

# SERVICE MANUAL

# AA-2W CHASSIS

<i>MODEL NAME</i>	<i>REMOTE COMMANDER</i>	<i>DESTINATION</i>	<i>CHASSIS NO.</i>
<b><i>KV-29FV16A</i></b>	<i>RM-Y171</i>	<i>Argentina</i>	<i>SCC-S34P-A</i>



KV-29FV16A



RM-Y171

TRINITRON® COLOR TELEVISION

# SONY®

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## SPECIFICATIONS

	KV-29FV16A
<b>Power Requirements</b>	120-220V, 50/60Hz
<b>Number of Inputs/Outputs</b>	
Video <sup>1)</sup>	3
S Video <sup>2)</sup>	2
Y, PB, PR <sup>3)</sup>	1
Audio <sup>4)</sup>	3
Audio Out <sup>5)</sup>	1
Monitor Out	1
S-Link	YES
Speaker Output (W)	15W x 2
<b>Power Consumption (W)</b>	
In Use (Max)	205W
In Standby	1W
<b>Dimensions (W x H x D)</b>	
mm	762 x 604 x 519 mm
in	30 x 23 <sup>7/8</sup> x 20 <sup>1/2</sup> in
<b>Mass</b>	
kg	49 kg
lbs	110 lbs

**Television system**

NTSC/PAL-M/PAL-N Color System

**Channel coverage**

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

**Picture tube**Flat Trinitron<sup>®</sup> tube**Visible screen size**

27-inch picture measured diagonally

**Actual screen size**

29-inch measured diagonally

**Antenna**

75 ohm external terminal for VHF/UHF

**Supplied Accessories**

Remote Control RM-Y171

Battery size AA (R6) w/2

**Optional Accessories**

Connecting Cables:

RK-74A, VMC-810/820830hg, VMC-10HG/30HG,

VMC-720M, VMC-810S/820S, YC-15V/30V,

YC-15/30HG, RK-G69HG, RKC-515HG

AV Cable: VMC-810/820/830 HG

Audio Cable: RKC-515HG

S-LINK Cable: RK-G69HG

Component Video Cable: VMC-10/30 HG

TV Stand: SU-32FD2, SU-36FD2, SU-32XBR2, SU-36XBR2

UV Mixer: EAC-66

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

2) Y: 1 Vp-p 75 ohms unbalanced, sync negative  
C: 0.286 Vp-p (Burst signal), 75 ohms3) Y: 1.0 Vp-p, 75 ohms, sync negative;  
PB: 0.7 Vp-p, 75 ohms; PR: Vp-p, 75 ohms4) 500<sup>m</sup>Vrms (100% modulation), Impedance: 47 kilohms5) More than 408 mVrms at the maximum volume setting (variable)  
More than 408 mVrms (fix); Impedance (output): 2 kilohms

### (●) SRS (SOUND RETRIEVAL SYSTEM)

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

The word 'SRS' and the SRS symbol (●) are registered trademarks of SRS Labs, Inc. BBE and BBE symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

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

## WARNINGS AND CAUTIONS

### 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.

### WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the ac power line.

### SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and  mark 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!!

Après avoir déconnecté le cap de l'anode, court-circuiter l'anode du tube cathodique et celui de l'anode du cap au châssis métallique de l'appareil, ou la couche de carbone peinte sur le tube cathodique ou au blindage du tube cathodique.

Afin d'éviter tout risque d'électrocution provenant d'un châssis sous tension, un transformateur d'isolement doit être utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

### ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

Les composants identifiés par une trame et par une marque  sur les schémas de principe, les vues explosées et les listes de pièces sont d'une importance critique pour la sécurité du fonctionnement. Ne les remplacer que par des composants sony dont le numéro de pièce est indiqué dans le présent manuel ou dans des suppléments publiés par sony. Les réglages de circuit dont l'importance est critique pour la sécurité du fonctionnement sont identifiés dans le présent manuel. Suivre ces procédures 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 touching 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 microamperes). 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 2 VAC range are suitable (see Figure A).

### How to Find a Good Earth Ground

A cold-water pipe is a 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- to 100-watt 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 on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

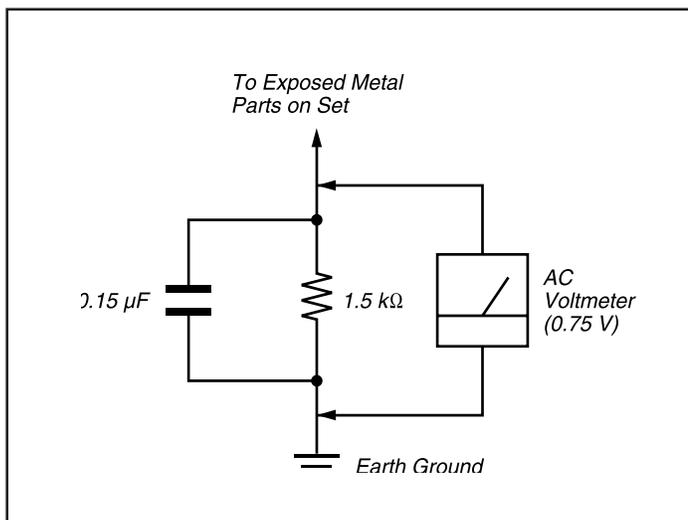


Figure A. Using an AC voltmeter to check AC leakage.

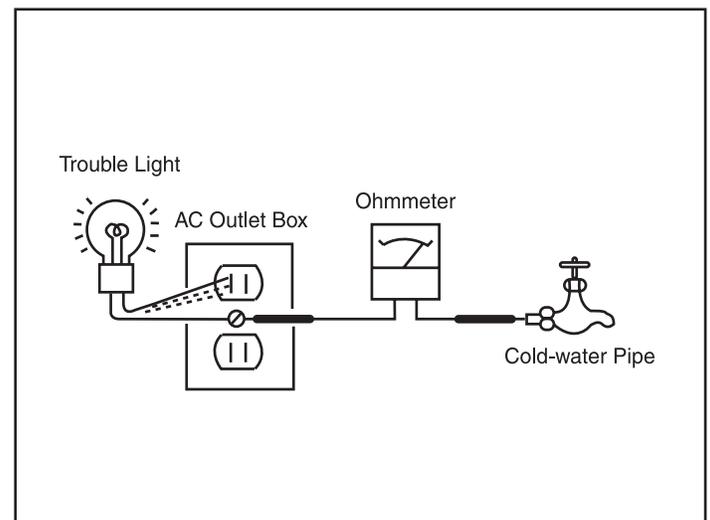
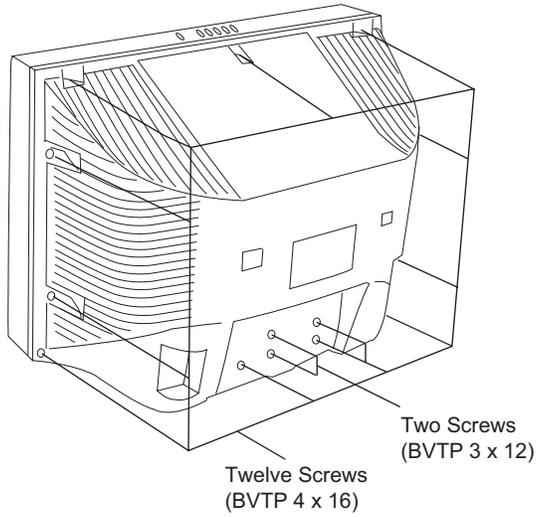


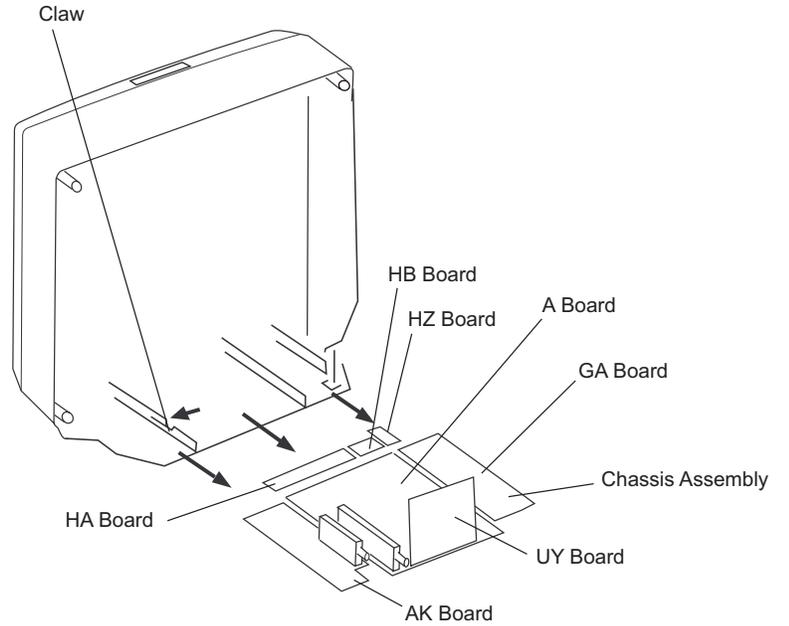
Figure B. Checking for earth ground.

## SECTION 1: DISASSEMBLY

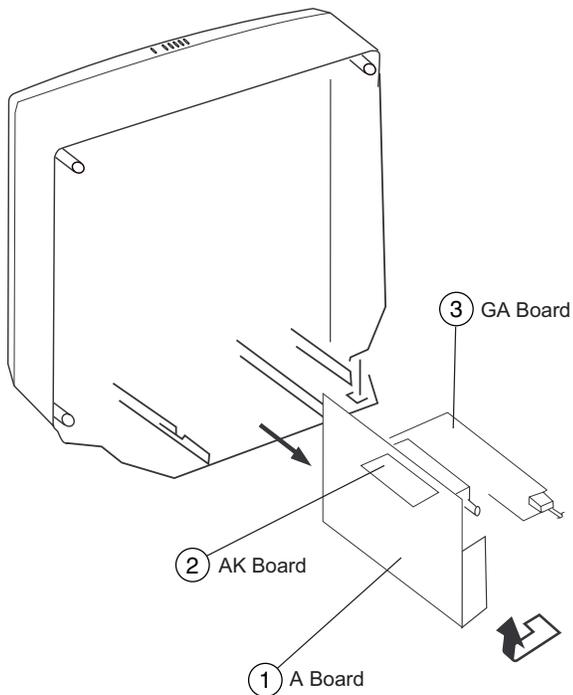
### 1-1. REAR COVER REMOVAL



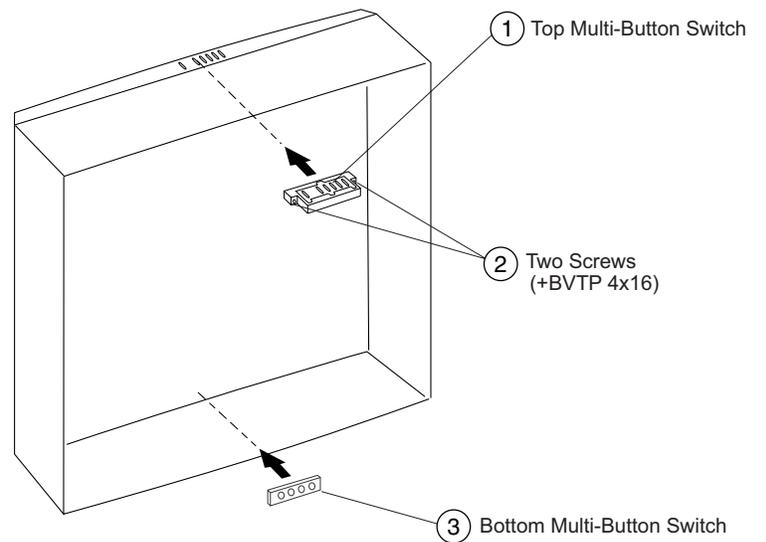
### 1-2. CHASSIS ASSEMBLY REMOVAL



### 1-3. SERVICE POSITION



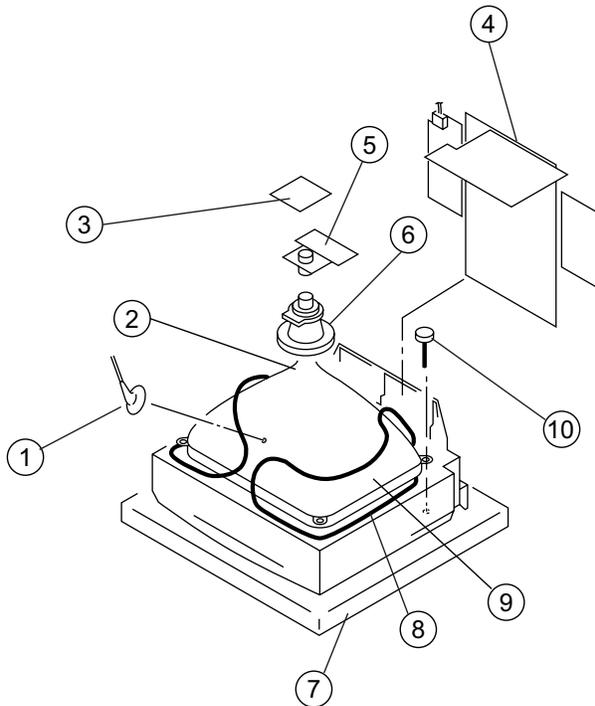
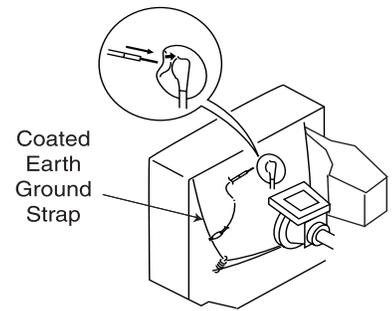
### 1-4. MULTI-BUTTON SWITCH REMOVAL



## 1-5. PICTURE TUBE REMOVAL

### WARNING: BEFORE REMOVING THE ANODE CAP

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

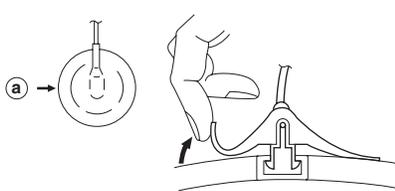


1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the neck assembly fixing screw and remove.
6. Loosen the deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
8. Remove the degaussing coils.
9. Remove the CRT grounding strap and spring tension devices.
10. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck].

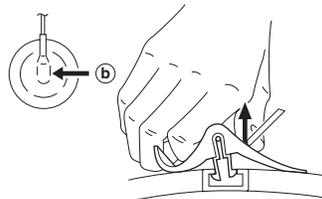
## ANODE CAP REMOVAL PROCEDURE

WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. After removing the anode cap, short circuit to either the metal chassis, CRT shield, or carbon painted on the CRT.

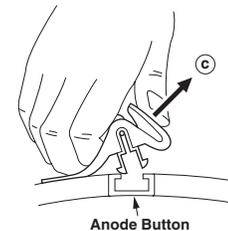
### REMOVAL PROCEDURES



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



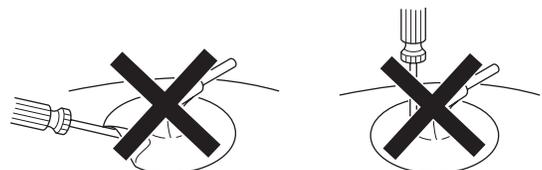
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow b .



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. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. 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 2: SET-UP ADJUSTMENTS

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

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

PICTURE CONTROL: normal  
BRIGHTNESS CONTROL: normal

**Perform the adjustments in order as follows:**

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

**Test Equipment Required:**

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter
5. Oscilloscope
6. CRT Analyzer

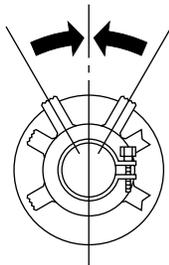
### 2-1. BEAM LANDING

#### Preparation:

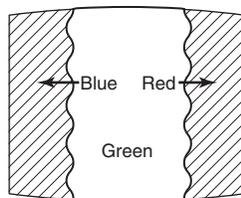
- Input a white pattern signal.
- Face the picture tube in an East or West direction to reduce the influence of geomagnetism.

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

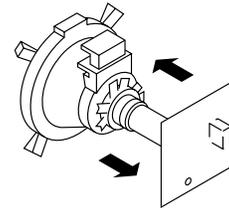
1. Input white pattern from pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



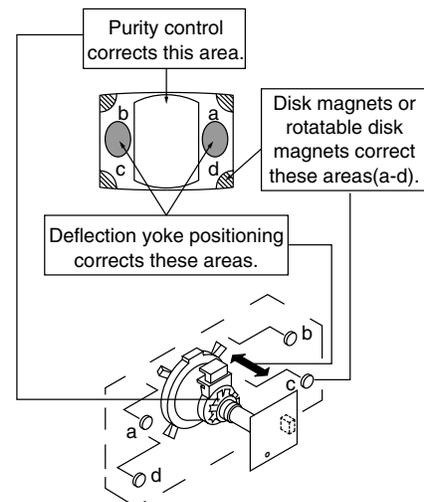
3. Input green pattern from pattern generator.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



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



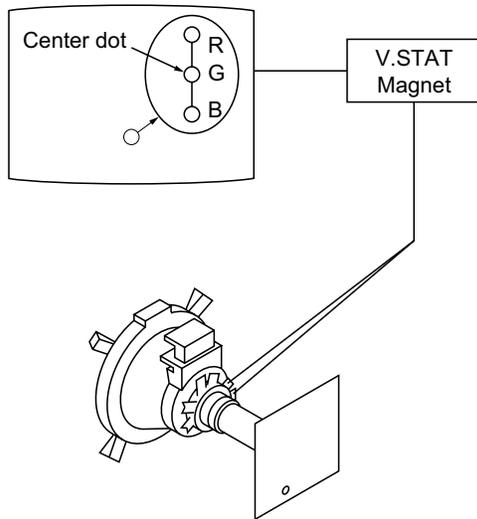
6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. When landing at the corner is not right, adjust by using the disk magnets.



## 2-2. CONVERGENCE

### Preparation:

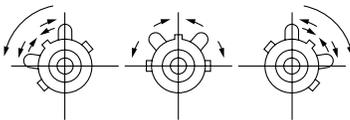
- Perform FOCUS, V. LIN and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Input dot pattern.



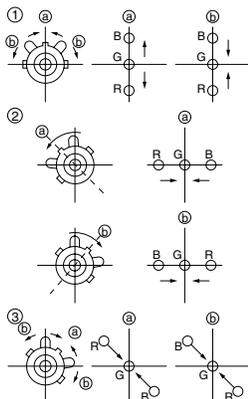
### VERTICAL AND HORIZONTAL STATIC CONVERGENCE

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

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



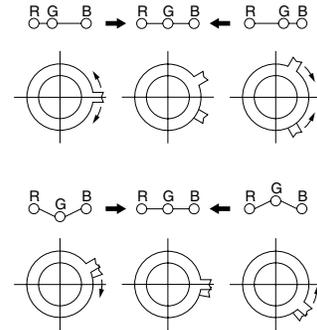
2. When the V. STAT magnet is moved in the direction of arrow (a) and (b), red, green, and blue dots move as shown below:



## OPERATION OF BMC (HEXAPOLE) MAGNET

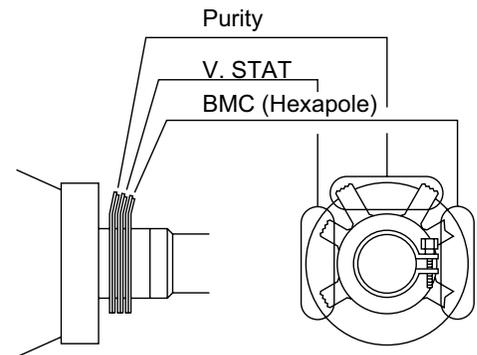
The respective dot positions resulting from moving each magnet interact, so perform adjustment while tracking.

1. Use the V. STAT 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).

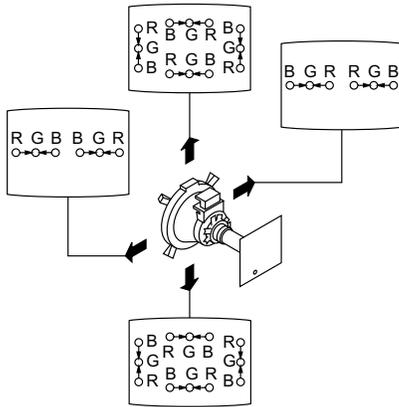


4. Return the deflection yoke to its original position.

## DYNAMIC CONVERGENCE ADJUSTMENT

Before starting, perform Vertical and Horizontal Static Convergence Adjustment.

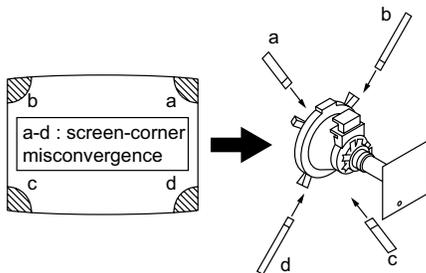
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below:



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

## SCREEN-CORNER CONVERGENCE

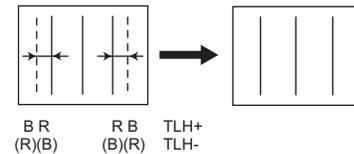
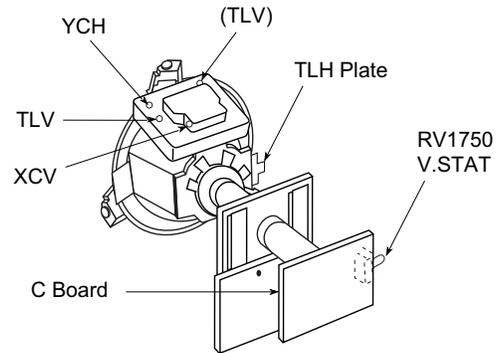
1. Affix a permalloy assembly corresponding to the misconverged areas:



## TLH PLATE ADJUSTMENT

### Preparation:

- Input crosshatch pattern.
- Adjust Picture Quality to standard, Picture and Brightness to 50%, and Other to standard.
- Adjust the Horizontal Convergence of red and blue dots by tilting the TLH plate on the deflection yoke.



1. Adjust XCV core to balance X axis.
2. Adjust YCH VR to balance Y axis.
3. Adjust vertical red and blue convergence with V.TILT (TLV VR.) Perform adjustments while tracking items 1 and 2.
4. Adjust Y MAGNET to correct V.BOW Geometry Distortion.
5. Adjust H-TRP to correct H.Trapezoid Geometry Distortion.

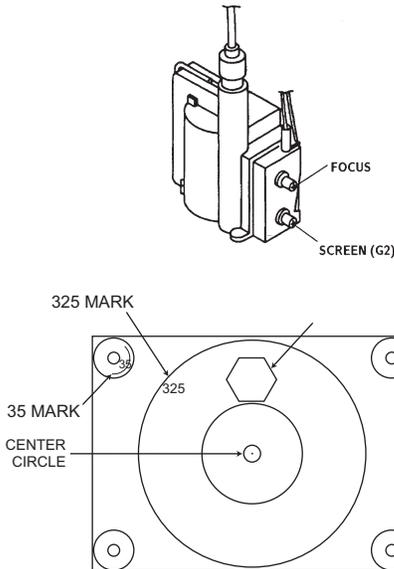
After adjusting items 4 and 5, confirm overall geometry again.

## H CENTER SW ADJUSTMENT

Before adjusting H Center SW (S501, S502), make sure that HPOS data is "7".

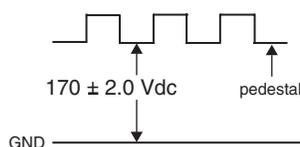
## 2-3. FOCUS

1. Input monoscope signal.
2. Set user controls to normal.
3. Set video mode to STANDARD.
4. Set the PICTURE to maximum.
5. Adjust at 325 Mark for best center/corner focus balance.
6. Receive an entire white signal. Make sure Magenta Ring is at an acceptable level.



## 2-4. SCREEN (G2)

1. Input signal from the pattern generator.
2. Set the user controls to NORMAL.
3. Attach the G2-Jig to the C Board.
4. Adjust RCUT, GCUT, BCUT, and SBRT in service mode with an oscilloscope so that voltages on the red, green, and blue cathodes are  $170 \pm 2.0$  V DC.
5. Observe the screen and adjust SCREEN (G2) VR to obtain the faintly visible background of the dot signal.
6. Push the TEST + JUMP (+ Channel) to cut off the signal. The screen should be bright or dark. Brightness of raster must be increased when adjusting.
7. Adjust screen VR until the screen is slightly cut off, or scarcely lights up. A signal cannot be seen when the brightness of the raster is high.
8. Push the JUMP again to release the cut off.



## 2-5. WHITE BALANCE ADJUSTMENTS

NO.	Disp.	Item	All Models
24	RDRV	Red Drive	31
25	GDRV	Green Drive	31
26	BDRV	Blue Drive	31
27	RCUT	Red Cut-off	7
28	GCUT	Green Cut-off	7
29	BCUT	Blue Cut-off	7
38	SBRT	Sub Bright	7

1. Set program palette to STANDARD and push RESET.
2. Input an entire white signal.
3. Set to Service Adjustment Mode.
4. Set the PICTURE and BRIGHT to minimum.
5. Adjust with SBRT if necessary.
6. Set RCUT to "14".
7. Select GCUT and BCUT with **1** and **4**.
8. Adjust by pressing **3** and **6** for the best white balance.
9. Set the PICTURE and BRIGHT to maximum.
10. Select GDRV and BDRV with **1** and **4**.
11. Adjust with **3** and **6** for the best white balance.
12. Write into the memory by pressing **MUTING** then **ENTER**.
13. Repeat steps 1-12 for GDR4, BDR4, GCU4 and BCU4 using Video 4 input.

\* Use values from Sub Contrast Adjustments

**White balance should be adjusted after Sub Contrast because RDRV is also used in Sub Contrast Adjustment. (See page 19).**

## SECTION 3: SAFETY RELATED ADJUSTMENTS

### 3-1. ▣ R530, R531 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

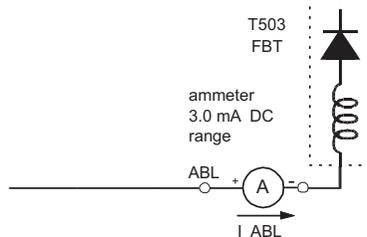
Always perform the following adjustments when replacing the following components marked with a ▣ mark on the schematic diagram:

Part Replaced ( <span style="border: 1px solid black; padding: 0 2px;">▣</span> )	Adjustment ( <span style="border: 1px solid black; padding: 0 2px;">▣</span> )
A BOARD: C531, C532, D302, D519, D520, D521, IC355, IC501, Q301, R356, R359, R361, R529, R530, R531, R532, R533, R550, T503 GA BOARD IC6003, R6088	A BOARD: R530, R531

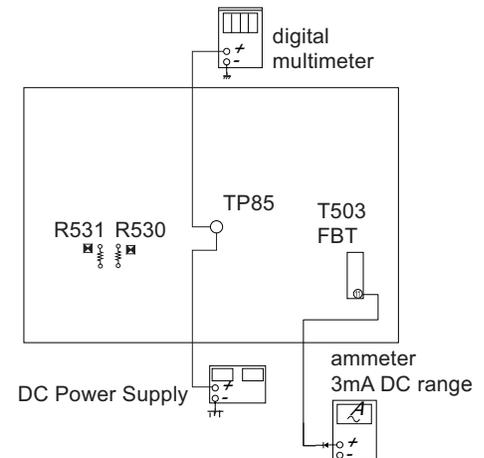
#### PREPARATION BEFORE CONFIRMATION

- Turn the POWER switch ON.
- Input a white signal and set the PICTURE and BRIGHT controls to maximum.
- Confirm that the voltage of more than 23.0 VDC appears between TP85 and ground on the A Board.
- Using a Variac, apply AC input voltage:  $120 \pm 2.0$  VAC.
- Input a white signal and verify that the I ABL is within the specified range:  $1730.0 \pm 100\mu\text{A}$ , +B =  $135.0 \pm 1.0$  V DC.

At AC input:  $120.0 \pm 2.0$  V AC.



- Record the voltage between TP 85 and ground.
- Using an external DC power supply, apply voltage between TP85 and ground. Increase the voltage gradually and confirm that the hold down works (raster disappears) at lower than the voltage recorded in Step 6.



Lower than  $24.78 \pm (-0.1)$  V DC.  
 At AC input  $120.0 \pm 2.0$  V AC.

- A BOARD - CONDUCTOR SIDE: Confirm that a voltage appears between TP85 and ground of more than 21.0 V DC.

### 3-2. B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

Always perform the following adjustments when replacing the following components, which are marked with ▣ on the schematic diagram on the GA Board:

<b>GA BOARD:</b>	IC6003, R6088
------------------	---------------

- Using a Variac, apply AC input voltage:  $130 \pm 2.0$  VAC
- Input a monoscope signal.
- Set the PICTURE control and the BRIGHT control to initial reset value.
- Confirm the voltage of GA Board CN6007 between pin ① to ground is less than  $135.0 \pm 1.5$  V DC.
- If step 4 is not satisfied, replace the R6088 on GA Board and repeat the above steps.

## SECTION 4: CIRCUIT ADJUSTMENTS

### ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

Use the Remote Commander (RM-Y171) to perform the circuit adjustments in this section.

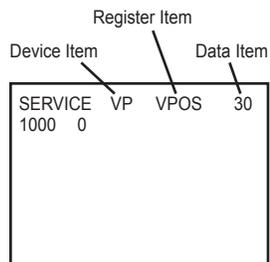
**Test Equipment Required:** 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

#### 4-1. SETTING THE SERVICE ADJUSTMENT MODE

- Standby mode (Power off).
- Press the following buttons on the remote commander within a second of each other:

**DISPLAY** → Channel **5** → Sound Volume **+** → Power

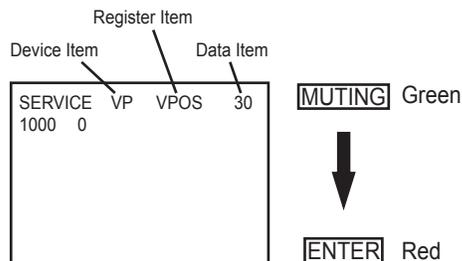
#### SERVICE ADJUSTMENT MODE IN



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

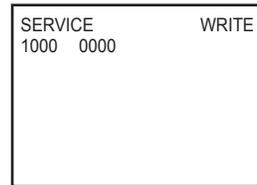
**Note:** If the NVM is replaced, perform this test and reset. Then download from microprocessor to NVM to prevent loss of picture.

#### SERVICE ADJUSTMENT MODE MEMORY



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

**Note:** Carry out this step when adjusting IDs 0 to 4 and when replacing IC102.



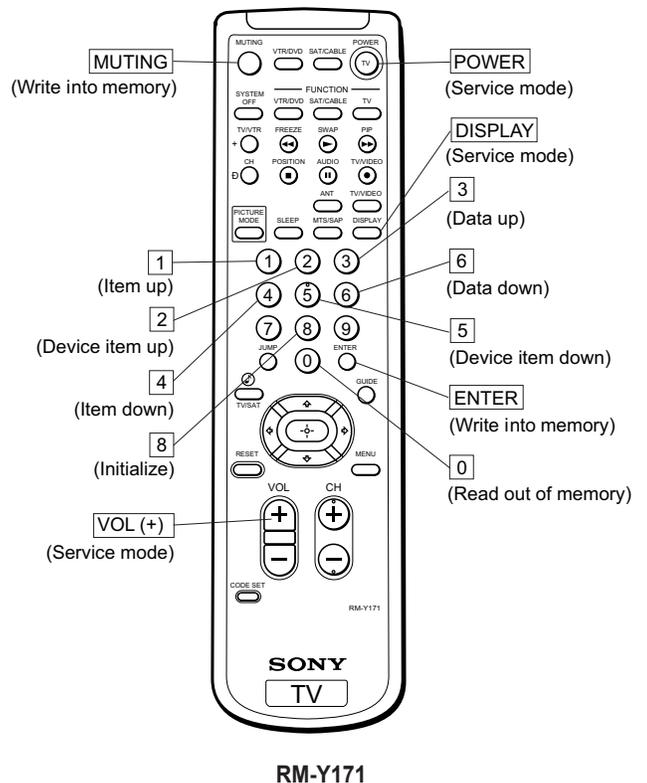
Factory original setting

- Turn set off and on to exit.

