Self Diagnosis
Supported model

SERVICE MANUAL

CX1 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-DB29M61	RM-GA001	GE	SCC-V25E-A
KV-DB29M91	RM-GA001	Russia	SCC-V60A-A
KV-DB29M98	RM-GA001	Russia	SCC-V13W-A

MODEL	COMMANDER	DEST.	CHASSIS NO.





RM-GA001

TRINITRON ® COLOR TV

SONY ®

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CAUTION

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

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.
The number of times the lamp flashes translates to a probable source of the problem. 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.

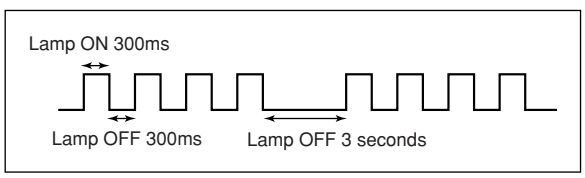
1. DIAGNOSTIC TEST INDICATORS

When an error occurs, the STANDBY/TIMER lamp will flash a number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occured if the screen displays a “0”.

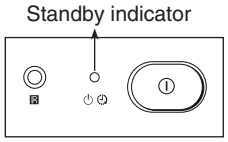
Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	• Power cord is not plugged in. • Fuse is burned out F1601 (F1 Board)	• Power does not turn on. • No power is supplied to the TV. • AC power supply is faulty.
• +B overcurrent (OCP) • Horizontal deflection failure	2 times	002:000 or 002:001~255	• H.OUT Q6802 is shorted. • C6831 is open circuit. PS6606 open, PS6605 open. (D board)	• Power does not turn on. • Load on power line is shorted. • H pulse output is too high.
• +B overvoltage (OVP)	3 times	003:000 or 003:001~255	• PH6602 faulty. D6644 faulty, R6651 open. • 10.5V is not supplied. (D board)	• Power does not come on.
• Vertical deflection failure	4 times	004:000 or 004:001~255	• V.OUT IC6800 faulty D6816 faulty D6817 faulty D6824 faulty R6852 open R6851 open (D board)	• Vertical deflection pulse is stopped. • Vertical size is too small. • Vertical deflection stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~255	• G2 is improperly adjusted. • CRT problem. • Video OUT IC9001, 9002, 9003 are faulty. (C1 board) • IC4301 CXA2170Q (A1 board) are faulty.	• No raster is generated. • CRT cathode current detection reference pulse output is small.
• 5V/9V failure	8 times	008:000 or 008:001~225	• 5V regulator (IC2601) faulty. • 9V regulator (IC2600) faulty.	• TV Blank • No Raster
• Micro reset	—	101:00 or 101:001~225	• CRT Discharge (C1 Board) • Static discharge • External noise	• Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

2. STANDBY INDICATOR BLINKING PROCESS

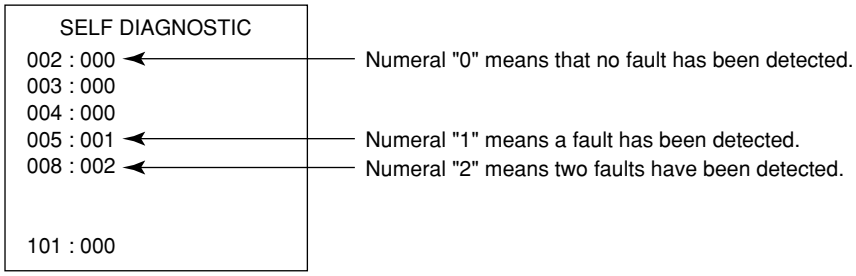


The example above represents for 4 times blink

3. STANDBY INDICATOR ON TV FRONT PANEL



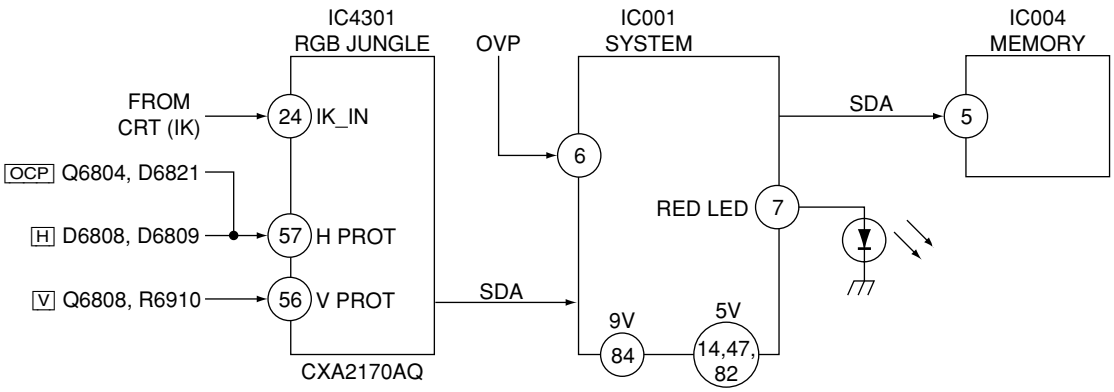
4. SELF DIAGNOSTIC SCREEN DISPLAY



5. HANDLING SELF DIAGNOSTIC SCREEN DISPLAY

No.	Description	Method
1.	Display self diagnostic screen	Display → Channel 5 → Volume − → Power / TV *Note: The above must be performed while TV is on standby mode.*
2.	Stop standby flash	i) Turn off power switch on main. ii) Unplug power cord from the outlet.
3.	Clear fault result	In self diagnostic screen, press Channel 8 → 0 *Note: Diagnostic results display on screen is not automatically cleared. Therefore, clear result after completion of repair.*
4.	Quit self diagnostic screen	Turn off power switch of remote commander or main unit.

6. SELF-DIAGNOSTIC CIRCUIT



+B overcurrent OCP

Occurs when an overcurrent on the +B(135) line is detected by Q6804. If Q6804 go to ON, the voltage to the pin57 of IC4301 go to "HIGH". The unit will automatically turn off.

High voltage protector of Horizontal Deflection

Occurs when an overvoltage of horizontal pulse is detected by D6809. If the voltage of anode D6809, Q6814 and D6808 goes to High, the voltage to pin57 of IC4301 go to "HIGH". The unit will automatically turn off.

+B overvoltage OVP

Occurs when an overvoltage on the +B(135) line is detected by D6635 and Q6611. If Q6611 go to ON, the voltage to pin6 of IC001 go to "HIGH". The unit will automatically turn off.

Vertical deflection failure

Occurs when an absence of the vertical deflection pulse is detected by Q6808 and R6910. Shut down the power supply.

White balance failure

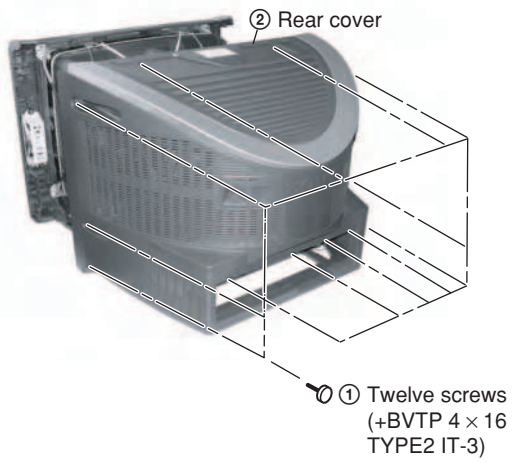
If the RGB levels do not balance or become low level within 5 seconds. This error will be detected by IC4301. TV will stay on, but there will be no picture.

5V/9V failure

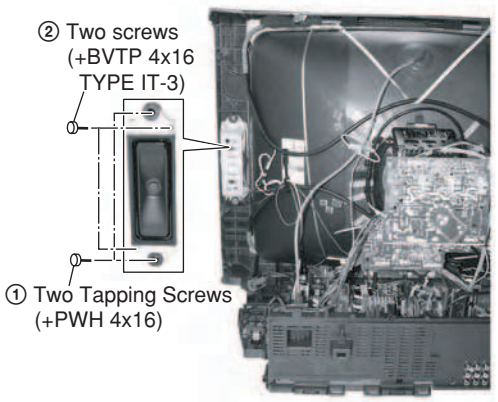
Occurs when 5V/9V is not supplied to Micon (IC001). No raster will be detected or no picture.

SECTION 1
DISASSEMBLY

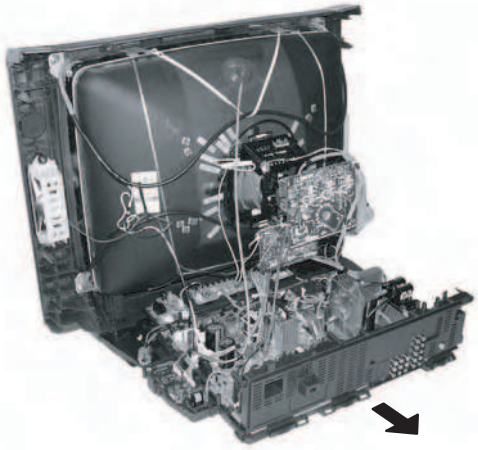
1-1. REAR COVER REMOVAL



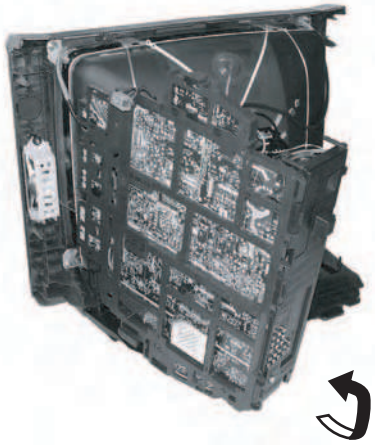
1-2. SPEAKER REMOVAL



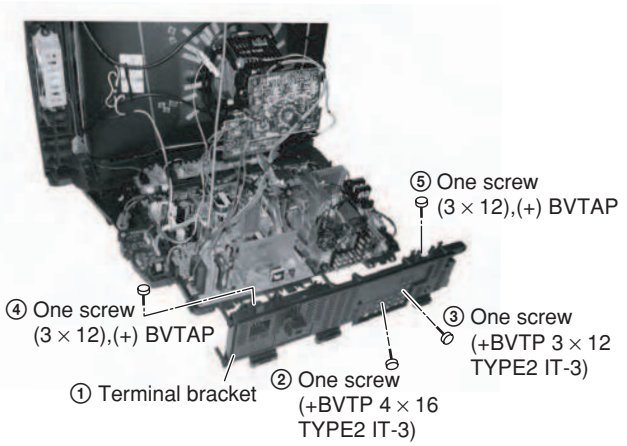
1-3. CHASSIS ASSY REMOVAL



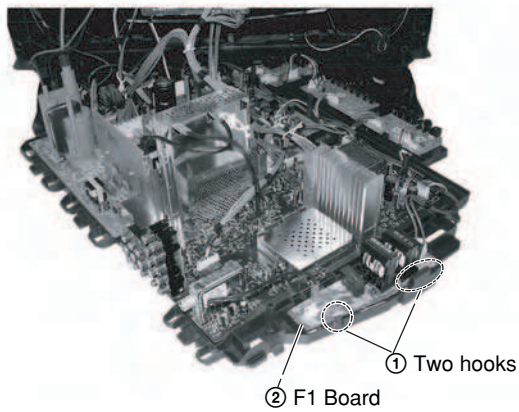
1-4. SERVICE POSITION



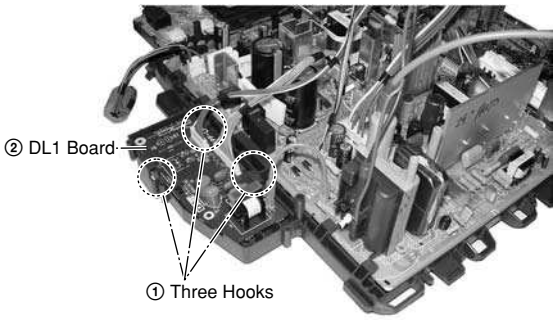
1-5. TERMINAL BRACKET REMOVAL



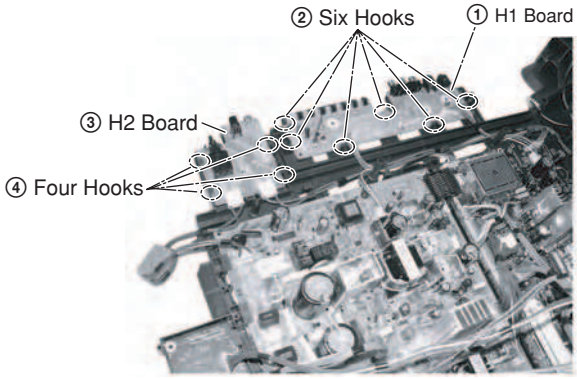
1-6. F1 BOARD REMOVAL



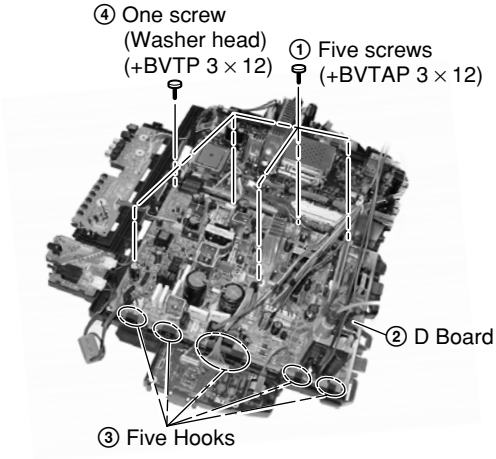
1-7. DL1 BOARD REMOVAL



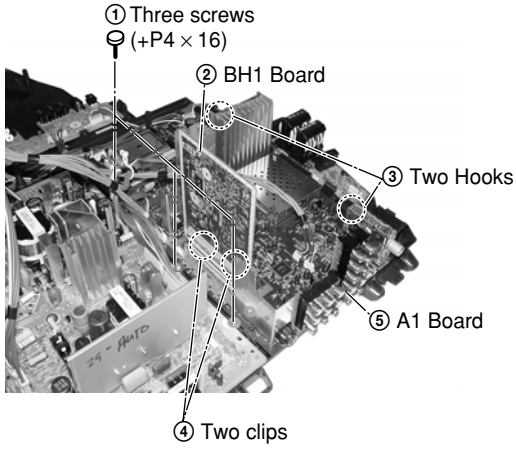
1-8. H1 AND H2 BOARDS REMOVAL



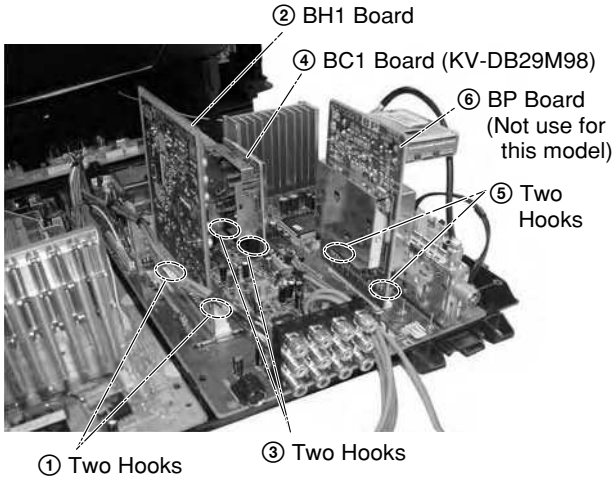
1-9. D BOARD REMOVAL



1-10. A1 AND BH1 BOARDS REMOVAL



1-11. BC1 BOARD REMOVAL (KV-DB29M98)

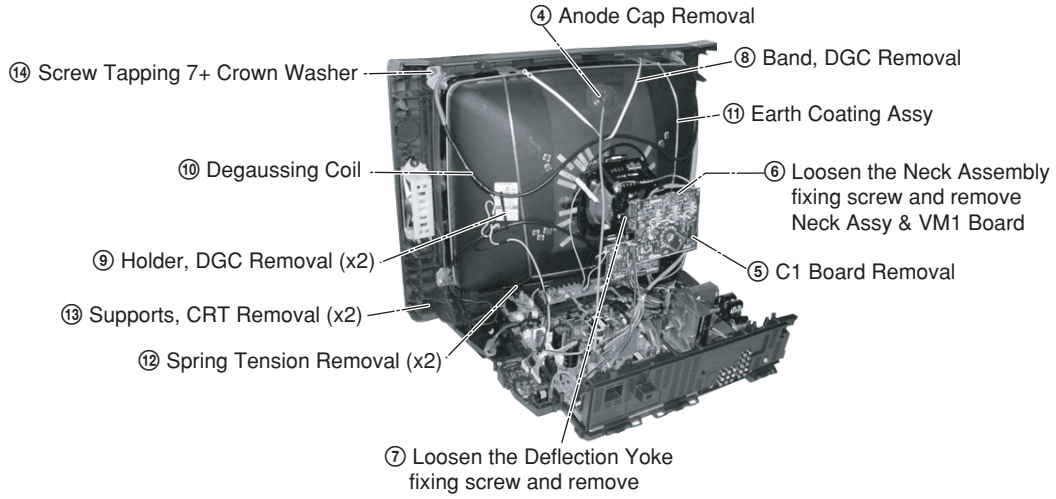


1-12. PICTURE TUBE REMOVAL

Note:

- Please make sure the TV set is not in standing position before removing necessary CRT support located on bottom right and left.

1) Remove the Rear Cover.
2) Unplug all interconnecting leads from the Deflection Yoke, Neck Assy, Degaussing Coils and CRT grounding strap. Remove Chassis Assy.
3) Place the TV set with the CRT face down on a cushion (jig).

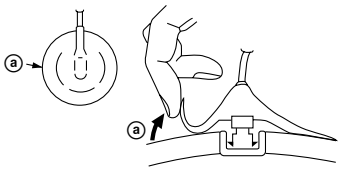


• REMOVAL OF ANODE-CAP

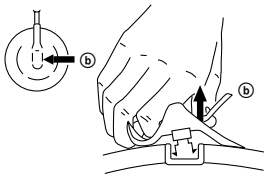
Note:

- After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

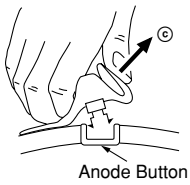
- **REMOVING PROCEDURES**



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



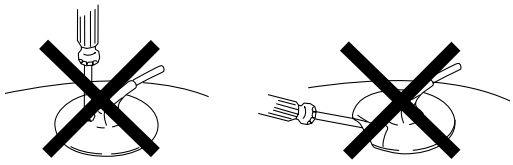
② **Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.**



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

- **HOW TO HANDLE AN ANODE-CAP**

① **Do not damage the surface of anode-caps with sharp shaped objects.**
② **Do not press the rubber too hard so as not to damage the inside of anode-cap.**
A metal fitting called the shatter-hook terminal is built into the rubber.
③ **Do not turn the foot of rubber over too hard.**
The shatter-hook terminal will stick out or damage the rubber.

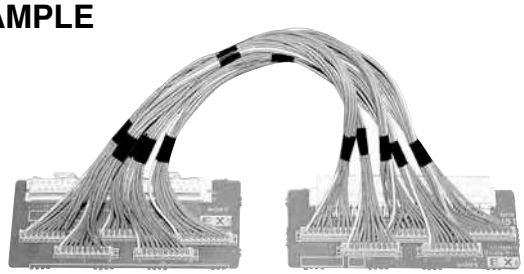


SECTION 2
SERVICE JIG

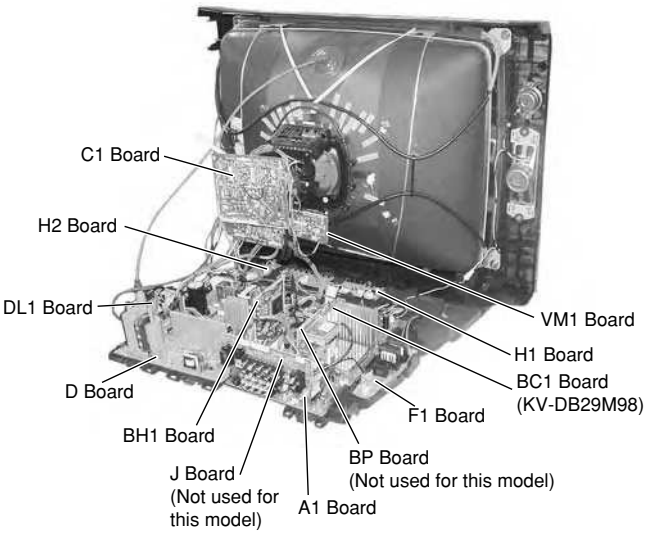
2-1. JIGS REQUIRED FOR SERVICING

DESCRIPTION	QUANTITY	PART NO.	REMARK
TOOL (50P-A), SERVICE	1	3-702-765-01	For A1 to BH1 board extension
TOOL (7P), (8P), SERVICE	1	J-2509-400-D	For A1 to BC1 board extension

SAMPLE



SECTION 3
CIRCUIT BOARDS LOCATION



SECTION 4
ADVANCE OPERATION

4-1. "RESET" FUNCTION

1. Purpose

If a customer faces some setting problem that cannot be solved, using the "RESET" function some items will be reset to its original setting or factory setting (shipping condition)

2. How to Operate

The following is to show on how to access to the "RESET" Function:-

User selection = press 'WEGA GATE' → select→ 'SETTING' → go to 'SETUP' page → select 'FACTORY SETTINGS' → select 'YES'

3. Subsequent of Operation

Sequential to the resetting operation, TV set would shut down once and automatically turn on again. The power-off duration is expected to be about 500msec. Initial Setup Menu is displayed.
As a result, some items will be reset to their initial conditions (shipment condition) wheareas some others remain at the last user selection.

Items that remain at the last user selection

Program No., PICTURE POSITION (included PICTURE ROTATION and PICTURE V-POSITION), OSD Language, Fine tuning, TV System, Skip, Program label, Program sorting, Video label.

Reset Items

Category	Default	Category	Default
Video input	RF user last setting	* Color System	RF = Reset to Auto at the particular/displayed Video = MI Reset to Auto CH, others keep user setting
Main Volume	25		
DRC-MF	DRC1250	Eco mode	OFF
Picture mode	VIVID	Wide mode	Wide zoom
3D Intelligent Picture	ON	Auto wide	ON
Sound mode	DYNAMIC	4.3 Default	Wide zoom
Intelligent volume	OFF	V Center	00
Surround	OFF	V Size	00
Wide mode	4.3		
Auto wide	ON	Mute	OFF
Twin	OFF	OSD Display status	OFF
Program Index	OFF		
* Program Block	Reset particular, displayed channel to unblock	Center-in volume	25
WEGA Theatre Setup			
Direct Input	HD/DVD 1		
Speaker	Main		
Game mode	OFF (Video) *Not available in RF mode	Initial setup menu	Reactivate/ON
		Twin size	Center

*= Will reset only if watched/displayed during RESET operation
- For Multi model only

SECTION 5
SET-UP ADJUSTMENTS

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

The controls and switch should be set as follows unless otherwise noted:
Picture Control....."NORMAL"
Brightness Control....."NORMAL"

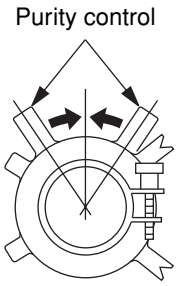
Perform the adjustments in order as follows :
1. Beam Landing
2. Convergence
3. Focus
4. G2(SCREEN)
5. White Balance

Note : Test Equipment Required.
1. Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter
5. Oscilloscope
6. Landing Checker
7. XCV Adjuster

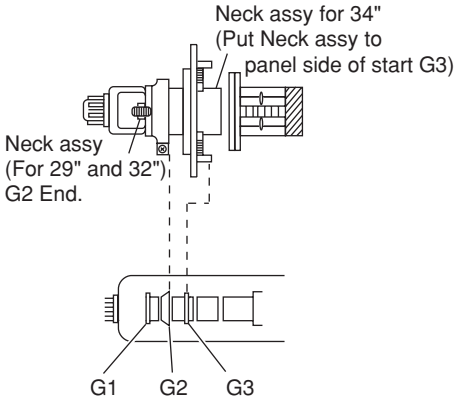
Preparation :
- Feed in the white pattern signal.
- Before starting, degauss the entire screen with the degausser.
- In order to reduce the geomagnetism on the set's picture tube, face it east or west.

5-1. BEAM LANDING ADJUSTMENT

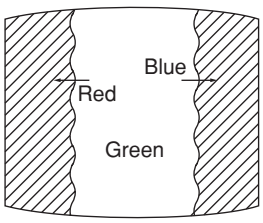
1. Input a raster signal with the pattern generator.
2. Loose the deflection yoke(DY) mounting screw, and set the purity control to the center as shown below:-



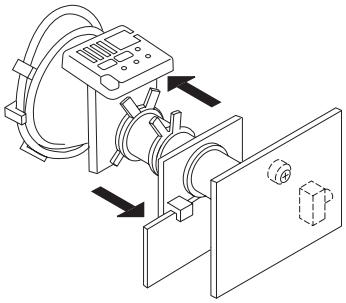
3. Position Neck Assy as shown below:-



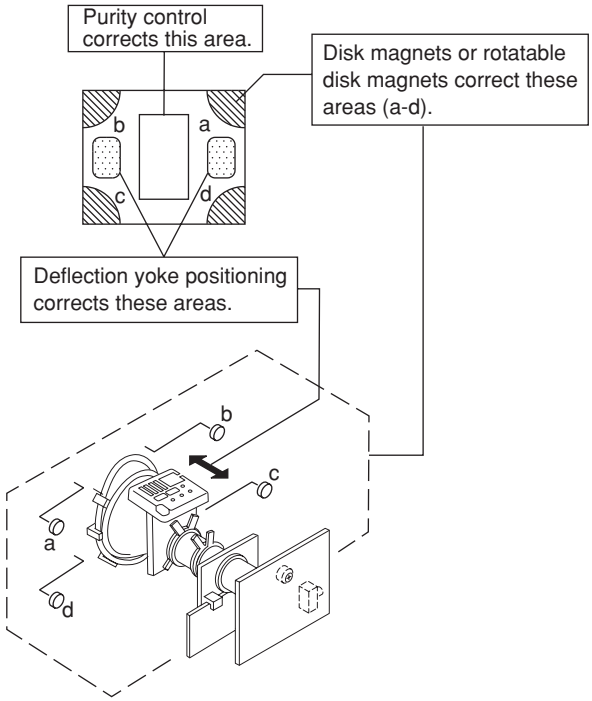
4. Set the raster signal of the pattern generator to green.
5. Move the DY backward and adjust the purity control so that green is in the center and blue and red are at the sides evenly.



6. Then move the DY forward and adjust so that the entire screen becomes green.



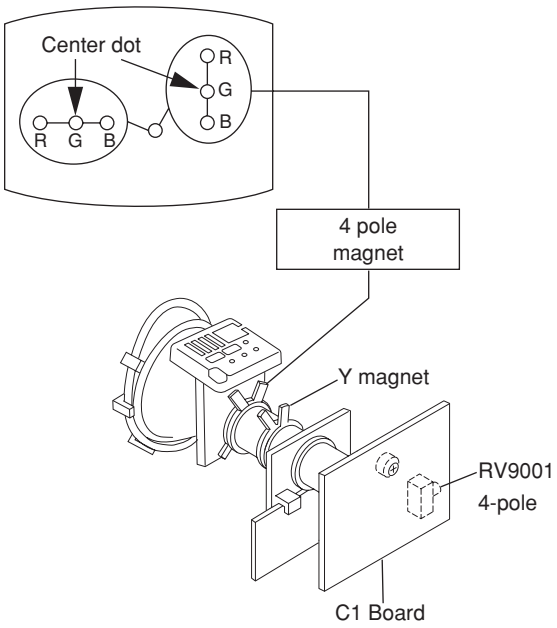
7. Now switch over raster signal to red then blue and confirm the condition.
8. When the position of the DY is determined, tighten it with the DY mounting screw.
9. If the beam does not land correctly in all the corners of the screen, use magnet disc to correct it.



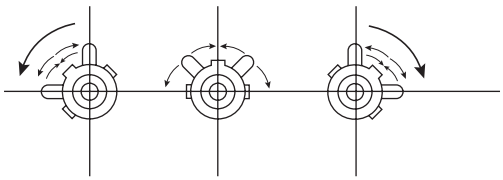
5-2. CONVERGENCE ADJUSTMENT

Preparation:
- Before starting, perform FOCUS adjustment.
- Receive dot/cross hatch pattern.
- Picture Mode "CUSTOM" (PIC 90%, BRT 50%, COL 50%, HUE 50%, SHP 50%).

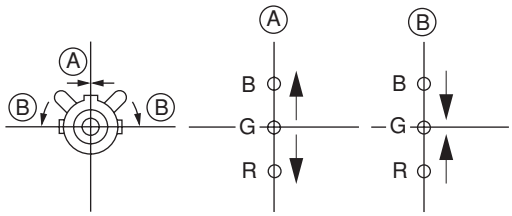
a) Vertical Static Convergence



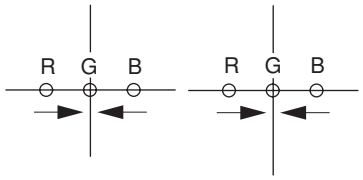
1. (Moving vertically), adjust the 4 pole magnet to converge red, green and blue dots in the center of the screen.
2. Tilt the 4 pole magnet and adjust static convergence to open or close the 4 pole magnet.



3. When the 4 pole magnet is moved in the direction of arrow Ⓐ and Ⓑ, the red, green and blue dots moves as shown below:-

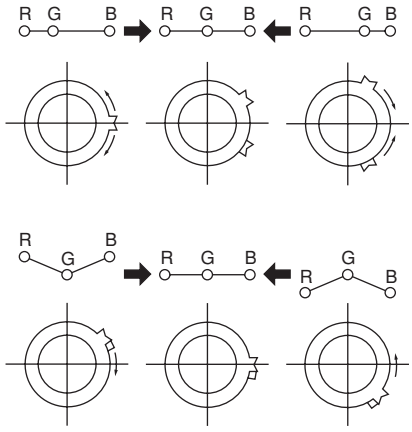


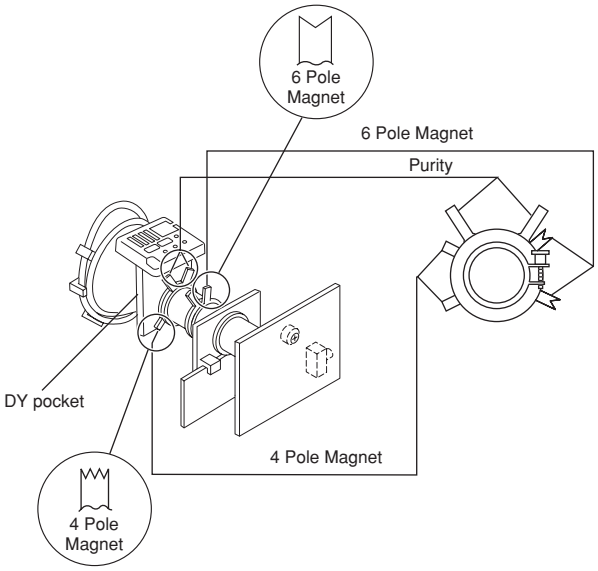
Moved RV9001 (H.STAT)



b) Horizontal Static Convergence

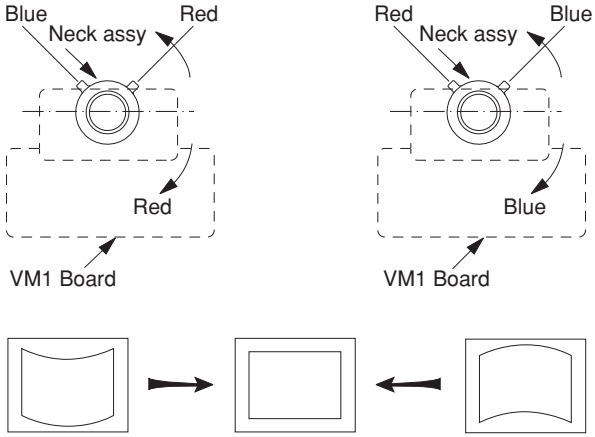
If the blue dots does not converge with the red and green dots, use the 6 pole magnet to adjust in the manner described below:-





c) Y Separation axis correction magnet adjustment.

1. Receive cross hatch signal.
2. Set Picture to "MINIMUM", Brightness to "STANDARD".
3. Adjust the Y separation axis correction magnet on the Neck Assembly so that the horizontal lines at the top and bottom of the screen are straight.



d) Convergence Rough Adjustment

Preparation:
- Before starting this adjustment, adjust the horizontal and vertical static convergence.

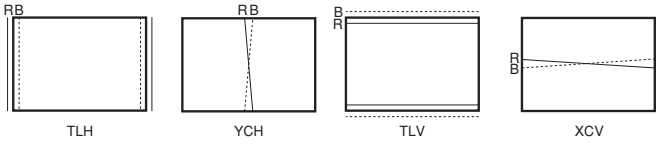
Input cross hatch pattern.

i) TLH
Adjust the horizontal convergence of red and blue dots by inserting TLH Correction Plate to the DY pocket (left or right).

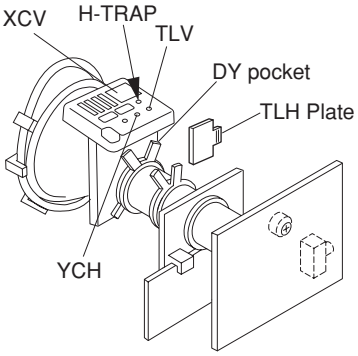
ii) YCH
Adjust YCH to balance Y axis.

iii) TLV
Adjust the vertical convergence of red and blue dots.

iv) XCV
Adjust XCV to balance X-axis

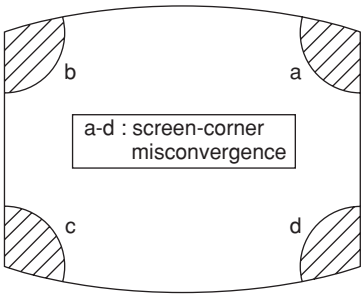


ON DY:

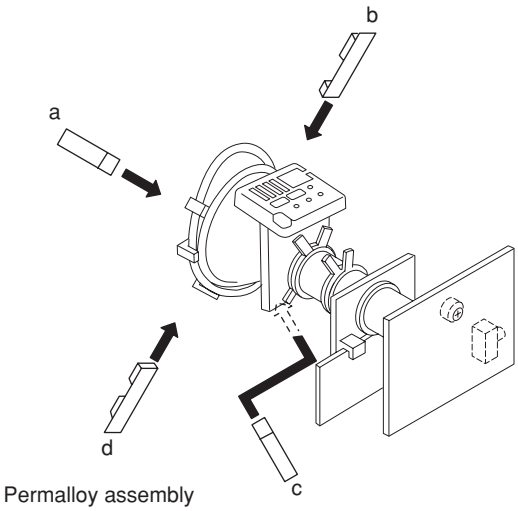


e) Screen Corner Convergence

Affix a Piece B(120), Convergence Correct/Permaloy Assy Correction to the misconverged areas.



Fix a Permaloy Assy Correction to the misconverged

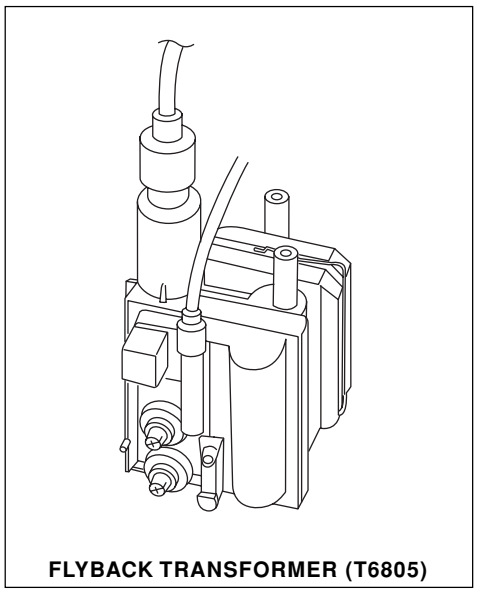


a to d: Piece B(120), Convergence Correct
or
Permaloy Assy Correction

5-3. FOCUS ADJUSTMENT

FOCUS adjustment should be completed before White Balance adjustment.

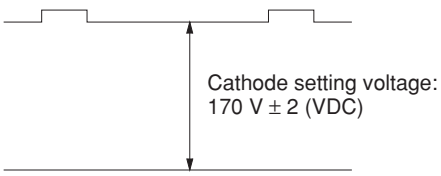
1. Receive digital monoscope pattern.
2. Set Picture Mode to "STANDARD".
3. Adjust focus VR so that the center of the screen becomes just focus.
4. Change the receiving signal to white pattern and blue back.
5. Confirm magenta ring is not noticeable. In case magenta ring is obvious, then adjust FOCUS VR to balance magenta ring and FOCUS.



FLYBACK TRANSFORMER (T6805)

5-4. G2 (SCREEN) ADJUSTMENTS

1. Set the following condition:
   - Picture and Brightness to "STANDARD".
   - TV to Video mode.
   - WHBL 16 "RGBB" to 01.
2. Connect R,G,B of the C board cathode to oscilloscope.
3. Adjust Brightness to obtain the cathode value to the value stated below.



4. Adjust SCREEN VR on the FBT until the scanning line disappears.
5. Finally set WHBL 016 "RGBB" back to 00.

5-5. SUB BRIGHTNESS ADJUSTMENT

1. Set TV to RF Mode.
2. Input PAL monoscope to RF mode (OTHER model) and NTSC monoscope (NTSC model).
3. Set the following condition:
   i) Set "PICTURE MODE" to "CUSTOM" and adjust PICTURE to 0% and BRIGHTNESS to 50%.
   ii) Receive RF PAL monoscope signal (RF NTSC monoscope: NTSC models)
   iii) Adjust Sub BRT (service item COLR 008 SBRT) to make 10 IRE Slightly glimmer.
   iv) Apply the offset steps according to TV size as in Sub Brightness offset table

Preset constant

Inch	R/G	B/G
34"	0.745	0.905
32"	0.775	0.915
29"	0.790	0.903

Sub Brightness offset

Inch	Offset
34"	Adjusted + 3 Steps
32"	Adjusted + 3 Steps
29"	Adjusted + 6 Steps

5-6. WHITE BALANCE ADJUSTMENT

1. Set to Service Mode.
2. Input white raster signal using signal generator.
3. Set the following condition:
   i) Receive 100 IRE PAL white signal.
   ii) Set to "VIVID" mode.
   SADJ 003 COL 60 ➔ 00
   iii) Adjust White Balance
   COLR 003 GDRV
   004 BDRV
   006 GCUT
   007 BCUT

4) i) Receive PAL ALL White signal (10 uit)
   ii) Set to "VIVID" mode
   SADJ 003 COL 00 ➔ 100
   iii) Adjust color offset
   MCP 010 CBOF
   011 CROF

iv) Apply the offset steps according signal as in Table below : White Balance Offset

No	Name	Bit	DRC		Analog				DVI				
			RF/BS/CV/YC	COMP-480i	480p/576p	720p	1080i	Other	DRC	480p	720p	1080i	VGA
10	CBOF	7-2	Adjusted	Adjusted -4	Adjusted -4	Adjusted +2	Adjusted +2	34	32	38	32	40	43
11	CROF	7-2	Adjusted	Adjusted -5	Adjusted -3	Adjusted +3	Adjusted +3	37	38	43	38	48	48

No	Name	Bit	Digital/ATSC/RGB				MS	Twin
			DRC	480p	720p	1080i		
10	CBOF	7-2	Adjusted +3	Adjusted +1	Adjusted -6	Adjusted +5	40	Adjusted +3
11	CROF	7-2	Adjusted +7	Adjusted +7	Adjusted +0	Adjusted +13	48	Adjusted -2

SECTION 6
CIRCUIT ADJUSTMENTS

6-1. ADJUSTMENTS WITH COMMANDER

Service adjustments to this model can be performed using the supplied remote commander RM-GA001.

a. ENTERING SERVICE MODE

With the unit on standby

→ [DISPLAY] → [5] → [VOL (+)] → [POWER]

This operation sequence puts the unit into service mode.
This screen display is:

category	item no. in decimal	item name	service data in decimal	NVM NG	service command	field frequency	channel no./ video input name
WHBL	000	WBP	000	■	SERVICE	50	S VIDEO 1

release ID	software version	service data in binary	reserved for factory	color system	power on time (decimal)
CGA01	0.16M	0000 0000	FF FF	NTSC3	00100

S_ _ : for SONY
A_ _ : for AIWA
L_ _ : BX1L Full
B_ _ : BX1L Basic
D_ _ : DVD Combo
C_ _ : CX1
Z_ _ : Sound special
_ _ _01 : Serial no. of the M/P release for each destination
_ _ _10 ~ : use for FY04 BX1
_ _SB : Sub Hercules

For BP1 Board Version; and PF Engine Version;
Category and release ID will be different.
The rest are the same. (Not use for this model)

BP1 Board Version

category	item no. in decimal	item name
SUBP	000	IDXH

release ID	software version
CBP01	0.06

PF Engine Version

category	item no. in decimal	item name
9090	000	UOF

release ID	software version
PF 0018M	

b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

c. METHOD OF WRITE INTO MEMORY

1. Set to Service Mode.
2. Press [1] (UP) and [4] (DOWN), to select the adjustment item.
3. Change item by pressing [3], [6].
4. Press [MUTING] button to indicate WRITE on the screen.
5. Press [0] button to write into memory.

[1], [4]	Select the adjustment item.
↓	
[3], [6]	Raise/lower the data value.
↓	
[MUTING]	Writes.
↓	
[0]	Executes the writing.

d. MEMORY WRITE CONFIRMATION METHOD

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

e. OTHER FUNCTION VIA REMOTE COMMANDER

7, 0	All the data becomes the values in memory.
8, 0	All user control goes to the standard state.
Display, 0	Service data initialization (Be sure not to use usually.)
2, 5	Select Device or Category

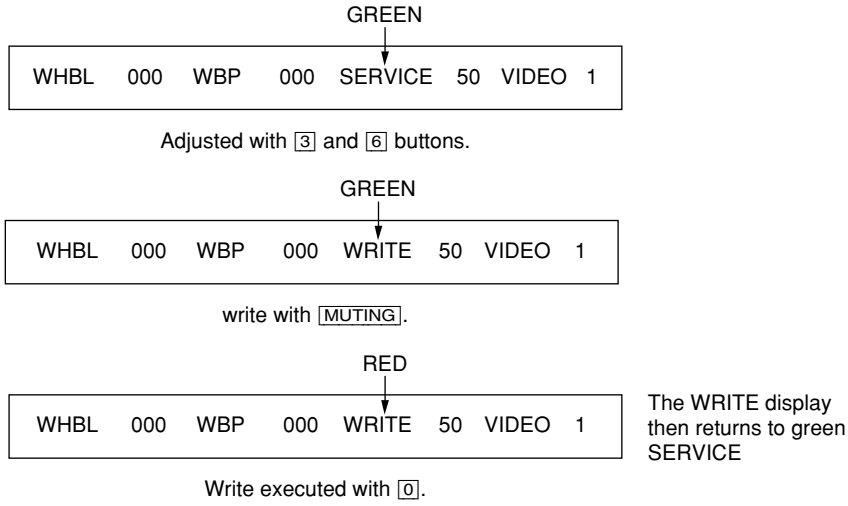
6-2. ADJUSTMENT METHOD

Item Number 000 HPOS

This explanation uses H POSITION as an example.

1. Select "000 HPOS" with the 1 and 4 buttons, or 2 and 5.
2. Raise/lower the data with the 3 and 6 buttons.
3. Select the optimum state. (The standard is IF for PAL reception.)
4. Write with the MUTING button. (The display changes to WRITE.)
5. Execute the writing with the 0 button. (The WRITE display will be changed to red color while executing, and back to SERVICE.)

Example on screen display :-



Use the same method for all Items. Use 1 and 4 to select the adjustment item, use 3 and 6 to adjust, write with MUTING, then execute the write with 0.

Note : 1. In WRITE, the data for all items are written into memory together.
2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

Adjustment Item Table (Main Micon)

--NOTE

a) In the initial value (detailed) colomn, the data after the slash mark ("/") refers to NTSC model data.
No ("/") means data is common for Multi and NTSC model.
b) Item remarked "*" and "**", please refer page 29~30 for the data.
c) shaded items are no data.
d) Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
e) Note for the Different Data those are the standard data values written on the microprocessor. Therefore, the data values of the models are stored respectively in the memory.
In the case of a device replacement, adjustment by rewriting the data value is necessary for some items.
f) Multi ver1.08.

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)											
Category	No.	Name	Dec	Dec					Col Temp (HIGH other)	Col Temp (LOW other)	Col Temp (NORM other)	Col Temp (HIGH YUV)	Col Temp (LOW YUV)	Col Temp (NORMAL YUV)	Col Temp (HIGH RGB)	Col Temp (LOW RGB)	Col Temp (NORM RGB)	Pic mode 0	Pic mode 1	Pic mode 2
WHBL	000	WBP	000	003	Color Temp Setting (0:High, 1:Normal, 2,3:Low)	Picture Mode	Cosmic											00	01	01

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)							
Category	No.	Name	Dec	Dec					Pic mode 0	Pic mode 1	Pic mode 2	TV	Video	Normal (4:3)	HD	Twin/Index /Pap	Other
SADJ	000	SHUE	007	015	Sub-Hue	TV / Video						04	08				
	001	PIOF	000	007	Picture Offset (Picture * (20-data)/20* Eco (75%)	MS/NORMAL/MULTI/OTHER	PF Engine							*	*	*	*
	002	PIC	031	127	Picture Control [0-100(MULTI), 0-63(NTSC)]	Picture Model(GA: Personal = User Reset Data)			100	70	50						
	003	COL	031	127	Color Control [0-100(MULTI), 0-63(NTSC)]	Picture Model(GA: Personal = User Reset Data)			60	60	50						
	004	BRT	031	127	Brightness Control [0-100(MULTI), 0-63(NTSC)]	Picture Model(GA: Personal = User Reset Data)			50	50	50						
	005	HUE	031	127	Hue Control [0-100(MULTI), 0-63(NTSC)]	Picture Model(GA: Personal = User Reset Data)			50	50	50						
	006	SHP	031	127	Sharpness Control [0-100(MULTI), 0-63(NTSC)]]	Picture Model(GA: Personal = User Reset Data)			50	50	50						

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)									
Category	No.	Name	Dec	Dec					Others	YUV	PAL(TV)	NTSC(TV)	SECAM(TV)	PAL(Video)	NTSC(Video)	SECAM(Video)	S-INPUT	SECAM	NTSC
YC	000	YDLY	012	015	Y-Delay	(PAL/NTSC/SECAM)*(TV/VIDEO)+YUV/S-INPUT	Cosmic			00	11	06	06	10	*	06	10		
	001	CMAT	000	003	PAL-SECAM or NTSC (Japan/USA) Matrix			00											
	002	ACL	001	001	Automatic Color Limiting			01											
	003	CB	000	001	Chroma Bandpass Center Frequency	valid only with TV (*Video:0 fix)		00											
	004	SBO	001	003	SECAM Black Offset			01											
	005	CHSE	001	003	PAL/NTSC Ident Sensitivity			03											
	006	CLO	000	001	Center Frequency of Cloche(Bell) Filter			00											
	007	CTRP	000	001	Chroma Trap Mode	SECAM/others			00									01	
	008	BPS	000	001	Bypass of Chroma Base-band Delay Line	NTSC/others			00										*
	009	FCO	000	001	Forced Color On			00											

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)								
Category	No.	Name	Dec	Dec					50	60	Others	YUV	TV	Video	Teletext	TV-ip	No Signal
SYNC	000	SYS	000	001	Synchronization on YSYNC Input		Cosmic	00									
	001	FO	000	003	Phase 1 Time Constant	TV IP ON/TV IP OFF/Video/Teletext/Auto Tuning or No signal(RF)							03	03	01	00	00
	002	VID	000	001	Video Ident Mode	50/60			00	00							
	003	FSL	000	001	Forced Slicing Level for Vertical Sync			00									
	004	SSL	000	001	Slicing Level Sync Separator	50/60			00	00							
	005	SVID	001	007	Source Selection for Video Identification	YUV/Others					00	00					
	006	FORF	002	003	Forced Field Frequency			02									
	007	MVK	000	001	Macro Vision Keying			01									

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)									
Category	No.	Name	Dec	Dec					Others	RGB	Live	TV (Dyn)	TV (Others)	Video (Dyn)	Video (Others)	ColorTemp (HIGH)	ColorTemp (Others)	Color Temp(LOW)	Color Temp (NORMAL)
PICT	000	CFA	000	003	Comb Filter Mode		Cosmic	00											

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)		
Category	No.	Name	Dec	Dec					YUV	TV	Video
SW	000	CV2	000	001	CVBS2 Input Signal Selection		Cosmic	00			
	001	SVO	001	003	Function of IFVO/SVO/CVBSI Pin @ 48	TV/Video/YUV			02	01	01
	002	DFL	000	001	Flash Protection			01			
	003	INTF	000	001	Amplitude/Polarity of YUV interface signal			00			

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
VIF	000	OIFD	036	063	Offset IF Demodulator		Cosmic	36
	001	AGCT	031	063	AGC Take-over			27
	002	STM	000	001	Search Tuning Mode			01
	003	GD	000	001	Group Delay on CVBS1 Signal			00
	004	AGCS	001	003	IF AGC Speed			01
	005	FFI	000	001	Fast Filter IF PLL			00
	006	LNAI	001	001	RF Amp LNA bit initial value			00
	007	LNAT	195	255	RF Amp Threshold Level			195
	008	LNSN	004	007	RF Amp SN Level Threshold			04
	009	LNSD	002	007	RF Amp SN Level Drop Threshold			01
	010	LNEX	016	063	RF Amp check SN Drop Timing			30
	011	CHTR	048	127	Channel Threshold after Auto Prg to set RF Amp User Mode			25

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
SDEM	000	FMWS	000	003	Window Selection for FM Demodulator		Cosmic	02
	001	QSS	001	001	Quasi Split Sound (QSS) Amplifier Mode (N/A for GA multi M system)			*
	002	BPB	000	001	Bypass of Sound Bandpass Filter			00
	003	AMLO	000	001	Audio Output Signal for AM Sound			00
	004	HPVC	000	001	Head Phone Volume Control			00

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
TXT	000	TXV	039	063	Teletext Vertical Position for Philips		Picasso	39
	001	THD	010	127	Teletext H-sync Active Edge Shift			11
	002	TBR	028	031	Teletext RGB Brightness (for full mode)			28
	003	TBRM	013	031	Teletext RGB Brightness (for MIX mode)			13
	004	NSTD	000	001	C/M of Non Standard Signal (0: cancel TXT, 1: go to MIX mode)			00
	005	ACQ	000	001	Teletext Acquisition (Auto-0, PAL-1)			00

(only for model with teletext function)

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)							
Category	No.	Name	Dec	Dec					TV-L(Euro)	TV	Video	Off	SRS/WOW	Trusurround	Istereo	Imono
SDSP	000	BBL	000	015	BBE Contour		Sound DSP	*								
	001	BBH	000	015	BBE Process			*								
	002	BBLW	000	015	BBE Contour Offset			*								
	003	SVOF	000	015	Surround /Effect Mode Volume Offset	Off(SRS/WOW)/Trusurround/Istereo/Imono						04	09	04	06	04
	004	LAD	000	031	Decoder Level Adjust			04								
	005	LAM	000	031	Mono Level Adjust			04								
	006	LAN	000	031	Nicam Level Adjust			*								
	007	LAS	000	031	SAP Level Adjust			08								
	008	LAA	000	031	ADC Level Adjust	Tv/Video(Non Euro)I TV-L/TV-non L/Video			17	17	00					
	009	SEF	003	007	Incredible Mono/Stereo Effect	Istereo/Imono									05	03
	010	BAS	000	015	Main Bass Offset			*								
	011	TRE	000	015	Main Treble Offset			*								
	012	EQ1	000	015	Equalizer Main Channel Band (100 Hz) Offset			*								
	013	EQ2	000	015	Equalizer Main Channel Band (300 Hz) Offset			*								
	014	EQ3	000	015	Equalizer Main Channel Band (1000 Hz) Offset			*								
	015	EQ4	000	015	Equalizer Main Channel Band (3000 Hz) Offset			*								
	016	EQ5	000	015	Equalizer Main Channel Band (8000 Hz) Offset			*								
	017	BFCT	005	007	DBE, DUB and BBE Control			05								
	018	SCEN	001	015	SRS3D Center Control			04								
	019	SSPA	000	015	SRS3D Space Control			01								
	020	BBHW	000	015	BBE process offset in WOW mode			*								
	021	STRE	002	007	Treble Offset for surround mode			01								
	022	BBHT	000	015	BBE Offset in TV mode			00								
	023	TTRE	002	007	Treble Offset in TV Mode			03								
	024	CEQ1	008	015	Center-In Equalizer Band Data (100Hz)			06								
	025	CEQ2	008	015	Center-In Equalizer Band Data (300Hz)			09								
	026	CEQ3	008	015	Center-In Equalizer Band Data (1000Hz)			10								
	027	CEQ4	008	015	Center-In Equalizer Band Data (3000Hz)			10								
	028	CEQ5	008	015	Center-In Equalizer Band Data (8000Hz)			07								

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
SDEC	000	SPTU	003	015	Upper Threshold for SAP carrier detection		Sound DSP	08
	001	SPTL	006	015	Lower Threshold for SAP carrier detection			15
	002	SPTH	000	031	Noise Threshold for automute of SAP			00
	003	SPHY	004	015	Hysteresis size for automute of SAP			03
	004	FMTH	000	031	Noise Threshold for automute of SC2 in FM A2 standard			18
	005	FMHY	004	015	Hysteresis size for automute of SC2 in FM A2 standard			07
	006	NILE	100	255	NICAM lower error limit (DDEP)			50
	007	NIUE	200	255	NICAM upper error limit (DDEP)			200
	008	EPMD	001	003	DEMDEC Easy Programming (DDEP)	If EPMD = 0 and STDS = 0 and OP3 Bit 1 = 1 SDEC category is Disable and SDKC category will take over		*
	009	STDS	019	031	Bits multiplexed for ASD and SSS modes			*
	010	OVMA	001	001	FM overmodulation adaption			00
	011	FLBW	000	003	FM/AM demodulator filter bandwidth			03
	012	IDMD	000	003	FM ident speed in SSS mode			00
	013	OVMT	001	002	Overmodulation level threshold relative to nominal			03
	014	DCXI	000	001	NICAM DCXO Scaling Control Inverter			*
	015	DCXG	000	007	NICAM DCXO Scaling Control Gain			*
	016	DCLL	011	015	NICAM DCXO Scaling Control Limit (L)			00
	017	DCLH	000	031	NICAM DCXO Scaling Control Limit (H)			*
	018	IDKR	001	003	IDMOD setting for Korean M STD			00

Note: For remark "*", refer to page 29 ~ 30.

