

S/M No : TCN230FEF0

Service Manual

COLOR TELEVISION

CHASSIS : CN-230F

Model : DTQ-20U4SC

DTQ-2033SC

DTQ-27U4SC



✓ Caution

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service Information Center (<http://svc.dwe.co.kr>).

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<http://svc.dwe.co.kr>

Mar. 2003

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SAFETY PRECAUTIONS

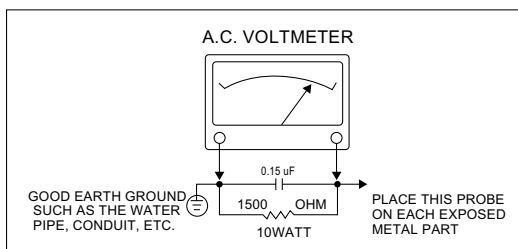
CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY. NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY. SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER. WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINE SHOCK.

SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED, A CHECK SHOULD BE MADE OF THE FOLLOWING:

SUBJECT: FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.
2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE, THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OF SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.
4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS, FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING A.C. CORD), AND REPLACE IF NECESSARY. FOLLOW ORIGINAL LAYOUT, LEAD LENGTH AND DRESS.
5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.
6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTOR, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES. DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.
7. AFTER RE-ASSEMBLY OF THE SET ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET. (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS, HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER : CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150V A.C. TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER PIPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED .75 VOLTS R.M.S THIS CORRESPONDS TO 0.5 MILLIAMPS A.C. ANY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



SUBJECT : GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION ON SERVICE LITERATURE.

SUBJECT : X-RADIATION

1. BE SURE PROCEDURES AND INSTRUCTIONS TO ALL SERVICE PERSONNEL COVER THE SUBJECT OF X-RADIATION. THE ONLY POTENTIAL SOURCE OF X-RAYS IN CURRENT T.V. RECEIVERS IS THE PICTURE TUBE. HOWEVER, THIS TUBE DOES NOT EMIT X-RAYS WHEN THE HIGH VOLTAGE IS AT THE FACTORY SPECIFIED LEVEL. THE PROPER VALUE IS GIVEN IN THE APPLICABLE SCHEMATIC. OPERATION AT HIGHER VOLTAGES MAY CAUSE A FAILURE OF THE PICTURE TUBE OR HIGH VOLTAGE SUPPLY AND UNDER CERTAIN CIRCUMSTANCES, MAY PRODUCE RADIATION IN EXCESS OF DESIRABLE LEVELS.
2. ONLY FACTORY SPECIFIED C.R.T ANODE CONNECTORS MUST BE USED. DEGAUSSING SHIELDS ALSO SERVE AS X-RAY SHIELD IN COLOR SETS. ALWAYS RE-INSTALL THEM.
3. IT IS ESSENTIAL THAT SERVICE PERSONNEL HAVE AVAILABLE AN ACCURATE AND RELIABLE HIGH VOLTAGE METER. THE CALIBRATION OF THE METER SHOULD BE CHECKED PERIODICALLY AGAINST A REFERENCE STANDARD. SUCH AS THE ONE AVAILABLE AT YOUR DISTRIBUTOR.
4. WHEN THE HIGH VOLTAGE CIRCUITRY IS OPERATING PROPERLY THERE IS NO POSSIBILITY OF AN X-RADIATION PROBLEM. EVERY TIME A COLOR CHASSIS IS SERVICED, THE BRIGHTNESS SHOULD BE RUN UP AND DOWN WHILE MONITORING THE HIGH VOLTAGE WITH A METER TO BE CERTAIN THAT THE HIGH VOLTAGE DOES NOT EXCEED THE SPECIFIED VALUE AND THAT IT IS REGULATING CORRECTLY. WE SUGGEST THAT YOU AND YOUR SERVICE ORGANIZATION REVIEW TEST PROCEDURES SO THAT VOLTAGE REGULATION IS ALWAYS CHECKED AS A STANDARD SERVICING PROCEDURE, AND THAT THE HIGH VOLTAGE READING BE RECORDED ON EACH CUSTOMER'S INVOICE.
5. WHEN TROUBLESHOOTING AND MAKING TEST MEASUREMENTS IN A PRODUCT WITH A PROBLEM OF EXCESSIVE HIGH VOLTAGE, AVOID BEING UNNECESSARILY CLOSE TO THE PICTURE TUBE AND THE HIGH VOLTAGE SUPPLY. DO NOT OPERATE THE PRODUCT LONGER THAN IS NECESSARY TO LOCATE THE CAUSE OF EXCESSIVE VOLTAGE.
6. REFER TO HV, B+ AND SHUTDOWN ADJUSTMENT PROCEDURES DESCRIBED IN THE APPROPRIATE SCHEMATIC AND DIAGRAMS (WHERE USED).

SUBJECT : IMPLOSION

1. ALL DIRECT VIEWED PICTURE TUBES ARE EQUIPPED WITH AN INTEGRAL IMPLOSION PROTECTION SYSTEM. BUT CARE SHOULD BE TAKEN TO AVOID DAMAGE DURING INSTALLATION. AVOID SCRATCHING THE TUBE. OF SCRATCHED REPLACE IT.
2. USE ONLY RECOMMENDED FACTORY REPLACEMENT TUBES.

SUBJECT : TIPS ON PROPER INSTALLATION

1. NEVER INSTALL ANY PRODUCT IN A CLOSED-IN RECESS, CUBBYHOLE OR CLOSELY FITTING SHELF SPACE, OVER OR CLOSE TO HEAT DUCT, OR IN THE PATH OF HEATED AIR FLOW.
2. AVOID CONDITIONS OF HIGH HUMIDITY SUCH AS: OUTDOOR PATIO INSTALLATIONS WHERE DEW IS A FACTOR, NEAR STEAM RADIATORS WHERE STEAM LEAKAGE IS A FACTOR, ETC.
3. AVOID PLACEMENT WHERE DRAPERIES MAY OBSTRUCT REAR VENTING. THE CUSTOMER SHOULD ALSO AVOID THE USE OF DECORATIVE SCARVES OR OTHER COVERINGS WHICH MIGHT OBSTRUCT VENTILATION.
4. WALL AND SHELF MOUNTED INSTALLATIONS USING A COMMERCIAL MOUNTING KIT, MUST FOLLOW THE FACTORY APPROVED MOUNTING INSTRUCTIONS. A PRODUCT MOUNTED TO A SHELF OR PLATFORM MUST RETAIN ITS ORIGINAL FEET (OR THE EQUIVALENT THICKNESS IN SPACERS) TO PROVIDE ADEQUATE AIR FLOW ACROSS THE BOTTOM, BOLTS OR SCREWS USED FOR FASTENERS MUST NOT TOUCH ANY PARTS OR WIRING. PERFORM LEAKAGE TEST ON CUSTOMIZED INSTALLATIONS.
5. CAUTION CUSTOMERS AGAINST THE MOUNTING OF A PRODUCT ON SLOPING SHELF OR A TILTED POSITION, UNLESS THE PRODUCT IS PROPERLY SECURED.
6. A PRODUCT ON A ROLL-ABOUT CART SHOULD BE STABLE ON ITS MOUNTING TO THE CART. CAUTION THE CUSTOMER ON THE HAZARDS OF TRYING TO ROLL A CART WITH SMALL CASTERS ACROSS THRESHOLDS OR DEEP PILE CARPETS.
7. CAUTION CUSTOMERS AGAINST THE USE OF A CART OR STAND WHICH HAS NOT BEEN LISTED BY UNDERWRITERS LABORATORIES, INC. FOR USE WITH THEIR SPECIFIC MODEL OF TELEVISION RECEIVER OR GENERALLY APPROVED FOR USE WITH T.V.S OF THE SAME OR LARGER SCREEN SIZE.
8. CAUTION CUSTOMERS AGAINST THE USE OF EXTENSION CORDS, EXPLAIN THAT A FOREST OF EXTENSIONS SPROUTING FROM A SINGLE OUTLET CAN LEAD TO DISASTROUS CONSEQUENCES TO HOME AND FAMILY.

SAFETY PRECAUTIONS

CAUTION : Do not attempt to modify this product in any way. Unauthorized modifications will not only void the warranty, but may lead to your being liable for any resulting property damage or user injury.

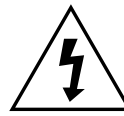
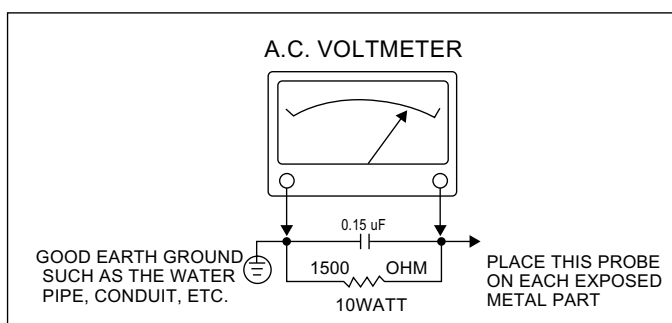
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guide-lines. To do otherwise, increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

After the original service problem has been corrected, a check should be made of the following:

SUBJECT : FIRE & SHOCK HAZARD

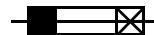
1. Be sure that all components are positioned in such a way as to avoid possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Never release a repair unless all protective devices such as insulators, barriers, covers, shields, strain reliefs, and other hardware have been reinstalled per original design.
3. Soldering must be inspected to discover possible cold solder joints, frayed leads, damaged insulation (including A.C. cord), solder splashes or sharp solder points. Be certain to remove all loose foreign particles.
4. Check for physical evidence of damage or deterioration to parts and components, and replace if necessary follow original layout, lead length and dress.
5. No leads or components should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
6. All critical components such as fuses, flameproof resistors, capacitors, etc. must be replaced with exact factory types. Do not use replacement components other than those specified or make unrecommended circuit modifications.
7. After re-assembly of the set always perform an A.C. leakage test on all exposed metallic parts of the cabinet, (the channel selector knob, antenna terminals, handle and screws) to be sure the set is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this test. Use an A.C. voltmeter, having 5000 ohms per volt or more sensitivity, in the following manner : connect a 1500 ohm 10 watt resistor, paralleled by a 15 mfd. 150V A.C. type capacitor between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the A.C. voltage across the combination of 1500 ohm resistor and 0.15 MFD capacitor. Reverse the A.C. plug and repeat A.C. voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 volts R.M.S. This corresponds to 0.5 milliamp A.C. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the service personnel to the presence of uninsulated "dangerous voltage" that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the service personnel to the presence of important safety information in service literature.



Fuse symbol is printed on pcb adjacent to the fuse, with "RISK OF FIRE REPLACE FUSE AS MARKED". The symbol is explained in the service manual with the following wording or equivalent.

"CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE (4A, 125V)" and **"ATTENTION:** AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE "4A, 125V".

SUBJECT : X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of X-rays in current T.V. receivers is the picture tube. However, this tube does not emit X-rays when the high voltage is at the factory specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high voltage supply and, under certain circumstances, may produce radiation in excess of desirable levels.
2. Only factory specified C.R.T. anode connectors must be used. Degaussing shields also serve as X-ray shield in color sets. Always re-install them.
3. It is essential that the serviceman has available an accurate and reliable high voltage meter. The calibration of the meter should be checked periodically against a reference standard. Such as the one available at your distributor.
4. When the high voltage circuitry is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly. We suggest that you and your service organization review test procedures so that voltage regulation is always checked as a standard servicing procedure. And that the high voltage reading be recorded on each customer's invoice.
5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage compartment. Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.
6. Refer to HV, B+ and Shutdown adjustment procedures described in the appropriate schematic and diagrams (where used).

