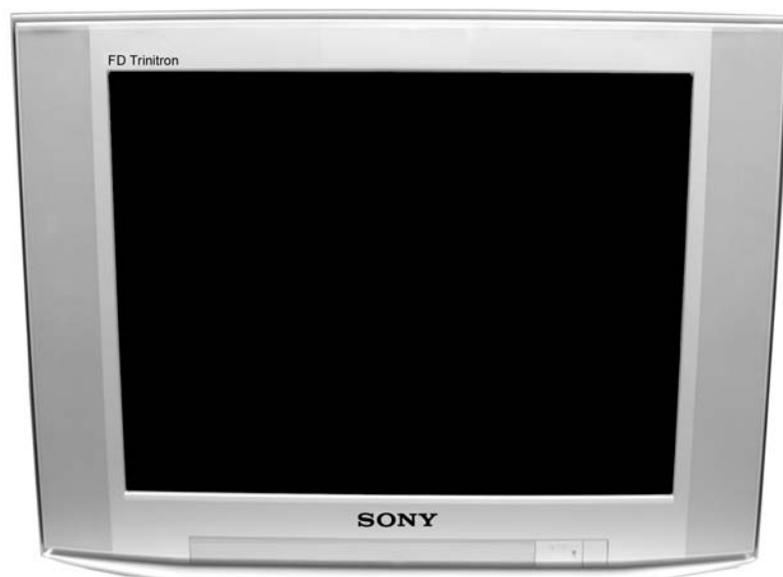


# SERVICE MANUAL

# DX-1A CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST</u>	<u>CHASSIS NO.</u>
<b>KV-32XBR400</b>	RM-Y174	US	SCC-S47A-A
<b>KV-32XBR400</b>	RM-Y174	CND	SCC-S48A-A
<b>KV-36XBR400</b>	RM-Y174	US	SCC-S47B-A
<b>KV-36XBR400</b>	RM-Y174	CND	SCC-S48B-A
<b>KV-38DRC1</b>	RM-Y174	E	SCC-S49A-A
<b>KV-38DRC1C</b>	RM-Y174	E	SCC-S49B-A
<b>KV-36XBR400H</b>	RM-Y174	HAWAII	SCC-S54A-A



KV-32XBR400



RM-Y174

TRINITRON® COLOR TV  
**SONY**®

<b>SPECIFICATIONS</b>
-----------------------

	<b>KV-32XBR400</b>	<b>KV-38DRC1 KV-36XBR400 KV-36XBR400H</b>	<b>KV-38DRC1C</b>
Power requirements	120V, 60 Hz	120V, 60 Hz	220V, 50/60Hz
Number of inputs/outputs			
Video <sup>1)</sup>		4	
S Video <sup>2)</sup>		3	
Y,PB,PR <sup>3)</sup>		2	
Audio <sup>4)</sup>		6	
Audio Out <sup>5)</sup>		2	
Monitor Out		1	
Control-S (in/out)		YES	
Speaker output(W)		15W x 2	
Power Consumption(W)			
In use(Max)		245W	
In standby		2W	
Dimensions(W/H/D)			
(mm)	898 x 678 x 579.5	994 x 754.5 x 622	
(in)	35 <sup>3/8</sup> x 26 <sup>3/4</sup> x 27 <sup>7/8</sup>	39 <sup>9/64</sup> x 29 <sup>45/64</sup> x 24 <sup>1/2</sup>	
Mass			
(kg)	84kg	108kg	
(lbs)	185 lbs	238 lbs	

**Television system**

American TV standard/NTSC

**Channel coverage**

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

**Visible screen size**

FD Trinitron® tube

**Visible screen size**

32" picture measured diagonally (KV-32XBR400)

36" picture measured diagonally (KV-36XBR400/36XBR400H/38DRC1/38DRC1C)

**Actual screen size**

34" picture measured diagonally (KV-32XBR400)

38" picture measured diagonally (KV-36XBR400/36XBR400H/38DRC1/38DRC1C)

**Antenna**

75 ohm external antenna terminal for VHF/UHF

**Supplied accessories**

Remote Commander RM-Y174

Two Size AA (R6) batteries

**Optional accessories**

Connecting cables: RK-74A, VMC-810S/820/830HGS, VMC-720M,

VMC-810S/820S, YC-15V/30V, YC-15/30HG, RKG69HG, RKC-515HG

U/V mixer: EAC-66

TV Stand: SU-32XBR4A, SU-36XBR4A

- 1) 1 Vp-p 75 ohms unbalanced, sync negative
- 2) Y: 1 Vp-p 75 ohms unbalanced, sync negative  
C: 0.286 Vp-p (Burst signal), 75 ohms
- 3) Y: 1.0 Vp-p, 75 ohms, sync negative;  
PB: 0.7 Vp-p, 75 ohms;  
PR: 0.7 Vp-p, 75 ohms
- 4) 500mVrms (100% modulation), impedance: 47kiloohms
- 5) More than 408 mVrms at the maximum volume setting (variable)  
More than 408 mVrms (fix)

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

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

### ATTENTION!!

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

### ATTENTION!!

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

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

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

## SELF-DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/STEREO LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/STEREO LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

### Diagnostic Test Indicators

When an error occurs, the STANDBY/STEREO LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas. Due to a hardware upgrade, there is no LED flashing in sets using Ver.1.0 system micros. This has been addressed in Ver.2.0 system micros.

Results for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

Diagnostic Item/Description	No. of times STANDBY/STEREO LED flashes	Self-diagnostic Display/ Diagnostic result	Probable Cause Location	Detected Symptoms
Power does not turn on	Does not light		<ul style="list-style-type: none"> <li>Power cord is not plugged in.</li> <li>Fuse is burned out. (F5501)</li> </ul>	<ul style="list-style-type: none"> <li>Power does not come on.</li> <li>No power is supplied to the TV.</li> <li>AC power supply is faulty.</li> </ul>
+B overcurrent (OCP) (see Note 1)	2 times	2:0 or 2:1	<ul style="list-style-type: none"> <li>H.OUT (Q5030) is shorted. (D board)</li> <li>+B PWM (Q5003) is shorted. (D board)</li> <li>IC9001, IC9002, IC9003 is shorted. (C board)</li> </ul>	<ul style="list-style-type: none"> <li>Power does not come on.</li> <li>Load on power line is shorted.</li> </ul>
Low B overvoltage (OVP)	3 times	3:0 or 3:1	<ul style="list-style-type: none"> <li>IC6505 is faulty. (D Board)</li> </ul>	<ul style="list-style-type: none"> <li>Has entered standby mode.</li> </ul>
Vertical deflection stopped	4 times	4:0 or 4:1	<ul style="list-style-type: none"> <li>+/-15V is not supplied. (D board)</li> <li>IC 5004 is faulty. (D board)</li> </ul>	<ul style="list-style-type: none"> <li>Has entered standby state after horizontal raster.</li> <li>Vertical deflection pulse is stopped.</li> <li>Power line is shorted or power supply is stopped.</li> </ul>
White balance failure (not balanced)	5 times	5:0 or 5:1	<ul style="list-style-type: none"> <li>Video OUT (IC9001-IC9003) is faulty. (C board)</li> <li>CRT Drive (IC201) is faulty. (A Board)</li> <li>G2 is improperly adjusted. (see Note 2)</li> </ul>	<ul style="list-style-type: none"> <li>No raster is generated.</li> <li>CRT cathode current detection reference pulse output is small</li> </ul>

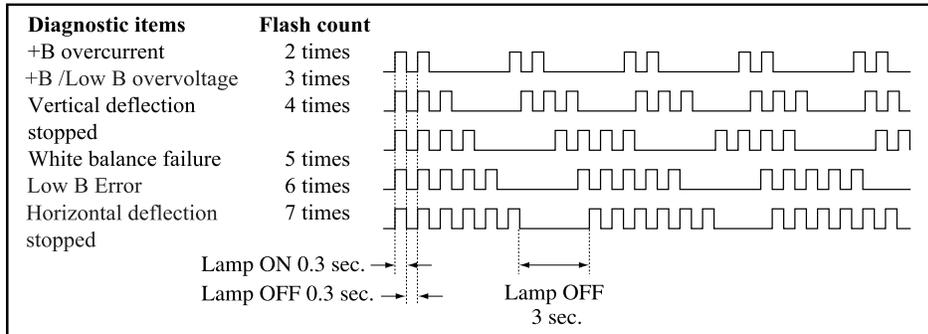
Diagnostic Item/Description	No. of times STANDBY/STEREO LED flashes	Self-diagnostic Display/Diagnostic result	Probable Cause Location	Detected Symptoms
LOW B OCP/OVP (overcurrent/overvoltage) (see Note 3)	6 times	6:0 or 6:1	<ul style="list-style-type: none"> <li>+5 line is overloaded. (A, B Boards)</li> <li>+5 line is shorted. (A, B Boards)</li> <li>IC6007 is faulty. (A Board)</li> </ul>	<ul style="list-style-type: none"> <li>No picture</li> </ul>
Horizontal Deflection Stopped	7 times	7:0 or 7:1		<ul style="list-style-type: none"> <li>No picture</li> </ul>

Note 1: If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on screen.

Note 2: Refer to Screen (G2) Adjustment in Section 3-4 of this manual.

Note 3: If STANDBY/STEREO LED flashes 6 times, unplug unit and wait ten seconds before performing adjustment.

### Display of Standby/Timer LED Flash Count



STANDBY/STEREO LED

\*One flash count is not used for self-diagnostic.

### Stopping the STANDBY/STEREO LED Flash

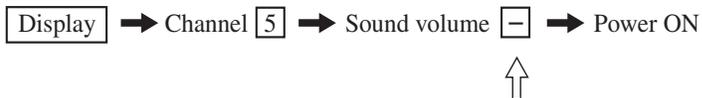
Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/STEREO LED from flashing.

### Self-Diagnostic Screen Display

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

### To Bring Up Screen Test

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:



Note that this differs from entering the service mode (sound volume [+]).

### Self-Diagnostic Screen Display

SELF DIAGNOSTIC	
2: +B OCP	0
3: +B OVP	0
4: V STOP	0
5: AKB	1
6: LOWB	0
7:H-STOP	0
101: WDT	0

← Numeral “0” means that no fault was detected.

← Numeral “1” means a fault was detected one time only.

## Handling of Self-Diagnostic Screen Display

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

## Clearing the Result Display

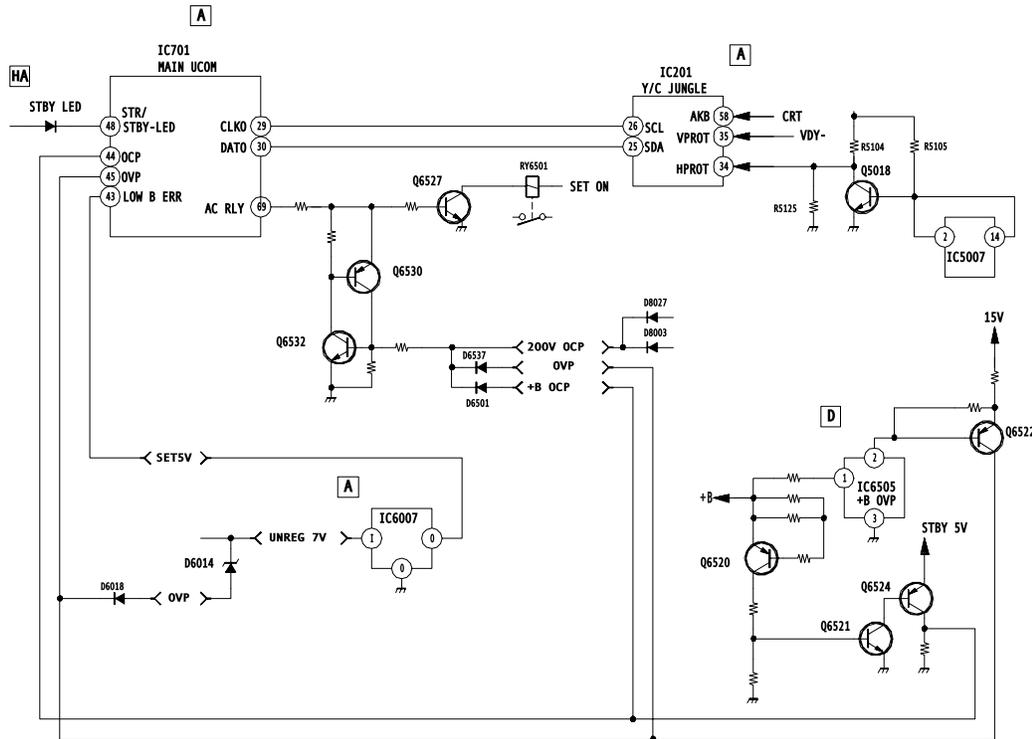
To clear the result display to “0”, press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel **8** → **ENTER**

## Quitting the Self-Diagnostic Screen

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

## Self-Diagnostic Circuit



### +B overcurrent (OCP)

Occurs when an overcurrent (more than 6A) on the +B (135V) line is detected by R6598/R6591. It will cause Q6520 to turn on and force the AC relay to turn off through Q6532 and Q6530.

### +B overvoltage (OVP)

Occurs when 1) overvoltage (more than +140V) on the +B (135V) line is detected by IC6505 or 2) an overvoltage (more than 7.5V) on the unreg 7V line is detected by D6014. The AC Relay will turn off through Q6532 and Q6530.

### Vertical Deflection Stopped

Occurs when an absence of the vertical deflection pulse is detected by IC201. Power supply will shut down when waveform interval exceeds 2 seconds.

### White Balance Failure

If the RGB levels do not balance within 2 seconds after the power is turned on, this error will be detected by IC201. The unit will stay on, but there will be no picture.

\*(Refers to the RGB levels of the AKB detection Ref pulse that detects 1K).

### Low B Error

Occurs when set 5V is out.

### Horizontal Deflection Stopped

Occurs when either 1) a +B overcurrent is detected (IC5007) or 2) overheating is detected (Thermistor TH5002).

## 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).

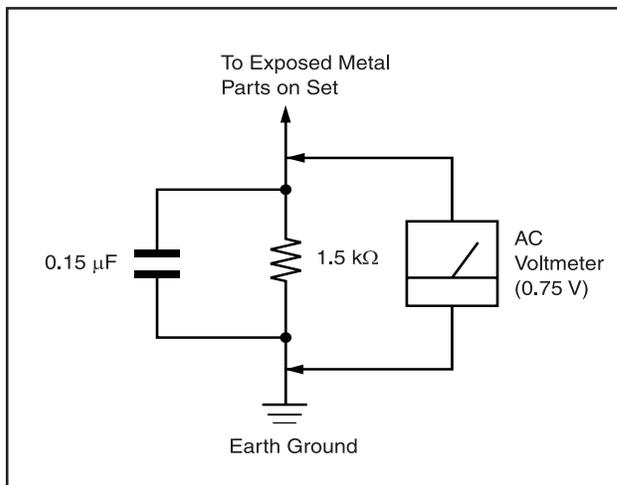


Figure A. Using an AC voltmeter to check AC leakage.

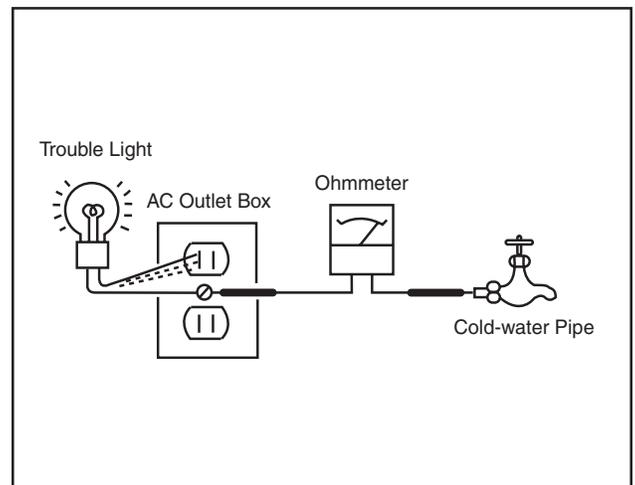


Figure B. Checking for earth ground.

## SECTION 1 GENERAL

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

Introducing the FD Trinitron Wega

### Using the Remote Control

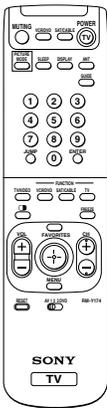
#### Inserting Batteries

Insert two size AA (R6) batteries (supplied) by matching the + and - on the batteries to the diagram inside the battery compartment.



Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.  
Handle the remote control with care. Avoid dropping it, getting it wet, or placing it in direct sunlight, near a heater, or where the humidity is high.

#### Remote Control Overview



Here's an overview of the buttons on the remote control you will probably use most often. For a complete description of the remote control, see "Using the Remote Control" on page 40.

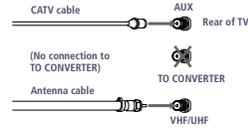
To Do This ...	Use This Button
Turn the TV on and off	TV (POWER)
Select channels directly	0 - 9 and ENTER Press 0 - 9 to select a channel, the channel changes after 2 seconds. Press ENTER for immediate selection.
Scan through channels	CH +/- To scan rapidly through the channels, press and hold down the CH+ or CH- button.
Adjust the volume	VOL +/-
Switch video inputs (such as a VCR)	TW/VIDEO Press repeatedly to toggle through all video inputs.
Display the Menu to make changes to the TV	MENU For details, see "Using the Menus" on page 25.
View the Favorite Channels list	FAVORITES For details, see "Using Favorite Channels" on page 20.
Using the on-screen functions	Move Select

3

Installing the TV

#### Cable and Antenna

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



Select CABLE or antenna (ANT) mode by pressing ANT on the remote control.

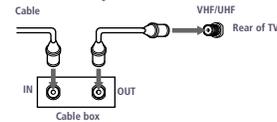
In order to receive channels with an antenna, you need to turn your Cable to OFF and perform the Auto Program function (see page 30).

#### Cable Box Connections

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

##### Cable Box

- 1 Connect the coaxial connector from your cable service to the cable box's IN jack.
- 2 Using a coaxial cable, connect the cable box's OUT jack to the TV's VHF/UHF jack.



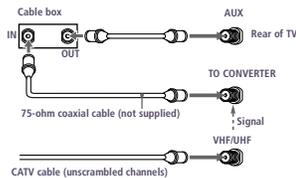
If you will be controlling all channel selection through your cable box, you should consider using the Channel Fix feature (see page 30).

7

Installing the TV

#### Cable Box and Cable

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



Your Sony remote control can be programmed to operate your cable box (see "Programming the Remote Control" on page 42).  
When using Favorite Channel or Twin View, you cannot view the AUX input in the window picture.

Pressing ANT switches between these inputs.

If you are connecting a cable box through the AUX input and would like to switch between the AUX and normal (CATV) input you should consider using the Channel Fix feature (see page 30).

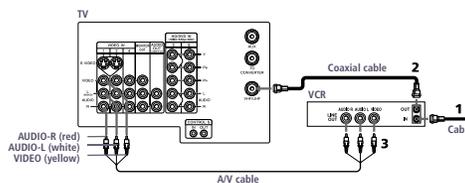
8

Installing the TV

#### Connecting a VCR and Cable

- 1 Connect the cable TV cable to the VCR's IN jack.
- 2 Using a coaxial cable, connect the VCR's OUT jack to the TV's VHF/UHF jack.
- 3 Using an A/V cable, connect the VCR's A/V OUT jacks to the TV's A/V IN jacks.

If your VCR has an S VIDEO jack: For best picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable. Using an S VIDEO cable, connect the VCR's S VIDEO OUT jack to the TV's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.



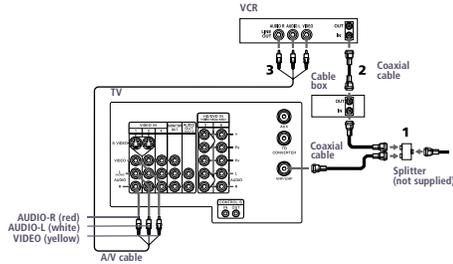
9

Installing the TV

Connecting a VCR and Cable Box

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

⚠ If your VCR has an S VIDEO jack: For best picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable. Using an S VIDEO cable, connect the VCR's S VIDEO OUT jack to the TV's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.



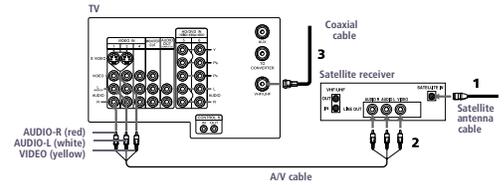
10

Installing the TV

Connecting a Satellite Receiver

- 1 Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
- 2 Using an A/V cable, connect the satellite receiver's A/V OUT jacks to the TV's A/V IN jacks.
- 3 Connect a coaxial cable from your cable or antenna to the TV's VHF/UHF IN jack.

⚠ If your satellite receiver has an S VIDEO jack: For best picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable. Using an S VIDEO cable, connect the satellite receiver's VIDEO OUT jack to the TV's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.

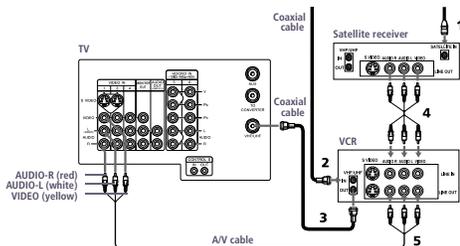


12

Installing the TV

Connecting a Satellite Receiver with a VCR

- 1 Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
- 2 Connect the CATV cable to the VCR's VHF/UHF IN jack.
- 3 Using a coaxial cable, connect the VCR's OUT jack to the TV's VHF/UHF IN jack.
- 4 Using an A/V cable, connect the satellite receiver's A/V OUT jacks to the VCR's A/V IN jacks.
- 5 Using an A/V cable, connect the VCR's A/V OUT jacks to the TV's A/V IN jacks.

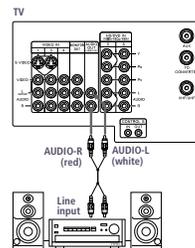


13

Installing the TV

Connecting an Audio Receiver

- 1 Using audio cables, connect the TV's AUDIO OUT jacks to the audio receiver's audio LINE IN jacks.

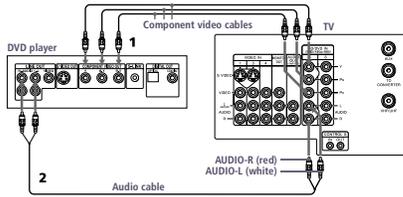


14

Installing the TV

Connecting a DVD Player with Component Video Connectors

- Using three separate component video cables, connect the DVD player's Y, Pb, and Pr jacks to the Y, Pb, and Pr jacks on the TV.
  - The Y, Pb, and Pr jacks on your DVD player are sometimes labeled Y, Cb, and Cr, or Y, B-Y, and R-Y. If so, connect the cables to like colors.
  - The Y, Pb, and Pr jacks do not provide audio, so audio cables must be connected to provide sound.
- Using an audio cable, connect the DVD player's audio OUT jacks to the TV's audio IN jacks.



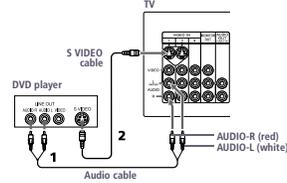
15

Installing the TV

Connecting a DVD Player with A/V Connectors

If your DVD player has video component output connectors: for best picture quality use the connection described on page 15.

- Using audio cables, connect the DVD player's audio OUT jacks to the TV's audio IN jacks.
- Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the TV's S VIDEO jack.



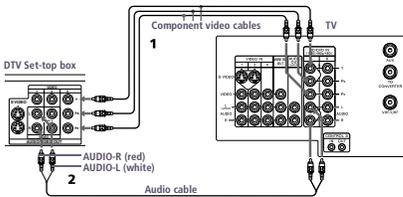
16

Installing the TV

Connecting a Digital TV Receiver

Be sure to read the manual for the Set-top box.

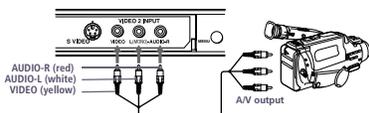
- Using three separate component video cables, connect the Digital TV Set-top box's Y, Pb, and Pr jacks to the TV.
  - The Y, Pb, and Pr jacks do not provide audio, so audio cables must be connected to provide sound.
  - Component input (Y, Pb, and Pr) is recommended for optimum picture quality. You may also use component video or S Video connections.
- Using an audio cable, connect the DTV Set-top box's audio OUT jacks to the TV's audio IN jacks.



17

Connecting a Camcorder

- Using A/V cables, connect the camcorder's A/V OUT jacks to the TV's A/V IN jacks.
  - If you have a mono camcorder, connect its left audio output to the TV's AUDIO L jack.
  - For easy connection of the camcorder, the TV has front A/V inputs (shown below). However, if you prefer, you can also connect the camcorder to the TV's rear A/V IN jacks.

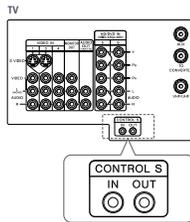


Installing the TV

Using the CONTROL S Feature

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

To control your other Sony equipment with your TV's remote control, use a CONTROL S cable (not supplied) to connect the equipment's CONTROL S IN jack to the TV's CONTROL S OUT jack.



Setting Up the TV Automatically

After you finish connecting your TV, you need to run Auto Setup to set up your channels.

The Auto Setup feature does not apply for installations that use a cable box for all channel selection.

Using Auto Setup

- Press POWER to turn on the TV. The first time you turn on the TV, the Auto Setup screen appears.
- Press CH+ to run Auto Setup or press CH- to exit.

You can run Auto Program by selecting it in the Channel menu, as described on page 30.

18

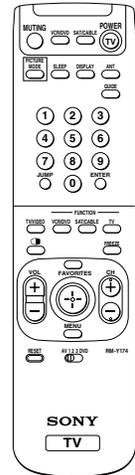
Other Information

Using the Remote Control

The following table describes the buttons on the remote control that are for more advanced functions.

✎ Main Power button must be turned ON to activate the Remote Control.

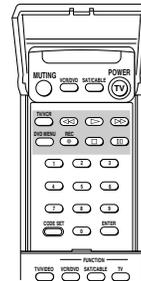
Button Descriptions



Button	Description
MUTING	Press to mute the sound. Press again or press VOL + to restore the sound.
VCR/DVD (POWER)	Turns the DVD player, MDP player, or VTR (VCR) on and off.
SAT/CABLE (POWER)	Turns the satellite receiver or cable box on and off.
TV (POWER)	Turns the TV on and off.
PICTURE MODE	Press repeatedly to step through the available video picture modes: Vivid, Standard, Pro, Movie. Also available in the Video menu. For details, see "Selecting Video Options" on page 26.
SLEEP	Press repeatedly until the TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears. While Sleep feature is set, press once to view remaining time
DISPLAY	Press once to display the current time and channel label (if set) and channel number. Press again to turn Display off. See page 34 for details on setting the time.
ANT	Changes the VHF/UHF input to the AUX input.
GUIDE	Displays the program guide of your satellite antenna.
0 - 9 and ENTER	Press 0 - 9 to select a channel, the channel changes after 2 seconds. Press ENTER for immediate selection.
JUMP	Press to jump back and forth between two channels. The TV alternates between the current channel and the last channel that was selected.
TV/VIDEO	Cycles through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5, VIDEO 6.
VCR/DVD (FUNCTION)	Activates the remote control for use with a DVD player, MDP, or VTR (VCR).
SAT/CABLE (FUNCTION)	Activates the remote control for use with a satellite receiver or cable box.
TV (FUNCTION)	Activates the remote control for use with the TV.

Other Information

Button	Description
	Turns on/off Twin Mode. For details, see "Using Twin View" on page 21.
FREEZE	Freezes the window picture. Press again to restore the picture.
VOL +/-	Adjusts the volume.
FAVORITES	Displays the Favorite Channels list. For details, see "Using Favorite Channels" on page 20.
CH +/-	Scan through channels.
	Joystick allows for movement of the on-screen cursor. Pressing down on the center of the joystick selects the item.
MENU	Press to display the TV menu. Press again to exit from the menus.
RESET	Resets the TV to the factory default settings for the Video and Audio menus. (Clears setting on Channel and Timer)
AV/12/20/0	Use to switch control for connected video equipment. You can program one video source for each switch position (see page 32).



Button	Description
TV/VCR	Changes the VHF/UHF output of the VCR.
	Rewind
	Play
	Fast-forward
DVD MENU	Displays the DVD menu.
REC	Record
	Displays the DVD menu.
	▶▶ or ◀◀ during playback (release to resume normal playback)
0 - 9 and ENTER	Press 0 - 9 to select a VCR channel, the channel changes after 2 seconds. Press ENTER for immediate selection.
CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 42.

Other Information

Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.

Sony Equipment	Switch Position on Remote Control	Programmable Code Number
Beta, ED Beta VCRs	VTR1	303
8 mm VCR	VTR2	302
VHS VCR	VTR3	301
DVD Player	DVD/MDP	751

If you have video equipment other than Sony brand that you want to control with the TV's remote control, use the following procedures to program the remote control.

✎ The equipment must have infrared (IR) remote capability in order to be used with the remote control.

- 1 Turn to "Programmable Codes" on page 43, and find the three-digit code number for your equipment. If more than one code number is listed, use the number listed first to complete the following procedure.

✎ You must perform step 3 within 10 seconds of step 2, or you must start again from step 2.

- 2 Press CODE SET.
- 3 Move the slide switch to the desired input.
- 4 Enter the three-digit code number.
- 5 Press ENTER.

☑ To check if the code number works, after step 5 aim the TV's remote control at the component and press the POWER button that corresponds with that component. If it responds, you're done. If not, try using the other codes listed for your component.

- Tips
- ☑ If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
  - ☑ If you enter a new code number, the code number you previously entered at that setting is erased.
  - ☑ In some rare cases, you may not be able to operate your equipment with the supplied remote control. In this case, use the equipment's own remote control unit.
  - ☑ Whenever you remove the batteries to replace them, the code numbers may revert to the factory setting and must be reset.

Programmable Codes

Manufacturer	Code	Manufacturer	Code
VCRs		Memorex	309, 335
Manufacturer	Code	Minolta	305, 304
Sony	301	Mitsubishi/MGA	323, 324, 325, 326
Admiral (M. Ward)	327	Multitech	325, 338, 321
Aiwa	338, 344	NEC	314, 336, 337
Audio	314, 337	Olympic	309, 308
Dynamic		Optimus	327
Broksonic	319, 317	Panasonic	308, 309, 306, 307
Canon	309, 308	Pentax	305, 304
Citizen	332	Philco	308, 309
Craig	302, 332	Philips	308, 309, 310
Criterion	315	Pioneer	308
Curtis Mathes	304, 338, 309	Quasar	308, 309, 306
Daewoo	341, 312, 309	RCA/PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
DBX	314, 336, 337	Realistic	309, 330, 328, 335, 324, 338
Dimensia	304	Sansui	314
Emerson	319, 320, 316, 317, 318, 341	Samsung	322, 313, 321
Fisher	330, 335	Sanyo	330, 335
Funai	338	Scott	312, 313, 321, 335, 323, 324, 325, 326
General	329, 304, 309	Sharp	327, 328
Electric		Shintom	315
Go Video	322, 339, 340	Signature 2000 (M. Ward)	338, 327
Goldstar	332	SV2000	338
Hitachi	306, 304, 305, 338	Sylvania	308, 309, 338, 310
Instant Replay	309, 308	Symphonic	338
JC Penney	309, 305, 304, 330, 314, 336, 337	Tashiro	332
JVC	314, 336, 337, 345, 346, 347	Tatung	314, 336, 337
Kenwood	314, 336, 332, 337	Teac	314, 336, 338, 337
LXI (Sears)	332, 305, 330, 335, 338	Technics	309, 308
Magnavox	308, 309, 310	Toshiba	312, 311
Marantz	314, 336, 337	Wards	327, 328, 335, 331, 332
Marta	332	Yamaha	314, 330, 336, 337
		Zenith	331
		Laserdisc Players	
		Manufacturer	Code
		Panasonic	704, 710
		Pioneer	702
		DVD Players	
		Manufacturer	Code
		Sony	751
		Panasonic	753
		Pioneer	752
		RCA	755
		Toshiba	754
		Cable Boxes	
		Manufacturer	Code
		Hamlin/Regal	222, 223, 224, 225, 226
		Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
		Oak	227, 228, 229
		Panasonic	219, 220, 221
		Pioneer	214, 215
		Scientific	209, 210, 211
		Atlanta	
		Tomcom	216, 217
		Zenith	212, 213
		Satellite Receivers	
		Manufacturer	Code
		Sony	801
		General	802
		Electric	
		Hitachi	805
		Hughes	804
		Panasonic	803
		RCA/PROSCAN	802, 808
		Toshiba	806, 807

Operating a VCR

To Do This ...	Press
Turn on/off	VTR/DVD (POWER)
Change channels	CH +/-
Record	▶ and REC simultaneously.
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	⏸ (press again to resume normal playback)
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Change input mode	TV/VCR

Operating an MDP (Laserdisc Player)

To Do This ...	Press
Turn on/off	VCR/DVD (POWER)
Play	▶
Stop	■
Pause	⏸ (press again to resume normal playback)
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Search a chapter forward or backward	CH +/-

Operating a Satellite Receiver

To Do This ...	Press
Turn on/off	SAT/CABLE (POWER)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP
Display channel number	DISPLAY
Display DBS guide	GUIDE
Display DBS menu	MENU
Move highlight (cursor)	Joystick or arrows
Select item	➤ button

Operating a DVD Player

To Do This ...	Press
Turn on/off	VTR/DVD (POWER)
Play	▶
Stop	■
Pause	⏸ (press again to resume normal playback)
Step through different tracks of an audio disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the DVD menu	DVD MENU
Select tracks directly	0-9 buttons
Display the menu (Setup)	MENU

Operating a Cable Box

To Do This ...	Press
Turn on/off	SAT/CABLE (POWER)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

Troubleshooting

Problem	Possible Remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> <li><input type="checkbox"/> If your TV does not turn on, and a red light keeps flashing, your TV may need service. Call your local Sony Service Center.</li> <li><input type="checkbox"/> Make sure the power cord is plugged in.</li> <li><input type="checkbox"/> Push the power button on the front of the TV.</li> <li><input type="checkbox"/> Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching connected equipment, set to VIDEO 1, 2, 3, 4, 5 or 6.</li> <li><input type="checkbox"/> Try another channel. It could be station trouble.</li> </ul>
Remote control does not operate	<ul style="list-style-type: none"> <li><input type="checkbox"/> Batteries could be weak. Replace the batteries.</li> <li><input type="checkbox"/> Press TV (FUNCTION) when operating your TV.</li> <li><input type="checkbox"/> Make sure the TV's power cord is connected securely to the wall outlet.</li> <li><input type="checkbox"/> Locate the TV at least 3-4 feet away from fluorescent lights.</li> <li><input type="checkbox"/> Check the orientation of the batteries.</li> </ul>
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none"> <li><input type="checkbox"/> Adjust the Picture setting in the Video menu (see page 26).</li> <li><input type="checkbox"/> Adjust the Brightness setting in the Video menu (see page 26).</li> <li><input type="checkbox"/> Check antenna/cable connections.</li> </ul>
Good picture, no sound	<ul style="list-style-type: none"> <li><input type="checkbox"/> Press MUTE so that "MUTING" disappears from the screen (see page 40).</li> <li><input type="checkbox"/> Make sure Speaker is set to ON in the Audio menu (see page 28).</li> </ul>
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none"> <li><input type="checkbox"/> Change Cable to OFF (see page 30).</li> <li><input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 30).</li> </ul>
No color	<ul style="list-style-type: none"> <li><input type="checkbox"/> Adjust the Color settings in the Video menu (see page 26).</li> </ul>
Only snow and noise appear on the screen	<ul style="list-style-type: none"> <li><input type="checkbox"/> Check the antenna/cable connections.</li> <li><input type="checkbox"/> Make sure the channel is broadcasting programs.</li> <li><input type="checkbox"/> Press ANT to change the input mode (see page 40).</li> </ul>
Dotted lines or stripes	<ul style="list-style-type: none"> <li><input type="checkbox"/> Adjust the antenna.</li> <li><input type="checkbox"/> Move the TV away from noise sources such as cars, neon signs, or hair-dryers.</li> </ul>
TV is fixed to one channel	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 30).</li> <li><input type="checkbox"/> Check your Channel Fix settings (see page 30).</li> </ul>
Double images or ghosts	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).</li> </ul>
Cannot operate menu	<ul style="list-style-type: none"> <li><input type="checkbox"/> If the item you want to choose appears in gray, you cannot select it.</li> </ul>
Cannot receive any channels when using cable TV	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 30).</li> <li><input type="checkbox"/> Check your cable settings.</li> <li><input type="checkbox"/> Make sure Cable is set to ON in the Channel menu (see page 30).</li> </ul>

Problem	Possible Remedies
Cannot gain enough volume when using a cable box	<ul style="list-style-type: none"> <li><input type="checkbox"/> Increase the volume of the cable box using the cable box's remote control. Then press TV (FUNCTION) and adjust the TV's volume.</li> </ul>
Cannot receive channels	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 30).</li> </ul>
Unable to select a channel	<ul style="list-style-type: none"> <li><input type="checkbox"/> Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 30).</li> </ul>
Lost password	<ul style="list-style-type: none"> <li><input type="checkbox"/> In the password screen (see page 31), enter the following master password: 4357. The master password clears your previous password; it cannot be used to temporarily unblock channels.</li> </ul>

If, after reading these operating instructions, you have additional questions related to the use of your Sony television, please call our Customer Information Services Center at 1-800-222-SONY (7669) (U.S. residents only) or (416) 499-SONY (7669) (Canadian residents only).

## SECTION 2 DISASSEMBLY

### 2-1. REAR COVER REMOVAL



Remove +BVTP 4x16 screws from areas indicated with a circle.

\* = screws for 36" and 38" models only.

### 2-2. CHASSIS ASSEMBLY REMOVAL



Lift lever up on right and left sides of chassis bracket and pull chassis assembly gently away from bezel.

#### CAUTION!

Heat sink on IC5004 is -15V. Care must be taken not to allow heat sink to touch any other components.

### 2-3. SERVICE POSITION

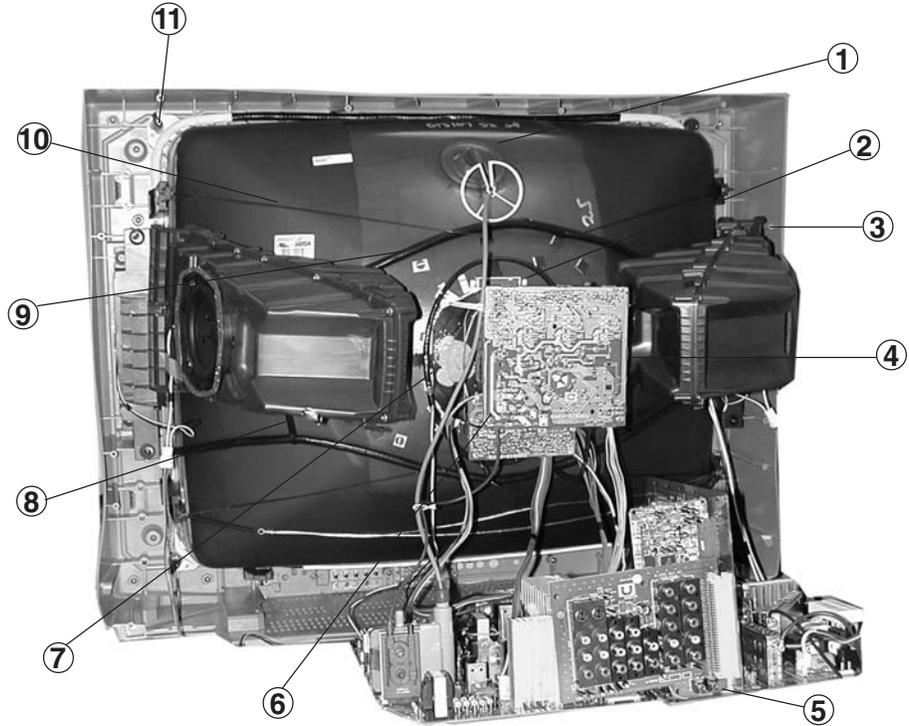
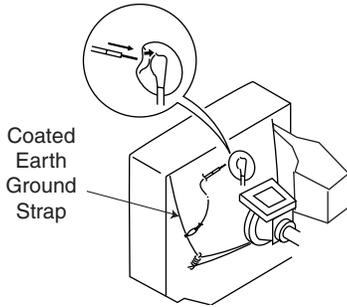


Pull up and rotate A and D Boards to service the set.

## 2-4. 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.



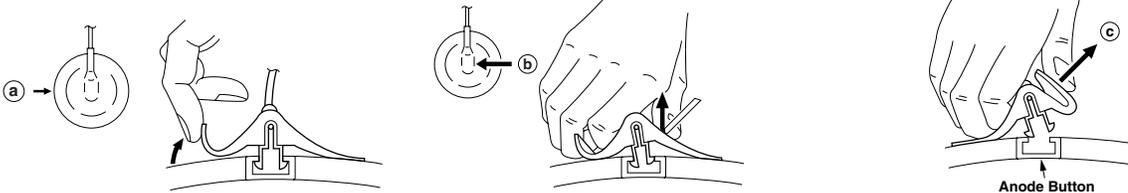
1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
3. Remove speaker assemblies.
4. Remove the C Board from the CRT.
5. Remove the chassis assembly.
6. Loosen the neck assembly fixing screw and remove.
7. Loosen the deflection yoke fixing screw and remove.
8. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
9. Remove the degaussing coils.
10. Remove the CRT grounding strap and spring tension devices.
11. 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

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

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

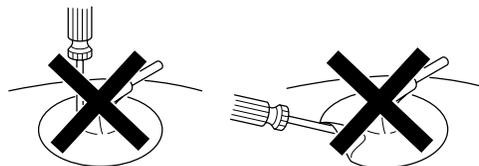
### REMOVAL PROCEDURES



- ① Turn up one side of the rubber cap in the direction indicated by arrow **a**.
- ② Use your thumb to pull the rubber cap firmly in the direction indicated by arrow **b**.
- ③ When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow **c**.

### HOW TO HANDLE AN ANODE CAP

- ① Do not use sharp objects which may cause damage to the surface of the anode cap.
- ② 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 3 SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or when a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

Set the controls as follows unless otherwise noted:

VIDEO MODE: STANDARD (RESET)

Perform the adjustments in order as follows:

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

**Note:** Test equipment required:

- Color Bar Pattern Generator
- Degausser
- DC Power Supply
- Digital Multimeter

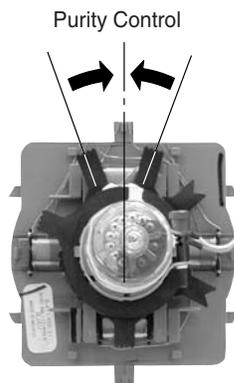
### 3-1. BEAM LANDING

Before beginning adjustment procedure:

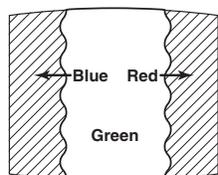
- Face the picture tube in East or West direction to reduce the influence of geomagnetism.

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

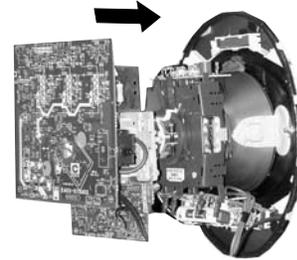
1. Input white pattern from pattern generator. Set the PICTURE control to maximum and BRIGHTNESS control to standard.
2. Perform Focus, G2 and White Balance adjustments.
3. Loosen the deflection yoke mounting screw and set the purity control to the center as shown below.



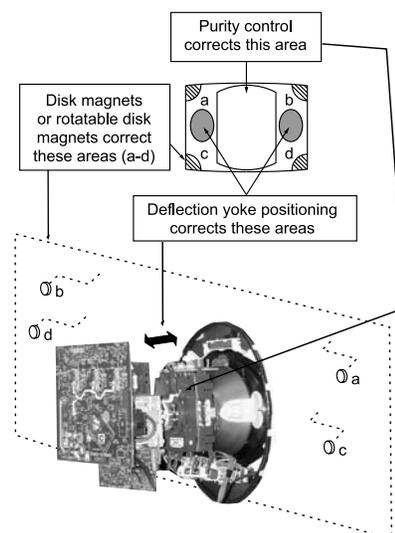
4. Input a green pattern from the pattern generator.
5. Move the deflection yoke backwards and adjust the purity control so that green is in the center and red and blue are even on both sides.



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



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



### 3-2. V-PIN and V-CEN ADJUSTMENT

Before beginning adjustment procedure:

- Input a cross hatch pattern signal.
- Face the picture tube in North/South direction and correct rotation.
- Video Mode: Standard (Reset)

1. Adjust service mode CXA2150D-1 04 VCEN so that top pin and bottom pin are symmetrical from top to bottom.
2. Adjust service mode CXA2150D-1 05 VPIN so top and bottom pin are symmetrical from top to bottom.
3. Lines should be straight from left to right. Check landing for side effect.

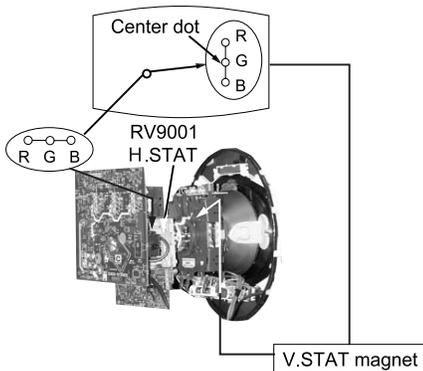
### 3-3. CONVERGENCE ADJUSTMENT

Before starting convergence adjustments:

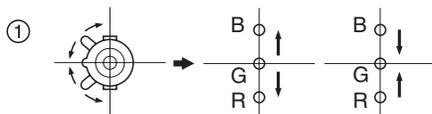
- Set CONTRAST AND BRIGHTNESS control to 50%.
- Input dot pattern signal.

#### Vertical and Horizontal Static Convergence

1. Disconnect dynamic convergence before adjusting static convergence (CN5510), except for minor touch-up.
2. Adjust H.STAT convergence, RV 9001, to converge red, green and blue dots in the center of the screen.
3. Adjust V.STAT magnet to converge red, green and blue dots in the center of the screen.



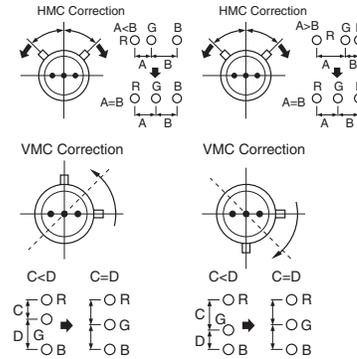
4. Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.



### Operation of BMC (Hexapole) Magnet

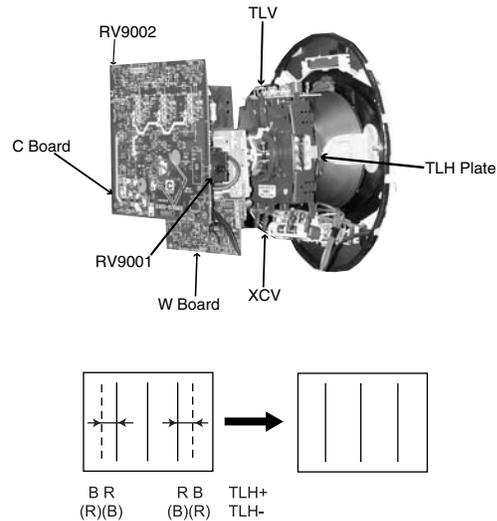
The respective dot positions resulting from moving each magnet interact, so perform the following adjustment while tracking.

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.)



### TLH Plate Adjustment

- Input crosshatch pattern.
- Adjust unbalanced horizontal convergence of red and blue dots by adjusting TLH plate on the deflection yoke.



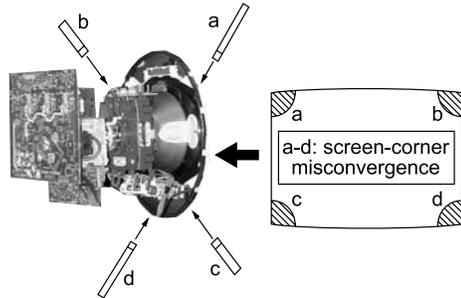
1. Adjust XCV core to balance X axis.
2. Adjust vertical red and blue convergence with V.TILT (TLV VR).

Note: Perform adjustments while tracking item 1.

**Screen-Corner Convergence**

- Input crosshatch pattern.

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



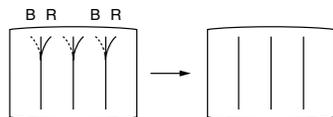
**Dynamic Convergence Adjustments**

Set dynamic convergence using the following service mode adjustment data:

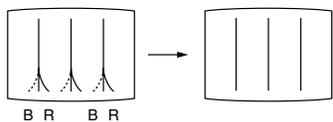
**CXA 8070 AP**

NO.	Register	Function	Data Length	Initial Data
1	YBWU	VCA9	0-63	31
2	YBWL	VCA10	0-63	31
3	RSAP	DC-AMP1	0-63	31
4	RUBW	VCA5	0-63	31
5	RLBW	VCA6	0-63	31
6	LSAP	DC-AMP2	0-63	31
7	LUBW	VCA10	0-63	31
8	LLBW	VCA2	0-63	31

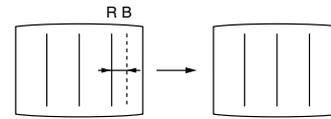
1. YBWU (UPPER Y-BOW)



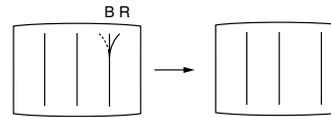
2. YBWL (BOTTOM BOW)



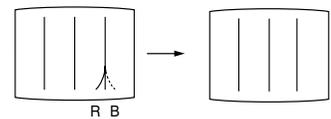
3. RSAP (RIGHT AMP)



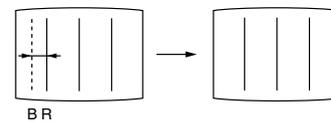
4. RUBW (RIGHT SIDE UPPER C-BOW)



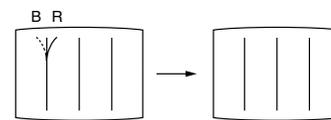
5. RLBW (RIGHT SIDE BOTTOM C-BOW)



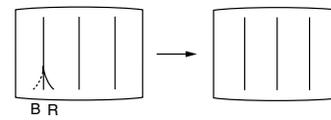
6. LSAP (LEFT AMP)



7. LUBW (LEFT SIDE UPPER C-BOW)



8. LLBW (LEFT SIDE BOTTOM C-BOW)



### 3-4. FOCUS ADJUSTMENT

1. Input Monoscope signal.
2. Set VIDEO MODE: Standard (RESET).
3. Adjust focus VR counter-clockwise to confirm the dot's shape is centered.
4. Confirm center focus with focus VR.



### 3-5. SCREEN (G2)

1. Input a monoscope pattern. (NTSC)
2. Set to service mode and adjust as follows:

#### CXA 2150P-2

No.	Disp.	Item	Avg.
00	ALBK	ALL_BLK	0

3. Adjust RV9002 on the C Board so that voltage on red, green and blue cathodes is  $170.0 \pm 0.5V$  DC.
4. Adjust horizontal line at top of screen so it is cutoff.

Note: Never set ALBK to 1 when external power supply is connected to cathode.

### 3-6. PICTURE QUALITY ADJUSTMENT

#### Initial set-up condition

1. Set PRO MODE (Picture : MAX, GAMMA :0)
2. Dynamic-color: Off (=Trinitone: MID).
3. Set the service mode to the following:

#### C2150P-4

No.	Name	Control Function	Avg. Data
06	UDCL	Dynamic Color: OFF	0
08	UGRAM	GRAMMA	0
15	DCTR	DC-TRAN	0
16	DPIC	DYNAMIC PIC:OFF	0

4. Input Signal (480i):

Color Bar Video 75 IRE (White) 75% modulation  
7.5% Set-up

Color Bar RF 75 IRE (White) 75% modulation  
7.5% Set-up

### 3-6-1. VIDEO INPUT -Two Picture Sub Contrast Adjustment

1. Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
2. Set picture mode: P&P (PRO MODE).
3. Set to service mode and adjust as follows:

#### 2150P-4

No.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	0

#### 2150P-2

No.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

#### INITIAL DATA (IMPORTANT)

#### 2150P-4

No.	Name	Control Function	Avg. Data
23	SCON	SUB-CONT	9

#### 2103-1

No.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

#### 2103-2

No.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

4. Connect oscilloscope to Pin 1 of CN9001 (R. DRV) on C Board.
5. Adjust MAIN (left) side contrast according to service mode for SCON.

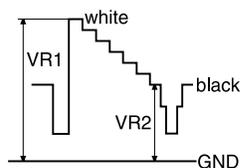
#### 2103-1

No.	Name	Control Function
02	SCON	SUB-CONT

6. Adjust SUB (right) side contrast according to service mode for SCON.

#### 2103-2

No.	Name	Control Function
02	SCON	SUB-CONT



$$32": VR1-VR2 = \Delta VR = 1.92 \pm 0.05 V_{p-p}$$

$$36"/38": VR1-VR2 = \Delta VR = 2.0 \pm 0.05 V_{p-p}$$

7. Write data from 5 and 6 above into memory.

### 3-6-2. VIDEO INPUT - Sub Hue/Sub Color Adjustment

1. Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
2. Set picture mode: P&P (PRO MODE).
3. Set to service mode and adjust as follows:

#### 2150P-4

No.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	31

#### 2150P-2

No.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

4. Connect oscilloscope to Pin 5 of CN9001 (B. DRV) on C Board.
5. Adjust MAIN (left) side color according to service mode for SCOL.
6. Adjust MAIN (left) side color according to service mode for SHUE.

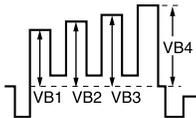
#### 2103-1

No.	Name	Control Function
03	SCOL	SUB-COL
04	SHUE	SUB-HUE

7. Adjust SUB (right) side color according to service mode for SCOL.
8. Adjust SUB (right) side color according to service mode for SHUE.

#### 2103-2

No.	Name	Control Function
03	SCOL	SUB-COL
04	SHUE	SUB-HUE



*COLOR:  $VB1 \leq VB4$  ( $=VB1 + 0\sim 90mV$ )*

*HUE:  $VB2 \leq VB3$  ( $=VB2 + 0\sim 90mV$ )*

*(HUE: Adjust data - 2 step)*

9. Write data into memory.

### 3-6-3. RF INPUT Two Picture Sub Contrast Adjustment

1. Input a Color Bar signal to RF (75 IRE 75%).
2. Set picture mode: P&P. (PRO MODE)
3. Set to service mode and adjust as follows:

#### 2150P-4

No.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	0

#### 2150P-2

No.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

#### INITIAL DATA (IMPORTANT)

#### 2150P-4

No.	Name	Control Function	Avg. Data
23	SCON	SUB-CONT	9

#### 2103-1

No.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

#### 2103-2

No.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

Note: Use the same average data as 3-6-1 items 5 and 6 after the adjustment.

4. Connect oscilloscope to Pin 1 of CN9001 (R. DRV) on C Board.
5. Adjust MAIN (left) side contrast according to service mode for SCON.

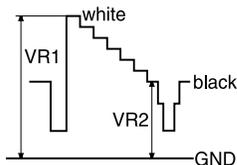
#### 2103-1

No.	Name	Control Function
02	SCON	SUB CONT

6. Adjust SUB (right) side contrast according to service mode for SCON.

2103-2

No.	Name	Control Function
02	SCON	SUB CONT



$$32": VR1-VR2 = \Delta VR = 1.92 \pm 0.05V_{p-p}$$

$$36"/38": VR1-VR2 = \Delta VR = 2.0 \pm 0.05V_{p-p}$$

7. Write data from 5 and 6 above into memory.

### 3-6-4. RF INPUT-Sub Hue/Sub Color Adjustment

1. Input a Color Bar signal to RF (75 IRE 75%).
2. Set picture mode: P&P (PRO MODE).
3. Set to service mode and adjust as follows:

2150P-4

No.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	31

2150P-2

No.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

#### INITIAL DATA (IMPORTANT)

2150P-4

No.	Name	Control Function	Avg. Data
24	CLOF	OFFSET for UCOL	8
25	HUOF	OFFSET for UHUE	4

2103-1

No.	Name	Control Function	Avg. Data
01	CLEV	CB & CR-OUT	17
20	CBOF	CB- OFFSET	31
21	CROF	CR-OFFSET	31

2103-2

No.	Name	Control Function	Avg. Data
01	CLEV	CB & CR-OUT	17
20	CBOF	CB- OFFSET	31
21	CROF	CR-OFFSET	31

Note: Use the same average data as 3-6-2 items 5,6,7,8 after the adjustment.

4. Connect oscilloscope to Pin 5 of CN9001 (B. DRV) on C Board.

5. Adjust MAIN (left) side color according to service mode for SCOL.

6. Adjust MAIN (left) side color according to service mode for SHUE.

2103-1

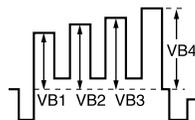
No.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE

7. Adjust SUB (right) side color according to service mode for SCOL.

8. Adjust SUB (right) side color according to service mode for SHUE.

2103-2

No.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE



$$COLOR: VB1 \leq VB4 (=VB1 + 0 \sim 90mV)$$

$$HUE: VB2 \leq VB3 (=VB2 + 0 \sim 90mV)$$

(HUE: Adjust data - 2 step)

8. Write data into memory.

### 3.7 WHITE BALANCE (CRT) AND SUB BRIGHT ADJUSTMENT

#### White Balance

1. Input an all white 480I (15.734KHz) signal into the VIDEO 1 input terminal to perform the white balance (highlight, cut-off) adjustments. The parameters to adjust are in the CXA2150P in service mode.

2. Set the following:

Picture: Full Mode  
Pro Mode

Color: Center

3. Adjust white balance in the service mode and set the following data:

2150P-1

No.	Name	Control Function	Avg. Data
05	RDRV	R-DRIVE	Fix: 41
06	GDRV	G-DRIVE	Adjust
07	BDRV	B-DRIVE	Adjust
08	RCUT	R-CUT OFF	Fix: 41
09	GCUT	G-CUT OFF	Adjust
10	BCUT	B-CUT-OFF	Adjust

4. Adjust sub-brightness: Input an all black signal (to IRE 7.5% set up) 480i (15.75KHz) signal into the VIDEO 1 input terminal and adjust the following parameter of the CXA2150P-1.

CXA2150P-1

No.	Name	Control Function	Avg. Data
04	SBRT	SUB-BRIGHT	Adjust

5. Check **INITIAL DATA (Important)**

2150P-1

No.	Name	Control Function	Avg. Data
00	SBOT	SUB-BRT OFFSET	7
12	SBOF	SUB-BRT OFFSET	63

6. Repeat steps 3 to 5.

**3-8. RASTER CENTER ADJUSTMENT**

- Input a monoscope signal.
- Set to NTSC (DRC) mode.
- Enter service mode and set the following:

CXA2150P-2

No.	Name	Control Function	Avg. Data
06	AGNG	AGING1, AGING2	2

CXA2150D-2

No.	Name	Control Function	Avg. Data
02	HSIZ	Horiz Size	31

CXA2150D-3

No.	Name	Control Function	Avg. Data
00	HBLK	Blanking enable	0

- Reduce HSIZ to see sides of raster.
- Adjust H-Center with CXA2150D-2 00.
- Adjust the best screen position with H-CENT and write data.
- Restore aging, HSIZ and HBLK to original condition.