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
SDKC	000	KNLL	000	255	Korean Noise Det Lower Threshold Lower Byte	If EPMD = 0 and STDS = 0 and OP3 Bit 1 = 1 SDEC category is Disable and SDKC category will take over		
	001	KNLH	012	255	Korean Noise Det Lower Threshold Higher Byte			
	002	KNHL	000	255	Korean Noise Det Upper Threshold Lower Byte			
	003	KNHH	020	255	Korean Noise Det Upper Threshold Higher Byte			
	004	KLIC	060	255	Korean Lost Pilot ID maintaining count			
	005	KLIM	001	127	Korean Lost Pilot ID maintaining count multiplier			
	006	KSDC	006	255	Korean Stereo Detect Count			

(only applicable for Korea model)

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)												
Category	No.	Name	Dec	Dec					NR0	NR1	NR2	NR3	NR4	NTSC0	NTSC1	RF-NR1	RF-NTSC1	TV-PAL	TV-NTSC	VIDEO-PAL	VIDEO-NTSC
3NR	000	3DET	000	007	3D DET	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1	3D Comb		07	07	07	07	07	07	07	07	07				
	001	3COR	000	001	3DNR CORR	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			01	00	00	00	00	01	00	00	00				
	002	AFC	000	003	AFC GAIN	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			03	03	03	03	03	03	03	03	03				
	003	HEG	000	003	H ENHA GAIN			00													
	004	2CNR	000	015	2D-CNR K & 2D CNR LIM	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	03	05	05	09	02	00	03	00				
	005	YNC	000	007	Y NOISE CANCELLER ; Y-NC LIM	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	03	03	05	07	02	01	03	03				
	006	2YNR	000	015	2D YNRK ; 2D YNR GAIN	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	00	02	00	08	01	01	02	00				
	007	2YNL	000	003	2D YNR LIM	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	02	03	00	03	02	02	03	03				
	008	BLK	000	003	BLK EXP			01													
	009	3CNR	000	007	3D CNR LIM	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	00	03	03	07	00	00	00	00				
	010	3CNK	000	003	3D CNR K	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	00	00	00	00	00	00	00	00				
	011	3CNG	000	007	3D CNR GAIN	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	02	02	02	07	00	00	04	00				
	012	3YNR	000	007	3D YNR LIM	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	03	03	06	06	00	00	01	00				
	013	3YNK	000	003	3D YNR K	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	01	02	00	00	00	00	01	03				
	014	3YNG	000	007	3D YNR GAIN	NR0/NR1/NR2/NR3/NT0/Nt1/RF-NR1/RF-NTSC1			00	02	05	06	06	00	00	01	00				
	015	YDLY	000	128	Y OUTPUT DELAY	TV-PAL/TV-NTSC/VID-PAL/VID-NTSC/S-PAL/S-NTSC												03	07	06	04
	016	ICA	000	001	INT CLAMP AUTO			01													
	017	ICM	000	001	INT CLAMP MANUAL			00													
	018	CENH	000	001	C ENHA			01													
	019	ICK	000	001	INPUT CLAMP KEY			01													
	020	BGK	000	001	BURST GATE KEY			01													
	021	SSL	000	001	SYNC SEP LPF			00													

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)																		
Category	No.	Name	Dec	Dec					NR0	NR1	NR2	NR3	NR4	NTSC0	NTSC1	RF-NR1	RF-NTSC1	TV-PAL	TV-NTSC	VIDEO-PAL	VIDEO-NTSC	S-PAL	S-NTSC	Normal (4:3)	HD	Twin/Index /Pap	Other
3NR	022	VECR	000	003	V ENHA CORE	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1	3D Comb		00	01	01	03	00	00	01	01	01										
	023	VEG	000	003	V ENHA GAIN	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			00	00	01	01	00	00	01	00	01										
	024	VEN	000	003	V ENHA NL	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			00	00	01	01	00	00	01	00	01										
	025	AMP1	000	007	HD AMP1	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			06	06	06	06	06	06	06	06	06										
	026	HDGV	000	031	HD GAIN V	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			18	18	18	18	18	18	18	18	18										
	027	AMP2	000	007	HD AMP2	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			06	06	06	06	06	06	06	06	06										
	028	HDG1	000	031	HD GAIN 1	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			13	13	13	13	13	13	13	13	13										
	029	AMP3	000	007	HD AMP3	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			05	05	05	05	05	05	01	05	05										
	030	HDG2	000	031	HD GAIN 2	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			04	04	04	04	04	04	01	04	04										
	031	CSLP	000	015	ACMSLP & ACSSLP	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	14	10	10	15	10	10	10	10										
	032	YSLP	000	015	AYMSLP & AYSSLP	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	15	10	04	10	14	14	14	14										
	033	ACMS	000	015	ACMESET & ACMFSET	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	10	10	10	15	15	15	10	15										
	034	ACSS	000	015	ACSESET & ACSFSET	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	10	10	10	15	15	10	10	10										
	035	AYMS	000	015	AYMESET & AYMFSET	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	11	10	10	15	15	15	11	15										
	036	AYSS	000	015	AYSESET & AYSFSET	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	11	14	10	15	11	10	14	10										
	037	BCSL	000	015	BCMSLP & BCSSLP	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	10	10	10	15	14	15	10	15										
	038	BYSL	000	015	BYMSLP BYSSLP	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	10	10	10	15	14	13	10	12										
	039	BCMS	000	015	BCMESET & BCMFSET	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	10	10	10	15	15	10	10	10										
	040	BCSS	000	015	BCSESET & BCSFSET	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	10	10	10	15	15	10	10	10										
	041	BYMS	000	015	BYMESET BYMFSET	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	15	10	10	15	15	15	15	15										
	042	BYSS	000	015	BYSESET BYSFSET	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	15	10	10	15	15	10	15	10										
	043	CECM	000	007	CECMP	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			07	04	07	07	04	04	04	07	04										
	044	CSCM	000	015	CSCMP	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			15	10	15	15	00	00	00	15	00										
	045	F1HV	000	015	F1HER & F1 VER	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			05	08	05	05	05	05	05	08	05										
	046	MREF	000	015	MREF	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			02	07	04	04	04	01	06	07	06										
	047	CDEY	000	003	CDEYE	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			02	03	02	02	02	02	00	03	00										
	048	YDEY	000	003	YDEYE	NR0/NR1/NR2/NR3/NT0/Nt1/ RF-NR1/RF-NTSC1			02	03	02	02	02	02	00	03	00										
	049	HMAS	000	007	H-MASK OUT			00																			
	050	VMAS	000	031	V-MASK OUT			00																			

TVG	Functionality		Initial	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)					
Category	No	Name	Dec	Dec					Pic mode 0	Pic mode 1	Pic mode 2	Except RF Pic mode 0	Except RF Pic mode 1	Except RF Pic mode 2
LTI	000	CFS	001	001	Contour Filter Selection			01						
	001	VDC	001	001	Video Dependent Coring	Picture Mode			01	01	01			
	002	DEM	000	001	Demonstration Mode			00						
	003	CDP	004	007	Luminance Delay			04						
	004	DSK	000	001	Skin Tone Switch	Picture Mode			00	00	00			
	005	ASK	000	001	Skin Tone Angle Selection			00						
	006	WSK	000	001	Skin Tone Width Selection			00						
	007	SSK	000	001	Skin Tone Size Selection			00						
	008	DGR	001	001	Green Enhancement Switch	Picture Mode			01	01	00			
	009	DGT	007	007	Threshold of Green Enhancement Switch			07						
	010	GGR	000	001	Green Enhancement Gain			00						
	011	WGR	000	001	Green Enhancement Width			00						
	012	SGR	000	001	Green Enhancement Size			00						
	013	CDS	001	001	Color Dependent Sharpness	Picture Mode			01	01	00			
	014	CST	007	007	Threshold of Color Dependent Sharpness			07						
	015	CTI	001	001	Color Transient Improvement	Picture Mode			01	01	00			
	016	BON	000	001	Black Offset Compensation	Picture Mode			00	00	00			
	017	BTD	000	063	Adaptive Black Strecth	Picture Mode			00	00	00			
	018	NLD	021	063	Non-Linearity Amplifier	Picture Mode			21	21	00			
	019	NLW	007	007	Step Width of Non-Linearity Amplifier			07						
	020	VGD	031	063	Variable Gamma	Picture Mode			*	*	*			
	021	VGW	000	007	Step Width of Variable Gamma			00						
	022	PKD	040	063	Peaking Amplitude	Picture Mode* (TV/Others)			*	30	14	*	*	*
	023	PKW	008	015	Step Width of Peaking Amplitude			08						
	023	SPD	000	063	Steepness Correction	Picture Mode			00	00	00			
	025	CRD	050	063	Coring Level	Picture Mode* (TV/Others)			*	30	00	*	18	00
	026	CRW	009	015	Step Width of Coring Level			06						
	027	CRO	006	015	Coring Level Offset for Video Mode			06						
	028	LWD	031	063	Line Width Correction			31						
	029	ELTI	001	001	Enable/Disable LTI control[Post-CX1 option]			01						

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
PFED	000	PFED	000	001	PF Engine Service Mode		PF Engine	

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)	
Category	No.	Name	Dec	Dec					50	60
SUBP	000	IDXH	005	015	Index OSD horizontal position	Sub Picasso Transmit Data	Sub Picasso	05		
	001	IDXV	047	063	Index OSD vertical position	Sub Picasso Transmit Data (50/60)			47	47
	002	IDXB	031	031	Indecx OSD brightness	Sub Picasso Transmit Data		31		

(only applicable for 2 tuners models)

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)					
Category	No.	Name	Dec	Dec					50	60	YUV	TV	Video	No Signal
SCOS	000	SYS	001	001	Syncronization on YSYNC Input		Sub Cosmic	00						
	001	FO	000	003	Phase 1 Time Constant	TV/Auto Tuning or No signal (RF)						00	03	00
	002	VID	001	001	Video Ident Mode	50/60			00	00				
	003	FSL	000	001	Forced Slicing Level for Vertical Sync			00						
	004	SSL	000	001	Slicing Level Sync Separator	50/60			00	00				
	005	SVID	000	007	Source Selection for Video Identification	TV / Video / YUV					00	00	00	
	006	FORF	003	003	Forced Field Frequency			02						
	007	SVO	000	003	Function of IFVO/SVO/CVBSI Pin @ 48	TV / Video / YUV					00	00	00	
	008	VDXE	000	001	Control of coupling between vision IF amplifier and synchronisation circuit			00						
	009	VDX	000	001	Coupling between vision IF amplifier and synchronisation circuit			00						
	010	YDLY	012	015	Y-delay adjustment			00						
	011	OIFD	036	063	Offset IF Demodulator			36						
	012	AGCT	031	063	AGC Take-over			31						
	013	STM	001	001	Search Tuning Mode			01						
	014	GD	000	001	Group Delay on CVBS1 Signal			00						
	015	AGCS	001	003	IF AGC Speed			01						
	016	FFI	000	001	Fast Filter IF PLL			00						
	017	CMSS	000	001	Selection of sync input signal for the video ident circuit			00						
	018	OAMP	003	003	Video Output Signal Amplitude			00						
	019	VAI	000	001	System I Output Signal Amplitude Correction			00						
	020	FMWS	002	003	Window Selection for FM Demodulator			02						
	021	QSS	000	001	Quasi Split Sound (QSS) Amplifier Mode (except GA Model)			01						
	022	BPB	000	001	Bypass of Sound Bandpass Filter			00						
	023	BPB2	000	001	Bypass of Sound Bandpass Filter 2			00						
	024	SPT	000	001	Sync performance trick mode			00						
	025	E2D	000	001	Selection of audio output signal on AUDEEM pin			00						
	026	HPVC	000	001	Head Phone Volume Control			00						
	027	DSG	000	001	Gain from audio inputs to audio outputs			00						
	028	VSD	001	001	Vertical scan disable			00						
	029	CHSE	001	003	PAL/NTSC Ident Sensitivity			03						

(only applicable for 2 tuners models)

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
HTV	001	VMAX	000	063	Maximum Volume Level (MAX = 35 + VMAX)	Volume Level		00
	002	VINI	025	031	Initial Volume Level at power on	Volume Level		25
	003	STBY	000	001	Last Power Status (0 = follow the last power status, 1 = always STBY)	Last Power		00
	004	IPRG	001	127	Initial Program Number at power on (only for Multi models)	Program Number (Legal:0 to 99, if >100, will reset to 1)		01

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
OPTM	000	ASHT	006	007	Auto shut off timer (data * 5 min)			00
	001	MUTE	000	001	No Signal Mute Switch (1=enabled)			00
	002	RFUL	015	015	RF Signal Change Counter after Unlocked (Disable when 0fh)			04
	003	RFLK	015	015	RF Signal Change Counter after Locked (Disable when 0fh)			00
	004	LANG	000	003	OSD language shipping condition			*
	005	HTXT	000	001	Sync separator sw		Cosmic	00
	006	CMSS	000	001	Sync sw		Cosmic	01
	007	DCXO	060	295	DCXO Value		Picasso	*
	008	DISC	128	255	Target DISCO data for DCXO adjust by color dec			134
	009	EXBL	000	015	Extended Blanking Timer to Eliminate White Noise			10
	010	TSYS	000	003	Memorize TV Sys in NVM at Test Reset [0:B/G, 1:I, 2:D/K, 3:M] (GA Model)			*
	011	LBL	001	001	Brightness Reduction At No Signal condition			01
	012	23P	001	001	2/3 Pull Down Mode 0: Force OFF, 1: Auto		PF Engine	01
	013	LNSW	001	001	Signal Booster Shipping/Test Reset condition (1:Auto, 0:Off)			01
	014	DSTM	000	001	Disable stop mode in Standby (0: enable, 1: disable)			00
	015	CSPM	000	001	Enable Center Speaker Last Memory (0: enable, 1: disable)			00
	016	NRSW	001	002	NR Setting after Shipping Condition (0-OFF, 1-Low, 2-HIGH)			*

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)	
Category	No.	Name	Dec	Dec					Others	YUV
OPUS	000	SOFF	000	001	Stay off(0:follow last memory with AC on, 1:standby with AC on)					
	001	CCBR	015	031	CC OSD Brightness					
	002	SPCH	001	127	Channel Number after Shipping Condition					
	003	SPCA	001	001	Cable Selection after Shipping Condition (1 = Cable On)					
	004	OUV	000	001	Offset Control on UV Input Signals (only for US)	Others/YUV	Cosmic			
	005	CFA2	000	001	Forced Comb Filter On (only for US)	none	Cosmic			

(only applicable for NTSC models)

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Others	SECAM	NTSC
Category	No.	Name	Dec	Dec							
OPVP	000	BPBS	000	001	Bypass of sound bandpass filter at stereo mode (BPBS)		Cosmic	00			
	001	BWYC	000	001	Bandwidth at YC mode for 3.58 MHz color system (BMYC)			00			
	002	OSB	000	001	Width of internal burstkey pulse of chroma demodulator (OSB)			00			
	003	TYUV	000	001	TXT/CC output selection (TXTYUV)			01			
	004	LCD	000	001	LCD Mode (LCD)			01			
	005	BKC	000	001	Burst Key Position	NTSC/SECAM/OTHERS (PAL)			00	01	00

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
OPTB	000	IALL	000	001	Standard Write Switch (not memorized in NVM)			X
	001	OPB1	000	255	Option 1 (Video Signal related)			(For option bit data refer to pages 31 ~ 32)
	002	OPB2	000	255	Option 2 (Stereo Decoding related)			
	003	OPB3	000	255	Option 3 (Miscellaneous)			
	004	OPB4	000	255	Option 4 (Miscellaneous)			
	005	OPB5	000	255	Option 5 (OSD Languange related)			

Data Variant depend on models

Category	No	Name	Table	Size		
				34" (dec)	32" (dec)	29" (dec)
SADJ	001	PIOF	Normal (4:3)	04	02	04
			HD	05	05	05
			Twin / Index / PAP	07	07	07
			Other	00	02	00

Category	No	Name	NVM Address	DA322/DB29M98	DB29/34
YC	000	YDLY	(NTSC-Video)	11	08
	008	BPS		01	00

Category	No	Name	AV Stereo	China / India	Stereo
SDEM	001	QSS	01	01	01

Category	No	Name	10+10 DB29 non-China	10+10 DB34 non-China	10+10 DA322	10+10 DB29 China	10+10 DB34 China
SDSP	000	BBL	02	02	02	02	02
	001	BBH	06	06	06	06	06
	002	BBLW	04	04	04	04	04
	010	BAS	21	21	20	21	21
	011	TRE	23	22	22	24	22
	012	EQ1	03	03	02	03	03
	013	EQ2	19	22	21	19	22
	014	EQ3	00	00	00	00	00
	015	EQ4	18	19	17	18	19
	016	EQ5	00	00	02	00	00
	020	BBHW	00	00	00	00	00

Category	No	Name	Others	HK/RUSSIA
SDSP	006	LAN	22	17

Category	No	Name	Stereo	AV Stereo
SDEC	008	EPMD	02	01
	009	STDS	31	13
	014	DCXI	00	00
	015	DCXG	03	00
	017	DCLH	06	00

Category	No	Name		DA322/DB29M98	DB29/34
YC	008	BPS		01	00
LTI	020	VGD		25	27
				25	27
				25	27
	022	PKD		40	55
				35	40
				30	40
				20	20
	025	CRD	Pic mode 0	35	*
			Except RF Pic mode 0	*	*

Category	No	Name		DB29M98	DA322
LTI	025	CRD	Except RF Pic mode 0	25	22

Category	No	Name		DB34	DB29
LTI	025	CRD	Pic mode 0	20	40
			Except RF Pic mode 0	20	30

Category	No	Name	Other county	China
OPTM	004	LANG	00	01

Category	No	Name	Stereo	AV Stereo
OPTM	007	DCXO	53	48

Category	No	Name	Other county	China	HK
OPTM	010	TSYS	00	02	01

Category	No	Name	DA322/DB29M98	DB29/34
OPTM	016	NRSW	00	01

ITEM INFORMATION

No. OPB1

Item	WSS RF	HD Front	Component	NR	Composite	SECAM	Color Decoding		DEC
KV-DB29M61	0	0	1	1	0	1	0	0	52
KV-DB29M91	0	0	1	1	0	1	0	0	52
KV-DB29M98	0	0	1	1	0	1	0	0	52

WSS RF	(Wide Screen Signaling in RF mode)	0 = disabled, 1 = enabled
HD Front	(HD at front input)	0 = disabled, 1 = enabled
Component	(Component [YCbCr] Terminals)	0 = 1 Component terminal 1 = 2 Component terminals
Composite	(No. of Composite Terminals)	0 = 3 Composite terminals 1 = 4 Composite terminals
NR	(Noise Reduction)	0 = NR disabled, 1 = enabled (Note: 3D Comb must be off when NR is set to ON
SECAM	(SECAM Color System)	0 = disabled, 1 = enabled (valid only if Color Decording = 00 or 10)
Color decording	(Color Crystal Selection)	00 = PAL/NTSC/SECAM (Multi) 01 = NTSC (3.58MHz) 10 = PAL/NTSC/SECAM (4.43MHz) 11 = Reserved (Tri-Norma)

No. OPB2

Item	REV	NICAM	REV	A2	Thai Bilingual	US ST	Korean ST	REV	DEC
KV-DB29M61	0	1	0	1	0	0	0	0	80
KV-DB29M91	0	1	0	1	0	0	0	0	80
KV-DB29M98	0	1	0	1	0	0	0	0	80

NICAM	(NICAM Stereo)	0 = disabled, 1 = enabled
A2	(A2 [West German] Stereo/Bilingual)	0 = disabled, 1 = enabled
Thai Bilingual	(A2 [Thai] Bilingual)	0 = disabled, 1 = enabled
Forced SAP	(Force SAP mode only if US ST is active)	0 = disabled, 1 = enabled
US ST	(US Stereo)	0 = disabled, 1 = enabled
Korean ST	(Korean Stereo)	0 = disabled, 1 = enabled

No. OPB3

Item	SPEED SEARCH		VM	Band Edge	3D Comb	PAP	TOP	TEXT	DEC
KV-DB29M61	0	1	1	0	0	0	0	1	97
KV-DB29M91	0	1	1	0	0	0	0	1	97
KV-DB29M98	0	1	1	0	1	0	0	1	105

SPEED SEARCH	(Cycle of speed search)	00 = disabled (original cycle speed) 01 = 4 time speed from the original 10 = 6 time speed from the original 11 = 8 time speed from the original
VM	(Velocity Modulation)	0 = disabled, 1 = enabled
Band Edge	(VHF-H Band Limit Position)	0 = 427.25MHz 1 = 429.25MHz
3D Comb	(3D Comb functions)	0 = No 3D Comb, 1 = 3D Comb available
PAP	(PAP 2 tuner functions)	0 = No PAP, 1 = PAP available
TOP	(Forced Top)	0 = Auto Mode(TOP/FLOF), 1 = Forced Top
TEXT	(Teletext Model)	0 = Non-Teletext Model 1 = Teletext Model

No. OPB4

Item	Full Surround	MSYS ASD	COSMIC ASD	ASD	Signal Booster	WEGA Theatre		Wide	DEC
KV-DB29M61	1	0	0	1	1	1	0	0	156
KV-DB29M91	1	0	0	1	1	1	0	0	156
KV-DB29M98	1	0	0	1	1	1	0	0	156

Simple Surround	(Surround selection)	0 = Tru Surround Model/WOW/Simulated/Off 1 = (On/simulated/Off)
MSYS ASD	ASD Improvement for Msystem channels *(only applicable when ASD = 1)	0 = disabled, 1 = enabled
COSMIC ASD	Automatic Standard Detection using COSMIC *for AV Stereo or Mono models	0 = disabled, 1 = enabled
ASD	(Automatic Standard Detection)	0 = disabled, 1 = enabled
Signal Booster	*only for Multi models	0 = disabled, 1 = enabled
WEGA Theatre	(Wega Theatre with/without Center Speaker option)	0x = No WEGA Theatre function & No Center SP 10 = WEGA Theatre function available with no Center SP 11 = WEGA Theatre function available with Center SP (original)
Wide	(16:9 model)	0 = 4:3, 1= 16:9

No. OPB5

Item	REV	China	REV	Russia	OSD Languange Selection				DEC
KV-DB29M61	0	0	0	0	1	1	1	0	14
KV-DB29M91	0	0	0	1	0	0	0	1	17
KV-DB29M980	0	0	0	1	0	0	0	1	17

China (China model option) *only for Multi models
0 = Non China Model
1 = China (SSV) models

Russian (Russian OSD option) *only for Multi models
0 = Non Russian Model, 1 = Russian Model

OSD Language Selection

US (GA NTSC)
1x1x = Complicated Chinese
1xx1 = Korean

GA
1xxx = Simplified Chinese
x1xx = Arabic
xx1x = Thai
xxx1 = Vietnamese (only Vietnam Model)

Russian
xxx1 = Russian (Only Russian Model, option "Russian" = 1)

Adjustment Item Table (PF Engine)
a) Version PF1.208/M

Category	No	Name	Vivid														
			RF			BS	CV/YC			Comp							
			480_60I	480_60I	576_50I		480_60I	480_60I	576_50I	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
			NTSC	PAL	PAL		NTSC	PAL	PAL								
LUMA	0	BROF	0	0	0	0	0	0	0	0	0	1	1	1	1	3	3
	1	GAMM	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6	BLK	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7

Category	No	Name	Standard														
			RF			BS	CV/YC			Comp							
			480_60I	480_60I	576_50I		480_60I	480_60I	576_50I	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
			NTSC	PAL	PAL		NTSC	PAL	PAL								
LUMA	0	BROF	5	5	5	5	3	3	3	3	3	4	4	1	1	0	0
	1	GAMM	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5
	6	BLK	3	3	3	3	3	3	3	3	3	4	4	5	5	5	5

Category	No	Name	Custom														
			RF			BS	CV/YC			Comp							
			480_60I	480_60I	576_50I		480_60I	480_60I	576_50I	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
			NTSC	PAL	PAL		NTSC	PAL	PAL								
LUMA	0	BROF	3	3	3	3	3	3	3	3	3	0	0	0	0	0	0
	1	GAMM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	BLK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	GAMMA0	GAMMA1	GAMMA2	GAMMA3	GAMMA4	GAMMA5	GAMMA6	GAMMA7
LUMA	2	GAMS	13	13	13	13	13	13	13	13
	3	RGAM	0	2	3	4	5	6	7	8
	4	GGAM	0	2	3	4	5	6	7	8
	5	BGAM	0	2	3	4	5	6	7	8

Category	No	Name	BLK0	BLK1	BLK2	BLK3	BLK4	BLK5	BLK6	BLK7
LUMA	7	APED	0	2	3	1	2	1	1	2
	8	DCTR	0	5	10	10	10	5	10	10
	9	ABLM	0	1	1	0	0	0	1	1

Category	No	Name	Vivid														
			DVI									MS					Twin All Format
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	
LUMA	0	BROF	0	0	1	1	1	1	3	3	3	1	1	1	1	1	0
	1	GAMM	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6	BLK	6	6	7	7	7	7	7	7	7	5	5	5	5	5	6

Category	No	Name	Standard														
			DVI									MS					Twin All Format
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	
LUMA	0	BROF	3	3	4	4	1	1	1	1	1	1	1	1	1	1	5
	1	GAMM	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4
	6	BLK	3	3	4	4	5	5	5	5	5	5	5	5	5	5	3

Category	No	Name	Custom														
			DVI									MS					Twin All Format
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	
LUMA	0	BROF	3	3	0	0	0	0	0	0	0	0	0	0	0	0	3
	1	GAMM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	BLK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Vivid									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480i	480p
LUMA	0	BROF	0	0	1	1	1	1	3	3	0	1
	1	GAMM	5	5	5	5	5	5	5	5	5	5
	6	BLK	6	6	7	7	7	7	7	7	6	7

Category	No	Name	Standard									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480i	480p
LUMA	0	BROF	3	3	4	4	1	1	1	1	3	4
	1	GAMM	4	4	5	5	5	5	5	5	4	5
	6	BLK	3	3	4	4	5	5	5	5	3	4

Category	No	Name	Custom									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480i	480p
LUMA	0	BROF	3	3	0	0	0	0	0	0	3	0
	1	GAMM	0	0	0	0	0	0	0	0	0	0
	6	BLK	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Vivid														
			RF			BS	CV/YC			Comp							
			480_60I NTSC	480_60I PAL	576_50I PAL		480_60I NTSC	480_60I PAL	576_50I PAL	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
COLR	0	CLOF	5	5	5	5	6	7	7	6	6	5	5	7	7	7	7
	1	HUOF	2	2	1	1	0	0	0	3	3	3	3	3	3	3	3
	23	GRST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Standard														
			RF			BS	CV/YC			Comp							
			480_60I NTSC	480_60I PAL	576_50I PAL		480_60I NTSC	480_60I PAL	576_50I PAL	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
COLR	0	CLOF	1	1	3	3	1	1	3	3	3	4	4	5	5	5	5
	1	HUOF	2	2	1	1	1	1	1	3	3	3	3	3	3	3	3
	23	GRST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Custom														
			RF			BS	CV/YC			Comp							
			480_60I NTSC	480_60I PAL	576_50I PAL		480_60I NTSC	480_60I PAL	576_50I PAL	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
COLR	0	CLOF	3	3	3	3	3	3	5	5	3	3	3	3	3	3	3
	1	HUOF	2	2	1	1	1	1	1	3	3	3	3	3	3	3	3
	23	GRST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	GRST0	GRST1	GRST2	GRST3
COLR	24	GRSB	0	1	2	3
	25	GRSR	0	1	2	3

Category	No	Name	Vivid														
			DVI									MS					Twin All Format
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	
COLR	0	CLOF	6	6	5	5	7	7	7	7	7	7	7	7	7	7	6
	1	HUOF	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	23	GRST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Standard														
			DVI									MS					Twin All Format
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	
COLR	0	CLOF	3	3	4	4	5	5	5	5	5	4	4	4	4	4	4
	1	HUOF	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4
	23	GRST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Custom														
			DVI									MS					Twin All Format
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	
COLR	0	CLOF	5	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	1	HUOF	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4
	23	GRST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Vivid									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480i	480p
COLR	0	CLOF	6	6	5	5	7	7	7	7	6	5
	1	HUOF	3	3	3	3	3	3	3	3	3	3
	23	GRST	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Standard									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480i	480p
COLR	0	CLOF	3	3	4	4	5	5	5	5	3	4
	1	HUOF	3	3	3	3	3	3	3	3	3	3
	23	GRST	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Custom									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480i	480p
COLR	0	CLOF	3	3	3	3	3	3	3	3	5	3
	1	HUOF	3	3	3	3	3	3	3	3	3	3
	23	GRST	0	0	0	0	0	0	0	0	0	0

Category	No	Name	
COLR	2	RDRV	37
	3	GDRV	42
	4	BDRV	48
	5	RCUT	41
	6	GCUT	26
	7	BCUT	44
	8	SBRT	23
	9	DCOL	1

Category	No	Name	COOL	WARM	TELE TEXT
COLR	10	WBSW	0	0	0
	11	SBOF	2	2	2
	12	RDOF	31	31	31
	13	GDOF	33	29	31
	14	BDOF	38	25	31
	15	RCOF	21	31	31
	16	GCOF	25	28	31
	17	BCOF	28	23	31

Category	No	Name	Vivid						Standard						Custom					
			SD NTSC	Other	HD 50	HD 60	MS	Twin	SD NTSC	Other	HD 50	HD 60	MS	Twin	SD NTSC	Other	HD 50	HD 60	MS	Twin
COLR	18	AXIS	2	0	1	3	1	0	2	0	1	3	1	0	2	0	1	3	1	0

Category	No	Name	AX1S0	AX1S1	AX1S2	AX1S3
COLR	19	R-YR	14	14	6	9
	20	R-YB	15	15	9	9
	21	G-YR	4	8	9	9
	22	G-YB	4	4	7	7

Category	No	Name	Mode 1	Mode 2	Mode 3
COLR	26	HPWH	1	1	0

Category	No	Name	Vivid														
			RF			BS	CV/YC			Comp							
			480_60I	480_60I	576_50I		480_60I	480_60I	576_50I	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
			NTSC	PAL	PAL		NTSC	PAL	PAL								
CTLY	0	SYSM	1	1	1	1	1	1	1	1	1	1	1	3	3	2	2
	1	UVML	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3
	2	VMCR	2	2	2	2	2	2	1	1	1	0	0	0	0	0	0
	3	VMLM	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2
	5	VMDL	12	12	12	12	15	12	12	12	12	15	15	15	15	15	15
	6	SHOF	3	3	3	3	3	3	3	0	0	0	0	1	1	0	0
	7	SHF0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	0	0	0	0	0	0	0	2	2	3	3	0	0
	10	LTLV	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	11	LTMD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	12	CTLV	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0
	13	MIDE	3	3	3	3	5	6	5	11	11	25	25	19	19	30	30
	15	SHPO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Standard														
			RF			BS	CV/YC			Comp							
			480_60I	480_60I	576_50I		480_60I	480_60I	576_50I	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
			NTSC	PAL	PAL		NTSC	PAL	PAL								
CTLY	0	SYSM	1	1	1	1	1	1	1	1	1	1	1	3	3	2	2
	1	UVML	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3
	2	VMCR	2	2	2	2	2	2	2	1	1	0	0	0	0	0	0
	3	VMLM	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2
	5	VMDL	12	12	12	12	15	12	12	12	12	15	15	15	15	15	15
	6	SHOF	3	3	3	1	1	1	1	0	0	0	0	0	0	0	0
	7	SHF0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
	10	LTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	11	LTMD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	12	CTLV	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	13	MIDE	3	3	3	2	5	5	5	10	10	26	26	19	19	30	30
	15	SHPO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Vivid			Standard			Custom		
			LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
CLTY	14	VMLV	4	10	15	4	5	10	4	5	5

Category	No	Name	Custom														
			RF			BS	CV/YC			Comp							
			480_60I	480_60I	576_50I		480_60I	480_60I	576_50I	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I
			NTSC	PAL	PAL		NTSC	PAL	PAL								
CTLY	0	SYSM	1	1	1	1	1	1	1	1	1	1	1	3	3	2	2
	1	UVML	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3
	2	VMCR	2	2	2	2	2	2	2	1	1	0	0	0	0	0	0
	3	VMLM	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	0	2	2	2	2	2	2	2	2	2	2
	5	VMDL	12	12	12	12	15	12	12	12	12	15	15	15	15	15	15
	6	SHOF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	SHF0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	LTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	LTMD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	12	CTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	MIDE	0	0	0	0	9	9	9	8	8	24	24	16	16	18	18
	15	SHPO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Vivid														
			DVI									MS					Twin
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	All Format
CTLY	0	SYSM	1	1	2	2	3	3	2	2	3	3	3	3	3	3	2
	1	UVML	3	3	3	3	3	3	3	3	3	2	2	2	2	2	1
	2	VMCR	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	VMLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0
	5	VMDL	12	12	15	15	15	15	15	15	15	15	15	15	15	15	12
	6	SHOF	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
	7	SHF0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	2	2	3	3	0	0	0	0	0	0	0	0	0
	10	LTLV	2	2	3	3	3	3	3	3	3	0	0	0	0	0	2
	11	LTMD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	12	CTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	MIDE	11	11	27	27	19	19	30	30	19	23	23	23	23	23	27
	15	SHPO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Standard														
			DVI									MS					Twin
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	All Format
CTLY	0	SYSM	1	1	2	2	3	3	2	2	3	3	3	3	3	3	2
	1	UVML	3	3	3	3	3	3	3	3	3	2	2	2	2	2	1
	2	VMCR	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	VMLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0
	5	VMDL	12	12	15	15	15	15	15	15	15	15	15	15	15	15	12
	6	SHOF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	SHF0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	10	LTLV	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
	11	LTMD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	12	CTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	MIDE	10	10	26	26	18	18	18	18	18	22	22	22	22	22	26
	15	SHPO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Custom														
			DVI									MS					Twin
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	VGA_60	Index	Full	Popup	Player	Movie	All Format
CTLY	0	SYSM	1	1	2	2	3	3	2	2	3	3	3	3	3	3	2
	1	UVML	3	3	3	3	3	3	3	3	3	2	2	2	2	2	1
	2	VMCR	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	VMLM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0
	5	VMDL	12	12	15	15	15	15	15	15	15	15	15	15	15	15	12
	6	SHOF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	SHF0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10	LTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11	LTMD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	12	CTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13	MIDE	8	8	24	24	16	16	18	18	16	20	20	20	20	20	24
	15	SHPO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Vivid									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480 i	480 p
CTLY	0	SYSM	1	1	1	1	3	3	2	2	2	2
	1	UVML	3	3	3	3	3	3	3	3	3	3
	2	VMCR	1	1	0	0	0	0	0	0	1	0
	3	VMLM	0	0	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	2	2	2	2	2	2
	5	VMDL	12	12	15	15	15	15	15	15	12	15
	6	SHOF	0	0	0	0	1	1	0	0	0	0
	7	SHF0	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	2	2	3	3	0	0	0	0
	10	LTLV	2	2	3	3	3	3	3	3	2	3
	11	LTMD	1	1	1	1	1	1	1	1	1	1
	12	CTLV	0	0	0	0	0	0	0	0	0	0
	13	MIDE	11	11	27	27	19	19	30	30	11	27
	15	SHPO	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Standard									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480i	480p
CTLY	0	SYSM	1	1	1	1	3	3	2	2	2	2
	1	UVML	3	3	3	3	3	3	3	3	3	3
	2	VMCR	1	1	0	0	0	0	0	0	1	0
	3	VMLM	0	0	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	2	2	2	2	2	2
	5	VMDL	12	12	15	15	15	15	15	15	12	15
	6	SHOF	0	0	0	0	0	0	0	0	0	0
	7	SHF0	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	1	1	0	0	0	0	0	1
	10	LTLV	0	0	0	0	0	0	1	1	0	0
	11	LTMD	1	1	1	1	1	1	1	1	1	1
	12	CTLV	0	0	0	0	0	0	0	0	0	0
	13	MIDE	10	10	26	26	18	18	18	18	10	26
	15	SHPO	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Custom									
			Digital/ATSC/RGB etc								AV Multi	
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	480i	480p
CTLY	0	SYSM	1	1	1	1	3	3	2	2	2	2
	1	UVML	3	3	3	3	3	3	3	3	3	3
	2	VMCR	1	1	0	0	0	0	0	0	1	0
	3	VMLM	0	0	0	0	0	0	0	0	0	0
	4	VMF0	2	2	2	2	2	2	2	2	2	2
	5	VMDL	12	12	15	15	15	15	15	15	12	10
	6	SHOF	0	0	0	0	0	0	0	0	0	0
	7	SHF0	1	1	1	1	1	1	1	1	1	1
	8	PROV	3	3	3	3	3	3	3	3	3	3
	9	F1LV	0	0	0	0	0	0	0	0	0	0
	10	LTLV	0	0	0	0	0	0	0	0	0	0
	11	LTMD	1	1	1	1	1	1	1	1	1	1
	12	CTLV	0	0	0	0	0	0	0	0	0	0
	13	MIDE	8	8	24	24	16	16	18	18	8	24
	15	SHPO	0	0	0	0	0	0	0	0	0	0

Category	No	Name	LOW		HIGH	
			NTSC 3.58	OTHER	NTSC 3.58	OTHER
CTLY	16	SHNR	0	5	10	10
	17	VLNR	0	5	5	8
	18	VCNR	0	2	2	2

Category	No	Name	Vivid					Standard				
			RF	BS/CV/YC	Component	DVI	ATSC/AV Multi (RGB)	RF	BS/CV/YC	Component	DVI	ATSC/AV Multi (RGB)
DRCV	0	ORES	128	128	128	128	128	128	128	128	128	128
	1	ONCT	128	128	128	128	128	128	128	128	128	128

Category	No	Name	Hi-Fine				
			RF	BS/CV/YC	Component	DVI	ATSC/AV Multi (RGB)
DRCV	0	ORES	128	128	128	128	128
	1	ONCT	128	128	128	128	128

Category	No	Name	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
MIDE	1	MHLY	3	3	3	3	1	3	1	1	1	3	1	1	0	1	2	1
	2	MHLC	3	3	3	3	3	3	3	3	3	3	3	3	0	3	3	3
	3	MVLY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	MVLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	MHYR	0	0	0	1	0	2	2	1	0	0	0	1	1	0	1	1
	6	MHYL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	7	MHYE	2	2	2	7	0	5	5	7	0	0	2	7	4	6	6	6
	8	MHYO	1	1	1	1	1	0	0	1	1	1	1	0	1	1	1	1
	9	MHCR	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
	10	MHCL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	11	MHCE	0	2	3	5	0	0	0	5	0	0	0	0	7	7	7	7
	12	MHCO	1	1	1	1	1	0	0	1	1	1	1	0	0	1	1	1
	13	MVYR	0	0	0	2	1	2	2	2	1	1	1	1	1	1	1	1
	14	MVYL	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	15	MVYE	0	0	2	5	0	1	1	5	0	0	3	4	0	0	3	4
	16	MVCR	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
	17	MVCL	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
	18	MVCE	0	0	0	3	0	0	0	3	0	0	0	0	0	0	2	3

Category	No	Name	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MIDE	1	MHLY	2	2	2	0	0	0	0	0	1	1	1	1	0	1	0	0
	2	MHLC	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
	3	MVLY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	MVLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	MHYR	0	0	1	1	0	1	0	0	1	0	1	1	0	1	1	1
	6	MHYL	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1
	7	MHYE	2	2	2	4	0	7	0	0	0	7	4	7	7	0	5	4
	8	MHYO	0	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1
	9	MHCR	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1
	10	MHCL	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1
	11	MHCE	0	2	2	4	0	7	0	0	0	5	2	5	7	0	5	4
	12	MHCO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	13	MVYR	2	2	0	2	1	2	1	1	1	1	1	1	0	1	2	2
	14	MVYL	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
	15	MVYE	0	1	2	4	0	7	1	2	0	4	2	4	7	0	5	4
	16	MVCR	1	1	1	2	2	2	2	2	2	2	2	2	2	1	2	2
	17	MVCL	0	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1
	18	MVCE	0	0	2	3	0	7	1	2	0	3	2	3	7	0	5	4

Category	No	Name	LOW		HIGH	
			NTSC 3.58	OTHER	NTSC 3.58	OTHER
MIDE	19	MNR 1	1	1	1	1
	20	MNR 2	1	1	1	1
	21	MNR 3	1	1	1	1

Category	No	Name	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
MIDE	1	MHLY	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0
	2	MHLC	3	3	3	3	0	0	0	0	3	3	0	0	0	0	0	0
	3	MVLY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	MVLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	MHYR	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0
	6	MHYL	1	1	2	2	1	1	1	1	1	1	1	1	0	0	0	0
	7	MHYE	4	7	2	7	2	4	7	7	2	5	7	7	0	0	0	0
	8	MHYO	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0
	9	MHCR	0	0	0	0	0	0	1	1	2	2	0	1	0	0	0	0
	10	MHCL	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
	11	MHCE	0	0	0	0	0	0	4	4	0	0	4	4	0	0	0	0
	12	MHCO	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
	13	MVYR	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0
	14	MVYL	0	1	1	1	0	0	1	1	1	1	1	1	0	0	0	0
	15	MVYE	0	3	7	5	0	0	4	4	0	3	4	4	0	0	0	0
	16	MVCR	0	0	0	0	0	0	1	1	2	2	1	1	0	0	0	0
	17	MVCL	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
	18	MVCE	0	0	0	0	0	0	4	4	0	0	4	4	0	0	0	0

Category	No	Name	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
MIDE	1	MHLY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	MHLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	MVLY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	MVLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	MHYR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	MHYL	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	7	MHYE	0	2	4	7	7	0	0	0	0	0	0	0	0	0	0	0
	8	MHYO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	MHCR	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	10	MHCL	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	11	MHCE	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
	12	MHCO	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	13	MVYR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	14	MVYL	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	15	MVYE	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
	16	MVCR	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	17	MVCL	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
	18	MVCE	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	Single	Other
MID1	0	DYCD	0	0

Category	No	Name	Single(Normal), MS(ATSC)	Twin/Freeze	MS-2	INDEX
MID1	1	DYSD	1	1	1	1

Category	No	Name	Vcomp				Other			
			50Hz	60Hz	100Hz	120Hz	50Hz	60Hz	100Hz	120Hz
MID1	2	MDVP	12	12	15	15	0	0	15	15

Category	No	Name	Single(Normal)	TWIN	Freeze	Index	Favorite	MS
MID2	0	BCOL	0	4	1	4	4	6

Category	No	Name	
MID2	1	MSYS	1

Category	No	Name	RF		CV/BS		YC	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
MID3	0	MHPH	0	-1	-1	-1	-1	-1

Category	No	Name	Comp/AVMulti(YPbPr)/DVI									AVMulti(RGB)/RGB/ATSC/MS(ATSC)									MS-2
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	Other	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	Other	
MID3	0	MHPH	-1	0	3	1	2	1	2	2	1	-2	-1	4	2	2	2	2	2	2	2

Category	No	Name	RF		CV/BS		YC		Comp/AV Multi(YPbPr) DVI								
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	Other
MID3	1	SHPH	0	-1	0	-1	0	-1	0	0	0	0	0	0	0	0	0

Category	No	Name	AV Multi(RGB)/RGB/ATSC/MS(ATSC)									MS-2
			480_60I	576_50I	480_60P	576_50P	720_60P	720_50P	1080_60I	1080_50I	Other	
MID3	1	SHPH	0	0	0	0	0	0	0	0	0	0

Category	No	Name	
MCP	0	TCOF	0
	1	PON	1
	2	RON	1
	3	GON	1
	4	BON	1
	5	AKBO	0

Category	No	Name	
MCP	6	RGBL	0
	7	YLMT	0
	8	BLKB	1

Category	No	Name	DRC		Analog				DVI					Digital/ATSC/RGB				MS	Twin	Teletext
			RF/BS/CV/YC	Comp-480i	480p/576p	720p	1080i	Other	DRC	480p	720p	1080i	VGA	DRC	480p	720p	1080i			
MCP	9	YOF	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	10	CBOF	37	31	31	32	31	31	32	38	32	40	40	32	38	32	40	40	40	60
	11	CROF	36	31	31	32	31	31	38	43	38	48	48	38	43	38	48	48	32	40
	12	SPIC	8	9	4	5	5	5	12	9	9	9	9	12	9	9	9	9	7	7
	13	SCOL	34	33	31	30	30	30	31	31	30	30	30	31	31	30	30	30	26	38
	14	SHUE	31	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	31

Category	No	Name	Other	Small Pic(Normal)
MCP	15	ABLT	0	4

Category	No	Name	
VSW	0	VTC	1
	1	HSEP	1

Category	No	Name	0	1	2	3	4	5	6	7
SNNR	0	7SHP	36	36	36	27	15	12	0	0
	1	7YF1	3	2	2	2	1	1	0	0
	2	7LTI	0	0	0	0	0	0	0	0
	3	7CTI	0	0	0	0	0	0	0	0
	4	7VML	1	1	1	1	1	1	0	0
	5	7VMC	2	2	2	1	1	1	0	0
	6	7COL	6	6	6	6	3	3	0	0
	7	7BRT	10	10	9	8	8	8	0	0
	8	MIDD	27	18	18	18	18	15	0	0
	9	SVRA	204	153	102	51	0	0	0	0
	10	SVRB	204	153	102	51	0	0	0	0

Category	No	Name	
OSDP	0	LEVL	5
	1	FFLV	0

Category	No	Name	
OSDS	0	HPOS	23
	1	HSIZ	65

Category	No	Name	Full Normal 50Hz	Full Normal 60Hz	Full Normal 100Hz	Full Normal 120Hz	Wide Zoom 50Hz	Wide Zoom 60Hz	Wide Zoom 100Hz	Wide Zoom 120Hz	Zoom 50Hz	Zoom 60Hz	Zoom 100Hz	Zoom 120Hz	Index 50Hz	Index 60Hz	Favorite 50Hz	Favorite 60Hz	Twin 50Hz	Twin 60Hz	HD1080I 50Hz	HD1080I 60Hz	MS	VCOMP 50Hz	VCOMP 60Hz	VCOMP 100Hz	VCOMP 120Hz
OSDS	2	VPOS	50	38	62	53	58	44	73	59	76	57	91	71	47	33	47	33	47	28	60	34	50	54	45	63	53

Category	No	Name	
ASEL	0	TU1	15
	1	TU2	15
	2	TU3	15
	3	VID1	15
	4	VID2	0
	5	VID3	15
	6	VID4	9
	7	YUV1	8
	8	YUV2	10
	9	YUV3	15
	10	MS	15
	11	ATSC	15
	12	CSPK	15

Category	No	Name	
VSEL	0	TU1	1
	1	TU2	0
	2	TU3	0
	3	VID1	4
	4	VID2	5
	5	VID3	6
	6	VID4	7
	7	YUV1	16
	8	YUV2	18
	9	YUV3	0
	10	ATSC	0
	11	SECAM	17

Category	No	Name	
PFID	0	COLS	2
	1	DEFS	2
	2	DRC	0
	3	AMAX	1
	4	FRME	0
	5	SMAX	1
	6	FVLO	1
	7	2057	0
	8	NSMT	0
	9	YDET	0
	10	BLKM	1

Category	No	Name	
HLOS	0	APLL	1
	1	AQ	1

Category	No	Name	SD			
			Composite		Component	
			NTSC	PAL/SECAM	NTSC	SECAM
HLAD	0	YCLP	200	200	200	200
	1	CCLP	200	200	200	200

Category	No	Name	SECAM	PAL	NTSC
9090	0	UOF	3	2	2
	1	VOF	0	7	7

Category	No	Name	
DEF1	0	VPOS	31
	1	VSIZ	18
	2	VLIN	8

Category	No	Name	Wide Zoom	Other
DEF1	3	VSCO	11	8

Category	No	Name	Wide Zoom
DEF1	4	NSCO	31
	5	HTPZ	15

Category	No	Name	Range	Full							VComp/Normal						
				50Hz		60Hz			100Hz	120Hz	50Hz		60Hz			100Hz	120Hz
				SD	HD	SD	HD	HD1035	SD	SD	SD	HD	SD	HD	HD1035	SD	SD
DEF1	6	ASPT	0/63	47	0	46	43	0	46	45	44	58	46	49	47	43	45
	7	SCRL	0/63	31	35	31	32	31	38	39	35	35	37	37	31	38	38

Category	No	Name	Range	Wide Zoom				Caption				Zoom			
				50Hz	60Hz	100Hz	120Hz	50Hz	60Hz	100Hz	120Hz	50Hz	60Hz	100Hz	120Hz
				SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
DEF1	6	ASPT	0/63	22	22	22	22	43	43	43	43	43	43	43	43
	7	SCRL	0/63	31	31	31	31	31	31	31	31	31	31	31	31

Category	No	Name	Wide Zoom	Caption	Other
DEF1	8	UVLN	4	0	0
	9	LVLN	4	10	0

Category	No	Name	60Hz	100Hz	120Hz
DEF1	10	VPSO	-1	1	0

Category	No	Name	Wide Zoom	Other
DEF2	0	HPOS	31	24

Category	No	Name	
DEF2	1	HSIZ	42
	2	PIN	28
	3	UCP	38
	4	LCP	38

Category	No	Name	Zoom Wide Zoom Caption	Other
DEF2	5	PPHA	20	23

Category	No	Name	
DEF2	6	VANG	31
	7	VBOW	31

Category	No	Name	50Hz		60Hz		100Hz		120Hz		HD-50Hz	HD-60Hz
			Wide Zoom/ Vcomp	Other	Wide Zoom/ Vcomp	Other	Wide Zoom/ Vcomp	Other	Wide Zoom/ Vcomp	Other		
DEF2	8	UXCG	1	0	1	0	1	1	1	1	0	0
	9	LXCG	2	1	0	1	1	1	3	0	0	0
	10	UXCP	1	3	1	0	1	3	1	2	1	1
	11	LXCP	2	2	0	2	2	2	3	0	0	0
	12	XCPP	1	0	1	0	0	0	0	0	1	1

Category	No	Name	60Hz	100Hz	120Hz	HD-50Hz	HD-60Hz	Twin 50	Twin 60
DEF2	13	PPHO	-2	-1	-3	0	0	-1	0

Category	No	Name	50/100Hz	60Hz/120Hz				HD 50Hz		HD 60Hz		Twin 50		Twin 60	
			Wide Zoom/ Vcomp	Wide Zoom/ Vcomp(Ocenia)	Other	Ocenia	Other	Ocenia	Other	Ocenia	Other	Ocenia	Other	Ocenia	Other
DEF2	14	HSZO	0	0	0	0	0	0	0	0	0	0	0	0	0

Category	No	Name	50Hz	60Hz		100Hz		120Hz		HD-50Hz	HD-60Hz	Twin 50	Twin 60
			Wide Zoom/ Vcomp	Wide Zoom/ Vcomp	Other	Wide Zoom/ Vcomp	Other	Wide Zoom/ Vcomp	Other				
DEF2	15	PINO	-2	1	0	0	0	1	0	1	-2	-2	-3
	16	UCPO	-3	0	0	0	0	2	1	-2	-2	0	-2
	17	LCPO	0	2	0	0	-1	1	-2	2	-1	0	-1

Category	No	Name	
DEF2	18	VAOC	1

Category	No	Name	
DEF3	0	HBLK	1

Category	No	Name	HD
DEF3	1	LBLK	50
	2	RBLK	30

Category	No	Name	Full							VComp/Normal						
			50Hz		60Hz			100Hz	120Hz	50Hz		60Hz			100Hz	120Hz
			SD	HD	SD	HD	HD1035	SD	SD	SD	HD	SD	HD	HD1035	SD	SD
DEF3	3	TBLK	7	4	1	8	4	15	10	15	4	15	15	10	15	15
	4	BBLK	13	6	8	7	6	9	9	13	6	8	7	14	15	12

Category	No	Name	WideZoom					Caption					Zoom				
			50Hz	60Hz		100Hz	120Hz	50Hz	60Hz		100Hz	120Hz	50Hz	60Hz		100Hz	120Hz
			SD	SD	HD	SD	SD	SD	SD	HD	SD	SD	SD	SD	HD	SD	SD
DEF3	3	TBLK	12	12	12	12	12	7	7	7	7	7	7	7	7	7	7
	4	BBLK	15	15	15	15	15	7	7	7	7	7	7	7	7	7	7

Category	No	Name	
DEF3	5	AFCM	3

Category	No	Name	Zoom WidwZoom Caption	HD	Other
DEF3	6	VDJP	1	0	0

Category	No	Name	Full						VComp/Normal					
			50Hz		60Hz		100Hz	120Hz	50Hz		60Hz		100Hz	120Hz
			SD	HD	SD	HD	SD	SD	SD	HD	SD	HD	SD	SD
DEF3	7	AKBT	28	16	20	16	20	20	30	16	20	16	30	24

Category	No	Name	WideZoom					Caption				Zoom				
			50Hz	60Hz		100Hz	120Hz	50Hz	60Hz		100Hz	120Hz	50Hz	60Hz		100Hz	120Hz
			SD	SD	HD	SD	SD	SD	SD	HD	SD	SD	SD	SD	HD	SD	SD
DEF3	7	AKBT	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

Category	No	Name	Vcomp	Other
DEF4	0	QPDC	24	24
	1	QPDV	42	42
	2	QPDP	5	5
	3	QPAM	31	31
	4	QPAV	25	25
	5	QPAP	7	7

Category	No	Name	
DEF4	6	QPPH	35
	7	DFPH	4

Category	No	Name	
DEF4	8	COPY	0

Category	No	Name	
DEF5	0	VON	1
	1	AGCS	0

Category	No	Name	50Hz			60Hz			100Hz			120Hz			HD	
			WideZoom /Vcomp	Normal	Other	WideZoom /Vcomp	Normal	Other	WideZoom/ Vcomp	Normal	Other	WideZoom /Vcomp	Normal	Other	50	60
DEF5	2	ACMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	HCMP	10	10	10	10	11	10	10	10	10	10	10	10	10	10
	4	VCMP	8	8	8	8	7	8	8	8	8	8	8	8	7	8
	5	PCMP	7	7	7	7	7	7	7	7	7	7	7	7	6	7

Category	No	Name	Range	
DDEV	0	ASPS	0/1	1
	1	OVSR		18
	2	DTYP		0
	3	DFID		0
	4	ALTD		0
	5	HICM		0
	6	ALMX		4

Category	No	Name	
LD	0	NSDT	31
	1	L-DT	127
	2	R-DT	127
	3	NSGN	23
	4	NSLC	0
	5	EWGN	0
	6	NSMX	16
	7	LCMX	64
	8	RTMX	7
	9	VPMX	4
	10	MUTE	0

6-3. PICTURE QUALITY ADJUSTMENTS

Adjustment condition
1. Set to service mode.
2. Set picture mode to CUSTOM.
3. Set the following condition.

INTELLIGENT PICTURE	: OFF
DRC-MF	: DRC1250
ECO MODE	: OFF
NR	: OFF

Input signal : PAL VIDEO COLOR BAR (White & Color 100%)
576i COLOR BAR (White & Color 100%)

MEASUREMENT POINT
Input signal : NTSC VIDEO COLOR BAR
(White & Color 75%)
480i COLOR BAR (White & Color 75%)

A board CN4301
⑩ R-OUT ➔ VR
⑥ B-OUT ➔ VB

6-3(1). DRIVE ADJUSTMENT

(i) SUB CONTRAST (PAL)
Input signal : PAL (100%) Color bar to Video 1
Picture : CUSTOM mode

Condition :	MCP	002	RON	1
		003	GON	0
		004	BON	0
		006	RGBL	3
		007	YLMT	1
	SADJ	001	PIOF	0

Under Picture Menu :	Picture	100
	Color	0

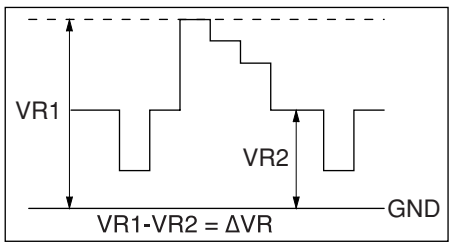
Adjusting parameter:
MCP 012 SPIC

(ii) SUB CONTRAST (NTSC)
Input signal : NTSC (75%) Color Bar to Video 1
Picture : CUSTOM mode

Condition:	MCP	002	RON	1
		003	GON	0
		004	BON	0
		006	RGBL	3
		007	YLMT	1
	SADJ	001	PIOF	0

Under Picture Menu :	Picture	100
	Color	0

Adjusting parameter :
MCP 012 SPIC



ΔVR = 2.20 ± 0.07 (Vp-p) ➔ PAL
ΔVR = 1.56 ± 0.07 (Vp-p) ➔ NTSC

Reset back adjustment conditions to original data after adjustment.

6-4. SUB HUE/COL ADJUSTMENT

6-4(1). SUB HUE/SUB COL (VIDEO MODE)

Input signal : NTSC (75%) Color bar or PAL (100%)
Color Bar to Video 1.
Picture : CUSTOM mode

Condition :	MCP	002	RON	1
		003	GON	1
		004	BON	1
		006	RGBL	3
		007	YLMT	1

Under Picture Menu :	Picture	60 (for multi models)
	Color	50 (for multi models)

Adjusting parameter:
MCP 013 SCOL
SADJ 000 SHUE

Inch	Offset for PAP/2 Tuner Models and for Non-PAP/1 Tuner models
34"	Adjusted + 1 step
32"	Adjusted + 1 step
29"	Adjusted + 3 steps

After Adjustment, apply offset steps to SCOL and save the data.

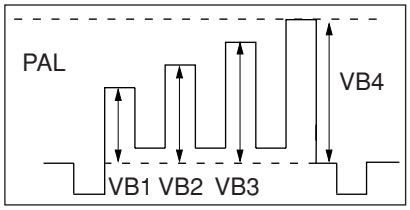
6-4(2). SUB HUE (NTSC RF MODE)

Input signal : NTSC (75%) Color bar to RF

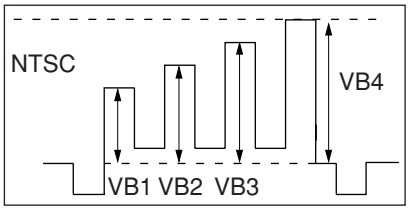
Condition :	MCP	002	RON	1
		003	GON	1
		004	BON	1
		006	RGBL	3
		007	YLMT	1

Under Picture Menu :	Picture	60 (for multi models)
	Color	50 (for multi models)

Adjusting parameter:
SADJ 000 SHUE



VB1 = VB3 = VB4 ± 70 mV



VB1 = VB4 ± 70 mV
VB2 = VB3 ± 70 mV

Reset back adjustment conditions to original data after adjustment.

6-4(3).480i INPUT / 576i INPUT

Input Signal : 480i 75% Color Bar or 576i 100% Color Bar to HD / DVD1

(i) SUB CONTRAST

Condition : MCP 002 RON 1 006 RGBL 3
003 GON 0 007 YLMT 1
004 BON 0
SADJ 001 PIOF 0

Under Picture Menu : Picture 100
Color 0

Adjusting parameter : MCP 012 SPIC

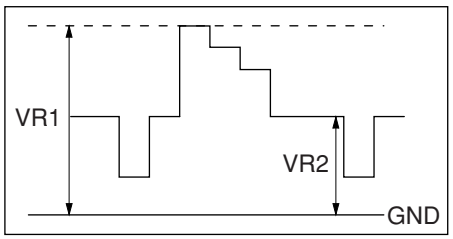
(ii) SUB COLOR & SUB HUE ADJUSTMENT

Condition : MCP 002 RON 1 006 RGBL 03
003 GON 1 007 YLMT 1
004 BON 1

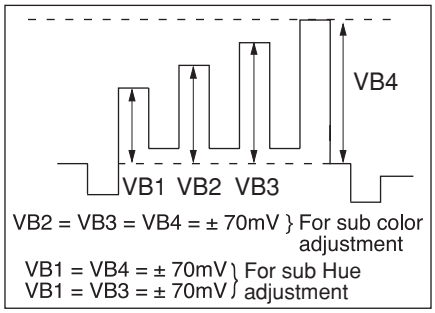
Under Picture Menu : Picture 60 (for multi models)
Color 50 (for multi models)

Adjusting parameter : MCP 013 SCOL
014 SHUE

Inch	Offset for PAP/2 Tuner Models and for Non-PAP/1 Tuner models
34"	Adjusted + 1 step
32"	Adjusted + 1 step
29"	Adjusted + 1 step



VR1- VR2 = ΔVR = 2.20 ± 0.07 Vp-p (For 576i 100% color bar)
= 1.56 ± 0.07 Vp-p (For 480i 75% color bar)
(For DB GA multi models only)



Reset back adjustment conditions to original data after adjustment.

6-4(4). SUB COLOR (TWIN MODE)

Apply offset steps from adjusted SCOL (VIDEO MODE) data & save the data.

Adjusting parameter : MCP 013 SCOL

Inch	Offset from adjusted SCOL(VIDEO MODE)data
34"	+5 steps
32"	+5 steps
29"	+5 steps

6-5. DEFLECTION ADJUSTMENTS

FOR DRC 1250 (50Hz) MODE

1. Set to Service Mode.
2. Input a PAL cross hatch/dot signal.
3. Set the following condition.
Picture Mode to [VIVID], Picture Rotation to [+/-0] and Eco Mode to OFF.
4. Set to DRC-MF1250 mode.
5. Using the [1] and [4] button, select category DEF 1 (Service Mode).
6. Select and adjust the following items to obtain optimum image. Raise/lower the data using the [3] and [6] buttons.

Service Item

DEF 1 :	000	VPOS	V POSITION
	001	VSIZ	V SIZE
	002	VLN	V LINEARITY
	003	VSCO	S CORRECTION
	005	HTPZ	H TRAPEZOID
DEF 2 :	000	HPOS	H POSITION
	001	HSIZ	H SIZE
	002	PIN	PIN AMP
	003	UCP	UPPER CORNER PIN
	004	LCP	LOWER CORNER PIN
	006	VANG	AFC ANGLE
	007	VBOW	AFC BOW

RBLK = 33 + (24-HPOS)/2 (for 29" only)
RBLK = 32 + (28-HPOS)/2 (for 34")
LBLK = 50 + (26-HPOS) (HPOS>26 for 34")

7. Write into the memory by pressing [MUTING] then [0] on the remote commander.

FOR WIDE MODE, DRC1250 (50Hz)

8. Adjust condition change to WIDE MODE : ON.

Service Item

DEF 1 :	006	ASPT	VASPECT
	007	SCRL	VSCROLL
DEF 2 :	015	PINO	PIN AMP OFFSET
	016	UCPO	UPPER CORNER PIN OFFSET
	017	LCPO	LOWER CORNER PIN OFFSET

FOR DRC 1250 (60Hz) MODE

9. Input 525/60Hz signal.
10. Set to DRC-MF : 1250

FOR WIDE MODE, DRC 1250 (60Hz)

11. Set to WIDE MODE : ON
12. Adjust the following items to obtain optimum image. Raise/lower the data with the [3] and [6] buttons.

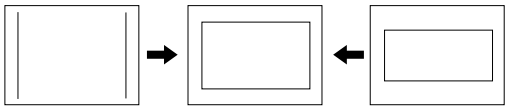
DEF 1 :	006	ASPT	VASPECT
	007	SCRL	VSCROLL
DEF2 :	015	PINO	PIN AMP OFFSET
	016	UCPO	UPPER CORNER PIN OFFSET
	017	LCPO	LOWER CORNER PIN OFFSET

13. Input a NTSC cross hatch/dot signal and repeat all above steps.

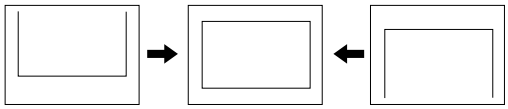
6-6. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

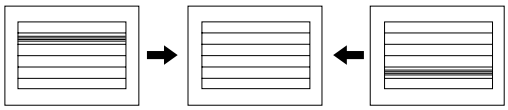
DE1 1 VSIZ (V SIZE)



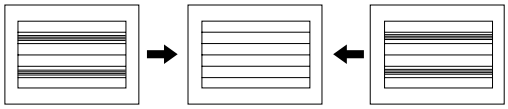
DEF1 10 VPOS (V POSITION)



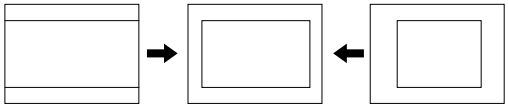
DEF1 2 VLIN (V LINEARITY)



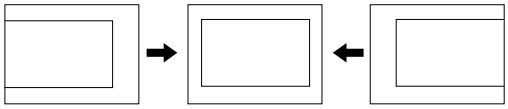
DEF1 3 VSCO (VERTICAL S-Correction)



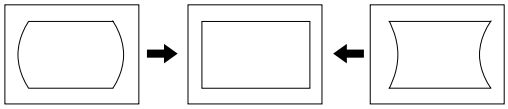
DFF2 1 HSIZ (H SIZE)



DEF2 0 HPOS (H POSITION)

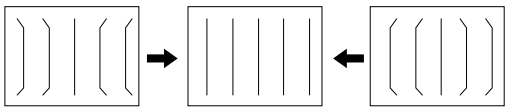


DEF2 2 PIN (PIN AMP)

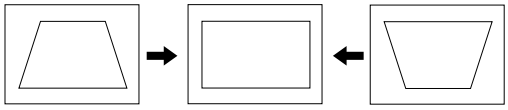


DEF2 3 UCP (UPPER CORNER PIN)

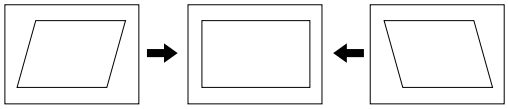
DEF2 4 LCP (LOWER CORNER PIN)



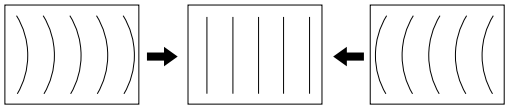
DEF2 5 PPHA (TRAPEZIUM)



DEF2 6 VANG (AFC.ANGLE)

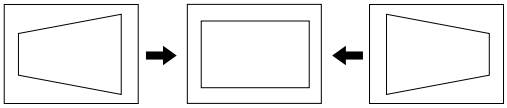


DEF2 7 VBOW (AFC.BOW)



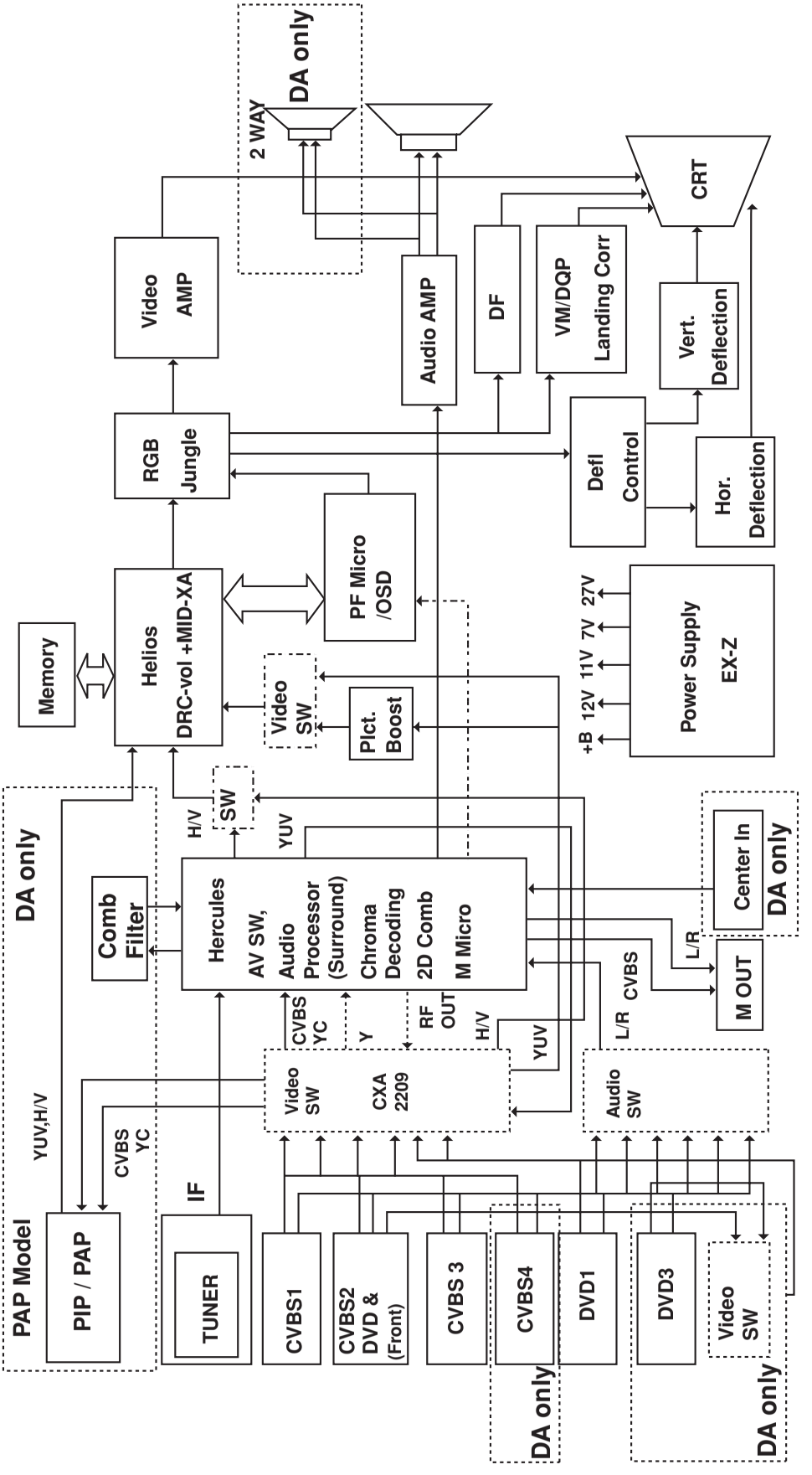
PICTURE DISTORTION ADJUSTMENT (2)

DEF1 5 HPTZ (H TRAPEZOID)



SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAM



7-2. SCHEMATIC DIAGRAM INFORMATION

Note:

- All capacitors are in µF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Indication of resistance which does not have rating electrical power is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- **Readings are taken with a color-bar signal input.**
  no mark : Common
  ( ) : PAL
  [ ] : NTSC 3.58
- **Readings are taken with a 10MΩ digital multimeter.**
- **Voltage are dc with respect to ground unless otherwise noted.**
- **Voltage variations may be noted due to normal production tolerances.**
- **All voltage are in Volt.**
- **✻ : Cannot be measured.**
- **Circled numbers are waveform references.**
- **: B +bus.**
- **: B –bus.**
- **⇨ : signal path.**

Note: The reference number which starts with Wxxx (eg: W003) indicates a wire to wire connection.

Note: Components marked as XX are not fitted on this model.

