Self Diagnosis Supported model

SERVICE MANUAL RA-6 CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KP-51WS500	*RM-Y909*	*US/CND*	*SCC-P65HA*
KP-57WS500	*RM-Y909*	*US/CND*	*SCC-P65JA*
KP-65WS500	*RM-Y909*	*US/CND*	*SCC-P65KA*

CORRECTION - 1

SUBJECT: HV HOLD DOWN CIRCUIT OPERATION
CHECK AND ADJUSTMENT TABLE
CORRECTED
ADDED LOCATOR LISTS

Correct the service manual as shown.
File this Correction with the service manual.

☛ : Corrected Item

Section 3: Safety-Related Adjustments (Page 45)
3-2. HV Hold Down Circuit Operation Check and Adjustment
(C8188 should be C8118)

Section 5: Diagrams (Page 49, 62, 72 & 73)
5-2. Printed Wiring Boards and Schematic Diagrams Information
(C8188 should be C8118)
5-4. Schematics and Supporting Information
Added Locator Lists to D and A PWBs

COLOR REAR VIDEO PROJECTOR

SONY

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

English
2002JJ74WEB-1
Printed in USA

9-965-932-91

SECTION 3: SAFETY-RELATED ADJUSTMENTS

D BOARD

3-1. HV REGULATION CIRCUIT CHECK AND ADJUSTMENT

When replacing the following components marked with a ◪ on the schematic diagram always check the HV regulation, and if necessary re-adjust.

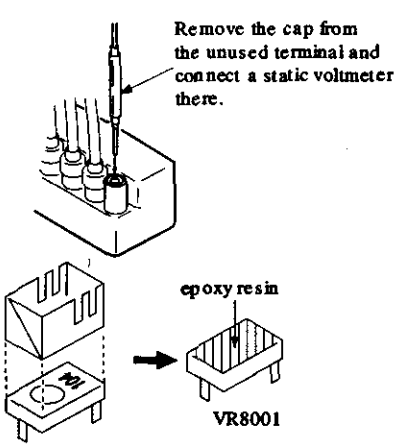
Part Replaced (◪)	Adjustment (⊠)
A BOARD: C8079, C8083, C8090, C8129, D8013, D8015, D8038, D8043, IC8006, Q8021, R8055, R8099, R8102, R8128, R8129, R8131, R8139, R8140, R8142, R8153, R8163, R8223, R8230, T8004 (LOT), T8005 (FBT), HV Block, D Board	**HV REGULATOR** VR8001

OPERATION CHECK

1. Receive the all white signal.
2. Set PIC MAX/BRT CENT.
3. Confirm that the voltage between CN8015 ① PIN and GND is less than 7.80VDC.

HV REGULATION ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Receive the all white signal.
4. Set PIC MAX/BRT CENT.
5. Confirm that the static voltmeter reading is 31.0 ± 0.4V.
   If not, adjust with VR8001 to the specified value.
6. After adjustment, put the VR cover on VR8001 (as shown below) and apply sufficient amount of epoxy resin around VR8001.



3-2. HV HOLD DOWN CIRCUIT OPERATION CHECK AND ADJUSTMENT

When replacing the following components marked with a ◪ on the schematic diagram always check the hold-down voltage and re-adjust when necessary.

Part Replaced (◪)	Adjustment (⊠)
A BOARD: C8054, C8086, C8088, C8100, C8104, C8118, C8123, C8124, D8019, D8020, D8022, D8028, D8036, FB8001, IC8008, Q8035, Q8038, R8035, R8043, R8159, R8166, R8171, R8196, R8201, T8004 (LOT), T8005 (FBT), HV Block, D Board	**HV HOLD DOWN** VR8002