**3-9. PICTURE DISTORTION ADJUSTMENTS****3-9-1. NTSC (DRC) Full mode adjustment**

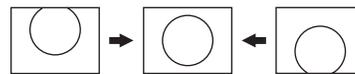
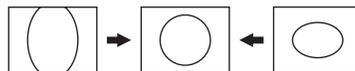
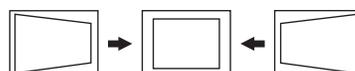
- Face picture tube to east or west direction.
- Complete VPIN and VCEN adjustment first. (A2150-D1 05 VPIN, A2150-D1 04 VCEN)
- Input a monoscope and a cross-hatch signal. Adjust picture distortion with the following service parameters to balance the best condition for these two signals.

A2150-D1	00	VPOS
A2150-D1	01	VSIZ
A2150-D1	02	VLIN
A2150-D1	03	VSCO
A2150-D1	04	VCEN
A2150-D1	05	VPIN
A2150-D1	07	HTPZ

A2150-D2	01	HPOS
A2150-D2	02	HSIZ
A2150-D2	03	SLIN
A2150-D2	05	PIN
A2150-D2	06	UCP
A2150-D2	07	LCP
A2150-D2	13	PPHA
A2150-D2	14	VANG
A2150-D2	15	LANG
A2150-D2	16	VBOW
A2150-D2	17	LBOW

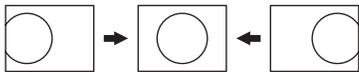
Make sure picture size is within specs. Vertical size is 11.8 sq. and Horizontal size is 15.8 sq.

- Write data into memory then set screen to 1080i Mode.

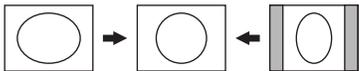
**CXA2150D-1****0. VPOS ( V-POSITION)****1. VSIZ (V-SIZE)****2. VLIN (V-LINE)****3. VSCO (VS-COR)****7. HTPZ (H-TRAPEZOID)**

**CXA2150D-2**

## 1. HPOS (H-POSITION)



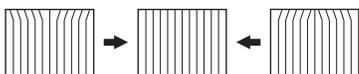
## 2. HSIZ (H-SIZE)



## 5. PIN (PIN AMP)



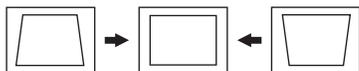
## 6. UCP (UP COR PIN COR)



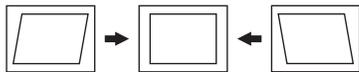
## 7. LCP (LOW CO PIN COR)



## 13. PPHA (PIN PHASE)



## 14. VANG (AFC-ANGLE)



## 15. LANG (L-ANGLE)



## 16. VBOW (AFC-BOW)



## 17. LBOW (L-BOW)

**3-9-2. 1080i HD mode adjustment**

1. Input a 1080i HD cross-hatch signal and an HD monoscope signal that contains overscan markers.
2. Adjust raster position per section 3-8 only if this procedure was not performed for full mode.
3. Adjust geometry similar to Full DRC mode. Vertical size is 11.8 sq. and Horizontal size is 15.8 sq if monoscope signal is available. Otherwise use Vertical size as 91.5% scan, Horizontal size as 90% scan.
4. Use the following register to adjust the horizontal parameter:  
A2150-D2 01 HPOS

If necessary, touch up geometry using the data register listed above for Full mode.

5. Write data into memory.

**3-9-3. Vertical Compressed Mode Check and Confirmation**

1. Input a monoscope and a cross-hatch signal.
2. Check vertical compressed mode.

## SECTION 4 SAFETY RELATED ADJUSTMENTS

### ☒ RV8001, RV8002, RV8003 CONFIRMATION METHOD AND HV SERVICE ADJUSTMENTS

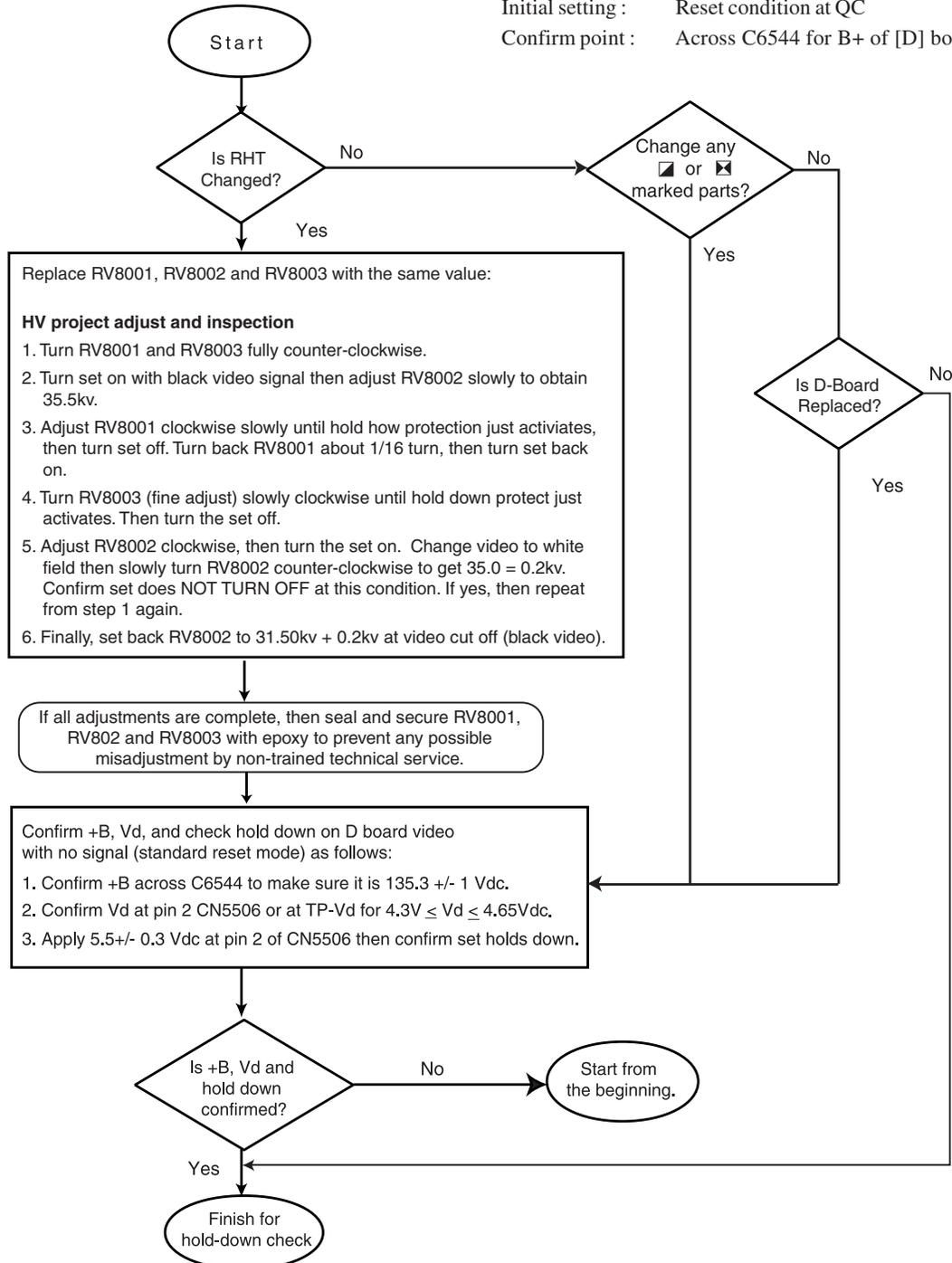
**B+ Max Confirmation:** Standard:  $135.3 \pm 1$  VCD

Check Condition: AC input voltage : 120 ( $\pm 2$ ) VAC at Board Adjustment Process  
 130 ( $\pm 2$ ) VAC at QC  
 120 ( $\pm 2$ ) VAC at Overall Adjustment (After aging)

\*Note: If using stabilized power supply, make sure the distortion factor is 3% or less.

Setting Mode: Full mode  
 Signal input : Cross hatch of NTSC at QC  
 Initial setting : Reset condition at QC  
 Confirm point : Across C6544 for B+ of [D] board.

#### HV Service Flowchart



## SECTION 5 CIRCUIT ADJUSTMENTS

### ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

Use the Remote Commander (RM-Y74) to perform the circuit adjustments in this section.

NOTE: Test Equipment Required:

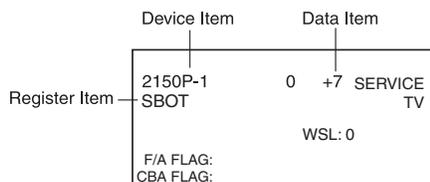
- 1) Pattern generator
- 2) Frequency counter
- 3) Digital multimeter
- 4) Audio oscillator

#### 5-1. SETTING THE SERVICE ADJUSTMENT MODE

1. Standby mode (power off).
2. Press each of the following buttons on the remote within a second of each other:

Display → Channel [5] → Sound volume [+] → Power

#### SERVICE ADJUSTMENT MODE VIEW



#### Reading the Memory

1. Enter into Service Mode
2. Press 0 on the remote commander.
3. Press ENTER to read memory.

#### Adjusting the Picture

1. Enter into Service Mode.
2. Press 2 or 5 on the remote to select the device item.
2. Press 1 or 4 on the remote to select an item.
3. Press 3 or 6 on the remote to change the data.
4. Press MUTING then ENTER to save into the memory.

#### RESETTING THE DATA

**Note:** Be careful when using the remote! It will clear and reinitialize ALL NVM data including deflection adjustment data if not reset properly as follows:

#### Resetting the Deflection NVM Data

1. Enter into Service Mode.
2. Press 7, MENU, and then press Enter on the remote.

#### Resetting the System NVM Data

1. Enter into Service Mode.
2. Press 7, then 9, and then press Enter on the remote.

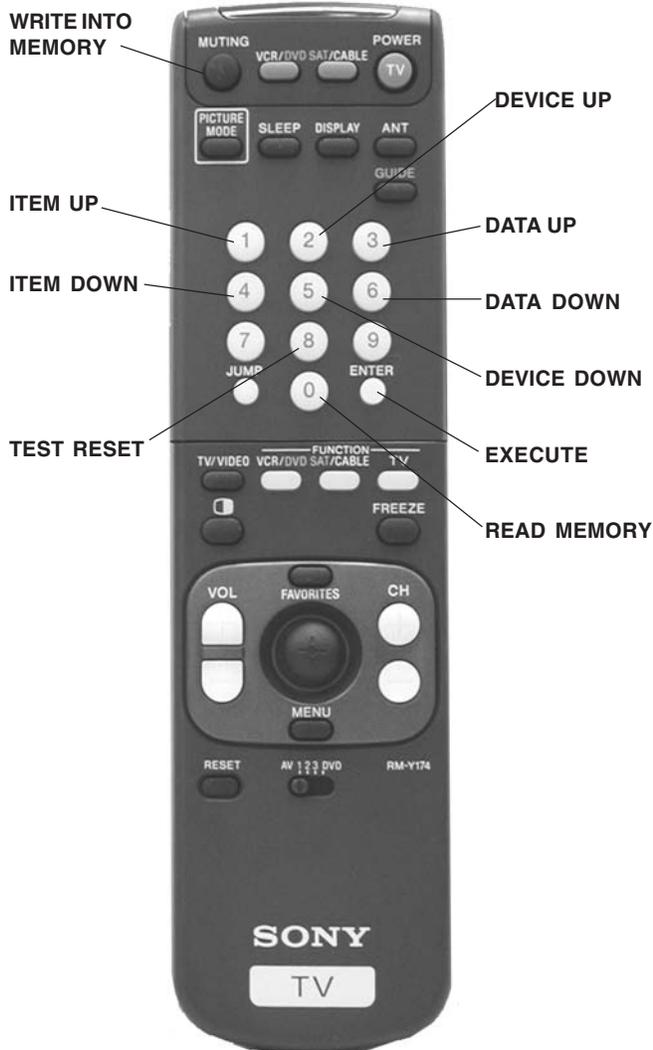
#### Resetting the User Data

1. Enter into Service Mode.
2. Press 8, and then press Enter on the remote.

#### 5-2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, remove the power plug from the AC outlet, then plug it in again.
2. Turn the power switch ON and set to service mode.
3. Call the adjusted items again to confirm they were adjusted properly.

#### 5-3. ADJUSTMENT BUTTONS AND INDICATORS



RM-Y174

5-4. SERVICE DATA LISTS

**DX1A Service List ----- Contents & Notes**

Category Number & Name	Device Name	Device Reference Number	Slave Address	Comment
# 1	<b>3D-COMB</b>	μPD64082	IC3501 / BC-board	B8h (W) & B9h (R) W&R: Write & Read
# 2-1	<b>CXA2103-1 (Main)</b>	CXA2103Q	IC3048 (Main) / B-board	9Ah
# 2-2	<b>CXA2103-2 (Sub)</b>		IC3110 (Sub) / B-board	9Eh
# 3-1	<b>CXA2150P-1</b>	CXA2150Q	IC201 / A-board	86h
# 3-2	<b>CXA2150P-2</b>			
# 3-3	<b>CXA2150P-3</b>			
# 3-4	<b>CXA2150P-4</b>			
# 4-1	<b>CXA2150D-1</b>	CXA2150Q	IC201 / A-board	86h
# 4-2	<b>CXA2150D-2</b>			
# 4-3	<b>CXA2150D-3</b>			
# 5	<b>CXA2151</b>	CXA2151Q	IC3001 / B-board	84h
# 6	<b>D-CONV</b>	CXA8070P	IC5513 / D-board	DEh
# 7	<b>CXA2026</b>	CXA2026AS	IC5511 / D-board	8Eh
# 8	<b>AP</b>	BH3868FS	IC7001 / A-board	82h
# 9	<b>TRUS</b>	NJM2180M	IC4101 / S-board	2Eh Controlled through CXA1315M ( IC4103 / S-board / 48h )
# 10	<b>MID1</b>	CXD9509AQ	IC3408 / B-board	2Eh Controlled through MID-XA Micro ( IC3090 / B-board /
# 11	<b>MID2</b>	CXD9509AQ	IC3408 / B-board	2Eh Controlled through MID-XA Micro ( IC3090 / B-board /
# 12	<b>MID3</b>	CXD9509AQ	IC3408 / B-board	2Eh Controlled through MID-XA Micro ( IC3090 / B-board /
# 13	<b>MID5</b>	CXD9509AQ	IC3408 / B-board	2Eh Controlled through MID-XA Micro ( IC3090 / B-board /
# 14	<b>OSD</b>	M306V2ME-150or151FP	IC701 / A-board	60h System Micro {V1.0 with Patch-B or V2.0 with Patch-A}
# 15	<b>SNNR</b>	μPD64082	IC3501 / BC-board	B8h (W) & B9h (R)
		CXA2103Q	IC3048 (Main) / B-board	9Ah
		CXA2150Q	IC201 / A-board	86h
# 16	<b>ID1</b>	CXD2085M	IC3603 / B-board	40h
# 17	<b>CCD&amp;VCHIP</b>	CXP85840A-039Q	IC3602 (Main) / B-board	68h (Main)
			IC3601 (Sub) / B-board	6Ch (Sub)
# 18	<b>OP</b>	M306V2ME-150or151FP	IC701 / A-board	60h System Micro {V1.0 with Patch-B or V2.0 with Patch-A}
# 19	<b>ID</b>	M306V2ME-150or151FP	IC701 / A-board	60h System Micro {V1.0 with Patch-B or V2.0 with Patch-A}
<b>DX1A System Micro &amp; Notes for Services</b>	M306V2ME-150FP (MASK), Software Version 1.0 with ROM correction Patch-B, IC701/A-board (Slave Address: 60h)			
	M306V2ME-151FP (MASK), Software Version 2.0 with ROM correction Patch-A, IC701/A-board (Slave Address: 60h)			
	V1.0-micro/A-board works with V1.0/Patch-B/D-board: GOOD (Designed V1.0 micro-based sets, No LED-flashing for Self Diagnostics)			
	The system micro name, software&patch versions, and the status of NVM devices are displayed only when in the service category (#19): ID.			
<b>DX1A MID-XA Micro</b>	MB94918RPF-G-128-BND (MASK), Software Version 03/30/00, IC3090/B-board (Slave Address: 64h)			
	MB94918RPF-G-130-BND (MASK), Software Version 04/20/00, IC3090/B-board (Slave Address: 64h)			
<b>DX1A CCD&amp;Vchip Micros</b>	CXP85840A-039Q (MASK), Software Version 2.14, IC3602/B-board (Main/Slave Address: 68h) & IC3601/B-board (Sub/Slave Address: 6Ch)			

**DX1A SERVICE LIST (#1): 3D-COMB /  $\mu$ PD64082 (Part-1/2)**

**Device Name:**  $\mu$ PD64082GF { 3D-Comb Filter / NEC } / IC3501 (BC-board) / P/N: 8-759-594-44 (SB#: V7372)

**Slave Address:** B8h (Write Address) / B9h (Read Address)

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Comment			
				UHF/VHF & CVideo		SVideo					
				Standard	Non-standard	Standard	Non-standard				
0	<b>NRMD</b> Operation mode setting		0~3	0	1	3	3	CVideo (CV): CVideo1~4 inputs SVideo (SV): SVideo1~3 inputs			
1	<b>YAPS</b> Y-output correction (V-aperture compensation & Y-peaking filtering)	C	0~3	3				C: Common data			
2	<b>CLKS</b> System clock setting	C	0~3	1							
3	<b>NSDS</b> Selection for standard/non-satndard signal processing		0~3	0	0	0	0				
4	<b>MSS</b> Selection for inter-frame/inter-line processing	C	0~3	0							
5	<b>KILS</b> Killer processing selection	C	0~3	1							
6	<b>CDL</b> C-signal phase with respect to the Y-signal (Fine adjustment at 70 ns/step)	C	0~7	3							
<b>NRMD Setting-based Control Table for DYCO, DYGA, DCCO, DCGA</b>				NRMD = 0	NRMD = 1	NRMD = 2	NRMD = 3				
7	<b>DYCO</b> DY detection coring level (Y motion detection coring)		0~15	2	2	2	2				
8	<b>DYGA</b> DY detection gain (Y motion detection gain)		0~15	10	10	10	10				
9	<b>DCCO</b> DC detection coring level (C motion detection coring)		0~15	5	5	5	5				
10	<b>DCGA</b> DC detection gain (C motion detection gain)		0~15	5	5	5	5				
11	<b>YNRL</b> Frame recersive YNR nonlinear filter limit level	C	0~3	1							
12	<b>CNRL</b> Frame recersive CNR nonlinear filter limit level	C	0~3	1							
13	<b>VTRH</b> Hysteresis for Hsync non-standard signal detection (out-of-Hsync intra-field)		0~3	1	1	1		Video1~4: CVideo1~4 & SVideo1~3 inputs Video5&6: YPbPr-480i/480p/1080i inputs			
14	<b>VTRR</b> Sensitivity for Hsync non-standard signal detection (out-of-Hsync intra-field)		0~3	1	1	1					
15	<b>LDSR</b> Sensitivity for frame non-standard signal detection (out-of-Hsync inter-frame)		0~3	2	2	2					
<b>VM&amp;SNNR Setting-based Control Table for VAPG &amp; VAPI</b> VAPG= VAPG1 - VAPG2				<b>VAPG1 Data Based on MENU/VM Setting</b>				<b>VAPG2 Data Based on SNNR/Offset-setting</b>			
16	<b>VAPG</b> V-aperture compensation gain		0~7	VM = Off	VM = Low	VM = Mid	VM = High	SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3
17	<b>VAPI</b> V-aperture compensation convergence point		0~31	0	2	3	4	0	0	0	0
				4	4	4		4 (32V) Or 8 (36V) {Initial/CBA Data = 8}			
				<b>SNNR Setting (-Offset)</b>							
18	<b>YPFT</b> Y peaking filter (BPF) center frequency		0~3	SNNR = 0	SNNR = 1	SNNR = 2					SNNR = 3
19	<b>YPPG</b> Y peaking filter (BPF) gain		0~15	0	0	0					0
				7	0	1	2				3

Note:

**DX1A SERVICE LIST (#1): 3D-COMB /  $\mu$ PD64082 (Part-2/2)**

Register No. & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)							Comment
SNNR Setting-based Control Table for YHCO & YHCG				SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3				(Not SNNR Offset Data)
20	<b>YHCO</b> Y output high frequency component coring		0~3	1	1	1	1				YHCO&YHCG settings are sent directly to 3D-Comb device.
21	<b>YHCG</b> Y output high frequency component coring gain		0, 1	0	0	0	0				
22	<b>HSSL</b> Hsync slice level	C	0~15	12	C: Common data						
23	<b>VSSL</b> Vsync slice level	C	0~15	8							
24	<b>ADCL</b> ADC clock delay	C	0~3	3							
NRMD Setting-based Control Table for D2GA				NRMD = 0	NRMD = 1	NRMD = 2	NRMD = 3				
25	<b>D2GA</b> Moving detection gain		0~7	4	4	4	4				
26	<b>KILR</b> Killer detection reference	C	0~15	3							
27	<b>OPI</b> Option1: Selection of comb filter & recursive noise reduction types	C	0, 1	1							
28	<b>NR1</b> Noise reduction on/off		0, 1	<b>UHF/VHF</b>	<b>CVideo1</b>	<b>SVideo1</b>	<b>CVideo2</b>	<b>SVideo2</b>	<b>CVideo3</b>	<b>SVideo3</b>	
29	<b>NR2</b> SNNR control on/off	C	0, 1	0	0	1	0	1	0	1	
30	<b>WSL</b> Noise level detection data		0~255	0	1 Byte Data from Read Register WSL						
31	<b>HPLL</b> H-PLL filter (Must be set to 1 when MN signal is input.)	C	0, 1	1							
32	<b>BPLL</b> Burst PLL filter	C	0, 1	1							
33	<b>FSCF</b> Burst extraction gain	C	0, 1	0							
34	<b>PLLF</b> PLL loop gain	C	0, 1	1							
35	<b>CC3N</b> Selection of a line-comb filter C separation filter characteristic		0, 1	<b>UHF/VHF</b>	<b>Video1~4</b>	<b>Video5&amp;6</b>	<b>Video1~4:</b> CVideo1~4 & SVideo1~3 inputs				
36	<b>HDP</b> Fine adjustment of the system H-phase	C	0~7	0	0	0	<b>Video5&amp;6:</b> YPbPr-480i/480p/1080i inputs				
37	<b>BGPS</b> Internal burst gate start position {Gate Start Position from Hsync center = 0.25 x BGPS + 2}	C	0~15	5							
38	<b>BGPW</b> Internal burst gate width {Gate Width = 0.25 x BGPW + 0.5 (ms)}	C	0~15	4							
39	<b>TEST</b> Test bit {0: Normal mode, 1: Test mode (forbidden setting)}	C	0, 1	10							
40	<b>WSC</b> Amount of noise detection coring	C	0~3	0							
41	<b>LIND</b> DRC-M line-doubling setting for non-standard signals	Micro	0~63	1							
42	<b>PFGO</b> (YPFG offset at GR on) --- Not used for DX1A	---	0~7	<b>UHF/VHF &amp; Video1~4</b>	<b>Video5&amp;6</b>	This setting is used for non-standard signals such as Play Station signals.					
				0	2						
				3	(Not used for DX1A)						
Note:											

**DX1A SERVICE LIST (#2-1): CXA2103-1 {Main}**

**Device Name:** CXA2103Q { NTSC-YCT (Chroma Decoder) / SONY } / IC3048 (B-board) / P/N: 8-752-089-50 (SBorSD#: NA)

**Slave Address:** 9Ah { Main }

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Setting & [Average Data] (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Note
				UHF/VHF & Video		YPbPr-480i		UHF/VHF		Video		
				P&P-Left (M)-DRC	P&P-Left (M)-1080i	P&P-Left (M)-DRC	P&P-Left (M)-480i	SNNR=0 (-offset)	SNNR=1 (-offset)	SNNR=2 (-offset)	SNNR=3 (-offset)	
0	YLEV	Y-Out gain	0~63	23	27*	28	31*	0	1	2	3	Video: CVideo1~4 & SVideo1~3 Inputs P&P-Left (M)-1080i&480i: If P&P-Left is 1080i/480p signal, the signal from the main chroma decoder is sent to MID/VDO input. *: Settings not used  Adj.: Adjusted data [Adj.-2steps]: The adjusted data - 2 steps
1	CLEV	Cb&Cr-Out gains	0~63	17	55*	32	31*					
2	SCON	Sub contrast	Adj. 0~15	7 [7]		7 [7]						
3	SCOL	Sub color	Adj. 0~15	7 [7]		7 [7]						
4	SHUE	Sub hue	Adj. 0~15	7 [Adj.-2steps]		7 [Adj.-2steps]						
5	YDLY	Y/C delay time	0~3	0		0						
SNNR Data-related Settings				UHF/VHF	CVideo	SVideo	YPbPr-480i					
6	SHAP	Sharpness	0~15	6	4	4	4					CVideo: CVideo1~4 Inputs SVideo: SVideo1~3 Inputs
7	SHF0	Sharpness f0 selector	0~3	0	0	0	0					
8	PREO	Sharpness pre/over-shoot ratio	0~3	3	0	0	0					
9	BPF0	Chroma band filter f0 setting	0~3	3	0	0	0					
10	BPFQ	Chroma band filter Q setting	0~3	0	3	3	3					
11	BPSW	Chroma band filter on/off	0, 1	1	0	0	0					
12	TRAP	Y bolck chroma trap filter on/off	0, 1	0	0	0	0					
13	LPF	YPbPr-Output LPF on/off	0, 1	0	0	0	0					
				UHF/VHF	Video	YPbPr-480i						
14	AFCG	AFC Loop Gain (PLL between Hsync	0, 1	1	0	0						
15	CDMD	V countdown system mode selector	0~3	3	3	3						
16	SSMD	H&Vsync slide level setting	0~3	0	0	0						
17	HMSK	Masking of macrovision signal on/off	0, 1	1	1	1						
18	HALI	H automatic adjustment on/off	0, 1	0	0	0						
19	PPHA	H TIM phase adjustment for video	0~15	7	7	7						
				UHF/VHF & Video		YPbPr-480i						
				P&P-Left (M)-DRC	P&P-Left (M)-1080i	P&P-Left (M)-DRC	P&P-Left (M)-480i					*: Settings not used (31): The center setting = 31
20	CBOF	Cb-Offset1 of Cb IN (Pin34) Cb-Offset2 of EXT Cb (Pin38)	0~(31)~63	31	31*	31	31*					
21	CROF	Cr-Offset1 of Cr IN (Pin35) Cr-Offset2 of EXT Cr (Pin39)	0~(31)~63	31	31*	31	31*					
CXA2150P-4#13 UBLK Setting-related Controls for ATPD & DCTR				P&P & Favorite				P&P & Favorite				Single
				UBLK = 0	UBLK = 1	UBLK = 2	UBLK = 3	UBLK = 4	UBLK = 5	UBLK = 6	UBLK = 7	UBLK = 0-7
22	ATPD	Auto-pedestal Inflection Point	0~3	0	1	2	3	1	2	3	2	0
23	DCTR	DC Transmission Ratio	0~3	0	1	1	1	2	2	2	3	0

Note:

**DX1A SERVICE LIST (#2-2): CXA2103-2 {Sub}**

**Device Name:** CXA2103Q { NTSC-YCT (Chroma Decoder) / SONY } / IC3110 (B-board) / P/N: 8-752-089-50 (SBorSD#: NA)

**Slave Address:** 9Eh { Sub }

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Setting & [Average Data] (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Note
				<b>UHF/VHF &amp; Video</b>				<b>Video: CVideo1~4 &amp; SVideo1~3 Inputs</b>				
				P&P-Right (S)	P&P-Right (S)-DRC			P&P-Right (S)-DRC: If P&P-Left is 1080i/480p signal, the signal from the sub chroma decoder is switched to DRC path.				
0	YLEV	Y-Out gain	0~63	23	22							
1	CLEV	Cb&Cr-Out gains	0~63	18	16							
				<b>UHF/VHF</b>		<b>Video</b>						
2	SCON	Sub contrast	Adj. 0~15	7 [7]		7 [7]						
3	SCOL	Sub color	Adj. 0~15	7 [7]		7 [7]						
4	SHUE	Sub hue	Adj. 0~15	7 [Adj.-2steps]		7 [Adj.-2steps]						
5	YDLY	Y/C delay time	0~3	0		0						
		SNNR Data-related Settings		<b>UHF/VHF</b>	<b>CVideo</b>	<b>SVideo</b>		<b>SNNR=0 (-offset)</b>	<b>SNNR=1 (-offset)</b>	<b>SNNR=2 (-offset)</b>	<b>SNNR=3 (-offset)</b>	
6	SHAP	Sharpness	0~15	6	4	4		0	1	2	3	
7	SHF0	Sharpness f0 selector	0~3	0	0	0						
8	PRE0	Sharpness pre/over-shoot ratio	0~3	3	0	0						
9	BPF0	Chroma band filter f0 setting	0~3	0	0	0						
10	BPFQ	Chroma band filter Q setting	0~3	0	0	0						
11	BPSW	Chroma band filter on/off	0, 1	0	0	0						
12	TRAP	Y bolck chroma trap filter on/off	0, 1	0	0	0						
13	LPF	YPbPr-Output LPF on/off	0, 1	0	0	0						
				<b>UHF/VHF</b>	<b>Video</b>							
14	AFCG	AFC Loop Gain	0, 1	1	0							
15	CDMD	V countdown system mode selector	0~3	3	3							
16	SSMD	H&Vsync slide level setting	0~3	0	0							
17	HMSK	Masking of macrovision signal on/off	0, 1	1	1							
18	HALI	H automatic adjustment on/off	0, 1	0	0							
19	PPHA	H TIM phase adjustment for video	0~15	7	7							
				<b>UHF/VHF &amp; CVideo</b>		<b>YPbPr-480i</b>						
				P&P-Right (S)	P&P-Right (S)-DRC	P&P-Right (S)	P&P-Right (S)-DRC					
20	CBOF	Cb-Offset1 of Cb IN (Pin34) Cb-Offset2 of EXT Cb (Pin38)	0~(31)~63	31	31	31*	31*					
21	CROF	Cr-Offset1 of Cr IN (Pin35) Cr-Offset2 of EXT Cr (Pin39)	0~(31)~63	31	31	31*	31*					
		CXA2150P-4#13 UBLK Setting-related Controls for ATPD & DCTR		<b>P&amp;P &amp; Favorite</b>				<b>P&amp;P &amp; Favorite</b>				<b>Single</b>
				<b>UBLK = 0</b>	<b>UBLK = 1</b>	<b>UBLK = 2</b>	<b>UBLK = 3</b>	<b>UBLK = 4</b>	<b>UBLK = 5</b>	<b>UBLK = 6</b>	<b>UBLK = 7</b>	<b>UBLK = 0-7</b>
22	ATPD	Auto-pedestal Inflection Point	0~3	0	1	2	3	1	2	3	2	0
23	DCTR	DC Transmission Ratio	0~3	0	1	1	1	2	2	2	3	0

Adj.: Adjusted data  
[Adj.-2steps]: The adjusted data - 2 steps

CVideo: CVideo1~4 Inputs  
SVideo: SVideo1~3 Inputs

\*: Settings not used  
(31): The center setting = 31

**Note:**

**DX1A SERVICE LIST (#3-1): CXA2150P-1 {Picture Controls: P1}**

**Device Name:** CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)  
**Slave Address:** 86h

Register No. & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)								Comment
0	<b>SBOT</b> Offset for SBRT		0~(7)~15	UHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	CV: CVideo1~4 SV: SVideo1~3 ( ): Settings at center  Adj.: Adjusted data C: Common data  Initial Setting = [Avg. Data]	
1	<b>YOF</b> Y_OFFSET: DC-offset for Y signal		0~(7)~15	7	7	7	7	7	7	7		
2	<b>CBOF</b> CB_OFFSET: DC-offset for Cb signal		0~(31)~63	0	0	0	0	0	0	0		
3	<b>CROF</b> CR_OFFSET: DC-offset for Cr signal		0~(31)~63	31	31	31	33	30	31	13		
4	<b>SBRT</b> SUB_BRIGHT: Sub Bright	Adj.	0~63	31	31	31	42	36	31	23		
5	<b>RDRV</b> R_DRIVE: R output drive	C	0~63	24 [24]								Vivid    Standard    Movie    Pro 0            0            1            0 (Cool)    (Neutral)    (Warm)
6	<b>GDRV</b> G_DRIVE: G output drive	Adj.	0~63	41								
7	<b>BDRV</b> B_DRIVE: B output drive	Adj.	0~63	36 [36]								
8	<b>RCUT</b> R_CUTOFF: R output cutoff	C	0~63	33 [33]								
9	<b>GCUT</b> G_CUTOFF: G output cutoff	Adj.	0~63	41								
10	<b>BCUT</b> B_CUTOFF: B output cutoff	Adj.	0~63	11 [11]								
11	<b>WBSW</b> WB_SW: White balance offset on/off (Related to UTMP settings)		0, 1	22 [22]								
12	<b>SBOF</b> Offset for SBRT		0~(63)~127	0								
13	<b>RDOF</b> Offset for RDRV		0~(63)~127	63								
14	<b>GDOF</b> Offset for GDRV		0~(63)~127	63								
15	<b>BDOF</b> Offset for BDRV		0~(63)~127	63								
16	<b>RCOF</b> Offset for RCUT		0~(63)~127	63								
17	<b>GCOF</b> Offset for GCUT		0~(63)~127	63								
18	<b>BCOF</b> Offset for BCUT		0~(63)~127	63								

\*\* : The color temperature offset data

**DX1A SERVICE LIST (#3-2): CXA2150P-2 {Picture Controls: P2}**

**Device Name: CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)**

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)					Comment	
0	<b>ALBK</b> PIC_ON: RGB output including AKB reference pulse on/off (Setting = 0 for power on reset) --- G2 adjustment register setting	C	0, 1	1					C: Common data	
1	<b>RGBS</b> R_ON/G_ON/B_ON: R/G/B outputs on/off (AKB reference pulse can not be turned on/off.) (0,1/0,1/0,1)	C	0~7	7						
2	<b>BLKB</b> BLK_BTM: RGB output bottom limit level (Black Limit) (AKB reference pulse DC-voltage)	C	0~3	3						
3	<b>LIML</b> PLIMIT_LEV: Threshold level for excessively high inputs (White Limit)	C	0~3	0						
4	<b>PABL</b> P_ABL: DC-level in RGB output detection for PEAK ABL	C	0~15	15						
5	<b>SABL</b> S_ABL: S_ABL gain	C	0~3	0						
6	<b>AGNG</b> AGING_W/AGING_B: AGING_W/AGING_B modes on/off (Set luminance to 80/01IRE flat-field signal.)	C	0~3 0,1/0,1	0						
7	<b>AKBO</b> AKBOFF: Automatic/Manual-Cutoff setting	C	0, 1	0						
					U/VHF & Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
8	<b>SYPH</b> SYNC_PHASE: Hsync delay with respect to Video (100%: H-period)		0~3		0	0	0	0	0	Video1~4: CVideo1~4 & SVideo1~3
9	<b>CLPH</b> CLP_PHASE: Internal clamp pulse phase (100%: H-period)		0~3		3	3	3	3	3	
10	<b>CLGA</b> CLP_GATE: Switch for the gated internal clamp pulse with Hsync		0, 1		0	0	0	0	0	
11	<b>JAXS</b> JAXIS: Color axis switch		0, 1		0					
12	<b>BLKO</b> BLKO: Blanking switch		0, 1		0					

**DX1A SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-1/3)**

**Device Name:** CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)

**Slave Address:** 86h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)								Comment
				Picture Mode: Vivid								
				UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P		
0	<b>SYSM</b>	SYSTEM: Signal bandwidth setting		0~3	1	1	1	1	1	2	2	These settings continue to the next page.  CV: CVideo1~4 SV: SVideo1~3  C: Common data  ( ): Settings at center
1	<b>UVML</b>	VM_LEV: VM_OUT level	C	0~3	3							
2	<b>VMMO</b>	System Micro pin#40		0, 1	0	0	0	0	0	0	0	
3	<b>VMCR</b>	VM_COR: VM_OUT coring level		0~3	3	3	3	3	3	3	3	
4	<b>VMLM</b>	VM_LMT: VM_OUT limit level		0~3	3	3	3	3	3	3	3	
5	<b>VMF0</b>	VM_F0: VM_f0		0~3	2	2	2	2	2	2	2	
6	<b>VMDL</b>	VM_DLY: VM_OUT phase (defined by phase difference from R_OUT)		0~3	3	3	3	3	3	1	3	
7	<b>SHOF</b>	Offset for USHP = SHOF x 4		0~3	2	2	2	3	3	0	2	
8	<b>SHF0</b>	SHP_F0: Sharpness circuit f0		0, 1	1	1	1	1	1	0	1	
9	<b>PROV</b>	PRE/OVER: Y signal pre/over-shoot ratio		0~3	3	3	3	1	3	0	3	
10	<b>F1LV</b>	SHP_F1: Sharpness for higher f0 (4.2/5.6 MHz @ NORMAL mode)		0~3	0	3	3	3	3	3	3	
11	<b>CDSP</b>	SHP_CD: Sharpness in part of high color saturaion		0~3	3	3	3	3	3	3	3	
12	<b>LTLV</b>	LTI_LEV: Luminance transient improvement (LTI)		0~3	3	3	3	3	3	3	3	
13	<b>LTMD</b>	LTI_MODE: LTI mode setting		0~3	0	0	0	0	0	0	1	
14	<b>CTLV</b>	CTI_LEV: Chrominance transient improvement (CTI)		0~3	0	0	0	0	0	2	0	
15	<b>CTMD</b>	CTI_MODE: CTI mode setting		0~3	0	0	0	0	0	0	0	
16	<b>UBOF</b>	Offset for UBRT (Picture clarity adjustment)		0~(7)~15	7	7	7	7	7	10	7	
17	<b>UCOF</b>	Offset for UCOL = UCOF x 2 (Picture clarity adjustment)		0~3	3	3	3	3	3	0	3	
18	<b>UHOFF</b>	Offset for UHUE (Picture clarity adjustment)		0~3	0	0	0	0	0	0	0	
19	<b>MIDE</b>	MID enhancement setting		0~15	3	3	3	7	11	---	---	

**DX1A SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-2/3)**

Register No & Name	Data Initial/Average Settings (32V&36V CRTs)							Data Initial/Average Settings (32V&36V CRTs)							Data Initial/Average Settings (32V&36V CRTs)							Note	
	Picture Mode: Standard							Picture Mode: Movie							Picture Mode: Pro								
	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P		
#0 SYSM (cont.)	1	1	1	1	1	2	2	1	1	1	1	1	2	2	1	1	1	1	1	2	2		
#1 UVML (cont.)	3							0							0								
#2 VMMO (cont.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
#3 VMCR (cont.)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
#4 VMLM (cont.)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
#5 VMF0 (cont.)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
#6 VMDL (cont.)	1	3	3	3	3	1	3	1	1	1	1	1	3	1	1	1	1	1	1	3	1		
#7 SHOF (cont.)	0	3	3	3	3	0	2	0	3	3	3	0	3	0	3	3	3	0	3	0	3		
#8 SHF0 (cont.)	0	1	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0		
#9 PROV (cont.)	3	3	3	1	3	0	3	3	3	1	3	0	3	3	3	1	3	0	3	0	3		
#10 F1LV (cont.)	0	3	3	3	3	3	3	0	0	0	0	0	3	0	0	0	0	0	0	3	0		
#11 CDSP (cont.)	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
#12 LTLV (cont.)	2	2	2	2	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
#13 LTMD (cont.)	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0	0	0	1	0		
#14 CTLV (cont.)	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
#15 CTMD (cont.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
#16 UBOF (cont.)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
#17 UCOF (cont.)	3	3	3	3	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
#18 UHOF (cont.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
#19 MIDE (cont.)	2	2	2	6	10	---	---	1	1	1	5	9	---	---	0	0	0	4	8	---	---		

See next page

<b>DX1A SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-3/3)</b>					
Register No & Name	Data Initial/Average Settings (32V&36V CRTs)				Comment
	SNNR=0 (Offset)	SNNR=1 (Offset)	SNNR=2 (Offset)	SNNR=3 (Offset)	
#1 UVML (cont.)	0	0	0	0	
#3 VMCR (cont.)	0	+ 1	+ 2	+ 3	
#10 FILV (cont.)	0	- 1	- 2	- 3	
#11 CDSP (cont.)	0	0	0	0	
#12 LTLV (cont.)	0	0	0	0	
#14 CTLV (cont.)	0	0	0	0	
#19 MIDE (cont.)	0	0	0	0	

DX1A SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-1/4)											
Device Name: CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA) Slave Address: 86h											
Device Name: CXD2085M { ID-1 Decoder / SONY } / IC3603 (B-board) / P/N: 8-752-395-13 (SD#: S98511B) Slave Address: 40h											
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)							Comment
				Vivid		Standard		Movie	Pro	Settings for 36V CRTs are used for initial settings.	
				32V	36V	32V	36V	32&36V			
0	UPIC	PICTURE: Picture	0~63	63	63	42	46	31	31		
1	UBRT	BRIGHT: Brightness	0~63	25	22	28	26	28	31		
2	UCOL	COLOR: Color	0~63	34	38	33	33	33	31	This setting continues to the next page.	
3	UHUE	HUE: Hue	0~63	31	31	31	31	31	31		
		SNNR Setting-related Controls for USHP									
4	USHP	SHARPNESS: Sharpness	0~63	38	42	44	48	34	31		
5	UTMP	Color Temperature (0: Warm, 1: Neutral, 2: Cool)	0~2	2	2	1	1	0	1	These settings continue to the next page.	
6	UDCL	DCOL: Dynamic color setting	0~3	2	2	2	2	2	0		
				Picture Mode: Vivid / Standard / Movie							
				UHF/VHF Video1-4		YPbPr 480i	YPbPr 480n	YPbPr 1080i	P&P		
7	AXIS	COL_AXIS: Color matrix setting	0~3	3		3	3	3	3		
				Picture Mode: Vivid							
				UHF/VHF Video1-4		YPbPr 480i	YPbPr 480n	YPbPr 1080i	P&P		
8	UGAM	GAMMA/GAMMA_L: RGB output GAMMA correction setting (B <sub>7-6</sub> ) GAMMA_L: Slight GAMMA correction on/off (B <sub>0</sub> )	0~7 (0~3/0,1)	5		5	5	5	5		
9	AGAM	GAMMA/GAMMA_L (Av Pro user control) --- Void Data	0~7 (0~3/0,1)	---							
		UGAM Setting-related Controls for GSBO, GCOO, GHUO		UGAM = 7	UGAM = 6	UGAM = 5	UGAM = 4	UGAM = 3	UGAM = 2	UGAM = 1	
10	GSBO	Offset for SBRT (8 types of GSBO data based on UGAM values)	0~3	0	0	0	0	0	0	These settings continue to the next page.	
11	GCOO	Offset for UCOL	0~3	0	0	0	0	0	0		
12	GHUO	Offset for UHUE	0~3	0	0	0	0	0	0		
				Picture Mode: Vivid							
				UHF/VHF Video1-4		YPbPr 480i	YPbPr 480n	YPbPr 1080i	P&P		
13	UBLK	Item # 15~18 pack FI data controls	0~7	7		7	7	7	7		
14	ABLK	(Av Pro user control) --- Void Data	---	0 (Void data)							
		UBLK Setting-related Controls for DCTR									
15	DCTR	DC_TRAN: Y signal DC transmission (8 types of DCTR data based on UBLK values)	0~3	3	3	3	3	3	2	These settings continue to the next page. ( ): Settings at center	
16	DPIC	DPIC_LEV: Y signal AUTO PEDESTAL level	0~3	2	2	2	2	2	1		
17	DSBO	Offset for SBRT	0~(7)~15	7	7	7	7	7	7		
18	ABLM	ABL_MODE: ABL mode	0~3	1	1	1	1	1	1		

**DX1A SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-2/4)**

Register No & Name	Data Initial/Average Settings (32V&36V CRTs)					Data Initial/Average Settings (32V&36V CRTs)					Data Initial/Average Settings (32V&36V CRTs)					Note
<b>SNNR Setting (-Offset)</b>	<b>SNNR = 0</b>	<b>SNNR = 1</b>	<b>SNNR = 2</b>	<b>SNNR = 3</b>												
<b>#4 USHP (cont.)</b>	0	1	3	4												
	<b>Picture Mode: Pro</b>					<b>Picture Mode: Movie</b>					<b>Picture Mode: Pro</b>					
	<b>UHF/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	<b>U/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	<b>U/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	
<b>#7 AXIS (Cont.)</b>	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	
	<b>Picture Mode: Standard</b>					<b>Picture Mode: Movie</b>					<b>Picture Mode: Pro</b>					
	<b>U/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	<b>U/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	<b>U/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	
<b>#8 UGAM (Cont.)</b>	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	
	<b>UGAM = 0</b>															
<b>#10 GSBO (cont.)</b>	0															
<b>#11 GCOO (cont.)</b>	0															
<b>#12 GHUO (cont.)</b>	0															
	<b>Picture Mode: Standard</b>					<b>Picture Mode: Movie</b>					<b>Picture Mode: Pro</b>					
	<b>UHF/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	<b>UHF/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	<b>UHF/VHF Video1~4</b>	<b>YPbPr 480i</b>	<b>YPbPr 480p</b>	<b>YPbPr 1080i</b>	<b>P&amp;P</b>	
<b>#13 UBLK (Cont.)</b>	4	4	4	4	4	1	1	1	1	1	0	0	0	0	0	
<b>#15 DCTR (Cont.)</b>	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	See next pages
<b>#16 DPIC (Cont.)</b>	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
<b>#17 DSBO (Cont.)</b>	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
<b>#18 ABLM (Cont.)</b>	1	1	1	1	1	0	0	0	0	0	0	0	0	0		

DX1A SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-3/4)									
Register No. & Name		Data Initial/Average Settings (32V&36V CRTs)							Comment
		UBLK = 7	UBLK = 6	UBLK = 5	UBLK = 4	UBLK = 3	UBLK = 2	UBLK = 1	UBLK = 0
#15	DCTR (Cont.)	3	2	2	2	1	1	1	1
#16	DPIC (Cont.)	2	3	2	1	3	2	1	0
#17	DSBO (Cont.)	7	7	7	7	7	7	7	7
#18	ABLM (Cont.)	1	0	0	1	0	0	0	0

DX1A SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-4/4)										
Register No. & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)					Comment	
19	ABLT	ABL_TH: ABL current detection Vth control		0~15	0					
20	ABLC	Control of CXA2026 {0Ch -- DAC0} (*)		0~255	Full	Vcomp1		Vcomp2		Full: 480p/960i (4x3) Vcomp1: 480p/960i (16x9) Vcomp2: 1080i (16x9)  (:): Settings at center C: Common data
21	EPOF	Offset for UPIC = EPOF x (UPIC/63) (for power save) --- Void	---	0~31	0					
		ID-1 and P&P Modes			0 (Not used)					
22	SPOF	Offset for UPIC = SPOF x (UPIC/64) --- Data Not Used	---	0~31	UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
23	SCON	SUB_CONTRAST: SUB PICTURE		0~15	9	8	11	10	9	
24	CLOF	Offset for UCOL		0~(7)~1	8	8	9	7	8	
25	HUO	Offset for UHUE		0~7~15	4	3	3	3	4	
		CXD2085 Service Controls			0					
26	IDSW	Switch for activating the selection in #26 DATA	C	0, 1	Full	Vcomp1		Vcomp2		
27	DATA	Selection of geometry-forced vertical compression modes	C	0~3	0	1		2		

## DX1A SERVICE LIST (#4-1): CXA2150D-1 {Deflection Controls: D1}

Device Name: CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)

Slave Address: 86h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
				Full	Vcomp1	Vcomp2	
0	<b>VPOS</b> V POSITION: Vertical position (V_DRV signal DC-b	Adj.	0~(31)~63		26 [26]		Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display
1	<b>VSIZ</b> V SIZE: Vertical size (V_DRV signal gain)	Adj.	0~(31)~63		19 [19]		
2	<b>VLIN</b> V_LINEARITY: Vertical linearity (Gain for V_DRV signal secondary component)	Adj.	0~(7)~15		9 [9]		
3	<b>VSCO</b> S_CORRECTION: Vertical S-correction	Adj.	0~(7)~15		8 [8]		Adj.: Adjusted data ( ): Settings at center
4	<b>VCEN</b> VSAW0_DCH/VSAW0_DCL: Vertical center adjustment	Adj.	0~(31)~63		31 [31]		VCEN-L(Low bit) VCEN-H(High bit)
5	<b>VPIN</b> VSAW0_DCH: VSAW0 waveform DC component VSAW0_AMP: Vertical PIN adjustment VSAW0 waveform SAW component amplitude	Adj.	0~(15)~31	15 [15]	15 [Copy1]		[Copy1]: Copy the adjusted data for Full mode.
6	<b>NSCO</b> VSAW1_DC: Rotation	Adj.	0~(7)~15		7 [7]		Either 7 or 8 can be used as the average NSCO data.
7	<b>HTPZ</b> VSAW1_AMP: Horizontal trapezoid	Adj.	0~(15)~31		15 [15]		(If both of them are not good, please feedback to / check with the DY attachment process.)
8	<b>ZOOM</b> ZOOM_SW: Zoom switch		0, 1	0		0	
9	<b>APSW</b> ASP_SW: Aspect switch		0, 1	1		1	
10	<b>ASPT</b> V_ASPECT: Aspect ratio	Adj.	0~63	47		47	
11	<b>SCRL</b> V_SCROLL: Vertical scroll	Adj.	0~(31)~63	31		32	
12	<b>UVLN</b> UP_VLIN: Upper vertical linearity		0~15	0		0	
13	<b>LVLN</b> LO_VLIN: Lower vertical linearity		0~15	0		0	

Note:

DX1A SERVICE LIST (#4-2): CXA2150D-2 {Deflection Controls: D2}							
Device Name: CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)							
Slave Address: 86h							
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
				Full	Vcomp1	Vcomp2	
0	HCNT	HC_PARA_DC: Horizontal center	Adj.	0~(31)~63		31 [31]	Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display
1	HPOS	H_POSITION: Horizontal position	Adj.	0~(31)~63	31 [31]	31 [Adj.-6steps]	
2	HSIZ	H_SIZE: Horizontal size	Adj.	0~(31)~63		45 [45]	( ): Settings at center
3	SLIN	MP_PARA_DC: Horizontal S-correction	Adj.	0~15		3 [3]	Adj.: Adjusted data [Adj.-6steps]: The adj. data for Vcomp2 mode = The adj. data for Full/Vcomp1
4	MPIN	MP_PARA_AMP: Horizontal middle pin		0~15		9 (32V) or 7 (36V)	
5	PIN	PIN_AMP: Horizontal pin	Adj.	0~(31)~63		35 [35]	Data (32Vor36V): The data for 36V are used as the Initial & CBA data.
6	UCP	UP_CPIN: Upper corner pin	Adj.	0~(31)~63		38 [38]	
7	LCP	LO_CPIN: Lower corner pin	Adj.	0~(31)~63		42 [42]	From the system micro (V 2.0), the deflection control-related initial settings are the same as their average data.
8	UXCG	UP_UCG: Upper extra corner pin gain		0~3		2 (32V) or 1 (36V)	
9	LXCG	LO_UCG: Lower extra corner pin gain		0~3		2	
10	UXCP	UP_UCP: Upper extra corner pin position		0~3		2	
11	LXCP	LO_UCP: Lower extra corner pin position		0~3		2	
12	XCPP	UC_POL: Extra corner pin polarity		0, 1		0	
13	PPHA	PIN_PHASE: Pin phase	Adj.	0~(31)~63		15 [15]	For engineering design use only
14	VANG	AFC_ANGLE: AFC angle	Adj.	0~(31)~63		31 [31]	
15	LANG	HC_PARA_PHASE: Linearity angle	Adj.	0~(31)~63		31 [31]	
16	VBOW	AFC_BOW: AFC bow	Adj.	0~(31)~63		31 [31]	
17	LBOW	HC_PARA_AMP: Linearity bow	Adj.	0~(31)~63		31 [31]	
18	CPY1	Copy Function 1: (Set CPY1=1, then press MUTE + nter.)	Micro	0, 1		0	

Note:

## DX1A SERVICE LIST (#4-3): CXA2150D-3 {Deflection Controls: D3}

Device Name: CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)

Slave Address: 86h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)			Comment
				Full	Vcomp1	Vcomp2	
0	<b>HBLK</b> HBLK_SW: Horizontal blanking switch		0, 1		1		Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display
1	<b>LBLK</b> LEFT_BLK: Left blanking		0~63	45		50	
2	<b>RBLK</b> RIGHT_BLK: Right blanking		0~63	24		27	
3	<b>VBLK</b> VBLK_SW: Vertical blanking switch		0, 1	1		1	(:) : Settings at center
4	<b>TBLK</b> UP_BLK: Top blanking		0~(7)~15	1		12	
5	<b>BBLK</b> LO_BLK: Bottom blanking		0~(7)~15	0		13	
6	<b>VCMP</b> V_COMP: Vertical compensation		0~15	0		0	
7	<b>HCMP</b> H_COMP: Horizontal compensation		0~15	0		0	
8	<b>ACMP</b> AFC_COMP: AFC compensation		0~7	0		0	
9	<b>PCMP</b> PIN_COMP: Pin compensation		0~7	0		0	
10	<b>AFCM</b> AFC_MODE: AFC loop gain		0~3	3		2	
11	<b>VFRO</b> V_FREQ: Vertical frequency		0~3			1	
12	<b>VON</b> V_ON: Vertical drive on		0, 1			1	
13	<b>JUMP</b> JMP_SW: Reference pulse jump switch		0, 1	0		1	
14	<b>VDJP</b> VDRV_SW: Vertical drive jump switch		0, 1	0		1	
15	<b>VDST</b> RST_SW: Vertical drive start switch		0, 1	0		1	
16	<b>EWDC</b> EW_DC: Pin DC level shift		0, 1	0		0	
17	<b>AKBT</b> AKBTIM: AKB timing		0~31	20		10	

Note:

## DX1A SERVICE LIST (#5): CXA2151Q

Device Name: CXA2151Q { Component I/F &amp; Sync Separation / SONY } / IC3001 (B-board) / P/N: 8-752-093-84 (SD#: S00302B)

Slave Address: 84h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)			Comment
				480i (15.75 KHz)	480p (31.50 KHz)	1080i (33.75 KHz)	
0	<b>MTRX</b> MAT_OUT: Selection of color matrix conversion types	Micro	0~3	0	0	1	Video5&6: YPbPr-480i/480p/1080i inputs Sub: 480i input from the sub-channel
1	<b>GAIN</b> GAIN_SEL: Selection of output signals for S_LYOUT, S_LCBOU, S_LCROUT, YGAIN, CBGAIN, CRGAIN:	C	0~3	0			
2	<b>CBGN</b> The gain control of S_LYOUT, S_LCBOU, & S_LCROUT	C	0~15	9			Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display
3	<b>VTC</b> V_TC: Setting of Vsync separation time constant	C	0~3	1			
4	<b>HWID</b> H_WIDTH: Setting of the output pulsewidth of SELHOUT	C	0~3	1			C: Common data
				Video5	Video6	Sub	
5	<b>HSEP</b> HSEP_SEL: Setting for the sync separation system		0, 1	0	0	0	
6	<b>TEST</b> TEST: Test mode selection (for device tests)	C	0, 1	0			
7	<b>FRGB</b> The forced RGB selection (for tests) {0: MAT_OUT = MTRX (#0), 1: MAT_OUT = MTRX (#3)}	C	0, 1	0			
				Full	Vcomp1	Vcomp2	
8	<b>HMSK</b> Hsync masking in vertical retrace		0, 1	1		0	

Note:

**DX1A SERVICE LIST (#6): D-CONV / CXA8070**

**Device Name:** CXA8070AP { DY-Convergence Control / SONY } / IC5513 (D-board) / P/N: 8-759-595-52 (SB#: V1718)

**Slave Address:** DEh

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
				Full	Vcomp1	Vcomp2	
0	<b>SBHS</b> DC AMP3: DC shift	Adj.	0~63	31 [31]	31 [31]		Full: 480p/960i (4x3) display mode Vcomp1: 480p/960i (16x9) display mode Vcomp2: 1080i (16x9) display mode  Adj.: Adjusted data  From the system micro (V 2.0), the deflection control-related initial settings are the same as their average data.
1	<b>YBWU</b> VCA9: Upper Y-bow	Adj.	0~63	31 [31]	31 [31]		
2	<b>YBWL</b> VCA10: Lower Y-bow	Adj.	0~63	31 [31]	31 [31]		
3	<b>RSAP</b> DC AMP2: Right H-AMP	Adj.	0~63	31 [31]	31 [31]		
4	<b>RUBW</b> VCA5: Right upper bow	Adj.	0~63	31 [31]	31 [31]		
5	<b>RLBW</b> VCA6: Right lower bow	Adj.	0~63	31 [31]	31 [31]		
6	<b>LSAP</b> DC AMP1: Left H-AMP	Adj.	0~63	31 [31]	31 [31]		
7	<b>LUBW</b> VCA1: Left upper bow	Adj.	0~63	31 [31]	31 [31]		
8	<b>LLBW</b> VCA2: Left lower bow	Adj.	0~63	31 [31]	31 [31]		
9	<b>CADJ</b> DC AMP4: Offset adjustment (ADJ)	Adj.	0~63	48 [48]			
10	<b>CPY2</b> Copy Function 2: (Set CPY2=1, then press MUTE + Enter.) Copy all CXA8070 data for Full mode to Vcomp1&2 modes.	Micro	0, 1	0		For engineering design use only	

Note:

**DX1A SERVICE LIST (#7): CXA2026AS**

**Device Name:** CXA2026AS { DQP Control / SONY } / IC5511 (D-board) / P/N: 8-752-074-64 (SD#: S95610B)

**Slave Address:** 8Eh

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
				Full	Vcomp1	Vcomp2	
0	<b>DFON</b> SW0: DF on/off switch	C	0, 1	0			Full: 480p/960i (4x3) display mode Vcomp1: 480p/960i (16x9) display mode Vcomp2: 1080i (16x9) display mode C: Common data Adj.: Adjusted data U.CBOW = QPDV + DVS L.CBOW = QPDV - DVS ( ): Settings at center Data (36V) are used as Initial/CBA data. From the system micro (V 2.0), most deflection control-related initial settings are the same as their average data. U.YBOW = QPAV + AVS L.YBOW = QPAV - AVS
1	<b>DQP</b> PWM: DQP phase	Adj.	0~63	23 [23]	23 [23]		
2	<b>DF</b> DAC1: DF phase	Adj.	0~63	25 [25]	25 [25]		
3	<b>DQPD</b> H.AMP: DQP dc-level	Adj.	0~63	34 [34]	34 [34]		
4	<b>QPDV</b> U.CBOW, L.CBOW: DQP dc-level vertical modulation		0~63	51	47		
5	<b>DVS</b> U.CBOW, L.CBOW: DQP dc-level tilt		0~(3)~7	0	0		
6	<b>OPDY</b> U.MBH,L.MBH: DQP dc-level at top & bottom areas		0~63	7	7		
7	<b>DQPA</b> DC SHIFT: DQP amplitude	Adj.	0~63	22 [27] (32V) or 13 [15] (36V)	22 [27] (32V) or 13 [15] (36V)	22 [27] (32V) or 13 [15] (36V)	
8	<b>QPAV</b> U.YBOW, LYBOW: DQP amplitude vertical modulation		0~63	38	34		
9	<b>AVS</b> U.YBOW, LYBOW: DQP amplitude tilt		0~7	3	3		
10	<b>NORM</b> SW1:		0, 1	0	0		
11	<b>CPY3</b> Copy Function 3: (Set CPY3=1, then press MUTE + Enter.) Copy all CXA8070 data for Full mode to Vcomp1&2 modes.	Micro	0, 1	0		For engineering design use only	
12	<b>200V</b> H.DUTY, H.TILT: 200V regulator adjustment	Adj.	0~63	31 [31]			

