

SERVICE MANUAL

CPD-4402

CPD-4402

AEP Model

Chassis No. SCC-L30N-A



F99 CHASSIS

SPECIFICATIONS

Picture tube	0.24 mm (center) -0.25mm (edge) aperture grill pitch 19 inches measured diagonally 90-degree deflection	Power Consumption	
		Maximum	140 W, 478 BTU/h
		Nominal	100 W, 341BTU/h
Video image area	(18" maximum viewing image) Approx. 364.8 X 273.6 mm (w/h) (14 ^{3/8} x 10 ^{7/8} inches)	Deflection frequency	Horizontal: 30 to 107 KHz (automatic) Vertical: 48 to 120 Hz (automatic)
		AC input voltage/current	220 to 240V, 50/60Hz, 1.0A (RMS) at 240 VAC
Resolution	Horizontal: Max. 1600 dots Vertical: Max. 1200 lines	Dimensions	449 x 463 x 463 mm (w/h/d) (17 ^{2/3} x 18 ^{7/10} x 18 ^{1/5} inches)
Standard image area	Approx. 352 x 264 mm (w/h) (13 ^{7/8} x 10 ^{1/2} inches)	Mass	Approx. 26.0 kg (57 lb 5 oz)
Input signal	Analog RGB (75 ohms typical)		
Video	0.7 Vp-p, Positive Separate Horizontal and Vertical		
Sync	TTL level, Positive or Negative Video Composite (Sync on Green) 0.3 Vp-p		

Design and specifications are subject to change without notice.

TRINITRON® COLOR MONITOR

POWER MANAGEMENT MODES

If you have VESA's DPMS compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. If input from keyboard, mouse, or other input devices is detected, the monitor will automatically "wake up." The following table shows the power consumption and signaling of this automatic power saving feature.

	Power consumption mode	Screen (video)	Horizontal sync signal	Vertical sync signal	Power consumption	Recovery time	Indicator
1	Normal Operation	active	yes	yes	140 W (max.) 100 W (typical)	---	Green
2	Standby (1st mode)	blank	no	yes	6-14 W	Approx. 3 sec.	Green and Orange Alternate
3	Suspend (2nd mode)	blank	yes	no	6-14 W	Approx. 3 sec.	Green and Orange Alternate
4	Active-off (3rd mode)	blank	no	no	2-3 W	Approx. 10 sec.	Orange
5	Power-off	---	---	---	0 W	---	Off

SELF DIAGNOSTIC FUNCTION

When a failure occurs, the STANDBY/TIMER lamp will flash a set 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.

	Status	Area of Failure	LED Indication
1	Failure 1	HV or +B	Amber (0.5 second)/Off (0.5 second)
2	Failure 2	H Stop or V Stop or correction capacitor	Amber (1.5 second)/Off (0.5 second)
3	Failure 3	ABL	Amber (0.5 second)/Off (1.5 second)
4	Aging/Self Test		Amber (0.5 second)/Off (0.5 second)/ Green (0.5 second)/Off (0.5 second)

TIMING SPECIFICATIONS

MODE	1	2	3	4	5	6
Resolution (H x V)	640 X 480	800 X 600	1024 X 768	1280 X 1024	1600 X 1200	1600 X 1200
Dot Clock (MHz)	25.175	56.250	94.500	157.500	202.500	229.500
HORIZONTAL						
Hor. Freq. (kHz)	31.469	53.674	68.677	91.146	93.750	106.250
H-Total	31.778	18.631	14.561	10.971	10.667	9.412
H-Blanking	6.356	4.409	3.725	2.844	2.765	2.440
H-Front Porch	0.636	0.569	0.508	0.406	0.316	0.279
H-Sync.	3.813	1.138	1.016	1.016	0.948	0.837
H-Back Porch	1.907	2.702	2.201	1.422	1.501	1.325
H-Active (µsec)	25.422	14.222	10.836	8.127	7.901	6.972
VERTICAL						
Ver. Freq. (Hz)	59.940	85.061	84.997	85.024	75.000	85.000
V-Total	525	631	808	1072	1250	1250
V-Blanking	45	31	40	48	50	50
V-Front Porch	10	1	1	1	1	1
V-Sync.	2	3	3	3	3	3
V-Back Porch	33	27	36	44	46	46
V-Active (lines)	480	600	768	1024	1200	1200
SYNC.						
Int (G)	NO	NO	NO	NO	NO	NO
Ext (H/V)/Polarity	YES -/-	YES +/-	YES +/-	YES +/-	YES +/-	YES +/-
Ext (C/S)/Polarity	NO	NO	NO	NO	NO	NO
Int/Non Int	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as follows.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampere). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Figure A)

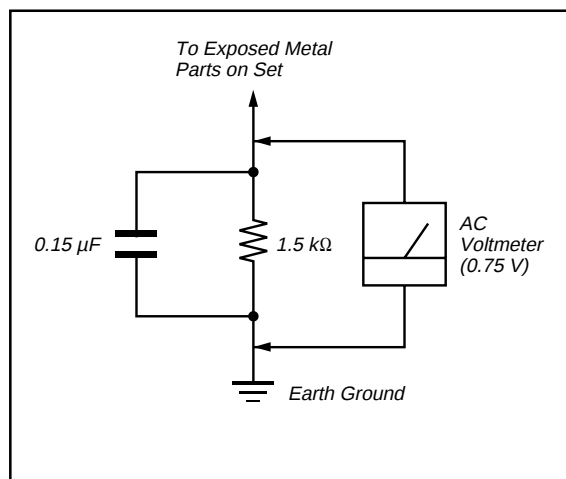


Figure A

WARNING!!

NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

SAFETY-RELATED COMPONENT WARNING!!

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

AVERTISSEMENT!!

NE JAMAIS METTRE SOUS TENSION QUAND LA BOBINE DE DEMAGNETISATION EST ENLEVEE.

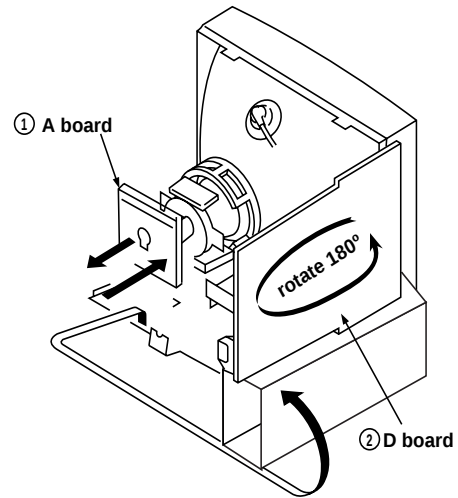
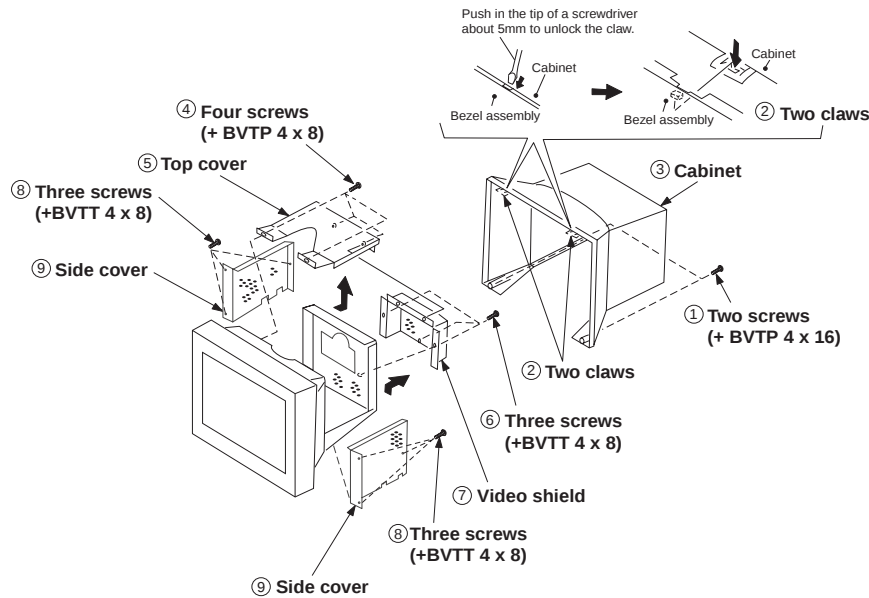
ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

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

SECTION 1 DISASSEMBLY

1-1. CABINET/SHIELD REMOVAL

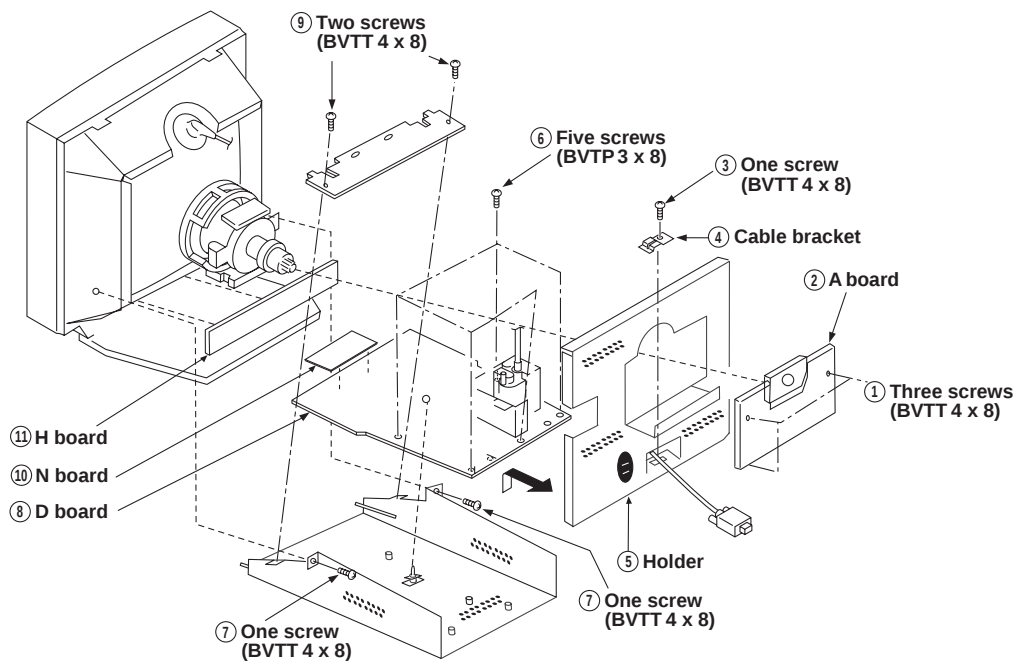
1-2. SERVICE POSITION



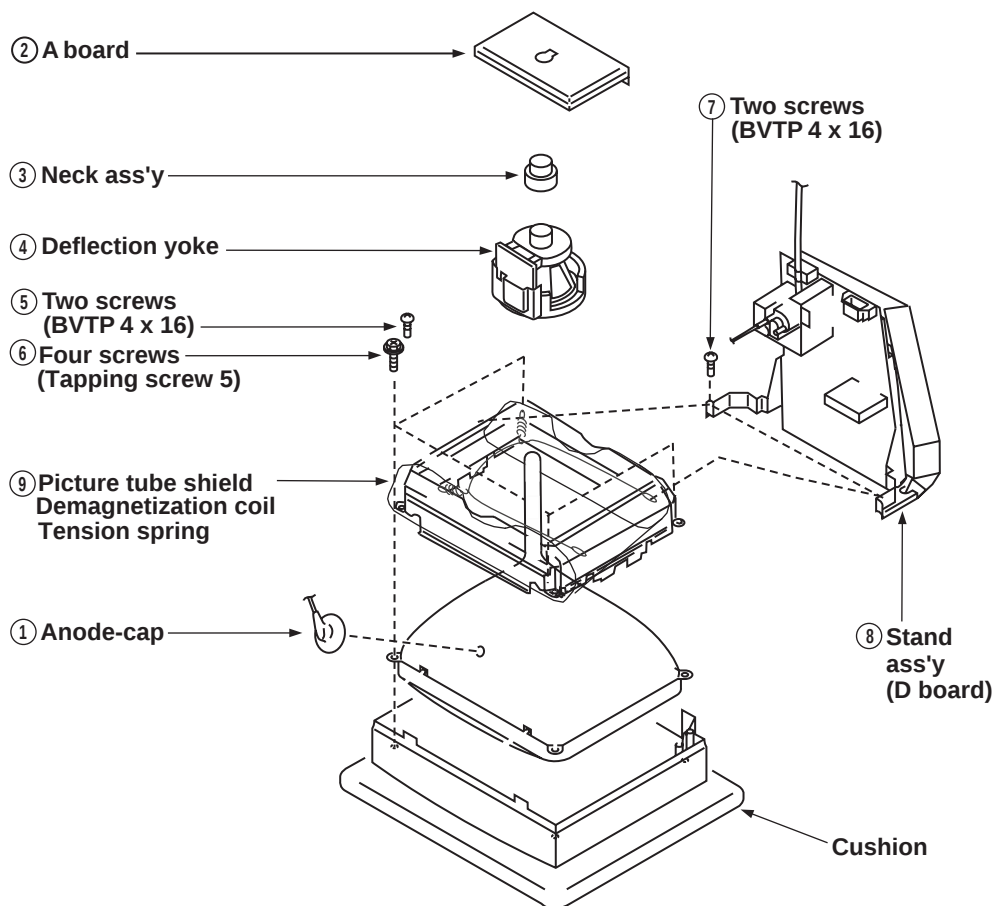
To remove the rear cover of the unit, press in and unsnap the claw on the right side of the unit, then press in and unsnap the right claw at the top of the unit. Repeat this with the claw on the left side and top left of the unit and remove.

- 1 When the D board is placed in service position, the Safety Earth Wire (black wire) is disconnected.
- 2 After service is completed and the D board reinstalled, the Safety Earth Wire must be reattached to the chassis. This must be confirmed before any subsequent procedures are attempted.

1-3. D, A, H and N BOARD REMOVAL



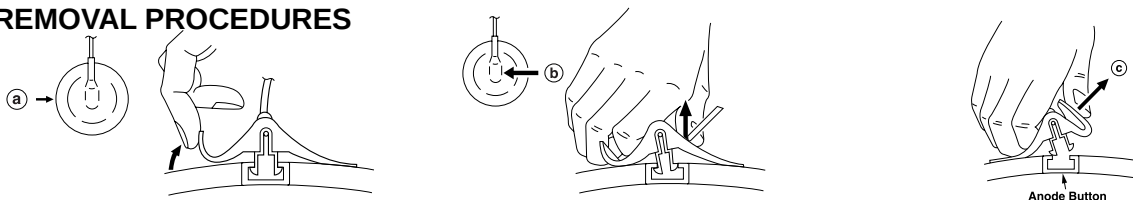
1-4. PICTURE TUBE REMOVAL



REMOVAL OF THE ANODE-CAP

WARNING: 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.

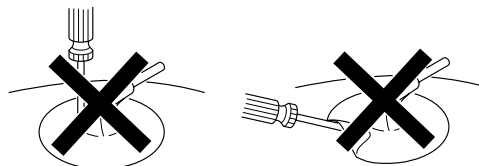
REMOVAL PROCEDURES



1. Turn up one side of the rubber cap in the direction indicated by arrow ㉑.
2. Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ㉒.
3. When one side of the rubber cap separates from the anode button, the anode-cap can be removed by turning the rubber cap and pulling it in the direction of arrow ㉓.

HOW TO HANDLE AN ANODE-CAP

1. Do not use sharp objects which may cause damage to the surface of the anode-cap.
2. Do not squeeze the rubber covering too hard to avoid damaging the anode-cap. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



SECTION 2

SAFETY RELATED ADJUSTMENT

When replacing parts shown in the table below, the following operational checks must be performed as a safety precaution against X-ray emissions from the unit.

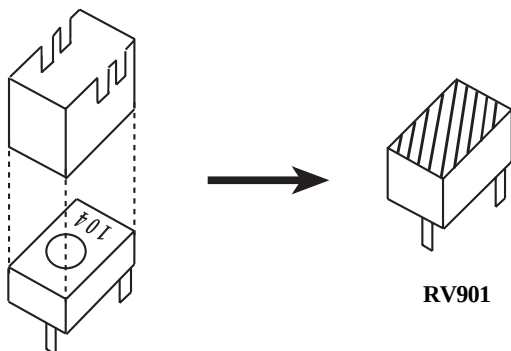
	Part Replaced ()
HVADJ	RV901
	Part Replaced ()
HV Protector Circuit	T901 (FBT), R917, R918, R923, R920, R919, R1004, C920, D911, D912
Beam Current Protector Circuit	R933, R932, R921, R1006, D915, D917, IC901, T901 (FBT)
HV Regulator Circuit	T901 (FBT), IC901, R924, R925, RV901

※ Allow the unit to warm-up for one minute prior to checking the following conditions:

2-1. HV Regulator Check

- 1) Input white cross hatch signal. (fH = 106.3 kHz)
- 2) CONT and BRT Control normal condition.
- 3) Input voltage: 120 ± 2 VAC
- 4) Confirm that the voltage is within the voltage range shown below.
Standard voltage: $27.0KV \pm 0.2KV$
- 5) When replacing components identified by , make sure to recheck the High Voltage.
- 6) Verify the High Voltage as shown above ($27.0KV \pm 0.2KV$) is within specification. If not, RV904 on D board.
- 7) After adjusting the High Voltage within specification, put the RV cover on RV901 as shown below and apply sufficient amount of RTV around RV901.