OPERATION CHECK

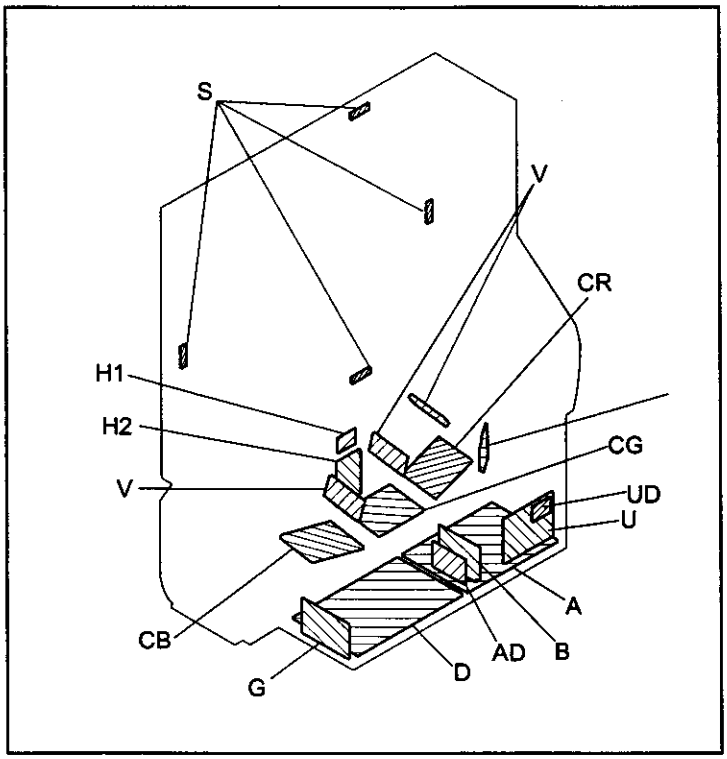
1. Receive the dot signal.
2. Set PIC MIN/BRT MIN.
3. Confirm that the voltage between cathode of D8038 (JW171) and GND is more than 23.0V DC.
4. Using an external DC Power supply, apply the voltage shown below between cathode of D8038 (JW171) on "D" and GND, then confirm that the HV-Prot circuit works. (Raster disappears)
   Apply DC voltage: Less than 29.05V DC.

HV HOLD-DOWN ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Connect an external 10kΩ VR at CN8015 and adjust this VR so that the high voltage is 34.50kV.
4. Adjust VR8002 to the point that the HV-Prot circuit works (Raster disappears) at 34.50 ± 0.50kV reading on the static voltmeter.
5. After adjustment, put the VR cover on VR8002 and apply sufficient amount of epoxy resin around VR8002 as the same manner for VR8001.

SECTION 5: DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



5-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS INFORMATION

All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.

All electrolytics are in 50V unless otherwise specified.

All resistors are in ohms. K=1000, M=1000k

Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm

Rating electrical power : $^1/_4$W

$^1/_4$W in resistance, $^1/_{10}$W and $^1/_8$W in chip resistance.

: nonflammable resistor.

: fusible resistor.

: internal component.

: panel designation and adjustment for repair.

: earth ground

: earth-chassis

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

Readings are taken with a NTSC color-bar signal input.

Readings are taken with a 10M digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibility.

: B+ line

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

: signal path. (RF)

Circled numbers are waveform references.