Note:

<b>DX1A SERVICE LIST (#8): Audio Processing (AP) / BH3868FS</b>						
<b>Device Name:</b> BH3868FS { Audio Processor / ROHM } / IC7001 (A-board) / P/N: 8-759-678-92 (SBorSD#: NA)						
<b>Slave Address:</b> 82h						
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment	
0	<b>SVOL</b> Volume: Offset for Volume		0~3	0		
1	<b>SBAL</b> Balance: Offset for Balance		0~(3)~7	7	( ): Settings at center	
2	<b>SBAS</b> Bass: Offset for Bass		0~(3)~7	7		
3	<b>STRE</b> Treble: Offset for Treble		0~(3)~7	7		
4	<b>BBLP</b> BBE lowpass filter		0~15	0		
5	<b>BBHP</b> BBE highpass filter		0~15	2		
6	<b>SREF</b> Surround effect		0~7	11		
7	<b>AGC</b> Auto gain control		0, 1	0		
8	<b>BBE</b> BBE on/off		0, 1	1		
<b>Note:</b>						

<b>DX1A SERVICE LIST (#9): TruSurround (TRUS) / NJM2180</b>						
<b>Device Name:</b> NJM2180M { TruSurround 3D-Audio Processor / JRC } / IC4101 (S-board) / P/N: 8-759-686-15 (SB#: V9072)						
<b>Device Control:</b> Controlled via CXA1315M (Audio Control D/A, IC4103/S-board, Slave Address: 48h) / P/N: 8-752-059-23 (SD#: S88Z45B)						
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment	
0	<b>TS</b> TruSurround effect selection		0~3	2	C: Common data	
1	<b>DMY1</b> Dummy data (No functions)	C	0~255	0	DMY1 is used to fulfil the minimum requirement of 2 control items in each service control category.	
<b>Note:</b>						

**DX1A SERVICE LIST (#10): MID1 (Common Data)**

**Device Name:** CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)

**Slave Address:** 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 8-759-691-88 (SB#: V4216) }

**MID-XA Micro (MASK type):** MB94918RPF-G-128-BND, MID-XA Software: Version 03/30/00, (P/N: 8-759-689-66)

**MID-XA Micro (MASK type):** MB94918RPF-G-130-BND, MID-XA Software: Version 04/20/00, (P/N: 8-759-691-88)

Register No & Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment						
					MID Mode: All (Single & P&P & Favorite)							
0	<b>DHPH</b> Horizontal phase of the active display area	d h phase	C	0~255	91	C: Common data						
1	<b>DVPH</b> Vertical phase of the active display area	d v phase	C	0~63	20							
2	<b>DHAR</b> Horizontal size of the active display area	d h area	C	0~255	240							
3	<b>DVAR</b> Vertical size of the active display area	d v area	C	0~255	135							
4	<b>DHPW</b> Horizontal pulse width	d h pwidth	C	0~63	27							
5	<b>DVPW</b> Vertical pulse width	d v pwidth	C	0~7	7							
6	<b>DYCD</b> Delay of YC signal output	d yc delay	C	0~63	2							
7	<b>DYSD</b> Delay of YS signal output	d ys delay	C	0~7	1							
					MID Mode: Single & Favorite							
					<table border="1"> <tr> <td>Single 480i&amp;n</td> <td>Single 1080i</td> <td>Favorite</td> </tr> <tr> <td align="center">33</td> <td align="center">12</td> <td align="center">14</td> </tr> </table>	Single 480i&n	Single 1080i	Favorite	33	12	14	
Single 480i&n	Single 1080i	Favorite										
33	12	14										
8	<b>MDHP</b> Horizontal position of the main picture	m dsp hpos		0~255	32							
9	<b>MDVP</b> Vertical position of the main picture	m dsp vpos		0~255	8							
10	<b>MDHS</b> Horizontal size of the main picture	m dsp hsiz		0~255	230							
11	<b>MDVS</b> Vertical size of the main picture	m dsp vsiz		0~255	120   135   106							
					MID Mode: P&P & Favorite							
12	<b>MLHP</b> (Horizontal position of the multi pictures)			0~255	54							
13	<b>MLVP</b> (Vertical position of the multi pictures)			0~255	31							
					MID Mode: Favorite							
14	<b>SDHP</b> Horizontal position of the sub picture	s dsp hpos		0~255	172							
15	<b>SDVP</b> Vertical position of the sub picture	s dsp vpos		0~255	14							
16	<b>SDHS</b> Horizontal size of the sub picture	s dsp hsiz		0~255	61							
17	<b>SDVS</b> Vertical size of the sub picture	s dsp vsiz		0~255	41							
					MID Mode: All (Single & P&P & Favorite)							
18	<b>DPSW</b> Switch of display output PLL	dsp_pll_sw	C	0, 1	1							
19	<b>MDL0</b> Model selection 0 (0: 16x9, 1: 4x3)		C	0, 1	0							

Note:

<b>DX1A SERVICE LIST (#11): MID2 (DRC-in Data)</b>											
<b>Device Name:</b> CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)											
<b>Slave Address:</b> 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 8-759-691-88 (SB#: V4216) }											
<b>MID-XA Micro (MASK type):</b> MB94918RPF-G-128-BND, MID-XA Software: Version 03/30/00, (P/N: 8-759-689-66)											
<b>MID-XA Micro (MASK type):</b> MB94918RPF-G-130-BND, MID-XA Software: Version 04/20/00, (P/N: 8-759-691-88)											
Register No & Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)						
					MID Mode: Single		MID Mode: P&P & Favorite			MID Mode: Freeze	
					YC 480i	YPbPr 480i	YC 480i	YPbPr 480i	YC 480i (R)	YC 480i	YPbPr 480i
0	<b>DRHP</b>	Horizontal position of the active display area (DRC-in)	drc_hactv_pos	0~255	120	116	131	129	137	138	136
1	<b>DRHS</b>	Hsize of the active display area (DRC-in)	drc_hactv_siz	0~255	174	174	167	167	168	165	165
2	<b>DRVP</b>	Vposition of the active display area (DRC-in)	drc_vactv_pos	0~63	38	38	53	53	53	53	53
3	<b>DRVS</b>	Vertical size of the active display area (DRC-in)	drc_vactv_siz	0~255	120	120	112	112	112	112	112
<b>Note:</b>											

<b>DX1A SERVICE LIST (#12): MID-3 (VDO-in Data) (Part-1/2)</b>									
<b>Device Name:</b> CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)									
<b>Slave Address:</b> 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 8-759-691-88 (SB#: V4216) }									
<b>MID-XA Micro (MASK type):</b> MB94918RPF-G-128-BND, MID-XA Software: Version 03/30/00, (P/N: 8-759-689-66)									
<b>MID-XA Micro (MASK type):</b> MB94918RPF-G-130-BND, MID-XA Software: Version 04/20/00, (P/N: 8-759-691-88)									
Register No & Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Comment
					MID Mode: Single				
						YPbPr 480P		Dummy 480i	
0	<b>VDHP</b>	Horizontal position of the active display area (VDO-in)	vdo_hactv_pos	0~255		122		179	Dummy-480i settings are used for No Signal cases. These settings continue to the next page.
1	<b>VDHS</b>	Horizontal pixel size of the active display area (VDO-in)	vdo_hactv_pos	0~255		159		199	
2	<b>VDVE</b>	Vertical even position of the active display area (VDO-in)	vdo_vactv_evn	0~63		39		24	
3	<b>VDVS</b>	Vertical line size of the active display area (VDO-in)	vdo_vactv_pos	0~255		129		56	
					YC 480i	YPbPr 480P	YPbPr 1080i	Dummy 480i	
4	<b>VDVO</b>	Vertical odd position of the active display area (VDO-in)	vdo_vactv_odd	0~3	0	0	0	0	
5	<b>VCPO</b>	Clamp pulse output timing (VDO-in)	vdo_clp_pos	0~255	95	70	40	90	
6	<b>VCWD</b>	Clamp pulse width (VDO-in)	vdo_clp_wdt	0~7	3	3	3	3	
7	<b>VYCD</b>	Analog input YC delay (VDO-in)	vdo_vc_delay	0~63	0	0	0	0	
						YPbPr 480P	YPbPr 1080i		
8	<b>VSTP</b>	PD stop line count of external PLL (VDO-in)	vdo_pll_stop	0~255		119	160		
9	<b>VSTT</b>	PD start line count of external PLL (VDO-in)	vdo_pll_strt	0~15		7	0		
					MID Mode: All (Single & P&P & Favorite)				
10	<b>VHSC</b>	Horizontal sync cycle (VDO-in)	vdo_hsync_cyc	0~255	130				
<b>Note:</b>									

**DX1A SERVICE LIST (#12): MID-3 (VDO-in Data) (Part-2/2)**

Register No & Name	Data Initial Setting (32V&36V CRTs)				Data Initial Setting (32V&36V CRTs)				Comment
	MID Mode: P&P / Favorite				MID Mode: FREEZE				
	YC 480i	YPbPr 480P	YPbPr 1080i	Dummy 480i		YPbPr 480P	YPbPr 1080i	Dummy 480i	
#0 VDHP (cont.)	197	127	91	179		131	98	179	Dummy-480i settings are used for No Signal cases.
#1 VDHS (cont.)	219	154	151	199		153	149	199	
#2 VDVE (cont.)	24	53	37	24		53	37	24	
#3 VDVS (cont.)	56	112	126	56		112	126	56	
<b>Note:</b>									

## DX1A SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-1/4)

Device Name: CXD9509AQ { MID-XA / Fujitsu &amp; SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)

Slave Address: 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 8-759-691-88 (SB#: V4216) }

MID-XA Micro (MASK type): MB94918RPF-G-128-BND, MID-XA Software: Version 03/30/00, (P/N: 8-759-689-66)

MID-XA Micro (MASK type): MB94918RPF-G-130-BND, MID-XA Software: Version 04/20/00, (P/N: 8-759-691-88)

Register No & Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)			
					UHF/VHF & CVideo				YPbPr-480i (DVD)			
Settings for P&P (Main)					Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid
0	<b>POP</b>	Selection of service data tables (Table #: 0~15)		0~15	0	1	2	3	4	5	6	7
1	<b>MHLY</b>	Y coefficient code of Horizontal LPF (M)	m hlpf_ycoef	0~3	1	1	1	1	1	1	1	1
2	<b>MHLC</b>	C coefficient code of Horizontal LPF (M)	m hlpf_ccoef	0~3	3	3	3	3	3	3	3	3
3	<b>MVLY</b>	Y coefficient code of Vertical LPF (M)	m vlpf_ycoef	0~3	0	0	0	0	0	0	0	0
4	<b>MVLC</b>	C coefficient code of Vertical LPF (M)	m vlpf_ccoef	0~3	0	0	0	0	0	0	0	0
5	<b>MHYR</b>	Y coreing code of horizontal enhancement (M)	m henh_ycore	0~3	0	0	0	0	0	0	0	0
6	<b>MHYL</b>	Y clipping code of horizontal enhancement (M)	m henh_yclip	0~3	1	1	1	1	1	1	1	1
7	<b>MHYE</b>	Y level code of horizontal enhancement (M)	m henh_yenh	0~7	4	0	0	0	3	0	0	0
8	<b>MHYO</b>	Y coefficient code of horizontal enhancement (M)	m henh_ycof	0, 1	1	1	1	1	1	1	1	1
9	<b>MHCR</b>	C coreing code of horizontal enhancement (M)	m henh_ccore	0~3	0	0	0	0	0	0	0	0
10	<b>MHCL</b>	C clipping code of horizontal enhancement (M)	m henh_cclip	0~3	1	1	1	1	1	1	1	1
11	<b>MHCE</b>	C level code of horizontal enhancement (M)	m henh_cenh	0~7	0	0	0	0	0	0	0	0
12	<b>MHCO</b>	C coefficient code of horizontal enhancement (M)	m henh_ccoef	0, 1	1	1	1	1	1	1	1	1
13	<b>MVYR</b>	Y coreing code of vertical enhancement (M)	m venh_ycore	0~3	0	0	0	0	0	0	2	2
14	<b>MVYL</b>	Y clipping code of vertical enhancement (M)	m venh_yclip	0~3	1	1	1	1	1	1	1	1
15	<b>MVYE</b>	Y level code of vertical enhancement (M)	m venh_yenh	0~7	0	0	0	0	0	0	2	5
16	<b>MVCR</b>	C coreing code of vertical enhancement (M)	m venh_ccore	0~3	0	0	0	0	0	0	0	0
17	<b>MVCL</b>	C clipping code of vertical enhancement (M)	m venh_cclip	0~3	1	1	1	1	1	1	1	1
18	<b>MVCE</b>	C level code of vertical enhancement (M)	m venh_cenh	0~7	0	0	0	0	0	0	0	0

Note:

**DX1A SERVICE LIST (#13): MID-5 (Picture Data: MIDE) (Part-2/4)**

Register No & Name	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Comment
	YPbPr-480p				YPbPr-1080i				
	Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
#0 POP (cont.)	8	9	10	11	12	13	14	15	
#1 MHLY (cont.)	1	1	1	1	1	1	1	1	
#2 MHLC (cont.)	3	3	3	3	3	3	3	3	
#3 MVLY (cont.)	0	0	0	0	0	0	0	0	
#4 MVLC (cont.)	0	0	0	0	0	0	0	0	
#5 MHYR (cont.)	0	0	0	0	0	0	0	0	
#6 MHYL (cont.)	1	1	1	1	1	1	1	1	
#7 MHYE (cont.)	4	0	0	0	4	0	0	0	
#8 MHYO (cont.)	1	1	1	1	1	1	1	1	
#9 MHCR (cont.)	0	0	0	0	0	0	0	0	
#10 MHCL (cont.)	1	1	1	1	1	1	1	1	
#11 MHCE (cont.)	0	0	0	0	0	0	0	0	
#12 MHCO (cont.)	1	1	1	1	1	1	1	1	
#13 MVYR (cont.)	0	0	2	2	0	0	0	0	
#14 MVYL (cont.)	1	1	1	1	1	1	1	1	
#15 MVYE (cont.)	0	0	2	5	0	0	0	0	
#16 MVCR (cont.)	0	0	0	0	0	0	0	0	
#17 MVCL (cont.)	1	1	1	1	1	1	1	1	
#18 MVCE (cont.)	0	0	0	0	0	0	0	0	
Note:									

**DX1A SERVICE LIST (#13): MID-5 (Picture Data: MIDE) (Part-3/4)**

Register No.&Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				
					UHF/VHF & CV				YPbPr-480i (DVD)				
Settings for P&P (Sub)					Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
0	<b>POP</b>	Selection of service data tables (Table #: 0~15)			0~15	0	1	2	3	4	5	6	7
19	<b>SHLY</b>	Y coefficient code of Horizontal LPF (S)	s_hlpf_ycoef		0~7	0	0	0	0	0	0	0	0
20	<b>SHLC</b>	C coefficient code of Horizontal LPF (S)	s_hlpf_ccoef		0~7	0	0	0	0	0	0	0	0
21	<b>SVLY</b>	Y coefficient code of Vertical LPF (S)	s_vlpf_ycoef		0~7	0	0	0	0	0	0	0	0
22	<b>SVLC</b>	C coefficient code of Vertical LPF (S)	s_vlpf_ccoef		0~7	0	0	0	0	0	0	0	0
23	<b>SHYR</b>	Y coreing code of horizontal enhancement (S)	s_henh_ycore		0~3	0	0	0	0	0	0	0	0
24	<b>SHYL</b>	Y clipping code of horizontal enhancement (S)	s_henh_yclip		0~3	0	0	0	0	0	0	0	0
25	<b>SHYE</b>	Y level code of horizontal enhancement (S)	s_henh_yenh		0~7	0	0	0	0	0	0	0	0
26	<b>SHYO</b>	Y coefficient code of horizontal enhancement (S)	s_henh_ycof		0, 1	0	0	0	0	0	0	0	0
27	<b>SHCR</b>	C coreing code of horizontal enhancement (S)	s_henh_ccore		0~3	0	0	0	0	0	0	0	0
28	<b>SHCL</b>	C clipping code of horizontal enhancement (S)	s_henh_cclip		0~3	0	0	0	0	0	0	0	0
29	<b>SHCE</b>	C level code of horizontal enhancement (S)	s_henh_cenh		0~7	0	0	0	0	0	0	0	0
30	<b>SHCO</b>	C coefficient code of horizontal enhancement (S)	s_henh_ccoef		0, 1	0	0	0	0	0	0	0	0
31	<b>SVYR</b>	Y coreing code of vertical enhancement (S)	s_venh_ycore		0~3	0	0	0	0	0	0	0	0
32	<b>SVYL</b>	Y clipping code of vertical enhancement (S)	s_venh_yclip		0~3	0	0	0	0	0	0	0	0
33	<b>SVYE</b>	Y level code of vertical enhancement (S)	s_venh_yenh		0~7	0	0	0	0	0	0	0	0
34	<b>SVCR</b>	C coreing code of vertical enhancement (S)	s_venh_ccore		0~3	0	0	0	0	0	0	0	0
35	<b>SVCL</b>	C clipping code of vertical enhancement (S)	s_venh_cclip		0~3	0	0	0	0	0	0	0	0
36	<b>SVCE</b>	C level code of vertical enhancement (S)	s_venh_cenh		0~7	0	0	0	0	0	0	0	0

**DX1A SERVICE LIST (#13): MID-5 (Picture Data: MIDE) (Part-4/4)**

Register No.&Name	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Comment
	YPbPr-480p				YPbPr-1080i				
	Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
#0 POP (cont.)	8	9	10	11	12	13	14	15	
#19 SHLY (cont.)	0	0	0	0	0	0	0	0	
#20 SHLC (cont.)	0	0	0	0	0	0	0	0	
#21 SVLY (cont.)	0	0	0	0	0	0	0	0	
#22 SVLC (cont.)	0	0	0	0	0	0	0	0	
#23 SHYR (cont.)	0	0	0	0	0	0	0	0	
#24 SHYL (cont.)	0	0	0	0	0	0	0	0	
#25 SHYE (cont.)	0	0	0	0	0	0	0	0	
#26 SHYO (cont.)	0	0	0	0	0	0	0	0	
#27 SHCR (cont.)	0	0	0	0	0	0	0	0	
#28 SHCL (cont.)	0	0	0	0	0	0	0	0	
#29 SHCE (cont.)	0	0	0	0	0	0	0	0	
#30 SHCO (cont.)	0	0	0	0	0	0	0	0	
#31 SVYR (cont.)	0	0	0	0	0	0	0	0	
#32 SVYL (cont.)	0	0	0	0	0	0	0	0	
#33 SVYE (cont.)	0	0	0	0	0	0	0	0	
#34 SVCR (cont.)	0	0	0	0	0	0	0	0	
#35 SVCL (cont.)	0	0	0	0	0	0	0	0	
#36 SVCE (cont.)	0	0	0	0	0	0	0	0	

DX1A SERVICE LIST (#14): On-Screen Display (OSD)						
Device Name: M306V2ME-150FP (V1.0) or M306V2ME-151FP (V2.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)						
Slave Address: 60h						
System Micro (MASK type): M306V2ME-150FP, Sys-Software: Version 1.0 (used with Patch-B), P/N: 8-759-680-77 (SB#: V9091)						
System Micro (MASK type): M306V2ME-151FP, Sys-Software: Version 2.0 (used with Patch-A), P/N: 8-759-699-34 (SB#: V9091)						
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)		Comment
0	HPOS	OSD horizontal position	C	0~255	23	C: Common data
1	HPOF	Horizontal position for Favorite mode	C	0~255	27 (while using V1.0-micros) 33 (while using V2.0-micros)	
2	VPOS	OSD vertical position	C	0~255	5	
3	VPOT	Vertical position for P&P (Twin) mode	C	0~255	32	
Note:						

## DX1A SERVICE LIST (#15): SNNR

## Related Control Devices:

μPD64082 { 3D-Comb / NEC } / IC3501 (BC-board) / Slave Address: B8h

CXA2103Q { Chroma Decoder / SONY } / IC3048 (B-board) / Slave Address: 9Ah (Main)

CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / Slave Address: 86h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting 32V&36V CRTs				Comment
0	<b>SNNR</b> SNNR data setting		0~3	0				
1	<b>SNFX</b> Selection of SNNR data settings; 0: Set SNNR automatically according to WSLT value (read data) 1: Set SNNR manually in SNNR/ #0 SNNR	C	0, 1	0				C: Common data
2	<b>WSLT</b> Noise level detection data thresholds for SNNR data (read data)		0~255	WSLT Data / Threshold Range				
	SNNR data used as the (-) offset settings			0~30	31~62	63~126	127~255	
	SNNR = 0/1/2/3 @ WSLT ≤ 0/31/63/127, respectively		0~3	SNNR Settings Based on WSL Data (- Offset Data)				
3	<b>CPFG</b> Related to 3D-COMB (μPD64082) / #19 <b>YPFG</b> settings		-----	0	1	2	3	
4	<b>CPFT</b> Related to 3D-COMB (μPD64082) / #18 <b>YPFT</b> settings		-----	0	0	0	0	
5	<b>CCOR</b> Related to 3D-COMB (μPD64082) / #20 <b>YHCO</b> settings		-----	0	1	1	1	
6	<b>CHCG</b> Related to 3D-COMB (μPD64082) / #21 <b>YHCG</b> settings		-----	1	1	1	1	
7	<b>CAPG</b> Related to 3D-COMB (μPD64082) / #16 <b>VAPG</b> settings		-----	0	0	0	0	
8	<b>3SHP</b> Related to CXA2103 / #6 <b>SHAP</b> settings		-----	0	1	2	3	
9	<b>MIDD</b> Related to CXA2150P-3 / #19 <b>MIDE</b> settings		-----	0	1	2	3	
10	<b>5SHP</b> Related to CXA2150P-4 / #4 <b>USHP</b> settings		-----	0	1	3	4	
11	<b>5YF1</b> Related to CXA2150P-3 / #10 <b>FILV</b> settings		-----	0	1	2	3	
12	<b>5CDS</b> Related to CXA2150P-3 / #11 <b>CDSP</b> settings		-----	0	0	0	0	
13	<b>5LTI</b> Related to CXA2150P-3 / #12 <b>LTLV</b> settings		-----	0	0	0	0	
14	<b>5CTI</b> Related to CXA2150P-3 / #14 <b>CTLV</b> settings		-----	0	0	0	0	
15	<b>5VML</b> Related to CXA2150P-3 / #1 <b>UVML</b> settings		-----	0	0	0	0	
16	<b>5VMC</b> Related to CXA2150P-3 / #3 <b>VMCR</b> settings		-----	0	+1	+2	+3	

## Note:

Please refer to the part numbers and SBorSD numbers given in the service list for these devices.

### DX1A SERVICE LIST (#16): ID-1 Detection (ID1)

<b>Device Name:</b> CXD2085M { ID-1 Decoder / SONY } / IC3603 (B-board) / P/N: 8-752-395-13 (SD#: S98511B)						
<b>Slave Address:</b> 40h						
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment	
0	<b>XJGL</b> XJGLK: Setting for memorizing or not the ID-1 detection status when the VTR in Fast Forward (FF) or Rewind (R_W) mode	C	0, 1	0	C: Common data	
1	<b>LNJI</b> LNJI: Setting for the multi/single-line ID-1 detection	C	0, 1	0		
<b>Note:</b> Other service controls related to CXD2085 (IDSW & DATA) are listed in Service List (CXA2150P-4) for easier engineering adjustment.						

### DX1A SERVICE LIST (#17): Closed Caption Display & Parental Control (CCD&VCHIP)

<b>Device Name:</b> CXP85840A-039Q { CCD&Vchip Micro (MASK type) / SONY } / IC3602 (Main) & IC3601 (Sub) (B-board) / P/N: 8-752-916-40 (SD#: S97739B)						
<b>Slave Address:</b> 68h (Main) & 6Ch (Sub)						
<b>CCD&amp;Vchip Micro Software:</b> Version 2.14						
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment	
0	<b>HPRM</b> Horizontal position of CCD (Main)	C	0~255	46	C: Common data	
1	<b>HPRS</b> Horizontal position of CCD (Sub)	C	0~255	46		
2	<b>RND</b> OSD rounding control	C	0, 1	1	0: MASK-type micro, 1: OTP-type micro	
3	<b>CCDI</b> Interruption control	C	0~7	3		
4	<b>CRIP</b> CRI count & parity count	C	0~7	4		
5	<b>CRIT</b> Charge/Discharge timing control for slice voltage level	C	0, 1	0		
6	<b>CHMK</b> Horizontal mask width	C	0~63	42		
7	<b>FPOL</b> Field polarity selection	C	0, 1	1		
8	<b>LANG</b>	C	0~3	0		
9	<b>DATA</b> Switch for CCD service/test data	C	0, 1	0		
10	<b>VCHIP</b> Selection of Vchip controls	C	0, 1	0		
<b>Note:</b>						

DX1A SERVICE LIST (#18): OPTIONS (OP)							
Device Name: M306V2ME-150FP (V1.0) or M306V2ME-151FP (V2.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)							
Slave Address: 60h							
System Micro (MASK type): M306V2ME-150FP, Sys-Software: Version 1.0 (used with Patch-B), P/N: 8-759-680-77 (SB#: V9091)							
System Micro (MASK type): M306V2ME-151FP, Sys-Software: Version 2.0 (used with Patch-A), P/N: 8-759-699-34 (SB#: V9091)							
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)			Comment
0	<b>DLY1</b> AC-RLY to MAIN-RLY timing = DLY1 x 50 ms	C	0~15	4			C: Common data
1	<b>DLY2</b> Power-On Mute timing = DLY2 x 50 ms	C	0~31	12			
2	<b>DLY3</b> DGC-RLY to MAIN-RLY timing = DLY3 x 50 ms	C	0~15	7			
3	<b>RAMW</b> RAM monitor on/off	C	0, 1	0			
Note:							

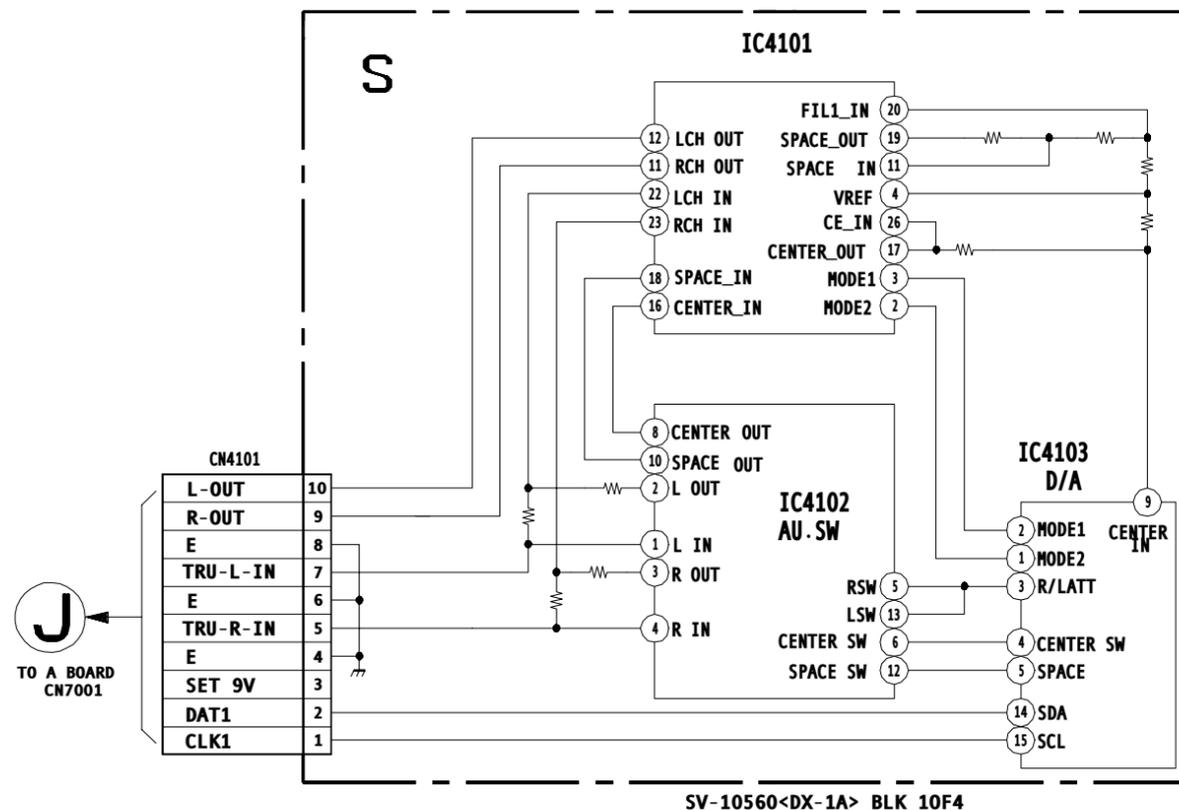
DX1A SERVICE LIST (#19): IDENTIFICATION (ID)							
Device Name: M306V2ME-150FP (V1.0) or M306V2ME-151FP (V2.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)							
Slave Address: 60h							
System Micro (MASK type): M306V2ME-150FP, Sys-Software: Version 1.0 (used with Patch-B), P/N: 8-759-680-77 (SB#: V9091)							
System Micro (MASK type): M306V2ME-151FP, Sys-Software: Version 2.0 (used with Patch-A), P/N: 8-759-699-34 (SB#: V9091)							
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)			Comment
	<b>Shipping Destination-related Settings</b>			US	Canda	Latin	
0	<b>ID0</b> Selection of OSD languages & color systems		0~255	89	89	25	
1	<b>ID1</b> Selection of composite & s-video inputs		0~255	127	127	127	
2	<b>ID2</b> Selection of audio-related controls		0~255	239	239	239	
3	<b>ID3</b> Selection of basic system settings		0~255	98	82	194	
4	<b>ID4</b> Selection of basic system settings		0~255	203	203	251	
5	<b>ID5</b> Selection of advanced system settings		0~255	177	177	177	
6	<b>ID6</b> Selection of sub picture-related settings		0~255	54	54	54	
7	<b>ID7</b> Selection of some reserved settings		0~255	24	24	88	
Note: The system micro name, software&patch versions, and the status of NVM devices are displayed only when in this service category (#19): ID.							



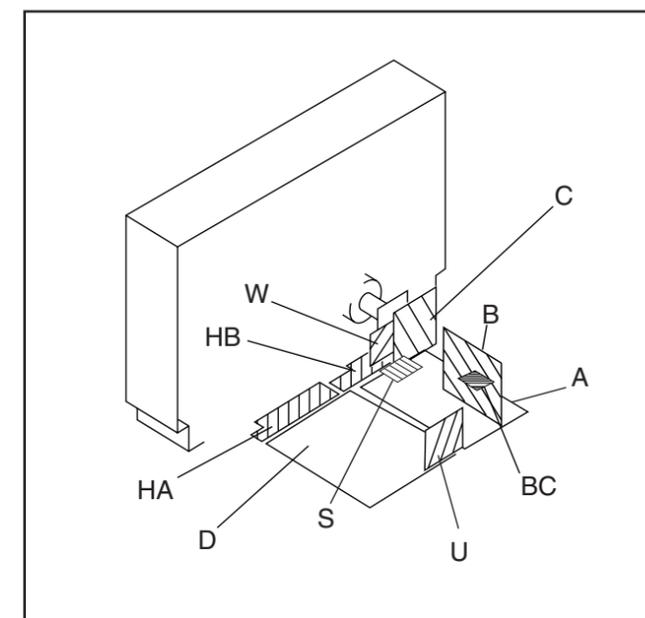


SECTION 6  
DIAGRAMS

6.1 BLOCK DIAGRAM (1/4)



6-2. CIRCUIT BOARDS LOCATION



- When replacing components identified by  , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved. (Refer to safety adjustments on Page 23.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced(  )	Adjustment(  )
D BOARD: D8004, D8014, IC6503, IC8001, IC8003, IC8004, R8016, R8021, R8028, R8041, R8042, R8044, R8072, R8073, R8074, R8077, R8078, R8080, R8081, R8082, R8091, R8095	D BOARD: RV8001, RV8002, RV8003

6-3. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- 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 :  $\frac{1}{4}\text{W}$

- $\frac{1}{4}\text{W}$  in resistance,  $\frac{1}{10}\text{W}$  and  $\frac{1}{8}\text{W}$  in chip resistance.
-  : nonflammable resistor.
-  : fusible resistor.
- $\Delta$  : 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  $10\text{M}\Omega$  digital multimeter.
- Voltages are DC with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- S : Measurement impossibility.
-  : B+line.
-  : B-line.  
(Actual measured value may be different).
-  : signal path. (RF)
- Circled numbers are waveform references.
- The components identified by  in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

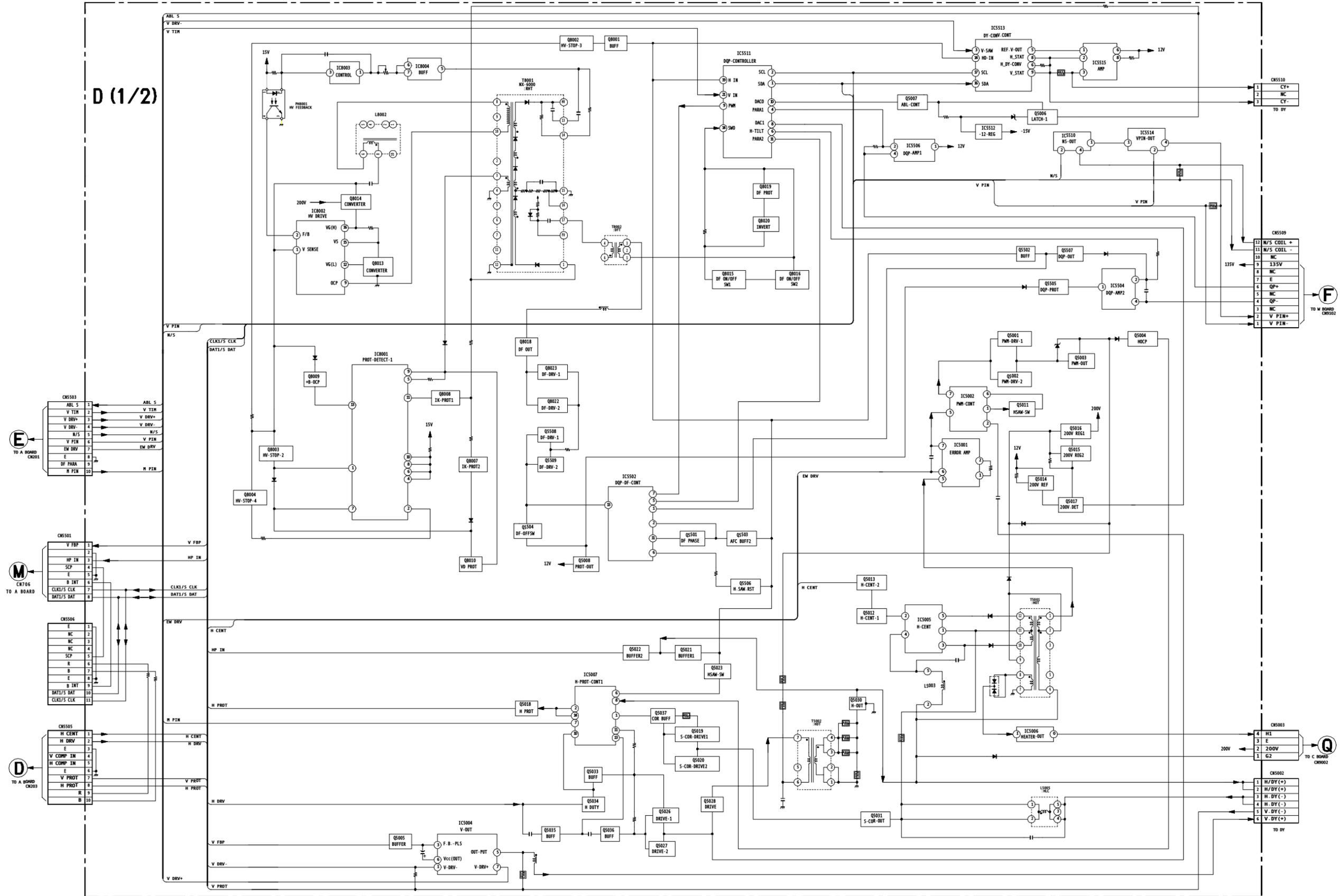
Reference information

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

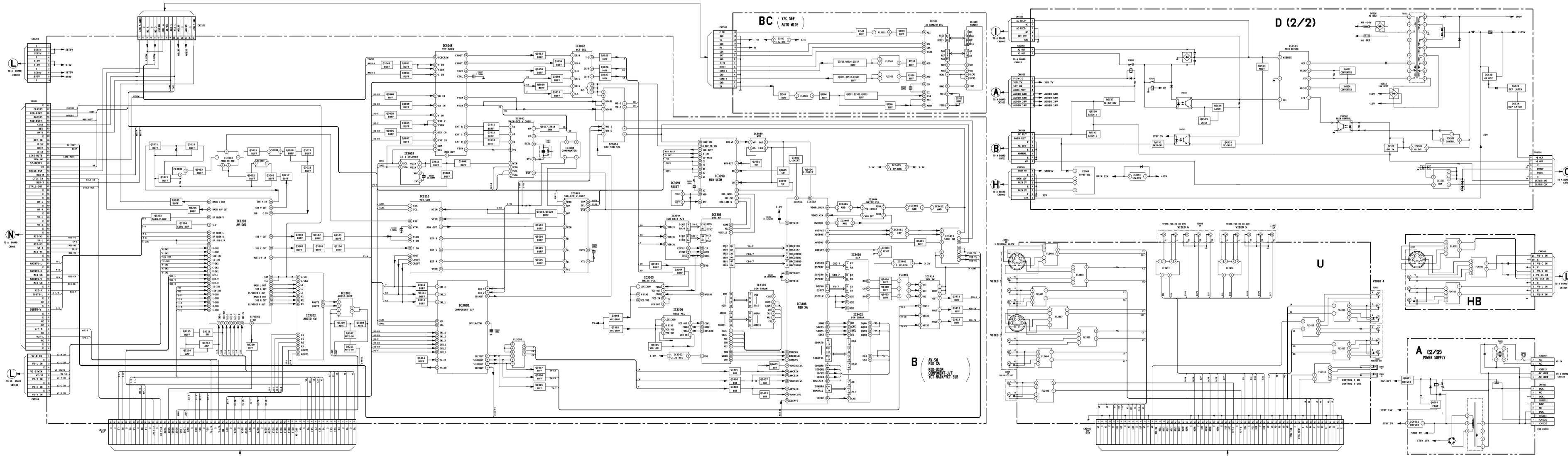
The symbol  display is on the component side.  
The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.  
The symbol  indicate fast operating fuse.  
Replace only with fuse of same rating as marked.

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

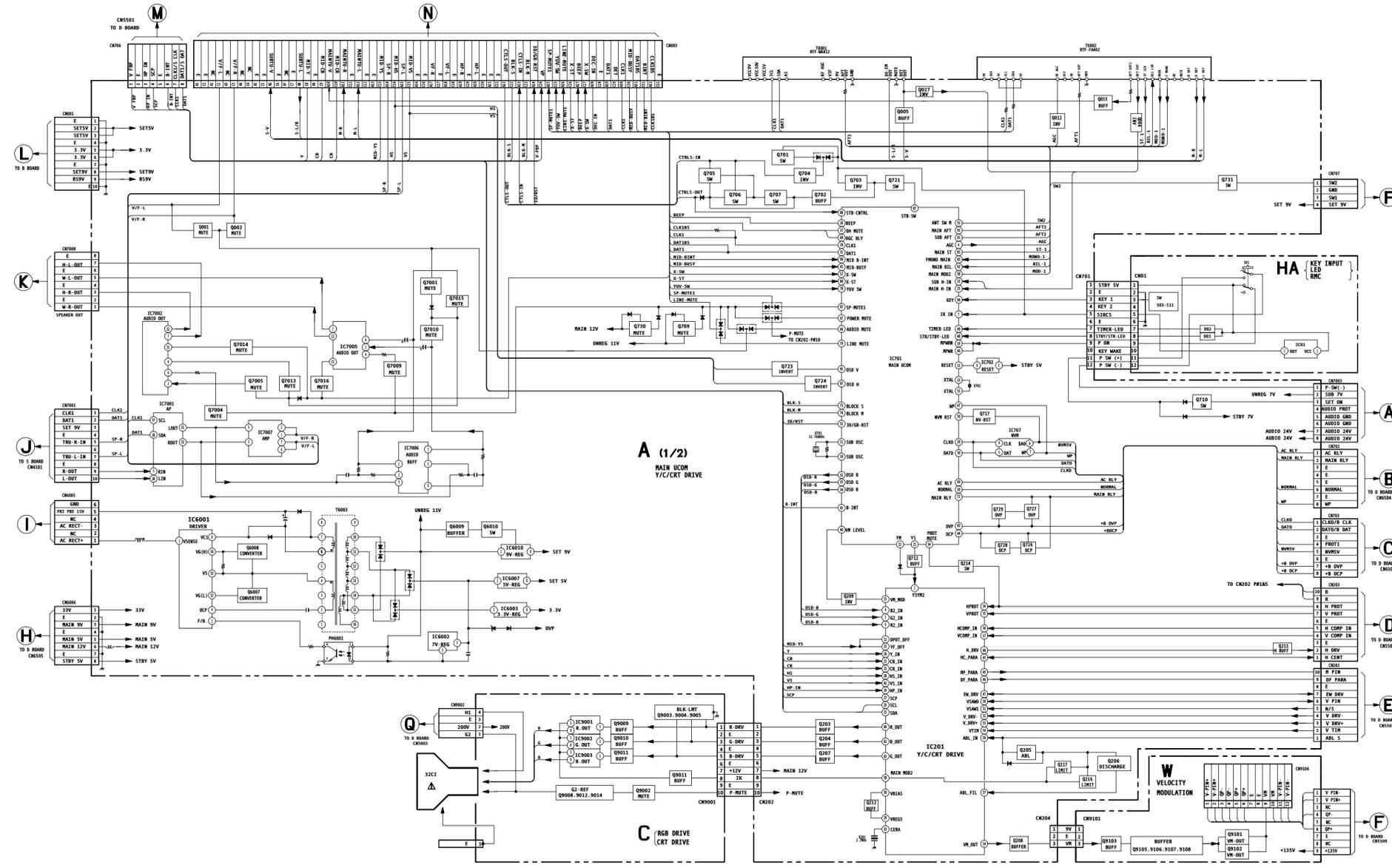
BLOCK DIAGRAM (2/4)



BLOCK DIAGRAM (3/4)



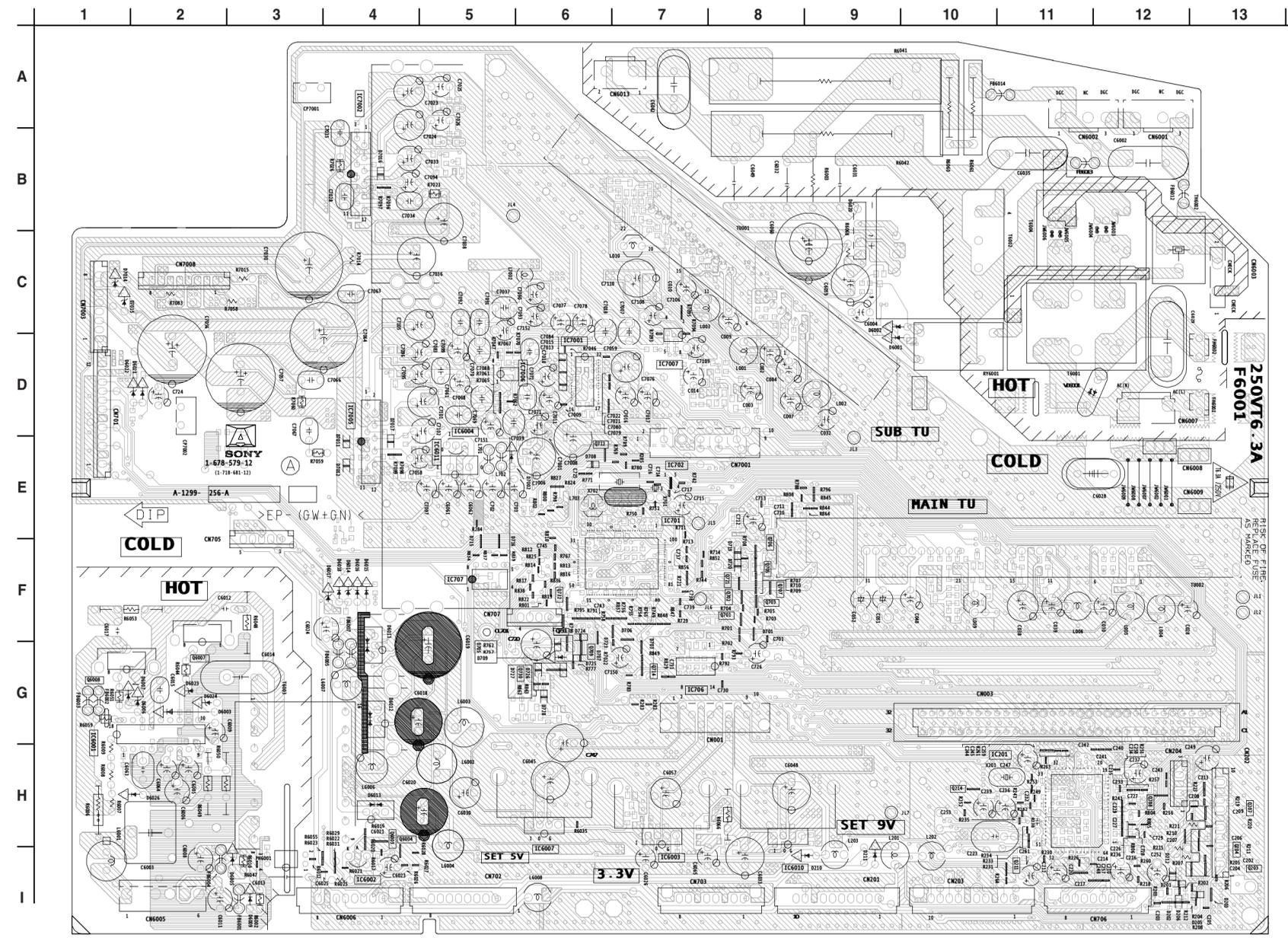
BLOCK DIAGRAM (4/4)



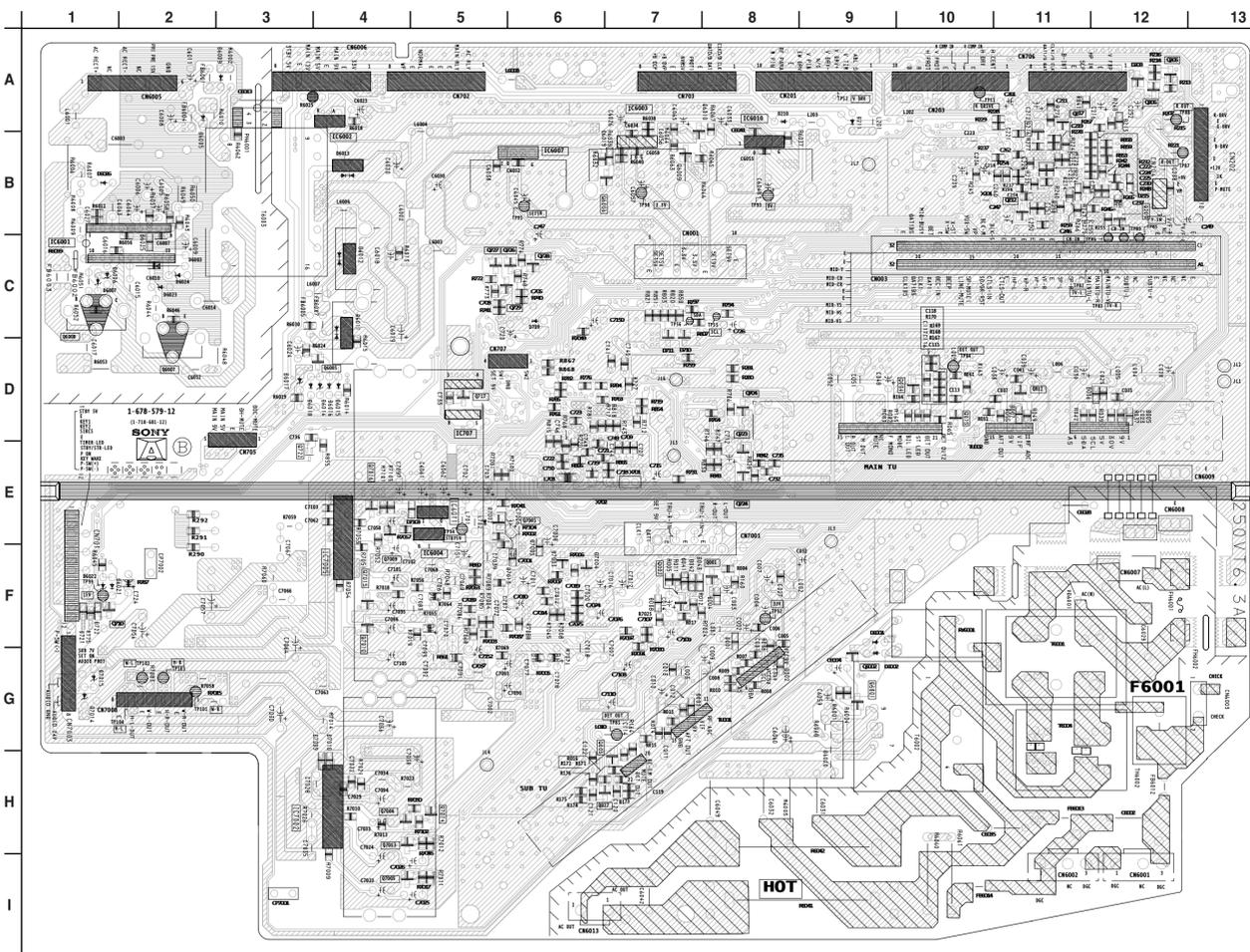
A BOARD LOCATOR LIST

DIODE		IC	
Component Side	Conductor Side	Component Side	Conductor Side
D004	G-8	IC201	H-11
D008	G-7	IC701	F-6
D203	J-13	IC702	E-7
D205	J-13	IC707	F-5
D208	A-12	IC6001	H-11
D211	I-9	IC6002	J-4
D212	I-12	IC6003	I-7
D214	B-12	IC6007	I-6
D215	B-12	IC6010	I-8
D701	B-4	IC6011	E-4
D703	G-7	IC7001	D-6
D705	G-5	IC7002	A-4
D706	G-6	IC7005	E-3
D707	G-6	IC7006	D-5
D708	E-6	IC7007	D-7
D709	G-5	TRANSISTOR	
D710	D-7	Q001	F-8
D711	D-7	Q002	F-8
D715	F-5	Q004	D-10
D716	F-5	Q005	I-6
D719	F-8	Q012	D-11
D720	F-8	Q015	E-10
D721	G-1	Q027	I-6
D722	G-1	Q203	J-13
D723	G-6	Q204	I-13
D724	G-6	Q205	A-13
D725	G-6	Q206	A-13
D726	G-5	Q207	I-13
D727	G-5	Q208	I-12
D728	H-6	Q209	B-12
D8001	D-9	Q211	I-11
D8002	D-9	Q212	B-11
D8003	H-2	Q214	H-10
D8005	I-2	Q216	A-11
D8009	J-3	Q217	A-12
D8011	G-4	Q701	G-8
D8012	H-4	Q702	G-8
D8013	I-4	Q703	G-8
D8014	F-4	Q704	D-8
D8017	F-3	Q705	F-8
D8018	D-3	Q706	F-8
D8020	B-9	Q707	F-8
D8025	D-3	Q709	G-6
D7002	E-5	Q710	G-2
D7003	F-6	Q712	E-6
D7004	F-6	Q717	D-5
D7005	F-6	Q721	F-7
D7009	H-4	Q723	E-8
D7010	H-4	Q724	E-8
D7011	E-4	Q726	C-5
D7012	E-4	Q727	C-6
D7013	F-6	Q728	C-6
D7014	C-1	Q729	D-6
D7015	C-1	Q730	G-5
D7016	B-4	Q731	G-5
D7017	E-4	Q8001	G-9
D7103	E-4	Q8002	G-10
		Q6007	G-2
		Q6008	G-1
		Q6009	B-7
		Q6010	A-8
		Q7001	F-6
		Q7004	I-4
		Q7005	J-4
		Q7009	G-4
		Q7010	G-4
		Q7013	I-4
		Q7014	I-5
		Q7015	F-4
		Q7016	E-4

A [ TUNER, CRT DRIVE, MAIN UCOM, POWER SUPPLY, AUDIO ] COMPONENT SIDE



**A** [TUNER, CRT DRIVE, MAIN UCOM, POWER SUPPLY, AUDIO] CONDUCTOR SIDE



**A BOARD IC VOLTAGE LIST**

IC201	Pin	Volt	Pin	Volt
	1	GND	32	3.0
	2	0	33	1.6
	3	GND	35	0
	4	3.1	36	0.2
	5	3.1	37	0
	6	3.1	38	3.2
	7	0	39	1.1
	8	3.6	40	2.8
	9	3.6	41	GND
	10	3.6	42	0
	11	0	43	3.8
	12	0.5	44	GND
	13	0.5	45	2.8
	14	2.3	46	3.6
	15	3.7	47	3.9
	16	2.7	48	4.4
	17	2.6	49	5.4
	18	1.1	50	3.5
	19	4.9	51	3.8
	20	3.6	52	3.4
	21	3.4	53	3.5
	22	3.4	54	1.0
	23	GND	55	1.0
	24	NC	56	4.3
	25	4.6	57	3.9
	26	4.6	58	1.7
	27	0.7	59	1.7
	28	0	60	1.7
	29	5.0	61	9.0
	30	5.6	62	2.3
	31	1.3	63	2.5
			64	2.3

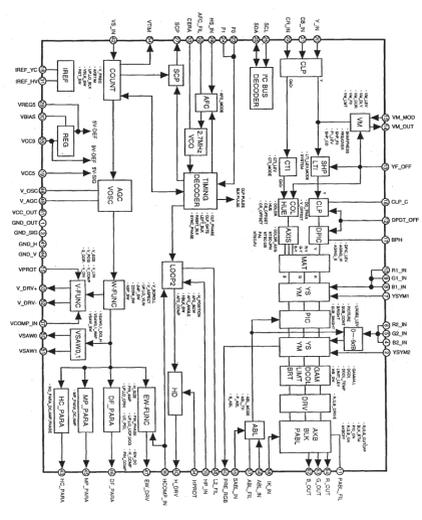
All voltages are in V

**A BOARD TRANSISTOR VOLTAGE LIST**

Q	B	C	E
Q001	0.4	0	GND
Q002	0.4	0	GND
Q004	4.6	1.1	5.0
Q005	4.3	9.0	3.6
Q012	0.1	7.5	GND
Q015	6.2	9.0	5.5
Q027	4.5	0	5.0
Q203	2.3	GND	3.2
Q204	2.5	GND	3.2
Q205	2.3	3.4	GND
Q206	3.4	4.1	3.5
Q207	2.3	GND	3.2
Q208	2.3	GND	3.2
Q209	0.8	2.2	GND
Q211	2.8	11.5	2.3
Q212	5.6	9.0	5.0
Q214	0	0	GND
Q216	4.5	GND	3.9
Q217	4.4	8.7	3.9

All voltages in V.