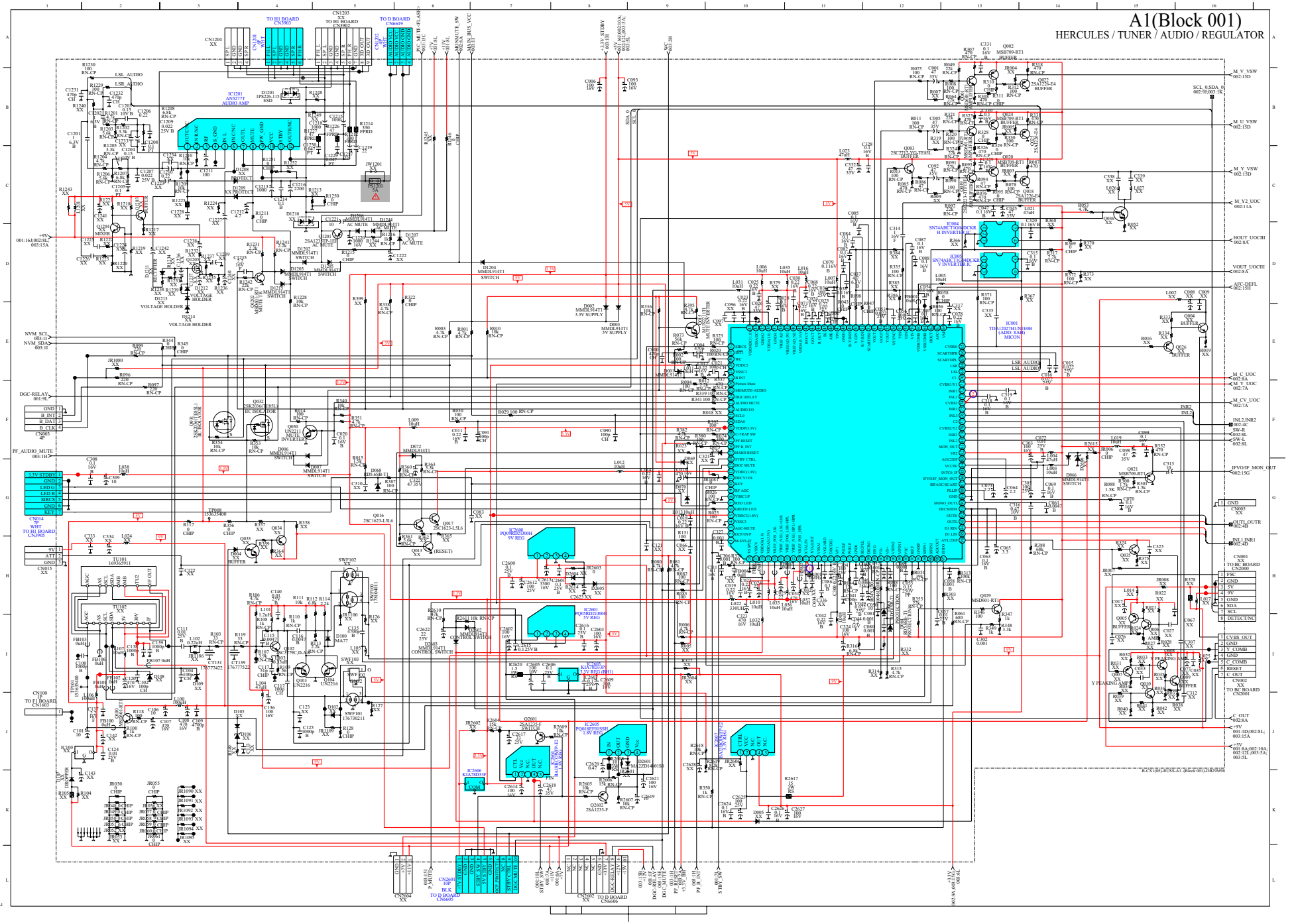
Reference information

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

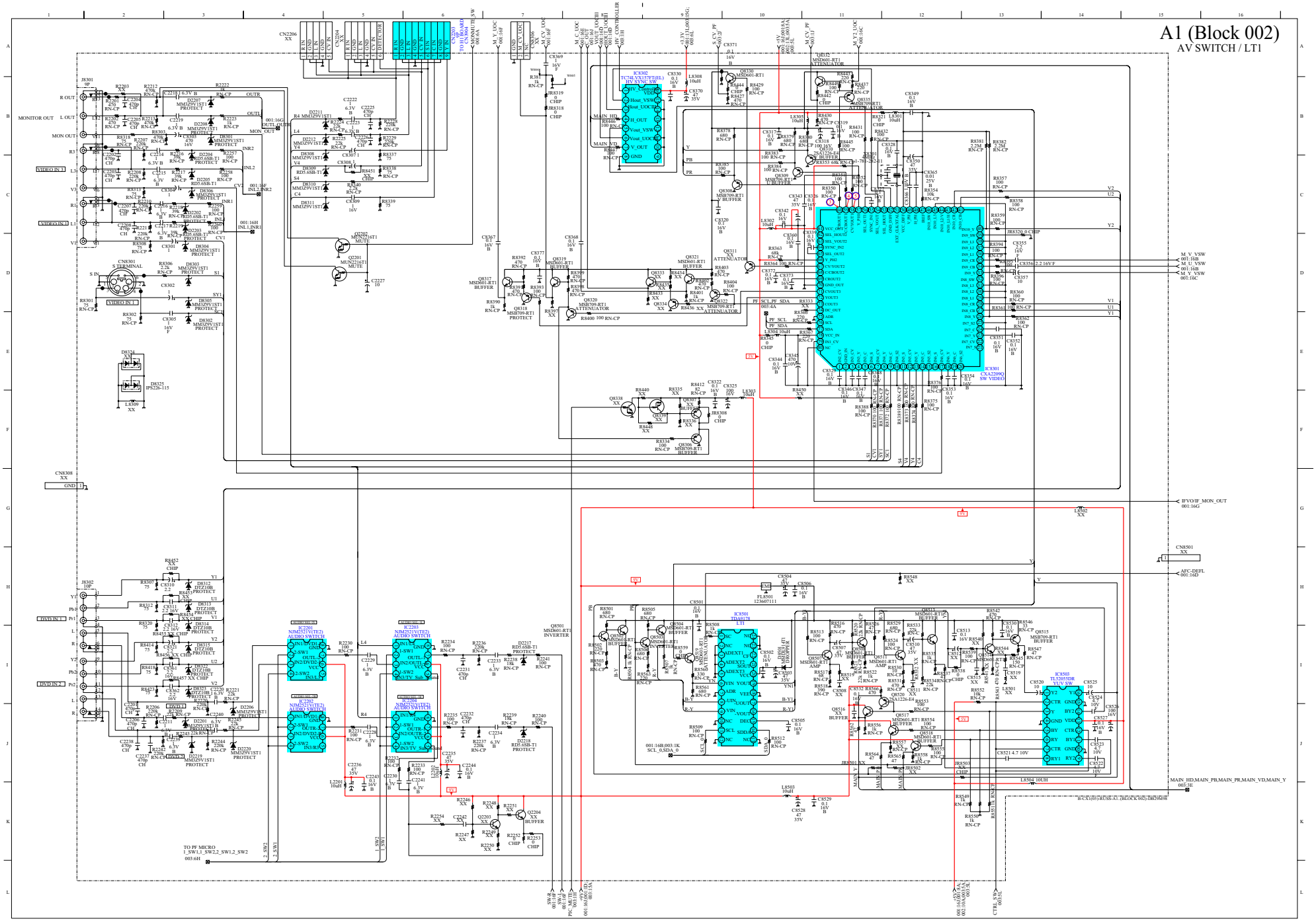
Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: "A" board schematic diagram is divided into 4 blocks. "BH1" board schematic diagram is divided into 2 blocks. "D" board schematic diagram is divided into 2 blocks. "VM" board schematic diagram is divided into 2 blocks. Each block is named by its function and block "number". eg: Hercules/Tuner/Audio/ Regulator (Block 001) Joint connection between boards can be identified using the block number followed by the grid's guide.
eg: –< NVM_SCL
003:1I
Meaning: Block 001 joint "NVM_SCL" is connected to Block 003 joint "NVM_SCL" located at grid 1I.

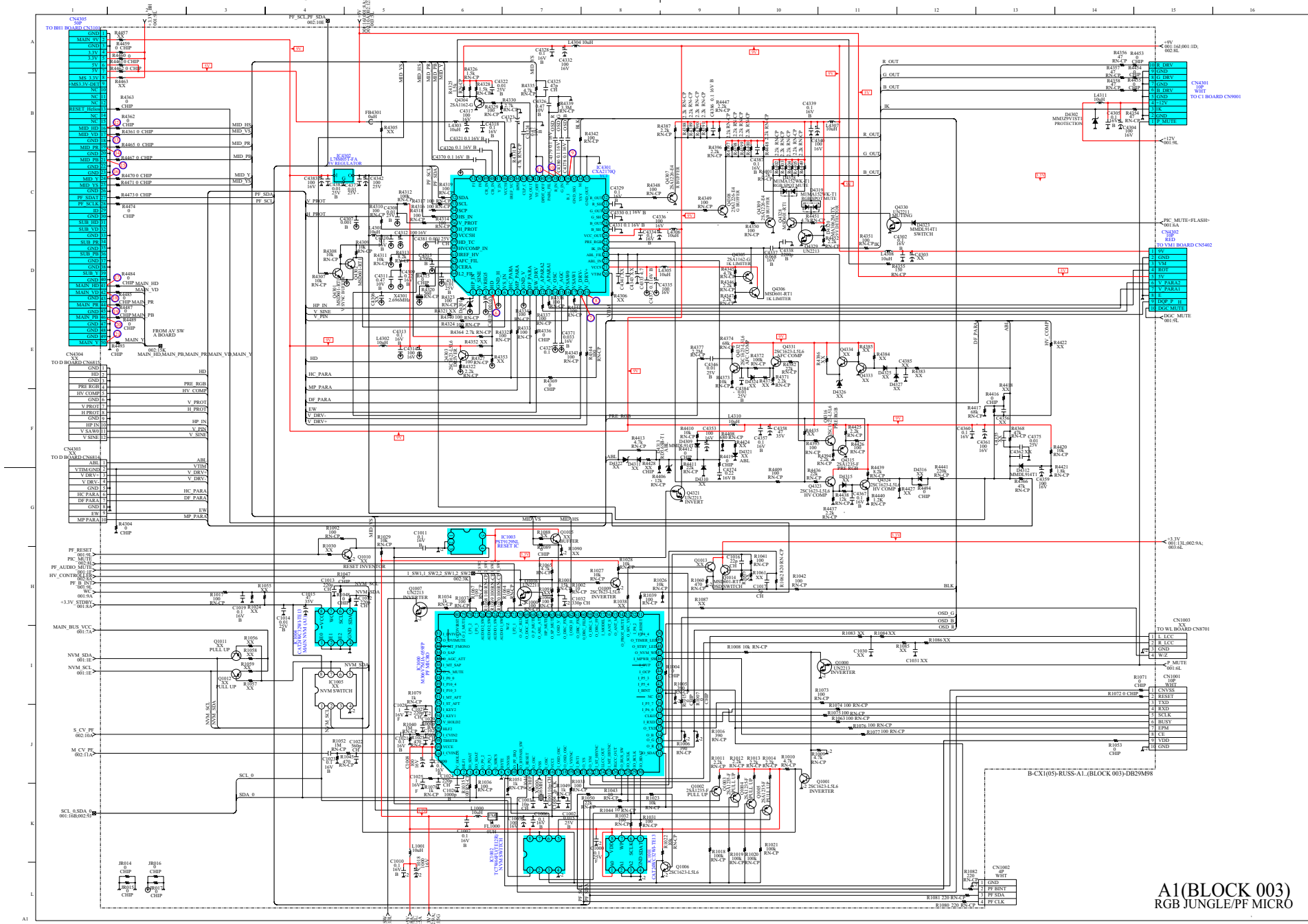
7-2-1. A1 Board – (Block 001) Schematic Diagram



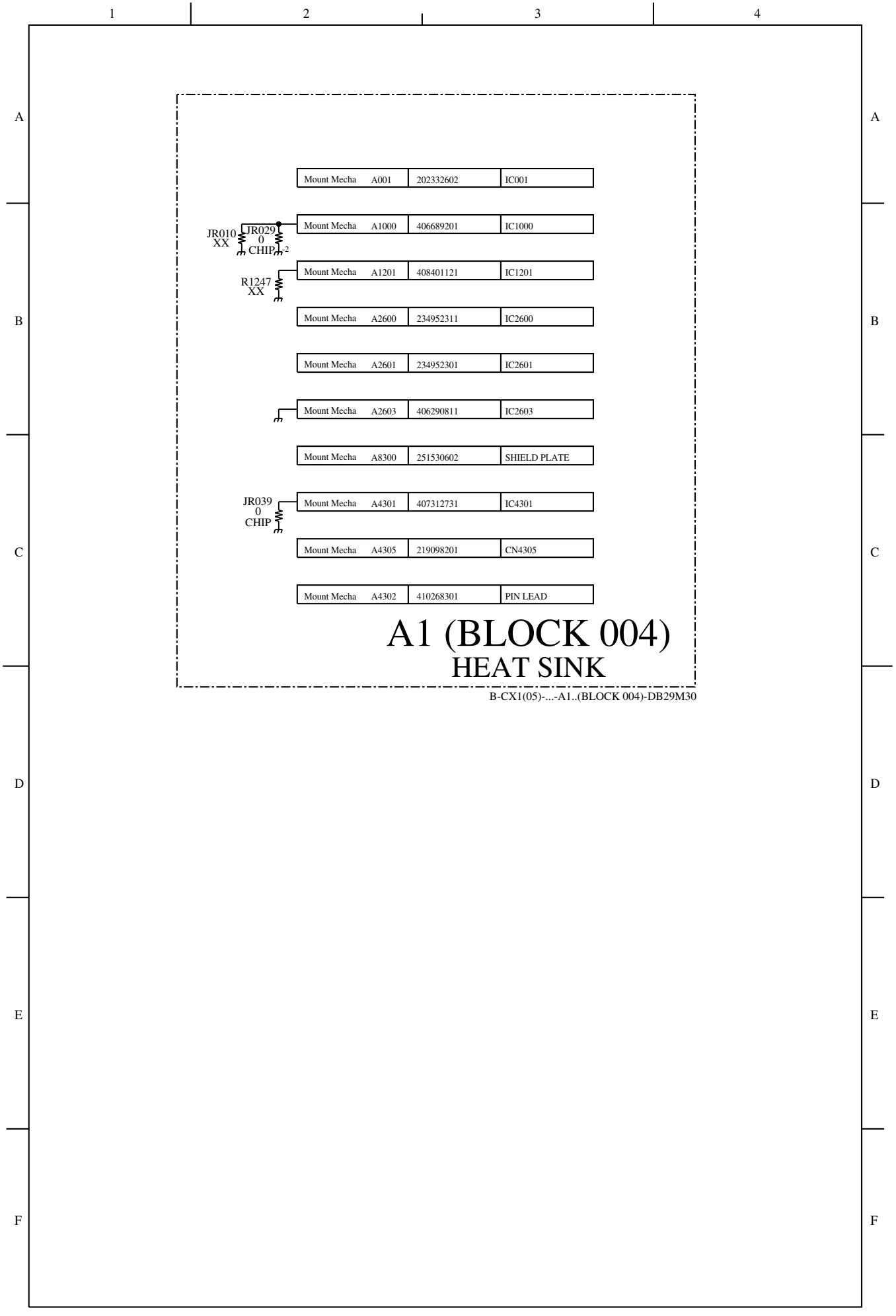
7-2-2. A1 Board – (Block 002) Schematic Diagram



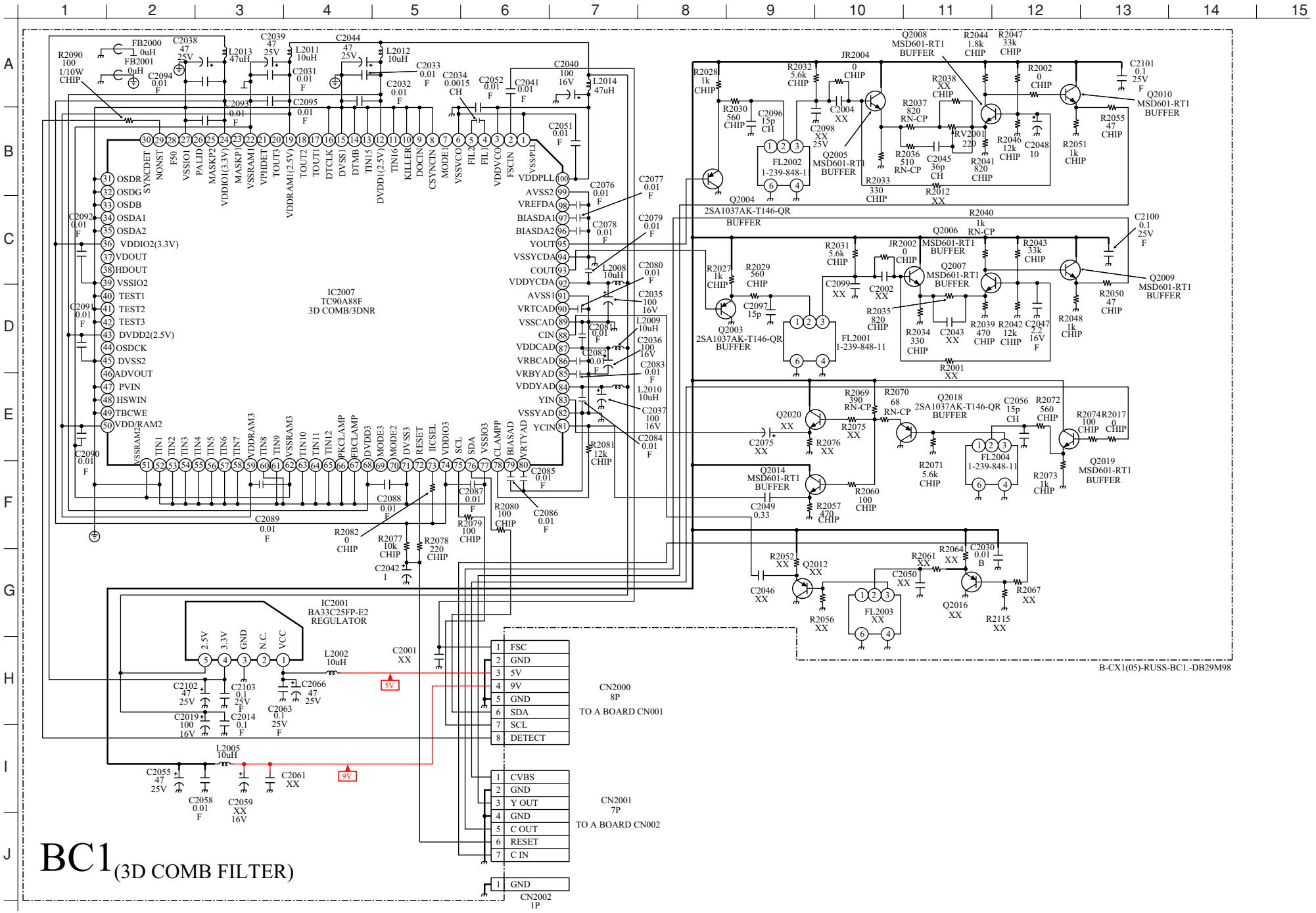
7-2-3. A1 Board – (Block 003) Schematic Diagram



7-2-4. A1 Board – (Block 004) Schematic Diagram

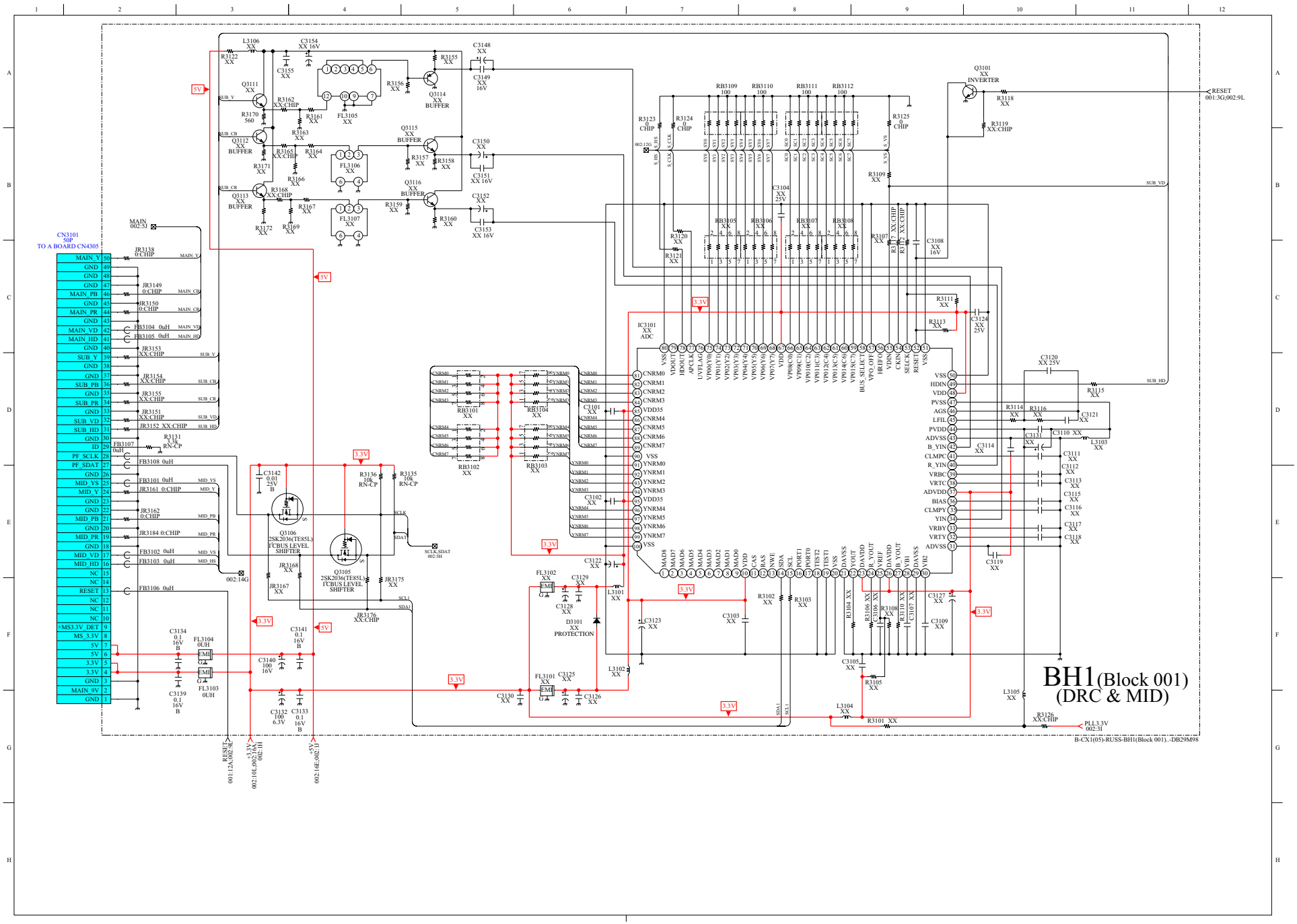


7-2-5. BC1 Board Schematic Diagram (KV-DB29M98)



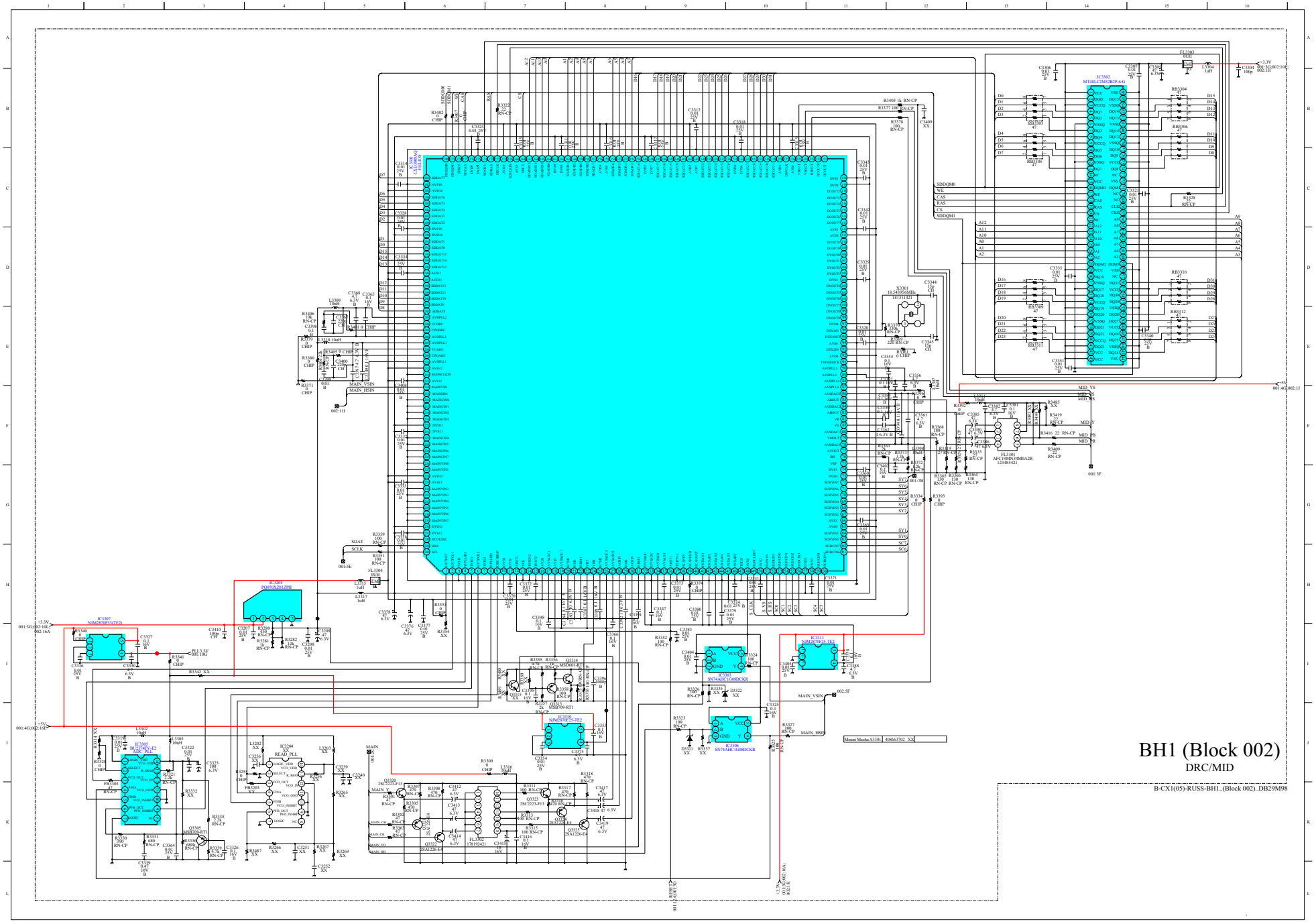
KV-DB29M50/M60/M80/M81
RM-GA001

7-2-6. BH1 Board – (Block 001) Schematic Diagram

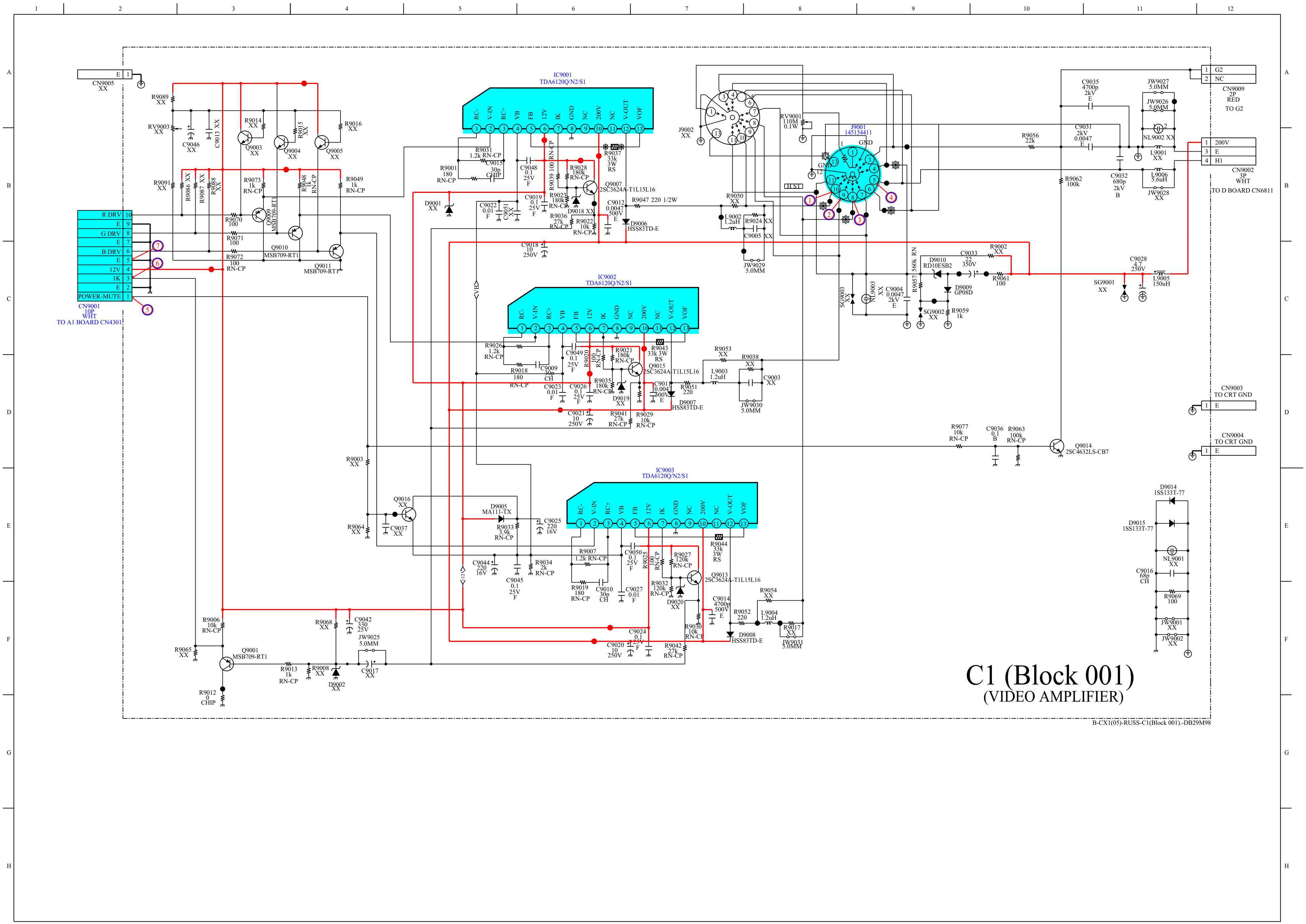


KV-DB29M50/M60/M80/M81
RM-GA001

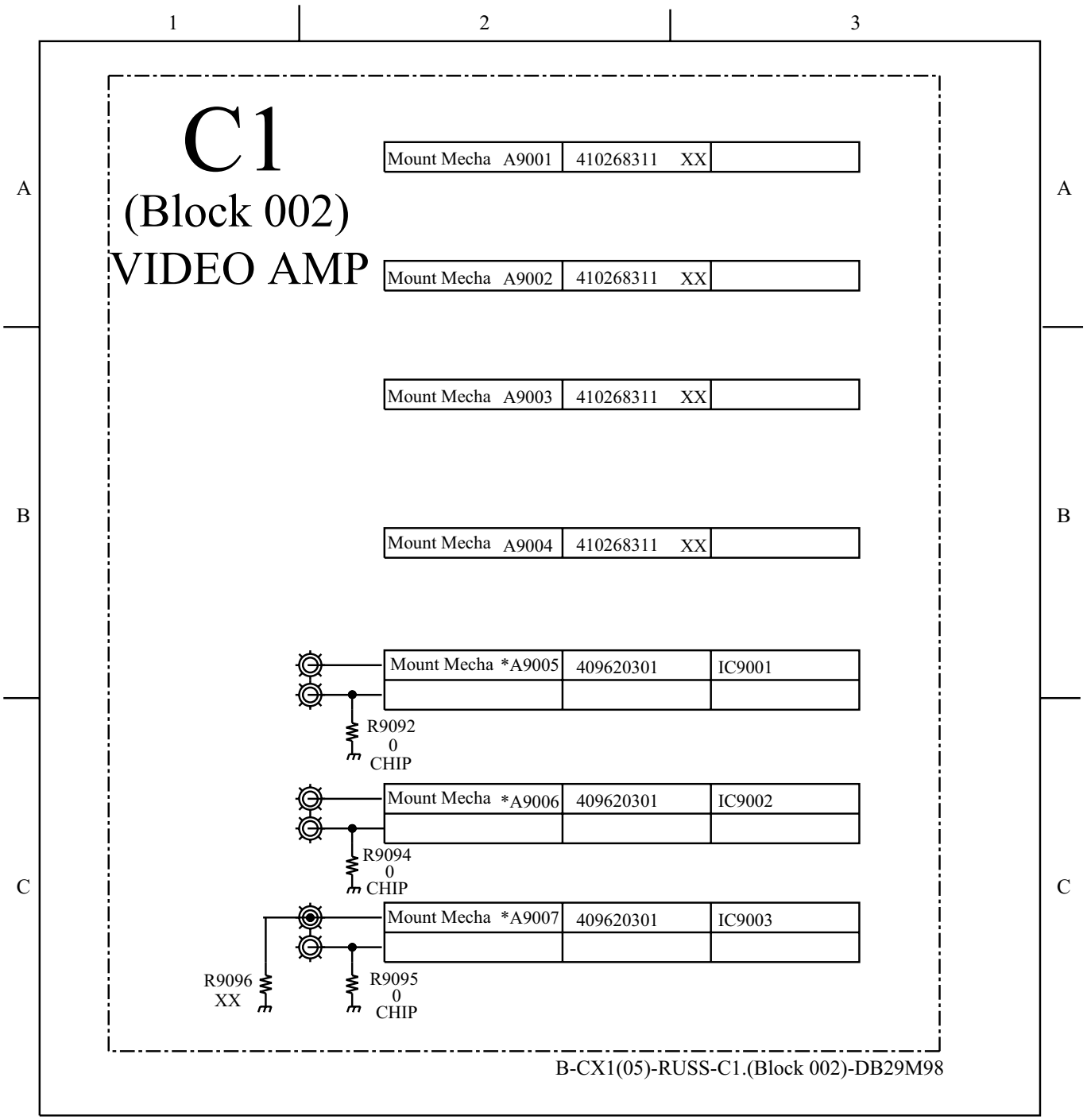
7-2-7. BH1 Board – (Block 002) Schematic Diagram



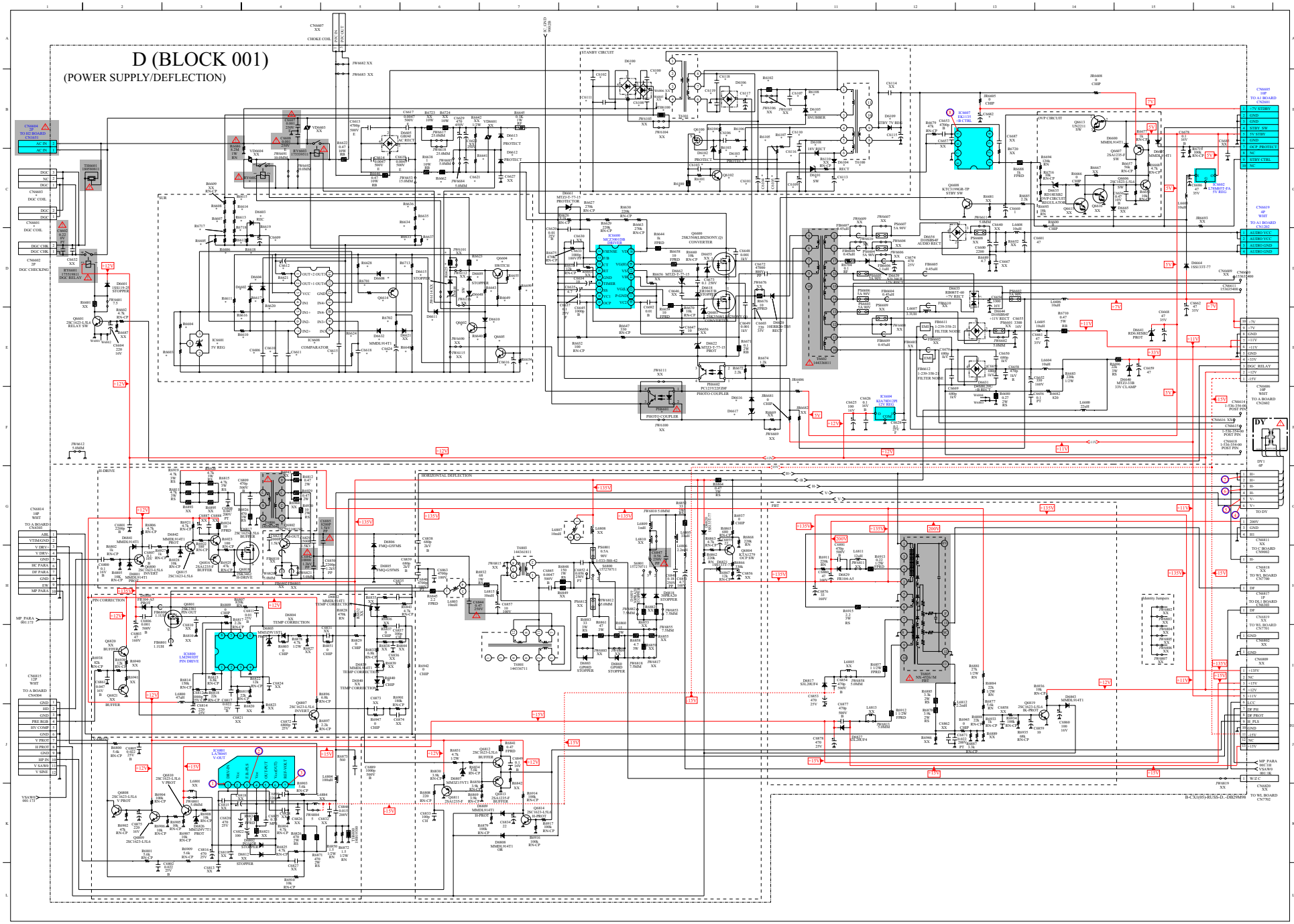
7-2-8. C1 Board – (Block 001) Schematic Diagram



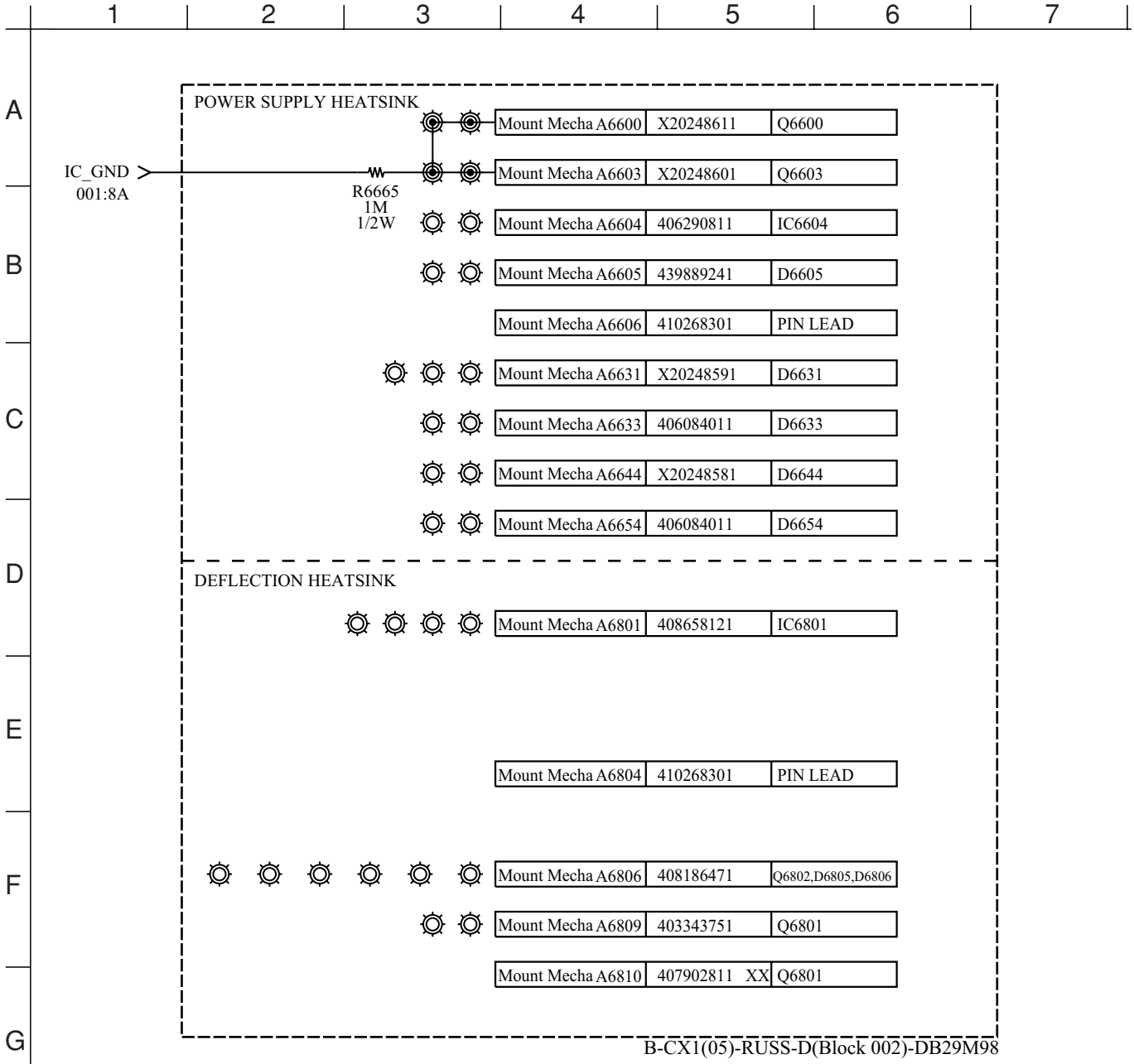
7-2-9. C1 Board (Block 002) Schematic Diagram



7-2-10. D Board – (Block 001) Schematic Diagram

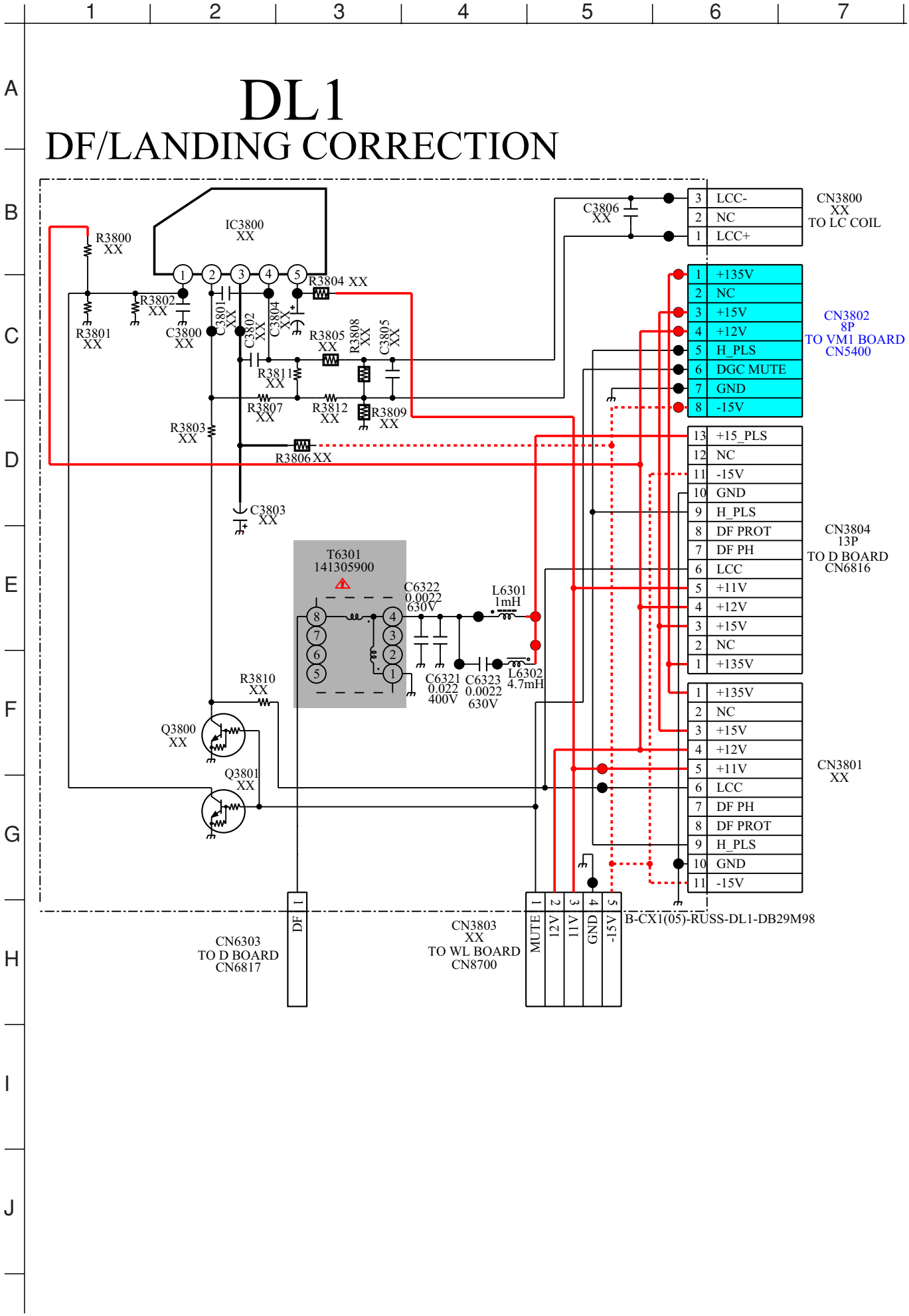


7-2-11. D Board – (Block 002) Schematic Diagram

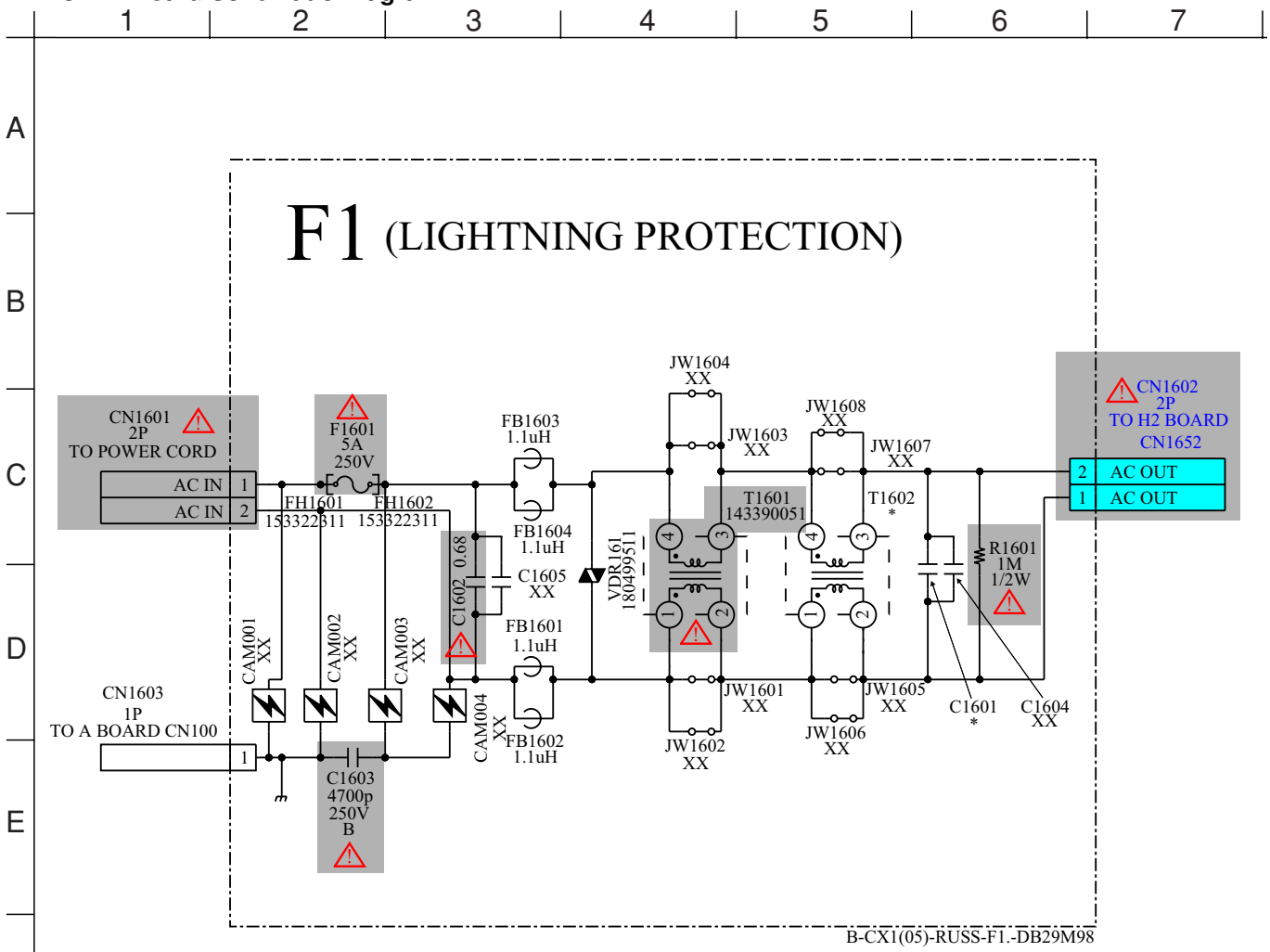


D
HEAT SINK
(Block 002)

7-2-12. DL1 Board Schematic Diagram

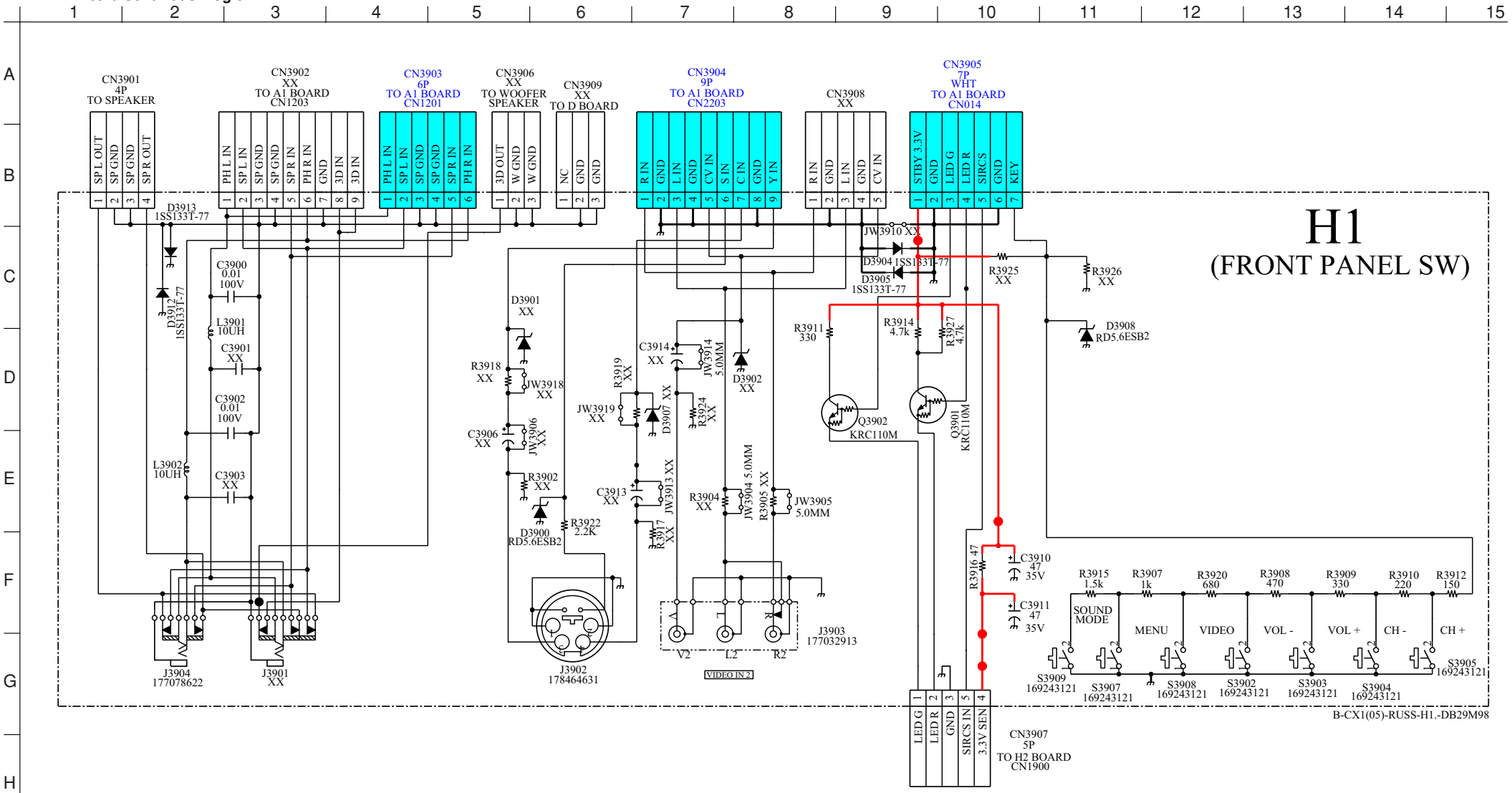


7-2-13. F1 Board Schematic Diagram

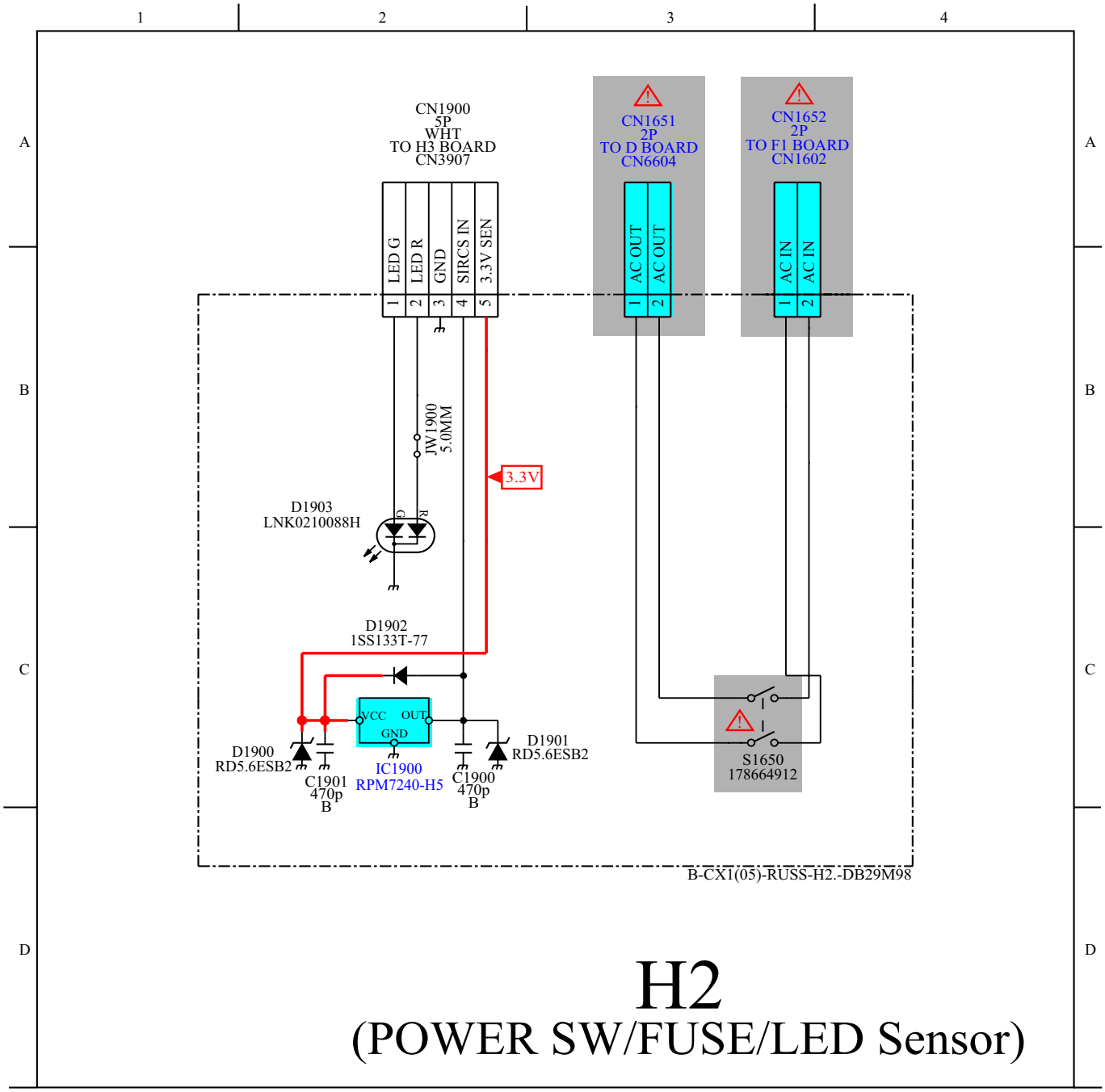


KV-DB29M61/M91/M98
RM-GA001

7-2-14. H1 Board Schematic Diagram

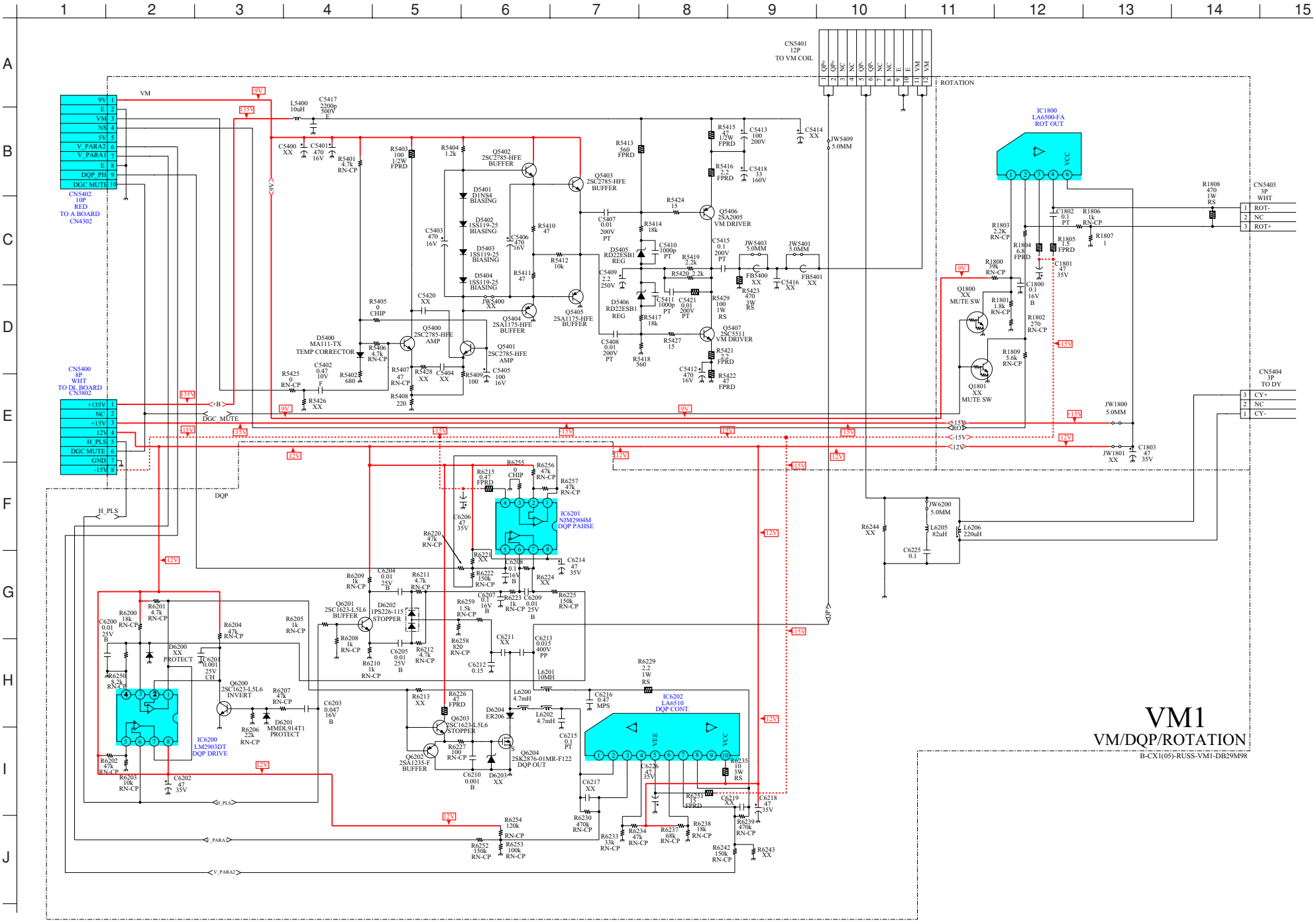


7-2-15. H2 Board Schematic Diagram



KV-DB29M61/M91/M98
RM-GA001

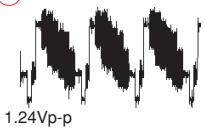
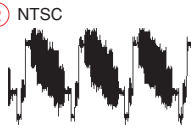
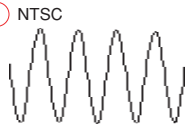
7-2-16. VM1 Board Schematic Diagram



7-3. VOLTAGE MEASUREMENT AND WAVEFORM

A1 BOARD VOLTAGE LIST AND WAVEFORM

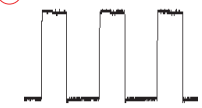
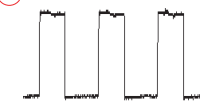
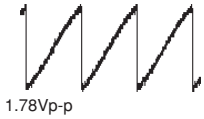
Ref	Pin No	Voltage[v]
IC001	1	0
	2	0
	3	3.2
	4	0
	5	0
	6	3.2
	7	0
	8	0
	9	(2.2)[3.0]
	10	3.2
	11	0
	12	0
	13	0
	14	4.9
	15	0
	16	0
	17	3.1
	18	0
	19	3.2
	20	3.5
	21	3.3
	22	0
	23	2.0
	24	0
	25	2.0
	26	0
	27	3.2
	28	0
	29	0
	30	3.2
	31	2.8
	32	2.9
	33	0
	34	0
	35	3.2
	36	0
	37	0
	38	0
	39	3.2
	40	0
	41	3.2
	42	2.6
	43	2.7
	44	2.6
	45	2.9
	46	3.5
	47	4.9
	48	0
	49	0
	50	0
	51	0
	52	0
	53	0
	54	0
	55	0
	56	0
	57	0
	58	0
	59	0
	60	4.9
	61	0
	62	4.5
	63	0
	64	0
	65	0
	66	3.5
	67	3.5
	68	3.5
	69	3.5
	70	0
	71	0
	72	2.1
	73	2.1

Ref	Pin No.	Voltage[v]
	74	1.6
	② PAL  1.24Vp-p	
	② NTSC  1.16Vp-p	
	75	2.1
	76	2.1
	77	0
	78	0
	79	2.1
	80	2.1
	81	0
	82	4.8
	83	0
	84	8.3
	85	4.3
	86	2.2
	87	0
	88	2.0
	89	0
	90	2.4
	91	2.3
	92	3.5
	93	3.5
	94	2.1
	95	2.1
	96	0
	97	0
	98	3.6
	99	0
	100	0
	101	0
	102	0
	103	2.3
	104	0
	105	0
	106	0
	107	3.3
	108	0
	109	2.2
	110	2.2
	111	0
	112	2.2
	113	0
	114	0
	115	2.5
	116	0
	117	0
	118	*
	119	*
	① PAL  2.24Vp-p	
	① NTSC  2.48Vp-p	