SAFETY PRECAUTIONS

SUBJECT : IMPLOSION

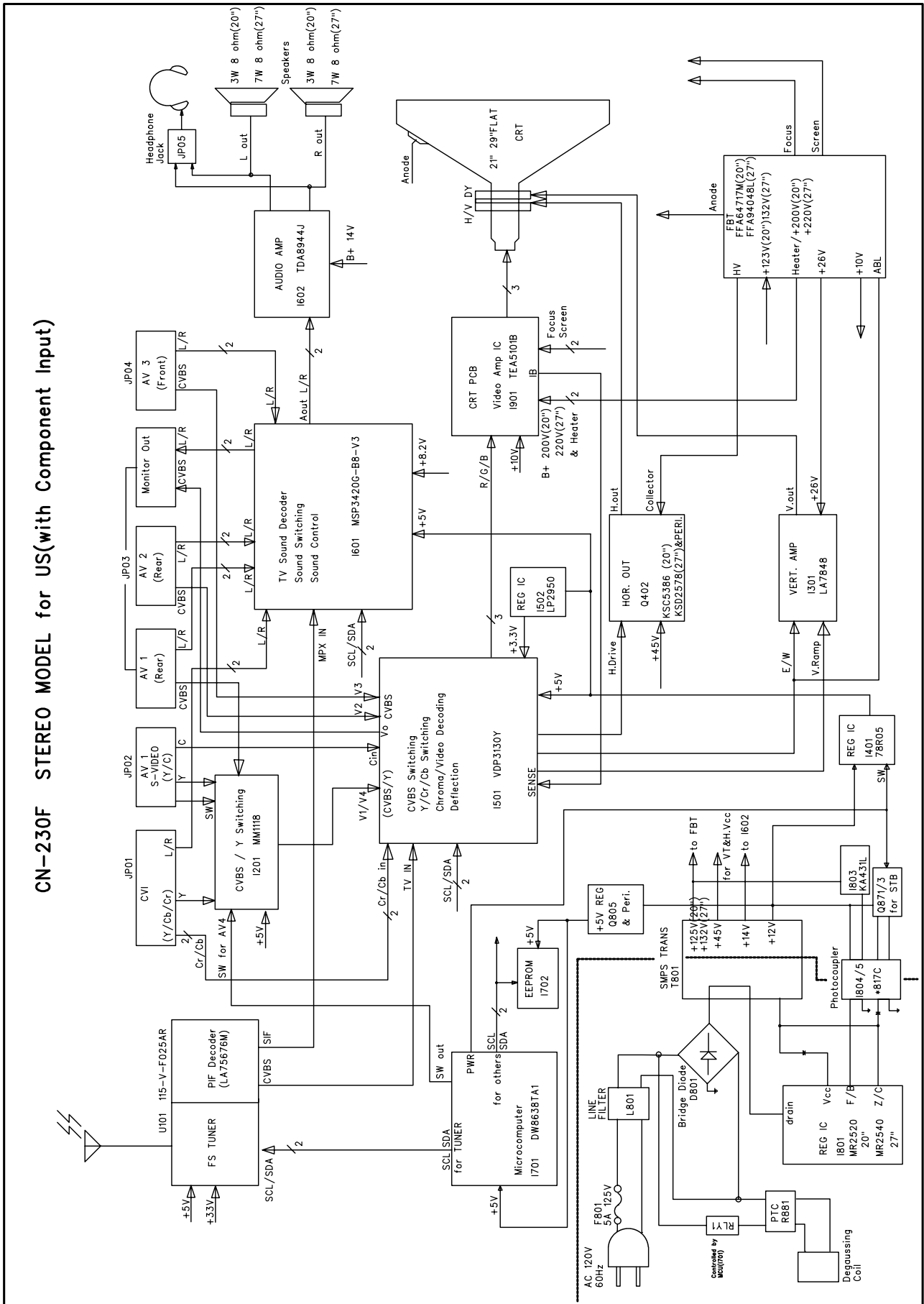
1. All direct viewed picture tubes are equipped with an integral implosion protection system, but care should be taken to avoid damage during installation. Avoid scratching the tube. If scratched, replace it.
2. Use only recommended factory replacement tubes.

SUBJECT : TIPS ON PROPER INSTALLATION

1. Never install any receiver in closed-in recess, cubbyhole or closely fitting shelf space over, or close to heat duct, or in the path of heated air flow.
2. Avoid conditions of high humidity such as : Outdoor patio installations where dew is a factor. Near steam radiators where steam leakage is a factor, etc.
3. Avoid placement where draperies may obstruct rear venting. The customer should also avoid the use of decorative scarves or other coverings which might obstruct ventilation.
4. Wall and shelf mounted installations using a commercial mounting kit, must follow the factory approved mounting instructions. A receiver mounted to a shelf or platform must retain its original feet(or the equivalent thickness in spacers) to provide adequate are flow across the bottom, bolts or screws used for fasteners must not touch and parts or wiring. Perform leakage test on cus-tomized installations.
5. Caution customers against the mounting of a receiver on sloping shelf or a tilted position, unless the receiver is properly secured.
6. A receiver on a roll-about cart should be stable on its mounting to the cart. Caution the customer on the hazards of trying to roll a cart with small casters across thresholds or deep pile carpets.
7. Caution customers against the use of a cart or stand which has not been listed by underwriters laboratories, inc. For use with their specific model of television receiver or generically approved for use with T.V.'s of the same or larger screen size.

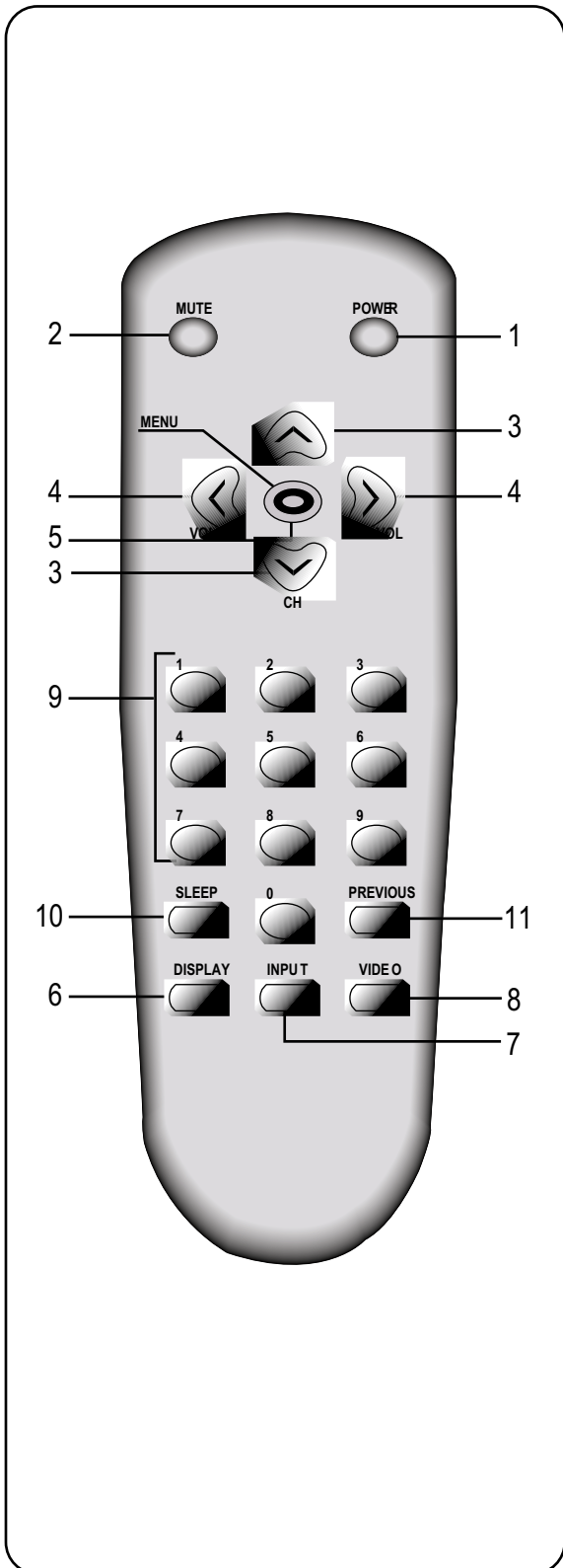
CIRCUIT BLOCK DIAGRAM

CN-230F STEREO MODEL for US(with Component Input)



ALIGNMENT INSTRUCTION

Your Remote Control(R-43A07)



- 1. POWER**
use this button to turn your TV on or off.
- 2. MUTE**
Use to turn the TV's sound on and off.
- 3. ▼CH▲**
Use these buttons to change your TV's volume, to activate selections in the menu system.
- 4. ◀VOL▶**
Use these buttons to change your TV's volume, to activate selections in the meny system, or to change audio and video settings.
- 5. MENU**
Use this button to turn the TV's menu system on and off.
- 6. DISPLAY**
Use this button to display the channel number and status.
- 7. INPUT**
Use this button to select the TV's signal source.
- 8. VIDEO**
Use this button to display video adjustment.
- 9. 0-9**
Use these buttons to change channels.
- 10. SLEEP**
Use this button to program the TV to turn off after a certain time.
- 11. PREVIOUS**
Use this button to return to the previous channel you were watching.

ALIGNMENT INSTRUCTION

1. SERVICE MODE ADJUSTMENTS

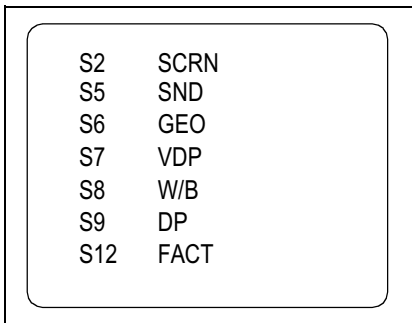
Follow the steps below whenever service adjustment is required. See Table- A and Table- B to determine if service adjustments are required.

1) How to enter the service mode using the user remote control.

- Turn the set on.
- Direct the remote control to the reception window of TV.
- Push buttons of remote control in sequence as follows.

1 → MUTE → DISPLAY → MUTE

- Then, the screen will appear as follows.



- Using the channel up or channel down button, select the item you wish to adjust.
(The color of selected item turns into the red.)
- Press the volume up or down button to enter in the service mode you wish to adjust.

2) How to memorize the adjusted values in the service mode.

- Must press **DISPLAY** button the state which the screen is displaying each of service menus after all adjustments are completed each of all service menu.

Table-A : Adjust the values of service mode when a part is replaced.

PART REPLACED	ADJUSTMENT		NOTES
	NECESSARY	UNNECESSARY	
I701 (U-COM)		○	Data is stored in I703.
I101 (MAIN)		○	
I703 (EEPROM)	○		Initial setting values are written from I701. ADJUSTING ITEMS S5 : SOUND CONTROL S6 : H.PHASE/H.SIZE/V.POSI/V.SIZE S8 : RD/GD/BD/RB/GB/BB S9 Subbrightness
CRT	○		Adjust items related to picture tube only.(White Balance adjustment)

Table-B

MODE	ADJUSTMENT	DATA			REMARKS	
		INITIAL20"	INITIAL 27"	RANGE		
S2	Screen Adjustment					
S5	SOUND CONTROL					
	FM/AM PRE	55	55	0~127		
	SCART PRE	49	51	0~127		
	MONI VOL	38	45	0~127		
	QUASI CHECK	NO	NO	YES/NO		
	NO SD NO POWER	NO	NO	YES/NO		
S6	V-SIZE	387	416	0~510	*	
	V-POSI	1312	1280	240~1712	*	
	H-PHASE	43	43	0~255	*	
	H-SIZE	2182	676	4~4092	*	
	V-LIN	258	239	0~511	*	
	V-S	243	236	2~512		
	HBST	267	267	0~511		
	TILT	512	392	8~1016	**	
	P-PARA	512	645	3~1021	**	
	H-SYM	1024	1048	8~2040	**	
	H-COR	1024	904	8~2040	**	
	HBSO	367	367	0~511		
	S7	BCLTH	130	150	0~2047	
BCLTM		5	8	0~15		
BCLG		5	6	0~15		
BCLTST		0	0	0~1020		
PKINV		0	0	0/1		
BLE		1	1	0/1		
BTLT		8	0	0~15		
BAM		12	9	0~31		
SVG1		20	20	0~63		
SVD1		7	2	0~7		
SVLIM		127	100	0~127		
SVDEL		0	7	0~15		
OSDBR		130	255	0~511		
OSDCO		130	120	0~511		
S8-1		RD	700	800	0~1023	*
		GD	700	800	0~1023	*
	BD	700	800	0~1023	*	
	RB	350	350	0~511	*	
	GB	350	350	0~511	*	
	BB	350	350	0~511	*	
S8-2	SCR R-BIAS	0	0	0~511		
	SCR G-BIAS	0	0	0~511		
	SCR B-BIAS	450	470	0~511		
	SCR R-DRIVE	0	0	0~1023		
	SCR G-DRIVE	0	0	0~1023		
	SCR B-DRIVE	200	200	0~1023		
S9	DP-BRI	160	160	0~310	*	
	DP-CONT	5	13	0~13		
	DP-TINT	150	200	0~222		
	DP-COL	0	100	0~850		
	DP-OVPK	0	0	0~4		
	DP-UNPK	2	2	0~4		
	BRI-SET	74	80	0~100		
S11	DVCO	OK	OK		*	
S12	Forwarding Mode				Factory initialization	

* indicates the items with different settings each of sets (20 " & 27 ")

** indicates the items with different settings each of sets (only 27 ")

ALIGNMENT INSTRUCTION

2. ASSEMBLY ADJUSTMENTS

1) SCREEN ADJUSTMENT (S2)

- Enter the service mode and select service adjustment S2.
- You can see the one horizontal line on the screen.
- Adjust the Screen Control Volume (located on FBT) so that the horizontal line onscreen may be disappeared.
- Press the volume up or down button to exit in the screen adjustment mode.