**A BOARD: IC CXA2150Q**

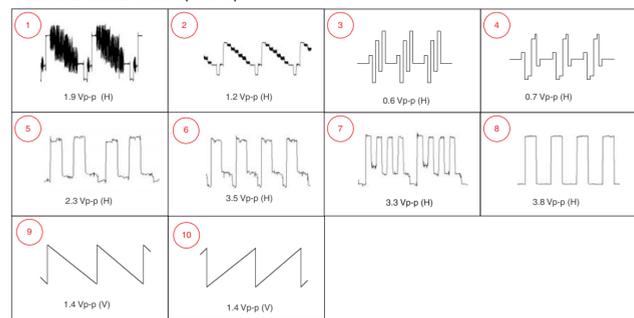


**A BOARD LOCATOR LIST**

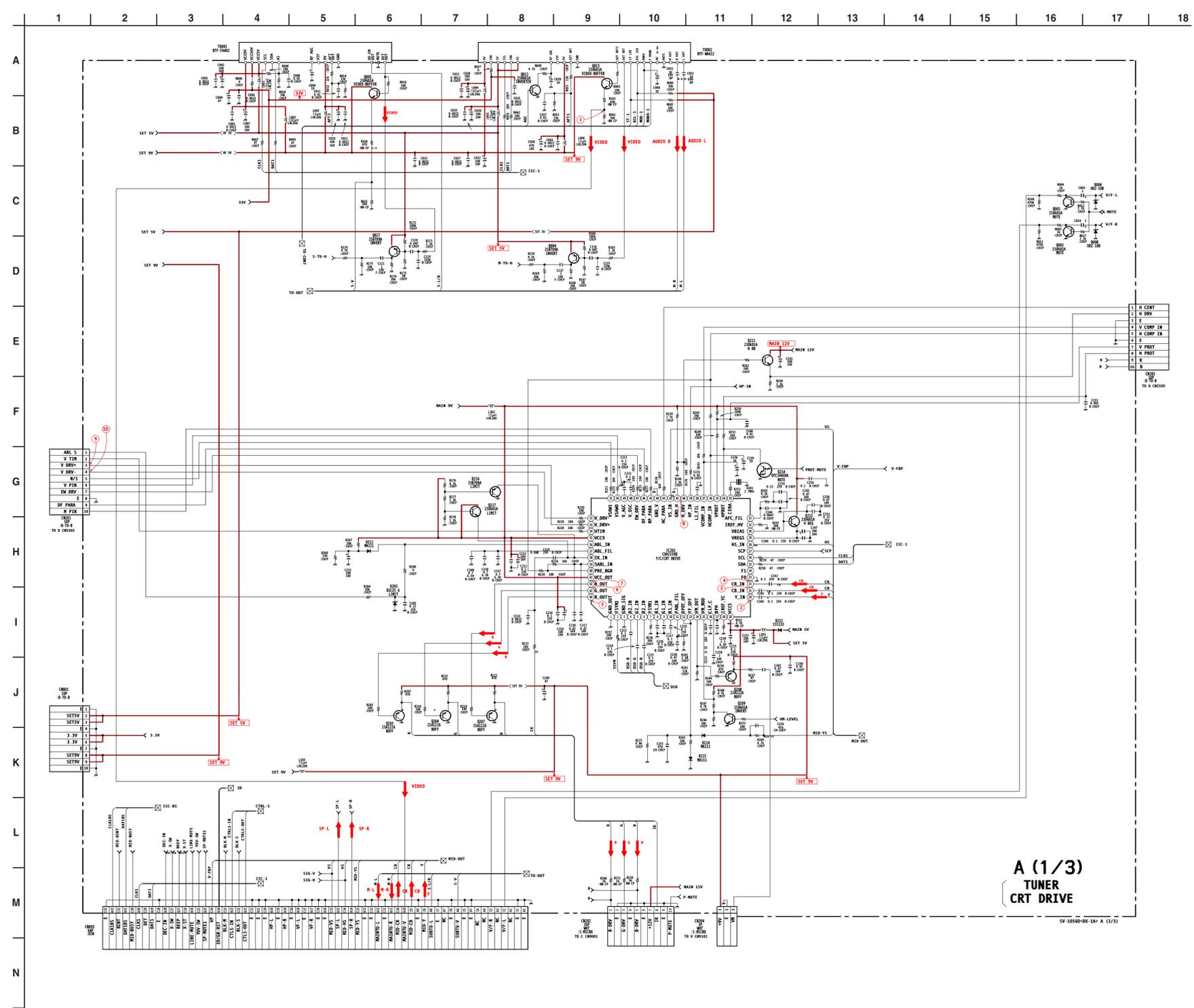
DIODE		IC		TRANSISTOR		Q	
A	B	A	B	A	B	A	B
D004	G-8	D6003	H-2	IC6003	I-7	Q704	D-8
D008	G-7	D6005	I-2	IC6007	I-6	Q705	F-8
D203	J-13	D6009	G-3	IC6010	I-8	Q706	F-8
D205	J-13	D6011	G-4	IC6011	E-4	Q707	F-8
D208	A-12	D6012	H-4	IC7001	D-6	Q709	G-6
D211	I-9	D6013	I-4	IC7002	A-4	Q710	G-2
D212	I-12	D6014	F-4	IC7005	E-3	Q712	E-6
D214	B-12	D6017	F-3	IC7006	D-5	Q717	D-5
D215	B-12	D6018	D-3	IC7007	D-7	Q721	F-7
D701	B-4	D6020	B-9	D-11	Q730	G-5	
D703	G-7	D6025	D-3	Q001	F-8	Q723	E-8
D706	G-6	D7002	E-5	Q002	F-8	Q724	E-8
D707	G-6	D7003	F-6	Q004	D-10	Q726	C-5
D708	E-6	D7004	F-6	Q005	H-6	Q728	C-6
D709	G-5	D7009	H-4	Q012	D-11	Q729	D-6
D710	D-7	D7010	H-4	Q015	E-10	Q731	G-5
D711	D-7	D7011	E-4	Q207	I-8	Q6001	G-9
D715	F-5	D7012	E-4	Q203	J-13	Q6002	G-10
D716	F-5	D7013	F-6	Q204	I-13	Q6007	G-2
D719	F-8	D7014	C-1	Q205	A-13	Q6008	G-1
D720	F-8	D7015	C-1	Q206	A-13	Q6009	B-7
D721	G-1	D7016	B-4	Q207	I-13	Q6010	A-8
D722	G-1	D7017	E-4	Q208	I-12	Q7001	F-6
D723	G-6	D7103	E-4	Q209	B-12	Q7004	I-4
D724	G-6			Q211	I-11	Q7005	J-4
D725	G-6			Q212	B-11	Q7009	G-4
D726	G-5			Q214	H-10	Q7010	G-4
D727	G-5			IC7011	F-6	Q7013	I-4
D728	H-6			IC702	E-7	Q7014	I-5
D6001	D-9	IC6001	H-11	Q701	G-8	Q7015	F-4
D6002	D-9	IC6002	J-4	Q702	G-8	Q7016	E-4
				Q703	G-8		

A = Component Side  
B = Conductor Side

**A BOARD WAVEFORMS (1 OF 3)**



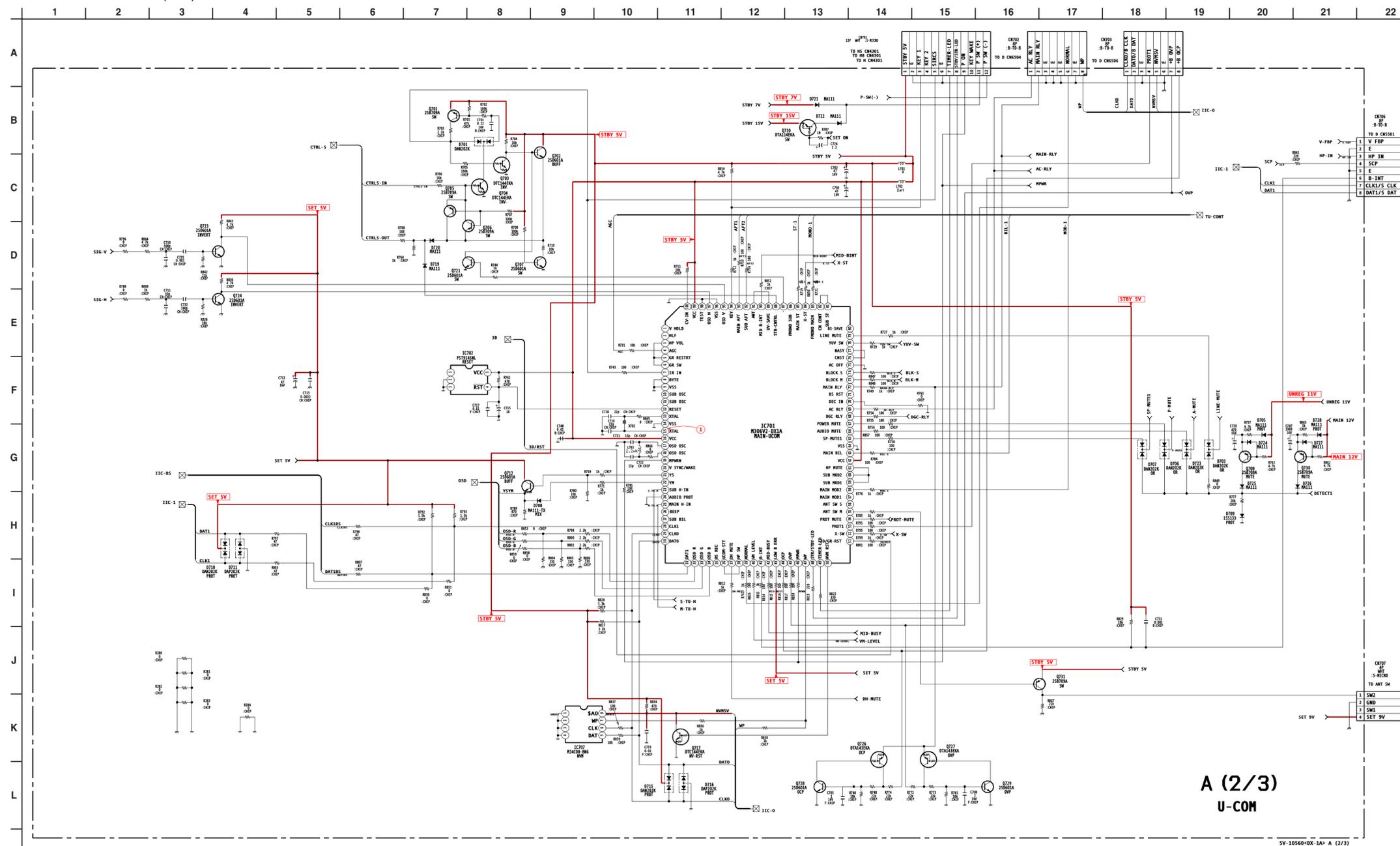
**A BOARD SCHEMATIC DIAGRAM (1 of 3)**



**A (1/3)  
TUNER  
CRT DRIVE**

SV-16586-02-1AP-A (1/3)

A BOARD SCHEMATIC DIAGRAM (2 of 3)



A (2/3)  
U-COM

C BOARD LOCATION LIST

DIODE			IC		
Component	Component	Conductor	Component	Component	Conductor
D9001	B-6	A-2	IC9001	B-2	
D9002			IC9002	B-3	
D9003	B-6	A-5	IC9003	B-5	
D9005			TRANSISTOR		
D9006			Component	Conductor	
D9007	C-3		Q9001	A-2	
D9008	C-5		Q9002	A-5	
D9009	D-5		Q9003	A-4	
D9010	C-5		Q9004	A-4	
D9013	C-5		Q9005	A-3	
D9014	B-6		Q9008	B-1	
D9015	A-6		Q9009	A-4	
D9016	B-6		Q9010	A-4	
D9017	B-6		Q9011	A-3	
			Q9012	B-1	
			Q9014	C-6	

A BOARD IC VOLTAGE LIST

IC701	pin	volt	IC702	pin	volt
1	33	0	1	68	0
2	35	NC	2	73	1
3	37	4.6	3	70	0
4	38	0	4	72	6.3
5	39	0	5	73	0
6	40	0	6	74	0
7	41	2.3	7	75	GND
8	42	0	8	76	0
9	43	4.6	9	77	0
10	44	2.8	10	78	0
11	45	0.1	11	79	0
12	46	0	12	80	NC
13	47	4.6	13	81	0
14	48	5.0	14	82	0
15	49	5.0	15	83	0
16	50	0	16	84	0
17	51	5.0	17	85	0
18	52	0	18	86	NC
19	53	3	19	87	0
20	54	0	20	88	0
21	55	0	21	89	0
22	56	0	22	90	0
23	57	NC	23	91	0
24	58	0	24	92	0
25	59	0	25	93	0
26	60	0	26	94	4.6
27	61	0	27	95	4.6
28	62	4.9	28	96	GND
29	63	4.9	29	97	4.6
30	64	GND	30	98	GND
31	65	0	31	99	4.9
32	66	NC	32	100	4.6

All voltages are in V.

C BOARD IC VOLTAGE LIST

IC9001	pin	volt	IC9002	pin	volt	IC9003	pin	volt
1	3.5	1	1	3.5	1	1	3.5	1
2	12.0	2	2	12.0	2	2	12.0	2
3	3.5	3	3	3.5	3	3	3.5	3
4	GND	4	4	GND	4	4	GND	4
5	8.0	5	5	7.8	5	5	7.8	5
6	203.0	6	6	203.0	6	6	203.0	6
7	145.0	7	7	142.6	7	7	147.0	7
8	158.0	8	8	164.0	8	8	163.0	8
9	144.0	9	9	142.0	9	9	146.0	9

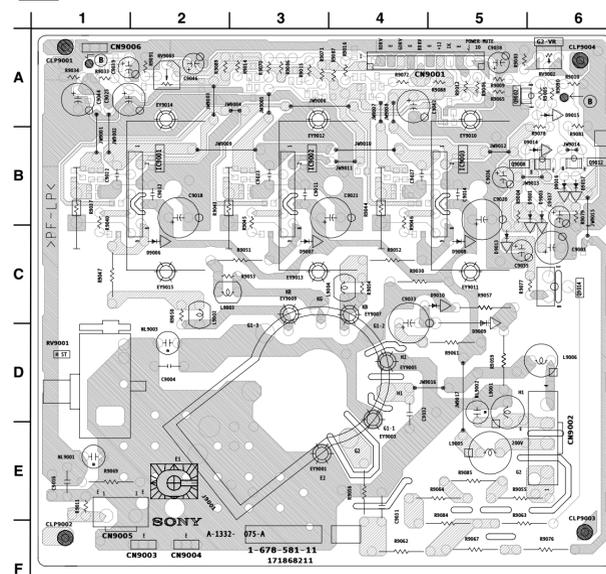
All voltages are in V.

C BOARD TRANSISTOR VOLTAGE LIST

Q9001	B	C	E
Q9001	7.5	GND	3.6
Q9002	0.2	11.1	GND
Q9003	2.1	12.0	3.2
Q9004	2.1	12.0	3.2
Q9005	3.2	12.0	2.1
Q9008	5.4	12.0	4.8
Q9009	3.2	GND	3.9
Q9010	3.2	GND	4.0
Q9011	3.2	GND	3.9
Q9012	5.4	10.5	4.8
Q9014	11.7	450.0	11.1

All voltages in V.

C BOARD LOCATION LIST

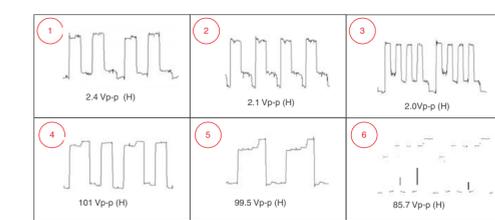


A BOARD TRANSISTOR VOLTAGE LIST

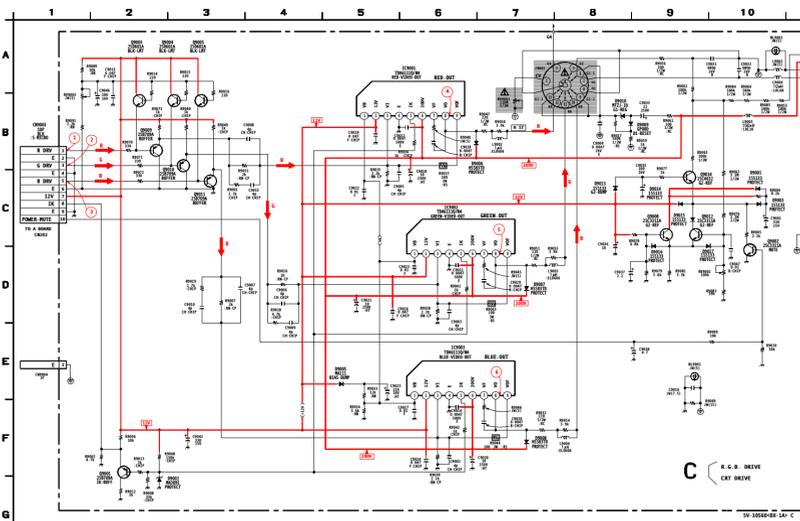
Q701	B	C	E
Q701	4.7	4.7	5.0
Q702	0.1	5.0	0
Q703	4.6	5.0	GND
Q704	0	4.4	GND
Q705	5.0	0	0
Q706	5.0	0	0
Q707	0.5	0	GND
Q709	10.4	0.7	10.2
Q710	19.5	0	19.9
Q712	0	5.0	0.0
Q717	0	5.0	GND
Q719	0.6	4.5	GND
Q720	4.5	0	4.5
Q721	0	0	GND
Q723	0.2	4.6	GND
Q724	0.5	4.6	GND
Q731	0	0	5.0

All voltages in V.

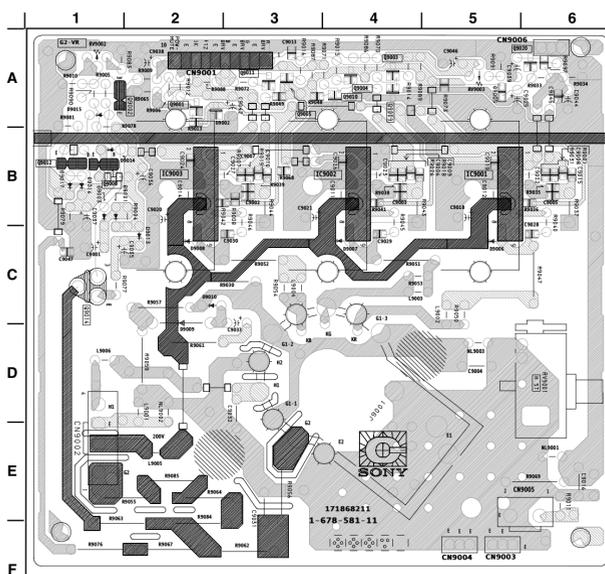
C BOARD WAVEFORMS

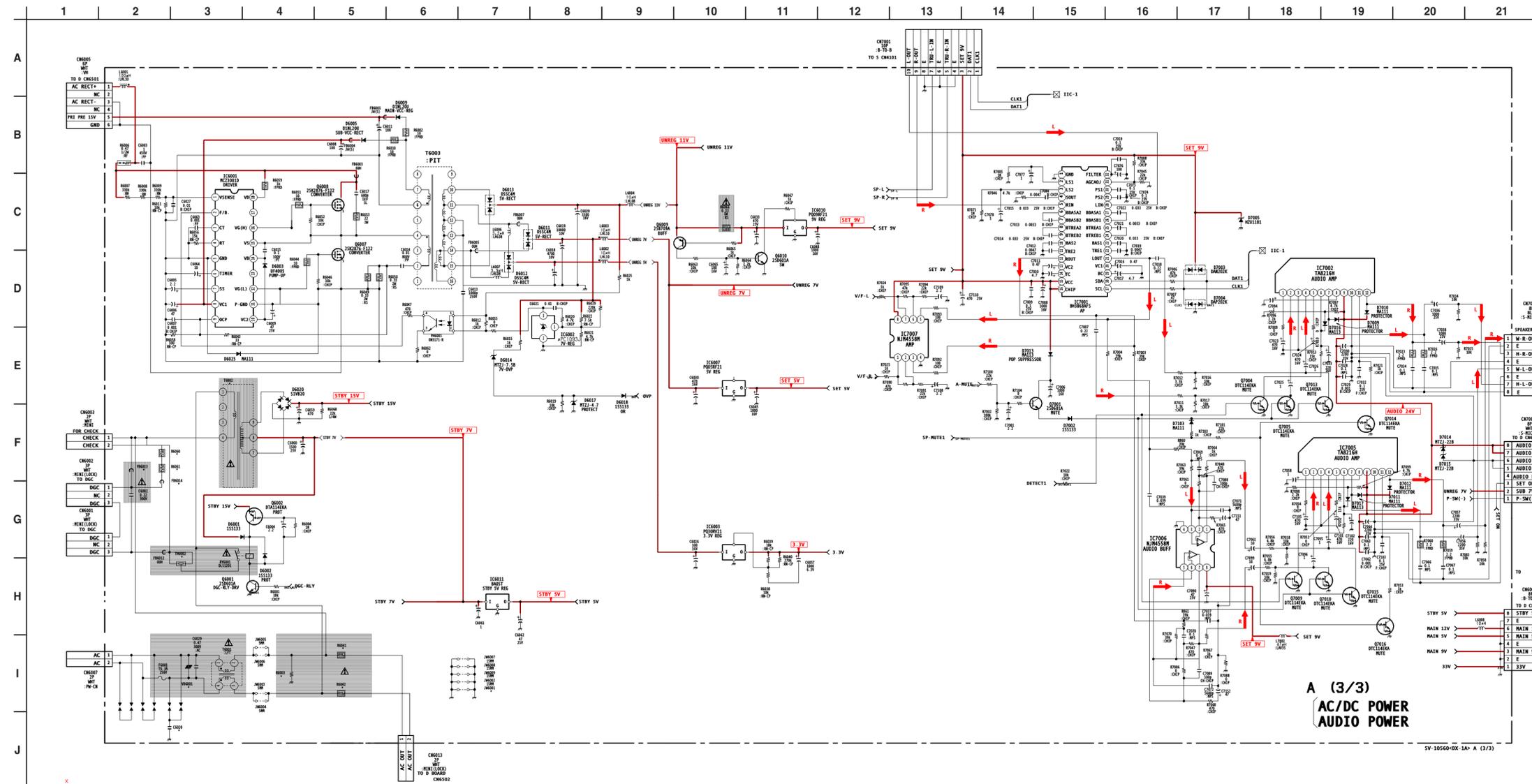


C BOARD SCHEMATIC DIAGRAM



CONDUCTOR SIDE





A BOARD IC VOLTAGE LIST

IC6001			IC6002			IC6011			IC7002			IC7005			IC7006		
pin	volt		pin	volt		pin	volt		pin	volt		pin	volt		pin	volt	
1	3.3		1	7.3	I	8.1		1	1.6		7	11.0		1	1.6		
2	1.8		2	gnd	G	GND		2	0		8	5.0		2	0		
3	2.2		3	2.5	O	5.0		3	0		9	23.7		3	0		
4	2.5		IC8003			IC7001			4	0		10	0		4	0	
5	GND		pin	volt	pin	volt	20	0.8	5	1.6	11	4.2		5	1.6		
6	0		1	5.7	1	GND	21	4.4	6	8.0	12	10.5		6	8.0		
7	4.6		2	GND	2	0	22	4.4	7	4.0	IC7006			7	4.0		
8	17.3		3	3.3	3	0	23	4.4	8	5.0	pin	volt	8	5.0			
9	0		IC9007			4	4.5	24	4.4	9	23.7	1	4.5		9	23.7	
10	10.4		pin	volt	5	4.4	25	4.4	10	0	2	4.5		10	0		
11	GND		1	6.3	6	4.4	26	4.4	11	4.1	3	4.5		11	4.1		
12	4.7		G	GND	7	4.4	27	4.4	12	10.5	4	GND		12	10.5		
13	NC		O	5.0	8	4.4	28	4.4	IC7005			5	4.5		13	4.5	
14	160.6		IC6010			9	4.4	29	4.4	pin	volt	6	4.5		14	4.5	
15	150.4		pin	volt	10	4.4	30	4.5	1	1.6	7	4.5		15	150.4		
16	154.6		I	10.9	11	4.4	31	2.8	2	0	8	9.0		16	154.6		
17	NC		G	GND	12	4.4	32	4.4	3	0				17	NC		
18	303.1		O	9.0	13	0.8			4	0				18	303.1		

A BOARD TRANSISTOR VOLTAGE LIST

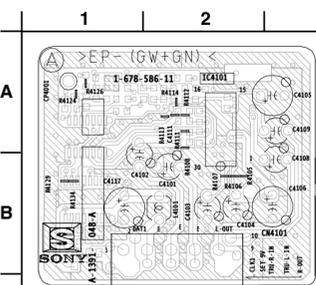
	B	C	E
Q6001	0	18.0	GND
Q6002	19.7	18.5	19.8
Q6003	-0.5	0	GND
Q6035	I-4	0.047 125V	0.047 125V
Q7001	0.3	0	0
Q7002	-0.1	9.0	GND
Q7003	9.0	0	9.0
Q7004	0.3	8.0	GND
Q7005	0	0	GND
Q7009	0.3	8.0	GND
Q7010	0	0.7	GND
Q7011	0	-0.1	0
Q7014	0	4.1	GND
Q7016	0	4.2	GND

	D	G	S
Q6007	150.4	4.7	0
Q6008	303.0	154.6	150

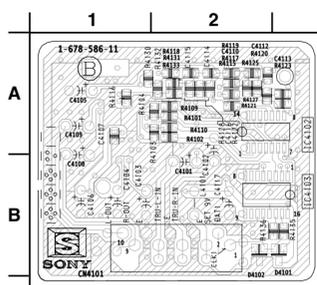
A BOARD (\*) MODEL VARIANCE LIST

REF NO.	LOC	KV-32XBR400	KV-36XBR400	KV-38DRC1C
C6002	G-1	0.22 125V	0.22 125V	0.22 300V
C6028	J-2	#	#	4700p 250V
C6029	I-2	0.47 125V	0.47 125V	0.47 300V
C6035	I-4	0.047 125V	0.047 125V	0.047 300V
FB6012	H-2	1.1 uH	1.1 uH	#
FB6014	G-2	#	#	1.1 uH
JW6001	G-2	15mm	15mm	#
R6003	I-4	3.3M 1/2W	3.3M 1/2W	8.2M 1W
R6041	I-4	0.47 20W	0.47 20W	1 20W
R6042	I-4	0.47 20W	0.47 20W	1 20W
R6060	F-2	#	#	3.3 10W
R6061	F-2	#	#	3.3 10W
T6002	F-3	1-435-675-11	1-435-675-11	1-435-676-11
TH6002	H-2	1-803-970-11	1-803-970-11	1-803-541-11
VD6001	I-2	ERZV10D271	ERZV10D271	ENE471D-14A

S COMPONENT SIDE



S CONDUCTOR SIDE



S BOARD LOCATOR LIST

Component	Diode	
	Component	Conductor
D4101	B-3	
D4102	B-2	

Component	IC	
	Component	Conductor
IC4101	A-2	
IC4102	A-3	
IC4103	B-3	

S BOARD IC VOLTAGE LIST

IC4101	pin	volt	IC4102	pin	volt
1	8.4		1	4.5	
2	0.1		2	4.5	
3	0.1		3	4.5	
4	4.5		4	4.5	
5	GND		5	8.6	
6	9.0		6	0.3	
7	NC		7	GND	
8	NC		8	4.5	
9	NC		9	4.5	
10	NC		10	4.5	
11	4.5		11	4.5	
12	4.5		12	0.3	
13	4.5		13	8.6	
14	4.5		14	9.0	
15	4.5		IC4103		
16	4.5		pin	volt	
17	4.5		17	0.1	
18	4.5		18	0.1	
19	4.5		19	3	8.6
20	4.5		20	4	0.3
21	4.5		21	5	0.3
22	4.5		22	6	NC
23	4.5		23	7	NC
24	4.5		24	8	GND
25	4.5		25	9	NC
26	4.5		26	10	NC
27	4.5		27	11	NC
28	NC		28	12	GND
29	4.5		29	13	9.0
30	4.5		30	14	4.5
			15	4.5	
			16	9.0	

HA BOARD IC VOLTAGE LIST

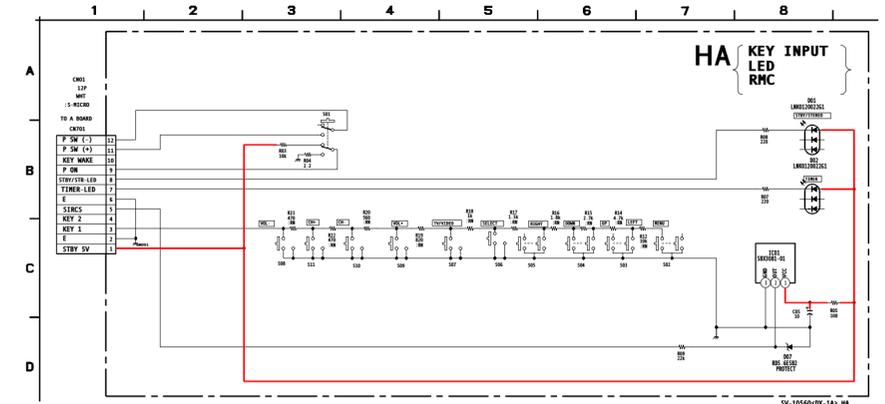
IC01	
pin	volt
1	4.9
2	0
3	4.3

HA BOARD LOCATOR LIST

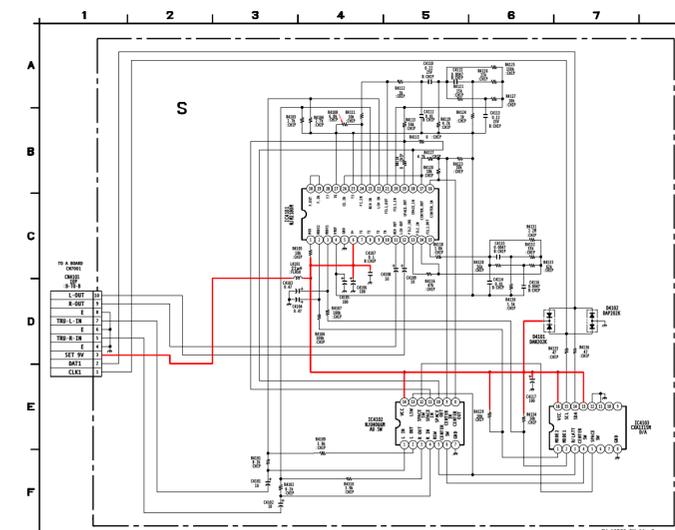
Diode	
Component	Conductor
D01	B-2
D02	C-2
D07	B-2

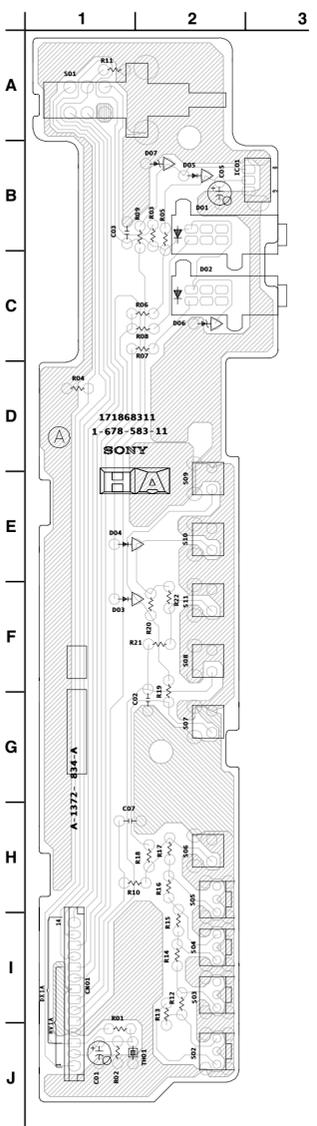
IC	
Component	Conductor
IC01	B-3



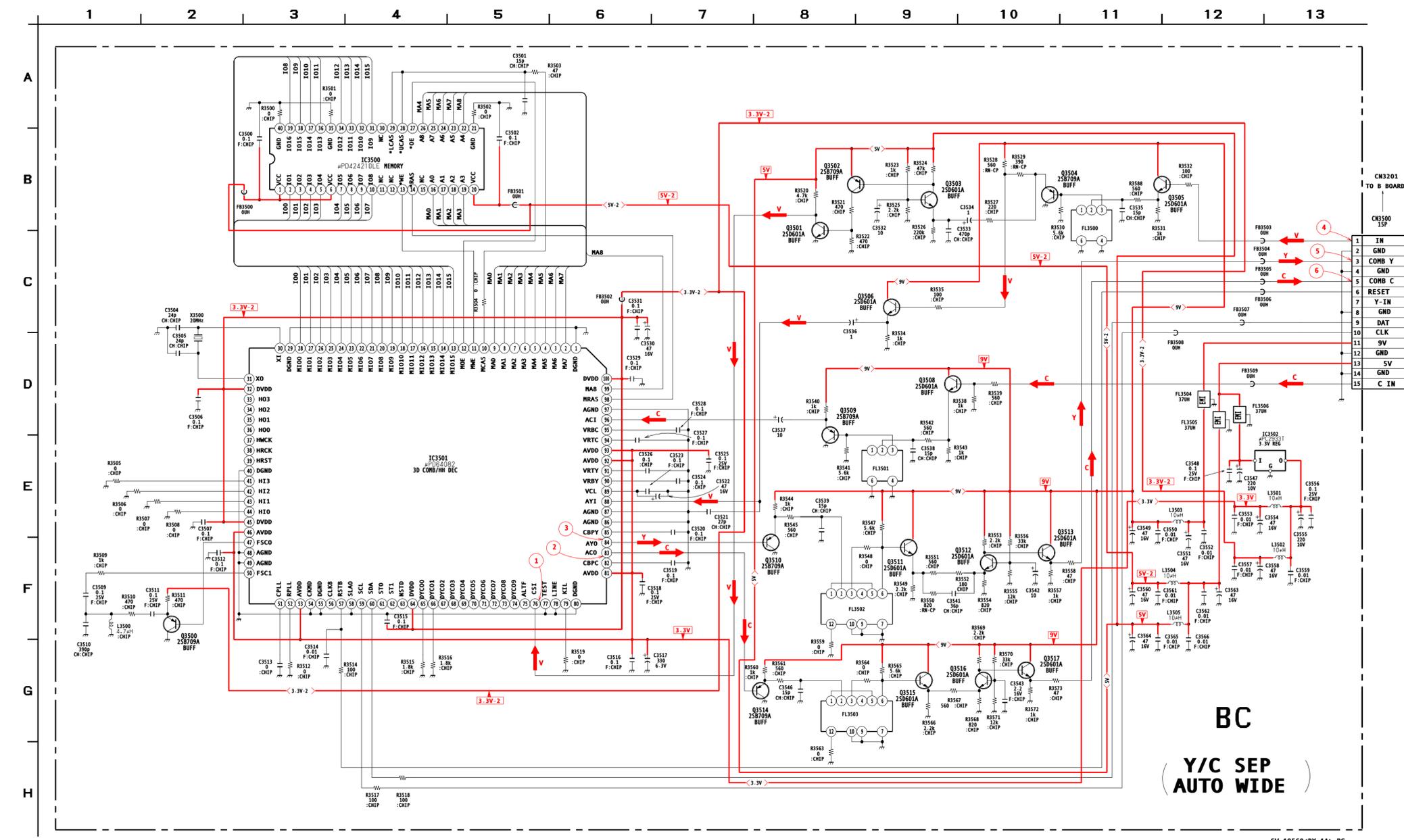
S Board Schematic Diagram



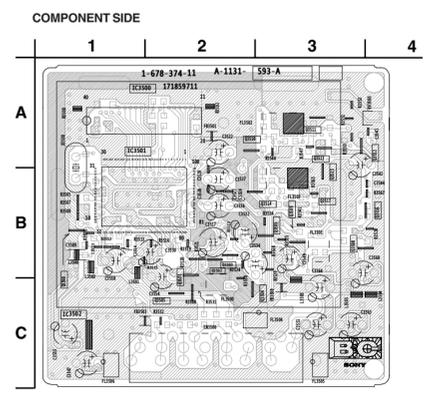
HA [ KEY INPUT, LED, RMC ]



BC Board Schematic Diagram

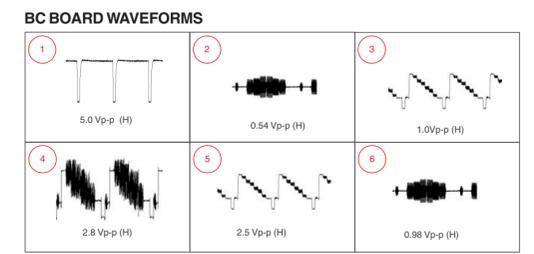
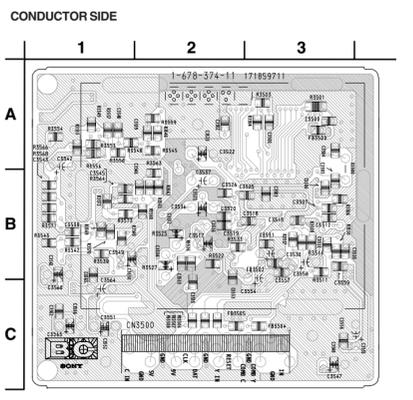


BC [Y/C SEP, AUTO WIDE]

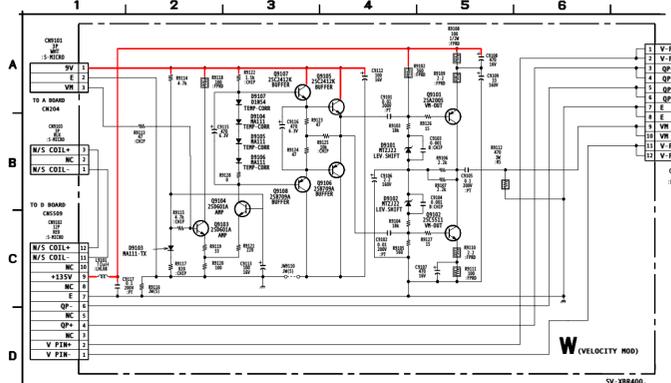


**BC BOARD LOCATOR LIST**

IC	Component	Conductor
IC3500	A-1	
IC3501	A-1	
IC3502	C-1	
<b>TRANSISTOR</b>		
Q3501	C-2	
Q3502	B-2	
Q3503	B-2	
Q3504	C-3	
Q3505	C-2	
Q3506	B-3	
Q3508	B-3	
Q3509	B-3	
Q3510	A-2	
Q3511	A-3	
Q3512	A-4	
Q3513	A-3	
Q3514	B-3	
Q3515	B-3	
Q3516	B-4	
Q3517	B-3	



W Board Schematic Diagram



**W BOARD TRANSISTOR VOLTAGE LIST**

Transistor	B	C	E
Q9101	133.8	67.5	134.3
Q9102	1.3	67.5	0.8
Q9103	2.9	0	9.0
Q9104	9.0	5.1	0
Q9105	5.1	9.0	4.7
Q9106	4.1	GND	4.7
Q9107	5.9	9.0	5.1
Q9108	3.5	GND	4.1
Q9109	2.9	GND	3.5

All voltages in V.

BC BOARD IC VOLTAGE LIST

IC3500	17	1.5	35	0	11	2.8	29	GND	47	1.7	65	0	83	1.6	
pin	volt	18	1.5	36	1.9	12	2.4	30	1.4	48	GND	66	0.0	84	1.7
1	4.8	19	1.5	37	1.8	13	1.9	31	1.5	49	GND	67	NC	85	1.0
2	2.0	20	4.8	38	1.8	14	2.5	32	3.2	50	1.4	68	NC	86	0
3	2.0	21	0	39	1.8	15	1.3	33	NC	51	0	69	NC	87	0
4	1.8	22	1.5	40	0	16	1.7	34	NC	52	0	70	NC	88	1.3
5	1.9	23	1.5	41	0	17	1.9	35	NC	53	3.2	71	NC	89	0.5
6	4.8	24	1.5	42	0	18	1.8	36	NC	54	GND	72	NC	90	0.9
7	1.6	25	1.5	1	GND	19	1.9	37	NC	55	GND	73	NC	91	1.6
8	1.4	26	1.5	2	1.5	20	1.8	38	NC	56	NC	74	NC	92	3.2
9	1.1	27	2.4	3	1.5	21	0.9	39	NC	57	5.0	75	NC	93	3.2
10	0.8	28	1.0	4	1.5	22	1.3	40	GND	58	GND	76	4.1	94	3.2
11	NC	29	1.0	5	1.5	23	1.4	41	0	59	4.5	77	GND	95	2.0
12	NC	30	NC	6	1.5	24	1.6	42	0	60	4.5	78	GND	96	2.6
13	2.9	31	1.9	7	1.5	25	1.8	43	0	61	NC	79	0	97	0
14	0.5	32	2.5	8	1.5	26	1.8	44	0	62	NC	80	GND	98	0.5
15	NC	33	1.3	9	1.5	27	2.0	45	3.2	63	NC	81	3.2	99	1.5
16	1.5	34	1.7	10	1.0	28	2.0	46	3.2	64	3.2	82	1.0	100	3.2

**IC3502**

pin	volt
I	4.8
G	GND
O	3.3

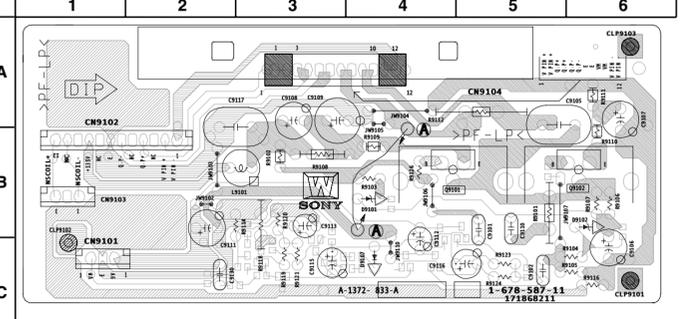
All voltages are in V.

BC BOARD TRANSISTOR VOLTAGE LIST

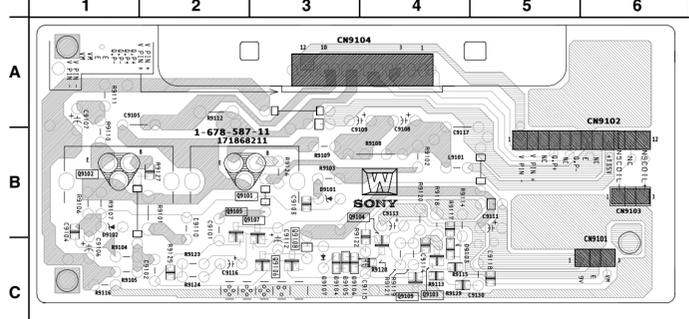
Transistor	B	C	E
Q3500	1.7	GND	2.3
Q3501	0.1	4.2	GND
Q3502	4.6	0.4	4.9
Q3503	3.3	4.7	4.0
Q3504	3.3	GND	4.0
Q3505	4.3	8.9	3.6
Q3506	6.0	8.9	5.3
Q3508	2.4	8.9	1.8
Q3509	1.6	GND	2.3
Q3510	1.7	GND	2.3
Q3511	2.9	8.9	2.3
Q3512	2.3	6.1	1.7
Q3513	6.1	8.9	5.5
Q3514	1.6	GND	2.3
Q3515	2.9	8.9	2.3
Q3516	2.3	6.4	1.7
Q3517	6.4	8.9	5.7

All voltages in V.

W [VELOCITY MODULATION]



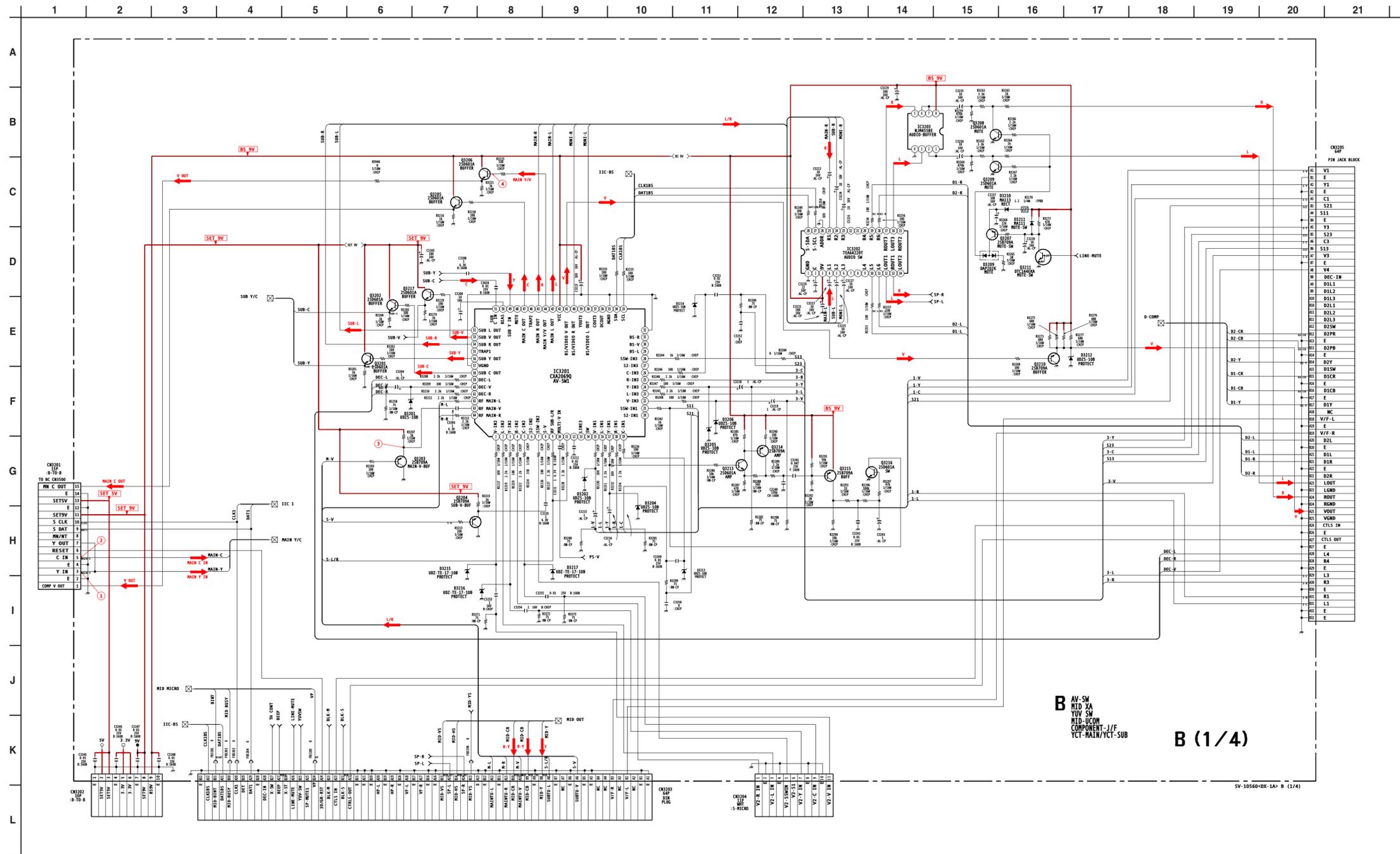
CONDUCTOR SIDE



W BOARD LOCATOR LIST

Component	Conductor
D9101	B-4
D9102	B-6
D9103	C-4
D9104	C-3
D9105	C-3
D9106	C-3
D9107	C-4
<b>TRANSISTOR</b>	
Q9101	B-4
Q9102	B-6
Q9103	C-4
Q9104	B-3
Q9105	B-2
Q9106	C-3
Q9107	B-3
Q9108	C-3

B Board Schematic Diagram (1 of 4)



B BOARD IC VOLTAGE LIST

IC3201	pin	volt	26	4.4	53	3.8	14	4.4
	1	3.9	28	4.9	55	NC	16	4.4
	2	4.4	29	NC	56	3.4	17	4.4
	3	3.9	30	NC	57	GND	18	4.4
	4	4.4	31	NC	58	4.3	19	4.4
	5	4.4	32	GND	59	4.4	20	NC
	6	0.1	33	4.4	60	3.9	21	NC
	7	4.9	34	4.6	61	4.4	22	NC
	8	4.0	35	0.0	62	4.4	23	4.4
	9	4.5	36	NC	63	4.8	24	4.4
	10	4.4	37	NC	64	4.4	25	4.4
	11	4.5	38	4.5				
	12	4.4	39	NC				
	13	NC	40	4.5	1	GND	26	GND
	14	NC	41	4.5	2	4.4		
	15	4.4	42	9.0	3	9.0		
	16	4.4	43	4.5	4	4.4		
	17	3.9	44	4.4	5	4.4		
	18	4.4	45	4.5	6	4.4		
	19	4.4	46	NC	7	NC		
	20	0.1	47	4.4	8	NC		
	21	4.9	48	NC	9	NC		
	22	4.3	49	4.1	10	4.4		
	23	4.4	50	4.5	11	4.4		
	24	3.9	51	4.4	12	4.4		
	25	4.4	52	4.5	13	4.4		

IC3202	pin	volt
	26	GND
	27	4.6
	28	4.6
	29	4.6
	30	4.6
	31	4.6
	32	4.6
	33	4.6
	34	4.6
	35	4.6
	36	4.6
	37	4.6
	38	4.6
	39	4.6
	40	4.6
	41	4.6
	42	4.6
	43	4.6
	44	4.6
	45	4.6
	46	4.6
	47	4.6
	48	4.6
	49	4.6
	50	4.6
	51	4.6
	52	4.6

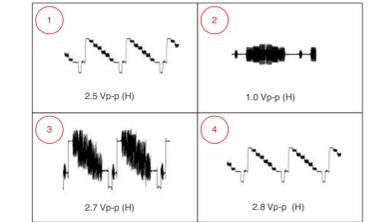
  

IC3203	pin	volt
	1	4.4
	2	4.4
	3	4.4
	4	4.4
	5	4.4
	6	4.4
	7	4.4
	8	9.0
	9	9.0
	10	9.0
	11	9.0
	12	9.0
	13	9.0
	14	9.0
	15	9.0
	16	9.0
	17	9.0
	18	9.0
	19	9.0
	20	9.0
	21	9.0
	22	9.0
	23	9.0
	24	9.0
	25	9.0

B BOARD TRANSISTOR VOLTAGE LIST

Q3201	B	C	E
Q3201	4.6	2.9	2.5
Q3202	2.7	9.0	2.3
Q3203	3.1	GND	3.7
Q3204	1.8	GND	2.2
Q3205	4.4	9.0	3.8
Q3206	4.9	9.0	4.3
Q3207	8.9	-1.0	8.9
Q3208	-0.3	0	GND
Q3209	-0.3	0	GND
Q3210	2.7	GND	3.1
Q3211	0.4	8.9	GND
Q3213	3.8	7.9	3.2
Q3214	7.9	5.8	8.5
Q3215	8.5	0	9.0
Q3216	0.1	4.9	0
Q3217	3.6	9.0	3.1

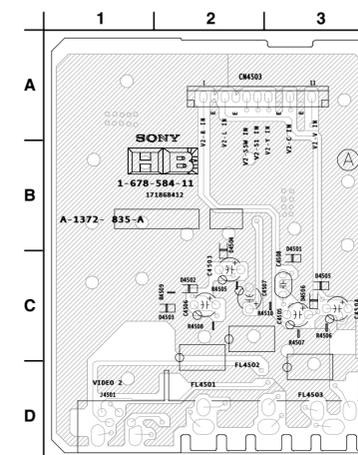
B BOARD (1/4) WAVEFORMS



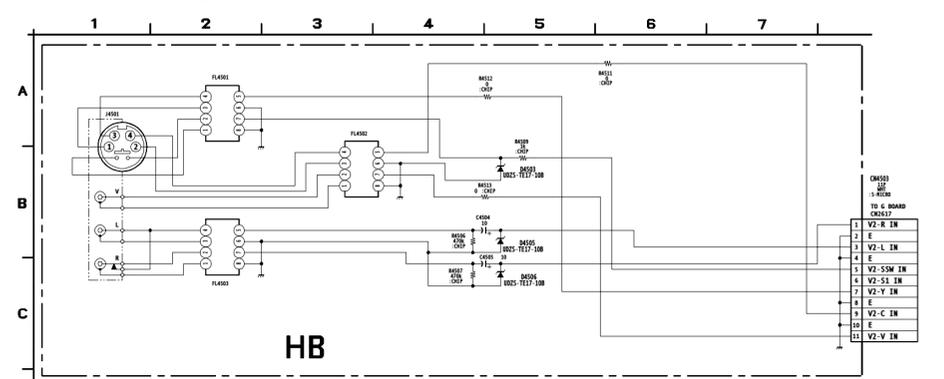
HB BOARD LOCATOR LIST

DIODE	
D4501	C-3
D4502	C-2
D4503	C-2
D4504	B-2
D4505	C-3
D4506	C-3

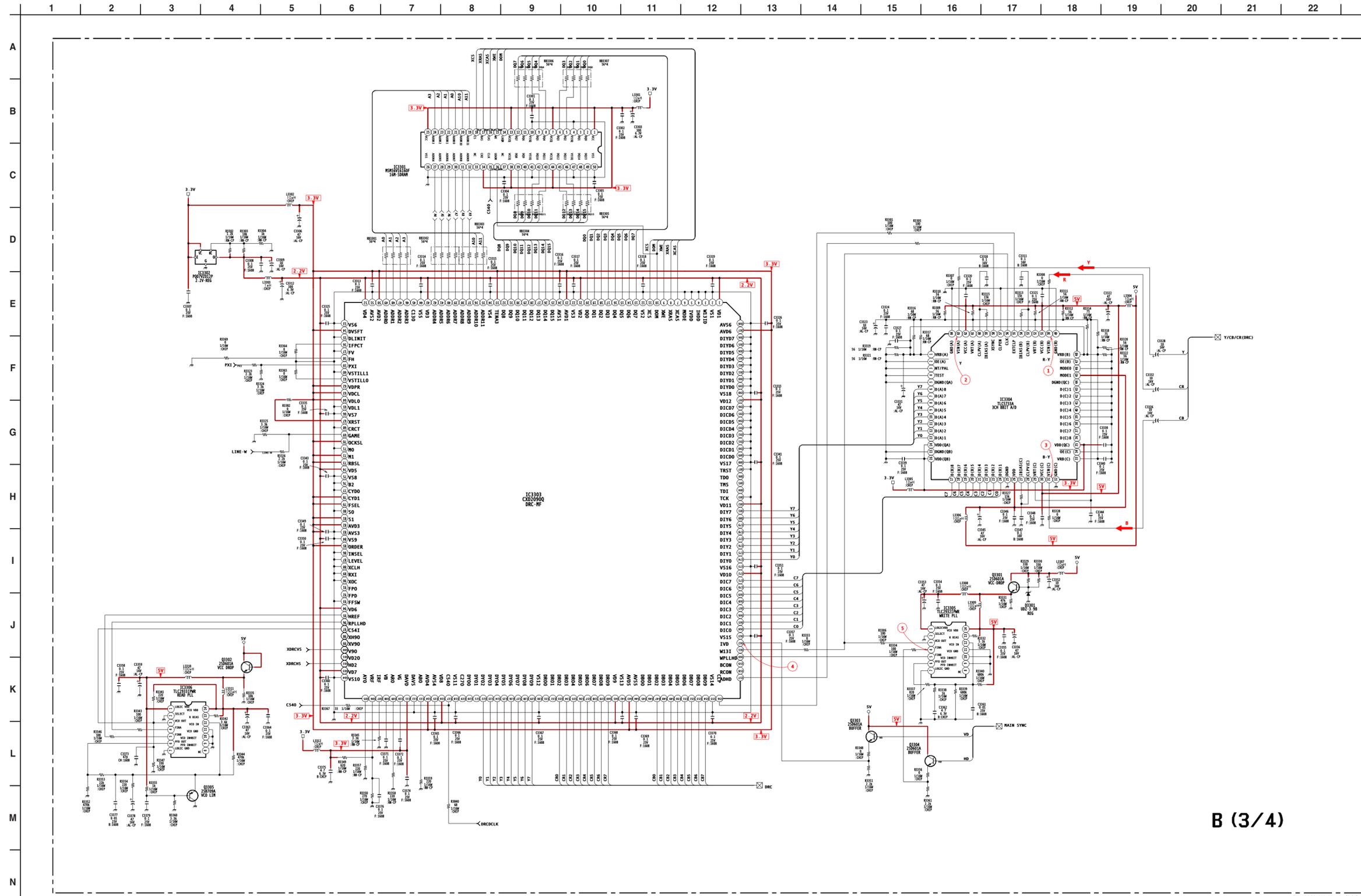
HB [KEY INPUT, LED, RMC]



HB Board Schematic Diagram





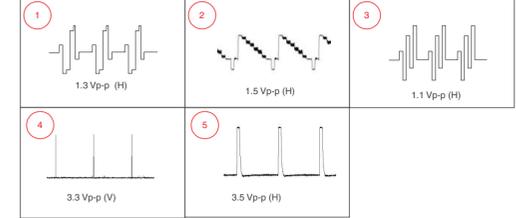


B BOARD IC VOLTAGE LIST

IC3301		IC3302		IC3303		IC3304		IC3305		IC3306		
pin	volt											
1	3.3	1	3.3	45	NC	98	NC	151	2.3	204	GND	
2	1.5	G	GND	46	0	99	NC	152	2.3	205	GND	
3	1.6	O	1.2	47	0	100	0	153	2.0	206	GND	
4	GND	VC	3.3	48	0	101	NC	154	1.2	207	3.3	
5	1.5	NC		49	0	102	0.2	155	GND	208	GND	
6	1.5	NC		50	3.3	103	2.2	156	1.6	IC3304	52	4.4
7	3.3	pin		51	GND	104	GND	157	3.3	pin	volt	
8	1.9	1	2.2	52	2.2	105	0.4	158	NC	1	1.6	
9	GND	2	1.9	53	GND	106	1.0	159	NC	2	0	
10	1.8	3	GND	54	3.3	107	1.0	160	0.8	3	0	
11	1.2	4	GND	55	GND	108	1.0	161	0.9	4	0	
12	3.3	5	GND	56	0	109	0.5	162	0	5	0	
13	0.5	6	GND	57	GND	110	2.2	163	GND	6	1.2	
14	3.2	7	1.9	58	GND	111	3.3	164	1.4	7	1.2	
15	3.2	8	2.0	59	0	112	GND	165	1.9	8	0	
16	3.2	9	2.0	60	GND	113	0.5	166	1.8	9	1.9	
17	3.2	10	0.3	61	0	114	3.3	167	1.9	10	0.1	
18	3.2	11	1.9	62	3.3	115	GND	168	1.9	11	0.8	
19	0	12	GND	63	3.3	116	2.2	169	1.9	12	2.0	
20	0	13	0.6	64	3.3	117	0	170	1.9	13	1.6	
21	0	14	1.0	65	GND	118	GND	171	1.3	14	3.3	
22	0	15	1.9	66	GND	119	NC	172	2.2	15	0	
23	0	16	1.3	67	3.3	120	NC	173	GND	16	3.3	
24	0	17	1.0	68	GND	121	NC	174	1.5	17	0	
25	3.3	18	1.0	69	0	122	1.4	175	1.6	18	3.2	
26	GND	19	1.2	70	3.3	123	1.3	176	1.3	19	3.2	
27	0	20	1.0	71	GND	124	1.4	177	1.0	20	3.2	
28	0	21	1.2	72	3.3	125	1.4	178	2.3	21	3.2	
29	0	22	GND	73	3.3	126	1.0	179	0.7	22	3.2	
30	0	23	3.3	74	2.2	127	0.9	180	1.6	23	2.0	
31	0	24	GND	75	GND	128	1.1	181	0.8	24	1.1	
32	0	25	0.8	76	GND	129	0.9	182	2.2	25	GND	
33	NC	26	0.8	77	GND	130	GND	183	GND	26	4.8	
34	3.3	27	0.6	78	3.3	131	NC	184	NC	27	2.4	
35	1.7	28	1.2	79	3.3	132	NC	185	NC	28	2.4	
36	0.5	29	0.7	80	GND	133	1.6	186	NC	29	3.2	
37	NC	30	0.9	81	3.3	134	1.6	187	GND	30	4.8	
38	3.3	31	1.0	82	3.3	135	2.2	188	GND	31	2.4	
39	1.6	32	0.9	83	GND	136	2.2	189	GND	32	GND	
40	1.6	33	3.3	84	GND	137	2.2	190	GND	33	1.5	
41	GND	34	GND	85	3.3	138	2.1	191	GND	34	0	
42	1.5	35	0	86	GND	139	2.2	192	GND	35	3.3	
43	1.5	36	0	87	GND	140	1.1	193	GND	36	NC	
44	3.3	37	0	88	GND	141	2.2	194	GND	37	NC	
45	1.8	38	0	89	GND	142	GND	195	GND	38	0	
46	2.0	39	0	90	GND	143	3.3	196	GND	39	0	
47	GND	40	0	91	NC	144	GND	197	2.2	40	0	
48	1.7	41	0	92	NC	145	NC	198	GND	41	0	
49	1.2	42	0	93	GND	146	NC	199	GND	42	0	
50	GND	43	2.2	94	2.2	147	1.6	200	GND	43	0	
		44	96	2.0	148	1.6	201	GND	44	0		
		45	97	1.3	149	2.2	202	GND	45	4.9		
		46			150	2.4	203	GND	46	0		

All voltages are in V

B BOARD (3/4) WAVEFORMS



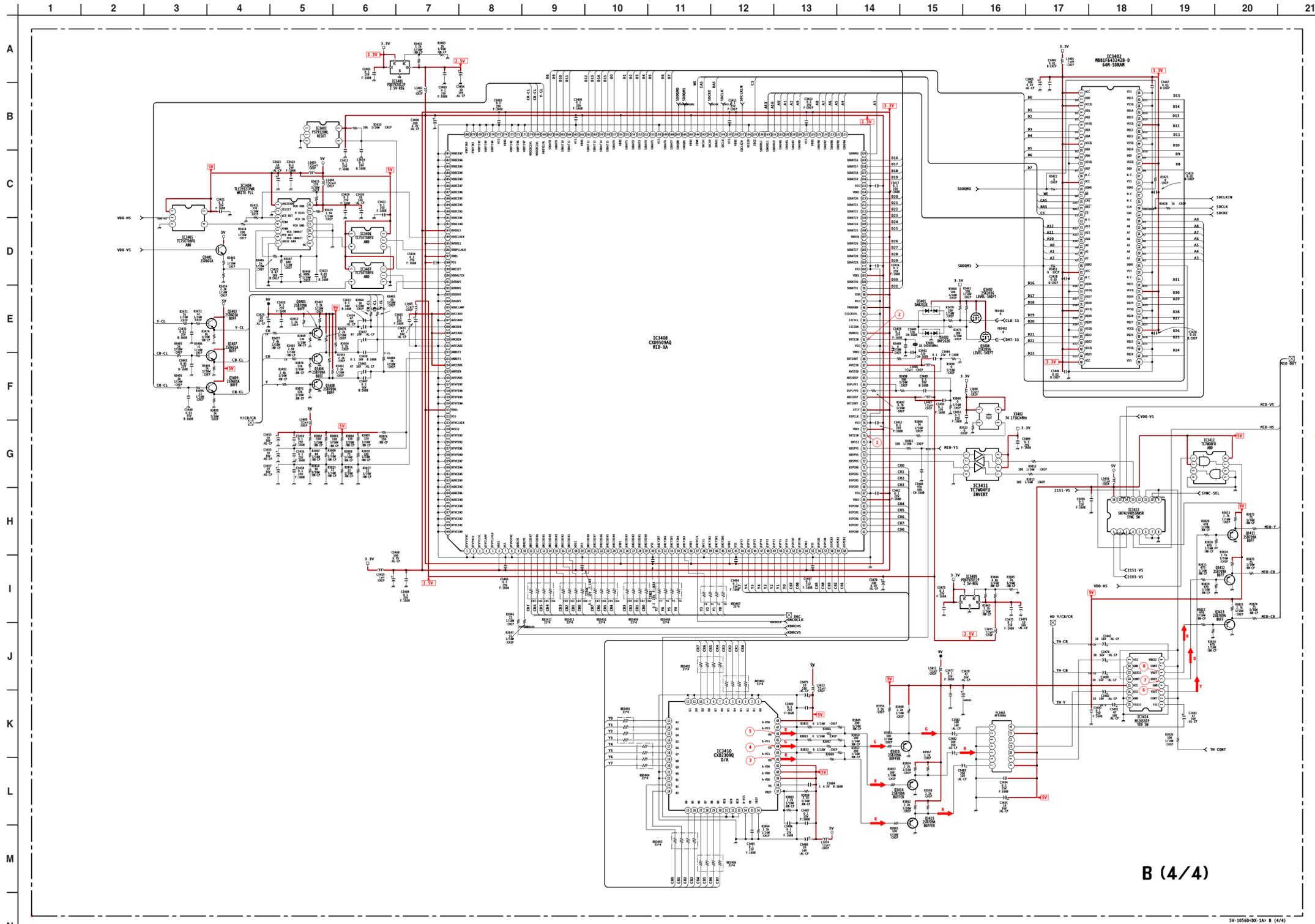
B BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3301	3.9	4.9	3.4
Q3302	4.9	4.9	3.4
Q3303	0.5	4.9	0.1
Q3304	0.5	4.9	0.2
Q3305	3.2	GND	2.3

All voltages in V.