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

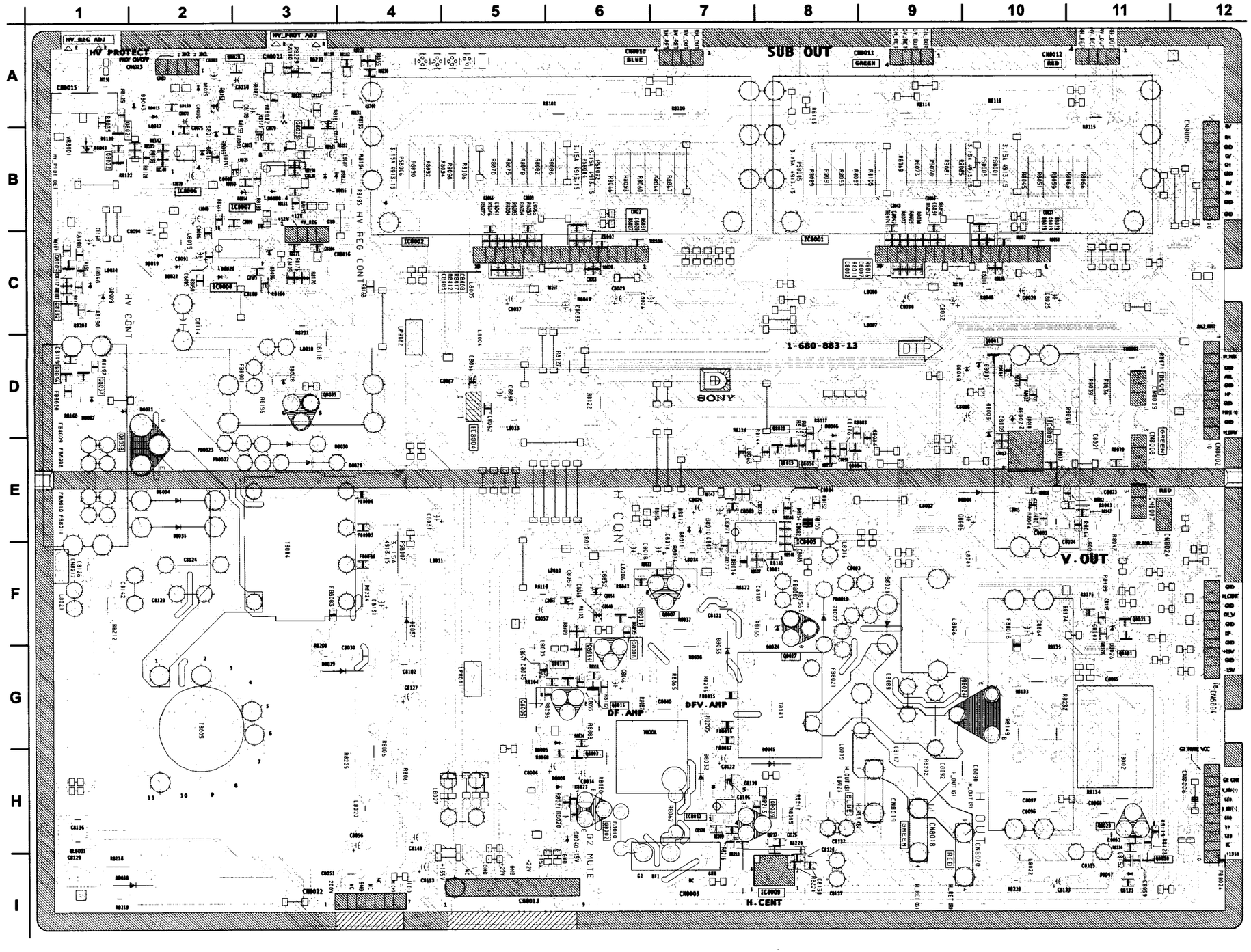
When replacing components identified by ◪, make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved.

(Refer to adjustments in Sections 3-1 and 3-2.)

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

Part Replaced (◪)	Adjustment (⋈)
A BOARD: C8079, C8083, C8090, C8129, D8013, D8015, D8038, D8043, IC8006, Q8021, R8055, R8099, R8102, R8128, R8129, R8131, R8139, R8140, R8142, R8153, R8163, R8223, R8230, T8004 (LOT), T8005 (FBT), HV Block, D Board	**HV REGULATOR** VR8001
A BOARD: C8054, C8086, C8088, C8100, C8104, C8118, C8123, C8124, D8019, D8020, D8022, D8028, D8036, FB8001, IC8008, Q8035, Q8038, R8035, R8043, R8159, R8166, R8171, R8196, R8201, T8004 (LOT), T8005 (FBT), HV Block, D Board	**HV HOLD DOWN** VR8002