CAUTION

IN THE SCREEN ADJUSTMENT MODE, DONT PRESS OTHER BUTTONS EXCEPT VOLUME UP OR DOWN BUTTON.

2) FOCUS ADJUSTMENT

- Turn in a local station and adjust the Focus Control knob (located on FBT) for best picture details at high light condition.

3) GEOMETRIC ADJUSTMENTS (S6)

- Select service adjustment S6
- You can see the OSD as shown in below.

V-SIZE	416	TILT	392
V-POSI	1280	P-PARA	645
H-PHASE	43	H-SYM	1048
H-SIZE	676	H-COR	904
V-LIN	239	HBSO	367
V-S	236		
HBST	267		

3-1. Horizontal Position Adjustment

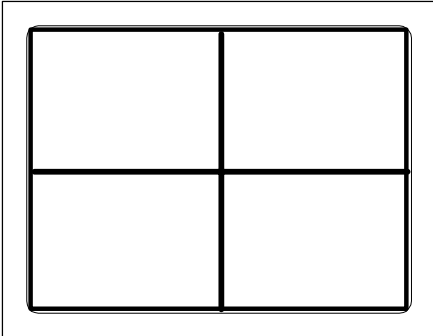
- Select H-PHASE item, adjust H-PHASE data value to obtain proper horizontal centering of the internal cross pattern at the left and right of the screen.

3-2. Vertical Position Adjustment

- Select V-POSI item, adjust V-POSI data value to center the raster properly on the screen.

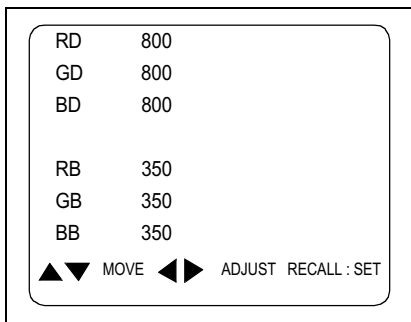
3-3. Vertical Size Adjustment

- Select "V.SIZE" item, adjust "V.SIZE" data value to proper vertical size as follows.



4) WHITE BALANCE ADJUSTMENT(S8)

- Receive a good local channel.
- Enter the service mode and select service adjustment S8.
- You can see the OSD as shown in below.

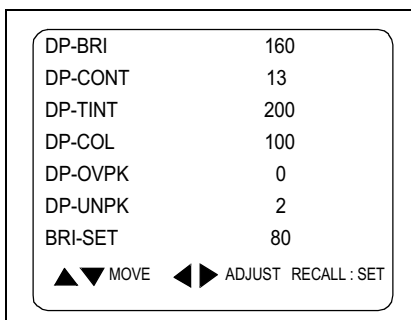


- Using volume up or volume down, adjust service adjustment data of RD/GD/BD and RB/GB/BB until a good gray scale with normal whites is obtained. ALIGNMENT INSTRUCTIONS
- Press the DISPLAY button to memorize the data.

5) DIGITAL PRESET(D.P) ADJUSTMENTS(S9)

SUBBRIGHTNESS ADJUSTMENT

- Receive a good local channel.
- Enter the service mode and select service adjustment S9.
- You can see the OSD as shown in below.



ALIGNMENT INSTRUCTION

- Select Subbrightness item, adjust Subbrightness data value to obtain normal brightness level.
- Press the DISPLAY button to memorize the data.

CONTRAST

- Fixed value = 13

TINT

- Fixed value = 200

COLOR

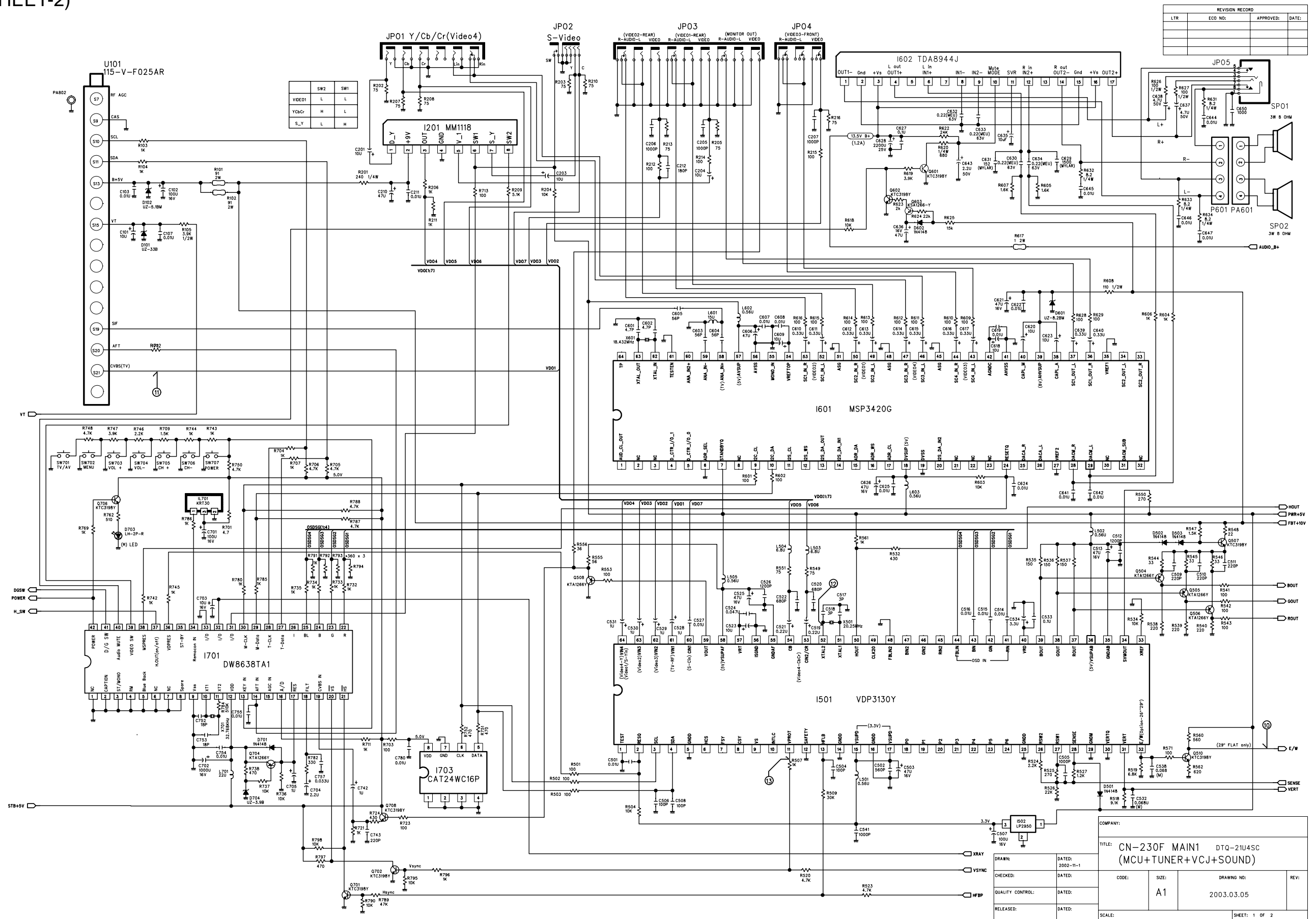
- Fixed value = 100

6) FACTORY OUTGOING MODE (S12 : FACT)

- If you select the S12, then the set becomes factory outgoing status.
- You can see the OSD "outgoing OK"

SCHEMATIC DIAGRAM

20U4 (SHEET-2)

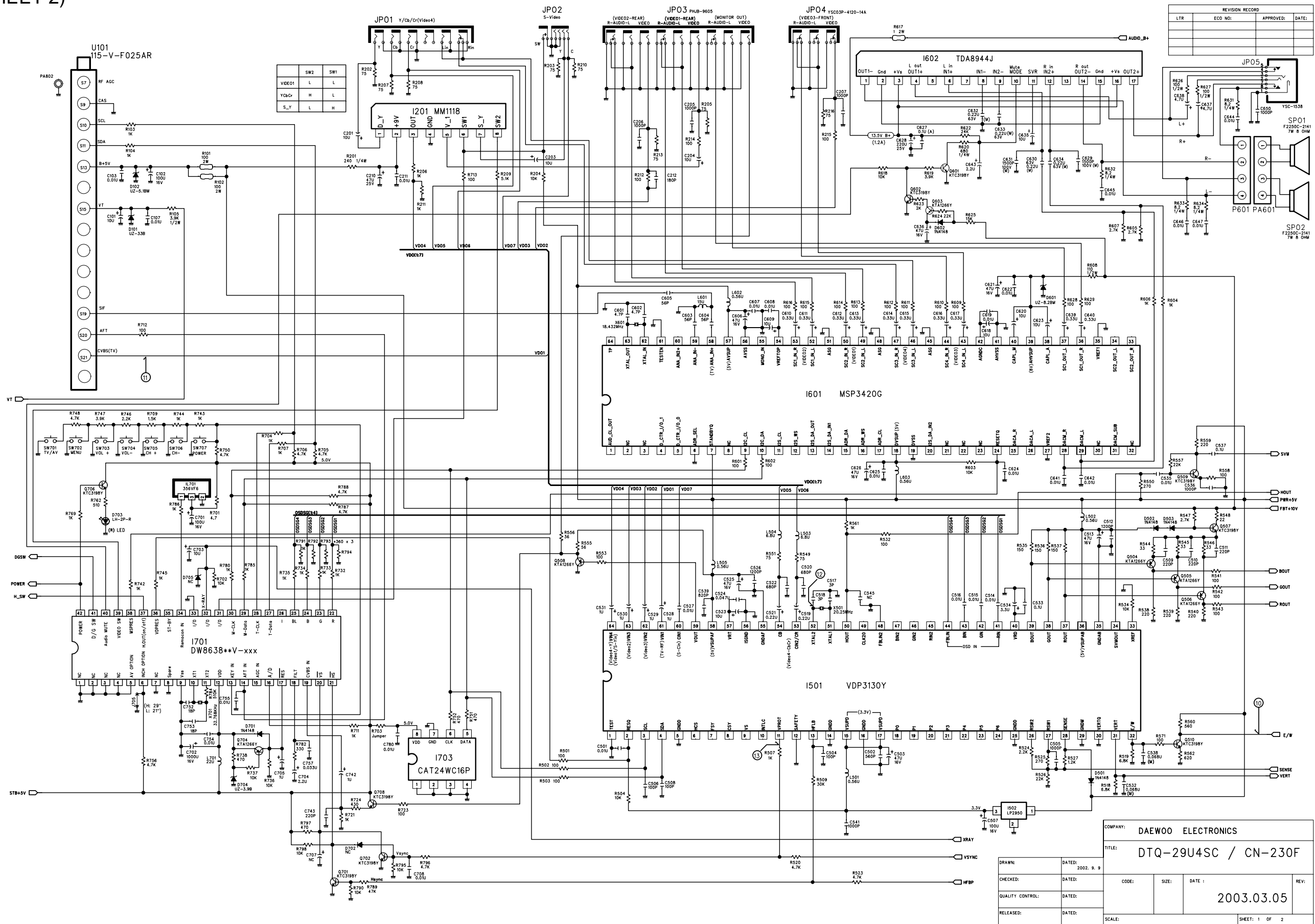


REVISION RECORD			
LTR	ECO. NO.	APPROVED	DATE

COMPANY:		TITLE: CN-230F MAIN1 DTQ-21U4SC (MCU+TUNER+VCJ+SOUND)	
DRAWN:	DATE: 2002-11-1	CODE:	SIZE: A1
CHECKED:	DATE:	RELEASED:	DATE:
QUALITY CONTROL:	DATE:	DRAWING NO:	REV:
		2003.03.05	
		SCALE:	SHEET: 1 OF 2

SCHEMATIC DIAGRAM

27U4(SHEET-2)



ELECTRICAL PARTS LIST

CAUTION

"!" is a safety part, so it must be used the same part.