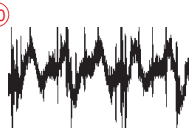
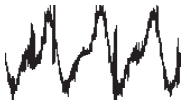
Ref	Pin No.	Voltage[v]
	120	3.2
	121	0
	122	3.2
	123	0
	124	0
	125	3.2
	126	0
	127	0
	128	0
IC004	1	0
	2	4.5
	3	0
	4	0
	5	4.9
IC005	1	0
	2	3.3
	3	0
	4	0.2
	5	4.9
IC1000	1	0
	2	0
	3	3.7
	4	3.6
	5	0
	6	0
	7	0
	8	0
	9	0
	10	0
	11	0
	12	3.2
	13	*
	14	0
	15	*
	16	3.2
	17	1.6
	18	0
	19	0
	20	0
	21	0
	22	0
	23	0
	24	0
	25	0
	26	0
	27	3.2
	28	4.6
	29	4.7
	30	4.6
	31	4.6
	32	0
	33	0
	34	0
	35	3.2
	36	0
	37	0
	38	0
	39	0
	40	0
	41	3.2
	42	0
	43	0
	44	0
	45	0
	46	0
	47	0
	48	0
	49	0
	50	0
	51	3.2
	52	0
	53	0
	54	0
	55	0
	56	0

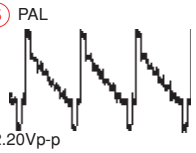
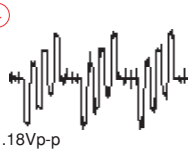
A1 BOARD VOLTAGE LIST AND WAVEFORM

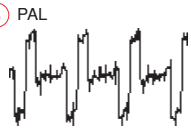
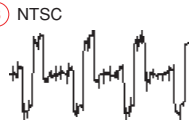
Ref	Pin No.	Voltage[v]
	57	0
	58	0
	59	0
	60	0
	61	0
	62	0
	63	0
	64	0
	65	0
	66	0
	67	0
	68	0
	69	0
	70	0
	71	3.2
	72	0
	73	3.2
	74	3.2
	75	3.2
	76	3.2
	77	0
	78	3.2
	79	0
	80	0
	81	0
	82	3.2
	83	0
	84	0
	85	0
	86	0
	87	0
	88	0
	89	0
	90	0
	91	0
	92	0
	93	0
	94	0
	95	0
	96	0
	97	0
	98	0
	99	4.9
	100	0
IC1001	1	4.9
	2	0
	3	0
	4	0
	5	4.6
	6	4.6
	7	4.9
	8	4.9
IC1002	1	3.4
	2	4.6
	3	0
	4	0
	5	4.6
	6	3.4
	7	0
	8	4.9
IC1003	1	0
	2	0
	3	0
	4	3.2
	5	3.2
IC1004	1	0
	2	0
	3	0
	4	0
	5	3.7
	6	3.6
	7	3.2
	8	3.3
IC1201	1	0
	2	0
	3	29.2
	4	0
	5	0
	6	0
	7	14.6
	8	0
	9	0
	10	30.4
	11	30.4
	12	14.6
IC2201	1	6.0
	2	3.2
	3	5.8
	4	3.2
	5	0
	6	8.9
	7	5.2
	8	0
IC2202	1	6.0
	2	3.2
	3	5.8
	4	3.2
	5	0
	6	8.9
	7	5.2
	8	0
IC2203	1	5.9
	2	3.1
	3	5.8
	4	3.1
	5	5.8
	6	8.9
	7	5.1
	8	0
IC2204	1	6.0
	2	3.2
	3	5.8
	4	3.2
	5	5.8
	6	8.9
	7	5.2
	8	0
IC2600	1	13.5
	2	9
	3	0
	4	13.5
IC2601	1	6.8
	2	5
	3	0
	4	2.2
IC2603	I	6.0
	G	0
	O	3.3
IC2604	1	2.5
	2	3.3
	3	0
	4	0
	5	0
IC2605	1	5.9
	2	0
	3	1.8
	4	2.6
IC2606	I	6.9
	G	0
	O	3.3
IC2607	1	2.0
	2	7.9
	3	0
	4	3.2
	5	0
IC4301	1	0
	2	3.9
	3	5.0

Pin No.	Voltage[v]
4	2.7
⑥ PAL  4.24Vp-p	
⑥ NTSC  4.32Vp-p	
5	0
6	0
7	3.6
8	2.9
9	0
10	3.4
11	3.6
12	2.9
13	3.8
14	4.4
15	4.8
16	4.0
17	4.0
18	3.4
⑦ PAL  1.84Vp-p	
⑦ NTSC  1.78Vp-p	
19	3.4
⑧  1.84Vp-p	
20	0
21	8.9
22	0
23	3.7
24	4.3
25	0
26	8.9
27	3.1
28	2.5
29	3.2
30	2.6
31	3.1
32	2.6
33	0
34	0
35	0

A1 BOARD VOLTAGE LIST AND WAVEFORM

Ref	Pin No.	Voltage[v]
	36	3.2
	⑨ PAL  214.0mVp-p	
	⑨ NTSC  170.0mVp-p	
	37	3.2
	⑩  202.0mVp-p	
	38	3.2
	⑪ PAL  400.0mVp-p	
	⑪ NTSC  160.0mVp-p	
	39	0
	40	0
	41	0
	42	2.1
	43	2.8
	44	2.5
	45	0
	46	4.9
	47	3.8
	48	3.5
	49	3.5
	50	0
	51	0
	52	4.6
	53	4.7
	54	0
	55	0
	56	0
	57	0
	58	5.0
	59	0
	60	2.1
	61	0
	62	3.0
	63	*
	64	2.7
IC4302	I	8.9
	G	0
	O	5.0
IC8301	1	0
	2	0
	3	0
	4	0
	5	2.4
	6	2.4
	7	0
	8	0
	9	2.4
	10	0
	11	2.4

Ref	Pin No.	Voltage[v]
	12	0
	13	0
	14	2.4
	15	0
	16	0
	17	0
	18	0
	19	2.4
	20	0
	21	0
	22	0
	23	0
	24	2.4
	25	0
	26	2.1
	27	2.4
	28	2.4
	29	0
	30	0
	31	0
	32	0
	33	2.4
	34	2.3
	35	2.3
	36	0
	37	0
	38	0
	39	0
	40	2.1
	41	2.4
	42	2.4
	43	0
	44	0
	45	0
	46	0
	47	0
	48	4.0
	49	4.0
	50	4.9
	51	2.9
	52	0
	53	0
	54	0
	55	0
	56	1.9
	57	2.8
	58	2.0
	⑤ PAL  2.20Vp-p	
	⑤ NTSC  1.88Vp-p	
	59	2.3
	④  1.18Vp-p	

Ref	Pin No.	Voltage[v]
	60	2.3
	③ PAL  1.14Vp-p	
	③ NTSC  1.28Vp-p	
	61	4.9
	62	0
	63	0
	64	2.3
	65	0
	66	2.8
	67	0
	68	2.3
	69	2.3
	70	0
	71	0
	72	0
	73	2.3
	74	0
	75	0
	76	4.6
	77	4.6
	78	4.9
	79	2.3
	80	0
IC8302	1	3.2
	2	0
	3	0
	4	0
	5	0
	6	0
	7	0
	8	0
	9	0
	10	0
	11	0
	12	0
	13	0
	14	0
	15	0
	16	3.2
IC8501	1	0
	2	0
	3	0
	4	0
	5	0
	6	0.8
	7	0
	8	6.0
	9	6.5
	10	0
	11	3.6
	12	0
	13	0
	14	3.7
	15	5.0
	16	2.8
	17	2.7
	18	0
	19	3.1
	20	8.1
	21	0
	22	0
	23	0
	24	0
IC8503	1	4.6
	2	4.9
	3	3.1

A1 BOARD VOLTAGE LIST AND WAVEFORM

Ref	Pin No.	Voltage[v]
	4	0
	5	3.1
	6	3.1
	7	4.9
	8	4.5
	9	4.5
	10	0
	11	4.5
	12	4.9
	13	8.9
	14	4.6
	15	0
	16	0
Q001	B	2.4
	C	4.2
	E	0
Q002	B	4.2
	C	0
	E	4.9
Q003	B	0
	C	4.9
	E	0
Q015	B	2.0
	C	0
	E	0
Q019	B	2.3
	C	4.2
	E	0
Q020	B	4.2
	C	0
	E	4.9
Q021	B	0
	C	0
	E	0
Q022	B	0
	C	0
	E	2.5
Q023	B	2.4
	C	4.2
	E	0
Q024	B	4.2
	C	0
	E	4.9
Q025	B	0
	C	0
	E	2.5
Q029	B	4.5
	C	4.9
	E	3.9
Q030	B	2.0
	C	0
	E	0
Q031	B	0
	C	3.6
	E	0
Q100	B	3.9
	C	8.9
	E	(3.3)[3.8]
Q102	B	3.0
	C	2.3
	E	8.8
Q103	B	3.2
	C	3.0
	E	0
Q104	B	3.0
	C	4.8
	E	0
Q202	B	4.2
	C	0
	E	4.9
Q1001	B	0
	C	4.9
	E	0

Ref	Pin No.	Voltage[v]
Q1002	B	4.2
	C	4.6
	E	4.7
Q1003	B	4.1
	C	4.6
	E	4.7
Q1004	B	4.2
	C	4.6
	E	4.7
Q1005	B	4.1
	C	4.6
	E	4.7
Q1006	B	0
	C	0
	E	0
Q1007	B	0
	C	4.9
	E	0
Q1009	B	0
	C	3.2
	E	0
Q1014	B	0
	C	3.2
	E	0
Q1016	B	0
	C	3.2
	E	0
Q1201	B	13.4
	C	0
	E	13.0
Q2601	B	2.4
	C	0
	E	2.5
Q2602	B	2.4
	C	0
	E	2.6
Q4301	B	0
	C	0
	E	0
Q4302	B	0
	C	0
	E	0
Q4303	B	2.7
	C	8.9
	E	2.8
Q4304	B	0
	C	(4.5)[4.7]
	E	0
Q4305	B	4.3
	C	0
	E	4.3
Q4306	B	2.5
	C	4.9
	E	4.3
Q4307	B	2.6
	C	0
	E	3.3
Q4308	B	2.6
	C	0
	E	3.4
Q4309	B	2.5
	C	0
	E	3.3
Q4315	B	0
	C	0
	E	0
Q4316	B	0
	C	8.9
	E	0
Q4321	B	0
	C	2.5
	E	0
Q4323	B	0
	C	8.9
	E	0

Ref	Pin No.	Voltage[v]
Q4324	B	0
	C	(5.4)[5.7]
	E	0
Q4328	B	0
	C	(4.5)[4.7]
	E	0
Q4329	B	2.7
	C	0
	E	0
Q4330	B	3.4
	C	(4.4)[4.7]
	E	3.3
Q4331	B	0
	C	8.9
	E	0
Q4332	B	0
	C	5.1
	E	0
Q4333	B	0
	C	0
	E	0
Q8306	B	2.2
	C	0
	E	2.8
Q8308	B	2.3
	C	0
	E	2.9
Q8310	B	0
	C	0
	E	2.5
Q8317	B	3.1
	C	4.9
	E	2.5
Q8318	B	0
	C	0
	E	0
Q8319	B	3.5
	C	4.9
	E	2.9
Q8320	B	0
	C	0
	E	2.2
Q8321	B	3.9
	C	4.9
	E	3.3
Q8322	B	2.3
	C	0
	E	2.9
Q8330	B	0
	C	4.9
	E	0
Q8332	B	2.4
	C	0
	E	0
Q8335	B	0
	C	0
	E	2.4
Q8501	B	2.9
	C	6.6
	E	2.3
Q8502	B	6.6
	C	8.9
	E	6.0
Q8503	B	2.9
	C	7.1
	E	2.3
Q8504	B	7.1
	C	8.9
	E	6.5
Q8507	B	2.7
	C	6.7
	E	2.1
Q8508	B	4.3
	C	8.9
	E	3.7

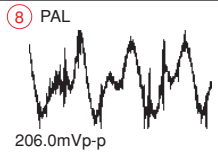
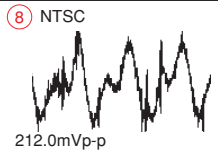
A1 BOARD VOLTAGE LIST AND WAVEFORM

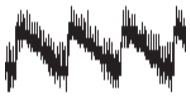
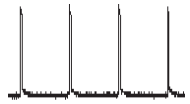
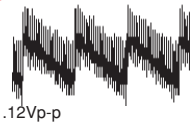
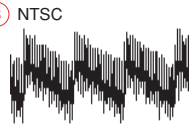
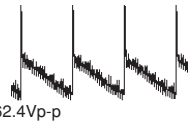
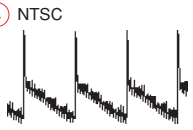
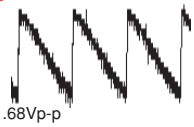
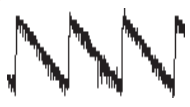
Ref	Pin No.	Voltage[v]
Q8511	B C E	2.8 5.8 2.2
Q8513	B C E	4.3 8.9 3.7
Q8514	B C E	3.0 8.3 2.5
Q8515	B C E	8.3 3.2 8.9
Q8516	B C E	3.1 8.9 2.4
Q8517	B C E	3.1 8.9 2.5
Q8518	B C E	3.1 8.9 2.5
Q8519	B C E	2.5 * 0
CN4305	16	*
	⑫ PAL 3.80Vp-p	
	⑫ NTSC 3.78Vp-p	
	17	*
	⑬ 3.40Vp-p	
	19	*
	⑭ PAL 740.0mVp-p	
	⑭ NTSC 720.0mVp-p	

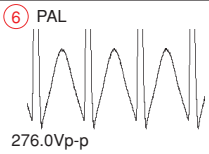
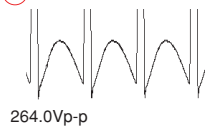
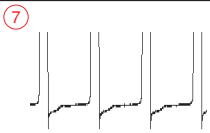
Ref	Pin No.	Voltage[v]
	21	*
	⑮ PAL 720.0mVp-p	
	⑮ NTSC 760.0mVp-p	
	24	*
	⑯ PAL 1.00Vp-p	
	⑯ NTSC 840.0mVp-p	
	41	*
	⑰ 3.76Vp-p	
	42	*
	⑱ PAL 3.60Vp-p	
	⑱ NTSC 3.52Vp-p	

Ref	Pin No.	Voltage[v]
	44	*
	⑲ PAL 1.18Vp-p	
	⑲ NTSC 1.36Vp-p	
	46	*
	⑳ PAL 1.18Vp-p	
	⑳ NTSC 1.28Vp-p	
	50	*
	㉑ PAL 2.04Vp-p	
	㉑ NTSC 1.80Vp-p	

D BOARD VOLTAGE LIST AND WAVEFORM

Ref	Pin No.	Voltage[v]
IC6600	1	2.5
	2	0
	3	2.2
	4	2.5
	5	0
	6	0
	7	4.6
	8	18.5
	9	0
	10	10.6
	11	0
	12	4.8
	13	0
	14	(152.4)[154.1]
	15	(142.2)[144.9]
	16	(146.8)[148.7]
	17	0
	18	(276.0)[280.0]
IC6602	I	6.9
	G	0
	O	4.9
IC6604	I	14.0
	G	0
	O	12.0
IC6607	1	134.7
	2	0
	3	0
	4	0
	5	2.4
	⑧ PAL  206.0mVp-p	
	⑧ NTSC  212.0mVp-p	
	6	10.9
	7	0
	8	0
IC6608	1	(14.5)[15.0]
	2	(14.6)[15.1]
	3	(31.9)[32.5]
	4	(20.2)[20.6]
	5	(18.5)[19.1]
	6	20.8
	7	(18.5)[18.8]
	8	(17.2)[17.7]
	9	(19.3)[19.7]
	10	(31.8)[32.2]
	11	(19.5)[19.7]
	12	(14.6)[14.9]
	13	(14.7)[15.2]
	14	(32.0)[32.4]
IC6800	1	0
	2	4.7
	3	0
	4	0
	5	3.0
	6	2.8
	7	7.5
	8	12.0

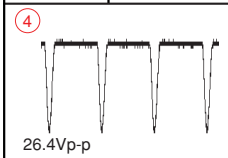
Ref	Pin No.	Voltage[v]
IC6801	1	0
	① PAL  1.24Vp-p	
	① NTSC  920.0mVp-p	
	2	14.8
	3	(-13.1)[-12.8]
	②  31.2Vp-p	
	4	-14.7
	5	0
	6	15.2
	7	0
	③ PAL  1.12Vp-p	
	③ NTSC  1.24Vp-p	
DY1	V+	0
	④ PAL  62.4Vp-p	
	④ NTSC  64.0Vp-p	
	V-	0
	⑤ PAL  1.68Vp-p	
	⑤ NTSC  2.24Vp-p	

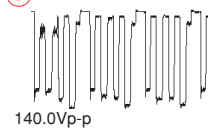
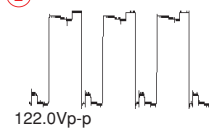
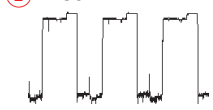
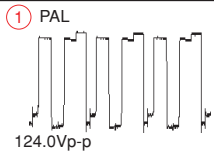
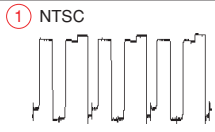
Ref	Pin No.	Voltage[v]
	H-	135.6
	⑥ PAL  276.0Vp-p	
	⑥ NTSC  264.0Vp-p	
	H+	(143.6)[143.4]
	⑦  432.0Vp-p	
PH6601	1	5.0
	2	3.8
	3	(14.9)[15.2]
	4	(15.1)[15.5]
PH6602	1	(13.5)[11.5]
	2	12.5
	3	0
	4	0
Q6100	S	(15.0)[15.3]
	G	(16.1)[16.3]
	D	(294.0)[297.0]
Q6600	S	(142.3)[143.2]
	G	(146.9)[148.0]
	D	(273.0)[275.0]
Q6601	B	0
	C	12.0
	E	0
Q6602	B	(15.3)[15.7]
	C	(32.5)[32.8]
	E	(14.9)[15.4]
Q6603	S	0
	G	4.8
	D	(141.9)[143.5]
Q6604	B	(31.8)[32.1]
	C	(32.5)[32.9]
	E	(32.5)[32.9]
Q6605	B	(16.0)[16.3]
	C	(15.2)[15.5]
	E	(15.1)[15.6]
Q6607	S	4.9
	G	0
	D	4.9
Q6606	B	0
	C	4.9
	E	0
Q6608	B	0.1
	C	0
	E	0
Q6614	B	(32.6)[32.9]
	C	(15.0)[15.3]
	E	(32.6)[33.1]
Q6800	B	0
	C	2.5
	E	0
Q6801	S	0
	G	7.5
	D	42.7
Q6802	B	0
	C	(143.6)[143.4]
	E	0

D BOARD VOLTAGE LIST AND WAVEFORM

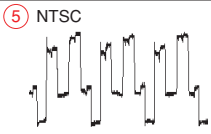
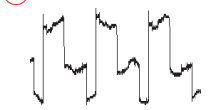
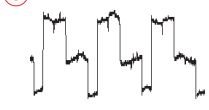
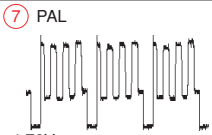
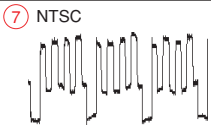
Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q6804	B C E	134.6 (2.1)[3.0] 135.0	Q6812	B C E	0 12.0 0	Q6816	B C E	5.2 0 5.2
Q6807	B C E	0 8.3 0.9	Q6814	B C E	0.1 0 0	Q6817	B C E	5.2 12.0 5.2
Q6810	B C E	0 14.8 0	Q6815	B C E	0 5.2 0	Q6818	S G D	0 5.2 (67.7)[68.1]

C1 BOARD VOLTAGE LIST AND WAVEFORM

Ref	Pin No.	Voltage[v]
IC9001	1 2 3 4 5 6 7 8 9 10 11 12 13	3.5 12.0 3.4 0 (7.4)[7.7] 198.0 (135.8)[133.8] 0 0 200 0 * *
IC9002	1 2 3 4 5 6 7 8 9 10 11 12 13	3.5 12.0 3.4 0 7.6 198.0 (130.6)[127.8] 0 0 200 0 * *
IC9003	1 2 3 4 5 6 7 8 9 10 11 12 13	3.5 12.0 3.4 0 7.9 198.0 (136.0)[134.0] 0 0 200 0 * *
J9001	H1	0
	④ 	

Ref	Pin No.	Voltage[v]
	H2 KB	0 (138.8)[137.1]
	③ 	
	KG	(146.4)[149.0]
	② PAL 	
	② NTSC 	
	KR	(157.1)[156.8]
	① PAL 	
	① NTSC 	

Ref	Pin No.	Voltage[v]
Q9001	B C E	(7.1)[7.3] 0 4.2
Q9009	B C E	3.3 0 3.9
Q9010	B C E	3.4 0 4.0

Ref	Pin No.	Voltage[v]
Q9011	B C E	3.3 0 3.9
Q9012	B C E	0 (278.0)[276.0] 0
CN9001	1	*
	⑤ PAL 	
	⑤ NTSC 	
	3	*
	⑥ PAL 	
	⑥ NTSC 	
	5	*
	⑦ PAL 	
	⑦ NTSC 	

H1 BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]
Q3901	B C E	0 3.3 0
Q3902	B C E	3.2 0 0

H2 BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]
IC1900	VCC GND OUT	3.2 0 2.9

BH1 BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC3205	1	3.2		75	0		154	0
	2	3.2		76	0		155	0
	3	0		77	0		156	3.2
	4	0		78	3.1		157	0
	5	0		79	0.5		158	0
IC3301	1	3.2		80	0		159	0
	2	0		81	1.8		160	0
	3	0		82	0.6		161	0
	4	0		83	0.4		162	0
	5	0		84	3.2		163	0
	6	0		85	0.4		164	0
	7	0		86	0		165	0
	8	3.2		87	0		166	0
	9	0		88	1.7		167	0
	10	0		89	0		168	(2.7)[3.2]
	11	0		90	1.7		169	0
	12	3.1		91	0		170	0
	13	0		92	3.2		171	3.2
	14	0		93	0		172	0
	15	0		94	0		173	3.2
	16	3.2		95	0		174	3.2
	17	0		96	0		175	0
	18	0		97	0		176	0
	19	2.4		98	0		177	(2.7)[3.5]
	20	2.0		99	0		178	(2.9)[3.2]
	21	0		100	0		179	0
	22	0		101	0		180	0
	23	2.4		102	0		181	0
	24	0		103	0		182	0
	25	0		104	0		183	3.2
	26	2.5		105	0		184	0
	27	0		106	0		185	0
	28	0		107	0		186	0
	29	0		108	0		187	0
	30	0		109	0		188	0
	31	0		110	0		189	0
	32	2.4		111	3.2		190	0
	33	0		112	0		191	0
	34	3.2		113	0		192	0
	35	0		114	0		193	0
	36	3.2		115	0		194	0
	37	0		116	0		195	0
	38	0		117	0		196	0
	39	3.2		118	0		197	3.2
	40	0		119	0		198	0
	41	2.5		120	0		199	0
	42	0		121	0		200	0
	43	2.5		122	0		201	0
	44	0		123	0		202	0
	45	3.2		124	0		203	0
	46	0		125	0		204	0
	47	0		126	0		205	0
	48	3.2		127	0		206	0
	49	0		128	3.2		207	0
	50	0		129	0		208	0
	51	0		130	0		209	0
	52	0		131	0		210	0
	53	0		132	0		211	3.2
	54	0		133	0		212	0
	55	0		134	0		213	0
	56	0		135	0		214	0
	57	0		136	0		215	0
	58	0		137	0		216	0
	59	0		138	0		217	0
	60	0		139	0		218	0
	61	0		140	0		219	0
	62	0		141	0		220	0
	63	0		142	3.2		221	0
	64	0		143	0		222	0
	65	3.2		144	0		223	0
	66	0		145	0		224	0
	67	0		146	0		225	0
	68	0		147	0		226	0
	69	0		148	0		227	0
	70	0		149	0		228	0
	71	0		150	0		229	0
	72	0		151	0		230	0
	73	0		152	0		231	0
	74	0		153	0		232	0

BH1 BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]
	233	0
	234	0
	235	0
	236	0
	237	0
	238	0
	239	3.1
	240	3.1
IC3302	1	3.2
	2	0
	3	3.2
	4	0
	5	0
	6	0
	7	0
	8	0
	9	3.2
	10	0
	11	0
	12	0
	13	0
	14	0
	15	3.2
	16	0
	17	3.0
	18	2.8
	19	3.1
	20	2.7
	21	0
	22	0
	23	0
	24	0
	25	0
	26	0
	27	0
	28	0
	29	3.2
	30	0
	31	0
	32	0
	33	0
	34	0
	35	3.2
	36	0
	37	0
	38	0
	39	0
	40	0
	41	3.2
	42	0
	43	3.2
	44	0
	45	0
	46	0
	47	0
	48	0
	49	3.2
	50	0
	51	0
	52	0
	53	0
	54	0
	55	3.2
	56	0
	57	0
	58	0
	59	0
	60	0
	61	0
	62	0
	63	0
	64	0
	65	0
	66	0
	67	3.2
	68	0
	69	0
	70	0
	71	0
	72	0
	73	0
	74	0
	75	3.2
	76	0
	77	0
	78	0
	79	0
	80	0
	81	3.2
	82	0
	83	0
	84	0
	85	0
	86	0
IC3303	1	3.2
	2	0
	3	0
	4	0
	5	3.2
IC3305	1	3.2
	2	0
	3	0
	4	0
	5	0
	6	0
	7	0
	8	0
	9	0
	10	0
	11	0
	12	0
	13	2.5
	14	(3.4)[3.2]
IC3306	1	3.2
	2	0
	3	0
	4	0
	5	3.2
IC3307	1	4.9
	2	0
	3	0
	4	3.2
	5	4.9
IC3310	1	3.2
	2	0
	3	0
	4	2.4
	5	3.2
IC3311	1	3.2
	2	0
	3	0
	4	2.4
	5	3.2
Q3105	B	3.2
	C	4.6
	E	3.1
Q3106	B	3.2
	C	4.6
	E	3.1
Q3305	B	2.2
	C	0
	E	0
Q3314	B	0
	C	2.5
	E	0
Q3320	B	2.3
	C	4.9
	E	0
Q3321	B	2.5
	C	0
	E	3.2
Q3322	B	2.5
	C	0
	E	3.2
Q3323	B	2.3
	C	4.9
	E	0
Q3324	B	2.3
	C	0
	E	3.1
Q3325	B	2.3
	C	0
	E	3.1

DL1 BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]
IC3800	1	3.1
	2	3.1
	3	-14.8
	4	12.6
	5	13.5
IC6300	1	4.5
	2	5.8
	3	6.3
	4	0
	5	5.4
	6	5.9
	7	0
	8	12.0
Q6301	S	0
	G	4.0
	D	102.3
Q6302	B	7.1
	C	0
	E	0

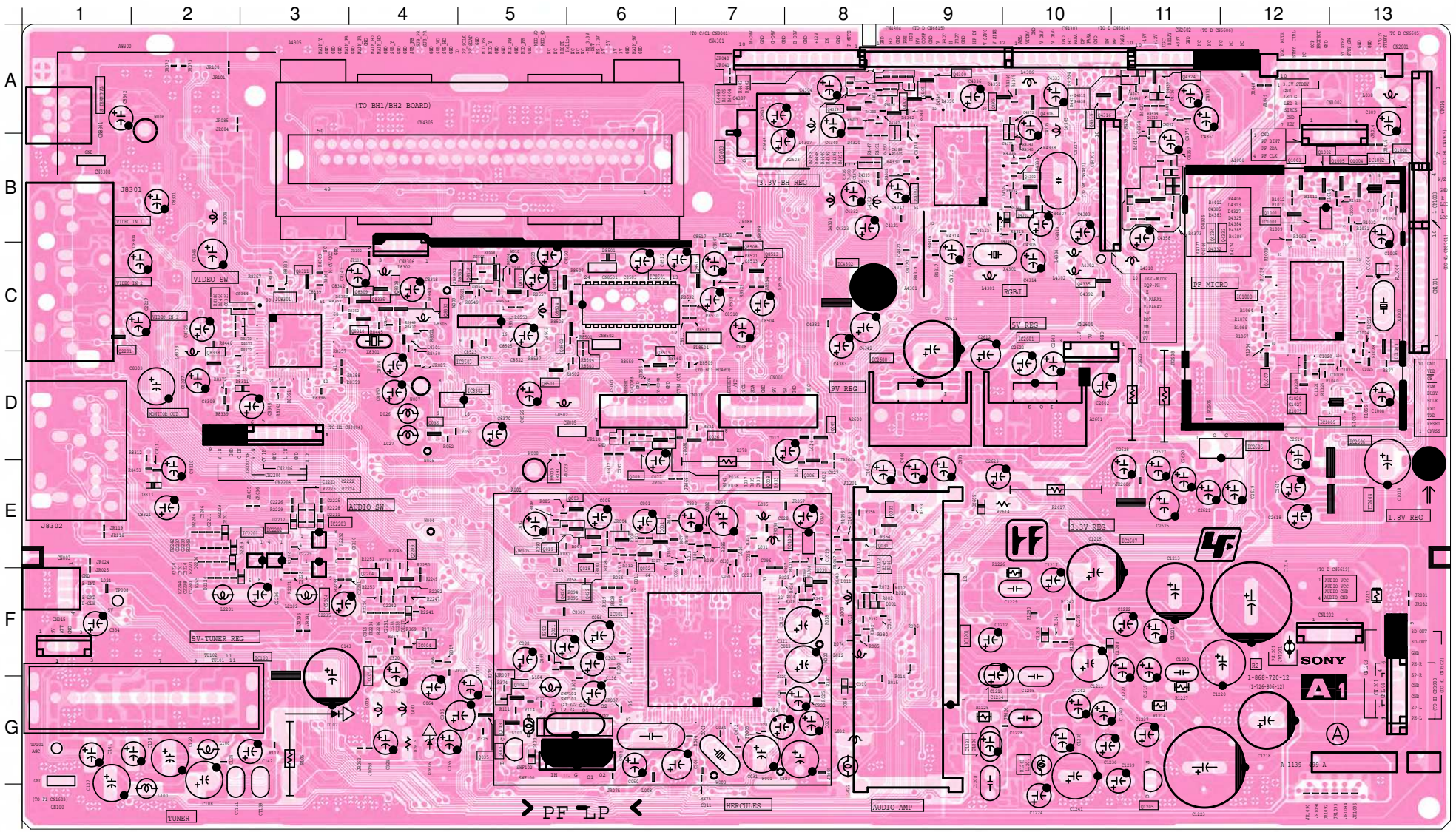
VM1 BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]
IC1800	1	0
	2	0
	3	-14.7
	4	0
	5	14.8
IC6200	1	7.7
	2	2.2
	3	3.9
	4	0
	5	2.1
	6	0
	7	7.7
	8	11.9
IC6201	1	-11.9
	2	0
	3	0
	4	-14.8
	5	0
	6	0
	7	(8.6)[8.9]
	8	11.9
IC6202	1	0
	2	4.1
	3	4.7
	4	4.9
	5	-14.7
	6	2.5
	7	2.3
	8	0
	9	0
	10	9.2
Q5400	B	0
	C	8.7
	E	0
Q5401	B	0
	C	4.9
	E	0
Q5402	B	7.0
	C	8.9
	E	6.3
Q5403	B	6.3
	C	8.9
	E	6.0
Q5404	B	4.9
	C	0
	E	5.6
Q5405	B	(6.3)[5.6]
	C	0
	E	6.0
Q5406	B	133.8
	C	68.2
	E	134.4
Q5407	B	0
	C	68.2
	E	0
Q6200	B	0
	C	2.2
	E	0
Q6201	B	0
	C	11.2
	E	0
Q6202	B	7.7
	C	0
	E	7.7
Q6203	B	7.7
	C	11.9
	E	7.7
Q6204	S	0
	G	7.7
	D	38.4

7-4. PRINTED WIRING BOARDS

A1 [HERCULES / AUDIO AMP / TUNER / REGULATOR / AV SW / LT1/ RGBJ / PF MICRO / HEAT SINK]

– A1 Board – (Component Side)

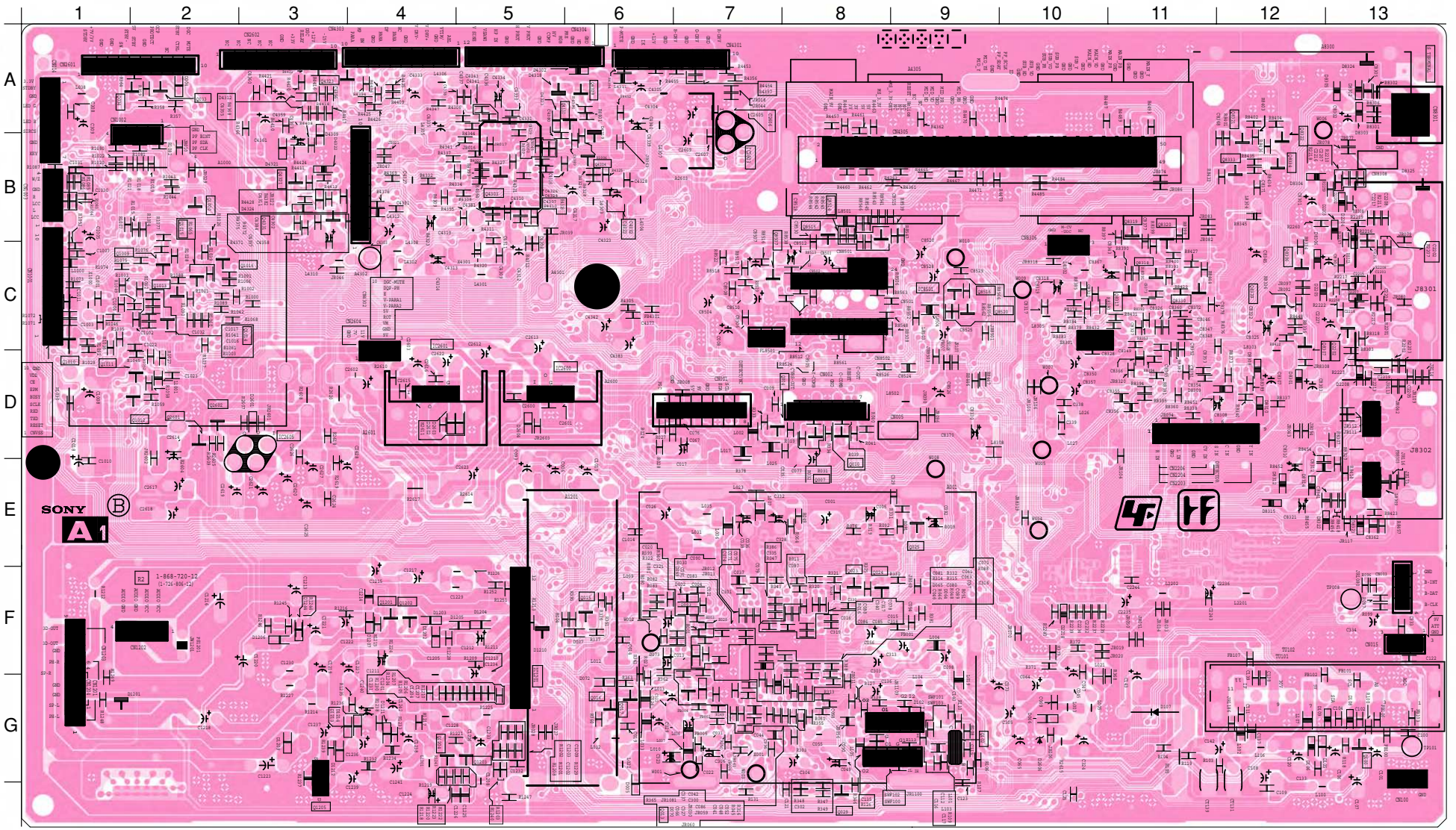


KV-DB29M61/M91/M98
RM-GA001

PRINTED WIRING BOARDS

A1 [HERCULES / AUDIO AMP / TUNER / REGULATOR / AV SW / LT1/ RGBJ / PF MICRO / HEAT SINK]

– A1 Board – (Conductor Side)

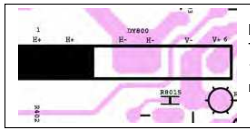


KV-DB29M61/M91/M98
RM-GA001

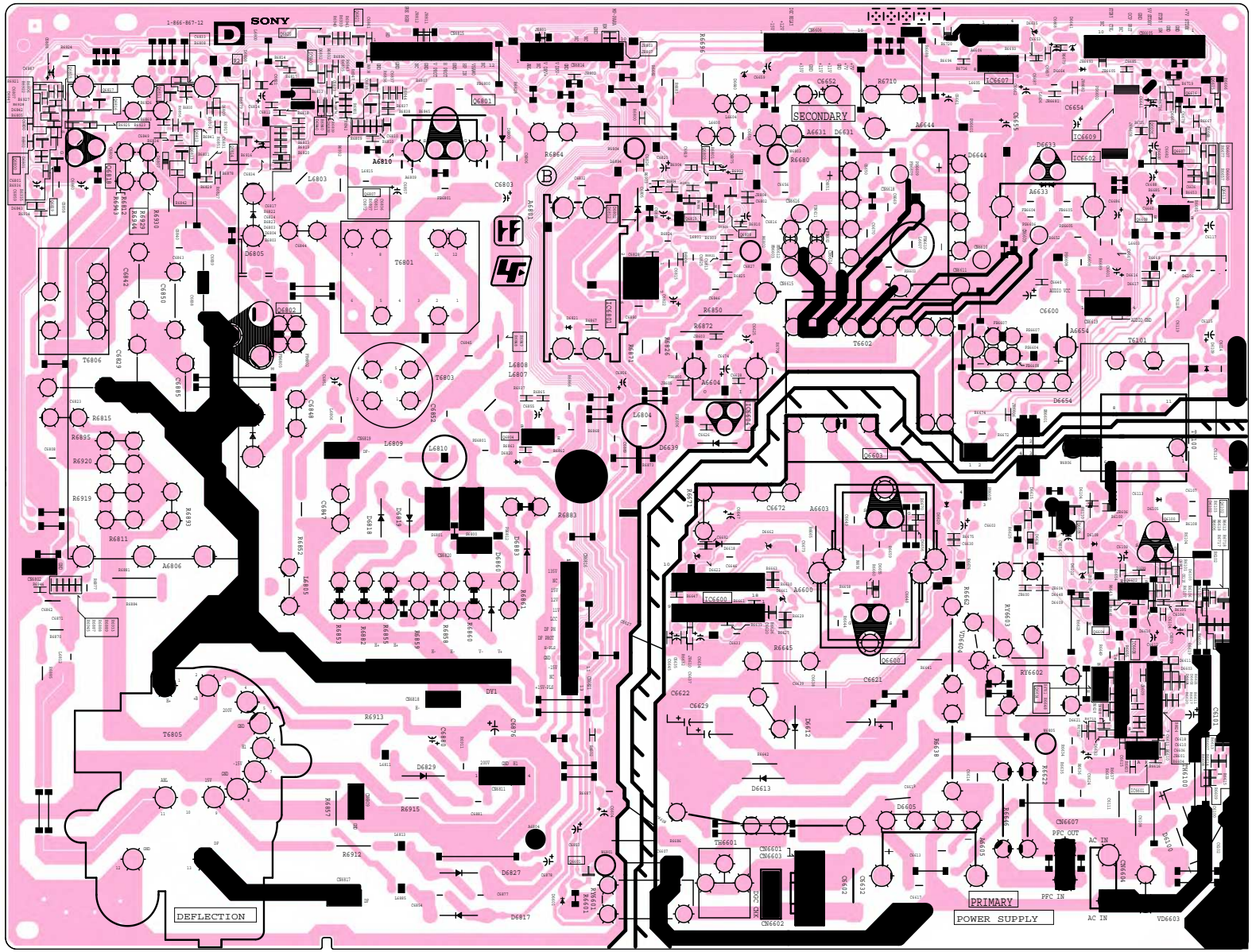
PRINTED WIRING BOARDS

D [POWER SUPPLY, DEFLECTION, HEAT SINK]

– D Board –



NOTE:
The circuit indicated at left contains high voltage of over 1220 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.

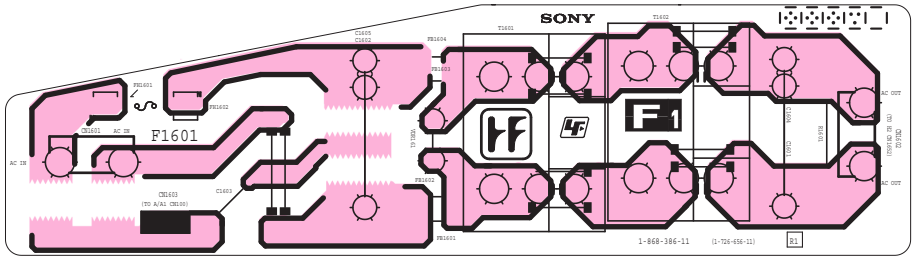


KV-DB29M61/M91/M98
RM-GA001

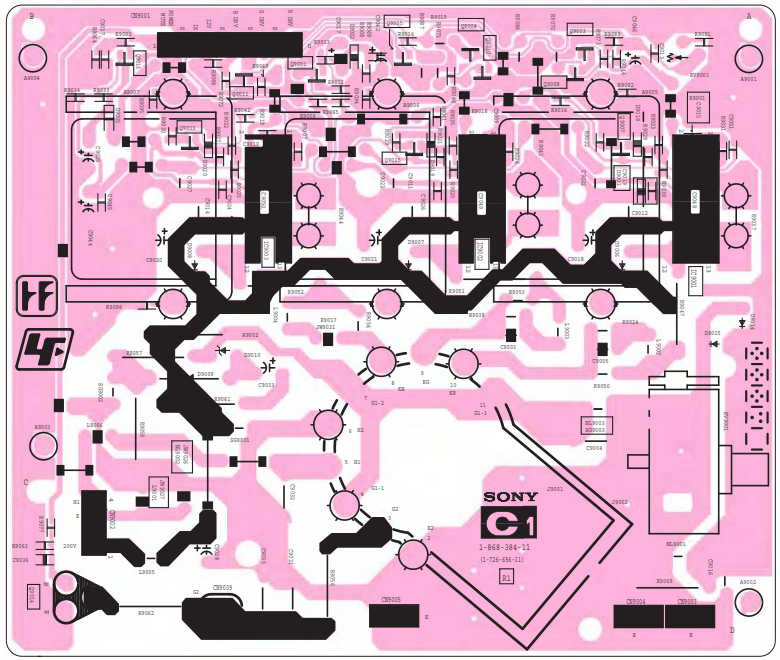
PRINTED WIRING BOARDS

C1 [VIDEO AMP] **F1** [LIGHTNING PROTECTION] **VM1** [DQP, ROTATION, VELOCITY MODULATION] **H1** [FRONT PANEL SW] **H2** [POWER SW, FUSE, LED SENSOR]

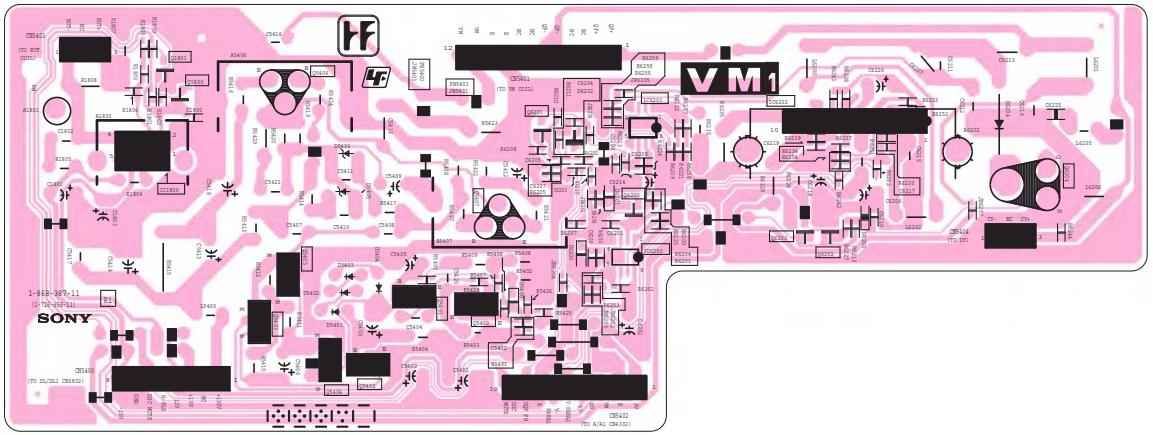
– F1 Board –



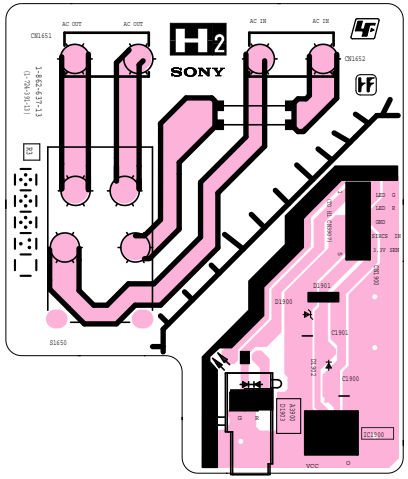
– C1 Board –



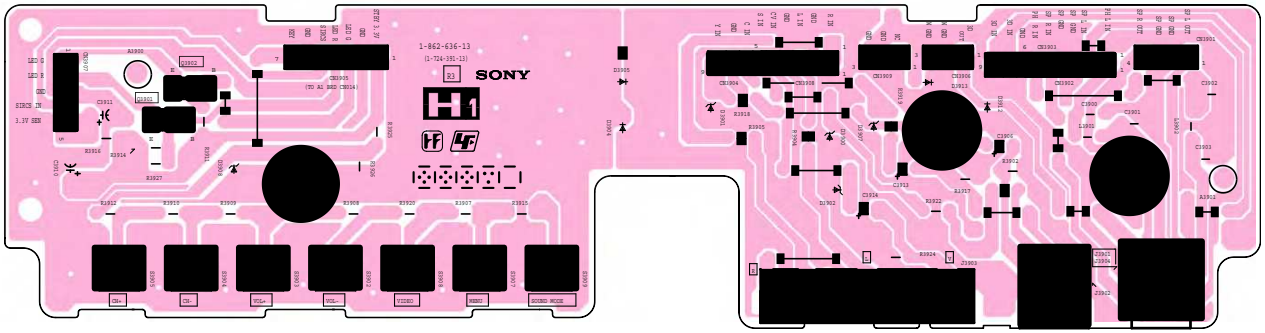
– VM1 Board –



– H2 Board –



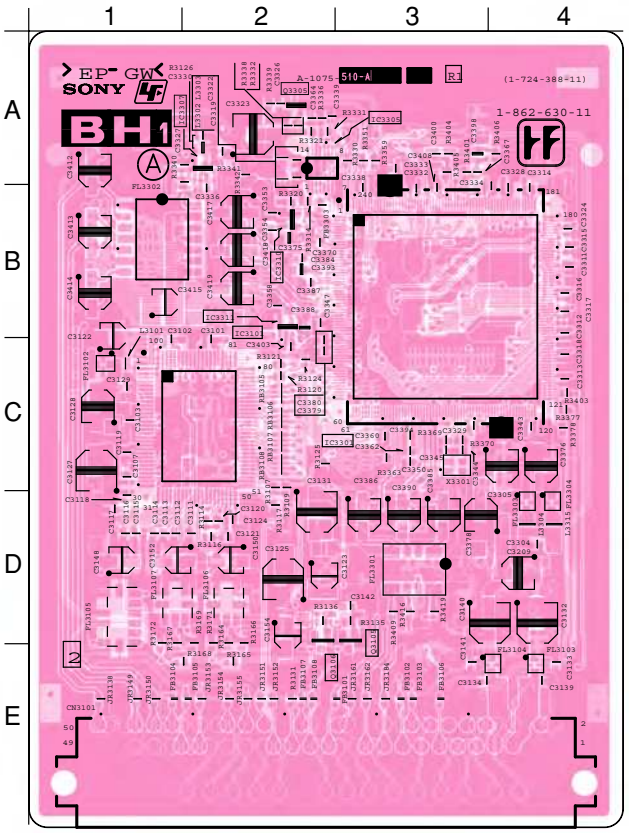
– H1 Board –



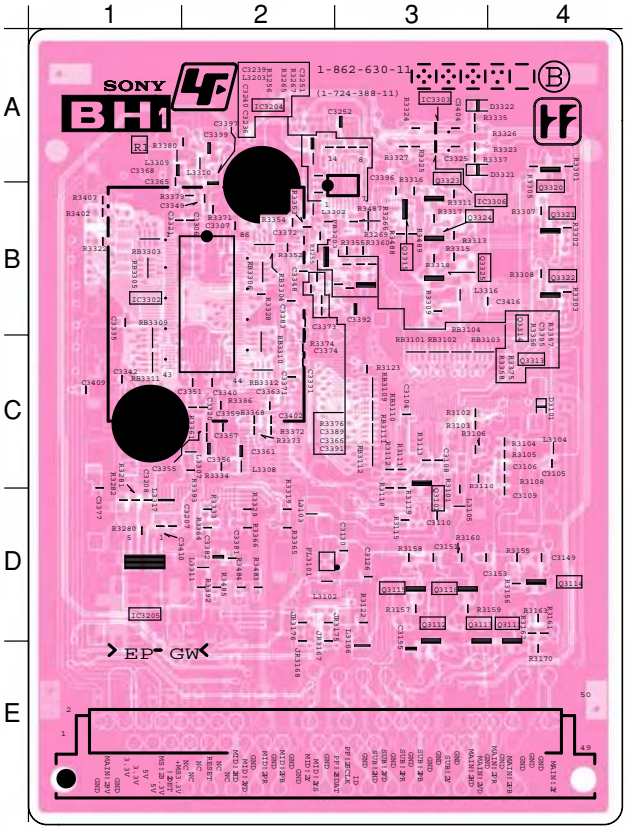
PRINTED WIRING BOARDS

BH1 [DRC and MID]

– BH1 board – (Component Side)

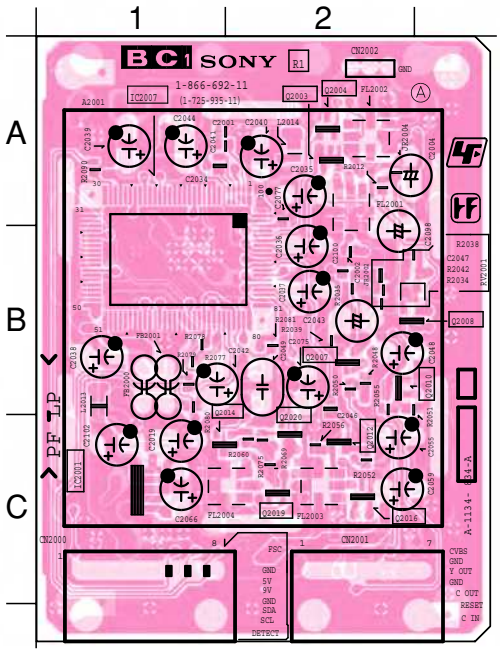


– BH1 board – (Conductor Side)

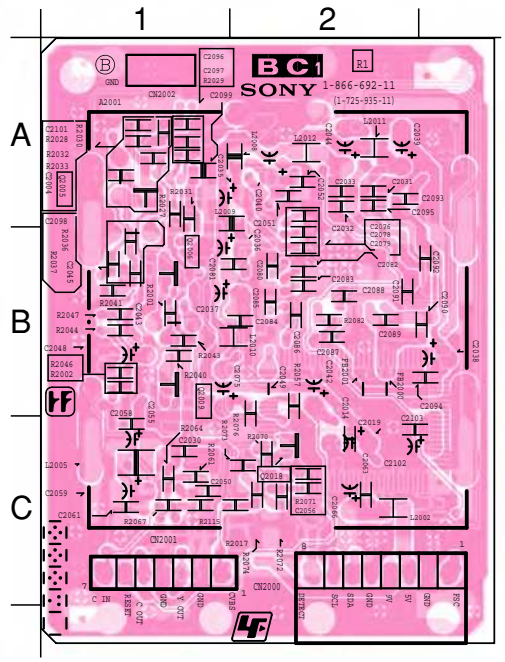


BC1 [3D COMB FILTER]

– BC1 board – (Component Side) (KV-DB29M98)



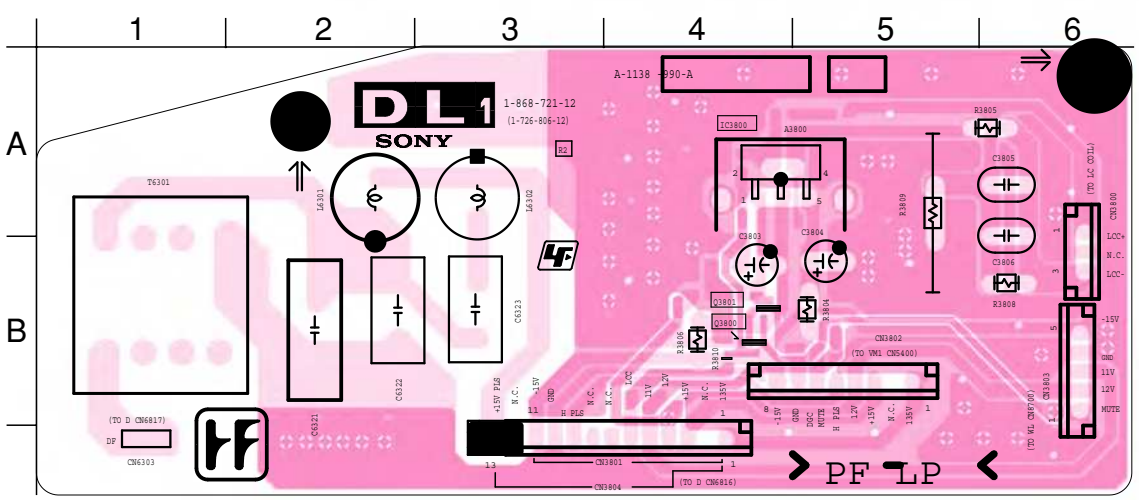
– BC1 board – (Conductor Side) (KV-DB29M98)



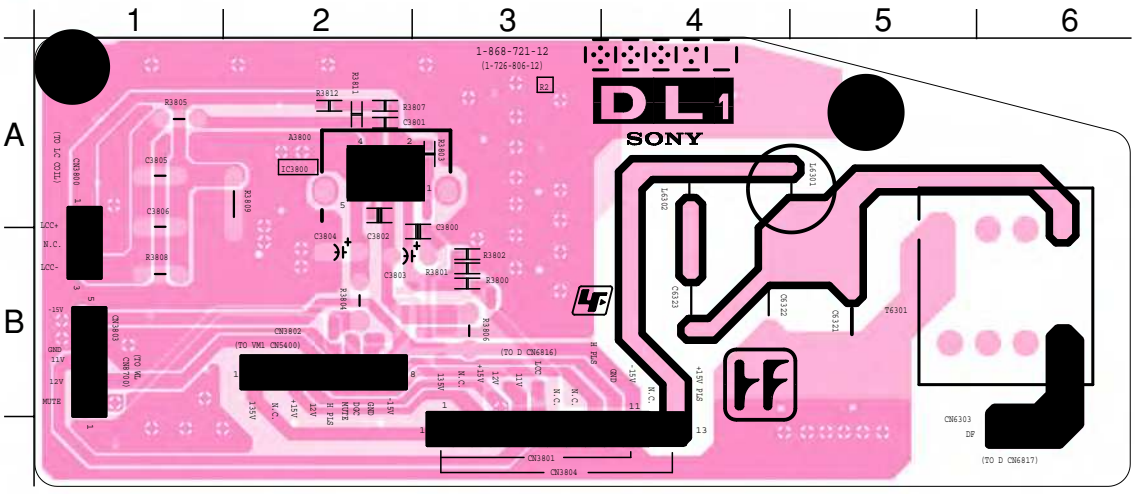
PRINTED WIRING BOARDS

DL1 [DYNAMIC FOCUS, LANDING CORRECTION]

– DL1 board – (Component Side)

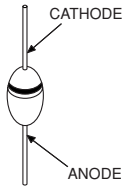
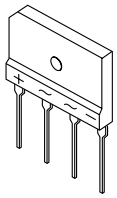
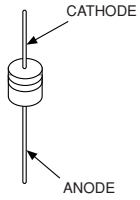
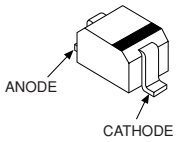


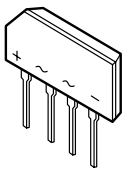
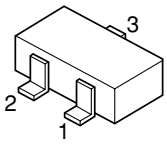
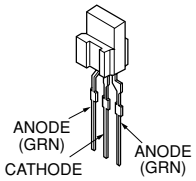
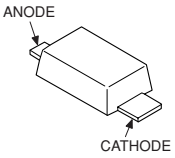
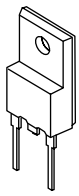
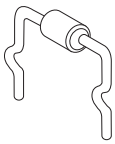
– DL1 board – (Conductor Side)



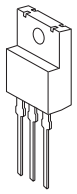
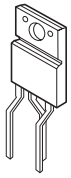
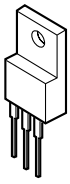
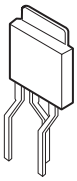
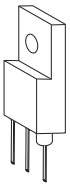
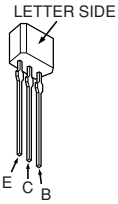
7-5. SEMICONDUCTORS

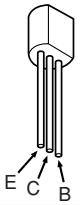
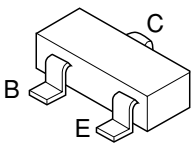
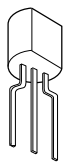
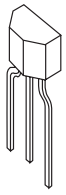
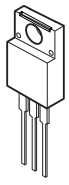
DIODE

					
U05G	D10SBS4F D4SBL20U	MTZJ-33B MTZJ-T-77-15 RD5.6ESB2 RD6.8ESB2 RD18ESB2 RD22ESB1 1SS119-25	1SS133T-77 HSS82-TJ D1NS4	D1NS6 GP08D PG102R 10ERB20-TB5 S2L20UF FR104-A5	MA111-TX MMDL914T1 MM3Z4V7T1 MM3Z15VT1 RD5.6SB-T1

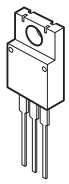
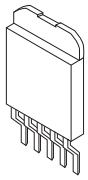
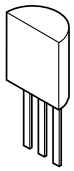
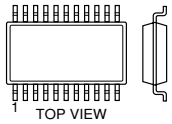
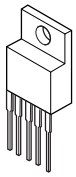
					
D2SB60A-F04 KBP153G-A2	MA3062M-TX M1MA152WK-T1 1PS226-115	LNK0210088H	DTZ10B MA2ZD14001S0 MA77 MM3Z9V1ST1 UDZS-TE17-12B	FMQ-G5FMS	S3L20UF4

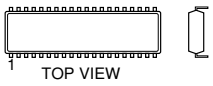
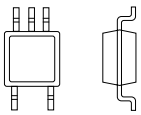
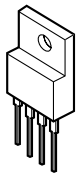
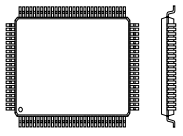
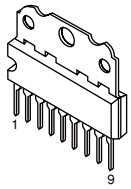
TRANSISTOR

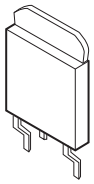
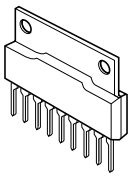
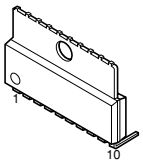
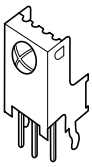
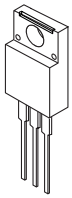
					
RB085T-60	2SK3568 (LBS2SONY,Q)	2SC4632LS-CB7 2SK2876-01MR-F122 2SK3462	2SK2663	2SC5931001SO	KTA1267-GR 2SA1175-HFE 2SC2785-HFE

					
KTA1279	MUN2216T1 MSB709-RT1 MSD601-RT1 UN2211 UN2213 UN2216 2SA1162-G 2SA1226-E4	2SA1235-F 2SC1623-L5L6 2SC2712-YG 2SK2036(TE85L) 2SC2223-F13 2SD2114K	2SC3779C,DAA	KTC3199GR-TP KRC110M	2SK2381

TRANSISTOR IC

			SOP  Small Outline L-leaded Package Pin 8~98		
2SA2005 2SC5511	BA33C25FP-E2	UPC1093J-1-T	BR24L32F-WE2 BU2374FV-E2 CAT24WC32WI-TE13 LM2903DT MT48LC2M32B2P-6- NJM2521V(TE2) NJM2904M TC7W66FU(TE12R) TC74LVX157FT(EL)	LM2903DT	LA6500-FA PQ05RD21J00H PQ09RD21J00H

DIP  Dual In-line Package Pin 6~98		 TOP VIEW			
EK1135 MCZ3001DB TDA9178		BA18BCOWFP-E2 NJM2870F25-TE2 NJM2870F33(TE2) PST9129NL SN74AHCT1G04DCKR SN74AHCT1G08DCKR	KIA78D33F PQ070XZ01ZPH PQ018EF01SSH	CXA2170Q CXA2209Q CXD3808AQ TDA12067H1/N1E0B TC90A88F M306V7MJA-059FP M306V7MJA-061FP TDA12027H1/N1E0B	TDA6120Q/N2/S1