B (3/4)

B Board Schematic Diagram (4 of 4)

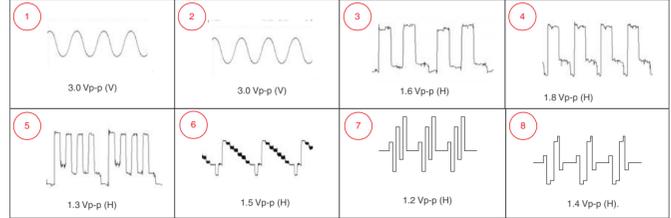


B BOARD IC VOLTAGE LIST

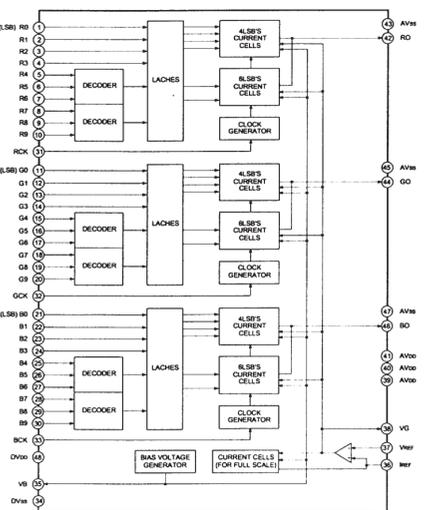
IC3401	43	3.3	IC3404	13	0	64	0.8	115	GND	166	1.3	217	GND	19	1.0	IC3413	1	GND	
pin	44	GND	pin	14	0	65	0.9	116	1.6	167	1.8	218	GND	20	0.8	pin	1	GND	
1	3.3	45	1.7	1	4.8	15	0	66	3.3	117	1.3	168	0.9	219	GND	21	GND	1	GND
G	GND	46	GND	2	GND	16	2.3	67	GND	118	1.6	169	1.1	220	GND	22	GND	2	GND
O	1.2	47	1.7	3	2.3	17	1.6	68	0.8	119	1.7	170	1.1	221	1.2	23	1.4	3	0.1
VC	3.3	48	1.4	4	0.3	18	3.3	69	0.6	120	0	171	GND	222	GND	24	1.5	4	0.1
NC	49	3.3	5	2.4	19	GND	70	0.9	121	2.4	172	GND	223	GND	25	1.5	5	0.3	GND
IC3402	50	1.0	6	0.9	20	0.6	71	0.9	122	2.2	173	GND	224	GND	26	1.5	6	GND	GND
pin	51	1.6	7	GND	21	1.1	72	3.2	123	1.7	174	3.3	225	GND	27	1.5	7	GND	GND
1	3.3	52	GND	8	NC	22	2.2	73	3.2	124	1.7	175	GND	226	GND	28	1.5	8	GND
2	1.8	53	0.9	9	0	23	2.2	74	0.9	125	1.8	176	GND	227	GND	29	1.5	9	5.0
3	3.3	54	0.9	10	GND	24	2.4	75	GND	126	3.3	177	GND	228	GND	30	1.9	10	5.0
4	1.3	55	3.3	11	GND	25	2.4	76	3.3	127	GND	178	GND	229	GND	31	1.6	11	5.0
5	0.9	56	1.1	12	0.9	26	2.3	77	2.5	128	0.1	179	GND	230	GND	32	1.7	12	0
6	GND	57	NC	13	3.6	27	2.2	78	GND	129	0.1	180	GND	231	GND	33	1.6	13	0
7	2.4	58	GND	14	4.8	28	1.6	79	1.7	130	2.3	181	GND	232	GND	34	GND	14	0
8	2.2	59	2.4	IC3405	29	0.9	80	3.3	131	0.1	182	GND	233	GND	35	1.0	15	GND	GND
9	3.3	60	0	pin	30	GND	81	NC	132	0.1	183	GND	234	GND	36	0	16	4.9	GND
10	0.9	61	2.4	1	4.8	31	1.1	82	2.5	133	1.7	184	GND	235	GND	37	2.0	IC3414	pin
11	2.8	62	2.2	2	0.3	32	1.0	83	2.3	134	1.7	185	GND	236	GND	38	2.6	pin	volt
12	GND	63	1.7	3	GND	33	1.5	84	0.4	135	2.8	186	GND	237	GND	39	4.8	1	4.6
13	0.9	64	1.7	4	0.3	34	1.4	85	0	136	GND	187	GND	238	GND	40	4.8	2	5.0
14	NC	65	1.8	5	4.8	35	1.4	86	0	137	1.3	188	GND	239	GND	41	4.8	3	3.1
15	3.3	66	0.1	IC3406	36	2.4	87	2.3	138	3.3	189	GND	240	GND	42	1.0	4	GND	GND
16	0.1	67	2.9	pin	37	1.8	88	1.6	139	GND	190	GND	IC3409	43	0	5	3.1	GND	GND
17	3.1	68	1.8	1	4.8	38	GND	89	2.5	140	1.5	191	GND	pin	volt	44	0.5	6	3.0
18	2.9	69	NC	2	0	39	1.4	90	GND	141	0	192	GND	1	3.3	45	0	7	5.0
19	3.3	70	NC	3	GND	40	1.4	91	1.2	142	2.6	193	G	3.3	46	0	8	4.6	GND
20	2.8	71	0.1	4	0	41	1.5	92	3.3	143	3.0	194	G	2.4	47	0	9	4.6	GND
21	NC	72	GND	5	4.8	42	2.4	93	3.0	144	3.1	195	2.4	VC	1.2	48	4.8	10	GND
22	1.7	73	NC	IC3407	43	GND	94	3.0	145	2.5	196	0	NC	0	IC3411	11	4.6	GND	GND
23	1.7	74	1.8	pin	volt	44	0.8	95	GND	146	0	197	2.4	IC3410	1	volt	12	5.0	GND
24	0.1	75	3.3	1	4.8	45	1.0	96	3.3	147	0	198	GND	pin	volt	13	3.2	GND	
25	0.1	76	1.3	2	1.0	46	0.7	97	GND	148	0.9	199	1.0	1	GND	2	NC	14	4.6
26	2.3	77	0.7	3	GND	47	2.4	98	3.3	149	2.8	200	NC	2	GND	3	3.2	15	GND
27	0.1	78	GND	4	2.4	48	0.9	99	1.1	150	GND	201	0	3	0.9	4	GND	16	4.6
28	2.4	79	2.5	5	4.8	49	1.0	100	0.9	151	0.9	202	1.0	4	0.9	5	0.0	GND	
29	3.3	80	0.7	IC3408	50	1.1	101	2.5	152	2.2	203	GND	5	0.6	6	3.3	GND	GND	
30	NC	81	3.3	pin	volt	51	1.2	102	GND	153	2.4	204	GND	6	0.8	7	0	GND	
31	1.7	82	1.0	1	GND	52	1.9	103	0.9	154	0.7	205	NC	7	0.9	8	3.3	GND	
32	GND	83	2.8	2	GND	53	1.4	104	1.6	155	1.3	206	2.4	8	0.8	GND	GND		
33	1.6	84	1.7	3	NC	54	3.3	105	1.0	156	2.5	207	GND	9	0.9	GND	GND		
34	1.3	85	1.1	4	NC	55	GND	106	1.4	157	1.8	208	1.0	10	2.4	GND	GND		
35	3.3	86	GND	5	NC	56	1.6	107	3.3	158	1.1	209	2.4	11	GND	GND	GND		
36	1.6	IC3403	6	3.3	57	1.6	108	1.7	159	2.8	210	1.0	12	GND	GND	GND	GND		
37	1.7	pin	volt	7	GND	58	1.5	109	1.7	160	1.6	211	GND	13	1.2	GND	GND		
38	GND	1	NC	8	GND	59	1.5	110	1.1	161	0.7	212	GND	14	1.1	GND	GND		
39	0.9	2	GND	9	0	60	1.5	111	1.7	162	2.5	213	GND	15	1.0	GND	GND		
40	1.7	3	GND	10	0.2	61	1.4	112	0.9	163	GND	214	2.4	16	0.9	GND	GND		
41	3.3	4	1.7	11	0	62	2.4	113	1.7	164	2.5	215	1.0	17	2.4	GND	GND		
42	1.1	5	2.5	12	0	63	0.9	114	3.3	165	0.7	216	GND	18	0.7	GND	GND		

All voltages are in V

B BOARD (4/4) WAVEFORMS



B BOARD: IC2309Q



B BOARD TRANSISTOR VOLTAGE LIST

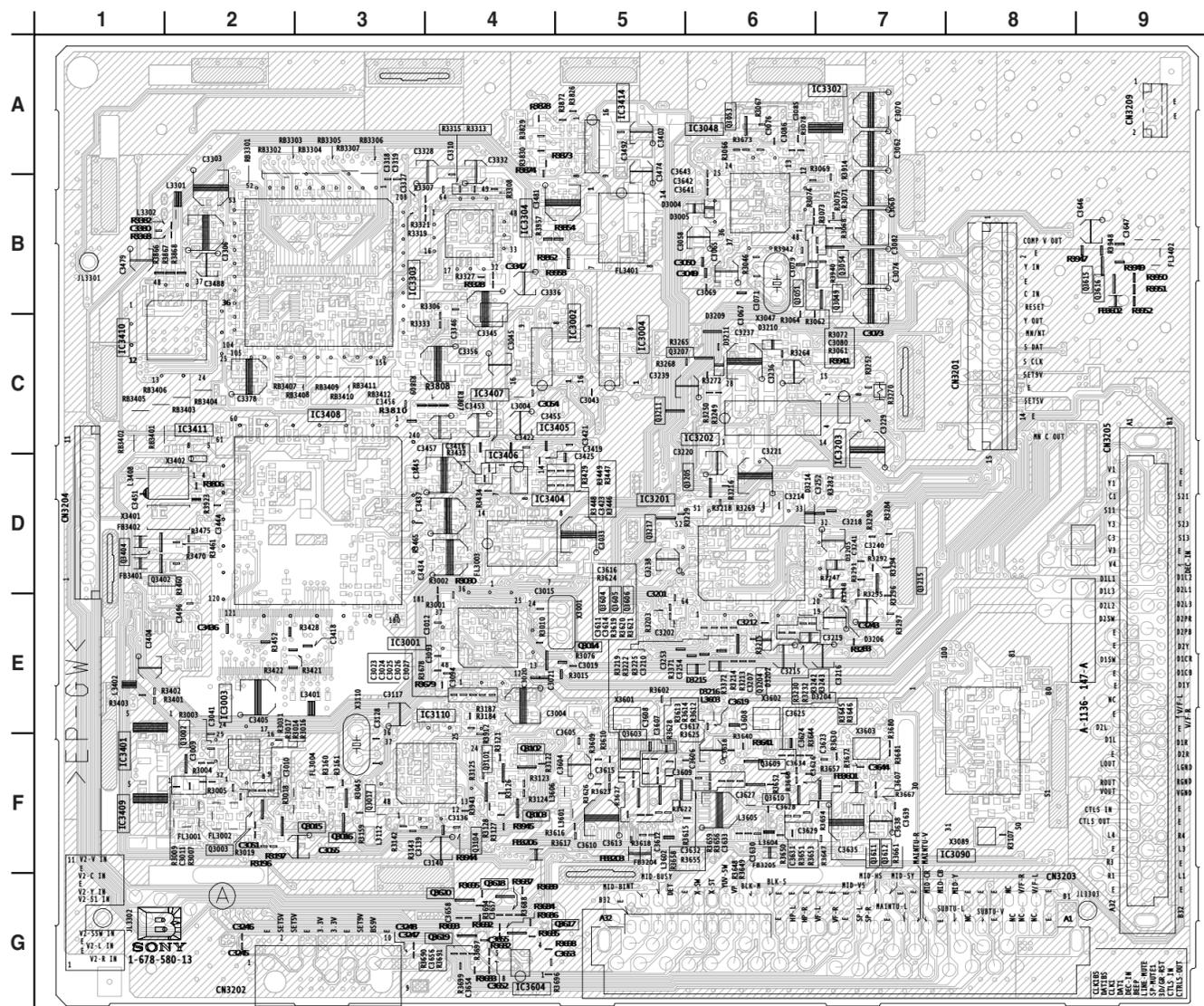
	B	C	E
Q3401	0	4.9	0
Q3402	3.3	4.6	3.1
Q3403	1.0	4.9	0.5
Q3404	3.3	4.6	3.1
Q3405	2.3	GND	3.0
Q3406	2.3	GND	3.0
Q3407	1.7	4.9	1.2
Q3408	2.3	GND	3.0
Q3409	1.7	4.9	1.2
Q3410	0.5	GND	1.2
Q3411	1.5	GND	2.2
Q3412	1.5	GND	2.2
Q3413	1.5	GND	2.2
Q3414	0.8	GND	1.5
Q3415	1.4	GND	2.0

All voltages in V.

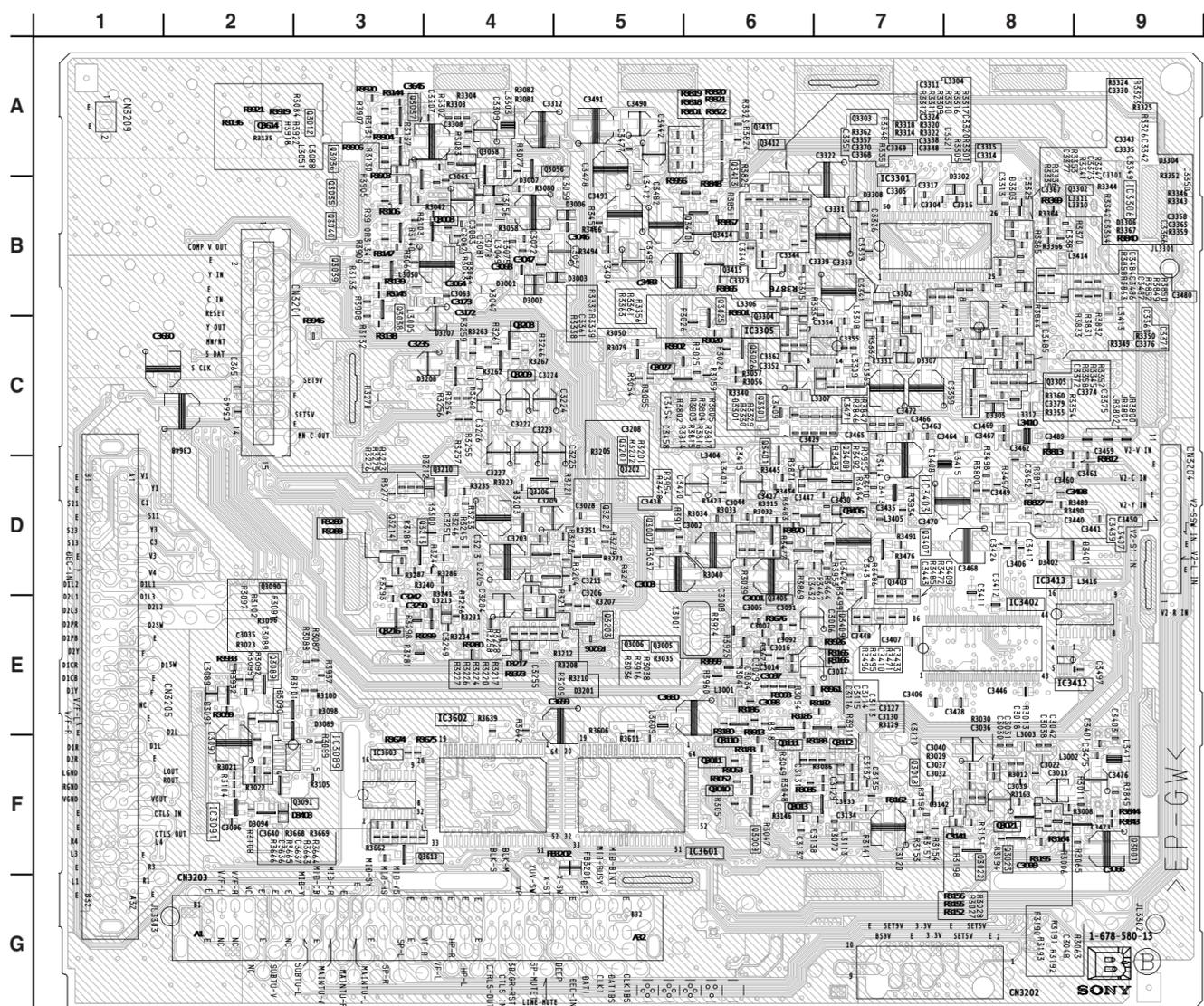
B (4/4)

**B** AV-SW1, AUDIO SW, MID-UCOM, YCT-MAIN, MAIN-CCD V-CHIP,  
SUB-CCD V-CHIP, 3CH 8 BIT A/D, DRC-MF, MID-XA, A/D

COMPONENT SIDE



CONDUCTOR SIDE



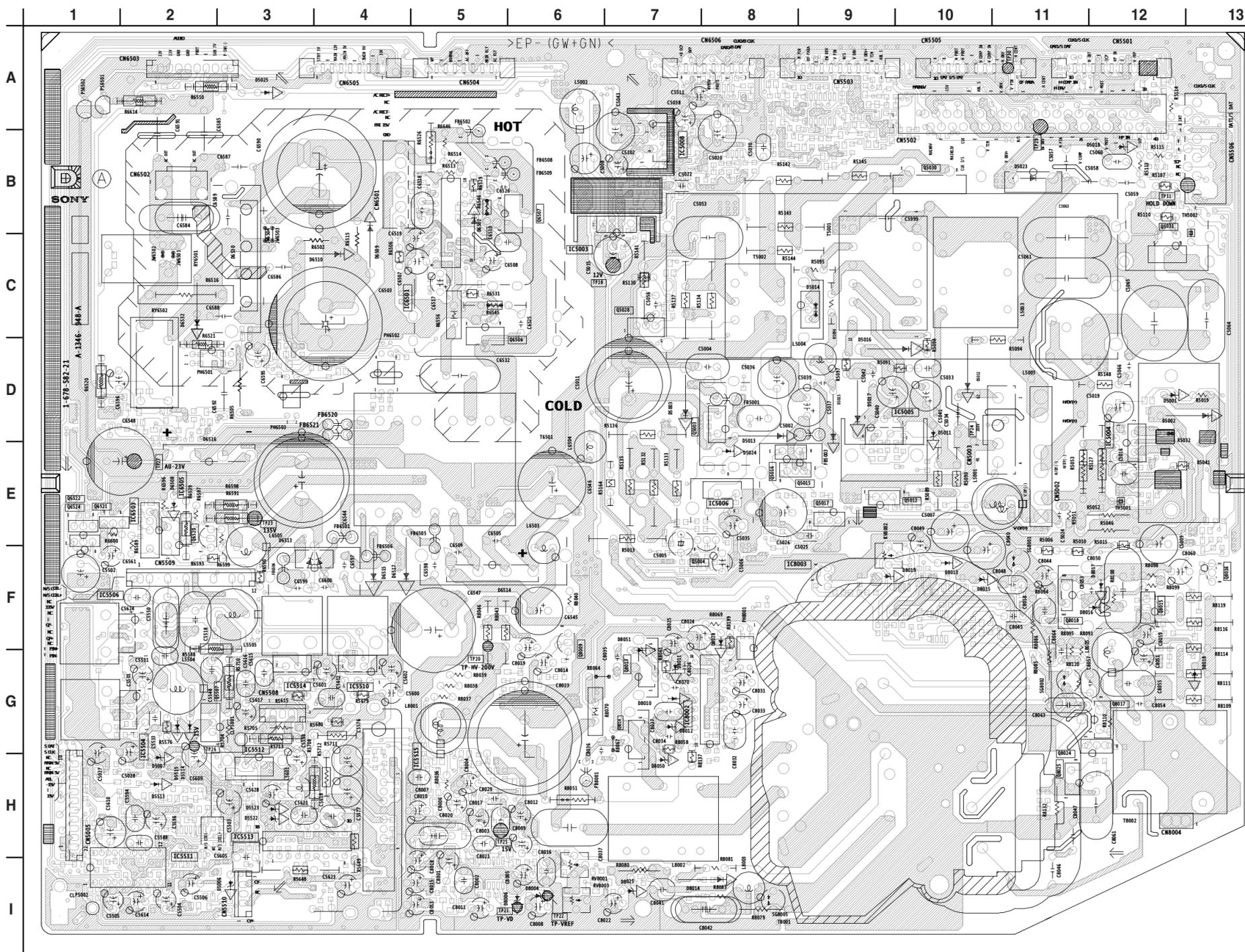
## B BOARD LOCATOR LIST

DIODE			TRANSISTOR		
Component	Conductor		Component	Conductor	
D3001		B-4	Q3001		G-9
D3002		B-4	Q3002	F-2	
D3003		B-4	Q3003	F-2	
D3004	B-5		Q3005		E-5
D3005	B-5		Q3006		E-5
D3006		B-4	Q3007		D-5
D3007		B-4	Q3008		B-3
D3089		F-3	Q3009		F-6
D3090		F-3	Q3010		F-5
D3201		E-5	Q3011		F-5
D3202	E-6		Q3014	E-5	
D3204	E-6		Q3015	F-3	
D3205	D-7		Q3016	F-3	
D3206	E-7		Q3017	F-3	
D3209	C-5		Q3018		F-7
D3210	C-6		Q3021		F-8
D3211	C-6		Q3022		F-8
D3212		D-3	Q3023		F-8
D3213		E-3	Q3025		C-5
D3214	D-6		Q3026		C-6
D3301		C-6	Q3027		C-5
D3401		D-8	Q3035		B-3
D3402		D-8	Q3036		A-3
D3403		F-2	Q3037		A-3
			Q3038		C-3
			Q3039		B-3
			Q3040		B-3
			Q3049	B-6	
			Q3051	B-6	
			Q3053	A-6	
			Q3054	B-6	
			Q3056		B-4
			Q3058		A-4
			Q3089		E-2
			Q3090		D-2
			Q3091		F-2
			Q3101	F-4	
			Q3102	F-4	
			Q3103	F-4	
			Q3104	F-4	
			Q3110		F-6
			Q3111		F-6
			Q3112		F-6
			Q3201		D-5
			Q3202		D-5
			Q3203		E-5
			Q3204	E-5	
			Q3205	D-5	
			Q3206		D-4
			Q3207	C-5	
			Q3208		C-4
			Q3209		C-4
			Q3210		D-3
			Q3211	C-5	
			Q3213		D-3
			Q3214		D-3
			Q3215	D-7	
			Q3216		E-3
			Q3217	D-5	
			Q3301		C-6
			Q3302		B-8
			Q3303		A-6
			Q3304		C-6
			Q3305		C-8
			Q3401		D-6
			Q3402	E-1	
			Q3403		D-7
			Q3404	D-1	
			Q3405		E-6
			Q3406		D-6
			Q3407		D-7
			Q3408		D-6
			Q3409		E-6
			Q3410		B-5
			Q3411		A-6
			Q3412		A-6
			Q3413		B-6
			Q3414		B-5
			Q3415		B-6
			Q3603	E-5	
			Q3604	G-3	
			Q3605	G-4	
			Q3606	G-4	
			Q3609	F-6	
			Q3610	F-6	
			Q3611	F-7	
			Q3612	F-7	
			Q3613		F-3
			Q3617	G-4	
			Q3618	G-4	
			Q3619	G-4	
			Q3620	G-4	

**D**

[ POWER SUPPLY, AC RECT, HV DRIVE, HV DY, DEFLECTION ]

COMPONENT SIDE

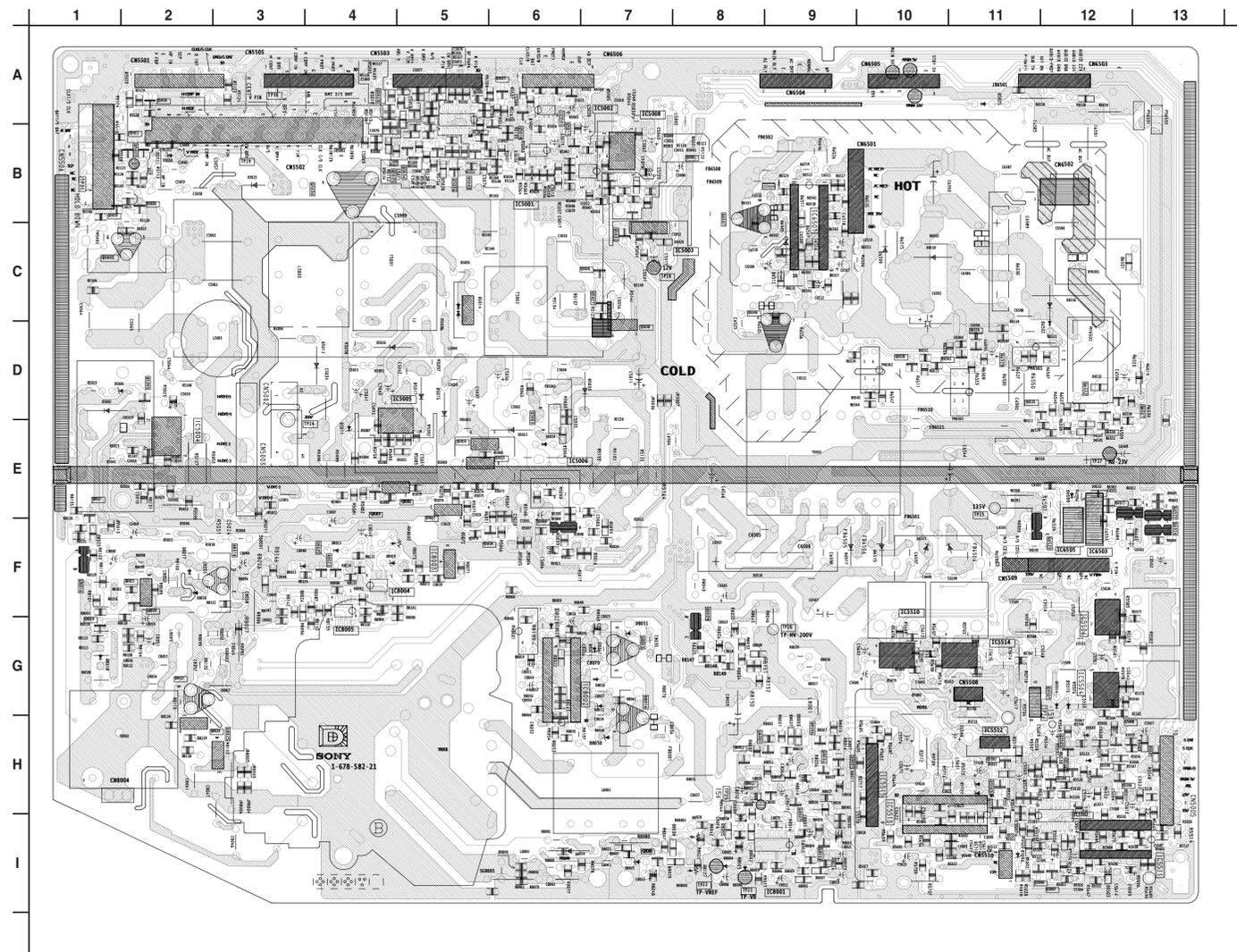


D BOARD LOCATOR LIST

DIODE			Component		Conductor		Component		Conductor	
Component	Conductor									
D5001	D-13		D5019		B-4	D5515	H-2	D8002		J-9
D5002	D-13		D5021		B-7	D5522	I-3	D8003		J-9
D5003	D-7		D5023	B-11		D5523	I-3	D8004	J-6	
D5004		E-6	D5024	E-7		D6501		D8005		I-8
D5005		F-7	D5025	A-3		D6502	C-5	D8006	J-6	
D5006	J-3		D5026		B-4	D6507		D8007		J-9
D5007	H-2		D5027		B-5	D6508	E-2	D8009		G-8
D5008		H-12	D5028		B-5	D6509	C-4	D8010		H-7
D5009		H-12	D5029		C-8	D6510	C-3	D8013		F-4
D5010		H-12	D5031		I-11	D6513	F-3	D8014		J-6
D5011	E-10		D5032		E-4	D6514	G-6	D8016		G-2
D5012	D-11		D5501		I-13	D6515	F-4	D8017	F-12	
D5013	E-8		D5502		J-12	D6516	E-2	D8018	G-13	
D5014	C-9		D5503		J-13	D6517	F-5	D8019	F-10	
D5015	E-9		D5505		A-7	D6522		D8020		J-8
D5016	D-9		D5506		J-12	D6530		D8021		J-7
D5017	E-9		D5507		B-6	D6531		D8022		G-6
D5018	B-12		D5513		I-2	D6532	D-2	D8025	J-7	
			D5514		H-2	D6533		D8026		G-6
						D6537		D8027		H-9

**D** [ POWER SUPPLY, AC RECT, H/V DRIVE, H/V DY, DEFLECTION ]

CONDUCTOR SIDE



**D BOARD (\*) MODEL VARIANCE LIST**

REF NO.	LOC	KV-32XBR400	KV-36XBR400	KV-36XBR400H	KV-38DRC1C
C6584	C-4	0.047 125V	0.047 125V	0.047 125V	0.047 300V
D6509	D-8	ERC04-06SE	ERC04-06SE	ERC04-06SE	#
D6510	D-8	ERC04-06SE	ERC04-06SE	ERC04-06SE	#
JW6503	D-7	7.5MM	7.5MM	7.5MM	#
JW6504	D-7	7.5MM	7.5MM	7.5MM	#

**D BOARD IC VOLTAGE LIST**

IC6501		IC6503		IC6505	
pin	volt	pin	volt	pin	volt
1	2.5	1	134.0	1	134.9
2	1.8	2	NC	2	15.7
3	2.2	3	NC	3	GND
4	2.5	4	11.8	4	GND
5	GND	5	GND	5	GND
6	0.0				
7	4.0				
8	17.2				
9	GND				
10	10.4				
11	0.0				
12	4.6				
13	NC				
14	163.6				
15	153.5				
16	157.6				
17	NC				
18	1.7				

All voltages are in V

**D BOARD TRANSISTOR VOLTAGE LIST**

	B	C	E
Q6503	0	2.5	0
Q6520	131.0	0	132.0
Q6521	0	2.1	GND
Q6522	15.7	GND	15.7
Q6524	2.1	0.4	4.9
Q6526	5.9	0	5.9
Q6527	0.6	0	0
Q6528	0.6	0	0
Q6529	0	5.9	0
Q6530	4.7	0	4.7
Q6531	0.6	0	GND
Q6532	0	4.7	GND

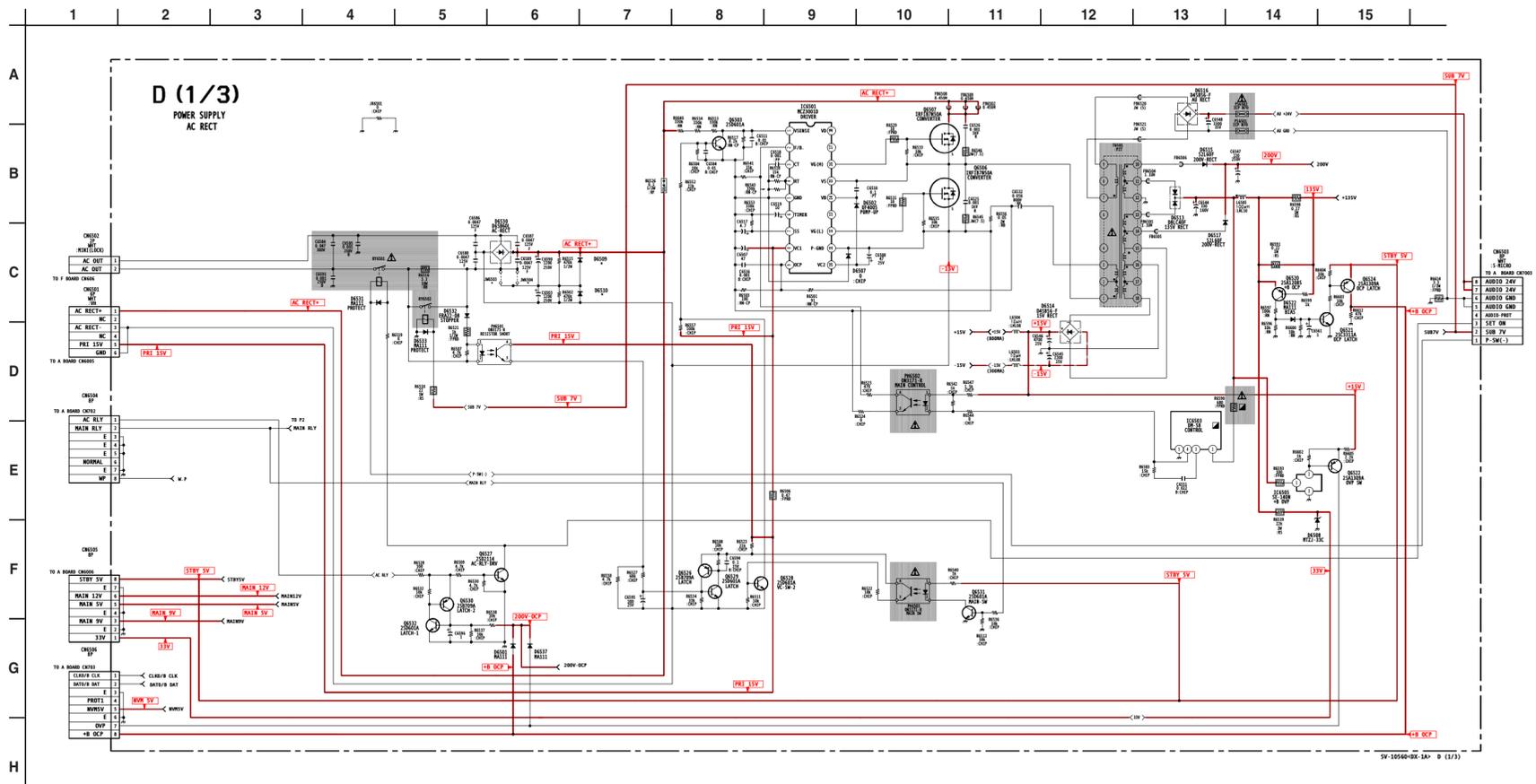
	D	G	S
Q6506	4.7	149.2	0
Q6507	154.4	303.3	150.0

All voltages in V.

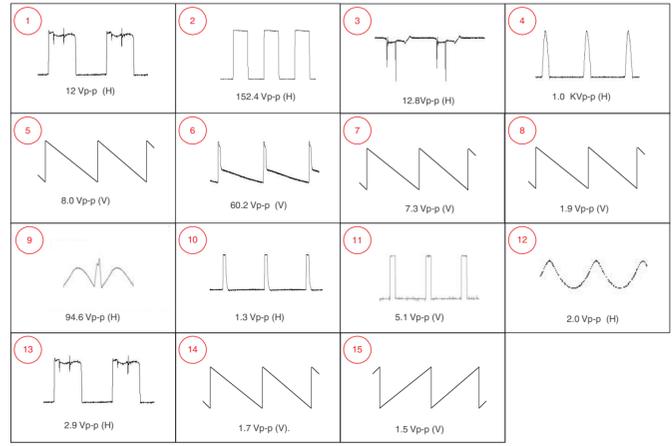
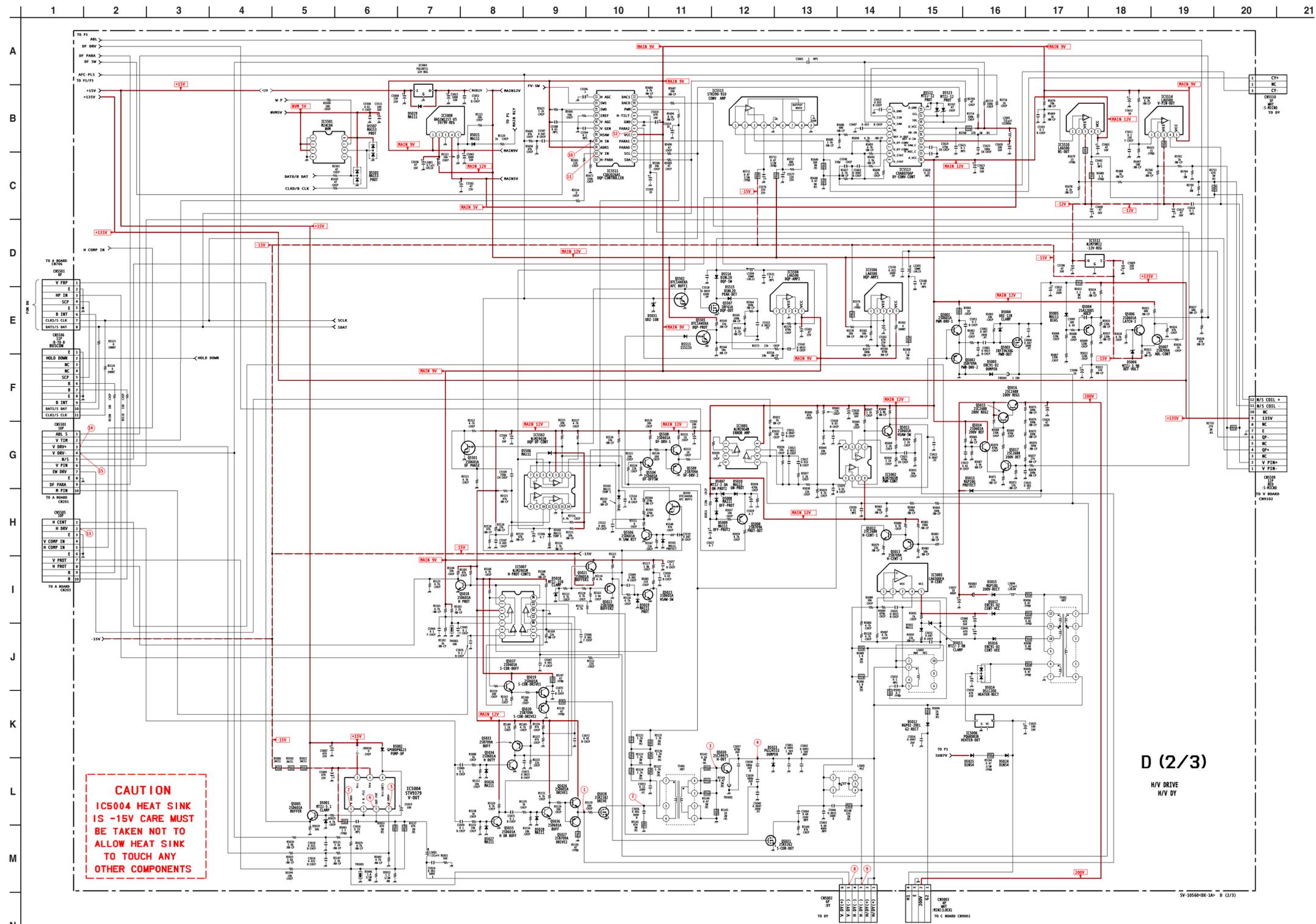
**D BOARD LOCATOR LIST**

IC		TRANSISTOR		Component		Component	
Component	Conductor	Component	Conductor	Component	Conductor	Component	Conductor
IC5001	B-6	IC8004	G-4	Q5028	D-7	Q6526	D-11
IC5002	C-7	Q5001	C-7	Q5030	B-10	Q6527	D-13
IC5003	C-8	Q5002	C-7	Q5031	C-13	Q6528	D-10
IC5004	E-12	Q5003	E-8	Q5033	B-5	Q6529	D-11
IC5005	E-10	Q5004	F-8	Q5034	B-5	Q6530	E-12
IC5006	F-8	Q5005	D-2	Q5035	B-5	Q6531	E-11
IC5007	A-5	Q5006	J-12	Q5036	B-5	Q6532	E-12
IC5008	A-7	Q5007	J-12	Q5037	B-5	Q8001	H-9
IC5501	A-6	Q5008	H-13	Q5501	I-11	Q8002	I-8
IC5502	I-12	Q5011	A-6	Q5502	I-11	Q8003	I-9
IC5504	H-2	Q5012	F-4	Q5503	I-11	Q8004	I-9
IC5506	G-1	Q5013	F-4	Q5504	I-12	Q8007	I-9
IC5510	H-4	Q5014	F-5	Q5505	I-12	Q8008	J-9
IC5511	I-2	Q5015	E-6	Q5506	I-13	Q8009	G-6
IC5512	H-3	Q5016	E-5	Q5507	H-2	Q8010	J-7
IC5513	I-3	Q5017	F-5	Q5508	I-12	Q8013	G-7
IC5514	H-3	Q5018	B-6	Q5509	I-12	Q8014	H-7
IC5515	H-5	Q5019	B-1	Q6503	D-11	Q8015	G-13
IC6501	C-5	Q5020	B-2	Q6506	D-8	Q8016	G-1
IC6503	E-2	Q5021	B-2	Q6507	C-6	Q8018	G-12
IC6505	E-2	Q5022	B-2	Q6520	F-12	Q8019	G-1
IC8001		Q5023	A-5	Q6521	F-1	Q8020	G-2
IC8002	H-7	Q5026	C-7	Q6522	F-1	Q8022	F-4
IC8003	F-9	Q5027	C-7	Q6524	F-1	Q8023	F-4

**D Board Schematic Diagram (1 of 3)**



D Board Schematic Diagram (2 of 3)



	B	C	E
Q5001	2.9	12.0	3.3
Q5002	2.9	GND	3.3
Q5003	127.4	134.1	23.3
Q5004	132.0	0	133.0
Q5005	-0.5	15.6	0.1
Q5006	-12.0	1.0	-12.6
Q5007	4.4	-12.6	4.8
Q5008	11.9	0	10.7
Q5011	0.1	3.9	GND
Q5012	3.7	97.7	3.2
Q5013	3.1	GND	3.7
Q5014	6.6	12.1	6.1
Q5015	202.8	212.4	203.2
Q5016	203.2	212.4	202.6
Q5017	6.5	164.8	6.1
Q5018	0.6	1.9	GND
Q5019	3.7	12.1	2.9
Q5020	3.7	GND	2.9
Q5021	0.4	9.0	0.5
Q5022	0.4	GND	1.1
Q5023	0.4	3.9	GND
Q5026	5.2	12.1	5.2
Q5027	5.2	0	5.2
Q5030	132.0	0	GND
Q5033	10.0	1.4	10.5
Q5034	0	1.4	GND
Q5035	0	2.5	GND
Q5036	0.1	5.2	GND
Q5037	3.1	12.1	GND
Q5501	2.4	12.1	3.7
Q5502	0.5	5.4	GND
Q5503	0.5	2.4	GND
Q5504	0	4.0	GND
Q5505	0	4.2	GND
Q5506	0.3	3.6	GND
Q5508	4.0	12.1	4.6
Q5509	4.0	GND	4.6

D BOARD IC VOLTAGE LIST

IC5001	IC5004	IC5007	IC5501	IC5504	IC5511	IC5512	IC5514
pin 1: 11.0	pin 1: 1.2	pin 1: 3.1	pin 1: GND	pin 1: 4.2	pin 1: 4.6	pin 1: -15.8	pin 1: 0.3
pin 2: 11.0	pin 2: 15.6	pin 2: 0.6	pin 2: 5.0	pin 2: 4.2	pin 2: 4.6	pin 2: G	pin 2: 0.3
pin 3: 1.7	pin 3: -12.6	pin 3: 12.1	pin 3: 5.0	pin 3: 3	pin 3: 4.0	pin 3: -12.0	pin 3: -12.0
pin 4: GND	pin 4: -14.5	pin 4: 1.5	pin 4: GND	pin 4: 5.5	pin 4: 4.2	pin 4: GND	pin 4: 0.7
pin 5: 4.0	pin 5: 0.2	pin 5: 2.3	pin 5: 4.6	pin 5: 9.0	pin 5: 9.0	pin 5: 5	pin 5: 9.0
pin 6: 4.0	pin 6: 16.2	pin 6: 3.9	pin 6: 4.6	pin 6: 5.0	pin 6: 4.2	pin 6: 1	pin 6: 4.5
pin 7: 5.9	pin 7: 1.2	pin 7: 2.8	pin 7: 5.0	pin 7: 7	pin 7: GND	pin 7: 2	pin 7: 4.9
pin 8: 12.1	pin 8: 0.0	pin 8: 5.0	pin 8: 5.0	pin 8: 1	pin 8: 4.3	pin 8: 3	pin 8: 4.9
pin 9: 3.0	pin 9: 3.0	pin 9: 3.0	pin 9: 3.0	pin 9: 2	pin 9: 4.3	pin 9: 4	pin 9: 4.6
pin 10: 1.4	pin 10: 1.4	pin 10: 1.4	pin 10: 1.4	pin 10: 3	pin 10: -15.5	pin 10: 5	pin 10: -9.6
pin 11: 6.1	pin 11: 99.7	pin 11: 6.1	pin 11: 5.4	pin 11: 4	pin 11: 4.4	pin 11: 6	pin 11: 5.0
pin 12: 6.0	pin 12: 95.3	pin 12: GND	pin 12: 2.4	pin 12: 5	pin 12: 9.0	pin 12: 7	pin 12: GND
pin 13: 3.8	pin 13: 100.0	pin 13: 2.5	pin 13: 3	pin 13: 12	pin 13: 6.4	pin 13: 8	pin 13: 5.0
pin 14: GND	pin 14: 104.6	pin 14: 0.6	pin 14: 4	pin 14: 14	pin 14: 8.2	pin 14: 9	pin 14: -14.0
pin 15: 2.3	pin 15: 5	pin 15: 3.4	pin 15: 3.4	pin 15: 1	pin 15: 1.9	pin 15: 10	pin 15: 12.1
pin 16: 2.9	pin 16: 7.8	pin 16: 1	pin 16: 6	pin 16: 2	pin 16: 0.6	pin 16: 16	pin 16: 4.0
pin 17: 12.1	pin 17: G	pin 17: 2	pin 17: 8	pin 17: 3	pin 17: -11.9	pin 17: 17	pin 17: 4.9
pin 18: 15.6	pin 18: G	pin 18: 3	pin 18: 1.0	pin 18: 4	pin 18: 2.4	pin 18: 18	pin 18: 3.6
pin 19: 15.6	pin 19: 6.3	pin 19: 4	pin 19: 10	pin 19: 5	pin 19: 12.1	pin 19: 19	pin 19: 5.0
pin 20: 12.1	pin 20: 2.7	pin 20: 5	pin 20: 0.0	pin 20: 11	pin 20: 0.9	pin 20: 20	pin 20: 15.1
pin 21: 15.6	pin 21: 2.7	pin 21: 5	pin 21: 0.0	pin 21: 12	pin 21: 11	pin 21: 21	pin 21: 16.4
pin 22: 12.1	pin 22: 2.7	pin 22: 5	pin 22: 0.0	pin 22: 13	pin 22: 3.4	pin 22: 22	pin 22: 4.6
pin 23: 12.1	pin 23: 2.7	pin 23: 5	pin 23: 0.0	pin 23: 14	pin 23: 0	pin 23: 17	pin 23: 4.6
pin 24: 12.1	pin 24: 2.7	pin 24: 5	pin 24: 0.0	pin 24: 15	pin 24: 0	pin 24: 18	pin 24: GND

All voltages are in V.

**CAUTION**  
IC5004 HEAT SINK IS -15V CARE MUST BE TAKEN NOT TO ALLOW HEAT SINK TO TOUCH ANY OTHER COMPONENTS

D (2/3)

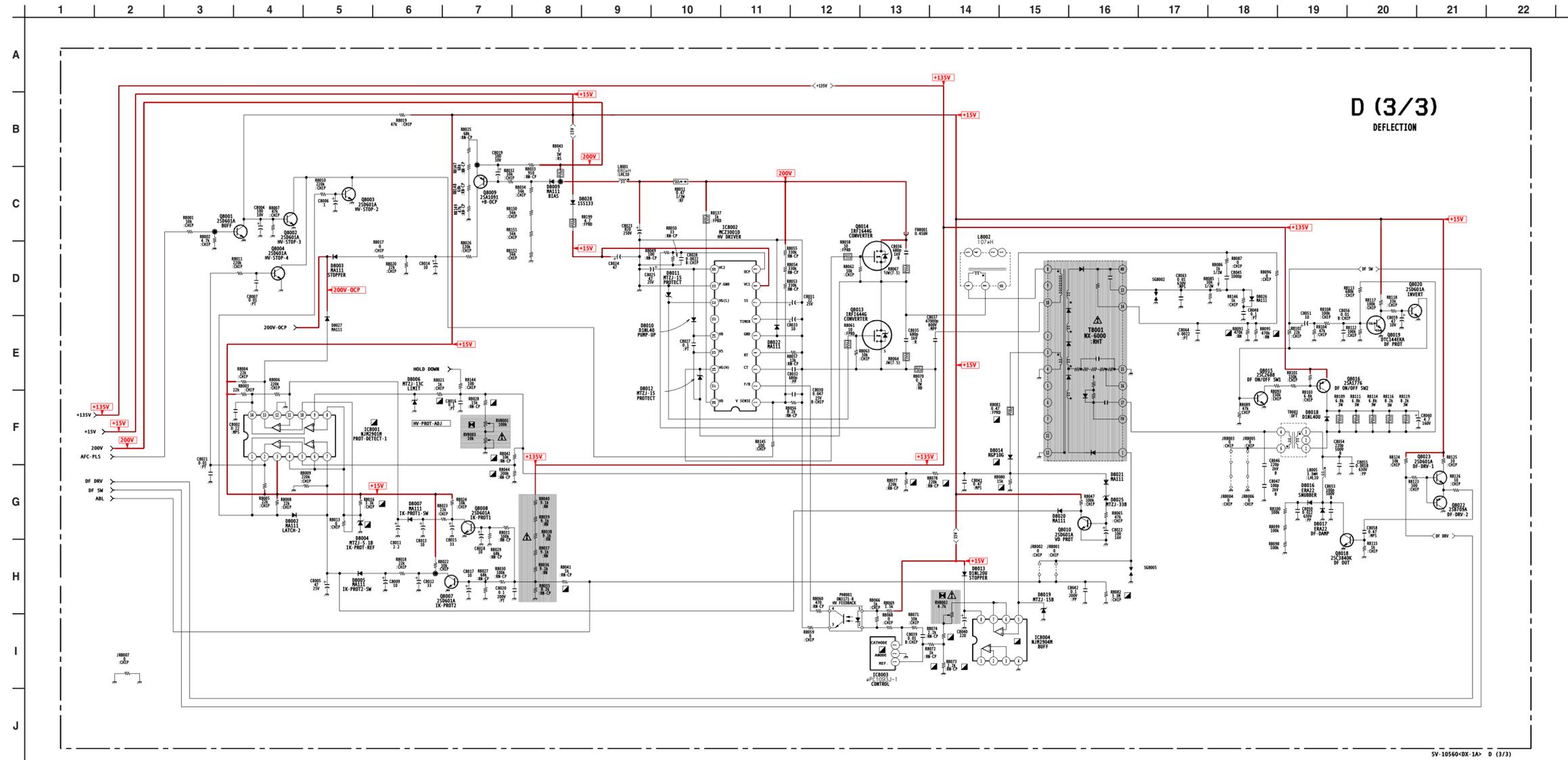
H/V DRIVE

H/V DY

	D	G	S
Q5028	5.2	33.5	0
Q5031	2.9	12.6	GND
Q5507	5.4	6.9	GND

All voltages in V.

D Board Schematic Diagram (3 of 3)



D BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q8001	0.1	0	GND
Q8002	0	1.6	GND
Q8003	0.2	1.6	GND
Q8004	0	1.6	GND
Q8007	0.6	0	GND
Q8008	0.6	0	GND
Q8009	196.0	0	196.0
Q8010	2.1	0	GND
Q8015	0.5	0	GND
Q8016	134.5	134.7	135.1
Q8018	-5.5	94.4	GND
Q8019	3.5	0	GND
Q8020	0	0.5	GND
Q8022	4.6	GND	4.9
Q8023	4.6	15.5	4.9

	D	G	S
Q8013	4.6	94.8	GND
Q8014	99.0	198.0	93.2

All voltages in V.

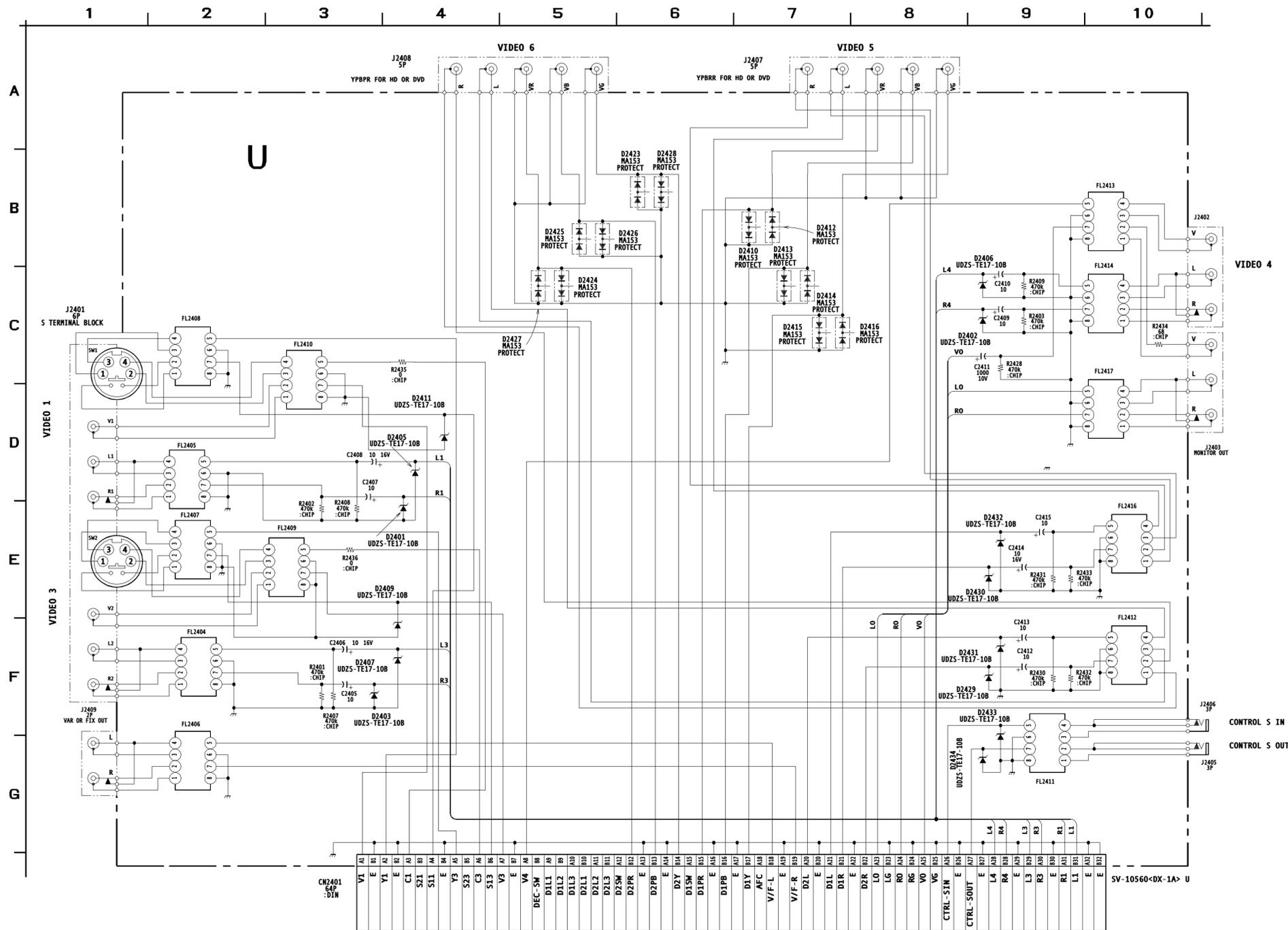
D BOARD IC VOLTAGE LIST

IC8001		IC8002		IC8003	
pin	volt	pin	volt	pin	volt
1	0.1	1	1.6	1	2.4
2	0	2	1.8	2	GND
3	15.6	3	2.2	3	11.0
4	5.0	4	2.5		
5	0	5	GND	IC8004	
6	5.0	6	0	1	14.0
7	0	7	4.7	2	0.9
8	5.0	8	15.6	3	0.9
9	4.2	9	0	4	GND
10	5.0	10	10.4	5	7.1
11	0.1	11	GND	6	7.1
12	GND	12	4.5	7	7.1
13	0.1	13	NC	8	15.2
14	0.1	14	104.8		
		15	94.8		
		16	99.0		
		17	NC		
		18	198.0		

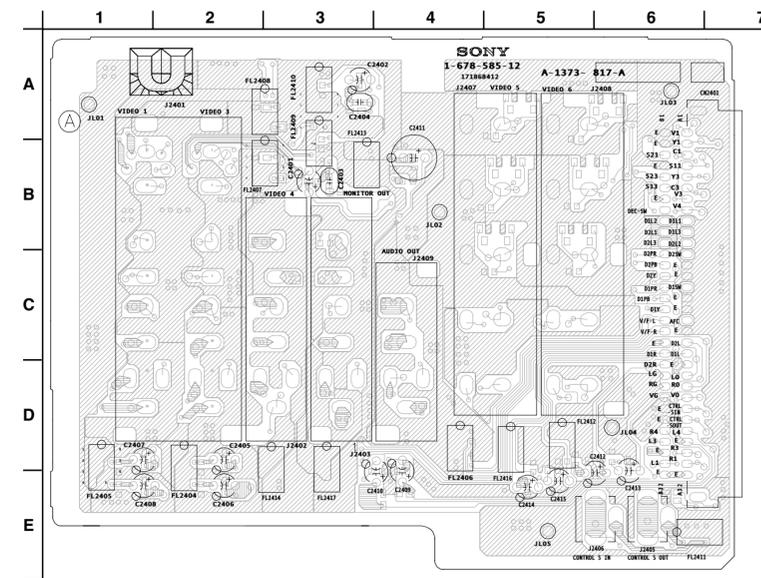
All voltages are in V.