"R" is a recommendable part for essential stock.

✓ In this Service Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service information Center(<http://svc.dwe.co.kr>)

**This BOM is based on DTQ-20U4SC

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
1	ZZ100	48B434A07	TRANSMITTER REMOCON	R-43A07 (AA)	Ⓜ
2	ZZ110	PTACPWJ954	ACCESSORY AS	DTQ-21U4SC	
3	M821	4858213801	BAG INSTRUCTION	L.D.PE T0.05X250X400	
4	ZZ120	PTBCSHJ954	COVER BACK AS	DTQ-21U4SC	
5	M211	4852161700	COVER BACK	FR HIPS GY 21U4	
6	M781	4857817630	CLOTH BLACK	FELT 400X20X0.7	
7	ZZ130	PTPKCPJ954	PACKING AS	DTQ-21U4SC	
8	10	6520010100	STAPLE PIN	AUTO W65	
9	M801	4858061500	BOX CARTON	DW-3 21U4	
10	M811	4858100B00	PAD	EPS 21U4	
11	M821	4858219101	BAG P.E	P.E FOAM T0.5X1300X1150	
12	ZZ131	48519A7110	CRT GROUND NET	2101F-1015-1P	
13	ZZ132	58G0000154	COIL DEGAUSSING	DC-21F1	⚠
14	ZZ140	PTCACAJ954	CABINET AS	DTQ-21U4SC	
15	M201A	4856013300	SCREW CRT FIXING	30X80 BK	
16	M201B	4856013302	SCREW CRT FIXING	30X190 BK	
17	M201C	4856219502	WASHER RUBBER	CR T2.0 BLACK	
18	M211A	7172401412	SCREW TAPPTITE	TT2 TRS 4X14 MFZN BK	
19	M211B	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
20	M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)	
21	SP01A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
22	SP02A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
23	V901	4859636160	CRT	A51QDK090X030 P38	⚠
24	ZZ200	PTFMSJJ954	MASK FRONT AS	DTQ-21U4SC	
25	M191	4851948100	BUTTON CTRL AS	4952500+5546800	
26	M191A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN	
27	M201	4852081000	MASK FRONT	FR HIPS GY 21U4	
28	M481	4854862100	BUTTON POWER	FR ABS GY 21U4	
29	M481A	4856716000	SPRING	SWPA PIE0.5	
30	M561	4855617500	MARK BRAND	CU AU+ABS BK	
31	ZZ210	PTSPPWJ954	SPEAKER AS	DTQ-21U4SC	
32	PA601	4850704S27	CONNECTOR	YH025-04+YRT205+ULW=400	
33	SP01	4858314010	SPEAKER	SP-5070F01 3W 8 OHM	Ⓜ
34	SP02	4858314010	SPEAKER	SP-5070F01 3W 8 OHM	Ⓜ
35	ZZ290	PTMPMSJ954	PCB MAIN MANUAL AS	DTQ-21U4SC	Ⓜ
36	10	2193102005	SOLDER BAR	SN:PB=63:47 S63S-1320	
37	30	2291050616	FLUX SOLDER	JS-64T3	
38	40	2291050301	FLUX SOLVENT	IM-1000	
39	C212	CCZB1H181K	C CERA	50V B 180PF K (AXIAL)	
40	C310	CEXF1E222V	C ELECTRO	25V RSS 2200MF (16X25) TP	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
41	C331	CEYD1H689W	C ELECTRO	50V RHD 6.8MF (16X35.5)	
42	C404	CMYH3C912J	C MYLAR	1.6KV BUP 9100PF J	△
43	C406	CMYE2G364J	C MYLAR	400V PU 0.36MF J	
44	C801	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47	△
45	C804	CEYN2D331P	C ELECTRO	200V LHS 330MF	
46	C812	CEYF1E332V	C ELECTRO	25V RSS 3300MF (16X31.5)	
47	C814	CEYF2C221V	C ELECTRO	160V RSS 220MF (18X35.5)	
48	C852	CEYF1V222V	C ELECTRO	35V RSS 2200MF (16X31.5)	
49	D419	DRGP30J---	DIODE	RGP30J	
50	D424	DDG3-----	DIODE	DG3	
51	D703	DLH2PR-----	LED BLOCK	LH-2P-R	
52	D801	DPBS606GU-	DIODE BRIDGE	PBS606G	
53	D807	DRGP30J---	DIODE	RGP30J	
54	D842	DRGP30J---	DIODE	RGP30J	
55	F801	5F1GB5021L	FUSE GLASS TUBE	CSA/UL 125V 5A	△ (R)
56	I201	1MM1118---	IC A/V SWITCH	MM1118	(R)
57	I301	PTF2SW7921	HEAT SINK ASS'Y	1LA7848--- + 7174300811	
58	00001	1LA7848---	IC VERTICAL	LA7848	(R)
59	0000A	4857027921	HEAT SINK	AL EX BK	
60	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
61	I401	PTM2SW6902	HEAT SINK ASS'Y	1K78R05--- + 7174300811	
62	00001	1K78R05---	IC REGULATOR	KIA78R05PI	
63	0000A	4857026902	HEAT SINK	AL EX BK	
64	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
65	I501	1VDP3130Y-	IC	VDP3130Y	(R)
66	I502	1LP295033-	IC REGULATOR	LP2950 3.3V	(R)
67	I601	1MSP3420V3	IC SOUND PROCESSOR	MSP3420G-PP-B8-V3	(R)
68	I602	PTG2SW8210	HEAT SINK ASS'Y	1TDA8944J- + 7174300811	
69	00001	1TDA8944J-	IC SOUND	TDA8944J	(R)
70	0000A	4857028210	HEAT SINK	AL EX	
71	0000B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN	
72	I701	1DW8638TA1	IC MICOM	LC863856A-51S2	(R)
73	I703	124LC16B1B	IC MEMORY	24LC16B1B	(R)
74	I801	PTD2SW7720	HEAT SINK ASS'Y	1MR2520--- + 7174300811	
75	00001	1MR2520---	IC POWER	MR2520	△ (R)
76	0000A	4857027720	HEAT SINK	AL EX	
77	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
78	I803	1KA431L---	IC	KA431L	(R)
79	I804	1LTV817C---	IC PHOTO COUPLER	LTV-817C	△
80	I805	1LTV817C---	IC PHOTO COUPLER	LTV-817C	△
81	IL701	1KRT30-----	IC PREAMP	KRT30	
82	JP01	4859111550	JACK PIN BOARD	YPJ501B	
83	JP02	4859106440	JACK S-VHS	PH-SJ-9503	
84	JP03	4859108850	JACK PIN BOARD	PH-JB-9512	
85	JP04	4859108450	JACK PIN BOARD	YSC03P-4120-14A	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
86	JP05	4859102130	JACK EARPHONE	YSC-1537	
87	L301	58C7070085	COIL CHOKE	TLN-3062A	
88	L401	58H0000020	COIL H-LINEARITY	L-76(76.5UH)	⚠
89	L801	5PLF24A3—	FILTER LINE	LF-24A3	⚠
90	P502	4859235320	CONN WAFER	YW025-10	
91	PWC1	4859907810	CORD POWER AS	ME301P+TER=2100	⚠ (R)
92	Q402	PTE2SW7609	HEAT SINK ASS'Y	TKSC5386— + 7174300811	
93	00001	TKSC5386—	TR HORI	KSC5386	(R)
94	0000A	4857027609	HEAT SINK	AL EX	
95	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
96	R420	RD-4Z302J-	R CARBON FILM	1/4 3K OHM J	
97	R555	RD-AZ560J-	R CARBON FILM	1/6 56 OHM J	
98	R801	RX10B109JQ	R CEMENT	10W 1 OHM J BEN 25MM 4P	
99	R805	RW02Z128KS	R WIRE WOUND	2W 0.12 OHM K SMALL	
100	R882	DDB3R0M140	POSISTOR	ECPBD3R0M140	⚠
101	RLY1	5SC0101338	SW RELAY	GJ-SS-105LM	⚠
102	RS801	DSVC471D14	VARISTOR	SVC471D14A	
103	SW707	5S50101035	SW TACT	KPT-1112 1C-1P	
104	T401	50D10A3—	TRANS DRIVE	TD-10A3	
105	T402	50H0000223	FBT	FFA64717M	⚠ (R)
106	T801	50M4242B9-	TRANS SMPS	TSM-4242B9	⚠
107	U101	4859723230	TUNER VARACTOR	115-V-F025AR	⚠ (R)
108	X501	5XE20R250E	CRYSTAL QUARTZ	HC-49/U 20.2500MHZ 30PPM	
109	X601	5XE18R432E	CRYSTAL QUARTZ	HC-49/U 18.43200MHZ 30PPM	
110	X701	5XYR03276C	CRYSTAL QUARTZ	C-001R 32.768000KHZ 20PPM	
111	ZZ200	PTMPJ0J954	PCB MAIN (RHU) AS	DTQ-21U4SC	
112	C405	CEXA2D229E	C ELECTRO	200V RUL 2.2MF (10X16) TP	
113	C409	CMXE2G273J	C MYLAR	400V PU 0.027MF J (TP)	
114	C414	CEXF1V471V	C ELECTRO	35V RSS 470MF (10X20) TP	
115	C415	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
116	C420	CEXF2E220V	C ELECTRO	250V RSS 22MF (13X20) TP	
117	C702	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
118	C809	CBXB3D102K	C CERA SEMI	2KV BL(N) 1000PF K (T)	
119	C813	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
120	C815	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP	
121	C817	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
122	C820	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP	
123	C832	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
124	C842	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
125	C880	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	
126	C881	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	
127	ZZ200	PTMPJBJ954	PCB MAIN M-10 AS	DTQ-21U4SC	
128	10	2TM18006BE	TAPE MASKING	6.2X500	
129	E002	4856310600	EYE LET	BSR T0.2 (R2.3)	
130	E003	4856310600	EYE LET	BSR T0.2 (R2.3)	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
131	E004	4856310600	EYE LET	BSR T0.2 (R2.3)	
132	E005	4856310600	EYE LET	BSR T0.2 (R2.3)	
133	E006	4856310600	EYE LET	BSR T0.2 (R2.3)	
134	E007	4856310600	EYE LET	BSR T0.2 (R2.3)	
135	E008	4856310600	EYE LET	BSR T0.2 (R2.3)	
136	E009	4856310600	EYE LET	BSR T0.2 (R2.3)	
137	E010	4856310600	EYE LET	BSR T0.2 (R2.3)	
138	E011	4856310600	EYE LET	BSR T0.2 (R2.3)	
139	E012	4856310300	EYE LET	BSR T0.2 (R1.6)	
140	E013	4856310600	EYE LET	BSR T0.2 (R2.3)	
141	E014	4856310600	EYE LET	BSR T0.2 (R2.3)	
142	E015	4856310600	EYE LET	BSR T0.2 (R2.3)	
143	E016	4856310600	EYE LET	BSR T0.2 (R2.3)	
144	E017	4856310600	EYE LET	BSR T0.2 (R2.3)	
145	E018	4856310600	EYE LET	BSR T0.2 (R2.3)	
146	E020	4856310600	EYE LET	BSR T0.2 (R2.3)	
147	E021	4856310600	EYE LET	BSR T0.2 (R2.3)	
148	E022	4856310600	EYE LET	BSR T0.2 (R2.3)	
149	E023	4856310600	EYE LET	BSR T0.2 (R2.3)	
150	E025	4856310600	EYE LET	BSR T0.2 (R2.3)	
151	E026	4856310600	EYE LET	BSR T0.2 (R2.3)	
152	E027	4856310600	EYE LET	BSR T0.2 (R2.3)	
153	E028	4856310600	EYE LET	BSR T0.2 (R2.3)	
154	E030	4856310600	EYE LET	BSR T0.2 (R2.3)	
155	E031	4856310600	EYE LET	BSR T0.2 (R2.3)	
156	E032	4856310600	EYE LET	BSR T0.2 (R2.3)	
157	E033	4856310600	EYE LET	BSR T0.2 (R2.3)	
158	E034	4856310300	EYE LET	BSR T0.2 (R1.6)	
159	E035	4856310300	EYE LET	BSR T0.2 (R1.6)	
160	E036	4856310300	EYE LET	BSR T0.2 (R1.6)	
161	E037	4856310300	EYE LET	BSR T0.2 (R1.6)	
162	E038	4856310300	EYE LET	BSR T0.2 (R1.6)	
163	E039	4856310300	EYE LET	BSR T0.2 (R1.6)	
164	E040	4856310300	EYE LET	BSR T0.2 (R1.6)	
165	E041	4856310300	EYE LET	BSR T0.2 (R1.6)	
166	E042	4856310300	EYE LET	BSR T0.2 (R1.6)	
167	E043	4856310300	EYE LET	BSR T0.2 (R1.6)	
168	E044	4856310300	EYE LET	BSR T0.2 (R1.6)	
169	E045	4856310300	EYE LET	BSR T0.2 (R1.6)	
170	E046	4856310300	EYE LET	BSR T0.2 (R1.6)	
171	E047	4856310300	EYE LET	BSR T0.2 (R1.6)	
172	E048	4856310300	EYE LET	BSR T0.2 (R1.6)	
173	E049	4856310300	EYE LET	BSR T0.2 (R1.6)	
174	E051	4856310300	EYE LET	BSR T0.2 (R1.6)	
175	E052	4856310300	EYE LET	BSR T0.2 (R1.6)	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
176	E053	4856310300	EYE LET	BSR T0.2 (R1.6)	
177	E056	4856310300	EYE LET	BSR T0.2 (R1.6)	
178	E057	4856310300	EYE LET	BSR T0.2 (R1.6)	
179	E058	4856310300	EYE LET	BSR T0.2 (R1.6)	
180	E059	4856310300	EYE LET	BSR T0.2 (R1.6)	
181	E060	4856310300	EYE LET	BSR T0.2 (R1.6)	
182	E061	4856310300	EYE LET	BSR T0.2 (R1.6)	
183	E062	4856310300	EYE LET	BSR T0.2 (R1.6)	
184	E063	4856310300	EYE LET	BSR T0.2 (R1.6)	
185	E064	4856310300	EYE LET	BSR T0.2 (R1.6)	
186	E065	4856310300	EYE LET	BSR T0.2 (R1.6)	
187	E066	4856310300	EYE LET	BSR T0.2 (R1.6)	
188	E067	4856310300	EYE LET	BSR T0.2 (R1.6)	
189	E068	4856310300	EYE LET	BSR T0.2 (R1.6)	
190	E069	4856310300	EYE LET	BSR T0.2 (R1.6)	
191	E074	4856310300	EYE LET	BSR T0.2 (R1.6)	
192	E075	4856310300	EYE LET	BSR T0.2 (R1.6)	
193	E076	4856310300	EYE LET	BSR T0.2 (R1.6)	
194	E077	4856310300	EYE LET	BSR T0.2 (R1.6)	
195	E078	4856310300	EYE LET	BSR T0.2 (R1.6)	
196	E079	4856310300	EYE LET	BSR T0.2 (R1.6)	
197	N005	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
198	N006	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
199	N401	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
200	N402	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
201	N403	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
202	N404	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
203	P601	485923172S	CONN WAFER	YW025-04 (STICK)	
204	R101	RS02Z910JS	R M-OXIDE FILM	2W 91 OHM J SMALL	
205	R102	RS02Z910JS	R M-OXIDE FILM	2W 91 OHM J SMALL	
206	R405	RS02Z241JS	R M-OXIDE FILM	2W 240 OHM J SMALL	
207	R411	RS01Z229J-	R M-OXIDE FILM	1W 2.2 OHM J (TAPPING)	
208	R412	RS01Z309J-	R M-OXIDE FILM	1W 3 OHM J (TAPPING)	
209	R413	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
210	R414	RS02Z109J-	R M-OXIDE FILM	2W 1 OHM J (TAPPING)	
211	R419	RS02Z120JS	R M-OXIDE FILM	2W 12 OHM J SMALL	
212	R617	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
213	R814	RS02Z129JS	R M-OXIDE FILM	2W 1.2 OHM J SMALL	
214	R815	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
215	R817	RS02Z331JS	R M-OXIDE FILM	2W 330 OHM J SMALL	
216	ZZ200	PTMPJRJ954	PCB MAIN RADIAL AS	DTQ-21U4SC	
217	C101	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
218	C102	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
219	C201	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
220	C203	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
221	C204	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
222	C210	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
223	C301	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)	
224	C302	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
225	C303	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
226	C305	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP	
227	C307	CXSL2H100D	C CERA	500V SL 10PF D (TAPPING)	
228	C308	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
229	C311	CEXD1H109Q	C ELECTRO	50V RT 1MF (6.3X11) TP	
230	C312	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
231	C315	CMXM2A153J	C MYLAR	100V 0.015MF J (TP)	
232	C381	CMXM2A224J	C MYLAR	100V 0.22MF J	
233	C401	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
234	C402	CCXB2H561K	C CERA	500V B 560PF K (TAPPING)	
235	C403	CCXF2H103Z	C CERA	HIKF 500V 0.01MF Z	
236	C411	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
237	C412	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
238	C418	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
239	C437	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
240	C451	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
241	C461	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
242	C502	CCXB1H561K	C CERA	50V B 560PF K (TAPPING)	
243	C503	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
244	C507	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
245	C512	CCXB1H122K	C CERA	50V B 1200PF K (TAPPING)	
246	C513	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
247	C519	CEXF1H228V	C ELECTRO	50V RSS 0.22MF (5X11) TP	
248	C521	CEXF1H228V	C ELECTRO	50V RSS 0.22MF (5X11) TP	
249	C523	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
250	C525	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
251	C526	CCXB1H122K	C CERA	50V B 1200PF K (TAPPING)	
252	C528	CEXD1H109F	C ELECTRO	50V RND 1MF (5X11) TP	
253	C529	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
254	C530	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
255	C531	CEXD1H109F	C ELECTRO	50V RND 1MF (5X11) TP	
256	C532	CMXM2A683J	C MYLAR	100V 0.068MF J (TP)	
257	C534	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11) TP	
258	C538	CMXM2A683J	C MYLAR	100V 0.068MF J (TP)	
259	C606	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
260	C609	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
261	C610	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
262	C611	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
263	C612	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
264	C613	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
265	C614	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
266	C615	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
267	C616	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
268	C617	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
269	C618	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
270	C620	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
271	C621	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
272	C623	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
273	C626	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
274	C628	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
275	C629	CMXM2A152J	C MYLAR	100V 1500PF J (TP)	
276	C630	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
277	C631	CMXM2A152J	C MYLAR	100V 1500PF J (TP)	
278	C632	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
279	C633	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
280	C634	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
281	C635	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
282	C636	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
283	C637	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
284	C638	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
285	C639	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
286	C640	CEXF1H338V	C ELECTRO	50V RSS 0.33MF (5X11) TP	
287	C643	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
288	C701	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
289	C703	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
290	C704	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
291	C705	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
292	C706	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP	
293	C742	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
294	C802	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	
295	C803	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	
296	C810	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
297	C818	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
298	C819	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
299	C871	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
300	C892	CMXM2A273J	C MYLAR	100V 0.027MF J (TP)	
301	F801A	4857415001	CLIP FUSE	PFC5000-0702	