2-2. HV Protector Check



- 1) Confirm the voltage more than 15.0 VDC between D912 cathode and GND on D Board.
- 2) Using an external DC power supply, apply the voltage shown below between cathode of D915 on D Board and GND.

Confirm that the HV protector circuit (Hold down) works and CRT screen disappears when applying the voltage protector as shown below.

Standard DC Voltage: $21.1 +0.00 / - 0.05$ VDC

Check Condition

- Input voltage : 120 ± 2 VAC
- Input signal : (fH = 31.4 kHz), Cross Hatch
- CONT and BRT Control: Normal Condition

2-3. Beam Current Protector Check (Software Logic)

- 1) Using an external current source, apply 1.68mA from pin ⑪ of T901 (FBT) to GND on D Board. Confirm that the software logic beam current protector works and that the CRT screen disappears.

Check Condition

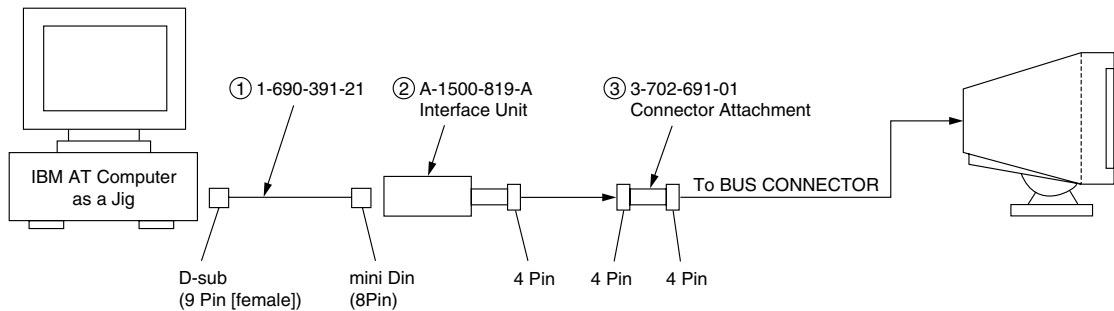
- Input voltage : 120 ± 2 VAC
- Input signal : (fH = 31.4 kHz), Cross Hatch
- CONT and BRT Control: Normal Condition

2-4. B± Maximum Check

- 1) Input white cross hatch (fH = 106.3 kHz) signal.
- 2) Beam control: Normal condition
- 3) Input voltage: 100 - 120 VAC
Note: Use NF power supply or make sure that distortion factor is 3% or less.
- 4) Confirm that the voltage is within the voltage range shown below.
Standard voltage: 195.0 -205.0 VDC

SECTION 3 ADJUSTMENTS

Connect the communication cable of the connector located on the D board on the monitor. Run the service software and then follow these instructions.

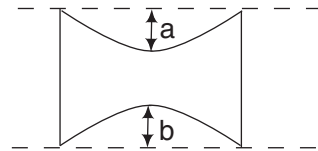


*The parts above (①~③) are necessary for DAS adjustment.

※ Allow a 30 minute warm-up period prior to making the following adjustments:

3-1. Landing Rough Adjustment

1. Enter the full white signal.
2. Adjust the contrast to the maximum.
3. Input full green signal.
(Note: Turn off the outputs from R ch and B ch of SG)
4. Move the DY backward and adjust the purity magnet coarsely so that a green raster positions in the center of screen.
5. Moving the DY forward, adjust so that an entire screen becomes pure green.
6. Adjust DY Tilt, use TLV of DY for this adjustment. Fix the Register "TILT" to 0.
7. Lightly tighten the DY screw.



14. If landing does not meet specifications, correct with a disc magnet.
15. Perform auto-degauss.
16. Remove sensor and wobbling coil.
17. Confirm that there is no DY tilt. Affix purity magnet on DY using white paint.

3-2. Landing Fine Adjustment

1. Place the set in the Helmholtz coil.
2. Set TLH plate to the zero position.
3. Adjust Purity Magnet on the Neck Assembly to zero position and secure it with white pin.
4. Set "VPIN SAW TOP" and "VPIN SAW BTM" to zero position.
5. Display a plain green pattern.
6. Degauss CRT and shield with hand-degausser.
7. Perform auto-degauss.
8. Attach a wobbling coil to the specified position of CRT.
9. Attach a landing adjuster sensor on the CRT.
10. Using a landing checker, adjust the DY position, purity, tilt of DY.
11. Tighten the DY screw.
Clamping torque: 22 ± 2 kg.cm (2.2 ± 0.2 N.m)
12. Perform auto-degauss.
13. Adjust top and bottom pin pitching DY by up and down with two wedges so that (a) is equal to (b) (see the figure at right). Also, leave the yaw of DY to the physical center position with another two wedges.

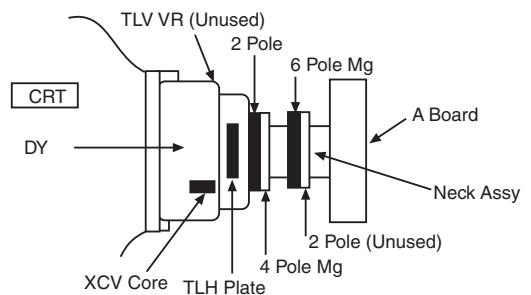
Fasten wedges so that DY does not move.

3-3. Convergence Rough Adjustment

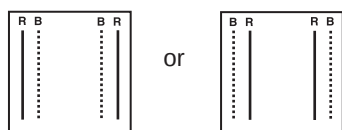
1. Enter the white crosshatch signal.
2. Roughly adjust the H. STAT and V. STAT with a four-pole magnet.
3. Roughly adjust HMC and VMC with a six-pole magnet.

3-4. Convergence Fine Adjustment

1. Display crosshatch pattern with R and B.
2. Adjust H. STAT and V. STAT with 4-pole magnet.
(Do not adjust H. STAT and V. STAT with resistor.)

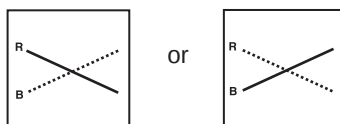


3. Display white crosshatch pattern.
4. Adjust HMC and VMC with 6-pole magnet.
5. Display crosshatch pattern with R and B.
6. Adjust H.STAT and V.STAT with 4-pole magnet.
7. Fine adjust H. STAT and V. STAT with use register "HSTAT" and "VSTAT" in the range of 0 ± 10 .
8. Adjust H.TILT with TLH plate.



Move of THL Plate

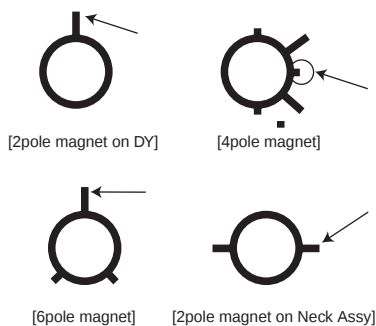
9. Adjust XCV with XCV core.



Move of XCV Volume

10. Repeat steps 2-8 to optimize condition of whole screen.
11. Affix 4-pole magnet, 6-pole magnet and TLH plate and XCV core with white paint.

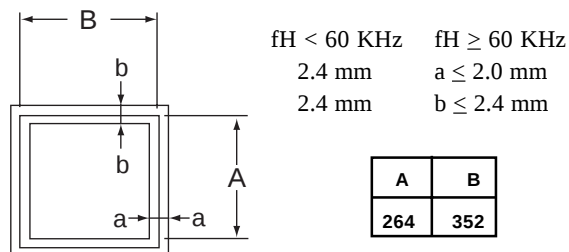
3-5. Zero Positions of Ring Magnets are Indicated by Arrows



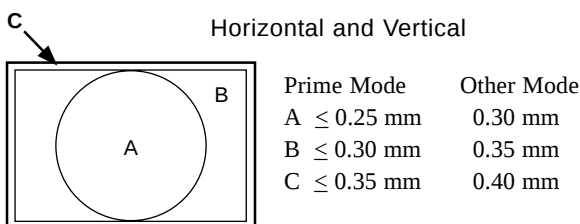
3-6. White Balance Adjustment Specification

1. 9300K
 $x=0.283 \pm 0.015$
 $y=0.298 \pm 0.015$
 (All White)
2. 5000K
 $x=0.346 \pm 0.015$
 $y=0.359 \pm 0.015$
 (All White)

3-7. Vertical and Horizontal Position and Size Specification

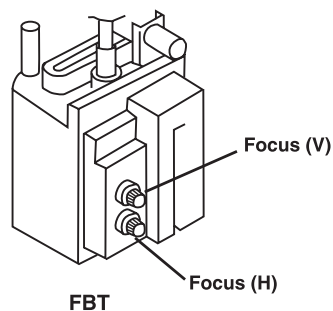


3-8. Convergence Specification

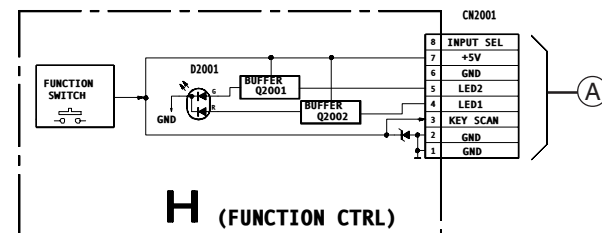
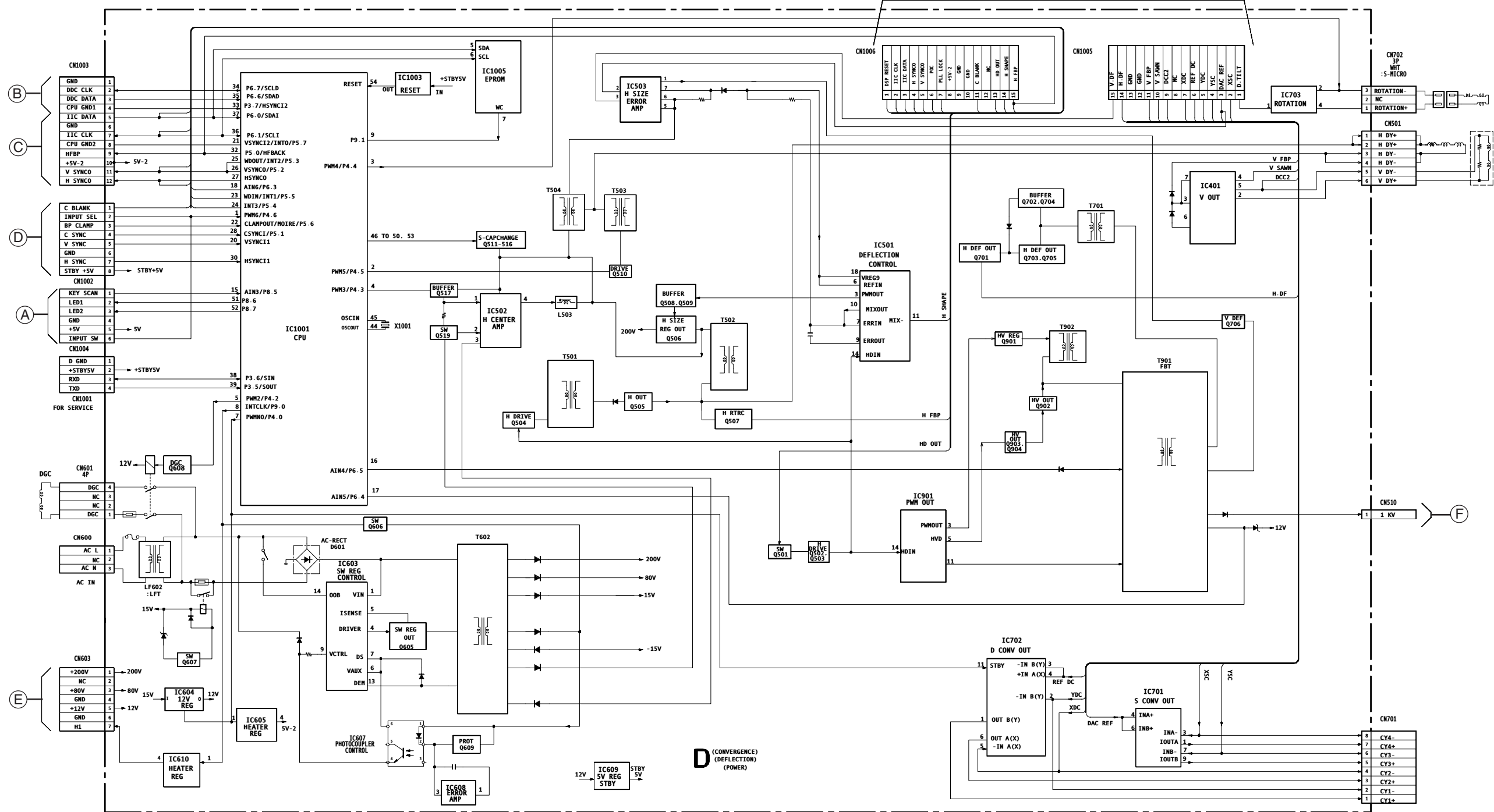


3-9. Focus Adjustment

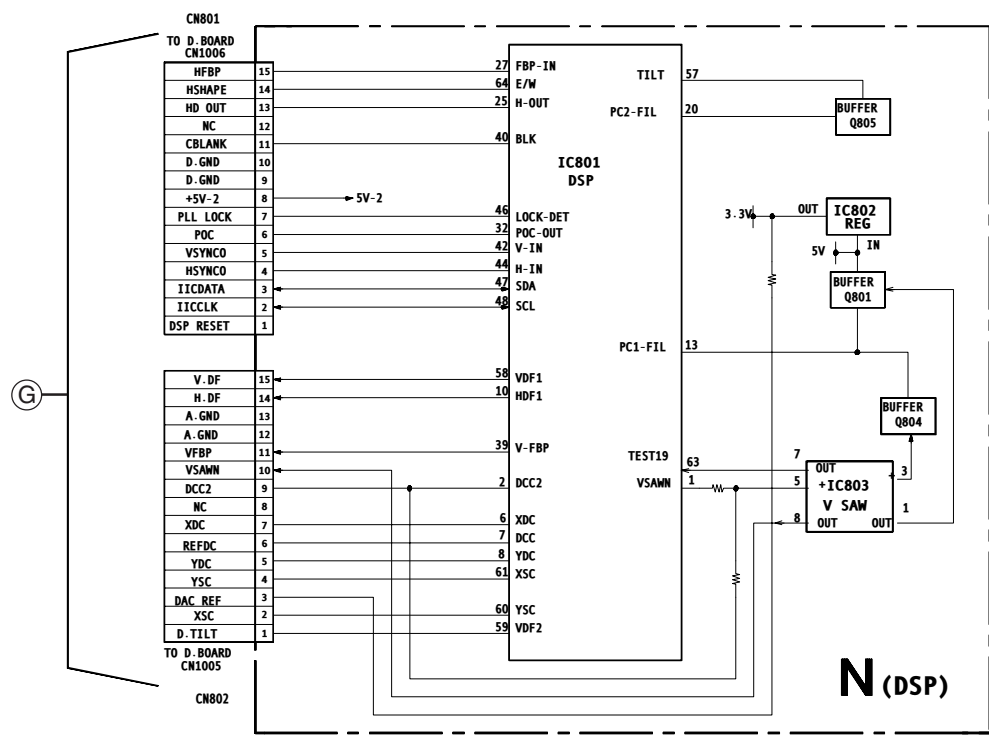
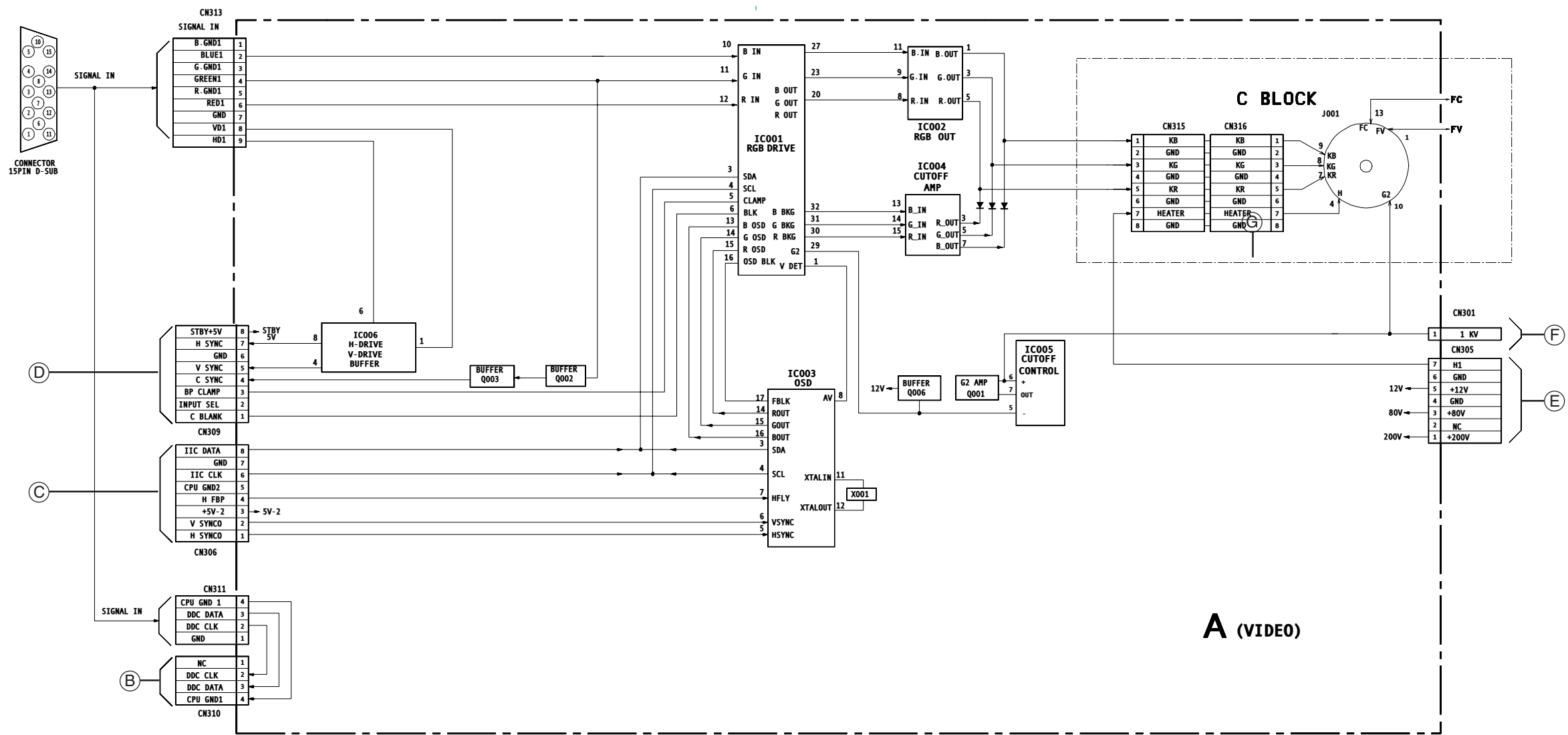
Adjust focus (V) and focus (H) for optimum focus.