#### 4-2. MEMORY WRITE CONFIRMATION METHOD

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

#### 4-3. REMOTE ADJUSTMENT BUTTONS AND INDICATORS



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

## SERVICE DATA

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data		Average Data	
					NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4	NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4
<b>VP CXA2135S</b>								
1	HPOS	Horizontal Position Adjust	0-31	Fix	7		7	
2	HSIZ	Horizontal Amp Adjust	0-31	Fix	10		10	
3	VBOW	VRT Line Bowing Adjust	0-15	Fix	6	6	6	6
4	VANG	VRT Line Bow Slant Adjust	0-15	Fix	5	5	5	5
5	TRAP	Horizontal Trapezoid Adjust	0-15	Fix	6	6	6	6
6	PAMP	Horizontal Pin Distort Adjust	0-63	Fix	32		32	
7	UCPN	Upper Pin	0-63	Fix	36		36	
8	LCPN	Lower Pin	0-63	Fix	36		36	
9	VSIZ	Vertical Amplitude Test	0-63	Fix	0		0	
10	VPOS	Vertical Position Test	0-63	Fix	31		31	
11	VLIN	Vertical Linearity Adjust	0-15	Fix	7		7	
12	VSCO	S-Correction	0-15	Fix	7		7	
13	VZOM	16:9 CRT Z Mode On/Off	0,1	Fix	0	0	0	0
14	EHT	VRT High Volt Correction	0-15	Fix	4	4	4	4
15	ASP	Aspect Ratio Control	0-63	Fix	47	47	47	47
16	SCRL	16:9 CRT Z Mode Tran Scroll	0-63	Fix	31	31	31	31
17	HBSW	HBLK SW	0,1	Fix	1	1	1	1
18	LBLK	Left Screen H Blk Control	0-15	Fix	15	15	15	15
19	RBLK	Right Screen H Blk Control	0-15	Fix	0	0	0	0
20	HDW	H Drive Pulse Width	0,1	Fix	0	0	1	1
21	EWDC	EW/DC Adjust	0,1	Fix	0	0	0	0
22	LVLN	Screen Bottom VRT Lin Adjust	0-15	Fix	0	0	0	0
23	UVLN	Screen Top VRT Lin Adjust	0-15	Fix	0	0	0	0
24	RDRV	R Output Drive Control	0-63	Adj	31	31	31	31
25	GDRV	G Output Drive Control	0-63	Adj	31	31	31	31
26	BDRV	B Output Drive Control	0-63	Adj	31	31	31	31
27	RCUT	R Output Cutoff Control	0-15	Adj	7	7	7	7
28	GCUT	G Output Cutoff Control	0-15	Adj	7	7	7	7
29	BCUT	B Output Cutoff Control	0-15	Adj	7	7	7	7
30	RDR4	Video 4 R Output Drive Control	0-63	Adj	31	31	31	31
31	GDR4	Video 4 G Output Drive Control	0-63	Adj	31	31	31	31
32	BDR4	Video 4 B Output Drive Control	0-63	Adj	31	31	31	31
33	RCU4	Video 4 R Output Cutoff Control	0-15	Adj	7	7	7	7
34	GCU4	Video 4 G Output Cutoff Control	0-15	Adj	7	7	7	7
35	BCU4	Video 4 B Output Cutoff Control	0-15	Adj	7	7	7	7
36	SHUE	Sub Hue	0-31	Adj	7	7	15	15
37	SCOL	Sub Color	0-31	Adj	15		15	
38	SBRT	Sub Brightness	0-63	Fix	15	15	15	15
39	RON	R Output On/Off	0,1	Fix	1	1	1	1
40	GON	G Output On/Off	0,1	Fix	1	1	1	1
41	BON	B Output On/Off	0,1	Fix	1	1	1	1
42	AXPL	Axis Pal	0,1	Fix	0	0	0	0
43	CBPF	Chroma BPF On/Off	0,1	Fix	1		1	
44	COFF	Color On/Off	0,1	Fix	0	0	0	0
45	KOFF	Set Color Killer	0,1	Fix	0	0	0	0
46	SSHPP	Sub Sharpness	0-15	Fix		7		7
47	SHPF	Sharpness Circuit F0	0,1	Fix		1		1
48	PREL	Pre/Over-Shoot Switching	0,1	Fix	1	1	1	1
49	Y-DC	DC Trans Radio Switching	0,1	Fix	1	1	1	1
50	ABLM	ABL Mode Switching	0,1	Fix	1	1	1	1
51	YDEL	Y Delay Time Control	0-15	Fix	7		7	
52	NCOL	No Color ID	0,1	Fix	1	1	1	1
53	FSC	FSC Out On/Off	0,1	Fix	1	1	1	1
54	K-ID	Killer ID	0,1	Fix	1	1	1	1
55	HOSC	H VCO Oscillation Frequency	0-15	Fix	7	7	7	7
56	VSS	V Sync Slice Level	0,1	Fix	0	0	1	1
57	HSS	H Sync Slice Level	0,1	Fix	0	0	1	1
58	HMSK	H Mask	0,1	Fix	1	1	1	1
59	VTMS	Select Signal VTIM Pin	0-3	Fix	0	0	0	0

## SERVICE DATA (CONT.)

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data		Average Data	
					NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4	NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4
<b>VP CXA2135S</b> <i>continued</i>								
60	AFC	AFC Loop Gain	0-3	Fix	0		0	
61	FIFR	Field Frequency	0-3	Fix	3	3	1	1
62	REFP	REFP	0,1	Fix	0	0	0	0
63	VBSW	VBW	0-3	Fix	0	0	0	0
64	BMOF	Blk Off	0,1	Fix	0	0	0	0
65	AGN2	Aging 2	0,1	Fix	0	0	0	0
66	YSHU	Hue for YUV Models	0-63	Fix	31	31	31	31
<b>AP BH3868</b>								
67	BBLP	BBE Low Pass	0-15	Fix	0	0	5	5
68	BBHP	BBE High Pass	0-15	Fix	0	0	3	3
69	SVOL	Sub Volume	0-15	Fix	0	0	7	7
70	SBAL	Sub Balance	0-15	Fix	7	7	7	7
71	SBAS	Sub Bass	0-15	Fix	7	7	5	5
72	STRE	Sub Treble	0-15	Fix	7	7	5	5
<b>AP TDA7467</b>								
73	SPCA	SRS/Space Attenuation	0-63	Fix	0	0	0	0
74	CENA	SRS/Center Attenuation	0-63	Fix	0	0	0	0
75	INPA	Input Attenuation	0-127	Fix	3	3	3	3
<b>3D UPD64081</b>								
76	HHDS	HH Off	0-3	Fix	1	1	1	1
77	COUT	Gain 1/BPF On	0-3	Fix	3	3	3	3
78	YAPS	V Comp/Y Eaking On	0-3	Fix	3	3	3	3
79	NSDS	Adaptive	0-3	Fix	0	0	0	0
80	MSS	Adaptive	0-3	Fix	0	0	0	0
81	DYC	Hi Impedence	0-3	Fix	2	2	2	2
82	EXAD	Ext Ad Selected	0,1	Fix	1	1	1	1
83	PECS	Standard	0-3	Fix	0	0	0	0
84	EXCS	Use CSI Just in Case	0-3	Fix	1	1	1	1
85	CPP	VTB = 1.25 VPP	0-3	Fix	0	0	0	0
86	HDP	H Phase +/- 0 $\mu$ sec	0-7	Fix	3	3	3	3
87	CDL	Y/C Delay +/- 0 $\mu$ sec	0-7	Fix	4	4	4	4
88	DYCO	Y Moving Coring	0-15	Fix	2	2	2	2
89	DYGA	Y Moving Gain	0-15	Fix	10	10	10	10
90	DCCO	C Moving Coring	0-15	Fix	2	2	2	2
91	DCGA	C Moving Gain	0-15	Fix	9	9	9	9
92	YNRK	Effect Small	0,1	Fix	1	1	1	1
93	YNRI	Effect Small	0,1	Fix	0	0	0	0
94	YNRL	Noise Limit	0-3	Fix	1	1	1	1
95	CNRK	Effect Small	0,1	Fix	1	1	1	1
96	CNRI	Effect Small	0,1	Fix	0	0	0	0
97	CNRL	CNR Limit	0-3	Fix	1	1	1	1
98	ID1O	ID 1 Through	0,1	Fix	0	0	0	0
99	ID1W	4:03	0,1	Fix	0	0	0	0
100	ID1N	Normal	0,1	Fix	0	0	0	0
101	CLK	Low Fix	0,1	Fix	1	1	1	1
102	ST1S	Monitor Out	0-3	Fix	0	0	0	0
103	ST0S	Monitor Out	0-3	Fix	1	1	1	1
104	WSC	Coring	0-3	Fix	1	1	1	1
105	VTRH	H Non Standard DET	0-3	Fix	1	1	1	1
106	VTRR	H Non Standard DET	0-3	Fix	1	1	1	1
107	LDSR	Frame	0-3	Fix	2	2	2	2
108	PWRE	PWRE	0,1	Fix	0	0	0	0
109	PDRE	PDRE	0-7	Fix	4	4	4	4
110	PBRE	PBRE	0-15	Fix	8	8	8	8
111	VAPG	V Apacon Gain	0-7	Fix	3	3	3	3
112	VAPI	V Apacon	0-31	Fix	10	10	10	10
113	TEST	Test	0,1	Fix	0	0	0	0
114	YPFT	Y Peaking	0-3	Fix	3	3	3	3

## SERVICE DATA (CONT.)

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data		Average Data	
					NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4	NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4
<b>3D UPD64081</b> <i>continued</i>								
115	YPPG	Y Peaking Gain	0-15	Fix	10	10	10	10
116	V1PS	Line Comb Dot H	0-3	Fix	2	2	2	2
117	VEGS	Line Comb Dot V	0-3	Fix	2	2	2	2
118	CC3N	C Width	0,1	Fix	0	0	0	0
119	C0HS	C Delay On	0,1	Fix	0	0	0	0
120	CLPH	Y-Ad Clamp Test	0,1	Fix	0	0	0	0
121	SEL2	DC Sensitivity Small	0,1	Fix	0	0	0	0
122	SEL1	DY Sensitivity Small	0,1	Fix	0	0	0	0
123	YHCO	Coring Small	0-3	Fix	2	2	1	1
124	YPCO	Coring On	0,1	Fix	0	0	0	0
125	ED20	Standard	0,1	Fix	1	1	1	1
126	OVST	Standard	0,1	Fix	0	0	0	0
127	CSHD	Standard	0,1	Fix	0	0	0	0
128	KCTT	Standard	0-3	Fix	0	0	0	0
129	SHT1	Standard	0,1	Fix	0	0	0	0
130	SHT0	Standard	0,1	Fix	0	0	0	0
131	VCT	Standard	0,1	Fix	0	0	0	0
132	OTT	Standard	0,1	Fix	0	0	0	0
133	CGAT	Standard	0,1	Fix	0	0	0	0
134	CGGT	Standard	0,1	Fix	0	0	0	0
135	CGFT	Standard	0,1	Fix	0	0	0	0
136	CGT	Standard	0,1	Fix	0	0	0	0
137	HPLL	Standard	0,1	Fix	1	1	1	1
138	BPLL	Burst PLL Fast	0,1	Fix	0	0	0	0
139	FSCF	Burst Gain Large	0,1	Fix	0	0	0	0
140	PLLF	PLL Loop Gain Large	0,1	Fix	1	1	1	1
141	KILR	Killer Lever	0-15	Fix	3	3	3	3
142	HSSL	H Slice Level	0-15	Fix	12	12	12	12
143	VSSL	V Slice Level	0-15	Fix	8	8	8	8
144	BGPS	Start Burst Gate	0-15	Fix	4	4	4	4
145	BGPW	Width of Burst Gate	0-15	Fix	10	10	10	10
146	ADCL	ADC Clock	0-3	Fix	3	3	3	3
147	ADPD	Adc Power Down On	0,1	Fix	1	1	1	1
148	ADLT	Standard	0,1	Fix	0	0	0	0
149	NRZO	Check On	0,1	Fix	0	0	0	0
150	FSCO	Level Check On	0,1	Fix	0	0	0	0
151	VT VH	Normal	0-3	Fix	0	0	0	0
152	TST2	Standard	0,1	Fix	0	0	0	0
153	HMEM	Use CSI Just in Case	0,1	Fix	1	1	1	1
154	HINV	Polarity of Reset	0,1	Fix	1	1	1	1
155	HTMG	Field Memory Address	0,1	Fix	0	0	0	0
156	HCP	HH Carrier Phase	0-15	Fix	7	7	7	7
157	TST3	Test	0,1	Fix	0	0	0	0
158	HHMG	HH Moving Gain	0,1	Fix	1	1	1	1
159	HHFG	HH Off	0-3	Fix	0	0	0	0
160	HHTG	Max HH	0-15	Fix	5	5	5	5
<b>PI TA1226N</b>								
161	SHPR	Picture Improvement Sharpness	0-127	Fix	59	59	59	59
162	BLAD	Picture Improvement Black Area Det.	0-3	Fix	0	0	0	0
163	SRTS	Picture Improvement SRT Start Pos	0-3	Fix	3	3	3	3
164	YNR	Picture Improvement YNR	0,1	Fix	1	1	1	1
165	GIRE	Picture Improvement Gamma Start	0-3	Fix	3	3	3	3
166	DAC1	Picture Improvement DAC1	0,1	Fix	1	1	1	1
167	DAC2	Picture Improvement DAC2	0,1	Fix	0	0	0	0
168	GCUR	Picture Improvement Gamma Curve	0,1	Fix	0	0	0	0
169	BLKC	Picture Improvement Black Compen.	0,1	Fix	1	1	1	1
170	TEST	Picture Improvement Test	0-3	Fix	3	3	3	3
171	RS	Picture Improvement RS	0-7	Fix	0	0	0	0
172	RTC	Picture Improvement RTC	0-7	Fix	4	4	4	4

## SERVICE DATA (CONT.)

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data		Average Data	
					NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4	NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4
<b>DC CXA2060</b>								
173	DCSF	Dynamic Convergence DC Shift	0-63	Fix	32	32	32	32
174	UYBW	Dynamic Convergence Upper YBOW	0-63	Fix	31	31	31	31
175	LYBW	Dynamic Convergence Lower YBOW	0-63	Fix	31	31	31	31
176	HAMP	Dynamic Convergence H. Amp	0-63	Fix	23	23	23	23
177	UCBW	Dynamic Convergence H. CBOW	0-63	Fix	14	14	14	14
178	LCBW	Dynamic Convergence L. CBOW	0-63	Fix	14	14	14	14
179	UMBH	Dynamic Convergence U. MBH	0-63	Fix	15	15	15	15
180	LMBH	Dynamic Convergence L. MBH	0-63	Fix	15	15	15	15
181	PWM	Dynamic Convergence PWM	0-63	Fix	63	63	63	63
182	HTLT	Dynamic Convergence H. Tilt	0-63	Fix	63	63	63	63
183	UTLD	Dynamic Convergence U. Tilt	0-63	Fix	63	63	63	63
184	LTLT	Dynamic Convergence L. Tilt	0-63	Fix	63	63	63	63
185	HDTY	Dynamic Convergence H. Duty	0-3	Fix	3	3	3	3
186	TOFF	Dynamic Convergence Tilt Off	0,1	Fix	1	1	1	1
187	DAC0	Dynamic Convergence DAC0	0-255	Fix	255	255	255	255
188	DAC1	Dynamic Convergence DAC1	0-255	Fix	255	255	255	255
<b>SP SDA9288</b>								
189	PYSD	P in P (Seimens) YS Delay	0-15	Fix	2	2	2	2
190	PIPH	P in P (Seimens) H-Position	0-127	Fix	78	78	78	78
191	PIPV	P in P (Seimens) V-Position	0-63	Fix	18	18	18	18
192	PYDL	P in P (Seimens) Y-Delay	0-7	Fix	0	0	0	0
193	PIFX	P in P Inset Fixed	0-3	Fix	0	0	0	0
194	PPFX	P in P Parent Fixed	0-3	Fix	0	0	0	0
195	PCLI	P in P CLISW	0,1	Fix	1	1	1	1
196	PAMS	P in P AMSEC	0,1	Fix	0	0	0	0
197	PHDL	P in P (Seimens) H-Pulse Delay (Ins)	0-15	Fix	15	15	15	15
198	PMVD	P in P (Seimens) V-Pulse Delay (Mn)	0-31	Fix	11	11	11	11
199	PIVD	P in P (Seimens) V-Pulse Delay (Ins)	0-31	Fix	18	18	18	18
200	PCON	P in P (Seimens) Contrast Lvl (Ins)	0-15	Fix	3	3	3	3
201	FRMY	P in P (Seimens) Frame Y	0-15	Fix	10	10	10	10
202	CHRI	P in P (Seimens) Chroma Input Pol.	0,1	Fix	0	0	0	0
203	CHRO	P in P (Seimens) Chroma Output Pol.	0,1	Fix	0	0	0	0
204	MAT0	P in P (Seimens) MAT0	0,1	Fix	1	1	1	1
205	MAT1	P in P (Seimens) MAT1	0,1	Fix	0	0	0	0
206	MAT2	P in P (Seimens) MAT2	0,1	Fix	1	1	1	1
207	IPEP	P in P (Seimens) Pedestal R-Y	0-15	Fix	0	0	0	0
208	IPEB	P in P (Seimens) Pedestal B-Y	0-15	Fix	0	0	0	0
209	PCPS	P in P (Seimens) CLP & HSIDEL	0,1	Fix	0	0	0	0
210	PCPF	P in P (Seimens) CLP Cycles	0,1	Fix	0	0	0	0
211	PSEL	P in P (Seimens) SELDOWN	0,1	Fix	1	1	1	1
212	PPLL	P in P (Seimens) PLL Filter	0-3	Fix	0	0	0	0
213	PVNR	P in P (Seimens) VSP Pulse Noise R.	0,1	Fix	0	0	0	0
<b>IC CXA2019</b>								
214	IDPX		0,1	Fix	0	0	0	0
215	ICOL	Color	0-63	Fix	38	38	38	38
216	ISHP	Sharpness	0-15	Fix	10	10	10	10
217	ISCO	Sub Chroma Decoder Sub Cont	0-15	Fix	7	7	7	7
218	ISCL	Sub Chroma Decoder Sub Color	0-15	Fix	8		8	
219	ISHU	Sub Chroma Decoder Sub Hue	0-15	Fix	7	7	7	7
220	ITOT	Sub Chroma Decoder Tot On	0,1	Fix	0	0	0	0
221	ITRP	Sub Chroma Decoder Trap On	0,1	Fix	1	1	1	1
222	IAFC	AFC	0-3	Fix	1		1	
223	ITRA	Sub Chroma Decoder CTRAP ADJ	0-15	Fix	7		7	
224	ICD2	Sub Chroma Decoder CD Mode2	0,1	Fix		1		1
225	ISF0	SHP-F0	0,1	Fix	1	1	1	1
226	IYDR	Sub Chroma Decoder Y Drive	0-31	Fix	24	24	24	24
227	IVPE	Sub Chroma Decoder V Ped	0-15	Fix	0	0	0	0
228	IUPE	Sub Chroma Decoder U Ped	0-15	Fix	0	0	0	0
229	IRVP	Sub Chroma Decoder RV Ped	0-15	Fix	9	9	9	9
230	IRUP	Sub Chroma Decoder RU Ped	0-15	Fix	7	7	7	7

## SERVICE DATA (CONT.)

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data		Average Data	
					NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4	NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4
<b>IC CXA2019</b> <i>continued</i>								
231	IDCT	Sub Chroma Decoder DC Tran	0-7	Fix	4	4	6	6
232	IRYD	Sub Chroma Decoder RY Drive	0-31	Fix	19	19	19	19
233	IPRE	Sub Chroma Decoder Pre Over	0-3	Fix	1	1	1	1
234	IRUD	Sub Chroma Decoder RV Drive	0-31	Fix	8	8	8	8
235	IRVD	Sub Chroma Decoder RV Drive	0-31	Fix	8	8	8	8
236	IDLV	Sub Chroma Decoder Delay	0-3	Fix	0		0	
237	ISCR	Sub Chroma Decoder SCP BGR	0-3	Fix	1	1	1	1
238	ISCF	Sub Chroma Decoder SCP BGF	0-3	Fix	1	1	1	1
<b>DA CXA1315</b>								
239	IDPX	D/A Converter N-S Correction	0-63	Fix	32	32	32	32
240	ICOL	Color	0-255	Fix	120		120	
241	ISHP	Sharpness	0-255	Fix	120	120	120	120
242	ISCO	Sub Chroma Decoder Sub Cont	0-31	Fix	15		15	
243	ISCL	Sub Chroma Decoder Sub Color	0-31	Fix	1	1	15	15
<b>D1 CXD2085</b>								
244	XJGL	XJGLK	0,1	Fix	0	0	0	0
245	LNJ1	LNJ1	0,1	Fix	0	0	0	0
<b>CC CXP85856A</b>								
246	CRIL	CCD CRI Pulse Compare Data Low	0-15	Fix	2	2	2	2
247	CFLD	CCD Caption Fixed-Field Count	0-15	Fix	5	5	5	5
248	CCDI	CCD No CCD Interrupt	0-7	Fix	3	3	3	3
249	CRIP	CCD CRI & Parity Error	0-7	Fix	4	4	4	4
250	CRIT	CCD CRI Time Constant	0-3	Fix	0	0	0	0
251	CSB1	CCD Sync Slice Bias 1	0-3	Fix	3	3	3	3
252	CSB2	CCD Sync Slice Bias 2	0-7	Fix	4	4	4	4
253	CREP	CCD CRI Signal End Position	0-256	Fix	142	142	142	142
254	CDSD	CCD Data Start Delay	0-31	Fix	8	8	8	8
255	CCDS	CCD Caption Data Threshold	0-31	Fix	9	9	9	9
256	CHMK	CCD P8-HMASK	0-63	Fix	42	42	42	42
257	CHSY	CCD P8-HSYC	0-255	Fix	136	136	136	136
<b>OP CXP85856A</b>								
258	DISP	OSD Position	0-63	Fix	1	1	1	1

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data		Average Data		ID
					NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4	NTSC PAL-M PAL-N	TV/AUX S/VIDEO 1-3 VIDEO 4	
<b>ID MAP</b>									
259	IDCT	NVM ID 0	0-7	Fix by model	89	89	63	63	31
260	IRYD	NVM ID 1	0-31	Fix by model	55	55	55	55	63
261	IPRE	NVM ID 2	0-3	Fix by model	175	175	175	175	175
262	IRUD	NVM ID 3	0-31	Fix by model	96	96	64	64	192
263	IRVD	NVM ID 4	0-31	Fix by model	203	203	251	251	251
264	IDLV	NVM ID 5	0-3	Fix by model	181	181	181	181	181
265	ISCR	NVM ID 6	0-3	Fix by model	6	6	6	6	6
266	ISCF	NVM ID 7	0-3	Fix by model	9	9	0	0	112

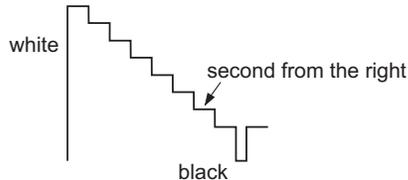
SERVICE IDO WRITE

Note: Items 1-266 show adjustment order

## 4-4. A BOARD ADJUSTMENTS

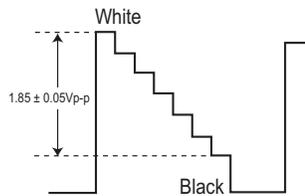
### SUB BRIGHT ADJUSTMENT

1. Set to Service Adjustment Mode.
2. Input a grey 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 memory by pressing **[MUTING]** then **[ENTER]**.



### SUB CONTRAST ADJUSTMENT (RDRV)

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 to pin **(1)** of CN351 on the A Board.
4. Set RDRV with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for:  $1.85 \pm 0.05$  Vp-p.
6. Write into memory by pressing **[MUTING]** then **[ENTER]**.



### SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL, 4SHU, 4COL)

**Note:** SCOL and SHUE are for all other inputs (NTSC/PAL M/PAL N)  
4SHU and 4COL are for Video 4 input (NTSC/PAL M/PAL N)

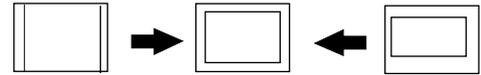
1. Input a 75% color-bar signal.
2. Set to Service Adjustment Mode and set: VIDEO mode = Standard, PICTURE = 100%, COLOR = 50%, HUE = 50%.
3. Connect an oscilloscope to Pin **(3)** of CN351 on the A Board.
4. Select SHUE and SCOL with **[1]** and **[4]**.
5. Adjust with **[3]** and **[6]** for the  $V1 = V4$  (SCOL) and  $V2 = V3$  (SHUE).
6. Write SHUE data one step down from even condition to NVM. SCOL is adjusted by SHUE compensation.
7. Write into memory by pressing **[MUTING]** then **[ENTER]**.
8. Repeat Steps 1-7 for 4SHU and 4COL.



## 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 memory by pressing **[MUTING]** then **[ENTER]**.

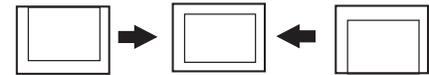
V. SIZE



## 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 memory by pressing **[MUTING]** then **[ENTER]**.

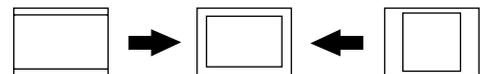
V. POSITION



## 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 memory by pressing **[MUTING]** then **[ENTER]**.

H. SIZE

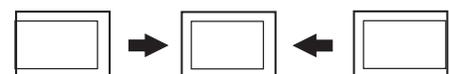


## H. POSITION ADJUSTMENT (HPOS)

HPOS Range is from 0~15.

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

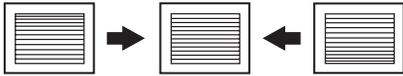
H. POSITION



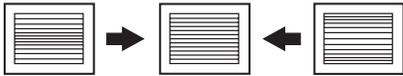
## V LINEARITY (VLIN), V CORRECTION (VSCO), PIN AMP (PAMP) AND TRAPEZIUM (TRAP) ADJUSTMENTS

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

### V LINEARITY(VLIN)



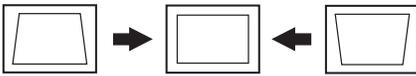
### VS CORRECTION (VSCO)



### PIN AMP (PAMP)



### TRAPEZIUM (TRAP)



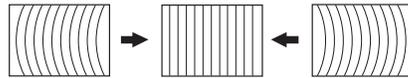
## V ANGLE (VANG), V BOW (VBOW), UPPER UPPER PIN (UCPN) AND LOW PIN (LCPN) ADJUSTMENTS

1. Input a cross-hatch signal.
2. Set to Service Adjustment Mode.
3. Select VANG, VBOW, UCPN, and LCPN with **[1]** and **[4]**.
4. Adjust with **[3]** and **[6]** for the best picture.
5. Write into memory by pressing **[MUTING]** then **[ENTER]**.

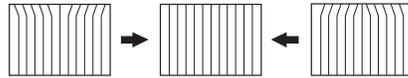
### V ANGLE (VANG)



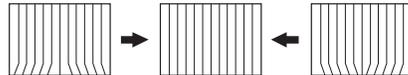
### V BOW (VBOW)



### UPPER PIN (UCPN)



### LOW PIN (LCPN)



## 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 memory by pressing **[MUTING]** then **[ENTER]**.

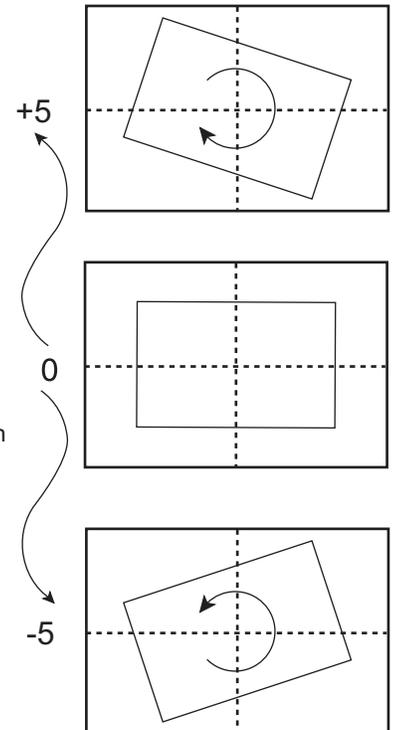


## ROTATION COIL ADJUSTMENT

1. Input a monoscope signal.
2. Push **[MENU]** on the Remote (RM-Y171).
3. Select the "Set-up" mode.
4. Select "Tilt Correction". Confirm that number (0) color changes to red.
5. Push **[↑ (+)]** on the Remote. Confirm that the number increases up to +5 and the picture rotates clockwise.
6. Push **[↓ (-)]** on the Remote. Confirm that the number decreases down to -5 and the picture rotates counter-clockwise.
7. Push **[↑ (+)]** on the Remote. Return the value to 0.

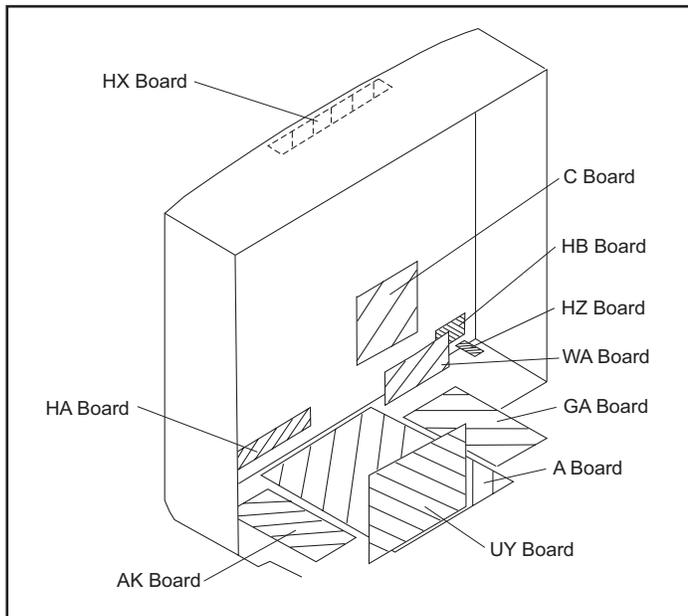
## SET-UP

- Channel Set-up
- Favorite Channel
- Video Label
- Language: English
- Tilt Correction
- Menu



## SECTION 5: DIAGRAMS

### 5-1. CIRCUIT BOARDS LOCATION



### 5-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS INFORMATION

All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$  :  $\mu\text{F}$  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 :  $\frac{1}{4}$  W

$\frac{1}{4}$  W in resistance,  $\frac{1}{10}$  W and  $\frac{1}{8}$  W in chip resistance.

: nonflammable resistor.

: fusible resistor.

$\Delta$  : internal component.

: panel designation and adjustment for repair.

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

Readings are taken with a color-bar signal input.

Readings are taken with a 10M $\Omega$  digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibility.

--- : B+line.

--- --- : B-line. (Actual measured value may be different).

: signal path. (RF)

Circled numbers are waveform references.

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

The symbol indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.

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

Le symbole indique une fusible à action rapide. Doit être remplacé par une fusible de même valeur, comme marqué.

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 necessary, replace only with the value originally used (Refer to Safety Related Adjustments on page 12).

When replacing components identified by , make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved.

When replacing the parts listed in the table below, it is important to perform the related adjustments.