302	F801B	4857415001	CLIP FUSE	PFC5000-0702	
303	L805	58CX430599	COIL CHOKE	AZ-9004Y 940K TP	
304	Q401	TKTC3207—	TR	KTC3207 (TP)	
305	Q504	TKTA1266Y-	TR	KTA1266Y (TP)	
306	Q505	TKTA1266Y-	TR	KTA1266Y (TP)	
307	Q506	TKTA1266Y-	TR	KTA1266Y (TP)	
308	Q507	TKTC3198Y-	TR	KTC3198Y	
309	Q508	TKTA1266Y-	TR	KTA1266Y (TP)	
310	Q510	TKTC3198Y-	TR	KTC3198Y	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
311	Q601	TKTC3198Y-	TR	KTC3198Y	
312	Q602	TKTC3198Y-	TR	KTC3198Y	
313	Q603	TKTA1266Y-	TR	KTA1266Y (TP)	
314	Q701	TKTC3198Y-	TR	KTC3198Y	
315	Q702	TKTC3198Y-	TR	KTC3198Y	
316	Q704	TKTA1266Y-	TR	KTA1266Y (TP)	
317	Q706	TKTC3198Y-	TR	KTC3198Y	
318	Q708	TKTC3198Y-	TR	KTC3198Y	
319	Q802	TKTC3198Y-	TR	KTC3198Y	
320	Q804	TKSA1013Y-	TR	KSA1013Y (TP)	
321	Q805	TKTC3205Y-	TR	KTC3205Y (TP)	
322	Q871	TKTC3198Y-	TR	KTC3198Y	
323	Q873	TKTC3198Y-	TR	KTC3198Y	
324	R301	RN02B471JS	R METAL FILM	2W 470 OHM J SMALL	
325	R302	RN02B221JS	R METAL FILM	2W 220 OHM J SMALL	
326	R303	RN02B129JS	R METAL FILM	2W 1.2 OHM J SMALL	
327	R305	RN02B181JS	R METAL FILM	2W 180 OHM J SMALL	
328	R316	RN02B109JS	R METAL FILM	2W 1 OHM J SMALL	
329	R331	RN02B100JS	R METAL FILM	2W 10 OHM J SMALL	
330	R380	RN02B681JS	R METAL FILM	2W 680 OHM J SMALL	
331	R402	RN02B102JS	R METAL FILM	2W 1K OHM J SMALL	
332	R403	RN02B153JS	R METAL FILM	2W 15K OHM J SMALL	
333	SW701	5S50101090	SW TACT	THVH472GCA	
334	SW702	5S50101090	SW TACT	THVH472GCA	
335	SW703	5S50101090	SW TACT	THVH472GCA	
336	SW704	5S50101090	SW TACT	THVH472GCA	
337	SW705	5S50101090	SW TACT	THVH472GCA	
338	SW706	5S50101090	SW TACT	THVH472GCA	
339	ZZ200	PTMPJAJ954	PCB MAIN AXIAL AS	DTQ-21U4SC	
340	10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
341	20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	
342	A001	4859815991	PCB MAIN	246X330	
343	C103	CCZF1H103Z	C CERA	50V F 0.01MF Z	
344	C107	CCZF1H103Z	C CERA	50V F 0.01MF Z	
345	C206	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
346	C207	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
347	C211	CCZF1H103Z	C CERA	50V F 0.01MF Z	
348	C314	CZCH1H200J	C CERA	50V CH 20PF J (AXIAL)	
349	C454	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
350	C501	CCZF1H103Z	C CERA	50V F 0.01MF Z	
351	C504	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
352	C505	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
353	C506	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
354	C508	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
355	C509	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
356	C510	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)	
357	C511	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)	
358	C514	CCZF1H103Z	C CERA	50V F 0.01MF Z	
359	C515	CCZF1H103Z	C CERA	50V F 0.01MF Z	
360	C516	CCZF1H103Z	C CERA	50V F 0.01MF Z	
361	C517	CZCH1H309C	C CERA	50V CH 3PF C (AXIAL)	
362	C518	CZCH1H309C	C CERA	50V CH 3PF C (AXIAL)	
363	C520	CCZB1H681K	C CERA	50V B 680PF K (AXIAL)	
364	C522	CCZB1H681K	C CERA	50V B 680PF K (AXIAL)	
365	C524	CCZF1H473Z	C CERA	50V F 0.047MF Z	
366	C527	CCZF1H103Z	C CERA	50V F 0.01MF Z	
367	C533	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
368	C540	CCZB1H222K	C CERA	50V B 2200PF K AXIAL	
369	C541	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
370	C601	CZCH1H479K	C CERA	50V CH 4.7PF K (AXIAL)	
371	C602	CZCH1H479K	C CERA	50V CH 4.7PF K (AXIAL)	
372	C603	CZSL1H560J	C CERA	50V SL 56PF J (AXIAL)	
373	C604	CZSL1H560J	C CERA	50V SL 56PF J (AXIAL)	
374	C605	CZSL1H560J	C CERA	50V SL 56PF J (AXIAL)	
375	C607	CCZF1H103Z	C CERA	50V F 0.01MF Z	
376	C608	CCZF1H103Z	C CERA	50V F 0.01MF Z	
377	C619	CCZF1H103Z	C CERA	50V F 0.01MF Z	
378	C622	CCZF1H103Z	C CERA	50V F 0.01MF Z	
379	C624	CCZF1H103Z	C CERA	50V F 0.01MF Z	
380	C625	CCZF1H103Z	C CERA	50V F 0.01MF Z	
381	C627	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
382	C641	CCZF1H103Z	C CERA	50V F 0.01MF Z	
383	C642	CCZF1H103Z	C CERA	50V F 0.01MF Z	
384	C644	CCZF1H103Z	C CERA	50V F 0.01MF Z	
385	C645	CCZF1H103Z	C CERA	50V F 0.01MF Z	
386	C646	CCZF1H103Z	C CERA	50V F 0.01MF Z	
387	C647	CCZF1H103Z	C CERA	50V F 0.01MF Z	
388	C650	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
389	C743	CCZB1H221K	C CERA	50V B 220PF K (AXIAL)	
390	C752	CZCH1H180J	C CERA	50V CH 18PF J (AXIAL)	
391	C753	CZCH1H180J	C CERA	50V CH 18PF J (AXIAL)	
392	C754	CCZF1H103Z	C CERA	50V F 0.01MF Z	
393	C755	CCZF1H103Z	C CERA	50V F 0.01MF Z	
394	C757	CCZB1H333K	C CERA	50V B 0.033MF K AXL	
395	C780	CCZF1H103Z	C CERA	50V F 0.01MF Z	
396	C891	CCZB1H820K	C CERA	50V B 82PF K (AXIAL)	
397	D101	DUZ33B—	DIODE ZENER	UZ-33B	
398	D102	DUZ5R1B—	DIODE ZENER	UZ-5.1B	
399	D301	D1N4004S—	DIODE	1N4004S	
400	D302	DBZX55C62-	DIODE ZENER	BZX55C-62	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
401	D304	D1N4148---	DIODE	1N4148 (TAPPING)	
402	D401	D1N4937G---	DIODE	1N4937G (TAPPING)	
403	D402	DUZ9R1BM---	DIODE ZENER	UZ-9.1BM	
404	D405	D1N4937G---	DIODE	1N4937G (TAPPING)	
405	D406	D1N4937G---	DIODE	1N4937G (TAPPING)	
406	D407	D1N4937G---	DIODE	1N4937G (TAPPING)	
407	D408	D1N4937G---	DIODE	1N4937G (TAPPING)	
408	D409	D1N4148---	DIODE	1N4148 (TAPPING)	
409	D501	D1N4148---	DIODE	1N4148 (TAPPING)	
410	D502	D1N4148---	DIODE	1N4148 (TAPPING)	
411	D503	D1N4148---	DIODE	1N4148 (TAPPING)	
412	D601	DUZ8R2BM---	DIODE ZENER	UZ-8.2BM	
413	D602	D1N4148---	DIODE	1N4148 (TAPPING)	
414	D701	D1N4148---	DIODE	1N4148 (TAPPING)	
415	D704	DUZ3R9B---	DIODE ZENER	UZ-3.9B	
416	D802	DUZ9R1BM---	DIODE ZENER	UZ-9.1BM	
417	D803	DUZ9R1BM---	DIODE ZENER	UZ-9.1BM	
418	D804	DUZ22BM---	DIODE ZENER	UZ-22BM	
419	D806	D1N4148---	DIODE	1N4148 (TAPPING)	
420	D808	D1N4937G---	DIODE	1N4937G (TAPPING)	
421	D810	DRGP15J---	DIODE	RGP15J	
422	D811	DRGP15J---	DIODE	RGP15J	
423	D812	DUZ5R6BM---	DIODE ZENER	UZ-5.6BM	
424	D813	D1N4937G---	DIODE	1N4937G (TAPPING)	
425	J101	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
426	J102	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
427	J103	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
428	J104	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
429	J105	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
430	J107	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
431	J108	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
432	J109	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
433	J110	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
434	J111	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
435	J112	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
436	J113	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
437	J114	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
438	J115	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
439	J116	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
440	J117	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
441	J118	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
442	J119	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
443	J120	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
444	J123	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
445	J124	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
446	J125	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
447	J126	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
448	J127	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
449	J128	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
450	J129	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
451	J130	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
452	J131	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
453	J132	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
454	J133	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
455	J134	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
456	J136	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
457	J137	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
458	J138	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
459	J139	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
460	J140	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
461	J141	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
462	J142	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
463	J143	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
464	J144	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
465	J145	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
466	J146	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
467	J147	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
468	J149	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
469	J150	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
470	J151	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
471	J152	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
472	J153	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
473	J154	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
474	J155	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
475	J156	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
476	J157	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
477	J158	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
478	J159	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
479	J160	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
480	J161	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
481	J162	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
482	J163	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
483	J164	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
484	J165	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
485	J169	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
486	J173	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
487	J175	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
488	J176	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
489	J179	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
490	J180	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
491	J182	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
492	J183	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
493	J186	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
494	J187	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
495	J188	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
496	J189	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
497	J191	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
498	J192	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
499	J193	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
500	J194	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
501	J195	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
502	J196	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
503	J198	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
504	J199	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
505	J200	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
506	J201	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
507	J202	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
508	J207	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
509	J210	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
510	J211	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
511	J212	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
512	J213	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
513	J214	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
514	J219	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
515	J222	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
516	J225	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
517	J228	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
518	J229	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
519	J230	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
520	J231	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
521	J232	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
522	J233	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
523	J234	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
524	J235	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
525	J238	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
526	J239	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
527	J240	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
528	J241	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
529	J243	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
530	J245	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
531	J246	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
532	J247	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
533	J249	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
534	J250	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
535	J253	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
536	J256	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
537	J257	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
538	J258	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
539	J267	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
540	J268	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
541	J271	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
542	J303	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
543	J312	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
544	J313	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
545	J314	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
546	J315	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
547	J316	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
548	J317	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
549	J321	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
550	J322	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
551	J323	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
552	J324	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
553	J325	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
554	J326	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
555	J327	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
556	J330	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
557	J331	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
558	J332	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
559	J335	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
560	J336	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
561	J337	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
562	J338	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
563	J339	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
564	J340	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
565	J341	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
566	J343	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
567	J344	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
568	J345	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
569	J346	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
570	J401	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
571	J402	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
572	J403	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
573	J404	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
574	J405	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
575	J410	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
576	J411	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
577	J412	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
578	J501	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
579	J502	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
580	J504	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
581	J512	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
582	J556	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
583	J611	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
584	J705	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
585	J713	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
586	J720	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
587	J721	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
588	J722	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
589	J723	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