SV-10560-DX-1A D (3/3)

U Board Schematic Diagram



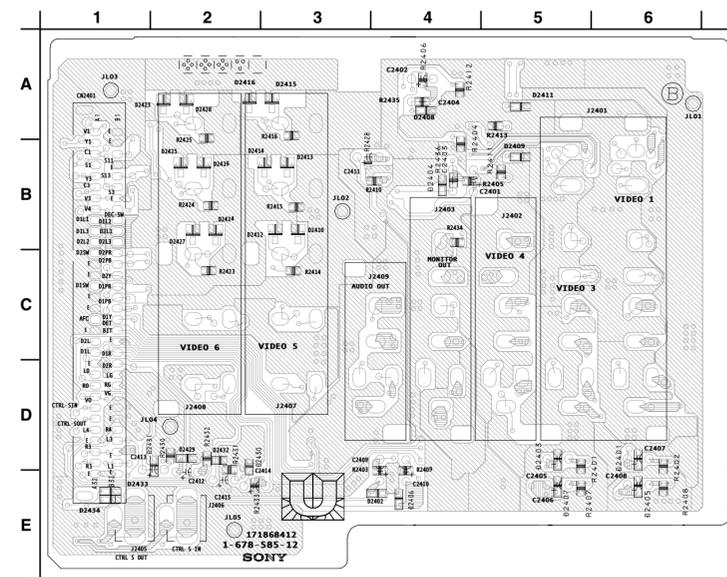
U COMPONENT SIDE



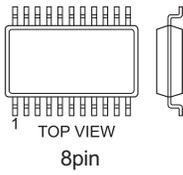
U BOARD LOCATOR LIST

DIODE	
D2401	D-6
D2402	E-4
D2403	D-5
D2405	D-6
D2406	D-4
D2407	D-5
D2409	B-5
D2410	B-3
D2411	A-5
D2412	B-2
D2413	B-3
D2414	B-2
D2415	A-3
D2416	A-2
D2423	A-1
D2424	B-2
D2425	B-2
D2426	B-2
D2427	B-2
D2428	A-2
D2429	D-2
D2430	D-3
D2431	D-2
D2432	D-2
D2433	E-1
D2434	E-1

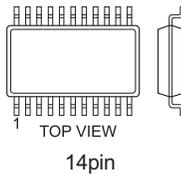
CONDUCTOR SIDE



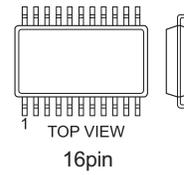
6-4. SEMICONDUCTORS



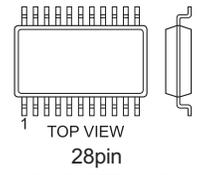
BR24C04F-WE2  
BR24C08  
NJM2901M-TE2  
NJM2903M  
NJM2904M  
NJM4558E(TE2)  
TC7WU04FU(TE12R)  
TDA2822D



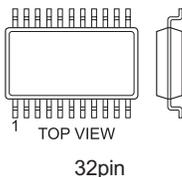
M52055FP  
MC74HC4066F  
TLC2932IPW  
TLC2933IPWR-12



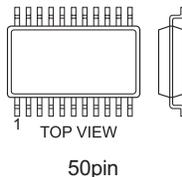
CXD2085M-T4  
SN74LV4053ANSR



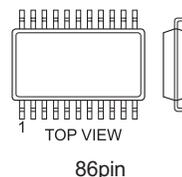
CXD2057M-T6  
TEA6422DT



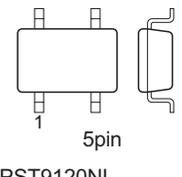
BH3868AFS-E2



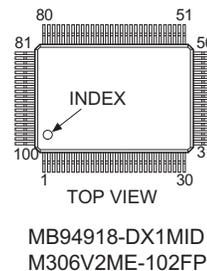
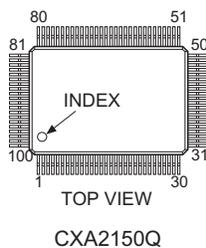
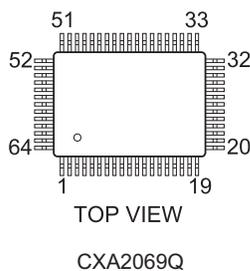
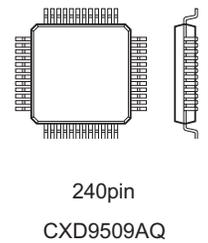
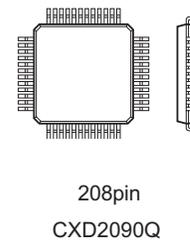
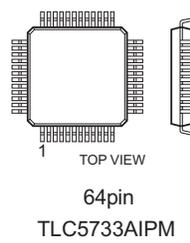
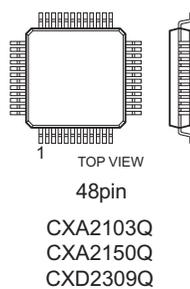
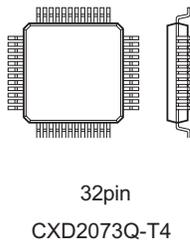
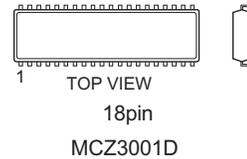
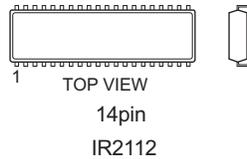
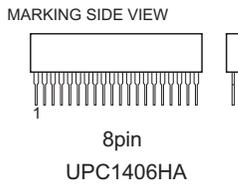
MSM56V16160F-10TS-K

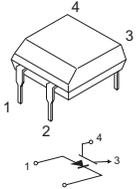


MB81F643242B-10FN

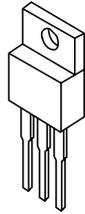


PST9120NL  
PST9145NL  
TC7SET08FU(TE85L)

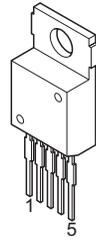




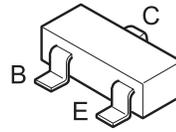
PC123FV2



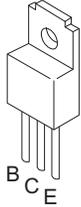
NJM79M12FA



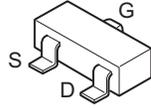
LA6500-FA



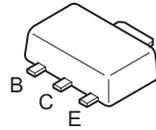
DTA114EKA-T146  
DTA143EK  
DTA144EKA-T146  
DTC114EK  
DTC114TKA-T146  
DTC143EKA-T146  
DTC144EKA-T146  
2SA1162-G  
2SA1226  
2SC1623-L5L6  
2SC4081-R  
2SD601A-Q  
2SD601A-Q-TX  
2SD601A-S



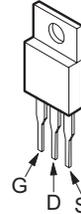
2SA2005  
2SC5511



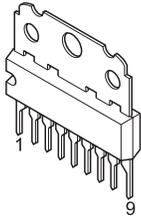
2SK1572S



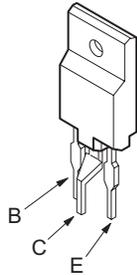
2SK2036(TE85L)



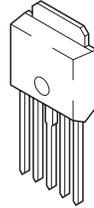
IRF614  
IRF1644  
IMB12-140-F153A



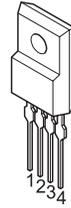
TDA6111Q/N4



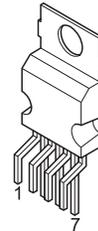
2SC4632LS-CB7



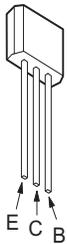
PQ07VZ012P



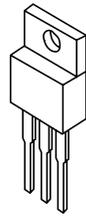
PQ09RD21  
PQ05RF21  
PQ09RF21  
PQ12RF21  
PQ30RF21



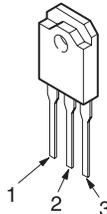
STV9379



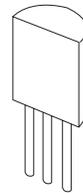
2SA1776TV2Q



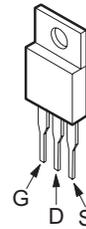
UPC2412AHF



2SC3997S-SONY

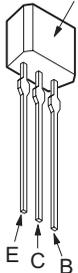


UPC1093J



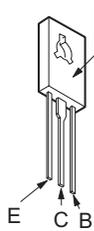
IRFI9630GS

LETTER SIDE

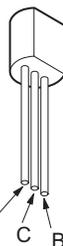


2SA1175-HFE  
2SC3311A-QRSTA

LETTER SIDE



2SC2688-LK  
2SC3840(3)



2SA1208S-TP



## SECTION 7 EXPLODED VIEWS

• Items with no part number and no description are not stocked because they are seldom required for routine service.

• The component parts of an assembly are indicated by the reference numbers in the remarks column.

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

### Note:

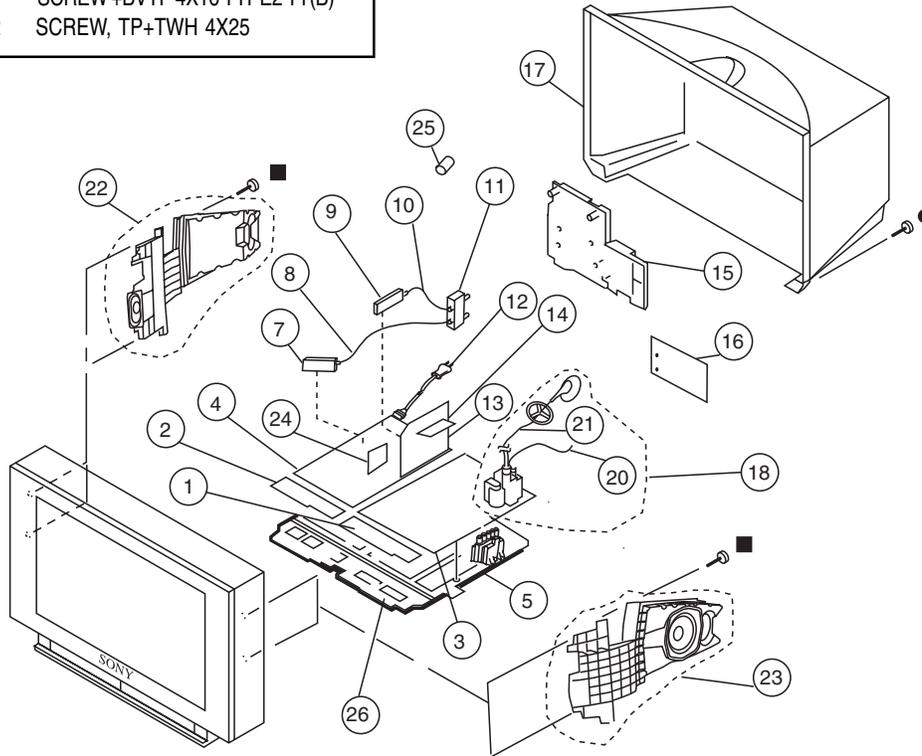
The components identified by shading and mark  $\triangle$  are critical for safety. Replace only with part number specified.

### Note:

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

## 7-1. CHASSIS

- 7-685-663-79 SCREW +BVTP 4X16 TYPE2 TT(B)
- 4-064-929-02 SCREW, TP+TWH 4X25



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	A-1372-834-A *	HA BOARD, MOUNTED	
2	A-1372-904-A *	HB (COM) MOUNTED PC BOARD	
3	A-1346-947-A *	D BOARD, COMPLETE	
		(KV-32XBR400 only)	
		The high-voltage leads associated with the FBT on this board are not included and must be ordered separately. (See 19-21)	
3	A-1346-948-A *	D BOARD, COMPLETE	
		(KV-36XBR400/38DRC1/36XBR400H only)	
		The high-voltage leads associated with the FBT on this board are not included and must be ordered separately. (See 19-21)	
3	A-1346-956-A *	D BOARD, COMPLETE	
		(KV-38DRC1C only)	
		The high-voltage leads associated with the FBT on this board are not included and must be ordered separately. (See 19-21)	
4	A-1299-256-A *	A BOARD, COMPLETE	
		(KV-32XBR400/36XBR400/38DRC1/36XBR400H only)	
4	A-1299-283-A *	A BOARD, COMPLETE	
		(KV-38DRC1C only)	
5	4-075-828-01 *	BRACKET, MAIN	
6	8-598-865-00 *	BLOCK ASSY, HI-VOL HVB-1040//X	
		(KV-38DRC1C only) (1st 15,000 units only)	
6	8-598-865-01 *	BLOCK ASSY, HI-VOL HVB-1040//X	
		(KV-32XBR400/36XBR400/38DRC1 only) (1st 15,000 units only)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
7	8-598-501-30 $\triangle$	TUNER (BTF-FA402)	
8	1-555-400-00	CABLE, PIN	
9	8-598-542-20 $\triangle$	TUNER (BTF-WA412)	
10	1-557-009-31	CABLE, P-P	
11	1-771-787-11	SWITCH RF ANTENNA	
12	1-769-796-61 $\triangle$	CORD, POWER (WITH CONNECTOR)	
		(KV-38DRC1C only)	
12	1-790-316-21 $\triangle$	CORD, AC POWER (WITH CONNECTOR)	
		(KV-32XBR400/36XBR400/38DRC1/36XBR400H only)	
13	A-1136-147-A *	B BOARD, COMPLETE	
14	A-1136-117-A *	BC BOARD, COMPLETE	
15	4-075-829-01 *	BRACKET, U	
16	A-1373-817-A *	U (COM) MOUNTED PC	
17	4-075-821-01	COVER, REAR	
		(KV-32XBR400 only)	
17	4-075-833-01	COVER, REAR	
		(KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	

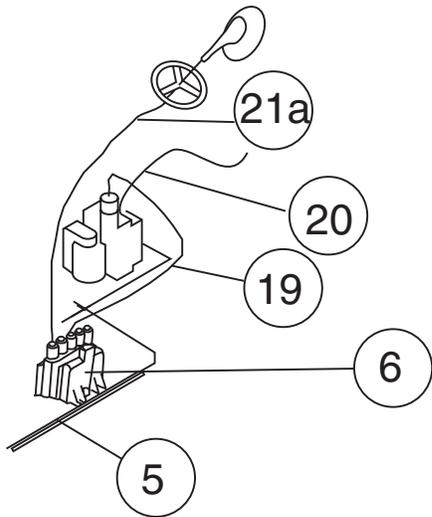
The components identified by shading and mark **△** are critical for safety. Replace only with part number specified.

Les composants identifiés par un trame et une marque **△** sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

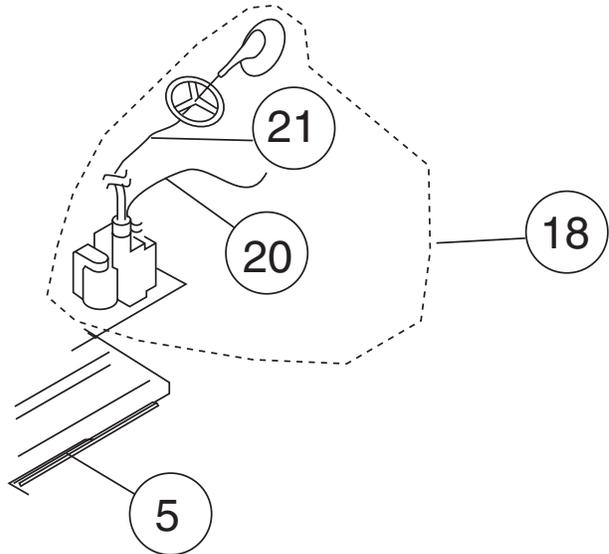
REF.NO.	PART NO.	DESCRIPTION	REMARK
18	1-453-346-11 △	FBT ASSY, NX-6000//J1J4	(20-21)
19	1-779-095-33 △	LEAD ASSY, HIGH VOLTAGE	
20	1-900-805-19 △	WIRE ASSY, FOCUS HV	
21	1-251-715-22 △	CAP ASSY, HIGH-VOLTAGE	
21a	1-251-922-11 △	CAP ASSY, HIGH-VOLTAGE	
22	1-529-811-11	SPEAKER BOX (L) TYPE 5X9CM (KV-32XBR400 only)	
22	1-529-812-11	SPEAKER BOX (L) TYPE 5X9CM (KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	
23	1-529-811-21	SPEAKER BOX (R) TYPE 5X9CM (KV-32XBR400 only)	
23	1-529-812-21	SPEAKER BOX (R) TYPE 5X9CM (KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	
24	A-1391-048-A	S BOARD, MOUNTED	
25	1-500-386-11	FILTER, CLAMP (FERRITE CORE) (KV-32XBR400 /36XBR400/38DRC1/36XBR400H only)	
26	4-075-830-01	BRACKET, H	

REF.NO.	PART NO.	DESCRIPTION	REMARK
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EARLY 32XBR PRODUCTION CONFIGURATION



CURRENT CONFIGURATION



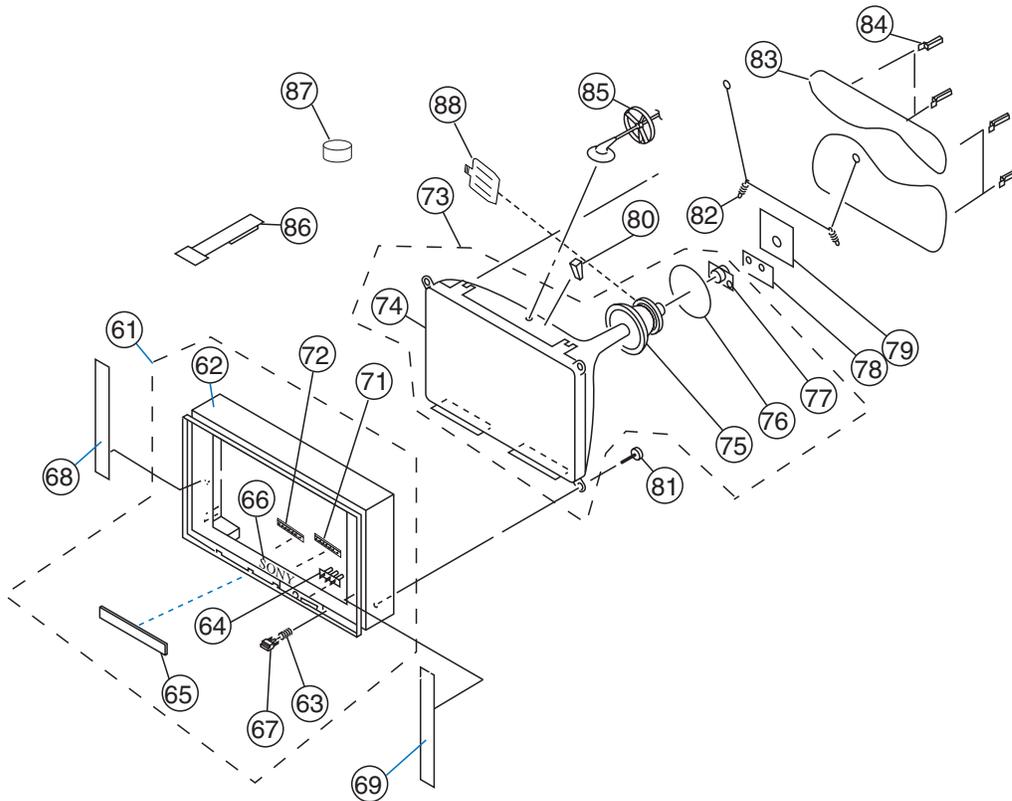
IF HV BLOCK ASSY OR FBT NEEDS REPLACEMENT, USE FBT ASSY# 1-453-346-11 (SHOWN TO THE RIGHT). NEW CONFIGURATION HAS HV BLOCK WITHIN FBT.

FBT ASSY. P/N 1-453-346-11 (NX-6000//J1J4)

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

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

## 7-2. PICTURE TUBE



REF.NO.	PART NO.	DESCRIPTION	REMARK
61	X-4037-672-2	BEZNET ASSY (KV-32XBR400 only)	(62-67)
61	X-4037-671-3	BEZNET ASSY (KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	(62-67)
62	4-075-820-01	CABINET (KV-32XBR400 only)	
62	4-075-832-01	CABINET (KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	
63	4-042-593-11 *	SPRING, COMPRESSION	
64	4-075-823-01	GUIDE, LED	
65	4-075-822-11	DOOR, PAINTED	
66	3-704-179-01	EMBLEM (NO.9), SONY	
67	4-075-824-02	BUTTON, POWER	
68	4-077-821-11	GRILL, SPEAKER (L) (KV-32XBR400 only)	
68	4-076-635-11	GRILL, SPEAKER (L) (KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	
69	4-077-822-11	GRILL, SPEAKER (R) (KV-32XBR400 only)	
69	4-076-636-11	GRILL, SPEAKER (R) (KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	
71	4-075-825-01	BUTTON, MULTI	
72	4-075-826-01	BUTTON, MENU	

REF.NO.	PART NO.	DESCRIPTION	REMARK
73	8-735-048-62 $\triangle$	ITC 38RSN-C1 (A1597344A) (KV-36XBR400 only)	(74-77)
73	8-735-081-62 $\triangle$	ITC 38RSN-C1M (A1597346A) (KV-38DRC1/36XBR400H only)	(74-77)
73	8-735-080-63 $\triangle$	ITC 38RSN-C1E (A15974345A) (KV-38DRC1 only)	(74-77)
74	8-735-047-05 $\triangle$	CRT 34RSN (A80LPD80X) (KV-32XBR400 only)	
75	8-451-512-21 $\triangle$	DY Y34RSC-M (KV-32XBR400 only)	
76	1-451-498-21	COIL, NA ROTATION (KV-32XBR400 only)	
77	8-453-009-21 *	NA325-M2	
78	A-1372-833-A	W MOUNTED PC BOARD	
79	A-1332-075-A	C MOUNTED PC BOARD	
80	4-053-005-01	SPACER, DY (KV-32XBR400 only)	
81	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
82	4-036-329-01	SPRING (B), TENSION	

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

Les composants identifiés par un trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
83	1-416-827-21 	COIL, DEGAUSSING (KV-32XBR400 only)	
83	1-416-828-41 	COIL, DEGAUSSING (KV-36XBR400/38DRC1/36XBR400H only)	
83	1-419-193-11 	COIL, DEGAUSSING (KV-38DRC1C only)	
84	4-065-895-04	HOLDER, DGC	
85	3-704-372-31	HOLDER, HV CABLE	
86	4-062-047-02	PIECE A(110), CONV CORRECT	
87	1-452-885-11	MAGNET, LANDING	
88	4-057-714-01	PIECE, TLH CONVERGENCE (KV-32XBR400 only)	

<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>





## SECTION 8 ELECTRICAL PARTS LIST

**Note:**

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

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

**RESISTORS**

- All resistors are in ohms
- F : nonflammable

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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
				C3532	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
				C3533	1-163-133-00	CERAMIC CHIP	470pF 5% 50V
				C3534	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
				C3535	1-163-231-11	CERAMIC CHIP	15pF 5% 50V
				C3536	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
				C3537	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
				C3538	1-163-231-11	CERAMIC CHIP	15pF 5% 50V
				C3539	1-163-231-11	CERAMIC CHIP	15pF 5% 50V
				C3541	1-163-106-00	CERAMIC CHIP	36pF 5% 50V
				C3542	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
				C3543	1-164-505-11	CERAMIC CHIP	2.2 $\mu$ F 16V
				C3546	1-163-231-11	CERAMIC CHIP	15pF 5% 50V
				C3547	1-126-934-11	ELECT	220 $\mu$ F 20% 10V
				C3548	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F 10% 25V
				C3549	1-104-664-11	ELECT	47 $\mu$ F 20% 16V
				C3550	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
				C3551	1-104-664-11	ELECT	47 $\mu$ F 20% 16V
				C3552	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
				C3553	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
				C3554	1-104-664-11	ELECT	47 $\mu$ F 20% 16V
				C3555	1-126-934-11	ELECT	220 $\mu$ F 20% 10V
				C3556	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F 10% 25V
				C3557	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
				C3558	1-104-664-11	ELECT	47 $\mu$ F 20% 16V
				C3559	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
				C3560	1-104-664-11	ELECT	47 $\mu$ F 20% 16V
				C3561	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
				C3562	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
				C3563	1-104-664-11	ELECT	47 $\mu$ F 20% 16V
				C3564	1-104-664-11	ELECT	47 $\mu$ F 20% 16V
				C3565	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
				C3566	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V
						<b>CONNECTOR</b>	
				*CN3500	1-691-632-21	CONNECTOR, BOARD TO BOARD	15P



\* A-1136-117-A BC BOARD, COMPLETE

**CAPACITOR**

C3500	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3501	1-163-231-11	CERAMIC CHIP	15pF	5% 50V
C3502	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3504	1-163-102-00	CERAMIC CHIP	24pF	5% 50V
C3505	1-163-102-00	CERAMIC CHIP	24pF	5% 50V
C3506	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3507	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3509	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F	25V
C3510	1-163-131-00	CERAMIC CHIP	390pF	5% 50V
C3511	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F	25V
C3512	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3513	1-216-295-11	SHORT	0	
C3514	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F	50V
C3515	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3516	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3517	1-126-924-11	ELECT	330 $\mu$ F	20% 6.3V
C3518	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F	25V
C3519	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3520	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3521	1-163-237-11	CERAMIC CHIP	27pF	5% 50V
C3522	1-104-664-11	ELECT	47 $\mu$ F	20% 16V
C3523	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3524	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3525	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F	25V
C3526	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3527	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3528	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3529	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V
C3530	1-104-664-11	ELECT	47 $\mu$ F	20% 16V
C3531	1-165-319-11	CERAMIC CHIP	0.1 $\mu$ F	50V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<b>FERRITE BEAD</b>							
FB3500	1-414-234-22	FERRITE	0μH	Q3511	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3501	1-414-234-22	FERRITE	0μH	Q3512	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3502	1-414-234-22	FERRITE	0μH	Q3513	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3503	1-414-234-22	FERRITE	0μH	Q3514	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
FB3504	1-414-234-22	FERRITE	0μH	Q3515	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3505	1-414-234-22	FERRITE	0μH	Q3516	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3506	1-414-234-22	FERRITE	0μH	Q3517	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3507	1-414-234-22	FERRITE	0μH	<b>RESISTOR</b>			
FB3508	1-414-234-22	FERRITE	0μH	R3500	1-216-296-91	SHORT	0
FB3509	1-414-234-22	FERRITE	0μH	R3501	1-216-296-91	SHORT	0
<b>FILTER</b>				R3502	1-216-296-91	SHORT	0
FL3500	1-239-848-21	FILTER, LOW PASS		R3503	1-216-017-91	RES-CHIP	47 5% 1/10W
FL3501	1-239-848-21	FILTER, LOW PASS		R3504	1-216-295-11	SHORT	0
FL3502	1-239-848-21	FILTER, LOW PASS		R3505	1-216-295-11	SHORT	0
FL3503	1-239-848-21	FILTER, LOW PASS		R3506	1-216-295-11	SHORT	0
FL3504	1-233-512-21	FERRITE	37μH	R3507	1-216-295-11	SHORT	0
FL3505	1-233-512-21	FERRITE	37μH	R3508	1-216-295-11	SHORT	0
FL3506	1-233-512-21	FERRITE	37μH	R3509	1-216-049-11	RES-CHIP	1K 5% 1/10W
<b>IC</b>				R3510	1-216-041-00	RES-CHIP	470 5% 1/10W
IC3500	8-759-568-27	IC UPD424210LE-60-E2		R3511	1-216-041-00	RES-CHIP	470 5% 1/10W
IC3501	8-759-594-44	IC UPD64082GF-3BA		R3512	1-216-295-11	SHORT	0
IC3502	8-759-583-47	IC UPC2933T-E1		R3514	1-216-025-11	RES-CHIP	100 5% 1/10W
<b>COIL</b>				R3515	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
L3500	1-414-265-21	INDUCTOR	4.7μH	R3516	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
L3501	1-412-058-11	INDUCTOR	10μH	R3517	1-216-025-11	RES-CHIP	100 5% 1/10W
L3502	1-412-058-11	INDUCTOR	10μH	R3518	1-216-025-11	RES-CHIP	100 5% 1/10W
L3503	1-412-058-11	INDUCTOR	10μH	R3519	1-216-295-11	SHORT	0
L3504	1-412-058-11	INDUCTOR	10μH	R3520	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
L3505	1-412-058-11	INDUCTOR	10μH	R3521	1-216-041-00	RES-CHIP	470 5% 1/10W
<b>TRANSISTOR</b>				R3522	1-216-041-00	RES-CHIP	470 5% 1/10W
Q3500	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3523	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q3501	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3524	1-216-089-11	RES-CHIP	47K 5% 1/10W
Q3502	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3525	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
Q3503	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3526	1-216-105-91	RES-CHIP	220K 5% 1/10W
Q3504	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3527	1-216-033-00	RES-CHIP	220 5% 1/10W
Q3505	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3528	1-208-776-11	METAL CHIP	560 0.50% 1/10W
Q3506	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3529	1-208-772-11	METAL CHIP	390 0.50% 1/10W
Q3508	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3530	1-216-067-00	RES-CHIP	5.6K 5% 1/10W
Q3509	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3531	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q3510	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3532	1-216-025-11	RES-CHIP	100 5% 1/10W
				R3533	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R3534	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R3535	1-216-025-11	RES-CHIP	100 5% 1/10W
				R3538	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R3539	1-216-043-91	RES-CHIP	560 5% 1/10W
				R3540	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R3541	1-216-067-00	RES-CHIP	5.6K 5% 1/10W
				R3542	1-216-043-91	RES-CHIP	560 5% 1/10W
				R3543	1-216-049-11	RES-CHIP	1K 5% 1/10W





REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C3062	1-126-204-11	ELECT	47μF 20% 16V	C3137	1-125-837-91	CERAMIC CHIP	1μF 10% 6.3V
C3063	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3138	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3064	1-117-681-11	ELECT	100μF 20% 16V	C3139	1-125-891-11	CERAMIC CHIP	0.47μF 10% 10V
C3066	1-126-204-11	ELECT	47μF 20% 16V	C3140	1-124-779-00	ELECT	10μF 20% 16V
C3067	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C3141	1-162-917-11	CERAMIC CHIP	15pF 5% 50V
C3068	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C3142	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3069	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3172	1-124-779-00	ELECT	10μF 20% 16V
C3070	1-126-204-11	ELECT	47μF 20% 16V	C3173	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3071	1-162-916-11	CERAMIC CHIP	12pF 5% 50V	C3204	1-126-193-11	ELECT	1μF 20% 50V
C3072	1-125-891-11	CERAMIC CHIP	0.47μF 10% 10V	C3205	1-117-681-11	ELECT	100μF 20% 16V
C3073	1-126-204-11	ELECT	47μF 20% 16V	C3206	1-125-837-91	CERAMIC CHIP	1μF 10% 6.3V
C3074	1-126-204-11	ELECT	47μF 20% 16V	C3208	1-125-837-91	CERAMIC CHIP	1μF 10% 6.3V
C3075	1-164-315-11	CERAMIC CHIP	470pF 5% 50V	C3209	1-124-779-00	ELECT	10μF 20% 16V
C3076	1-125-891-11	CERAMIC CHIP	0.47μF 10% 10V	C3210	1-125-837-91	CERAMIC CHIP	1μF 10% 6.3V
C3078	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3211	1-125-837-91	CERAMIC CHIP	1μF 10% 6.3V
C3079	1-125-838-11	CERAMIC CHIP	2.2μF 10% 6.3V	C3212	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3080	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	C3213	1-117-681-11	ELECT	100μF 20% 16V
C3081	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3215	1-126-401-21	ELECT	10μF 20% 50V
C3082	1-126-204-11	ELECT	47μF 20% 16V	C3216	1-126-193-11	ELECT	1μF 20% 50V
C3083	1-107-823-11	CERAMIC CHIP	0.47μF 10% 16V	C3218	1-126-193-11	ELECT	1μF 20% 50V
C3085	1-125-837-91	CERAMIC CHIP	1μF 10% 6.3V	C3219	1-126-193-11	ELECT	1μF 20% 50V
C3086	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	C3220	1-128-993-21	ELECT	22μF 20% 10V
C3087	1-125-891-11	CERAMIC CHIP	0.47μF 10% 10V	C3221	1-117-681-11	ELECT	100μF 20% 16V
C3088	1-124-779-00	ELECT	10μF 20% 16V	C3222	1-124-779-00	ELECT	10μF 20% 16V
C3089	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	C3223	1-124-779-00	ELECT	10μF 20% 16V
C3090	1-126-204-11	ELECT	47μF 20% 16V	C3224	1-124-779-00	ELECT	10μF 20% 16V
C3091	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3225	1-124-779-00	ELECT	10μF 20% 16V
C3092	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3226	1-124-779-00	ELECT	10μF 20% 16V
C3093	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3227	1-124-779-00	ELECT	10μF 20% 16V
C3094	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3229	1-117-681-11	ELECT	100μF 20% 16V
C3096	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	C3235	1-124-779-00	ELECT	10μF 20% 16V
C3097	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3236	1-124-779-00	ELECT	10μF 20% 16V
C3098	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3237	1-117-681-11	ELECT	100μF 20% 16V
C3099	1-162-919-11	CERAMIC CHIP	22pF 5% 50V	C3239	1-124-779-00	ELECT	10μF 20% 16V
C3113	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3240	1-164-230-11	CERAMIC CHIP	220pF 5% 50V
C3114	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3241	1-164-361-11	CERAMIC CHIP	0.047μF 25V
C3115	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3242	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3116	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3243	1-126-193-11	ELECT	1μF 20% 50V
C3117	1-126-603-11	ELECT	4.7μF 20% 35V	C3245	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3120	1-126-206-11	ELECT	100μF 20% 6.3V	C3246	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3127	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3247	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3128	1-162-916-11	CERAMIC CHIP	12pF 5% 50V	C3248	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3129	1-125-891-11	CERAMIC CHIP	0.47μF 10% 10V	C3249	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3130	1-164-315-11	CERAMIC CHIP	470pF 5% 50V	C3250	1-216-295-11	SHORT	0
C3131	1-125-891-11	CERAMIC CHIP	0.47μF 10% 10V	C3251	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3132	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3252	1-216-295-11	SHORT	0
C3133	1-125-838-11	CERAMIC CHIP	2.2μF 10% 6.3V	C3253	1-127-573-11	CERAMIC CHIP	1μF 10% 16V
C3134	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V	C3254	1-127-573-11	CERAMIC CHIP	1μF 10% 16V
C3135	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3255	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3136	1-107-823-11	CERAMIC CHIP	0.47μF 10% 16V	C3301	1-164-156-11	CERAMIC CHIP	0.1μF 25V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C3302	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3357	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3303	1-126-206-11	ELECT	100μF 20% 6.3V	C3358	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3304	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3359	1-126-204-11	ELECT	47μF 20% 16V
C3305	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3360	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3306	1-126-204-11	ELECT	47μF 20% 16V	C3361	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3307	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3362	1-127-760-11	CERAMIC CHIP	4.7μF 10% 6.3V
C3308	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3363	1-126-204-11	ELECT	47μF 20% 16V
C3309	1-124-779-00	ELECT	10μF 20% 16V	C3364	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3310	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3365	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3311	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3366	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3312	1-126-206-11	ELECT	100μF 20% 6.3V	C3367	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3313	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3368	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3314	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3369	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3315	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3370	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3316	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3371	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3317	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3372	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3318	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3373	1-162-923-11	CERAMIC CHIP	47pF 5% 50V
C3319	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3374	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3320	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3375	1-127-760-11	CERAMIC CHIP	4.7μF 10% 6.3V
C3321	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3376	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3322	1-126-204-11	ELECT	47μF 20% 16V	C3377	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3323	1-124-779-00	ELECT	10μF 20% 16V	C3378	1-126-204-11	ELECT	47μF 20% 16V
C3324	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3379	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3325	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3401	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3326	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3402	1-124-779-00	ELECT	10μF 20% 16V
C3327	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3403	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3328	1-124-779-00	ELECT	10μF 20% 16V	C3404	1-124-779-00	ELECT	10μF 20% 16V
C3331	1-126-204-11	ELECT	47μF 20% 16V	C3405	1-126-206-11	ELECT	100μF 20% 6.3V
C3332	1-124-779-00	ELECT	10μF 20% 16V	C3406	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V
C3333	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3407	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V
C3335	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3408	1-126-206-11	ELECT	100μF 20% 6.3V
C3336	1-124-779-00	ELECT	10μF 20% 16V	C3409	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3338	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3410	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3339	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3411	1-163-038-11	CERAMIC CHIP	0.1μF 25V
C3340	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3412	1-163-038-11	CERAMIC CHIP	0.1μF 25V
C3341	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3413	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3343	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3414	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V
C3344	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3415	1-124-779-00	ELECT	10μF 20% 16V
C3345	1-126-204-11	ELECT	47μF 20% 16V	C3416	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3346	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3417	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3347	1-107-826-11	CERAMIC CHIP	0.1μF 10% 16V	C3418	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V
C3348	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3419	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3349	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3420	1-124-779-00	ELECT	10μF 20% 16V
C3350	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3421	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3351	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3422	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3352	1-124-779-00	ELECT	10μF 20% 16V	C3423	1-162-970-11	CERAMIC CHIP	0.01μF 10% 25V
C3353	1-126-204-11	ELECT	47μF 20% 16V	C3424	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3354	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3425	1-107-823-11	CERAMIC CHIP	0.47μF 10% 16V
C3355	1-164-156-11	CERAMIC CHIP	0.1μF 25V	C3426	1-164-156-11	CERAMIC CHIP	0.1μF 25V
C3356	1-126-204-11	ELECT	47μF 20% 16V	C3428	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C3429	1-124-779-00	ELECT	10μF 20%	16V	C3483	1-117-681-11	ELECT 100μF 20%
C3430	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3484	1-125-837-91	CERAMIC CHIP 1μF 10%
C3431	1-126-204-11	ELECT	47μF 20%	16V	C3485	1-164-156-11	CERAMIC CHIP 0.1μF
C3432	1-107-826-11	CERAMIC CHIP	0.1μF 10%	16V	C3486	1-164-156-11	CERAMIC CHIP 0.1μF
C3433	1-162-970-11	CERAMIC CHIP	0.01μF 10%	25V	C3487	1-164-156-11	CERAMIC CHIP 0.1μF
C3434	1-126-204-11	ELECT	47μF 20%	16V	C3488	1-124-779-00	ELECT 10μF 20%
C3435	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3489	1-164-156-11	CERAMIC CHIP 0.1μF
C3436	1-163-021-91	CERAMIC CHIP	0.01μF 10%	50V	C3490	1-124-779-00	ELECT 10μF 20%
C3437	1-126-204-11	ELECT	47μF 20%	16V	C3491	1-126-204-11	ELECT 47μF 20%
C3438	1-107-826-11	CERAMIC CHIP	0.1μF 10%	16V	C3492	1-164-156-11	CERAMIC CHIP 0.1μF
C3439	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3493	1-126-204-11	ELECT 47μF 20%
C3440	1-162-916-11	CERAMIC CHIP	12pF 5%	50V	C3494	1-164-156-11	CERAMIC CHIP 0.1μF
C3441	1-162-916-11	CERAMIC CHIP	12pF 5%	50V	C3495	1-124-779-00	ELECT 10μF 20%
C3442	1-124-779-00	ELECT	10μF 20%	16V	C3496	1-164-156-11	CERAMIC CHIP 0.1μF
C3443	1-162-970-11	CERAMIC CHIP	0.01μF 10%	25V	C3604	1-124-779-00	ELECT 10μF 20%
C3444	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3605	1-164-156-11	CERAMIC CHIP 0.1μF
C3445	1-126-204-11	ELECT	47μF 20%	16V	C3606	1-125-891-11	CERAMIC CHIP 0.47μF 10%
C3446	1-163-021-91	CERAMIC CHIP	0.01μF 10%	50V	C3607	1-107-826-11	CERAMIC CHIP 0.1μF 10%
C3447	1-107-826-11	CERAMIC CHIP	0.1μF 10%	16V	C3608	1-163-275-11	CERAMIC CHIP 0.001μF 5%
C3448	1-162-970-11	CERAMIC CHIP	0.01μF 10%	25V	C3609	1-162-968-11	CERAMIC CHIP .0047μF 10%
C3449	1-107-826-11	CERAMIC CHIP	0.1μF 10%	16V	C3610	1-126-204-11	ELECT 47μF 20%
C3450	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3611	1-164-156-11	CERAMIC CHIP 0.1μF
C3451	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3612	1-162-917-11	CERAMIC CHIP 15pF 5%
C3452	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3613	1-162-917-11	CERAMIC CHIP 15pF 5%
C3453	1-124-779-00	ELECT	10μF 20%	16V	C3618	1-124-779-00	ELECT 10μF 20%
C3454	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3619	1-164-156-11	CERAMIC CHIP 0.1μF
C3455	1-124-779-00	ELECT	10μF 20%	16V	C3623	1-125-891-11	CERAMIC CHIP 0.47μF 10%
C3456	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3624	1-107-826-11	CERAMIC CHIP 0.1μF 10%
C3457	1-124-779-00	ELECT	10μF 20%	16V	C3625	1-163-275-11	CERAMIC CHIP 0.001μF 5%
C3458	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3626	1-162-968-11	CERAMIC CHIP .0047μF 10%
C3460	1-162-923-11	CERAMIC CHIP	47pF 5%	50V	C3627	1-126-204-11	ELECT 47μF 20%
C3462	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3628	1-164-156-11	CERAMIC CHIP 0.1μF
C3463	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3629	1-162-917-11	CERAMIC CHIP 15pF 5%
C3464	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3630	1-162-917-11	CERAMIC CHIP 15pF 5%
C3465	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3635	1-126-204-11	ELECT 47μF 20%
C3466	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3636	1-125-837-91	CERAMIC CHIP 1μF 10%
C3467	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3637	1-107-826-11	CERAMIC CHIP 0.1μF 10%
C3468	1-126-206-11	ELECT	100μF 20%	6.3V	C3638	1-124-779-00	ELECT 10μF 20%
C3469	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3639	1-164-156-11	CERAMIC CHIP 0.1μF
C3470	1-126-206-11	ELECT	100μF 20%	6.3V	C3640	1-162-964-11	CERAMIC CHIP 0.001μF 10%
C3473	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3641	1-107-826-11	CERAMIC CHIP 0.1μF 10%
C3474	1-124-779-00	ELECT	10μF 20%	16V	C3642	1-107-826-11	CERAMIC CHIP 0.1μF 10%
C3475	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3643	1-107-826-11	CERAMIC CHIP 0.1μF 10%
C3476	1-124-779-00	ELECT	10μF 20%	16V	C3644	1-164-156-11	CERAMIC CHIP 0.1μF
C3477	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3652	1-162-974-11	CERAMIC CHIP 0.01μF
C3478	1-126-204-11	ELECT	47μF 20%	16V	C3653	1-164-230-11	CERAMIC CHIP 220pF 5%
C3479	1-124-779-00	ELECT	10μF 20%	16V	C3654	1-164-230-11	CERAMIC CHIP 220pF 5%
C3480	1-164-156-11	CERAMIC CHIP	0.1μF	25V	C3655	1-164-230-11	CERAMIC CHIP 220pF 5%
C3481	1-117-681-11	ELECT	100μF 20%	16V	C3656	1-164-230-11	CERAMIC CHIP 220pF 5%
C3482	1-117-681-11	ELECT	100μF 20%	16V	C3657	1-162-964-11	CERAMIC CHIP 0.001μF 10%



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C3658	1-162-964-11	CERAMIC CHIP	0.001μF 10% 50V	FB3206	1-414-234-22	FERRITE	0μH
C3659	1-126-204-11	ELECT	47μF 20% 16V	FB3401	1-414-235-22	FERRITE	0μH
C3660	1-126-204-11	ELECT	47μF 20% 16V	FB3402	1-414-235-22	FERRITE	0μH
				FB3601	1-414-235-22	FERRITE	0μH
<b><u>CONNECTOR</u></b>				<b><u>FILTER</u></b>			
*CN3201	1-691-616-21	CONNECTOR, BOARD TO BOARD	15P	FL3001	1-239-848-11	FILTER, LOW PASS	
CN3202	1-573-299-21	CONNECTOR, BOARD TO BOARD	10P	FL3002	1-239-848-11	FILTER, LOW PASS	
*CN3203	1-785-303-11	CONNECTOR, DIN (PLUG)	64P	FL3003	1-781-924-11	FILTER, LOW PASS (SMD)	
*CN3204	1-564-526-11	PLUG, CONNECTOR	11P	FL3004	1-239-848-11	FILTER, LOW PASS	
*CN3205	1-785-304-11	CONNECTOR, DIN (RECEPTACLE)	64	FL3401	1-781-923-11	FILTER, LOW PASS (SMD)	
<b><u>DIODE</u></b>				<b><u>IC</u></b>			
D3001	8-719-978-33	DIODE UDZS-TE17-6.8B		IC3001	8-752-093-84	IC CXA2151Q	
D3002	8-719-978-33	DIODE UDZS-TE17-6.8B		IC3002	8-759-595-97	IC SN74LV4053ANSR	
D3003	8-719-978-33	DIODE UDZS-TE17-6.8B		IC3003	8-752-394-69	IC CXD2073Q-T4	
D3004	8-719-978-33	DIODE UDZS-TE17-6.8B		IC3004	8-759-595-97	IC SN74LV4053ANSR	
D3005	8-719-978-33	DIODE UDZS-TE17-6.8B		IC3048	8-752-089-50	IC CXA2103Q	
D3006	8-719-978-33	DIODE UDZS-TE17-6.8B		IC3089	8-759-575-71	IC M24C04-MN6T	
D3007	8-719-978-33	DIODE UDZS-TE17-6.8B		IC3090	8-759-691-88	IC MB94918RpF-G-130-BND	
D3089	8-719-800-76	DIODE MA153-TX		IC3091	8-759-349-11	IC PST9145NL	
D3090	8-719-800-76	DIODE MA153-TX		IC3110	8-752-089-50	IC CXA2103Q	
D3201	8-719-977-28	DIODE UDZS-TE17-10B		IC3201	8-752-080-04	IC CXA2069Q	
D3202	8-719-977-28	DIODE UDZS-TE17-10B		IC3202	8-759-351-01	IC TEA6422DT	
D3204	8-719-977-28	DIODE UDZS-TE17-10B		IC3203	8-759-331-71	IC NJM4558E(TE2)	
D3205	8-719-977-28	DIODE UDZS-TE17-10B		IC3301	8-759-676-70	IC MSM56V16160F-10TS-K	
D3206	8-719-977-28	DIODE UDZS-TE17-10B		IC3302	8-749-015-18	IC PQ07VZ012P	
D3209	8-719-914-44	DIODE DAP202K-T-146		IC3303	8-752-398-47	IC CXD2090Q	
D3210	8-719-041-97	DIODE MA113-(TX)		IC3304	8-759-447-90	IC TLC5733AIPM	
D3211	8-719-073-01	DIODE MA111-TX		IC3305	8-759-669-75	IC TLC2932IPWR	
D3212	8-719-977-28	DIODE UDZS-TE17-10B		IC3306	8-759-669-78	IC TLC2933IPWR-12	
D3213	8-719-977-28	DIODE UDZS-TE17-10B		IC3401	8-749-015-18	IC PQ07VZ012P	
D3214	8-719-977-28	DIODE UDZS-TE17-10B		IC3402	8-759-677-39	IC MB81F643242B-D	
D3215	8-719-977-28	DIODE UDZS-TE17-10B		IC3403	8-759-460-29	IC PST9120NL	
D3216	8-719-977-28	DIODE UDZS-TE17-10B		IC3404	8-759-669-75	IC TLC2932IPWR	
D3217	8-719-977-28	DIODE UDZS-TE17-10B		IC3405	8-759-485-79	IC TC7SET08FU(TE85R)	
D3301	8-719-422-12	DIODE UDZ-TE-17-3.9B		IC3406	8-759-485-79	IC TC7SET08FU(TE85R)	
D3401	8-719-914-43	DIODE DAN202K-T-146		IC3407	8-759-485-79	IC TC7SET08FU(TE85R)	
D3402	8-719-914-44	DIODE DAP202K-T-146		IC3408	8-759-672-57	IC CXD9509AQ	
D3403	8-719-978-33	DIODE UDZS-TE17-6.8B		IC3409	8-749-015-18	IC PQ07VZ012P	
<b><u>FERRITE BEAD</u></b>				IC3410	8-752-367-59	IC CXD2309Q	
FB3201	1-414-234-22	FERRITE	0μH	IC3411	8-759-082-57	IC TC7W04FU(TE12R)	
FB3202	1-414-234-22	FERRITE	0μH	IC3412	8-759-082-58	IC TC7W08FU(TE12R)	
FB3203	1-216-295-11	SHORT	0	IC3413	8-759-595-97	IC SN74LV4053ANSR	
FB3204	1-414-234-22	FERRITE	0μH	IC3414	8-759-548-56	IC M52055FP	
FB3205	1-414-234-22	FERRITE	0μH	IC3601	8-752-916-40	IC CXP85840A-039Q	
				IC3602	8-752-916-40	IC CXP85840A-039Q	
				IC3603	8-752-395-13	IC CXD2085M-T4	
				IC3604	8-759-700-07	IC NJM2903M-TE2	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<b>COIL</b>				<b>TRANSISTOR</b>			
L3001	1-216-295-11	SHORT	0	Q3001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3002	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3003	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3003	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3004	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3005	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3006	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3049	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3007	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3050	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3008	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3051	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3009	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3089	1-414-233-22	FERRITE	0 $\mu$ H	Q3010	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3112	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3011	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3113	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3014	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3301	1-412-058-11	INDUCTOR	10 $\mu$ H	Q3015	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3302	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3016	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3303	1-412-052-21	INDUCTOR	1 $\mu$ H	Q3017	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3304	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3018	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3305	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3021	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3306	1-469-561-21	INDUCTOR	100 $\mu$ H	Q3022	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3307	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3308	1-469-561-21	INDUCTOR	100 $\mu$ H	Q3025	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3309	1-469-561-21	INDUCTOR	100 $\mu$ H	Q3026	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3310	1-469-561-21	INDUCTOR	100 $\mu$ H	Q3027	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3311	1-469-561-21	INDUCTOR	100 $\mu$ H	Q3035	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3312	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3036	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3401	1-412-052-21	INDUCTOR	1 $\mu$ H	Q3037	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3402	1-412-052-21	INDUCTOR	1 $\mu$ H	Q3038	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3403	1-469-561-21	INDUCTOR	100 $\mu$ H	Q3039	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3404	1-469-561-21	INDUCTOR	100 $\mu$ H	Q3040	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3405	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3049	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3406	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3051	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3407	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3053	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3408	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3054	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3409	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3056	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3410	1-412-052-21	INDUCTOR	1 $\mu$ H	Q3058	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3411	1-412-058-11	INDUCTOR	10 $\mu$ H	Q3089	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3412	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3090	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3413	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3091	1-801-806-11	TRANSISTOR DTC144EKA-T146	
L3414	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3101	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3416	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3102	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3601	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3103	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3602	1-412-951-11	INDUCTOR	10 $\mu$ H	Q3104	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3603	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3110	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3604	1-412-951-11	INDUCTOR	10 $\mu$ H	Q3111	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3605	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3112	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3606	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3201	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3607	1-469-555-21	INDUCTOR	10 $\mu$ H	Q3202	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3608	1-414-754-11	INDUCTOR	10 $\mu$ H	Q3203	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
L3609	1-414-754-11	INDUCTOR	10 $\mu$ H	Q3204	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
Q3205	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3003	1-216-842-11	RES-CHIP 56K	5% 1/16W
Q3206	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3004	1-216-818-11	RES-CHIP 560	5% 1/16W
Q3207	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3005	1-216-821-11	RES-CHIP 1K	5% 1/16W
Q3208	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3006	1-216-817-11	RES-CHIP 470	5% 1/16W
Q3209	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3007	1-218-686-11	METAL CHIP 560	0.50% 1/16W
Q3210	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3009	1-218-710-11	METAL CHIP 5.6K	0.50% 1/16W
Q3211	1-801-806-11	TRANSISTOR DTC144EKA-T146		R3010	1-218-716-11	METAL CHIP 10K	0.50% 1/16W
Q3213	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3011	1-216-821-11	RES-CHIP 1K	5% 1/16W
Q3214	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3012	1-216-864-11	SHORT 0	
Q3215	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3013	1-216-813-11	RES-CHIP 220	5% 1/16W
Q3216	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3014	1-218-676-11	METAL CHIP 220	0.50% 1/16W
Q3217	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3015	1-216-864-11	SHORT 0	
Q3301	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3017	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3302	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3018	1-216-817-11	RES-CHIP 470	5% 1/16W
Q3303	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3019	1-218-686-11	METAL CHIP 560	0.50% 1/16W
Q3304	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3020	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3305	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3021	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3401	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3022	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3402	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		R3023	1-216-833-11	RES-CHIP 10K	5% 1/16W
Q3403	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3024	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3404	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		R3025	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3405	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3026	1-216-035-00	RES-CHIP 270	5% 1/10W
Q3406	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3027	1-218-684-11	METAL CHIP 470	0.50% 1/16W
Q3407	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3028	1-218-688-11	METAL CHIP 680	0.50% 1/16W
Q3408	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3029	1-218-704-11	METAL CHIP 3.3K	0.50% 1/16W
Q3409	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3030	1-216-864-11	SHORT 0	
Q3410	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3035	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3411	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3036	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3412	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3037	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3413	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3038	1-218-686-11	METAL CHIP 560	0.50% 1/16W
Q3414	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3039	1-218-686-11	METAL CHIP 560	0.50% 1/16W
Q3415	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R3040	1-218-686-11	METAL CHIP 560	0.50% 1/16W
Q3603	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3042	1-216-821-11	RES-CHIP 1K	5% 1/16W
Q3604	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3043	1-216-837-11	RES-CHIP 22K	5% 1/16W
Q3605	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3044	1-216-837-11	RES-CHIP 22K	5% 1/16W
Q3606	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3045	1-216-817-11	RES-CHIP 470	5% 1/16W
Q3609	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3046	1-216-817-11	RES-CHIP 470	5% 1/16W
Q3610	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3047	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3611	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3048	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3612	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3049	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3613	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3050	1-216-809-11	RES-CHIP 100	5% 1/16W
Q3617	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3051	1-216-845-11	RES-CHIP 100K	5% 1/16W
Q3618	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3052	1-216-845-11	RES-CHIP 100K	5% 1/16W
Q3619	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3053	1-216-845-11	RES-CHIP 100K	5% 1/16W
Q3620	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3056	1-216-817-11	RES-CHIP 470	5% 1/16W
				R3057	1-216-817-11	RES-CHIP 470	5% 1/16W
				R3058	1-216-835-11	RES-CHIP 15K	5% 1/16W
				R3059	1-216-817-11	RES-CHIP 470	5% 1/16W
				R3060	1-216-809-11	RES-CHIP 100	5% 1/16W
				R3061	1-216-829-11	RES-CHIP 4.7K	5% 1/16W
R3001	1-216-805-11	RES-CHIP 47	5% 1/16W				
R3002	1-216-805-11	RES-CHIP 47	5% 1/16W				

**RESISTOR**



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R3062	1-218-697-11	METAL CHIP	1.6K 0.50% 1/16W	R3127	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R3063	1-218-716-11	METAL CHIP	10K 0.50% 1/16W	R3128	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R3064	1-218-696-11	METAL CHIP	1.5K 0.50% 1/16W	R3129	1-216-835-11	RES-CHIP	15K 5% 1/16W
R3066	1-216-809-11	RES-CHIP	100 5% 1/16W	R3130	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3067	1-216-845-11	RES-CHIP	100K 5% 1/16W	R3131	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3068	1-216-809-11	RES-CHIP	100 5% 1/16W	R3132	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3071	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3133	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3072	1-216-833-11	RES-CHIP	10K 5% 1/16W	R3134	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3073	1-216-805-11	RES-CHIP	47 5% 1/16W	R3135	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3074	1-216-805-11	RES-CHIP	47 5% 1/16W	R3136	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3075	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3137	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3076	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3138	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3077	1-216-809-11	RES-CHIP	100 5% 1/16W	R3139	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3078	1-216-832-11	RES-CHIP	8.2K 5% 1/16W	R3140	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3079	1-216-049-11	RES-CHIP	1K 5% 1/10W	R3141	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3080	1-216-845-11	RES-CHIP	100K 5% 1/16W	R3142	1-216-805-11	RES-CHIP	47 5% 1/16W
R3081	1-216-809-11	RES-CHIP	100 5% 1/16W	R3143	1-216-805-11	RES-CHIP	47 5% 1/16W
R3082	1-216-845-11	RES-CHIP	100K 5% 1/16W	R3144	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3083	1-216-864-11	SHORT	0	R3145	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3084	1-216-864-11	SHORT	0	R3146	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R3085	1-216-864-11	SHORT	0	R3147	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3086	1-216-864-11	SHORT	0	R3151	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3087	1-216-864-11	SHORT	0	R3152	1-216-818-11	RES-CHIP	560 5% 1/16W
R3088	1-216-864-11	SHORT	0	R3154	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R3089	1-216-864-11	SHORT	0	R3155	1-216-841-11	RES-CHIP	47K 5% 1/16W
R3090	1-216-861-11	RES-CHIP	2.2M 5% 1/16W	R3156	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3091	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3157	1-216-817-11	RES-CHIP	470 5% 1/16W
R3092	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3158	1-216-817-11	RES-CHIP	470 5% 1/16W
R3093	1-216-809-11	RES-CHIP	100 5% 1/16W	R3159	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3094	1-216-809-11	RES-CHIP	100 5% 1/16W	R3160	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3095	1-216-845-11	RES-CHIP	100K 5% 1/16W	R3161	1-216-809-11	RES-CHIP	100 5% 1/16W
R3096	1-216-817-11	RES-CHIP	470 5% 1/16W	R3162	1-216-815-11	RES-CHIP	330 5% 1/16W
R3097	1-216-845-11	RES-CHIP	100K 5% 1/16W	R3163	1-218-710-11	METAL CHIP	5.6K 0.50% 1/16W
R3098	1-216-805-11	RES-CHIP	47 5% 1/16W	R3164	1-218-710-11	METAL CHIP	5.6K 0.50% 1/16W
R3099	1-216-805-11	RES-CHIP	47 5% 1/16W	R3165	1-216-861-11	RES-CHIP	2.2M 5% 1/16W
R3100	1-216-809-11	RES-CHIP	100 5% 1/16W	R3166	1-216-861-11	RES-CHIP	2.2M 5% 1/16W
R3101	1-216-809-11	RES-CHIP	100 5% 1/16W	R3180	1-218-673-11	METAL CHIP	160 0.50% 1/16W
R3102	1-216-809-11	RES-CHIP	100 5% 1/16W	R3181	1-218-673-11	METAL CHIP	160 0.50% 1/16W
R3103	1-216-837-11	RES-CHIP	22K 5% 1/16W	R3182	1-218-673-11	METAL CHIP	160 0.50% 1/16W
R3104	1-216-809-11	RES-CHIP	100 5% 1/16W	R3183	1-216-809-11	RES-CHIP	100 5% 1/16W
R3105	1-216-809-11	RES-CHIP	100 5% 1/16W	R3184	1-216-809-11	RES-CHIP	100 5% 1/16W
R3106	1-216-837-11	RES-CHIP	22K 5% 1/16W	R3185	1-216-809-11	RES-CHIP	100 5% 1/16W
R3107	1-216-864-11	SHORT	0	R3186	1-218-674-11	METAL CHIP	180 0.50% 1/16W
R3108	1-216-817-11	RES-CHIP	470 5% 1/16W	R3187	1-218-674-11	METAL CHIP	180 0.50% 1/16W
R3121	1-216-809-11	RES-CHIP	100 5% 1/16W	R3188	1-218-674-11	METAL CHIP	180 0.50% 1/16W
R3122	1-216-809-11	RES-CHIP	100 5% 1/16W	R3190	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3123	1-218-696-11	METAL CHIP	1.5K 0.50% 1/16W	R3191	1-218-694-11	METAL CHIP	1.2K 0.50% 1/16W
R3124	1-218-696-11	METAL CHIP	1.5K 0.50% 1/16W	R3192	1-216-814-11	RES-CHIP	270 5% 1/16W
R3125	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	R3193	1-218-698-11	METAL CHIP	1.8K 0.50% 1/16W
R3126	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	R3194	1-216-825-11	RES-CHIP	2.2K 5% 1/16W