Part Replaced ()	Adjustment ()
A BOARD: C531, C532, D302, D519, D520, D521, IC355, IC501, Q301, R356, R359, R361, R529, R530, R531, R532, R533, R550, T503	A BOARD: R530, R531
GA BOARD IC6003, R6088	

### REFERENCE INFORMATION

#### RESISTOR

: RN METAL FILM  
: RC SOLID  
: FPRD NONFLAMMABLE CARBON  
: FUSE NONFLAMMABLE FUSIBLE  
: RW NONFLAMMABLE WIREWOUND  
: RS NONFLAMMABLE METAL OXIDE  
: RB NONFLAMMABLE CEMENT  
:  $\otimes$  ADJUSTMENT RESISTOR

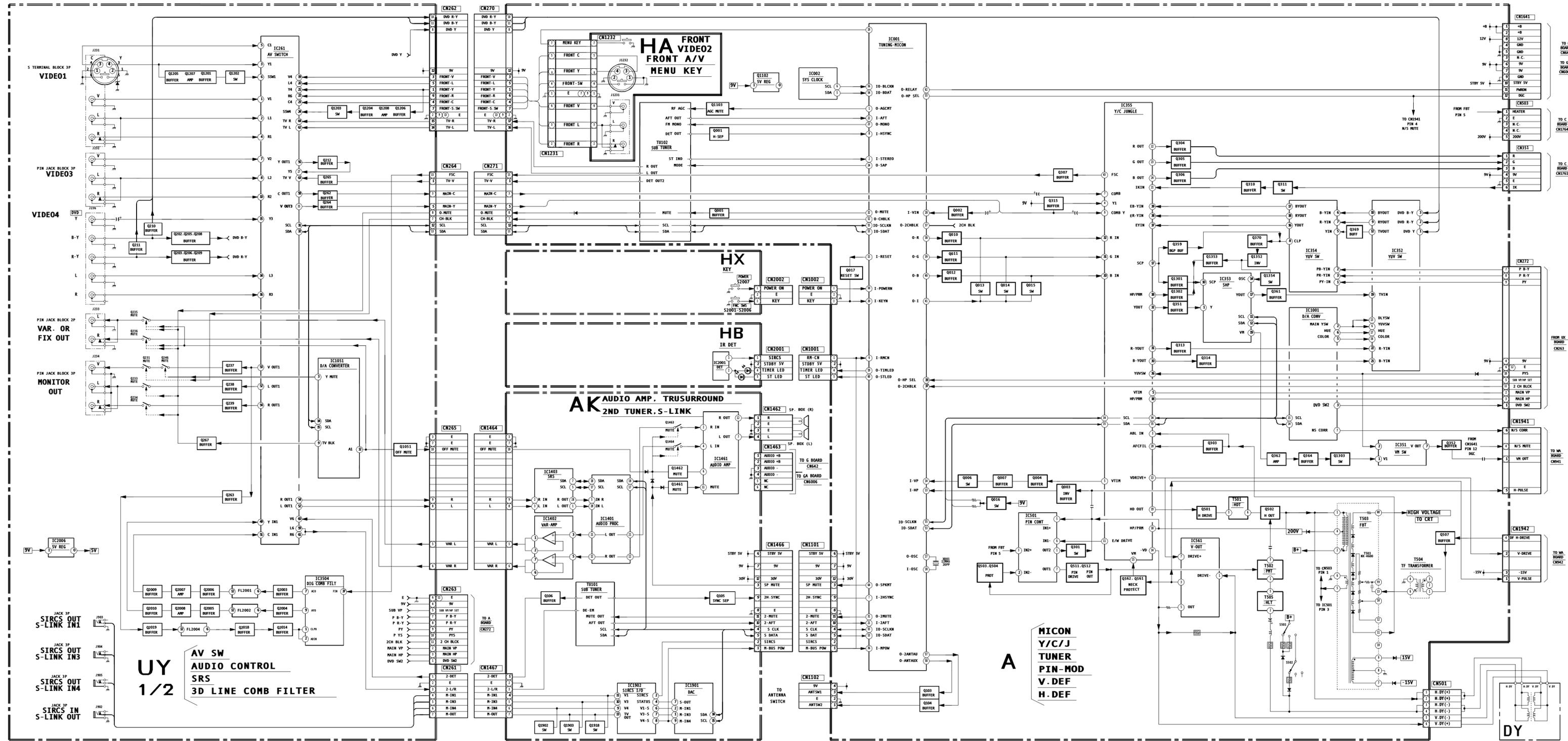
#### CAPACITOR

: TA TANTALUM  
: PS STYROL  
: PP POLYPROPYLENE  
: PT MYLAR  
: MPS METALIZED POLYESTER  
: MPP METALIZED POLYPROPYLENE  
: ALB BIPOLAR  
: ALT HIGH TEMPERATURE  
: ALR HIGH RIPPLE

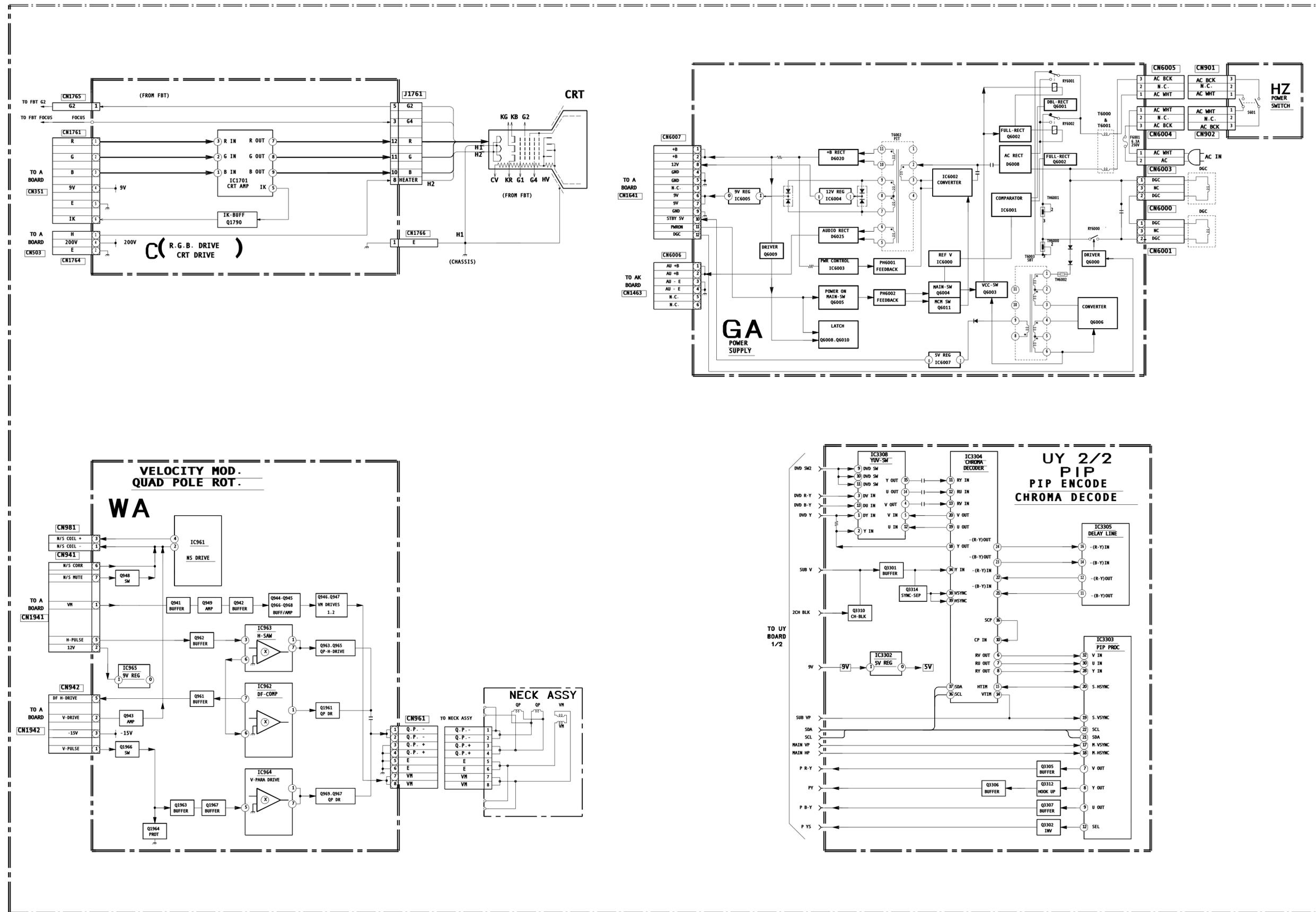
#### COIL

: LF-8L MICRO INDUCTOR

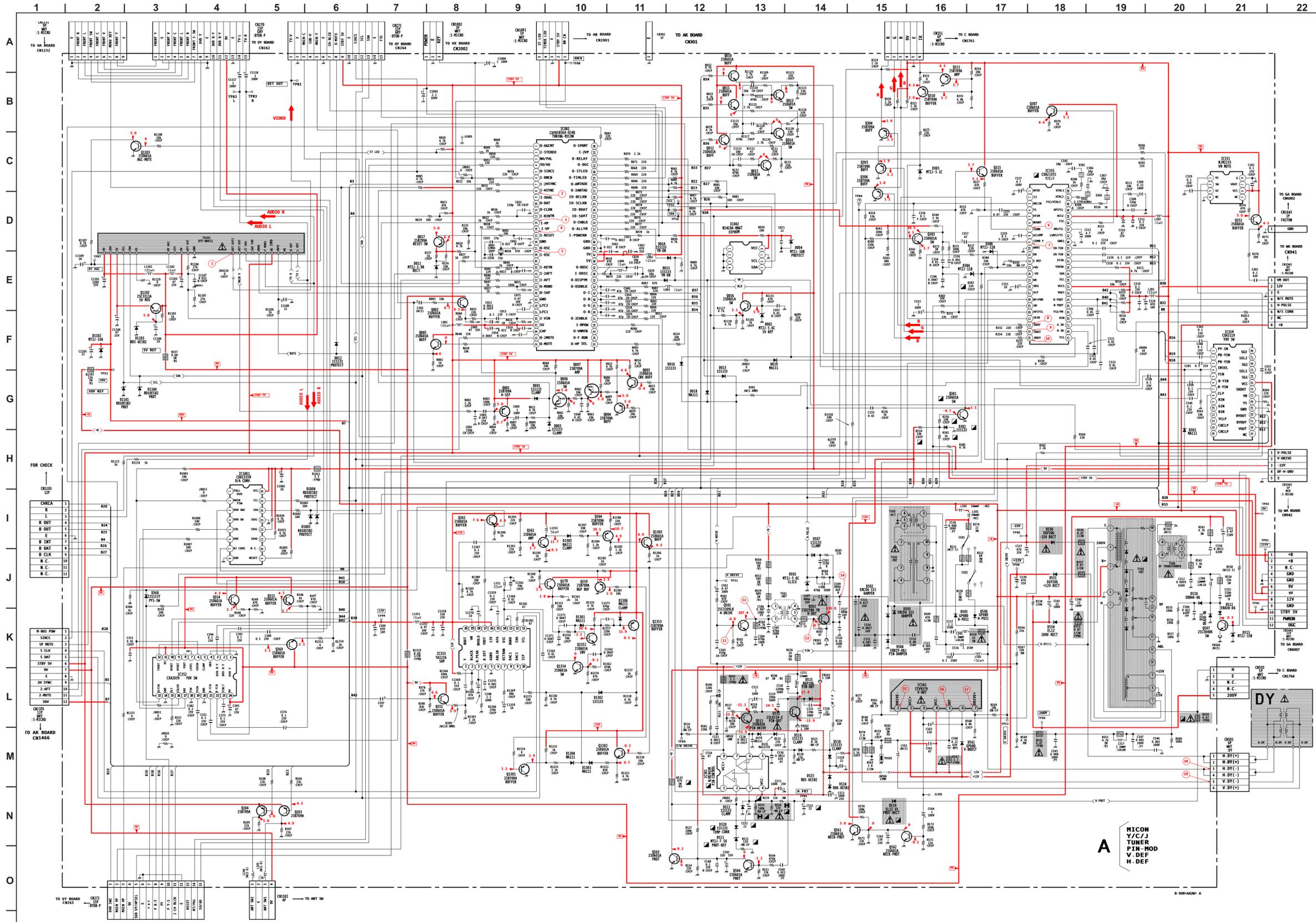
BLOCK DIAGRAM (1 OF 2)



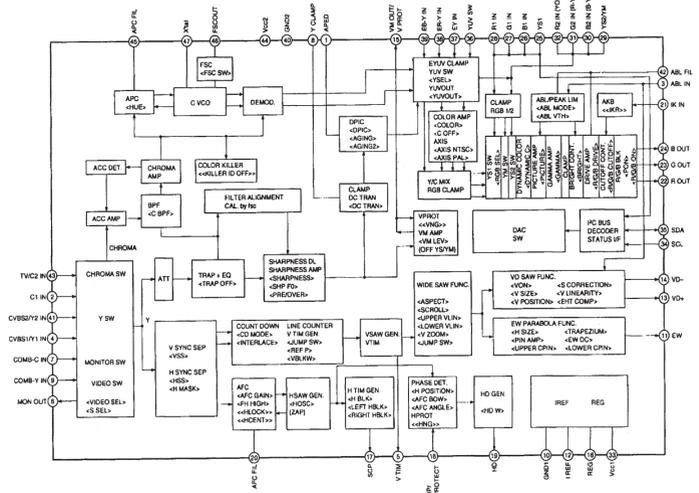
BLOCK DIAGRAM (2 OF 2)



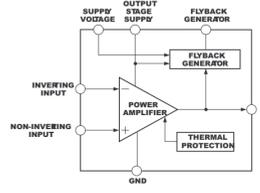
A BOARD SCHEMATIC DIAGRAM



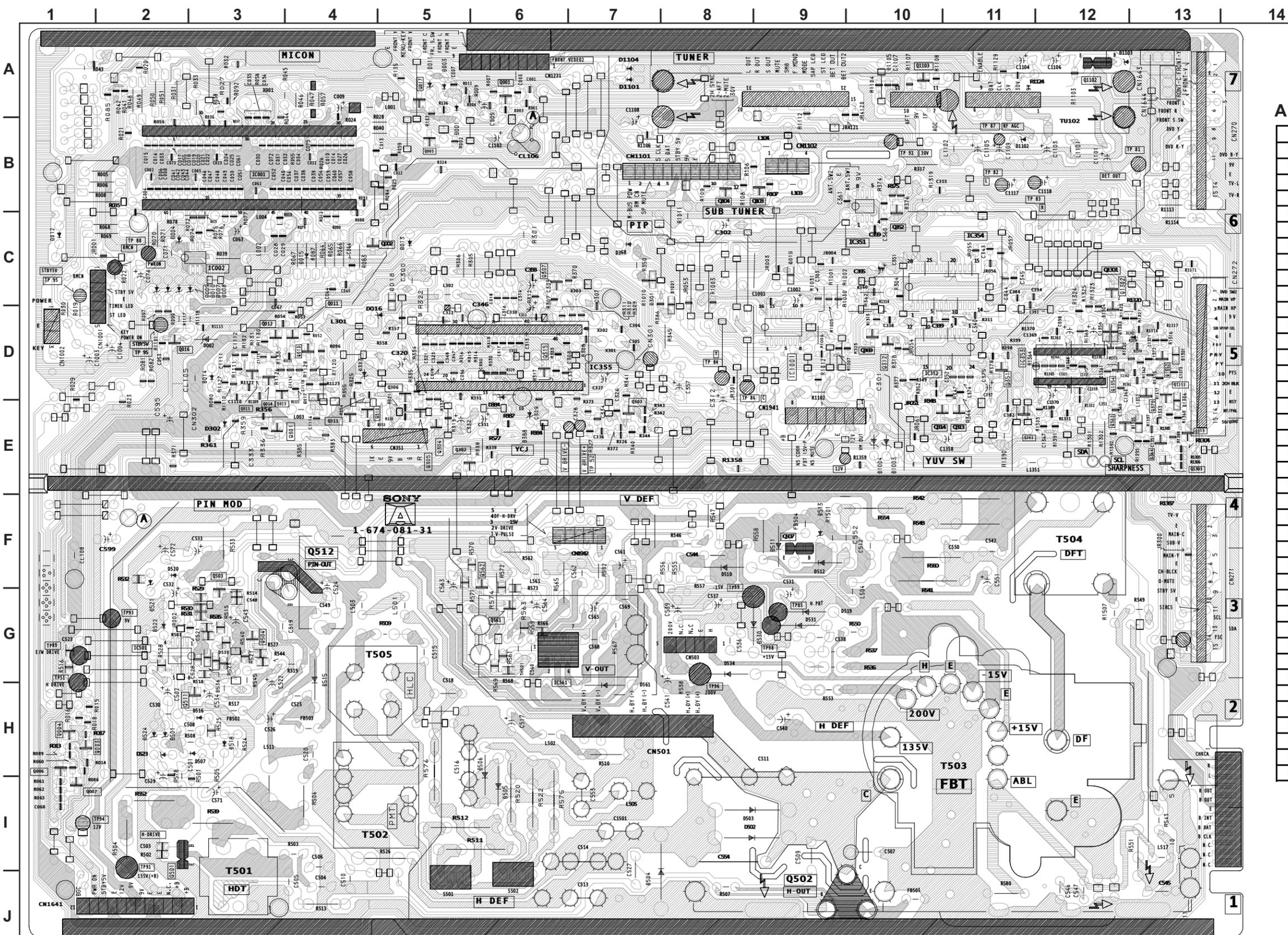
A BOARD: IC 355 CXA2135S



A BOARD: IC 561 STV9379



**A** [MICON/Y/C/J/TUNER/PIN-MOD/V.DEF/H.DEF]



**A BOARD LOCATOR LIST**

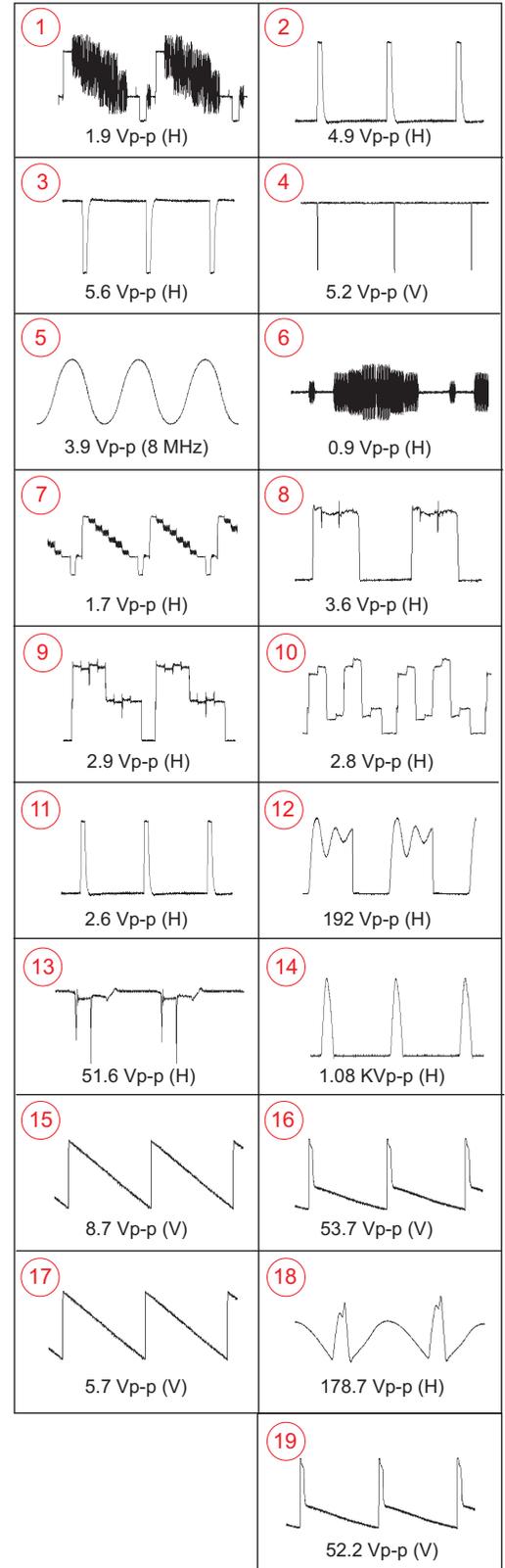
DIODE	D534	G-8	Q016	D-2	
D001	A-5	D535	G-8	Q017	D-2
D002	D-2	D536	G-8	Q103	B-8
D003	A-5	D561	G-6	Q104	B-8
D004	C-2	D1003	E-9	Q301	E-3
D011	A-5	D1004	E-9	Q302	E-5
D012	C-1	D1101	A-7	Q303	E-7
D013	C-4	D1102	B-11	Q304	E-5
D014	D-3	D1103	A-12	Q305	E-5
D015	C-3	D1104	A-7	Q306	D-4
D016	D-4	D1301	D-12	Q307	C-6
D018	C-4	D1302	D-12	Q310	E-4
D019	C-8	D1303	D-11	Q311	E-4
D301	E-3	D1304	D-11	Q314	E-10
D302	E-3	D1305	D-12	Q315	E-10
D303	D-4	D1306	D-12	Q351	D-10
D368	C-7	IC	Q352	D-10	
D384	D-5	IC001	B-2	Q359	D-12
D388	D-6	IC002	C-2	Q361	D-11
D501	H-2	IC351	C-9	Q362	D-11
D502	I-8	IC352	D-10	Q364	D-12
D503	I-8	IC353	D-11	Q369	D-9
D504	I-7	IC354	C-10	Q370	D-12
D505	H-5	IC355	D-5	Q501	I-2
D506	H-5	IC501	G-2	Q502	I-9
D507	H-2	IC561	G-6	Q503	F-3
D510	F-8	IC1001	D-8	Q504	G-3
D511	F-8	TRANSISTOR	Q507	F-8	
D512	F-8	Q001	A-5	Q511	G-2
D513	F-8	Q002	C-4	Q512	F-3
D515	G-4	Q003	H-1	Q561	G-6
D516	H-2	Q004	H-1	Q562	F-5
D518	H-3	Q005	B-5	Q1102	A-12
D519	G-9	Q006	H-1	Q1103	A-10
D520	F-2	Q007	H-1	Q1301	D-11
D521	F-2	Q010	D-3	Q1302	D-12
D522	G-2	Q011	D-3	Q1303	E-12
D523	H-2	Q012	D-3	Q1352	D-12
D524	H-2	Q013	D-3	Q1353	D-12
D530	G-8	Q014	D-3	Q1354	D-12
D531	G-8	Q015	D-3		

## A BOARD IC VOLTAGE LIST

IC001		49	GND	13	0.1	15	N/C	35	4.7
pin	volt	50	5.0	14	GND	16	3.9	36	7.3
1	0	51	0	15	2.4	17	3.9	37	4.8
2	5.0	52	0	16	4.4	18	3.9	38	5.5
3	0	53	4.7	17	4.7	19	GND	39	5.5
4	0	54	4.7	18	GND	20	0	40	GND
5	N/C	55	4.7	19	6.0	21	0	41	N/C
6	3.9	56	4.7	20	GND	22	N/C	42	7.3
7	0.1	57	5.0	21	5.8	23	9.0	43	N/C
8	0	58	0	22	5.8	24	N/C	44	9.3
9	N/C	59	3.8	23	5.8	25	N/C	45	5.5
10	N/C	60	3.8	24	9.0	26	N/C	46	5.1
11	N/C	61	0	IC353		27	N/C	47	1.9
12	5.0	62	4.7	pin	volt	28	N/C	48	N/C
13	4.0	63	N/C	1	4.5	IC355		IC501	
14	5.0	64	0	2	3.7	pin	volt	pin	volt
15	5.0	IC002		3	4.9	1	3.5	1	-3.5
16	GND	pin	volt	4	4.5	2	N/C	2	8.2
17	2.5	1	GND	5	GND	3	1.5	3	8.0
18	2.5	2	GND	6	N/C	4	N/C	4	-13.8
19	5.0	3	GND	7	4.5	5	5.0	5	2.3
20	5.0	4	GND	8	N/C	6	N/C	6	2.9
21	2.0	5	4.7	9	N/C	7	4.5	7	13.6
22	2.5	6	4.7	10	1.3	8	4.8	8	14.0
23	0	7	GND	11	4.7	9	5.3	IC561	
24	0	8	5.0	12	4.7	10	GND	pin	volt
25	GND	IC351		13	GND	11	3.4	1	1.4
26	0	pin	volt	14	11.4	12	2.4	2	14.0
27	0	1	5.8	15	5.6	13	3.5	3	-11.9
28	2.3	2	0.3	16	11.7	14	3.5	4	-13.8
29	5.0	3	5.3	17	7.6	15	5.8	5	0.4
30	0	4	GND	18	1.3	16	7.6	6	14.4
31	0	5	N/C	19	3.6	17	1.2	7	1.4
32	0	6	9.4	20	2.0	18	3.5	IC1001	
33	0	7	5.0	IC354		19	1.9	pin	volt
34	N/C	8	GND	pin	volt	20	2.5	1	N/C
35	N/C	IC352		1	4.0	21	2.0	2	0.1
36	0	pin	volt	2	4.0	22	1.3	3	0.3
37	0	1	5.8	3	4.0	23	1.2	4	N/C
38	0	2	5.8	4	0.3	24	1.2	5	4.4
39	0	3	5.8	5	4.0	25	0	6	4.7
40	0	4	GND	6	4.0	26	4.7	7	4.7
41	0	5	N/C	7	4.0	27	4.7	8	GND
42	0	6	0.1	8	2.2	28	4.7	9	9.3
43	0	7	GND	9	N/C	29	N/C	10	N/C
44	4.7	8	N/C	10	N/C	30	4.3	11	9.3
45	4.7	9	3.9	11	N/C	31	4.3	12	9.3
46	4.9	10	3.9	12	N/C	32	3.7	13	GND
47	4.9	11	9.0	13	N/C	33	9.1	14	4.7
48	GND	12	3.1	14	N/C	34	4.7	15	4.7
								16	9.3

All voltages are in V

## A BOARD WAVEFORMS



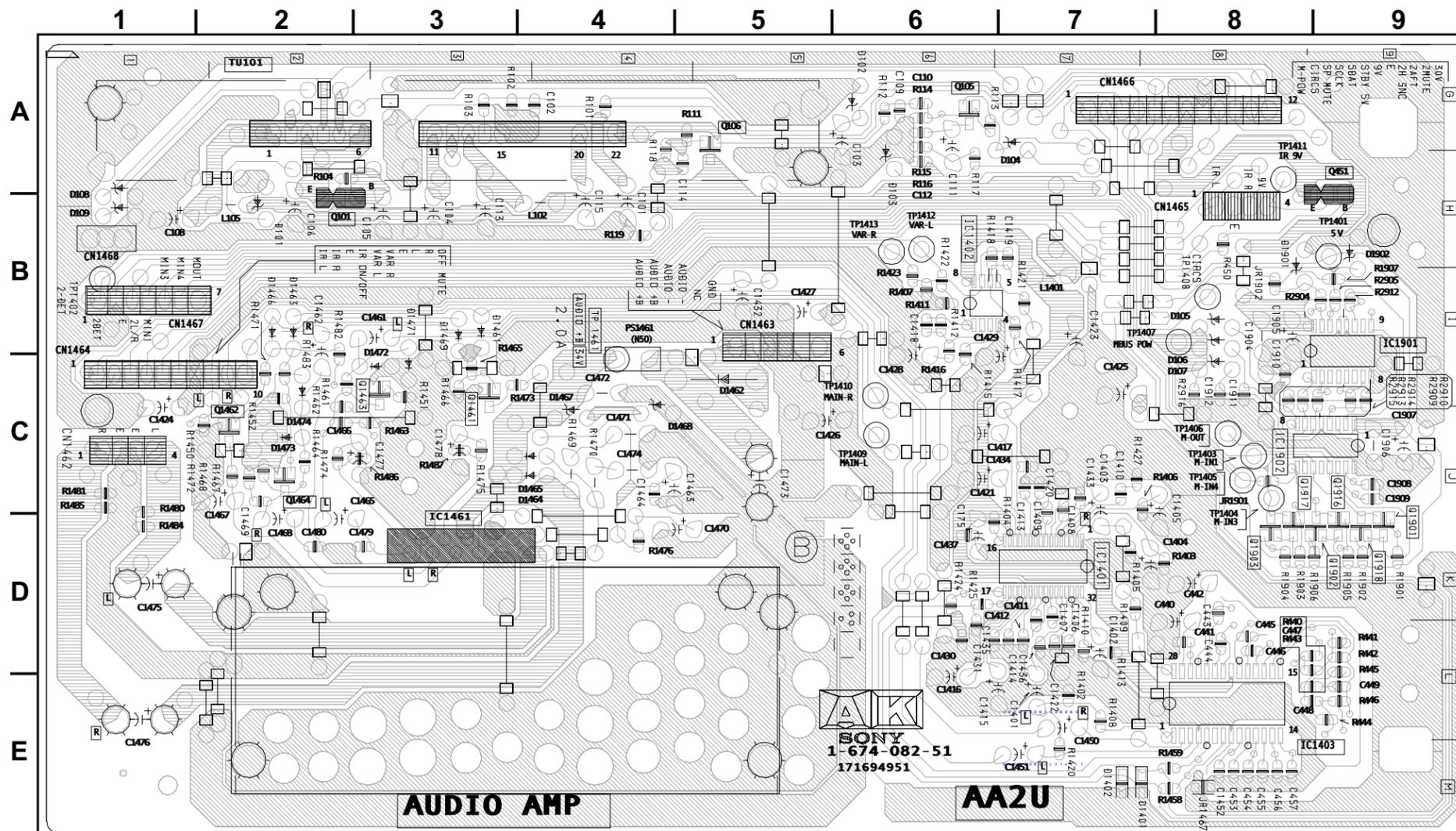
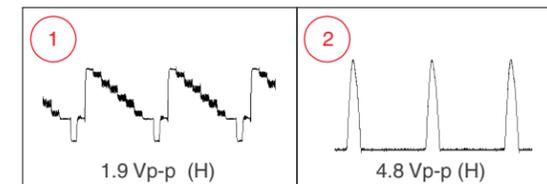


**AK BOARD IC VOLTAGE LIST**

<b>IC1401</b>		13	0.8	27	4.6	7	4.6	11	4.6	25	4.6	9	34.5	9	0	6	0
<b>pin</b>	<b>volt</b>	14	2.0	28	4.6	8	9.2	12	4.6	26	4.6	10	0	10	N/C	7	0
1	GND	15	9.2	29	4.6	<b>IC1403</b>		13	4.6	27	4.6	11	0	11	9.4	8	0
2	0	16	9.2	30	4.6	<b>pin</b>	<b>volt</b>	14	4.6	28	3.9	12	9.4	12	GND	9	0.7
3	0	17	4.6	31	2.9	<b>IC1461</b>		<b>IC1901</b>		13	GND	10	0.7				
4	4.6	18	4.6	32	4.6	<b>pin</b>	<b>volt</b>	<b>pin</b>	<b>volt</b>	<b>pin</b>	<b>volt</b>	14	4.5	11	0.7		
5	4.6	19	2.0	<b>IC1402</b>		3	4.6	17	4.6	1	1.5	1	0	15	4.5	12	N/C
6	4.6	20	0.8	<b>pin</b>	<b>volt</b>	4	GND	18	4.6	2	0	2	0	16	9.4	13	0
7	4.6	21	4.6	1	4.6	5	4.6	19	4.6	3	N/C	3	N/C	<b>IC1902</b>			
8	4.6	22	4.6	2	4.6	6	N/C	20	4.6	4	0	4	N/C	<b>pin</b>	<b>volt</b>	14	0.2
9	4.6	23	4.6	3	4.6	7	4.6	21	9.2	5	1.5	5	N/C	2	3.7	16	GND
10	4.6	24	4.6	4	GND	8	GND	22	4.6	6	6.9	6	N/C	3	5.0		
11	4.6	25	4.6	5	4.6	9	4.6	23	4.6	7	9.6	7	0.3	4	0.1		
12	4.6	26	4.6	6	4.6	10	4.6	24	4.6	8	0.8	8	GND	5	GND		

All voltages are in V

**AK BOARD WAVEFORMS**



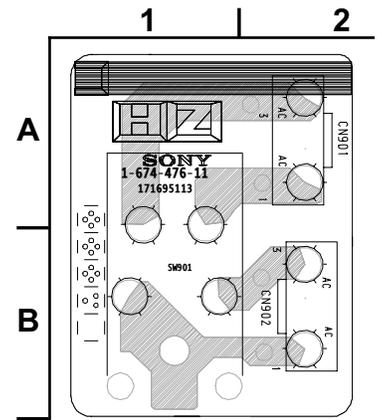
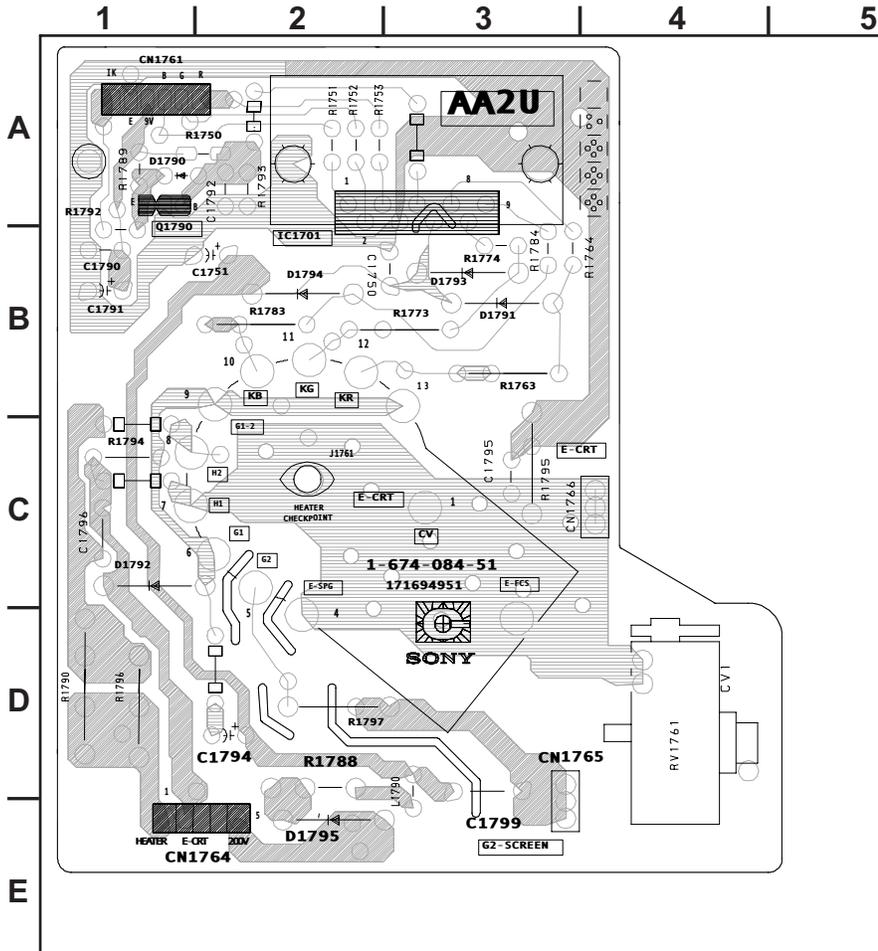
**AK BOARD LOCATOR LIST**

DIODE		IC1403	E-8
D101	A-2	IC1461	D-3
D103	A-6	IC1901	B-8
D104	A-6	IC1902	C-8
D105	B-8	<b>TRANSISTOR</b>	
D106	B-8	Q101	A-2
D107	C-8	Q105	A-6
D108	A-1	Q106	A-4
D109	B-1	Q451	B-8
D1461	B-3	Q1461	C-3
D1463	B-2	Q1462	C-2
D1466	B-2	Q1463	C-2
D1467	C-4	Q1464	C-2
D1468	C-4	Q1902	D-8
<b>IC</b>		Q1903	D-8
IC1401	D-6	Q1918	D-9
IC1402	B-6		

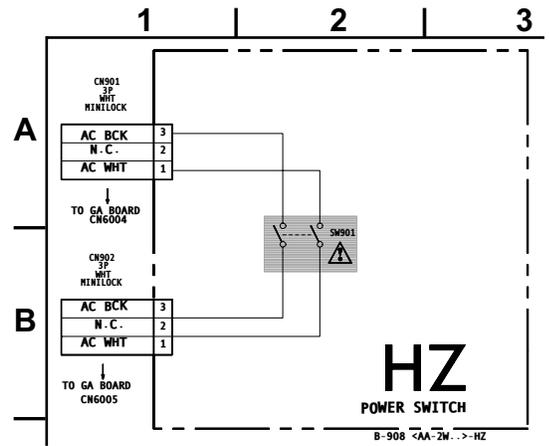


**C** [R.G.B. DRIVE/CRT DRIVE]

**HZ** [POWER SWITCH]

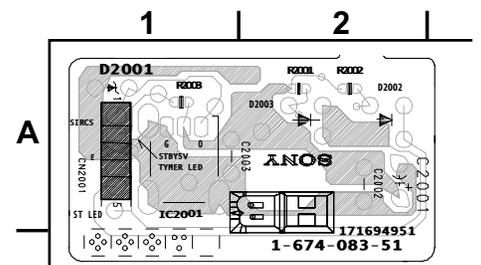
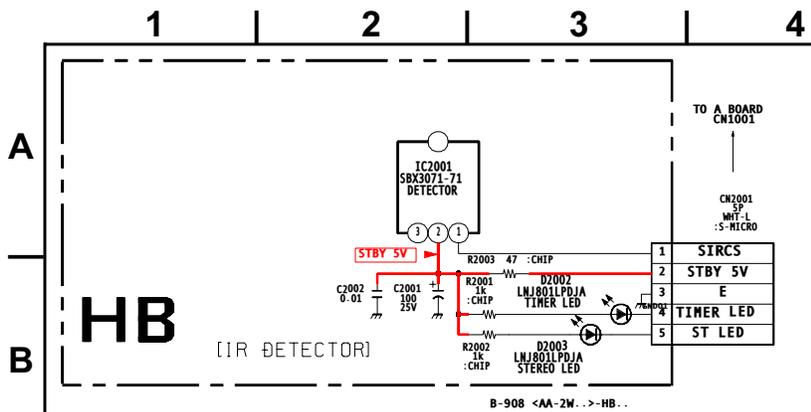