590	J724	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
591	J728	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
592	J778	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
593	J797	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
594	J798	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
595	J802	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
596	J803	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
597	J811	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
598	J812	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
599	J815	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
600	J816	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
601	J817	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
602	J823	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
603	J827	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
604	J857	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
605	J860	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
606	J861	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
607	J862	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
608	J864	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
609	J865	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
610	J867	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
611	L406	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
612	L501	5CPZ568M02	COIL PEAKING	0.56UH M (AXIAL 3.5MM)	
613	L502	5CPZ568M02	COIL PEAKING	0.56UH M (AXIAL 3.5MM)	
614	L503	5CPZ689K02	COIL PEAKING	6.8UH K (AXIAL 3.5MM)	
615	L504	5CPZ689K02	COIL PEAKING	6.8UH K (AXIAL 3.5MM)	
616	L505	5CPZ568M02	COIL PEAKING	0.56UH M (AXIAL 3.5MM)	
617	L601	5CPZ150K02	COIL PEAKING	15UH K (AXIAL 3.5MM)	
618	L602	5CPZ568M02	COIL PEAKING	0.56UH M (AXIAL 3.5MM)	
619	L603	5CPZ568M02	COIL PEAKING	0.56UH M (AXIAL 3.5MM)	
620	L701	5CPZ220K02	COIL PEAKING	22UH K (AXIAL 3.5MM)	
621	L802	5MC0000100	COIL BEAD	HC-3550	
622	L806	5MC0000100	COIL BEAD	HC-3550	
623	L807	5MC0000100	COIL BEAD	HC-3550	
624	L808	5MC0000100	COIL BEAD	HC-3550	
625	L809	5MC0000100	COIL BEAD	HC-3550	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
626	R103	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
627	R104	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
628	R105	RD-2Z392J-	R CARBON FILM	1/2 3.9K OHM J	
629	R201	RD-4Z241J-	R CARBON FILM	1/4 240 OHM J	
630	R202	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
631	R203	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
632	R204	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
633	R205	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
634	R206	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
635	R207	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
636	R208	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
637	R209	RD-AZ512J-	R CARBON FILM	1/6 5.1K OHM J	
638	R210	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
639	R211	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
640	R212	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
641	R213	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
642	R214	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
643	R215	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
644	R216	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
645	R310	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
646	R311	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
647	R312	RD-AZ133J-	R CARBON FILM	1/6 13K OHM J	
648	R313	RD-AZ204J-	R CARBON FILM	1/6 200K OHM J	
649	R314	RD-4Z564J-	R CARBON FILM	1/4 560K OHM J	
650	R315	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J	
651	R351	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
652	R352	RN-AZ1003F	R METAL FILM	1/6 100K OHM F	
653	R353	RN-4Z8201F	R METAL FILM	1/4 8.2K OHM F	
654	R359	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J	
655	R360	RD-AZ303J-	R CARBON FILM	1/6 30K OHM J	
656	R361	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
657	R362	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
658	R363	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
659	R364	RN-AZ2402F	R METAL FILM	1/6 24.0K OHM F	
660	R401	RD-4Z472J-	R CARBON FILM	1/4 4.7K OHM J	
661	R416	RD-2Z121J-	R CARBON FILM	1/2 120 OHM J	
662	R418	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
663	R451	RN-AZ1202F	R METAL FILM	1/6 12K OHM F	
664	R452	RN-AZ2202F	R METAL FILM	1/6 22K OHM F	
665	R454	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
666	R501	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
667	R502	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
668	R503	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
669	R504	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
670	R507	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
671	R509	RD-AZ303J-	R CARBON FILM	1/6 30K OHM J	
672	R518	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J	
673	R519	RD-AZ682J-	R CARBON FILM	1/6 6.8K OHM J	
674	R520	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
675	R523	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
676	R524	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
677	R525	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J	
678	R526	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
679	R527	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
680	R532	RD-AZ431J-	R CARBON FILM	1/6 430 OHM J	
681	R534	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
682	R535	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
683	R536	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
684	R537	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
685	R538	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
686	R539	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
687	R540	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
688	R541	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
689	R542	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
690	R543	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
691	R544	RD-AZ330J-	R CARBON FILM	1/6 33 OHM J	
692	R545	RD-AZ330J-	R CARBON FILM	1/6 33 OHM J	
693	R546	RD-AZ330J-	R CARBON FILM	1/6 33 OHM J	
694	R547	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J	
695	R548	RD-AZ220J-	R CARBON FILM	1/6 22 OHM J	
696	R549	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
697	R550	RD-AZ271J-	R CARBON FILM	1/6 270 OHM J	
698	R551	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
699	R553	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
700	R556	RD-AZ360J-	R CARBON FILM	1/6 36 OHM J	
701	R560	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J	
702	R561	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
703	R562	RD-AZ621J-	R CARBON FILM	1/6 620 OHM J	
704	R571	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
705	R601	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
706	R602	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
707	R603	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
708	R604	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
709	R605	RD-AZ162J-	R CARBON FILM	1/6 1.6K OHM J	
710	R606	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
711	R607	RD-AZ162J-	R CARBON FILM	1/6 1.6K OHM J	
712	R608	RD-2Z111J-	R CARBON FILM	1/2 110 OHM J	
713	R609	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
714	R610	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
715	R611	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
716	R612	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
717	R613	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
718	R614	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
719	R615	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
720	R616	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
721	R618	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
722	R619	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	
723	R620	RD-4Z681J-	R CARBON FILM	1/4 680 OHM J	
724	R622	RD-AZ243J-	R CARBON FILM	1/6 24K OHM J	
725	R623	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J	
726	R624	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
727	R625	RD-AZ153J-	R CARBON FILM	1/6 15K OHM J	
728	R626	RD-2Z101J-	R CARBON FILM	1/2 100 OHM J	
729	R627	RD-2Z101J-	R CARBON FILM	1/2 100 OHM J	
730	R628	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
731	R629	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
732	R631	RD-4Z829J-	R CARBON FILM	1/4 8.2 OHM J	
733	R632	RD-4Z829J-	R CARBON FILM	1/4 8.2 OHM J	
734	R633	RD-4Z829J-	R CARBON FILM	1/4 8.2 OHM J	
735	R634	RD-4Z829J-	R CARBON FILM	1/4 8.2 OHM J	
736	R701	RD-AZ479J-	R CARBON FILM	1/6 4.7 OHM J	
737	R702	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
738	R703	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
739	R704	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
740	R705	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
741	R706	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
742	R707	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
743	R709	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J	
744	R711	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
745	R712	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
746	R713	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
747	R721	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
748	R723	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
749	R724	RD-AZ431J-	R CARBON FILM	1/6 430 OHM J	
750	R732	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
751	R733	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
752	R734	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
753	R735	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
754	R736	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
755	R737	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
756	R738	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
757	R742	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
758	R743	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
759	R744	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
760	R745	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
761	R746	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
762	R747	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	
763	R748	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
764	R750	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
765	R751	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
766	R752	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
767	R762	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
768	R769	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
769	R780	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
770	R782	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
771	R784	RD-AZ514J-	R CARBON FILM	1/6 510K OHM J	
772	R785	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
773	R786	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
774	R787	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
775	R788	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
776	R789	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
777	R790	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
778	R791	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
779	R792	RD-AZ361J-	R CARBON FILM	1/6 360 OHM J	
780	R793	RD-AZ361J-	R CARBON FILM	1/6 360 OHM J	
781	R794	RD-AZ361J-	R CARBON FILM	1/6 360 OHM J	
782	R795	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
783	R796	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
784	R797	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
785	R798	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
786	R802	RN-AZ5601F	R METAL FILM	1/6 5.6K OHM F	
787	R804	RD-2Z105J-	R CARBON FILM	1/2 1M OHM J	
788	R806	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
789	R813	RD-AZ363J-	R CARBON FILM	1/6 36K OHM J	
790	R818	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J	
791	R822	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J	
792	R862	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
793	R863	RD-AZ562J-	R CARBON FILM	1/6 5.6K OHM J	
794	R868	RN-AZ2201F	R METAL FILM	1/6 2.2K OHM F	
795	R869	RD-AZ154J-	R CARBON FILM	1/6 150K OHM J	
796	R870	RD-AZ432J-	R CARBON FILM	1/6 4.3K OHM J	
797	R871	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
798	R872	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
799	R873	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
800	R874	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J	
801	R875	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J	
802	R876	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
803	R877	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
804	R878	RN-AZ5102F	R METAL FILM	1/6 51.0K OHM F	
805	R879	RN-AZ5102F	R METAL FILM	1/6 51.0K OHM F	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
806	R881	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K	
807	R884	RC-2Z225KP	R CARBON COMP	1/2 2.2M OHM K	
808	R892	RD-AZ203J-	R CARBON FILM	1/6 20K OHM J	
809	R893	RN-AZ2002F	R METAL FILM	1/6 20.0K OHM F	
810	R980	RD-4Z684J-	R CARBON FILM	1/4 680K OHM J	
811	ZZ300	PTCPMSJ954	PCB CRT MANUAL AS	DTQ-21U4SC	
812	C901	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
813	C965	CH1HFE102M	C CERA AC	4.0KV 1000PF E DG	△
814	I901	PTB2SW5403	HEAT SINK ASS'Y	1TEA5101B- + 7174300811	
815	I901	1TEA5101B-	IC VIDEO AMP	TEA5101B	Ⓜ
816	I901A	4857025403	HEAT SINK	AL050P-H24	T=2
817	I901B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
818	PA502	4850710V03	CONNECTOR	YH025-10+YST025+ULW=400	
819	SCT1	4859303830	SOCKET CRT	ISHG94S	Ⓜ
820	ZZ200	PTCPJ0J954	PCB CRT ODD SHAPE AS	DTQ-21U4SC	
821	ZZ200	PTCPJRJ954	PCB CRT RADIAL AS	DTQ-21U4SC	
822	C902	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
823	C904	CEXF1C331V	C ELECTRO	16V RSS 330MF (8X11.5) TP	
824	C909	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
825	C911	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
826	Q901	TKTA1270Y-	TR	KTA1270Y (TP)	
827	ZZ200	PTCPJAJ954	PCB CRT AXIAL AS	DTQ-21U4SC	
828	A002	4859828813	PCB CRT	108X72(246X246/6) C1B	
829	C903	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
830	C905	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
831	C907	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
832	C910	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
833	D901	D1N4148---	DIODE	1N4148 (TAPPING)	
834	D902	D1N4148---	DIODE	1N4148 (TAPPING)	
835	D903	D1N4148---	DIODE	1N4148 (TAPPING)	
836	D904	D1N4148---	DIODE	1N4148 (TAPPING)	
837	J901	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
838	J902	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
839	J903	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
840	J904	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
841	J905	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
842	J906	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
843	J907	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
844	R901	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
845	R903	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
846	R904	RD-AZ432J-	R CARBON FILM	1/6 4.3K OHM J	
847	R905	RD-2Z683J-	R CARBON FILM	1/2 68K OHM J	
848	R906	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J	
849	R907	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
850	R908	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
851	R909	RD-AZ432J-	R CARBON FILM	1/6 4.3K OHM J	
852	R910	RD-2Z683J-	R CARBON FILM	1/2 68K OHM J	
853	R911	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J	
854	R912	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
855	R913	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
856	R914	RD-AZ432J-	R CARBON FILM	1/6 4.3K OHM J	
857	R915	RD-2Z683J-	R CARBON FILM	1/2 68K OHM J	
858	R916	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J	
859	R917	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
860	R918	RD-AZ301J-	R CARBON FILM	1/6 300 OHM J	
861	R919	RD-AZ301J-	R CARBON FILM	1/6 300 OHM J	
862	R920	RD-AZ301J-	R CARBON FILM	1/6 300 OHM J	
863	C801	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47	⚠

