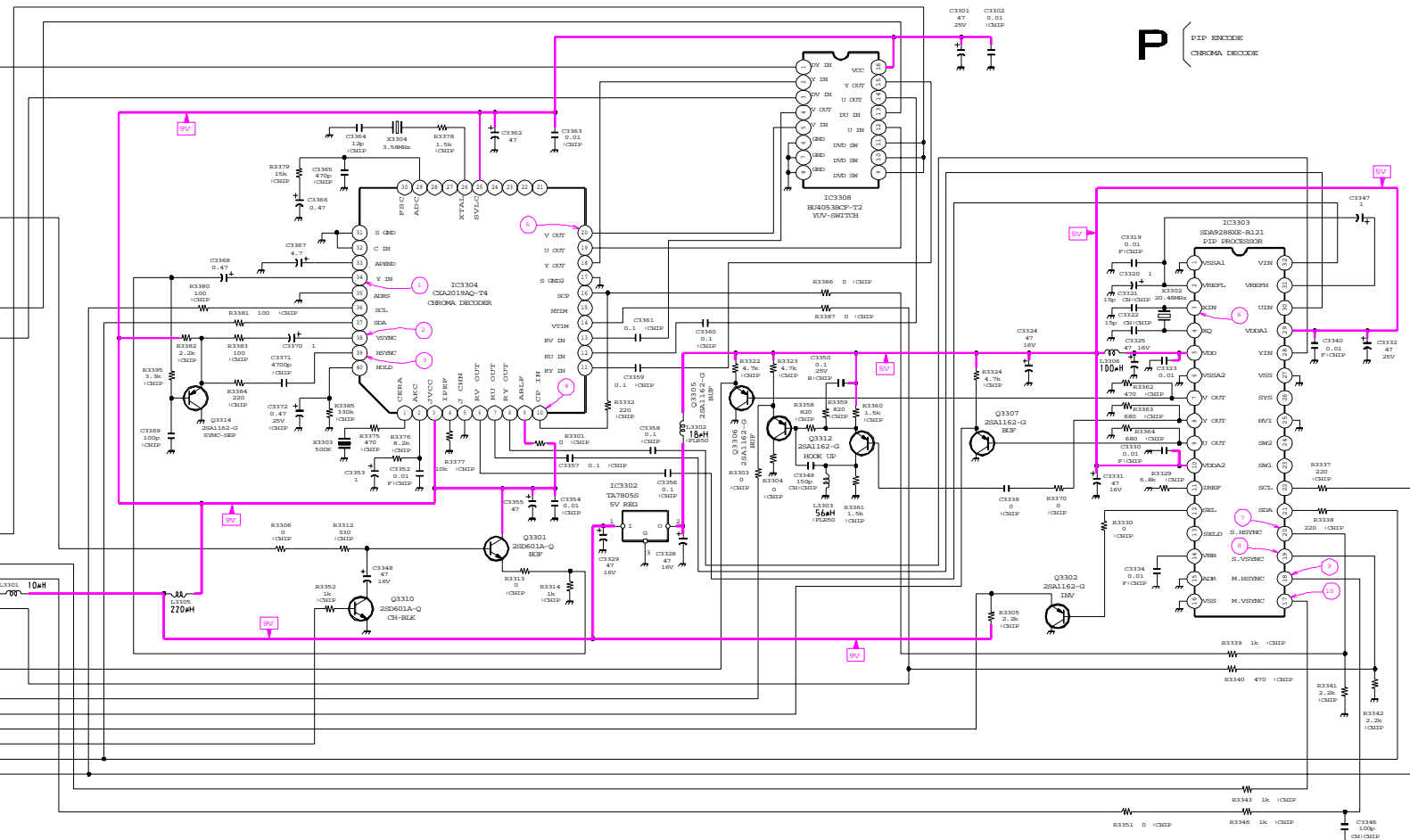
TO A BOARD

CN3001

CN3302

18P

FSC	1
DVD RM2	2
DVD IM	3
MAIN VP	4
MAIN HP	5
SV	6
SUB VP	7
E	8
P B-Y	9
RESET	10
P R-Y	11
E	12
P Y	13
1CH BLK	14
P YS	15
2CH BLK	16
SEA	17
SEL	18



P PIP ENCODE
CHROMA DECODE

P BOARD IC VOLTAGE LIST

IC3302		27	GND	26	2.5
pin	volt	28	1.9	27	3.0
IN	9.0	29	4.9	28	3.0
OUT	5.0	30	2.4	29	4.9
GND	GND	31	3.9	30	NC
IC3303		32	2.4	31	GND
pin	volt	IC3304		32	GND
1	GND	pin	volt	33	3.9
2	3.0	1	2.3	34	4.3
3	2.4	2	4.1	35	GND
4	1.7	3	8.8	36	4.0
5	4.8	4	1.7	37	4.0
6	GND	5	GND	38	3.4
7	0.4	6	2.9	39	2.6
8	0.0	7	2.9	40	0.7
9	0.6	8	2.9	IC3308	
10	5.0	9	8.8	pin	volt
11	1.9	10	0.7	1	3.5
12	0.0	11	4.0	2	3.0
13	NC	12	4.3	3	3.5
14	-3.0	13	4.3	4	2.9
15	GND	14	0.5	5	2.9
16	GND	15	NC	6	GND
17	0.7	16	0.7	7	GND
18	0.3	17	GND	8	GND
19	0.5	18	3.0	9	0.3
20	0.5	19	2.9	10	0.3
21	4.0	20	2.9	11	0.3
22	4.0	21	NC	12	2.9
23	NC	22	NC	13	3.5
24	NC	23	NC	14	2.9
25	GND	24	NC	15	3.0
26	NC	25	8.8	16	8.9

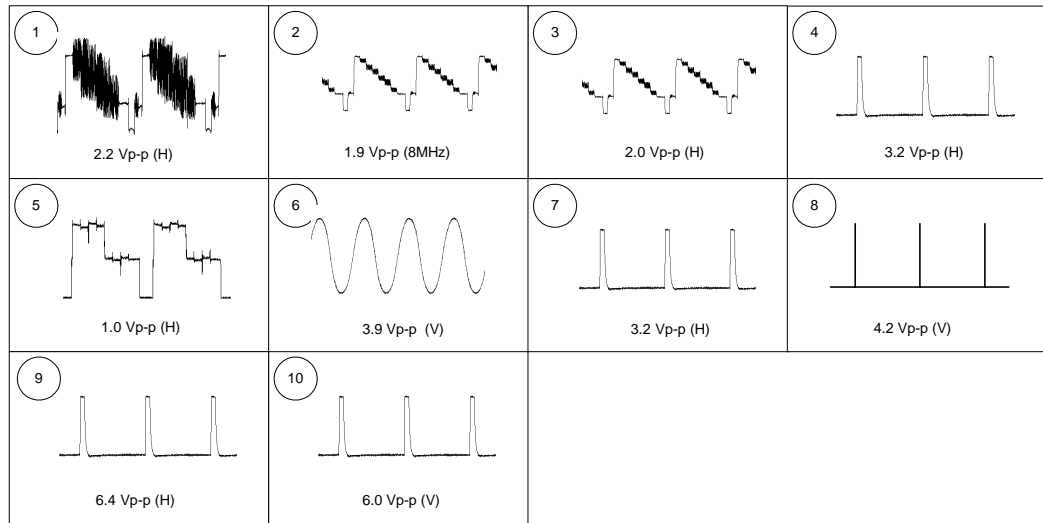
All voltages are in V

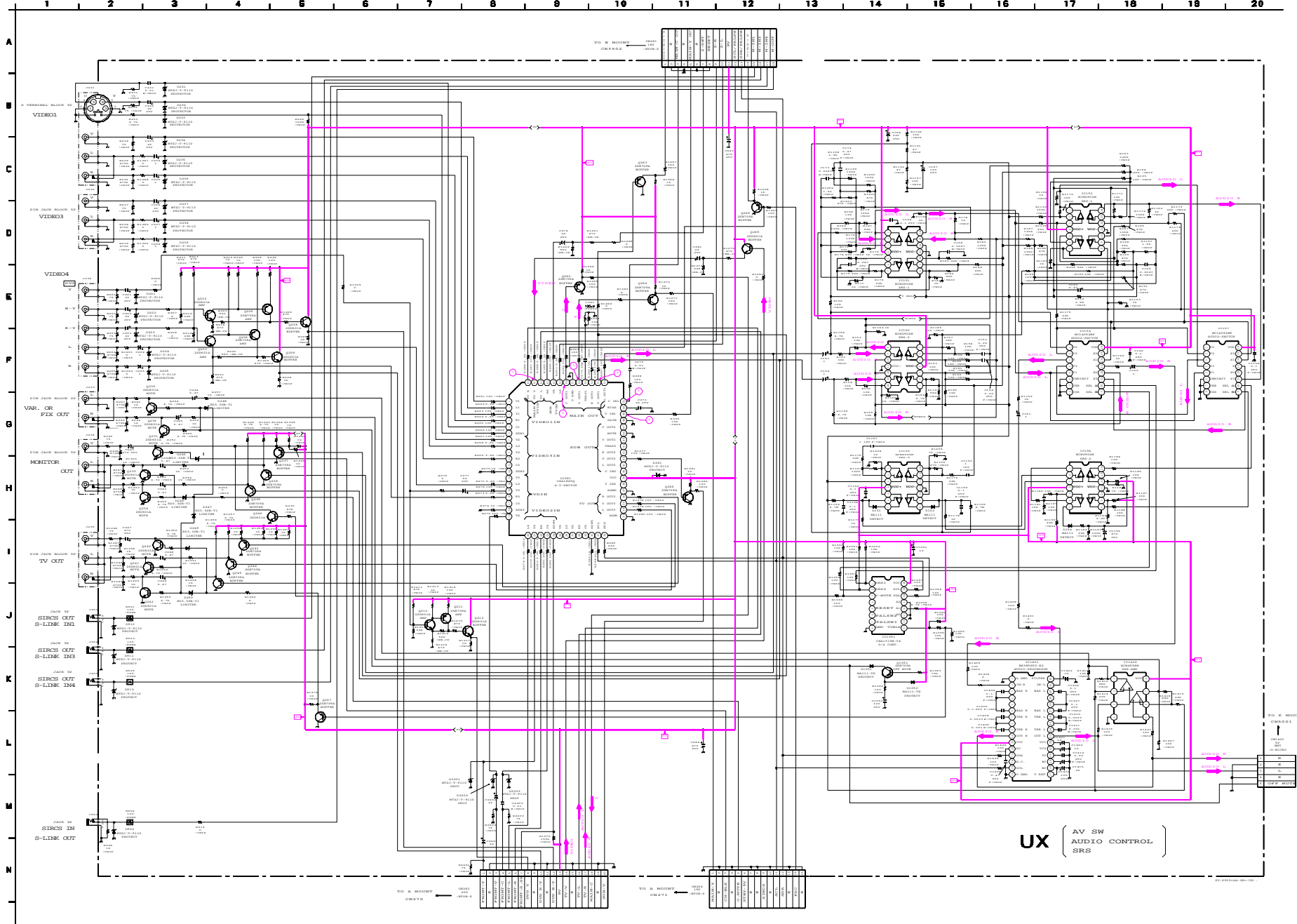
P BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3301	5.0	8.8	4.4
Q3302	0.0	GND	0.7
Q3305	0.4	GND	1.0
Q3306	0.7	0.0	1.3
Q3307	0.6	GND	1.2
Q3310	0.0	5.0	GND
Q3312	0.0	0.0	0.7
Q3314	4.4	GND	5.0

All voltages are in V

•P BOARD WAVEFORMS

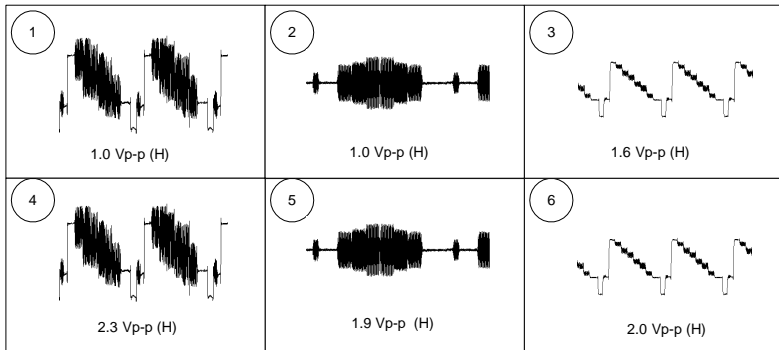




UX BOARD LOCATOR LIST

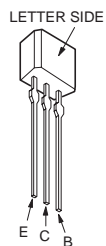
DIODE			TRANSISTOR		
	COMPONENT SIDE (A)	CONDUCTOR SIDE (B)		COMPONENT SIDE (A)	CONDUCTOR SIDE (B)
D151		B-8	Q202		B-4
D152		C-8	Q203		C-4
D154	C-2		Q205		B-4
D201	B-6	B-5	Q206		C-4
D202	B-6	B-5	Q208		B-4
D204	E-6	E-5	Q209		C-4
D203	C-6	C-5	Q210	F-5	
D205	E-6	E-5	Q211	E-5	
D231	B-4		Q212	F-5	
D232	B-4	B-6	Q231		B-3
D233	B-4	B-6	Q233		C-3
D234	B-4	B-6	Q234		D-3
D235		B-6	Q235		C-2
D236	D-6	D-5	Q236		D-2
D237	B-4	B-6	Q237	B-7	
D238	D-6	D-5	Q238	B-7	
D239	D-5	D-5	Q239	B-7	
D245		C-3	Q240		F-4
D246		E-2	Q241		F-4
D247	F-6		Q242		E-3
D248		E-2	Q243		E-3
D249	F-6		Q244		E-3
D250		F-3	Q245		E-4
D261	D-7	D-3	Q246	B-6	C-3
D902	E-8	E-2	Q262	C-6	
D910	E-4	E-7	Q263	A-3	
D911	E-4	E-6	Q264	B-6	
D912	E-5	E-5	Q265	E-6	
D1051		B-1	Q266		D-3
D1052		B-2	Q267	F-7	
D2201	F-5	F-5	Q268	B-8	
D2202	F-5	F-5	Q1051		A-2
D2203	F-5	F-5			
IC					
IC151	D-3				
IC152	E-2				
IC153	C-3				
IC154	B-3				
IC155	C-2				
IC156	C-3				
IC157	C-3				
IC261	C-6				
IC1051	B-8				
IC1401	B-2				
IC1402	A-2				

•UX BOARD WAVEFORMS



6-3. SEMICONDUCTORS

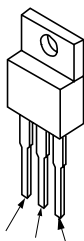
2SA1175-HFE
2SA933AS-QRT
2SC2785-HFE



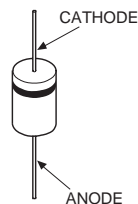
D10SC4MR



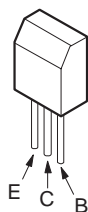
2SA1837
2SC4159-E
2SC4793
2SD2012



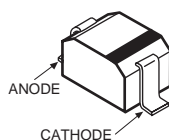
EGP20G
ERC06-15S



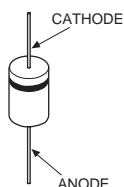
2SC3209LK



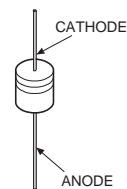
MA111
RD3.3SB
1SS355



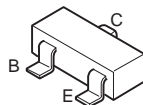
D1NL20
D2L20U
EL1Z
EGP30D
ERD29-08J
EZ0150AV1
GP08D
MTZJ-T-9110
MTZJ-33A
1SS83



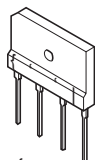
D1NS4
MTZJ-7.5B
MTZJ-T-77-13A
RD10ESB2
RD33ESB1
RD3.9ES-B1
RD3.9ES-B2
RD5.6ESB2
RD5.6ESB3
1SS119-25
1SS133T-77



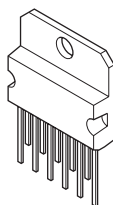
2SA1037K-T146-R
2SA1162-G
2SA1330-06
2SB709A
2SC1623-L5L6
2SD601A-Q



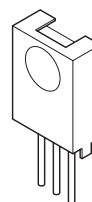
D10SBS4F
D6SB60L



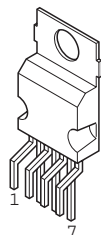
TDA7262



SBX1981-51



TDA8172



IRF614



SECTION 7 EXPLODED VIEWS

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

Note:

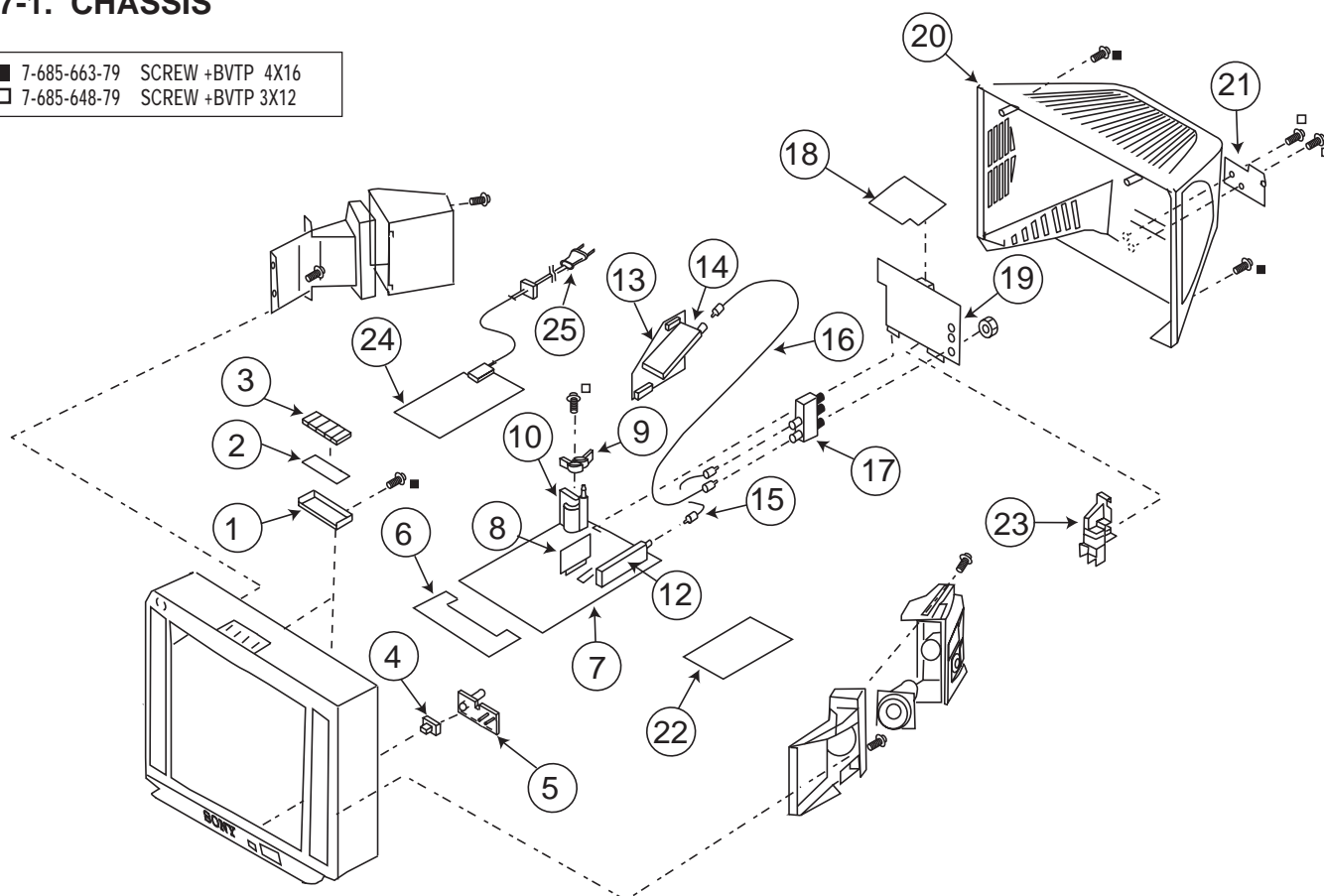
The components identified with gray shading and a critical symbol (Δ) are critical for safety. Replace only with part number specified.

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.

7-1. CHASSIS

- 7-685-663-79 SCREW +BVTP 4X16
□ 7-685-648-79 SCREW +BVTP 3X12

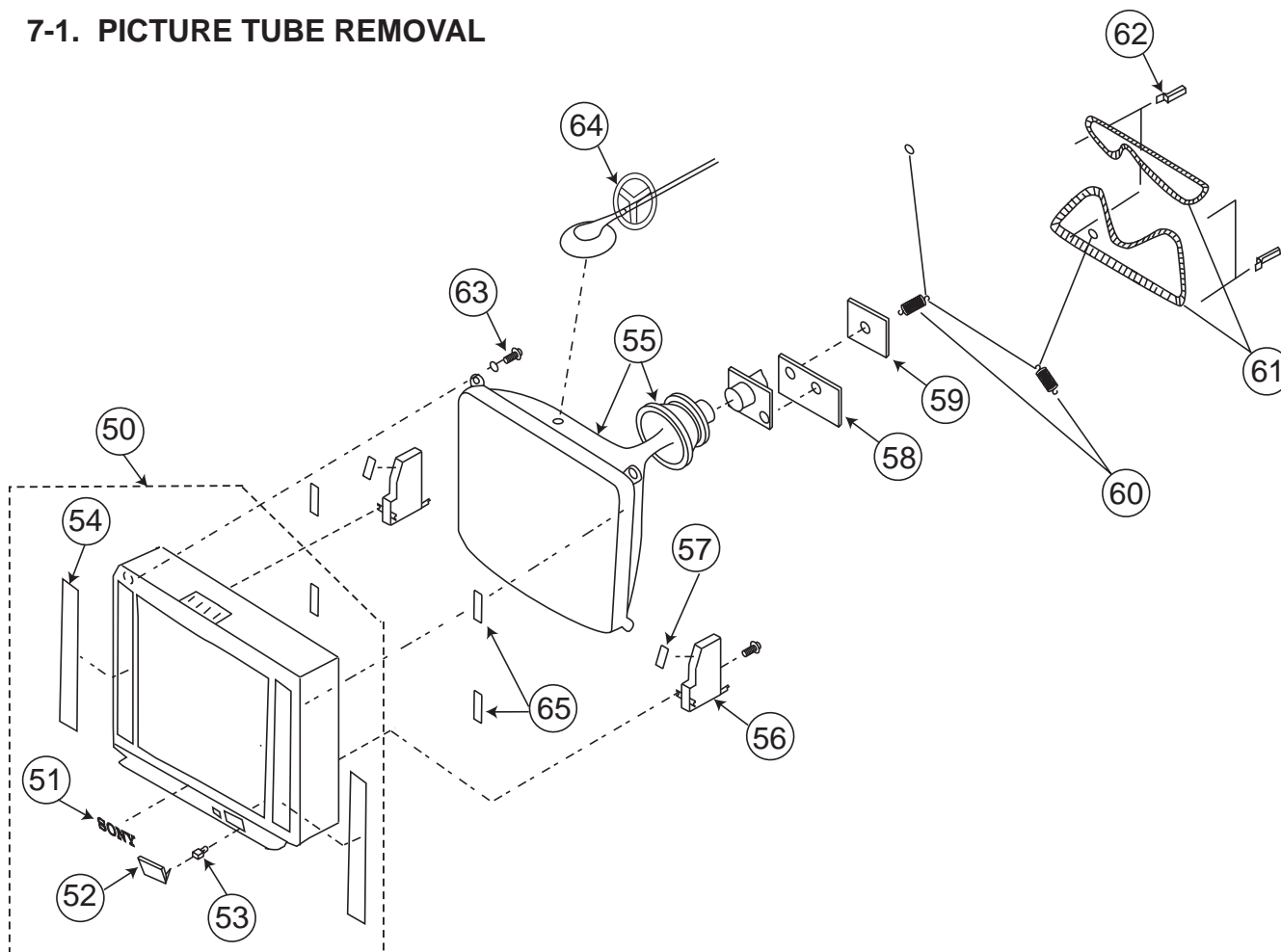


REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*	4-065-415-01	BRACKET, HX	12	Δ	8-598-431-00	TUNER, FSS BTF-WA411
2	*	A-1372-532-A	HX BOARD, MOUNTED	13	*	A-1298-641-A	AX BOARD, COMPLETE
3		4-065-414-01	BUTTON, MULTI	14	Δ	8-598-430-00	TUNER, FSS BTF-FA401
4		4-064-809-01	FILTER, REMOTE	15	*	1-557-056-31	CABLE, P-P
5		4-064-808-01	GUIDE, LED	16	*	1-556-945-21	CABLE, P-P
6	*	A-1372-520-A	HF BOARD, MOUNTED	17		8-598-414-00	ANTENNA SWITCH AS-2F
7	*	A-1298-640-A	A BOARD, COMPLETE (KV-32FV1/34FVL1)	18	*	A-1135-959-A	B BOARD, COMPLETE
7	*	A-1298-677-A	A BOARD, COMPLETE (KV-36FV1)	19	*	A-1394-912-A	UX BOARD, COMPLETE
8	*	A-1195-145-A	P BOARD, COMPLETE	20		4-064-771-01	COVER, REAR (KV-32FV1/34FVL1)
9	*	4-065-883-01	HOLDER, FBT	20		4-065-905-01	COVER, REAR (KV-36FV1)
10	Δ	1-453-282-11	TRANSFORMER, FLYBACK (NX-4600//X4C) (KV-32FV1/34FVL1 ONLY)	21		4-059-500-01	LABEL, ANTENNA
10	Δ	1-453-286-11	TRANSFORMER, FLYBACK (NX-4600//X4C4) (KV-36FV1 ONLY)	22	*	A-1385-187-A	K BOARD, COMPLETE
				23	*	4-052-905-01	V5/6 BRACKET
				24	*	A-1316-397-A	G BOARD, COMPLETE
				25	Δ	1-751-059-11	CORD, POWER (WITHCONNECTOR) 10A/125V

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

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.

7-1. PICTURE TUBE REMOVAL



REF.NO.	PART NO.	DESCRIPTION	REMARK
50	X-4035-961-1	BEZNET ASSY (KV-32FV1/34FVL1)	51-54
50	X-4035-918-1	BEZNET ASSY (KV-36FV1)	51-54
51	3-704-179-31	EMBLEM(NO.9), SONY	
52	4-064-807-01	DOOR, FRONT TERMINAL	
53	4-042-192-01	CATCHER, PUSH	
54	4-066-290-01	GRILLE, SPEAKER (KV-32FV1/34FVL1)	
54	4-065-906-01	GRILLE, SPEAKER (KV-36FV1)	
55 Δ	8-735-047-61	ITC 34RSN-A1 (KV-32FV1/34FVL1)	
55 Δ	8-735-048-61	ITC 38RSN-A1 (KV-36FV1)	
56	4-067-044-01	CRT, SUPPORT (KV-36FV1)	
57	4-067-050-01	CUSHION, CRT SUPPORT	
58 *	A-1375-179-A	WA BOARD, MOUNTED (KV-32FV1/34FVL1)	
58 *	A-1375-181-A	WA BOARD, MOUNTED (KV-36FV1)	
59 *	A-1335-103-A	C BOARD, COMPLETE	
60	4-036-329-01	SPRING (B), TENSION	
61 Δ	1-416-827-11	COIL, DEGAUSSING (KV-32FV1/34FVL1)	
61 Δ	1-416-828-11	COIL, DEGAUSSING (KV-36FV1)	
62	4-065-895-01	HOLDER, DGC	
63	4-046-765-01	SCREW, TAPPING 7+CROWN WASHER	
64	3-704-372-31	HOLDER, HV CABLE	
65 *	4-064-378-01	CUSHION (20MM), CRT	

SECTION 8

ELECTRICAL PARTS LIST

**Note:**

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

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

RESISTORS

- All resistors are in ohms
- F : nonflammable

CAPACITORS

- MF = μ F

INDUCTORS

- UH = μ H, MMH = mH

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.

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

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

<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">A</div> <div style="flex-grow: 1; border-bottom: 3px double black;"></div> </div>						REF.NO.	PART NO.	DESCRIPTION	REMARK		
*	A-1298-640-A	A BOARD, COMPLETE									
	1-923-084-02	WIRE UL1007 AWG26 60MM BLK									
	4-382-854-11	SCREW (M3X10), P, SW (+)									
		<u>CAPACITOR</u>									
C001	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	C352	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C003	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V	C353	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C005	1-126-960-11	ELECT	1MF	20%	50V	C354	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C009	1-104-664-11	ELECT	47MF	20%	25V	C355	1-126-959-11	ELECT	0.47MF	20%	50V
C010	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	C356	1-126-963-11	ELECT	4.7MF	20%	50V
C012	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V	C357	1-126-959-11	ELECT	0.47MF	20%	50V
C013	1-163-038-91	CERAMIC CHIP	0.1MF		25V	C358	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C014	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	C359	1-104-665-11	ELECT	100MF	20%	25V
C023	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	C360	1-126-959-11	ELECT	0.47MF	20%	50V
C028	1-163-227-11	CERAMIC CHIP	10PF	5%	50V	C361	1-126-959-11	ELECT	0.47MF	20%	50V
C029	1-163-227-11	CERAMIC CHIP	10PF	5%	50V	C362	1-126-959-11	ELECT	0.47MF	20%	50V
C030	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	C363	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C035	1-163-237-11	CERAMIC CHIP	27PF	5%	50V	C364	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C036	1-163-231-11	CERAMIC CHIP	15PF	5%	50V	C365	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C037	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	C366	1-130-495-00	FILM	0.1MF	5%	50V
C038	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	C367	1-130-495-00	FILM	0.1MF	5%	50V
C039	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	C368	1-130-495-00	FILM	0.1MF	5%	50V
C040	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	C369	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C051	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	C370	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C053	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	C371	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C056	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	C372	1-126-959-11	ELECT	0.47MF	20%	50V
C061	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	C373	1-126-960-11	ELECT	1MF	20%	50V
C062	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	C374	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C063	1-126-941-11	ELECT	470MF	20%	25V	C375	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C071	1-164-096-11	CERAMIC CHIP	0.01MF		50V	C376	1-126-964-11	ELECT	10MF	20%	50V
C072	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	C377	1-130-495-00	FILM	0.1MF	5%	50V
C075	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	C378	1-136-244-11	FILM	0.1MF	5%	50V
C351	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	C379	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
						C380	1-126-942-61	ELECT	1000MF	20%	25V
						C381	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
						C382	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
						C383	1-130-495-00	FILM	0.1MF	5%	50V
						C384	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
						C385	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
						C386	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V

KV-32FV1/34FVL1/36FV1



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.

REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
C387	1-126-961-11	ELECT	2.2MF	20%	50V	C547	1-106-343-00	MYLAR	0.001MF	10%	100V
C388	1-126-959-11	ELECT	0.47MF	20%	50V	C548	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C390	1-126-960-11	ELECT	1MF	20%	50V	C549	1-106-375-12	MYLAR	0.022MF	20%	200V
C391	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	C550	1-102-002-00	CERAMIC CHIP	680PF	10%	500V
C392	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C551	1-109-954-11	ELECT	0.47MF	20%	160V
C393	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C552	1-102-244-00	CERAMIC CHIP	220PF	10%	500V
C394	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C553	1-117-665-11	FILM	0.33MF	5%	200V
C395	1-104-664-11	ELECT	47MF	20%	25V	C554 Δ	1-115-350-51	CERAMIC CHIP	0.0047MF		2KV
C397	1-104-664-11	ELECT	47MF	20%	25V	C561	1-126-967-11	ELECT	47MF	20%	50V
C398	1-126-961-11	ELECT	2.2MF	20%	50V	C563	1-104-666-11	ELECT	220MF	20%	25V
C501	1-102-110-00	CERAMIC CHIP	220PF	10%	50V	C564	1-126-960-11	ELECT	1MF	20%	50V
C502	1-126-959-11	ELECT	0.47MF	20%	50V	C565	1-126-969-11	ELECT	220MF	20%	50V
C503	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	C568	1-136-169-00	FILM	0.22MF	5%	50V
C504	1-102-228-00	CERAMIC CHIP	470PF	10%	500V	C571	1-126-941-11	ELECT	470MF	20%	25V
C505	1-102-228-00	CERAMIC CHIP	470PF	10%	500V	C599	1-126-941-11	ELECT	470MF	20%	25V
C506	1-106-383-00	MYLAR	0.047MF	10%	200V	C1002	1-126-964-11	ELECT	10MF	20%	50V
C507 Δ	1-162-116-00	CERAMIC CHIP	680PF	10%	2KV	C1003	1-126-961-11	ELECT	2.2MF	20%	50V
C508	1-102-228-00	CERAMIC CHIP	470PF	10%	500V	C1004	1-126-960-11	ELECT	1MF	20%	50V
C509	1-162-116-00	CERAMIC CHIP	680PF	10%	2KV	C1101	1-126-943-11	ELECT	2200MF	20%	25V
C510	1-137-150-11	MYLAR	0.01MF	10%	100V	C1103	1-126-965-11	ELECT	22MF	20%	50V
C511 Δ	1-137-347-11	FILM	0.022MF	3%	2KV	C1104	1-104-664-11	ELECT	47MF	20%	25V
C512	1-129-928-00	FILM	0.0027MF	10%	630V	C1105	1-104-664-11	ELECT	47MF	20%	25V
C513 Δ	1-130-118-00	FILM	0.051MF	5%	400V	C1106	1-126-964-11	ELECT	10MF	20%	50V
C514 Δ	1-115-521-11	FILM	0.82MF	5%	200V	C1107	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C515	1-106-343-00	MYLAR	0.001MF	10%	100V	C1108	1-128-551-11	ELECT	22MF	20%	25V
C516	1-136-540-11	FILM	0.82MF	5%	200V	C1109	1-126-964-11	ELECT	10MF	20%	50V
C517	1-107-649-11	ELECT	2.2MF	20%	250V	C1110	1-163-227-11	CERAMIC CHIP	10PF	5%	50V
C518	1-106-395-00	MYLAR	0.15MF	10%	200V	C1111	1-163-227-11	CERAMIC CHIP	10PF	5%	50V
C519	1-162-815-11	CERAMIC CHIP	47PF	5%	500V	C1112	1-163-227-11	CERAMIC CHIP	10PF	5%	50V
C520	1-164-646-11	CERAMIC CHIP	2200PF	10%	500V	C1117	1-126-960-11	ELECT	1MF	20%	50V
C521	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V	C1118	1-126-960-11	ELECT	1MF	20%	50V
C522	1-126-960-11	ELECT	1MF	20%	50V	C1351	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C525	1-102-244-00	CERAMIC CHIP	220PF	10%	500V	C1353	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C526	1-107-662-11	ELECT	22MF	20%	250V	C1355	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C527	1-162-116-00	CERAMIC CHIP	680PF	10%	2KV	C1356	1-126-964-11	ELECT	10MF	20%	50V
C528	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	C1357	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C529	1-128-551-11	ELECT	22MF	20%	25V	C1358	1-126-940-11	ELECT	330MF	20%	25V
C530	1-137-366-11	FILM	0.0022MF	5%	50V	C1359	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C531	1-126-965-11	ELECT	22MF	20%	50V	C1360	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C532	1-126-965-11	ELECT	22MF	20%	50V	C1361	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C537	1-126-941-11	ELECT	470MF	20%	25V	C1362	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C539	1-126-941-11	ELECT	470MF	20%	25V	C1363	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C540	1-104-710-11	ELECT	22MF	20%	160V	C1367	1-104-664-11	ELECT	47MF	20%	25V
C541	1-128-560-11	ELECT	22MF	20%	100V	C1368	1-126-960-11	ELECT	1MF	20%	50V
C544	1-129-718-00	FILM	0.022MF	5%	630V	C1369	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C545	1-106-387-00	MYLAR	0.068MF	10%	200V	C1370	1-126-964-11	ELECT	10MF	20%	50V
C546	1-106-343-00	MYLAR	0.001MF	10%	100V	C1371	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V

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.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C1372	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	D510	8-719-300-33	DIODE RU-3AM	
C1373	1-163-133-00	CERAMIC CHIP	470PF 5% 50V	D511	8-719-970-87	DIODE ERA38-06	
C1501 Δ	1-117-659-71	FILM	0.1MF 5% 200V	D512	8-719-970-87	DIODE ERA38-06	
(KV-36FV1 ONLY)				D513	8-719-110-41	DIODE RD15ESB2	
CONNECTOR				D515	8-719-302-43	DIODE EL1Z	
CN270	1-573-298-11	CONNECTOR, BOARD TO BOARD	20P	D516	8-719-991-33	DIODE 1SS133T-77	
CN271 *	1-691-616-21	CONNECTOR, BOARD TO BOARD	15P	D518	8-719-991-33	DIODE 1SS133T-77	
CN351 *	1-564-509-11	PLUG, CONNECTOR	6P	D519 Δ	8-719-302-43	DIODE EL1Z	
CN382 *	1-564-507-11	PLUG, CONNECTOR	4P	D520	8-719-991-33	DIODE 1SS133T-77	
CN501 *	1-580-798-11	CONNECTOR PIN (DY)	6P	D521	8-719-921-63	DIODE MTZJ-7.5B	
CN503 *	1-564-508-11	PLUG, CONNECTOR	5P	D522	8-719-991-33	DIODE 1SS133T-77	
CN1001*	1-564-508-11	PLUG, CONNECTOR	5P	D530	8-719-979-85	DIODE EGP20G	
CN1002*	1-564-506-11	PLUG, CONNECTOR	3P	D531	8-719-979-85	DIODE EGP20G	
CN1101	1-573-298-11	CONNECTOR, BOARD TO BOARD	20P	D534	8-719-302-43	DIODE EL1Z	
CN1231*	1-564-512-11	PLUG, CONNECTOR	9P	D561	8-719-908-03	DIODE GP08D	
CN1461*	1-564-507-11	PLUG, CONNECTOR	4P	D1001	8-719-404-49	DIODE MA111	
CN1641*	1-564-515-11	PLUG, CONNECTOR	12P	D1002	8-719-404-49	DIODE MA111	
CN1643*	1-508-784-00	PIN CONNECTOR (5MMPITCH)	1P	D1003	8-719-110-17	DIODE RD10ESB2	
CN1941*	1-564-511-11	PLUG, CONNECTOR	8P	D1004	8-719-110-17	DIODE RD10ESB2	
CN1942*	1-564-509-11	PLUG, CONNECTOR	6P	D1102	8-719-982-24	DIODE MTZJ-33A	
CN3001	1-573-297-21	CONNECTOR, BOARD TO BOARD	18P	D1103	8-719-109-89	DIODE RD5.6ESB2	
CN3002	1-573-978-21	CONNECTOR, BOARD TO BOARD	11P	D1104	8-719-110-17	DIODE RD10ESB2	
DIODE				D1105	8-719-110-17	DIODE RD10ESB2	
D001	8-719-991-33	DIODE 1SS133T-77		D1301	8-719-404-49	DIODE MA111	
D002	8-719-109-89	DIODE RD5.6ESB2		D1302	8-719-991-33	DIODE SS133T-77	
D003	8-719-991-33	DIODE 1SS133T-77		D1304	8-719-991-33	DIODE 1SS133T-77	
D004	8-719-110-17	DIODE RD10ESB2		D1305	8-719-991-33	DIODE 1SS133T-77	
D011	8-719-109-72	DIODE RD3.9ESB2		D1306	8-719-404-49	DIODE MA111	
D012	8-719-991-33	DIODE 1SS133T-77		DELAY LINE			
D013	8-719-991-33	DIODE 1SS133T-77		DL351	1-416-231-11	DELAY LINE	
D014	8-719-991-33	DIODE 1SS133T-77		FERRITE BEAD			
D015	8-719-991-33	DIODE 1SS133T-77		FB501	1-410-397-21	FERRITE	1.1UH
D353	8-719-991-33	DIODE 1SS133T-77		FB502	1-410-397-21	FERRITE	1.1UH
D356	8-719-991-33	DIODE 1SS133T-77		FB503	1-410-397-21	FERRITE	1.1UH
D360	8-719-110-17	DIODE RD10ESB2		IC			
D362	8-719-991-33	DIODE 1SS133T-77		IC001	8-752-886-53	IC CXP85856A-001S	
D363	8-719-404-49	DIODE MA111		IC002	8-759-353-44	IC ST24C08FM6TR	
D368	8-719-991-33	DIODE 1SS133T-77		IC351	8-752-082-73	IC CXA2095S	
D501	8-719-109-89	DIODE RD5.6ESB2		IC352	8-752-080-75	IC CXA2039M-T6	
D502	8-719-945-80	DIODE ERC06-15S		IC353	8-759-462-91	IC TA1226N	
D503	8-719-945-80	DIODE ERC06-15S		IC501	8-759-700-07	IC NJM2903M	
D504	8-719-900-26	DIODE ERD29-08J		IC561	8-759-192-71	IC STV9379	
D505	8-719-908-03	DIODE GP08D		IC1001	8-752-058-68	IC CXA1315M	
D506	8-719-908-03	DIODE GP08D		CONDUCTOR			
D507	8-719-991-33	DIODE 1SS133T-77		JR001	1-216-295-91	SHORT	0

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REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R022	1-249-429-11	CARBON	10K	5%	1/4W	R079	1-216-033-00	RESISTOR	220	5%	1/10W
R023	1-216-089-91	RESISTOR	47K	5%	1/10W	R080	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R025	1-216-033-00	RESISTOR	220	5%	1/10W	R081	1-216-025-91	RESISTOR	100	5%	1/10W
R026	1-216-121-91	RESISTOR	1M	5%	1/10W	R082	1-216-025-91	RESISTOR	100	5%	1/10W
R028	1-249-429-11	CARBON	10K	5%	1/4W	R083	1-249-429-11	CARBON	10K	5%	1/4W
R029	1-216-025-91	RESISTOR	100	5%	1/10W	R084	1-216-049-91	RESISTOR	1K	5%	1/10W
R030	1-249-425-11	CARBON	4.7K	5%	1/4W	R087	1-247-815-91	CARBON	220	5%	1/4W
R031	1-247-815-91	CARBON	220	5%	1/4W	R090	1-216-033-00	RESISTOR	220	5%	1/10W
R032	1-247-815-91	CARBON	220	5%	1/4W	R092	1-249-429-11	CARBON	10K	5%	1/4W
R036	1-216-049-91	RESISTOR	1K	5%	1/10W	R093	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R037	1-216-049-91	RESISTOR	1K	5%	1/10W	R097	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R038	1-216-049-91	RESISTOR	1K	5%	1/10W	R099	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R039	1-247-807-31	CARBON	100	5%	1/4W	R131	1-216-037-00	RESISTOR	330	5%	1/10W
R040	1-247-815-91	CARBON	220	5%	1/4W	R132	1-216-113-00	RESISTOR	470K	5%	1/10W
R041	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R133	1-216-037-00	RESISTOR	330	5%	1/10W
R042	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R135	1-216-073-00	RESISTOR	10K	5%	1/10W
R043	1-216-033-00	RESISTOR	220	5%	1/10W	R136	1-216-073-00	RESISTOR	10K	5%	1/10W
R044	1-216-049-91	RESISTOR	1K	5%	1/10W	R137	1-216-049-91	RESISTOR	1K	5%	1/10W
R045	1-247-815-91	CARBON	220	5%	1/4W	R319	1-216-049-91	RESISTOR	1K	5%	1/10W
R046	1-247-815-91	CARBON	220	5%	1/4W	R320	1-216-049-91	RESISTOR	1K	5%	1/10W
R047	1-249-417-11	CARBON	1K	5%	1/4W	R321	1-216-049-91	RESISTOR	1K	5%	1/10W
R048	1-249-417-11	CARBON	1K	5%	1/4W	R324	1-216-073-00	RESISTOR	10K	5%	1/10W
R049	1-249-417-11	CARBON	1K	5%	1/4W	R328	1-216-295-91	SHORT	0		
R050	1-247-815-91	CARBON	220	5%	1/4W	R333	1-216-295-91	SHORT	0		
R051	1-247-815-91	CARBON	220	5%	1/4W	R336	1-249-387-11	CARBON	3.3	5%	1/4W F
R052	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R337	1-216-347-11	METAL OXIDE	0.68	5%	1W F
R053	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R346	1-208-806-11	RESISTOR	10K	0.50%	1/10W
R054	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R347	1-216-025-91	RESISTOR	100	5%	1/10W
R055	1-216-097-91	RESISTOR	100K	5%	1/10W	R348	1-249-389-11	CARBON	4.7	5%	1/4W F
R056	1-216-033-00	RESISTOR	220	5%	1/10W	R350	1-216-049-91	RESISTOR	1K	5%	1/10W
R057	1-249-417-11	CARBON	1K	5%	1/4W	R352	1-208-803-11	RESISTOR	7.5K	0.50%	1/10W
R058	1-216-041-00	RESISTOR	470	5%	1/10W	R353	1-208-788-11	RESISTOR	1.8K	0.50%	1/10W
R064	1-247-815-91	CARBON	220	5%	1/4W	R354	1-216-077-00	RESISTOR	15K	5%	1/10W
R065	1-247-815-91	CARBON	220	5%	1/4W	R355	1-216-033-00	RESISTOR	220	5%	1/10W
R066	1-247-815-91	CARBON	220	5%	1/4W	R356	1-216-033-00	RESISTOR	220	5%	1/10W
R067	1-249-413-11	CARBON	470	5%	1/4W	R358	1-247-815-91	CARBON	220	5%	1/4W
R068	1-247-815-91	CARBON	220	5%	1/4W	R359	1-247-815-91	CARBON	220	5%	1/4W
R069	1-247-815-91	CARBON	220	5%	1/4W	R360	1-247-815-91	CARBON	220	5%	1/4W
R070	1-249-421-11	CARBON	2.2K	5%	1/4W	R361	1-216-025-91	RESISTOR	100	5%	1/10W
R071	1-247-815-91	CARBON	220	5%	1/4W	R362	1-216-025-91	RESISTOR	100	5%	1/10W
R072	1-216-033-00	RESISTOR	220	5%	1/10W	R363	1-216-025-91	RESISTOR	100	5%	1/10W
R073	1-216-033-00	RESISTOR	220	5%	1/10W	R364	1-208-836-11	RESISTOR	180K	0.50%	1/10W
R074	1-216-033-00	RESISTOR	220	5%	1/10W	R365	1-216-097-91	RESISTOR	100K	5%	1/10W
R075	1-216-033-00	RESISTOR	220	5%	1/10W	R366	1-216-085-00	RESISTOR	33K	5%	1/10W
R076	1-216-033-00	RESISTOR	220	5%	1/10W	R367	1-216-097-91	RESISTOR	100K	5%	1/10W
R077	1-216-033-00	RESISTOR	220	5%	1/10W	R368	1-216-097-91	RESISTOR	100K	5%	1/10W
R078	1-249-417-11	CARBON	1K	5%	1/4W						

KV-32FV1/34FVL1/36FV1



Note:

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

Note:

The components identified with \boxtimes 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
R369	1-216-097-91	RESISTOR 100K 5%	1/10W
R370	1-249-417-11	CARBON 1K 5%	1/4W
R371	1-216-053-00	RESISTOR 1.5K 5%	1/10W
R372	1-216-113-00	RESISTOR 470K 5%	1/10W
R373	1-216-073-00	RESISTOR 10K 5%	1/10W
R374	1-216-276-00	RESISTOR 1.8M 5%	1/8W
R375	1-216-025-91	RESISTOR 100 5%	1/10W
R376	1-216-073-00	RESISTOR 10K 5%	1/10W
R378	1-216-083-00	RESISTOR 27K 5%	1/10W
R379	1-216-033-00	RESISTOR 220 5%	1/10W
R380	1-247-815-91	CARBON 220 5%	1/4W
R381	1-247-815-91	CARBON 220 5%	1/4W
R382	1-216-037-00	RESISTOR 330 5%	1/10W
R383	1-216-049-91	RESISTOR 1K 5%	1/10W
R384	1-216-109-00	RESISTOR 330K 5%	1/10W
R385	1-249-421-11	CARBON 2.2K 5%	1/4W
R386	1-216-049-91	RESISTOR 1K 5%	1/10W
R387	1-216-049-91	RESISTOR 1K 5%	1/10W
R388	1-216-089-91	RESISTOR 47K 5%	1/10W
R389	1-216-067-00	RESISTOR 5.6K 5%	1/10W
R390	1-216-041-00	RESISTOR 470 5%	1/10W
R391	1-208-810-11	RESISTOR 15K 0.50%	1/10W
R392	1-216-025-91	RESISTOR 100 5%	1/10W
R393	1-216-041-00	RESISTOR 470 5%	1/10W
R394	1-216-057-00	RESISTOR 2.2K 5%	1/10W
R395	1-216-061-00	RESISTOR 3.3K 5%	1/10W
R396	1-249-417-11	CARBON 1K 5%	1/4W
R397	1-247-843-11	CARBON 3.3K 5%	1/4W
R398	1-216-095-00	RESISTOR 82K 5%	1/10W
R501	1-216-041-00	RESISTOR 470 5%	1/10W
R502	1-216-065-91	RESISTOR 4.7K 5%	1/10W
R503	1-249-425-11	CARBON 4.7K 5%	1/4W F
R504 Δ	1-216-455-21	METAL OXIDE 560 5%	2W F
R505	1-247-863-91	CARBON 22K 5%	1/4W
R506	1-215-861-00	METAL OXIDE 47 5%	1W F
R507	1-249-401-11	CARBON 47 5%	1/4W
R508	1-249-425-11	CARBON 4.7K 5%	1/4W
R509	1-260-324-11	CARBON 470 5%	1/2W
R510 Δ	1-215-860-11	METAL OXIDE 33 5%	1W F
R511 Δ	1-215-885-00	METAL OXIDE 68 5%	2W F
(KV-32FV1/34FVL1)			
R511 Δ	1-215-886-11	METAL OXIDE 100 5%	2W F
(KV-36FV1)			
R512 Δ	1-215-886-11	METAL OXIDE 100 5%	2W F
R514	1-216-081-00	RESISTOR 22K 5%	1/10W
R515	1-208-812-11	RESISTOR 18K 0.50%	1/10W
R516	1-208-790-11	RESISTOR 2.2K 0.50%	1/10W
R517	1-249-417-11	CARBON 1K 5%	1/4W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R518	1-216-073-00	RESISTOR 10K 5%	1/10W
R519	1-249-413-11	CARBON 470 5%	1/4W
R521	1-216-081-00	RESISTOR 22K 5%	1/10W
R523	1-208-806-11	RESISTOR 10K 0.50%	1/10W
R524	1-249-429-11	CARBON 10K 5%	1/4W
R525	1-208-804-11	RESISTOR 8.2K 0.50%	1/10W
R526	1-215-880-00	METAL OXIDE 10K 5%	2W F
(KV-36FV1)			
R527	1-216-097-91	RESISTOR 100K 5%	1/10W
R528	1-208-814-11	RESISTOR 22K 0.50%	1/10W
R529	1-208-814-11	RESISTOR 22K 0.50%	1/10W
\boxtimes R530 Δ	1-208-808-11	RESISTOR 12K 0.50%	1/10W
\boxtimes R531 Δ	1-208-824-11	RESISTOR 56K 0.50%	1/10W
R532	1-208-760-11	RESISTOR 120 0.50%	1/10W
R533 Δ	1-215-902-11	METAL OXIDE 47K 5%	1W F
(KV-32FV1/34FVL1)			
R533 Δ	1-215-878-00	METAL OXIDE 33K 5%	1W F
(KV-36FV1)			
R535	1-208-840-11	RESISTOR 270K 0.50%	1/10W
R536 Δ	1-260-288-11	CARBON 0.47 5%	1/2W
R537 Δ	1-260-288-11	CARBON 0.47 5%	1/2W
R538	1-247-887-00	CARBON 220K 5%	1/4W
R539 Δ	1-215-891-11	METAL OXIDE 680 5%	2W F
R541	1-215-922-11	METAL OXIDE 6.8K 5%	3W F
R542	1-215-921-11	METAL OXIDE 4.7K 5%	3W F
R543 Δ	1-249-377-11	CARBON 0.47 5%	1/4W F
R544	1-216-113-00	RESISTOR 470K 5%	1/10W
R545	1-249-387-11	CARBON 3.3 5%	1/4W F
R546	1-215-453-00	METAL 22K 1%	1/4W
R547	1-215-457-00	METAL 33K 1%	1/4W
R548	1-215-921-11	METAL OXIDE 4.7K 5%	3W F
R549	1-215-437-00	METAL 4.7K 1%	1/4W
R550 Δ	1-249-377-11	CARBON 0.47 5%	1/4W F
R551 Δ	1-215-873-00	METAL OXIDE 4.7K 5%	1W F
R552 Δ	1-216-455-21	METAL OXIDE 560 5%	2W F
R553 Δ	1-249-377-11	CARBON 0.47 5%	1/4W F
R554	1-215-894-11	METAL OXIDE 2.2K 5%	2W F
R555	1-249-441-11	CARBON 100K 5%	1/4W
R556	1-249-441-11	CARBON 100K 5%	1/4W
R557	1-249-441-11	CARBON 100K 5%	1/4W
R560	1-215-922-11	METAL OXIDE 6.8K 5%	3W F
R561	1-208-806-11	RESISTOR 10K 0.50%	1/10W
R563 Δ	1-216-349-00	METAL OXIDE 1 5%	1W F
R564	1-215-373-31	METAL 10 1%	1/4W
R565 Δ	1-215-889-00	METAL OXIDE 330 5%	2W F
R566	1-208-802-11	RESISTOR 6.8K 0.50%	1/10W
R567 Δ	1-249-385-11	CARBON 2.2 5%	1/4W F
R568	1-208-802-11	RESISTOR 6.8K 0.50%	1/10W



REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R569	1-208-806-11	RESISTOR	10K	0.50%	1/10W	R1304	1-216-049-91	RESISTOR	1K	5%	1/10W
R570	1-216-097-91	RESISTOR	100K	5%	1/10W	R1305	1-216-091-00	RESISTOR	56K	5%	1/10W
R571	1-216-081-00	RESISTOR	22K	5%	1/10W	R1306	1-216-081-00	RESISTOR	22K	5%	1/10W
R572	1-216-081-00	RESISTOR	22K	5%	1/10W	R1307	1-216-049-91	RESISTOR	1K	5%	1/10W
R573	1-216-097-91	RESISTOR	100K	5%	1/10W	R1308	1-216-049-91	RESISTOR	1K	5%	1/10W
R580	1-249-441-11	CARBON	100K	5%	1/4W	R1309	1-216-051-00	RESISTOR	1.2K	5%	1/10W
R1001	1-247-807-31	CARBON	100	5%	1/4W	R1310	1-216-025-91	RESISTOR	100	5%	1/10W
R1002	1-247-807-31	CARBON	100	5%	1/4W	R1311	1-216-025-91	RESISTOR	100	5%	1/10W
R1003	1-216-073-00	RESISTOR	10K	5%	1/10W	R1312	1-216-057-00	RESISTOR	2.2K	5%	1/10W
R1004	1-216-067-00	RESISTOR	5.6K	5%	1/10W	R1313	1-208-780-11	RESISTOR	820	0.50%	1/10W
R1005	1-216-073-00	RESISTOR	10K	5%	1/10W	R1314	1-208-782-11	RESISTOR	1K	0.50%	1/10W
R1006	1-247-807-31	CARBON	100	5%	1/4W	R1315	1-216-025-91	RESISTOR	100	5%	1/10W
R1007	1-247-807-31	CARBON	100	5%	1/4W	R1316	1-216-091-00	RESISTOR	56K	5%	1/10W
R1008	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R1317	1-216-105-91	RESISTOR	220K	5%	1/10W
R1009	1-216-073-00	RESISTOR	10K	5%	1/10W	R1318	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1010	1-216-049-91	RESISTOR	1K	5%	1/10W	R1319	1-260-290-71	CARBON	0.68	5%	1/2W
R1011	1-249-387-11	CARBON	3.3	5%	1/4W F	R1322	1-216-073-00	RESISTOR	10K	5%	1/10W
R1012	1-216-049-91	RESISTOR	1K	5%	1/10W	R1323	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1101	1-216-049-91	RESISTOR	1K	5%	1/10W	R1326	1-249-417-11	CARBON	1K	5%	1/4W
R1102	1-215-900-11	METAL OXIDE	22K	5%	2W F	R1329	1-216-295-91	SHORT	0		
R1103	1-216-049-91	RESISTOR	1K	5%	1/10W	R1330	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1104	1-216-083-00	RESISTOR	27K	5%	1/10W	R1333	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1105	1-216-689-11	RESISTOR	39K	5%	1/10W	R1337	1-216-049-91	RESISTOR	1K	5%	1/10W
R1106	1-216-049-91	RESISTOR	1K	5%	1/10W	R1351	1-247-815-91	CARBON	220	5%	1/4W
R1107	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R1352	1-247-815-91	CARBON	220	5%	1/4W
R1108	1-216-073-00	RESISTOR	10K	5%	1/10W	R1353	1-247-815-91	CARBON	220	5%	1/4W
R1109	1-216-017-91	RESISTOR	47	5%	1/10W	R1354	1-216-033-00	RESISTOR	220	5%	1/10W
R1110	1-216-017-91	RESISTOR	47	5%	1/10W	R1355	1-216-025-91	RESISTOR	100	5%	1/10W
R1111	1-216-017-91	RESISTOR	47	5%	1/10W	R1356	1-216-025-91	RESISTOR	100	5%	1/10W
R1113	1-249-417-11	CARBON	1K	5%	1/4W	R1357	1-216-025-91	RESISTOR	100	5%	1/10W
R1114	1-249-417-11	CARBON	1K	5%	1/4W	R1358	1-216-025-91	RESISTOR	100	5%	1/10W
R1115	1-216-041-00	RESISTOR	470	5%	1/10W	R1359	1-216-025-91	RESISTOR	100	5%	1/10W
R1117	1-249-425-11	CARBON	4.7K	5%	1/4W	R1360	1-216-049-91	RESISTOR	1K	5%	1/10W
R1118	1-249-425-11	CARBON	4.7K	5%	1/4W	R1361	1-216-049-91	RESISTOR	1K	5%	1/10W
R1120	1-216-057-00	RESISTOR	2.2K	5%	1/10W	R1362	1-216-113-00	RESISTOR	470K	5%	1/10W
R1121	1-216-037-00	RESISTOR	330	5%	1/10W	R1363	1-216-057-00	RESISTOR	2.2K	5%	1/10W
R1122	1-216-113-00	RESISTOR	470K	5%	1/10W	R1364	1-216-097-91	RESISTOR	100K	5%	1/10W
R1123	1-216-037-00	RESISTOR	330	5%	1/10W	R1365	1-216-089-91	RESISTOR	47K	5%	1/10W
R1125	1-216-057-00	RESISTOR	2.2K	5%	1/10W	R1366	1-216-107-00	RESISTOR	270K	5%	1/10W
R1126	1-216-037-00	RESISTOR	330	5%	1/10W	R1369	1-216-093-00	RESISTOR	68K	5%	1/10W
R1127	1-216-113-00	RESISTOR	470K	5%	1/10W	R1371	1-216-295-91	SHORT	0		
R1128	1-216-037-00	RESISTOR	330	5%	1/10W	R1373	1-216-025-91	RESISTOR	100	5%	1/10W
R1129	1-216-295-91	SHORT	0			R1374	1-216-089-91	RESISTOR	47K	5%	1/10W
R1130	1-216-057-00	RESISTOR	2.2K	5%	1/10W	R1385	1-216-049-91	RESISTOR	1K	5%	1/10W
R1301	1-249-401-11	CARBON	47	5%	1/4W	R1386	1-216-049-91	RESISTOR	1K	5%	1/10W
R1302	1-249-401-11	CARBON	47	5%	1/4W	R1387	1-249-429-11	CARBON	10K	5%	1/4W
R1303	1-216-049-91	RESISTOR	1K	5%	1/10W	R1388	1-216-073-00	RESISTOR	10K	5%	1/10W



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 securite. Ne les remplacer que par une piece portant le numero specifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1389	1-216-025-91	RESISTOR	100 5% 1/10W	C115	1-126-960-11	ELECT 1MF 20% 50V	
R1390	1-249-417-11	CARBON	1K 5% 1/4W	C1904	1-102-129-00	CERAMIC CHIP 0.01MF 10% 50V	
R1391	1-216-091-00	RESISTOR	56K 5% 1/10W	C1905	1-126-964-11	ELECT 10MF 20% 50V	
R1392	1-216-081-00	RESISTOR	22K 5% 1/10W	C1906	1-102-129-00	CERAMIC CHIP 0.01MF 10% 50V	
R1393	1-216-049-91	RESISTOR	1K 5% 1/10W	C1907	1-126-964-11	ELECT 10MF 20% 50V	
R1394	1-208-785-11	RESISTOR	1.3K 0.50% 1/10W	C1908	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
R1395	1-208-782-11	RESISTOR	1K 0.50% 1/10W	C1909	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
R1396	1-216-025-91	RESISTOR	100 5% 1/10W	C1910	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
R1397	1-216-025-91	RESISTOR	100 5% 1/10W				
R1398	1-216-057-00	RESISTOR	2.2K 5% 1/10W	C1911	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
R1399	1-216-049-91	RESISTOR	1K 5% 1/10W	C1912	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
<u>SWITCH</u>				<u>CONNECTOR</u>			
S501	1-572-707-11	SWITCH, LEVER		CN101	1-573-301-21	CONNECTOR, BOARD TO BOARD	20P
S502	1-572-707-11	SWITCH, LEVER		CN102	1-573-979-21	CONNECTOR, BOARD TO BOARD	11P
<u>TRANSFORMER</u>				CN103	*1-564-507-11	PLUG, CONNECTOR	4P
T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE		<u>DIODE</u>			
T502 Δ	1-426-981-11	TRANSFORMER, FERRITE (PMT)		D101	8-719-109-89	DIODE RD5.6ESB2	
T503 Δ	1-453-282-11	TRANSFORMER, FBT ASSY (NX-4600//X4C)		D103	8-719-991-33	DIODE 1SS133T-77	
		(KV-32FV1/34FVL1)		D104	8-719-991-33	DIODE 1SS133T-77	
T503 Δ	1-453-286-11	TRANSFORMER, FBT ASSY (NX-4600//X4C4)		D105	8-719-991-33	DIODE 1SS133T-77	
		(KV-36FV1)		D106	8-719-991-33	DIODE 1SS133T-77	
T504	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS		D107	8-719-991-33	DIODE 1SS133T-77	
T505 Δ	1-429-188-11	TRANSFORMER, HORIZONTAL LINEAR		D108	8-719-110-17	DIODE RD10ESB2	
<u>TUNER</u>				D109	8-719-110-17	DIODE RD10ESB2	
TU102 Δ	8-598-431-00	TUNER, FSS BTF-WA411		<u>IC</u>			
<u>CRYSTAL</u>				IC1901	8-752-058-68	IC CXA1315M	
X001	1-578-774-11	VIBRATOR, CRYSTAL		IC1902	8-759-470-63	IC NJM2145M-TE2	
X353	1-567-505-11	OSCILLATOR, CRYSTAL		<u>CONDUCTOR</u>			
X354	1-579-583-11	VIBRATOR, CERAMIC CHIP		JR101	1-216-295-91	SHORT 0	
<u>AX</u>				JR1901	1-216-295-91	SHORT 0	
* A-1298-641-A AX BOARD, COMPLETE				<u>COIL</u>			
<u>CAPACITOR</u>				L102	1-410-470-11	INDUCTOR 10UH	
C101	1-126-960-11	ELECT 1MF 20% 50V		L105	1-410-482-31	INDUCTOR 100UH	
C102	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V		<u>TRANSISTOR</u>			
C104	1-126-964-11	ELECT 10MF 20% 50V		Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C106	1-104-664-11	ELECT 47MF 20% 25V		Q103	8-729-216-22	TRANSISTOR 2SA1162-G	
C108	1-126-942-61	ELECT 1000MF 20% 25V		Q104	8-729-216-22	TRANSISTOR 2SA1162-G	
C109	1-163-259-91	CERAMIC CHIP 220PF 5% 50V		Q105	8-729-216-22	TRANSISTOR 2SA1162-G	
C110	1-163-809-11	CERAMIC CHIP 0.047MF 10% 25V		Q106	8-729-422-27	TRANSISTOR 2SD601A-Q	
C111	1-126-960-11	ELECT 1MF 20% 50V		Q1902	8-729-216-22	TRANSISTOR 2SA1162-G	
C113	1-104-666-11	ELECT 220MF 20% 25V		Q1903	8-729-216-22	TRANSISTOR 2SA1162-G	