**HZ BOARD SCHEMATIC DIAGRAM**

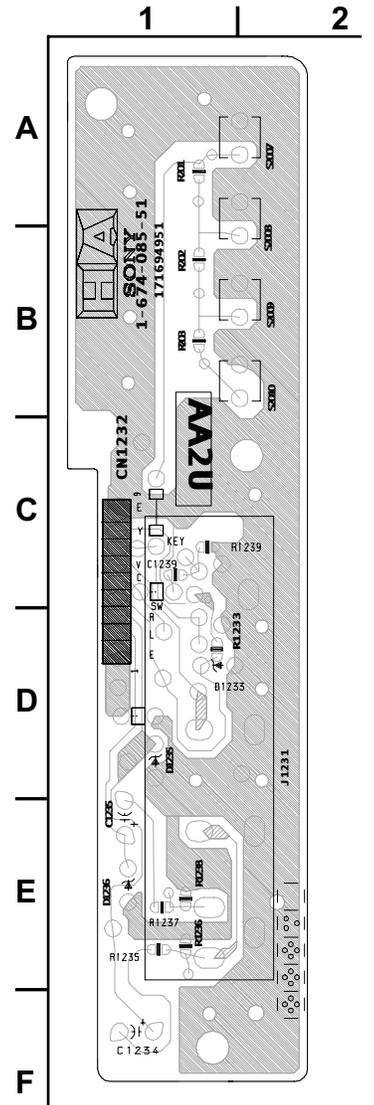
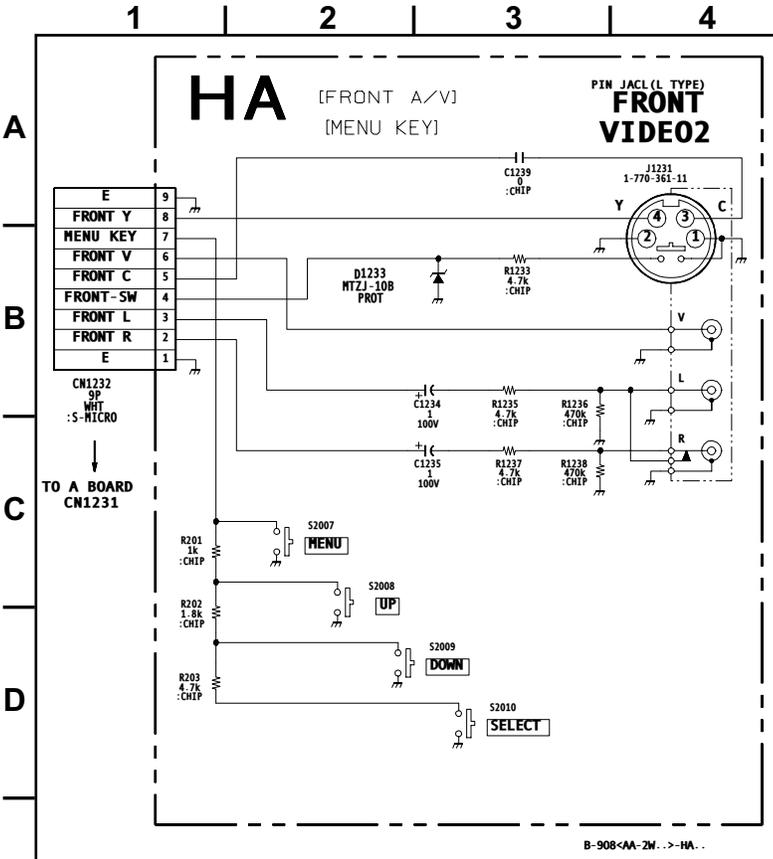


**HB BOARD SCHEMATIC DIAGRAM**

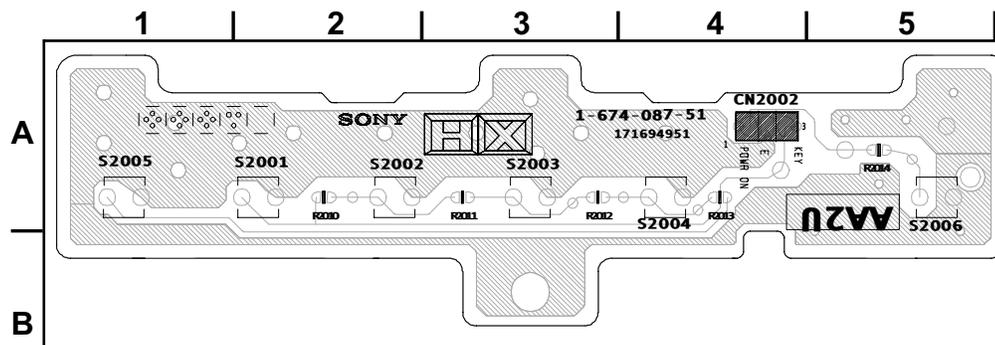
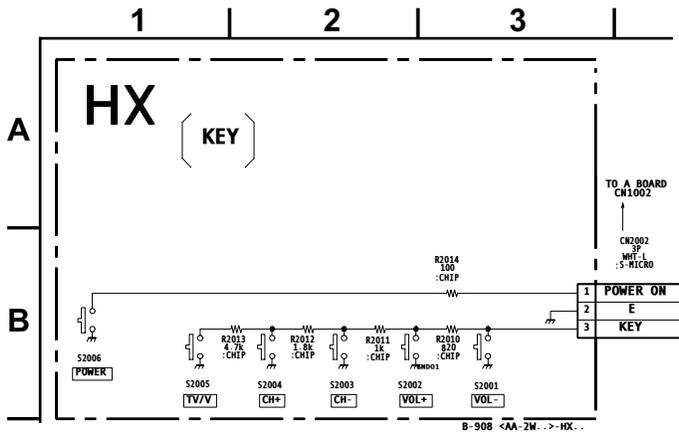
**HB** [IR DETECTOR]



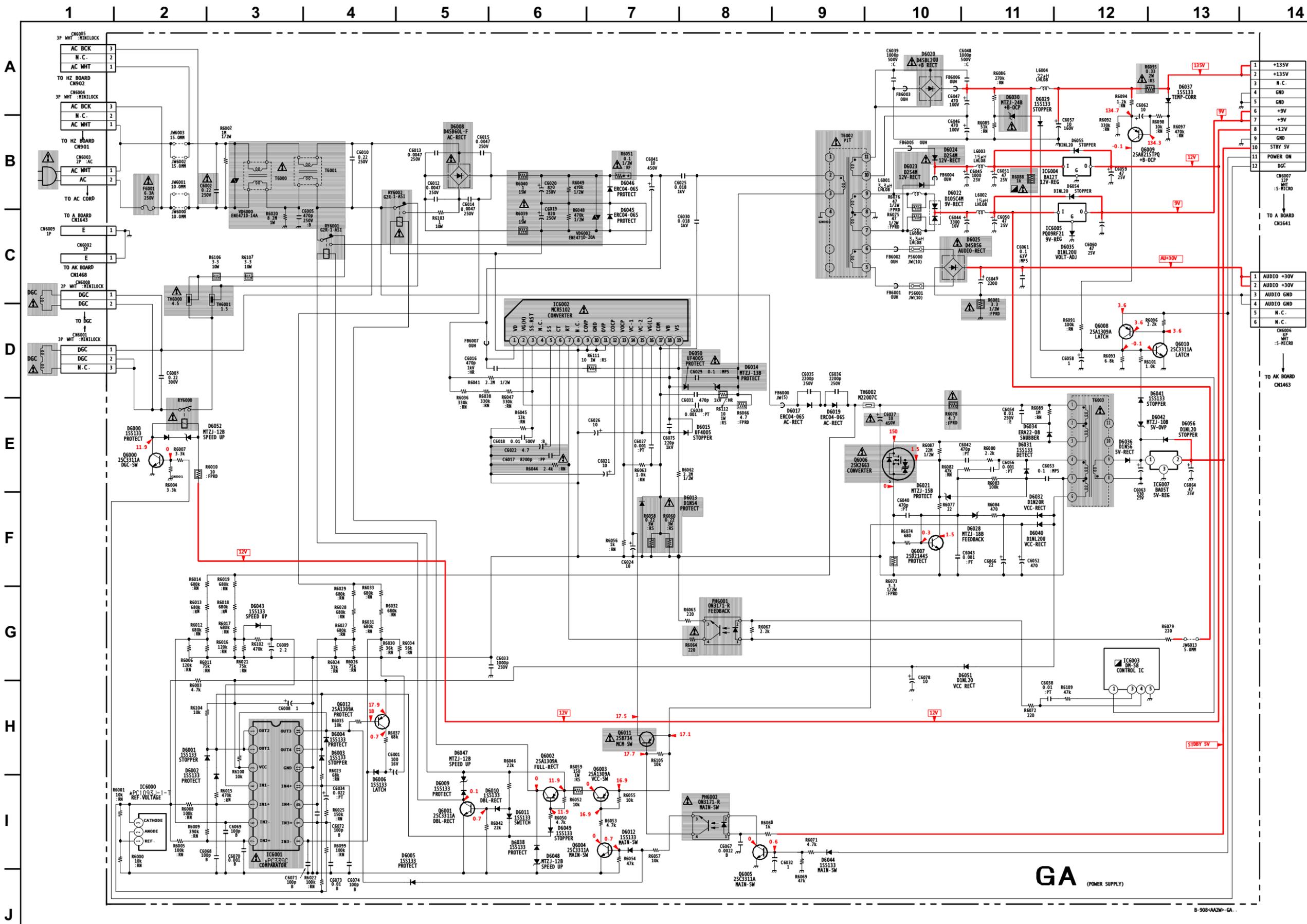
HA BOARD SCHEMATIC DIAGRAM



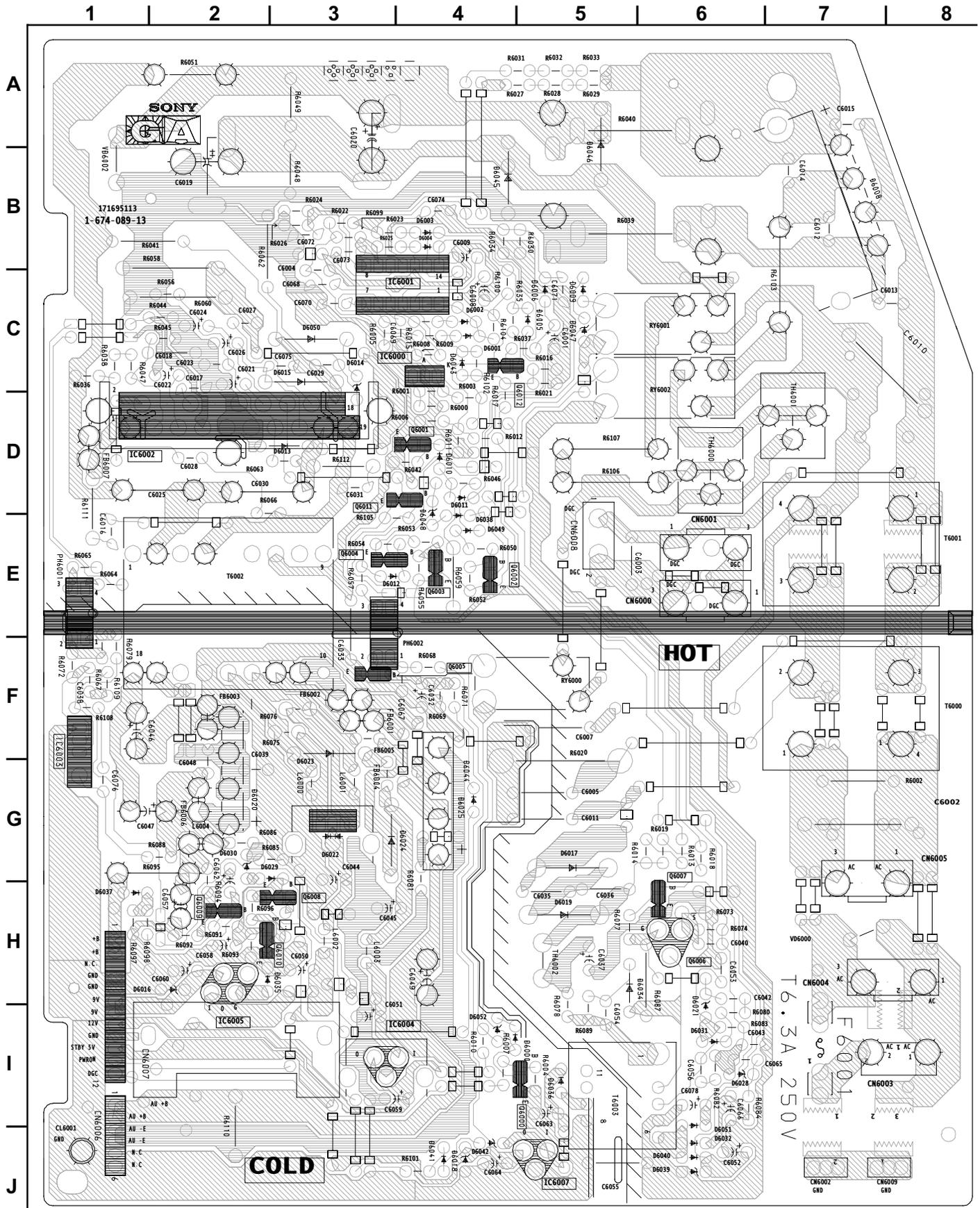
HX BOARD SCHEMATIC DIAGRAM



# GA BOARD SCHEMATIC DIAGRAM



# GA [POWER SUPPLY]



## GA BOARD LOCATOR LIST

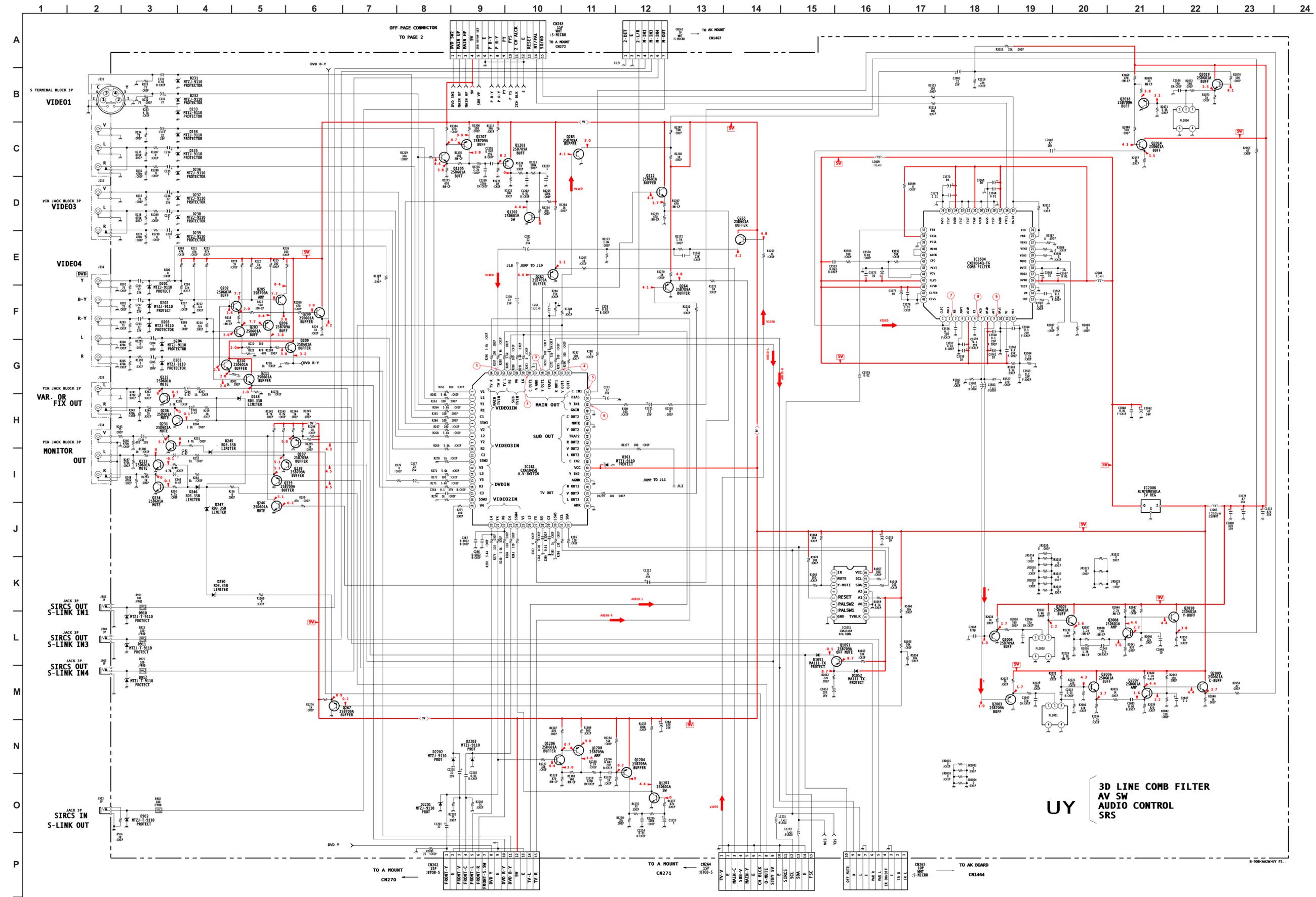
DIODE		D6024	G-3	D6052	I-4
D6000	I-5	D6025	G-4	IC	
D6001	C-4	D6028	H-2	IC6000	C-4
D6002	C-4	D6029	H-2	IC6001	B-3
D6003	B-4	D6030	G-2	IC6002	D-1
D6004	B-4	D6031	I-6	IC6003	F-1
D6005	C-5	D6032	J-6	IC6004	I-3
D6006	C-5	D6034	H-5	IC6005	H-2
D6008	B-7	D6035	H-2	IC6007	J-5
D6009	H-2	D6036	I-5	TRANSISTOR	
D6010	D-4	D6037	H-1	Q6000	I-5
D6011	P-4	D6038	E-4	Q6001	D-4
D6012	E-3	D6040	J-6	Q6002	E-4
D6013	D-3	D6041	J-4	Q6003	H-3
D6014	D-3	D6042	J-4	Q6004	E-3
D6015	C-2	D6043	C-4	Q6005	F-3
D6016	I-2	D6044	G-4	Q6006	H-6
D6017	H-5	D6045	B-4	Q6007	H-6
D6018	J-5	D6046	B-5	Q6008	H-3
D6019	H-5	D6047	C-5	Q6009	H-2
D6020	G-2	D6048	E-4	Q6010	H-2
D6021	I-6	D6049	E-4	Q6011	D-3
D6022	G-3	D6050	C-3	Q6012	C-4
D6023	G-3	D6051	J-6		

## GA BOARD IC VOLTAGE LIST

IC6000		IC6002		IC6003	
pin	volt	pin	volt	pin	volt
R	2.5	1	307.1	1	134.0
A	GND	2	168.5	2	N/C
C	5.0	3	3.9	3	2.4
IC6001		4	N/C	4	9.6
pin	volt	5	4.5	5	GND
1	17.9	6	2.1	IC6004	
2	17.9	7	3.8	pin	volt
3	17.9	8	GND	IN	13.4
4	3.2	9	GND	OUT	11.9
5	4.9	10	GND	GND	GND
6	3.3	11	GND	IC6005	
7	4.9	12	0	pin	volt
8	3.2	13	0	IN	11.4
9	4.9	14	17.3	OUT	9.5
10	3.4	15	10.4	GND	GND
11	4.8	16	4.7	IC6007	
12	GND	17	0	pin	volt
13	17.9	18	173.5	1	7.2
14	17.9	19	163.5	2	5.0
				3	GND

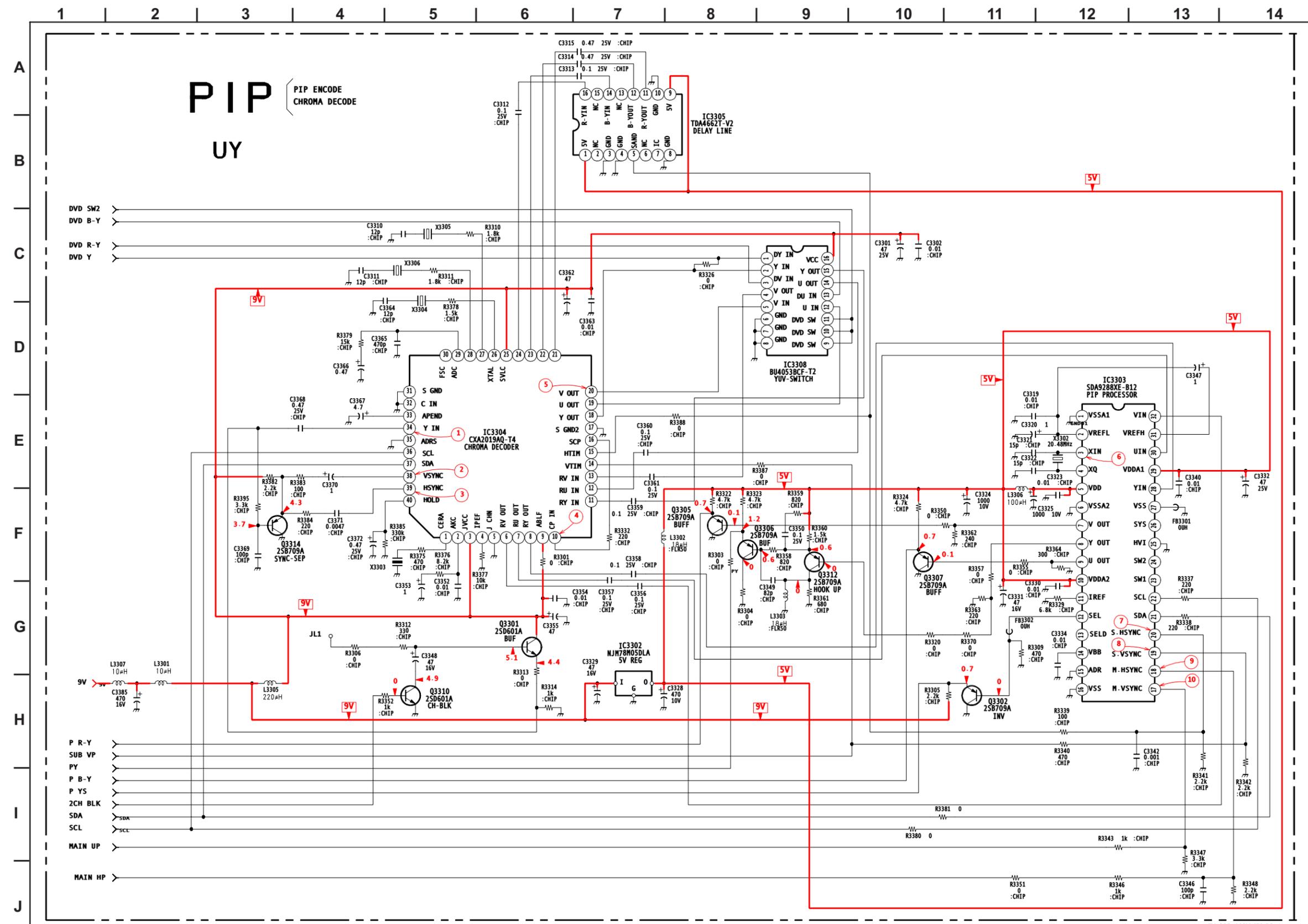
All voltages are in V

UY (MAIN) BOARD SCHEMATIC DIAGRAM



UY 3D LINE COMB FILTER AV SW AUDIO CONTROL SRS

UY (PIP) BOARD SCHEMATIC DIAGRAM

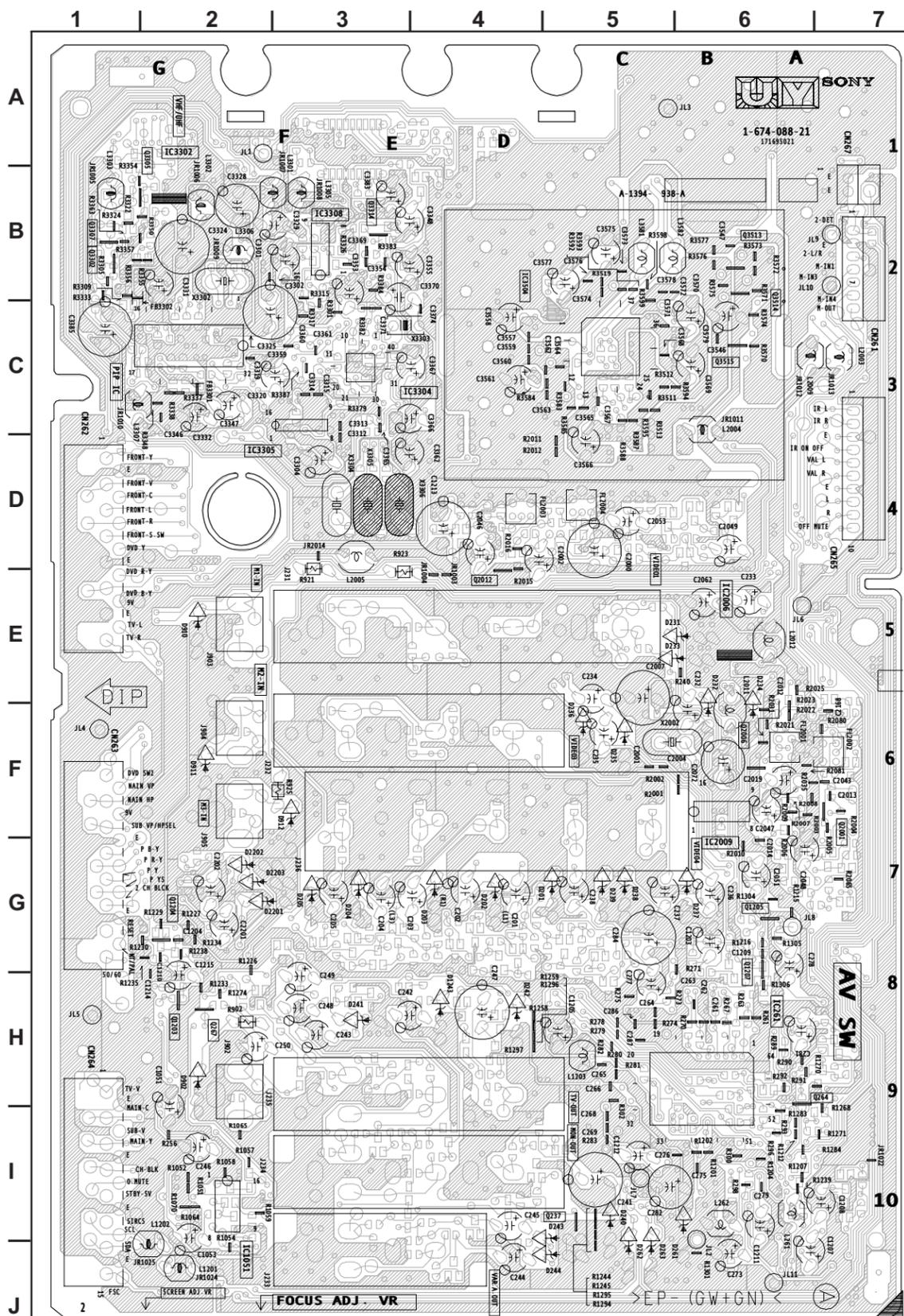


SV-908-AM2N-UY P2..



[3D LINE COMB FILTER / AV SW / AUDIO CONTROL / SRS / PIP ENCODE / CHROMA DECODE]

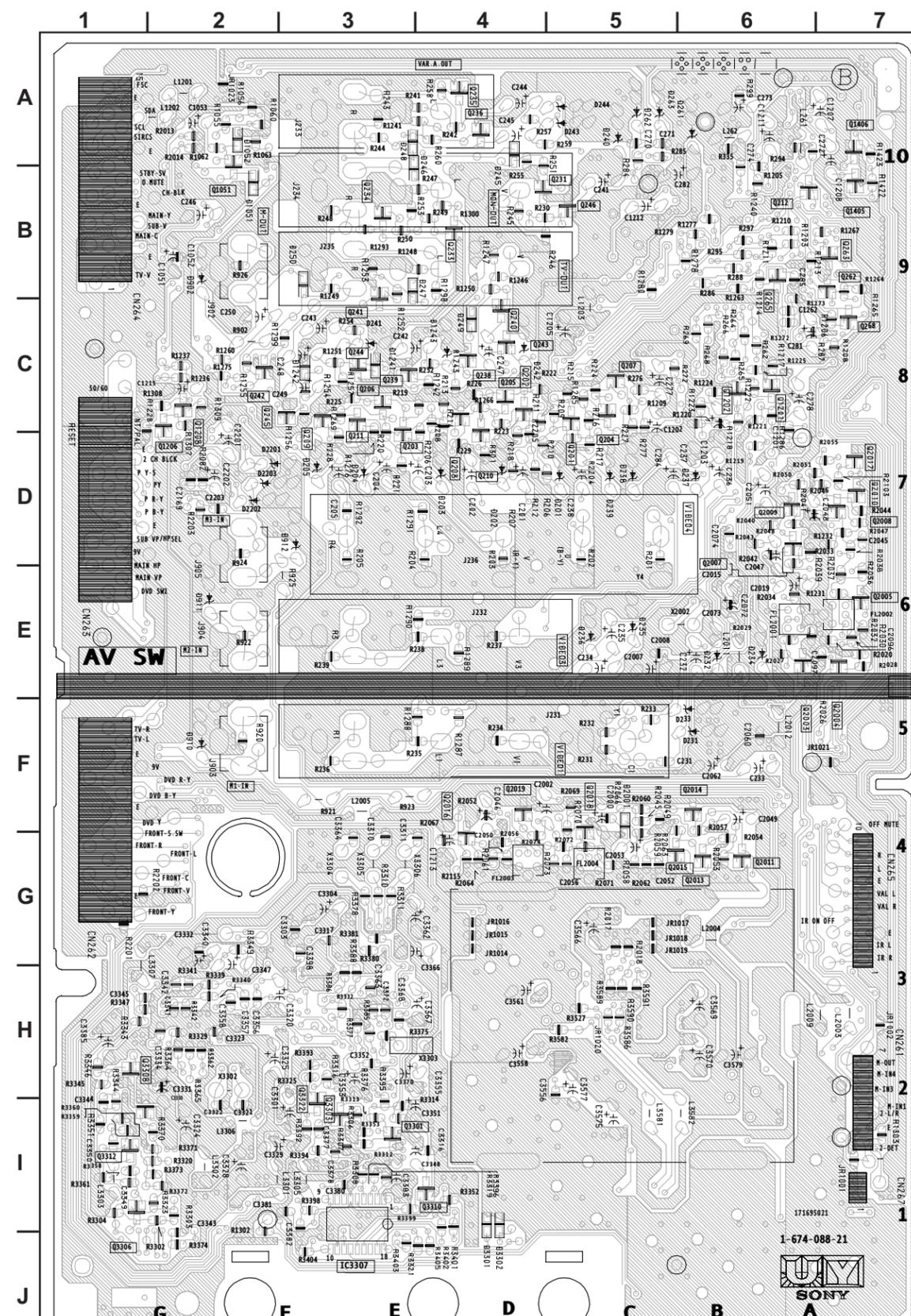
COMPONENT SIDE



UY BOARD LOCATOR LIST

	DIODE		comp	cond	
	comp	cond			
D201	G-4	--	Q211	--	C-3
D202	G-4	--	Q212	--	B-6
D203	G-3	--	Q233	--	B-4
D204	G-3	--	Q234	--	B-3
D205	G-2	--	Q235	--	A-4
D231	E-5	--	Q236	--	A-4
D232	E-5	--	Q237	I-4	--
D233	E-5	--	Q238	--	C-3
D234	E-6	--	Q239	--	B-4
D235	F-5	--	Q240	--	C-4
D236	F-5	--	Q241	--	B-3
D237	G-5	--	Q242	--	C-2
D238	G-5	--	Q243	--	C-4
D239	G-5	--	Q244	--	C-3
D245	--	B-4	Q245	--	C-2
D246	--	A-3	Q246	--	B-4
D247	--	B-3	Q262	--	B-6
D248	--	A-3	Q263	--	B-6
D249	--	C-4	Q264	I-6	--
D250	--	B-2	Q265	--	B-6
D261	J-5	--	Q267	H-2	--
D902	H-2	--	Q1051	--	B-2
D910	E-2	--	Q1201	--	C-6
D911	F-2	--	Q1202	--	C-6
D912	F-2	--	Q1203	H-2	--
D1051	F-2	B-2	Q1204	G-1	--
D1052	--	A-2	Q1205	G-6	--
D2201	G-2	--	Q1206	--	C-1
D2202	G-2	--	Q1207	H-6	--
D2203	G-2	--	Q1208	--	C-1
		IC	Q1405	--	--
IC261	I-5	--	Q2001	G-7	--
IC1051	I-2	--	Q2003	--	F-6
IC2006	E-6	--	Q2004	--	F-7
IC2009	F-6	--	Q2005	--	E-7
IC3302	A-2	--	Q2006	F-6	--
IC3303	C-2	--	Q2007	--	D-5
IC3304	C-3	--	Q2008	--	D-7
IC3305	D-2	--	Q2009	--	D-6
IC3308	B-3	--	Q2010	--	D-7
IC3504	C-5	--	Q2014	--	F-5
		TRANSISTOR	Q2017	--	D-7
Q201	--	D-4	Q2019	--	F-4
Q202	--	C-4	Q3301	--	I-3
Q203	--	D-3	Q3302	--	B-1
Q204	--	D-5	Q3305	A-1	--
Q205	--	C-4	Q3306	--	H-1
Q206	--	C-3	Q3307	B-1	--
Q207	--	C-5	Q3310	--	I-3
Q208	--	D-4	Q3312	--	I-1
Q209	--	C-3	Q3314	B-3	--
Q210	--	D-4			