DIFFERENT PARTS LIST

**This BOM is based on DTQ-27U4SC, it is different parts list in comparison with DTQ-20U4SC.

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
1	I801	PTC2SW7720	HEAT SINK ASS`Y	1MR2540— + 7174300811	
2	00001	1MR2540—	IC POWER	MR2540	⚠ (R)
3	0000A	4857027720	HEAT SINK	AL EX	
4	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
5	Q402	PTF2SW7607	HEAT SINK ASS`Y	T2SD2578— + 7174301011	
6	00001	T2SD2578—	TR HORI	2SD2578	(R)
7	0000A	4857027607	HEAT SINK	AL EX	
8	0000B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN	
9	A001	4859828413	PCB CRT	165X113(330X246/2X2) C1B	(R)
10	C310	CEYF1E332V	C ELECTRO	25V RSS 3300MF (16X31.5)	
11	C404	CMYH3C752J	C MYLAR	1.6KV BUP 7500PF J	⚠
12	C406	CMYE2G434J	C MYLAR	400V PU 0.43MF J	
13	C420	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
14	C437	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
15	C804	CEYN2D471T	C ELECTRO	200V FWS 470MF (25X40)	
16	C813	CBXB3D102K	C CERA SEMI	2KV BL(N) 1000PF K (T)	
17	C852	CEXF1E222V	C ELECTRO	25V RSS 2200MF (16X25) TP	
18	C880	CH1AEE472M	C CERA AC	2.5KV 4700PF M KH DE1307	⚠
19	C881	CH1AEE472M	C CERA AC	2.5KV 4700PF M KH DE1307	⚠
20	C901	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
21	C902	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
22	C904	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
23	C905	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
24	D407	DRGP15J—	DIODE	RGP15J	
25	D408	DRGP15J—	DIODE	RGP15J	
26	D801	PTC1SW8902	HEAT SINK ASS`Y	DPBS606GU- + 7174300811	
27	D801A	4857018902	HEAT SINK	A1050P-H24	
28	D801B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
29	D904	DLT2A05G—	DIODE	LT2A05G (TP)	
30	J823	RD-4Z100J-	R CARBON FILM	1/4 10 OHM J	
31	L401	58H0000064	COIL H-LINEARITY	TRL-350B	⚠
32	L406	5MC0000100	COIL BEAD	HC-3550	
33	L801	5PLF30A1—	FILTER LINE	LF-30A1	⚠
34	L805	58C0000096	COIL CHOKE	610G0233(470K)	
35	M191	4851948700	BUTTON CTRL	4954900+5549100 29U4	
36	M201	4852083400	MASK FRONT	FR HIPS GY 29U4	
37	M201A	4856015821	SCREW CRT FIX	SWRM+SK5 L=35	
38	M201C	4856215402	WASHER RUBBER	CR T2.0	
39	M211	4852163000	COVER BACK	FR HIPS GY 29U4	
40	M211A	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK	
41	M211B	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK	
42	M211C	7178301212	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK	
43	M481	4854864000	BUTTON POWER	FR HIPS GY 29U4	
44	M561	48556174SD	MARK BRAND	SILVER DIA-CUTTING	
45	M681	4856812400	BAND PP AUTO	T1.1XW17mmXL770M	
46	M684	4856812001	TIE CABLE	NYLON66 DA100	
47	M801	485806245K	BOX CARTON	DW-3B	
48	M811	4858101000	PAD	EPS 29U4	
49	M821	4858215601	BAG PE	PE FOAM t0.5x1600x1270	
50	Q401	TKTC3229—	TR	KTC3229	
51	Q509	TKTC3198Y-	TR	KTC3198Y	
52	R101	RS02Z101JS	R M-OXIDE FILM	2W 100 OHM J SMALL	
53	R102	RS02Z101JS	R M-OXIDE FILM	2W 100 OHM J SMALL	
54	R301	RN02B102JS	R METAL FILM	2W 1K OHM J SMALL	