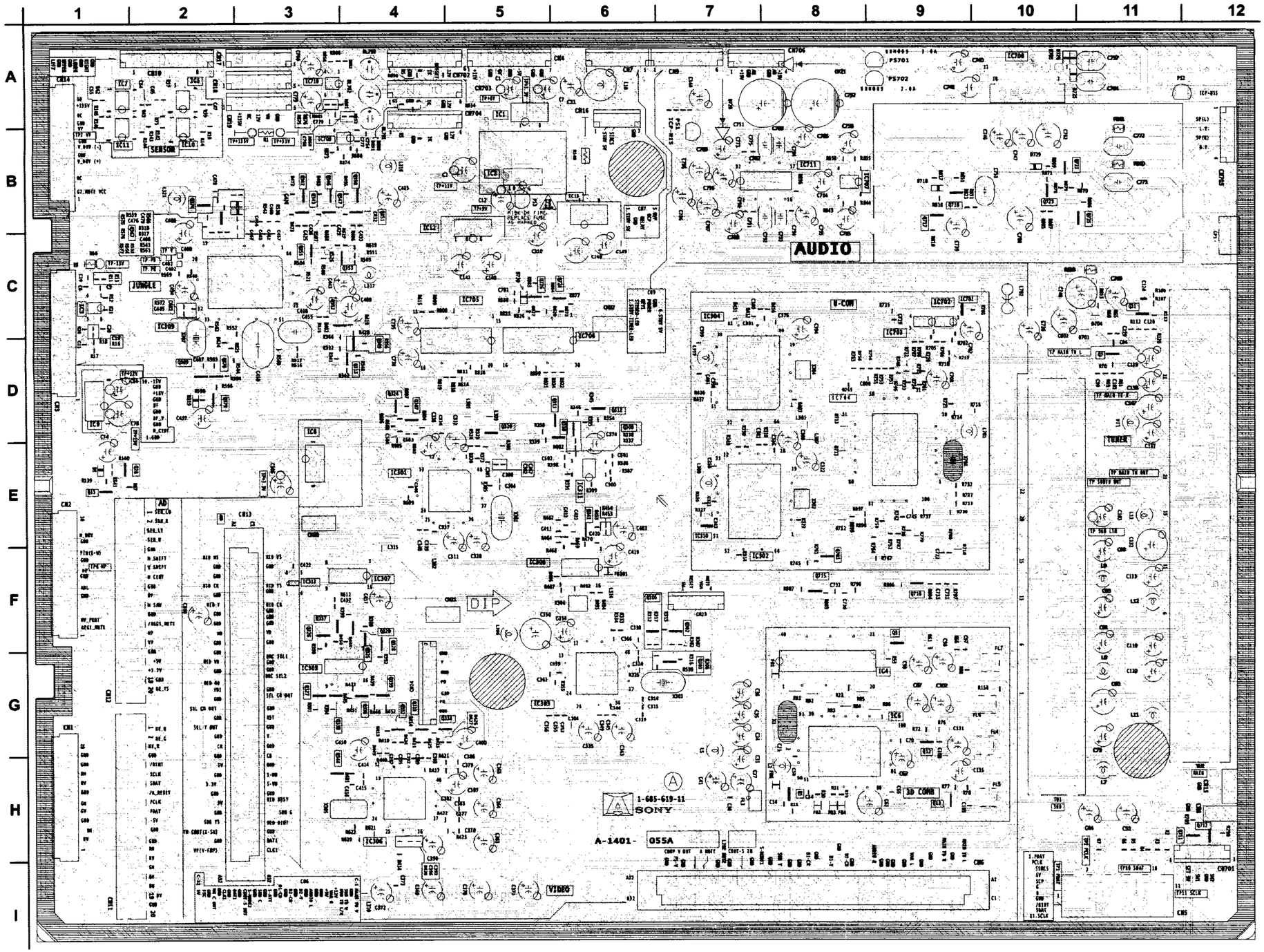
D [HV DRIVE, POWER SUPPLY, H DRIVE] [COMPONENT SIDE]



D BOARD LOCATOR LIST

DIODE		IC	
D8001	D-10	IC8001	C-8
D8002	D-10	IC8002	C-4
D8003	D-10	IC8003	E-10
D8004	E-10	IC8004	E-5
D8005	H-6	IC8005	F-8
D8006	H-6	IC8006	B-2
D8007	D-10	IC8007	B-3
D8008	B-3	IC8008	C-2
D8009	C-1	IC8009	I-8
D8010	E-11	IC8012	H-7
D8011	E-11	**TRANSISTOR**	
D8012	E-11	Q8001	D-10
D8013	B-2	Q8002	H-6
D8014	B-3	Q8003	H-6
D8015	A-2	Q8004	E-9
D8016	B-3	Q8005	C-1
D8019	C-2	Q8007	F-7
D8020	C-2	Q8008	G-6
D8021	F-9	Q8009	G-5
D8022	C-2	Q8010	G-6
D8023	B-3	Q8011	F-6
D8024	G-7	Q8014	G-6
D8025	A-2	Q8015	G-6
D8026	G-11	Q8016	E-8
D8027	F-8	Q8019	E-8
D8028	D-3	Q8020	D-8
D8029	E-4	Q8021	B-1
D8030	E-4	Q8022	B-1
D8031	D-2	Q8023	H-11
D8032	H-7	Q8024	G-10
D8033	G-7	Q8027	F-8
D8034	E-2	Q8028	A-2
D8035	E-2	Q8029	B-3
D8036	C-3	Q8030	I-11
D8037	G-4	Q8031	F-11
D8038	I-2	Q8032	C-1
D8039	G-4	Q8035	D-3
D8043	B-1	Q8036	D-1
D8045	H-8	Q8037	D-1
D8046	D-8	Q8038	D-1
D8047	I-11	Q8039	H-8
		Q8101	G-11