CONDUCTOR SIDE



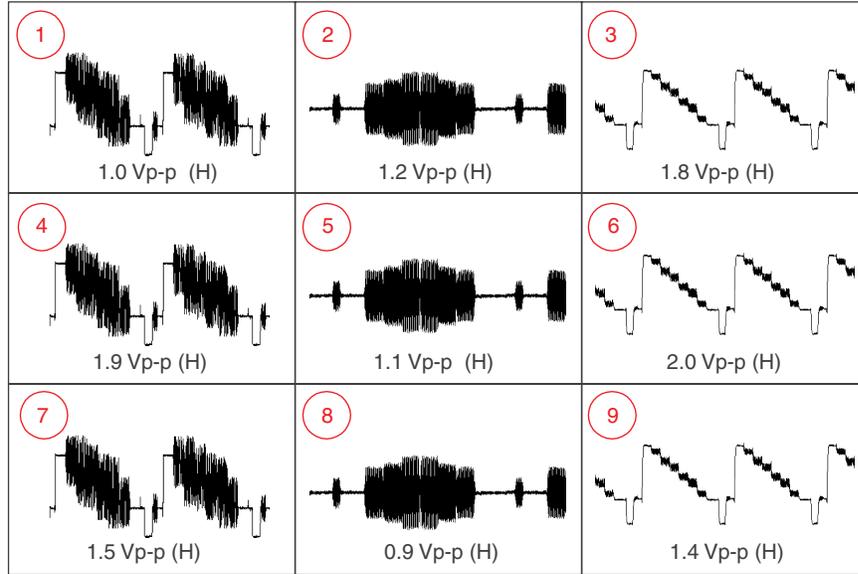
## UY (MAIN) BOARD IC VOLTAGE LIST

IC261		26	N/C	53	4.5	14	4.4	IC3504		25	0
pin	volt	27	4.4	54	4.6	15	4.4	pin	volt	26	0
1	4.4	28	4.4	55	4.4	16	8.7	1	1.6	27	5.0
2	4.4	29	4.4	56	4.4	IC2006		2	1.6	28	GND
3	4.4	30	0	57	GND	pin	volt	3	0.5	29	GND
4	4.4	31	4.4	58	4.4	IN	8.7	4	GND	30	GND
5	4.4	32	4.4	59	4.5	OUT	5.1	5	5.0	31	5.0
6	4.4	33	GND	60	4.4	GND	GND	6	2.6	32	GND
7	4.4	34	4.4	61	4.5	IC2009		7	1.0	33	GND
8	4.4	35	4.1	62	4.4	pin	volt	8	5.0	34	5.0
9	N/C	36	4.5	63	4.4	1	4.9	9	1.0	35	GND
10	4.4	37	GND	64	4.4	2	GND	10	GND	36	GND
11	N/C	38	N/C	IC1051		3	4.9	11	2.6	37	2.3
12	0	39	8.7	pin	volt	4	1.3	12	2.0	38	5.0
13	4.4	40	N/C	1	2.3	5	4.9	13	2.0	39	GND
14	4.4	41	4.5	2	2.3	6	1.8	14	1.0	40	2.1
15	4.4	42	4.3	3	0.3	7	1.6	15	GND	41	2.1
16	4.4	43	4.5	4	N/C	8	GND	16	5.0	42	2.3
17	4.4	44	N/C	5	7.8	9	4.4	17	0	43	GND
18	0	45	N/C	6	N/C	10	4.4	18	GND	44	2.3
19	4.4	46	GND	7	N/C	11	4.9	19	0	45	5.0
20	4.4	47	N/C	8	GND	12	2.5	20	0	46	5.0
21	4.4	48	GND	9	0	13	2.2	21	5.0	47	GND
22	4.4	49	4.4	10	N/C	14	GND	22	5.0	48	GND
23	4.4	50	4.4	11	GND	15	0	23	0	All voltages are in V	
24	N/C	51	4.4	12	8.7	16	0	24	0		
25	N/C	52	4.5	13	GND						

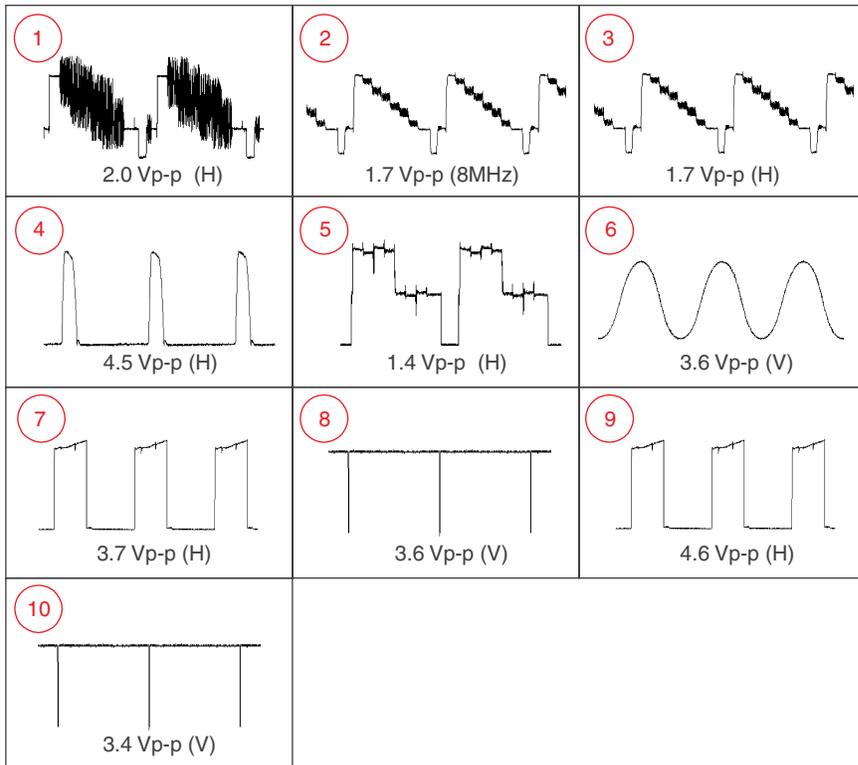
## UY (PIP) BOARD IC VOLTAGE LIST

IC3302		19	0.1	10	0.7	35	GND	IC3308	
pin	volt	20	0.4	11	3.6	36	4.6	pin	volt
IN	8.5	21	4.5	12	4.2	37	4.6	1	3.4
OUT	5.1	22	4.5	13	4.2	38	4.3	2	2.5
GND	GND	23	N/C	14	0.1	39	3.3	3	3.2
IC3303		24	N/C	15	0.6	40	0.6	4	2.7
pin	volt	25	GND	16	0.7	IC3305		5	2.7
1	GND	26	N/C	17	GND	pin	volt	6	GND
2	3.0	27	0	18	2.5	1	5.1	7	GND
3	2.3	28	2.0	19	2.7	2	N/C	8	GND
4	2.0	29	5.0	20	2.7	3	GND	9	0.4
5	4.8	30	2.3	21	5.2	4	GND	10	0.4
6	GND	31	4.0	22	5.2	5	0.6	11	0.4
7	0.1	32	2.3	23	5.2	6	N/C	12	2.7
8	0	IC3304		24	5.2	7	N/C	13	3.2
9	0.1	pin	volt	25	8.3	8	GND	14	2.7
10	5.0	1	2.1	26	2.5	9	5.1	15	2.5
11	1.9	2	3.8	27	2.5	10	GND	16	8.3
12	0	3	8.3	28	2.5	11	3.0		
13	N/C	4	1.6	29	4.5	12	3.0		
14	-2.9	5	GND	30	N/C	13	N/C		
15	GND	6	2.7	31	GND	14	1.4		
16	GND	7	2.7	32	GND	15	N/C		
17	3.6	8	2.6	33	3.6	16	1.4		
18	0.2	9	8.3	34	3.4				

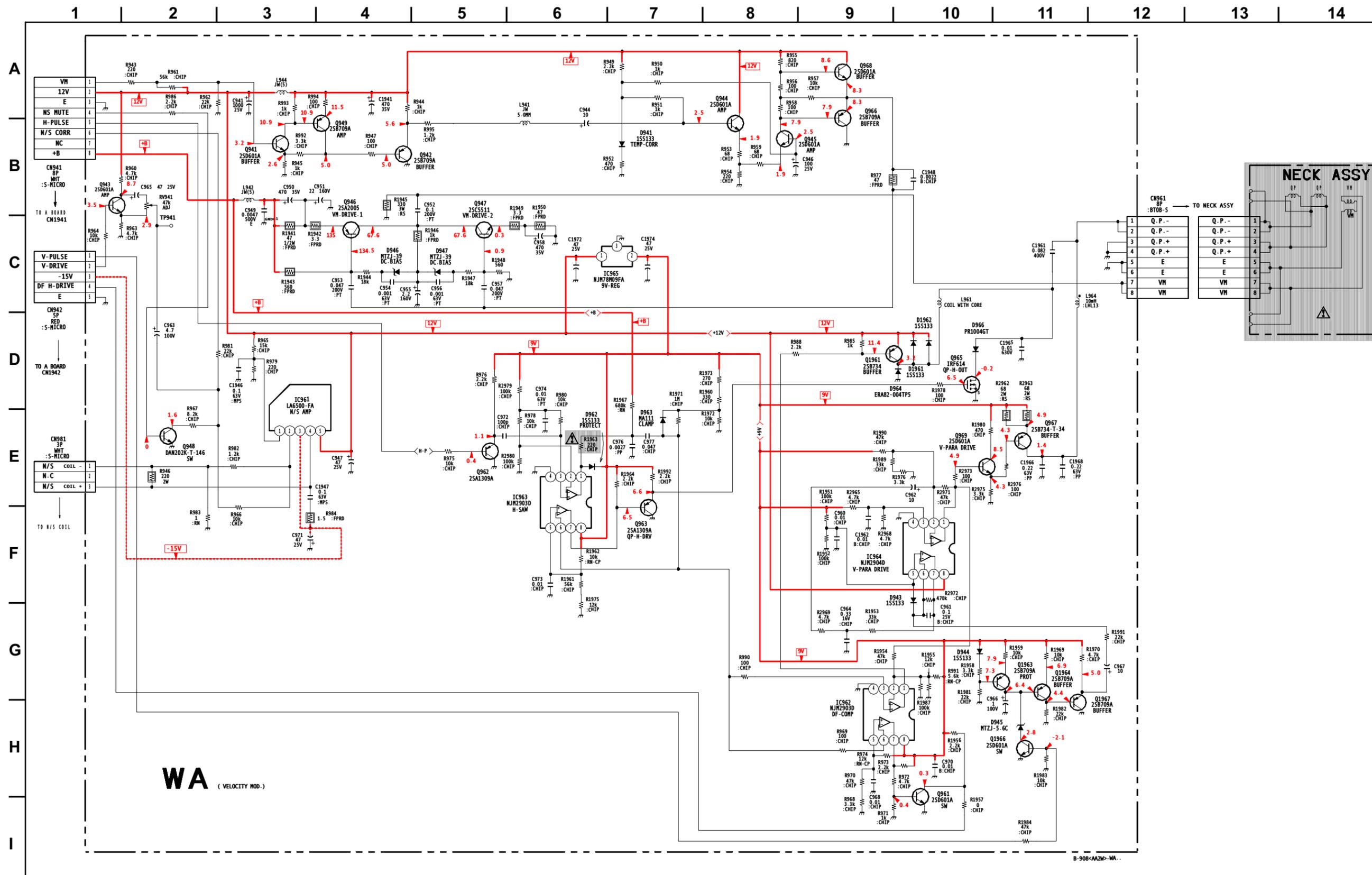
**UY (MAIN) BOARD WAVEFORMS**

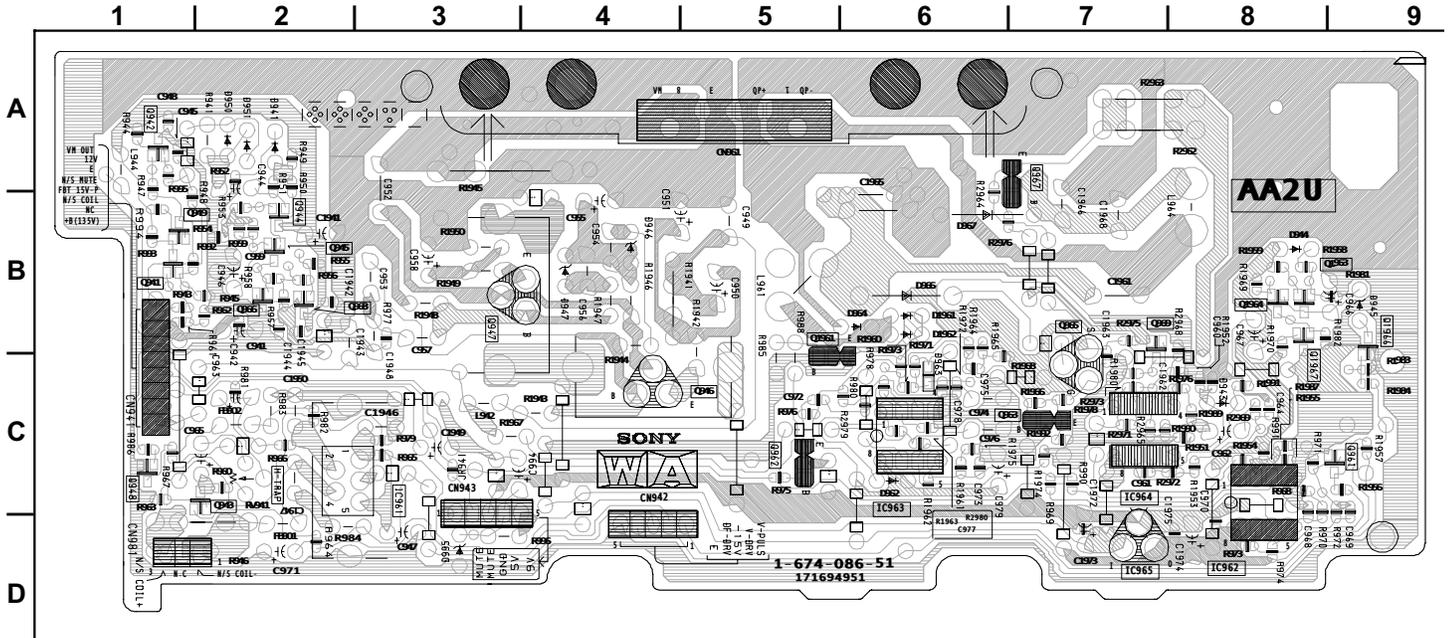


**UY (PIP) BOARD WAVEFORMS**



WA BOARD SCHEMATIC DIAGRAM





**WA BOARD IC VOLTAGE LIST**

IC961		3	4.6
pin	volt	4	GND
1	0.2	5	7.5
2	0.2	6	6.8
3	-13.9	7	6.5
4	0.5	8	8.9
5	11.7	<b>IC964</b>	
<b>IC962</b>		pin	volt
pin	volt	1	4.9
1	8.5	2	4.0
2	5.8	3	4.0
3	6.8	4	GND
4	GND	5	4.4
5	7.2	6	4.4
6	6.8	7	4.4
7	3.8	8	11.7
8	8.9	<b>IC965</b>	
<b>IC963</b>		pin	volt
pin	volt	1	11.6
1	2.0	2	9.0
2	4.2	3	GND

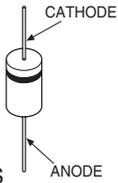
All voltages are in V

**WA BOARD LOCATOR LIST**

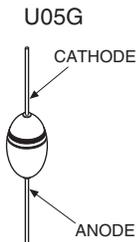
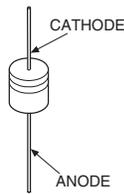
DIODE		Q942	A-1
D941	A-2	Q943	C-2
D943	C-8	Q944	B-2
D944	B-8	Q945	B-2
D945	B-9	Q946	C-4
D946	B-4	Q947	B-3
D947	B-4	Q948	C-1
D962	C-6	Q949	B-1
D963	B-6	Q961	C-9
D964	B-6	Q962	C-5
D964	B-6	Q963	C-7
D1961	B-6	Q965	B-7
D1962	B-6	Q966	B-2
<b>IC</b>		Q967	A-7
IC961	C-2	Q968	B-3
IC962	C-8	Q969	B-8
IC963	C-6	Q1961	B-5
IC964	C-7	Q1963	B-9
IC965	D-7	Q1964	B-8
<b>TRANSISTOR</b>		Q1966	B-9
Q941	B-1	Q1967	B-8

### 5-4. SEMICONDUCTORS

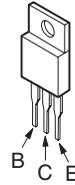
D1NL20U  
D2L20U  
EL1Z  
EGP20G  
EGP30G  
ERA22-08  
ERC06-15S  
ERD29-08J  
EZ0150AV1  
GP08D  
MTZJ-33A  
1SS83



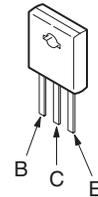
D1NS4  
MTZJ-XXA  
MTZJ-XXB  
MTZJ-XXC  
RDXXESB1  
RDXXESB2  
RDXXESB3  
1SS119-25  
1SS133T-77  
(XX = VALUE)



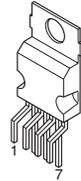
2SA1837  
2SC4159-E  
2SC4793  
2SD2012



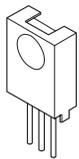
2SC4834M



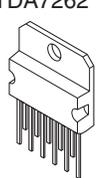
TDA8172



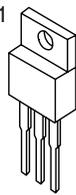
SBX1981



TDA2009A  
TDA7262



NJM78M05FA  
PQ09RF21  
TA7805S  
BA05T



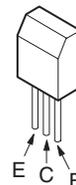
IC LINK  
2A/90V



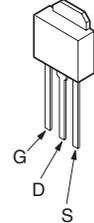
D10SC4M



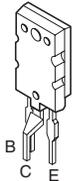
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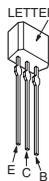
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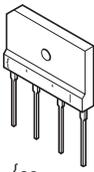
TSC5148  
(LE SONY)



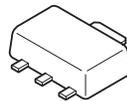
2SA1175-HFE  
2SA933AS-QRT  
2SC2785-HFE



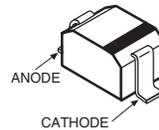
D10SBS4F  
D6SB60L  
D4SB60L



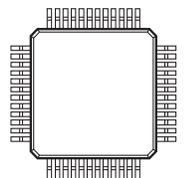
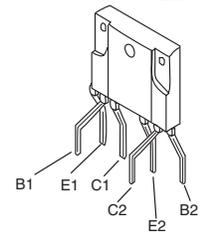
S-80748AL



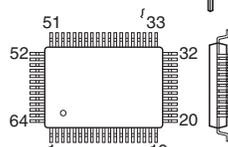
MA111  
RD3.3SB  
1SS355



MX0842B-F



TOP VIEW  
40 pin  
CXA2019Q

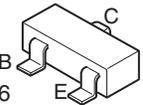


TOP VIEW  
CXA1845Q - 64 pin  
LC27016 - 80 pin  
SAB9076AH  
 $\mu$ PD6488GF-33A  
 $\mu$ PD64081BGF-3BA - 100 pin

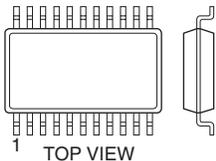


TOP VIEW  
32 pin DIP  
BH3868FS-E2  
V53C16258SHK - 40 pin DIP

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



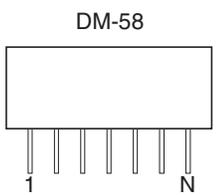
8 pin SOP  
NJM2903D  
NJM2903M  
NJM2904D  
ST24C02FM6TR  
 $\mu$ PC4558G2  
X24C04SB



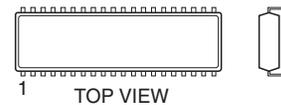
20 pin SOP  
NJM2150M

16 pin SOP  
BU4053BCF-T2  
CXA1315M  
MC14052BF  
MC14538B  
NJM2145M-TE2  
CXD2064Q-T6

24 pin SOP  
CXA2039M-T6  
28 pin SOP  
MN47V76ST1  
MN47V77ST1  
36 pin SOP  
 $\mu$ PC1862GS-E2



MARKING SIDE VIEW  
Epin 1 ' N  
EMt (one side, both sides)



14 pin DIP  
NJM2902M  
16 pin DIP  
MM1093N  
20 pin DIP  
TA1226N  
22 pin DIP  
CXA2021S  
28 pin DIP  
TDA7467  
30 pin DIP  
CXD2073S

40 pin DIP  
SDA9288XE  
42 pin DIP  
MM1311AD  
MM1313AD  
48 pin DIP  
CXA2131S  
64 pin DIP  
CXP85856A-029S

## SECTION 6: EXPLODED VIEWS

Components not identified by a part number or 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 far right column of the parts list and within the dotted lines of the diagram.

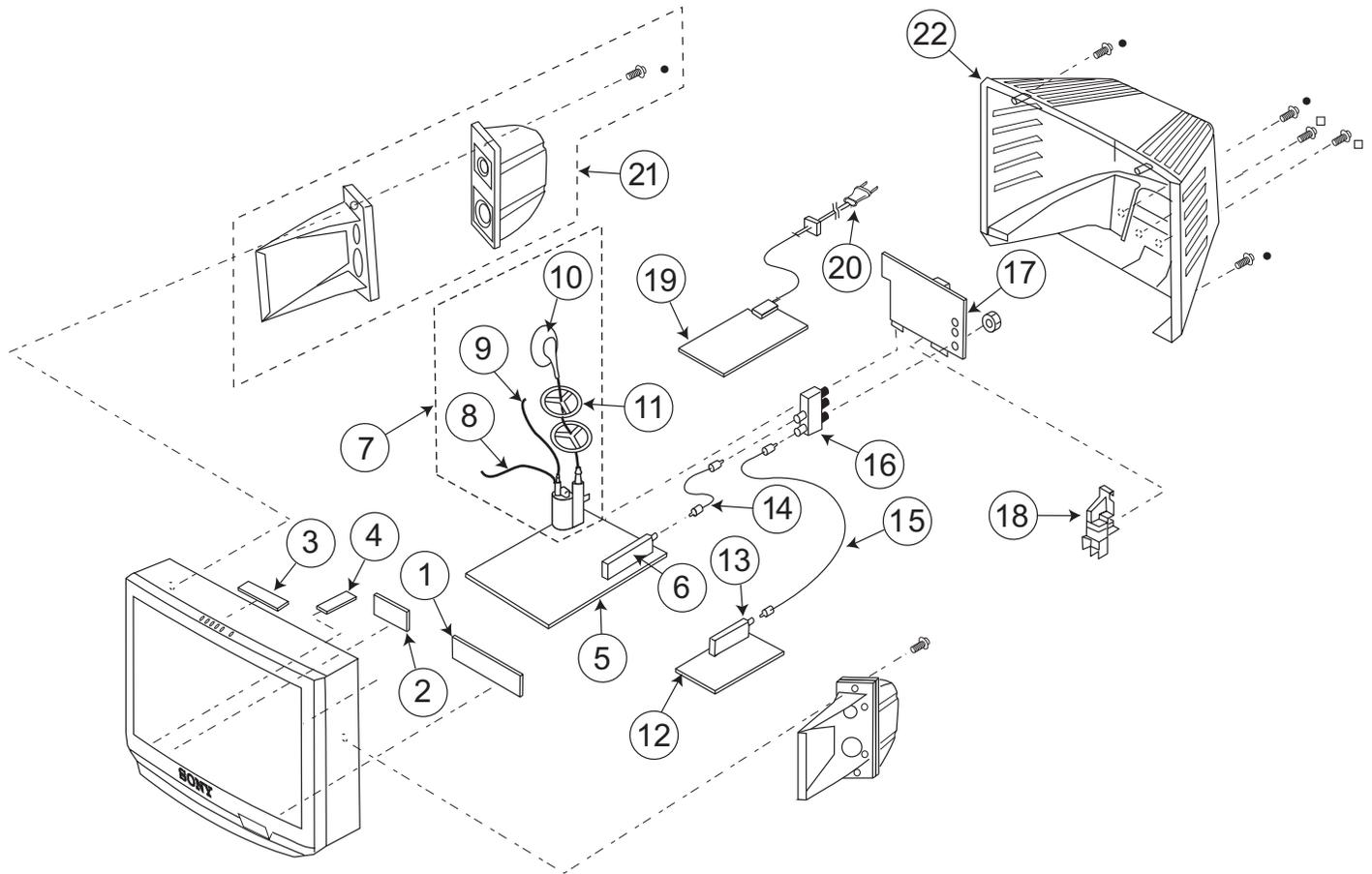
\* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

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

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

### 6-1. CHASSIS

- |   |              |                        |
|---|--------------|------------------------|
| □ | 7-685-646-79 | SCREW (3 X 12, TYPE 2) |
| ● | 7-685-663-79 | SCREW (4 X 16, TYPE 2) |



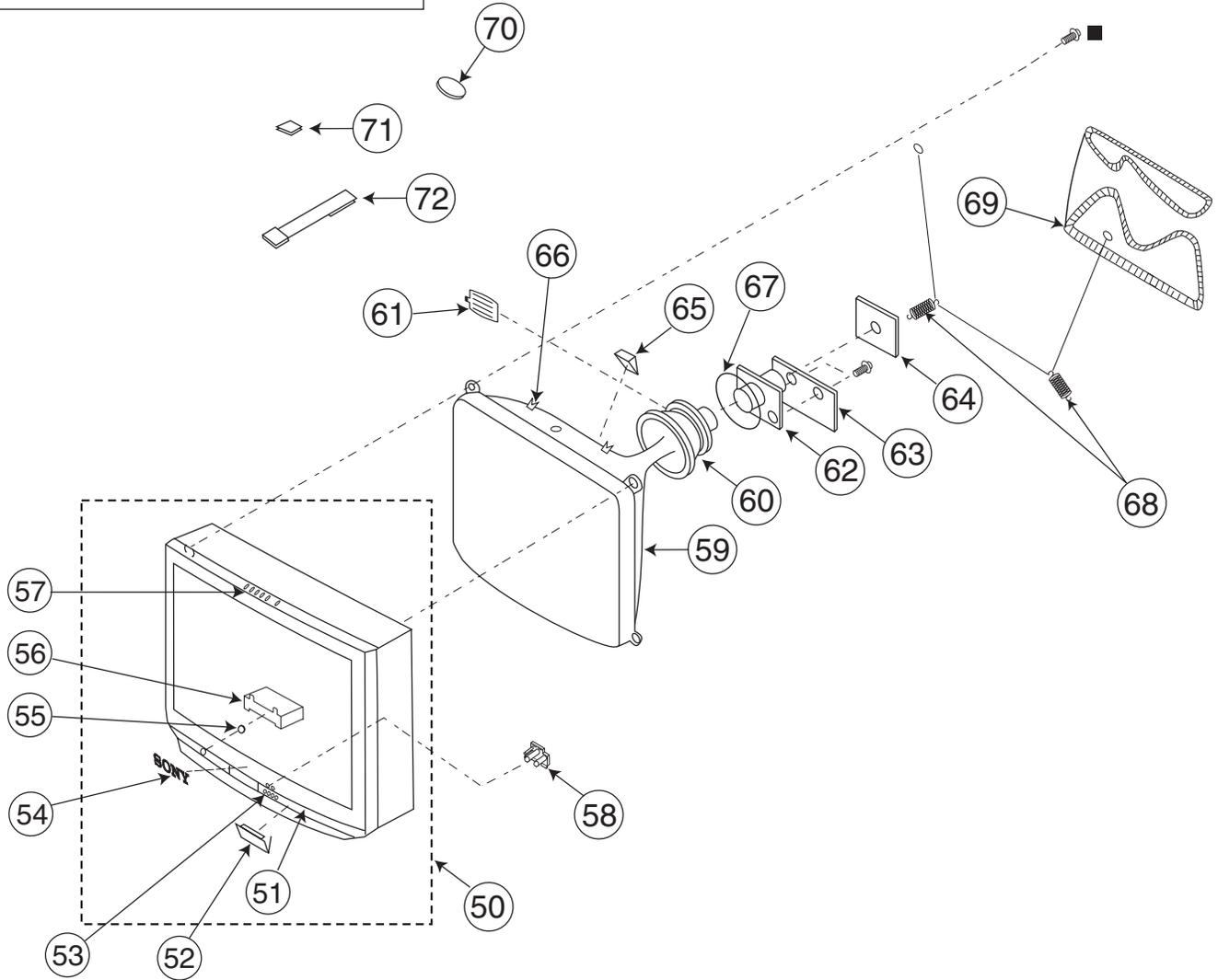
REF.NO.	PART NO.	DESCRIPTION	[Assembly Includes]	REF.NO.	PART NO.	DESCRIPTION
* 1	A-1372-634-A	HA MOUNTED PC BOARD		* 12	A-1298-957-A	AK COMPLETE PC BOARD
* 2	A-1372-635-A	HB MOUNTED PC BOARD		 13	8-598-501-30	TUNER, FSS BTF-FA402
* 3	A-1372-636-A	HX MOUNTED PC BOARD		* 14	1-557-056-31	CABLE, P-P
* 4	A-1372-667-A	HZ MOUNTED PC BOARD		* 15	1-556-945-21	CABLE, P-P
* 5	A-1299-460-A	A COMPLETE PC BOARD		16	8-598-414-20	CHANGER, ANTENNA AS-2F
 6	8-598-542-20	TUNER, FSS BTF-WA412		* 17	A-1394-942-A	UY COMPLETE PC BOARD
 7	1-453-310-11	FBT ASSY NX-4521//X4J4	8-10	* 18	3-696-606-02	HINGE, VI
8	1-900-800-82	WIRE ASSY, FOCUS		* 19	A-1316-466-A	GA COMPLETE PC BOARD
9	1-900-803-22	WIRE ASSY, G2 LEAD		 20	1-783-838-71	CORD, POWER (WITH CONNECTOR)
10	1-251-374-13	CAP ASSY, HIGH-VOLTAGE		21	A-1484-429-A	SPEAKER BOX ASSY
11	4-041-203-01	HOLDER, HV CABLE		22	X-4038-715-1	COVER ASSY, REAR

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

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

## 6-2. PICTURE TUBE

■ 4-041-268-01 SCREW, TAPPING (7)+CROWN WASHER



REF.NO.	PART NO.	DESCRIPTION	[Assembly Includes]	REF.NO.	PART NO.	DESCRIPTION
50	X-4036-852-5	BEZNET ASSY	51	* 63	A-1375-187-A	WA COMPLETE PC BOARD
51	3-703-574-00	RETAINER, DOOR		* 64	A-1331-939-A	C (VAR) MOUNTED PC BOARD
52	4-068-985-13	DOOR		65	4-031-319-01	SPACER, DY
53	4-068-984-01	MULTI-BUTTON (BOTTOM)		* 66	4-062-970-12	CLIP (29RSN), DGC
54	3-704-179-31	EMBLEM (NO.9), SONY		67	1-452-896-11	COIL, NA ROTATION (RT200)
55	4-068-995-01	BUTTON, MAIN POWER		68	4-036-329-11	SPRING (B), TENSION
56	4-052-635-01	MAIN POWER BRACKET		⚠ 69	1-419-157-11	COIL, DEGAUSSING
57	4-068-982-05	MULTI-BUTTON (TOP)		70	1-452-094-00	CIRCULAR DISC MAGNET B
58	4-068-986-01	GUIDE, LED		71	1-452-032-00	MAGNET, DISC
⚠ 59	8-735-056-05	CRT 29RSN		72	4-062-047-02	PIECE A(110), CONV CORRECT
⚠ 60	8-451-494-31	DY Y29RSA-S				
61	2-163-920-01	PLATE, TLH CORRECTION				
⚠ 62	8-453-011-11	NA299-M				

## SECTION 7: ELECTRICAL PARTS LIST

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

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

The components in this manual identified by the following symbol:  $\boxtimes$  indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.

Should replacement be required for one of these components, replace only with the value originally used.

\* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

## RESISTORS

- All resistors are in ohms
- F : nonflammable
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

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

REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
	* A-1298-957-A	AK BOARD, COMPLETE									
	4-382-854-11	SCREW (M3X10), P, SW (+)									
		<b>CAPACITOR</b>									
C101	1-117-534-91	ELECT	1 $\mu$ F	20%	100V	C1405	1-117-534-91	ELECT	1 $\mu$ F	20%	100V
C102	1-164-161-11	CERAMIC CHIP	0.0022 $\mu$ F	10%	50V	C1406	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F	10%	25V
C104	1-117-511-91	ELECT	10 $\mu$ F	20%	50V	C1407	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F	10%	25V
C106	1-104-664-11	ELECT	47 $\mu$ F	20%	25V	C1408	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F	10%	25V
C108	1-117-498-91	ELECT	1000 $\mu$ F	20%	25V						
C109	1-163-259-91	CERAMIC CHIP	220pF	5%	50V	C1409	1-164-182-11	CERAMIC CHIP	0.0033 $\mu$ F	10%	50V
C110	1-163-809-11	CERAMIC CHIP	0.047 $\mu$ F	10%	25V	C1410	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F	10%	50V
C111	1-117-534-91	ELECT	1 $\mu$ F	20%	100V	C1411	1-164-182-11	CERAMIC CHIP	0.0033 $\mu$ F	10%	50V
C113	1-104-666-11	ELECT	220 $\mu$ F	20%	25V	C1412	1-163-037-11	CERAMIC CHIP	0.022 $\mu$ F	10%	50V
C115	1-117-534-91	ELECT	1 $\mu$ F	20%	100V	C1413	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V
C175	1-117-506-91	ELECT	470 $\mu$ F	20%	35V	C1414	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V
C440	1-117-512-91	ELECT	22 $\mu$ F	20%	50V	C1415	1-117-532-91	ELECT	0.47 $\mu$ F	20%	100V
C441	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C1416	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V
C442	1-117-534-91	ELECT	1 $\mu$ F	20%	100V	C1417	1-117-532-91	ELECT	0.47 $\mu$ F	20%	100V
C443	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C1420	1-163-037-11	CERAMIC CHIP	0.022 $\mu$ F	10%	50V
C444	1-164-346-11	CERAMIC CHIP	1 $\mu$ F		16V	C1421	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V
C445	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C1422	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F	10%	25V
C446	1-164-346-11	CERAMIC CHIP	1 $\mu$ F		16V	C1423	1-117-506-91	ELECT	470 $\mu$ F	20%	35V
C447	1-107-823-11	CERAMIC CHIP	0.47 $\mu$ F	10%	16V	C1426	1-126-941-11	ELECT	470 $\mu$ F	20%	25V
C448	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F	10%	50V	C1428	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V
C449	1-107-823-11	CERAMIC CHIP	0.47 $\mu$ F	10%	16V	C1429	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V
C453	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F	10%	50V	C1450	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V
C454	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	C1451	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V
C455	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C1452	1-163-986-00	CERAMIC CHIP	0.027 $\mu$ F	10%	25V
C456	1-163-023-00	CERAMIC CHIP	0.015 $\mu$ F	10%	50V	C1461	1-117-534-91	ELECT	1 $\mu$ F	20%	100V
C457	1-164-161-11	CERAMIC CHIP	0.0022 $\mu$ F	10%	50V	C1462	1-117-534-91	ELECT	1 $\mu$ F	20%	100V
C1401	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V	C1464	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V
C1402	1-117-524-91	ELECT	100 $\mu$ F	20%	63V	C1465	1-117-534-91	ELECT	1 $\mu$ F	20%	100V
C1403	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V	C1467	1-104-666-11	ELECT	220 $\mu$ F	20%	25V
C1404	1-117-534-91	ELECT	1 $\mu$ F	20%	100V	C1468	1-117-534-91	ELECT	1 $\mu$ F	20%	100V
						C1470	1-117-534-91	ELECT	1 $\mu$ F	20%	100V
						C1471	1-136-189-00	MYLAR	0.1 $\mu$ F	5%	63V
						C1472	1-136-193-11	MYLAR	0.47 $\mu$ F	5%	63V
						C1473	1-128-550-11	ELECT	2200 $\mu$ F	20%	50V
						C1474	1-136-189-00	MYLAR	0.1 $\mu$ F	5%	63V
						C1475	1-128-550-11	ELECT	2200 $\mu$ F	20%	50V
						C1476	1-128-550-11	ELECT	2200 $\mu$ F	20%	50V
						C1477	1-117-527-91	ELECT	470 $\mu$ F	20%	63V
						C1478	1-117-527-91	ELECT	470 $\mu$ F	20%	63V



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

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

REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C1904	1-102-129-00	CERAMIC	0.01 $\mu$ F	10%	50V	L105	1-414-857-11	INDUCTOR	100 $\mu$ H		
C1905	1-117-511-91	ELECT	10 $\mu$ F	20%	50V	L1401	1-414-857-11	INDUCTOR	100 $\mu$ H		
C1906	1-102-129-00	CERAMIC	0.01 $\mu$ F	10%	50V	<b>IC LINK</b>					
C1907	1-117-511-91	ELECT	10 $\mu$ F	20%	50V	$\triangle$ PS1461	1-532-984-11	LINK, IC 2A/90V			
C1908	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	<b>TRANSISTOR</b>					
C1909	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	Q101	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA			
C1910	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	Q105	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX			
C1911	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	Q106	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
C1912	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	Q1461	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
<b>CONNECTOR</b>						Q1462	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX			
*	CN1462	1-564-507-11	PLUG,CONNECTOR	4P		Q1463	8-729-900-53	TRANSISTOR DTC114EKA-T146			
*	CN1463	1-564-509-11	PLUG,CONNECTOR	6P		Q1464	8-729-900-53	TRANSISTOR DTC114EKA-T146			
*	CN1464	1-764-333-11	PLUG,CONNECTOR	10P		Q1902	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX			
*	CN1466	1-564-515-11	PLUG,CONNECTOR	12P		Q1903	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX			
*	CN1467	1-564-510-11	PLUG,CONNECTOR	7P		Q1918	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX			
	CN1468	1-695-915-11	TAB (CONTACT)			<b>RESISTOR</b>					
<b>DIODE</b>						R101	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
D101	8-719-109-89	DIODE MTZJ-T-77-5.6C				R102	1-216-083-00	RES-CHIP	27K	5%	1/10W
D103	8-719-991-33	DIODE 1SS133T-77				R103	1-216-083-00	RES-CHIP	27K	5%	1/10W
D104	8-719-991-33	DIODE 1SS133T-77				R104	1-216-049-11	RES-CHIP	1K	5%	1/10W
D105	8-719-991-33	DIODE 1SS133T-77				R112	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
D106	8-719-991-33	DIODE 1SS133T-77				R113	1-216-097-11	RES-CHIP	100K	5%	1/10W
D107	8-719-991-33	DIODE 1SS133T-77				R114	1-216-121-11	RES-CHIP	1M	5%	1/10W
D108	8-719-110-17	DIODE MTZJ-T-77-10B				R115	1-216-073-00	RES-CHIP	10K	5%	1/10W
D109	8-719-110-17	DIODE MTZJ-T-77-10B				R116	1-216-073-00	RES-CHIP	10K	5%	1/10W
D1461	8-719-991-33	DIODE 1SS133T-77				R117	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
D1463	8-719-991-33	DIODE 1SS133T-77				R118	1-208-774-11	METAL CHIP	470	0.50%	1/10W
D1466	8-719-991-33	DIODE 1SS133T-77				R119	1-208-776-11	METAL CHIP	560	0.50%	1/10W
D1467	8-719-924-13	DIODE MTZJ-T-77-22B				R440	1-216-049-11	RES-CHIP	1K	5%	1/10W
D1468	8-719-924-13	DIODE MTZJ-T-77-22B				R441	1-216-100-00	RES-CHIP	130K	5%	1/10W
D1469	8-719-991-33	DIODE 1SS133T-77				R442	1-216-088-00	RES-CHIP	43K	5%	1/10W
<b>IC</b>						R443	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
IC1401	8-759-578-88	IC BH3868FS-E2				R444	1-216-089-11	RES-CHIP	47K	5%	1/10W
IC1402	8-759-100-96	IC NJM4558M-TE2				R445	1-216-085-00	RES-CHIP	33K	5%	1/10W
IC1403	8-759-537-26	IC TDA7467D013TR				R446	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
$\triangle$ IC1461	8-759-246-70	IC TA8216H				R1403	1-216-121-11	RES-CHIP	1M	5%	1/10W
IC1901	8-752-058-68	IC CXA1315M-T4				R1404	1-216-295-11	SHORT			
IC1902	8-759-470-63	IC NJM2145M-TE2				R1406	1-216-121-11	RES-CHIP	1M	5%	1/10W
<b>CHIP CONDUCTOR</b>						R1407	1-216-073-00	RES-CHIP	10K	5%	1/10W
JR1901	1-216-295-11	SHORT				R1408	1-216-295-11	SHORT			
JR1902	1-216-295-11	SHORT				R1409	1-216-295-11	SHORT			
<b>COIL</b>						R1410	1-216-081-00	RES-CHIP	22K	5%	1/10W
L102	1-414-856-11	INDUCTOR	10 $\mu$ H			R1411	1-216-073-00	RES-CHIP	10K	5%	1/10W
						R1412	1-216-089-11	RES-CHIP	47K	5%	1/10W



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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R1413	1-216-089-11	RES-CHIP	47K	5%	1/10W	<b>TUNER</b>					
R1415	1-216-025-11	RES-CHIP	100	5%	1/10W	$\triangle$ TU101	8-598-501-30	TUNER, FSS BTF-FA402			
R1416	1-216-081-00	RES-CHIP	22K	5%	1/10W	<b>A</b>					
R1417	1-216-081-00	RES-CHIP	22K	5%	1/10W	<b>* A-1299-460-A A BOARD, COMPLETE</b>					
R1418	1-216-089-11	RES-CHIP	47K	5%	1/10W	The high-voltage leads associated with the FBT on the A board are not included and must be ordered separately. Order the following 3 leads when requesting this board:					
R1421	1-216-025-11	RES-CHIP	100	5%	1/10W		1-900-800-82	WIRE ASSY, FOCUS			
R1422	1-216-033-00	RES-CHIP	220	5%	1/10W		1-900-803-22	WIRE ASSY, G2 LEAD			
R1423	1-216-033-00	RES-CHIP	220	5%	1/10W		1-251-374-13	CAP ASSY, HIGH-VOLTAGE			
R1424	1-216-081-00	RES-CHIP	22K	5%	1/10W		4-382-854-11	SCREW (M3X10), P, SW (+)			
R1425	1-216-081-00	RES-CHIP	22K	5%	1/10W	<b>CAPACITOR</b>					
R1427	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	C001	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
R1458	1-216-033-00	RES-CHIP	220	5%	1/10W	C003	1-163-809-11	CERAMIC CHIP	0.047 $\mu$ F	10%	25V
R1459	1-216-033-00	RES-CHIP	220	5%	1/10W	C005	1-117-534-91	ELECT	1 $\mu$ F	20%	100V
R1461	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	C009	1-117-493-91	ELECT	47 $\mu$ F	20%	25V
R1462	1-216-073-00	RES-CHIP	10K	5%	1/10W	C010	1-163-037-11	CERAMIC CHIP	0.022 $\mu$ F	10%	50V
R1464	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	C012	1-163-010-11	CERAMIC CHIP	0.0012 $\mu$ F	10%	50V
R1465	1-216-089-11	RES-CHIP	47K	5%	1/10W	C013	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V
R1466	1-216-089-11	RES-CHIP	47K	5%	1/10W	C014	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F	10%	50V
R1467	1-216-073-00	RES-CHIP	10K	5%	1/10W	C023	1-163-259-91	CERAMIC CHIP	220pF	5%	50V
R1469	1-249-389-11	CARBON	4.7	5%	1/4W	C028	1-163-227-11	CERAMIC CHIP	10pF	0.50pF	50V
R1470	1-249-389-11	CARBON	4.7	5%	1/4W	C029	1-163-227-11	CERAMIC CHIP	10pF	0.50pF	50V
R1471	1-216-049-11	RES-CHIP	1K	5%	1/10W	C035	1-163-237-11	CERAMIC CHIP	27pF	5%	50V
R1472	1-216-077-91	RES-CHIP	15K	5%	1/10W	C036	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
R1473	1-216-049-11	RES-CHIP	1K	5%	1/10W	C037	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
R1474	1-216-033-00	RES-CHIP	220	5%	1/10W	C038	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
R1475	1-216-033-00	RES-CHIP	220	5%	1/10W	C039	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
R1480	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	C040	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
R1481	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	C051	1-164-161-11	CERAMIC CHIP	0.0022 $\mu$ F	10%	50V
R1482	1-216-295-11	SHORT				C053	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V
R1483	1-216-295-11	SHORT				C056	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
R1486	1-216-033-00	RES-CHIP	220	5%	1/10W	C061	1-163-037-11	CERAMIC CHIP	0.022 $\mu$ F	10%	50V
R1487	1-216-033-00	RES-CHIP	220	5%	1/10W	C062	1-163-037-11	CERAMIC CHIP	0.022 $\mu$ F	10%	50V
R1902	1-216-073-00	RES-CHIP	10K	5%	1/10W	C063	1-117-506-91	ELECT	470 $\mu$ F	20%	35V
R1904	1-216-073-00	RES-CHIP	10K	5%	1/10W	C068	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V
R1906	1-216-073-00	RES-CHIP	10K	5%	1/10W	C071	1-117-512-91	ELECT	22 $\mu$ F	20%	50V
R1907	1-216-033-00	RES-CHIP	220	5%	1/10W	C072	1-164-161-11	CERAMIC CHIP	0.0022 $\mu$ F	10%	50V
R2904	1-216-033-00	RES-CHIP	220	5%	1/10W	C075	1-107-823-11	CERAMIC CHIP	0.47 $\mu$ F	10%	16V
R2905	1-216-033-00	RES-CHIP	220	5%	1/10W	C301	1-136-189-00	MYLAR	0.1 $\mu$ F	5%	63V
R2909	1-216-073-00	RES-CHIP	10K	5%	1/10W	C305	1-163-233-11	CERAMIC CHIP	18pF	5%	50V
R2910	1-216-073-00	RES-CHIP	10K	5%	1/10W	C306	1-163-233-11	CERAMIC CHIP	18pF	5%	50V
R2912	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	C307	1-163-233-11	CERAMIC CHIP	18pF	5%	50V
R2913	1-216-073-00	RES-CHIP	10K	5%	1/10W	C308	1-163-001-11	CERAMIC CHIP	220pF	10%	50V
R2914	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R2915	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R2916	1-216-073-00	RES-CHIP	10K	5%	1/10W						

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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C309	1-136-169-00	FILM	0.22 $\mu$ F	5%	50V	C504	1-102-228-00	CERAMIC	470pF	10%	500V
C310	1-117-493-91	ELECT	47 $\mu$ F	20%	25V	C505	1-102-228-00	CERAMIC	470pF	10%	500V
C311	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C506	1-106-383-00	MYLAR	0.047 $\mu$ F	10%	200V
C312	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V	$\triangle$ C507	1-162-116-00	CERAMIC	680pF	10%	2KV
C314	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C508	1-102-228-00	CERAMIC	470pF	10%	500V
C316	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C509	1-162-116-00	CERAMIC	680pF	10%	2KV
C318	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C510	1-137-150-11	MYLAR	0.01 $\mu$ F	10%	100V
C319	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	$\triangle$ C511	1-113-582-11	FILM	0.017 $\mu$ F	3%	2KV
C320	1-117-487-91	ELECT	470 $\mu$ F	20%	16V	C512	1-129-709-91	FILM	0.0039 $\mu$ F	5%	630V
C321	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F		50V	$\triangle$ C513	1-129-722-00	FILM	0.047 $\mu$ F	5%	630V
C322	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F		50V	$\triangle$ C514	1-109-844-11	FILM	0.68 $\mu$ F	5%	250V
C323	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F		50V	C515	1-104-987-11	MYLAR	0.001 $\mu$ F	10%	100V
C326	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F		50V	C516	1-115-522-11	FILM	1 $\mu$ F	5%	250V
C327	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V	C517	1-117-559-91	ELECT	2.2 $\mu$ F	20%	250V
C329	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F		50V	C518	1-106-387-00	MYLAR	0.068 $\mu$ F	10%	200V
C331	1-117-511-91	ELECT	10 $\mu$ F	20%	50V	C519	1-107-612-11	CERAMIC	100pF	5%	500V
C332	1-117-534-91	ELECT	1 $\mu$ F	20%	100V	C520	1-164-646-11	CERAMIC	2200pF	10%	500V
C333	1-102-129-00	CERAMIC	0.01 $\mu$ F	10%	50V	C521	1-163-010-11	CERAMIC CHIP	0.0012 $\mu$ F	10%	50V
C334	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V	C522	1-117-534-91	ELECT	1 $\mu$ F	20%	100V
C335	1-164-005-11	CERAMIC CHIP	0.47 $\mu$ F		25V	C525	1-102-244-00	CERAMIC	220pF	10%	500V
C336	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	C526	1-117-563-91	ELECT	22 $\mu$ F	20%	250V
C338	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C527	1-162-116-00	CERAMIC	680pF	10%	2KV
C339	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C528	1-164-161-11	CERAMIC CHIP	0.0022 $\mu$ F	10%	50V
C340	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C529	1-117-512-91	ELECT	22 $\mu$ F	20%	50V
C343	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C530	1-137-475-11	MYLAR	0.0022 $\mu$ F	5%	63V
C344	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C531	1-117-512-91	ELECT	22 $\mu$ F	20%	50V
C345	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C532	1-117-512-91	ELECT	22 $\mu$ F	20%	50V
C346	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F		50V	C534	1-117-513-91	ELECT	47 $\mu$ F	20%	50V
C351	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F		50V	C537	1-117-506-91	ELECT	470 $\mu$ F	20%	35V
C352	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C539	1-117-506-91	ELECT	470 $\mu$ F	20%	35V
C355	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V	C540	1-104-710-11	ELECT	22 $\mu$ F		160V
C357	1-117-513-91	ELECT	47 $\mu$ F	20%	50V	C541	1-117-539-91	ELECT	22 $\mu$ F	20%	100V
C359	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C543	1-104-666-11	ELECT	220 $\mu$ F	20%	25V
C361	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C544	1-129-718-00	FILM	0.022 $\mu$ F	5%	630V
C374	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C545	1-106-387-00	MYLAR	0.068 $\mu$ F	10%	200V
C375	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C546	1-104-987-11	MYLAR	0.001 $\mu$ F	10%	100V
C382	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C547	1-104-987-11	MYLAR	0.001 $\mu$ F	10%	100V
C384	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C548	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F	10%	25V
C393	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C549	1-106-375-12	MYLAR	0.022 $\mu$ F	20%	200V
C394	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F		25V	C550	1-130-061-91	FILM	0.0015 $\mu$ F	5%	630V
C395	1-117-493-91	ELECT	47 $\mu$ F	20%	25V	C551	1-117-557-91	ELECT	0.47 $\mu$ F	20%	250V
C396	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F	10%	50V	C552	1-102-244-00	CERAMIC	220pF	10%	500V
C397	1-117-493-91	ELECT	47 $\mu$ F	20%	25V	C553	1-107-846-11	FILM	0.1 $\mu$ F	5%	250V
C398	1-117-535-91	ELECT	2.2 $\mu$ F	20%	100V	$\triangle$ C554	1-136-065-00	FILM	0.0027 $\mu$ F	3%	2KV
C501	1-102-110-00	CERAMIC	220pF	10%	50V	C561	1-117-513-91	ELECT	47 $\mu$ F	20%	50V
C502	1-117-532-91	ELECT	0.47 $\mu$ F	20%	100V	C563	1-117-504-91	ELECT	220 $\mu$ F	20%	35V
C503	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	C564	1-117-534-91	ELECT	1 $\mu$ F	20%	100V





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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
Q501	8-729-140-50	TRANSISTOR 2SC3209LK-TP				R038	1-216-049-11	RES-CHIP	1K	5%	1/10W
$\triangle$ Q502	8-729-045-26	TRANSISTOR 2SD2580-YB				R039	1-247-807-31	CARBON	100	5%	1/4W
Q503	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R040	1-249-409-11	CARBON	220	5%	1/4W
Q504	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R041	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
Q507	8-729-043-95	TRANSISTOR 2SC3840K				R042	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
$\triangle$ Q511	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R043	1-216-033-00	RES-CHIP	220	5%	1/10W
$\triangle$ Q512	8-729-809-29	TRANSISTOR 2SC4159-E				R044	1-216-049-11	RES-CHIP	1K	5%	1/10W
Q561	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R045	1-249-409-11	CARBON	220	5%	1/4W
Q562	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R046	1-249-409-11	CARBON	220	5%	1/4W
Q1102	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA				R047	1-249-417-11	CARBON	1K	5%	1/4W
Q1103	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R048	1-249-417-11	CARBON	1K	5%	1/4W
Q1301	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX				R049	1-249-417-11	CARBON	1K	5%	1/4W
Q1302	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R050	1-249-409-11	CARBON	220	5%	1/4W
Q1303	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R051	1-249-409-11	CARBON	220	5%	1/4W
Q1352	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R052	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
Q1353	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX				R053	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
Q1354	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R054	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
		<b>RESISTOR</b>				R055	1-216-097-11	RES-CHIP	100K	5%	1/10W
R001	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R056	1-216-033-00	RES-CHIP	220	5%	1/10W
R002	1-216-049-11	RES-CHIP	1K	5%	1/10W	R057	1-249-417-11	CARBON	1K	5%	1/4W
R003	1-216-097-11	RES-CHIP	100K	5%	1/10W	R058	1-216-041-00	RES-CHIP	470	5%	1/10W
R004	1-216-121-11	RES-CHIP	1M	5%	1/10W	R060	1-216-073-00	RES-CHIP	10K	5%	1/10W
R006	1-249-409-11	CARBON	220	5%	1/4W	R061	1-216-073-00	RES-CHIP	10K	5%	1/10W
R007	1-216-073-00	RES-CHIP	10K	5%	1/10W	R062	1-216-073-00	RES-CHIP	10K	5%	1/10W
R008	1-249-409-11	CARBON	220	5%	1/4W	R063	1-216-073-00	RES-CHIP	10K	5%	1/10W
R009	1-216-073-00	RES-CHIP	10K	5%	1/10W	R064	1-249-409-11	CARBON	220	5%	1/4W
R010	1-216-041-00	RES-CHIP	470	5%	1/10W	R065	1-249-409-11	CARBON	220	5%	1/4W
R011	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R066	1-249-409-11	CARBON	220	5%	1/4W
R012	1-216-033-00	RES-CHIP	220	5%	1/10W	R067	1-249-413-11	CARBON	470	5%	1/4W
R013	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R068	1-249-409-11	CARBON	220	5%	1/4W
R014	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R069	1-249-409-11	CARBON	220	5%	1/4W
R015	1-216-073-00	RES-CHIP	10K	5%	1/10W	R070	1-249-421-11	CARBON	2.2K	5%	1/4W
R016	1-216-073-00	RES-CHIP	10K	5%	1/10W	R071	1-249-409-11	CARBON	220	5%	1/4W
R019	1-249-425-11	CARBON	4.7K	5%	1/4W	R072	1-216-033-00	RES-CHIP	220	5%	1/10W
R020	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R073	1-216-033-00	RES-CHIP	220	5%	1/10W
R022	1-249-429-11	CARBON	10K	5%	1/4W	R074	1-216-033-00	RES-CHIP	220	5%	1/10W
R023	1-216-089-11	RES-CHIP	47K	5%	1/10W	R075	1-216-033-00	RES-CHIP	220	5%	1/10W
R025	1-216-033-00	RES-CHIP	220	5%	1/10W	R076	1-216-033-00	RES-CHIP	220	5%	1/10W
R026	1-216-121-11	RES-CHIP	1M	5%	1/10W	R077	1-216-033-00	RES-CHIP	220	5%	1/10W
R027	1-216-049-11	RES-CHIP	1K	5%	1/10W	R078	1-249-417-11	CARBON	1K	5%	1/4W
R028	1-249-429-11	CARBON	10K	5%	1/4W	R079	1-216-033-00	RES-CHIP	220	5%	1/10W
R029	1-216-025-11	RES-CHIP	100	5%	1/10W	R080	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R030	1-249-425-11	CARBON	4.7K	5%	1/4W	R081	1-216-025-11	RES-CHIP	100	5%	1/10W
R031	1-249-409-11	CARBON	220	5%	1/4W	R082	1-216-025-11	RES-CHIP	100	5%	1/10W
R032	1-216-033-00	RES-CHIP	220	5%	1/10W	R083	1-249-429-11	CARBON	10K	5%	1/4W
R036	1-216-049-11	RES-CHIP	1K	5%	1/10W	R084	1-216-049-11	RES-CHIP	1K	5%	1/10W
R037	1-216-049-11	RES-CHIP	1K	5%	1/10W	R085	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
						R086	1-216-073-00	RES-CHIP	10K	5%	1/10W

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

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



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R087	1-249-409-11	CARBON	220	5%	1/4W	R342	1-216-097-11	RES-CHIP	100K	5%	1/10W
R089	1-216-073-00	RES-CHIP	10K	5%	1/10W	R343	1-216-093-91	RES-CHIP	68K	5%	1/10W
R090	1-216-033-00	RES-CHIP	220	5%	1/10W	R344	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R092	1-249-429-11	CARBON	10K	5%	1/4W	R346	1-216-023-00	RES-CHIP	82	5%	1/10W
R093	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R347	1-216-041-00	RES-CHIP	470	5%	1/10W
R096	1-216-033-00	RES-CHIP	220	5%	1/10W	R348	1-216-033-00	RES-CHIP	220	5%	1/10W
R097	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R349	1-216-041-00	RES-CHIP	470	5%	1/10W
R099	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R350	1-247-807-31	CARBON	100	5%	1/4W
R106	1-216-081-00	RES-CHIP	22K	5%	1/10W	R352	1-208-808-11	METAL CHIP	12K	0.50%	1/10W
R107	1-216-081-00	RES-CHIP	22K	5%	1/10W	R353	1-216-295-11	SHORT			
R108	1-216-081-00	RES-CHIP	22K	5%	1/10W	R354	1-216-073-00	RES-CHIP	10K	5%	1/10W
R109	1-216-081-00	RES-CHIP	22K	5%	1/10W	R355	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R131	1-216-037-00	RES-CHIP	330	5%	1/10W	R356	1-216-025-11	RES-CHIP	100	5%	1/10W
R132	1-216-113-00	RES-CHIP	470K	5%	1/10W	R358	1-216-295-11	SHORT			
R133	1-216-037-00	RES-CHIP	330	5%	1/10W	R359	1-216-073-00	RES-CHIP	10K	5%	1/10W
R135	1-216-073-00	RES-CHIP	10K	5%	1/10W	R360	1-249-409-11	CARBON	220	5%	1/4W
R136	1-216-073-00	RES-CHIP	10K	5%	1/10W	R361	1-216-049-11	RES-CHIP	1K	5%	1/10W
R137	1-216-049-11	RES-CHIP	1K	5%	1/10W	R362	1-216-073-00	RES-CHIP	10K	5%	1/10W
R304	1-216-033-00	RES-CHIP	220	5%	1/10W	R370	1-216-049-11	RES-CHIP	1K	5%	1/10W
R305	1-249-409-11	CARBON	220	5%	1/4W	R372	1-216-097-11	RES-CHIP	100K	5%	1/10W
R306	1-249-409-11	CARBON	220	5%	1/4W	R373	1-216-121-11	RES-CHIP	1M	5%	1/10W
R308	1-216-049-11	RES-CHIP	1K	5%	1/10W	R374	1-216-041-00	RES-CHIP	470	5%	1/10W
R309	1-216-295-11	SHORT				R375	1-216-049-11	RES-CHIP	1K	5%	1/10W
R310	1-216-049-11	RES-CHIP	1K	5%	1/10W	R376	1-216-025-11	RES-CHIP	100	5%	1/10W
R311	1-216-073-00	RES-CHIP	10K	5%	1/10W	R378	1-216-083-00	RES-CHIP	27K	5%	1/10W
R312	1-216-295-11	SHORT				R383	1-216-025-11	RES-CHIP	100	5%	1/10W
R313	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R384	1-216-037-00	RES-CHIP	330	5%	1/10W
R314	1-216-073-00	RES-CHIP	10K	5%	1/10W	R385	1-249-425-11	CARBON	4.7K	5%	1/4W
R315	1-216-073-00	RES-CHIP	10K	5%	1/10W	R386	1-216-049-11	RES-CHIP	1K	5%	1/10W
R316	1-216-073-00	RES-CHIP	10K	5%	1/10W	R387	1-216-037-00	RES-CHIP	330	5%	1/10W
R317	1-216-041-00	RES-CHIP	470	5%	1/10W	R398	1-216-095-00	RES-CHIP	82K	5%	1/10W
R319	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R501	1-216-041-00	RES-CHIP	470	5%	1/10W
R320	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R502	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R321	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R503	1-249-425-11	CARBON	4.7K	5%	1/4W
R324	1-216-073-00	RES-CHIP	10K	5%	1/10W	R504	1-216-455-21	METAL OXIDE	560	5%	2W
R325	1-216-033-00	RES-CHIP	220	5%	1/10W	R505	1-249-433-11	CARBON	22K	5%	1/4W
R326	1-216-085-00	RES-CHIP	33K	5%	1/10W	R506	1-215-861-00	METAL OXIDE	47	5%	1W
R327	1-216-033-00	RES-CHIP	220	5%	1/10W	R507	1-249-401-11	CARBON	47	5%	1/4W
R330	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R508	1-249-425-11	CARBON	4.7K	5%	1/4W
R331	1-216-075-00	RES-CHIP	12K	5%	1/10W	R509	1-260-324-11	CARBON	470	5%	1/2W
R332	1-216-033-00	RES-CHIP	220	5%	1/10W	 R510	1-215-883-11	METAL OXIDE	33	5%	2W
R333	1-216-041-00	RES-CHIP	470	5%	1/10W	R512	1-215-910-00	METAL OXIDE	68	5%	3W
R334	1-216-033-00	RES-CHIP	220	5%	1/10W	R514	1-216-081-00	RES-CHIP	22K	5%	1/10W
R335	1-216-033-00	RES-CHIP	220	5%	1/10W	R515	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R336	1-216-049-11	RES-CHIP	1K	5%	1/10W	R516	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R337	1-216-347-11	METAL OXIDE	0.68	5%	1W	R517	1-249-417-11	CARBON	1K	5%	1/4W
R340	1-216-105-91	RES-CHIP	220K	5%	1/10W	R518	1-216-073-00	RES-CHIP	10K	5%	1/10W
R341	1-216-073-00	RES-CHIP	10K	5%	1/10W	R519	1-249-413-11	CARBON	470	5%	1/4W

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

A component identified by this  $\boxtimes$  symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R520	1-215-907-11	METAL OXIDE	22	5%	3W	R577	1-216-049-11	RES-CHIP	1K	5%	1/10W
R521	1-216-081-00	RES-CHIP	22K	5%	1/10W	R578	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R523	1-208-814-91	METAL CHIP	22K	0.50%	1/10W	R580	1-249-441-11	CARBON	100K	5%	1/4W
R524	1-249-429-11	CARBON	10K	5%	1/4W	R581	1-247-887-00	CARBON	220K	5%	1/4W
R525	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W	R582	1-249-421-11	CARBON	2.2K	5%	1/4W
R526	1-215-880-00	METAL OXIDE	10	5%	2W	R1001	1-247-807-31	CARBON	100	5%	1/4W
R527	1-216-097-11	RES-CHIP	100K	5%	1/10W	R1002	1-247-807-31	CARBON	100	5%	1/4W
R528	1-208-814-91	METAL CHIP	22K	0.50%	1/10W	R1003	1-216-073-00	RES-CHIP	10K	5%	1/10W
R529	1-208-814-91	METAL CHIP	22K	0.50%	1/10W	R1005	1-216-073-00	RES-CHIP	10K	5%	1/10W
$\boxtimes$ $\triangle$ R530	1-208-808-11	METAL CHIP	12K	0.50%	1/10W	R1006	1-216-025-11	RES-CHIP	100	5%	1/10W
$\boxtimes$ $\triangle$ R531	1-208-836-11	METAL CHIP	180K	0.50%	1/10W	R1007	1-216-025-11	RES-CHIP	100	5%	1/10W
R532	1-208-760-11	METAL CHIP	120	0.50%	1/10W	R1011	1-249-387-11	CARBON	3.3	5%	1/4W
R533	1-215-902-11	METAL OXIDE	47K	5%	1W	R1012	1-216-049-11	RES-CHIP	1K	5%	1/10W
$\triangle$ R536	1-260-288-11	CARBON	0.47	5%	1/2W	R1030	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
$\triangle$ R537	1-260-288-11	CARBON	0.47	5%	1/2W	R1031	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R538	1-247-887-00	CARBON	220K	5%	1/4W	R1101	1-216-049-11	RES-CHIP	1K	5%	1/10W
R539	1-215-891-11	METAL OXIDE	680	5%	2W	R1102	1-215-900-11	METAL OXIDE	22K	5%	2W
R540	1-216-099-00	RES-CHIP	120K	5%	1/10W	R1103	1-216-049-11	RES-CHIP	1K	5%	1/10W
R541	1-215-921-11	METAL OXIDE	4.7K	5%	3W	R1104	1-216-083-00	RES-CHIP	27K	5%	1/10W
R542	1-215-920-11	METAL OXIDE	3.3K	5%	3W	R1105	1-216-083-00	RES-CHIP	27K	5%	1/10W
$\triangle$ R543	1-249-377-11	CARBON	0.47	5%	1/4W	R1106	1-216-049-11	RES-CHIP	1K	5%	1/10W
R544	1-216-113-00	RES-CHIP	470K	5%	1/10W	R1107	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
$\triangle$ R545	1-249-387-11	CARBON	3.3	5%	1/4W	R1108	1-216-073-00	RES-CHIP	10K	5%	1/10W
R546	1-215-457-00	METAL	33K	1%	1/4W	R1109	1-216-017-91	RES-CHIP	47	5%	1/10W
R547	1-215-457-00	METAL	33K	1%	1/4W	R1110	1-216-017-91	RES-CHIP	47	5%	1/10W
R549	1-215-437-00	METAL	4.7K	1%	1/4W	R1111	1-216-017-91	RES-CHIP	47	5%	1/10W
$\triangle$ R550	1-249-377-11	CARBON	0.47	5%	1/4W	R1113	1-249-417-11	CARBON	1K	5%	1/4W
R551	1-215-873-00	METAL OXIDE	4.7K	5%	1W	R1114	1-249-417-11	CARBON	1K	5%	1/4W
R552	1-216-455-21	METAL OXIDE	560	5%	2W	R1115	1-216-041-00	RES-CHIP	470	5%	1/10W
$\triangle$ R553	1-260-288-11	CARBON	0.47	5%	1/2W	R1117	1-249-425-11	CARBON	4.7K	5%	1/4W
R554	1-215-876-00	METAL OXIDE	15K	5%	1W	R1118	1-249-425-11	CARBON	4.7K	5%	1/4W
R555	1-249-441-11	CARBON	100K	5%	1/4W	R1120	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R556	1-249-441-11	CARBON	100K	5%	1/4W	R1121	1-216-037-00	RES-CHIP	330	5%	1/10W
R557	1-249-441-11	CARBON	100K	5%	1/4W	R1122	1-216-113-00	RES-CHIP	470K	5%	1/10W
R559	1-216-017-91	RES-CHIP	47	5%	1/10W	R1123	1-216-037-00	RES-CHIP	330	5%	1/10W
R561	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R1125	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R563	1-214-798-21	METAL	1.8	1%	1/2W	R1126	1-216-037-00	RES-CHIP	330	5%	1/10W
R565	1-215-889-00	METAL OXIDE	330	5%	2W	R1127	1-216-113-00	RES-CHIP	470K	5%	1/10W
R566	1-208-802-11	METAL CHIP	6.8K	0.50%	1/10W	R1128	1-216-037-00	RES-CHIP	330	5%	1/10W
$\triangle$ R567	1-249-385-11	CARBON	2.2	5%	1/4W	R1129	1-216-295-11	SHORT			
R568	1-208-802-11	METAL CHIP	6.8K	0.50%	1/10W	R1130	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R569	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R1301	1-249-401-11	CARBON	47	5%	1/4W
R570	1-216-097-11	RES-CHIP	100K	5%	1/10W	R1302	1-249-401-11	CARBON	47	5%	1/4W
R571	1-216-081-00	RES-CHIP	22K	5%	1/10W	R1303	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R572	1-216-081-00	RES-CHIP	22K	5%	1/10W	R1304	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R573	1-216-097-11	RES-CHIP	100K	5%	1/10W	R1305	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R574	1-214-798-21	METAL	1.8	1%	1/2W	R1306	1-216-049-11	RES-CHIP	1K	5%	1/10W
R576	1-215-907-11	METAL OXIDE	22	5%	3W	R1313	1-216-295-11	SHORT			