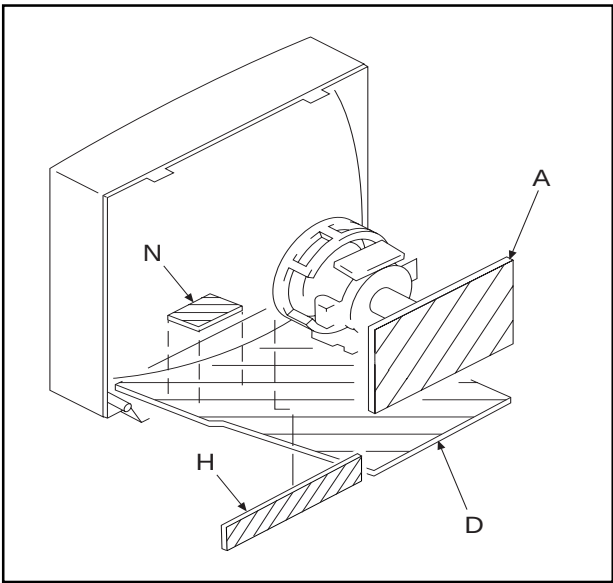
4-1. BLOCK DIAGRAM (1 of 2)



BLOCK DIAGRAM (2 of 2)



4-2. CIRCUIT BOARDS LOCATION



4-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytic.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

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

- All resistors are in ohms.
 -  : nonflammable resistor.
 -  : fusible resistor.
 -  : internal component.
 -  : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
-  : earth-ground
-  : earth-chassis.
- The components identified by  in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments by using RV901 () as indicated. (See page 7)

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

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

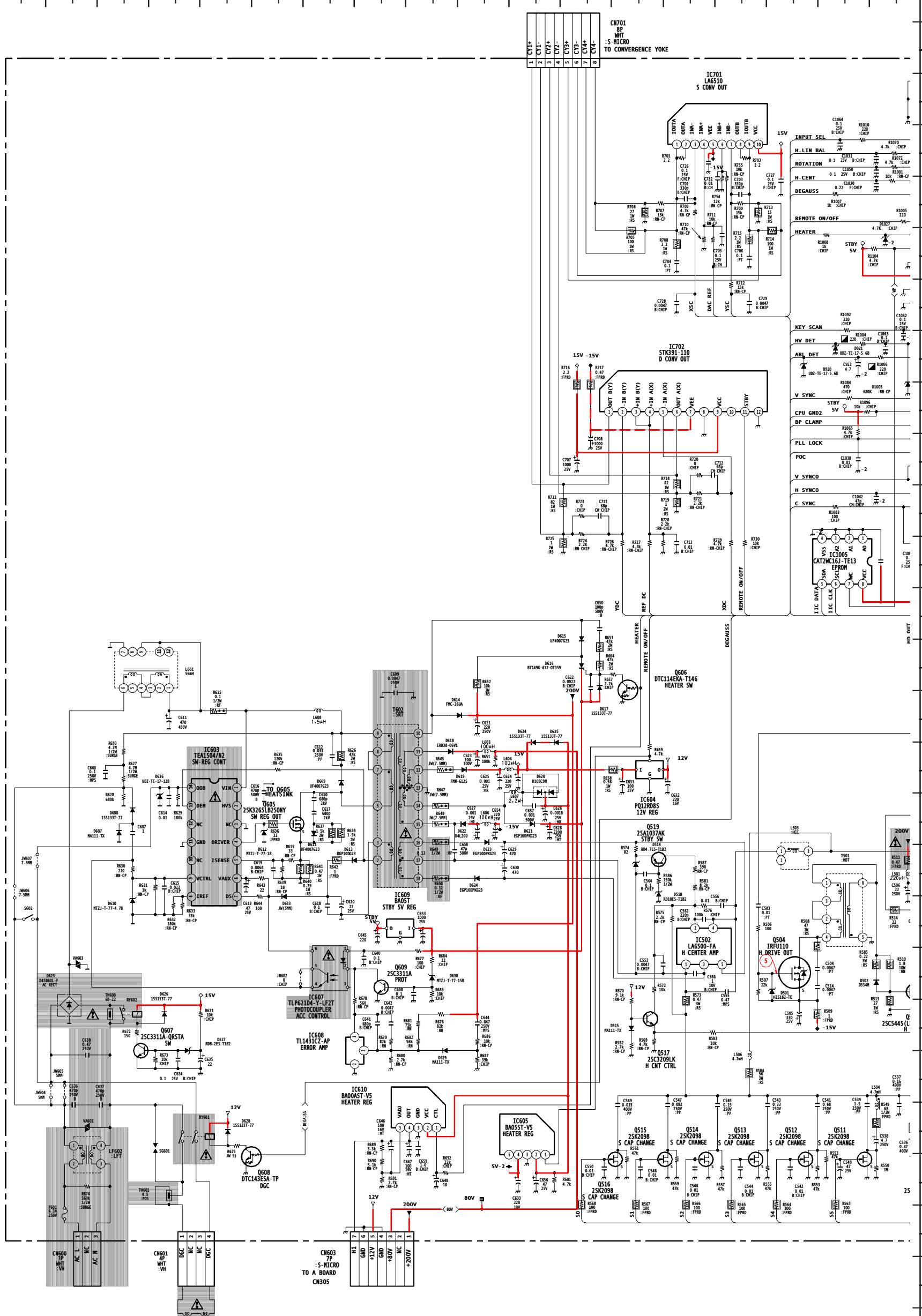
- When replacing parts shown in the table below, be sure to perform the safety related adjustment.

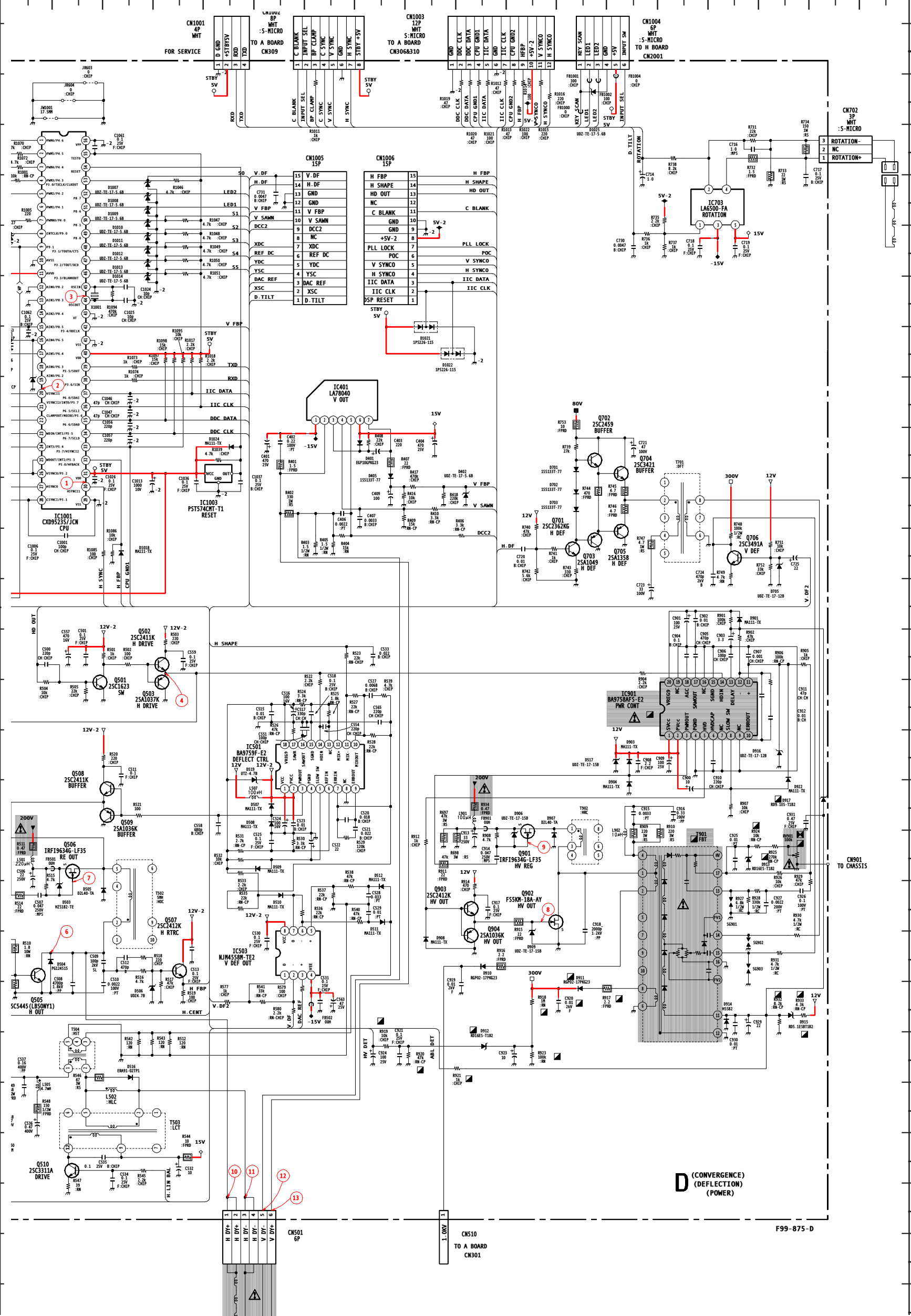
	Part Replaced ()
HV ADJ	RV901

	Part Replaced ()
HV Regulator Circuit	D board T901, IC901, R924, R925, RV901
HV Protector Circuit	D board T901, R917, R918, R923, R920, R919, R1004, C920, D911, D912
Beam Current Protector Circuit	D board R933, R932, R921, R1006, D915, D917, IC901, T901

- All voltages are in volts.
- Readings are taken with a 10 M W digital multimeter
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- * : Cannot be measured.
- Circled numbers are waveform references.
-  : B +bus.
-  : B - bus.







D BOARD TRANSISTOR VOLTAGE LIST

Q501		Q508		Q606		Q702		Q903	
pin	volt	pin	volt	pin	volt	pin	volt	pin	volt
B	0.3	B	5.9	B	0.0	B	25.3	B	7.2
C	5.8	C	11.4	C	5.0	C	80.0	C	10.8
E	GND	E	8.1	E	GND	E	24.7	E	7.1
Q502		Q509		Q607		Q703		Q904	
pin	volt	pin	volt	pin	volt	pin	volt	pin	volt
B	5.8	B	5.9	B	0.0	B	23.5	B	7.2
C	11.7	C	GND	C	11.9	C	GND	C	GND
E	5.8	E	8.1	E	GND	E	24.0	E	7.1
Q503		Q510		Q608		Q704		All voltages are in V.	
pin	volt	pin	volt	pin	volt	pin	volt		
B	5.8	B	1.3	B	0.0	B	24.7		
C	GND	C	9.9	C	11.9	C	80.0		
E	5.8	E	0.7	E	GND	E	24.4		
Q505		Q517		Q609		Q705		All voltages are in V.	
pin	volt	pin	volt	pin	volt	pin	volt		
B	-1.1	B	3.2	B	0.0	B	24.0		
C	47.7	C	87.6	C	8.2	C	GND		
E	GND	E	2.6	E	GND	E	24.0		
Q507		Q519		Q701		Q706		All voltages are in V.	
pin	volt	pin	volt	pin	volt	pin	volt		
B	-0.2	B	97.3	B	1.2	B	8.9		
C	12.0	C	96.8	C	0.6	C	134.4		
E	0.4	E	97.9	E	23.5	E	8.4		

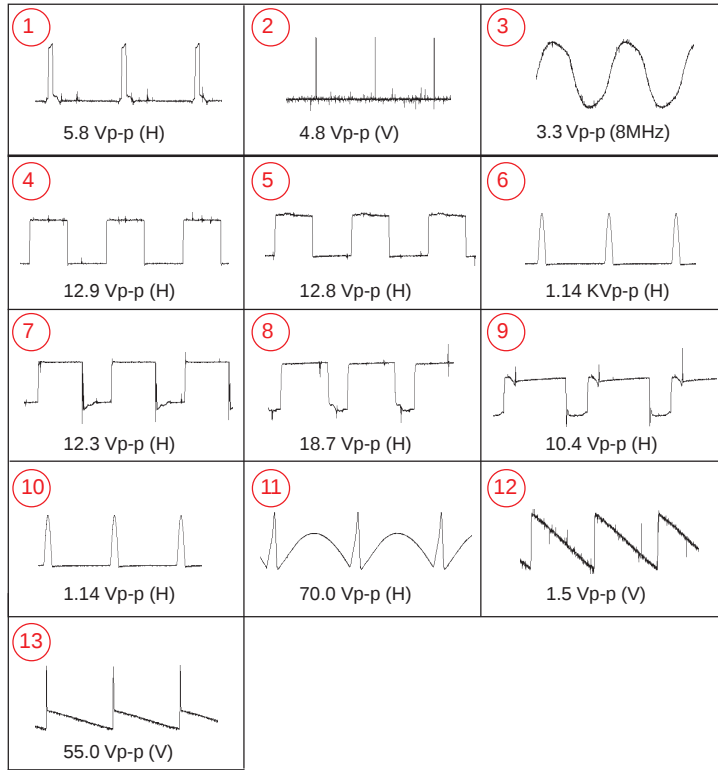
D BOARD TRANSISTOR VOLTAGE LIST

Q504		Q513		Q605	
pin	volt	pin	volt	pin	volt
D	-1.8	D	0.0	D	-0.5
G	-10.0	G	5.0	G	-70.1
S	-14.4	S	GND	S	-0.3
Q506		Q514		Q901	
pin	volt	pin	volt	pin	volt
D	92.4	D	39.0	D	200.0
G	196.0	G	0.0	G	197.0
S	200.0	S	GND	S	200.0
Q511		Q515		Q902	
pin	volt	pin	volt	pin	volt
D	41.1	D	38.8	D	88.7
G	0.0	G	0.0	G	7.1
S	GND	S	GND	S	0.0
Q512		Q516		All voltages are in V.	
pin	volt	pin	volt		
D	39.0	D	38.2		
G	0.0	G	0.0		
S	GND	S	GND		