				
BA33BC0WFP-E2 L78M05T-FA	AN5277T	LA6510	RPM7240-H5	KIA78D33PI KIA78D12PI

SECTION 8
EXPLODED VIEWS

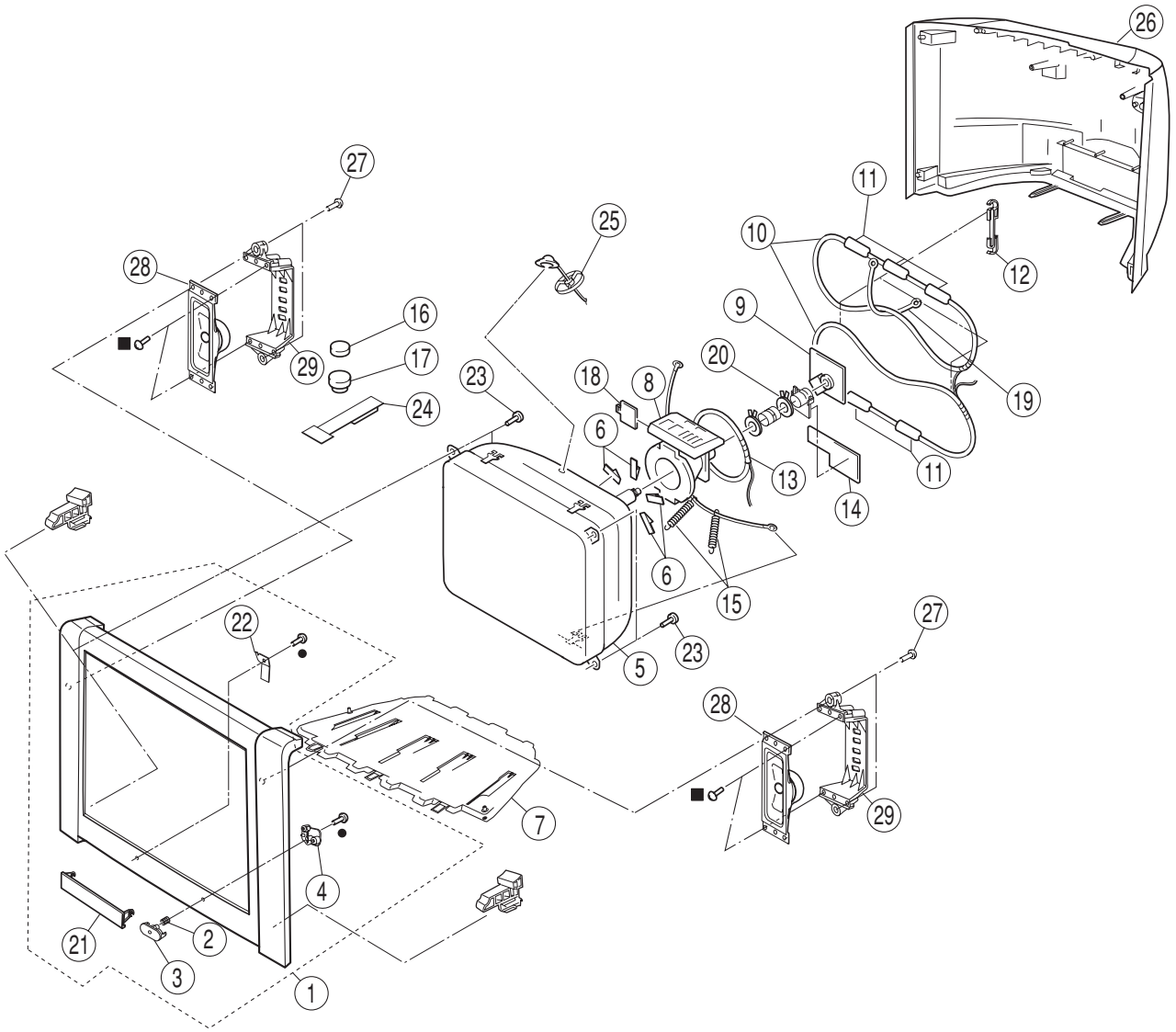
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ∗ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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

8-1. PICTURE TUBE AND SPEAKER BRACKET

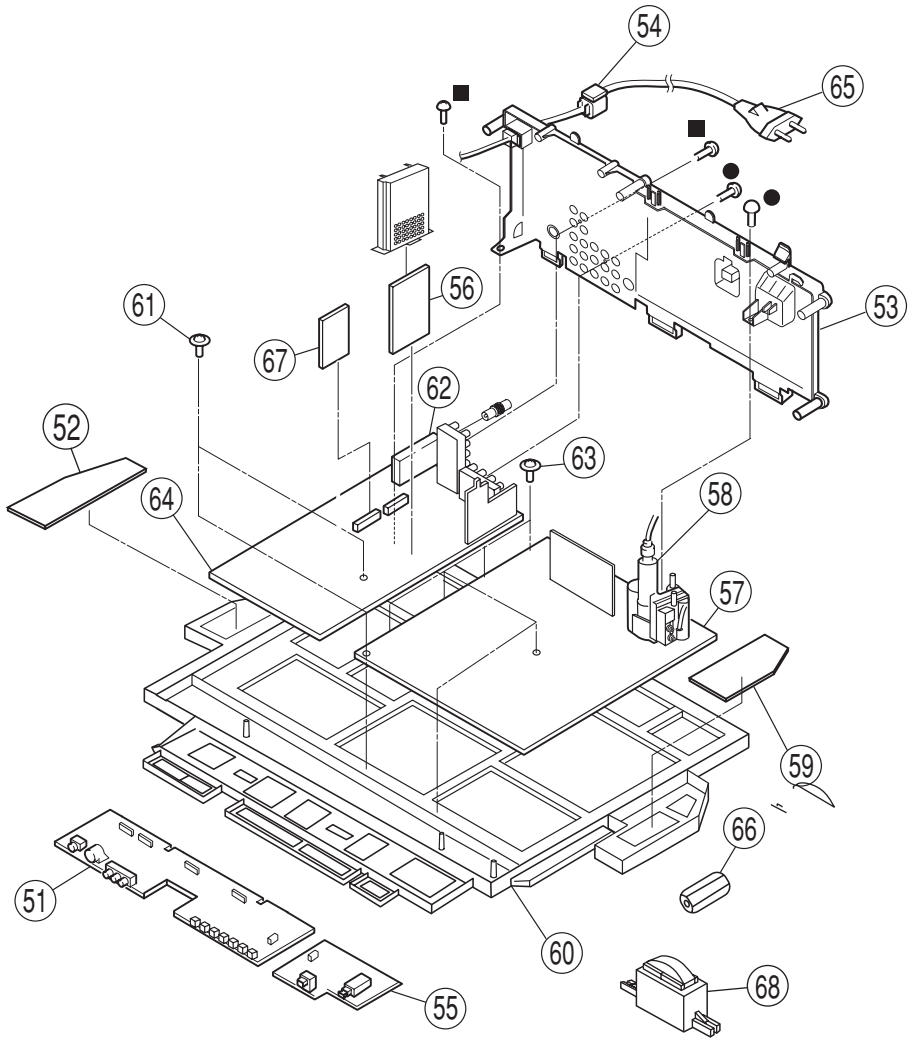
● : 7-685-648-79 SCREW +BVTP 3 × 12 TYPE2 IT-3
■ : 7-685-663-71 SCREW +BVTP 4 × 16 TYPE2 IT-3



REF. NO.		PART NO.	DESCRIPTION	REMARK
1		X-2067-788-1	BEZNET ASSY (KV-DB29M61/M98)	2~4, 21, 22
		X-2103-622-1	BEZNET ASSY (KV-DB29M91)	2~4, 21, 22
2		4-036-405-11	SPRING, COMPRESSION	
3		4-103-334-01	BUTTON, POWER	
4	*	4-103-335-01	GUIDE, LIGHT	
5	⚠	8-735-239-05	PICTURE TUBE (A68LYK00X)	
			(KV-DB29M61)	
	⚠	8-735-238-05	PICTURE TUBE (A68LYK00X)	
			(KV-DB29M91/M98)	
6		4-091-037-02	SPACER, DY	
7	*	2-632-357-11	COVER, BOTTOM	
8	⚠	1-451-560-11	DEFLECTION YOKE (Y29SEC-T)	
9	*	A-1138-977-A	MOUNTED PWB (VAR), C1	
10	⚠	1-419-294-11	COIL, DEGAUSSING (KV-DB29M61)	
	⚠	1-419-323-11	COIL, DEGAUSSING (KV-DB29M91/M98)	
11	*	2-591-526-01	CUSHION (60X120), DGC	
12		4-064-883-03	HOLDER, DGC	
13		1-451-498-21	COIL, NA ROTATION	
14	*	A-1138-987-A	MOUNTED PWB (VAR), VM1	
15		4-369-318-61	SPRING, TENSION	
16		1-452-032-00	MAGNET,DISC	
17		1-452-094-00	CIRCULAR DISC MAGNET B	
18		4-077-228-02	PIECE, TLH CONVERGENCE	
19		4-079-376-01	BAND, DGC	
20		8-453-021-21	NA2919-M2	
21		4-103-336-11	DOOR, CONTROL (KV-DB29M61/M98)	
		4-103-336-41	DOOR, CONTROL (KV-DB29M91)	
22		4-087-491-11	SPRING (DOOR)	
23		4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
24		X-4387-214-3	PERMALOY ASSY, CORRECTION	
25		4-084-918-01	HOLDER, HV CABLE	
26	⚠	2-022-575-11	COVER, REAR (29)	
27		4-302-404-03	TAPPING SCREW (+PWH 4X16)	
28		1-825-099-11	SPEAKER (13X5.5CM)	
29	*	4-086-708-12	BRACKET, SPEAKER	

8-2. CHASSIS

● : 7-685-648-79 SCREW +BVTP 3 × 12 TYPE2 IT-3
■ : 7-685-663-71 SCREW +BVTP 4 × 16 TYPE2 IT-3



REF. NO.		PART NO.	DESCRIPTION	REMARK
51	*	A-1139-498-A	MOUNTED PWB (VAR), H1	
52	*	A-1143-731-A	MOUNTED PWB (VAR), F1(KV-DB29M61)	
	*	A-1154-605-A	MOUNTED PWB (VAR), F1 (KV-DB29M91/M98)	
53	⚠ *	2-022-588-41	BRACKET, TERMINAL	
54		4-022-115-00	HOLDER, AC CORD	
55	*	A-1143-728-A	MOUNTED PWB, H2	
56	*	A-1138-976-A	MOUNTED PWB (VAR), BH1	
57	*	A-1161-960-A	COMPLETE PWB, D (KV-DB29M91/M98)	
	*	A-1138-979-A	COMPLETE PWB, D (KV-DB29M61)	
58	⚠	1-453-468-11	TRANSFORMER FLYBACK ASSY (NX-4526//M3B4)	
59	*	A-1138-982-A	MOUNTED PWB (VAR), DL1	
60	⚠	2-022-587-02	BRACKET, MAIN (KV-DB29M61)	
		2-022-587-12	BRACKET, MAIN (KV-DB29M91/M98)	

REF. NO.		PART NO.	DESCRIPTION	REMARK
61		4-302-428-03	SCREW (WASHER HEAD) (+P 3X12)	
62		1-693-659-11	TUNER	
63		4-046-797-01	SCREW (3X12), (+)BVTAP	
64	*	A-1158-941-A	COMPLETE PWB, A1 (KV-DB29M61)	
	*	A-1166-128-A	COMPLETE PWB, A1 (KV-DB29M91)	
	*	A-1161-958-A	COMPLETE PWB, A1 (KV-DB29M98)	
65	⚠	1-823-478-11	CORD, AC POWER (WITH CONNECTOR) (KV-DB29M61)	
	⚠	1-590-501-21	CORD, POWER (WITH NOISE FILTER) (KV-DB29M91/M98)	
66	*	1-469-969-31	CLAMP, FERRITE (KV-DB29M91/M98)	
67	*	A-1134-833-A	COMPLETE PWB, BC1 (KV-DB29M98)	
68		1-419-547-11	COIL,CHOKE (37 MMH) (KV-DB29M91/M98)	

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

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

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

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF : µF, PF : µµF

COILS
- MMH : mH, UH : µH

REF NO.	PART NO.	DESCRIPTION		REMARK	
*	A-1158-941-A	COMPLETE PWB, A1(KV-DB29M61)			
*	A-1166-128-A	COMPLETE PWB, A1(KV-DB29M91)			
*	A-1161-958-A	COMPLETE PWB, A1(KV-DB29M98)			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C001	1-126-947-11	ELECT	47UF	20.00%	35V
C004	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C005	1-126-947-11	ELECT	47UF	20.00%	35V
C006	1-126-933-11	ELECT	100UF	20.00%	16V
C008	1-126-947-11	ELECT	47UF	20.00%	35V
C008		(KV-DB29M98)			
C009	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C009		(KV-DB29M98)			
C010	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C011	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C012	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C013	1-126-935-11	ELECT	470UF	20.00%	16V
C014	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C015	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C016	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C017	1-126-947-11	ELECT	47UF	20.00%	35V
C017		(KV-DB29M98)			
C018	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C019	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C020	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C021	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C022	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C023	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C024	1-126-965-91	ELECT	22UF	20.00%	50V
C025	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C026	1-126-947-11	ELECT	47UF	20.00%	35V
C027	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C027		(KV-DB29M98)			
C028	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C029	1-126-965-91	ELECT	22UF	20.00%	50V
C030	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C031	1-126-935-11	ELECT	470UF	20.00%	16V
C033	1-162-926-11	CERAMIC CHIP	82PF	5.00%	50V
C033		(KV-DB29M98)			
C035	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C035		(KV-DB29M98)			
C036	1-104-665-11	ELECT	100UF	20.00%	25V
C037	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C038	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C041	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C042	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C044	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C045	1-126-947-11	ELECT	47UF	20.00%	35V
C046	1-162-969-11	CERAMIC CHIP	0.0068UF	10.00%	25V
C047	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C048	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C049	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C050	1-126-964-11	ELECT	10UF	20.00%	50V
C052	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C053	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C054	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C055	1-100-829-31	FILM	0.15UF	5%	250V
C056	1-104-665-11	ELECT	100UF	20.00%	25V
C057	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C058	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C061	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C063	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C064	1-126-961-11	ELECT	2.2UF	20.00%	50V
C065	1-126-962-11	ELECT	3.3UF	20.00%	50V
C067	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C067		(KV-DB29M98)			
C068	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C069	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C070	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C071	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C072	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C073	1-126-961-11	ELECT	2.2UF	20.00%	50V
C074	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C075	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C076	1-162-921-11	CERAMIC CHIP	33PF	5.00%	50V
C067		(KV-DB29M98)			
C077	1-126-947-11	ELECT	47UF	20.00%	35V
C077		(KV-DB29M98)			
C078	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C079	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C080	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C081	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C082	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C084	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C085	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C086	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C087	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C088	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C089	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C090	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C091	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C092	1-126-947-11	ELECT	47UF	20.00%	35V
C093	1-126-933-11	ELECT	100UF	20.00%	16V
C098	1-126-947-11	ELECT	47UF	20.00%	35V
C099	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C100	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C101	1-126-964-11	ELECT	10UF	20.00%	50V
C102	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C104	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V

A1

REF NO.	PART NO.	DESCRIPTION		REMARK	
C106	1-126-964-11	ELECT	10UF	20.00%	50V
C107	1-126-935-11	ELECT	470UF	20.00%	16V
C108	1-126-935-11	ELECT	470UF	20.00%	16V
C109	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C111	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C112	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C115	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C116	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C117	1-164-380-11	CERAMIC CHIP	51PF	5.00%	50V
C120	1-126-935-11	ELECT	470UF	20.00%	16V
C124	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C125	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C135	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C136	1-126-933-11	ELECT	100UF	20.00%	16V
C137	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C138	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C139	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C140	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C300	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C301	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C302	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C303	1-126-933-11	ELECT	100UF	20.00%	16V
C304	1-104-665-11	ELECT	100UF	20.00%	25V
C305	1-104-665-11	ELECT	100UF	20.00%	25V
C306	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C307	1-164-346-11	CERAMIC CHIP	1UF		16V
C307		(KV-DB29M98)			
C308	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C309	1-126-964-11	ELECT	10UF	20.00%	50V
C311	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C312	1-164-346-11	CERAMIC CHIP	1UF		16V
C312		(KV-DB29M98)			
C313	1-126-964-11	ELECT	10UF	20.00%	50V
C314	1-164-346-11	CERAMIC CHIP	1UF		16V
C315	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C316	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C318	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C319	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C320	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C322	1-126-947-11	ELECT	47UF	20.00%	35V
C323	1-126-935-11	ELECT	470UF	20.00%	16V
C324	1-126-933-11	ELECT	100UF	20.00%	16V
C327	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C328	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C329	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C330	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C331	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C332	1-126-947-11	ELECT	47UF	20.00%	35V
C340	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1000	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C1001	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C1002	1-164-245-11	CERAMIC CHIP	0.015UF	10.00%	25V
C1003	1-162-915-11	CERAMIC CHIP	10PF	0.50PF	50V
C1004	1-162-907-11	CERAMIC CHIP	2PF	0.25PF	50V
C1005	1-126-933-11	ELECT	100UF	20.00%	16V
C1006	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1007	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1008	1-126-933-11	ELECT	100UF	20.00%	16V
C1009	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1010	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1011	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1012	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V

REF NO.	PART NO.	DESCRIPTION		REMARK	
C1013	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C1014	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C1015	1-126-947-11	ELECT	47UF	20.00%	35V
C1016	1-162-919-11	CERAMIC CHIP	22PF	5.00%	50V
C1017	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C1018	1-126-767-11	ELECT	1000UF	20.00%	16V
C1019	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1020	1-164-739-11	CERAMIC CHIP	560PF	5.00%	50V
C1021	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1022	1-164-739-11	CERAMIC CHIP	560PF	5.00%	50V
C1023	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1024	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C1025	1-164-346-11	CERAMIC CHIP	1UF		16V
C1026	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C1027	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C1028	1-164-346-11	CERAMIC CHIP	1UF		16V
C1029	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C1032	1-162-959-11	CERAMIC CHIP	330PF	5.00%	50V
C1201	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C1202	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C1203	1-131-664-91	CERAMIC CHIP	0.15UF	10%	10V
C1204	1-131-664-91	CERAMIC CHIP	0.15UF	10%	10V
C1205	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C1206	1-126-957-11	ELECT	0.22UF	20.00%	50V
C1207	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C1208	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C1209	1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C1210	1-126-957-11	ELECT	0.22UF	20.00%	50V
C1211	1-126-968-11	ELECT	100UF	20.00%	50V
C1212	1-126-963-11	ELECT	4.7UF	20.00%	50V
C1213	1-126-972-11	ELECT	1000UF	20.00%	50V
C1214	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C1215	1-126-972-11	ELECT	1000UF	20.00%	50V
C1216	1-128-550-11	ELECT	2200UF	20.00%	50V
C1217	1-126-965-91	ELECT	22UF	20.00%	50V
C1218	1-126-972-11	ELECT	1000UF	20.00%	50V
C1219	1-126-965-91	ELECT	22UF	20.00%	50V
C1220	1-126-767-11	ELECT	1000UF	20.00%	16V
C1221	1-126-964-11	ELECT	10UF	20.00%	50V
C1229	1-137-374-11	MYLAR	0.047UF	5.00%	50V
C1230	1-137-374-11	MYLAR	0.047UF	5.00%	50V
C1231	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C1232	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C1235	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C2201	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2202	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2203	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2204	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2205	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2206	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2207	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2208	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2211	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2214	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2215	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2216	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2217	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2218	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2219	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2220	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2222	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V

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REF NO.	PART NO.	DESCRIPTION		REMARK	
C2223	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2225	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2226	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2227	1-126-964-11	ELECT	10UF	20.00%	50V
C2228	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2229	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2230	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2231	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2232	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2233	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2234	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2235	1-126-947-11	ELECT	47UF	20.00%	35V
C2236	1-126-947-11	ELECT	47UF	20.00%	35V
C2237	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2238	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C2239	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2240	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2241	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C2243	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C2244	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C2600	1-100-566-91	CERAMIC CHIP	0.1UF	10.00%	25V
C2601	1-100-566-91	CERAMIC CHIP	0.1UF	10.00%	25V
C2602	1-126-933-11	ELECT	100UF	20.00%	16V
C2603	1-126-933-11	ELECT	100UF	20.00%	16V
C2605	1-104-658-91	ELECT	100UF	20.00%	10V
C2606	1-100-566-91	CERAMIC CHIP	0.1UF	10.00%	25V
C2607	1-100-566-91	CERAMIC CHIP	0.1UF	10.00%	25V
C2609	1-104-658-91	ELECT	100UF	20.00%	10V
C2612	1-104-665-11	ELECT	100UF	20.00%	25V
C2613	1-126-936-11	ELECT	3300UF	20.00%	16V
C2614	1-126-933-11	ELECT	100UF	20.00%	16V
C2615	1-100-566-91	CERAMIC CHIP	0.1UF	10.00%	25V
C2616	1-100-566-91	CERAMIC CHIP	0.1UF	10.00%	25V
C2617	1-104-663-11	ELECT	33UF	20.00%	25V
C2618	1-126-947-11	ELECT	47UF	20.00%	35V
C2619	1-126-964-11	ELECT	10UF	20.00%	50V
C2620	1-126-959-11	ELECT	0.47UF	20.00%	50V
C2621	1-126-933-11	ELECT	100UF	20.00%	16V
C2622	1-104-662-91	ELECT	22UF	20.00%	25V
C2624	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C2625	1-104-665-11	ELECT	100UF	20.00%	25V
C2626	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C2627	1-126-933-11	ELECT	100UF	20.00%	16V
C4302	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4304	1-126-933-11	ELECT	100UF	20.00%	16V
C4305	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4307	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C4308	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4309	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C4310	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4311	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C4312	1-126-933-11	ELECT	100UF	20.00%	16V
C4313	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4314	1-126-933-11	ELECT	100UF	20.00%	16V
C4315	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C4316	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4317	1-126-933-11	ELECT	100UF	20.00%	16V
C4318	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4319	1-126-933-11	ELECT	100UF	20.00%	16V
C4320	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V

REF NO.	PART NO.	DESCRIPTION		REMARK	
C4321	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4322	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4323	1-126-962-11	ELECT	3.3UF	20.00%	50V
C4324	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C4325	1-162-923-11	CERAMIC CHIP	47PF	5.00%	50V
C4326	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C4327	1-136-244-11	FILM	0.1UF	2.00%	50V
C4328	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4329	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4330	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4331	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4332	1-126-933-11	ELECT	100UF	20.00%	16V
C4333	1-126-963-11	ELECT	4.7UF	20.00%	50V
C4334	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4335	1-126-933-11	ELECT	100UF	20.00%	16V
C4336	1-126-933-11	ELECT	100UF	20.00%	16V
C4337	1-110-563-11	CERAMIC CHIP	0.068UF	10.00%	16V
C4338	1-162-966-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C4339	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4340	1-126-933-11	ELECT	100UF	20.00%	16V
C4342	1-128-526-11	ELECT	100UF	20%	25V
C4346	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4353	1-126-933-11	ELECT	100UF	20.00%	16V
C4357	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4358	1-126-947-11	ELECT	47UF	20.00%	35V
C4359	1-126-933-11	ELECT	100UF	20.00%	16V
C4360	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4361	1-126-933-11	ELECT	100UF	20.00%	16V
C4367	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4370	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4371	1-164-677-11	CERAMIC CHIP	0.033UF	10.00%	16V
C4372	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4374	1-127-715-91	CERAMIC CHIP	0.22UF	10%	16V
C4375	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4377	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4378	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4379	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4380	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4381	1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C4382	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4383	1-126-933-11	ELECT	100UF	20.00%	16V
C4384	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C4386	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4387	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C4388	1-162-921-11	CERAMIC CHIP	33PF	5.00%	50V
C4389	1-162-921-11	CERAMIC CHIP	33PF	5.00%	50V
C4390	1-162-921-11	CERAMIC CHIP	33PF	5.00%	50V
C4391	1-162-979-11	CERAMIC CHIP	0.0027UF	10.00%	50V
C4392	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8301	1-126-960-11	ELECT	1UF	20.00%	50V
C8302	1-126-960-11	ELECT	1UF	20.00%	50V
C8303	1-126-935-11	ELECT	470UF	20.00%	16V
C8304	1-126-960-11	ELECT	1UF	20.00%	50V
C8305	1-164-346-11	CERAMIC CHIP	1UF		16V
C8307	1-126-960-11	ELECT	1UF	20.00%	50V
C8308	1-126-960-11	ELECT	1UF	20.00%	50V
C8309	1-164-346-11	CERAMIC CHIP	1UF		16V
C8310	1-126-961-11	ELECT	2.2UF	20.00%	50V
C8311	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8312	1-164-505-11	CERAMIC CHIP	2.2UF		16V

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REF NO.	PART NO.	DESCRIPTION		REMARK	
C8317	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8318	1-126-933-11	ELECT	100UF	20.00%	16V
C8319	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8320	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8321	1-126-961-11	ELECT	2.2UF	20.00%	50V
C8322	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8325	1-126-933-11	ELECT	100UF	20.00%	16V
C8326	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8327	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8328	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8329	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8330	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8339	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8342	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8343	1-126-947-11	ELECT	47UF	20.00%	35V
C8344	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8345	1-126-925-91	ELECT	470UF	20.00%	10V
C8346	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8347	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8348	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8349	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8350	1-126-947-11	ELECT	47UF	20.00%	35V
C8351	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8352	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8353	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8354	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8355	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8356	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8357	1-126-964-11	ELECT	10UF	20.00%	50V
C8360	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8361	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8362	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C8365	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C8366	1-109-982-11	CERAMIC CHIP	1UF	10.00%	10V
C8367	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8368	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8369	1-164-346-11	CERAMIC CHIP	1UF		16V
C8370	1-126-947-11	ELECT	47UF	20.00%	35V
C8371	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8372	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8373	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8377	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8378	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8501	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8502	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8503	1-126-947-11	ELECT	47UF	20.00%	35V
C8504	1-126-947-11	ELECT	47UF	20.00%	35V
C8505	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8506	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8507	1-126-947-11	ELECT	47UF	20.00%	35V
C8510	1-126-947-11	ELECT	47UF	20.00%	35V
C8513	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8517	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8520	1-126-964-11	ELECT	10UF	20.00%	50V
C8521	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C8522	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C8523	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C8524	1-117-720-11	CERAMIC CHIP	4.7UF		10V
C8525	1-126-964-11	ELECT	10UF	20.00%	50V
C8526	1-126-933-11	ELECT	100UF	20.00%	16V
C8527	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8528	1-126-947-11	ELECT	47UF	20.00%	35V
C8529	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8530	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C8531	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V

<CONNECTOR>

* CN001	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P
CN001		(KV-DB29M98)
* CN002	1-774-813-11	CONNECTOR, BOARD TO BOARD 7P
CN002		(KV-DB29M98)
* CN003	1-785-608-11	PIN, CONNECTOR 4P
* CN014	1-564-510-11	PLUG, CONNECTOR 7P
CN100	1-695-915-11	TAB (CONTACT)
* CN1001	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)10P
* CN1002	1-564-507-11	PLUG, CONNECTOR 4P
* CN1201	1-564-509-11	PLUG, CONNECTOR 6P
* CN1202	1-564-507-11	PLUG, CONNECTOR 4P
* CN2203	1-564-512-11	PLUG, CONNECTOR 9P
* CN2601	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
* CN4301	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE) 10P
* CN4302	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE) 10P
* CN4305	1-793-495-11	CONNECTOR, BOARD TO BOARD 50P
CN8301	1-784-646-31	TERMINAL, S
CT131	1-767-774-22	TRAP, CERAMIC
CT131		(KV-DB29M98)
CT139	1-767-775-22	TRAP, CERAMIC

<DIODE>

D001	8-719-081-97	DIODE MMDL914T1
D002	8-719-081-97	DIODE MMDL914T1
D003	8-719-081-97	DIODE MMDL914T1
D006	8-719-081-97	DIODE MMDL914T1
D007	8-719-081-97	DIODE MMDL914T1
D064	8-719-036-94	DIODE RD5.6SB-T1
D065	8-719-036-94	DIODE RD5.6SB-T1
D066	8-719-081-97	DIODE MMDL914T1
D068	8-719-036-94	DIODE RD5.6SB-T1
D072	8-719-081-97	DIODE MMDL914T1
D100	8-719-421-40	DIODE MA77
D1201	8-719-062-51	DIODE 1PS226-115
D1202	8-719-081-97	DIODE MMDL914T1
D1203	8-719-081-97	DIODE MMDL914T1
D1204	8-719-081-97	DIODE MMDL914T1
D1205	8-719-081-97	DIODE MMDL914T1
D1206	8-719-081-97	DIODE MMDL914T1
D1215	8-719-081-97	DIODE MMDL914T1
D1244	8-719-081-97	DIODE MMDL914T1
D2201	6-500-028-01	DIODE MM3Z9V1ST1
D2202	8-719-036-94	DIODE RD5.6SB-T1
D2203	8-719-036-94	DIODE RD5.6SB-T1
D2204	8-719-036-94	DIODE RD5.6SB-T1
D2205	8-719-036-94	DIODE RD5.6SB-T1
D2206	6-500-028-01	DIODE MM3Z9V1ST1
D2207	6-500-028-01	DIODE MM3Z9V1ST1
D2208	6-500-028-01	DIODE MM3Z9V1ST1
D2211	6-500-028-01	DIODE MM3Z9V1ST1
D2212	6-500-028-01	DIODE MM3Z9V1ST1
D2217	8-719-036-94	DIODE RD5.6SB-T1

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REF NO.	PART NO.	DESCRIPTION	REMARK
D2218	8-719-036-94	DIODE RD5.6SB-T1	
D2219	6-500-028-01	DIODE MM3Z9V1ST1	
D2220	6-500-028-01	DIODE MM3Z9V1ST1	
D2601	8-719-072-70	DIODE MA2ZD14001S0	
D2602	8-719-081-97	DIODE MMDL914T1	
D2603	8-719-081-97	DIODE MMDL914T1	
D4302	6-500-028-01	DIODE MM3Z9V1ST1	
D4309	8-719-081-97	DIODE MMDL914T1	
D4312	8-719-081-97	DIODE MMDL914T1	
D4313	8-719-036-94	DIODE RD5.6SB-T1	
D4318	8-719-050-38	DIODE M1MA152WK-T1	
D4319	8-719-050-38	DIODE M1MA152WK-T1	
D4320	8-719-401-63	DIODE MA3062M-TX	
D4323	8-719-081-97	DIODE MMDL914T1	
D8301	6-500-028-01	DIODE MM3Z9V1ST1	
D8302	6-500-028-01	DIODE MM3Z9V1ST1	
D8303	6-500-028-01	DIODE MM3Z9V1ST1	
D8304	6-500-028-01	DIODE MM3Z9V1ST1	
D8305	6-500-028-01	DIODE MM3Z9V1ST1	
D8306	6-500-028-01	DIODE MM3Z9V1ST1	
D8308	6-500-028-01	DIODE MM3Z9V1ST1	
D8309	8-719-036-94	DIODE RD5.6SB-T1	
D8310	6-500-028-01	DIODE MM3Z9V1ST1	
D8311	6-500-028-01	DIODE MM3Z9V1ST1	
D8312	8-719-977-28	DIODE DTZ10B	
D8313	8-719-977-28	DIODE DTZ10B	
D8314	8-719-977-28	DIODE DTZ10B	
D8315	8-719-977-28	DIODE DTZ10B	
D8322	8-719-977-28	DIODE DTZ10B	
D8323	8-719-977-28	DIODE DTZ10B	
D8325	8-719-062-51	DIODE 1PS226-115	
D8501	8-719-081-97	DIODE MMDL914T1	
		<FERRITE BEAD>	
FB001	1-469-981-21	FERRITE 0UH	
FB002	1-469-981-21	FERRITE 0UH	
FB003	1-469-981-21	FERRITE 0UH	
FB004	1-469-981-21	FERRITE 0UH	
FB005	1-469-981-21	FERRITE 0UH	
FB100	1-414-228-11	FERRITE 0UH	
FB101	1-414-228-11	FERRITE 0UH	
FB102	1-414-228-11	FERRITE 0UH	
FB103	1-414-228-11	FERRITE 0UH	
FB106	1-414-228-11	FERRITE 0UH	
FB107	1-414-228-11	FERRITE 0UH	
FB4301	1-414-921-11	FERRITE 0UH	
		<FILTER>	
FL1000	1-234-177-21	FERRITE 0UH	
FL8501	1-236-071-11	ENCAPSULATED COMPONENT	
		<IC>	
IC001	6-706-781-01	IC TDA12027H1/N1E0B	
IC004	8-759-649-32	IC SN74AHCT1G04DCKR	
IC005	8-759-649-32	IC SN74AHCT1G04DCKR	
IC1000	6-805-653-01	IC M306V7MJA-059FP (KV-DB29M61)	
IC1000	6-805-655-01	IC M306V7MJA-061FP (except KV-DB29M61)	

REF NO.	PART NO.	DESCRIPTION	REMARK
IC1001	6-705-870-01	IC CAT24WC32WI-TE13	
IC1002	8-759-488-29	IC TC7W66FU(TE12R)	
IC1003	6-801-375-01	IC PST9129NL	
IC1004	6-705-870-01	IC CAT24WC32WI-TE13	
IC1201	6-703-477-01	IC AN5277T	
IC2201	8-759-836-72	IC NJM2521V(TE2)	
IC2202	8-759-836-72	IC NJM2521V(TE2)	
IC2203	8-759-836-72	IC NJM2521V(TE2)	
IC2204	8-759-836-72	IC NJM2521V(TE2)	
IC2600	8-759-653-07	IC PQ09RD21J00H	
IC2601	6-700-898-01	IC PQ05RD21J00H	
IC2603	6-706-886-01	IC KIA78D33PI	
IC2604	6-702-987-01	IC BA18BCOWFP-E2	
IC2605	6-703-478-01	IC PQ018EF01SSH	
IC2606	6-707-345-01	IC KIA78D33F (KV-DB29M61)	
IC2607	6-705-756-01	IC BA33BC0WFP-E2	
IC4301	8-752-102-68	IC CXA2170Q	
IC4302	8-759-052-52	IC L78M05T-FA	
IC8301	8-753-204-09	IC CXA2209Q	
IC8302	6-700-205-01	IC TC74LVX157FT(EL)	
IC8501	8-759-542-15	IC TDA9178	
IC8503	6-706-805-01	IC TL52055DR	
		<JACK>	
J8301	1-817-298-21	PHONO JACK 9P	
J8302	1-819-609-11	PIN JACK BLOCK 10P	
		<CHIP CONDUCTOR>	
JR006	1-216-864-11	SHORT CHIP 0	
JR007	1-216-864-11	SHORT CHIP 0 (KV-DB29M98)	
JR014	1-216-864-11	SHORT CHIP 0	
JR015	1-216-864-11	SHORT CHIP 0	
JR016	1-216-864-11	SHORT CHIP 0	
JR017	1-216-864-11	SHORT CHIP 0	
JR018	1-216-864-11	SHORT CHIP 0	
JR019	1-216-864-11	SHORT CHIP 0	
JR020	1-216-864-11	SHORT CHIP 0	
JR021	1-216-864-11	SHORT CHIP 0	
JR024	1-216-864-11	SHORT CHIP 0	
JR025	1-216-864-11	SHORT CHIP 0	
JR029	1-216-864-11	SHORT CHIP 0	
JR030	1-216-864-11	SHORT CHIP 0	
JR031	1-216-864-11	SHORT CHIP 0	
JR032	1-216-864-11	SHORT CHIP 0	
JR033	1-216-864-11	SHORT CHIP 0	
JR034	1-216-864-11	SHORT CHIP 0	
JR039	1-216-864-11	SHORT CHIP 0	
JR042	1-216-864-11	SHORT CHIP 0	
JR043	1-216-864-11	SHORT CHIP 0	
JR044	1-216-864-11	SHORT CHIP 0	
JR045	1-216-864-11	SHORT CHIP 0	
JR047	1-216-864-11	SHORT CHIP 0	
JR048	1-216-864-11	SHORT CHIP 0	
JR049	1-216-864-11	SHORT CHIP 0	
JR050	1-216-864-11	SHORT CHIP 0	
JR051	1-216-864-11	SHORT CHIP 0	
JR054	1-216-864-11	SHORT CHIP 0	
JR055	1-216-295-91	SHORT CHIP 0	

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

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REF NO.	PART NO.	DESCRIPTION	REMARK
JR057	1-216-295-91	SHORT CHIP	0
JR058	1-216-295-91	SHORT CHIP	0
JR059	1-216-864-11	SHORT CHIP	0
JR060	1-216-864-11	SHORT CHIP	0
JR061	1-216-864-11	SHORT CHIP	0
JR062	1-216-864-11	SHORT CHIP	0
JR063	1-216-864-11	SHORT CHIP	0
JR065	1-216-864-11	SHORT CHIP	0
JR066	1-216-864-11	SHORT CHIP	0
JR067	1-216-864-11	SHORT CHIP	0
JR068	1-216-864-11	SHORT CHIP	0
JR071	1-216-864-11	SHORT CHIP	0
JR074	1-216-864-11	SHORT CHIP	0
JR075	1-216-864-11	SHORT CHIP	0
JR076	1-216-864-11	SHORT CHIP	0
JR079	1-216-864-11	SHORT CHIP	0
JR080	1-216-864-11	SHORT CHIP	0
JR081	1-216-864-11	SHORT CHIP	0 (KV-DB29M98)
JR082	1-216-864-11	SHORT CHIP	0
JR083	1-216-864-11	SHORT CHIP	0
JR086	1-216-864-11	SHORT CHIP	0
JR087	1-216-864-11	SHORT CHIP	0
JR088	1-216-864-11	SHORT CHIP	0
JR089	1-216-864-11	SHORT CHIP	0
JR090	1-216-864-11	SHORT CHIP	0
JR091	1-216-864-11	SHORT CHIP	0
JR092	1-216-864-11	SHORT CHIP	0
JR094	1-216-864-11	SHORT CHIP	0
JR095	1-216-864-11	SHORT CHIP	0
JR096	1-216-864-11	SHORT CHIP	0
JR097	1-216-864-11	SHORT CHIP	0
JR109	1-216-864-11	SHORT CHIP	0
JR111	1-216-864-11	SHORT CHIP	0
JR112	1-216-864-11	SHORT CHIP	0
JR113	1-216-864-11	SHORT CHIP	0
JR114	1-216-864-11	SHORT CHIP	0
JR117	1-216-864-11	SHORT CHIP	0
JR1081	1-216-864-11	SHORT CHIP	0
JR2602	1-216-864-11	SHORT CHIP	0 (except KV-DB29M61)
JR2603	1-216-864-11	SHORT CHIP	0
JR8308	1-216-864-11	SHORT CHIP	0
JR8318	1-216-864-11	SHORT CHIP	0
JR8319	1-216-864-11	SHORT CHIP	0
JR8320	1-216-864-11	SHORT CHIP	0

<COIL>

L002	1-469-525-91	INDUCTOR	10UH (KV-DB29M98)
L003	1-414-934-21	INDUCTOR	10UH
L004	1-469-527-91	INDUCTOR	47UH
L005	1-414-934-21	INDUCTOR	10UH
L006	1-469-525-91	INDUCTOR	10UH
L007	1-469-525-91	INDUCTOR	10UH
L008	1-469-525-91	INDUCTOR	10UH
L009	1-414-934-21	INDUCTOR	10UH
L010	1-469-525-91	INDUCTOR	10UH
L011	1-469-525-91	INDUCTOR	10UH
L012	1-414-934-21	INDUCTOR	10UH
L013	1-469-525-91	INDUCTOR	10UH
L014	1-469-525-91	INDUCTOR	10UH (KV-DB29M98)
L016	1-469-525-91	INDUCTOR	10UH
L017	1-469-525-91	INDUCTOR	10UH (KV-DB29M98)

REF NO.	PART NO.	DESCRIPTION	REMARK
L019	1-469-525-91	INDUCTOR	10UH
L021	1-469-559-21	INDUCTOR	47UH
L022	1-414-922-51	INDUCTOR	330UH
L023	1-469-559-21	INDUCTOR	47UH
L025	1-469-525-91	INDUCTOR	10UH (KV-DB29M98)
L031	1-414-934-21	INDUCTOR	10UH
L032	1-414-934-21	INDUCTOR	10UH
L033	1-469-525-91	INDUCTOR	10UH
L035	1-414-934-21	INDUCTOR	10UH
L036	1-469-525-91	INDUCTOR	10UH
L037	1-469-525-91	INDUCTOR	10UH
L038	1-414-934-21	INDUCTOR	10UH
L100	1-414-857-11	INDUCTOR	100UH
L101	1-410-498-11	INDUCTOR	1.2UH
L102	1-410-985-42	INDUCTOR	0.22UH
L103	1-410-987-42	INDUCTOR	0.33UH
L104	1-414-187-11	INDUCTOR	47UH
L106	1-414-189-31	INDUCTOR	100UH
L107	1-469-525-91	INDUCTOR	10UH
L1000	1-400-397-11	INDUCTOR	10UH
L1001	1-400-397-11	INDUCTOR	10UH
L2201	1-414-856-11	INDUCTOR	10UH
L2202	1-414-856-11	INDUCTOR	10UH
L4301	1-414-934-21	INDUCTOR	10UH
L4302	1-414-934-21	INDUCTOR	10UH
L4303	1-414-934-21	INDUCTOR	10UH
L4304	1-414-934-21	INDUCTOR	10UH
L4305	1-414-934-21	INDUCTOR	10UH
L4306	1-414-934-21	INDUCTOR	10UH
L4307	1-414-934-21	INDUCTOR	10UH
L4308	1-414-934-21	INDUCTOR	10UH
L4310	1-414-934-21	INDUCTOR	10UH
L4311	1-469-525-91	INDUCTOR	10UH
L4312	1-400-562-21	FERRITE	1.5UH
L8301	1-469-525-91	INDUCTOR	10UH
L8302	1-414-934-21	INDUCTOR	10UH
L8303	1-414-934-21	INDUCTOR	10UH
L8304	1-414-934-21	INDUCTOR	10UH
L8305	1-414-934-21	INDUCTOR	10UH
L8308	1-469-555-21	INDUCTOR	10UH
L8503	1-414-934-21	INDUCTOR	10UH
L8504	1-469-525-91	INDUCTOR	10UH

<IC LINK>

PS1201 ⚠	1-533-597-41	IC LINK	5A	90V

<TRANSISTOR>

Q001	8-729-010-25	TRANSISTOR MSD601-RT1
Q002	8-729-010-05	TRANSISTOR MSB709-RT1
Q003	8-729-230-49	TRANSISTOR 2SC2712-YG
Q004	8-729-230-49	TRANSISTOR 2SC2712-YG (KV-DB29M98)
Q005	8-729-010-05	TRANSISTOR MSB709-RT1 (KV-DB29M98)
Q006	8-729-010-25	TRANSISTOR MSD601-RT1 (KV-DB29M98)
Q007	8-729-010-05	TRANSISTOR MSB709-RT1 (KV-DB29M98)
Q008	8-729-010-25	TRANSISTOR MSD601-RT1 (KV-DB29M98)
Q009	8-729-010-25	TRANSISTOR MSD601-RT1 (KV-DB29M98)
Q015	8-729-421-22	TRANSISTOR UN2211
Q016	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q017	8-729-120-28	TRANSISTOR 2SC1623-L5L6

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REF NO.	PART NO.	DESCRIPTION	REMARK
Q018	8-729-122-63	TRANSISTOR 2SA1226-E4	
Q019	8-729-102-07	TRANSISTOR 2SC2223-F13	
Q020	8-729-010-05	TRANSISTOR MSB709-RT1	
Q021	8-729-010-05	TRANSISTOR MSB709-RT1	
Q022	8-729-122-63	TRANSISTOR 2SA1226-E4	
Q023	8-729-010-25	TRANSISTOR MSD601-RT1	
Q024	8-729-010-05	TRANSISTOR MSB709-RT1	
Q025	8-729-122-63	TRANSISTOR 2SA1226-E4	
Q026	8-729-010-05	TRANSISTOR MSB709-RT1 (KV-DB29M98)	
Q029	8-729-010-25	TRANSISTOR MSD601-RT1	
Q030	8-729-421-22	TRANSISTOR UN2211	
Q031	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q032	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q100	8-729-010-25	TRANSISTOR MSD601-RT1	
Q102	8-729-022-54	TRANSISTOR 2SC3779C,D-AA	
Q103	8-729-424-67	TRANSISTOR UN2216	
Q104	8-729-424-67	TRANSISTOR UN2216	
Q1000	8-729-421-19	TRANSISTOR UN2213	
Q1001	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1002	8-729-600-22	TRANSISTOR 2SA1235-F	
Q1003	8-729-600-22	TRANSISTOR 2SA1235-F	
Q1004	8-729-600-22	TRANSISTOR 2SA1235-F	
Q1005	8-729-600-22	TRANSISTOR 2SA1235-F	
Q1006	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1007	8-729-421-19	TRANSISTOR UN2213	
Q1009	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1014	8-729-010-25	TRANSISTOR MSD601-RT1	
Q1016	8-729-421-22	TRANSISTOR UN2211	
Q1201	8-729-600-22	TRANSISTOR 2SA1235-F	
Q1202	8-729-010-25	TRANSISTOR MSD601-RT1	
Q2201	6-550-600-01	TRANSISTOR MUN2216T1	
Q2202	6-550-600-01	TRANSISTOR MUN2216T1	
Q2601	8-729-600-22	TRANSISTOR 2SA1235-F	
Q2602	8-729-600-22	TRANSISTOR 2SA1235-F	
Q4301	8-729-010-25	TRANSISTOR MSD601-RT1	
Q4302	8-729-010-25	TRANSISTOR MSD601-RT1	
Q4303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4304	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4305	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4306	8-729-010-25	TRANSISTOR MSD601-RT1	
Q4307	8-729-122-63	TRANSISTOR 2SA1226-E4	
Q4308	8-729-122-63	TRANSISTOR 2SA1226-E4	
Q4309	8-729-122-63	TRANSISTOR 2SA1226-E4	
Q4315	8-729-600-22	TRANSISTOR 2SA1235-F	
Q4316	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4321	8-729-421-19	TRANSISTOR UN2213	
Q4323	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4324	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4328	8-729-010-25	TRANSISTOR MSD601-RT1	
Q4329	8-729-421-19	TRANSISTOR UN2213	
Q4330	8-729-421-22	TRANSISTOR UN2211	
Q4331	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4332	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4335	8-729-421-22	TRANSISTOR UN2211	
Q8306	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8308	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8309	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8310	8-729-122-63	TRANSISTOR 2SA1226-E4	
Q8317	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8318	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8319	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8320	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8321	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8322	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8330	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8332	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8335	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8501	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8502	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8503	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8504	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8507	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8508	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8511	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8513	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8514	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8515	8-729-010-05	TRANSISTOR MSB709-RT1	
Q8517	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8518	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8519	8-729-010-25	TRANSISTOR MSD601-RT1	
Q8520	8-729-122-63	TRANSISTOR 2SA1226-E4	

<RESISTOR>

R001	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R002	1-216-809-11	METAL CHIP	100	5%	1/10W
R003	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R004	1-216-809-11	METAL CHIP	100	5%	1/10W
R006	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R008	1-216-809-11	METAL CHIP	100	5%	1/10W
R010	1-216-833-11	METAL CHIP	10K	5%	1/10W
R011	1-216-809-11	METAL CHIP	100	5%	1/10W
R012	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R013	1-216-809-11	METAL CHIP	100	5%	1/10W
R014	1-216-809-11	METAL CHIP	100	5%	1/10W
R015	1-218-851-11	METAL CHIP	1.5K	0.50%	1/10W
R016	1-216-809-11	METAL CHIP	100	5%	1/10W
R016		(KV-DB29M98)			
R019	1-216-821-11	METAL CHIP	1K	5%	1/10W
R019		(KV-DB29M98)			
R020	1-216-809-11	METAL CHIP	100	5%	1/10W
R021	1-216-813-11	METAL CHIP	220	5%	1/10W
R021		(KV-DB29M98)			
R022	1-216-841-11	METAL CHIP	47K	5%	1/10W
R022		(KV-DB29M98)			
R024	1-216-821-11	METAL CHIP	1K	5%	1/10W
R024		(KV-DB29M98)			
R025	1-216-809-11	METAL CHIP	100	5%	1/10W
R026	1-216-809-11	METAL CHIP	100	5%	1/10W
R027	1-216-817-11	METAL CHIP	470	5%	1/10W
R027		(KV-DB29M98)			
R028	1-216-841-11	METAL CHIP	47K	5%	1/10W
R028		(KV-DB29M98)			
R029	1-216-809-11	METAL CHIP	100	5%	1/10W
R030	1-216-809-11	METAL CHIP	100	5%	1/10W
R031	1-216-809-11	METAL CHIP	100	5%	1/10W
R031		(KV-DB29M98)			
R032	1-216-817-11	METAL CHIP	470	5%	1/10W
R032		(KV-DB29M98)			
R033	1-216-817-11	METAL CHIP	470	5%	1/10W
R033		(KV-DB29M98)			
R034	1-216-817-11	METAL CHIP	470	5%	1/10W
R034		(KV-DB29M98)			

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REF NO.	PART NO.	DESCRIPTION		REMARK	
R035	1-216-817-11	METAL CHIP	470	5%	1/10W
R035		(KV-DB29M98)			
R036	1-216-817-11	METAL CHIP	470	5%	1/10W
R036		(KV-DB29M98)			
R038	1-216-817-11	METAL CHIP	470	5%	1/10W
R038		(KV-DB29M98)			
R039	1-216-864-11	SHORT CHIP	0 (KV-DB29M98)		
R041	1-216-864-11	SHORT CHIP	0 (KV-DB29M98)		
R043	1-216-864-11	SHORT CHIP	0		
R044	1-216-834-11	METAL CHIP	12K	5%	1/10W
R045	1-216-809-11	METAL CHIP	100	5%	1/10W
R046	1-216-809-11	METAL CHIP	100	5%	1/10W
R047	1-216-864-11	SHORT CHIP	0		
R048	1-216-809-11	METAL CHIP	100	5%	1/10W
R049	1-216-837-11	METAL CHIP	22K	5%	1/10W
R051	1-218-885-11	METAL CHIP	39K	0.50%	1/10W
R053	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R056	1-216-809-11	METAL CHIP	100	5%	1/10W
R058	1-216-864-11	SHORT CHIP	0		
R061	1-216-819-11	METAL CHIP	680	5%	1/10W
R064	1-216-837-11	METAL CHIP	22K	5%	1/10W
R073	1-216-842-11	METAL CHIP	56K	5%	1/10W
R074	1-216-809-11	METAL CHIP	100	5%	1/10W
R075	1-216-809-11	METAL CHIP	100	5%	1/10W
R076	1-216-817-11	METAL CHIP	470	5%	1/10W
R078	1-216-809-11	METAL CHIP	100	5%	1/10W
R080	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R081	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R082	1-216-809-11	METAL CHIP	100	5%	1/10W
R083	1-216-809-11	METAL CHIP	100	5%	1/10W
R085	1-216-817-11	METAL CHIP	470	5%	1/10W
R086	1-216-805-11	METAL CHIP	47	5%	1/10W
R087	1-216-817-11	METAL CHIP	470	5%	1/10W
R088	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R090	1-216-809-11	METAL CHIP	100	5%	1/10W
R091	1-216-837-11	METAL CHIP	22K	5%	1/10W
R092	1-216-837-11	METAL CHIP	22K	5%	1/10W
R093	1-216-817-11	METAL CHIP	470	5%	1/10W
R094	1-216-805-11	METAL CHIP	47	5%	1/10W
R095	1-216-864-11	SHORT CHIP	0		
R096	1-216-813-11	METAL CHIP	220	5%	1/10W
R097	1-216-813-11	METAL CHIP	220	5%	1/10W
R098	1-216-864-11	SHORT CHIP	0		
R099	1-216-813-11	METAL CHIP	220	5%	1/10W
R100	1-216-821-11	METAL CHIP	1K	5%	1/10W
R103	1-211-981-11	METAL CHIP	33	0.50%	1/10W
R106	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R107	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R108	1-216-821-11	METAL CHIP	1K	5%	1/10W
R109	1-216-806-11	METAL CHIP	56	5%	1/10W
R110	1-216-821-11	METAL CHIP	1K	5%	1/10W
R111	1-216-833-11	METAL CHIP	10K	5%	1/10W
R112	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R113	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R114	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R117	1-216-864-11	SHORT CHIP	0		
R118	1-216-809-11	METAL CHIP	100	5%	1/10W
R119	1-211-981-11	METAL CHIP	33	0.50%	1/10W
R128	1-216-864-11	SHORT CHIP	0		
R131	1-216-809-11	METAL CHIP	100	5%	1/10W
R300	1-216-822-11	METAL CHIP	1.2K	5%	1/10W

REF NO.	PART NO.	DESCRIPTION		REMARK	
R301	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R307	1-216-817-11	METAL CHIP	470	5%	1/10W
R308	1-216-817-11	METAL CHIP	470	5%	1/10W
R310	1-216-864-11	SHORT CHIP	0		
R311	1-216-864-11	SHORT CHIP	0		
R312	1-216-809-11	METAL CHIP	100	5%	1/10W
R313	1-216-845-11	METAL CHIP	100K	5%	1/10W
R315	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R316	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R317	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R318	1-216-817-11	METAL CHIP	470	5%	1/10W
R320	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-837-11	METAL CHIP	22K	5%	1/10W
R322	1-216-864-11	SHORT CHIP	0		
R323	1-216-809-11	METAL CHIP	100	5%	1/10W
R324	1-216-837-11	METAL CHIP	22K	5%	1/10W
R325	1-216-817-11	METAL CHIP	470	5%	1/10W
R326	1-216-817-11	METAL CHIP	470	5%	1/10W
R328	1-216-864-11	SHORT CHIP	0		
R329	1-216-864-11	SHORT CHIP	0		
R330	1-216-809-11	METAL CHIP	100	5%	1/10W
R331	1-216-817-11	METAL CHIP	470	5%	1/10W
R333	1-216-817-11	METAL CHIP	470	5%	1/10W
R333		(KV-DB29M98)			
R334	1-216-817-11	METAL CHIP	470	5%	1/10W
R334		(KV-DB29M98)			
R335	1-216-809-11	METAL CHIP	100	5%	1/10W
R336	1-216-833-11	METAL CHIP	10K	5%	1/10W
R337	1-216-817-11	METAL CHIP	470	5%	1/10W
R338	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R339	1-216-809-11	METAL CHIP	100	5%	1/10W
R340	1-216-833-11	METAL CHIP	10K	5%	1/10W
R341	1-216-809-11	METAL CHIP	100	5%	1/10W
R344	1-216-864-11	SHORT CHIP	0		
R345	1-216-864-11	SHORT CHIP	0		
R346	1-216-809-11	METAL CHIP	100	5%	1/10W
R347	1-216-821-11	METAL CHIP	1K	5%	1/10W
R348	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R349	1-216-821-11	METAL CHIP	1K	5%	1/10W
R350	1-216-821-11	METAL CHIP	1K	5%	1/10W
R351	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R352	1-216-817-11	METAL CHIP	470	5%	1/10W
R353	1-216-833-11	METAL CHIP	10K	5%	1/10W
R354	1-216-833-11	METAL CHIP	10K	5%	1/10W
R355	1-216-837-11	METAL CHIP	22K	5%	1/10W
R356	1-216-864-11	SHORT CHIP	0		
R360	1-218-877-11	METAL CHIP	18K	0.50%	1/10W
R361	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R363	1-218-859-11	METAL CHIP	3.3K	0.50%	1/10W
R369	1-216-864-11	SHORT CHIP	0		
R371	1-216-809-11	METAL CHIP	100	5%	1/10W
R372	1-216-809-11	METAL CHIP	100	5%	1/10W
R376	1-216-809-11	METAL CHIP	100	5%	1/10W
R378	1-243-523-71	METAL OXIDE	22	5%	3W
R378		(KV-DB29M98)			
R380	1-216-809-11	METAL CHIP	100	5%	1/10W
R381	1-216-821-11	METAL CHIP	1K	5%	1/10W
R382	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R387	1-216-809-11	METAL CHIP	100	5%	1/10W
R388	1-216-843-11	METAL CHIP	68K	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION		REMARK	
R392	1-216-809-11	METAL CHIP	100	5%	1/10W
R395	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1000	1-216-809-11	METAL CHIP	100	5%	1/10W
R1001	1-218-875-11	METAL CHIP	15K	0.50%	1/10W
R1002	1-216-797-11	METAL CHIP	10	5%	1/10W
R1004	1-216-864-11	SHORT CHIP	0		
R1005	1-216-816-11	METAL CHIP	390	5%	1/10W
R1006	1-216-816-11	METAL CHIP	390	5%	1/10W
R1007	1-216-864-11	SHORT CHIP	0		
R1008	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1009	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1010	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1011	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1012	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1013	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1014	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1015	1-216-864-11	SHORT CHIP	0		
R1016	1-216-816-11	METAL CHIP	390	5%	1/10W
R1017	1-216-809-11	METAL CHIP	100	5%	1/10W
R1018	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1019	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1020	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1021	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1022	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1023	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1025	1-216-817-11	METAL CHIP	470	5%	1/10W
R1026	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1027	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1028	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1029	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1031	1-216-809-11	METAL CHIP	100	5%	1/10W
R1032	1-216-809-11	METAL CHIP	100	5%	1/10W
R1033	1-216-809-11	METAL CHIP	100	5%	1/10W
R1034	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1035	1-216-809-11	METAL CHIP	100	5%	1/10W
R1036	1-216-809-11	METAL CHIP	100	5%	1/10W
R1037	1-216-809-11	METAL CHIP	100	5%	1/10W
R1039	1-216-809-11	METAL CHIP	100	5%	1/10W
R1040	1-216-857-11	METAL CHIP	1M	5%	1/10W
R1041	1-216-809-11	METAL CHIP	100	5%	1/10W
R1042	1-216-809-11	METAL CHIP	100	5%	1/10W
R1043	1-216-797-11	METAL CHIP	10	5%	1/10W
R1044	1-216-797-11	METAL CHIP	10	5%	1/10W
R1045	1-216-817-11	METAL CHIP	470	5%	1/10W
R1046	1-216-864-11	SHORT CHIP	0		
R1047	1-216-864-11	SHORT CHIP	0		
R1048	1-216-864-11	SHORT CHIP	0		
R1049	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1050	1-216-837-11	METAL CHIP	22K	5%	1/10W
R1051	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1052	1-216-857-11	METAL CHIP	1M	5%	1/10W
R1053	1-216-864-11	SHORT CHIP	0		
R1060	1-216-817-11	METAL CHIP	470	5%	1/10W
R1062	1-216-820-11	METAL CHIP	820	5%	1/10W
R1063	1-216-809-11	METAL CHIP	100	5%	1/10W
R1064	1-216-809-11	METAL CHIP	100	5%	1/10W
R1065	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1066	1-216-809-11	METAL CHIP	100	5%	1/10W
R1067	1-216-809-11	METAL CHIP	100	5%	1/10W
R1068	1-216-809-11	METAL CHIP	100	5%	1/10W

REF NO.	PART NO.	DESCRIPTION		REMARK	
R1069	1-216-809-11	METAL CHIP	100	5%	1/10W
R1070	1-216-809-11	METAL CHIP	100	5%	1/10W
R1071	1-216-864-11	SHORT CHIP	0		
R1072	1-216-864-11	SHORT CHIP	0		
R1073	1-216-809-11	METAL CHIP	100	5%	1/10W
R1074	1-216-809-11	METAL CHIP	100	5%	1/10W
R1075	1-216-809-11	METAL CHIP	100	5%	1/10W
R1076	1-216-809-11	METAL CHIP	100	5%	1/10W
R1077	1-216-809-11	METAL CHIP	100	5%	1/10W
R1078	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1079	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1080	1-216-813-11	METAL CHIP	220	5%	1/10W
R1081	1-216-813-11	METAL CHIP	220	5%	1/10W
R1082	1-216-813-11	METAL CHIP	220	5%	1/10W
R1089	1-216-864-11	SHORT CHIP	0		
R1092	1-216-809-11	METAL CHIP	100	5%	1/10W
R1201	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1202	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1203	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1204	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1205	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1206	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R1207	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R1208	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R1209	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1210	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1211	1-216-864-11	SHORT CHIP	0		
R1212	1-249-411-11	CARBON	330	5%	1/4W
R1214	1-249-411-11	CARBON	330	5%	1/4W
R1215	1-216-864-11	SHORT CHIP	0		
R1216	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1226	1-249-401-11	CARBON	47	5%	1/4W
R1227	1-249-401-11	CARBON	47	5%	1/4W
R1228	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1229	1-216-809-11	METAL CHIP	100	5%	1/10W
R1230	1-216-809-11	METAL CHIP	100	5%	1/10W
R1231	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1241	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1242	1-216-837-11	METAL CHIP	22K	5%	1/10W
R1246	1-216-864-11	SHORT CHIP	0		
R1250	1-216-864-11	SHORT CHIP	0		
R1251	1-216-864-11	SHORT CHIP	0		
R2201	1-216-817-11	METAL CHIP	470	5%	1/10W
R2202	1-216-817-11	METAL CHIP	470	5%	1/10W
R2206	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2207	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2208	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2209	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2210	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2211	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2212	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2213	1-216-853-11	METAL CHIP	470K	5%	1/10W
R2216	1-216-840-11	METAL CHIP	39K	5%	1/10W
R2217	1-216-840-11	METAL CHIP	39K	5%	1/10W
R2218	1-216-840-11	METAL CHIP	39K	5%	1/10W
R2219	1-216-840-11	METAL CHIP	39K	5%	1/10W
R2220	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2221	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2222	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2223	1-216-821-11	METAL CHIP	1K	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION		REMARK	
R2224	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2225	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2228	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2229	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2230	1-216-809-11	METAL CHIP	100	5%	1/10W
R2231	1-216-809-11	METAL CHIP	100	5%	1/10W
R2232	1-216-809-11	METAL CHIP	100	5%	1/10W
R2233	1-216-809-11	METAL CHIP	100	5%	1/10W
R2234	1-216-809-11	METAL CHIP	100	5%	1/10W
R2235	1-216-809-11	METAL CHIP	100	5%	1/10W
R2236	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2237	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2238	1-218-877-11	METAL CHIP	18K	0.50%	1/10W
R2239	1-218-877-11	METAL CHIP	18K	0.50%	1/10W
R2240	1-216-809-11	METAL CHIP	100	5%	1/10W
R2241	1-216-809-11	METAL CHIP	100	5%	1/10W
R2242	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2243	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2244	1-216-849-11	METAL CHIP	220K	5%	1/10W
R2245	1-216-837-11	METAL CHIP	22K	5%	1/10W
R2252	1-216-864-11	SHORT CHIP	0		
R2253	1-216-864-11	SHORT CHIP	0		
R2257	1-216-809-11	METAL CHIP	100	5%	1/10W
R2258	1-216-809-11	METAL CHIP	100	5%	1/10W
R2259	1-216-809-11	METAL CHIP	100	5%	1/10W
R2260	1-216-809-11	METAL CHIP	100	5%	1/10W
R2604	1-216-835-11	METAL CHIP	15K	5%	1/10W
R2605	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2606	1-216-835-11	METAL CHIP	15K	5%	1/10W
R2607	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2608	1-243-519-71	METAL OXIDE	10	5%	3W
R2609	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2610	1-216-841-11	METAL CHIP	47K	5%	1/10W
R2611	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2617	1-243-521-71	METAL OXIDE	15	5%	3W
R2618	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2619	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R2620	1-243-509-71	METAL OXIDE	1.5	5%	3W
R4304	1-216-864-11	SHORT CHIP	0		
R4307	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4308	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4309	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4310	1-216-809-11	METAL CHIP	100	5%	1/10W
R4311	1-218-871-11	METAL CHIP	10K	0.50%	1/10W
R4312	1-216-845-11	METAL CHIP	100K	5%	1/10W
R4313	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R4314	1-216-809-11	METAL CHIP	100	5%	1/10W
R4315	1-216-864-11	SHORT CHIP	0		
R4316	1-216-809-11	METAL CHIP	100	5%	1/10W
R4317	1-216-809-11	METAL CHIP	100	5%	1/10W
R4318	1-216-809-11	METAL CHIP	100	5%	1/10W
R4319	1-216-809-11	METAL CHIP	100	5%	1/10W
R4320	1-216-818-11	METAL CHIP	560	5%	1/10W
R4322	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4323	1-216-809-11	METAL CHIP	100	5%	1/10W
R4324	1-216-809-11	METAL CHIP	100	5%	1/10W
R4325	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R4326	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R4327	1-216-809-11	METAL CHIP	100	5%	1/10W
R4328	1-216-823-11	METAL CHIP	1.5K	5%	1/10W