B

* A-1135-959-A B BOARD, COMPLETE

CAPACITOR



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<u>CONNECTOR</u>							
CN3501	1-573-978-21	CONNECTOR, BOARD TO BOARD	11P	Q3510	8-729-216-22	TRANSISTOR 2SA1162-G	
CN3502	1-573-297-21	CONNECTOR, BOARD TO BOARD	18P	Q3511	8-729-216-22	TRANSISTOR 2SA1162-G	
<u>FERRITE BEAD</u>				Q3513	8-729-216-22	TRANSISTOR 2SA1162-G	
FB3501	1-216-295-91	SHORT	0	Q3514	8-729-216-22	TRANSISTOR 2SA1162-G	
<u>FILTER</u>							
FL3501	1-239-847-11	FILTER, LOW PASS		Q3515	8-729-422-27	TRANSISTOR 2SD601A-Q	
FL3502	1-239-847-11	FILTER, LOW PASS		Q3517	8-729-216-22	TRANSISTOR 2SA1162-G	
FL3503	1-239-847-11	FILTER, LOW PASS		<u>RESISTOR</u>			
<u>IC</u>				R3501	1-216-081-00	RESISTOR	22K 5% 1/10W
IC3501	8-759-065-82	IC MM1093ND		R3502	1-216-081-00	RESISTOR	22K 5% 1/10W
IC3503	8-759-701-56	IC NJM78M05FA		R3503	1-216-295-91	SHORT	0
IC3504	8-752-390-37	IC CXD2064Q-T6		R3504	1-216-033-00	RESISTOR	220 5% 1/10W
<u>CONDUCTOR</u>				R3505	1-216-033-00	RESISTOR	220 5% 1/10W
JR3501	1-216-295-91	SHORT	0	R3506	1-216-035-00	RESISTOR	270 5% 1/10W
JR3502	1-216-295-91	SHORT	0	R3507	1-216-057-00	RESISTOR	2.2K 5% 1/10W
JR3503	1-216-295-91	SHORT	0	R3508	1-216-043-91	RESISTOR	560 5% 1/10W
JR3504	1-216-295-91	SHORT	0	R3509	1-216-075-00	RESISTOR	12K 5% 1/10W
JR3505	1-216-295-91	SHORT	0	R3510	1-216-049-91	RESISTOR	1K 5% 1/10W
JR3506	1-216-295-91	SHORT	0	R3511	1-216-065-91	RESISTOR	4.7K 5% 1/10W
JR3507	1-216-295-91	SHORT	0	R3512	1-216-065-91	RESISTOR	4.7K 5% 1/10W
JR3512	1-216-295-91	SHORT	0	R3513	1-216-041-00	RESISTOR	470 5% 1/10W
JR3513	1-216-295-91	SHORT	0	R3514	1-216-121-91	RESISTOR	1M 5% 1/10W
JR3514	1-216-295-91	SHORT	0	R3515	1-216-077-00	RESISTOR	15K 5% 1/10W
<u>COIL</u>				R3516	1-216-037-00	RESISTOR	330 5% 1/10W
L3501	1-410-470-11	INDUCTOR	10UH	R3517	1-216-077-00	RESISTOR	15K 5% 1/10W
L3502	1-410-466-41	INDUCTOR	4.7UH	R3518	1-216-067-00	RESISTOR	5.6K 5% 1/10W
L3503	1-408-607-31	INDUCTOR	22UH	R3519	1-216-295-91	SHORT	0
L3504	1-410-470-11	INDUCTOR	10UH	R3525	1-216-057-00	RESISTOR	2.2K 5% 1/10W
L3505	1-410-470-11	INDUCTOR	10UH	R3527	1-216-033-00	RESISTOR	220 5% 1/10W
<u>TRANSISTOR</u>				R3536	1-216-057-00	RESISTOR	2.2K 5% 1/10W
Q3501	8-729-422-27	TRANSISTOR 2SD601A-Q		R3537	1-216-043-91	RESISTOR	560 5% 1/10W
Q3502	8-729-216-22	TRANSISTOR 2SA1162-G		R3538	1-216-071-00	RESISTOR	8.2K 5% 1/10W
Q3503	8-729-422-27	TRANSISTOR 2SD601A-Q		R3539	1-216-089-91	RESISTOR	47K 5% 1/10W
Q3504	8-729-216-22	TRANSISTOR 2SA1162-G		R3540	1-216-049-91	RESISTOR	1K 5% 1/10W
Q3505	8-729-422-27	TRANSISTOR 2SD601A-Q		R3541	1-216-081-00	RESISTOR	22K 5% 1/10W
Q3506	8-729-216-22	TRANSISTOR 2SA1162-G		R3542	1-216-041-00	RESISTOR	470 5% 1/10W
Q3507	8-729-216-22	TRANSISTOR 2SA1162-G		R3543	1-216-029-00	RESISTOR	150 5% 1/10W
Q3508	8-729-422-27	TRANSISTOR 2SD601A-Q		R3544	1-216-057-00	RESISTOR	2.2K 5% 1/10W
Q3509	8-729-216-22	TRANSISTOR 2SA1162-G		R3545	1-216-043-91	RESISTOR	560 5% 1/10W
				R3546	1-216-071-00	RESISTOR	8.2K 5% 1/10W
				R3547	1-216-089-91	RESISTOR	47K 5% 1/10W
				R3548	1-216-081-00	RESISTOR	22K 5% 1/10W
				R3549	1-216-049-91	RESISTOR	1K 5% 1/10W
				R3550	1-208-774-11	RESISTOR	470 0.50% 1/10W
				R3551	1-208-762-11	RESISTOR	150 0.50% 1/10W
				R3558	1-216-057-00	RESISTOR	2.2K 5% 1/10W
				R3559	1-216-057-00	RESISTOR	2.2K 5% 1/10W

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.



REF.NO.	PART NO.	DESCRIPTION	REMARK		
R3566	1-216-025-91	RESISTOR	100	5%	1/10W
R3567	1-216-041-00	RESISTOR	470	5%	1/10W
R3568	1-216-025-91	RESISTOR	100	5%	1/10W
R3569	1-216-041-00	RESISTOR	470	5%	1/10W
R3570	1-216-049-91	RESISTOR	1K	5%	1/10W
R3571	1-216-025-91	RESISTOR	100	5%	1/10W
R3572	1-216-049-91	RESISTOR	1K	5%	1/10W
R3573	1-216-089-91	RESISTOR	47K	5%	1/10W
R3574	1-216-041-00	RESISTOR	470	5%	1/10W
R3575	1-216-051-00	RESISTOR	1.2K	5%	1/10W
R3576	1-216-041-00	RESISTOR	470	5%	1/10W
R3577	1-216-081-00	RESISTOR	22K	5%	1/10W
R3578	1-216-081-00	RESISTOR	22K	5%	1/10W
R3579	1-216-081-00	RESISTOR	22K	5%	1/10W
R3582	1-216-033-00	RESISTOR	220	5%	1/10W
R3583	1-216-061-00	RESISTOR	3.3K	5%	1/10W
R3584	1-216-057-00	RESISTOR	2.2K	5%	1/10W
R3585	1-216-061-00	RESISTOR	3.3K	5%	1/10W
R3586	1-216-295-91	SHORT	0		
R3590	1-216-295-91	SHORT	0		
R3591	1-216-295-91	SHORT	0		
R3594	1-216-295-91	SHORT	0		
R3595	1-216-295-91	SHORT	0		
R3598	1-216-295-91	SHORT	0		
CRYSTAL					
X3501	1-567-505-11	OSCILLATOR, CRYSTAL			
G					
* A-1316-397-A G BOARD, COMPLETE					
1-533-223-11	HOLDER, FUSE				
4-382-854-11	SCREW (M3X10),P, SW (+)				
CAPACITOR					
C601	1-136-346-21	FILM	0.22MF	20%	125V
C602	1-126-964-11	ELECT	10MF	20%	50V
C603 Δ	1-113-903-11	CERAMIC CHIP	0.001MF	20%	250V
C604 Δ	1-136-346-21	FILM	0.22MF	20%	125V
C605 Δ	1-136-346-21	FILM	0.22MF	20%	125V
C606 Δ	1-117-894-11	ELECT	560MF	20%	250V
C607 Δ	1-117-894-11	ELECT	560MF	20%	250V
C608	1-107-824-11	CERAMIC CHIP	220PF	5%	1KV
C609	1-136-176-00	FILM	0.82MF	5%	50V
C610	1-136-176-00	FILM	0.82MF	5%	50V
C611	1-136-169-00	FILM	0.22MF	5%	50V
C612	1-136-169-00	FILM	0.22MF	5%	50V
C613	1-164-646-11	CERAMIC CHIP	2200PF	10%	500V
C614	1-126-963-11	ELECT	4.7MF	20%	50V
C615	1-117-976-11	FILM	0.039MF	5%	800V
C616 Δ	1-113-903-11	CERAMIC CHIP	0.001MF	20%	250V
C618	1-126-968-11	ELECT	100MF	20%	50V
C624	1-126-960-11	ELECT	1MF	20%	50V
C629 Δ	1-107-652-11	ELECT	10MF	20%	250V
C630	1-130-471-00	MYLAR	0.001MF	5%	50V
C631	1-137-605-11	FILM	0.01MF	10%	250V
C633	1-130-471-00	MYLAR	0.001MF	5%	50V
C634	1-130-467-00	MYLAR	470PF	5%	50V
C635	1-130-471-00	MYLAR	0.001MF	5%	50V
C636	1-126-965-11	ELECT	22MF	20%	50V
C637	1-126-940-11	ELECT	330MF	20%	25V
C641	1-128-550-11	ELECT	2200MF	20%	50V
C643	1-107-995-11	ELECT	100MF		160V
C644	1-104-664-11	ELECT	47MF	20%	25V
C647	1-104-665-11	ELECT	100MF	20%	25V
C650	1-104-664-11	ELECT	47MF	20%	25V
C651	1-130-477-00	MYLAR	0.0033MF	5%	50V
C652	1-106-351-00	MYLAR	0.0022MF	99%	200V
C653	1-107-636-11	ELECT	10MF	20%	160V
C656	1-126-964-11	ELECT	10MF	20%	50V
C657	1-137-372-11	FILM	0.022MF	5%	50V
C658	1-126-941-11	ELECT	470MF	20%	25V
C660	1-126-936-11	ELECT	3300MF	20%	16V
C661	1-104-664-11	ELECT	47MF	20%	25V
C662	1-126-933-11	ELECT	100MF	20%	16V
C665	1-104-664-11	ELECT	47MF	20%	25V
C695	1-164-625-11	CERAMIC CHIP	680PF	10%	500V
C696	1-164-625-11	CERAMIC CHIP	680PF	10%	500V
C697	1-164-625-11	CERAMIC CHIP	680PF	10%	500V
C698	1-164-625-11	CERAMIC CHIP	680PF	10%	500V
C699	1-136-169-00	FILM	0.22MF	5%	50V
CONNECTOR					
CN601	*1-573-963-11	PIN, CONNECTOR (PC BOARD)			3P
CN602	*1-580-844-11	PIN, CONNECTOR (POWER)			2P
CN603	*1-573-963-11	PIN, CONNECTOR (PC BOARD)			3P
CN641	*1-564-515-11	PLUG, CONNECTOR			12P
CN642	*1-564-509-11	PLUG, CONNECTOR			6P
CN643	*1-508-786-00	PIN, CONNECTOR (5MM PITCH)			2P
DIODE					
D600	8-719-991-33	DIODE 1SS133T-77			
D601	8-719-991-33	DIODE 1SS133T-77			
D602 Δ	8-719-510-53	DIODE D4SB60L			

G

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

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FUSE

FERRITE BEAD

IC

COIL

TRANSISTOR

RESISTOR

R601	1-249-377-11	CARBON	0.47	5%	1/4W	F
R602	1-249-429-11	CARBON	10K	5%	1/4W	
R603	1-219-776-11	CARBON	2.2M	10%	1/2W	
R604	1-249-429-11	CARBON	10K	5%	1/4W	
R605	1-249-429-11	CARBON	10K	5%	1/4W	
R606	1-249-421-11	CARBON	2.2K	5%	1/4W	
R607	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R608	1-216-369-00	METAL OXIDE	1	5%	2W	F
R609	1-249-417-11	CARBON	1K	5%	1/4W	
R610	1-249-425-11	CARBON	4.7K	5%	1/4W	
R611	1-216-369-00	METAL OXIDE	1	5%	2W	F
R612	1-260-124-11	CARBON	120K	5%	1/2W	
R613	1-260-124-11	CARBON	120K	5%	1/2W	
R614	1-260-124-11	CARBON	120K	5%	1/2W	
R615	1-260-124-11	CARBON	120K	5%	1/2W	
R618	1-249-425-11	CARBON	4.7K	5%	1/4W	
R619	1-249-425-11	CARBON	4.7K	5%	1/4W	
R620	1-126-967-11	ELECT	47MF	20%	50V	
R621	1-249-429-11	CARBON	10K	5%	1/4W	
R622	1-247-863-91	CARBON	22K	5%	1/4W	
R623	1-240-257-11	REGISTER	0			

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.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R624 Δ	1-215-485-00	METAL	470K 1% 1/4W	TRANSFORMER			
R625 Δ	1-215-485-00	METAL	470K 1% 1/4W	T601 Δ	1-426-717-11	TRANSFORMER, LINE FILTER (LFT)	
R626	1-249-425-11	CARBON	4.7K 5% 1/4W	T602 Δ	1-426-717-11	TRANSFORMER, LINE FILTER (LFT)	
R627	1-249-405-11	CARBON	100 5% 1/4W F	T603 Δ	1-429-992-21	TRANSFORMER, CONVERTER (PRT)	
R631	1-240-205-91	CARBON	22M 5% 1/2W	T605 Δ	1-433-408-11	TRANSFORMER, CONVERTER	
R632	1-249-421-11	CARBON	2.2K 5% 1/4W	T621 Δ	1-431-852-11	TRANSFORMER, CONVERTER (SRT)	
R633	1-249-429-11	CARBON	10K 5% 1/4W	THERMISTOR			
R634	1-249-437-11	CARBON	47K 5% 1/4W	THP601 Δ	1-809-539-11	THERMISTOR, POSITIVE	
R635	1-247-791-91	CARBON	22 5% 1/4W	THP602 Δ	1-809-539-11	THERMISTOR, POSITIVE	
R636	1-249-415-11	CARBON	680 5% 1/4W	VARISTOR			
R637	1-260-302-51	CARBON	6.8 5% 1/2W	VDR602 Δ	1-801-074-41	VARISTOR ERZV10D271	
R638	1-249-413-11	CARBON	470 5% 1/4W	CAPACITOR			
R639	1-249-389-11	CARBON	4.7 5% 1/4W F	C1761	1-102-508-91	CERAMIC CHIP 10PF .5% 50V	
R640	1-215-485-00	METAL	470K 1% 1/4W	C1762	1-104-664-11	ELECT 47MF 20% 25V	
R641	1-247-843-11	CARBON	3.3K 5% 1/4W	C1763	1-102-508-91	CERAMIC CHIP 10PF .5% 50V	
R642	1-247-843-11	CARBON	3.3K 5% 1/4W	C1764	1-104-664-11	ELECT 47MF 20% 25V	
R643	1-249-387-11	CARBON	3.3 5% 1/4W F	C1765	1-102-508-91	CERAMIC CHIP 10PF .5% 50V	
R644	1-249-417-11	CARBON	1K 5% 1/4W	C1767	1-102-129-00	CERAMIC CHIP 0.01MF 10% 50V	
R645	1-249-429-11	CARBON	10K 5% 1/4W	C1768	1-102-129-00	CERAMIC CHIP 0.01MF 10% 50V	
R646	1-249-417-11	CARBON	1K 5% 1/4W	C1769	1-126-960-11	ELECT 1MF 20% 50V	
R648	1-249-441-11	CARBON	100K 5% 1/4W	C1770	1-102-157-00	CERAMIC CHIP 560PF 10% 500V	
R649	1-249-425-11	CARBON	4.7K 5% 1/4W F	C1771	1-107-957-11	ELECT 1MF 20% 250V	
R650	1-249-421-11	CARBON	2.2K 5% 1/4W	C1772	1-102-129-00	CERAMIC CHIP 0.01MF 10% 50V	
R651	1-215-908-00	METAL OXIDE	33 5% 3W F	C1773	1-102-157-00	CERAMIC CHIP 560PF 10% 500V	
R652 Δ	1-216-363-00	METAL OXIDE	0.33 5% 2W F	C1774	1-107-957-11	ELECT 1MF 20% 250V	
R653	1-215-423-00	METAL	1.2K 1% 1/4W	C1775	1-102-129-00	CERAMIC CHIP 0.01MF 10% 50V	
R654	1-215-481-00	METAL	330K 1% 1/4W	C1776	1-102-157-00	CERAMIC CHIP 560PF 10% 500V	
R655	1-215-469-00	METAL	100K 1% 1/4W	C1777	1-107-957-11	ELECT 1MF 20% 250V	
R656	1-249-427-11	CARBON	6.8K 5% 1/4W	C1778	1-102-074-00	CERAMIC CHIP 0.001MF 10% 50V	
R657	1-249-421-11	CARBON	2.2K 5% 1/4W	C1779	1-137-490-11	FILM 0.01MF 10% 1KV	
R659	1-249-429-11	CARBON	10K 5% 1/4W	C1783	1-106-375-12	MYLAR 0.022MF 20% 200V	
R660	1-249-393-11	CARBON	10 5% 1/4W F	C1784	1-106-375-12	MYLAR 0.022MF 20% 200V	
R661	1-249-419-11	CARBON	1.5K 5% 1/4W F	C1786	1-107-651-11	ELECT 4.7MF 20% 250V	
R662	1-215-485-00	METAL	470K 1% 1/4W				
R663	1-215-445-00	METAL	10K 1% 1/4W				
R664 Δ	1-240-257-11	REGISTER	0				
R665	1-249-425-11	CARBON	4.7K 5% 1/4W				
R670	1-260-312-11	CARBON	47 5% 1/2W				
R671	1-260-312-11	CARBON	47 5% 1/2W				
R680	1-216-364-11	METAL OXIDE	0.39 5% 2W F				
R681	1-216-365-00	METAL OXIDE	0.47 5% 2W F				
R699	1-249-429-11	CARBON	10K 5% 1/4W				
RELAY							
RY600 Δ	1-755-266-11	RELAY, AC POWER					
RY601 Δ	1-755-146-11	RELAY, AC POWER					