D BOARD IC VOLTAGE LIST

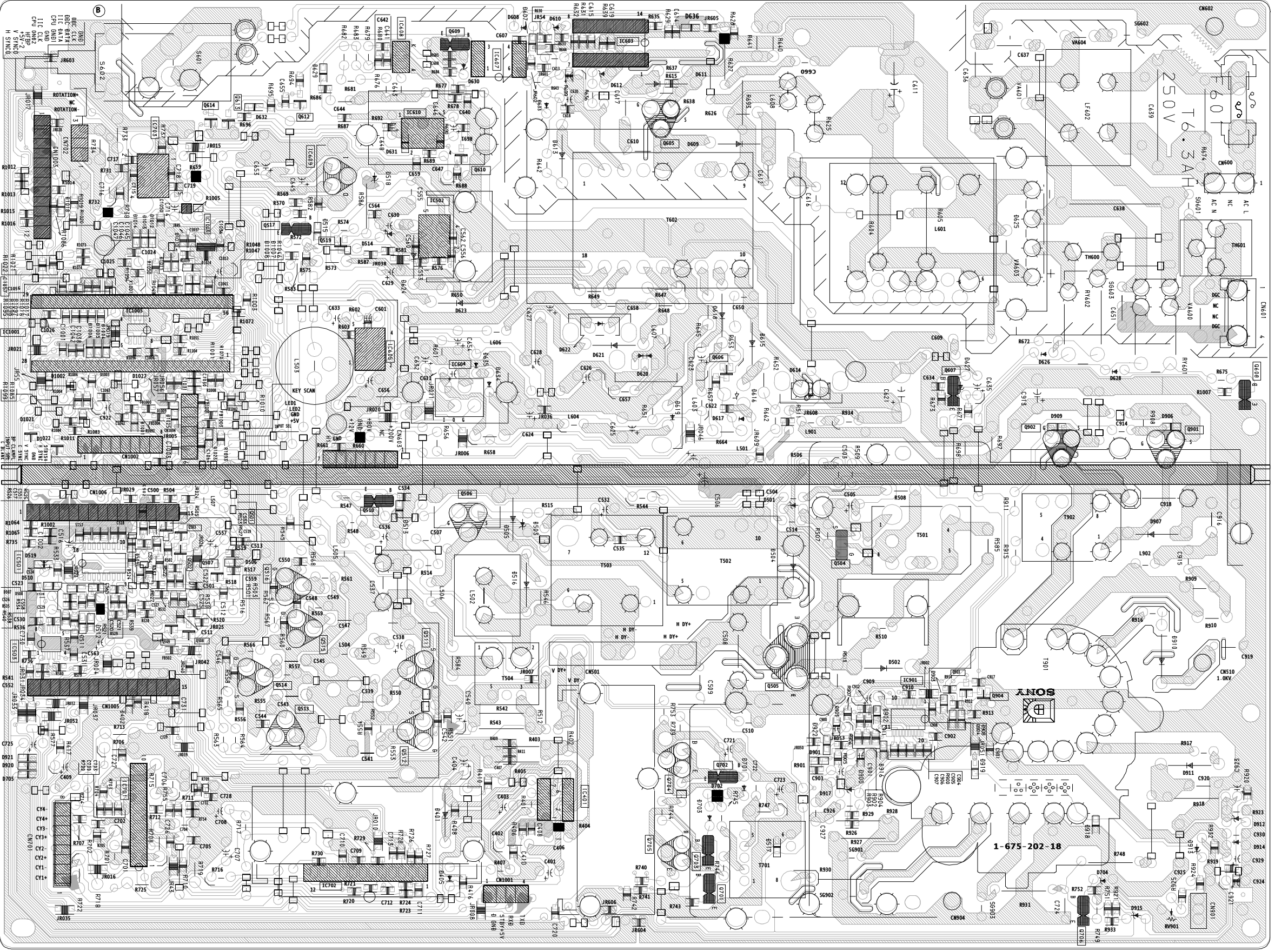
IC401		IC502		11	GND	3	6.8	3	0.5	11	9.0	18	N/C	47	0.0
pin	volt	pin	volt	12	N/C	IC609		4	0.5	12	0.0	19	N/C	48	5.0
1	-15.0	1	93.0	13	1.5	pin	volt	5	0.5	13	4.0	20	0.3	49	0.0
2	14.8	2	92.9	14	0.5	G	GND	6	0.3	14	5.4	21	5.0	50	0.0
3	-13.6	3	85.9	IC604		I	9.6	7	-15.0	15	GND	22	0.1	51	0.0
4	-14.7	4	93.6	pin	volt	O	5.0	8	GND	16	GND	23	5.0	52	5.0
5	0.2	5	99.6	G	GND	IC610		9	15.0	17	2.4	24	4.7	53	0.0
6	15.0	IC503		I	15.0	pin	volt	10	N/C	18	2.6	25	0.0	54	0.0
7	0.8	pin	volt	O	12.0	1	3.0	11	3.2	19	GND	26	0.0	55	5.0
IC501		1	-4.3	4	4.1	2	7.2	12	GND	20	9.0	27	0.4	56	GND
pin	volt	2	1.4	IC605		3	GND	IC703		IC1001		28	3.1	IC1003	
1	12.0	3	1.4	pin	volt	4	5.0	pin	volt	pin	volt	29	GND	pin	volt
2	12.0	4	-15.0	1	4.1	5	1.2	1	1.6	1	0.0	30	0.4	G	GND
3	6.1	5	1.7	2	7.2	IC701		2	1.6	2	1.6	31	5.0	I	5.0
4	GND	6	1.7	3	GND	pin	volt	3	-15.0	3	2.5	32	0.4	O	5.0
5	8.0	7	4.9	4	5.0	1	-0.2	4	-0.4	4	3.3	33	0.0	IC1005	
6	5.0	8	15.0	5	N/C	2	-0.2	5	15.0	5	0.0	34	4.8	pin	volt
7	0.0	IC603		IC607		3	1.2	IC901		6	N/C	35	5.0	1	GND
8	GND	pin	volt	pin	volt	4	1.2	pin	volt	7	5.0	36	4.5	2	GND
9	4.1	1	-21.5	1	9.3	5	-14.7	1	12.0	8	5.0	37	4.7	3	GND
10	4.4	2	N/C	2	8.2	6	0.7	2	12.0	9	5.0	38	0.7	4	GND
11	0.0	3	GND	3	N/C	7	0.7	3	8.1	10	GND	39	5.0	5	4.7
12	3.2	4	-0.7	4	-0.1	8	-0.2	4	GND	11	5.0	40	5.0	6	4.5
13	0.0	5	-0.4	5	-0.2	9	-0.2	5	7.4	12	GND	41	GND	7	5.0
14	4.5	6	0.0	6	-0.2	10	15.0	6	3.2	13	GND	42	3.5	8	5.0
15	0.0	7	-0.2	IC608		IC702		7	GND	14	N/C	43	GND	All voltages are in V.	
16	3.4	8	-0.3	pin	volt	pin	volt	8	0.0	15	4.9	44	2.4		
17	9.1	9	-0.3	1	2.5	1	0.1	9	GND	16	4.0	45	2.4		
18	9.1	10	N/C	2	GND	2	0.5	10	3.6	17	3.4	46	0.0		

D BOARD WAVEFORMS



D BOARD LOCATOR LIST

DIODE		D609	B-8	D636	A-7	D1007	C-3	IC609	B-4	Q515	G-4
D401	I-5	D610	A-6	D701	H-8	D1008	C-3	IC610	B-5	Q516	F-3
D402	H-2	D611	A-8	D702	H-8	D1009	E-2	IC701	I-2	Q517	C-3
D405	I-5	D612	A-7	D703	I-8	D1010	C-2	IC702	J-4	Q519	C-4
D501	F-8	D613	B-6	D705	H-1	D1011	C-2	IC703	B-2	Q605	B-7
D502	G-10	D614	D-9	D901	H-9	D1012	C-2	IC901	G-10	Q606	D-8
D503	F-6	D615	D-8	D903	H-10	D1013	C-2	IC1001	D-1	Q607	D-10
D504	F-8	D616	E-8	D904	H-10	D1014	C-2	IC1003	C-3	Q608	D-13
D505	F-6	D617	E-8	D906	E-12	D1018	C-1	IC1005	D-2	Q609	B-4
D506	F-3	D618	D-8	D907	F-12	D1021	E-1	TRANSISTOR		Q701	I-8
D507	G-1	D619	E-7	D908	H-10	D1022	E-1	Q501	F-3	Q702	H-8
D508	G-1	D620	D-7	D909	E-11	D1024	C-3	Q502	F-2	Q703	I-8
D509	F-2	D621	D-7	D910	G-12	D1025	E-2	Q503	F-2	Q704	I-7
D510	F-1	D622	D-6	D911	H-13	D1027	D-2	Q504	F-9	Q705	I-7
D511	G-1	D623	D-4	D912	I-13	IC		Q505	H-8	Q706	J-11
D512	G-1	D624	C-5	D913	I-13	IC401	I-6	Q506	F-5	Q901	E-13
D514	C-4	D625	C-11	D914	I-13	IC501	F-1	Q507	F-3	Q902	E-11
D515	C-4	D626	D-11	D915	J-12	IC502	C-5	Q508	G-3	Q903	G-10
D516	F-6	D627	D-10	D916	I-12	IC503	G-1	Q509	G-2	Q904	H-11
D517	I-8	D628	D-12	D917	I-9	IC603	A-7	Q510	F-4	CRYSTAL	
D518	B-4	D629	A-3	D920	H-1	IC604	D-5	Q511	G-5	X1001	D-2
D519	F-1	D630	A-5	D921	H-1	IC605	D-4	Q512	H-5		
D607	A-6	D634	D-5	D922	H-1	IC607	A-6	Q513	H-4		
D608	A-6	D635	D-5	D1003	D-2	IC608	A-6	Q514	H-3		

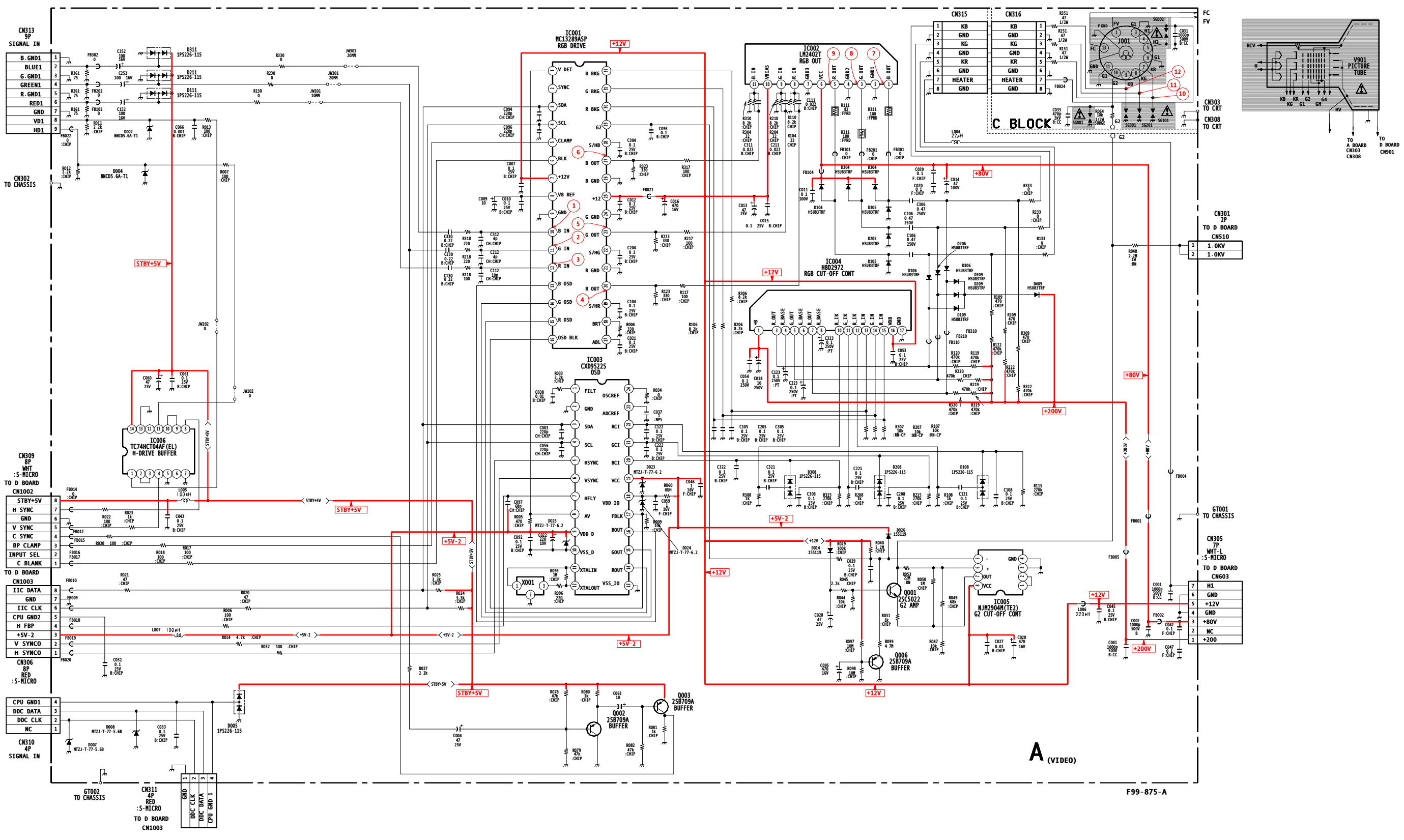


250V
T6.3A

KEY SCAN

ANOS

1-675-202-18



A BOARD IC VOLTAGE LIST

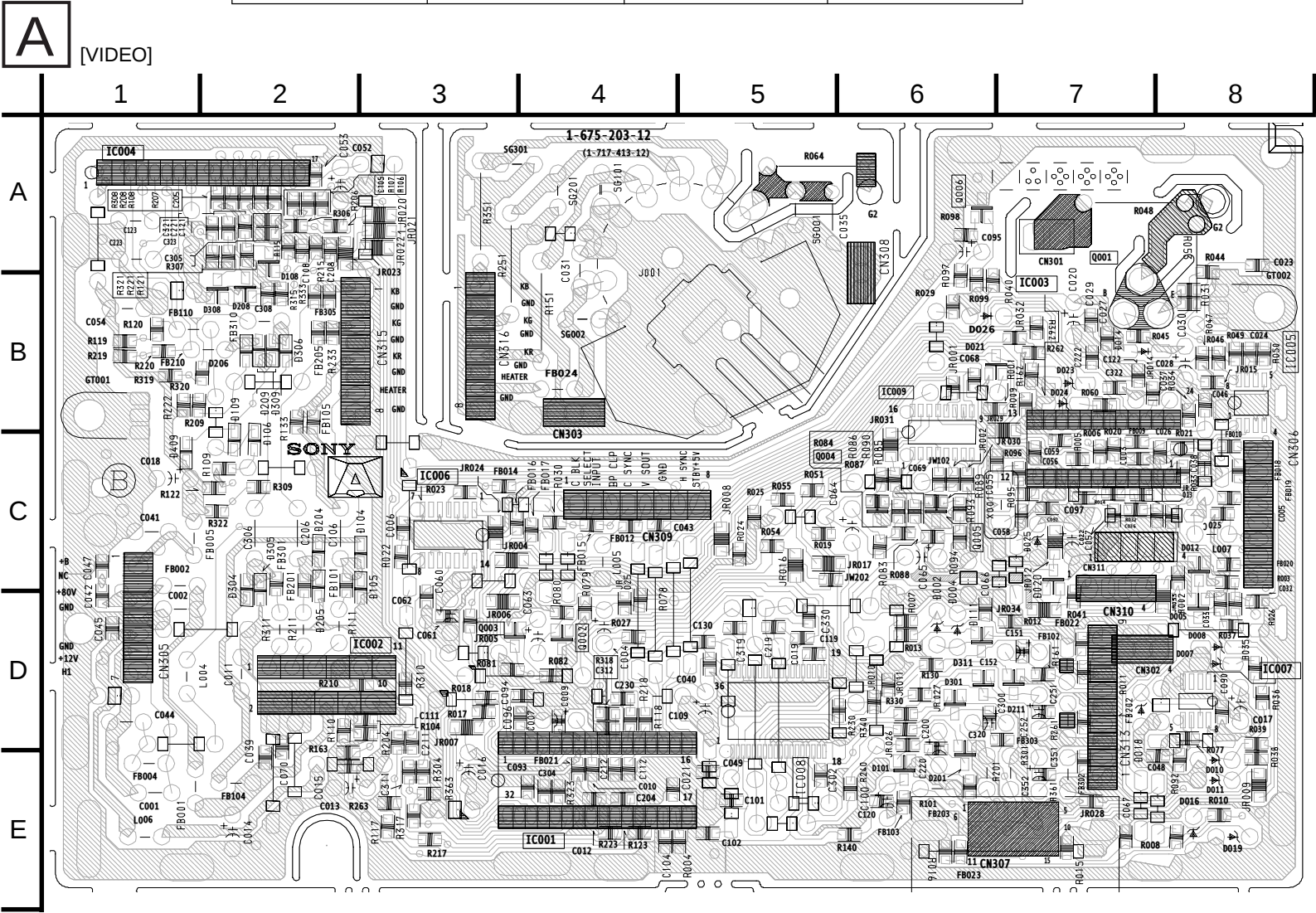
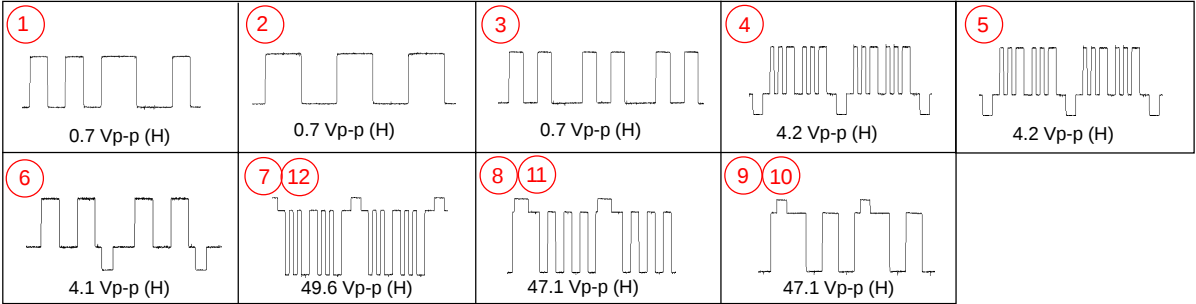
IC001		IC002		20	1.8	IC006	
pin	volt	pin	volt	21	1.8	pin	volt
1	0.5	1	57.2	22	1.9	1	0.0
2	N/C	2	GND	23	3.4	2	5.0
3	4.7	3	56.5	24	0.0	3	5.0
4	4.5	4	GND	IC004		4	0.0
5	0.1	5	55.5	pin	volt	5	GND
6	0.5	6	80.0	1	200.0	6	N/C
7	12.0	7	GND	2	N/C	7	GND
8	7.9	8	2.3	3	107.0	8	0.4
9	GND	9	2.2	4	106.0	9	4.7
10	2.0	10	12.0	5	106.0	10	4.7
11	2.0	11	2.2	6	103.0	11	0.3
12	2.0	IC003		7	103.0	12	N/C
13	0.0	pin	volt	8	101.0	13	GND
14	0.0	1	2.5	9	N/C	14	5.0
15	0.0	2	GND	10	0.4	All voltages are in V.	
16	0.0	3	4.7	11	0.4		
17	2.7	4	4.5	12	0.4		
18	0.0	5	0.4	13	4.8		
19	4.5	6	0.4	14	4.8		
20	2.3	7	0.4	15	4.8		
21	GND	8	0.4	16	12.0		
22	4.5	9	5.0	17	GND		
23	2.2	10	GND	IC005			
24	GND	11	1.6	pin	volt		
25	12.0	12	1.8	1	0.0		
26	GND	13	GND	2	0.0		
27	2.2	14	0.0	3	GND		
28	4.5	15	0.0	4	GND		
29	4.5	16	0.0	5	2.8		
30	3.5	17	0.0	6	2.8		
31	3.6	18	3.6	7	8.5		
32	3.3	19	5.0	8	12.0		

A BOARD TRANSISTOR VOLTAGE LIST

Q001		Q003	
B	9.2	B	4.6
C	660.0	C	3.1
E	8.6	E	5.0
Q002		Q006	
B	2.7	B	5.8
C	GND	C	GND
E	3.3	E	0.0

All voltages are in V.