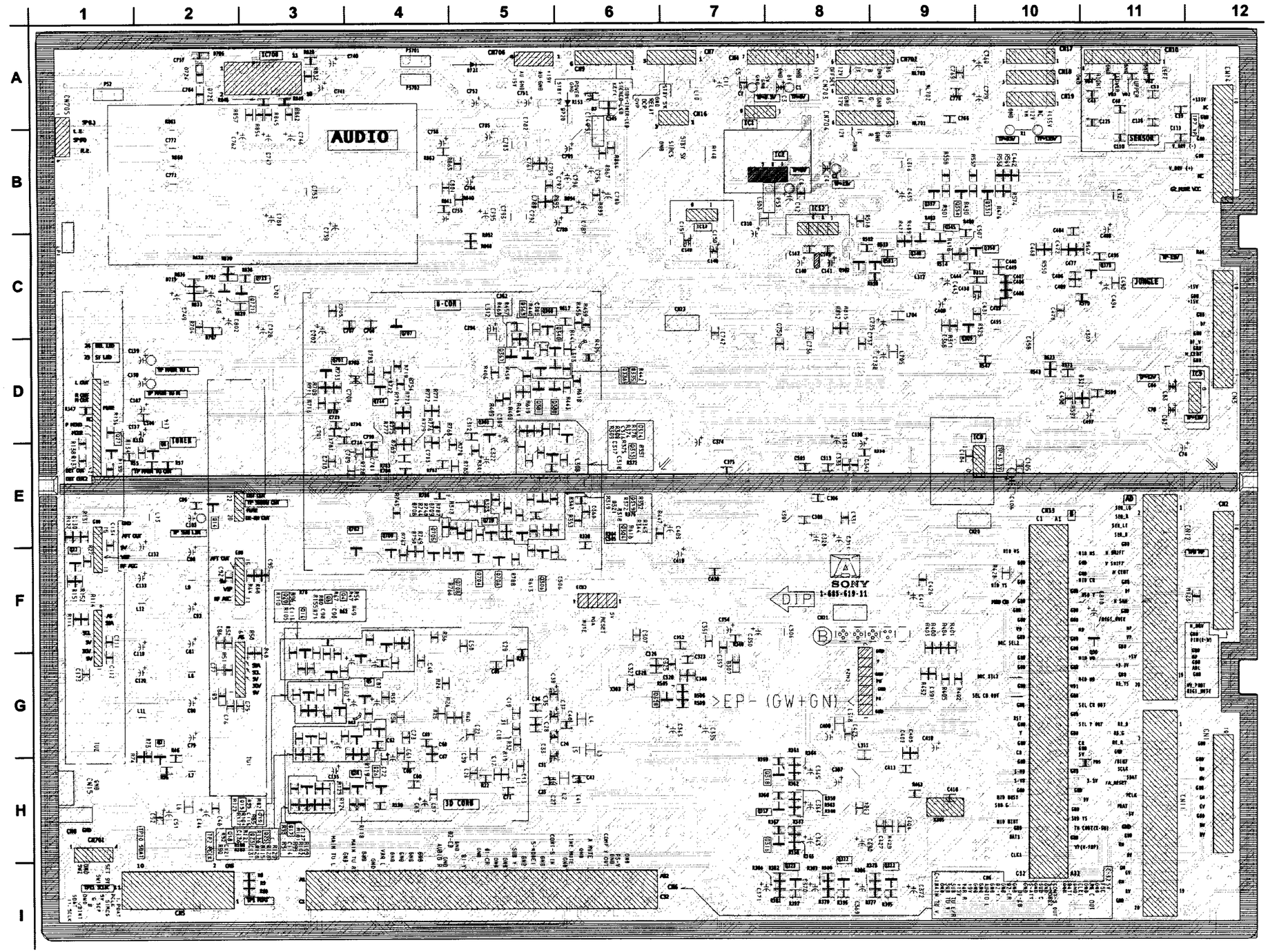
A [TUNER, 3D COMB, AREG, CRT DRIVE, YCT, SYSTEM CONTROL, AUDIO OUTPUT] [COMPONENT SIDE]