* A-1335-103-A C BOARD, COMPLETE



REF.NO. PART NO. DESCRIPTION REMARK

CONNECTOR

CN1761* 1-564-509-11 PLUG, CONNECTOR 6P
 CN1763 1-695-915-11 TAB (CONTACT)
 CN1764* 1-564-508-11 PLUG, CONNECTOR 5P

DIODE

D1712 8-719-901-83 DIODE 1SS83
 D1713 8-719-908-03 DIODE GP08D
 D1762 8-719-991-33 DIODE 1SS133T-77
 D1763 8-719-991-33 DIODE 1SS133T-77
 D1764 8-719-991-33 DIODE 1SS133T-77

D1767 8-719-109-89 DIODE RD5.6ESB2
 D1768 8-719-991-33 DIODE 1SS133T-77
 D1769 8-719-109-71 DIODE RD3.9ESB1
 D1770 8-719-901-83 DIODE 1SS83
 D1771 8-719-901-83 DIODE 1SS83

IC

IC1761 8-759-346-42 IC TDA6101Q/N3
 IC1762 8-759-346-42 IC TDA6101Q/N3
 IC1763 8-759-346-42 IC TDA6101Q/N3

JACK

J1761 ▲ 1-540-071-22 SOCKET, CRT

COIL

L1761 1-410-470-11 INDUCTOR 10UH

TRANSISTOR

Q1761 8-729-119-76 TRANSISTOR 2SA1175-HFE

RESISTOR

R1761 1-215-413-00 METAL 470 1% 1/4W
 R1762 1-215-413-00 METAL 470 1% 1/4W
 R1763 1-215-424-00 METAL 1.3K 1% 1/4W
 R1764 1-249-441-11 CARBON 100K 5% 1/4W
 R1765 1-247-863-91 CARBON 22K 5% 1/4W

R1766 1-215-424-00 METAL 1.3K 1% 1/4W
 R1767 1-249-437-11 CARBON 47K 5% 1/4W
 R1768 1-247-807-31 CARBON 100 5% 1/4W
 R1769 1-249-417-11 CARBON 1K 5% 1/4W
 R1770 1-215-424-00 METAL 1.3K 1% 1/4W

R1771 1-249-432-11 CARBON 18K 5% 1/4W
 R1772 1-249-421-11 CARBON 2.2K 5% 1/4W
 R1773 1-249-422-11 CARBON 2.7K 5% 1/4W

REF.NO. PART NO. DESCRIPTION REMARK

R1774 1-215-903-11 METAL OXIDE 68K 5% 2W F
 R1775 1-249-422-11 CARBON 2.7K 5% 1/4W
 R1776 1-215-903-11 METAL OXIDE 68K 5% 2W F
 R1777 1-260-099-11 CARBON 1K 5% 1/2W
 R1778 1-249-422-11 CARBON 2.7K 5% 1/4W

R1779 1-215-903-11 METAL OXIDE 68K 5% 2W F
 R1780 1-249-436-11 CARBON 39K 5% 1/4W
 R1781 1-260-099-11 CARBON 1K 5% 1/2W
 R1782 1-260-099-11 CARBON 1K 5% 1/2W
 R1783 1-260-087-11 CARBON 100 5% 1/2W

R1786 1-260-115-11 CARBON 22K 5% 1/2W
 R1787 1-216-374-00 METAL OXIDE 2.7 5% 2W F
 R1788 1-260-132-11 CARBON 560K 5% 1/2W

VARIABLE RESISTOR

RV1761 1-241-714-11 RESISTOR ADJ METAL FILM 110M



* A-1372-520-A HF BOARD, MOUNTED

CAPACITOR

C1234 1-126-960-11 ELECT 1MF 20% 50V
 C1235 1-126-960-11 ELECT 1MF 20% 50V
 C2001 1-104-665-11 ELECT 100MF 20% 25V

CONNECTOR

CN1232 1-564-524-11 PLUG, CONNECTOR 9P
 CN2001* 1-564-520-11 PLUG, CONNECTOR 5P

DIODE

D1233 8-719-110-17 DIODE RD10ESB2
 D2002 8-719-057-09 DIODE LNJ801LPDJA
 D2003 8-719-057-09 DIODE LNJ801LPDJA

IC

IC2001 8-742-014-11 ICSBX1981-51

JACK

J1231 1-691-110-11 JACK, PIN 3P
 J1232 1-694-063-11 TERMINAL, S

RESISTOR

R1233 1-216-065-91 RESISTOR 4.7K 5% 1/10W
 R1235 1-216-065-91 RESISTOR 4.7K 5% 1/10W



REF.NO.	PART NO.	DESCRIPTION	REMARK
R1236	1-216-113-00	RESISTOR 470K 5% 1/10W	
R1237	1-216-065-91	RESISTOR 4.7K 5% 1/10W	
R1238	1-216-113-00	RESISTOR 470K 5% 1/10W	
R2001	1-216-041-00	RESISTOR 470 5% 1/10W	
R2002	1-216-041-00	RESISTOR 470 5% 1/10W	
R2003	1-249-401-11	CARBON 47 5% 1/4W	

HX

* A-1372-532-A HX (VAR) MOUNTED PC BOARD

CONNECTOR

CN2002* 1-564-518-11 PLUG, CONNECTOR 3P

RESISTOR

R2010 1-216-047-91 RESISTOR 820 5% 1/10W
 R2011 1-216-049-91 RESISTOR 1K 5% 1/10W
 R2012 1-216-055-00 RESISTOR 1.8K 5% 1/10W
 R2013 1-216-065-91 RESISTOR 4.7K 5% 1/10W
 R2014 1-216-073-00 RESISTOR 10K 5% 1/10W
 R2015 1-216-025-91 RESISTOR 100 5% 1/10W

SWITCH

S2001 1-572-198-11 SWITCH, KEYBOARD
 S2002 1-572-198-11 SWITCH, KEYBOARD
 S2003 1-572-198-11 SWITCH, KEYBOARD
 S2004 1-572-198-11 SWITCH, KEYBOARD
 S2005 1-572-198-11 SWITCH, KEYBOARD
 S2006 1-572-198-11 SWITCH, KEYBOARD
 S2007 1-572-198-11 SWITCH, KEYBOARD

WA

* A-1372-580-A WA BOARD, MOUNTED (KV-32FV1/34FVL1)

* A-1372-581-A WA BOARD, MOUNTED (KV-36FV1)

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

CAPACITOR

C941 1-126-942-61 ELECT 1000MF 20% 25V
 C944 1-163-021-91 CERAMIC CHIP 0.01MF 10% 50V
 C946 1-104-665-11 ELECT 100MF 20% 25V
 C949 1-161-830-00 CERAMIC CHIP 0.0047MF 500V
 C950 1-126-941-11 ELECT 470MF 20% 25V
 C951 1-107-637-11 ELECT 22MF 20% 160V
 C952 1-104-999-11 MYLAR 0.1MF 10% 200V
 C953 1-106-383-00 MYLAR 0.047MF 10% 200V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C954	1-137-364-11	FILM 0.001MF 5% 50V	
C955	1-107-667-11	ELECT 2.2MF 20% 160V	
C956	1-137-364-11	FILM 0.001MF 5% 50V	
C957	1-106-383-00	MYLAR 0.047MF 10% 200V	
C958	1-126-941-11	ELECT 470MF 20% 25V	

C963	1-126-960-11	ELECT 1MF 20% 50V	
C964	1-136-153-00	FILM 0.01MF 5% 50V	
C965	1-136-165-00	FILM 0.1MF 5% 50V	
C966	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C967	1-136-165-00	FILM 0.1MF 5% 50V	

C968	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C970	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C971	1-104-664-11	ELECT 47MF 20% 25V	
C972	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C973	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	

C974	1-137-370-11	FILM 0.01MF 5% 50V	
C976	1-130-967-00	FILM 0.0027MF 5% 50V	
C977	1-104-760-11	CERAMIC CHIP 0.047MF 10% 50V	
C981	1-126-941-11	ELECT 470MF 20% 25V	
C983	1-137-366-11	FILM 0.0022MF 5% 50V	

C984	1-107-713-11	ELECT 4.7MF 20% 35V	
C1941	1-126-941-11	ELECT 470MF 20% 25V	
C1948	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
C1961	1-129-725-00	FILM 0.082MF 5% 400V	
C1962	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	

C1965	1-136-601-11	FILM 0.01MF 10% 630V	
C1966	1-137-378-11	FILM 0.22MF 5% 50V	
C1968	1-137-378-11	FILM 0.22MF 5% 50V	
C1969	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	

C1972	1-104-664-11	ELECT 47MF 20% 16V	
C1974	1-104-664-11	ELECT 47MF 20% 16V	
C1976	1-163-035-00	CERAMIC CHIP 0.047MF 50V	

CONNECTOR

CN941	* 1-564-511-11	PLUG, CONNECTOR	8P
CN942	* 1-564-509-11	PLUG, CONNECTOR	6P
CN961	* 1-770-723-11	CONNECTOR, BOARD TO BOARD	8P
CN981	* 1-564-506-11	PLUG, CONNECTOR	3P
CN982	* 1-564-507-11	PLUG, CONNECTOR	4P

DIODE

D941	8-719-991-33	DIODE 1SS133T-77	
D946	8-719-110-88	DIODE RD39ESB2	
D947	8-719-110-88	DIODE RD39ESB2	
D962	8-719-991-33	DIODE 1SS133T-77	
D963	8-719-404-49	DIODE MA111	
D964	8-719-210-21	DIODE 11EQS04	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D966	8-719-302-43	DIODE EL1Z		R959	1-216-021-00	RESISTOR	68 5% 1/10W
D968	8-719-109-89	DIODE RD5.6ESB2		R961	1-216-025-91	RESISTOR	100 5% 1/10W
D969	8-719-109-89	DIODE RD5.6ESB2		R962	1-216-025-91	RESISTOR	100 5% 1/10W
D1961	8-719-991-33	DIODE1SS133T-77		R963	1-216-091-00	RESISTOR	56K 5% 1/10W
D1962	8-719-991-33	DIODE 1SS133T-77		R964	1-216-109-00	RESISTOR	330K 5% 1/10W
<u>IC</u>				R965	1-216-089-91	RESISTOR	47K 5% 1/10W
IC961	8-752-074-64	IC CXA2026AS		R966	1-216-073-00	RESISTOR	10K 5% 1/10W
IC962	8-759-729-03	IC NJM2903D		R967	1-216-089-91	RESISTOR	47K 5% 1/10W
IC963	8-759-729-03	IC NJM2903D		R968	1-216-083-00	RESISTOR	27K 5% 1/10W
IC964	8-759-700-42	IC NJM2904D		R969	1-216-025-91	RESISTOR	100 5% 1/10W
IC965	8-759-701-59	IC NJM78M09FA		R970	1-208-832-11	RESISTOR	120K 0.50% 1/10W
IC981	8-759-603-37	IC M5216P		R971	1-216-049-91	RESISTOR	1K 5% 1/10W
<u>COIL</u>				R972	1-216-065-91	RESISTOR	4.7K 5% 1/10W
L961	1-459-111-00	INDUCTOR		R973	1-216-057-00	RESISTOR	2.2K 5% 1/10W
L964	1-406-989-21	INDUCTOR		R974	1-208-808-11	RESISTOR	12K 0.50% 1/10W
<u>TRANSISTOR</u>				R975	1-216-073-00	RESISTOR	10K 5% 1/10W
Q943	8-729-422-27	TRANSISTOR	2SD601A-Q	R976	1-216-057-00	RESISTOR	2.2K 5% 1/10W
Q944	8-729-422-27	TRANSISTOR	2SD601A-Q	R977	1-249-401-11	CARBON	47 5% 1/4W F
Q945	8-729-422-27	TRANSISTOR	2SD601A-Q	R978	1-216-073-00	RESISTOR	10K 5% 1/10W
Q946	8-729-017-05	TRANSISTOR	2SA1837	R979	1-216-017-91	RESISTOR	47 5% 1/10W
Q947	8-729-017-06	TRANSISTOR	2SC4793	R980	1-216-073-00	RESISTOR	10K 5% 1/10W
Q961	8-729-119-78	TRANSISTOR	2SC2785-HFE	R981	1-216-085-00	RESISTOR	33K 5% 1/10W
Q962	8-729-119-76	TRANSISTOR	2SA1175-HFE	R982	1-216-081-00	RESISTOR	22K 5% 1/10W
Q963	8-729-119-76	TRANSISTOR	2SA1175-HFE	R983	1-216-077-00	RESISTOR	15K 5% 1/10W
Q965	8-729-931-45	TRANSISTOR	IRF614	R984	1-216-069-00	RESISTOR	6.8K 5% 1/10W
Q966	8-729-216-22	TRANSISTOR	2SA1162-G	R985	1-215-421-00	METAL	1K 1% 1/4W
Q967	8-729-140-97	TRANSISTOR	2SB734-34	R987	1-216-049-91	RESISTOR	1K 5% 1/10W
Q968	8-729-422-27	TRANSISTOR	2SD601A-Q	R988	1-215-429-00	METAL	2.2K 1% 1/4W
Q969	8-729-119-78	TRANSISTOR	2SC2785-HFE	R989	1-208-806-11	RESISTOR	10K 0.50% 1/10W
Q981	8-729-422-27	TRANSISTOR	2SD601A-Q	R990	1-216-025-91	RESISTOR	100 5% 1/10W
Q1961	8-729-140-97	TRANSISTOR	2SB734-34	R991	1-208-800-11	RESISTOR	5.6K 0.50% 1/10W
<u>RESISTOR</u>				R992	1-216-073-00	RESISTOR	10K 5% 1/10W
R943	1-216-025-91	RESISTOR	100 5% 1/10W	R993	1-216-025-91	RESISTOR	100 5% 1/10W
R948	1-216-049-91	RESISTOR	1K 5% 1/10W	R1941	1-260-312-11	CARBON	47 5% 1/2W
R949	1-216-057-00	RESISTOR	2.2K 5% 1/10W	R1942	1-249-387-11	CARBON	3.3 5% 1/4W F
R950	1-216-049-91	RESISTOR	1K 5% 1/10W	R1943	1-249-414-11	CARBON	560 5% 1/4W F
R951	1-216-049-91	RESISTOR	1K 5% 1/10W	R1944	1-249-432-11	CARBON	18K 5% 1/4W
R952	1-216-041-00	RESISTOR	470 5% 1/10W	R1945	1-215-914-11	METAL OXIDE	330 5% 3W F
R953	1-216-021-00	RESISTOR	68 5% 1/10W	R1946	1-249-417-11	CARBON	1K 5% 1/4W F
R954	1-216-033-00	RESISTOR	220 5% 1/10W	R1947	1-249-432-11	CARBON	18K 5% 1/4W
R955	1-216-047-91	RESISTOR	820 5% 1/10W	R1948	1-249-414-11	CARBON	560 5% 1/4W
R956	1-216-025-91	RESISTOR	100 5% 1/10W	R1949	1-249-387-11	CARBON	3.3 5% 1/4W F
R957	1-216-073-00	RESISTOR	10K 5% 1/10W	R1950	1-249-401-11	CARBON	47 5% 1/4W F
R958	1-216-025-91	RESISTOR	100 5% 1/10W	R1960	1-216-037-00	RESISTOR	330 5% 1/10W
				R1962	1-216-065-91	RESISTOR	4.7K 5% 1/10W
				R1963	1-216-033-00	RESISTOR	220 5% 1/10W
				R1964	1-216-057-00	RESISTOR	2.2K 5% 1/10W