REF NO.	PART NO.	DESCRIPTION		REMARK	
R4329	1-216-809-11	METAL CHIP	100	5%	1/10W
R4330	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R4331	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R4332	1-216-809-11	METAL CHIP	100	5%	1/10W
R4333	1-216-809-11	METAL CHIP	100	5%	1/10W
R4334	1-216-809-11	METAL CHIP	100	5%	1/10W
R4335	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R4336	1-216-864-11	SHORT CHIP	0		
R4337	1-216-809-11	METAL CHIP	100	5%	1/10W
R4338	1-216-809-11	METAL CHIP	100	5%	1/10W
R4339	1-216-863-11	METAL CHIP	3.3M	5%	1/10W
R4340	1-216-809-11	METAL CHIP	100	5%	1/10W
R4341	1-216-809-11	METAL CHIP	100	5%	1/10W
R4342	1-216-809-11	METAL CHIP	100	5%	1/10W
R4343	1-216-809-11	METAL CHIP	100	5%	1/10W
R4344	1-216-809-11	METAL CHIP	100	5%	1/10W
R4345	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R4346	1-218-855-11	METAL CHIP	2.2K	0.50%	1/10W
R4347	1-218-855-11	METAL CHIP	2.2K	0.50%	1/10W
R4348	1-216-809-11	METAL CHIP	100	5%	1/10W
R4349	1-216-809-11	METAL CHIP	100	5%	1/10W
R4350	1-216-809-11	METAL CHIP	100	5%	1/10W
R4351	1-216-809-11	METAL CHIP	100	5%	1/10W
R4354	1-216-805-11	METAL CHIP	47	5%	1/10W
R4355	1-216-811-11	METAL CHIP	150	5%	1/10W
R4356	1-216-805-11	METAL CHIP	47	5%	1/10W
R4357	1-216-805-11	METAL CHIP	47	5%	1/10W
R4358	1-216-805-11	METAL CHIP	47	5%	1/10W
R4361	1-216-864-11	SHORT CHIP	0		
R4362	1-216-864-11	SHORT CHIP	0		
R4363	1-216-864-11	SHORT CHIP	0		
R4364	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R4366	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R4368	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R4369	1-216-864-11	SHORT CHIP	0		
R4371	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4372	1-218-895-11	METAL CHIP	100K	0.50%	1/10W
R4373	1-218-871-11	METAL CHIP	10K	0.50%	1/10W
R4374	1-218-891-11	METAL CHIP	68K	0.50%	1/10W
R4377	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R4382	1-216-837-11	METAL CHIP	22K	5%	1/10W
R4387	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4388	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4389	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4390	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4391	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4394	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4395	1-216-809-11	METAL CHIP	100	5%	1/10W
R4396	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4397	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4398	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4399	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4400	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4401	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4402	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4403	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4404	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4405	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4406	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
R4408	1-216-819-11	METAL CHIP	680	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION		REMARK	
R4409	1-216-809-11	METAL CHIP	100	5%	1/10W
R4410	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4411	1-216-837-11	METAL CHIP	22K	5%	1/10W
R4412	1-216-864-11	SHORT CHIP	0		
R4413	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R4416	1-216-864-11	SHORT CHIP	0		
R4417	1-218-891-11	METAL CHIP	68K	0.50%	1/10W
R4419	1-216-864-11	SHORT CHIP	0		
R4420	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4421	1-218-853-11	METAL CHIP	1.8K	0.50%	1/10W
R4425	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4426	1-216-809-11	METAL CHIP	100	5%	1/10W
R4436	1-216-837-11	METAL CHIP	22K	5%	1/10W
R4437	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4438	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
R4439	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R4440	1-218-849-11	METAL CHIP	1.2K	0.50%	1/10W
R4441	1-218-903-11	METAL CHIP	220K	0.50%	1/10W
R4447	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4448	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4449	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4451	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R4452	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R4453	1-216-864-11	SHORT CHIP	0		
R4454	1-216-864-11	SHORT CHIP	0		
R4455	1-216-864-11	SHORT CHIP	0		
R4459	1-216-864-11	SHORT CHIP	0		
R4460	1-216-864-11	SHORT CHIP	0		
R4461	1-216-864-11	SHORT CHIP	0		
R4462	1-216-864-11	SHORT CHIP	0		
R4465	1-216-864-11	SHORT CHIP	0		
R4467	1-216-864-11	SHORT CHIP	0		
R4470	1-216-864-11	SHORT CHIP	0		
R4471	1-216-864-11	SHORT CHIP	0		
R4473	1-216-864-11	SHORT CHIP	0		
R4474	1-216-864-11	SHORT CHIP	0		
R4484	1-216-864-11	SHORT CHIP	0		
R4485	1-216-864-11	SHORT CHIP	0		
R4487	1-216-864-11	SHORT CHIP	0		
R4489	1-216-864-11	SHORT CHIP	0		
R4493	1-216-864-11	SHORT CHIP	0		
R4494	1-216-864-11	SHORT CHIP	0		
R8301	1-218-285-11	METAL CHIP	75	5%	1/10W
R8302	1-218-285-11	METAL CHIP	75	5%	1/10W
R8303	1-216-853-11	METAL CHIP	470K	5%	1/10W
R8306	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8307	1-218-285-11	METAL CHIP	75	5%	1/10W
R8308	1-218-285-11	METAL CHIP	75	5%	1/10W
R8312	1-218-285-11	METAL CHIP	75	5%	1/10W
R8313	1-218-285-11	METAL CHIP	75	5%	1/10W
R8318	1-218-285-11	METAL CHIP	75	5%	1/10W
R8320	1-218-285-11	METAL CHIP	75	5%	1/10W
R8321	1-216-864-11	SHORT CHIP	0		
R8334	1-216-809-11	METAL CHIP	100	5%	1/10W
R8337	1-218-285-11	METAL CHIP	75	5%	1/10W
R8338	1-218-285-11	METAL CHIP	75	5%	1/10W
R8339	1-218-285-11	METAL CHIP	75	5%	1/10W
R8340	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R8345	1-216-864-11	SHORT CHIP	0		
R8350	1-216-809-11	METAL CHIP	100	5%	1/10W

REF NO.	PART NO.	DESCRIPTION		REMARK	
R8351	1-216-809-11	METAL CHIP	100	5%	1/10W
R8352	1-216-809-11	METAL CHIP	100	5%	1/10W
R8353	1-216-843-11	METAL CHIP	68K	5%	1/10W
R8354	1-218-871-11	METAL CHIP	10K	0.50%	1/10W
R8357	1-216-809-11	METAL CHIP	100	5%	1/10W
R8358	1-216-809-11	METAL CHIP	100	5%	1/10W
R8359	1-216-809-11	METAL CHIP	100	5%	1/10W
R8360	1-216-809-11	METAL CHIP	100	5%	1/10W
R8361	1-216-809-11	METAL CHIP	100	5%	1/10W
R8362	1-216-809-11	METAL CHIP	100	5%	1/10W
R8363	1-216-843-11	METAL CHIP	68K	5%	1/10W
R8364	1-216-809-11	METAL CHIP	100	5%	1/10W
R8366	1-216-813-11	METAL CHIP	220	5%	1/10W
R8367	1-216-813-11	METAL CHIP	220	5%	1/10W
R8370	1-216-809-11	METAL CHIP	100	5%	1/10W
R8371	1-216-809-11	METAL CHIP	100	5%	1/10W
R8372	1-216-809-11	METAL CHIP	100	5%	1/10W
R8373	1-216-809-11	METAL CHIP	100	5%	1/10W
R8374	1-216-809-11	METAL CHIP	100	5%	1/10W
R8375	1-216-809-11	METAL CHIP	100	5%	1/10W
R8376	1-216-809-11	METAL CHIP	100	5%	1/10W
R8378	1-216-819-11	METAL CHIP	680	5%	1/10W
R8379	1-216-819-11	METAL CHIP	680	5%	1/10W
R8380	1-216-819-11	METAL CHIP	680	5%	1/10W
R8381	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R8382	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R8383	1-216-809-11	METAL CHIP	100	5%	1/10W
R8384	1-216-809-11	METAL CHIP	100	5%	1/10W
R8385	1-216-809-11	METAL CHIP	100	5%	1/10W
R8388	1-216-809-11	METAL CHIP	100	5%	1/10W
R8389	1-216-809-11	METAL CHIP	100	5%	1/10W
R8390	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8391	1-216-817-11	METAL CHIP	470	5%	1/10W
R8392	1-216-817-11	METAL CHIP	470	5%	1/10W
R8393	1-216-809-11	METAL CHIP	100	5%	1/10W
R8394	1-216-809-11	METAL CHIP	100	5%	1/10W
R8395	1-216-809-11	METAL CHIP	100	5%	1/10W
R8396	1-216-809-11	METAL CHIP	100	5%	1/10W
R8398	1-216-817-11	METAL CHIP	470	5%	1/10W
R8399	1-216-817-11	METAL CHIP	470	5%	1/10W
R8400	1-216-809-11	METAL CHIP	100	5%	1/10W
R8401	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8402	1-216-817-11	METAL CHIP	470	5%	1/10W
R8403	1-216-817-11	METAL CHIP	470	5%	1/10W
R8404	1-216-809-11	METAL CHIP	100	5%	1/10W
R8412	1-216-808-11	METAL CHIP	82	5%	1/10W
R8414	1-218-285-11	METAL CHIP	75	5%	1/10W
R8418	1-218-285-11	METAL CHIP	75	5%	1/10W
R8423	1-218-285-11	METAL CHIP	75	5%	1/10W
R8427	1-216-817-11	METAL CHIP	470	5%	1/10W
R8429	1-216-809-11	METAL CHIP	100	5%	1/10W
R8430	1-216-817-11	METAL CHIP	470	5%	1/10W
R8431	1-216-809-11	METAL CHIP	100	5%	1/10W
R8432	1-216-809-11	METAL CHIP	100	5%	1/10W
R8437	1-216-813-11	METAL CHIP	220	5%	1/10W
R8442	1-216-864-11	SHORT CHIP	0		
R8443	1-216-813-11	METAL CHIP	220	5%	1/10W
R8444	1-216-864-11	SHORT CHIP	0		
R8445	1-216-809-11	METAL CHIP	100	5%	1/10W
R8446	1-216-809-11	METAL CHIP	100	5%	1/10W

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REF NO.	PART NO.	DESCRIPTION		REMARK	
R8447	1-216-809-11	METAL CHIP	100	5%	1/10W
R8449	1-216-809-11	METAL CHIP	100	5%	1/10W
R8501	1-216-819-11	METAL CHIP	680	5%	1/10W
R8502	1-216-813-11	METAL CHIP	220	5%	1/10W
R8503	1-216-817-11	METAL CHIP	470	5%	1/10W
R8504	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8505	1-216-819-11	METAL CHIP	680	5%	1/10W
R8506	1-216-819-11	METAL CHIP	680	5%	1/10W
R8507	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8508	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8509	1-216-809-11	METAL CHIP	100	5%	1/10W
R8512	1-216-809-11	METAL CHIP	100	5%	1/10W
R8513	1-216-809-11	METAL CHIP	100	5%	1/10W
R8516	1-216-817-11	METAL CHIP	470	5%	1/10W
R8517	1-216-807-11	METAL CHIP	68	5%	1/10W
R8518	1-216-816-11	METAL CHIP	390	5%	1/10W
R8520	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8521	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8522	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8524	1-216-809-11	METAL CHIP	100	5%	1/10W
R8526	1-216-805-11	METAL CHIP	47	5%	1/10W
R8529	1-216-819-11	METAL CHIP	680	5%	1/10W
R8530	1-211-969-11	METAL CHIP	10	0.50%	1/10W
R8531	1-216-817-11	METAL CHIP	470	5%	1/10W
R8533	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8534	1-216-837-11	METAL CHIP	22K	5%	1/10W
R8535	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8537	1-216-805-11	METAL CHIP	47	5%	1/10W
R8538	1-216-864-11	SHORT CHIP	0		
R8539	1-216-809-11	METAL CHIP	100	5%	1/10W
R8542	1-216-817-11	METAL CHIP	470	5%	1/10W
R8543	1-216-817-11	METAL CHIP	470	5%	1/10W
R8545	1-216-811-11	METAL CHIP	150	5%	1/10W
R8546	1-211-981-11	METAL CHIP	33	0.50%	1/10W
R8547	1-216-805-11	METAL CHIP	47	5%	1/10W
R8549	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8550	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8551	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8552	1-216-833-11	METAL CHIP	10K	5%	1/10W
R8553	1-216-809-11	METAL CHIP	100	5%	1/10W
R8554	1-216-809-11	METAL CHIP	100	5%	1/10W
R8555	1-216-809-11	METAL CHIP	100	5%	1/10W
R8557	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R8559	1-216-864-11	SHORT CHIP	0		
R8560	1-216-815-11	METAL CHIP	330	5%	1/10W
R8561	1-216-819-11	METAL CHIP	680	5%	1/10W
R8562	1-216-805-11	METAL CHIP	47	5%	1/10W
R8563	1-216-813-11	METAL CHIP	220	5%	1/10W
R8564	1-216-805-11	METAL CHIP	47	5%	1/10W
R8565	1-216-805-11	METAL CHIP	47	5%	1/10W
R8566	1-216-817-11	METAL CHIP	470	5%	1/10W
		<SWITCH>			
SWF100	1-781-040-11	FILTER, SURFACE WAVE (K082)			
SWF101	1-767-302-11	FILTER, SURFACE WAVE			

REF NO.	PART NO.	DESCRIPTION	REMARK
		<TRANSFORMER>	
TP008	1-536-354-00	POST PIN	
TP101	1-536-354-00	POST PIN	
		<TUNER>	
TU101	1-693-659-11	TUNER	
		<CRYSTAL>	
X001	1-813-311-21	QUARTS CRYSTAL UNIT	
X1000	1-781-589-21	VIBRATOR, CRYSTAL	
X4301	1-760-895-21	VIBRATOR, CERAMIC	
X8301	1-781-282-11	VIBRATOR, CERAMIC	

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* A-1134-833-A COMPLETE PWB, BC1 (KV-DB29M98)
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<CAPACITOR>

C2014	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2019	1-126-933-11	ELECT	100UF	20.00%	16V
C2030	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2031	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2032	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2033	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2034	1-163-145-00	CERAMIC CHIP	0.0015UF	5.00%	50V
C2035	1-126-933-11	ELECT	100UF	20.00%	16V
C2036	1-126-933-11	ELECT	100UF	20.00%	16V
C2037	1-126-933-11	ELECT	100UF	20.00%	16V
C2038	1-126-947-11	ELECT	47UF	20.00%	35V
C2039	1-126-947-11	ELECT	47UF	20.00%	35V
C2040	1-126-933-11	ELECT	100UF	20.00%	16V
C2041	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2042	1-126-960-11	ELECT	1UF	20.00%	50V
C2044	1-126-947-11	ELECT	47UF	20.00%	35V
C2045	1-164-238-11	CERAMIC CHIP	36PF	5.00%	50V
C2047	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C2048	1-126-964-11	ELECT	10UF	20.00%	50V
C2049	1-136-171-00	FILM	0.33UF	5.00%	50V
C2051	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2052	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2055	1-126-947-11	ELECT	47UF	20.00%	35V
C2056	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C2058	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2063	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2066	1-126-947-11	ELECT	47UF	20.00%	35V
C2076	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2077	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2078	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2079	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2080	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2081	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2082	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2083	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2084	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2085	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2086	1-162-974-11	CERAMIC CHIP	0.01UF		50V

BC1

REF NO.	PART NO.	DESCRIPTION		REMARK	
C2087	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2088	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2089	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2090	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2091	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2092	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2093	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2094	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2095	1-162-974-11	CERAMIC CHIP	0.01UF		50V
C2096	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C2097	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C2100	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2101	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C2102	1-126-947-11	ELECT	47UF	20.00%	35V
C2103	1-164-156-11	CERAMIC CHIP	0.1UF		25V
		<CONNECTOR>			
* CN2000	1-778-770-11	CONNECTOR,BOARD TO BOARD(PLUG)			
* CN2001	1-774-812-11	CONNECTOR, BOARD TO BOARD 7P			
		<FERRITE BEAD>			
FB2000	1-412-911-31	FERRITE	0UH		
FB2001	1-412-911-31	FERRITE	0UH		
		<FILTER>			
FL2001	1-239-848-11	FILTER, LOW PASS			
FL2002	1-239-848-11	FILTER, LOW PASS			
FL2004	1-239-848-11	FILTER, LOW PASS			
		<IC>			
IC2001	6-701-808-01	IC BA33C25FP-E2			
IC2007	6-705-526-01	IC TC90A88F			
		<CHIP CONDUCTOR>			
JR2002	1-216-864-11	SHORT CHIP	0		
JR2004	1-216-864-11	SHORT CHIP	0		
		<COIL>			
L2002	1-469-555-21	INDUCTOR	10UH		
L2005	1-412-029-11	INDUCTOR	10UH		
L2008	1-400-567-21	FERRITE	10UH		
L2009	1-400-567-21	FERRITE	10UH		
L2010	1-469-555-21	INDUCTOR	10UH		
L2011	1-469-555-21	INDUCTOR	10UH		
L2012	1-469-555-21	INDUCTOR	10UH		
L2013	1-414-196-41	INDUCTOR	47UH		
L2014	1-469-559-21	INDUCTOR	47UH		
		<TRANSISTOR>			
Q2003	8-729-600-22	TRANSISTOR 2SA1235-F			
Q2004	8-729-600-22	TRANSISTOR 2SA1235-F			
Q2005	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2006	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2007	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2008	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2009	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2010	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2014	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q2018	8-729-600-22	TRANSISTOR 2SA1235-F			
Q2019	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
		<RESISTOR>			
R2002	1-216-864-11	SHORT CHIP	0		
R2017	1-216-864-11	SHORT CHIP	0		
R2027	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2028	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2029	1-216-818-11	METAL CHIP	560	5%	1/10W
R2030	1-216-818-11	METAL CHIP	560	5%	1/10W
R2031	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R2032	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R2033	1-216-815-11	METAL CHIP	330	5%	1/10W
R2034	1-216-815-11	METAL CHIP	330	5%	1/10W
R2035	1-216-820-11	METAL CHIP	820	5%	1/10W
R2036	1-218-840-11	METAL CHIP	510	0.50%	1/10W
R2037	1-216-820-11	METAL CHIP	820	5%	1/10W
R2039	1-216-817-11	METAL CHIP	470	5%	1/10W
R2040	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2041	1-216-820-11	METAL CHIP	820	5%	1/10W
R2042	1-216-834-11	METAL CHIP	12K	5%	1/10W
R2043	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2044	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R2046	1-216-834-11	METAL CHIP	12K	5%	1/10W
R2047	1-216-839-11	METAL CHIP	33K	5%	1/10W
R2048	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2050	1-216-805-11	METAL CHIP	47	5%	1/10W
R2051	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2055	1-216-805-11	METAL CHIP	47	5%	1/10W
R2057	1-216-817-11	METAL CHIP	470	5%	1/10W
R2060	1-216-809-11	METAL CHIP	100	5%	1/10W
R2069	1-218-837-11	METAL CHIP	390	0.50%	1/10W
R2070	1-216-807-11	METAL CHIP	68	5%	1/10W
R2071	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R2072	1-216-818-11	METAL CHIP	560	5%	1/10W
R2073	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2074	1-216-809-11	METAL CHIP	100	5%	1/10W
R2077	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2078	1-216-813-11	METAL CHIP	220	5%	1/10W
R2079	1-216-809-11	METAL CHIP	100	5%	1/10W
R2080	1-216-809-11	METAL CHIP	100	5%	1/10W
R2081	1-216-834-11	METAL CHIP	12K	5%	1/10W
R2082	1-216-864-11	SHORT CHIP	0		
R2090	1-216-809-11	METAL CHIP	100	5%	1/10W
		<VARIABLE RESISTOR>			
RV2001	1-223-271-21	RES, ADJ, CERMET 220			

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BH1

REF NO.	PART NO.	DESCRIPTION		REMARK	
*	A-1138-976-A	MOUNTED PWB (VAR), BH1			
		**********			
		<CAPACITOR>			
C3132	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C3133	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3134	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3139	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3140	1-117-681-11	ELECT CHIP	100UF	20.00%	16V
C3141	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3142	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3207	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3208	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3209	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3304	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C3305	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3306	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3307	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3311	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3312	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3313	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3314	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3315	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3316	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3317	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3318	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3319	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3320	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3321	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3322	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3323	1-126-206-11	ELECT CHIP	100UF	20.00%	6.3V
C3324	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3325	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3326	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3327	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3328	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3329	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3330	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3331	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3332	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3333	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3334	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3335	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3336	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3338	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3339	1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C3340	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3342	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3343	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3344	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C3345	1-162-917-11	CERAMIC CHIP	15PF	5.00%	50V
C3347	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3348	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3349	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3350	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3351	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3353	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3354	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3355	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3356	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3357	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3358	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3359	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3360	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3361	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3362	1-125-837-91	CERAMIC CHIP	1UF	10%	6.3V
C3363	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3364	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3365	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3366	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3367	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C3368	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3370	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3371	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3372	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3373	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3374	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3375	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3376	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3377	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3378	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3379	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3380	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3381	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3382	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3383	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3384	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3385	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3386	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3387	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3388	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3389	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3390	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3391	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3392	1-137-710-11	CERAMIC CHIP	10UF	20%	6.3V
C3393	1-137-710-11	CERAMIC CHIP	10UF	20%	6.3V
C3394	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3395	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3396	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C3397	1-127-760-11	CERAMIC CHIP	4.7UF	10%	6.3V
C3398	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C3399	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C3400	1-164-230-11	CERAMIC CHIP	220PF	5.00%	50V
C3402	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3403	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3404	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3408	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C3410	1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C3412	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3413	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3414	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3415	1-124-779-00	ELECT CHIP	10UF	20.00%	16V
C3416	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C3417	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3418	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V
C3419	1-126-205-11	ELECT CHIP	47UF	20.00%	6.3V

BH1

REF NO.	PART NO.	DESCRIPTION			REMARK
		<CONNECTOR>			
* CN3101	1-816-448-11	CONNECTOR, BOARD TO BOARD 50P			
		<FERRITE BEAD>			
FB3101	1-543-949-22	FERRITE	0UH		
FB3102	1-543-949-22	FERRITE	0UH		
FB3103	1-543-949-22	FERRITE	0UH		
FB3104	1-543-949-22	FERRITE	0UH		
FB3105	1-543-949-22	FERRITE	0UH		
FB3106	1-543-949-22	FERRITE	0UH		
FB3107	1-543-949-22	FERRITE	0UH		
FB3108	1-543-949-22	FERRITE	0UH		
FB3303	1-216-805-11	METAL CHIP	47	5%	1/10W
		<FILTER>			
FL3103	1-234-177-21	FERRITE	0UH		
FL3104	1-234-177-21	FERRITE	0UH		
FL3301	1-234-854-21	FILTER, LOW PASS (SMD)			
FL3302	1-781-924-21	FILTER, LOW PASS (SMD)			
FL3303	1-234-177-21	FERRITE	0UH		
FL3304	1-234-177-21	FERRITE	0UH		
		<IC>			
IC3205	6-705-403-01	IC PQ070XZ01ZPH			
IC3301	8-753-229-46	IC CXD3808AQ			
IC3302	6-706-155-01	IC MT48LC2M32B2P-6:G			
IC3303	8-759-649-46	IC SN74AHC1G08DCKR			
IC3305	6-702-552-01	IC BU2374FV-E2			
IC3306	8-759-649-46	IC SN74AHC1G08DCKR			
IC3307	8-759-828-44	IC NJM2870F33(TE2)			
IC3310	8-759-833-72	IC NJM2870F25-TE2			
IC3311	8-759-833-72	IC NJM2870F25-TE2			
		<CHIP CONDUCTOR>			
JR3138	1-216-864-11	SHORT CHIP	0		
JR3149	1-216-864-11	SHORT CHIP	0		
JR3150	1-216-864-11	SHORT CHIP	0		
JR3161	1-216-864-11	SHORT CHIP	0		
JR3162	1-216-864-11	SHORT CHIP	0		
JR3184	1-216-864-11	SHORT CHIP	0		
		<COIL>			
L3302	1-469-555-21	INDUCTOR	10UH		
L3303	1-469-555-21	INDUCTOR	10UH		
L3304	1-412-026-11	INDUCTOR	1UH		
L3307	1-469-555-21	INDUCTOR	10UH		
L3308	1-469-555-21	INDUCTOR	10UH		
L3309	1-469-555-21	INDUCTOR	10UH		
L3310	1-469-555-21	INDUCTOR	10UH		
L3311	1-469-555-21	INDUCTOR	10UH		
L3315	1-412-026-11	INDUCTOR	1UH		
L3316	1-469-555-21	INDUCTOR	10UH		
L3317	1-412-026-11	INDUCTOR	1UH		

REF NO.	PART NO.	DESCRIPTION			REMARK
		<TRANSISTOR>			
Q3105	8-729-028-28	TRANSISTOR 2SK2036(TE85L)			
Q3106	8-729-028-28	TRANSISTOR 2SK2036(TE85L)			
Q3305	8-729-010-05	TRANSISTOR MSB709-RT1			
Q3313	8-729-010-05	TRANSISTOR MSB709-RT1			
Q3314	8-729-010-25	TRANSISTOR MSD601-RT1			
Q3320	8-729-102-07	TRANSISTOR 2SC2223-F13			
Q3321	8-729-122-63	TRANSISTOR 2SA1226-E4			
Q3322	8-729-122-63	TRANSISTOR 2SA1226-E4			
Q3323	8-729-102-07	TRANSISTOR 2SC2223-F13			
Q3324	8-729-122-63	TRANSISTOR 2SA1226-E4			
Q3325	8-729-122-63	TRANSISTOR 2SA1226-E4			
		<RESISTOR>			
R3123	1-216-864-11	SHORT CHIP	0		
R3124	1-216-864-11	SHORT CHIP	0		
R3125	1-216-864-11	SHORT CHIP	0		
R3131	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3135	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3136	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3255	1-216-864-11	SHORT CHIP	0		
R3280	1-218-838-11	METAL CHIP	430	0.50%	1/10W
R3281	1-218-847-11	METAL CHIP	1K	0.50%	1/10W
R3282	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
R3301	1-216-805-11	METAL CHIP	47	5%	1/10W
R3302	1-216-805-11	METAL CHIP	47	5%	1/10W
R3303	1-216-805-11	METAL CHIP	47	5%	1/10W
R3305	1-216-817-11	METAL CHIP	470	5%	1/10W
R3307	1-216-817-11	METAL CHIP	470	5%	1/10W
R3308	1-216-817-11	METAL CHIP	470	5%	1/10W
R3309	1-216-864-11	SHORT CHIP	0		
R3311	1-216-809-11	METAL CHIP	100	5%	1/10W
R3313	1-216-809-11	METAL CHIP	100	5%	1/10W
R3315	1-216-809-11	METAL CHIP	100	5%	1/10W
R3316	1-216-817-11	METAL CHIP	470	5%	1/10W
R3317	1-216-817-11	METAL CHIP	470	5%	1/10W
R3318	1-216-817-11	METAL CHIP	470	5%	1/10W
R3319	1-211-979-11	METAL CHIP	27	0.50%	1/10W
R3320	1-216-864-11	SHORT CHIP	0		
R3321	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3322	1-216-801-11	METAL CHIP	22	5%	1/10W
R3323	1-216-809-11	METAL CHIP	100	5%	1/10W
R3324	1-216-809-11	METAL CHIP	100	5%	1/10W
R3325	1-216-809-11	METAL CHIP	100	5%	1/10W
R3326	1-216-809-11	METAL CHIP	100	5%	1/10W
R3327	1-216-809-11	METAL CHIP	100	5%	1/10W
R3328	1-216-801-11	METAL CHIP	22	5%	1/10W
R3329	1-211-979-11	METAL CHIP	27	0.50%	1/10W
R3330	1-216-816-11	METAL CHIP	390	5%	1/10W
R3331	1-216-819-11	METAL CHIP	680	5%	1/10W
R3333	1-211-979-11	METAL CHIP	27	0.50%	1/10W
R3334	1-216-864-11	SHORT CHIP	0		
R3336	1-216-855-11	METAL CHIP	680K	5%	1/10W
R3338	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3339	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3340	1-216-864-11	SHORT CHIP	0		
R3341	1-216-864-11	SHORT CHIP	0		
R3351	1-216-809-11	METAL CHIP	100	5%	1/10W
R3352	1-216-809-11	METAL CHIP	100	5%	1/10W

BH1 C1

REF NO.	PART NO.	DESCRIPTION		REMARK	
R3353	1-216-864-11	SHORT CHIP	0		
R3355	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R3356	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3357	1-218-854-11	METAL CHIP	2K	0.50%	1/10W
R3358	1-216-809-11	METAL CHIP	100	5%	1/10W
R3359	1-216-809-11	METAL CHIP	100	5%	1/10W
R3361	1-216-864-11	SHORT CHIP	0		
R3363	1-218-854-11	METAL CHIP	2K	0.50%	1/10W
R3364	1-218-826-11	METAL CHIP	130	0.50%	1/10W
R3365	1-218-826-11	METAL CHIP	130	0.50%	1/10W
R3366	1-218-826-11	METAL CHIP	130	0.50%	1/10W
R3368	1-218-829-11	METAL CHIP	180	0.50%	1/10W
R3369	1-216-813-11	METAL CHIP	220	5%	1/10W
R3370	1-216-851-11	METAL CHIP	330K	5%	1/10W
R3371	1-216-864-11	SHORT CHIP	0		
R3372	1-218-849-11	METAL CHIP	1.2K	0.50%	1/10W
R3373	1-218-859-11	METAL CHIP	3.3K	0.50%	1/10W
R3374	1-216-864-11	SHORT CHIP	0		
R3375	1-216-809-11	METAL CHIP	100	5%	1/10W
R3376	1-216-809-11	METAL CHIP	100	5%	1/10W
R3377	1-216-809-11	METAL CHIP	100	5%	1/10W
R3378	1-216-809-11	METAL CHIP	100	5%	1/10W
R3379	1-216-864-11	SHORT CHIP	0		
R3380	1-216-864-11	SHORT CHIP	0		
R3392	1-216-864-11	SHORT CHIP	0		
R3393	1-216-864-11	SHORT CHIP	0		
R3396	1-216-864-11	SHORT CHIP	0		
R3401	1-216-864-11	SHORT CHIP	0		
R3402	1-216-864-11	SHORT CHIP	0		
R3403	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3404	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3405	1-216-864-11	SHORT CHIP	0		
R3406	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3407	1-216-864-11	SHORT CHIP	0		
R3409	1-216-801-11	METAL CHIP	22	5%	1/10W
R3416	1-216-801-11	METAL CHIP	22	5%	1/10W
R3419	1-216-801-11	METAL CHIP	22	5%	1/10W

<RESISTOR BRIDGE>

RB3109	1-233-576-11	RES, CHIP NETWORK 100 (3216)
RB3110	1-233-576-11	RES, CHIP NETWORK 100 (3216)
RB3111	1-233-576-11	RES, CHIP NETWORK 100 (3216)
RB3112	1-233-576-11	RES, CHIP NETWORK 100 (3216)
RB3303	1-239-409-11	NETWORK RESISTOR(CHIP) 47
RB3304	1-239-409-11	NETWORK RESISTOR(CHIP) 47
RB3305	1-239-409-11	NETWORK RESISTOR(CHIP) 47
RB3306	1-239-409-11	NETWORK RESISTOR(CHIP) 47
RB3309	1-239-409-11	NETWORK RESISTOR(CHIP) 47
RB3310	1-239-409-11	NETWORK RESISTOR(CHIP) 47
RB3311	1-239-409-11	NETWORK RESISTOR(CHIP) 47
RB3312	1-239-409-11	NETWORK RESISTOR(CHIP) 47

<CRYSTAL>

X3301	1-813-114-21	VIBRATOR, CRYSTAL

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REF NO.	PART NO.	DESCRIPTION	REMARK
*	A-1138-977-A	MOUNTED PWB (VAR), C1	
		**********	
	1-900-262-86	LEAD ASSY, FOCUS	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

C9004	1-115-350-51	CERAMIC	0.0047UF		2KV
C9009	1-163-104-00	CERAMIC CHIP	30PF	5.00%	50V
C9010	1-163-104-00	CERAMIC CHIP	30PF	5.00%	50V
C9011	1-161-830-00	CERAMIC	0.0047UF		500V
C9012	1-161-830-00	CERAMIC	0.0047UF		500V
C9014	1-161-830-00	CERAMIC	0.0047UF		500V
C9015	1-163-104-00	CERAMIC CHIP	30PF	5.00%	50V
C9016	1-102-525-11	CERAMIC	68PF	5.00%	50V
C9018	1-107-961-91	ELECT	10UF	20%	250V
C9019	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9020	1-107-961-91	ELECT	10UF	20%	250V
C9021	1-107-961-91	ELECT	10UF	20%	250V
C9022	1-101-004-00	CERAMIC	0.01UF		50V
C9023	1-101-004-00	CERAMIC	0.01UF		50V
C9024	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9025	1-126-934-11	ELECT	220UF	20.00%	16V
C9026	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9027	1-101-004-00	CERAMIC	0.01UF		50V
C9028	1-107-651-11	ELECT	4.7UF	20.00%	250V
C9031	1-115-350-51	CERAMIC	0.0047UF		2KV
C9032	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C9033	1-107-662-11	ELECT	22UF	20.00%	350V
C9035	1-115-350-51	CERAMIC	0.0047UF		2KV
C9036	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C9042	1-128-527-11	ELECT	330UF	20%	25V
C9044	1-126-934-11	ELECT	220UF	20.00%	16V
C9045	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9048	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9049	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C9050	1-164-156-11	CERAMIC CHIP	0.1UF		25V

<CONNECTOR>

* CN9001	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)10P
CN9002	1-691-765-11	PLUG (MICRO CONNECTOR) 3P
CN9003	1-695-915-11	TAB (CONTACT)
CN9004	1-695-915-11	TAB (CONTACT)
CN9009	1-785-879-11	CONNECTOR, ONE TOUCH

<DIODE>

D9005	8-719-404-50	DIODE MA111-TX
D9006	8-719-051-85	DIODE HSS83TD-E
D9007	8-719-051-85	DIODE HSS83TD-E
D9008	8-719-051-85	DIODE HSS83TD-E
D9009	8-719-908-03	DIODE GP08D
D9010	8-719-110-17	DIODE RD10ESB2
D9014	8-719-991-33	DIODE 1SS133T-77
D9015	8-719-991-33	DIODE 1SS133T-77

<IC>

IC9001	8-759-680-01	IC TDA6120Q/N2/S1
IC9002	8-759-680-01	IC TDA6120Q/N2/S1
IC9003	8-759-680-01	IC TDA6120Q/N2/S1

C1 D

REF NO.	PART NO.	DESCRIPTION			REMARK
		<JACK>			
J9001	1-451-544-11	SOCKET, CRT			
		<COIL>			
L9002	1-408-592-11	INDUCTOR	1.2UH		
L9003	1-408-592-11	INDUCTOR	1.2UH		
L9004	1-408-592-11	INDUCTOR	1.2UH		
L9005	1-406-666-21	INDUCTOR	150UH		
L9006	1-412-522-41	INDUCTOR	5.6UH		
		<TRANSISTOR>			
Q9001	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9007	8-729-141-73	TRANSISTOR 2SC3624A-T1L15L16			
Q9009	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9010	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9011	8-729-010-05	TRANSISTOR MSB709-RT1			
Q9013	8-729-141-73	TRANSISTOR 2SC3624A-T1L15L16			
Q9014	8-729-823-81	TRANSISTOR 2SC4632LS-CB7			
Q9015	8-729-141-73	TRANSISTOR 2SC3624A-T1L15L16			
		<RESISTOR>			
R9001	1-216-812-11	METAL CHIP	180	5%	1/10W
R9006	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9007	1-218-849-11	METAL CHIP	1.2K	0.50%	1/10W
R9012	1-216-864-11	SHORT CHIP	0		
R9013	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9018	1-216-812-11	METAL CHIP	180	5%	1/10W
R9019	1-216-812-11	METAL CHIP	180	5%	1/10W
R9020	1-216-809-11	METAL CHIP	100	5%	1/10W
R9021	1-216-848-11	METAL CHIP	180K	5%	1/10W
R9022	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9023	1-216-848-11	METAL CHIP	180K	5%	1/10W
R9025	1-216-809-11	METAL CHIP	100	5%	1/10W
R9026	1-218-849-11	METAL CHIP	1.2K	0.50%	1/10W
R9027	1-216-846-11	METAL CHIP	120K	5%	1/10W
R9028	1-216-848-11	METAL CHIP	180K	5%	1/10W
R9029	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9030	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9031	1-218-849-11	METAL CHIP	1.2K	0.50%	1/10W
R9032	1-216-846-11	METAL CHIP	120K	5%	1/10W
R9033	1-218-861-11	METAL CHIP	3.9K	0.50%	1/10W
R9034	1-218-854-11	METAL CHIP	2K	0.50%	1/10W
R9035	1-216-848-11	METAL CHIP	180K	5%	1/10W
R9036	1-216-838-11	METAL CHIP	27K	5%	1/10W
R9037	1-243-624-71	METAL OXIDE	33K	5%	3W
R9039	1-216-809-11	METAL CHIP	100	5%	1/10W
R9041	1-216-838-11	METAL CHIP	27K	5%	1/10W
R9042	1-216-838-11	METAL CHIP	27K	5%	1/10W
R9043	1-243-624-71	METAL OXIDE	33K	5%	3W
R9044	1-243-624-71	METAL OXIDE	33K	5%	3W
R9047	1-219-744-11	METAL	220	5%	1/2W
R9048	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9049	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9051	1-219-744-11	METAL	220	5%	1/2W
R9052	1-219-744-11	METAL	220	5%	1/2W
R9056	1-219-750-91	METAL	22K	5%	1/2W
R9057	1-220-827-91	METAL	560K	5%	1/2W
R9059	1-219-746-11	METAL	1K	5%	1/2W
R9061	1-219-743-11	METAL	100	5%	1/2W
R9062	1-260-123-11	CARBON	100K	5%	1/2W
R9063	1-216-845-11	METAL CHIP	100K	5%	1/10W
R9069	1-219-743-11	METAL	100	5%	1/2W
R9070	1-247-807-31	CARBON	100	5%	1/4W
R9071	1-247-807-31	CARBON	100	5%	1/4W
R9072	1-216-809-11	METAL CHIP	100	5%	1/10W
R9073	1-216-821-11	METAL CHIP	1K	5%	1/10W
R9077	1-216-833-11	METAL CHIP	10K	5%	1/10W
R9092	1-216-864-11	SHORT CHIP	0		
R9094	1-216-864-11	SHORT CHIP	0		
R9095	1-216-864-11	SHORT CHIP	0		
		<VARIABLE RESISTOR>			
RV9001	1-241-656-21	RES, ADJ, METAL FILM 110M SPARK GAP			
SG9003	1-519-421-11	GAP, DISCHARGE			

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*	A-1138-979-A	COMPLETE PWB, D(KV-DB29M61)			
	A-1138-960-A	COMPLETE PWB, D(except KV-DB29M61)			
		**********			
	1-543-298-11	FERRITE	0UH		
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C6100	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C6100		(KV-DB29M61)			
C6101	1-107-680-91	ELECT	22UF	20.00%	450V
C6101		(KV-DB29M61)			
C6102	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C6102		(KV-DB29M61)			
C6103	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C6103		(KV-DB29M61)			
C6104	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C6104		(KV-DB29M61)			
C6105	1-164-156-11	CERAMIC CHIP	0.1UF		25V
C6105		(KV-DB29M61)			
C6106	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C6106		(KV-DB29M61)			
C6107	1-137-605-11	MYLAR	0.01UF	10.00%	250V
C6107		(KV-DB29M61)			
C6108	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C6108		(KV-DB29M61)			
C6109	1-126-971-11	ELECT	470UF	20.00%	50V
C6109		(KV-DB29M61)			
C6110	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C6110		(KV-DB29M61)			
C6111	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C6111		(KV-DB29M61)			
C6113	1-126-965-91	ELECT	22UF	20.00%	50V
C6113		(KV-DB29M61)			
C6115	1-126-941-11	ELECT	470UF	20.00%	25V
C6115		(KV-DB29M61)			
C6117	1-126-971-11	ELECT	470UF	20.00%	50V
C6117		(except KV-DB29M61)			
C6118	1-161-964-91	CERAMIC	0.0047UF		250V
C6118		(except KV-DB29M61)			

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REF NO.		PART NO.	DESCRIPTION		REMARK	
C6119		1-161-964-91	CERAMIC	0.0047UF		250V
C6119			(except KV-DB29M61)			
C6600		1-128-550-11	ELECT	2200UF	20.00%	50V
C6601		1-126-967-11	ELECT	47UF	20.00%	50V
C6602	⚠	1-165-529-31	MYLAR	0.22UF	10	0V
C6603		1-126-949-11	ELECT	220UF	20.00%	35V
C6604		1-126-934-11	ELECT	220UF	20.00%	16V
C6606		1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C6606			(KV-DB29M61)			
C6607	⚠	1-113-889-11	CERAMIC	0.001UF	20.00%	250V
C6608	⚠	1-113-889-11	CERAMIC	0.001UF	20.00%	250V
C6609		1-126-960-11	ELECT	1UF	20.00%	50V
C6609			(KV-DB29M61)			
C6610		1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C6610			(KV-DB29M61)			
C6611		1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C6611			(KV-DB29M61)			
C6612		1-126-964-11	ELECT	10UF	20.00%	50V
C6612			(KV-DB29M61)			
C6613		1-161-830-00	CERAMIC	0.0047UF		500V
C6614		1-161-830-00	CERAMIC	0.0047UF		500V
C6615		1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C6615			(KV-DB29M61)			
C6616		1-126-961-11	ELECT	2.2UF	20.00%	50V
C6616			(KV-DB29M61)			
C6617		1-161-830-00	CERAMIC	0.0047UF		500V
C6618		1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6618			(KV-DB29M61)			
C6619		1-161-830-00	CERAMIC	0.0047UF	99%	500V
C6620		1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6621		1-131-940-11	ELECT	1200UF	20%	250V
C6621			(KV-DB29M61)			
C6622		1-131-940-11	ELECT	1200UF	20%	250V
C6622			(KV-DB29M61)			
C6624		1-126-962-11	ELECT	3.3UF	20.00%	50V
C6624			(KV-DB29M61)			
C6625		1-126-933-11	ELECT	100UF	20.00%	16V
C6626		1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C6628		1-164-156-11	CERAMIC CHIP	0.1UF		25V
C6629		1-117-753-11	ELECT(BLOCK)	470UF	20.00%	450V
C6629			(KV-DB29M61)			
C6633		1-136-479-11	FILM	0.001UF	5.00%	100V
C6634		1-126-964-11	ELECT	10UF	20.00%	50V
C6635		1-126-963-11	ELECT	4.7UF	20.00%	50V
C6636		1-125-891-11	CERAMIC CHIP	0.47UF	10.00%	10V
C6637		1-164-156-11	CERAMIC CHIP	0.1UF		25V
C6641		1-104-665-11	ELECT	100UF	20.00%	25V
C6641			(KV-DB29M61)			
C6645		1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C6647		1-126-964-11	ELECT	10UF	20.00%	50V
C6648		1-164-143-11	CERAMIC	0.001UF	10.00%	1KV
C6649		1-164-143-11	CERAMIC	0.001UF	10.00%	1KV
C6650		1-125-969-91	CERAMIC	680PF	10.00%	1KV
C6651		1-125-969-91	CERAMIC	680PF	10.00%	1KV
C6652		1-110-626-11	ELECT	330UF	20.00%	160V
C6653		1-162-968-11	CERAMIC CHIP	0.0047UF	10.00%	50V
C6654		1-126-936-11	ELECT	3300UF	20.00%	16V
C6655		1-126-936-11	ELECT	3300UF	20.00%	16V
C6656		1-130-495-00	MYLAR	0.1UF	5.00%	50V
C6658		1-104-330-91	CERAMIC	470PF	10.00%	1KV
C6659		1-126-967-11	ELECT	47UF	20.00%	50V

REF NO.		PART NO.	DESCRIPTION		REMARK	
C6660		1-126-960-11	ELECT	1UF	20.00%	50V
C6661		1-126-947-11	ELECT	47UF	20.00%	35V
C6662		1-126-947-11	ELECT	47UF	20.00%	35V
C6668		1-126-947-11	ELECT	47UF	20.00%	35V
C6669		1-125-969-91	CERAMIC	680PF	10.00%	1KV
C6670		1-125-969-91	CERAMIC	680PF	10.00%	1KV
C6672		1-165-953-11	FILM	47000PF	3%	800V
C6673		1-137-528-11	MYLAR	0.1UF	10.00%	250V
C6674		1-126-941-11	ELECT	470UF	20.00%	25V
C6678		1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C6682		1-126-941-11	ELECT	470UF	20.00%	25V
C6682			(KV-DB29M61)			
C6686		1-126-947-11	ELECT	47UF	20.00%	35V
C6688		1-126-965-91	ELECT	22UF	20.00%	50V
C6688			(KV-DB29M61)			
C6692		1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C6800		1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C6801		1-162-966-11	CERAMIC CHIP	0.0022UF	10.00%	50V
C6802		1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C6803		1-107-639-11	ELECT	47UF	20.00%	160V
C6805		1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C6806		1-162-318-11	CERAMIC	0.001UF	10.00%	500V
C6807		1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C6808		1-106-383-00	MYLAR	0.047UF	10.00%	200V
C6809		1-102-228-00	CERAMIC	470PF	10.00%	500V
C6811		1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6812		1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C6814		1-107-889-11	ELECT	220UF	20%	25V
C6816		1-126-941-11	ELECT	470UF	20.00%	25V
C6817		1-164-227-11	CERAMIC CHIP	0.022UF	10.00%	25V
C6820		1-126-941-11	ELECT	470UF	20.00%	25V
C6822		1-126-968-11	ELECT	100UF	20.00%	50V
C6823		1-117-815-11	FILM	1000PF	3.00%	1.5KV
C6825		1-136-171-00	FILM	0.33UF	5.00%	50V
C6829		1-117-819-11	FILM	1500PF	3.00%	1.5KV
C6833		1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C6834		1-107-907-11	ELECT	22UF	20%	50V
C6837		1-162-927-11	CERAMIC CHIP	100PF	5.00%	50V
C6838		1-162-116-00	CERAMIC	680PF	10.00%	2KV
C6839		1-162-116-00	CERAMIC	680PF	10.00%	2KV
C6840		1-106-359-00	MYLAR	0.0047UF	5.00%	100V
C6842	⚠	1-117-644-21	FILM	10000PF	3.00%	1.2KV
C6844	⚠	1-117-667-31	FILM	0.47UF	5%	250V
C6845		1-161-830-00	CERAMIC	0.0047UF		500V
C6846		1-106-371-00	MYLAR	0.015UF	99%	200V
C6847	⚠	1-117-668-91	FILM	0.56UF	5%	250V
C6848		1-117-662-91	FILM	0.18UF	5%	250V
C6849		1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C6850		1-117-627-21	FILM	2200PF	3.00%	1.2KV
C6851		1-107-635-11	ELECT	4.7UF	20.00%	160V
C6852		1-112-165-91	MYLAR	0.056UF	10%	250V
C6853		1-126-941-11	ELECT	470UF	20.00%	25V
C6854		1-102-228-00	CERAMIC	470PF	10.00%	500V
C6855		1-126-965-91	ELECT	22UF	20.00%	50V
C6857		1-128-582-11	ELECT	10UF	20.00%	100V
C6859		1-126-964-11	ELECT	10UF	20.00%	50V
C6860		1-126-933-11	ELECT	100UF	20.00%	16V
C6861		1-165-176-11	CERAMIC CHIP	0.047UF	10.00%	16V
C6863		1-106-359-00	MYLAR	0.0047UF	5.00%	100V
C6871		1-106-375-12	MYLAR	0.022UF	5.00%	200V

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REF NO.	PART NO.	DESCRIPTION		REMARK	
C6872	1-162-969-11	CERAMIC CHIP	0.0068UF	10.00%	25V
C6875	1-126-934-11	ELECT	220UF	20.00%	16V
C6876	1-165-441-81	ELECT	33UF	20%	160V
C6877	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6878	1-126-941-11	ELECT	470UF	20.00%	25V
C6880	1-107-639-11	ELECT	47UF	20.00%	160V
C6881	1-102-228-00	CERAMIC	470PF	10.00%	500V
C6885 ⚠	1-117-838-11	FILM	8200PF	3.00%	1.5KV
C6889	1-162-318-11	CERAMIC	0.001UF	10.00%	500V
C6890	1-102-110-00	CERAMIC	220PF	10.00%	50V
		<CONNECTOR>			
CN6601	1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P			
CN6601		(except KV-DB29M61)			
* CN6602	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			
* CN6603	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P			
CN6603		(KV-DB29M61)			
* CN6604 ⚠	1-580-843-11	PIN, CONNECTOR (POWER)			
* CN6605	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P			
* CN6606	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)10P			
CN6607	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P			
CN6607		(except KV-DB29M61)			
CN6610	1-536-354-00	POST PIN			
CN6611	1-536-354-00	POST PIN			
CN6614	1-536-354-00	POST PIN			
CN6615	1-536-354-00	POST PIN			
CN6618	1-536-354-00	POST PIN			
* CN6619	1-564-507-11	PLUG, CONNECTOR 4P			
* CN6814	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)10P			
* CN6815	1-564-515-11	PLUG, CONNECTOR 12P			
CN6817	1-695-915-11	TAB (CONTACT)			
* CN6821	1-564-516-11	PLUG, CONNECTOR 13P			
		<DIODE>			
D6100	8-719-077-76	DIODE D2SB60A-F04 (KV-DB29M61)			
D6101	8-719-110-49	DIODE RD18ESB2 (KV-DB29M61)			
D6102	8-719-082-03	DIODE MM3Z15VT1 (KV-DB29M61)			
D6103	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			
D6104	6-500-522-01	DIODE 10EDB40-TA1B2 (KV-DB29M61)			
D6105	6-501-297-01	DIODE 1F6G (KV-DB29M61)			
D6106	6-500-582-01	DIODE KBP153G-A2 (except KV-DB29M61)			
D6108	6-500-567-21	DIODE 10ERB20-TB5 (KV-DB29M61)			
D6109	8-719-032-12	DIODE D1NS6 (KV-DB29M61)			
D6109	6-500-567-21	DIODE 10ERB20-TB5 (except KV-DB29M61)			
D6600	8-719-081-97	DIODE MMDL914T1			
D6601	8-719-911-19	DIODE 1SS119-25			
D6602	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			
D6603	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			
D6604	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			
D6605	6-501-332-01	DIODE GBJ4J			
D6607	8-719-081-97	DIODE MMDL914T1			
D6608	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			
D6609	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			
D6610	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			
D6611	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			
D6612	8-719-911-55	DIODE U05G (KV-DB29M61)			
D6613	8-719-911-55	DIODE U05G (KV-DB29M61)			
D6614	8-719-083-82	DIODE UDZS-TE17-12B (KV-DB29M61)			
D6615	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)			

REF NO.	PART NO.	DESCRIPTION	REMARK
D6616	8-719-081-97	DIODE MMDL914T1 (except KV-DB29M61)	
D6617	8-719-083-82	DIODE UDZS-TE17-12B (except KV-DB29M61)	
D6618	6-500-105-01	DIODE ER106T/B	
D6620	6-500-567-21	DIODE 10ERB20-TB5	
D6622	8-719-923-86	DIODE MTZJ-T-77-15	
D6631	8-719-050-18	DIODE D4SBL20U	
D6632	8-719-081-97	DIODE MMDL914T1 (KV-DB29M61)	
D6633	6-501-303-01	DIODE RB085T-60	
D6635	8-719-110-49	DIODE RD18ESB2	
D6639	8-719-027-43	DIODE S2L20UF	
D6640	8-719-982-26	DIODE MTZJ-33B	
D6641	8-719-109-97	DIODE RD6.8ESB2	
D6644	8-719-052-92	DIODE D10SBS4F	
D6648	8-719-083-82	DIODE UDZS-TE17-12B(KV-DB29M61)	
D6654	8-719-052-92	DIODE D10SBS4F	
D6661	8-719-923-86	DIODE MTZJ-T-77-15	
D6662	8-719-923-86	DIODE MTZJ-T-77-15	
D6664	8-719-991-33	DIODE 1SS133T-77(KV-DB29M61)	
D6664	8-719-970-83	DIODE HSS82-TJ (except KV-DB29M61)	
D6800	8-719-075-05	DIODE FR104-A5	
D6801	8-719-081-97	DIODE MMDL914T1	
D6802	8-719-083-20	DIODE PG102R	
D6803	6-500-028-01	DIODE MM3Z9V1ST1	
D6805	8-719-061-21	DIODE FMQ-G5FMS	
D6806	8-719-061-21	DIODE FMQ-G5FMS	
D6807	8-719-082-03	DIODE MM3Z15VT1	
D6808	8-719-081-97	DIODE MMDL914T1	
D6809	8-719-081-97	DIODE MMDL914T1	
D6817	8-719-510-73	DIODE S3L20UF4	
D6818	6-500-968-01	DIODE 30PRA20	
D6819	6-500-968-01	DIODE 30PRA20	
D6820	8-719-991-33	DIODE 1SS133T-77	
D6821	8-719-991-33	DIODE 1SS133T-77	
D6826	8-719-082-00	DIODE MM3Z4V7T1	
D6827	8-719-510-73	DIODE S3L20UF4	
D6829	8-719-075-05	DIODE FR104-A5	
D6832	8-719-081-97	DIODE MMDL914T1	
D6839	8-719-081-97	DIODE MMDL914T1	
D6841	8-719-081-97	DIODE MMDL914T1	
D6842	8-719-081-97	DIODE MMDL914T1	
D6843	8-719-081-97	DIODE MMDL914T1	
D6860	8-719-908-03	DIODE GP08D	
D6883	8-719-908-03	DIODE GP08D	
		<DY CONNECTOR>	
* DY1	1-580-798-11	CONNECTOR PIN (DY) 6P	
		<FERRITE BEAD>	
FB6604	1-469-579-11	FERRITE	0.45UH
FB6605	1-469-579-11	FERRITE	0.45UH
FB6606	1-469-578-11	FERRITE	1.1UH
FB6607	1-469-579-11	FERRITE	0.45UH
FB6608	1-469-579-11	FERRITE	0.45UH
FB6609	1-469-579-11	FERRITE	0.45UH
FB6611	1-239-358-21	FILTER, NOISE	
FB6612	1-239-358-21	FILTER, NOISE	
FB6800	1-410-397-21	FERRITE	1.1UH
FB6801	1-410-397-21	FERRITE	1.1UH

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REF NO.	PART NO.	DESCRIPTION	REMARK
		<IC>	
IC6600	6-705-810-01	IC MCZ3001DB	
IC6601	8-759-198-31	IC UPC1093J-1-T	(KV-DB29M61)
IC6602	8-759-052-52	IC L78M05T-FA	
IC6604	6-708-421-01	IC KIA78D12PI	
IC6607	6-704-264-01	IC EK1135	
IC6608	6-708-422-01	IC KIA339P	(KV-DB29M61)
IC66096-705-756-01		IC BA33BC0WFP-E2	(except KV-DB29M61)
IC6800	6-703-708-01	IC LM2903DT	
IC6801	8-759-593-33	IC LA78045	
		<CHIP CONDUCTOR>	
JR600	1-216-864-11	SHORT CHIP	0 (KV-DB29M61)
JR601	1-216-864-11	SHORT CHIP	0 (KV-DB29M61)
JR602	1-216-864-11	SHORT CHIP	0 (KV-DB29M61)
JR604	1-216-864-11	SHORT CHIP	0 (KV-DB29M61)
JR606	1-216-295-91	SHORT CHIP	0 (KV-DB29M61)
JR609	1-216-864-11	SHORT CHIP	0 (KV-DB29M61)
JR610	1-216-864-11	SHORT CHIP	0
JR801	1-216-864-11	SHORT CHIP	0
JR802	1-216-864-11	SHORT CHIP	0
JR803	1-216-864-11	SHORT CHIP	0
JR804	1-216-864-11	SHORT CHIP	0
JR807	1-216-864-11	SHORT CHIP	0
JR811	1-216-864-11	SHORT CHIP	0
JR812	1-216-864-11	SHORT CHIP	0
JR6605	1-216-864-11	SHORT CHIP	0 (KV-DB29M61)
JR6606	1-216-864-11	SHORT CHIP	0 (KV-DB29M61)
JR6608	1-216-295-91	SHORT CHIP	0
JR6681	1-216-864-11	SHORT CHIP	0
		<COIL>	
L6600	1-412-529-11	INDUCTOR	22UH
L6603	1-414-856-11	INDUCTOR	10UH
L6604	1-412-525-31	INDUCTOR	10UH
L6605	1-412-525-31	INDUCTOR	10UH
L6606	1-412-525-31	INDUCTOR	10UH
L6607	1-406-656-21	INDUCTOR	3.3UH
L6608	1-412-525-31	INDUCTOR	10UH
L6800	1-414-187-11	INDUCTOR	47UH
L6803	1-419-633-21	INDUCTOR	10MH
L6804	1-406-665-11	INDUCTOR	100UH
L6805	1-456-939-11	INDUCTOR	33UH
L6806	1-412-552-11	INDUCTOR	2.2MH
L6807	1-419-633-21	INDUCTOR	10MH
L6809	1-406-983-11	INDUCTOR	1MH
L6811	1-412-526-11	INDUCTOR	12UH
L6812	1-412-552-11	INDUCTOR	2.2MH
L6815	1-414-496-25	INDUCTOR	10MH
		<PHOTO COUPLER>	
PH6601 ⚠	6-600-187-01	PHOTO COUPLER	PC123Y22FZ0F (KV-DB29M61)
PH6602	6-600-187-01	PHOTO COUPLER	PC123Y22FZ0F
		<IC LINK>	
PS6602	1-533-597-41	IC LINK	5A 90V
PS6603	1-533-597-41	IC LINK	5A 90V
PS6604	1-533-597-41	IC LINK	5A 90V
PS6605	1-533-597-41	IC LINK	5A 90V
PS6606	1-533-597-41	IC LINK	5A 90V
PS6607	1-533-597-41	IC LINK	5A 90V
		<TRANSISTOR>	
Q6100	8-729-046-40	TRANSISTOR 2SK2663 (KV-DB29M61)	
Q6102	8-729-023-22	TRANSISTOR 2SD2114K (KV-DB29M61)	
Q6600	6-550-882-01	TRANSISTOR 2SK3568 (LBS2SONY,Q)	
Q6601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6602	8-729-016-42	TRANSISTOR KTC3199GR-TP (KV-DB29M61)	
Q6603	6-550-882-01	TRANSISTOR 2SK3568(LBS2SONY,Q	
Q6604	6-550-808-01	TRANSISTOR KTA1267-GR (KV-DB29M61)	
Q6605	8-729-120-28	TRANSISTOR 2SC1623-L5L6 (KV-DB29M61)	
Q6606	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6607	8-729-600-22	TRANSISTOR 2SA1235-F	
Q6608	8-729-016-42	TRANSISTOR KTC3199GR-TP	
Q6613	8-729-421-22	TRANSISTOR UN2211	
Q6614	6-550-808-01	TRANSISTOR KTA1267-GR (KV-DB29M61)	
Q6800	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6801	6-551-116-01	TRANSISTOR 2SK2381	
Q6802	6-551-087-01	TRANSISTOR 2SC5931001S0	
Q6804	6-550-362-01	TRANSISTOR KTA1279	
Q6807	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6808	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6809	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6810	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6811	8-729-600-22	TRANSISTOR 2SA1235-F	
Q6812	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6813	8-729-600-22	TRANSISTOR 2SA1235-F	
Q6814	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6815	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6816	8-729-600-22	TRANSISTOR 2SA1235-F	
Q6817	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q6818	6-551-129-01	TRANSISTOR 2SK3462	
Q6819	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
		<RESISTOR>	
R6100	1-260-298-51	CARBON	3.3 5% 1/2W
R6100		(KV-DB29M61)	
R6101	1-216-819-11	METAL CHIP	680 5% 1/10W
R6101		(KV-DB29M61)	
R6102	1-249-389-11	CARBON	4.7 5% 1/4W
R6102		(KV-DB29M61)	
R6103	1-216-801-11	METAL CHIP	22 5% 1/10W
R6103		(KV-DB29M61)	
R6104	1-240-205-91	METAL	22M 5% 1/2W
R6104		(KV-DB29M61)	
R6105	1-216-845-11	METAL CHIP	100K 5% 1/10W
R6105		(KV-DB29M61)	
R6106	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R6106		(KV-DB29M61)	
R6107	1-216-841-11	METAL CHIP	47K 5% 1/10W
R6107		(KV-DB29M61)	
R6108	1-215-493-00	METAL	1M 1% 1/4W
R6108		(KV-DB29M61)	
R6110	1-216-817-11	METAL CHIP	470 5% 1/10W
R6110		(KV-DB29M61)	
R6600	1-216-864-11	SHORT CHIP	0
R6602	1-216-829-11	METAL CHIP	4.7K 5% 1/10W