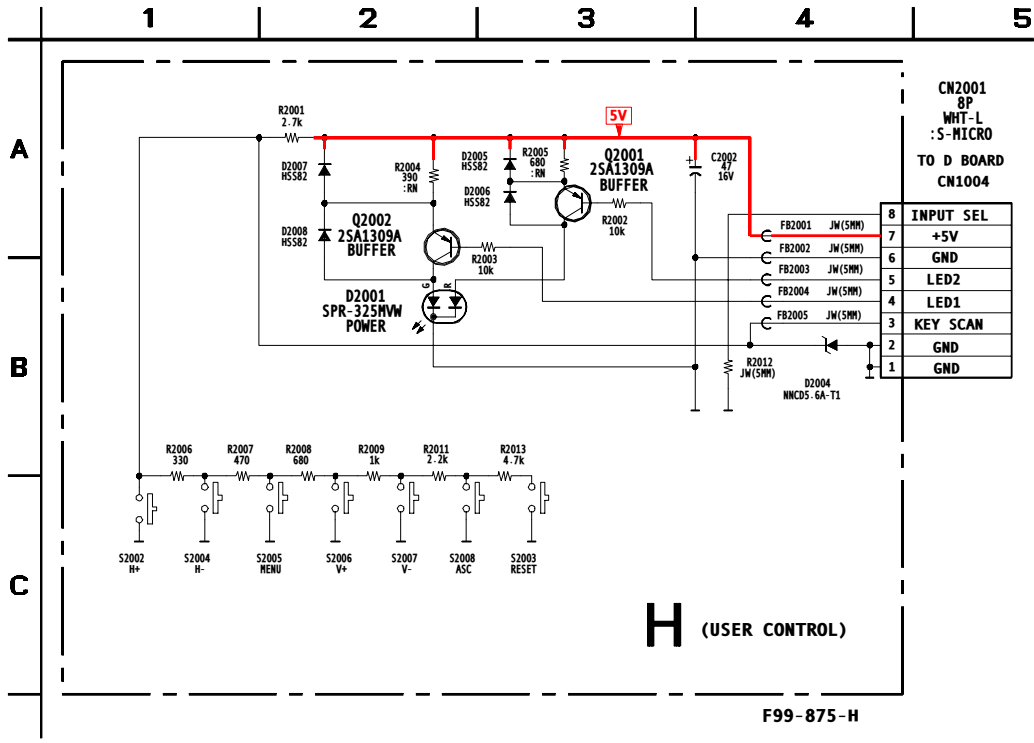
A BOARD WAVEFORMS



A BOARD LOCATOR LIST

DIODE		D025	C-7	D205	D-2	D309	B-2	IC006	C-3
D002	C-6	D026	B-7	D206	B-2	D311	D-6	TRANSISTOR	
D004	C-6	D104	C-2	D208	B-2	D409	C-1	Q001	A-7
D005	D-8	D105	C-2	D209	B-2	IC		Q002	D-4
D007	D-8	D106	B-2	D211	D-7	IC001	E-4	Q005	C-6
D008	D-8	D108	B-2	D304	C-2	IC002	D-3	Q006	A-6
D014	B-7	D109	B-2	D305	C-2	IC003	B-7	CRYSTAL	
D023	B-7	D111	D-6	D306	B-2	IC004	A-1	X001	C-7
D024	B-7	D204	C-2	D308	B-2	IC005	B-8		

H Board Schematic Diagram

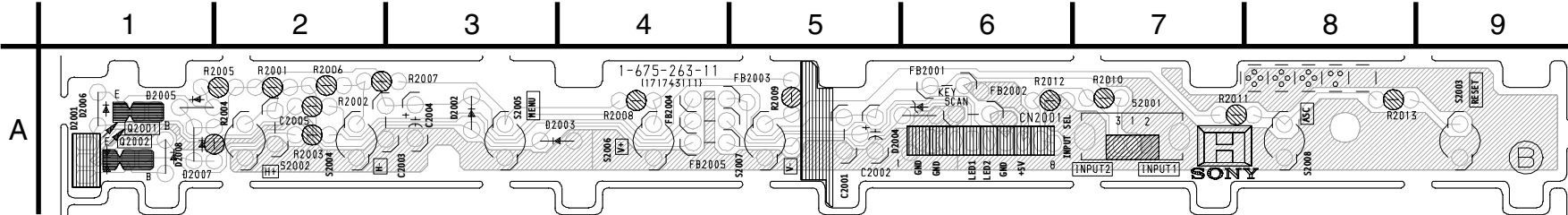


H BOARD TRANSISTOR VOLTAGE LIST

Q2001		Q2002	
pin	volt	pin	volt
B	5.0	B	1.5
C	5.0	C	2.1
E	-0.3	E	2.2

All voltages are in V.

H [USER CONTROL]



N

[DSP]
(COMPONENT SIDE)

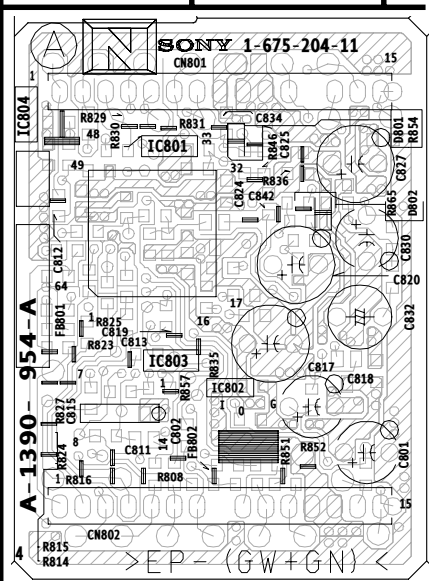
1

2

A

B

C



N BOARD TRANSISTOR VOLTAGE LIST

Q801		Q805	
pin	volt	pin	volt
B	1.3	B	0.9
C	5.0	C	GND
E	0.9	E	0.0

Q804	
pin	volt
B	0.9
C	0.0
E	GND

All voltages are in V.

N

[DSP]
(CONDUCTOR SIDE)

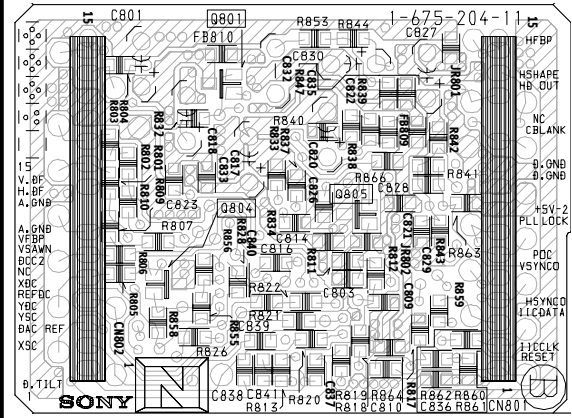
1

2

3

A

B

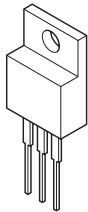


N BOARD IC VOLTAGE LIST

IC801		19	1.0	39	3.5	59	1.6	8	1.6
pin	volt	20	1.0	40	0.4	60	1.6	9	1.6
1	1.6	21	GND	41	N/C	61	1.6	10	1.6
2	1.6	22	0.0	42	0.0	62	1.6	11	GND
3	GND	23	0.0	43	N/C	63	1.6	12	GND
4	GND	24	GND	44	0.4	64	1.8	13	0.0
5	GND	25	1.6	45	N/C	IC802		14	0.0
6	1.6	26	N/C	46	5.0	pin	volt	All voltages are in V.	
7	1.6	27	0.3	47	4.6	G	GND		
8	1.6	28	3.3	48	0.0	I	5.0		
9	3.3	29	N/C	49	5.0	O	3.3		
10	1.6	30	1.5	50	N/C	IC803			
11	1.6	31	GND	51	N/C	pin	volt		
12	3.3	32	4.9	52	3.3	1	1.4		
13	6.9	33	N/C	53	N/C	2	1.5		
14	6.9	34	N/C	54	N/C	3	1.5		
15	GND	35	N/C	55	0.0	4	5.0		
16	0.9	36	N/C	56	0.0	5	1.6		
17	1.0	37	N/C	57	1.6	6	1.6		
18	1.0	38	N/C	58	1.9	7	1.6		

4-4. SEMICONDUCTORS

BA05T

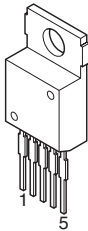


STK391-110

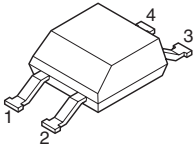


MARKING SIDE VIEW

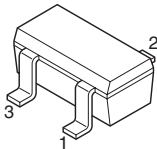
LA6500-FA
LA6510



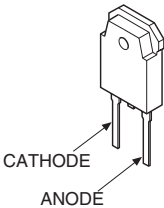
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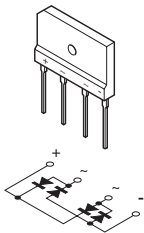
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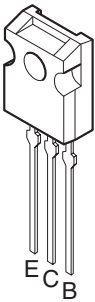
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FMC-26UA
YG911S2R



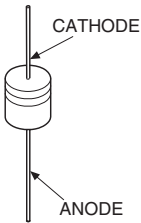
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D4SB60L



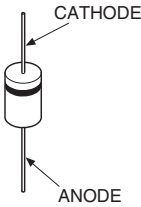
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2SC1358-Y



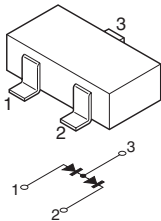
1SS119-25
MTZJ-39B
MTZJ-6.2B
RD15ESB3
RD18ESB2
RD3.0ESB2
RD3.6ESB2
RD4.7ESB2
RD10ESB2
RD16ESB3
RD5.1ESB2
RD5.6ESB2
RD8.2ESB2



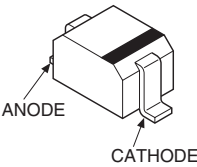
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1N4148S
ERC81-004
ERA91-02
RH-1A
ERB38-06V1



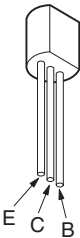
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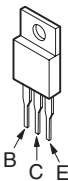
RDS.65B
DTZ-TT11-15B
DTZ4-7C
MA111



2SC2362K-G
2SC3941A-Q(TA)



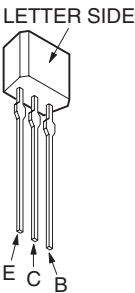
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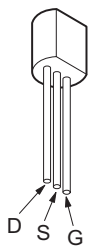
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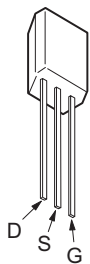
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2SC2785-HFE



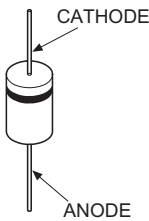
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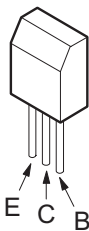
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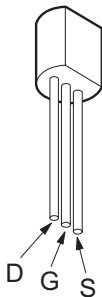
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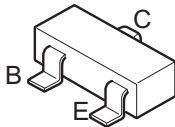
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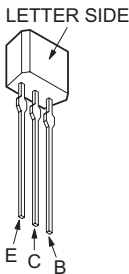
2SJ449(1)



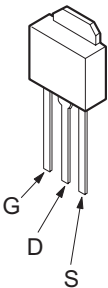
2SC2412K-T-146-QR
2SA1037AK-T146-QR
2SC3941A-QR(TA)



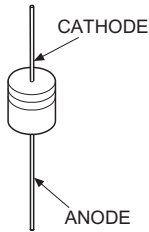
2SC3311A-QR(TA)
2SA1309A-QRSTA



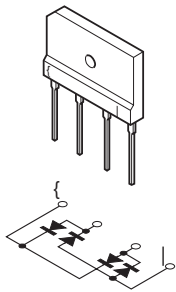
2SK2098-01MR-F119
2SK2843LBSSONY
IRFU110



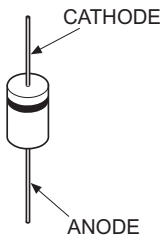
1SR139-400T31
HZS5.6NB2TD
1SS119-25-TD
MTZJ-T-77-18
RD10ES-T1B2
RD12ES-T1B2



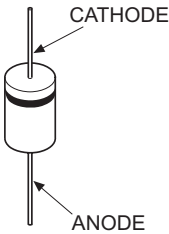
D4SB60L-F
D2L40-TA



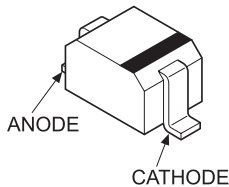
D3S4M
ERA34-10TP1
HZT33-02TE
EGP10DPKG23
RGP10JPKG23
MTZJ-T-77-5.1B



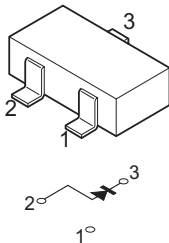
RGP10DG23
HZU5.6B2TRF
D1NS6-TA2
D1NL40-TA
UF4007G23
ERB91-02-TP1



HSS82-TJ
MA111-TX



RB441QT-77



SECTION 5 EXPLODED VIEW

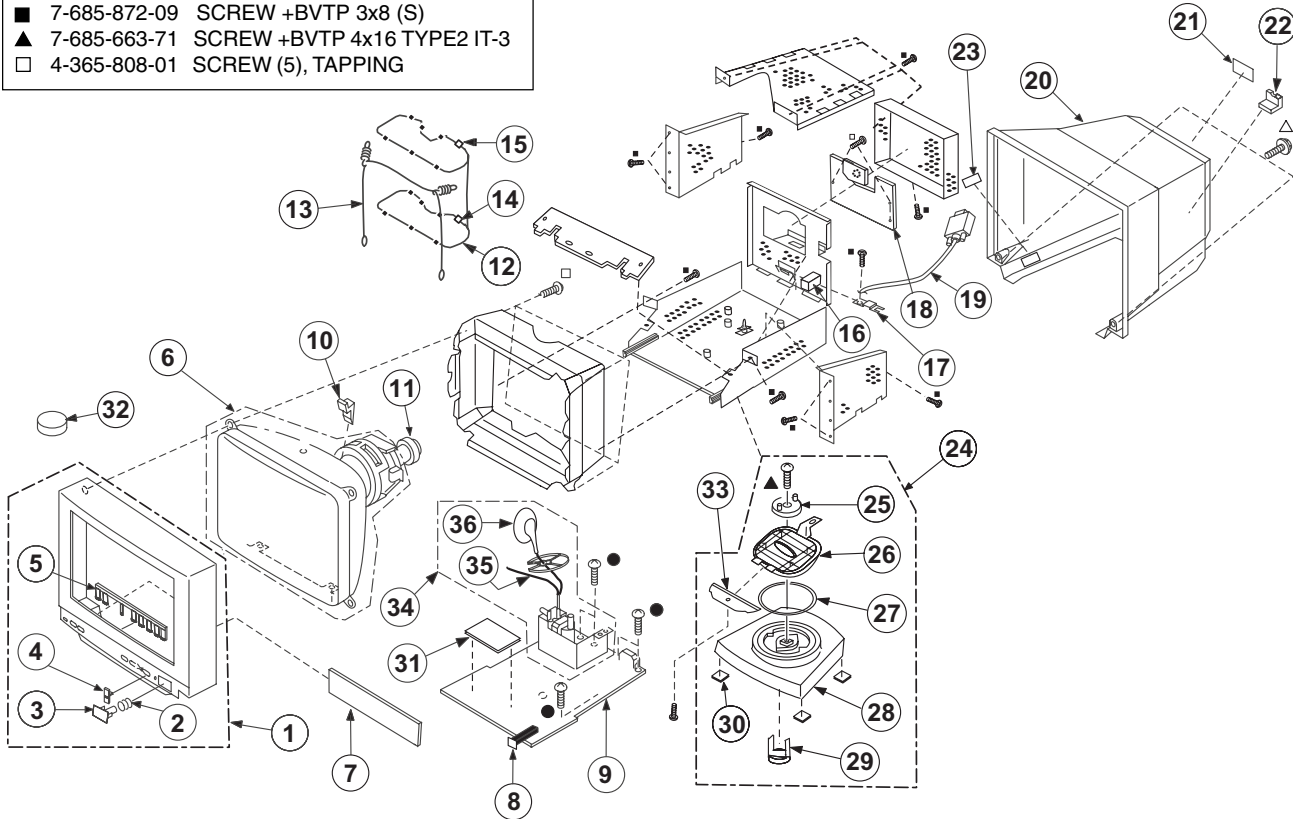
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The component parts of an assembly are indicated by the reference numbers in the remarks column.
- Items marked * are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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