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R1967	1-215-489-00	METAL	680K 1% 1/4W	C1475	1-128-550-11	ELECT 2200MF 20% 50V	
R1969	1-216-057-00	RESISTOR	2.2K 5% 1/10W	C1476	1-128-550-11	ELECT 2200MF 20% 50V	
R1970	1-216-049-91	RESISTOR	1K 5% 1/10W	C1477	1-126-971-11	ELECT 470MF 20% 50V	
R1971	1-216-121-91	RESISTOR	1M 5% 1/10W	C1478	1-126-971-11	ELECT 470MF 20% 50V	
R1972	1-216-073-00	RESISTOR	10K 5% 1/10W	CONNECTOR			
R1973	1-216-035-00	RESISTOR	270 5% 1/10W	CN1462*	1-564-507-11	PLUG, CONNECTOR	4P
R1974	1-216-077-00	RESISTOR	15K 5% 1/10W	CN1463*	1-564-509-11	PLUG, CONNECTOR	6P
R1978	1-216-025-91	RESISTOR	100 5% 1/10W	CN5001*	1-564-508-11	PLUG, CONNECTOR	5P
R1980	1-216-041-00	RESISTOR	470 5% 1/10W	CN5003*	1-564-507-11	PLUG, CONNECTOR	4P
R2962	1-215-885-00	METAL OXIDE	68 5% 2W F	DIODE			
R2963	1-215-885-00	METAL OXIDE	68 5% 2W F	D1461	8-719-404-49	DIODE MA111	
R2965	1-216-065-91	RESISTOR	4.7K 5% 1/10W	D1463	8-719-404-49	DIODE MA111	
R2966	1-208-842-11	RESISTOR	330K 0.50% 1/10W	D1466	8-719-404-49	DIODE MA111	
R2967	1-208-839-11	RESISTOR	240K 0.50% 1/10W (KV-32FV1/34FVL1)	IC			
R2967	1-208-838-11	RESISTOR	220K 0.50% 1/10W (KV-36FV1)	IC1461	8-759-168-24	IC TA8200AH	
R2968	1-216-065-91	RESISTOR	4.7K 5% 1/10W	CONDUCTOR			
R2969	1-216-065-91	RESISTOR	4.7K 5% 1/10W	JR1411	1-216-295-91	SHORT	0
R2971	1-216-069-00	RESISTOR	6.8K 5% 1/10W	JR1461	1-216-295-91	SHORT	0
R2972	1-208-784-11	RESISTOR	1.2K 0.50% 1/10W	JR1462	1-216-295-91	SHORT	0
R2973	1-208-758-11	RESISTOR	100 0.50% 1/10W	JR5203	1-216-295-91	SHORT	0
R2975	1-216-061-00	RESISTOR	3.3K 5% 1/10W	JR5204	1-216-295-91	SHORT	0
R2976	1-208-758-11	RESISTOR	100 0.50% 1/10W	IC LINK			
R2977	1-216-073-00	RESISTOR	10K 5% 1/10W	PS1461△	1-532-984-11	LINK, IC	2A/90V
R2978	1-208-782-11	RESISTOR	1K 0.50% 1/10W	TRANSISTOR			
R2979	1-216-097-91	RESISTOR	100K 5% 1/10W	Q1461	8-729-422-27	TRANSISTOR 2SD601A-Q	
R2980	1-216-097-91	RESISTOR	100K 5% 1/10W	Q1462	8-729-422-27	TRANSISTOR 2SD601A-Q	
<div>K</div> <p>* A-1385-187-A K COMPLETE BOARD</p> <p>4-382-854-11 SCREW (M3X10), P, SW (+)</p>				Q1463	8-729-900-53	TRANSISTOR DTC114EK	
				Q1464	8-729-900-53	TRANSISTOR DTC114EK	
CAPACITOR				RESISTOR			
C1461	1-126-960-11	ELECT	1MF 20% 50V	R1461	1-216-057-00	RESISTOR	2.2K 5% 1/10W
C1462	1-126-960-11	ELECT	1MF 20% 50V	R1462	1-216-073-00	RESISTOR	10K 5% 1/10W
C1464	1-163-038-91	CERAMIC CHIP	0.1MF 25V	R1464	1-216-057-00	RESISTOR	2.2K 5% 1/10W
C1465	1-126-960-11	ELECT	1MF 20% 50V	R1465	1-216-089-91	RESISTOR	47K 5% 1/10W
C1467	1-126-941-11	ELECT	470MF 20% 25V	R1466	1-216-089-91	RESISTOR	47K 5% 1/10W
C1468	1-126-960-11	ELECT	1MF 20% 50V	R1467	1-216-073-00	RESISTOR	10K 5% 1/10W
C1470	1-126-960-11	ELECT	1MF 20% 50V	R1469	1-249-389-11	CARBON	4.7 5% 1/4W F
C1471	1-136-165-00	FILM	0.1MF 5% 50V	R1470	1-249-389-11	CARBON	4.7 5% 1/4W F
C1472	1-137-194-81	FILM	0.47MF 5% 50V	R1471	1-216-049-91	RESISTOR	1K 5% 1/10W
C1473	1-128-550-11	ELECT	2200MF 20% 50V	R1472	1-216-077-00	RESISTOR	15K 5% 1/10W
C1474	1-136-165-00	FILM	0.1MF 5% 50V	R1473	1-216-049-91	RESISTOR	1K 5% 1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R3306	1-216-295-91	SHORT	0			<div>UX</div> <div>* A-1394-912-A UX BOARD, COMPLETE</div>					
R3312	1-216-037-00	RESISTOR	330	5%	1/10W						
R3313	1-216-295-91	SHORT	0								
R3314	1-216-049-91	RESISTOR	1K	5%	1/10W						
R3322	1-216-065-91	RESISTOR	4.7K	5%	1/10W						
R3323	1-216-065-91	RESISTOR	4.7K	5%	1/10W						
R3324	1-216-065-91	RESISTOR	4.7K	5%	1/10W						
R3329	1-216-069-00	RESISTOR	6.8K	5%	1/10W						
R3330	1-216-295-91	SHORT	0								
R3332	1-216-033-00	RESISTOR	220	5%	1/10W						
R3337	1-216-033-00	RESISTOR	220	5%	1/10W						
R3338	1-216-033-00	RESISTOR	220	5%	1/10W						
R3339	1-216-049-91	RESISTOR	1K	5%	1/10W						
R3340	1-216-041-00	RESISTOR	470	5%	1/10W						
R3341	1-216-057-00	RESISTOR	2.2K	5%	1/10W						
R3342	1-216-057-00	RESISTOR	2.2K	5%	1/10W						
R3343	1-216-049-91	RESISTOR	1K	5%	1/10W						
R3346	1-216-049-91	RESISTOR	1K	5%	1/10W						
R3351	1-216-295-91	SHORT	0								
R3352	1-216-049-91	RESISTOR	1K	5%	1/10W						
R3358	1-216-047-91	RESISTOR	820	5%	1/10W						
R3359	1-216-047-91	RESISTOR	820	5%	1/10W						
R3360	1-216-053-00	RESISTOR	1.5K	5%	1/10W						
R3361	1-216-053-00	RESISTOR	1.5K	5%	1/10W						
R3362	1-216-041-00	RESISTOR	470	5%	1/10W						
R3363	1-216-045-00	RESISTOR	680	5%	1/10W						
R3364	1-216-045-00	RESISTOR	680	5%	1/10W						
R3370	1-216-295-91	SHORT	0								
R3375	1-216-041-00	RESISTOR	470	5%	1/10W						
R3376	1-216-071-00	RESISTOR	8.2K	5%	1/10W						
R3377	1-216-073-00	RESISTOR	10K	5%	1/10W						
R3378	1-216-053-00	RESISTOR	1.5K	5%	1/10W						
R3379	1-216-077-00	RESISTOR	15K	5%	1/10W						
R3380	1-216-025-91	RESISTOR	100	5%	1/10W						
R3381	1-216-025-91	RESISTOR	100	5%	1/10W						
R3382	1-216-057-00	RESISTOR	2.2K	5%	1/10W						
R3383	1-216-025-91	RESISTOR	100	5%	1/10W						
R3384	1-216-033-00	RESISTOR	220	5%	1/10W						
R3385	1-216-109-00	RESISTOR	330K	5%	1/10W						
R3386	1-216-295-91	SHORT	0								
R3387	1-216-295-91	SHORT	0								
R3395	1-216-061-00	RESISTOR	3.3K	5%	1/10W						
<u>CRYSTAL</u>											
X3302	1-760-095-21	VIBRATOR, CRYSTAL									
X3303	1-577-611-11	OSCILALTOR, CERAMIC CHIP									
X3304	1-567-505-11	OSCILLATOR, CRYSTAL									
C151	1-126-960-11	ELECT	1MF	20%	50V						
C152	1-126-960-11	ELECT	1MF	20%	50V						
C153	1-164-222-11	CERAMIC CHIP	0.22MF		25V						
C154	1-164-222-11	CERAMIC CHIP	0.22MF		25V						
C156	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V						
C158	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V						
C159	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V						
C160	1-126-959-11	ELECT	0.47MF	20%	50V						
C161	1-126-960-11	ELECT	1MF	20%	50V						
C162	1-126-960-11	ELECT	1MF	20%	50V						
C164	1-163-038-91	CERAMIC CHIP	0.1MF		25V						
C166	1-163-038-91	CERAMIC CHIP	0.1MF		25V						
C167	1-104-665-11	ELECT	100MF	20%	25V						
C168	1-104-666-11	ELECT	220MF	20%	25V						
C173	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V						
C174	1-164-005-11	CERAMIC CHIP	0.47MF		25V						
C201	1-128-551-11	ELECT	22MF	20%	25V						
C202	1-128-551-11	ELECT	22MF	20%	25V						
C203	1-128-551-11	ELECT	22MF	20%	25V						
C204	1-126-960-11	ELECT	1MF	20%	50V						
C205	1-126-960-11	ELECT	1MF	20%	50V						
C231	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V						
C232	1-128-551-11	ELECT	22MF	20%	25V						
C233	1-128-551-11	ELECT	22MF	20%	25V						
C234	1-126-960-11	ELECT	1MF	20%	50V						
C235	1-126-960-11	ELECT	1MF	20%	50V						
C236	1-128-551-11	ELECT	22MF	20%	25V						
C237	1-126-960-11	ELECT	1MF	20%	50V						
C238	1-126-960-11	ELECT	1MF	20%	50V						
C241	1-126-941-11	ELECT	470MF	20%	25V						
C242	1-126-959-11	ELECT	0.47MF	20%	50V						
C243	1-126-959-11	ELECT	0.47MF	20%	50V						
C244	1-126-959-11	ELECT	0.47MF	20%	50V						
C245	1-126-959-11	ELECT	0.47MF	20%	50V						
C247	1-126-941-11	ELECT	470MF	20%	25V						
C248	1-126-959-11	ELECT	0.47MF	20%	50V						
C249	1-126-959-11	ELECT	0.47MF	20%	50V						
C272	1-163-231-11	CERAMIC CHIP	15PF	5%	50V						
C273	1-128-551-11	ELECT	22MF	20%	25V						
C277	1-128-551-11	ELECT	22MF	20%	25V						
C278	1-128-551-11	ELECT	22MF	20%	25V						

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<u>COIL</u>				R159	1-216-073-00	RESISTOR	10K 5% 1/10W
L261	1-410-482-31	INDUCTOR	100UH	R160	1-216-079-00	RESISTOR	18K 5% 1/10W
<u>TRANSISTOR</u>				R161	1-216-073-00	RESISTOR	10K 5% 1/10W
Q202	8-729-422-27	TRANSISTOR	2SD601A-Q	R162	1-216-073-00	RESISTOR	10K 5% 1/10W
Q203	8-729-422-27	TRANSISTOR	2SD601A-Q	R163	1-216-073-00	RESISTOR	10K 5% 1/10W
Q205	8-729-216-22	TRANSISTOR	2SA1162-G	R164	1-216-065-91	RESISTOR	4.7K 5% 1/10W
Q206	8-729-216-22	TRANSISTOR	2SA1162-G	R165	1-216-073-00	RESISTOR	10K 5% 1/10W
Q208	8-729-422-27	TRANSISTOR	2SD601A-Q	R167	1-216-091-00	RESISTOR	56K 5% 1/10W
Q209	8-729-422-27	TRANSISTOR	2SD601A-Q	R168	1-216-075-00	RESISTOR	12K 5% 1/10W
Q210	8-729-422-27	TRANSISTOR	2SD601A-Q	R169	1-216-097-91	RESISTOR	100K 5% 1/10W
Q211	8-729-216-22	TRANSISTOR	2SA1162-G	R170	1-216-049-91	RESISTOR	1K 5% 1/10W
Q212	8-729-422-27	TRANSISTOR	2SD601A-Q	R171	1-216-049-91	RESISTOR	1K 5% 1/10W
Q231	8-729-422-27	TRANSISTOR	2SD601A-Q	R172	1-216-097-91	RESISTOR	100K 5% 1/10W
Q233	8-729-422-27	TRANSISTOR	2SD601A-Q	R173	1-216-081-00	RESISTOR	22K 5% 1/10W
Q234	8-729-422-27	TRANSISTOR	2SD601A-Q	R174	1-216-081-00	RESISTOR	22K 5% 1/10W
Q235	8-729-422-27	TRANSISTOR	2SD601A-Q	R175	1-216-081-00	RESISTOR	22K 5% 1/10W
Q236	8-729-422-27	TRANSISTOR	2SD601A-Q	R176	1-216-081-00	RESISTOR	22K 5% 1/10W
Q237	8-729-216-22	TRANSISTOR	2SA1162-G	R178	1-216-091-00	RESISTOR	56K 5% 1/10W
Q238	8-729-216-22	TRANSISTOR	2SA1162-G	R179	1-216-097-91	RESISTOR	100K 5% 1/10W
Q239	8-729-216-22	TRANSISTOR	2SA1162-G	R180	1-216-097-91	RESISTOR	100K 5% 1/10W
Q240	8-729-422-27	TRANSISTOR	2SD601A-Q	R181	1-216-049-91	RESISTOR	1K 5% 1/10W
Q241	8-729-422-27	TRANSISTOR	2SD601A-Q	R183	1-216-081-00	RESISTOR	22K 5% 1/10W
Q242	8-729-422-27	TRANSISTOR	2SD601A-Q	R184	1-216-081-00	RESISTOR	22K 5% 1/10W
Q243	8-729-216-22	TRANSISTOR	2SA1162-G	R185	1-216-081-00	RESISTOR	22K 5% 1/10W
Q244	8-729-216-22	TRANSISTOR	2SA1162-G	R186	1-216-089-91	RESISTOR	47K 5% 1/10W
Q245	8-729-216-22	TRANSISTOR	2SA1162-G	R187	1-216-099-00	RESISTOR	120K 5% 1/10W
Q246	8-729-422-27	TRANSISTOR	2SD601A-Q	R188	1-216-097-91	RESISTOR	100K 5% 1/10W
Q262	8-729-216-22	TRANSISTOR	2SA1162-G	R189	1-216-097-91	RESISTOR	100K 5% 1/10W
Q263	8-729-216-22	TRANSISTOR	2SA1162-G	R190	1-216-081-00	RESISTOR	22K 5% 1/10W
Q264	8-729-216-22	TRANSISTOR	2SA1162-G	R191	1-216-089-91	RESISTOR	47K 5% 1/10W
Q265	8-729-422-27	TRANSISTOR	2SD601A-Q	R192	1-216-063-91	RESISTOR	3.9K 5% 1/10W
Q266	8-729-216-22	TRANSISTOR	2SA1162-G	R193	1-216-099-00	RESISTOR	120K 5% 1/10W
Q267	8-729-216-22	TRANSISTOR	2SA1162-G	R194	1-216-097-91	RESISTOR	100K 5% 1/10W
Q268	8-729-216-22	TRANSISTOR	2SA1162-G	R195	1-216-075-00	RESISTOR	12K 5% 1/10W
Q1051	8-729-216-22	TRANSISTOR	2SA1162-G	R196	1-216-089-91	RESISTOR	47K 5% 1/10W
<u>RESISTOR</u>				R197	1-216-097-91	RESISTOR	100K 5% 1/10W
R151	1-216-085-00	RESISTOR	33K 5% 1/10W	R198	1-216-081-00	RESISTOR	22K 5% 1/10W
R152	1-216-073-00	RESISTOR	10K 5% 1/10W	R199	1-216-089-91	RESISTOR	47K 5% 1/10W
R153	1-216-073-00	RESISTOR	10K 5% 1/10W	R200	1-216-081-00	RESISTOR	22K 5% 1/10W
R154	1-216-085-00	RESISTOR	33K 5% 1/10W	R201	1-216-022-00	RESISTOR	75 5% 1/10W
R155	1-216-073-00	RESISTOR	10K 5% 1/10W	R202	1-216-022-00	RESISTOR	75 5% 1/10W
R156	1-216-073-00	RESISTOR	10K 5% 1/10W	R203	1-216-022-00	RESISTOR	75 5% 1/10W
R157	1-216-079-00	RESISTOR	18K 5% 1/10W	R204	1-216-113-00	RESISTOR	470K 5% 1/10W
R158	1-216-073-00	RESISTOR	10K 5% 1/10W	R205	1-216-113-00	RESISTOR	470K 5% 1/10W
				R206	1-216-295-91	SHORT	0
				R207	1-216-295-91	SHORT	0
				R208	1-216-295-91	SHORT	0



REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R211	1-216-089-91	RESISTOR	47K	5%	1/10W	R265	1-216-025-91	RESISTOR	100	5%	1/10W
R212	1-216-081-00	RESISTOR	22K	5%	1/10W	R266	1-216-025-91	RESISTOR	100	5%	1/10W
R213	1-216-089-91	RESISTOR	47K	5%	1/10W	R267	1-216-025-91	RESISTOR	100	5%	1/10W
R214	1-216-081-00	RESISTOR	22K	5%	1/10W	R268	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R218	1-208-774-11	RESISTOR	470	0.50%	1/10W	R269	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R219	1-216-049-91	RESISTOR	1K	5%	1/10W	R270	1-216-049-91	RESISTOR	1K	5%	1/10W
R220	1-208-776-11	RESISTOR	560	0.50%	1/10W	R271	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R221	1-208-774-11	RESISTOR	470	0.50%	1/10W	R272	1-216-025-91	RESISTOR	100	5%	1/10W
R222	1-216-049-91	RESISTOR	1K	5%	1/10W	R273	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R223	1-208-776-11	RESISTOR	560	0.50%	1/10W	R274	1-216-049-91	RESISTOR	1K	5%	1/10W
R225	1-216-025-91	RESISTOR	100	5%	1/10W	R275	1-216-025-91	RESISTOR	100	5%	1/10W
R226	1-216-025-91	RESISTOR	100	5%	1/10W	R276	1-216-295-91	SHORT	0		
R228	1-216-049-91	RESISTOR	1K	5%	1/10W	R278	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R229	1-216-049-91	RESISTOR	1K	5%	1/10W	R279	1-216-025-91	RESISTOR	100	5%	1/10W
R230	1-216-089-91	RESISTOR	47K	5%	1/10W	R280	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R231	1-216-022-00	RESISTOR	75	5%	1/10W	R281	1-216-025-91	RESISTOR	100	5%	1/10W
R232	1-216-022-00	RESISTOR	75	5%	1/10W	R282	1-216-025-91	RESISTOR	100	5%	1/10W
R233	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R283	1-216-049-91	RESISTOR	1K	5%	1/10W
R234	1-216-022-00	RESISTOR	75	5%	1/10W	R284	1-216-033-00	RESISTOR	220	5%	1/10W
R235	1-216-113-00	RESISTOR	470K	5%	1/10W	R285	1-216-033-00	RESISTOR	220	5%	1/10W
R236	1-216-113-00	RESISTOR	470K	5%	1/10W	R286	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R237	1-216-022-00	RESISTOR	75	5%	1/10W	R287	1-216-025-91	RESISTOR	100	5%	1/10W
R238	1-216-113-00	RESISTOR	470K	5%	1/10W	R288	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R239	1-216-113-00	RESISTOR	470K	5%	1/10W	R289	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R240	1-216-097-91	RESISTOR	100K	5%	1/10W	R290	1-216-025-91	RESISTOR	100	5%	1/10W
R241	1-216-113-00	RESISTOR	470K	5%	1/10W	R291	1-216-067-00	RESISTOR	5.6K	5%	1/10W
R242	1-216-049-91	RESISTOR	1K	5%	1/10W	R292	1-216-025-91	RESISTOR	100	5%	1/10W
R243	1-216-113-00	RESISTOR	470K	5%	1/10W	R293	1-216-025-91	RESISTOR	100	5%	1/10W
R244	1-216-049-91	RESISTOR	1K	5%	1/10W	R294	1-216-077-00	RESISTOR	15K	5%	1/10W
R245	1-216-022-00	RESISTOR	75	5%	1/10W	R295	1-216-025-91	RESISTOR	100	5%	1/10W
R246	1-216-113-00	RESISTOR	470K	5%	1/10W	R296	1-216-025-91	RESISTOR	100	5%	1/10W
R247	1-216-113-00	RESISTOR	470K	5%	1/10W	R297	1-216-025-91	RESISTOR	100	5%	1/10W
R248	1-216-113-00	RESISTOR	470K	5%	1/10W	R298	1-216-025-91	RESISTOR	100	5%	1/10W
R249	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R300	1-216-025-91	RESISTOR	100	5%	1/10W
R250	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R902	1-249-405-11	CARBON	100	5%	1/4W F
R251	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R919	1-216-295-91	SHORT	0		
R252	1-216-049-91	RESISTOR	1K	5%	1/10W	R921	1-249-405-11	CARBON	100	5%	1/4W F
R254	1-216-049-91	RESISTOR	1K	5%	1/10W	R923	1-249-405-11	CARBON	100	5%	1/4W F
R256	1-216-295-91	SHORT	0			R925	1-249-405-11	CARBON	100	5%	1/4W F
R257	1-216-049-91	RESISTOR	1K	5%	1/10W	R926	1-216-049-91	RESISTOR	1K	5%	1/10W
R258	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R1051	1-216-073-00	RESISTOR	10K	5%	1/10W
R259	1-216-049-91	RESISTOR	1K	5%	1/10W	R1052	1-216-073-00	RESISTOR	10K	5%	1/10W
R260	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R1053	1-216-025-91	RESISTOR	100	5%	1/10W
R261	1-216-025-91	RESISTOR	100	5%	1/10W	R1054	1-216-025-91	RESISTOR	100	5%	1/10W
R262	1-216-067-00	RESISTOR	5.6K	5%	1/10W	R1055	1-216-073-00	RESISTOR	10K	5%	1/10W
R263	1-216-025-91	RESISTOR	100	5%	1/10W	R1056	1-216-073-00	RESISTOR	10K	5%	1/10W
R264	1-216-067-00	RESISTOR	5.6K	5%	1/10W	R1057	1-216-025-91	RESISTOR	100	5%	1/10W



REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R1058	1-216-025-91	RESISTOR	100	5%	1/10W	R1191	1-216-017-91	RESISTOR	47	5%	1/10W
R1059	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R1192	1-216-017-91	RESISTOR	47	5%	1/10W
R1060	1-216-073-00	RESISTOR	10K	5%	1/10W	R1193	1-216-099-00	RESISTOR	120K	5%	1/10W
R1062	1-216-025-91	RESISTOR	100	5%	1/10W	R1194	1-208-291-11	RESISTOR	4.7M	5%	1/10W
R1063	1-216-073-00	RESISTOR	10K	5%	1/10W	R1195	1-216-089-91	RESISTOR	47K	5%	1/10W
R1064	1-216-073-00	RESISTOR	10K	5%	1/10W	R1196	1-208-291-11	RESISTOR	4.7M	5%	1/10W
R1065	1-216-025-91	RESISTOR	100	5%	1/10W	R1197	1-216-073-00	RESISTOR	10K	5%	1/10W
R1151	1-216-053-00	RESISTOR	1.5K	5%	1/10W	R1198	1-216-063-91	RESISTOR	3.9K	5%	1/10W
R1152	1-216-049-91	RESISTOR	1K	5%	1/10W	R1199	1-216-097-91	RESISTOR	100K	5%	1/10W
R1153	1-216-097-91	RESISTOR	100K	5%	1/10W	R1200	1-216-097-91	RESISTOR	100K	5%	1/10W
R1154	1-216-049-91	RESISTOR	1K	5%	1/10W	R1201	1-216-089-91	RESISTOR	47K	5%	1/10W
R1156	1-216-073-00	RESISTOR	10K	5%	1/10W	R1202	1-216-053-00	RESISTOR	1.5K	5%	1/10W
R1157	1-216-073-00	RESISTOR	10K	5%	1/10W	R1203	1-216-089-91	RESISTOR	47K	5%	1/10W
R1157	1-216-073-00	RESISTOR	10K	5%	1/10W	R1204	1-216-049-91	RESISTOR	1K	5%	1/10W
R1158	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R1205	1-216-049-91	RESISTOR	1K	5%	1/10W
R1159	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R1207	1-216-025-91	RESISTOR	100	5%	1/10W
R1160	1-216-049-91	RESISTOR	1K	5%	1/10W	R1208	1-216-049-91	RESISTOR	1K	5%	1/10W
R1161	1-216-049-91	RESISTOR	1K	5%	1/10W	R1209	1-216-295-91	SHORT	0		
R1162	1-216-049-91	RESISTOR	1K	5%	1/10W	R1211	1-216-089-91	RESISTOR	47K	5%	1/10W
R1163	1-216-049-91	RESISTOR	1K	5%	1/10W	R1212	1-216-081-00	RESISTOR	22K	5%	1/10W
R1164	1-216-049-91	RESISTOR	1K	5%	1/10W	R1213	1-216-049-91	RESISTOR	1K	5%	1/10W
R1165	1-216-049-91	RESISTOR	1K	5%	1/10W	R1214	1-208-774-11	RESISTOR	470	0.50%	1/10W
R1166	1-216-049-91	RESISTOR	1K	5%	1/10W	R1215	1-208-776-11	RESISTOR	560	0.50%	1/10W
R1167	1-216-091-00	RESISTOR	56K	5%	1/10W	R1216	1-216-025-91	RESISTOR	100	5%	1/10W
R1168	1-216-049-91	RESISTOR	1K	5%	1/10W	R1217	1-216-049-91	RESISTOR	1K	5%	1/10W
R1169	1-216-081-00	RESISTOR	22K	5%	1/10W	R1242	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1170	1-216-073-00	RESISTOR	10K	5%	1/10W	R1243	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1171	1-216-073-00	RESISTOR	10K	5%	1/10W	R1244	1-216-049-91	RESISTOR	1K	5%	1/10W
R1172	1-216-097-91	RESISTOR	100K	5%	1/10W	R1245	1-216-049-91	RESISTOR	1K	5%	1/10W
R1173	1-216-081-00	RESISTOR	22K	5%	1/10W	R1246	1-216-022-00	RESISTOR	75	5%	1/10W
R1174	1-216-081-00	RESISTOR	22K	5%	1/10W	R1247	1-216-113-00	RESISTOR	470K	5%	1/10W
R1175	1-216-081-00	RESISTOR	22K	5%	1/10W	R1248	1-216-113-00	RESISTOR	470K	5%	1/10W
R1176	1-216-081-00	RESISTOR	22K	5%	1/10W	R1249	1-216-113-00	RESISTOR	470K	5%	1/10W
R1177	1-216-049-91	RESISTOR	1K	5%	1/10W	R1250	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1178	1-216-049-91	RESISTOR	1K	5%	1/10W	R1251	1-216-049-91	RESISTOR	1K	5%	1/10W
R1179	1-216-081-00	RESISTOR	22K	5%	1/10W	R1252	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1180	1-216-073-00	RESISTOR	10K	5%	1/10W	R1254	1-216-049-91	RESISTOR	1K	5%	1/10W
R1181	1-216-073-00	RESISTOR	10K	5%	1/10W	R1255	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1182	1-216-081-00	RESISTOR	22K	5%	1/10W	R1256	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1183	1-216-097-91	RESISTOR	100K	5%	1/10W	R1257	1-216-065-91	RESISTOR	4.7K	5%	1/10W
R1184	1-216-073-00	RESISTOR	10K	5%	1/10W	R1258	1-216-049-91	RESISTOR	1K	5%	1/10W
R1185	1-216-073-00	RESISTOR	10K	5%	1/10W	R1259	1-216-049-91	RESISTOR	1K	5%	1/10W
R1186	1-216-065-91	RESISTOR	4.7K	5%	1/10W	R1260	1-216-295-91	SHORT	0		
R1187	1-216-073-00	RESISTOR	10K	5%	1/10W	R1261	1-208-774-11	RESISTOR	470	0.50%	1/10W
R1188	1-216-073-00	RESISTOR	10K	5%	1/10W	R1262	1-208-776-11	RESISTOR	560	0.50%	1/10W
R1189	1-216-057-00	RESISTOR	2.2K	5%	1/10W	R1263	1-216-295-91	SHORT	0		
R1190	1-216-081-00	RESISTOR	22K	5%	1/10W	R1264	1-216-049-91	RESISTOR	1K	5%	1/10W



REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R1265	1-216-025-91	RESISTOR	100	5%	1/10W	R1424	1-216-025-91	RESISTOR	100	5%	1/10W
R1266	1-216-041-00	RESISTOR	470	5%	1/10W	R1425	1-216-025-91	RESISTOR	100	5%	1/10W
R1267	1-216-025-91	RESISTOR	100	5%	1/10W						
R1268	1-216-049-91	RESISTOR	1K	5%	1/10W	R2201	1-216-022-00	RESISTOR	75	5%	1/10W
R1269	1-216-041-00	RESISTOR	470	5%	1/10W	R2202	1-216-022-00	RESISTOR	75	5%	1/10W
R1270	1-216-049-91	RESISTOR	1K	5%	1/10W	R2203	1-216-022-00	RESISTOR	75	5%	1/10W
R1271	1-216-025-91	RESISTOR	100	5%	1/10W						
R1272	1-208-774-11	RESISTOR	470	0.50%	1/10W						
R1273	1-208-777-11	RESISTOR	620	0.50%	1/10W						
R1274	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1275	1-216-097-91	RESISTOR	100K	5%	1/10W						
R1276	1-216-041-00	RESISTOR	470	5%	1/10W						
R1277	1-216-025-91	RESISTOR	100	5%	1/10W						
R1278	1-216-025-91	RESISTOR	100	5%	1/10W						
R1279	1-216-025-91	RESISTOR	100	5%	1/10W						
R1280	1-216-025-91	RESISTOR	100	5%	1/10W						
R1281	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1282	1-216-025-91	RESISTOR	100	5%	1/10W						
R1283	1-216-295-91	SHORT	0								
R1284	1-216-295-91	SHORT	0								
R1286	1-216-295-91	SHORT	0								
R1287	1-216-295-91	SHORT	0								
R1288	1-216-295-91	SHORT	0								
R1289	1-216-295-91	SHORT	0								
R1290	1-216-295-91	SHORT	0								
R1291	1-216-295-91	SHORT	0								
R1292	1-216-295-91	SHORT	0								
R1293	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1294	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1295	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1296	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1297	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1298	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1299	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1300	1-216-049-91	RESISTOR	1K	5%	1/10W						
R1401	1-216-295-91	SHORT	0								
R1406	1-216-295-91	SHORT	0								
R1407	1-216-073-00	RESISTOR	10K	5%	1/10W						
R1408	1-216-025-91	RESISTOR	100	5%	1/10W						
R1409	1-216-025-91	RESISTOR	100	5%	1/10W						
R1411	1-216-073-00	RESISTOR	10K	5%	1/10W						
R1412	1-216-093-00	RESISTOR	68K	5%	1/10W						
R1414	1-216-081-00	RESISTOR	22K	5%	1/10W						
R1415	1-216-025-91	RESISTOR	100	5%	1/10W						
R1418	1-216-093-00	RESISTOR	68K	5%	1/10W						
R1419	1-216-081-00	RESISTOR	22K	5%	1/10W						
R1421	1-216-025-91	RESISTOR	100	5%	1/10W						

ACCESSORIES AND PACKAGING

KV-32FV1/36FV1

	3-862-737-21	MANUAL, INSTRUCTION (US MODELS)
	3-862-737-31	MANUAL, INSTRUCTION (CND MODELS)
*	4-053-658-01	BAG, PROTECTION
*	4-065-856-01	CUSHION (UPPER) (ASSY)
*	4-065-857-01	CUSHION (LOWER) (ASSY)
*	4-067-015-01	INDIVIDUAL CARTON

(KV-34FVL1)

	3-862-738-41	MANUAL, INSTRUCTION
*	4-066-646-01	BAG, PROTECTION
*	4-065-046-01	CUSHION (UPPER) (ASSY)
*	4-065-047-01	CUSHION (LOWER) (ASSY)
*	4-065-045-01	INDIVIDUAL CARTON
	4-067-998-01	TRAY

REMOTE COMMANDER

1-475-802-11	REMOTE COMMANDER (RM-Y167)
4-978-977-01	BATTERY COVER FOR REMOTE

NOTES:

[illegible]

NOTES:

[illegible]

9-965-847-01

Sony Corporation
Sony Technology Center
Product Quality Division
Service Promotion Department

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