A BOARD LOCATOR LIST

DIODE		TRANSISTOR	
D1	E-1	Q11	E-1
D317	C-2	Q12	G-9
D318	C-2	Q13	H-9
D319	D-2	Q21	C-11
D701	C-11	Q302	F-7
D704	C-11	Q303	F-7
D705	A-10	Q305	F-6
D710	F-9	Q307	D-4
D711	E-8	Q308	B-6
D712	E-8	Q310	D-5
D713	D-8	Q311	D-5
D718	B-9	Q312	D-6
D725	A-10	Q313	D-4
D726	A-10	Q320	D-5
D729	B-10	Q324	D-4
IC		Q325	F-4
IC1	A-5	Q326	F-4
IC2	B-5	Q327	G-3
IC3	C-1	Q328	F-4
IC4	G-9	Q329	F-4
IC5	A-2	Q330	G-3
IC6	G-9	Q332	G-4
IC7	A-2	Q333	G-4
IC8	D-3	Q334	G-4
IC9	D-1	Q337	F-3
IC10	B-2	Q338	G-4
IC11	B-1	Q339	G-4
IC12	B-4	Q341	E-6
IC13	B-6	Q342	B-3
IC301	E-4	Q343	B-3
IC302	F-7	Q344	G-3
IC303	G-5	Q346	B-3
IC304	C-7	Q347	B-3
IC305	G-3	Q349	D-4
IC306	H-4	Q350	B-4
IC307	F-4	Q351	B-4
IC308	F-5	Q352	C-3
IC309	C-2	Q353	C-4
IC310	E-7	Q355	C-3
IC311	E-6	Q367	C-1
IC312	F-3	Q369	D-2
IC701	C-9	Q374	B-2
IC702	C-9	Q378	D-2
IC703	C-9	Q379	D-2
IC704	D-8	Q703	F-8
IC707	B-8	Q712	H-12
IC708	A-10	Q715	F-8
IC711	B-8	Q716	F-9
TRANSISTOR		Q717	B-9
Q1	H-8	Q718	B-9
Q3	F-9	Q722	B-10
Q7	D-11	Q723	B-10
		Q725	B-11

A [TUNER, 3D COMB, AREG, CRT DRIVE, YCT, SYSTEM CONTROL, AUDIO OUTPUT] [CONDUCTOR SIDE]



A BOARD LOCATOR LIST

DIODE		TRANSISTOR	
D5	G-2	Q321	I-9
D7	A-6	Q322	I-9
D307	G-7	Q323	I-8
D312	C-9	Q331	B-9
D321	D-10	Q335	D-5
D702	C-2	Q336	D-5
D703	D-4	Q340	C-5
D706	A-2	Q345	B-9
D708	E-4	Q348	C-9
D709	E-4	Q354	B-9
D719	C-2	Q356	B-10
D720	B-6	Q357	B-9
D721	A-5	Q358	G-6
D723	A-2	Q361	C-5
D724	A-2	Q363	C-5
TRANSISTOR		Q368	C-5
Q2	G-2	Q373	C-11
Q4	F-3	Q380	D-5
Q5	G-4	Q381	D-5
Q6	F-3	Q501	C-9
Q8	E-2	Q502	C-8
Q14	E-2	Q701	D-3
Q15	F-3	Q702	E-3
Q16	F-3	Q704	F-5
Q17	H-3	Q705	F-5
Q18	F-3	Q706	F-5
Q19	F-3	Q707	C-4
Q20	F-3	Q708	F-4
Q22	F-1	Q709	E-4
Q23	G-4	Q710	E-5
Q24	H-4	Q713	C-3
Q25	G-4	Q714	D-4
Q26	H-4	Q721	C-3
Q27	D-11		
Q28	G-4		
Q30	F-11		
Q301	D-5		
Q304	E-6		
Q306	F-5		
Q309	C-9		
Q314	E-5		
Q315	E-5		
Q316	H-7		
Q317	H-7		
Q318	H-7		
Q319	E-6		