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

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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R1314	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R1315	1-216-025-11	RES-CHIP	100	5%	1/10W						
R1316	1-216-091-00	RES-CHIP	56K	5%	1/10W						
R1317	1-216-105-91	RES-CHIP	220K	5%	1/10W						
R1318	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R1319	1-260-290-71	CARBON	0.68	5%	1/2W						
R1320	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R1321	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R1322	1-216-047-91	RES-CHIP	820	5%	1/10W						
R1323	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R1324	1-216-295-11	SHORT									
R1325	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R1330	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R1333	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R1337	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R1358	1-216-025-11	RES-CHIP	100	5%	1/10W						
R1359	1-216-025-11	RES-CHIP	100	5%	1/10W						
R1360	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R1361	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R1362	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R1363	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R1364	1-216-097-11	RES-CHIP	100K	5%	1/10W						
R1365	1-216-089-11	RES-CHIP	47K	5%	1/10W						
R1366	1-216-107-00	RES-CHIP	270K	5%	1/10W						
R1369	1-216-093-91	RES-CHIP	68K	5%	1/10W						
R1371	1-216-295-11	SHORT									
R1373	1-216-025-11	RES-CHIP	100	5%	1/10W						
R1374	1-216-089-11	RES-CHIP	47K	5%	1/10W						
R1385	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R1387	1-249-429-11	CARBON	10K	5%	1/4W						
R1389	1-216-025-11	RES-CHIP	100	5%	1/10W						
R1390	1-249-417-11	CARBON	1K	5%	1/4W						
R1391	1-216-081-00	RES-CHIP	22K	5%	1/10W						
R1392	1-216-081-00	RES-CHIP	22K	5%	1/10W						
R1395	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R1397	1-216-025-11	RES-CHIP	100	5%	1/10W						
R1398	1-216-033-00	RES-CHIP	220	5%	1/10W						
		<b>SWITCH</b>									
S501	1-572-707-11	SWITCH LEVER									
S502	1-572-707-11	SWITCH LEVER									
		<b>TRANSFORMER</b>									
T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE									
$\triangle$ T502	1-426-981-11	TRANSFORMER, FERRITE (PMT)									
$\triangle$ T503	1-453-310-11	FBT ASSY NX-4521//X4J4									
$\triangle$ T504	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS									
$\triangle$ T505	1-431-693-11	TRANSFORMER, HORIZONTAL LINEAR									
		<b>THERMISTOR</b>									
TH501	1-800-193-00	THERMISTOR									
		<b>TUNER</b>									
$\triangle$ TU102	8-598-542-20	TUNER, FSS BTF-WA412									
		<b>CRYSTAL</b>									
X001	1-578-774-11	VIBRATOR, CRYSTAL									
X301	1-579-973-11	VIBRATOR, CRYSTAL									
X302	1-567-505-11	OSCILLATOR, CRYSTAL									
X303	1-579-972-11	VIBRATOR, CRYSTAL									
		<b>UY</b>									
		* A-1394-942-A									
		<b>UY BOARD, COMPLETE</b>									
		<b>CAPACITOR</b>									
C201	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C202	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C203	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C204	1-117-534-91	ELECT	1 $\mu$ F	20%	100V						
C205	1-117-534-91	ELECT	1 $\mu$ F	20%	100V						
C231	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V						
C232	1-117-512-91	ELECT	22 $\mu$ F	20%	50V						
C233	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C234	1-117-534-91	ELECT	1 $\mu$ F	20%	100V						
C235	1-117-534-91	ELECT	1 $\mu$ F	20%	100V						
C236	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C237	1-117-534-91	ELECT	1 $\mu$ F	20%	100V						
C238	1-117-534-91	ELECT	1 $\mu$ F	20%	100V						
C241	1-117-506-91	ELECT	470 $\mu$ F	20%	35V						
C242	1-117-532-91	ELECT	0.47 $\mu$ F	20%	100V						
C243	1-117-532-91	ELECT	0.47 $\mu$ F	20%	100V						
C244	1-117-532-91	ELECT	0.47 $\mu$ F	20%	100V						
C245	1-117-532-91	ELECT	0.47 $\mu$ F	20%	100V						
C264	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F	10%	25V						
C268	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V						
C269	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V						
C272	1-163-231-11	CERAMIC CHIP	15pF	5%	50V						
C273	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C277	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C278	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C279	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V						
C281	1-128-551-11	ELECT	22 $\mu$ F	20%	25V						
C284	1-117-506-91	ELECT	470 $\mu$ F	20%	35V						
C286	1-164-161-11	CERAMIC CHIP	0.0022 $\mu$ F	10%	50V						
C287	1-164-161-11	CERAMIC CHIP	0.0022 $\mu$ F	10%	50V						



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C1051	1-117-511-91	ELECT	10μF	20%	50V	C3330	1-163-031-11	CERAMIC CHIP	0.01μF		50V
C1053	1-117-486-91	ELECT	220μF	20%	16V	C3331	1-104-664-11	ELECT	47μF	20%	16V
C1201	1-163-809-11	CERAMIC CHIP	0.047μF	10%	25V	C3332	1-104-664-11	ELECT	47μF	20%	25V
C1202	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V						
C1203	1-117-534-91	ELECT	1μF	20%	100V	C3334	1-163-031-11	CERAMIC CHIP	0.01μF		50V
						C3340	1-163-031-11	CERAMIC CHIP	0.01μF		50V
C1204	1-163-809-11	CERAMIC CHIP	0.047μF	10%	25V	C3342	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C1209	1-163-259-91	CERAMIC CHIP	220pF	5%	50V	C3346	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C1210	1-163-259-91	CERAMIC CHIP	220pF	5%	50V	C3347	1-117-534-91	ELECT	1μF	20%	100V
C1211	1-128-551-11	ELECT	22μF	20%	25V						
C1212	1-128-551-11	ELECT	22μF	20%	25V	C3348	1-104-664-11	ELECT	47μF	20%	16V
						C3349	1-163-249-11	CERAMIC CHIP	82pF	5%	50V
C1213	1-117-506-91	ELECT	470μF	20%	35V	C3350	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C1214	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3352	1-163-031-11	CERAMIC CHIP	0.01μF		50V
C1215	1-117-534-91	ELECT	1μF	20%	100V	C3353	1-117-534-91	ELECT	1μF	20%	100V
C1262	1-216-081-00	RES-CHIP	22K	5%	1/10W						
C2000	1-117-506-91	ELECT	470μF	20%	35V	C3354	1-163-031-11	CERAMIC CHIP	0.01μF		50V
						C3355	1-117-513-91	ELECT	47μF	20%	50V
C2002	1-128-551-11	ELECT	22μF	20%	25V	C3356	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C2012	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3357	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C2015	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3358	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C2045	1-163-237-11	CERAMIC CHIP	27pF	5%	50V						
						C3359	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C2047	1-117-535-91	ELECT	2.2μF	20%	100V	C3360	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C2048	1-117-511-91	ELECT	10μF	20%	50V	C3361	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C2049	1-104-664-11	ELECT	47μF	20%	16V	C3362	1-117-513-91	ELECT	47μF	20%	50V
C2056	1-163-231-11	CERAMIC CHIP	15pF	5%	50V	C3363	1-163-031-11	CERAMIC CHIP	0.01μF		50V
C2060	1-163-031-11	CERAMIC CHIP	0.01μF		50V						
						C3364	1-163-229-11	CERAMIC CHIP	12pF	5%	50V
C2062	1-104-664-11	ELECT	47μF	20%	16V	C3365	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C2096	1-163-231-11	CERAMIC CHIP	15pF	5%	50V	C3366	1-137-194-81	FILM	0.47μF	5%	50V
C2097	1-163-231-11	CERAMIC CHIP	15pF	5%	50V	C3367	1-117-537-91	ELECT	4.7μF	20%	100V
C2168	1-163-253-11	CERAMIC CHIP	120pF	5%	50V	C3368	1-164-005-11	CERAMIC CHIP	0.47μF		25V
C2201	1-117-512-91	ELECT	22μF	20%	50V						
						C3369	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C2202	1-128-551-11	ELECT	22μF	20%	25V	C3370	1-109-889-11	ELECT	1μF	20%	50V
C2203	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3371	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V
C3301	1-104-664-11	ELECT	47μF	20%	25V	C3372	1-164-005-11	CERAMIC CHIP	0.47μF		25V
C3302	1-163-031-11	CERAMIC CHIP	0.01μF		50V	C3385	1-117-506-91	ELECT	470μF	20%	35V
C3310	1-163-229-11	CERAMIC CHIP	12pF	5%	50V	C3556	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C3311	1-163-229-11	CERAMIC CHIP	12pF	5%	50V	C3557	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C3312	1-163-038-11	CERAMIC CHIP	0.1μF		25V	C3558	1-117-511-91	ELECT	10μF	20%	50V
C3313	1-163-038-11	CERAMIC CHIP	0.1μF		25V	C3559	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C3314	1-164-005-11	CERAMIC CHIP	0.47μF		25V	C3560	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C3315	1-164-005-11	CERAMIC CHIP	0.47μF		25V	C3561	1-117-511-91	ELECT	10μF	20%	50V
C3319	1-163-031-11	CERAMIC CHIP	0.01μF		50V	C3562	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C3320	1-117-534-91	ELECT	1μF	20%	100V	C3563	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C3321	1-163-231-11	CERAMIC CHIP	15pF	5%	50V	C3564	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C3322	1-163-231-11	CERAMIC CHIP	15pF	5%	50V	C3565	1-163-038-11	CERAMIC CHIP	0.1μF		25V
C3323	1-163-031-11	CERAMIC CHIP	0.01μF		50V	C3566	1-117-511-91	ELECT	10μF	20%	50V
C3324	1-117-483-91	ELECT	1000μF	20%	10V	C3567	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C3325	1-117-483-91	ELECT	1000μF	20%	10V	C3568	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C3328	1-117-482-91	ELECT	470μF	20%	10V	C3569	1-117-511-91	ELECT	10μF	20%	50V
C3329	1-104-664-11	ELECT	47μF	20%	16V	C3570	1-117-511-91	ELECT	10μF	20%	50V



REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
C3571	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V			<b>FERRITE BEAD</b>	
C3573	1-163-037-11	CERAMIC CHIP	0.022μF 10% 50V	FB3301	1-414-234-22	FERRITE	0μH
C3574	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	FB3302	1-414-234-22	FERRITE	0μH
C3575	1-117-511-91	ELECT	10μF 20% 50V			<b>FILTER</b>	
C3576	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	FL2001	1-239-847-11	FILTER, LOW PASS	
C3577	1-117-511-91	ELECT	10μF 20% 50V	FL2002	1-239-847-11	FILTER, LOW PASS	
C3578	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	FL2004	1-239-847-11	FILTER, LOW PASS	
C3579	1-104-664-11	ELECT	47μF 20% 16V				
		<b>CONNECTOR</b>				<b>IC</b>	
*	CN261	1-564-510-11	PLUG,CONNECTOR 7P	IC261	8-752-066-69	IC CXA1845Q	
*	CN262	1-691-632-21	CONNECTOR, BOARD TO BOARD 15P	IC1051	8-752-058-68	IC CXA1315M-T4	
*	CN263	1-691-632-21	CONNECTOR, BOARD TO BOARD 15P	IC2006	8-759-358-38	IC NJM78M05DLA(TE1)	
*	CN264	1-691-632-21	CONNECTOR, BOARD TO BOARD 15P	IC3302	8-759-358-38	IC NJM78M05DLA(TE1)	
*	CN265	1-764-333-11	PLUG,CONNECTOR 10P	IC3303	8-759-655-57	IC SDA9288XE-B0121-GEG	
		<b>DIODE</b>		IC3304	8-752-086-80	IC CXA2019AQ-T4	
D201	8-719-032-47	DIODE MTZJ-T-9110		IC3305	8-759-378-17	IC TDA4662T-V3	
D202	8-719-032-47	DIODE MTZJ-T-9110		IC3308	8-759-932-69	IC BU4053BCF-T2	
D203	8-719-032-47	DIODE MTZJ-T-9110		IC3504	8-752-390-37	IC CXD2064Q-T6	
D204	8-719-032-47	DIODE MTZJ-T-9110				<b>JACK</b>	
D205	8-719-032-47	DIODE MTZJ-T-9110		J231	1-774-748-11	TERMINAL BLOCK, S	
D231	8-719-032-47	DIODE MTZJ-T-9110		J232	1-750-517-11	JACK BLOCK, PIN 3P	
D232	8-719-032-47	DIODE MTZJ-T-9110		J233	1-750-516-11	JACK BLOCK, PIN 2P	
D233	8-719-032-47	DIODE MTZJ-T-9110		J234	1-750-517-11	JACK BLOCK, PIN 3P	
D234	8-719-032-47	DIODE MTZJ-T-9110		J236	1-774-358-11	JACK BLOCK, PIN	
D235	8-719-032-47	DIODE MTZJ-T-9110		J902	1-764-143-11	JACK	
D236	8-719-032-47	DIODE MTZJ-T-9110		J903	1-764-143-11	JACK	
D237	8-719-032-47	DIODE MTZJ-T-9110		J904	1-764-143-11	JACK	
D238	8-719-032-47	DIODE MTZJ-T-9110		J905	1-764-143-11	JACK	
D239	8-719-032-47	DIODE MTZJ-T-9110				<b>CHIP CONDUCTOR</b>	
D245	8-719-157-94	DIODE RD3.3SB-T1		JR1001	1-216-295-11	SHORT	
D246	8-719-157-94	DIODE RD3.3SB-T1		JR1002	1-216-295-11	SHORT	
D247	8-719-157-94	DIODE RD3.3SB-T1		JR1003	1-216-295-11	SHORT	
D248	8-719-157-94	DIODE RD3.3SB-T1		JR1004	1-216-295-11	SHORT	
D250	8-719-157-94	DIODE RD3.3SB-T1		JR1004	1-216-295-11	SHORT	
D261	8-719-032-47	DIODE MTZJ-T-9110		JR1014	1-216-295-11	SHORT	
D902	8-719-032-47	DIODE MTZJ-T-9110		JR1015	1-216-295-11	SHORT	
D910	8-719-032-47	DIODE MTZJ-T-9110		JR1016	1-216-295-11	SHORT	
D911	8-719-032-47	DIODE MTZJ-T-9110		JR1017	1-216-295-11	SHORT	
D912	8-719-032-47	DIODE MTZJ-T-9110		JR1018	1-216-295-11	SHORT	
D1051	8-719-073-01	DIODE MA111-TX		JR1019	1-216-295-11	SHORT	
D1052	8-719-073-01	DIODE MA111-TX		JR1020	1-216-295-11	SHORT	
D2201	8-719-032-47	DIODE MTZJ-T-9110		JR1021	1-216-295-11	SHORT	
D2202	8-719-032-47	DIODE MTZJ-T-9110		JR1022	1-216-295-11	SHORT	
D2203	8-719-032-47	DIODE MTZJ-T-9110		JR1023	1-216-295-11	SHORT	



REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
<b>COIL</b>							
L261	1-414-857-11	INDUCTOR	100µH	Q1208	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L1201	1-408-591-11	INDUCTOR	1µH	Q2003	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L1202	1-408-591-11	INDUCTOR	1µH	Q2004	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L2004	1-414-856-11	INDUCTOR	10µH	Q2005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L2005	1-410-494-11	INDUCTOR	1mH	Q2006	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L2009	1-414-856-11	INDUCTOR	10µH	Q2007	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3301	1-414-856-11	INDUCTOR	10µH	Q2008	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3302	1-410-473-11	INDUCTOR	18µH	Q2009	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3303	1-410-473-11	INDUCTOR	18µH	Q2010	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3305	1-408-619-31	INDUCTOR	220µH	Q2014	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3306	1-414-857-11	INDUCTOR	100µH	Q2018	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3307	1-414-856-11	INDUCTOR	10µH	Q2019	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3581	1-408-591-11	INDUCTOR	1µH	Q3301	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3582	1-408-591-11	INDUCTOR	1µH	Q3302	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
				Q3305	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
<b>TRANSISTOR</b>				Q3306	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
Q202	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3307	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
Q203	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3310	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q205	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		Q3312	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
Q206	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		Q3314	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
Q208	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		<b>RESISTOR</b>			
Q209	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R201	1-216-022-00	RES-CHIP	75 5% 1/10W
Q210	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R202	1-216-022-00	RES-CHIP	75 5% 1/10W
Q211	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R203	1-216-022-00	RES-CHIP	75 5% 1/10W
Q212	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R204	1-216-113-00	RES-CHIP	470K 5% 1/10W
Q231	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R205	1-216-113-00	RES-CHIP	470K 5% 1/10W
Q233	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R206	1-216-295-11	SHORT	
Q234	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R207	1-216-295-11	SHORT	
Q235	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R208	1-216-295-11	SHORT	
Q236	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R209	1-216-089-11	RES-CHIP	47K 5% 1/10W
Q237	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R210	1-216-081-00	RES-CHIP	22K 5% 1/10W
Q238	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R211	1-216-089-11	RES-CHIP	47K 5% 1/10W
Q239	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R212	1-216-081-00	RES-CHIP	22K 5% 1/10W
Q246	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R213	1-216-089-11	RES-CHIP	47K 5% 1/10W
Q262	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R214	1-216-081-00	RES-CHIP	22K 5% 1/10W
Q263	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R218	1-208-774-11	METAL CHIP	470 0.50% 1/10W
Q264	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R219	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q265	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R220	1-208-776-11	METAL CHIP	560 0.50% 1/10W
Q267	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R221	1-208-774-11	METAL CHIP	470 0.50% 1/10W
Q1051	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R222	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q1201	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R223	1-208-776-11	METAL CHIP	560 0.50% 1/10W
Q1202	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R225	1-216-025-11	RES-CHIP	100 5% 1/10W
Q1203	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R226	1-216-025-11	RES-CHIP	100 5% 1/10W
Q1204	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R228	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q1205	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R229	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q1206	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R230	1-216-089-11	RES-CHIP	47K 5% 1/10W
Q1207	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R231	1-216-022-00	RES-CHIP	75 5% 1/10W
				R232	1-216-022-00	RES-CHIP	75 5% 1/10W



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R233	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R285	1-216-033-00	RES-CHIP	220	5%	1/10W
R234	1-216-022-00	RES-CHIP	75	5%	1/10W	R286	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R235	1-216-113-00	RES-CHIP	470K	5%	1/10W	R287	1-216-025-11	RES-CHIP	100	5%	1/10W
R236	1-216-113-00	RES-CHIP	470K	5%	1/10W	R288	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R237	1-216-022-00	RES-CHIP	75	5%	1/10W	R289	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R238	1-216-113-00	RES-CHIP	470K	5%	1/10W	R290	1-216-025-11	RES-CHIP	100	5%	1/10W
R239	1-216-113-00	RES-CHIP	470K	5%	1/10W	R291	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R241	1-216-113-00	RES-CHIP	470K	5%	1/10W	R292	1-216-295-11	SHORT			
R242	1-216-049-11	RES-CHIP	1K	5%	1/10W	R293	1-216-025-11	RES-CHIP	100	5%	1/10W
R243	1-216-113-00	RES-CHIP	470K	5%	1/10W	R294	1-216-077-91	RES-CHIP	15K	5%	1/10W
R244	1-216-049-11	RES-CHIP	1K	5%	1/10W	R295	1-216-025-11	RES-CHIP	100	5%	1/10W
R245	1-216-022-00	RES-CHIP	75	5%	1/10W	R296	1-216-025-11	RES-CHIP	100	5%	1/10W
R246	1-216-113-00	RES-CHIP	470K	5%	1/10W	R297	1-216-025-11	RES-CHIP	100	5%	1/10W
R247	1-216-113-00	RES-CHIP	470K	5%	1/10W	R298	1-216-295-11	SHORT			
R248	1-216-113-00	RES-CHIP	470K	5%	1/10W	R300	1-216-025-11	RES-CHIP	100	5%	1/10W
R249	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R301	1-216-049-11	RES-CHIP	1K	5%	1/10W
R250	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R302	1-216-295-11	SHORT			
R251	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R902	1-249-405-11	CARBON	100	5%	1/4W
R252	1-216-049-11	RES-CHIP	1K	5%	1/10W	R921	1-249-405-11	CARBON	100	5%	1/4W
R254	1-216-049-11	RES-CHIP	1K	5%	1/10W	R923	1-249-405-11	CARBON	100	5%	1/4W
R256	1-216-295-11	SHORT				R925	1-249-405-11	CARBON	100	5%	1/4W
R257	1-216-049-11	RES-CHIP	1K	5%	1/10W	R926	1-216-049-11	RES-CHIP	1K	5%	1/10W
R258	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R1055	1-216-073-00	RES-CHIP	10K	5%	1/10W
R259	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1056	1-216-073-00	RES-CHIP	10K	5%	1/10W
R260	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R1057	1-216-025-11	RES-CHIP	100	5%	1/10W
R261	1-216-025-11	RES-CHIP	100	5%	1/10W	R1058	1-216-025-11	RES-CHIP	100	5%	1/10W
R262	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1059	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R263	1-216-025-11	RES-CHIP	100	5%	1/10W	R1060	1-216-073-00	RES-CHIP	10K	5%	1/10W
R264	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1062	1-216-033-00	RES-CHIP	220	5%	1/10W
R265	1-216-025-11	RES-CHIP	100	5%	1/10W	R1063	1-216-073-00	RES-CHIP	10K	5%	1/10W
R266	1-216-025-11	RES-CHIP	100	5%	1/10W	R1064	1-216-073-00	RES-CHIP	10K	5%	1/10W
R267	1-216-025-11	RES-CHIP	100	5%	1/10W	R1065	1-216-025-11	RES-CHIP	100	5%	1/10W
R268	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1070	1-216-025-11	RES-CHIP	100	5%	1/10W
R269	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1205	1-216-295-11	SHORT			
R270	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1207	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R271	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1209	1-216-295-11	SHORT			
R272	1-216-025-11	RES-CHIP	100	5%	1/10W	R1210	1-216-295-11	SHORT			
R273	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1215	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R274	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1216	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R275	1-216-025-11	RES-CHIP	100	5%	1/10W	R1217	1-216-091-00	RES-CHIP	56K	5%	1/10W
R276	1-216-295-11	SHORT				R1219	1-216-073-00	RES-CHIP	10K	5%	1/10W
R278	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1220	1-216-013-00	RES-CHIP	33	5%	1/10W
R279	1-216-025-11	RES-CHIP	100	5%	1/10W	R1221	1-216-121-11	RES-CHIP	1M	5%	1/10W
R280	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1222	1-216-073-00	RES-CHIP	10K	5%	1/10W
R281	1-216-025-11	RES-CHIP	100	5%	1/10W	R1223	1-216-097-11	RES-CHIP	100K	5%	1/10W
R282	1-216-025-11	RES-CHIP	100	5%	1/10W	R1224	1-216-089-11	RES-CHIP	47K	5%	1/10W
R283	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1225	1-216-097-11	RES-CHIP	100K	5%	1/10W
R284	1-216-033-00	RES-CHIP	220	5%	1/10W	R1227	1-216-073-00	RES-CHIP	10K	5%	1/10W



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R1228	1-208-774-11	METAL CHIP	470	0.50%	1/10W	R2015	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1229	1-216-121-11	RES-CHIP	1M	5%	1/10W	R2016	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1230	1-216-073-00	RES-CHIP	10K	5%	1/10W	R2017	1-216-295-11	SHORT			
R1231	1-216-295-11	SHORT				R2018	1-216-295-11	SHORT			
R1233	1-216-097-11	RES-CHIP	100K	5%	1/10W	R2021	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1234	1-216-091-00	RES-CHIP	56K	5%	1/10W	R2027	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1235	1-216-013-00	RES-CHIP	33	5%	1/10W	R2028	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1236	1-216-097-11	RES-CHIP	100K	5%	1/10W	R2029	1-216-043-91	RES-CHIP	560	5%	1/10W
R1237	1-216-089-11	RES-CHIP	47K	5%	1/10W	R2030	1-216-043-91	RES-CHIP	560	5%	1/10W
R1238	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R2031	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1239	1-208-774-11	METAL CHIP	470	0.50%	1/10W	R2032	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R1242	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R2033	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R1243	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R2034	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1244	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2035	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1245	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2036	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R1260	1-216-295-11	SHORT				R2037	1-208-784-11	METAL CHIP	1.2K	0.50%	1/10W
R1263	1-216-295-11	SHORT				R2038	1-208-762-11	METAL CHIP	150	0.50%	1/10W
R1264	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2039	1-216-047-91	RES-CHIP	820	5%	1/10W
R1265	1-216-001-00	RES-CHIP	10	5%	1/10W	R2040	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1266	1-216-041-00	RES-CHIP	470	5%	1/10W	R2041	1-216-047-91	RES-CHIP	820	5%	1/10W
R1267	1-216-025-11	RES-CHIP	100	5%	1/10W	R2042	1-216-075-00	RES-CHIP	12K	5%	1/10W
R1268	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2043	1-216-085-00	RES-CHIP	33K	5%	1/10W
R1269	1-216-041-00	RES-CHIP	470	5%	1/10W	R2044	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R1270	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2046	1-216-075-00	RES-CHIP	12K	5%	1/10W
R1271	1-216-001-00	RES-CHIP	10	5%	1/10W	R2047	1-216-085-00	RES-CHIP	33K	5%	1/10W
R1272	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	R2048	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1273	1-208-788-11	METAL CHIP	1.8K	0.50%	1/10W	R2050	1-216-017-91	RES-CHIP	47	5%	1/10W
R1274	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2051	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1276	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2055	1-216-017-91	RES-CHIP	47	5%	1/10W
R1277	1-216-025-11	RES-CHIP	100	5%	1/10W	R2057	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1279	1-216-025-11	RES-CHIP	100	5%	1/10W	R2060	1-216-025-11	RES-CHIP	100	5%	1/10W
R1284	1-216-295-11	SHORT				R2069	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R1287	1-216-295-11	SHORT				R2070	1-216-615-91	METAL CHIP	33	0.50%	1/10W
R1288	1-216-295-11	SHORT				R2071	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R1289	1-216-295-11	SHORT				R2072	1-216-043-91	RES-CHIP	560	5%	1/10W
R1290	1-216-295-11	SHORT				R2073	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1291	1-216-295-11	SHORT				R2074	1-216-025-11	RES-CHIP	100	5%	1/10W
R1292	1-216-295-11	SHORT				R2081	1-216-075-00	RES-CHIP	12K	5%	1/10W
R1293	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2201	1-216-022-00	RES-CHIP	75	5%	1/10W
R1294	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2202	1-216-022-00	RES-CHIP	75	5%	1/10W
R1295	1-216-049-11	RES-CHIP	1K	5%	1/10W	R2203	1-216-022-00	RES-CHIP	75	5%	1/10W
R1300	1-216-049-11	RES-CHIP	1K	5%	1/10W	R3301	1-216-295-11	SHORT			
R1304	1-216-041-00	RES-CHIP	470	5%	1/10W	R3303	1-216-295-11	SHORT			
R1305	1-208-776-11	METAL CHIP	560	0.50%	1/10W	R3304	1-216-295-11	SHORT			
R1306	1-216-025-11	RES-CHIP	100	5%	1/10W	R3305	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R1307	1-216-041-00	RES-CHIP	470	5%	1/10W	R3306	1-216-295-11	SHORT			
R1308	1-208-776-11	METAL CHIP	560	0.50%	1/10W	R3309	1-216-041-00	RES-CHIP	470	5%	1/10W
R1309	1-216-025-11	RES-CHIP	100	5%	1/10W	R3310	1-216-055-00	RES-CHIP	1.8K	5%	1/10W

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**UY** **GA**

REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R3311	1-216-055-00	RES-CHIP	1.8K	5%	1/10W	R3511	1-216-295-11	SHORT			
R3312	1-216-037-00	RES-CHIP	330	5%	1/10W	R3512	1-216-025-11	RES-CHIP	100	5%	1/10W
R3313	1-216-295-11	SHORT				R3513	1-216-025-11	RES-CHIP	100	5%	1/10W
R3314	1-216-049-11	RES-CHIP	1K	5%	1/10W	R3527	1-216-033-00	RES-CHIP	220	5%	1/10W
R3320	1-216-295-11	SHORT				R3582	1-216-033-00	RES-CHIP	220	5%	1/10W
R3322	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R3583	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R3323	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R3584	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3324	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R3585	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R3326	1-216-295-11	SHORT				R3586	1-216-295-11	SHORT			
R3329	1-216-069-00	RES-CHIP	6.8K	5%	1/10W	R3587	1-216-295-11	SHORT			
R3332	1-216-033-00	RES-CHIP	220	5%	1/10W	R3588	1-216-295-11	SHORT			
R3337	1-216-033-00	RES-CHIP	220	5%	1/10W	R3592	1-216-091-00	RES-CHIP	56K	5%	1/10W
R3338	1-216-033-00	RES-CHIP	220	5%	1/10W	R3593	1-216-043-91	RES-CHIP	560	5%	1/10W
R3339	1-216-025-11	RES-CHIP	100	5%	1/10W	R3599	1-216-295-11	SHORT			
R3340	1-216-041-00	RES-CHIP	470	5%	1/10W						
R3341	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R3342	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R3343	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R3346	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R3347	1-216-061-00	RES-CHIP	3.3K	5%	1/10W						
R3348	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R3350	1-216-295-11	SHORT									
R3351	1-216-295-11	SHORT									
R3352	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R3355	1-216-295-11	SHORT									
R3357	1-216-295-11	SHORT									
R3358	1-216-047-91	RES-CHIP	820	5%	1/10W						
R3359	1-216-047-91	RES-CHIP	820	5%	1/10W						
R3360	1-216-053-00	RES-CHIP	1.5K	5%	1/10W						
R3361	1-216-045-00	RES-CHIP	680	5%	1/10W						
R3362	1-208-768-11	METAL CHIP	240	0.50%	1/10W						
R3363	1-216-635-11	METAL CHIP	220	0.50%	1/10W						
R3364	1-208-769-11	METAL CHIP	300	0.50%	1/10W						
R3370	1-216-295-11	SHORT									
R3375	1-216-041-00	RES-CHIP	470	5%	1/10W						
R3376	1-216-071-00	RES-CHIP	8.2K	5%	1/10W						
R3377	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R3378	1-216-053-00	RES-CHIP	1.5K	5%	1/10W						
R3379	1-216-077-91	RES-CHIP	15K	5%	1/10W						
R3380	1-216-295-11	SHORT									
R3381	1-216-295-11	SHORT									
R3382	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R3383	1-216-025-11	RES-CHIP	100	5%	1/10W						
R3384	1-216-033-00	RES-CHIP	220	5%	1/10W						
R3385	1-216-109-00	RES-CHIP	330K	5%	1/10W						
R3387	1-216-295-11	SHORT									
R3388	1-216-295-11	SHORT									
R3395	1-216-061-00	RES-CHIP	3.3K	5%	1/10W						
R3511	1-216-295-11	SHORT									
R3512	1-216-025-11	RES-CHIP	100	5%	1/10W						
R3513	1-216-025-11	RES-CHIP	100	5%	1/10W						
R3527	1-216-033-00	RES-CHIP	220	5%	1/10W						
R3582	1-216-033-00	RES-CHIP	220	5%	1/10W						
R3583	1-216-061-00	RES-CHIP	3.3K	5%	1/10W						
R3584	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R3585	1-216-061-00	RES-CHIP	3.3K	5%	1/10W						
R3586	1-216-295-11	SHORT									
R3587	1-216-295-11	SHORT									
R3588	1-216-295-11	SHORT									
R3592	1-216-091-00	RES-CHIP	56K	5%	1/10W						
R3593	1-216-043-91	RES-CHIP	560	5%	1/10W						
R3599	1-216-295-11	SHORT									
<b>CRYSTAL</b>											
X3302	1-760-095-21	VIBRATOR, CRYSTAL									
X3303	1-577-611-11	OSCILATOR, CERAMIC									
X3304	1-567-505-11	OSCILLATOR, CRYSTAL									
X3305	1-579-973-11	VIBRATOR, CRYSTAL									
X3306	1-579-972-11	VIBRATOR, CRYSTAL									
<b>GA</b>											
* <b>A-1316-466-A GA BOARD, COMPLETE</b>											
	1-533-223-11	HOLDER, FUSE									
	* 4-374-846-01	COVER,CAPACITOR, CAP TYPE									
	4-382-854-11	SCREW (M3X10), P, SW (+)									
<b>CAPACITOR</b>											
	C6001	1-117-494-91	ELECT	100 $\mu$ F	20%	25V					
	$\triangle$ C6002	1-130-711-00	FILM	0.22 $\mu$ F	20%	250V					
	C6003	1-136-346-21	MYLAR	0.22 $\mu$ F	20%	300V					
	$\triangle$ C6005	1-119-886-51	CERAMIC	470pF	10%	250V					
	C6008	1-117-534-91	ELECT	1 $\mu$ F	20%	100V					
	C6009	1-117-535-91	ELECT	2.2 $\mu$ F	20%	100V					
	C6010	1-130-711-00	FILM	0.22 $\mu$ F	20%	250V					
	C6012	1-161-964-91	CERAMIC	.0047 $\mu$ F		250V					
	C6013	1-161-964-91	CERAMIC	.0047 $\mu$ F		250V					
	C6014	1-161-964-91	CERAMIC	.0047 $\mu$ F		250V					
	C6015	1-161-964-91	CERAMIC	.0047 $\mu$ F		250V					
	C6016	1-104-330-91	CERAMIC	470pF	10%	1KV					
	$\triangle$ C6017	1-130-029-00	FILM	8200pF	2%	50V					
	C6018	1-102-050-00	CERAMIC	0.01 $\mu$ F	20%	500V					
	$\triangle$ C6019	1-113-611-11	ELECT(BLOCK)	820 $\mu$ F	20%	250V					
	$\triangle$ C6020	1-113-611-11	ELECT(BLOCK)	820 $\mu$ F	20%	250V					
	C6021	1-117-511-91	ELECT	10 $\mu$ F	20%	50V					
	$\triangle$ C6022	1-117-537-91	ELECT	4.7 $\mu$ F	20%	100V					