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R3195	1-216-816-11	RES-CHIP	390 5% 1/16W	R3258	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3196	1-216-833-11	RES-CHIP	10K 5% 1/16W	R3259	1-216-853-11	RES-CHIP	470K 5% 1/16W
R3197	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3260	1-216-853-11	RES-CHIP	470K 5% 1/16W
R3198	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3261	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R3201	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3262	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R3202	1-216-809-11	RES-CHIP	100 5% 1/16W	R3263	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3203	1-216-809-11	RES-CHIP	100 5% 1/16W	R3264	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3204	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3265	1-216-857-11	RES-CHIP	1M 5% 1/16W
R3205	1-216-809-11	RES-CHIP	100 5% 1/16W	R3266	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3207	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3267	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3208	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3268	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3209	1-216-809-11	RES-CHIP	100 5% 1/16W	R3269	1-216-809-11	RES-CHIP	100 5% 1/16W
R3210	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3270	1-249-382-11	CARBON	1.2 5% 1/4W
R3211	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3272	1-216-841-11	RES-CHIP	47K 5% 1/16W
R3212	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3273	1-216-819-11	RES-CHIP	680 5% 1/16W
R3213	1-216-809-11	RES-CHIP	100 5% 1/16W	R3275	1-216-819-11	RES-CHIP	680 5% 1/16W
R3215	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3276	1-216-819-11	RES-CHIP	680 5% 1/16W
R3216	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3277	1-216-819-11	RES-CHIP	680 5% 1/16W
R3217	1-216-809-11	RES-CHIP	100 5% 1/16W	R3279	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3218	1-216-809-11	RES-CHIP	100 5% 1/16W	R3280	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3219	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3281	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3220	1-216-809-11	RES-CHIP	100 5% 1/16W	R3282	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3221	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3284	1-216-864-11	SHORT	0
R3222	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3285	1-216-817-11	RES-CHIP	470 5% 1/16W
R3223	1-216-809-11	RES-CHIP	100 5% 1/16W	R3286	1-218-716-11	METAL CHIP	10K 0.50% 1/16W
R3224	1-216-815-11	RES-CHIP	330 5% 1/16W	R3287	1-216-817-11	RES-CHIP	470 5% 1/16W
R3226	1-216-809-11	RES-CHIP	100 5% 1/16W	R3288	1-218-686-11	METAL CHIP	560 0.50% 1/16W
R3227	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3289	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3228	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3290	1-216-809-11	RES-CHIP	100 5% 1/16W
R3229	1-216-809-11	RES-CHIP	100 5% 1/16W	R3291	1-216-842-11	RES-CHIP	56K 5% 1/16W
R3230	1-216-809-11	RES-CHIP	100 5% 1/16W	R3292	1-216-857-11	RES-CHIP	1M 5% 1/16W
R3231	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3293	1-216-803-11	RES-CHIP	33 5% 1/16W
R3232	1-216-809-11	RES-CHIP	100 5% 1/16W	R3294	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3233	1-216-809-11	RES-CHIP	100 5% 1/16W	R3296	1-216-845-11	RES-CHIP	100K 5% 1/16W
R3234	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3297	1-216-841-11	RES-CHIP	47K 5% 1/16W
R3235	1-216-809-11	RES-CHIP	100 5% 1/16W	R3298	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3236	1-216-809-11	RES-CHIP	100 5% 1/16W	R3299	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3240	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3300	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3241	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3301	1-216-809-11	RES-CHIP	100 5% 1/16W
R3242	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3302	1-218-694-11	METAL CHIP	1.2K 0.50% 1/16W
R3244	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3303	1-218-716-11	METAL CHIP	10K 0.50% 1/16W
R3246	1-216-809-11	RES-CHIP	100 5% 1/16W	R3304	1-218-692-11	METAL CHIP	1K 0.50% 1/16W
R3247	1-216-809-11	RES-CHIP	100 5% 1/16W	R3305	1-216-809-11	RES-CHIP	100 5% 1/16W
R3248	1-216-809-11	RES-CHIP	100 5% 1/16W	R3306	1-216-809-11	RES-CHIP	100 5% 1/16W
R3249	1-216-809-11	RES-CHIP	100 5% 1/16W	R3307	1-216-864-11	SHORT	0
R3250	1-216-809-11	RES-CHIP	100 5% 1/16W	R3308	1-216-864-11	SHORT	0
R3254	1-216-809-11	RES-CHIP	100 5% 1/16W	R3309	1-211-987-11	METAL CHIP	56 0.50% 1/16W
R3255	1-216-809-11	RES-CHIP	100 5% 1/16W	R3310	1-211-987-11	METAL CHIP	56 0.50% 1/16W
R3256	1-216-809-11	RES-CHIP	100 5% 1/16W	R3311	1-211-987-11	METAL CHIP	56 0.50% 1/16W
R3257	1-216-809-11	RES-CHIP	100 5% 1/16W	R3312	1-211-987-11	METAL CHIP	56 0.50% 1/16W



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R3313	1-216-835-11	RES-CHIP	15K 5% 1/16W	R3367	1-216-803-11	RES-CHIP	33 5% 1/16W
R3314	1-211-990-11	METAL CHIP	75 0.50% 1/16W	R3369	1-216-864-11	SHORT	0
R3315	1-216-835-11	RES-CHIP	15K 5% 1/16W	R3371	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3316	1-211-989-11	METAL CHIP	68 0.50% 1/16W	R3372	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3317	1-211-989-11	METAL CHIP	68 0.50% 1/16W	R3373	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3318	1-211-990-11	METAL CHIP	75 0.50% 1/16W	R3382	1-216-864-11	SHORT	0
R3319	1-211-987-11	METAL CHIP	56 0.50% 1/16W	R3401	1-218-694-11	METAL CHIP	1.2K 0.50% 1/16W
R3320	1-211-987-11	METAL CHIP	56 0.50% 1/16W	R3403	1-218-692-11	METAL CHIP	1K 0.50% 1/16W
R3321	1-211-987-11	METAL CHIP	56 0.50% 1/16W	R3410	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3322	1-211-987-11	METAL CHIP	56 0.50% 1/16W	R3421	1-216-295-11	SHORT	0
R3323	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3422	1-216-295-11	SHORT	0
R3324	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R3423	1-216-813-11	RES-CHIP	220 5% 1/16W
R3325	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R3428	1-216-019-00	RES-CHIP	56 5% 1/10W
R3326	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3429	1-216-823-11	RES-CHIP	1.5K 5% 1/16W
R3327	1-216-835-11	RES-CHIP	15K 5% 1/16W	R3432	1-216-815-11	RES-CHIP	330 5% 1/16W
R3328	1-216-864-11	SHORT	0	R3434	1-216-809-11	RES-CHIP	100 5% 1/16W
R3329	1-216-815-11	RES-CHIP	330 5% 1/16W	R3445	1-216-864-11	SHORT	0
R3330	1-216-815-11	RES-CHIP	330 5% 1/16W	R3446	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3331	1-216-841-11	RES-CHIP	47K 5% 1/16W	R3447	1-216-819-11	RES-CHIP	680 5% 1/16W
R3332	1-218-272-11	RES-CHIP	5.1K 5% 1/16W	R3448	1-216-855-11	RES-CHIP	680K 5% 1/16W
R3333	1-216-864-11	SHORT	0	R3452	1-216-295-11	SHORT	0
R3334	1-216-809-11	RES-CHIP	100 5% 1/16W	R3454	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R3335	1-216-833-11	RES-CHIP	10K 5% 1/16W	R3460	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3337	1-216-820-11	RES-CHIP	820 5% 1/16W	R3461	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3338	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3464	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3339	1-216-855-11	RES-CHIP	680K 5% 1/16W	R3465	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3340	1-216-855-11	RES-CHIP	680K 5% 1/16W	R3467	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3341	1-216-813-11	RES-CHIP	220 5% 1/16W	R3470	1-216-809-11	RES-CHIP	100 5% 1/16W
R3342	1-220-158-11	RES-CHIP	3.6K 5% 1/16W	R3471	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3343	1-216-809-11	RES-CHIP	100 5% 1/16W	R3472	1-216-801-11	RES-CHIP	22 5% 1/16W
R3344	1-216-853-11	RES-CHIP	470K 5% 1/16W	R3475	1-216-809-11	RES-CHIP	100 5% 1/16W
R3345	1-218-704-11	METAL CHIP	3.3K 0.50% 1/16W	R3476	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3346	1-216-809-11	RES-CHIP	100 5% 1/16W	R3477	1-218-701-11	METAL CHIP	2.4K 0.50% 1/16W
R3347	1-216-815-11	RES-CHIP	330 5% 1/16W	R3478	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3348	1-216-864-11	SHORT	0	R3483	1-218-701-11	METAL CHIP	2.4K 0.50% 1/16W
R3349	1-218-687-11	METAL CHIP	620 0.50% 1/16W	R3484	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3350	1-216-814-11	RES-CHIP	270 5% 1/16W	R3485	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3351	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3486	1-216-801-11	RES-CHIP	22 5% 1/16W
R3352	1-216-853-11	RES-CHIP	470K 5% 1/16W	R3489	1-216-864-11	SHORT	0
R3353	1-216-837-11	RES-CHIP	22K 5% 1/16W	R3490	1-216-864-11	SHORT	0
R3354	1-216-813-11	RES-CHIP	220 5% 1/16W	R3491	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3355	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3492	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3356	1-216-864-11	SHORT	0	R3493	1-218-701-11	METAL CHIP	2.4K 0.50% 1/16W
R3357	1-218-676-11	METAL CHIP	220 0.50% 1/16W	R3495	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3358	1-218-676-11	METAL CHIP	220 0.50% 1/16W	R3496	1-216-801-11	RES-CHIP	22 5% 1/16W
R3359	1-218-676-11	METAL CHIP	220 0.50% 1/16W	R3497	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R3360	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R3498	1-216-818-11	RES-CHIP	560 5% 1/16W
R3361	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3499	1-216-821-11	RES-CHIP	1K 5% 1/16W
R3364	1-216-864-11	SHORT	0	R3602	1-216-809-11	RES-CHIP	100 5% 1/16W
R3365	1-216-864-11	SHORT	0	R3606	1-216-864-11	SHORT	0



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R3609	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3669	1-216-809-11	RES-CHIP	100 5% 1/16W
R3610	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3672	1-216-864-11	SHORT	0
R3611	1-216-833-11	RES-CHIP	10K 5% 1/16W	R3673	1-216-809-11	RES-CHIP	100 5% 1/16W
R3612	1-216-857-11	RES-CHIP	1M 5% 1/16W	R3674	1-216-813-11	RES-CHIP	220 5% 1/16W
R3613	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3675	1-216-813-11	RES-CHIP	220 5% 1/16W
R3614	1-216-813-11	RES-CHIP	220 5% 1/16W	R3676	1-216-809-11	RES-CHIP	100 5% 1/16W
R3615	1-216-809-11	RES-CHIP	100 5% 1/16W	R3677	1-216-809-11	RES-CHIP	100 5% 1/16W
R3616	1-216-805-11	RES-CHIP	47 5% 1/16W	R3678	1-216-809-11	RES-CHIP	100 5% 1/16W
R3617	1-216-805-11	RES-CHIP	47 5% 1/16W	R3679	1-216-809-11	RES-CHIP	100 5% 1/16W
R3618	1-216-817-11	RES-CHIP	470 5% 1/16W	R3680	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3619	1-216-809-11	RES-CHIP	100 5% 1/16W	R3681	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3620	1-216-813-11	RES-CHIP	220 5% 1/16W	R3682	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3621	1-216-813-11	RES-CHIP	220 5% 1/16W	R3683	1-216-837-11	RES-CHIP	22K 5% 1/16W
R3622	1-216-813-11	RES-CHIP	220 5% 1/16W	R3684	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3623	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3685	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3624	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3686	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3625	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3687	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3626	1-216-815-11	RES-CHIP	330 5% 1/16W	R3688	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3627	1-216-815-11	RES-CHIP	330 5% 1/16W	R3689	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3628	1-216-815-11	RES-CHIP	330 5% 1/16W	R3690	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3630	1-216-809-11	RES-CHIP	100 5% 1/16W	R3691	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3639	1-216-864-11	SHORT	0	R3692	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3640	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3693	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3641	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3694	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3642	1-216-833-11	RES-CHIP	10K 5% 1/16W	R3695	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3644	1-216-857-11	RES-CHIP	1M 5% 1/16W	R3696	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3645	1-216-821-11	RES-CHIP	1K 5% 1/16W	R3697	1-216-833-11	RES-CHIP	10K 5% 1/16W
R3646	1-216-813-11	RES-CHIP	220 5% 1/16W	R3698	1-216-845-11	RES-CHIP	100K 5% 1/16W
R3647	1-216-809-11	RES-CHIP	100 5% 1/16W	R3699	1-216-845-11	RES-CHIP	100K 5% 1/16W
R3648	1-216-805-11	RES-CHIP	47 5% 1/16W	R3800	1-216-864-11	SHORT	0
R3649	1-216-805-11	RES-CHIP	47 5% 1/16W	R3802	1-208-762-11	METAL CHIP	150 0.50% 1/10W
R3650	1-216-817-11	RES-CHIP	470 5% 1/16W	R3803	1-208-762-11	METAL CHIP	150 0.50% 1/10W
R3651	1-216-809-11	RES-CHIP	100 5% 1/16W	R3804	1-208-762-11	METAL CHIP	150 0.50% 1/10W
R3652	1-216-813-11	RES-CHIP	220 5% 1/16W	R3805	1-208-762-11	METAL CHIP	150 0.50% 1/10W
R3653	1-216-813-11	RES-CHIP	220 5% 1/16W	R3806	1-211-987-11	METAL CHIP	56 0.50% 1/16W
R3654	1-216-813-11	RES-CHIP	220 5% 1/16W	R3807	1-208-754-11	METAL CHIP	68 0.50% 1/10W
R3655	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3808	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3656	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3809	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3657	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R3810	1-208-758-11	METAL CHIP	100 0.50% 1/10W
R3658	1-216-815-11	RES-CHIP	330 5% 1/16W	R3811	1-216-809-11	RES-CHIP	100 5% 1/16W
R3659	1-216-815-11	RES-CHIP	330 5% 1/16W	R3812	1-216-809-11	RES-CHIP	100 5% 1/16W
R3660	1-216-815-11	RES-CHIP	330 5% 1/16W	R3813	1-216-809-11	RES-CHIP	100 5% 1/16W
R3661	1-216-809-11	RES-CHIP	100 5% 1/16W	R3814	1-211-969-11	METAL CHIP	10 0.50% 1/16W
R3662	1-216-837-11	RES-CHIP	22K 5% 1/16W	R3815	1-211-973-11	METAL CHIP	15 0.50% 1/16W
R3663	1-216-837-11	RES-CHIP	22K 5% 1/16W	R3816	1-211-977-11	METAL CHIP	22 0.50% 1/16W
R3664	1-216-841-11	RES-CHIP	47K 5% 1/16W	R3817	1-211-977-11	METAL CHIP	22 0.50% 1/16W
R3665	1-216-817-11	RES-CHIP	470 5% 1/16W	R3820	1-218-684-11	METAL CHIP	470 0.50% 1/16W
R3666	1-216-809-11	RES-CHIP	100 5% 1/16W	R3821	1-218-684-11	METAL CHIP	470 0.50% 1/16W
R3667	1-216-839-11	RES-CHIP	33K 5% 1/16W	R3822	1-218-684-11	METAL CHIP	470 0.50% 1/16W
R3668	1-216-797-11	RES-CHIP	10 5% 1/16W	R3823	1-216-826-11	RES-CHIP	2.7K 5% 1/16W



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R3824	1-216-826-11	RES-CHIP	2.7K 5% 1/16W	R3917	1-211-969-11	METAL CHIP	10 0.50% 1/16W
R3825	1-216-826-11	RES-CHIP	2.7K 5% 1/16W	R3923	1-412-363-21	FERRITE	0μH
R3826	1-216-809-11	RES-CHIP	100 5% 1/16W	R3924	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3828	1-218-684-11	METAL CHIP	470 0.50% 1/16W	R3925	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3829	1-218-684-11	METAL CHIP	470 0.50% 1/16W	R3926	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3830	1-218-684-11	METAL CHIP	470 0.50% 1/16W	R3933	1-216-864-11	SHORT	0
R3831	1-216-864-11	SHORT	0	R3940	1-216-864-11	SHORT	0
R3832	1-216-864-11	SHORT	0	R3942	1-216-864-11	SHORT	0
R3833	1-216-864-11	SHORT	0	R3943	1-216-864-11	SHORT	0
R3840	1-216-807-11	RES-CHIP	68 5% 1/16W	R3945	1-216-864-11	SHORT	0
R3843	1-218-694-11	METAL CHIP	1.2K 0.50% 1/16W	R3946	1-216-864-11	SHORT	0
R3844	1-218-712-11	METAL CHIP	6.8K 0.50% 1/16W	R3953	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3845	1-218-692-11	METAL CHIP	1K 0.50% 1/16W	R3954	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3846	1-216-801-11	RES-CHIP	22 5% 1/16W	R3955	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3847	1-216-801-11	RES-CHIP	22 5% 1/16W	R3956	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3848	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R3957	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3849	1-218-675-11	METAL CHIP	200 0.50% 1/16W	R3958	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3850	1-218-675-11	METAL CHIP	200 0.50% 1/16W	R3959	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3851	1-216-809-11	RES-CHIP	100 5% 1/16W	R3960	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3852	1-218-675-11	METAL CHIP	200 0.50% 1/16W	R3961	1-208-755-11	METAL CHIP	75 0.50% 1/10W
R3854	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	<b>RESISTOR BRIDGE</b>			
R3857	1-216-809-11	RES-CHIP	100 5% 1/16W	RB3301	1-234-525-11	RES, NETWORK	56
R3858	1-218-704-11	METAL CHIP	3.3K 0.50% 1/16W	RB3302	1-234-525-11	RES, NETWORK	56
R3862	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	RB3303	1-234-525-11	RES, NETWORK	56
R3863	1-218-700-11	METAL CHIP	2.2K 0.50% 1/16W	RB3304	1-234-525-11	RES, NETWORK	56
R3864	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	RB3305	1-234-525-11	RES, NETWORK	56
R3865	1-216-809-11	RES-CHIP	100 5% 1/16W	RB3306	1-234-525-11	RES, NETWORK	56
R3866	1-414-234-22	FERRITE	0μH	RB3307	1-234-525-11	RES, NETWORK	56
R3867	1-414-234-22	FERRITE	0μH	RB3401	1-234-524-11	RES, NETWORK	33
R3868	1-414-234-22	FERRITE	0μH	RB3402	1-234-524-11	RES, NETWORK	33
R3869	1-218-719-11	METAL CHIP	13K 0.50% 1/16W	RB3403	1-234-524-11	RES, NETWORK	33
R3870	1-218-719-11	METAL CHIP	13K 0.50% 1/16W	RB3404	1-234-524-11	RES, NETWORK	33
R3871	1-218-719-11	METAL CHIP	13K 0.50% 1/16W	RB3405	1-234-524-11	RES, NETWORK	33
R3872	1-211-990-11	METAL CHIP	75 0.50% 1/16W	RB3406	1-234-524-11	RES, NETWORK	33
R3873	1-211-990-11	METAL CHIP	75 0.50% 1/16W	RB3407	1-234-524-11	RES, NETWORK	33
R3874	1-211-990-11	METAL CHIP	75 0.50% 1/16W	RB3408	1-234-524-11	RES, NETWORK	33
R3876	1-208-762-11	METAL CHIP	150 0.50% 1/10W	RB3409	1-234-524-11	RES, NETWORK	33
R3901	1-216-035-00	RES-CHIP	270 5% 1/10W	RB3410	1-234-524-11	RES, NETWORK	33
R3902	1-216-035-00	RES-CHIP	270 5% 1/10W	RB3411	1-234-524-11	RES, NETWORK	33
R3903	1-216-837-11	RES-CHIP	22K 5% 1/16W	RB3412	1-234-524-11	RES, NETWORK	33
R3904	1-216-837-11	RES-CHIP	22K 5% 1/16W	<b>CRYSTAL</b>			
R3905	1-216-809-11	RES-CHIP	100 5% 1/16W	X3001	1-577-082-11	VIBRATOR, CERAMIC CHIP	
R3906	1-216-809-11	RES-CHIP	100 5% 1/16W	X3047	1-567-505-11	OSCILLATOR, CRYSTAL	
R3907	1-216-809-11	RES-CHIP	100 5% 1/16W	X3089	1-781-945-21	VIBRATOR, CERAMIC CHIP	
R3908	1-216-809-11	RES-CHIP	100 5% 1/16W	X3110	1-567-505-11	OSCILLATOR, CRYSTAL	
R3909	1-216-809-11	RES-CHIP	100 5% 1/16W	X3401	1-781-887-21	VIBRATOR, CRYSTAL	
R3910	1-216-809-11	RES-CHIP	100 5% 1/16W				
R3914	1-216-864-11	SHORT	0				
R3915	1-211-969-11	METAL CHIP	10 0.50% 1/16W				
R3916	1-211-969-11	METAL CHIP	10 0.50% 1/16W				





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

Les composants identifiés par un trame et une  
marque  $\triangle$  sont critiques pour la sécurité. Ne  
les remplacer que par une 1 pièce portant le  
numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C258	1-164-346-11	CERAMIC CHIP	1 $\mu$ F 16V	C6033	1-126-941-11	ELECT	470 $\mu$ F 20% 25V
C259	1-115-340-11	CERAMIC CHIP	0.22 $\mu$ F 10% 25V	C6045	1-126-926-11	ELECT	1000 $\mu$ F 20% 10V
C260	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F 10% 50V	C6048	1-126-767-11	ELECT	1000 $\mu$ F 20% 16V
C261	1-126-933-11	ELECT	100 $\mu$ F 20% 16V	C6057	1-126-916-11	ELECT	1000 $\mu$ F 20% 6.3V
C701	1-164-489-11	CERAMIC CHIP	0.22 $\mu$ F 10% 16V	C6059	1-126-971-11	ELECT	470 $\mu$ F 20% 50V
C702	1-104-664-11	ELECT	47 $\mu$ F 20% 16V	C6060	1-135-573-91	ELECT	1500 $\mu$ F 20% 25V
C703	1-104-664-11	ELECT	47 $\mu$ F 20% 16V	C6061	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
C705	1-164-346-11	CERAMIC CHIP	1 $\mu$ F 16V	C6062	1-104-664-11	ELECT	47 $\mu$ F 20% 25V
C708	1-164-346-11	CERAMIC CHIP	1 $\mu$ F 16V	C6063	1-136-479-11	FILM	0.001 $\mu$ F 2% 50V
C710	1-163-251-11	CERAMIC CHIP	100pF 5% 50V	C6064	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C711	1-163-227-11	CERAMIC CHIP	10pF 0.50pF 50V	C6065	1-126-933-11	ELECT	100 $\mu$ F 20% 16V
C712	1-104-664-11	ELECT	47 $\mu$ F 20% 16V	C7001	1-126-961-11	ELECT	2.2 $\mu$ F 20% 50V
C713	1-164-690-91	CERAMIC CHIP	0.0022 $\mu$ F 5% 50V	C7006	1-126-767-11	ELECT	1000 $\mu$ F 20% 16V
C715	1-126-964-11	ELECT	10 $\mu$ F 20% 50V	C7007	1-136-169-00	FILM	0.22 $\mu$ F 5% 50V
C717	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V	C7008	1-126-767-11	ELECT	1000 $\mu$ F 20% 16V
C718	1-163-235-11	CERAMIC CHIP	22pF 5% 50V	C7009	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F 10% 25V
C719	1-163-235-11	CERAMIC CHIP	22pF 5% 50V	C7010	1-126-963-11	ELECT	4.7 $\mu$ F 20% 50V
C720	1-126-935-11	ELECT	470 $\mu$ F 20% 16V	C7011	1-126-959-11	ELECT	0.47 $\mu$ F 20% 50V
C721	1-163-231-11	CERAMIC CHIP	15pF 5% 50V	C7012	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F 10% 50V
C722	1-163-231-11	CERAMIC CHIP	15pF 5% 50V	C7013	1-164-182-11	CERAMIC CHIP	0.0033 $\mu$ F 10% 50V
C724	1-126-961-11	ELECT	2.2 $\mu$ F 20% 50V	C7014	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F 10% 25V
C731	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F 10% 50V	C7015	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F 10% 25V
C732	1-163-251-11	CERAMIC CHIP	100pF 5% 50V	C7016	1-126-959-11	ELECT	0.47 $\mu$ F 20% 50V
C733	1-163-031-11	CERAMIC CHIP	0.01 $\mu$ F 50V	C7017	1-126-963-11	ELECT	4.7 $\mu$ F 20% 50V
C735	1-163-275-11	CERAMIC CHIP	0.001 $\mu$ F 5% 50V	C7018	1-136-169-00	FILM	0.22 $\mu$ F 5% 50V
C747	1-126-767-11	ELECT	1000 $\mu$ F 20% 16V	C7019	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F 10% 50V
C748	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F 10% 50V	C7020	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F 10% 25V
C6002 $\triangle$	1-136-346-21	MYLAR	0.22 $\mu$ F 20% 300V	C7021	1-164-182-11	CERAMIC CHIP	0.0033 $\mu$ F 10% 50V
C6003	1-117-227-11	MYLAR	1 $\mu$ F 10% 450V	C7022	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F 10% 25V
C6004	1-126-961-11	ELECT	2.2 $\mu$ F 20% 50V	C7023	1-126-935-11	ELECT	470 $\mu$ F 20% 16V
C6005	1-126-961-11	ELECT	2.2 $\mu$ F 20% 50V	C7024	1-126-935-11	ELECT	470 $\mu$ F 20% 16V
C6006	1-126-967-11	ELECT	47 $\mu$ F 20% 50V	C7025	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
C6007	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F 10% 50V	C7026	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
C6008	1-126-968-11	ELECT	100 $\mu$ F 20% 50V	C7028	1-136-165-00	FILM	0.1 $\mu$ F 5% 50V
C6009	1-104-664-11	ELECT	47 $\mu$ F 20% 25V	C7029	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F 10% 50V
C6011	1-126-968-11	ELECT	100 $\mu$ F 20% 50V	C7030	1-126-953-11	ELECT	2200 $\mu$ F 20% 35V
C6013	1-119-887-51	CERAMIC CHIP	1000pF 20% 250V	C7032	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F 25V
C6014	1-135-945-21	FILM	10000pF 3% 800V	C7033	1-126-934-11	ELECT	220 $\mu$ F 20% 16V
C6015	1-137-399-11	MYLAR	0.1 $\mu$ F 5% 100V	C7034	1-136-165-00	FILM	0.1 $\mu$ F 5% 50V
C6017	1-125-969-91	CERAMIC CHIP	680pF 10% 1KV	C7035	1-136-165-00	FILM	0.1 $\mu$ F 5% 50V
C6018	1-126-929-11	ELECT	4700 $\mu$ F 20% 10V	C7036	1-126-942-61	ELECT	1000 $\mu$ F 20% 25V
C6019	1-128-546-11	ELECT	10000 $\mu$ F 20% 10V	C7037	1-136-160-00	FILM	0.039 $\mu$ F 5% 50V
C6020	1-126-936-11	ELECT	3300 $\mu$ F 20% 16V	C7038	1-126-942-61	ELECT	1000 $\mu$ F 20% 25V
C6021	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F 10% 50V	C7039	1-136-160-00	FILM	0.039 $\mu$ F 5% 50V
C6026	1-126-933-11	ELECT	100 $\mu$ F 20% 16V	C7056	1-126-953-11	ELECT	2200 $\mu$ F 20% 35V
C6027	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F 10% 50V	C7057	1-126-953-11	ELECT	2200 $\mu$ F 20% 35V
C6028	1-113-924-11	CERAMIC	0.0047 $\mu$ F 20% 250V (KV-38DRC1C only)	C7058	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
C6029 $\triangle$	1-136-311-21	MYLAR	0.47 $\mu$ F 20% 300V	C7059	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F 10% 25V
C6030	1-126-935-11	ELECT	470 $\mu$ F 20% 16V	C7061	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
				C7062	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F 10% 50V









REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R236	1-216-025-11	RES-CHIP	100 5% 1/10W	R710	1-216-073-00	RES-CHIP	10K 5% 1/10W
R237	1-216-025-11	RES-CHIP	100 5% 1/10W	R711	1-216-073-00	RES-CHIP	10K 5% 1/10W
R238	1-216-025-11	RES-CHIP	100 5% 1/10W	R712	1-216-049-11	RES-CHIP	1K 5% 1/10W
R239	1-216-059-00	RES-CHIP	2.7K 5% 1/10W	R713	1-216-025-11	RES-CHIP	100 5% 1/10W
R240	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R714	1-216-025-11	RES-CHIP	100 5% 1/10W
R241	1-216-133-00	RES-CHIP	3.3M 5% 1/10W	R719	1-216-049-11	RES-CHIP	1K 5% 1/10W
R242	1-216-075-00	RES-CHIP	12K 5% 1/10W	R721	1-216-049-11	RES-CHIP	1K 5% 1/10W
R243	1-216-073-00	RES-CHIP	10K 5% 1/10W	R727	1-216-049-11	RES-CHIP	1K 5% 1/10W
R244	1-216-025-11	RES-CHIP	100 5% 1/10W	R729	1-216-049-11	RES-CHIP	1K 5% 1/10W
R245	1-216-073-00	RES-CHIP	10K 5% 1/10W	R731	1-216-073-00	RES-CHIP	10K 5% 1/10W
R246	1-216-073-00	RES-CHIP	10K 5% 1/10W	R740	1-216-073-00	RES-CHIP	10K 5% 1/10W
R247	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R741	1-216-073-00	RES-CHIP	10K 5% 1/10W
R248	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R742	1-216-041-00	RES-CHIP	470 5% 1/10W
R249	1-216-025-11	RES-CHIP	100 5% 1/10W	R743	1-216-025-11	RES-CHIP	100 5% 1/10W
R250	1-216-097-11	RES-CHIP	100K 5% 1/10W	R744	1-216-049-11	RES-CHIP	1K 5% 1/10W
R251	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R748	1-216-081-00	RES-CHIP	22K 5% 1/10W
R252	1-216-025-11	RES-CHIP	100 5% 1/10W	R749	1-216-049-11	RES-CHIP	1K 5% 1/10W
R253	1-216-043-91	RES-CHIP	560 5% 1/10W	R754	1-216-025-11	RES-CHIP	100 5% 1/10W
R255	1-216-025-11	RES-CHIP	100 5% 1/10W	R755	1-216-025-11	RES-CHIP	100 5% 1/10W
R256	1-216-041-00	RES-CHIP	470 5% 1/10W	R756	1-216-025-11	RES-CHIP	100 5% 1/10W
R257	1-216-017-91	RES-CHIP	47 5% 1/10W	R757	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R258	1-216-017-91	RES-CHIP	47 5% 1/10W	R758	1-216-025-11	RES-CHIP	100 5% 1/10W
R259	1-216-017-91	RES-CHIP	47 5% 1/10W	R762	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R260	1-216-037-00	RES-CHIP	330 5% 1/10W	R763	1-216-295-11	SHORT	0
R261	1-208-806-11	METAL CHIP	10K 0.50% 1/10W	R764	1-216-049-11	RES-CHIP	1K 5% 1/10W
R262	1-216-025-11	RES-CHIP	100 5% 1/10W	R767	1-216-049-11	RES-CHIP	1K 5% 1/10W
R263	1-216-071-00	RES-CHIP	8.2K 5% 1/10W	R769	1-216-049-11	RES-CHIP	1K 5% 1/10W
R264	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R771	1-216-049-11	RES-CHIP	1K 5% 1/10W
R265	1-216-073-00	RES-CHIP	10K 5% 1/10W	R772	1-216-081-00	RES-CHIP	22K 5% 1/10W
R266	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R773	1-216-081-00	RES-CHIP	22K 5% 1/10W
R267	1-216-073-00	RES-CHIP	10K 5% 1/10W	R774	1-216-081-00	RES-CHIP	22K 5% 1/10W
R274	1-216-025-11	RES-CHIP	100 5% 1/10W	R776	1-216-049-11	RES-CHIP	1K 5% 1/10W
R275	1-216-069-00	RES-CHIP	6.8K 5% 1/10W	R777	1-216-073-00	RES-CHIP	10K 5% 1/10W
R276	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R780	1-216-073-00	RES-CHIP	10K 5% 1/10W
R277	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R781	1-216-025-11	RES-CHIP	100 5% 1/10W
R278	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R784	1-216-025-11	RES-CHIP	100 5% 1/10W
R280	1-216-295-11	SHORT	0	R785	1-216-049-11	RES-CHIP	1K 5% 1/10W
R281	1-216-295-11	SHORT	0	R787	1-216-121-11	RES-CHIP	1M 5% 1/10W
R282	1-216-295-11	SHORT	0	R788	1-216-295-11	SHORT	0
R283	1-216-295-11	SHORT	0	R789	1-216-041-00	RES-CHIP	470 5% 1/10W
R284	1-216-295-11	SHORT	0	R791	1-216-025-11	RES-CHIP	100 5% 1/10W
R701	1-216-089-11	RES-CHIP	47K 5% 1/10W	R792	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R702	1-216-097-11	RES-CHIP	100K 5% 1/10W	R793	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R703	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R794	1-216-017-91	RES-CHIP	47 5% 1/10W
R704	1-216-073-00	RES-CHIP	10K 5% 1/10W	R795	1-216-025-11	RES-CHIP	100 5% 1/10W
R705	1-216-101-00	RES-CHIP	150K 5% 1/10W	R796	1-216-295-11	SHORT	0
R706	1-216-073-00	RES-CHIP	10K 5% 1/10W	R797	1-216-017-91	RES-CHIP	47 5% 1/10W
R707	1-216-097-11	RES-CHIP	100K 5% 1/10W	R798	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R708	1-216-025-11	RES-CHIP	100 5% 1/10W	R799	1-216-049-11	RES-CHIP	1K 5% 1/10W
R709	1-216-097-11	RES-CHIP	100K 5% 1/10W	R800	1-216-057-00	RES-CHIP	2.2K 5% 1/10W

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

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.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R801	1-216-025-11	RES-CHIP	100 5% 1/10W	R867	1-216-081-00	RES-CHIP	22K 5% 1/10W
R802	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6001	1-216-073-00	RES-CHIP	10K 5% 1/10W
R803	1-216-017-91	RES-CHIP	47 5% 1/10W	R6002	1-249-393-11	CARBON	10 5% 1/4W
R804	1-216-037-00	RES-CHIP	330 5% 1/10W	R6003 $\Delta$	1-219-776-11	CARBON	2.2M 10% 1/2W
R805	1-216-037-00	RES-CHIP	330 5% 1/10W	(KV-32XBR400/36XBR400/38DRC1/36XBR400H only)			
R806	1-216-037-00	RES-CHIP	330 5% 1/10W	R6003 $\Delta$	1-247-289-00	CARBON	8.2M 5% 1W
R807	1-216-017-91	RES-CHIP	47 5% 1/10W	(KV-38DRC1C only)			
R808	1-216-049-11	RES-CHIP	1K 5% 1/10W	R6004	1-216-121-11	RES-CHIP	1M 5% 1/10W
R812	1-216-049-11	RES-CHIP	1K 5% 1/10W	R6006	1-217-418-61	FUSIBLE	0.47 10% 1/2W
R813	1-216-049-11	RES-CHIP	1K 5% 1/10W	R6007	1-215-481-00	METAL CHIP	330K 1% 1/4W
R814	1-216-025-11	RES-CHIP	100 5% 1/10W	R6008	1-215-481-00	METAL CHIP	330K 1% 1/4W
R815	1-216-025-11	RES-CHIP	100 5% 1/10W	R6009	1-215-481-00	METAL CHIP	330K 1% 1/4W
R816	1-216-025-11	RES-CHIP	100 5% 1/10W	R6010	1-249-393-11	CARBON	10 5% 1/4W
R817	1-216-025-11	RES-CHIP	100 5% 1/10W	R6011	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R818	1-216-025-11	RES-CHIP	100 5% 1/10W	R6012	1-216-049-11	RES-CHIP	1K 5% 1/10W
R819	1-216-037-00	RES-CHIP	330 5% 1/10W	R6015	1-216-049-11	RES-CHIP	1K 5% 1/10W
R822	1-216-037-00	RES-CHIP	330 5% 1/10W	R6019	1-216-073-00	RES-CHIP	10K 5% 1/10W
R824	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R6020	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R825	1-216-025-11	RES-CHIP	100 5% 1/10W	R6021	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W
R827	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R6022	1-208-803-11	METAL CHIP	7.5K 0.50% 1/10W
R828	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6025	1-249-417-11	CARBON	1K 5% 1/4W
R829	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6029	1-216-105-91	RES-CHIP	220K 5% 1/10W
R830	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R6038	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R834	1-216-041-00	RES-CHIP	470 5% 1/10W	R6039	1-208-812-11	METAL CHIP	18K 0.50% 1/10W
R836	1-216-049-11	RES-CHIP	1K 5% 1/10W	R6040	1-208-840-11	METAL CHIP	270K 0.50% 1/10W
R837	1-216-025-11	RES-CHIP	100 5% 1/10W	R6041 $\Delta$	1-240-241-11	CEMENTED	0.47 5% 20W
R838	1-216-049-11	RES-CHIP	1K 5% 1/10W	(KV-32XBR400/36XBR400/38DRC1/36XBR400H only)			
R839	1-216-025-11	RES-CHIP	100 5% 1/10W	R6041 $\Delta$	1-205-943-11	CEMENTED	1 5% 20W
R841	1-216-033-00	RES-CHIP	220 5% 1/10W	(KV-38DRC1C only)			
R842	1-216-081-00	RES-CHIP	22K 5% 1/10W	R6042 $\Delta$	1-240-241-11	CEMENTED	0.47 5% 20W
R843	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	(KV-32XBR400/36XBR400/38DRC1/36XBR400H only)			
R847	1-216-025-11	RES-CHIP	100 5% 1/10W	R6042 $\Delta$	1-205-943-11	CEMENTED	1 5% 20W
R848	1-216-025-11	RES-CHIP	100 5% 1/10W	(KV-38DRC1C only)			
R849	1-216-295-11	SHORT	0	R6043	1-211-964-11	METAL CHIP	33 0.50% 1/10W
R850	1-216-295-11	SHORT	0	R6044	1-249-393-11	CARBON	10 5% 1/4W
R851	1-216-295-11	SHORT	0	R6046	1-216-073-00	RES-CHIP	10K 5% 1/10W
R852	1-216-049-11	RES-CHIP	1K 5% 1/10W	R6047	1-216-041-00	RES-CHIP	470 5% 1/10W
R853	1-216-295-11	SHORT	0	R6049	1-216-363-00	METAL OXIDE	0.33 5% 2W
R854	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R6050	1-216-363-00	METAL OXIDE	0.33 5% 2W
R856	1-216-049-11	RES-CHIP	1K 5% 1/10W	R6051	1-249-393-11	CARBON	10 5% 1/4W
R857	1-216-025-11	RES-CHIP	100 5% 1/10W	R6052	1-216-073-00	RES-CHIP	10K 5% 1/10W
R858	1-216-295-11	SHORT	0	R6053	1-215-907-11	METAL OXIDE	22 5% 3W
R859	1-216-295-11	SHORT	0	R6055	1-216-295-11	SHORT	0
R860	1-216-689-11	RES-CHIP	39K 5% 1/10W	R6056	1-208-810-11	METAL CHIP	15K 0.50% 1/10W
R861	1-216-689-11	RES-CHIP	39K 5% 1/10W	R6058	1-208-758-11	METAL CHIP	100 0.50% 1/10W
R862	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R6059	1-249-417-11	CARBON	1K 5% 1/4W
R863	1-216-049-11	RES-CHIP	1K 5% 1/10W	R6060	1-202-962-11	CEMENTED	3.3 5% 10W
R864	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	(KV-38DRC1C only)			
R865	1-216-295-11	SHORT	0	R6061	1-202-962-11	CEMENTED	3.3 5% 10W
R866	1-216-295-11	SHORT	0	(KV-38DRC1C only)			







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

Les composants identifiés par un trame et une  
marque  $\triangle$  sont critiques pour la sécurité. Ne  
les remplacer que par une1 pièce portant le  
numero specifie.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<b>TRANSISTOR</b>				R9053	1-249-424-11	CARBON	3.9K 5% 1/4W
Q9001	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R9054	1-249-424-11	CARBON	3.9K 5% 1/4W
Q9002	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA		R9055	1-260-126-81	CARBON	180K 5% 1/2W
Q9003	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R9056	1-202-549-00	SOLID	100 20% 1/2W
Q9004	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R9057	1-202-847-00	SOLID	560K 20% 1/2W
Q9005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R9059	1-202-818-00	SOLID	1K 20% 1/2W
Q9008	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA		R9061	1-202-549-00	SOLID	100 20% 1/2W
Q9009	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R9062	1-260-123-11	CARBON	100K 5% 1/2W
Q9010	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R9063	1-260-123-11	CARBON	100K 5% 1/2W
Q9011	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX		R9064	1-260-126-81	CARBON	180K 5% 1/2W
Q9012	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA		R9065	1-249-425-11	CARBON	4.7K 5% 1/4W
Q9014	8-729-823-81	TRANSISTOR 2SC4632LS-CB7		R9067	1-219-769-11	CARBON	3.3M 5% 1/2W
<b>RESISTOR</b>				R9068	1-216-101-00	RES-CHIP	150K 5% 1/10W
R9001	1-216-059-00	RES-CHIP	2.7K 5% 1/10W	R9070	1-249-411-11	CARBON	330 5% 1/4W
R9004	1-249-428-11	CARBON	8.2K 5% 1/4W	R9071	1-249-411-11	CARBON	330 5% 1/4W
R9005	1-249-421-11	CARBON	2.2K 5% 1/4W	R9072	1-249-411-11	CARBON	330 5% 1/4W
R9006	1-249-429-11	CARBON	10K 5% 1/4W	R9073	1-216-049-11	RES-CHIP	1K 5% 1/10W
R9007	1-208-789-11	METAL CHIP	2K 0.50% 1/10W	R9076	1-219-769-11	CARBON	3.3M 5% 1/2W
R9008	1-216-085-00	RES-CHIP	33K 5% 1/10W	R9077	1-249-417-11	CARBON	1K 5% 1/4W
R9009	1-249-429-11	CARBON	10K 5% 1/4W	R9078	1-249-427-11	CARBON	6.8K 5% 1/4W
R9010	1-249-429-11	CARBON	10K 5% 1/4W	R9079	1-249-426-11	CARBON	5.6K 5% 1/4W
R9012	1-249-417-11	CARBON	1K 5% 1/4W	R9081	1-247-843-11	CARBON	3.3K 5% 1/4W
R9013	1-216-049-11	RES-CHIP	1K 5% 1/10W	R9083	1-249-436-11	CARBON	39K 5% 1/4W
R9014	1-249-409-11	CARBON	220 5% 1/4W	R9084	1-260-126-81	CARBON	180K 5% 1/2W
R9015	1-249-409-11	CARBON	220 5% 1/4W	R9085	1-260-126-81	CARBON	180K 5% 1/2W
R9016	1-249-409-11	CARBON	220 5% 1/4W	R9089	1-215-445-00	METAL CHIP	10K 1% 1/4W
R9018	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R9091	1-215-429-00	METAL CHIP	2.2K 1% 1/4W
R9019	1-216-059-00	RES-CHIP	2.7K 5% 1/10W	<b>VARIABLE RESISTOR</b>			
R9026	1-208-789-11	METAL CHIP	2K 0.50% 1/10W	RV9001 $\triangle$	1-241-714-11	RES, ADJ, METAL CHIP FILM	110M
R9031	1-208-789-11	METAL CHIP	2K 0.50% 1/10W	RV9002	1-241-788-11	RES, ADJ, CARBON	100K
R9033	1-215-447-00	METAL CHIP	12K 1% 1/4W				
R9034	1-215-439-00	METAL CHIP	5.6K 1% 1/4W				
R9035	1-208-790-11	METAL CHIP	2.2K 0.50% 1/10W				
R9036	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R9037	1-240-233-71	METALOXIDE	100 5% 3W				
R9038	1-208-790-11	METAL CHIP	2.2K 0.50% 1/10W				
R9039	1-208-790-11	METAL CHIP	2.2K 0.50% 1/10W				
R9041	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R9042	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R9043	1-240-233-71	METAL OXIDE	100 5% 3W				
R9044	1-240-233-71	METAL OXIDE	100 5% 3W				
R9047	1-202-557-00	SOLID	220 20% 1/2W				
R9048	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R9049	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R9050	1-249-424-11	CARBON	3.9K 5% 1/4W				
R9051	1-202-557-00	SOLID	220 20% 1/2W				
R9052	1-202-557-00	SOLID	220 20% 1/2W				





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

Les composants identifiés par un trame et une  
marque  $\triangle$  sont critiques pour la sécurité. Ne  
les remplacer que par une 1 pièce portant le  
numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C5518	1-129-709-61	FILM	0.0039 $\mu$ F 5% 630V	C6544	1-107-855-12	ELECT(BLOCK)	330 $\mu$ F 160V
C5519	1-104-760-11	CERAMIC CHIP	0.047 $\mu$ F 10% 50V	C6545	1-126-943-11	ELECT	2200 $\mu$ F 20% 25V
C5522	1-163-275-11	CERAMIC CHIP	0.001 $\mu$ F 5% 50V	C6546	1-128-548-11	ELECT	4700 $\mu$ F 20% 25V
C5531	1-136-165-00	FILM	0.1 $\mu$ F 5% 50V	C6547	1-113-610-11	ELECT(BLOCK)	220 $\mu$ F 20% 250V
C5533	1-137-366-11	MYLAR	0.0022 $\mu$ F 5% 50V	C6548	1-128-549-11	ELECT	3300 $\mu$ F 20% 35V
C5542	1-164-182-11	CERAMIC CHIP	0.0033 $\mu$ F 10% 50V	C6551	1-163-037-11	CERAMIC CHIP	0.022 $\mu$ F 10% 50V
C5548	1-137-194-81	FILM	0.47 $\mu$ F 5% 50V	C6561	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
C5550	1-129-716-00	FILM	0.015 $\mu$ F 5% 200V	C6584 $\triangle$	1-136-344-11	MYLAR	0.047 $\mu$ F 20% 300V
C5576	1-104-666-11	ELECT	220 $\mu$ F 20% 25V	C6585 $\triangle$	1-119-899-51	CERAMIC CHIP	1000pF 10% 250V
C5577	1-104-666-11	ELECT	220 $\mu$ F 20% 25V	C6586	1-113-924-11	CERAMIC CHIP	.0047 $\mu$ F 20% 125V
C5587	1-104-760-11	CERAMIC CHIP	0.047 $\mu$ F 10% 50V	C6587	1-113-924-11	CERAMIC CHIP	.0047 $\mu$ F 20% 125V
C5588	1-136-153-00	FILM	0.01 $\mu$ F 5% 50V	C6588	1-113-924-11	CERAMIC CHIP	.0047 $\mu$ F 20% 125V
C5590	1-163-263-11	CERAMIC CHIP	330pF 5% 50V	C6589	1-113-924-11	CERAMIC CHIP	.0047 $\mu$ F 20% 125V
C5592	1-115-339-11	CERAMIC CHIP	0.1 $\mu$ F 10% 50V	C6590	1-131-940-11	ELECT	1200 $\mu$ F 20% 250V
C5594	1-136-165-00	FILM	0.1 $\mu$ F 5% 50V	C6591 $\triangle$	1-119-899-51	CERAMIC CHIP	1000pF 10% 250V
C5596	1-126-960-11	ELECT	1 $\mu$ F 20% 50V	C6594	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F 10% 25V
C5598	1-104-664-11	ELECT	47 $\mu$ F 20% 16V	C6595	1-104-665-11	ELECT	100 $\mu$ F 20% 25V
C5600	1-104-664-11	ELECT	47 $\mu$ F 20% 16V	C6596	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
C5601	1-136-165-00	FILM	0.1 $\mu$ F 5% 50V	C8002	1-136-169-00	FILM	0.22 $\mu$ F 5% 50V
C5602	1-104-664-11	ELECT	47 $\mu$ F 20% 16V	C8004	1-104-665-11	ELECT	100 $\mu$ F 20% 10V
C5603	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F 10% 50V	C8005	1-104-664-11	ELECT	47 $\mu$ F 20% 25V
C5605	1-136-177-00	FILM	1 $\mu$ F 5% 50V	C8006	1-126-960-11	ELECT	1 $\mu$ F 20% 50V
C5607	1-115-185-11	CERAMIC CHIP	0.033 $\mu$ F 10% 50V	C8007	1-137-150-11	MYLAR	0.01 $\mu$ F 5% 50V
C5609	1-104-665-11	ELECT	100 $\mu$ F 20% 25V	C8009	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C5610	1-126-935-11	ELECT	470 $\mu$ F 20% 16V	C8011	1-126-961-11	ELECT	2.2 $\mu$ F 20% 50V
C5611	1-163-038-11	CERAMIC CHIP	0.1 $\mu$ F 25V	C8012	1-126-966-11	ELECT	33 $\mu$ F 20% 50V
C5612	1-126-964-11	ELECT	10 $\mu$ F 20% 50V	C8013	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C5613	1-115-185-11	CERAMIC CHIP	0.033 $\mu$ F 10% 50V	C8014	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C5614	1-126-964-11	ELECT	10 $\mu$ F 20% 50V	C8015	1-126-966-11	ELECT	33 $\mu$ F 20% 50V
C5616	1-136-165-00	FILM	0.1 $\mu$ F 5% 50V	C8016	1-130-495-00	MYLAR	0.1 $\mu$ F 5% 50V
C5617	1-104-664-11	ELECT	47 $\mu$ F 20% 16V	C8017	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C5618	1-136-171-00	FILM	0.33 $\mu$ F 5% 50V	C8018	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C5619	1-163-127-00	CERAMIC CHIP	270pF 5% 50V	C8019	1-104-665-11	ELECT	100 $\mu$ F 20% 10V
C5621	1-136-165-00	FILM	0.1 $\mu$ F 5% 50V	C8020	1-136-103-00	FILM	0.1 $\mu$ F 5% 200V
C5623	1-126-933-11	ELECT	100 $\mu$ F 20% 16V	C8021	1-137-150-11	MYLAR	0.01 $\mu$ F 5% 50V
C5625	1-163-251-11	CERAMIC CHIP	100pF 5% 50V	C8022	1-126-933-11	ELECT	100 $\mu$ F 20% 16V
C5628	1-126-933-11	ELECT	100 $\mu$ F 20% 16V	C8023	1-113-611-11	ELECT(BLOCK)	820 $\mu$ F 20% 250V
C6503	1-131-940-11	ELECT	1200 $\mu$ F 20% 250V	C8024	1-126-967-11	ELECT	47 $\mu$ F 20% 50V
C6504	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F 10% 50V	C8025	1-104-664-11	ELECT	47 $\mu$ F 20% 25V
C6507	1-126-967-11	ELECT	47 $\mu$ F 20% 50V	C8027	1-130-495-00	MYLAR	0.1 $\mu$ F 5% 50V
C6508	1-104-664-11	ELECT	47 $\mu$ F 20% 25V	C8028	1-164-161-11	CERAMIC CHIP	0.0022 $\mu$ F 10% 50V
C6510	1-130-495-00	MYLAR	0.1 $\mu$ F 5% 50V	C8030	1-163-809-11	CERAMIC CHIP	0.047 $\mu$ F 10% 25V
C6511	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F 10% 50V	C8031	1-128-551-11	ELECT	22 $\mu$ F 20% 25V
C6516	1-163-009-11	CERAMIC CHIP	0.001 $\mu$ F 10% 50V	C8032	1-136-813-11	FILM	680pF 2% 50V
C6517	1-126-963-11	ELECT	4.7 $\mu$ F 20% 50V	C8033	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C6518	1-136-479-11	FILM	0.001 $\mu$ F 2% 50V	C8035	1-125-969-91	CERAMIC CHIP	680pF 10% 1KV
C6519	1-126-964-11	ELECT	10 $\mu$ F 20% 50V	C8036	1-125-969-91	CERAMIC CHIP	680pF 10% 1KV
C6525	1-164-143-11	CERAMIC CHIP	0.001 $\mu$ F 10% 1KV	C8037	1-135-946-21	FILM	47000pF 3% 800V
C6526	1-164-143-11	CERAMIC CHIP	0.001 $\mu$ F 10% 1KV	C8039	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F 10% 50V
C6532	1-135-998-21	FILM	56000pF 3% 800V	C8040	1-126-969-11	ELECT	220 $\mu$ F 20% 50V



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C8041	1-137-194-81	FILM	0.47μF 5% 50V	D5014	8-719-510-37	DIODE D5LC20U	
C8042	1-136-103-00	FILM	0.1μF 5% 200V	D5015	8-719-302-43	DIODE RGP10GPKG23	
C8045	1-130-471-00	MYLAR	0.001μF 5% 50V	D5016	8-719-920-67	DIODE ERC91-02E	
C8046	1-162-131-11	CERAMIC CHIP	220pF 10% 2KV	D5017	8-719-920-67	DIODE ERC91-02E	
C8047	1-107-444-11	CERAMIC CHIP	100pF 10% 2KV	D5018	8-719-110-41	DIODE MTZJ-T-77-15B	
C8048	1-130-495-00	MYLAR	0.1μF 5% 50V	D5019	8-719-073-01	DIODE MA111-TX	
C8050	1-129-718-61	FILM	0.022μF 5% 630V	D5021	8-719-073-01	DIODE MA111-TX	
C8051	1-126-964-11	ELECT	10μF 20% 50V	D5023	8-719-061-21	DIODE PG124S15	
C8053	1-162-117-00	CERAMIC CHIP	100pF 10% 500V	D5024	8-719-510-02	DIODE D1NS4-TR	
C8054	1-102-244-00	CERAMIC CHIP	220pF 10% 500V	D5025	8-719-510-02	DIODE D1NS4-TR	
C8055	1-136-535-61	FILM	0.0018μF 5% 630V	D5026	8-719-073-01	DIODE MA111-TX	
C8056	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	D5027	8-719-073-01	DIODE MA111-TX	
C8058	1-137-194-81	FILM	0.47μF 5% 50V	D5028	8-719-073-01	DIODE MA111-TX	
C8059	1-104-664-11	ELECT	47μF 20% 10V	D5029	8-719-073-01	DIODE MA111-TX	
C8060	1-107-635-11	ELECT	4.7μF 20% 160V	D5031	8-719-977-28	DIODE UDZS-TE17-10B	
C8063	1-136-203-11	MYLAR	0.01μF 10% 630V	D5032	8-719-073-01	DIODE MA111-TX	
C8064	1-137-366-11	MYLAR	0.0022μF 5% 50V	D5501	8-719-073-01	DIODE MA111-TX	
<b>CONNECTOR</b>				D5502	8-719-073-01	DIODE MA111-TX	
*CN5002	1-580-798-11	CONNECTOR PIN (DY)	6P	D5503	8-719-073-01	DIODE MA111-TX	
*CN5003	1-766-242-11	PIN, CONNECTOR (PC BOARD)	4P	D5505	8-719-800-76	DIODE MA153-TX	
*CN5501	1-779-889-11	CONNECTOR, BOARD TO BOARD	8P	D5506	8-719-073-01	DIODE MA111-TX	
*CN5503	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P	D5507	8-719-800-76	DIODE MA153-TX	
*CN5505	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P	D5513	8-719-991-33	DIODE 1SS133T-77	
CN5506	1-764-812-11	CONNECTOR, BOARD TO BOARD	11P	D5514	8-719-063-70	DIODE D1NL20U-TA2	
*CN5509	1-564-515-11	PLUG, CONNECTOR	12P	D5515	8-719-063-70	DIODE D1NL20U-TA2	
*CN5510	1-564-506-11	PLUG, CONNECTOR	3P	D5522	8-719-923-78	DIODE MTZJ-T-77-12	
*CN6501	1-766-176-11	PIN, CONNECTOR (PC BOARD)	6P	D5523	8-719-923-78	DIODE MTZJ-T-77-12	
*CN6502	1-766-240-11	PIN, CONNECTOR (PC BOARD)	2P	D6501	8-719-073-01	DIODE MA111-TX	
*CN6503	1-564-511-11	PLUG, CONNECTOR	8P	D6502	8-719-979-64	DIODE μF4005PKG23	
*CN6504	1-779-889-11	CONNECTOR, BOARD TO BOARD	8P	D6507	1-216-295-11	SHORT 0	
*CN6505	1-779-889-11	CONNECTOR, BOARD TO BOARD	8P	D6508	8-719-982-27	DIODE MTZJ-T-77-33C	
*CN6506	1-779-889-11	CONNECTOR, BOARD TO BOARD	8P	D6509	8-719-068-00	DIODE ERC04-06SE (KV-32XBR400/36XBR400/38DRC1/36XBR400H only)	
<b>DIODE</b>				D6510	8-719-068-00	DIODE ERC04-06SE (KV-32XBR400/36XBR400/38DRC1/36XBR400H only)	
D5001	8-719-109-85	DIODE MTZJ-T-77-5.1B		D6513	8-719-500-71	DIODE D8LC40F	
D5002	8-719-908-03	DIODE GP08DPKG23		D6514	8-719-060-89	DIODE D4SBS6-F	
D5003	8-719-920-67	DIODE ERC91-02E		D6515	8-719-060-90	DIODE S2L60F	
D5004	8-719-158-49	DIODE UDZ-TE-17-12B		D6516	8-719-060-89	DIODE D4SBS6-F	
D5005	8-719-073-01	DIODE MA111-TX		D6517	8-719-060-90	DIODE S2L60F	
D5006	8-719-109-72	DIODE MTZJ-T-77-3.9B		D6522	8-719-073-01	DIODE MA111-TX	
D5007	8-719-109-50	DIODE MTZJ-T-77-2.0A		D6530	8-719-022-99	DIODE D6SB60L	
D5008	8-719-073-01	DIODE MA111-TX		D6531	8-719-073-01	DIODE MA111-TX	
D5009	8-719-073-01	DIODE MA111-TX		D6532	8-719-948-45	DIODE ERA22-08TP3	
D5010	8-719-073-01	DIODE MA111-TX		D6533	8-719-073-01	DIODE MA111-TX	
D5011	8-719-109-63	DIODE MTZJ-T-77-3.0B		D6537	8-719-073-01	DIODE MA111-TX	
D5012	8-719-018-82	DIODE RGP02-20EL-6394		D8002	8-719-073-01	DIODE MA111-TX	
D5013	8-719-302-43	DIODE RGP10GPKG23		D8003	8-719-073-01	DIODE MA111-TX	
				D8004	8-719-109-85	DIODE MTZJ-T-77-5.1B	
				D8005	8-719-073-01	DIODE MA111-TX	