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

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REF NO.	PART NO.	DESCRIPTION		REMARK	
R6603	1-218-871-11	METAL CHIP	10K	0.50%	1/10W
R6603		(KV-DB29M61)			
R6604	1-218-871-11	METAL CHIP	10K	0.50%	1/10W
R6604		(KV-DB29M61)			
R6605	1-208-832-11	METAL CHIP	120K	0.50%	1/10W
R6605		(KV-DB29M61)			
R6606	1-208-827-11	METAL CHIP	75K	0.50%	1/10W
R6606		(KV-DB29M61)			
R6607	1-208-847-11	METAL CHIP	510K	0.50%	1/10W
R6607		(KV-DB29M61)			
R6608	1-208-847-11	METAL CHIP	510K	0.50%	1/10W
R6608		(KV-DB29M61)			
R6609	1-208-847-11	METAL CHIP	510K	0.50%	1/10W
R6609		(KV-DB29M61)			
R6610	1-218-895-11	METAL CHIP	100K	0.50%	1/10W
R6610		(KV-DB29M61)			
R6611	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R6611		(KV-DB29M61)			
R6612	1-208-832-11	METAL CHIP	120K	0.50%	1/10W
R6612		(KV-DB29M61)			
R6613	1-208-847-11	METAL CHIP	510K	0.50%	1/10W
R6613		(KV-DB29M61)			
R6614	1-208-847-11	METAL CHIP	510K	0.50%	1/10W
R6614		(KV-DB29M61)			
R6615	1-208-847-11	METAL CHIP	510K	0.50%	1/10W
R6615		(KV-DB29M61)			
R6616	1-218-895-11	METAL CHIP	100K	0.50%	1/10W
R6616		(KV-DB29M61)			
R6617	1-218-909-11	METAL CHIP	390K	0.50%	1/10W
R6617		(KV-DB29M61)			
R6618	1-208-827-11	METAL CHIP	75K	0.50%	1/10W
R6618		(KV-DB29M61)			
R6619	1-216-853-11	METAL CHIP	470K	5%	1/10W
R6619		(KV-DB29M61)			
R6620	1-218-911-11	METAL CHIP	470K	0.50%	1/10W
R6620		(KV-DB29M61)			
R6621	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6621		(KV-DB29M61)			
R6622	1-220-797-11	CEMENTED	0.47	5%	10W
R6622		(KV-DB29M61)			
R6623	1-215-864-00	METAL OXIDE	150	5%	1W
R6623		(KV-DB29M61)			
R6624	1-218-895-11	METAL CHIP	100K	0.50%	1/10W
R6624		(KV-DB29M61)			
R6625	1-215-864-00	METAL OXIDE	150	5%	1W
R6625		(KV-DB29M61)			
R6626	1-208-805-11	METAL CHIP	9.1K	0.50%	1/10W
R6627	1-208-840-11	METAL CHIP	270K	0.50%	1/10W
R6628	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6628		(KV-DB29M61)			
R6629	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R6630	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R6631	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
R6632	1-218-823-11	METAL CHIP	100	0.50%	1/10W
R6633	1-215-458-00	METAL	36K	1%	1/4W
R6633		(KV-DB29M61)			
R6634	1-215-489-00	METAL	680K	1%	1/4W
R6634		(KV-DB29M61)			
R6635	1-215-489-00	METAL	680K	1%	1/4W
R6635		(KV-DB29M61)			
R6636	1-215-489-00	METAL	680K	1%	1/4W
R6636		(KV-DB29M61)			
R6637	1-215-463-00	METAL	56K	1%	1/4W
R6637		(KV-DB29M61)			
R6638	1-220-797-11	CEMENTED	0.47	5%	10W
R6638		(KV-DB29M61)			
R6638	1-205-998-11	CEMENTED	1	5%	10W
R6638		(except KV-DB29M61)			
R6640	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6640		(KV-DB29M61)			
R6641	1-260-131-11	CARBON	470K	5%	1/2W
R6641		(KV-DB29M61)			
R6642	1-260-131-11	CARBON	470K	5%	1/2W
R6642		(KV-DB29M61)			
R6643	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6643		(KV-DB29M61)			
R6644	1-249-417-11	CARBON	1K	5%	1/4W
R6645	1-242-949-11	FUSIBLE	0.1	10%	1W
R6646	1-220-797-11	CEMENTED	0.47	5%	10W
R6647	1-218-835-11	METAL CHIP	330	0.50%	1/10W
R6648	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6648		(KV-DB29M61)			
R6649	1-249-425-11	CARBON	4.7K	5%	1/4W
R6649		(KV-DB29M61)			
R6653	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6654	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6654		(KV-DB29M61)			
R6655	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6655		(KV-DB29M61)			
R6657	1-216-842-11	METAL CHIP	56K	5%	1/10W
R6658	1-249-393-11	CARBON	10	5%	1/4W
R6659	1-249-393-11	CARBON	10	5%	1/4W
R6660	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6662	1-220-797-11	CEMENTED	0.47	5%	10W
R6662		(KV-DB29M61)			
R6662	1-205-998-11	CEMENTED	1	5%	10W
R6662		(except KV-DB29M61)			
R6663	1-208-840-11	METAL CHIP	270K	0.50%	1/10W
R6665	1-260-135-11	CARBON	1M	5%	1/2W
R6666	1-216-864-11	SHORT CHIP	0		
R6668	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6669	1-249-417-11	CARBON	1K	5%	1/4W
R6669		(KV-DB29M61)			
R6670	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6671	1-217-611-00	METAL	0.1	10%	2W
R6672	1-249-421-11	CARBON	2.2K	5%	1/4W
R6674	1-249-418-11	CARBON	1.2K	5%	1/4W
R6675	1-218-839-11	METAL CHIP	470	0.50%	1/10W
R6676	1-249-393-11	CARBON	10	5%	1/4W
R6677	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6679	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6680	1-216-362-21	METAL OXIDE	0.27	5%	2W
R6682	1-249-416-11	CARBON	820	5%	1/4W
R6683	1-260-127-11	CARBON	220K	5%	1/2W
R6685	1-249-421-11	CARBON	2.2K	5%	1/4W
R6686 ⚠	1-240-917-91	METAL	8.2M	5%	1W
R6688	1-249-417-11	CARBON	1K	5%	1/4W
R6689	1-249-389-11	CARBON	4.7	5%	1/4W
R6693	1-215-451-00	METAL	18K	1%	1/4W
R6694	1-215-471-00	METAL	120K	1%	1/4W
R6696	1-215-925-11	METAL OXIDE	22K	5%	3W
R6699	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6699		(KV-DB29M61)			
R6701	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6701		(KV-DB29M61)			

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REF NO.	PART NO.	DESCRIPTION		REMARK	
R6702	1-216-840-11	METAL CHIP	39K	5%	1/10W
R6702		(KV-DB29M61)			
R6704	1-219-134-11	FUSIBLE	0.1	10%	1/4W
R6710	1-217-158-00	METAL	0.47	10%	5W
R6713	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R6713		(KV-DB29M61)			
R6716	1-218-871-11	METAL CHIP	10K	0.50%	1/10W
R6717	1-208-847-11	METAL CHIP	510K	0.50%	1/10W
R6717		(KV-DB29M61)			
R6718	1-208-847-11	METAL CHIP	510K	0.50%	1/10W
R6718		(KV-DB29M61)			
R6719	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6723	1-220-797-11	CEMENTED	0.47	5%	10W
R6723		(KV-DB29M61)			
R6724	1-220-797-11	CEMENTED	0.47	5%	10W
R6724		(KV-DB29M61)			
R6725	1-216-835-11	METAL CHIP	15K	5%	1/10W
R6725		(except KV-DB29M61)			
R6726	1-216-835-11	METAL CHIP	15K	5%	1/10W
R6726		(except KV-DB29M61)			
R6800	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R6801	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R6802	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6803	1-216-864-11	SHORT CHIP	0		
R6804	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R6805	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6806	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6807	1-245-484-21	METAL	820K	1%	1/4W
R6808	1-216-813-11	METAL CHIP	220	5%	1/10W
R6809	1-216-864-11	SHORT CHIP	0		
R6811	1-243-614-71	METAL OXIDE	4.7K	5%	3W
R6812	1-243-949-71	METAL OXIDE	0.47	5%	2W
R6813	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R6814	1-218-899-11	METAL CHIP	150K	0.50%	1/16W
R6815	1-243-614-71	METAL OXIDE	4.7K	5%	3W
R6817	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R6818	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
R6819	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6822	1-216-834-11	METAL CHIP	12K	5%	1/10W
R6824	1-249-383-11	CARBON	1.5	5%	1/4W
R6825	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R6826	1-243-572-71	METAL OXIDE	470	5%	2W
R6828	1-245-478-21	METAL	470K	1%	1/4W
R6829	1-216-864-11	SHORT CHIP	0		
R6830	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R6831	1-260-107-11	CARBON	4.7K	5%	1/2W
R6833	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R6834	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R6837	1-216-864-11	SHORT CHIP	0		
R6840	1-216-864-11	SHORT CHIP	0		
R6841	1-249-377-11	CARBON	0.47	5%	1/4W
R6843	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R6845	1-249-385-11	CARBON	2.2	5%	1/4W
R6848	1-215-864-00	METAL OXIDE	150	5%	1W
R6850	1-214-796-00	METAL	1.5	1%	1/2W
R6851	1-216-864-11	SHORT CHIP	0		
R6852	1-243-525-71	METAL OXIDE	33	5%	3W
R6856	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R6857	1-260-292-11	CARBON	1	5%	1/2W
R6858	1-243-515-71	METAL OXIDE	4.7	5%	3W
R6860	1-243-521-71	METAL OXIDE	15	5%	3W

REF NO.	PART NO.	DESCRIPTION		REMARK	
R6861	1-243-527-71	METAL OXIDE	47	5%	3W
R6862	1-245-470-21	METAL	220K	1%	1/4W
R6863	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6864	1-243-957-71	METAL OXIDE	0.47	5%	3W
R6865	1-218-843-11	METAL CHIP	680	0.50%	1/10W
R6866	1-247-891-00	CARBON	330K	5%	1/4W
R6867	1-216-834-11	METAL CHIP	12K	5%	1/10W
R6868	1-245-470-21	METAL	220K	1%	1/4W
R6869	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R6870	1-216-460-71	METAL OXIDE	3.9K	5%	2W
R6871	1-243-572-71	METAL OXIDE	470	5%	2W
R6872	1-214-796-00	METAL	1.5	1%	1/2W
R6873	1-249-414-11	CARBON	560	5%	1/4W
R6877	1-215-439-00	METAL	5.6K	1%	1/4W
R6878	1-260-107-11	CARBON	4.7K	5%	1/2W
R6879	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6881	1-214-899-81	METAL	27K	1%	1/2W
R6883	1-243-525-71	METAL OXIDE	33	5%	3W
R6884	1-214-897-00	METAL	22K	1%	1/2W
R6885	1-215-895-71	METAL OXIDE	3.3K	5%	2W
R6887	1-218-859-11	METAL CHIP	3.3K	0.50%	1/10W
R6888	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
R6896	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R6897	1-218-855-11	METAL CHIP	2.2K	0.50%	1/10W
R6901	1-218-901-11	METAL CHIP	180K	0.50%	1/10W
R6902	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6903	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R6904	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6905	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6906	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6907	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6908	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6909	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R6910	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6911	1-245-470-21	METAL	220K	1%	1/4W
R6912	1-260-292-11	CARBON	1	5%	1/2W
R6913	1-211-877-21	FUSIBLE	0.22	10%	1/2W
R6914	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6915	1-243-511-71	METAL OXIDE	2.2	5%	3W
R6916	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6917	1-216-845-11	METAL CHIP	100K	5%	1/10W
R6919	1-243-614-71	METAL OXIDE	4.7K	5%	3W
R6920	1-243-614-71	METAL OXIDE	4.7K	5%	3W
R6921	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6922	1-216-809-11	METAL CHIP	100	5%	1/10W
R6923	1-216-809-11	METAL CHIP	100	5%	1/10W
R6924	1-249-393-11	CARBON	10	5%	1/4W
R6925	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6926	1-215-915-21	METAL OXIDE	470	5%	3W
R6927	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6928	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6929	1-243-949-71	METAL OXIDE	0.47	5%	2W
R6930	1-215-880-00	METAL OXIDE	10	5%	2W
R6932	1-243-685-71	METAL OXIDE	68	5%	1W
R6933	1-218-847-11	METAL CHIP	1K	0.50%	1/10W
R6934	1-218-895-11	METAL CHIP	100K	0.50%	1/10W
R6935	1-218-891-11	METAL CHIP	68K	0.50%	1/10W
R6936	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6937	1-216-864-11	SHORT CHIP	0		
R6938	1-218-893-11	METAL CHIP	82K	0.50%	1/10W
R6939	1-218-873-11	METAL CHIP	12K	0.50%	1/10W

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

D **DL1** **F1**

REF NO.		PART NO.	DESCRIPTION			REMARK
R6942		1-216-864-11	SHORT CHIP	0		
R6945		1-216-864-11	SHORT CHIP	0		
R6947		1-216-864-11	SHORT CHIP	0		
			<RELAY>			
RY6601	⚠	1-755-198-11	RELAY, AC POWER			
RY6602	⚠	1-755-395-11	RELAY (AC POWER) (KV-DB29M61)			
RY6603	⚠	1-755-395-11	RELAY (AC POWER)			
			<SWITCH>			
S6800		1-572-707-11	SWITCH, LEVER			
S6801		1-572-707-11	SWITCH, LEVER			
			<TRANSFORMER>			
T6100		1-433-844-11	TRANSFORMER, CONVERTER			
T6101		1-437-483-21	TRANSFORMER, STANDBY (excep KV-DB29M61)			
T6602	⚠	1-443-368-11	TRANSFORMER, CONVERTER (PIT)			
T6801		1-443-367-11	FERRITE TRANSFORMER (PMT)			
T6803		1-443-618-11	HORIZONTALLINEARITYTRANSFORMER			
T6805	⚠	1-453-468-11	TRANSFORMER FLYBACK ASSY			
T6805			(NX-4526//M3B4)			
T6806	⚠	1-435-636-41	TRANSFORMER, HORIZONTAL DRIVE			
			<THERMISTOR>			
TH6100		1-803-586-11	THERMISTOR, NTC			
TH6100			(KV-DB29M61)			
TH6601	⚠	1-805-808-11	THERMISTOR, PTC			
TH6800		1-800-193-00	THERMISTOR			
			<VARISTOR>			
VD6603		1-804-995-11	VARISTOR			
VD6603			(KV-DB29M61)			
VD6604		1-804-824-11	VARISTOR	ENE271D-20A		
VD6604			(KV-DB29M61)			

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*		A-1138-982-A	MOUNTED PWB (VAR), DL1			
			**********			
			<CAPACITOR>			
C6321		1-100-122-21	FILM	0.022UF	5%	400V
C6322		1-100-141-21	FILM	0.0022UF	5%	630V
C6323		1-100-141-21	FILM	0.0022UF	5%	630V
			<CONNECTOR>			
* CN3802		1-564-511-11	PLUG, CONNECTOR 8P			
* CN3804		1-564-516-11	PLUG, CONNECTOR 13P			
CN6303		1-695-915-11	TAB (CONTACT)			

REF NO.		PART NO.	DESCRIPTION			REMARK
			<COIL>			
L6301		1-406-671-11	INDUCTOR	1MH		
L6302		1-406-675-11	INDUCTOR	4.7MH		
			<TRANSFORMER>			
T6301	⚠	1-413-059-00	TRANSFORMER, FERRITE (DFT)			

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*		A-1143-731-A	MOUNTED PWB (VAR), F1(KV-DB29M61)			
		A-1154-605-A	MOUNTED PWB (VAR), F1(except KV-DB29M61)			
			**********			
			<CAPACITOR>			
C1602	⚠	1-165-533-31	MYLAR	0.68UF	10	0V
C1603	⚠	1-117-703-11	CERAMIC	0.0047UF	99%	250V
			<CONNECTOR>			
* CN1601	⚠	1-580-843-11	PIN, CONNECTOR (POWER) (except KV-DB29M61)			
* CN1602	⚠	1-580-843-11	PIN, CONNECTOR (POWER)			
CN1603		1-695-915-11	TAB (CONTACT)			
			<FUSE>			
F1601	⚠	1-576-334-41	FUSE	5A		250V
			<FERRITE BEAD>			
FB1601		1-410-397-21	FERRITE	1.1UH		
FB1602		1-410-397-21	FERRITE	1.1UH		
FB1603		1-410-397-21	FERRITE	1.1UH		
FB1604		1-410-397-21	FERRITE	1.1UH		
			<FUSE HOLDER>			
FH1601		1-533-223-11	FUSE HOLDER	0A		0V
FH1602		1-533-223-11	FUSE HOLDER	0A		0V
			<RESISTOR>			
R1601	⚠	1-219-759-11	METAL	1M	5%	1/2W
R1601			(KV-DB29M98)			
			<TRANSFORMER>			
T1601	⚠	1-433-900-51	TRANSFORMER, LINE FILTER			
T1602		1-433-900-51	TRANSFORMER, LINE FILTER			
T1602			(except KV-DB29M61)			
			<VARISTOR>			
VDR161		1-804-995-11	VARISTOR			

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

H1 H2 VM1

REF NO.	PART NO.	DESCRIPTION			REMARK
*	A-1139-498-A	MOUNTED PWB (VAR), H1			
		**********			
		<CAPACITOR>			
C3900	1-137-150-11	FILM	0.01UF	5.00%	100V
C3902	1-137-150-11	FILM	0.01UF	5.00%	100V
C3910	1-126-947-11	ELECT	47UF	20.00%	35V
C3911	1-126-947-11	ELECT	47UF	20.00%	35V
		<CONNECTOR>			
* CN3901	1-564-507-11	PLUG, CONNECTOR 4P			
* CN3903	1-564-509-11	PLUG, CONNECTOR 6P			
* CN3904	1-564-512-11	PLUG, CONNECTOR 9P			
* CN3905	1-564-510-11	PLUG, CONNECTOR 7P			
* CN3907	1-564-508-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D3900	8-719-109-89	DIODE RD5.6ESB2			
D3904	8-719-991-33	DIODE 1SS133T-77			
D3905	8-719-991-33	DIODE 1SS133T-77			
D3908	8-719-109-89	DIODE RD5.6ESB2			
D3912	8-719-991-33	DIODE 1SS133T-77			
D3913	8-719-991-33	DIODE 1SS133T-77			
		<JACK>			
J3902	1-784-646-31	TERMINAL, S			
J3903	1-770-329-13	JACK, PIN 3P			
J3904	1-770-786-22	JACK			
		<COIL>			
L3901	1-414-183-41	INDUCTOR	10UH		
L3902	1-414-183-41	INDUCTOR	10UH		
		<TRANSISTOR>			
Q3901	8-729-036-80	TRANSISTOR KRC110M			
Q3902	8-729-036-80	TRANSISTOR KRC110M			
		<RESISTOR>			
R3907	1-249-417-11	CARBON	1K	5%	1/4W
R3908	1-249-413-11	CARBON	470	5%	1/4W
R3909	1-249-411-11	CARBON	330	5%	1/4W
R3910	1-249-409-11	CARBON	220	5%	1/4W
R3911	1-249-411-11	CARBON	330	5%	1/4W
R3912	1-249-407-11	CARBON	150	5%	1/4W
R3914	1-249-425-11	CARBON	4.7K	5%	1/4W
R3915	1-249-419-11	CARBON	1.5K	5%	1/4W
R3916	1-249-401-11	CARBON	47	5%	1/4W
R3920	1-249-415-11	CARBON	680	5%	1/4W
R3922	1-249-421-11	CARBON	2.2K	5%	1/4W
R3927	1-249-425-11	CARBON	4.7K	5%	1/4W
		<SWITCH>			
S3902	1-692-431-21	SWITCH, TACTILE			
S3903	1-692-431-21	SWITCH, TACTILE			
S3904	1-692-431-21	SWITCH, TACTILE			
S3905	1-692-431-21	SWITCH, TACTILE			
S3907	1-692-431-21	SWITCH, TACTILE			
S3908	1-692-431-21	SWITCH, TACTILE			
S3909	1-692-431-21	SWITCH, TACTILE			

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*	A-1143-728-A	MOUNTED PWB, H2			
		**********			
		<CAPACITOR>			
C1900	1-102-114-00	CERAMIC	470PF	10.00%	50V
C1901	1-102-114-00	CERAMIC	470PF	10.00%	50V
		<CONNECTOR>			
* CN1651⚠	1-580-844-11	PIN, CONNECTOR (POWER)			
* CN1652⚠	1-580-844-11	PIN, CONNECTOR (POWER)			
* CN1900	1-564-508-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D1900	8-719-109-89	DIODE RD5.6ESB2			
D1901	8-719-109-89	DIODE RD5.6ESB2			
D1902	8-719-991-33	DIODE 1SS133T-77			
D1903	6-500-706-01	DIODE LNK0210088H			
		<IC>			
IC1900	6-704-532-01	IC RPM7240-H5			
		<SWITCH>			
S1650	⚠ 1-786-649-12	SWITCH, AC POWER PUSH			

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*	A-1138-987-A	MOUNTED PWB (VAR), VM1			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C1800	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C1801	1-126-947-11	ELECT	47UF	20.00%	35V
C1802	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C1803	1-126-947-11	ELECT	47UF	20.00%	35V
C5401	1-126-935-11	ELECT	470UF	20.00%	16V
C5402	1-113-619-11	CERAMIC CHIP	0.47UF		10V
C5403	1-126-935-11	ELECT	470UF	20.00%	16V
C5405	1-126-933-11	ELECT	100UF	20.00%	16V
C5406	1-126-935-11	ELECT	470UF	20.00%	16V
C5407	1-107-364-11	MYLAR	0.01UF	10.00%	200V
C5408	1-107-364-11	MYLAR	0.01UF	10.00%	200V
C5409	1-107-649-11	ELECT	2.2UF	20.00%	250V
C5410	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5411	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5412	1-126-935-11	ELECT	470UF	20.00%	16V

VM1

REF NO.	PART NO.	DESCRIPTION		REMARK	
C5413	1-107-648-91	ELECT	100UF	20.00%	200V
C5415	1-104-999-11	MYLAR	0.1UF	5.00%	200V
C5417	1-101-821-00	CERAMIC	0.0022UF		500V
C5418	1-107-638-11	ELECT	33UF	20.00%	160V
C5421	1-107-364-11	MYLAR	0.01UF	10.00%	200V
C6200	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6201	1-115-416-11	CERAMIC CHIP	0.001UF	5.00%	25V
C6202	1-126-947-11	ELECT	47UF	20.00%	35V
C6203	1-165-176-11	CERAMIC CHIP	0.047UF	10.00%	16V
C6204	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6205	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6206	1-126-947-11	ELECT	47UF	20.00%	35V
C6207	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C6208	1-107-826-11	CERAMIC CHIP	0.1UF	10.00%	16V
C6209	1-162-970-11	CERAMIC CHIP	0.01UF	10.00%	25V
C6210	1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C6212	1-136-167-00	FILM	0.15UF	5.00%	50V
C6213	1-100-121-21	FILM	0.015UF	5%	400V
C6214	1-126-947-11	ELECT	47UF	20.00%	35V
C6215	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C6216	1-137-194-81	FILM	0.47UF	5.00%	50V
C6218	1-126-947-11	ELECT	47UF	20.00%	35V
C6225	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C6226	1-126-947-11	ELECT	47UF	20.00%	35V
C6227	1-100-121-21	FILM	0.015UF	5%	400V
		<CONNECTOR>			
* CN5400	1-564-511-11	PLUG, CONNECTOR 8P			
* CN5401	1-770-747-11	CONNECTOR, BOARD TO BOARD 12P			
* CN5402	1-764-333-11	PIN, CONNECTOR(PCB)(V TYPE)10P			
* CN5403	1-564-506-11	PLUG, CONNECTOR 3P			
* CN5404	1-564-506-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D5400	8-719-404-50	DIODE MA111-TX			
D5401	8-719-510-02	DIODE D1NS4			
D5402	8-719-911-19	DIODE 1SS119-25			
D5403	8-719-911-19	DIODE 1SS119-25			
D5404	8-719-911-19	DIODE 1SS119-25			
D5405	8-719-110-56	DIODE RD22ESB1			
D5406	8-719-110-56	DIODE RD22ESB1			
D6201	8-719-081-97	DIODE MMDL914T1			
D6202	8-719-062-51	DIODE 1PS226-115			
D6204	8-719-085-65	DIODE ER206			
		<IC>			
IC1800	8-759-803-42	IC LA6500-FA			
IC6200	6-703-708-01	IC LM2903DT			
IC6201	8-759-701-01	IC NJM2904M			
IC6202	8-759-822-38	IC LA6510			
		<CHIP CONDUCTOR>			
JR6201	1-216-864-11	SHORT CHIP	0		
JR6202	1-216-864-11	SHORT CHIP	0		
JR6203	1-216-864-11	SHORT CHIP	0		
JR6204	1-216-864-11	SHORT CHIP	0		
JR6205	1-216-864-11	SHORT CHIP	0		
JR6206	1-216-864-11	SHORT CHIP	0		
JR6207	1-216-864-11	SHORT CHIP	0		

REF NO.	PART NO.	DESCRIPTION		REMARK	
		<COIL>			
L5400	1-412-525-31	INDUCTOR	10UH		
L6200	1-406-987-21	INDUCTOR	4.7MH		
L6201	1-406-987-21	INDUCTOR	4.7MH		
L6202	1-406-987-21	INDUCTOR	4.7MH		
L6205	1-412-536-31	INDUCTOR	82UH		
L6206	1-406-979-11	INDUCTOR	220UH		
		<TRANSISTOR>			
Q5400	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q5401	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q5402	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q5403	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q5404	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q5405	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q5406	8-729-045-05	TRANSISTOR 2SA2005			
Q5407	8-729-045-04	TRANSISTOR 2SC5511			
Q6200	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q6201	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q6202	8-729-600-22	TRANSISTOR 2SA1235-F			
Q6203	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q6204	8-729-052-29	TRANSISTOR 2SK2876-01MR-F122			
		<RESISTOR>			
R1800	1-218-885-11	METAL CHIP	39K	0.50%	1/10W
R1801	1-218-853-11	METAL CHIP	1.8K	0.50%	1/10W
R1802	1-218-833-11	METAL CHIP	270	0.50%	1/10W
R1803	1-218-855-11	METAL CHIP	2.2K	0.50%	1/10W
R1804	1-249-391-11	CARBON	6.8	5%	1/4W
R1805	1-249-383-11	CARBON	1.5	5%	1/4W
R1806	1-218-847-11	METAL CHIP	1K	0.50%	1/10W
R1807	1-249-381-11	CARBON	1	5%	1/4W
R1808	1-243-696-71	METAL OXIDE	470	5%	1W
R1809	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R5401	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R5402	1-249-415-11	CARBON	680	5%	1/4W
R5403	1-260-316-51	CARBON	100	5%	1/2W
R5404	1-249-418-11	CARBON	1.2K	5%	1/4W
R5405	1-216-864-11	SHORT CHIP	0		
R5406	1-218-863-11	METAL CHIP	4.7K	0.50%	1/10W
R5407	1-216-805-11	METAL CHIP	47	5%	1/10W
R5408	1-249-409-11	CARBON	220	5%	1/4W
R5409	1-247-807-31	CARBON	100	5%	1/4W
R5410	1-249-401-11	CARBON	47	5%	1/4W
R5411	1-249-401-11	CARBON	47	5%	1/4W
R5412	1-249-429-11	CARBON	10K	5%	1/4W
R5413	1-249-414-11	CARBON	560	5%	1/4W
R5414	1-249-432-11	CARBON	18K	5%	1/4W
R5415	1-247-735-11	CARBON	47	5%	1/2W
R5416	1-249-385-11	CARBON	2.2	5%	1/4W
R5417	1-249-432-11	CARBON	18K	5%	1/4W
R5418	1-249-414-11	CARBON	560	5%	1/4W
R5419	1-249-421-11	CARBON	2.2K	5%	1/4W
R5420	1-249-421-11	CARBON	2.2K	5%	1/4W
R5421	1-249-385-11	CARBON	2.2	5%	1/4W
R5422	1-249-401-11	CARBON	47	5%	1/4W
R5423	1-215-915-21	METAL OXIDE	470	5%	3W
R5424	1-249-395-11	CARBON	15	5%	1/4W
R5425	1-216-864-11	SHORT CHIP	0		

VM1

REF NO.	PART NO.	DESCRIPTION		REMARK	
R5427	1-249-395-11	CARBON	15	5%	1/4W
R5429	1-215-863-11	METAL OXIDE	100	5%	1W
R6200	1-218-877-11	METAL CHIP	18K	0.50%	1/10W
R6201	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6202	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6203	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6204	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R6205	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6206	1-216-837-11	METAL CHIP	22K	5%	1/10W
R6207	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6208	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6209	1-218-847-11	METAL CHIP	1K	0.50%	1/10W
R6210	1-218-847-11	METAL CHIP	1K	0.50%	1/10W
R6211	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6212	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R6215	1-249-377-11	CARBON	0.47	5%	1/4W
R6220	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R6222	1-218-899-11	METAL CHIP	150K	0.50%	1/16W
R6223	1-216-821-11	METAL CHIP	1K	5%	1/10W
R6225	1-218-899-11	METAL CHIP	150K	0.50%	1/16W
R6226	1-249-401-11	CARBON	47	5%	1/4W
R6227	1-216-809-11	METAL CHIP	100	5%	1/10W
R6229	1-216-353-00	METAL OXIDE	2.2	5%	1W
R6230	1-216-853-11	METAL CHIP	470K	5%	1/10W
R6233	1-218-883-11	METAL CHIP	33K	0.50%	1/10W
R6234	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R6235	1-243-519-71	METAL OXIDE	10	5%	3W
R6237	1-218-891-11	METAL CHIP	68K	0.50%	1/10W
R6238	1-218-877-11	METAL CHIP	18K	0.50%	1/10W
R6239	1-216-853-11	METAL CHIP	470K	5%	1/10W
R6242	1-218-899-11	METAL CHIP	150K	0.50%	1/16W
R6250	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R6251	1-249-395-11	CARBON	15	5%	1/4W
R6252	1-218-899-11	METAL CHIP	150K	0.50%	1/16W
R6253	1-218-895-11	METAL CHIP	100K	0.50%	1/10W
R6254	1-218-897-11	METAL CHIP	120K	0.50%	1/10W
R6255	1-216-864-11	SHORT CHIP	0		
R6256	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R6257	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R6258	1-218-845-11	METAL CHIP	820	0.50%	1/10W
R6259	1-218-851-11	METAL CHIP	1.5K	0.50%	1/10W

****

<ACCESSORIES AND PACKING MATERIALS>
****

	A-1161-963-A	ACCESSORY ASSY(KV-DB29M91/M98)
	A-1158-969-A	ACCESSORY ASSY(KV-DB29M61)
	2-651-491-01	SCREW, SPECIAL
	2-637-162-01	BAND, HOLD
	2-664-110-11	MANUAL, INSTRUCTION(KV-DB29M91/M98)
	2-663-086-11	MANUAL, INSTRUCTION(KV-DB29M61)
	2-149-060-02	CUSHION (UPPER)
	2-149-061-02	CUSHION (LOWER)
*	2-650-205-01	INDIVIDUAL CARTON
*	4-029-168-01	BAG, PROTECTION

****

<REMOTE COMMANDER>
****

	1-479-402-11	REMOTE COMMANDER (RM-GA001)
	3-073-096-21	REMOTE COMMANDER BATTERY COVER

9-872-875-01

Sony Corporation
Sony EMCS Malaysia Sdn. Bhd.
Visual Products

English
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SONY

2-663-086-**11** (1)

Trinitron Color TV

Operating Instructions **GB**

- Before operating the unit, please read this manual thoroughly and retain it for future reference.

使用說明書 **CT**

- 使用本電視機之前請先詳細閱讀此手冊，並妥善保存以備日後用作參考。

WEGA

KV-DB34
KV-DB29

© 2005 Sony Corporation

M61

WARNING

- Dangerously high voltages are present inside the TV.
- TV operating voltage: 110 – 240 V AC.
- Do not plug in the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid leaks from the batteries and touches your skin, immediately wash it away with water.

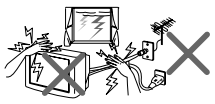
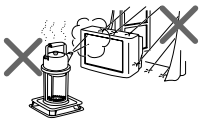
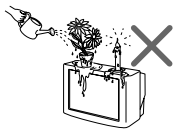
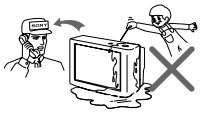
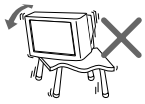
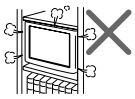
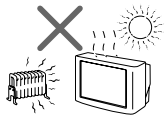
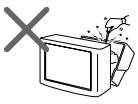
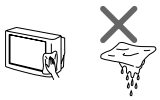
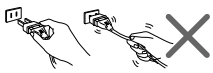
 For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.	 For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.	 To prevent fire or shock hazard, do not expose the TV to rain or moisture.
 Do not place any objects on the TV. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.	 Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.	 Install the TV on a stable TV stand and floor which can support the TV set weight. Ensure that the TV stand surface is flat and its area is larger than the bottom area of the TV.
 Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.	 Your TV is recommended for home use only. Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.	 Do not plug in too many appliances to the same power socket. Do not damage the power cord.
 Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.	 Clean the TV with a dry and soft cloth. Do not use benzine, thinner, or any other chemicals to clean the TV. Do not attach anything (e.g., adhesive tape, cellophane tape, glue) on the painted cabinet of the TV. Do not scratch the picture tube.	 Pull the power cord out by the plug. Do not pull the power cord itself. Even if your TV is turned off, it is still connected to the AC power source (mains) as long as the power cord is plugged in. Unplug the TV before moving it or if you are not going to use it for several days.

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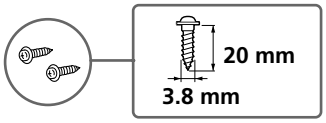
Additional Information

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GB

■ Securing the TV

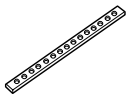
To prevent the TV from falling, use the supplied screws, clamps and band to secure the TV.



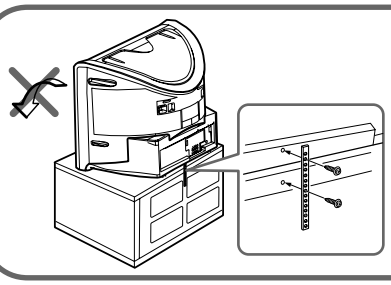
screws



clamps

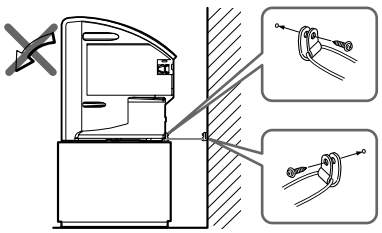


band



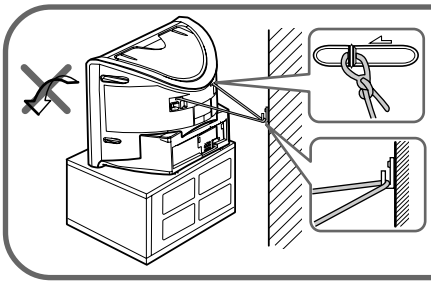
Screw the band to the TV stand and to the provided hole at the rear of your TV.

or



(1) Put a cord or chain through the clamps.
(2) Screw one clamp to a wall or pillar and the other clamp to the provided hole at the rear of your TV.

or

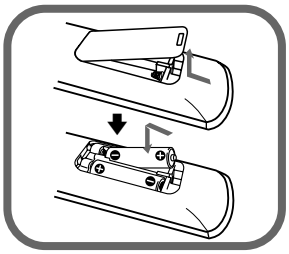


(1) Attach each end of a cord or chain to the provided holders at the rear of your TV.
(2) Securely fix the attached cord or chain to a wall or pillar using an attachment which can support the TV set weight.

Note

- Use only the supplied screws. Use of other screws may damage the TV.

■ Getting Started

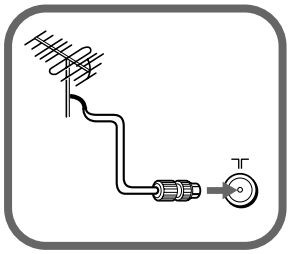


Step 1

Insert the batteries (supplied) into the remote.

Note

- Do not use old or different types of batteries together.

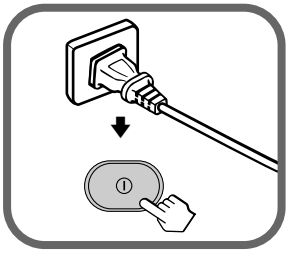


Step 2

Connect the antenna cable (not supplied) to ⅂ (antenna input) at the rear of the TV.

Tip

- You can also connect your TV to other optional components (see page 28).



Step 3

Plug in the power cord, then press ⏻ on the TV to turn it on.

Note

- The ⏻ (standby) indicator flashes green for a few seconds when turning on the TV. This does not indicate a malfunction.



Step 4

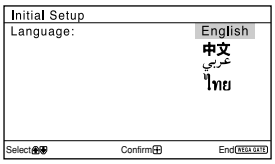
Set up the TV by following the instructions of the "Initial Setup" menu (see page 6).

■ Setting up your TV (“Initial Setup”)

When you turn on your TV for the first time, the “Initial Setup” menu will appear. You may change the menu language, preset the TV channels automatically, sort or edit the channels and adjust the picture position using the buttons on the remote control or TV front panel.

1 Press ↑ or ↓ to select the desired menu language, then press ⊕.

The selected menu language appears.



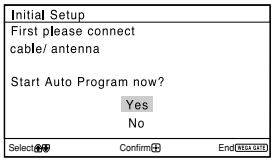
2 Press ↑ or ↓ to select “Yes”, then press ⊕ to preset the channels automatically.

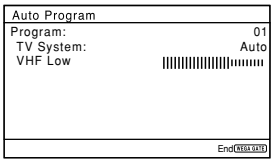
The screen will indicate automatic presetting is in progress.

After all available channels have been tuned and stored, the “Program Sorting/Edit” menu appears automatically on the screen.

To skip automatic channel presetting, select “No”, then press ⊕.

If the message “No channel found. Please connect cable/antenna” appears, check your TV connections, then press ⊕.





3 The “Program Sorting/Edit” menu enables you to sort and edit the channels.

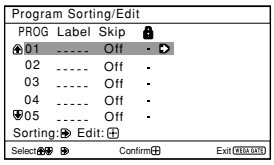
a) If you wish to keep the channels in the current condition, press WEGA GATE to exit.

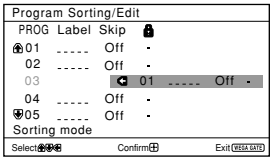
b) Press ↑ or ↓ to select the program number with the channel you wish to change. The selected channel will appear on the screen.

c) If you wish to store the channels in a different order:

1) Press → to enter sorting mode.

2) Press ↑ or ↓ to select the new program number position for your selected channel, then press ←.



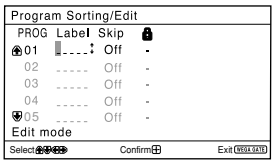


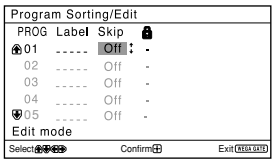
d) If you wish to edit the channels, press ⊕ to change to edit mode.

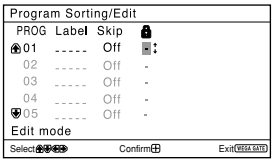
Press → until the mode that you wish to edit is highlighted: Label, Skip, 🔒 (block symbol). Then press ⊕.

1) To label, press ↑ or ↓ to select the alphanumeric characters for the label. Then press ⊕.
2) To skip the program number, press ↑ or ↓ to select "On". Then press ⊕.

   You can skip this program number when using PROG +/-.
3) To block unwanted program number, press ↑ or ↓ to select 🔒. Then press ⊕.





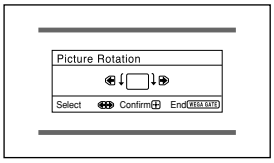


e) Repeat step b) to d) if you wish to change other channels.

Press WEGA GATE to go to the next menu.

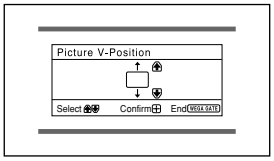
4 Press ← or → to adjust the bars on the top and bottom of the menu if they are slanted, then press ⊕.

"Picture V-Position" menu appears.



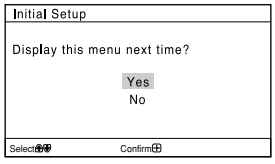
5 If the upper and lower bars are not equally positioned to the top and bottom of the screen, press ↑ or ↓ to adjust them, then press ⊕.

If no adjustment is necessary, then press ⊕.



6 To prevent this "Initial Setup" menu from appearing again when you turn on the TV by pressing ⏻, press ↑ or ↓ to select "No", then press ⊕.

To allow this menu to appear again, select "Yes", then press ⊕.



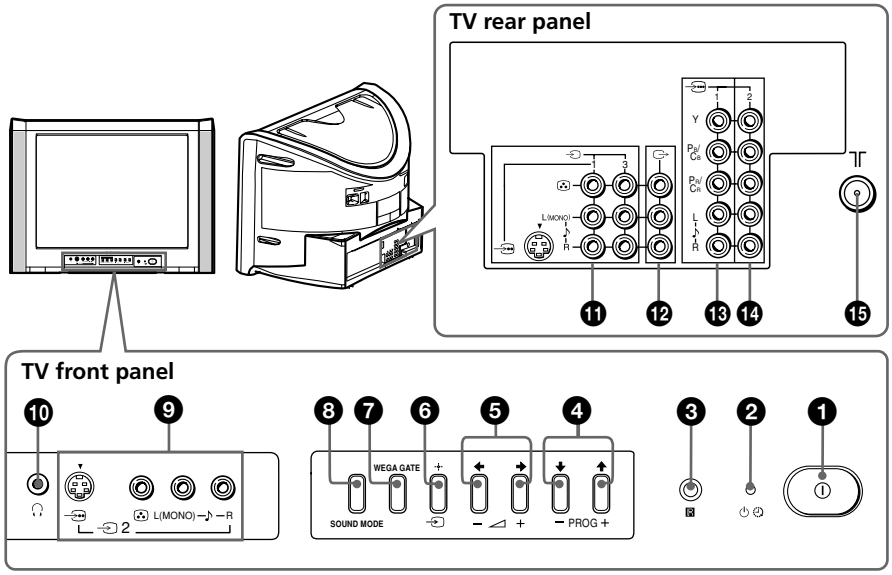
Tip

- You can immediately go to the end of the "Initial Setup" menu by pressing WEGA GATE.

Note

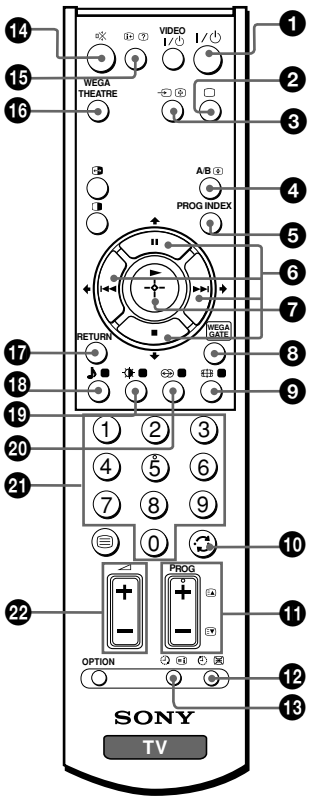
- Before adjusting "Picture Rotation" and "Picture V-Position", keep external speakers or other electrical equipment away from the TV. The magnetic disturbance from these equipments or the direction of the earth's magnetic field may affect the TV.

■ TV front and rear panels



Button/Terminal	Function	Page
❶ ⏻	Turn off or turn on the TV.	5
❷ ⏻	Standby indicator.	5
❷ 🕘	Wake Up indicator.	9
❸	Remote control sensor.	–
❹ PROG +/–	Select program number.	–
❺ +/–	Adjust volume.	–
❻	Select TV or video input.	28
WEGA GATE menu operations		
❹, ❺ ↑,↓,←,→	Select and adjust items.	16
❻	Confirm selected items.	16
❼ WEGA GATE	Display or cancel WEGA GATE menu.	16
❽ SOUND MODE	Select sound mode options with a 5-Band Graphic Equalizer display.	11
❾ 2	Video input terminal 2.	28
❿	Headphone jack.	–
⓫ 1, 3	Video input terminal 1, 3.	28
⓬	Monitor output terminal.	28
⓭ 1	Component video input terminal 1.	29
⓮ 2	Component video input terminal 2.	29
⓯	Antenna input terminal.	28

■ Using the remote control and basic functions



Button	Description	Page
❶ I/⏻	Turn off temporarily or turn on the TV.	–
❷ ▭	Display the TV program.	–
❸ ⇥	Select TV or video input.	28
Stereo/bilingual operations		
❹ A/B	Select stereo/bilingual mode.	13
❺ PROG INDEX	Not function for your TV.	–
WEGA GATE menu operations		
❻ ↑, ↓, ←, →	Select and adjust items.	16
❼ ⊕	Confirm selected items.	16
❽ WEGA GATE	Display or cancel WEGA GATE menu.	16
⓱ RETURN	Return to the previous level.	16
❾ ▭	Change the picture size: "4:3", "16:9" (16:9 wide mode).	–
❿ ↻	Jump to last program number that has been watched for at least five seconds.	–
⓫ PROG +/–	Select program number.	–
Timer operations		
⓬ ◴ (Sleep Timer)	Set TV to turn off automatically according to the desired period of time (max. of one hour and 30 min.).	–
⓭ ◴ (Wake Up Timer)	Set TV to turn on automatically according to the desired period of time (max. of 12 hours). The ◴ indicator on TV lights up amber once you set the wake up timer. If no buttons or controls are pressed for more than one hour after the TV is turned on using the wake up timer, the TV automatically goes into standby mode.	–
⓮ 🔇	Mute the sound.	–
⓯ ⓘ+	Display on-screen information.	–
⓰ WEGA THEATRE	Select WEGA Theatre Mode.	12

continue

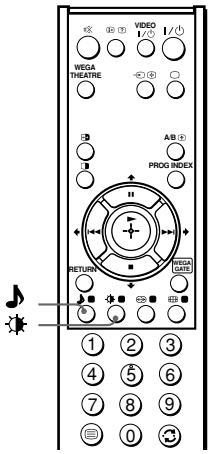
continued

Button	Description	Page
⑱ ♪	Select sound mode options with a 5-Band Graphic Equalizer display.	11
⑲	Select picture mode options.	11
⑳	Select surround mode options.	21
㉑ 0 – 9	Input numbers. For program numbers 10 and above, enter the second digit within two seconds.	–
㉒ +/–	Adjust volume.	–
TWIN picture operations		
, , ↑,↓,←,→	Not function for your TV.	–
Teletext operations (green label)		
, , , , , , , , (red, green, yellow, blue)	All buttons are used for Teletext operations.	14
Optional components operations		
VIDEO /⏻, OPTION, ►, ❚❚, ■, ⏮, ⏭, , +/–	For details, see “Operating optional components”.	15

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■ Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in the “Custom” option.



Selecting the picture mode

Press ☼ to select the desired picture mode.

Select	To view
“Vivid”	contrast and sharp pictures.
“Standard”	normal pictures.
“Custom”	the last adjusted picture setting from the “Picture Adjustment” option in the menu (see page 20).

Selecting the sound mode

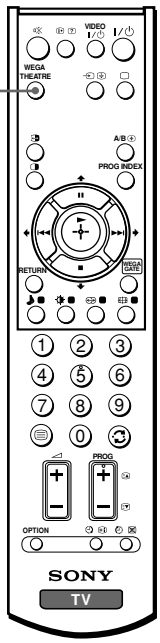
Press ♪ (or SOUND MODE on the front panel) to select the desired sound mode.

5-Band Graphic Equalizer display will appear.

Select		To listen to
“Dynamic”		dynamic and clear sound that emphasizes both the low and high tones.
“Standard”		sound that emphasizes voice and high tones.
“Custom”		the last adjusted sound setting from the “Sound Adjustment” option in the menu (see page 22).

■ Enjoying the WEGA Theatre Mode

The WEGA Theatre Mode enables you to enjoy the best picture, sound and surround effect of a cinema from a DVD source.



Setting up WEGA Theatre Mode

1. Place your TV and connected Sony equipment adjacent to each other so that you can control both the TV and the connected equipment by using the TV's remote control at the same time (see page 15).
2. Select the proper video input from "WEGA Theatre Setup" menu and turn on (main power) the connected equipment (see page 26).
3. See the table below. If the connected equipment is a Sony audio/video equipment, you can set up the remote to work with the connected equipment (see page 15).

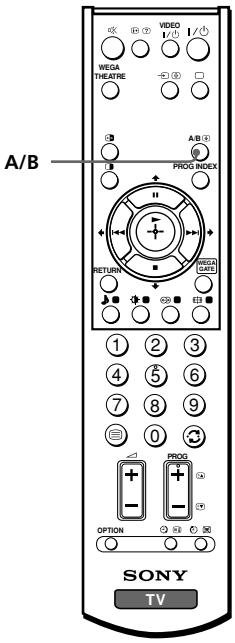
To	Press
switch to WEGA Theatre Mode	WEGA THEATRE. Be sure to aim the remote control at the TV set and connected equipment for about one second after the button is pressed. The connected equipment turns on automatically from standby mode and will start playing (only for Sony audio/video equipment). The "Picture Mode" and "Sound Mode" will switch automatically to "Custom" and you can adjust the setting to your personal preference (see pages 20 and 22).

Notes

- The WEGA Theatre Mode is automatically cancelled when you change the input mode or turn the TV off and on again.
- Some Sony equipment might not respond properly when WEGA THEATRE button is pressed. In this case, use the equipment's own remote control.

■ Enjoying stereo or bilingual programs

You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems by using the A/B button.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	NICAM (Stereo sound) → Mono (Regular sound)
NICAM bilingual	NICAM Main (Main sound) → NICAM Sub (Sub sound) → Mono (Regular sound)
NICAM monaural	NICAM Main (Main sound) → Mono (Regular sound)

When receiving an A2 program

Broadcasting	On-screen display (Selected sound)
A2 stereo	Stereo (Stereo sound) → Mono (Regular sound)
A2 bilingual	Main (Main sound) → Sub (Sub sound)

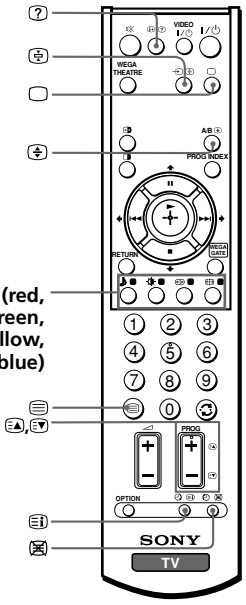
Note

- If the stereo sound is noisy when receiving a stereo program, select "Mono". The sound becomes monaural but the noise is reduced.

■ Viewing Teletext

Some TV stations broadcast an information service called Teletext which allows you to receive various information, such as stock market reports and news.

You can use the buttons on the remote to view Teletext.



To	Do this
display a Teletext page on the TV picture	Press ☰. Each time you press ☰, the screen changes as follows: Teletext → Teletext and TV → TV. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen.
check the contents of a Teletext service	Press ⓘ. An overview of the Teletext contents, including page numbers, appears on the screen.
select a Teletext page	Press the number buttons to enter the three-digit page number of the desired Teletext page. If you make a mistake, reenter the correct page number. To access the next or previous page, press ▲ or ▼.
hold (pause) a Teletext display	Press ⏸ to display the symbol "⏸" at the top left corner of the screen. To resume normal Teletext viewing, press ⏸.
reveal concealed information (e.g., an answer to a quiz)	Press ?. To conceal the information, press the button again.
enlarge the Teletext display	Press ⇕. Each time you press ⇕, the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
stand by for a Teletext page while watching a TV program	(1) Enter the Teletext page number that you want to refer to, then press ⊠. (2) When the page number is displayed, press ☰ to show the text.
select a FASTEXT menu or the colored boxes	Press ■ (red, green, yellow and blue) that corresponds to the desired menu or page number.
turn off Teletext	Press ▭.

Notes

- The FASTEXT feature can be used only when the FASTEXT broadcast is available.
- Teletext is automatically cancelled when there is no signal or the frequency of input signal is not within the proper range.

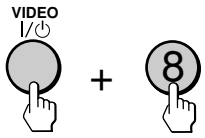
■ Operating optional components

You can use the supplied remote to operate Sony audio/video equipment.

Setting up the remote to work with other connected equipment

While keeping VIDEO I/⏻ pressed, press the corresponding number button for the desired equipment (see the chart below).

For example, to operate a Sony 8 mm VCR:



To control	Hold down VIDEO I/⏻ and press
Audio System 1, 1x, 2 or 3	0, 1, 2, or 3
DVD 1, 2 or 3	4, 5 or 6
VTR1 (Beta), VTR2 (8 mm) or VTR3 (VHS)	7, 8 or 9

Operating audio/video equipment

Press VIDEO I/⏻ or while keeping OPTION pressed, press ►, ■, I◄◄, ►►I, ❚❚, 🔇 or ◿ +/– (see the chart below).

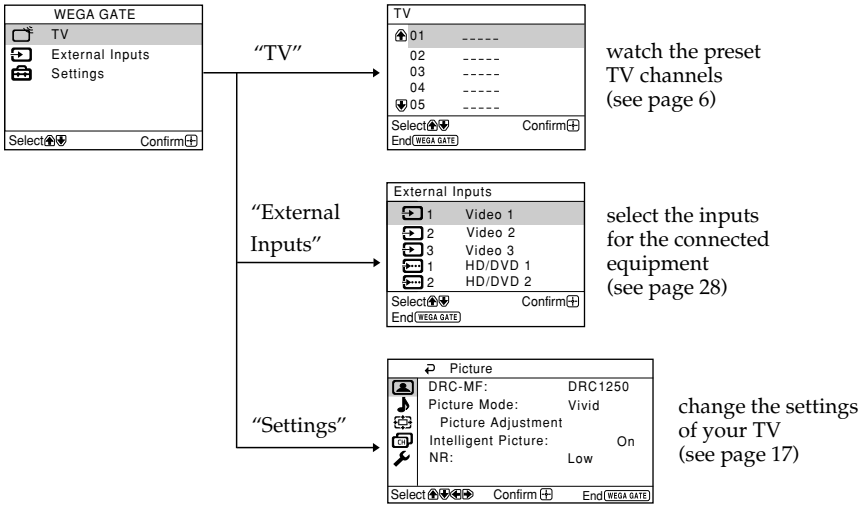
To	Press
turn on/off	VIDEO I/⏻
play	► while keeping OPTION pressed.
stop	■ while keeping OPTION pressed.
fast forward/ step forward or rewind/ step backward	►►I or I◄◄ while keeping OPTION pressed.
pause	❚❚ while keeping OPTION pressed. Press again to resume normal playback.
mute the sound (Audio System 1, 1x, 2 or 3 only)	🔇 while keeping OPTION pressed.
adjust volume (Audio System 1, 1x, 2 or 3 only)	◿ +/– while keeping OPTION pressed.

Notes

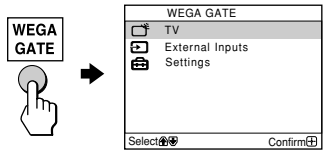
- If the equipment does not have a certain function, the corresponding button on the remote will not operate.
- Some equipment might not respond properly to buttons on TV's remote. In this case, use the equipment's own remote control.

■ Introducing the WEGA GATE navigator

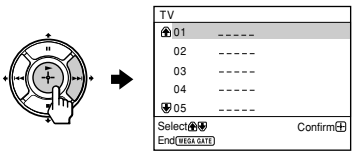
WEGA GATE is a gateway that allows you access to preset TV channels, connected external inputs and "Settings" menu.



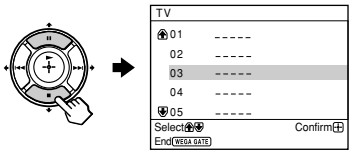
How to use WEGA GATE



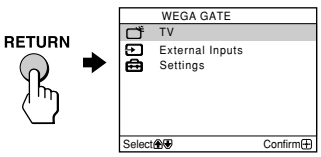
(1) Press WEGA GATE to display or cancel the WEGA GATE menu.



(2) Press ⊕ (or →) to confirm your selection or go to the next level.



(3) Press ↑ or ↓ to select the desired item.



(4) Press RETURN to move to the previous level.

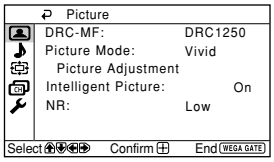
Tip

- The WEGA GATE, ⊕ and ↑,↓,←,→ buttons on the front panel can also be used for the operations above.

■ “Settings” Adjustment

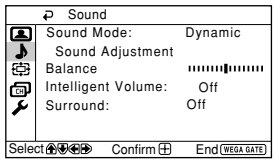
You are able to change the settings of your TV from “Settings” in WEGA GATE menu.
Press WEGA GATE button to display WEGA GATE menu. Press ↑ or ↓ to select “Settings” and press ⊕.

The following is an overview of the items that can be adjusted.



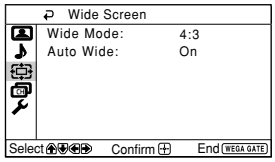
“Picture” (see page 19)

“DRC-MF”: “DRC1250” → “DRC100” → “Progressive”
“Picture Mode”: “Vivid” → “Standard” → “Custom”
“Picture Adjustment”: “Picture”, “Brightness”, “Color”, “Hue”, “Sharpness”, “Color Temperature”, “Reset”
“Intelligent Picture”: “On” → “Off”
“NR”: “High” → “Low” → “Off”



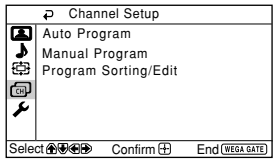
“Sound” (see page 21)

“Sound Mode”: “Dynamic” → “Standard” → “Custom”
“Sound Adjustment”: “Adjust”, “Reset”
“Balance”
“Intelligent Volume”: “On” → “Off”
“Surround”: “On” → “Simulated” → “Off”



“Wide Screen” (see page 23)

“Wide Mode”: “16:9” → “4:3”
“Auto Wide”: “On” → “Off”

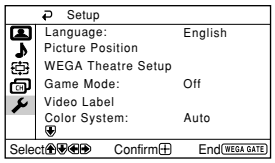


“Channel Setup” (see page 24)

“Auto Program”
“Manual Program”
“Program”: “00” - “99”
“TV System”: “B/G” → “I” → “D/K” → “M”
“VHF Low” /”VHF High” /“UHF”
“Fine”: “Auto” → “Manual”
“Signal Booster”: “Auto” → “Off”
“Program Sorting/Edit”

continue

continued



"Setup" (see page 26)

"Language": "English" → "中文" (Chinese) → "عربي" (Arabic) → "ไทย" (Thai)
"Picture Position": "Picture Rotation", "Picture V-Position"
"WEGA Theatre Setup": "Direct Input"
"Game Mode": "On" → "Off"
"Video Label"
"Color System": "Auto" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"
"Eco Mode": "On" → "Off"
"Factory Settings": "Yes" → "No"

Note

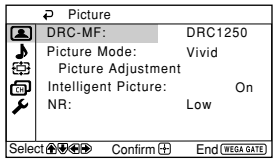
- When a feature is dimmed in the menu, it is not selectable.

■ Changing the “Picture” setting

The “Picture” menu allows you to adjust the picture settings.

1 Press WEGA GATE and select “Settings”.

2 Make sure the “Picture” icon ( ) is selected, then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., “DRC-MF”), then press ⊕.

Select	To
“DRC-MF”	choose either “DRC1250” (for high density pictures), “DRC100” (reduce flicker on the screen) or “Progressive” (reduce jitter of any small areas or scanning lines on the screen).
“Picture Mode”	choose either “Vivid”, “Standard” or “Custom”* (see page 11).
“Intelligent Picture”	optimize picture quality. Press ↑ or ↓ to select “On”, then press ⊕. To cancel, select “Off”, then press ⊕.
“NR” (Noise Reduction)	optimize overall picture sharpness to reduce noise. Choose either “High”, “Low” or “Off”.

* You can adjust the setting to your personal preference in the “Picture Adjustment” option only when the “Custom” mode is selected (see page 20).

Notes

- The DRC-MF mode is not selectable when “Game Mode” mode is turned “On”. The mode is not available for HD (high-definition) and progressive input signals.
- “NR” is not selectable when receiving signals through the (S video input) or (component video input) terminals.

The DRC-MF logo (DRC-MF Digital Reality Creation) and “DRC-MF” are trademarks of Sony Corporation.

continue

continued

Adjusting the "Picture Adjustment" items under "Custom" mode

1 Press ↑ or ↓ to select either "Picture" (contrast), "Brightness", "Color", "Hue" (color tones),"Sharpness" or "Color Temperature" (choose either "Cool", "Neutral" or "Warm"), then press ⊕.

Selecting "Reset" will set your TV to the factory settings.

2 Press ↑,↓,← or → to adjust the setting of your selected item, then press ⊕.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "Custom".

Notes

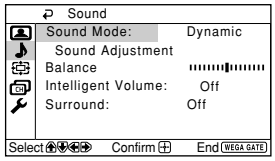
- "Hue" can be adjusted for the NTSC color system only.
- Reducing "Sharpness" can also reduce picture noise.

■ Changing the “Sound” setting

The “Sound” menu allows you to adjust the sound settings.

1 Press WEGA GATE and select “Settings”.

2 Press ↑ or ↓ to select the “Sound” icon (♪), then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., “Sound Mode”), then press ⊕.

Select	To
“Sound Mode”	choose either “Dynamic”, “Standard” or “Custom”* (see page 11).
“Balance”	Press ↓ or ← to emphasize the left speaker. Press ↑ or → to emphasize the right speaker.
“Intelligent Volume”	adjust the volume of all program numbers and video inputs automatically. Press ↑ or ↓ to select “On”, then press ⊕. To cancel, select “Off”, then press ⊕.
“Surround”	choose either “On” (surround), “Simulated” (stereo-like monaural sound) or “Off”.

* You can adjust the setting to your personal preference in the “Sound Adjustment” option only when the “Custom” mode is selected (see page 22).

continue

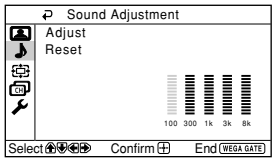
continued

Adjusting the “Sound Adjustment” items under “Custom” mode

The 5-Band Graphic Equalizer feature allows you to adjust sound frequency settings of “Custom” mode in the menu.

1 Make sure that “Adjust” is selected, then press ⊕.

Selecting “Reset” will set your TV to the factory settings.



2 Press ← or → to select the desired sound frequency, then press ↑ or ↓ to adjust the setting and press ⊕.

The adjusted settings will be received when you select “Custom”.

Notes

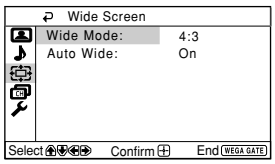
- Adjusting higher frequency will affect higher pitched sound and adjusting lower frequency will affect lower pitched sound.
- You may display the settings directly by using the SOUND MODE button on the TV front panel (see page 8) or ♪ button on the remote control (see page 10).

■ Changing the “Wide Screen” setting

The “Wide Screen” menu allows you to view the picture with optimal effect when receiving wide-mode (16:9) picture signal.

1 Press WEGA GATE and select “Settings”.

2 Press ↑ or ↓ to select the “Wide Screen” icon ( ), then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., “Wide Mode”), then press ⊕.

Select	To
“Wide Mode”	change the size of the picture when receiving wide-mode (16:9) picture signal. Choose “16:9”. To restore the normal picture size, select “4:3”, then press ⊕.
“Auto Wide”	display the picture in optimum wide screen automatically when you choose “On”. To cancel, select “Off”, then press ⊕.

Tip

- You can also change to wide-mode picture size by pressing the button on the remote control (see page 9).

Notes

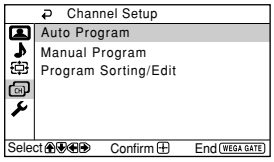
- “Wide Mode” is not selectable for high-definition (1080i, 720p) input signals. For HD (1080i, 720p) input signals, your TV will always display wide mode picture.
- “Auto Wide” is only available when receiving 576i, 480p and 480i input signals.

■ Changing the "Channel Setup" setting

The "Channel Setup" menu allows you to preset channels automatically, manually preset channels and sort or edit the channels.

1 Press WEGA GATE and select "Settings".

2 Press ↑ or ↓ to select the "Channel Setup" icon (), then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., "Auto Program"), then press ⊕.

Select	To
"Auto Program"	preset channels automatically.
"Manual Program"	manually preset desired channels and channels that cannot be preset automatically (see **Presetting channels manually** in page 25).
"Program Sorting/Edit"	change the order in which the channels appear on the screen, label the program number, skip the program number and block unwanted programs. (see step 3 of the section "Initial Setup" in page 6).

Notes

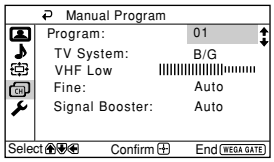
- If you preset a blocked program number, that program number will be unblocked automatically.
- If you sort a blocked program, that program will remain blocked.

Presetting channels manually

1 After selecting "Manual Program", select the program number to which you want to preset a channel.

(1) Make sure "Program" is selected, then press ⊕.

(2) Press ↑ or ↓ until the program number you want to preset appears on the menu, then press ⊕.



2 Select the desired channel.

(1) Make sure either "VHF Low", "VHF High" or "UHF" is selected, then press ⊕.

(2) Press ↑ or ↓ until the desired channel's broadcast appears on the TV screen, then press ⊕.

3 If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press ↑ or ↓ to select "TV System", then press ⊕.

(2) Press ↑ or ↓ until the sound becomes normal, then press ⊕.