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

5-1. CHASSIS

- 7-685-646-79 SCREW +BVTP 3x8 TYPE2 IT-3
- △ 7-685-881-09 SCREW +BVTP 4x8 (S)
- 7-685-872-09 SCREW +BVTP 3x8 (S)
- ▲ 7-685-663-71 SCREW +BVTP 4x16 TYPE2 IT-3
- 4-365-808-01 SCREW (5), TAPPING



REF.NO.	PART.NO.	DESCRIPTION	REMARK	REF.NO.	PART.NO.	DESCRIPTION	REMARK
1	*	X-4037-311-2 BEZEL ASSY	2-5	18	*	A-1632-915-A A COMPLETE PC BOARD	
2		3-653-339-21 SPRING, COMPRESSION		19		1-790-283-22 CABLE ASSY(15P DSUB CONNECTOR)	
3		4-071-964-11 BUTTON, POWER		20		4-073-340-11 CABINET	
4		4-073-345-01 GUIDE, LIGHT		21	*	4-073-346-11 LABEL, INFORMATION	
5		4-073-344-03 BUTTON, MULTI		22		4-073-341-02 COVER, CABLE	
6	△	8-736-407-61 ITC ASSY (19TKC-R1)		23		4-063-246-21 COVER, CONNECTOR	
7		A-1372-754-A H MOUNTED PC BOARD		24		X-4037-590-1 BASE ASSY, STAND	25-30
8		4-073-342-02 CAP, POWER		25		4-045-121-11 STOPPER (A), STAND	
9		A-1346-982-A D COMPLETE PC BOARD		26		4-071-961-31 SLIDER	
The high voltage leads associated with the FBT on this board are not included and must be ordered separately. (See 35-36)				27		4-205-705-01 RING, TILT	
10	*	4-040-897-01 SPACER, DY		28		4-071-962-22 BASE, STAND	
11	△	1-452-912-61 NECK ASSEMBLY (NA-2914)		29		4-072-648-01 STOPPER, B	
12	△	1-419-285-11 COIL, DEGAUSSING		30		4-060-533-01 CUSHION	
13	*	4-047-316-01 SPRING, EXTENSION		31		A-1390-954-A N MOUNTED PC BOARD	
14		4-041-021-02 HOLDER, DEGAUSE COIL		32		1-452-032-00 MAGNET, DISC	
15		4-071-175-01 HOLDER, DGC		33	*	4-073-997-01 SUPPORT, SLIDER	
16	*	1-251-382-31 INLET, AC 3P(WITH NOISE FILTER)		34	△	1-453-317-11 FBT ASSY NX-4700/X4E4	35-36
17	*	4-045-131-11 STOPPER, CABLE		35	*	1-900-238-31 CONNECTOR ASSY	
				36		1-251-821-42 HV CAP ASSY	

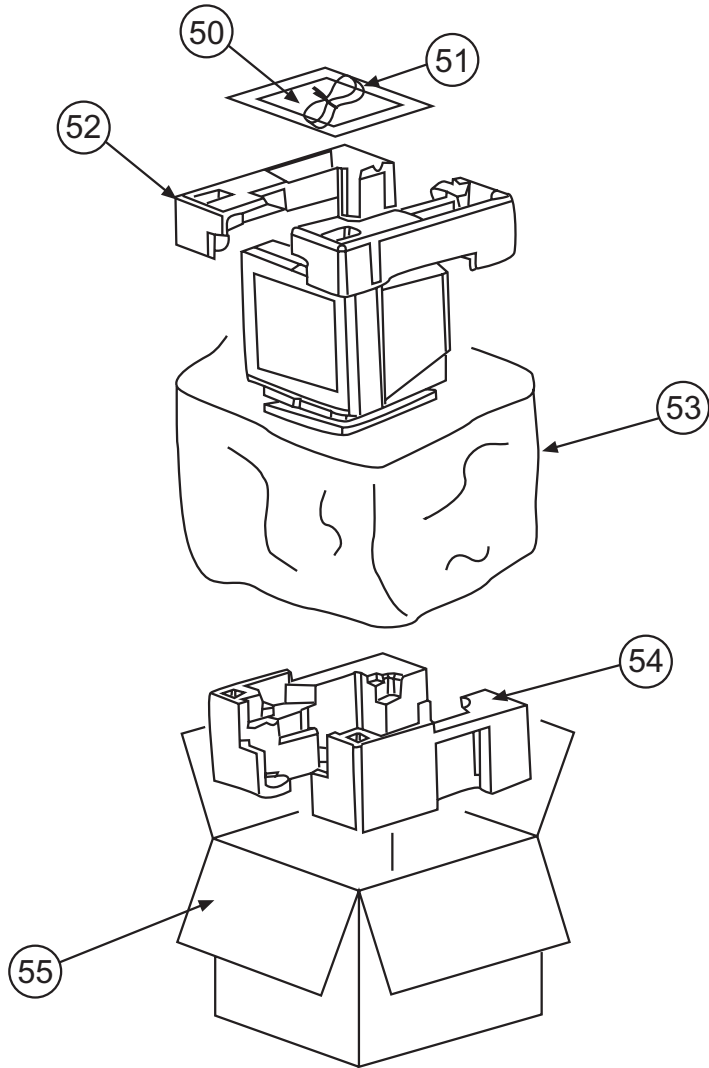
Note:

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

Note:

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

5-2. PACKAGING MATERIALS



REF.NO.	PART NO.	DESCRIPTION	REMARK
50	4-078-667-11	MANUAL, INSTRUCTION	
51	⚠ 1-765-719-31	CORD SET, POWER	
52	* 4-073-278-01	CUSHION ASSY, UPPER	
53	* 4-060-490-01	BAG, POLYETHYLENE	
54	* 4-073-273-02	CUSHION ASSY, LOWER	
55	* 4-078-668-01	CARTON, INDIVIDUAL	

A

SECTION 6 ELECTRICAL PARTS LIST

Note:

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

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

Note:

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

- 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.

RESISTORS

- All resistors are in ohms
- F : nonflammable

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
A * A-1632-915-A A COMPLETE PC BOARD 4-382-854-01 SCREW (M3X8), P, SW (+) CAPACITOR				C046	1-164-346-11	CERAMIC CHIP	1μF 16V
				C047	1-165-319-11	CERAMIC CHIP	0.1μF 50V
				C053	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
				C054	1-136-189-00	MYLAR	0.1μF 10% 250V
C001	1-135-536-91	CAP, CERAMIC	1000PF	C056	1-163-259-91	CERAMIC CHIP	220PF 5% 50V
C002	1-135-536-91	CAP, CERAMIC	1000PF	C059	1-164-346-11	CERAMIC CHIP	1μF 16V
C003	1-163-259-91	CERAMIC CHIP	220PF 5% 50V	C060	1-104-664-11	ELECT	47μF 20% 25V
C004	1-104-664-11	ELECT	47μF 20% 25V	C061	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C007	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C063	1-126-964-11	ELECT	10μF 20% 50V
C009	1-126-964-11	ELECT	10μF 20% 50V	C066	1-163-009-11	CERAMIC CHIP	0.001μF 10% 50V
C010	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C070	1-165-319-11	CERAMIC CHIP	0.1μF 50V
C011	1-106-220-00	MYLAR	0.1μF 10% 100V	C092	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C012	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C093	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C013	1-107-888-11	ELECT	47μF 20% 25V	C094	1-163-259-91	CERAMIC CHIP	220PF 5% 50V
C014	1-107-932-11	ELECT	47μF 20% 100V	C095	1-126-935-11	ELECT	470μF 20% 16V
C015	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C096	1-163-259-91	CERAMIC CHIP	220PF 5% 50V
C016	1-126-935-11	ELECT	470μF 20% 16V	C097	1-163-113-00	CERAMIC CHIP	68PF 5% 50V
C018	1-107-652-11	ELECT	10μF 20% 250V	C104	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C020	1-126-935-11	ELECT	470μF 20% 16V	C105	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C021	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C106	1-117-450-11	MYLAR	0.47μF 10% 250V
C022	1-126-934-11	ELECT	220μF 20% 10V	C108	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C027	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	C111	1-163-037-11	CERAMIC CHIP	0.022μF 10% 50V
C028	1-104-664-11	ELECT	47μF 20% 25V	C112	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V
C029	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C121	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C031	1-135-536-91	CAP, CERAMIC	1000PF	C122	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C032	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C123	1-136-189-00	MYLAR	0.1μF 10% 250V
C033	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C130	1-164-489-11	CERAMIC CHIP	0.22μF 10% 16V
C035	1-162-134-11	CERAMIC	470PF 10% 2KV	C152	1-126-933-11	ELECT	100μF 20% 16V
C037	1-136-177-00	FILM	1μF 5% 50V	C204	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C038	1-163-021-91	CERAMIC CHIP	0.01μF 10% 50V	C205	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C039	1-165-319-11	CERAMIC CHIP	0.1μF 50V	C206	1-117-450-11	MYLAR	0.47μF 10% 250V
C041	1-135-536-91	CAP, CERAMIC	1000PF	C208	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C042	1-165-319-11	CERAMIC CHIP	0.1μF 50V	C211	1-163-037-11	CERAMIC CHIP	0.022μF 10% 50V
C043	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C212	1-163-087-00	CERAMIC CHIP	4PF 0.25PF 50V
C045	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C221	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
				C222	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
				C223	1-136-189-00	MYLAR	0.1μF 10% 250V
				C230	1-164-489-11	CERAMIC CHIP	0.22μF 10% 16V
				C252	1-126-933-11	ELECT	100μF 20% 16V
				C304	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V

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

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

— 30 —

Note:

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

Note:

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



REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R111	1-249-404-00	CARBON	82	5%	1/4W	SPARK GAP					
R115	1-216-107-00	RES-CHIP	270K	5%	1/10W	SG001	1-519-422-11	GAP, SPARK			
R117	1-216-025-11	RES-CHIP	100	5%	1/10W	SG002	1-519-421-11	GAP, DISCHARGE			
R118	1-216-025-11	RES-CHIP	100	5%	1/10W	SG101	1-519-421-11	GAP, DISCHARGE			
R119	1-216-113-00	RES-CHIP	470K	5%	1/10W	SG201	1-519-421-11	GAP, DISCHARGE			
R120	1-216-113-00	RES-CHIP	470K	5%	1/10W	SG301	1-519-421-11	GAP, DISCHARGE			
R122	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R123	1-216-037-00	RES-CHIP	330	5%	1/10W						
R130	1-216-295-11	SHORT				CRYSTAL					
R133	1-216-295-11	SHORT				X001	1-781-472-21	VIBRATOR, CERAMIC			
R151	1-219-742-11	CARBON	47	5%	1/2W						
R161	1-215-394-00	METAL	75	1%	1/4W						
R204	1-216-009-91	RES-CHIP	22	5%	1/10W						
R206	1-216-071-00	RES-CHIP	8.2K	5%	1/10W						
R207	1-216-675-91	METAL CHIP	10K	0.50%	1/10W						
R208	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R209	1-216-041-00	RES-CHIP	470	5%	1/10W						
R210	1-216-071-00	RES-CHIP	8.2K	5%	1/10W						
R211	1-249-405-11	CARBON	100	5%	1/4W						
R215	1-216-107-00	RES-CHIP	270K	5%	1/10W						
R217	1-216-025-11	RES-CHIP	100	5%	1/10W						
R218	1-216-033-00	RES-CHIP	220	5%	1/10W						
R219	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R220	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R222	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R223	1-216-037-00	RES-CHIP	330	5%	1/10W						
R230	1-216-295-11	SHORT									
R233	1-216-295-11	SHORT									
R251	1-219-742-11	CARBON	47	5%	1/2W						
R261	1-215-394-00	METAL	75	1%	1/4W						
R304	1-216-009-91	RES-CHIP	22	5%	1/10W						
R306	1-216-071-00	RES-CHIP	8.2K	5%	1/10W						
R307	1-216-675-91	METAL CHIP	10K	0.50%	1/10W						
R308	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R309	1-216-041-00	RES-CHIP	470	5%	1/10W						
R310	1-216-071-00	RES-CHIP	8.2K	5%	1/10W						
R311	1-249-405-11	CARBON	100	5%	1/4W						
R315	1-216-107-00	RES-CHIP	270K	5%	1/10W						
R317	1-216-025-11	RES-CHIP	100	5%	1/10W						
R318	1-216-033-00	RES-CHIP	220	5%	1/10W						
R319	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R320	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R322	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R323	1-216-037-00	RES-CHIP	330	5%	1/10W						
R330	1-216-295-11	SHORT									
R333	1-216-295-11	SHORT									
R351	1-219-742-11	CARBON	47	5%	1/2W						
R361	1-215-394-00	METAL	75	1%	1/4W						

D					
* A-1346-982-A D COMPLETE PC BOARD					
The high voltage leads associated with the FBT on this board are not included and must be ordered separately. Order the following leads when requesting this D Board:					
		1-251-821-42	HV CAP ASSY		
		1-900-238-31	CONNECTOR ASSY		
		1-533-223-11	HOLDER, FUSE		
		4-047-285-01	SHEET, INSULATING		
		4-382-854-01	SCREW (M3X8), P, SW (+)		
		4-382-854-11	SCREW (M3X10), P, SW (+)		
		4-382-854-21	SCREW (M3X14), P, SW (+)		
CAPACITOR					
C401	1-128-730-91	ELECT	470µF	20%	25V
C402	1-137-401-11	MYLAR	0.22µF	10%	100V
C403	1-128-749-91	ELECT	220µF	20%	50V
C404	1-128-730-91	ELECT	470µF	20%	25V
C406	1-137-366-11	MYLAR	0.0022µF	5%	50V
C407	1-164-182-11	CERAMIC CHIP	0.0033µF	10%	50V
C409	1-126-968-11	ELECT	100µF	20%	50V
C500	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C501	1-163-038-11	CERAMIC CHIP	0.1µF		25V
C503	1-137-150-11	MYLAR	0.01µF	5%	50V
C504	1-137-368-11	MYLAR	0.0047µF	5%	50V
C505	1-128-729-91	ELECT	330µF	20%	25V
C506	1-127-810-51	ELECT MELF	22µF	20%	250V
C507	1-136-187-11	MYLAR	0.047µF	10%	250V
C508	1-117-959-11	FILM	4700PF	3%	1.8KV
C509	1-107-444-11	CERAMIC	100PF	5%	2KV
C510	1-136-684-51	MYLAR	0.0022µF	10%	100V
C511	1-163-038-11	CERAMIC CHIP	0.1µF		25V
C512	1-102-114-00	CERAMIC	470PF	10%	50V

**Note:**

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

Note:

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

REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
C513	1-163-038-11	CERAMIC CHIP	0.1 μ F		25V	C607	1-109-982-11	CERAMIC CHIP	1 μ F	10%	10V
C514	1-137-368-11	MYLAR	0.0047 μ F	5%	50V	C608	1-115-339-11	CERAMIC CHIP	0.1 μ F	10%	50V
C515	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V	C609	$\triangle$ 1-113-912-11	CERAMIC	0.0047 μ F	20%	250V
C516	1-126-382-11	ELECT	100 μ F	20%	16V	C610	1-117-769-91	CERAMIC	680PF	10%	2KV
C517	1-163-263-11	CERAMIC CHIP	330PF	5%	50V	C611	1-117-753-11	ELECT(BLOCK)	470 μ F	20%	450V
C518	1-164-004-11	CERAMIC CHIP	0.1 μ F	10%	25V	C612	1-131-985-21	FILM	0.033 μ F	5%	250V
C520	1-163-024-00	CERAMIC CHIP	0.018 μ F	10%	50V	C613	1-104-664-11	ELECT	47 μ F	20%	25V
C521	1-163-037-11	CERAMIC CHIP	0.022 μ F	10%	50V	C614	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V
C522	1-126-965-11	ELECT	22 μ F	20%	50V	C615	1-163-037-11	CERAMIC CHIP	0.022 μ F	10%	50V
C523	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V	C616	1-102-228-00	CERAMIC	470PF	10%	500V
C524	1-126-382-11	ELECT	100 μ F	20%	16V	C617	1-117-769-91	CERAMIC	680PF	10%	2KV
C525	1-163-038-11	CERAMIC CHIP	0.1 μ F		25V	C618	1-164-004-11	CERAMIC CHIP	0.1 μ F	10%	25V
C527	1-163-019-00	CERAMIC CHIP	0.0068 μ F	10%	50V	C619	1-163-019-00	CERAMIC CHIP	0.0068 μ F	10%	50V
C528	1-130-489-00	MYLAR	0.033 μ F	5%	50V	C620	1-128-551-11	ELECT	22 μ F	20%	25V
C529	1-137-150-11	MYLAR	0.01 μ F	5%	50V	C621	1-131-723-21	ELECT(BLOCK)	220 μ F	20%	250V
C530	1-163-038-11	CERAMIC CHIP	0.1 μ F		25V	C622	1-164-161-11	CERAMIC CHIP	0.0022 μ F	10%	50V
C531	1-163-038-11	CERAMIC CHIP	0.1 μ F		25V	C623	1-107-933-11	ELECT	100 μ F	20%	100V
C532	1-107-906-11	ELECT	10 μ F	20%	50V	C624	1-104-666-11	ELECT	220 μ F	20%	25V
C533	1-163-037-11	CERAMIC CHIP	0.022 μ F	10%	50V	C625	1-115-789-11	ELECT	0.001F	20%	25V
C534	1-163-038-11	CERAMIC CHIP	0.1 μ F		25V	C626	1-115-791-11	ELECT	0.0018F	20%	25V
C535	1-164-004-11	CERAMIC CHIP	0.1 μ F	10%	25V	C627	1-115-789-11	ELECT	0.001F	20%	25V
C536	1-107-665-11	ELECT	0.47 μ F	20%	400V	C628	1-107-890-11	ELECT	2200 μ F	20%	25V
C537	1-107-770-11	FILM	0.16 μ F	3%	400V	C629	1-126-935-11	ELECT	470 μ F	20%	16V
C538	1-107-651-11	ELECT	4.7 μ F	20%	250V	C630	1-126-935-11	ELECT	470 μ F	20%	16V
C539	1-117-673-11	FILM	1.5 μ F	5%	250V	C631	1-128-526-11	ELECT	100 μ F	20%	25V
C540	1-107-888-11	ELECT	47 μ F	20%	25V	C632	1-104-653-11	ELECT	220 μ F	20%	16V
C541	1-109-844-11	FILM	0.68 μ F	5%	250V	C633	1-126-934-11	ELECT	220 μ F	20%	10V
C542	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V	C634	1-164-004-11	CERAMIC CHIP	0.1 μ F	10%	25V
C543	1-117-665-11	FILM	0.33 μ F	5%	250V	C635	1-126-965-11	ELECT	22 μ F	20%	50V
C544	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V	C636	$\triangle$ 1-113-900-11	CERAMIC	470PF	10%	250V
C545	1-117-661-71	FILM	0.15 μ F	5%	250V	C637	$\triangle$ 1-113-900-11	CERAMIC	470PF	10%	250V
C546	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V	C638	$\triangle$ 1-104-708-11	MYLAR	0.47 μ F	20%	250V
C547	1-119-860-11	FILM	0.082 μ F	5%	250V	C640	1-164-004-11	CERAMIC CHIP	0.1 μ F	10%	25V
C548	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V	C641	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C549	1-117-953-91	FILM	0.033 μ F	5%	400V	C642	1-163-017-00	CERAMIC CHIP	0.0047 μ F	10%	50V
C550	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V	C644	1-136-187-11	MYLAR	0.047 μ F	10%	250V
C551	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C645	1-126-934-11	ELECT	220 μ F	20%	16V
C553	1-163-017-00	CERAMIC CHIP	0.0047 μ F	10%	50V	C646	1-107-882-91	ELECT	100 μ F	20%	16V
C554	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	C647	1-107-882-91	ELECT	100 μ F	20%	16V
C555	1-137-194-81	FILM	0.47 μ F	5%	50V	C648	1-107-906-11	ELECT	10 μ F	20%	50V
C556	1-163-021-91	CERAMIC CHIP	0.01 μ F	10%	50V	C650	1-135-549-91	CAP, CERAMIC	100PF		
C557	1-126-935-11	ELECT	470 μ F	20%	16V	C653	1-126-942-61	ELECT	1000 μ F	20%	25V
C558	1-163-007-11	CERAMIC CHIP	680PF	10%	50V	C654	1-104-666-11	ELECT	220 μ F	20%	25V
C559	1-163-038-11	CERAMIC CHIP	0.1 μ F		25V	C656	1-104-664-11	ELECT	47 μ F	20%	25V
C560	1-109-982-11	CERAMIC CHIP	1 μ F	10%	10V	C657	1-162-318-11	CERAMIC	0.001 μ F	10%	500V
C562	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C658	1-162-815-11	CERAMIC	47PF	5%	500V
C563	1-113-340-11	ELECT	47 μ F	20%	25V	C659	1-109-982-11	CERAMIC CHIP	1 μ F	10%	10V
C564	1-115-339-11	CERAMIC CHIP	0.1 μ F	10%	50V	C660	1-136-189-00	MYLAR	0.1 μ F	10%	250V
C565	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	C701	1-163-003-11	CERAMIC CHIP	330PF	10%	50V

**Note:**

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C703	1-163-003-11	CERAMIC CHIP	330PF 10% 50V	C923	1-126-964-11	ELECT	10 μ F 20% 50V
C704	1-135-500-91	CAP, PETP FILM	0.1MF	C924	1-104-665-11	ELECT	100 μ F 20% 25V
C705	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V	C925	1-137-150-11	MYLAR	0.01 μ F 5% 50V
C706	1-135-500-91	CAP, PETP FILM	0.1MF	C926	1-106-220-00	MYLAR	0.1 μ F 10% 100V
C707	1-126-942-61	ELECT	1000 μ F 20% 25V	C927	1-106-351-00	MYLAR	0.0022 μ F 20% 200V
C708	1-126-942-61	ELECT	1000 μ F 20% 25V	C929	1-126-965-11	ELECT	22 μ F 20% 50V
C711	1-163-113-00	CERAMIC CHIP	68PF 5% 50V	C930	1-137-150-11	MYLAR	0.01 μ F 5% 50V
C712	1-163-113-00	CERAMIC CHIP	68PF 5% 50V	C931	1-164-005-11	CERAMIC CHIP	0.47 μ F 25V
C713	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	C1001	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C714	1-126-960-11	ELECT	1 μ F 20% 50V	C1006	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V
C716	1-136-177-00	FILM	1 μ F 5% 50V	C1013	1-126-926-11	ELECT	1000 μ F 20% 10V
C717	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V	C1024	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V
C718	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	C1025	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V
C719	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	C1026	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V
C720	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	C1030	1-164-222-11	CERAMIC CHIP	0.22 μ F 25V
C721	1-128-562-11	ELECT	47 μ F 20% 100V	C1031	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V
C723	1-128-561-91	ELECT	33 μ F 20% 100V	C1036	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V
C724	1-162-134-11	CERAMIC	470PF 10% 2KV	C1037	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V
C725	1-126-965-11	ELECT	22 μ F 20% 50V	C1038	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V
C726	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	C1042	1-163-243-11	CERAMIC CHIP	47PF 5% 50V
C727	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	C1046	1-163-243-11	CERAMIC CHIP	47PF 5% 50V
C728	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V	C1047	1-163-243-11	CERAMIC CHIP	47PF 5% 50V
C729	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V	C1050	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V
C730	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V	C1056	1-163-259-91	CERAMIC CHIP	220PF 5% 50V
C731	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V	C1057	1-163-259-91	CERAMIC CHIP	220PF 5% 50V
C732	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	C1061	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V
C900	1-107-906-11	ELECT	10 μ F 20% 50V	C1062	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V
C901	1-104-665-11	ELECT	100 μ F 20% 25V	C1063	1-115-339-11	CERAMIC CHIP	0.1 μ F 10% 50V
C902	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	C1064	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V
C903	1-107-904-11	ELECT	3.3 μ F 20% 50V	CONNECTOR			
C904	1-115-339-11	CERAMIC CHIP	0.1 μ F 10% 50V	CN501 *	1-580-798-11	CONNECTOR PIN (DY) 6P	
C905	1-163-133-00	CERAMIC CHIP	470PF 5% 50V	CN600* $\triangle$	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
C906	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	CN601 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
C907	1-163-275-11	CERAMIC CHIP	0.001 μ F 5% 50V	CN603 *	1-564-510-11	PLUG, CONNECTOR 7P	
C908	1-164-505-11	CERAMIC CHIP	2.2 μ F 16V	CN701 *	1-564-511-11	PLUG, CONNECTOR 8P	
C909	1-104-665-11	ELECT	100 μ F 20% 25V	CN702 *	1-564-506-11	PLUG, CONNECTOR 3P	
C910	1-163-259-91	CERAMIC CHIP	220PF 5% 50V	CN901	1-695-915-11	TAB (CONTACT)	
C911	1-163-243-11	CERAMIC CHIP	47PF 5% 50V	CN1001*	1-508-879-11	BASE POST 4P	
C912	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	CN1002*	1-564-511-11	PLUG, CONNECTOR 8P	
C913	1-119-748-11	ELECT	33 μ F 20% 400V	CN1003*	1-564-515-11	PLUG, CONNECTOR 12P	
C914	1-136-187-11	MYLAR	0.047 μ F 10% 250V	CN1004*	1-564-509-11	PLUG, CONNECTOR 6P	
C915	1-137-367-11	MYLAR	0.0033 μ F 5% 50V	DIODE			
C916	1-117-665-11	FILM	0.33 μ F 5% 250V	D401	8-719-979-58	DIODE EGP10GPKG23	
C917	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	D402	8-719-158-15	DIODE UDZ-TE-17-5.6B	
C918	1-117-626-11	FILM	2000PF 3% 1.2KV	D405	8-719-991-33	DIODE 1SS133T-77	
C919	1-115-349-51	CERAMIC	0.01 μ F 2KV	D501	8-719-110-47	DIODE HZS182-TE	
C920	1-115-349-51	CERAMIC	0.01 μ F 2KV	D502	8-719-975-77	DIODE SB340L-6489	
C921	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V				
C922	1-126-963-11	ELECT	4.7 μ F 20% 50V				

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D503	8-719-110-47	DIODE HZS182-TE		D904	8-719-073-01	DIODE MA111-TX	
D504	8-719-061-21	DIODE PG124S15		D906	8-719-978-65	DIODE UDZ-TE-17-15B	
D505	8-719-052-86	DIODE D2L40-TA		D907	8-719-052-86	DIODE D2L40-TA	
D506	8-719-976-96	DIODE UDZ-TE-17-4.7B		D908	8-719-073-01	DIODE MA111-TX	
D507	8-719-073-01	DIODE MA111-TX		D909	8-719-978-65	DIODE UDZ-TE-17-15B	
D508	8-719-073-01	DIODE MA111-TX		D910	8-719-028-72	DIODE RGP02-17PKG23	
D509	8-719-073-01	DIODE MA111-TX		D911	8-719-028-72	DIODE RGP02-17PKG23	
D510	8-719-073-01	DIODE MA111-TX		D912	8-719-110-46	DIODE RD16ES-T1B2	
D511	8-719-073-01	DIODE MA111-TX		D913	8-719-110-46	DIODE RD16ES-T1B2	
D512	8-719-073-01	DIODE MA111-TX		D914	8-719-970-83	DIODE HSS82-TJ	
D514	8-719-109-81	DIODE RD4.7ES-T1B2		D915	8-719-109-85	DIODE RD5.1ES-T1B2	
D515	8-719-073-01	DIODE MA111-TX		D916	8-719-158-49	DIODE UDZ-TE-17-12B	
D516	8-719-951-30	DIODE ERA91-02TP1		D917	8-719-929-15	DIODE RD9.1ES-T1B2	
D517	8-719-978-65	DIODE UDZ-TE-17-15B		D920	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D518	8-719-110-17	DIODE RD10ES-T1B2		D921	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D519	8-719-976-96	DIODE UDZ-TE-17-4.7B		D922	8-719-073-01	DIODE MA111-TX	
D607	8-719-073-01	DIODE MA111-TX		D1003	1-218-772-11	METAL CHIP	680K 0.50% 1/10W
D608	8-719-991-33	DIODE 1SS133T-77		D1007	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D609	8-719-053-19	DIODE μ F4007G23		D1008	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D610	8-719-921-40	DIODE MTZJ-T-77-4.7B		D1009	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D611	8-719-053-19	DIODE μ F4007G23		D1010	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D612	8-719-110-49	DIODE MTZJ-T-77-18		D1011	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D613	8-719-300-76	DIODE RGP10DG23		D1012	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D614	8-719-067-68	DIODE FMC-26UA		D1013	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D615	8-719-053-19	DIODE μ F4007G23		D1014	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D616	8-719-076-20	DIODE BT149G-412-OT359		D1018	8-719-073-01	DIODE MA111-TX	
D617	8-719-991-33	DIODE 1SS133T-77		D1021	8-719-062-51	DIODE 1PS226-115	
D618	8-719-069-63	DIODE ERB38-06V1		D1022	8-719-062-51	DIODE 1PS226-115	
D619	8-719-058-38	DIODE FMN-G12S		D1024	8-719-073-01	DIODE MA111-TX	
D620	8-719-510-41	DIODE D10SC9M		D1025	8-719-158-15	DIODE UDZ-TE-17-5.6B	
D621	8-719-979-58	DIODE EGP10DPKG23		D1027	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
D622	8-719-074-79	DIODE D4L20U		FUSE			
D623	8-719-979-58	DIODE EGP10DPKG23		F601	$\triangle$ 1-576-233-11	FUSE (H.B.C.)	
D624	8-719-979-58	DIODE EGP10DPKG23		FERRITE BEAD			
D625	$\triangle$ 8-719-510-53	DIODE D4SB60L-F		FB501	1-412-911-11	FERRITE	0 μ H
D626	8-719-991-33	DIODE 1SS133T-77		FB502	1-543-960-22	FERRITE	0 μ H
D627	8-719-110-08	DIODE RD8.2ES-T1B2		FB602	1-410-397-21	FERRITE	1.1 μ H
D628	8-719-991-33	DIODE 1SS133T-77		FB901	1-412-911-11	FERRITE	0 μ H
D629	8-719-073-01	DIODE MA111-TX		FB1000	1-216-295-11	SHORT	
D630	8-719-110-41	DIODE MTZJ-T-77-15B		FB1001	1-216-025-11	RES-CHIP	100 5% 1/10W
D634	8-719-991-33	DIODE 1SS133T-77		FB1002	1-216-025-11	RES-CHIP	100 5% 1/10W
D635	8-719-991-33	DIODE 1SS133T-77		FB1004	1-216-295-11	SHORT	
D636	8-719-158-49	DIODE UDZ-TE-17-12B		IC			
D701	8-719-991-33	DIODE 1SS133T-77		IC401	8-759-593-28	IC LA78040	
D702	8-719-991-33	DIODE 1SS133T-77		IC501	8-759-585-82	IC BA9759F-E2	
D703	8-719-991-33	DIODE 1SS133T-77					
D705	8-719-158-49	DIODE UDZ-TE-17-12B					
D901	8-719-073-01	DIODE MA111-TX					
D903	8-719-073-01	DIODE MA111-TX					

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

Note:

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REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R572	1-249-429-11	CARBON	10K	5%	1/4W	R676	1-215-467-00	METAL	82K	1%	1/4W
R573	1-216-385-11	METAL OXIDE	0.47	5%	3W	R677	1-216-025-11	RES-CHIP	100	5%	1/10W
R574	1-249-404-00	CARBON	82	5%	1/4W	R678	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R575	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	R679	1-215-467-00	METAL	82K	1%	1/4W
R576	1-216-097-11	RES-CHIP	100K	5%	1/10W	R680	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R577	1-216-049-11	RES-CHIP	1K	5%	1/10W	R681	1-215-466-00	METAL	75K	1%	1/4W
R579	1-216-025-11	RES-CHIP	100	5%	1/10W	R682	1-215-463-00	METAL	56K	1%	1/4W
R580	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	R684	1-216-009-91	RES-CHIP	22	5%	1/10W
R581	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	R685	1-216-073-00	RES-CHIP	10K	5%	1/10W
R582	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	R686	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R583	1-216-675-91	METAL CHIP	10K	0.50%	1/10W	R687	1-216-689-11	RES-CHIP	39K	5%	1/10W
R584	1-216-473-11	METAL OXIDE	56	5%	3W	R689	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R585	1-216-381-11	METAL OXIDE	0.22	5%	3W	R690	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W
R586	1-260-125-11	CARBON	150K	5%	1/2W	R691	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R587	1-216-641-11	METAL CHIP	390	0.50%	1/10W	R692	1-216-081-00	RES-CHIP	22K	5%	1/10W
R601	1-249-425-11	CARBON	4.7K	5%	1/4W	R693	1-219-513-11	CARBON	4.7M	5%	1/2W
R615	1-216-615-91	METAL CHIP	33	0.50%	1/10W	R697	1-215-927-00	METAL OXIDE	47K	5%	3W
R625	1-202-933-61	FUSIBLE	0.1	10%	1/2W	R698	1-215-927-00	METAL OXIDE	47K	5%	3W
R626	1-215-927-00	METAL OXIDE	47K	5%	3W	R700	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R627	1-219-513-11	CARBON	4.7M	5%	1/2W	R701	1-249-385-11	CARBON	2.2	5%	1/4W
R628	1-218-772-11	METAL CHIP	680K	0.50%	1/10W	R703	1-249-385-11	CARBON	2.2	5%	1/4W
R629	1-218-758-11	METAL CHIP	180K	0.50%	1/10W	R705	1-215-863-11	METAL OXIDE	100	5%	1W
R630	1-216-635-11	METAL CHIP	220	0.50%	1/10W	R706	1-216-423-11	METAL OXIDE	27	5%	1W
R631	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	R707	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R632	1-218-758-11	METAL CHIP	180K	0.50%	1/10W	R708	1-216-353-00	METAL OXIDE	2.2	5%	1W
R633	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	R709	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R635	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	R710	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R636	1-249-397-11	CARBON	22	5%	1/4W	R711	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R637	1-215-893-11	METAL OXIDE	1.5K	5%	2W	R712	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R638	1-215-893-11	METAL OXIDE	1.5K	5%	2W	R713	1-215-858-00	METAL OXIDE	15	5%	1W
R639	1-216-609-11	METAL CHIP	18	0.50%	1/10W	R714	1-215-863-11	METAL OXIDE	100	5%	1W
R640	1-216-344-00	METAL OXIDE	0.39	5%	1W	R715	1-216-353-00	METAL OXIDE	2.2	5%	1W
R641	1-216-345-11	METAL OXIDE	0.47	5%	1W	R716	1-249-385-11	CARBON	2.2	5%	1/4W
R642	1-249-381-11	CARBON	1	5%	1/4W	R717	1-249-377-11	CARBON	0.47	5%	1/4W
R643	1-247-791-91	CARBON	22	5%	1/4W	R718	1-216-426-11	METAL OXIDE	82	5%	1W
R644	1-247-807-31	CARBON	100	5%	1/4W	R719	1-216-369-00	METAL OXIDE	1	5%	2W
R649	$\triangle$ 1-211-874-71	FUSIBLE MELF	0.12	10%	1/2W	R720	1-216-295-11	SHORT			
R650	$\triangle$ 1-211-874-71	FUSIBLE MELF	0.12	10%	1/2W	R721	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R651	1-249-441-11	CARBON	100K	5%	1/4W	R722	1-216-426-11	METAL OXIDE	82	5%	1W
R652	1-215-923-00	METAL OXIDE	10K	5%	3W	R723	1-216-295-11	SHORT			
R653	1-215-902-11	METAL OXIDE	47K	5%	2W	R724	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R657	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R725	1-216-369-00	METAL OXIDE	1	5%	2W
R658	1-216-346-00	METAL OXIDE	0.56	5%	1W	R726	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R659	1-249-425-11	CARBON	4.7K	5%	1/4W	R727	1-216-666-11	METAL CHIP	4.3K	0.50%	1/10W
R664	1-215-902-11	METAL OXIDE	47K	5%	2W	R728	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R671	1-216-073-00	RES-CHIP	10K	5%	1/10W	R729	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R672	1-249-407-11	CARBON	150	5%	1/4W	R730	1-216-073-00	RES-CHIP	10K	5%	1/10W
R673	1-216-073-00	RES-CHIP	10K	5%	1/10W	R731	1-216-081-00	RES-CHIP	22K	5%	1/10W
R674	$\triangle$ 1-220-827-91	RESISTOR	560K	5%	1/2W	R732	1-249-383-11	CARBON	1.5	5%	1/4W