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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C6024	1-117-511-91	ELECT	10 $\mu$ F	20%	50V	C6074	1-102-106-00	CERAMIC	100pF	10%	50V
C6025	1-119-769-11	FILM	0.018 $\mu$ F	3%	1KV	C6075	1-107-824-11	CERAMIC	220pF	5%	1KV
C6026	1-117-511-91	ELECT	10 $\mu$ F	20%	50V	C6078	1-117-511-91	ELECT	10 $\mu$ F	20%	50V
C6027	1-130-471-00	MYLAR	0.001 $\mu$ F	5%	50V						
								<b>CONNECTOR</b>			
C6028	1-130-471-00	MYLAR	0.001 $\mu$ F	5%	50V						
$\triangle$ C6029	1-136-189-00	MYLAR	0.1 $\mu$ F	5%	63V	*	CN6001	1-573-963-11	PIN,CONNECTOR (PC BOARD) 3P		
C6030	1-119-769-11	FILM	0.018 $\mu$ F	3%	1KV		CN6002	1-695-915-11	TAB (CONTACT)		
C6031	1-104-330-91	CERAMIC	470pF	10%	1KV		CN6003	1-580-843-11	PIN,CONNECTOR (POWER)		
C6032	1-117-534-91	ELECT	1 $\mu$ F	20%	100V	*	CN6004	1-573-963-11	PIN,CONNECTOR (PC BOARD) 3P		
						*	CN6005	1-573-963-11	PIN,CONNECTOR (PC BOARD) 3P		
C6033	1-113-889-11	CERAMIC	1000pF	20%	250V						
C6034	1-137-372-11	MYLAR	0.022 $\mu$ F	5%	50V	*	CN6006	1-564-509-11	PLUG,CONNECTOR 6P		
C6035	1-127-794-51	CERAMIC	2200pF	20%	250V	*	CN6007	1-564-515-11	PLUG,CONNECTOR 12P		
C6036	1-127-794-51	CERAMIC	2200pF	20%	250V	*	CN6008	1-508-786-00	PIN,CONNECTOR (5MM PITCH) 2P		
$\triangle$ C6037	1-107-679-91	ELECT	10 $\mu$ F	20%	450V		CN6009	1-695-915-11	TAB (CONTACT)		
								<b>DIODE</b>			
C6038	1-137-509-11	MYLAR	0.01 $\mu$ F	5%	63V		D6000	8-719-991-33	DIODE 1SS133T-77		
C6039	1-164-645-11	CERAMIC	1000pF	10%	500V		D6001	8-719-991-33	DIODE 1SS133T-77		
C6040	1-130-467-00	MYLAR	470pF	5%	50V		D6002	8-719-991-33	DIODE 1SS133T-77		
C6041	1-107-679-91	ELECT	10 $\mu$ F	20%	450V		D6003	8-719-991-33	DIODE 1SS133T-77		
C6042	1-130-467-00	MYLAR	470pF	5%	50V		D6004	8-719-991-33	DIODE 1SS133T-77		
C6043	1-130-471-00	MYLAR	0.001 $\mu$ F	5%	50V						
C6044	1-117-491-51	ELECT	3300 $\mu$ F	20%	16V						
C6045	1-117-498-91	ELECT	1000 $\mu$ F	20%	25V		D6005	8-719-991-33	DIODE 1SS133T-77		
C6046	1-117-545-51	ELECT	470 $\mu$ F	20%	100V		D6006	8-719-991-33	DIODE 1SS133T-77		
C6047	1-117-545-51	ELECT	470 $\mu$ F	20%	100V		$\triangle$ D6008	8-719-510-53	DIODE D4SB60L-F		
							D6009	8-719-991-33	DIODE 1SS133T-77		
C6048	1-164-645-11	CERAMIC	1000pF	10%	500V		D6010	8-719-991-33	DIODE 1SS133T-77		
C6049	1-128-550-11	ELECT	2200 $\mu$ F	20%	50V						
C6050	1-104-664-11	ELECT	47 $\mu$ F	20%	25V		D6011	8-719-991-33	DIODE 1SS133T-77		
C6051	1-104-664-11	ELECT	47 $\mu$ F	20%	25V		D6012	8-719-991-33	DIODE 1SS133T-77		
C6052	1-117-527-91	ELECT	470 $\mu$ F	20%	63V		$\triangle$ D6013	8-719-510-02	DIODE D1NS4-TA2		
							$\triangle$ D6014	8-719-921-88	DIODE MTZJ-T-77-13B		
C6053	1-136-189-00	MYLAR	0.1 $\mu$ F	5%	63V		D6015	8-719-979-64	DIODE UF4005PKG23		
C6054	1-137-605-11	MYLAR	0.01 $\mu$ F	10%	250V						
C6056	1-130-471-00	MYLAR	0.001 $\mu$ F	5%	50V		D6017	8-719-911-55	DIODE ERC04-06S		
C6057	1-107-636-11	ELECT	10 $\mu$ F	20%	160V		D6019	8-719-911-55	DIODE ERC04-06S		
C6058	1-117-534-91	ELECT	1 $\mu$ F	20%	100V		$\triangle$ D6020	8-719-062-40	DIODE D4SBL20 $\mu$ F3		
							D6021	8-719-110-41	DIODE MTZJ-T-77-15B		
C6059	1-104-664-11	ELECT	47 $\mu$ F	20%	25V		D6022	8-719-510-12	DIODE D10SC4M		
C6060	1-104-664-11	ELECT	47 $\mu$ F	20%	25V						
C6061	1-136-189-00	MYLAR	0.1 $\mu$ F	5%	63V		$\triangle$ D6023	8-719-022-97	DIODE D2S4MTA1		
C6062	1-117-511-91	ELECT	10 $\mu$ F	20%	50V		$\triangle$ D6024	8-719-022-97	DIODE D2S4MTA1		
C6063	1-117-496-91	ELECT	330 $\mu$ F	20%	25V		$\triangle$ D6025	8-719-060-89	DIODE D4SBS6-F		
							D6028	8-719-110-49	DIODE MTZJ-T-77-18B		
C6064	1-104-664-11	ELECT	47 $\mu$ F	20%	25V		D6029	8-719-991-33	DIODE 1SS133T-77		
C6066	1-117-512-91	ELECT	22 $\mu$ F	20%	50V						
C6067	1-102-121-00	CERAMIC	0.0022 $\mu$ F	10%	50V		$\triangle$ D6030	8-719-110-60	DIODE MTZJ-T-77-24B		
C6068	1-102-106-00	CERAMIC	100pF	10%	50V		D6031	8-719-991-33	DIODE 1SS133T-77		
C6069	1-102-106-00	CERAMIC	100pF	10%	50V		D6032	8-719-510-48	DIODE D1N20R-TA		
							D6034	8-719-948-45	DIODE ERA22-08TP3		
C6070	1-102-074-00	CERAMIC	0.001 $\mu$ F	10%	50V		D6035	8-719-063-70	DIODE D1NL20U-TA2		
C6071	1-102-106-00	CERAMIC	100pF	10%	50V						
C6072	1-102-106-00	CERAMIC	100pF	10%	50V		D6036	8-719-032-12	DIODE D1NS6-TA2		
C6073	1-102-129-00	CERAMIC	0.01 $\mu$ F	10%	50V		D6037	8-719-991-33	DIODE 1SS133T-77		

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REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
D6038	8-719-991-33	DIODE 1SS133T-77		<b>PHOTO COUPLER</b>			
D6040	8-719-063-70	DIODE D1NL20U-TA2		$\triangle$ PH6001	8-749-924-35	PHOTO COUPLER ON3171-R	
D6041	8-719-991-33	DIODE 1SS133T-77		$\triangle$ PH6002	8-749-924-35	PHOTO COUPLER ON3171-R	
D6042	8-719-110-17	DIODE MTZJ-T-77-10B		<b>TRANSISTOR</b>			
D6043	8-719-991-33	DIODE 1SS133T-77		Q6000	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
D6044	8-719-991-33	DIODE 1SS133T-77		Q6001	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
D6045	8-719-911-55	DIODE ERC04-06S		Q6002	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
D6046	8-719-911-55	DIODE ERC04-06S		Q6003	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
D6047	8-719-110-31	DIODE MTZJ-T-77-12B		Q6004	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
D6048	8-719-110-31	DIODE MTZJ-T-77-12B		Q6005	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
D6049	8-719-991-33	DIODE 1SS133T-77		$\triangle$ Q6006	8-729-046-40	TRANSISTOR 2SK2663	
$\triangle$ D6050	8-719-979-64	DIODE UF4005PKG23		Q6007	8-729-922-39	TRANSISTOR 2SD2144S-TP-V	
D6051	8-719-063-70	DIODE D1NL20U-TA2		Q6008	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
D6052	8-719-110-31	DIODE MTZJ-T-77-12B		Q6009	8-729-048-82	TRANSISTOR 2SA821STPQ	
D6054	8-719-063-70	DIODE D1NL20U-TA2		Q6010	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
D6055	8-719-063-70	DIODE D1NL20U-TA2		$\triangle$ Q6011	8-729-140-93	TRANSISTOR 2SB734-T-4	
D6056	8-719-063-70	DIODE D1NL20U-TA2		Q6012	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
<b>FUSE</b>				<b>RESISTOR</b>			
$\triangle$ F6001	1-532-506-51	FUSE 6.3A/250V		R6000	1-215-445-00	METAL	10K 1% 1/4W
<b>FERRITE BEAD</b>				R6001	1-215-445-00	METAL	10K 1% 1/4W
FB6001	1-412-911-11	FERRITE	0 $\mu$ H	R6002	1-202-719-00	SOLID	1M 20% 1/2W
FB6002	1-412-911-11	FERRITE	0 $\mu$ H	R6003	1-249-425-11	CARBON	4.7K 5% 1/4W
FB6003	1-412-911-11	FERRITE	0 $\mu$ H	R6004	1-247-843-11	CARBON	3.3K 5% 1/4W
FB6004	1-412-911-11	FERRITE	0 $\mu$ H	R6005	1-215-469-00	METAL	100K 1% 1/4W
FB6005	1-412-911-11	FERRITE	0 $\mu$ H	R6006	1-215-471-00	METAL	120K 1% 1/4W
FB6006	1-412-911-11	FERRITE	0 $\mu$ H	R6007	1-247-843-11	CARBON	3.3K 5% 1/4W
FB6007	1-412-911-11	FERRITE	0 $\mu$ H	R6008	1-215-469-00	METAL	100K 1% 1/4W
<b>IC</b>				R6009	1-215-483-00	METAL	390K 1% 1/4W
IC6000	8-759-198-31	IC UPC1093J-1-T		R6010	1-249-393-11	CARBON	10 5% 1/4W
$\triangle$ IC6001	8-759-133-90	IC UPC339C		R6011	1-215-466-00	METAL	75K 1% 1/4W
$\triangle$ IC6002	8-749-013-78	IC MCR5102		R6012	1-215-489-00	METAL	680K 1% 1/4W
IC6003	8-749-012-13	IC DM-58		R6013	1-215-489-00	METAL	680K 1% 1/4W
IC6004	8-759-394-35	IC BA12T		R6014	1-215-489-00	METAL	680K 1% 1/4W
IC6005	8-759-653-07	IC PQ09RD21		R6015	1-215-485-00	METAL	470K 1% 1/4W
IC6007	8-759-450-47	IC BA05T		R6016	1-215-471-00	METAL	120K 1% 1/4W
<b>COIL</b>				R6017	1-215-489-00	METAL	680K 1% 1/4W
L6000	1-412-519-11	INDUCTOR	3.3 $\mu$ H	R6018	1-215-489-00	METAL	680K 1% 1/4W
L6001	1-412-519-11	INDUCTOR	3.3 $\mu$ H	R6019	1-215-489-00	METAL	680K 1% 1/4W
L6002	1-412-527-11	INDUCTOR	15 $\mu$ H	$\triangle$ R6020	1-218-265-11	METAL	8.2M 5% 1W
L6003	1-412-527-11	INDUCTOR	15 $\mu$ H	R6021	1-215-466-00	METAL	75K 1% 1/4W
L6004	1-412-529-11	INDUCTOR	22 $\mu$ H	R6022	1-215-469-00	METAL	100K 1% 1/4W
				R6023	1-215-465-00	METAL	68K 1% 1/4W
				R6024	1-215-457-00	METAL	33K 1% 1/4W
				R6025	1-215-473-00	METAL	150K 1% 1/4W
				R6026	1-215-466-00	METAL	75K 1% 1/4W



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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R6027	1-215-489-00	METAL	680K	1%	1/4W	$\triangle$ R6078	1-249-389-11	CARBON	4.7	5%	1/4W
R6028	1-215-489-00	METAL	680K	1%	1/4W	R6079	1-249-409-11	CARBON	220	5%	1/4W
R6029	1-215-489-00	METAL	680K	1%	1/4W	R6080	1-249-421-11	CARBON	2.2K	5%	1/4W
R6030	1-215-458-00	METAL	36K	1%	1/4W	$\triangle$ R6081	1-260-298-51	CARBON	3.3	5%	1/2W
R6031	1-215-489-00	METAL	680K	1%	1/4W	R6082	1-215-461-00	METAL	47K	1%	1/4W
R6032	1-215-489-00	METAL	680K	1%	1/4W	R6083	1-249-441-11	CARBON	100K	5%	1/4W
R6033	1-215-489-00	METAL	680K	1%	1/4W	R6084	1-249-413-11	CARBON	470	5%	1/4W
R6034	1-215-463-00	METAL	56K	1%	1/4W	R6085	1-215-462-00	METAL	51K	1%	1/4W
R6035	1-249-429-11	CARBON	10K	5%	1/4W	R6086	1-215-479-00	METAL	270K	1%	1/4W
R6036	1-215-481-00	METAL	330K	1%	1/4W	R6087	1-240-205-91	CARBON	22M	5%	1/2W
R6037	1-249-439-11	CARBON	68K	5%	1/4W	$\triangle$ R6088	1-249-417-11	CARBON	1K	5%	1/4W
R6038	1-215-481-00	METAL	330K	1%	1/4W	R6089	1-215-493-00	METAL	1M	1%	1/4W
$\triangle$ R6039	1-240-876-11	CEMENTED	1	5%	15W	R6091	1-215-469-00	METAL	100K	1%	1/4W
$\triangle$ R6040	1-240-876-11	CEMENTED	1	5%	15W	R6092	1-215-481-00	METAL	330K	1%	1/4W
R6041	1-219-512-11	CARBON	2.2M	5%	1/2W	R6093	1-249-427-11	CARBON	6.8K	5%	1/4W
R6042	1-249-433-11	CARBON	22K	5%	1/4W	R6094	1-215-423-00	METAL	1.2K	1%	1/4W
$\triangle$ R6044	1-215-430-00	METAL	2.4K	1%	1/4W	$\triangle$ R6095	1-216-363-00	METAL OXIDE	0.33	5%	2W
R6045	1-215-448-00	METAL	13K	1%	1/4W	R6096	1-249-421-11	CARBON	2.2K	5%	1/4W
R6046	1-249-433-11	CARBON	22K	5%	1/4W	R6097	1-215-485-00	METAL	470K	1%	1/4W
R6047	1-215-481-00	METAL	330K	1%	1/4W	R6098	1-215-445-00	METAL	10K	1%	1/4W
$\triangle$ R6048	1-260-131-11	CARBON	470K	5%	1/2W	R6099	1-215-469-00	METAL	100K	1%	1/4W
$\triangle$ R6049	1-260-131-11	CARBON	470K	5%	1/2W	R6100	1-249-429-11	CARBON	10K	5%	1/4W
R6050	1-249-425-11	CARBON	4.7K	5%	1/4W	R6101	1-249-417-11	CARBON	1K	5%	1/4W
$\triangle$ R6051	1-202-933-61	FUSIBLE	0.1	10%	1/2W	R6102	1-247-895-91	CARBON	470K	5%	1/4W
R6052	1-249-429-11	CARBON	10K	5%	1/4W	R6103	1-205-998-11	CEMENTED	1	5%	10W
R6053	1-249-425-11	CARBON	4.7K	5%	1/4W	R6104	1-249-429-11	CARBON	10K	5%	1/4W
R6054	1-249-437-11	CARBON	47K	5%	1/4W	R6105	1-249-429-11	CARBON	10K	5%	1/4W
R6055	1-249-429-11	CARBON	10K	5%	1/4W	R6106	1-202-962-11	CEMENTED	3.3	5%	10W
R6056	1-215-421-00	METAL	1K	1%	1/4W	R6107	1-202-962-11	CEMENTED	3.3	5%	10W
R6057	1-249-429-11	CARBON	10K	5%	1/4W	R6109	1-249-437-11	CARBON	47K	5%	1/4W
$\triangle$ R6058	1-216-381-11	METAL OXIDE	0.22	5%	3W	R6111	1-215-857-11	METAL OXIDE	10	5%	1W
R6059	1-215-864-00	METAL OXIDE	150	5%	1W	R6112	1-215-857-11	METAL OXIDE	10	5%	1W
$\triangle$ R6060	1-216-381-11	METAL OXIDE	0.22	5%	3W						
R6062	1-219-512-11	CARBON	2.2M	5%	1/2W	<b>RELAY</b>					
R6063	1-215-421-00	METAL	1K	1%	1/4W	$\triangle$ RY6000	1-755-146-11	RELAY, AC POWER			
$\triangle$ R6064	1-249-409-11	CARBON	220	5%	1/4W	$\triangle$ RY6001	1-755-330-11	RELAY (AC POWER)			
R6065	1-249-409-11	CARBON	220	5%	1/4W	$\triangle$ RY6002	1-755-330-11	RELAY (AC POWER)			
R6066	1-249-389-11	CARBON	4.7	5%	1/4W						
R6067	1-249-421-11	CARBON	2.2K	5%	1/4W	<b>TRANSFORMER</b>					
R6068	1-249-417-11	CARBON	1K	5%	1/4W	$\triangle$ T6000	1-419-672-11	COIL, LINE FILTER			
R6069	1-249-437-11	CARBON	47K	5%	1/4W	$\triangle$ T6001	1-419-672-11	COIL, LINE FILTER			
R6071	1-249-425-11	CARBON	4.7K	5%	1/4W	$\triangle$ T6002	1-433-846-11	TRANSFORMER, CONVERTER (PIT)			
R6072	1-249-409-11	CARBON	220	5%	1/4W	$\triangle$ T6003	1-433-844-11	TRANSFORMER, CONVERTER			
R6073	1-260-298-51	CARBON	3.3	5%	1/2W	<b>THERMISTOR</b>					
R6074	1-249-415-11	CARBON	680	5%	1/4W	$\triangle$ TH6000	1-803-540-11	THERMISTOR			
R6075	1-260-312-11	CARBON	47	5%	1/2W	$\triangle$ TH6001	1-803-629-11	THERMISTOR, POSITIVE			
R6076	1-260-312-11	CARBON	47	5%	1/2W						
R6077	1-247-791-91	CARBON	22	5%	1/4W						

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**GA** **C** **HA**

REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
TH6002	1-803-586-11	THERMISTOR, NTC		<b>RESISTOR</b>			
<b>VARISTOR</b>				R1750	1-247-870-11	CARBON	43K 5% 1/4W
$\triangle$ VD6000	1-803-587-11	VARISTOR ENE471D-14A		R1751	1-249-409-11	CARBON	220 5% 1/4W
$\triangle$ VD6001	1-803-614-11	VARISTOR		R1752	1-249-409-11	CARBON	220 5% 1/4W
<b>C</b>				$\triangle$ R1753	1-249-409-11	CARBON	220 5% 1/4W
* A-1331-939-A	<b>C (VAR) BOARD, MOUNTED</b>			R1763	1-260-328-11	CARBON	1K 5% 1/2W
4-382-854-11	SCREW (M3X10), P, SW (+)			R1764	1-247-807-31	CARBON	100 5% 1/4W
<b>CAPACITOR</b>				R1773	1-260-328-11	CARBON	1K 5% 1/2W
C1750	1-137-528-11	MYLAR	0.1 $\mu$ F 10% 250V	R1774	1-247-807-31	CARBON	100 5% 1/4W
C1751	1-107-655-11	ELECT	47 $\mu$ F 20% 250V	R1783	1-260-328-11	CARBON	1K 5% 1/2W
C1790	1-102-129-00	CERAMIC	0.01 $\mu$ F 10% 50V	R1784	1-247-807-31	CARBON	100 5% 1/4W
C1791	1-117-524-91	ELECT	100 $\mu$ F 20% 63V	R1788	1-216-349-00	METAL OXIDE	1 5% 1W
C1792	1-102-116-00	CERAMIC	680pF 10% 50V	R1789	1-249-437-11	CARBON	47K 5% 1/4W
C1794	1-107-651-11	ELECT	4.7 $\mu$ F 20% 250V	R1792	1-249-409-11	CARBON	220 5% 1/4W
C1795	1-102-074-00	CERAMIC	0.001 $\mu$ F 10% 50V	R1793	1-247-866-11	CARBON	30K 5% 1/4W
C1799	1-162-114-00	CERAMIC	.0047 $\mu$ F 2KV	R1794	1-260-132-11	CARBON	560K 5% 1/2W
<b>CONNECTOR</b>				R1795	1-260-087-11	CARBON	100 5% 1/2W
* CN1761	1-564-509-11	PLUG,CONNECTOR 6P		$\triangle$ R1796	1-216-372-11	METAL OXIDE	1.8 5% 2W
* CN1764	1-564-508-11	PLUG,CONNECTOR 5P		R1797	1-260-123-11	CARBON	100K 5% 1/2W
CN1765	1-785-879-11	CONNECTOR, ONE TOUCH		<b>VARIABLE RESISTOR</b>			
CN1766	1-695-915-11	TAB (CONTACT)		RV1761	1-241-714-11	RES, ADJ, METAL FILM 110M	
<b>DIODE</b>				<b>HA</b>			
D1790	8-719-991-33	DIODE 1SS133T-77		* A-1372-634-A	<b>HA BOARD, MOUNTED</b>		
D1791	8-719-075-33	DIODE 1N4003GA		<b>CAPACITOR</b>			
D1792	8-719-075-33	DIODE 1N4003GA		C1234	1-117-534-91	ELECT	1 $\mu$ F 20% 100V
D1793	8-719-075-33	DIODE 1N4003GA		C1235	1-117-534-91	ELECT	1 $\mu$ F 20% 100V
D1794	8-719-075-33	DIODE 1N4003GA		C1239	1-216-295-11	SHORT	
<b>IC</b>				<b>CONNECTOR</b>			
$\triangle$ IC1701	8-759-562-43	IC TDA6108JF/N1B		* CN1232	1-564-512-11	PLUG,CONNECTOR 9P	
<b>JACK</b>				<b>DIODE</b>			
$\triangle$ J1761	1-251-797-11	SOCKET, CRT		D1233	8-719-110-17	DIODE MTZJ-T-77-10B	
<b>COIL</b>				<b>JACK</b>			
L1790	1-412-537-31	INDUCTOR	100 $\mu$ H	J1231	1-770-361-11	TERMINAL BLOCK, S	
<b>TRANSISTOR</b>				<b>RESISTOR</b>			
Q1790	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA		R201	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R202	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
				R203	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
				R1233	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
				R1235	1-216-065-91	RES-CHIP	4.7K 5% 1/10W

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

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

**HA** **HB** **HX**  
**HZ** **WA**

REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R1236	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R1237	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R1238	1-216-113-00	RES-CHIP	470K	5%	1/10W						
		<b>SWITCH</b>									
S2007	1-572-198-11	SWITCH KEYBOARD									
S2008	1-572-198-11	SWITCH KEYBOARD									
S2009	1-572-198-11	SWITCH KEYBOARD									
S2010	1-572-198-11	SWITCH KEYBOARD									
		<b>SWITCH</b>									
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									
		<b>SWITCH</b>									
		<b>CONNECTOR</b>									
		CN901	1-573-963-11	PIN,CONNECTOR (PC BOARD)	3P						
		CN902	1-573-963-11	PIN,CONNECTOR (PC BOARD)	3P						
		<b>SWITCH</b>									
		$\triangle$ SW901	1-571-433-21	SWITCH PUSH (AC POWER)							
		<b>SWITCH</b>									
		<b>CONNECTOR</b>									
		CN2001	1-564-520-11	PLUG,CONNECTOR	5P						
		<b>DIODE</b>									
		D2002	8-719-057-09	DIODE LNJ801LPDJA							
		D2003	8-719-057-09	DIODE LNJ801LPDJA							
		<b>IC</b>									
		IC2001	8-742-211-20	HYB IC SBX3071-71							
		<b>RESISTOR</b>									
		R2001	1-216-049-11	RES-CHIP	1K 5% 1/10W						
		R2002	1-216-049-11	RES-CHIP	1K 5% 1/10W						
		R2003	1-216-017-91	RES-CHIP	47 5% 1/10W						
		<b>RESISTOR</b>									
		R2010	1-216-047-91	RES-CHIP	820 5% 1/10W						
		R2011	1-216-049-11	RES-CHIP	1K 5% 1/10W						
		R2012	1-216-055-00	RES-CHIP	1.8K 5% 1/10W						
		R2013	1-216-065-91	RES-CHIP	4.7K 5% 1/10W						
		R2014	1-216-025-11	RES-CHIP	100 5% 1/10W						
		<b>RESISTOR</b>									
		C941	1-117-498-91	ELECT	1000 $\mu$ F 20% 25V						
		C944	1-117-511-91	ELECT	10 $\mu$ F 20% 50V						
		C946	1-104-665-11	ELECT	100 $\mu$ F 20% 25V						
		C947	1-104-664-11	ELECT	47 $\mu$ F 20% 25V						
		C949	1-161-830-00	CERAMIC	.0047 $\mu$ F 500V						
		C950	1-117-506-91	ELECT	470 $\mu$ F 20% 35V						
		C951	1-107-645-11	ELECT	22 $\mu$ F 20% 160V						
		C952	1-104-999-11	MYLAR	0.1 $\mu$ F 10% 200V						
		C953	1-106-383-00	MYLAR	0.047 $\mu$ F 10% 200V						
		C954	1-115-202-91	MYLAR	0.001 $\mu$ F 5% 63V						
		C955	1-107-667-11	ELECT	2.2 $\mu$ F 20% 160V						
		C956	1-115-202-91	MYLAR	0.001 $\mu$ F 5% 63V						
		C957	1-106-383-00	MYLAR	0.047 $\mu$ F 10% 200V						
		C958	1-117-506-91	ELECT	470 $\mu$ F 20% 35V						
		C960	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F 10% 50V						
		C961	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F 10% 25V						
		C962	1-117-511-91	ELECT	10 $\mu$ F 20% 50V						
		C963	1-117-537-91	ELECT	4.7 $\mu$ F 20% 100V						
		C964	1-110-501-11	CERAMIC CHIP	0.33 $\mu$ F 10% 16V						
		C965	1-104-664-11	ELECT	47 $\mu$ F 20% 25V						
		C966	1-117-534-91	ELECT	1 $\mu$ F 20% 100V						
		C967	1-117-511-91	ELECT	10 $\mu$ F 20% 50V						



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C968	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V						
C970	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V						
C971	1-104-664-11	ELECT	47μF	20%	25V						
C972	1-163-251-11	CERAMIC CHIP	100pF	5%	50V						
C973	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V						
C974	1-137-509-11	MYLAR	0.01μF	5%	63V						
C976	1-130-967-00	FILM	0.0027μF	5%	50V						
C977	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V						
C1941	1-117-506-91	ELECT	470μF	20%	35V						
C1946	1-136-189-00	MYLAR	0.1μF	5%	63V						
C1947	1-136-189-00	MYLAR	0.1μF	5%	63V						
C1948	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V						
C1961	1-129-725-00	FILM	0.082μF	5%	400V						
C1962	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V						
C1965	1-136-601-11	FILM	0.01μF	5%	630V						
C1966	1-136-191-11	MYLAR	0.22μF	5%	63V						
C1968	1-136-191-11	MYLAR	0.22μF	5%	63V						
C1972	1-104-664-11	ELECT	47μF	20%	25V						
C1974	1-104-664-11	ELECT	47μF	20%	25V						
		<b>CONNECTOR</b>									
*	CN941	1-564-511-11	PLUG,CONNECTOR 8P								
*	CN942	1-564-508-11	PLUG,CONNECTOR 5P								
*	CN961	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P								
*	CN981	1-564-506-11	PLUG,CONNECTOR 3P								
		<b>DIODE</b>									
D941	8-719-991-33	DIODE 1SS133T-77									
D943	8-719-991-33	DIODE 1SS133T-77									
D944	8-719-991-33	DIODE 1SS133T-77									
D945	8-719-109-89	DIODE MTZJ-T-77-5.6C									
D946	8-719-110-88	DIODE MTZJ-T-77-39									
D947	8-719-110-88	DIODE MTZJ-T-77-39									
D962	8-719-991-33	DIODE 1SS133T-77									
D963	8-719-073-01	DIODE MA111-TX									
D964	8-719-210-21	DIODE ERA82-004TP5									
D966	8-719-075-41	DIODE PR1004GT									
D1961	8-719-991-33	DIODE 1SS133T-77									
D1962	8-719-991-33	DIODE 1SS133T-77									
		<b>IC</b>									
IC961	8-759-803-42	IC LA6500-FA									
IC962	8-759-659-67	IC NJM2903D									
IC963	8-759-659-67	IC NJM2903D									
IC964	8-759-700-42	IC NJM2904D									
IC965	8-759-701-59	IC NJM78M09FA									
		<b>COIL</b>									
L961	1-459-104-00	COIL, WITH CORE									
L964	1-406-989-21	INDUCTOR							10mH		
		<b>TRANSISTOR</b>									
Q941	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX									
Q942	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX									
Q943	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX									
Q944	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX									
Q945	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX									
Q946	8-729-045-05	TRANSISTOR 2SA2005									
Q947	8-729-045-04	TRANSISTOR 2SC5511									
Q948	8-719-914-43	DIODE DAN202K-T-146									
Q949	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX									
Q961	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX									
Q962	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA									
Q963	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA									
Q965	8-729-931-45	TRANSISTOR IRF614									
Q966	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX									
Q967	8-729-140-97	TRANSISTOR 2SB734-T-34									
Q968	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX									
Q969	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX									
Q1961	8-729-140-97	TRANSISTOR 2SB734-T-34									
Q1963	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX									
Q1964	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX									
Q1966	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX									
Q1967	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX									
		<b>RESISTOR</b>									
R943	1-216-033-00	RES-CHIP	220	5%	1/10W						
R944	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R945	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R946	1-215-888-00	METAL OXIDE	220	5%	2W						
R947	1-216-025-11	RES-CHIP	100	5%	1/10W						
R949	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R950	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R951	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R952	1-216-041-00	RES-CHIP	470	5%	1/10W						
R953	1-216-021-00	RES-CHIP	68	5%	1/10W						
R954	1-216-033-00	RES-CHIP	220	5%	1/10W						
R955	1-216-047-91	RES-CHIP	820	5%	1/10W						
R956	1-216-025-11	RES-CHIP	100	5%	1/10W						
R957	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R958	1-216-025-11	RES-CHIP	100	5%	1/10W						
R959	1-216-021-00	RES-CHIP	68	5%	1/10W						
R960	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R961	1-216-091-00	RES-CHIP	56K	5%	1/10W						



REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
<b><u>ACCESSORIES AND PACKING MATERIALS</u></b>							
*	4-082-016-01	CARTON, INDIVIDUAL					
*	4-070-460-01	CUSHION ASSY, LOWER					
*	4-070-459-02	CUSHION ASSY, UPPER					
	4-082-019-41	MANUAL, INSTRUCTION					
*	4-071-681-01	BAG, PROTECTION					
<b><u>REMOTE COMMANDER</u></b>							
	1-418-496-21	REMOTE COMMANDER (RM-Y171)					
	4-978-977-01	BATTERY COVER (FOR RM-Y171)					