4 If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "Fine" tuning feature.

(1) Press ↑ or ↓ to select "Fine", then press ⊕.

(2) Press ↑ or ↓ to select "Manual", then press ⊕.

(3) Press ↑,↓,← or → until the picture and sound quality are optimal, then press ⊕.

The + or – icon on the menu flashes while tuning.

5 If the TV signal is too strong (picture distorted; picture with lines; signal interference) or weak (snowy picture), you may be able to improve the picture quality by setting the "Signal Booster" feature.

(1) Press ↑ or ↓ to select "Signal Booster", then press ⊕.

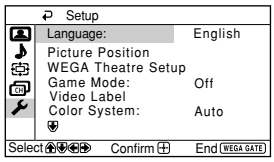
(2) Press ↑ or ↓ to select "Off" (for picture distorted; picture with lines; signal interference) or "Auto" (for snowy picture), then press ⊕.

■ Changing the “Setup” setting

The “Setup” menu allows you to change the menu language, adjust the picture position, setup WEGA Theatre Mode, adjust suitable picture setting for video games, label the connected equipment, select the color system, reduce your TV power consumption and reset your TV to factory settings.

1 Press WEGA GATE and select “Settings”.

2 Press ↑ or ↓ to select the “Setup” icon (🔧), then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., “Language”), then press ⊕.

Select	To
“Language”	change the menu language. Press ↑ or ↓ to select either “English”, “中文” (Chinese), “عربي” (Arabic) or “ไทย” (Thai), then press ⊕.
“Picture Position”	adjust the picture position when it is not aligned with the TV screen. Press ↑ or ↓ to select “Picture Rotation” or “Picture V-Position”, then press ⊕. Press ↑,↓,← or → to adjust the picture position, then press ⊕.
“WEGA Theatre Setup”	setup WEGA Theatre Mode for best picture, sound and surround effect enjoyment of a cinema (see page 12). Make sure “Direct Input” is selected, then press ⊕. Press ↑ or ↓ to select either “Video 1”, “Video 2”, “Video 3”, “HD/DVD 1” or “HD/DVD 2” for the connected equipment that you want to view with WEGA Theatre, then press ⊕.
“Game Mode”	adjust the picture setting that is suitable to view video games. Press ↑ or ↓ to select “On”, then press ⊕. To cancel, select “Off”, then press ⊕.

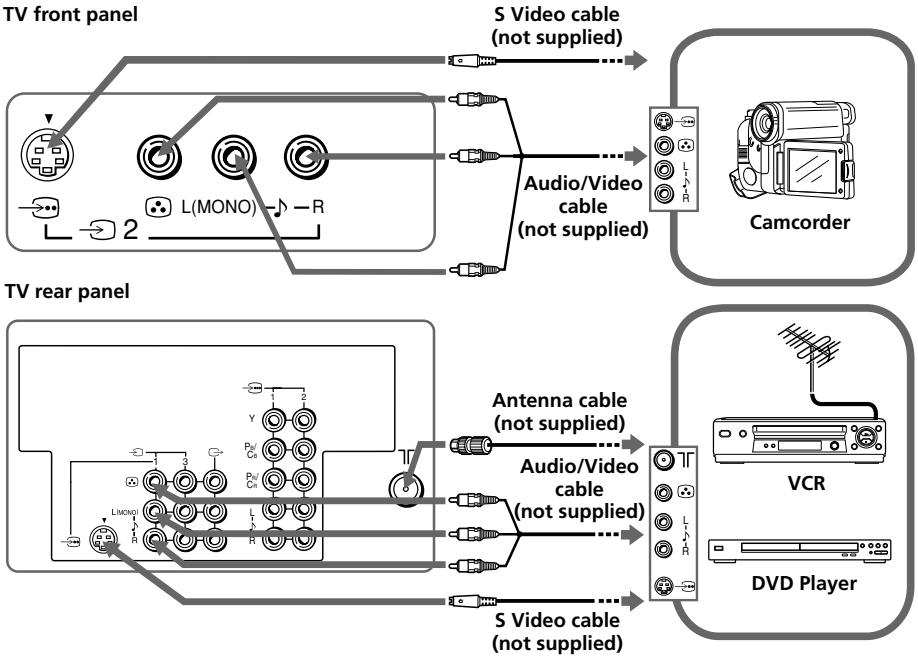
Select	To
"Video Label"	label the connected equipment. (1) Press ↑ or ↓ to select the input you want to label, then press ⊕. (2) Press ↑ or ↓ to select the label options: "Video 1"/"Video 2"/"Video 3"/ "HD/DVD 1"/"HD/DVD 2", "VCR", "SAT", "Game" or "Edit"*, then press ⊕. * You may edit the video label to your favorite name. Press ↑ or ↓ to select alphanumeric characters for the label, then press ⊕.
"Color System"	select the color system. Press ↑ or ↓ to select either "Auto", "PAL", "SECAM", "NTSC3.58" or "NTSC4.43", then press ⊕. Normally, set this to "Auto".
"Eco Mode"	reduce power consumption of your TV to save energy. Press ↑ or ↓ to select "On", then press ⊕. When you press ⓘ or turn on the TV, Eco Mode (ECO) symbol will appear on the screen for a while. To cancel, select "Off", then press ⊕.
"Factory Settings"	reset your TV to factory settings. Press ⊕ and press ↑ or ↓ to select "Yes", then press ⊕. To cancel, select "No", then press ⊕.

Notes

- You cannot adjust "Picture Rotation" and "Picture V-Position" when high-definition (1080i, 720p) signals are input.
- "Game Mode" is available only when receiving signals through the ⇨ (video input), ⇨ (S video input) or ⇨ (component video input) terminals.
- When HD (high-definition) or progressive signals are input, "Game Mode" does not function.

■ Connecting optional components

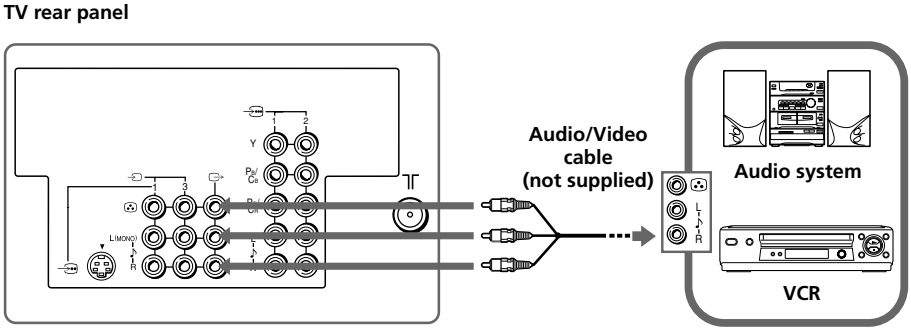
Connecting to the video input terminal ( )



Notes

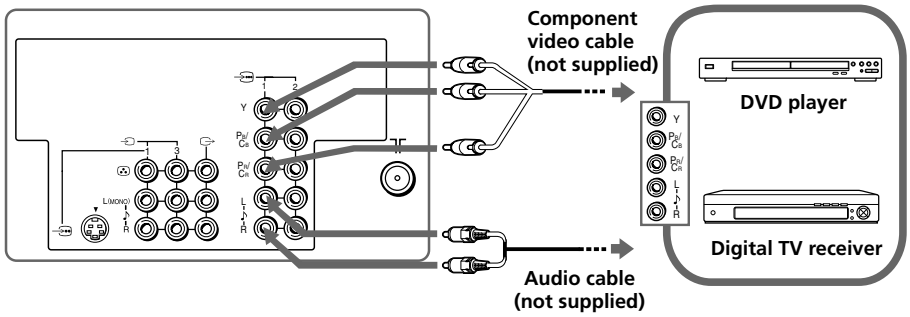
- If you connect a VCR to (antenna input), preset the signal output from the VCR to the program number 0 on the TV (see page 25).
- When both (S video) and (video) for 1 or 2 are connected at the same time, (S video) is automatically selected. To view (video), disconnect the S video cable.

Connecting to the monitor output terminal ( )



Connecting to the component video input terminal ( )

TV rear panel



Notes

- The component video terminals on your DVD player are sometimes labeled Y/C_B/C_R, Y/P_B/P_R, Y/C_b/C_r or Y/B-Y/R-Y.
- If you select "HD/DVD 1" or "HD/DVD 2" on your TV screen, the signal from the (monitor output) terminals will not be output properly. This does not indicate a malfunction.

Tip

- The TV accepts the following signal formats:

Total scanning line	Effective scanning line	fV (Hz)
1125i	1080i	50/60
750p	720p	50/60
625p	576p	50
625i	576i	50
525p	480p	60
525i	480i	60

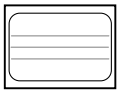
■ Troubleshooting

If you find any problem while viewing your TV, you can either use the "Factory Settings" function or check the Troubleshooting guide below. If the problem persists, contact your Sony dealer.

"Factory Settings" function

Press the WEGA GATE button. Choose "Settings" and go to "Setup" (🔧) menu. From "Setup" menu, select "Factory Settings". Then select "Yes" and press ⊕. Your TV will go blank for a few seconds, then the "Initial Setup" menu will appear. Your TV will be set to factory settings, but certain problems may be solved.

Symptom	Solutions
Snowy picture, noisy sound	• Check the antenna cable and connection on the TV, VCR and at the wall (see page 28). • Check the antenna setup. Contact a Sony dealer for advice. • Display the "Channel Setup" menu and select "Manual Program" to preset the channel again (see page 25). • Display the "Channel Setup" menu and set the "Signal Booster" to "Auto" from "Manual Program" (see page 25). • Try using an external booster.
Distorted picture, noisy sound	• Turn off or disconnect the external booster if it is in use. • Display the "Channel Setup" menu and set the "Signal Booster" to "Off" from "Manual Program"(see page 25).
Good picture, noisy sound	• Display the "Channel Setup" menu and select the appropriate "TV System" from "Manual Program" (see page 25).
No picture, no sound	• Check the power cord, antenna and VCR connections (see page 28). • Press I/⏻ (power) to turn on the TV (see page 9). • Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again (see page 8).
Good picture, no sound	• Press + to increase the volume level (see page 10). • Press 🔇 to cancel the muting (see page 9).
Dotted lines or stripes	• Do not use a hair dryer or other equipment near the TV. • Check the antenna setup. Contact a Sony dealer for advice.
Double images or "ghosts"	• Use the fine tuning ("Fine") function (see page 25). • Check the antenna setup. Contact a Sony dealer for advice. • Turn off or disconnect the external booster if it is in use.
No color	• Display the "Picture" menu and select "Custom" from "Picture Mode", then adjust the "Color" level from "Picture Adjustment" (see page 20). • Display the "Setup" menu and check the "Color System" setting (usually set this to "Auto") (see page 27). • Check the antenna setup. Contact a Sony dealer for advice.
Picture slant	• Keep external speakers or other electrical equipment away from the TV. • Display the "Picture Position" under "Setup" menu, then adjust "Picture Rotation" and "Picture V-Position" so that the picture is aligned to the TV screen (see page 26).

Symptom	Solutions
Abnormal color patches	• Keep external speakers or other equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about 15 minutes, then turn it on again to demagnetize the TV.
TV cannot receive stereo broadcast sound. **or** **Stereo broadcast sound switches on and off or is distorted.**	• Check the antenna cable and connection on the TV, VCR and at the wall (see page 28). • Check the antenna setup. Contact a Sony dealer for advice.
Teletext display is incomplete (snowy picture or double images).	• Check the antenna cable and connection on the TV, VCR and at the wall (see page 28). • Check the antenna setup. Contact a Sony dealer for advice. • Display the "Channel Setup" menu and set the "Signal Booster" to "Auto" from "Manual Program" (see page 25). • Use the fine tuning ("Fine") function (see page 25).
The ⏻ (standby) indicator on your TV flashes red several times after every three seconds.	• Count the number of times the ⏻ (standby) indicator flashes. Press ⏻ (main power) to turn off your TV. Contact your nearest Sony service center.
The TV screen sometimes goes blank for slightly longer than usual during channel change.	• The "Signal Booster" is functioning to detect a weak signal. This does not indicate a malfunction.
Cannot play shooting games.	• Some shooting games which involve pointing a light beam at the TV screen with an electronic gun or rifle cannot be used with your TV. For details, see the instruction manual supplied with the video game software.
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, causing a noise. This does not indicate a malfunction.
A small "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.
Thin lines appear on the TV screen. 	• The visible lines that sometimes appear on your TV screen are shadows from the damper wires used to stabilize the aperture grille of the Trinitron picture tube. This does not indicate a malfunction.

■ Specifications

	KV-DB34M61	KV-DB29M61	Note
Power requirements	110-240 V AC, 50/60 Hz		
Power consumption (W)	Indicated on the rear of the TV		
Television system	B/G, I, D/K, M		
Color system	PAL, PAL 60, SECAM, NTSC3.58, NTSC4.43		
Stereo/Bilingual system	NICAM Stereo/Bilingual B/G, I; A2 Stereo/Bilingual B/G		
Teletext language	English, Farsi (Persian), French		
Channel coverage			
B/G	VHF : E2 to E12 /UHF : E21 to E69 / CATV : S01 to S03, S1 to S41		
I	UHF : B21 to B68 /CATV : S01 to S03, S1 to S41		
D/K	VHF : C1 to C12, R1 to R12 / UHF : C13 to C57, R21 to R60 / CATV : S01 to S03, S1 to S41, Z1 to Z39		
M	VHF : A2 to A13 /UHF : A14 to A79 / CATV : A-8 to A-2, A to W+4, W+6 to W+84		
(Antenna)	75-ohm external terminal		
Audio output (Speaker)	10 W + 10 W		
Number of terminal			
(Video)	Input: 3 Output: 1	Phono jacks; 1 Vp-p, 75 ohms	
(Audio)	Input: 5 Output: 1	Phono jacks; 500 mVrms	
(S Video)	Input: 2	Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	
(Component Video)	Input: 2	Phono jacks; Y: 1 Vp-p, 75 ohms, sync negative P_B/C_B: 0.7 Vp-p, 75 ohms P_R/C_R: 0.7 Vp-p, 75 ohms	
(Headphone)	Output: 1	Stereo minijack	
Picture tube	34 in.	29 in.	
Tube size (cm)	86	72	Measured diagonally
Screen size (cm)	80	68	Measured diagonally
Dimensions (w/h/d, mm)	895 × 679 × 596	765 × 584 × 544	
Mass (kg)	76	49	

Design and specifications are subject to change without notice.

SONY

2-664-110-**11** (1)

Trinitron Color TV

Operating Instructions **GB**

- Before operating the unit, please read this manual thoroughly and retain it for future reference.

Инструкция по эксплуатации **RU**

- Перед работой с устройством внимательно прочтайте инструкцию и сохраните её для дальнейшего использования.

WEGA

KV-DB29

© 2005 Sony Corporation

M98
M91

WARNING

- Dangerously high voltages are present inside the TV.
- TV operating voltage: 220 – 240 V AC.
- Do not plug in the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid leaks from the batteries and touches your skin, immediately wash it away with water.

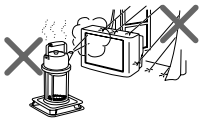
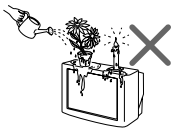
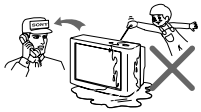
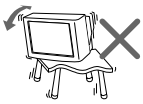
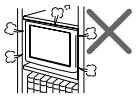
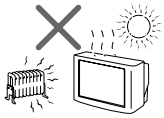
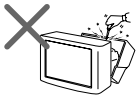
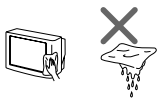
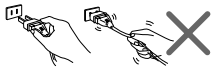
 For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.	 For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.	 To prevent fire or shock hazard, do not expose the TV to rain or moisture.
 Do not place any objects on the TV. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.	 Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.	 Install the TV on a stable TV stand and floor which can support the TV set weight. Ensure that the TV stand surface is flat and its area is larger than the bottom area of the TV.
 Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.	 Your TV is recommended for home use only. Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.	 Do not plug in too many appliances to the same power socket. Do not damage the power cord.
 Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.	 Clean the TV with a dry and soft cloth. Do not use benzine, thinner, or any other chemicals to clean the TV. Do not attach anything (e.g., adhesive tape, cellophane tape, glue) on the painted cabinet of the TV. Do not scratch the picture tube.	 Pull the power cord out by the plug. Do not pull the power cord itself. Even if your TV is turned off, it is still connected to the AC power source (mains) as long as the power cord is plugged in. Unplug the TV before moving it or if you are not going to use it for several days.

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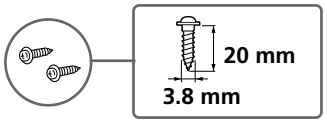
GB

Made in Malaysia.

Sony Corporation
6-7-35 Kitashinagawa,
Shinagawa-ku, Tokyo, 141-0001 Japan.

■ Securing the TV

To prevent the TV from falling, use the supplied screws, clamps and band to secure the TV.



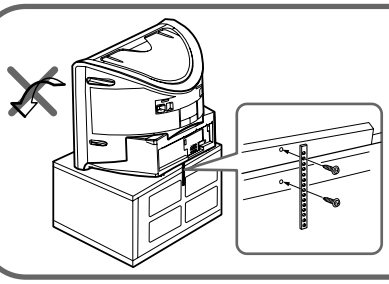
screws



clamps

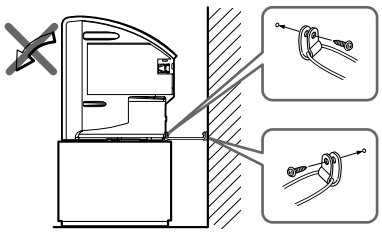


band



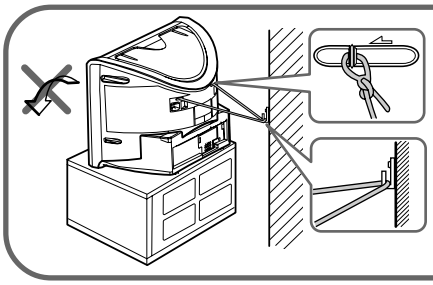
Screw the band to the TV stand and to the provided hole at the rear of your TV.

or



(1) Put a cord or chain through the clamps.
(2) Screw one clamp to a wall or pillar and the other clamp to the provided hole at the rear of your TV.

or

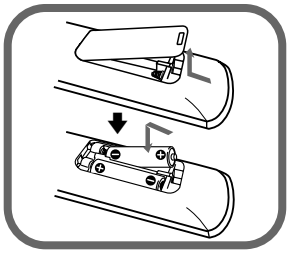


(1) Attach each end of a cord or chain to the provided holders at the rear of your TV.
(2) Securely fix the attached cord or chain to a wall or pillar using an attachment which can support the TV set weight.

Note

• Use only the supplied screws. Use of other screws may damage the TV.

■ Getting Started

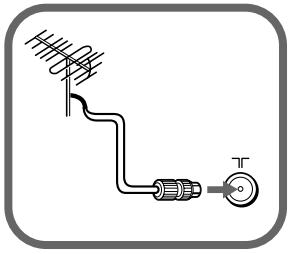


Step 1

Insert the batteries (supplied) into the remote.

Note

- Do not use old or different types of batteries together.

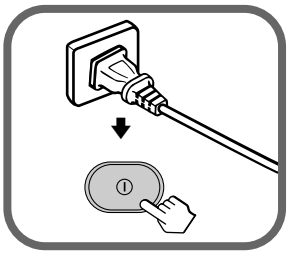


Step 2

Connect the antenna cable (not supplied) to ⅂ (antenna input) at the rear of the TV.

Tip

- You can also connect your TV to other optional components (see page 28).



Step 3

Plug in the power cord, then press ⏻ on the TV to turn it on.

Note

- The ⏻ (standby) indicator flashes green for a few seconds when turning on the TV. This does not indicate a malfunction.



Step 4

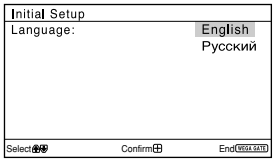
Set up the TV by following the instructions of the “Начальная настройка” (“Initial Setup”) menu (see page 6).

■ Setting up your TV (“Initial Setup”)

When you turn on your TV for the first time, the “Начальная настройка“ (“Initial Setup”) menu will appear. You may change the menu language, preset the TV channels automatically, sort or edit the channels and adjust the picture position using the buttons on the remote control or TV front panel.

1 Press ↑ or ↓ to select the desired menu language, then press ⊕.

The selected menu language appears.



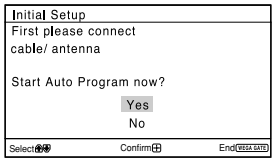
2 Press ↑ or ↓ to select “Yes”, then press ⊕ to preset the channels automatically.

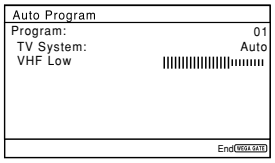
The screen will indicate automatic presetting is in progress.

After all available channels have been tuned and stored, the “Program Sorting/Edit” menu appears automatically on the screen.

To skip automatic channel presetting, select “No”, then press ⊕.

If the message “No channel found. Please connect cable/antenna” appears, check your TV connections, then press ⊕.





3 The “Program Sorting/Edit” menu enables you to sort and edit the channels.

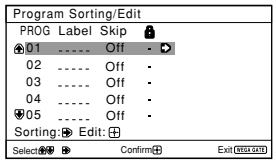
a) If you wish to keep the channels in the current condition, press WEGA GATE to exit.

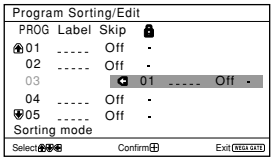
b) Press ↑ or ↓ to select the program number with the channel you wish to change. The selected channel will appear on the screen.

c) If you wish to store the channels in a different order:

1) Press → to enter sorting mode.

2) Press ↑ or ↓ to select the new program number position for your selected channel, then press ←.



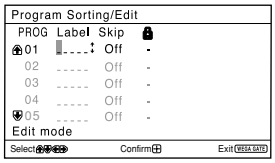


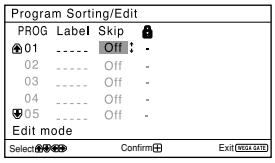
d) If you wish to edit the channels, press ⊕ to change to edit mode.

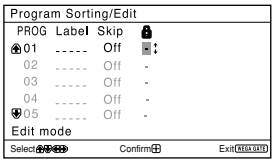
Press → until the mode that you wish to edit is highlighted: Label, Skip, 🔒 (block symbol). Then press ⊕.

1) To label, press ↑ or ↓ to select the alphanumeric characters for the label. Then press ⊕.
2) To skip the program number, press ↑ or ↓ to select "On". Then press ⊕.

   You can skip this program number when using PROG +/-.
3) To block unwanted program number, press ↑ or ↓ to select 🔒. Then press ⊕.





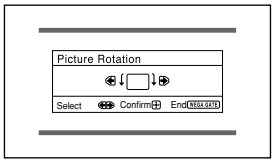


e) Repeat step b) to d) if you wish to change other channels.

Press WEGA GATE to go to the next menu.

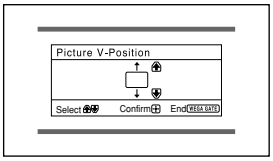
4 Press ← or → to adjust the bars on the top and bottom of the menu if they are slanted, then press ⊕.

"Picture V-Position" menu appears.



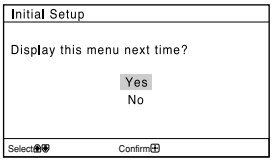
5 If the upper and lower bars are not equally positioned to the top and bottom of the screen, press ↑ or ↓ to adjust them, then press ⊕.

If no adjustment is necessary, then press ⊕.



6 To prevent this "Initial Setup" menu from appearing again when you turn on the TV by pressing ⏻, press ↑ or ↓ to select "No", then press ⊕.

To allow this menu to appear again, select "Yes", then press ⊕.



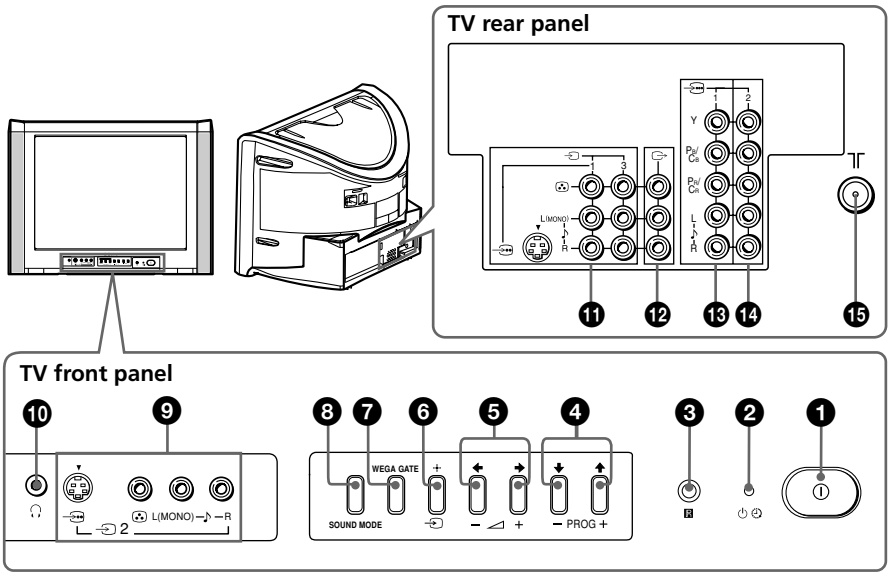
Tip

- You can immediately go to the end of the "Initial Setup" menu by pressing WEGA GATE.

Note

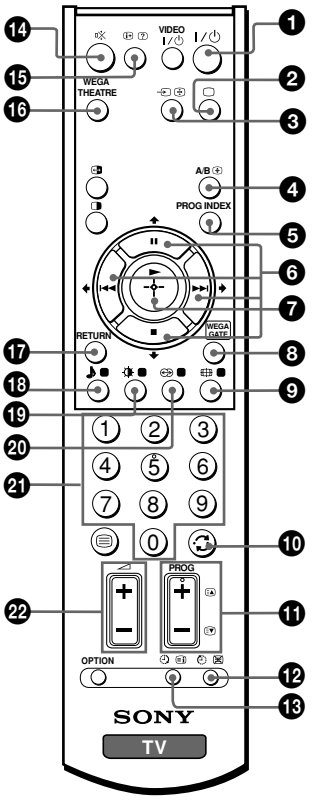
- Before adjusting "Picture Rotation" and "Picture V-Position", keep external speakers or other electrical equipment away from the TV. The magnetic disturbance from these equipments or the direction of the earth's magnetic field may affect the TV.

■ TV front and rear panels



Button/Terminal	Function	Page
❶ ⏻	Turn off or turn on the TV.	5
❷ ⏻	Standby indicator.	5
❷ 🕘	Wake Up indicator.	9
❸	Remote control sensor.	–
❹ PROG +/–	Select program number.	–
❺ +/–	Adjust volume.	–
❻	Select TV or video input.	28
WEGA GATE menu operations		
❹, ❺ ↑,↓,←,→	Select and adjust items.	16
❻	Confirm selected items.	16
❼ WEGA GATE	Display or cancel WEGA GATE menu.	16
❽ SOUND MODE	Select sound mode options with a 5-Band Graphic Equalizer display.	11
❾ 2	Video input terminal 2.	28
❿	Headphone jack.	–
⓫ 1, 3	Video input terminal 1, 3.	28
⓬	Monitor output terminal.	28
⓭ 1	Component video input terminal 1.	29
⓮ 2	Component video input terminal 2.	29
⓯	Antenna input terminal.	28

■ Using the remote control and basic functions



Button	Description	Page
❶ I/⏻	Turn off temporarily or turn on the TV.	–
❷ ▭	Display the TV program.	–
❸ ⇥	Select TV or video input.	28
Stereo/bilingual operations		
❹ A/B	Select stereo/bilingual mode.	13
❺ PROG INDEX	Not function for your TV.	–
WEGA GATE menu operations		
❻ ↑, ↓, ←, →	Select and adjust items.	16
❼ ⊕	Confirm selected items.	16
❽ WEGA GATE	Display or cancel WEGA GATE menu.	16
⓱ RETURN	Return to the previous level.	16
❾ ▭	Change the picture size: "4:3", "16:9" (16:9 wide mode).	–
❿ ↻	Jump to last program number that has been watched for at least five seconds.	–
⓫ PROG +/–	Select program number.	–
Timer operations		
⓬ ◷ (Sleep Timer)	Set TV to turn off automatically according to the desired period of time (max. of one hour and 30 min.).	–
⓭ ◷ (Wake Up Timer)	Set TV to turn on automatically according to the desired period of time (max. of 12 hours). The ◷ indicator on TV lights up amber once you set the wake up timer. If no buttons or controls are pressed for more than one hour after the TV is turned on using the wake up timer, the TV automatically goes into standby mode.	–
⓮ 🔇	Mute the sound.	–
⓯ i+	Display on-screen information.	–
⓰ WEGA THEATRE	Select WEGA Theatre Mode.	12

continue

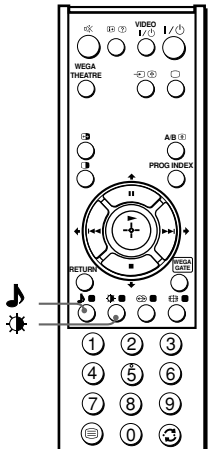
continued

Button	Description	Page
⓲ ♪	Select sound mode options with a 5-Band Graphic Equalizer display.	11
⓳	Select picture mode options.	11
⓴	Select surround mode options.	21
㉑ 0 – 9	Input numbers. For program numbers 10 and above, enter the second digit within two seconds.	–
㉒ +/–	Adjust volume.	–
TWIN picture operations		
, , ↑,↓,←,→	Not function for your TV.	–
Teletext operations (green label)		
, , , , , , , , (red, green, yellow, blue)	All buttons are used for Teletext operations.	14
Optional components operations		
VIDEO I/⏻, OPTION, ►, II, ■, I◄◄, ►►I, , +/–	For details, see “Operating optional components”.	15

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■ Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in the "Custom" option.



Selecting the picture mode

Press ☼ to select the desired picture mode.

Select	To view
"Vivid"	contrast and sharp pictures.
"Standard"	normal pictures.
"Custom"	the last adjusted picture setting from the "Picture Adjustment" option in the menu (see page 20).

Selecting the sound mode

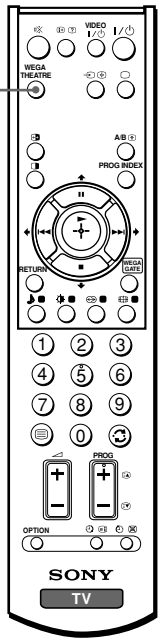
Press ♪ (or SOUND MODE on the front panel) to select the desired sound mode.

5-Band Graphic Equalizer display will appear.

Select		To listen to
"Dynamic"		dynamic and clear sound that emphasizes both the low and high tones.
"Standard"		sound that emphasizes voice and high tones.
"Custom"		the last adjusted sound setting from the "Sound Adjustment" option in the menu (see page 22).

■ Enjoying the WEGA Theatre Mode

The WEGA Theatre Mode enables you to enjoy the best picture, sound and surround effect of a cinema from a DVD source.



Setting up WEGA Theatre Mode

1. Place your TV and connected Sony equipment adjacent to each other so that you can control both the TV and the connected equipment by using the TV's remote control at the same time (see page 15).
2. Select the proper video input from "WEGA Theatre Setup" menu and turn on (main power) the connected equipment (see page 26).
3. See the table below. If the connected equipment is a Sony audio/video equipment, you can set up the remote to work with the connected equipment (see page 15).

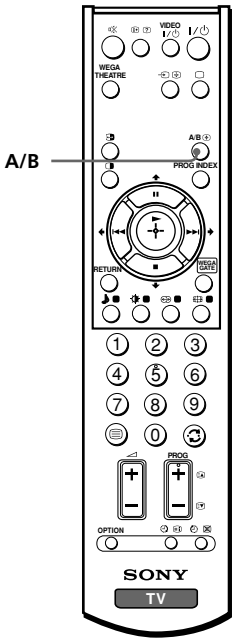
To	Press
switch to WEGA Theatre Mode	WEGA THEATRE. Be sure to aim the remote control at the TV set and connected equipment for about one second after the button is pressed. The connected equipment turns on automatically from standby mode and will start playing (only for Sony audio/video equipment). The "Picture Mode" and "Sound Mode" will switch automatically to "Custom" and you can adjust the setting to your personal preference (see pages 20 and 22).

Notes

- The WEGA Theatre Mode is automatically cancelled when you change the input mode or turn the TV off and on again.
- Some Sony equipment might not respond properly when WEGA THEATRE button is pressed. In this case, use the equipment's own remote control.

■ Enjoying stereo or bilingual programs

You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems by using the A/B button.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	NICAM (Stereo sound) → Mono (Regular sound)
NICAM bilingual	NICAM Main (Main sound) → NICAM Sub (Sub sound) → Mono (Regular sound)
NICAM monaural	NICAM Main (Main sound) → Mono (Regular sound)

When receiving an A2 program

Broadcasting	On-screen display (Selected sound)
A2 stereo	Stereo (Stereo sound) → Mono (Regular sound)
A2 bilingual	Main (Main sound) → Sub (Sub sound)

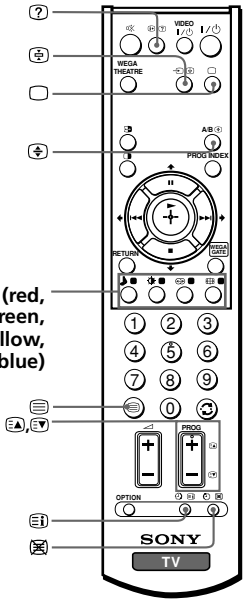
Note

- If the stereo sound is noisy when receiving a stereo program, select "Mono". The sound becomes monaural but the noise is reduced.

■ Viewing Teletext

Some TV stations broadcast an information service called Teletext which allows you to receive various information, such as stock market reports and news.

You can use the buttons on the remote to view Teletext.



To	Do this
display a Teletext page on the TV picture	Press ☰. Each time you press ☰, the screen changes as follows: Teletext → Teletext and TV → TV. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen.
check the contents of a Teletext service	Press ⓘ. An overview of the Teletext contents, including page numbers, appears on the screen.
select a Teletext page	Press the number buttons to enter the three-digit page number of the desired Teletext page. If you make a mistake, reenter the correct page number. To access the next or previous page, press ▲ or ▼.
hold (pause) a Teletext display	Press ⏸ to display the symbol "⏸" at the top left corner of the screen. To resume normal Teletext viewing, press ⏸.
reveal concealed information (e.g., an answer to a quiz)	Press ?. To conceal the information, press the button again.
enlarge the Teletext display	Press ⇕. Each time you press ⇕, the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
stand by for a Teletext page while watching a TV program	(1) Enter the Teletext page number that you want to refer to, then press ⊠. (2) When the page number is displayed, press ☰ to show the text.
select a FASTEXT menu or the colored boxes	Press ● (red, green, yellow and blue) that corresponds to the desired menu or page number.
turn off Teletext	Press ▭.

Notes

- The FASTEXT feature can be used only when the FASTEXT broadcast is available.
- Teletext is automatically cancelled when there is no signal or the frequency of input signal is not within the proper range.

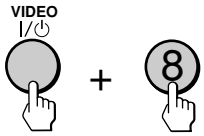
■ Operating optional components

You can use the supplied remote to operate Sony audio/video equipment.

Setting up the remote to work with other connected equipment

While keeping VIDEO I/⏻ pressed, press the corresponding number button for the desired equipment (see the chart below).

For example, to operate a Sony 8 mm VCR:



To control	Hold down VIDEO I/⏻ and press
Audio System 1, 1x, 2 or 3	0, 1, 2, or 3
DVD 1, 2 or 3	4, 5 or 6
VTR1 (Beta), VTR2 (8 mm) or VTR3 (VHS)	7, 8 or 9

Operating audio/video equipment

Press VIDEO I/⏻ or while keeping OPTION pressed, press ►, ■, I◄◄, ►►I, ❚❚, 🔇 or ◿ +/– (see the chart below).

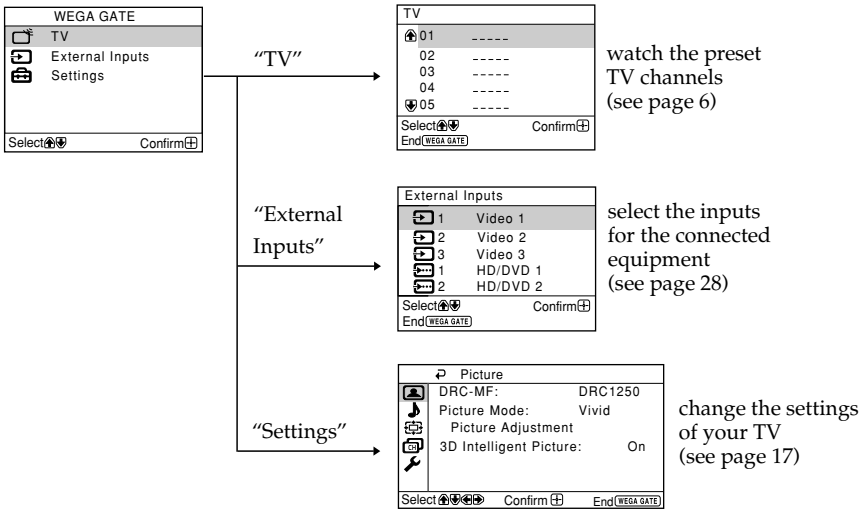
To	Press
turn on/off	VIDEO I/⏻
play	► while keeping OPTION pressed.
stop	■ while keeping OPTION pressed.
fast forward/ step forward or rewind/ step backward	►►I or I◄◄ while keeping OPTION pressed.
pause	❚❚ while keeping OPTION pressed. Press again to resume normal playback.
mute the sound (Audio System 1, 1x, 2 or 3 only)	🔇 while keeping OPTION pressed.
adjust volume (Audio System 1, 1x, 2 or 3 only)	◿ +/– while keeping OPTION pressed.

Notes

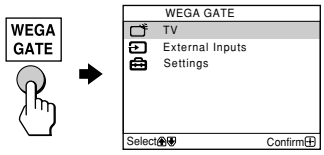
- If the equipment does not have a certain function, the corresponding button on the remote will not operate.
- Some equipment might not respond properly to buttons on TV's remote. In this case, use the equipment's own remote control.

■ Introducing the WEGA GATE navigator

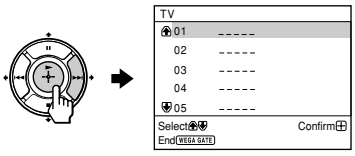
WEGA GATE is a gateway that allows you access to preset TV channels, connected external inputs and "Settings" menu.



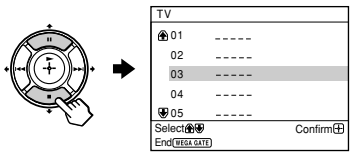
How to use WEGA GATE



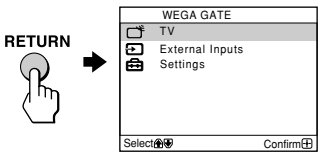
(1) Press WEGA GATE to display or cancel the WEGA GATE menu.



(2) Press ⊕ (or →) to confirm your selection or go to the next level.



(3) Press ↑ or ↓ to select the desired item.



(4) Press RETURN to move to the previous level.

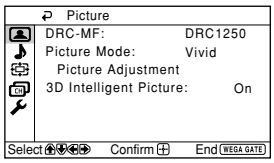
Tip

- The WEGA GATE, ⊕ and ↑,↓,←,→ buttons on the front panel can also be used for the operations above.

■ “Settings” Adjustment

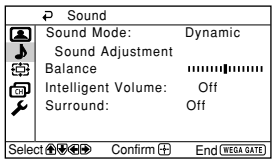
You are able to change the settings of your TV from “Settings” in WEGA GATE menu.
Press WEGA GATE button to display WEGA GATE menu. Press ↑ or ↓ to select “Settings” and press ⊕.

The following is an overview of the items that can be adjusted.



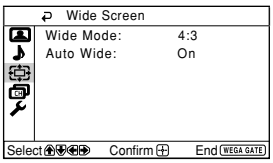
“Picture” (see page 19)

“DRC-MF”: “DRC1250” → “DRC100” → “Progressive”
“Picture Mode”: “Vivid” → “Standard” → “Custom”
“Picture Adjustment”: “Picture”, “Brightness”, “Color”, “Hue”, “Sharpness”, “Color Temperature”, “Reset”
“3D Intelligent Picture”: “On” → “Off” (KV-DB29M98 only)
“Intelligent Picture”: “On” → “Off” (KV-DB29M91 only)
“NR”: “High” → “Low” → “Off” (KV-DB29M91 only)



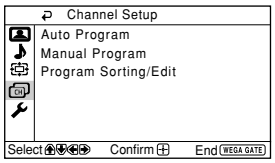
“Sound” (see page 21)

“Sound Mode”: “Dynamic” → “Standard” → “Custom”
“Sound Adjustment”: “Adjust”, “Reset”
“Balance”
“Intelligent Volume”: “On” → “Off”
“Surround”: “On” → “Simulated” → “Off”



“Wide Screen” (see page 23)

“Wide Mode”: “16:9” → “4:3”
“Auto Wide”: “On” → “Off”



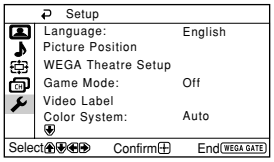
“Channel Setup” (see page 24)

“Auto Program”
“Manual Program”
- “Program”: “00” - “99”
- “TV System”: “B/G” → “I” → “D/K” → “M”
- “VHF Low”/“VHF High”/“UHF”
- “Fine”: “Auto” → “Manual”
- “Signal Booster”: “Auto” → “Off”

“Program Sorting/Edit”

continue

continued



"Setup" (see page 26)

"Language": "English" → "Русский" (Russian)
"Picture Position": "Picture Rotation", "Picture V-Position"
"WEGA Theatre Setup": "Direct Input"
"Game Mode": "On" → "Off"
"Video Label"
"Color System": "Auto" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"
"Eco Mode": "On" → "Off"
"Factory Settings": "Yes" → "No"

Note

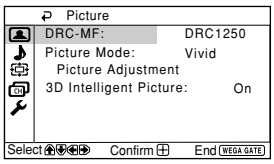
- When a feature is dimmed in the menu, it is not selectable.

■ Changing the “Picture” setting

The “Picture” menu allows you to adjust the picture settings.

1 Press WEGA GATE and select “Settings”.

2 Make sure the “Picture” icon ( ) is selected, then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., “DRC-MF”), then press ⊕.

Select	To
“DRC-MF”	choose either “DRC1250” (for high density pictures), “DRC100” (reduce flicker on the screen) or “Progressive” (reduce jitter of any small areas or scanning lines on the screen).
“Picture Mode”	choose either “Vivid”, “Standard” or “Custom”* (see page 11).
“3D Intelligent Picture” (KV-DB29M98 only)	optimize picture quality. Automatically, the picture will become clearer and sharper if the signal is good and noise will be reduced if the signal is noisy. Press ↑ or ↓ to select “On”, then press ⊕. To cancel, select “Off”, then press ⊕.
“Intelligent Picture” (KV-DB29M91 only)	optimize picture quality. Press ↑ or ↓ to select “On”, then press ⊕. To cancel, select “Off”, then press ⊕.
“NR” (Noise Reduction) (KV-DB29M91 only)	optimize overall picture sharpness to reduce noise. Choose either “High”, “Low” or “Off”.

* You can adjust the setting to your personal preference in the “Picture Adjustment” option only when the “Custom” mode is selected (see page 20).

Notes

- The DRC-MF mode is not selectable when “Game Mode” mode is turned “On”. The mode is not available for HD (high-definition) and progressive input signals.
- “3D Intelligent Picture” is not available in HD and progressive input signal (KV-DB29M98 only).
- For NTSC 3.58 color system, “3D Comb Filter: On” or “3D-NR: On” display will appear when “3D Intelligent Picture” changes from one mode to the other. For PAL color system, Digital Comb Filter and 3D-NR are also available (KV-DB29M98 only).
- “NR” is not selectable when receiving signals through the (S video input) or (component video input) terminals (KV-DB29M91 only).

The DRC-MF logo (DRC-MF Digital Reality Creation) and “DRC-MF” are trademarks of Sony Corporation.

continue

continued

Adjusting the "Picture Adjustment" items under "Custom" mode

1 Press ↑ or ↓ to select either "Picture" (contrast), "Brightness", "Color", "Hue" (color tones),"Sharpness" or "Color Temperature" (choose either "Cool", "Neutral" or "Warm"), then press ⊕.

Selecting "Reset" will set your TV to the factory settings.

2 Press ↑,↓,← or → to adjust the setting of your selected item, then press ⊕.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "Custom".

Notes

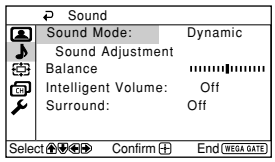
- "Hue" can be adjusted for the NTSC color system only.
- Reducing "Sharpness" can also reduce picture noise.

■ Changing the “Sound” setting

The “Sound” menu allows you to adjust the sound settings.

1 Press WEGA GATE and select “Settings”.

2 Press ↑ or ↓ to select the “Sound” icon (♪), then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., “Sound Mode”), then press ⊕.

Select	To
“Sound Mode”	choose either “Dynamic”, “Standard” or “Custom”* (see page 11).
“Balance”	Press ↓ or ← to emphasize the left speaker. Press ↑ or → to emphasize the right speaker.
“Intelligent Volume”	adjust the volume of all program numbers and video inputs automatically. Press ↑ or ↓ to select “On”, then press ⊕. To cancel, select “Off”, then press ⊕.
“Surround”	choose either “On” (surround), “Simulated” (stereo-like monaural sound) or “Off”.

* You can adjust the setting to your personal preference in the “Sound Adjustment” option only when the “Custom” mode is selected (see page 22).

continue

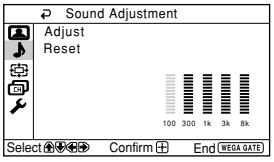
continued

Adjusting the "Sound Adjustment" items under "Custom" mode

The 5-Band Graphic Equalizer feature allows you to adjust sound frequency settings of "Custom" mode in the menu.

1 Make sure that "Adjust" is selected, then press ⊕.

Selecting "Reset" will set your TV to the factory settings.



2 Press ← or → to select the desired sound frequency, then press ↑ or ↓ to adjust the setting and press ⊕.

The adjusted settings will be received when you select "Custom".

Notes

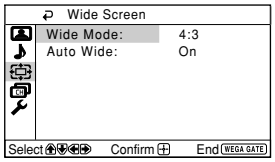
- Adjusting higher frequency will affect higher pitched sound and adjusting lower frequency will affect lower pitched sound.
- You may display the settings directly by using the SOUND MODE button on the TV front panel (see page 8) or ♪ button on the remote control (see page 10).

■ Changing the “Wide Screen” setting

The “Wide Screen” menu allows you to view the picture with optimal effect when receiving wide-mode (16:9) picture signal.

1 Press WEGA GATE and select “Settings”.

2 Press ↑ or ↓ to select the “Wide Screen” icon ( ), then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., “Wide Mode”), then press ⊕.

Select	To
“Wide Mode”	change the size of the picture when receiving wide-mode (16:9) picture signal. Choose “16:9”. To restore the normal picture size, select “4:3”, then press ⊕.
“Auto Wide”	display the picture in optimum wide screen automatically when you choose “On”. To cancel, select “Off”, then press ⊕.

Tip

- You can also change to wide-mode picture size by pressing the button on the remote control (see page 9).

Notes

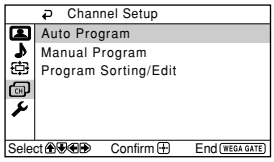
- “Wide Mode” is not selectable for high-definition (1080i, 720p) input signals. For HD (1080i, 720p) input signals, your TV will always display wide mode picture.
- “Auto Wide” is only available when receiving 576i, 480p and 480i input signals.

■ Changing the "Channel Setup" setting

The "Channel Setup" menu allows you to preset channels automatically, manually preset channels and sort or edit the channels.

1 Press WEGA GATE and select "Settings".

2 Press ↑ or ↓ to select the "Channel Setup" icon (), then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., "Auto Program"), then press ⊕.

Select	To
"Auto Program"	preset channels automatically.
"Manual Program"	manually preset desired channels and channels that cannot be preset automatically (see **Presetting channels manually** in page 25).
"Program Sorting/Edit"	change the order in which the channels appear on the screen, label the program number, skip the program number and block unwanted programs. (see step 3 of the section "Initial Setup" in page 6).

Notes

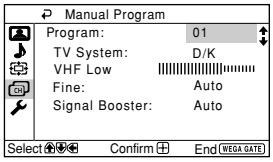
- If you preset a blocked program number, that program number will be unblocked automatically.
- If you sort a blocked program, that program will remain blocked.

Presetting channels manually

1 After selecting "Manual Program", select the program number to which you want to preset a channel.

(1) Make sure "Program" is selected, then press ⊕.

(2) Press ↑ or ↓ until the program number you want to preset appears on the menu, then press ⊕.



2 Select the desired channel.

(1) Make sure either "VHF Low", "VHF High" or "UHF" is selected, then press ⊕.

(2) Press ↑ or ↓ until the desired channel's broadcast appears on the TV screen, then press ⊕.

3 If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press ↑ or ↓ to select "TV System", then press ⊕.

(2) Press ↑ or ↓ until the sound becomes normal, then press ⊕.

4 If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "Fine" tuning feature.

(1) Press ↑ or ↓ to select "Fine", then press ⊕.

(2) Press ↑ or ↓ to select "Manual", then press ⊕.

(3) Press ↑,↓,← or → until the picture and sound quality are optimal, then press ⊕.

The + or – icon on the menu flashes while tuning.

5 If the TV signal is too strong (picture distorted; picture with lines; signal interference) or weak (snowy picture), you may be able to improve the picture quality by setting the "Signal Booster" feature.

(1) Press ↑ or ↓ to select "Signal Booster", then press ⊕.

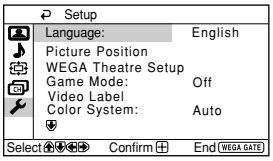
(2) Press ↑ or ↓ to select "Off" (for picture distorted; picture with lines; signal interference) or "Auto" (for snowy picture), then press ⊕.

■ Changing the “Setup” setting

The “Setup” menu allows you to change the menu language, adjust the picture position, setup WEGA Theatre Mode, adjust suitable picture setting for video games, label the connected equipment, select the color system, reduce your TV power consumption and reset your TV to factory settings.

1 Press WEGA GATE and select “Settings”.

2 Press ↑ or ↓ to select the “Setup” icon (🔧), then press ⊕.



3 Press ↑ or ↓ to select the desired item (e.g., “Language”), then press ⊕.

Select	To
“Language”	change the menu language. Press ↑ or ↓ to select either “English” or “Русский” (Russian), then press ⊕.
“Picture Position”	adjust the picture position when it is not aligned with the TV screen. Press ↑ or ↓ to select “Picture Rotation” or “Picture V-Position”, then press ⊕. Press ↑,↓,← or → to adjust the picture position, then press ⊕.
“WEGA Theatre Setup”	setup WEGA Theatre Mode for best picture, sound and surround effect enjoyment of a cinema (see page 12). Make sure “Direct Input” is selected, then press ⊕. Press ↑ or ↓ to select either “Video 1”, “Video 2”, “Video 3”, “HD/DVD 1” or “HD/DVD 2” for the connected equipment that you want to view with WEGA Theatre, then press ⊕.
“Game Mode”	adjust the picture setting that is suitable to view video games. Press ↑ or ↓ to select “On”, then press ⊕. To cancel, select “Off”, then press ⊕.

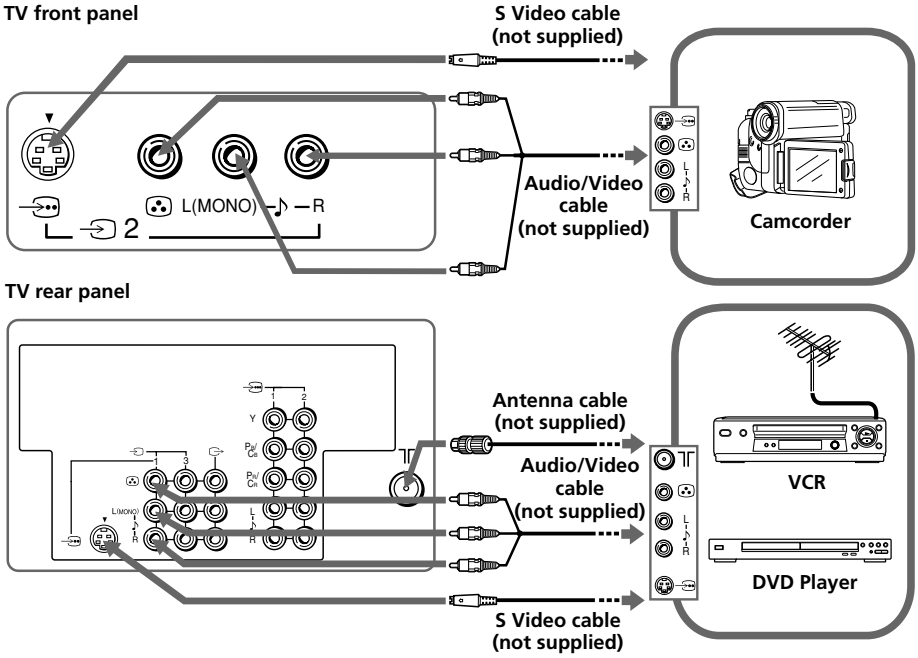
Select	To
"Video Label"	label the connected equipment. (1) Press ↑ or ↓ to select the input you want to label, then press ⊕. (2) Press ↑ or ↓ to select the label options: "Video 1"/"Video 2"/"Video 3"/ "HD/DVD 1"/"HD/DVD 2", "VCR", "SAT", "Game" or "Edit"*, then press ⊕. * You may edit the video label to your favorite name. Press ↑ or ↓ to select alphanumeric characters for the label, then press ⊕.
"Color System"	select the color system. Press ↑ or ↓ to select either "Auto", "PAL", "SECAM", "NTSC3.58" or "NTSC4.43", then press ⊕. Normally, set this to "Auto".
"Eco Mode"	reduce power consumption of your TV to save energy. Press ↑ or ↓ to select "On", then press ⊕. When you press ⓘ or turn on the TV, Eco Mode (ECO) symbol will appear on the screen for a while. To cancel, select "Off", then press ⊕.
"Factory Settings"	reset your TV to factory settings. Press ⊕ and press ↑ or ↓ to select "Yes", then press ⊕. To cancel, select "No", then press ⊕.

Notes

- You cannot adjust "Picture Rotation" and "Picture V-Position" when high-definition (1080i, 720p) signals are input.
- "Game Mode" is available only when receiving signals through the ⇨ (video input), ⇨ (S video input) or ⇨ (component video input) terminals.
- When HD (high-definition) or progressive signals are input, "Game Mode" does not function.

■ Connecting optional components

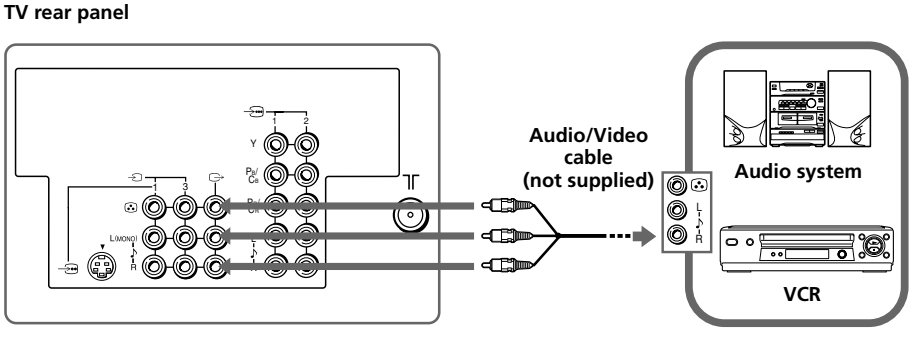
Connecting to the video input terminal ( )



Notes

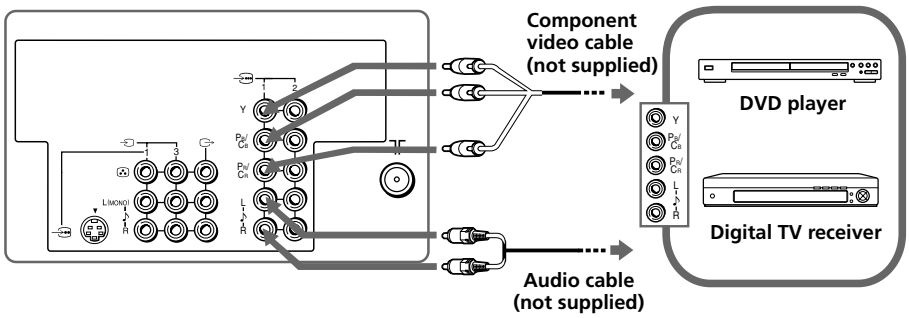
- If you connect a VCR to (antenna input), preset the signal output from the VCR to the program number 0 on the TV (see page 25).
- When both (S video) and (video) for 1 or 2 are connected at the same time, (S video) is automatically selected. To view (video), disconnect the S video cable.

Connecting to the monitor output terminal ( )



Connecting to the component video input terminal ( )

TV rear panel



Notes

- The component video terminals on your DVD player are sometimes labeled Y/C_B/C_R, Y/P_B/P_R, Y/C_b/C_r or Y/B-Y/R-Y.
- If you select "HD/DVD 1" or "HD/DVD 2" on your TV screen, the signal from the (monitor output) terminals will not be output properly. This does not indicate a malfunction.

Tip

- The TV accepts the following signal formats:

Total scanning line	Effective scanning line	fV (Hz)
1125i	1080i	50/60
750p	720p	50/60
625p	576p	50
625i	576i	50
525p	480p	60
525i	480i	60

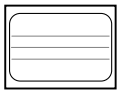
■ Troubleshooting

If you find any problem while viewing your TV, you can either use the "Factory Settings" function or check the Troubleshooting guide below. If the problem persists, contact your Sony dealer.

"Factory Settings" function

Press the WEGA GATE button. Choose "Settings" and go to "Setup" (🔧) menu. From "Setup" menu, select "Factory Settings". Then select "Yes" and press ⊕. Your TV will go blank for a few seconds, then the "Initial Setup" menu will appear. Your TV will be set to factory settings, but certain problems may be solved.

Symptom	Solutions
Snowy picture, noisy sound	• Check the antenna cable and connection on the TV, VCR and at the wall (see page 28). • Check the antenna setup. Contact a Sony dealer for advice. • Display the "Channel Setup" menu and select "Manual Program" to preset the channel again (see page 25). • Display the "Channel Setup" menu and set the "Signal Booster" to "Auto" from "Manual Program" (see page 25). • Try using an external booster.
Distorted picture, noisy sound	• Turn off or disconnect the external booster if it is in use. • Display the "Channel Setup" menu and set the "Signal Booster" to "Off" from "Manual Program"(see page 25).
Good picture, noisy sound	• Display the "Channel Setup" menu and select the appropriate "TV System" from "Manual Program" (see page 25).
No picture, no sound	• Check the power cord, antenna and VCR connections (see page 28). • Press I/⏻ (power) to turn on the TV (see page 9). • Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again (see page 8).
Good picture, no sound	• Press + to increase the volume level (see page 10). • Press 🔇 to cancel the muting (see page 9).
Dotted lines or stripes	• Do not use a hair dryer or other equipment near the TV. • Check the antenna setup. Contact a Sony dealer for advice.
Double images or "ghosts"	• Use the fine tuning ("Fine") function (see page 25). • Check the antenna setup. Contact a Sony dealer for advice. • Turn off or disconnect the external booster if it is in use.
No color	• Display the "Picture" menu and select "Custom" from "Picture Mode", then adjust the "Color" level from "Picture Adjustment" (see page 20). • Display the "Setup" menu and check the "Color System" setting (usually set this to "Auto") (see page 27). • Check the antenna setup. Contact a Sony dealer for advice.
Picture slant	• Keep external speakers or other electrical equipment away from the TV. • Display the "Picture Position" under "Setup" menu, then adjust "Picture Rotation" and "Picture V-Position" so that the picture is aligned to the TV screen (see page 26).

Symptom	Solutions
Abnormal color patches	• Keep external speakers or other equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about 15 minutes, then turn it on again to demagnetize the TV.
TV cannot receive stereo broadcast sound. **or** **Stereo broadcast sound switches on and off or is distorted.**	• Check the antenna cable and connection on the TV, VCR and at the wall (see page 28). • Check the antenna setup. Contact a Sony dealer for advice.
Teletext display is incomplete (snowy picture or double images).	• Check the antenna cable and connection on the TV, VCR and at the wall (see page 28). • Check the antenna setup. Contact a Sony dealer for advice. • Display the "Channel Setup" menu and set the "Signal Booster" to "Auto" from "Manual Program" (see page 25). • Use the fine tuning ("Fine") function (see page 25).
The ⏻ (standby) indicator on your TV flashes red several times after every three seconds.	• Count the number of times the ⏻ (standby) indicator flashes. Press ⏻ (main power) to turn off your TV. Contact your nearest Sony service center.
The TV screen sometimes goes blank for slightly longer than usual during channel change.	• The "Signal Booster" is functioning to detect a weak signal. This does not indicate a malfunction.
Cannot play shooting games.	• Some shooting games which involve pointing a light beam at the TV screen with an electronic gun or rifle cannot be used with your TV. For details, see the instruction manual supplied with the video game software.
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, causing a noise. This does not indicate a malfunction.
A small "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.
Thin lines appear on the TV Screen. 	• The visible lines that sometimes appear on your TV screen are shadows from the damper wires used to stabilize the aperture grille of the Trinitron picture tube. This does not indicate a malfunction.

■ Specifications

	KV-DB29M98 KV-DB29M91	Note
Power requirements	220-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC3.58, NTSC4.43	
Stereo/Bilingual system	NICAM Stereo/Bilingual B/G, I, D/K; A2 Stereo/Bilingual B/G	
Teletext language	Russian, English	
Channel coverage		
B/G	VHF : E2 to E12 /UHF : E21 to E69 / CATV : S01 to S03, S1 to S41	
I	UHF : B21 to B68 /CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 / UHF : C13 to C57, R21 to R60 / CATV : S01 to S03, S1 to S41, Z1 to Z39	
M	VHF : A2 to A13 /UHF : A14 to A79 / CATV : A-8 to A-2, A to W+4, W+6 to W+84	
(Antenna)	75-ohm external terminal	
Audio output (Speaker)	10 W + 10 W	
Number of terminal		
(Video)	Input: 3 Output: 1 Phono jacks; 1 Vp-p, 75 ohms	
(Audio)	Input: 5 Output: 1 Phono jacks; 500 mVrms	
(S Video)	Input: 2 Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	
(Component Video)	Input: 2 Phono jacks; Y: 1 Vp-p, 75 ohms, sync negative P_B/C_B: 0.7 Vp-p, 75 ohms P_R/C_R: 0.7 Vp-p, 75 ohms	
(Headphone)	Output: 1 Stereo minijack	
Picture tube	29 in.	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimensions (w/h/d, mm)	765 × 584 × 544	
Mass (kg)	49	

Design and specifications are subject to change without notice.