**Note:**

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Note:

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REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R733	1-215-859-00	METAL OXIDE	22	5%	1W	R931	1-219-748-11	CARBON	4.7K	5%	1/2W
R734	1-215-864-00	METAL OXIDE	150	5%	1W	R932	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R735	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R933	1-216-666-11	METAL CHIP	4.3K	0.50%	1/10W
R736	1-216-049-11	RES-CHIP	1K	5%	1/10W	R934 $\triangle$	1-249-377-11	CARBON	0.47	5%	1/4W
R737	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1001	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R738	1-216-071-00	RES-CHIP	8.2K	5%	1/10W	R1004	1-216-033-00	RES-CHIP	220	5%	1/10W
R739	1-249-434-11	CARBON	27K	5%	1/4W	R1005	1-249-409-11	CARBON	220	5%	1/4W
R740	1-216-089-11	RES-CHIP	47K	5%	1/10W	R1006	1-216-033-00	RES-CHIP	220	5%	1/10W
R741	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1007	1-216-049-11	RES-CHIP	1K	5%	1/10W
R742	1-216-067-00	RES-CHIP	5.6K	5%	1/10W	R1008	1-216-049-11	RES-CHIP	1K	5%	1/10W
R743	1-216-037-00	RES-CHIP	330	5%	1/10W	R1010	1-216-033-00	RES-CHIP	220	5%	1/10W
R744	1-249-413-11	CARBON	470	5%	1/4W	R1011	1-216-049-11	RES-CHIP	1K	5%	1/10W
R745	1-249-389-11	CARBON	4.7	5%	1/4W	R1012	1-216-017-91	RES-CHIP	47	5%	1/10W
R746	1-249-389-11	CARBON	4.7	5%	1/4W	R1013	1-216-017-91	RES-CHIP	47	5%	1/10W
R747	1-216-357-00	METAL OXIDE	4.7	5%	1W	R1014	1-216-025-11	RES-CHIP	100	5%	1/10W
R748	1-219-752-11	CARBON	100K	5%	1/2W	R1015	1-216-033-00	RES-CHIP	220	5%	1/10W
R749	1-215-437-00	METAL	4.7K	1%	1/4W	R1016	1-216-033-00	RES-CHIP	220	5%	1/10W
R751	1-216-073-00	RES-CHIP	10K	5%	1/10W	R1017	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R752	1-216-085-00	RES-CHIP	33K	5%	1/10W	R1018	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R753	1-249-393-11	CARBON	10	5%	1/4W	R1019	1-216-017-91	RES-CHIP	47	5%	1/10W
R754	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	R1020	1-216-017-91	RES-CHIP	47	5%	1/10W
R755	1-216-675-91	METAL CHIP	10K	0.50%	1/10W	R1021	1-216-025-11	RES-CHIP	100	5%	1/10W
R901	1-216-097-11	RES-CHIP	100K	5%	1/10W	R1022	1-216-025-11	RES-CHIP	100	5%	1/10W
R902	1-216-089-11	RES-CHIP	47K	5%	1/10W	R1039	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R904	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R1046	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R905	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1047	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R906	1-216-699-91	METAL CHIP	100K	0.50%	1/10W	R1048	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R907	1-216-073-00	RES-CHIP	10K	5%	1/10W	R1049	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R908	1-249-425-11	CARBON	4.7K	5%	1/4W	R1050	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R909	1-215-913-11	METAL OXIDE	220	5%	3W	R1051	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R910	1-215-913-11	METAL OXIDE	220	5%	3W	R1065	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R911	1-249-397-11	CARBON	22	5%	1/4W	R1070	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R912	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1072	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R914	1-216-041-00	RES-CHIP	470	5%	1/10W	R1073	1-216-049-11	RES-CHIP	1K	5%	1/10W
R915	1-249-397-11	CARBON	22	5%	1/4W	R1074	1-216-049-11	RES-CHIP	1K	5%	1/10W
R916	1-249-385-11	CARBON	2.2	5%	1/4W	R1083	1-216-025-11	RES-CHIP	100	5%	1/10W
R917	1-249-385-11	CARBON	2.2	5%	1/4W	R1084	1-216-041-00	RES-CHIP	470	5%	1/10W
R918	1-214-964-00	METAL	1M	1%	1/4W	R1085	1-216-025-11	RES-CHIP	100	5%	1/10W
R919	1-216-073-00	RES-CHIP	10K	5%	1/10W	R1086	1-216-073-00	RES-CHIP	10K	5%	1/10W
R920	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	R1092	1-216-033-00	RES-CHIP	220	5%	1/10W
R921	1-216-049-11	RES-CHIP	1K	5%	1/10W	R1094	1-216-113-00	RES-CHIP	470K	5%	1/10W
R923	1-215-469-00	METAL	100K	1%	1/4W	R1095	1-216-073-00	RES-CHIP	10K	5%	1/10W
R924	1-216-675-91	METAL CHIP	10K	0.50%	1/10W	R1096	1-216-073-00	RES-CHIP	10K	5%	1/10W
R925	1-218-762-11	METAL CHIP	270K	0.50%	1/10W	R1097	1-216-077-91	RES-CHIP	15K	5%	1/10W
R926	1-216-073-00	RES-CHIP	10K	5%	1/10W	R1098	1-216-077-91	RES-CHIP	15K	5%	1/10W
R927	1-220-823-91	CARBON	6.8K	5%	1/2W	R1104	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R928	1-220-825-11	CARBON	330K	5%	1/2W						
R929	1-216-089-11	RES-CHIP	47K	5%	1/10W						
R930	1-219-748-11	CARBON	4.7K	5%	1/2W						

Note:

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Note:

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



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<u>VARIABLE RESISTOR</u>				H			
RV901	△ 1-241-767-21	RES, ADJ, CERMET 100K					
	3-710-578-01	COVER, VOLUME, 6 MOLD					
<u>RELAY</u>				* A-1372-754-A H MOUNTED PC BOARD			
RY601	△ 1-755-067-21	RELAY		<u>CAPACITOR</u>			
RY602	△ 1-755-318-11	RELAY, POWER		C2002	1-126-786-11	ELECT	47μF 20% 16V
<u>SWITCH</u>				<u>CONNECTOR</u>			
S602	1-771-757-11	SWITCH, PUSH (1 KEY)		CN2001*	1-564-523-11	PLUG, CONNECTOR 8P	
<u>SPARK GAP</u>				<u>DIODE</u>			
SG601	1-519-422-11	GAP, SPARK		D2001	8-719-064-11	DIODE SPR-325MVW	
SG901	1-517-499-21	GAP, SPARK		D2004	8-719-109-89	DIODE NNCD5.6A-T1	
SG902	1-519-422-11	GAP, SPARK		D2005	8-719-970-83	DIODE HSS82-TJ	
SG903	1-519-422-11	GAP, SPARK		D2006	8-719-970-83	DIODE HSS82-TJ	
<u>TRANSFORMER</u>				D2007	8-719-970-83	DIODE HSS82-TJ	
T501	1-435-188-11	TRANSFORMER, FERRITE (HDT)		D2008	8-719-970-83	DIODE HSS82-TJ	
T502	1-411-594-41	INDUCTOR 5mH		<u>TRANSISTOR</u>			
T503	1-435-140-11	TRANSFORMER, FERRITE (LCT)		Q2001	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
T504	1-431-413-21	TRANSFORMER, FERRITE (HST)		Q2002	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
T602	△ 1-435-141-12	TRANSFORMER, CONVERTER (SRT)		<u>RESISTOR</u>			
T701	1-435-129-11	TRANSFORMER, FERRITE (DFT)		R2001	1-249-422-11	CARBON	2.7K 5% 1/4W
T901	△ 1-453-317-11	FBT ASSY NX-4700//X4E4		R2002	1-249-429-11	CARBON	10K 5% 1/4W
T902	1-419-345-11	COIL, CHOKE 500μH		R2003	1-249-429-11	CARBON	10K 5% 1/4W
<u>THERMISTOR</u>				R2004	1-215-411-00	METAL	390 1% 1/4W
TH600	△ 1-809-260-11	THERMISTOR, NEC (NTH22D6R0QA)		R2005	1-215-417-00	METAL	680 1% 1/4W
TH601	△ 1-803-540-11	THERMISTOR		R2006	1-249-411-11	CARBON	330 5% 1/4W
<u>VARISTOR</u>				R2007	1-249-413-11	CARBON	470 5% 1/4W
VA601	△ 1-801-268-51	VARISTOR ERZV14D471		R2008	1-249-415-11	CARBON	680 5% 1/4W
VA603	1-801-268-51	VARISTOR ERZV14D471		R2009	1-249-417-11	CARBON	1K 5% 1/4W
<u>CRYSTAL</u>				R2011	1-249-421-11	CARBON	2.2K 5% 1/4W
X1001	1-567-890-11	VIBRATOR, CRYSTAL		R2013	1-249-425-11	CARBON	4.7K 5% 1/4W
				<u>SWITCH</u>			
				S2002	1-762-196-21	SWITCH, TACT	
				S2003	1-762-196-21	SWITCH, TACT	
				S2004	1-762-196-21	SWITCH, TACT	
				S2005	1-762-196-21	SWITCH, TACT	
				S2006	1-762-196-21	SWITCH, TACT	
				S2007	1-762-196-21	SWITCH, TACT	
				S2008	1-762-196-21	SWITCH, TACT	

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Note:

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
N * A-1390-954-A N MOUNTED PC BOARD				FERRITE BEAD			
		CAPACITOR		FB801	1-543-960-22	FERRITE	0 μ H
C801	1-113-340-11	ELECT	47 μ F 20% 25V	FB802	1-216-295-11	SHORT	
C803	1-163-809-11	CERAMIC CHIP	0.047 μ F 10% 25V	FB809	1-543-963-22	FERRITE	0 μ H
C809	1-163-809-11	CERAMIC CHIP	0.047 μ F 10% 25V	FB810	1-543-963-22	FERRITE	0 μ H
C810	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V				
C811	1-163-809-11	CERAMIC CHIP	0.047 μ F 10% 25V				
				IC			
C812	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V	IC801	8-759-589-56	IC CXD9517Q	
C813	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	IC802	8-759-569-45	IC LD1117S33TR	
C814	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V	IC803	8-759-502-82	IC LM324M-FL63	
C817	1-119-941-91	ELECT	470 μ F 20% 6.3V				
C818	1-113-340-11	ELECT	47 μ F 20% 25V	CHIP CONDUCTOR			
				JR801	1-216-295-11	SHORT	
C819	1-163-037-11	CERAMIC CHIP	0.022 μ F 10% 50V	JR802	1-216-295-11	SHORT	
C820	1-119-941-91	ELECT	470 μ F 20% 6.3V				
C821	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	TRANSISTOR			
C822	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V	Q801	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR	
C823	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	Q804	8-729-026-50	TRANSISTOR 2SA1037K-T-146-QR	
				Q805	8-729-026-50	TRANSISTOR 2SA1037K-T-146-QR	
C824	1-163-133-00	CERAMIC CHIP	470PF 5% 50V				
C825	1-163-021-91	CERAMIC CHIP	0.01 μ F 10% 50V	RESISTOR			
C826	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V	R801	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
C827	1-119-941-91	ELECT	470 μ F 20% 6.3V	R802	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
C828	1-164-161-11	CERAMIC CHIP	0.0022 μ F 10% 50V	R803	1-216-033-00	RES-CHIP	220 5% 1/10W
				R804	1-216-033-00	RES-CHIP	220 5% 1/10W
C829	1-164-004-11	CERAMIC CHIP	0.1 μ F 10% 25V	R805	1-216-033-00	RES-CHIP	220 5% 1/10W
C830	1-113-340-11	ELECT	47 μ F 20% 25V				
C832	1-131-722-91	ELECT	100 μ F 20% 6.3V	R806	1-216-033-00	RES-CHIP	220 5% 1/10W
C833	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	R807	1-216-033-00	RES-CHIP	220 5% 1/10W
C835	1-163-038-11	CERAMIC CHIP	0.1 μ F 25V	R808	1-216-033-00	RES-CHIP	220 5% 1/10W
				R809	1-216-651-11	METAL CHIP	1K 0.50% 1/10W
C837	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V	R810	1-216-651-11	METAL CHIP	1K 0.50% 1/10W
C838	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V				
C839	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V	R811	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
C840	1-163-017-00	CERAMIC CHIP	0.0047 μ F 10% 50V	R812	1-216-049-11	RES-CHIP	1K 5% 1/10W
C841	1-163-023-00	CERAMIC CHIP	0.015 μ F 10% 50V	R813	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R814	1-216-031-00	RES-CHIP	180 5% 1/10W
CONNECTOR				R815	1-216-073-00	RES-CHIP	10K 5% 1/10W
CN801	1-793-585-11	PIN, CONNECTOR (PC BOARD) 14P					
CN802	1-793-586-11	PIN, CONNECTOR (PC BOARD) 14P		R816	1-218-768-11	METAL CHIP	470K 0.50% 1/10W
				R817	1-216-089-11	RES-CHIP	47K 5% 1/10W
DIODE				R818	1-216-049-11	RES-CHIP	1K 5% 1/10W
D802	8-719-049-09	DIODE 1SS367-T3SONY		R819	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R820	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R821	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R822	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R823	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W
				R824	1-216-073-00	RES-CHIP	10K 5% 1/10W
				R825	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W

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REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
R826	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W						
R827	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R828	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W						
R829	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R830	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R831	1-216-033-00	RES-CHIP	220	5%	1/10W						
R832	1-216-025-11	RES-CHIP	100	5%	1/10W						
R833	1-216-651-11	METAL CHIP	1K	0.50%	1/10W						
R834	1-216-647-11	METAL CHIP	680	0.50%	1/10W						
R835	1-216-089-11	RES-CHIP	47K	5%	1/10W						
R836	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R837	1-216-648-11	METAL CHIP	750	0.50%	1/10W						
R838	1-216-041-00	RES-CHIP	470	5%	1/10W						
R839	1-216-117-00	RES-CHIP	680K	5%	1/10W						
R840	1-216-650-11	METAL CHIP	910	0.50%	1/10W						
R841	1-216-089-11	RES-CHIP	47K	5%	1/10W						
R842	1-216-677-11	METAL CHIP	12K	0.50%	1/10W						
R843	1-216-069-00	RES-CHIP	6.8K	5%	1/10W						
R844	1-216-019-00	RES-CHIP	56	5%	1/10W						
R846	1-216-025-11	RES-CHIP	100	5%	1/10W						
R847	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W						
R851	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R852	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R853	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R855	1-216-105-91	RES-CHIP	220K	5%	1/10W						
R856	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R857	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R858	1-216-073-00	RES-CHIP	10K	5%	1/10W						
R859	1-216-025-11	RES-CHIP	100	5%	1/10W						
R860	1-216-025-11	RES-CHIP	100	5%	1/10W						
R863	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R866	1-216-049-11	RES-CHIP	1K	5%	1/10W						