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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<b><u>PHOTO COUPLER</u></b>							
PH6501	8-749-924-35	PHOTO COUPLER ON3171-R		Q5505	1-801-806-11	TRANSISTOR DTC144EKA-T146	
PH6502 $\triangle$	8-749-924-35	PHOTO COUPLER ON3171-R		Q5506	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
PH6503 $\triangle$	8-749-924-35	PHOTO COUPLER ON3171-R		Q5507	8-729-931-45	TRANSISTOR IRF614	
PH8001	8-749-924-35	PHOTO COUPLER ON3171-R		Q5508	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q5509	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
<b><u>IC LINK</u></b>							
PS6501 $\triangle$	1-576-390-91	LINK, IC		Q6503	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
PS6502 $\triangle$	1-576-390-91	LINK, IC		Q6506	8-729-052-32	TRANSISTOR IRFIB7N50A-LF31	
				Q6507	8-729-052-32	TRANSISTOR IRFIB7N50A-LF31	
				Q6520	8-729-019-57	TRANSISTOR 2SA1208S-TP	
				Q6521	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA	
				Q6522	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
				Q6524	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
				Q6526	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
				Q6527	8-729-023-22	TRANSISTOR 2SD2114KT146	
				Q6528	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q6529	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q6530	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
				Q6531	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q6532	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8003	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8004	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8007	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8008	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8009	8-729-200-17	TRANSISTOR 2SA1091O-TPE2	
				Q8010	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8013	8-729-044-42	TRANSISTOR IRFI644G-LF36	
				Q8014	8-729-044-42	TRANSISTOR IRFI644G-LF36	
				Q8015	8-729-119-80	TRANSISTOR 2SC2688-LK	
				Q8016	8-729-045-65	TRANSISTOR 2SA1776TV2Q	
				Q8018	8-729-043-95	TRANSISTOR 2SC3840K	
				Q8019	1-801-806-11	TRANSISTOR DTC144EKA-T146	
				Q8020	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q8022	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
				Q8023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				<b><u>RESISTOR</u></b>			
				R5001	1-216-001-00	RES-CHIP	10 5% 1/10W
				R5002	1-216-033-00	RES-CHIP	220 5% 1/10W
				R5003	1-216-073-00	RES-CHIP	10K 5% 1/10W
				R5004	1-216-099-00	RES-CHIP	120K 5% 1/10W
				R5005	1-216-033-00	RES-CHIP	220 5% 1/10W
				R5007	1-216-099-00	RES-CHIP	120K 5% 1/10W
				R5008	1-216-073-00	RES-CHIP	10K 5% 1/10W
				R5009	1-216-099-00	RES-CHIP	120K 5% 1/10W
				R5011	1-216-099-00	RES-CHIP	120K 5% 1/10W
				R5012	1-208-814-91	METAL CHIP	22K 0.50% 1/10W
Q5001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5002	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX					
Q5003	8-729-015-28	TRANSISTOR IRFI9630G					
Q5004	8-729-019-57	TRANSISTOR 2SA1208S-TP					
Q5005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5006	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5007	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX					
Q5008	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX					
Q5011	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5012	8-729-119-80	TRANSISTOR 2SC2688-LK					
Q5013	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX					
Q5014	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5015	8-729-119-80	TRANSISTOR 2SC2688-LK					
Q5016	8-729-119-80	TRANSISTOR 2SC2688-LK					
Q5017	8-729-119-80	TRANSISTOR 2SC2688-LK					
Q5018	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5019	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5020	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX					
Q5021	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5022	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX					
Q5023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5026	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5027	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX					
Q5028	8-729-322-27	TRANSISTOR 2SK2182					
Q5030	8-729-052-71	TRANSISTOR 2SC3997S-SONY-RA					
Q5031	8-729-053-24	TRANSISTOR 2SK3262-01MR					
Q5033	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX					
Q5034	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5035	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5036	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5037	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5501	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
Q5502	1-801-806-11	TRANSISTOR DTC144EKA-T146					
Q5503	1-801-806-11	TRANSISTOR DTC144EKA-T146					
Q5504	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R5013	1-216-393-00	METAL OXIDE	2.2 5% 3W	R5070	1-216-113-00	RES-CHIP	470K 5% 1/10W
R5014	1-208-790-11	METAL CHIP	2.2K 0.50% 1/10W	R5071	1-208-810-11	METAL CHIP	15K 0.50% 1/10W
R5016	1-208-832-11	METAL CHIP	120K 0.50% 1/10W	R5072	1-208-810-11	METAL CHIP	15K 0.50% 1/10W
R5017	1-208-832-11	METAL CHIP	120K 0.50% 1/10W	R5073	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R5018	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5074	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R5019	1-249-429-11	CARBON	10K 5% 1/4W	R5075	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R5020	1-208-800-11	METAL CHIP	5.6K 0.50% 1/10W	R5076	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R5021	1-208-826-11	METAL CHIP	68K 0.50% 1/10W	R5077	1-208-816-11	METAL CHIP	27K 0.50% 1/10W
R5022	1-208-816-11	METAL CHIP	27K 0.50% 1/10W	R5078	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R5023	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5079	1-208-810-11	METAL CHIP	15K 0.50% 1/10W
R5024	1-216-089-11	RES-CHIP	47K 5% 1/10W	R5080	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5025	1-208-800-11	METAL CHIP	5.6K 0.50% 1/10W	R5081	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R5026	1-216-049-11	RES-CHIP	1K 5% 1/10W	R5082	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R5027	1-208-826-11	METAL CHIP	68K 0.50% 1/10W	R5083	1-208-790-11	METAL CHIP	2.2K 0.50% 1/10W
R5028	1-208-822-11	METAL CHIP	47K 0.50% 1/10W	R5084	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5029	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W	R5085	1-216-113-00	RES-CHIP	470K 5% 1/10W
R5030	1-216-295-11	SHORT	0	R5086	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5031	1-208-782-11	METAL CHIP	1K 0.50% 1/10W	R5087	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5033	1-216-025-11	RES-CHIP	100 5% 1/10W	R5088	1-216-049-11	RES-CHIP	1K 5% 1/10W
R5036	1-216-085-00	RES-CHIP	33K 5% 1/10W	R5089	1-216-372-11	METAL OXIDE	1.8 5% 2W
R5037	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R5090	1-216-372-11	METAL OXIDE	1.8 5% 2W
R5038	1-216-075-00	RES-CHIP	12K 5% 1/10W	R5091	1-249-389-11	CARBON	4.7 5% 1/4W
R5039	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5092	1-216-049-11	RES-CHIP	1K 5% 1/10W
R5040	1-216-089-11	RES-CHIP	47K 5% 1/10W	R5093	1-208-807-11	METAL CHIP	11K 0.50% 1/10W
R5041	1-249-383-11	CARBON	1.5 5% 1/4W	R5094	1-215-869-11	METAL OXIDE	1K 5% 1W
R5042	1-216-081-00	RES-CHIP	22K 5% 1/10W	R5095	1-249-443-11	CARBON	0.47 5% 1/4W
R5043	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W	R5096	1-249-443-11	CARBON	0.47 5% 1/4W
R5044	1-216-073-00	RES-CHIP	10K 5% 1/10W	R5097	1-249-380-11	CARBON	0.82 5% 1/4W
R5045	1-216-073-00	RES-CHIP	10K 5% 1/10W	R5098	1-249-379-11	CARBON	0.68 5% 1/4W
R5046	1-214-798-21	METAL CHIP	1.8 1% 1/2W	R5101	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W
R5047	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R5102	1-208-782-11	METAL CHIP	1K 0.50% 1/10W
R5048	1-208-802-11	METAL CHIP	6.8K 0.50% 1/10W	R5103	1-208-790-11	METAL CHIP	2.2K 0.50% 1/10W
R5049	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R5104	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5050	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R5105	1-216-089-11	RES-CHIP	47K 5% 1/10W
R5051	1-249-414-11	CARBON	560 5% 1/4W	R5106	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5052	1-214-796-00	METAL CHIP	1.5 1% 1/2W	R5107	1-249-401-11	CARBON	47 5% 1/4W
R5053	1-215-890-11	METAL OXIDE	470 5% 2W	R5108	1-208-819-11	METAL CHIP	36K 0.50% 1/10W
R5054	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R5109	1-208-808-11	METAL CHIP	12K 0.50% 1/10W
R5055	1-216-073-00	RES-CHIP	10K 5% 1/10W	R5110	1-249-401-11	CARBON	47 5% 1/4W
R5056	1-216-105-91	RES-CHIP	220K 5% 1/10W	R5111	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5057	1-216-073-00	RES-CHIP	10K 5% 1/10W	R5112	1-216-033-00	RES-CHIP	220 5% 1/10W
R5058	1-216-113-00	RES-CHIP	470K 5% 1/10W	R5113	1-249-425-11	CARBON	4.7K 5% 1/4W
R5059	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5114	1-249-425-11	CARBON	4.7K 5% 1/4W
R5063	1-208-813-11	METAL CHIP	20K 0.50% 1/10W	R5115	1-249-417-11	CARBON	1K 5% 1/4W
R5064	1-218-761-11	METAL CHIP	240K 0.50% 1/10W	R5116	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5065	1-218-761-11	METAL CHIP	240K 0.50% 1/10W	R5117	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
R5066	1-208-792-11	METAL CHIP	2.7K 0.50% 1/10W	R5120	1-216-049-11	RES-CHIP	1K 5% 1/10W
R5067	1-208-794-11	METAL CHIP	3.3K 0.50% 1/10W	R5121	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5068	1-216-105-91	RES-CHIP	220K 5% 1/10W	R5122	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5069	1-216-113-00	RES-CHIP	470K 5% 1/10W	R5123	1-216-295-11	SHORT	0



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R5124	1-216-295-11	SHORT	0	R5511	1-216-295-11	SHORT	0
R5125	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5512	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5126	1-216-025-11	RES-CHIP	100 5% 1/10W	R5513	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5127	1-215-890-11	METAL OXIDE	470 5% 2W	R5514	1-216-295-11	SHORT	0
R5128	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5516	1-208-792-11	METAL CHIP	2.7K 0.50% 1/10W
R5129	1-216-025-11	RES-CHIP	100 5% 1/10W	R5518	1-208-822-11	METAL CHIP	47K 0.50% 1/10W
R5130	1-249-401-11	CARBON	47 5% 1/4W	R5519	1-208-822-11	METAL CHIP	47K 0.50% 1/10W
R5131	1-208-794-11	METAL CHIP	3.3K 0.50% 1/10W	R5520	1-208-816-11	METAL CHIP	27K 0.50% 1/10W
R5132	1-216-481-11	METAL OXIDE	1.2K 5% 3W	R5521	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5133	1-216-481-11	METAL OXIDE	1.2K 5% 3W	R5522	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5134	1-216-481-11	METAL OXIDE	1.2K 5% 3W	R5523	1-208-822-11	METAL CHIP	47K 0.50% 1/10W
R5135	1-216-481-11	METAL OXIDE	1.2K 5% 3W	R5525	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R5136	1-216-481-11	METAL OXIDE	1.2K 5% 3W	R5526	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5137	1-216-481-11	METAL OXIDE	1.2K 5% 3W	R5527	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5138	1-216-049-11	RES-CHIP	1K 5% 1/10W	R5528	1-216-081-00	RES-CHIP	22K 5% 1/10W
R5139	1-216-049-11	RES-CHIP	1K 5% 1/10W	R5529	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5140	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R5530	1-216-025-11	RES-CHIP	100 5% 1/10W
R5141	1-215-915-11	METAL OXIDE	470 5% 3W	R5531	1-216-001-00	RES-CHIP	10 5% 1/10W
R5142	1-216-386-11	METAL OXIDE	0.56 5% 3W	R5532	1-216-001-00	RES-CHIP	10 5% 1/10W
R5143	1-216-385-11	METAL OXIDE	0.47 5% 3W	R5535	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R5144	1-216-385-11	METAL OXIDE	0.47 5% 3W	R5536	1-208-810-11	METAL CHIP	15K 0.50% 1/10W
R5145	1-215-880-00	METAL OXIDE	10 5% 2W	R5544	1-208-812-11	METAL CHIP	18K 0.50% 1/10W
R5146	1-216-089-11	RES-CHIP	47K 5% 1/10W	R5545	1-208-818-11	METAL CHIP	33K 0.50% 1/10W
R5147	1-208-794-11	METAL CHIP	3.3K 0.50% 1/10W	R5547	1-216-081-00	RES-CHIP	22K 5% 1/10W
R5148	1-215-865-11	METAL OXIDE	220 5% 1W	R5548	1-216-089-11	RES-CHIP	47K 5% 1/10W
R5149	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5554	1-208-812-11	METAL CHIP	18K 0.50% 1/10W
R5150	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5563	1-208-801-11	METAL CHIP	6.2K 0.50% 1/10W
R5151	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5564	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R5152	1-216-073-00	RES-CHIP	10K 5% 1/10W	R5565	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R5153	1-216-073-00	RES-CHIP	10K 5% 1/10W	R5573	1-216-081-00	RES-CHIP	22K 5% 1/10W
R5154	1-216-073-00	RES-CHIP	10K 5% 1/10W	R5576	1-249-395-11	CARBON	15 5% 1/4W
R5155	1-216-081-00	RES-CHIP	22K 5% 1/10W	R5577	1-208-836-11	METAL CHIP	180K 0.50% 1/10W
R5156	1-216-089-11	RES-CHIP	47K 5% 1/10W	R5578	1-208-812-11	METAL CHIP	18K 0.50% 1/10W
R5157	1-216-089-11	RES-CHIP	47K 5% 1/10W	R5579	1-216-113-00	RES-CHIP	470K 5% 1/10W
R5158	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R5581	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R5159	1-216-025-11	RES-CHIP	100 5% 1/10W	R5585	1-208-846-11	METAL CHIP	470K 0.50% 1/10W
R5160	1-216-025-11	RES-CHIP	100 5% 1/10W	R5588	1-216-353-00	METAL OXIDE	2.2 5% 1W
R5161	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R5599	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5163	1-216-063-91	RES-CHIP	3.9K 5% 1/10W	R5615	1-249-395-11	CARBON	15 5% 1/4W
R5164	1-260-288-11	CARBON	0.47 5% 1/2W	R5623	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R5501	1-216-033-00	RES-CHIP	220 5% 1/10W	R5645	1-216-089-11	RES-CHIP	47K 5% 1/10W
R5502	1-216-295-11	SHORT	0	R5647	1-208-758-11	METAL CHIP	100 0.50% 1/10W
R5503	1-216-017-91	RES-CHIP	47 5% 1/10W	R5648	1-216-385-11	METAL OXIDE	0.47 5% 3W
R5504	1-208-840-11	METAL CHIP	270K 0.50% 1/10W	R5649	1-215-886-11	METAL OXIDE	100 5% 2W
R5505	1-208-840-11	METAL CHIP	270K 0.50% 1/10W	R5650	1-216-089-11	RES-CHIP	47K 5% 1/10W
R5506	1-216-073-00	RES-CHIP	10K 5% 1/10W	R5657	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W
R5507	1-216-017-91	RES-CHIP	47 5% 1/10W	R5666	1-216-091-00	RES-CHIP	56K 5% 1/10W
R5508	1-216-025-11	RES-CHIP	100 5% 1/10W	R5669	1-208-789-11	METAL CHIP	2K 0.50% 1/10W
R5509	1-216-025-11	RES-CHIP	100 5% 1/10W	R5670	1-208-820-11	METAL CHIP	39K 0.50% 1/10W
R5510	1-216-025-11	RES-CHIP	100 5% 1/10W	R5672	1-216-109-00	RES-CHIP	330K 5% 1/10W



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

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.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R5678	1-208-804-11	METAL CHIP	8.2K 0.50% 1/10W	R6522	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5679	1-249-395-11	CARBON	15 5% 1/4W	R6523	1-216-081-00	RES-CHIP	22K 5% 1/10W
R5680	1-249-383-11	CARBON	1.5 5% 1/4W	R6524	1-216-295-11	SHORT	0
R5684	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W	R6525	1-216-041-00	RES-CHIP	470 5% 1/10W
R5685	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W	R6526	1-202-933-61	FUSIBLE	0.1 10% 1/2W
R5686	1-208-778-11	METAL CHIP	680 0.50% 1/10W	R6527	1-216-093-91	RES-CHIP	68K 5% 1/10W
R5688	1-208-782-11	METAL CHIP	1K 0.50% 1/10W	R6528	1-216-025-11	RES-CHIP	100 5% 1/10W
R5689	1-216-017-91	RES-CHIP	47 5% 1/10W	R6529	1-249-393-11	CARBON	10 5% 1/4W
R5690	1-216-017-91	RES-CHIP	47 5% 1/10W	R6530	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5692	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W	R6531	1-249-393-11	CARBON	10 5% 1/4W
R5693	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W	R6532	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5694	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W	R6533	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5696	1-208-804-11	METAL CHIP	8.2K 0.50% 1/10W	R6534	1-216-085-00	RES-CHIP	33K 5% 1/10W
R5697	1-208-764-11	METAL CHIP	180 0.50% 1/10W	R6535	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5698	1-208-801-11	METAL CHIP	6.2K 0.50% 1/10W	R6536	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5699	1-216-081-00	RES-CHIP	22K 5% 1/10W	R6537	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5700	1-208-810-11	METAL CHIP	15K 0.50% 1/10W	R6538	1-216-073-00	RES-CHIP	10K 5% 1/10W
R5702	1-208-782-11	METAL CHIP	1K 0.50% 1/10W	R6539	1-215-900-11	METAL OXIDE	22K 5% 2W
R5704	1-214-657-11	METAL CHIP	1 1% 1/4W	R6540	1-216-049-11	RES-CHIP	1K 5% 1/10W
R5705	1-214-657-11	METAL CHIP	1 1% 1/4W	R6541	1-216-077-91	RES-CHIP	15K 5% 1/10W
R5707	1-216-017-91	RES-CHIP	47 5% 1/10W	R6542	1-216-049-11	RES-CHIP	1K 5% 1/10W
R5708	1-216-429-00	METAL OXIDE	270 5% 1W	R6543	1-208-842-11	METAL CHIP	330K 0.50% 1/10W
R5709	1-216-017-91	RES-CHIP	47 5% 1/10W	R6544	1-216-295-11	SHORT	0
R5710	1-216-429-00	METAL OXIDE	270 5% 1W	R6547	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R5711	1-260-288-11	CARBON	0.47 5% 1/2W	R6550	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R5712	1-260-288-11	CARBON	0.47 5% 1/2W	R6552	1-216-081-00	RES-CHIP	22K 5% 1/10W
R5713	1-215-867-00	METAL OXIDE	470 5% 1W	R6553	1-216-109-00	RES-CHIP	330K 5% 1/10W
R5714	1-216-097-11	RES-CHIP	100K 5% 1/10W	R6556	1-217-625-00	METAL CHIP	0.05 10% 2W
R5715	1-216-097-11	RES-CHIP	100K 5% 1/10W	R6557	1-216-097-11	RES-CHIP	100K 5% 1/10W
R5716	1-216-049-11	RES-CHIP	1K 5% 1/10W	R6583	1-216-077-91	RES-CHIP	15K 5% 1/10W
R5717	1-216-093-91	RES-CHIP	68K 5% 1/10W	R6590	1-249-415-11	CARBON	680 5% 1/4W
R6501	1-208-757-11	METAL CHIP	91 0.50% 1/10W	R6591	1-216-341-11	METAL OXIDE	0.22 5% 1W
R6502	1-260-131-11	CARBON	470K 5% 1/2W	R6593	1-249-405-11	CARBON	100 5% 1/4W
R6503	1-208-758-11	METAL CHIP	100 0.50% 1/10W	R6596	1-215-445-00	METAL CHIP	10K 1% 1/4W
R6504	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6597	1-215-469-00	METAL CHIP	100K 1% 1/4W
R6506	1-249-377-11	CARBON	0.47 5% 1/4W	R6598	1-216-342-21	METAL OXIDE	0.27 5% 1W
R6507	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R6599	1-249-417-11	CARBON	1K 5% 1/4W
R6508	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6600	1-215-445-00	METAL CHIP	10K 1% 1/4W
R6509	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R6602	1-216-049-11	RES-CHIP	1K 5% 1/10W
R6510	1-215-859-00	METAL OXIDE	22 5% 1W	R6603	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6511	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6604	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6512	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6605	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R6513	1-215-481-00	METAL CHIP	330K 1% 1/4W	R6612	1-216-089-11	RES-CHIP	47K 5% 1/10W
R6514	1-215-481-00	METAL CHIP	330K 1% 1/4W	R6614	1-260-298-51	CARBON	3.3 5% 1/2W
R6515	1-260-131-11	CARBON	470K 5% 1/2W	R6646	1-215-481-00	METAL CHIP	330K 1% 1/4W
R6516 $\triangle$	1-202-962-11	CEMENTED	3.3 5% 10W	R8001	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6517	1-208-804-11	METAL CHIP	8.2K 0.50% 1/10W	R8002	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R6518	1-208-810-11	METAL CHIP	15K 0.50% 1/10W	R8003	1-216-081-00	RES-CHIP	22K 5% 1/10W
R6519	1-216-295-11	SHORT	0	R8004	1-216-081-00	RES-CHIP	22K 5% 1/10W
R6521	1-260-328-11	CARBON	1K 5% 1/2W	R8005	1-216-081-00	RES-CHIP	22K 5% 1/10W

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

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.



REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R8006	1-216-105-91	RES-CHIP	220K	5%	1/10W	R8063	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8007	1-216-089-11	RES-CHIP	47K	5%	1/10W	R8065	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8008	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8066	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8009	1-216-105-91	RES-CHIP	220K	5%	1/10W	R8068	1-216-295-11	SHORT	0		
R8010	1-216-105-91	RES-CHIP	220K	5%	1/10W	R8069	1-249-419-11	CARBON	1.5K	5%	1/4W
R8011	1-216-105-91	RES-CHIP	220K	5%	1/10W	R8070	1-217-611-00	METAL CHIP	0.1	10%	2W
R8013	1-216-295-11	SHORT	0			R8071	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8016	1-216-061-00	RES-CHIP	3.3K	5%	1/10W	R8072	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R8017	1-216-295-11	SHORT	0			R8073	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R8018	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8074	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R8019	1-216-089-11	RES-CHIP	47K	5%	1/10W	R8077	1-208-838-91	METAL CHIP	220K	0.50%	1/10W
R8020	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8078	1-208-838-91	METAL CHIP	220K	0.50%	1/10W
R8021	1-216-049-11	RES-CHIP	1K	5%	1/10W	R8080	1-249-431-11	CARBON	15K	5%	1/4W
R8022	1-216-073-00	RES-CHIP	10K	5%	1/10W	R8081	1-249-377-11	CARBON	0.47	5%	1/4W
R8023	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8082	1-216-133-00	RES-CHIP	3.3M	5%	1/10W
R8024	1-216-073-00	RES-CHIP	10K	5%	1/10W	R8085	1-219-749-91	CARBON	10K	5%	1/2W
R8025	1-208-826-11	METAL CHIP	68K	0.50%	1/10W	R8086	1-219-746-11	CARBON	1K	5%	1/2W
R8026	1-216-105-91	RES-CHIP	220K	5%	1/10W	R8087	1-216-295-11	SHORT	0		
R8027	1-208-826-11	METAL CHIP	68K	0.50%	1/10W	R8089	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8028	1-208-810-11	METAL CHIP	15K	0.50%	1/10W	R8091	1-215-485-00	METAL CHIP	470K	1%	1/4W
R8029	1-208-826-11	METAL CHIP	68K	0.50%	1/10W	R8093	1-216-101-00	RES-CHIP	150K	5%	1/10W
R8030	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R8095	1-215-485-00	METAL CHIP	470K	1%	1/4W
R8031	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R8096	1-216-295-11	SHORT	0		
R8032	1-216-073-00	RES-CHIP	10K	5%	1/10W	R8098	1-249-441-11	CARBON	100K	5%	1/4W
R8033	1-208-781-11	METAL CHIP	910	0.50%	1/10W	R8099	1-249-441-11	CARBON	100K	5%	1/4W
R8034	1-216-091-00	RES-CHIP	56K	5%	1/10W	R8100	1-249-441-11	CARBON	100K	5%	1/4W
R8035 $\triangle$	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W	R8101	1-216-101-00	RES-CHIP	150K	5%	1/10W
R8036 $\triangle$	1-215-444-00	METAL CHIP	9.1K	1%	1/4W	R8102	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8037 $\triangle$	1-215-444-00	METAL CHIP	9.1K	1%	1/4W	R8103	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R8038 $\triangle$	1-215-444-00	METAL CHIP	9.1K	1%	1/4W	R8104	1-216-089-11	RES-CHIP	47K	5%	1/10W
R8039 $\triangle$	1-215-444-00	METAL CHIP	9.1K	1%	1/4W	R8108	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8040 $\triangle$	1-215-444-00	METAL CHIP	9.1K	1%	1/4W	R8109	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8041	1-208-782-11	METAL CHIP	1K	0.50%	1/10W	R8111	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8042	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R8112	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8043	1-216-349-00	METAL OXIDE	1	5%	1W	R8113	1-216-117-00	RES-CHIP	680K	5%	1/10W
R8044	1-208-837-11	METAL CHIP	200K	0.50%	1/10W	R8114	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8047	1-216-097-11	RES-CHIP	100K	5%	1/10W	R8115	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8049	1-208-758-11	METAL CHIP	100	0.50%	1/10W	R8116	1-216-486-21	METAL OXIDE	8.2K	5%	3W
R8050	1-211-964-11	METAL CHIP	33	0.50%	1/10W	R8117	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8051	1-220-926-11	FUSIBLE	0.47	10%	1/2W	R8118	1-216-085-00	RES-CHIP	33K	5%	1/10W
R8053	1-208-842-11	METAL CHIP	330K	0.50%	1/10W	R8119	1-216-486-21	METAL OXIDE	8.2K	5%	3W
R8054	1-208-842-11	METAL CHIP	330K	0.50%	1/10W	R8123	1-216-025-11	RES-CHIP	100	5%	1/10W
R8055	1-208-842-11	METAL CHIP	330K	0.50%	1/10W	R8124	1-216-073-00	RES-CHIP	10K	5%	1/10W
R8056	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W	R8125	1-216-001-00	RES-CHIP	10	5%	1/10W
R8057	1-208-809-11	METAL CHIP	13K	0.50%	1/10W	R8126	1-216-001-00	RES-CHIP	10	5%	1/10W
R8058	1-249-393-11	CARBON	10	5%	1/4W	R8137	1-249-417-11	CARBON	1K	5%	1/4W
R8059	1-216-295-11	SHORT	0			R8144	1-216-025-11	RES-CHIP	100	5%	1/10W
R8060	1-208-774-11	METAL CHIP	470	0.50%	1/10W	R8145	1-216-025-11	RES-CHIP	100	5%	1/10W
R8061	1-249-393-11	CARBON	10	5%	1/4W	R8146	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8062	1-216-073-00	RES-CHIP	10K	5%	1/10W	R8147	1-208-826-11	METAL CHIP	68K	0.50%	1/10W



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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R8148	1-208-826-11	METAL CHIP	68K 0.50% 1/10W				
R8149	1-208-822-11	METAL CHIP	47K 0.50% 1/10W				
R8150	1-216-091-00	RES-CHIP	56K 5% 1/10W				
R8151	1-216-091-00	RES-CHIP	56K 5% 1/10W				
R8152	1-216-091-00	RES-CHIP	56K 5% 1/10W				
R8199	1-249-389-11	CARBON	4.7 5% 1/4W				
<b>VARIABLE RESISTOR</b>							
$\square$ RV8001 $\triangle$	1-241-767-21	RES, ADJ, CERMET	100K				
$\square$ RV8002 $\triangle$	1-241-763-11	RES, ADJ, CERMET	4.7K				
$\square$ RV8003 $\triangle$	1-241-764-11	RES, ADJ, CERMET	10K				
<b>RELAY</b>							
RY6501 $\triangle$	1-755-395-11	RELAY (AC POWER)					
RY6502 $\triangle$	1-755-214-11	RELAY, AC POWER					
<b>SPARK GAP</b>							
SG8002	1-517-499-21	GAP, SPARK					
SG8005	1-517-499-21	GAP, SPARK					
<b>TRANSFORMER</b>							
T5001	1-435-621-11	TRANSFORMER, HORIZONTAL OUTPUT					
T5002	1-435-636-11	TRANSFORMER, HORIZONTAL DRIVE					
T6501 $\triangle$	1-435-576-12	TRANSFORMER, CONVERTER (PIT)					
T8001 $\triangle$	1-453-346-11	FBT ASSY NX-6000//J1J4					
T8002	1-433-934-11	TRANSFORMER, FERRITE (DFT)					
<b>THERMISTOR</b>							
TH5001	1-800-193-00	THERMISTOR					
TH5002	1-807-796-11	THERMISTOR					
<b>HA</b>							
*	A-1372-834-A	HA BOARD, MOUNTED					
<b>CAPACITOR</b>							
C05	1-126-964-11	ELECT	10 $\mu$ F 20% 50V				
<b>CONNECTOR</b>							
*CN01	1-564-515-11	PLUG, CONNECTOR	12P				
				<b>DIODE</b>			
				D01	8-719-074-84	DIODE LNK0120022G1	
				D02	8-719-074-84	DIODE LNK0120022G1	
				D07	8-719-109-89	DIODE RD5.6ES-T1B2	
				<b>IC</b>			
				IC01	8-742-205-20	HYB IC SBX3081-01(20)	
				<b>RESISTOR</b>			
				R03	1-249-429-11	CARBON 10K 5% 1/4W	
				R04	1-249-385-11	CARBON 2.2 5% 1/4W	
				R05	1-247-807-31	CARBON 100 5% 1/4W	
				R07	1-249-409-11	CARBON 220 5% 1/4W	
				R08	1-249-409-11	CARBON 220 5% 1/4W	
				R09	1-249-433-11	CARBON 22K 5% 1/4W	
				R12	1-215-445-00	METAL CHIP 10K 1% 1/4W	
				R14	1-215-437-00	METAL CHIP 4.7K 1% 1/4W	
				R15	1-215-431-00	METAL CHIP 2.7K 1% 1/4W	
				R16	1-215-427-00	METAL CHIP 1.8K 1% 1/4W	
				R17	1-215-425-00	METAL CHIP 1.5K 1% 1/4W	
				R18	1-215-421-00	METAL CHIP 1K 1% 1/4W	
				R19	1-215-419-00	METAL CHIP 820 1% 1/4W	
				R20	1-215-415-00	METAL CHIP 560 1% 1/4W	
				R21	1-215-413-00	METAL CHIP 470 1% 1/4W	
				R22	1-215-413-00	METAL CHIP 470 1% 1/4W	
				<b>SWITCH</b>			
				S01	1-571-032-11	SWITCH PUSH (1 KEY)	
				S02	1-762-837-11	SWITCH TACTILE	
				S03	1-762-837-11	SWITCH TACTILE	
				S04	1-762-837-11	SWITCH TACTILE	
				S05	1-762-837-11	SWITCH TACTILE	
				S06	1-692-431-21	SWITCH TACTILE	
				S07	1-692-431-21	SWITCH TACTILE	
				S08	1-692-431-21	SWITCH TACTILE	
				S09	1-692-431-21	SWITCH TACTILE	
				S10	1-692-431-21	SWITCH TACTILE	
				S11	1-692-431-21	SWITCH TACTILE	
				<b>HB</b>			
*	A-1372-904-A	HB (COM) BOARD, MOUNTED					



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<b><u>CAPACITOR</u></b>				C2411	1-126-926-11	ELECT	1000μF 20% 10V
C4504	1-126-964-11	ELECT	10μF 20% 50V	C2412	1-126-964-11	ELECT	10μF 20% 50V
C4505	1-126-964-11	ELECT	10μF 20% 50V	C2413	1-126-964-11	ELECT	10μF 20% 50V
<b><u>CONNECTOR</u></b>				C2414	1-126-791-11	ELECT	10μF 20% 16V
CN4503	1-764-334-11	PLUG, CONNECTOR	11P	C2415	1-126-964-11	ELECT	10μF 20% 50V
<b><u>DIODE</u></b>				<b><u>CONNECTOR</u></b>			
D4503	8-719-977-28	DIODE UDZS-TE17-10B		*CN2401	1-785-303-11	CONNECTOR, DIN (PLUG)	64P
D4505	8-719-977-28	DIODE UDZS-TE17-10B		<b><u>DIODE</u></b>			
D4506	8-719-977-28	DIODE UDZS-TE17-10B		D2401	8-719-977-28	DIODE UDZS-TE17-10B	
<b><u>FILTER</u></b>				D2402	8-719-977-28	DIODE UDZS-TE17-10B	
FL4501	1-239-583-21	FILTER, EMI		D2403	8-719-977-28	DIODE UDZS-TE17-10B	
FL4502	1-239-583-21	FILTER, EMI		D2405	8-719-977-28	DIODE UDZS-TE17-10B	
FL4503	1-239-583-21	FILTER, EMI		D2406	8-719-977-28	DIODE UDZS-TE17-10B	
<b><u>JACK</u></b>				D2407	8-719-977-28	DIODE UDZS-TE17-10B	
J4501	1-770-053-11	TERMINAL BLOCK, S (LIGHT ANGLE)		D2409	8-719-977-28	DIODE UDZS-TE17-10B	
<b><u>RESISTOR</u></b>				D2410	8-719-800-76	DIODE MA153-TX	
R4506	1-216-113-00	RES-CHIP	470K 5% 1/10W	D2411	8-719-977-28	DIODE UDZS-TE17-10B	
R4507	1-216-113-00	RES-CHIP	470K 5% 1/10W	D2412	8-719-800-76	DIODE MA153-TX	
R4509	1-216-049-11	RES-CHIP	1K 5% 1/10W	D2413	8-719-800-76	DIODE MA153-TX	
R4511	1-216-295-11	SHORT	0	D2414	8-719-800-76	DIODE MA153-TX	
R4512	1-216-295-11	SHORT	0	D2415	8-719-800-76	DIODE MA153-TX	
R4513	1-216-295-11	SHORT	0	D2416	8-719-800-76	DIODE MA153-TX	
<b><u>JACK</u></b>				D2423	8-719-800-76	DIODE MA153-TX	
<b><u>CAPACITOR</u></b>				D2424	8-719-800-76	DIODE MA153-TX	
C2405	1-126-964-11	ELECT	10μF 20% 50V	D2425	8-719-800-76	DIODE MA153-TX	
C2406	1-126-791-11	ELECT	10μF 20% 16V	D2426	8-719-800-76	DIODE MA153-TX	
C2407	1-126-964-11	ELECT	10μF 20% 50V	D2427	8-719-800-76	DIODE MA153-TX	
C2408	1-126-791-11	ELECT	10μF 20% 16V	D2428	8-719-800-76	DIODE MA153-TX	
C2409	1-126-964-11	ELECT	10μF 20% 50V	D2429	8-719-977-28	DIODE UDZS-TE17-10B	
C2410	1-126-964-11	ELECT	10μF 20% 50V	D2430	8-719-977-28	DIODE UDZS-TE17-10B	
<b><u>JACK</u></b>				D2431	8-719-977-28	DIODE UDZS-TE17-10B	
<b><u>CAPACITOR</u></b>				D2432	8-719-977-28	DIODE UDZS-TE17-10B	
C2405	1-126-964-11	ELECT	10μF 20% 50V	D2433	8-719-977-28	DIODE UDZS-TE17-10B	
C2406	1-126-791-11	ELECT	10μF 20% 16V	D2434	8-719-977-28	DIODE UDZS-TE17-10B	
C2407	1-126-964-11	ELECT	10μF 20% 50V	<b><u>JACK</u></b>			
C2408	1-126-791-11	ELECT	10μF 20% 16V	J2401	1-573-967-12	BLOCK, (S) TERMINAL	
C2409	1-126-964-11	ELECT	10μF 20% 50V	J2402	1-750-517-11	JACK BLOCK, PIN 3P	
C2410	1-126-964-11	ELECT	10μF 20% 50V	J2403	1-750-517-11	JACK BLOCK, PIN 3P	
<b><u>JACK</u></b>				J2405	1-764-143-11	JACK	
<b><u>CAPACITOR</u></b>				J2406	1-764-143-11	JACK	
C2405	1-126-964-11	ELECT	10μF 20% 50V	J2407	1-774-358-11	JACK BLOCK, PIN	
C2406	1-126-791-11	ELECT	10μF 20% 16V	J2408	1-774-358-11	JACK BLOCK, PIN	
C2407	1-126-964-11	ELECT	10μF 20% 50V	J2409	1-750-516-11	JACK BLOCK, PIN 2P	
C2408	1-126-791-11	ELECT	10μF 20% 16V				
C2409	1-126-964-11	ELECT	10μF 20% 50V				
C2410	1-126-964-11	ELECT	10μF 20% 50V				

\* A-1373-817-A U (COM) BOARD, MOUNTED



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<b>RESISTOR</b>				<b>DIODE</b>			
R2401	1-216-113-00	RES-CHIP	470K 5% 1/10W	D4101	8-719-914-43	DIODE DAN202K-T-146	
R2402	1-216-113-00	RES-CHIP	470K 5% 1/10W	D4102	8-719-914-44	DIODE DAP202K-T-146	
R2403	1-216-113-00	RES-CHIP	470K 5% 1/10W	<b>IC</b>			
R2407	1-216-113-00	RES-CHIP	470K 5% 1/10W	IC4101	8-759-686-15	IC NJM2180M (TE2)	
R2408	1-216-113-00	RES-CHIP	470K 5% 1/10W	IC4102	8-759-711-10	IC NJU4066BM-T1	
R2409	1-216-113-00	RES-CHIP	470K 5% 1/10W	IC4103	8-752-058-68	IC CXA1315M-T4	
R2428	1-216-113-00	RES-CHIP	470K 5% 1/10W	<b>COIL</b>			
R2430	1-216-113-00	RES-CHIP	470K 5% 1/10W	L4101	1-408-607-31	INDUCTOR 22μH	
R2431	1-216-113-00	RES-CHIP	470K 5% 1/10W	<b>RESISTOR</b>			
R2432	1-216-113-00	RES-CHIP	470K 5% 1/10W	R4101	1-216-071-00	RES-CHIP 8.2K 5% 1/10W	
R2433	1-216-113-00	RES-CHIP	470K 5% 1/10W	R4102	1-216-071-00	RES-CHIP 8.2K 5% 1/10W	
R2434	1-216-021-00	RES-CHIP	68 5% 1/10W	R4103	1-216-059-00	RES-CHIP 2.7K 5% 1/10W	
R2435	1-216-295-11	SHORT	0	R4104	1-216-059-00	RES-CHIP 2.7K 5% 1/10W	
R2436	1-216-295-11	SHORT	0	R4105	1-216-073-00	RES-CHIP 10K 5% 1/10W	
<b>RESISTOR</b>				R4106	1-216-097-11	RES-CHIP 100K 5% 1/10W	
* A-1391-048-A S BOARD, MOUNTED				R4107	1-216-097-11	RES-CHIP 100K 5% 1/10W	
<b>CAPACITOR</b>				R4108	1-216-069-00	RES-CHIP 6.8K 5% 1/10W	
C4101	1-126-964-11	ELECT	10μF 20% 50V	R4109	1-216-063-91	RES-CHIP 3.9K 5% 1/10W	
C4102	1-126-964-11	ELECT	10μF 20% 50V	R4110	1-216-063-91	RES-CHIP 3.9K 5% 1/10W	
C4103	1-126-959-11	ELECT	0.47μF 20% 50V	R4111	1-216-073-00	RES-CHIP 10K 5% 1/10W	
C4104	1-126-959-11	ELECT	0.47μF 20% 50V	R4112	1-216-049-11	RES-CHIP 1K 5% 1/10W	
C4105	1-126-968-11	ELECT	100μF 20% 50V	R4113	1-216-091-00	RES-CHIP 56K 5% 1/10W	
C4106	1-126-968-11	ELECT	100μF 20% 50V	R4114	1-216-295-11	SHORT 0	
C4107	1-115-339-11	CERAMIC CHIP	0.1μF 10% 50V	R4115	1-216-295-11	SHORT 0	
C4108	1-126-964-11	ELECT	10μF 20% 50V	R4116	1-216-089-11	RES-CHIP 47K 5% 1/10W	
C4109	1-126-964-11	ELECT	10μF 20% 50V	R4117	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
C4110	1-115-340-11	CERAMIC CHIP	0.22μF 10% 25V	R4118	1-216-055-00	RES-CHIP 1.8K 5% 1/10W	
C4111	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	R4119	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
C4112	1-163-017-00	CERAMIC CHIP	.0047μF 10% 50V	R4120	1-216-073-00	RES-CHIP 10K 5% 1/10W	
C4113	1-115-340-11	CERAMIC CHIP	0.22μF 10% 25V	R4121	1-216-077-91	RES-CHIP 15K 5% 1/10W	
C4114	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	R4123	1-216-073-00	RES-CHIP 10K 5% 1/10W	
C4115	1-163-017-00	CERAMIC CHIP	.0047μF 10% 50V	R4124	1-216-049-11	RES-CHIP 1K 5% 1/10W	
C4116	1-163-017-00	CERAMIC CHIP	.0047μF 10% 50V	R4125	1-216-101-00	RES-CHIP 150K 5% 1/10W	
C4117	1-126-968-11	ELECT	100μF 20% 50V	R4126	1-216-081-00	RES-CHIP 22K 5% 1/10W	
<b>CONNECTOR</b>				R4127	1-216-073-00	RES-CHIP 10K 5% 1/10W	
CN4101	1-573-299-21	CONNECTOR, BOARD TO BOARD	10P	R4128	1-216-091-00	RES-CHIP 56K 5% 1/10W	
				R4129	1-216-073-00	RES-CHIP 10K 5% 1/10W	
				R4130	1-216-053-00	RES-CHIP 1.5K 5% 1/10W	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R4131	1-216-129-00	RES-CHIP	2.2M 5% 1/10W				
R4132	1-216-085-00	RES-CHIP	33K 5% 1/10W				
R4133	1-216-092-00	RES-CHIP	62K 5% 1/10W				
R4134	1-216-073-00	RES-CHIP	10K 5% 1/10W				
R4135	1-216-017-91	RES-CHIP	47 5% 1/10W				
R4136	1-216-017-91	RES-CHIP	47 5% 1/10W				
						<b>COIL</b>	
				L9101	1-412-525-31	INDUCTOR	10μH
						<b>TRANSISTOR</b>	
				Q9101	8-729-045-05	TRANSISTOR 2SA2005	
				Q9102	8-729-045-04	TRANSISTOR 2SC5511	
				Q9103	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q9104	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
				Q9105	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
				Q9106	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
				Q9107	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
				Q9108	8-729-216-22	TRANSISTOR 2SB709A-QRS-TX	
						<b>RESISTOR</b>	
				R9102	1-249-414-11	CARBON	560 5% 1/4W
				R9103	1-249-432-11	CARBON	18K 5% 1/4W
				R9104	1-249-432-11	CARBON	18K 5% 1/4W
				R9105	1-249-414-11	CARBON	560 5% 1/4W
				R9106	1-249-421-11	CARBON	2.2K 5% 1/4W
				R9107	1-249-421-11	CARBON	2.2K 5% 1/4W
				R9108	1-260-316-51	CARBON	100 5% 1/2W
				R9109	1-249-385-11	CARBON	2.2 5% 1/4W
				R9110	1-249-385-11	CARBON	2.2 5% 1/4W
				R9111	1-249-405-11	CARBON	100 5% 1/4W
				R9112	1-215-915-11	METAL OXIDE	470 5% 3W
				R9113	1-216-017-91	RES-CHIP	47 5% 1/10W
				R9114	1-249-425-11	CARBON	4.7K 5% 1/4W
				R9115	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
				R9117	1-216-047-91	RES-CHIP	820 5% 1/10W
				R9118	1-249-405-11	CARBON	100 5% 1/4W
				R9119	1-249-399-11	CARBON	33 5% 1/4W
				R9120	1-247-807-31	CARBON	100 5% 1/4W
				R9121	1-249-409-11	CARBON	220 5% 1/4W
				R9122	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
				R9123	1-249-401-11	CARBON	47 5% 1/4W
				R9124	1-249-401-11	CARBON	47 5% 1/4W
				R9125	1-216-073-00	RES-CHIP	10K 5% 1/10W
				R9126	1-249-395-11	CARBON	15 5% 1/4W
				R9127	1-216-005-00	RES-CHIP	15 5% 1/10W
				R9128	1-216-295-11	SHORT	0



\* A-1372-833-A W BOARD, MOUNTED  
4-382-854-01 SCREW (M3X8), P, SW (+)

### CAPACITOR

C9101	1-107-364-11	MYLAR	0.01μF	10%	200V
C9102	1-107-364-11	MYLAR	0.01μF	10%	200V
C9103	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C9104	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C9105	1-104-999-11	MYLAR	0.1μF	10%	200V
C9106	1-107-667-11	ELECT	2.2μF	20%	160V
C9107	1-126-935-11	ELECT	470μF	20%	16V
C9108	1-126-935-11	ELECT	470μF	20%	16V
C9109	1-107-963-11	ELECT	33μF	20%	160V
C9112	1-126-933-11	ELECT	100μF	20%	16V
C9113	1-126-933-11	ELECT	100μF	20%	16V
C9115	1-126-935-11	ELECT	470μF	20%	6.3V
C9116	1-126-935-11	ELECT	470μF	20%	6.3V
C9117	1-104-999-11	MYLAR	0.1μF	10%	200V

### CONNECTOR

*CN9101	1-564-506-11	PLUG, CONNECTOR	3P
*CN9102	1-564-515-11	PLUG, CONNECTOR	12P
*CN9103	1-564-506-11	PLUG, CONNECTOR	3P
*CN9104	1-770-747-11	CONNECTOR, BOARD TO BOARD	12P

### DIODE

D9101	8-719-924-11	DIODE MTZJ-T-77-22
D9102	8-719-924-11	DIODE MTZJ-T-77-22
D9103	8-719-073-01	DIODE MA111-TX
D9104	8-719-073-01	DIODE MA111-TX
D9105	8-719-073-01	DIODE MA111-TX
D9106	8-719-073-01	DIODE MA111-TX
D9107	8-719-510-02	DIODE D1NS4-TR

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
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**ACCESSORIES AND PACKING MATERIALS**

- \* 4-041-259-01 BAG, PROTECTION  
(KV-32XBR400 only)
- \* 4-066-646-02 BAG, PROTECTION  
(KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)
- \* 4-075-743-03 CARTON, INDIVIDUAL  
(KV-32XBR400 only)
- \* 4-076-526-02 CARTON, INDIVIDUAL  
(KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)
- \* 4-075-733-03 CUSHION ASSY, UPPER (REAR)  
(KV-32XBR400 only)
- \* 4-075-734-02 CUSHION ASSY, UPPER  
(KV-32XBR400 only)
- \* 4-076-522-02 CUSHION ASSY, UPPER (FRONT)  
(KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)
- \* 4-075-735-03 CUSHION ASSY, LOWER  
(KV-32XBR400 only)
- 4-076-523-01 CUSHION ASSY, LOWER  
(KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)
- 4-075-727-21 MANUAL, INSTRUCTION  
(KV-32XBR400(U/C)/36XBR400(U/C) only)
- 4-075-727-31 MANUAL, INSTRUCTION  
(KV-32XBR400(CND)/36XBR400(CND) only)
- 4-077-337-41 MANUAL, INSTRUCTION  
(KV-38DRC1/38DRC1C only)

**REMOTE COMMANDER**

- 1-476-094-12 REMOTE COMMANDER (RM-Y174)
- 4-978-977-01 BATTERY COVER (for RM-Y174)









# SERVICE MANUAL

# DX-1A CHASSIS

<i>MODEL</i>	<i>COMMANDER</i>	<i>DEST</i>	<i>CHASSIS NO.</i>
<b><i>KV-32XBR400</i></b>	<i>RM-Y174</i>	<i>US</i>	<i>SCC-S47A-A</i>
<b><i>KV-32XBR400</i></b>	<i>RM-Y174</i>	<i>CND</i>	<i>SCC-S48A-A</i>
<b><i>KV-36XBR400</i></b>	<i>RM-Y174</i>	<i>US</i>	<i>SCC-S47B-A</i>
<b><i>KV-36XBR400</i></b>	<i>RM-Y174</i>	<i>CND</i>	<i>SCC-S48B-A</i>
<b><i>KV-38DRC1</i></b>	<i>RM-Y174</i>	<i>E</i>	<i>SCC-S49A-A</i>
<b><i>KV-38DRC1C</i></b>	<i>RM-Y174</i>	<i>E</i>	<i>SCC-S49B-A</i>
<b><i>KV-36XBR400H</i></b>	<i>RM-Y174</i>	<i>HAWAII</i>	<i>SCC-S54A-A</i>

## SUPPLEMENT-1

**Subject: New Critical Classification on the D Board;  
Corrected Electrical Parts List**

**Correct the service manual as shown below.  
File this correction with the service manual.**

**✎ : Corrected Portion**

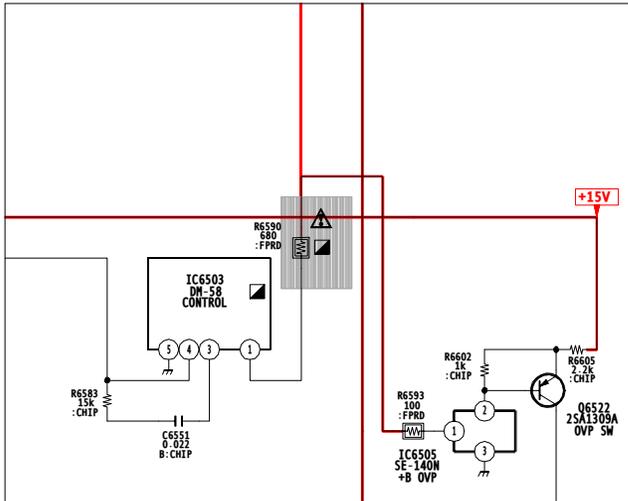
**Section 6: Diagrams (D Board (1/3) - Page 69)**

**Section 8: Electrical Parts List (Page 108 & 112)**

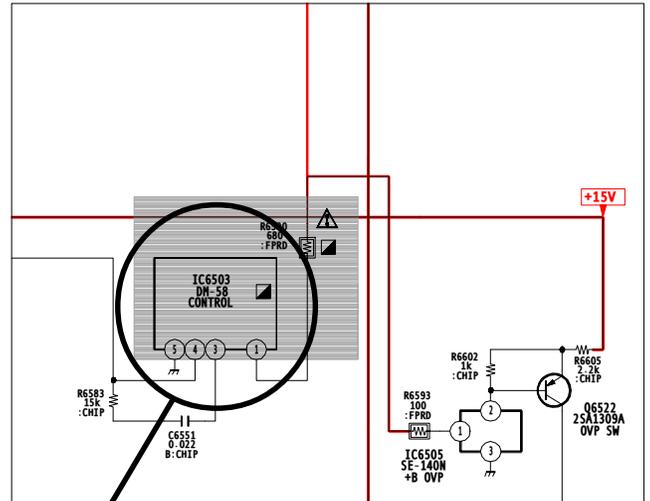
**TRINITRON® COLOR TV**  
**SONY®**

## Section 6: Diagrams (D Board (1/3) - Page 69)

**Incorrect**



**Correct**



## Section 8: Electrical Parts List (Page 108 & 112)

**Incorrect**

REF.NO.	PART NO.	DESCRIPTION	REMARK
R6590	1-249-415-11	CARBON 680	5% 1/4W
IC6503	8-749-012-13	IC DM-58	

**Correct**

REF.NO.	PART NO.	DESCRIPTION	REMARK
R6590 <sup>Δ</sup>	1-249-415-11	CARBON 680	5% 1/4W
IC6503 <sup>Δ</sup>	8-749-012-13	IC DM-58	

# SERVICE MANUAL

# DX-1A CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST</u>	<u>CHASSIS NO.</u>
<b>KV-32XBR400</b>	RM-Y174	US	SCC-S47A-A
<b>KV-32XBR400</b>	RM-Y174	CND	SCC-S48A-A
<b>KV-36XBR400</b>	RM-Y174	US	SCC-S47B-A
<b>KV-36XBR400</b>	RM-Y174	CND	SCC-S48B-A
<b>KV-38DRC1</b>	RM-Y174	E	SCC-S49A-A
<b>KV-38DRC1C</b>	RM-Y174	E	SCC-S49B-A
<b>KV-36XBR400H</b>	RM-Y174	HAWAII	SCC-S54A-A

## SUPPLEMENT-2

Subject: Revised Exploded View (Picture Tube)  
Critical Part Identified (Chassis)

Correct the service manual as shown below.  
File this correction with the service manual.

 : Corrected Portion

Section 7-1: Exploded Views - Chassis (Page 76)

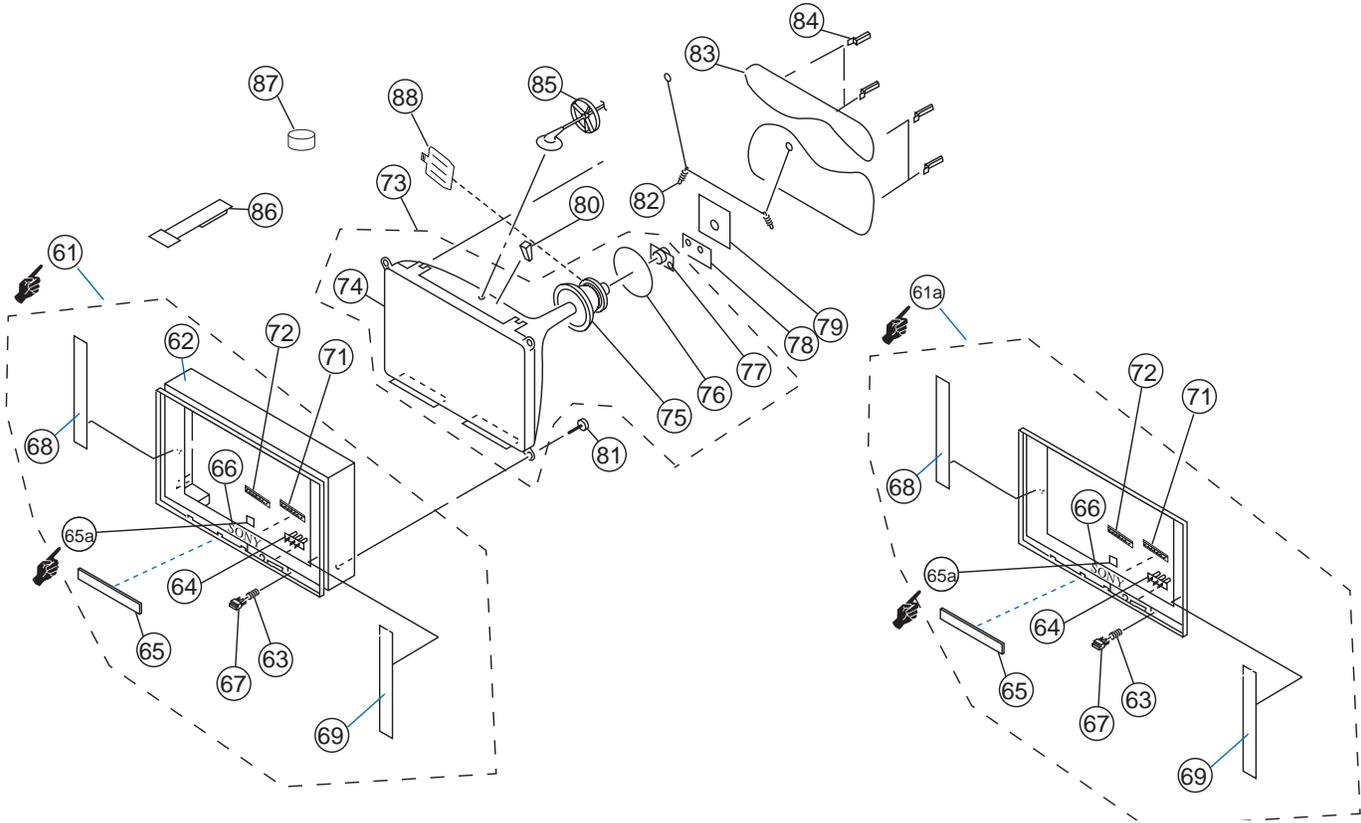
Section 7-2: Exploded Views - Picture Tube (Page 78)

7-1: Exploded Views - Chassis (Page 76)

Incorrect				Correct			
<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>	<u>REF.NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>REMARK</u>
*15	4-075-829-01	BRACKET, U		*15 	4-075-829-01	BRACKET, U (Antenna Terminal Board)	

TRINITRON® COLOR TV  
**SONY**®

## Section 7-2: EXPLODED VIEW - PICTURE TUBE



REF.NO.	PART NO.	DESCRIPTION	REMARK
61	A-1017-235-A	BEZNET COMPLETE ASSY (KV-32XBR400 only)	(62-69)
61	A-1017-236-A	BEZNET COMPLETE ASSY (KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	(62-69)
61a	A-1017-297-A	BEZEL COMPLETE ASSY (KV-32XBR400 only)	(63-69)
61a	A-1017-298-A	BEZEL COMPLET EASSY (KV-36XBR400/38DRC1/38DRC1C/36XBR400H only)	(63-69)
62		CABINET	
63	4-042-593-11 *	SPRING, COMPRESSION	
64	4-075-823-01	GUIDE, LED	
65	4-075-822-11	DOOR, PAINTED	
65a	4-076-673-02	DAMPER, DOOR	
66	3-704-179-81	EMBLEM (NO.9), SONY	
67	4-075-824-11	BUTTON, POWER, PAINTED	
68		GRILL, SPEAKER (L)	
69		GRILL, SPEAKER (R)	
71	4-075-825-01	BUTTON, MULTI	
72	4-075-826-01	BUTTON, MENU	
73	8-735-048-62 $\Delta$	ITC 38RSN-C1 (A1597344A) (KV-36XBR400 only)	(74-77)
73	8-735-081-62 $\Delta$	ITC 38RSN-C1M (A1597346A) (KV-38DRC1/36XBR400H only)	(74-77)
73	8-735-080-63 $\Delta$	ITC 38RSN-C1E (A15974345A) (KV-38DRC1 only)	(74-77)

REF.NO.	PART NO.	DESCRIPTION	REMARK
74	8-735-047-05 $\Delta$	CRT 34RSN (A80LPD80X) (KV-32XBR400 only)	
75	8-451-512-21 $\Delta$	DY Y34RSC-M (KV-32XBR400 only)	
76	1-451-498-21	COIL, NA ROTATION (KV-32XBR400 only)	
77	8-453-009-21 *	NA325-M2	
78	A-1372-833-A	W MOUNTED PC BOARD	
79	A-1332-075-A	C MOUNTED PC BOARD	
80	4-053-005-01	SPACER, DY (KV-32XBR400 only)	
81	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
82	4-036-329-01	SPRING (B), TENSION	
83	1-416-827-21 $\Delta$	COIL, DEGAUSSING (KV-32XBR400 only)	
83	1-416-828-41 $\Delta$	COIL, DEGAUSSING (KV-36XBR400/38DRC1/36XBR400H only)	
83	1-419-193-11 $\Delta$	COIL, DEGAUSSING (KV-38DRC1C only)	
84	4-065-895-04	HOLDER, DGC	
85	3-704-372-31	HOLDER, HV CABLE	
86	4-062-047-02	PIECE A(110), CONV CORRECT	
87	1-452-885-11	MAGNET, LANDING	
88	4-057-714-01	PIECE, TLH CONVERGENCE (KV-32XBR400 only)	