DIFFERENT PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
55	R302	RN02B620JS	R METAL FILM	2W 62 OHM J SMALL	
56	R305	RN02B910JS	R METAL FILM	2W 91 OHM J SMALL	
57	R351	RD-4Z362J-	R CARBON FILM	1/4 3.6K OHM J	
58	R353	RN-AZ1302F	R METAL FILM	1/6 13K OHM F	
59	R359	RD-4Z623J-	R CARBON FILM	1/4 62K OHM J	
60	R360	RD-4Z562J-	R CARBON FILM	1/4 5.6K OHM J	
61	R362	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
62	R363	RD-4Z113J-	R CARBON FILM	1/4 11K OHM J	
63	R364	RN-AZ2002F	R METAL FILM	1/6 20.0K OHM F	
64	R380	RN02B102JS	R METAL FILM	2W 1K OHM J SMALL	
65	R405	RS02Z100JS	R M-OXIDE FILM	2W 10 OHM J SMALL	
66	R412	RS02Z209JS	R M-OXIDE FILM	2W 2 OHM J SMALL	
67	R413	RS02Z159JS	R M-OXIDE FILM	2W 1.5 OHM J SMALL	
68	R414	RS02Z478J-	R M-OXIDE FILM	2W 0.47 OHM J(TAPPING)	
69	R451	RN-AZ1102F	R METAL FILM	1/6 11.0K OHM F	⚠
70	R452	RN-AZ1502F	R METAL FILM	1/6 15K OHM F	⚠
71	R532	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
72	R547	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
73	R605	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
74	R607	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
75	R703	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
76	R756	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
77	R796	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
78	R814	RS02Z828JS	R M-OXIDE FILM	2W 0.82 OHM J SMALL	
79	R815	RS02Z828JS	R M-OXIDE FILM	2W 0.82 OHM J SMALL	
80	R822	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
81	R862	RD-AZ203J-	R CARBON FILM	1/6 20K OHM J	
82	R863	RD-AZ203J-	R CARBON FILM	1/6 20K OHM J	
83	R870	RN-AZ1302F	R METAL FILM	1/6 13K OHM F	
84	R903	RN02B240JS	R METAL FILM	2W 24 OHM J SMALL	
85	R904	RS01Z683J-	R M-OXIDE FILM	1W 68K OHM J (TAPPING)	
86	R905	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
87	R906	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
88	R907	RS01Z683J-	R M-OXIDE FILM	1W 68K OHM J (TAPPING)	
89	R908	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
90	R909	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
91	R910	RS01Z683J-	R M-OXIDE FILM	1W 68K OHM J	(TAPPING)
92	R911	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
93	R912	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
94	R913	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J	
95	R914	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
96	R915	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J	
97	R916	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
98	R917	RD-AZ751J-	R CARBON FILM	1/6 750 OHM J	
99	R918	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
100	R919	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
101	R920	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
102	SCT1	4859302830	SOCKET CRT	ISH-02S	Ⓜ
103	SP01	4858310810	SPEAKER	SP-58126F01	
104	SP01A	7172401212	SCREW TAPPTITE	TT2 TRS 4X12 MFZNBK	
105	SP02	4858310810	SPEAKER	SP-58126F01	Ⓜ
106	SP02A	7172401212	SCREW TAPPTITE	TT2 TRS 4X12 MFZNBK	
107	T401	5TD0000018	TRANS DRIVE	THD-120	
108	T402	50H0000189	FBT	FFA94048L	⚠ Ⓜ
109	T801	50M5345B9-	TRANS SMPS	TSM-5345B9	⚠

DIFFERENT PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
110	V901	4859635262	CRT	A68QDL280X011(B) P38	⚠ (R)
111	ZZ120	PTBCSHK009	COVER BACK AS	DTQ-29U4SC	
112	ZZ130	PTPKCPK009	PACKING AS	DTQ-29U4SC	
113	ZZ131	48519A4210	CRT GROUND NET	2901H-1015-2P	
114	ZZ132	58G0000143	COIL DEGAUSSING	DC-29S1	⚠
115	ZZ140	PTCACAK009	CABINET AS	DTQ-29U4SC	
116	ZZ200	PTCPJ0K009	PCB CRT ODD SHAPE AS	DTQ-29U4SC	
117	ZZ200	PTCPJAK009	PCB CRT AXIAL AS	DTQ-29U4SC	
118	ZZ200	PTCPJBK009	PCB CRT M-10 AS	DTQ-29U4SC	
119	ZZ200	PTCPJRK009	PCB CRT RADIAL AS	DTQ-29U4SC	
120	ZZ200	PTFMSJK009	MASK FRONT AS	DTQ-29U4SC	
121	ZZ200	PTMPJ0K009	PCB MAIN (RHU) AS	DTQ-29U4SC	
122	ZZ200	PTMPJAK009	PCB MAIN AXIAL AS	DTQ-29U4SC	
123	ZZ200	PTMPJBK009	PCB MAIN M-10 AS	DTQ-29U4SC	
124	ZZ200	PTMPJRK009	PCB MAIN RADIAL AS	DTQ-29U4SC	
125	ZZ210	PTSPPWK009	SPEAKER AS	DTQ-29U4SC	
126	ZZ290	PTMPMSK009	PCB MAIN MANUAL AS	DTQ-29U4SC	
127	ZZ300	PTCPMSK009	PCB CRT MANUAL AS	DTQ-29U4SC	
128	Q908	PTE2SW6901	HEAT SINK ASS`Y	TKTA1659Y- + 7174300811	
129	00001	TKTA1659AY	TR	KTA1659AY	
130	0000A	4857026901	HEAT SINK	AL EX BK	
131	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
132	Q909	PTB2SW6900	HEAT SINK ASS`Y	TKTC4370Y- + 7174300811	
133	0000A	4857026900	HEAT SINK	AL EX	
134	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
135	001—	TKTC4370AY	TR	KTC4370AY	
136	C404A	CEXF2C109V	C ELECTRO	160V RSS 1MF (6.3X11) TP	
137	C407	CMYH3C752J	C MYLAR	1.6KV BUP 7500PF J	⚠
138	C413	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
139	C416	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
140	C417	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
141	C535	CCZF1H103Z	C CERA	50V F 0.01MF Z	
142	C536	CCZB1H561K	C CERA	50V B 560PF K	
143	C537	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
144	C539	CCZB1H821K	C CERA	50V B 820PF K AXIAL	
145	C708	CCZF1H103Z	C CERA	50V F 0.01MF Z	
146	C805	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47	
147	C906	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
148	C907	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
149	C908	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
150	C909	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	⚠
151	C915	CMXM2A822J	C MYLAR	100V 8200PF J (TP)	
152	C916	CEXF1E471V	C ELECTRO	25V RSS 470MF (10X16) TP	
153	C917	CCZB1H561K	C CERA	50V B 560PF K	
154	C918	CCZF1H103Z	C CERA	50V F 0.01MF Z	
155	C919	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
156	C920	CEXF1E470C	C ELECTRO	25V RUS 47MF (5X11) TP	
157	C921	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
158	C922	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)	
159	C923	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)	
160	C924	CCZB1H101K	C CERA	50V B 100PF K (AXIAL)	
161	C925	CEXF2E220V	C ELECTRO	250V RSS 22MF (13X20) TP	
162	C941	CEXF2C470V	C ELECTRO	160V RSS 47MF (13X25) TP	
163	C942	CEXF2C100V	C ELECTRO	160V RSS 10MF (10X16) TP	
164	C943	CEXF2C470V	C ELECTRO	160V RSS 47MF (13X25) TP	
165	C944	CXSL2H470J	C CERA	500V SL 47PF J (TAPPING)	

DIFFERENT PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
166	C945	CEXF2C100V	C ELECTRO	160V RSS 10MF (10X16) TP	
167	C946	CEXF1C331V	C ELECTRO	16V RSS 330MF (8X11.5) TP	
168	C947	CMXL2E104K	C MYLAR	250V MEU 0.1MF K	
169	D905	DUZ12BM—	DIODE ZENER	UZ-12BM (UNIZON)	
170	D906	D1N4148—	DIODE	1N4148 (TAPPING)	
171	D907	D1N4148—	DIODE	1N4148 (TAPPING)	
172	D908	D1N4148—	DIODE	1N4148 (TAPPING)	
173	D909	D1N4148—	DIODE	1N4148 (TAPPING)	
174	D910	D1N4148—	DIODE	1N4148 (TAPPING)	
175	D911	D1N4004S—	DIODE	1N4004S	
176	D912	D1N4004S—	DIODE	1N4004S	
177	D913	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM	
178	D914	D1N4148—	DIODE	1N4148 (TAPPING)	
179	D915	D1N4148—	DIODE	1N4148 (TAPPING)	
180	D916	D1N4148—	DIODE	1N4148 (TAPPING)	
181	D917	D1N4148—	DIODE	1N4148 (TAPPING)	
182	D920	D1N4937G—	DIODE	1N4937G (TAPPING)	
183	D921	D1N4937G—	DIODE	1N4937G (TAPPING)	
184	D922	D1N4937G—	DIODE	1N4937G (TAPPING)	
185	E054	4856310300	EYE LET	BSR T0.2 (R1.6)	
186	E055	4856310300	EYE LET	BSR T0.2 (R1.6)	
187	E070	4856310300	EYE LET	BSR T0.2 (R1.6)	
188	E071	4856310300	EYE LET	BSR T0.2 (R1.6)	
189	E072	4856310300	EYE LET	BSR T0.2 (R1.6)	
190	E073	4856310300	EYE LET	BSR T0.2 (R1.6)	
191	G901	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
192	G902	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
193	G903	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
194	J178	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
195	J908	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
196	J910	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
197	J913	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
198	J914	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
199	J915	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
200	J916	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
201	J918	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
202	J922	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
203	L901	5MC0000100	COIL BEAD	HC-3550	
204	L902	5MC0000100	COIL BEAD	HC-3550	
205	L903	5MC0000100	COIL BEAD	HC-3550	
206	P401	485923202S	CONN WAFER	YW025-07 (STICK)	
207	P501	485923192S	CONN WAFER	YW025-06 (STICK)	
208	P903	4859238620	CONN WAFER	YPW500-02	
209	P904	4859205620	CONN WAFER	LW-0640-03	
210	PA401	4850707S02	CONNECTOR	YH025-07+YST025+ULW=400	
211	PA501	4850706S02	CONNECTOR	YH025-06+YBNH250+ULW=400	
212	Q902	TKTC3198Y-	TR	KTC3198Y	
213	Q903	TKTC3198Y-	TR	KTC3198Y	
214	Q904	TKTC3198Y-	TR	KTC3198Y	
215	Q905	TKTC3198Y-	TR	KTC3198Y	
216	Q906	TKTC3198Y-	TR	KTC3198Y	
217	Q907	TKTA1266Y-	TR	KTA1266Y (TP)	
218	Q908	PTE2SW6901	HEAT SINK ASS`Y	TKTA1659Y- + 7174300811	
219	Q909	PTB2SW6900	HEAT SINK ASS`Y	TKTC4370Y- + 7174300811	
220	Q910	TKTA1266Y-	TR	KTA1266Y (TP)	
221	R401A	RN02B102JS	R METAL FILM	2W 1K OHM J SMALL	

DIFFERENT PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
222	R557	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
223	R558	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
224	R559	RD-AZ221J-	R CARBON FILM	1/6 220 OHM J	
225	R921	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
226	R922	RD-2Z100J-	R CARBON FILM	1/2 10 OHM J	
227	R924	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
228	R925	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
229	R926	RD-2Z471J-	R CARBON FILM	1/2 470 OHM J	
230	R927	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J	
231	R928	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
232	R929	RD-AZ273J-	R CARBON FILM	1/6 27K OHM J	
233	R930	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J	
234	R932	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	
235	R933	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	
236	R934	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J	
237	R935	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J	
238	R936	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
239	R937	RD-AZ820J-	R CARBON FILM	1/6 82 OHM J	
240	R938	RD-2Z100J-	R CARBON FILM	1/2 10 OHM J	
241	R939	RD-AZ820J-	R CARBON FILM	1/6 82 OHM J	
242	R940	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
243	R941	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J	
244	R942	RD-AZ683J-	R CARBON FILM	1/6 68K OHM J	
245	R943	RD-AZ683J-	R CARBON FILM	1/6 68K OHM J	
246	R944	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J	
247	R945	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
248	R946	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J	
249	R947	RD-4Z620J-	R CARBON FILM	1/4 62 OHM J	
250	R948	RD-2Z279J-	R CARBON FILM	1/2 2.7 OHM J	
251	R950	RD-2Z279J-	R CARBON FILM	1/2 2.7 OHM J	
252	R951	RS01Z331J-	R M-OXIDE FILM	1W 330 OHM J (TAPPING)	
253	R952	RD-4Z620J-	R CARBON FILM	1/4 62 OHM J	
254	R953	RN02B221JS	R METAL FILM	2W 220 OHM J SMALL	
255	R954	RS02Z189JS	R M-OXIDE FILM	2W 1.8 OHM J SMALL	
256	R955	RD-AZ182J-	R CARBON FILM	1/6 1.8K OHM J	
257	R956	RS02Z102JS	R M-OXIDE FILM	2W 1K OHM J SMALL	
258	R957	RD-4Z105J-	R CARBON FILM	1/4 1M OHM J	
259	R958	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
260	R959	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	

* NO 1~127 - DIFFERENT PARTS

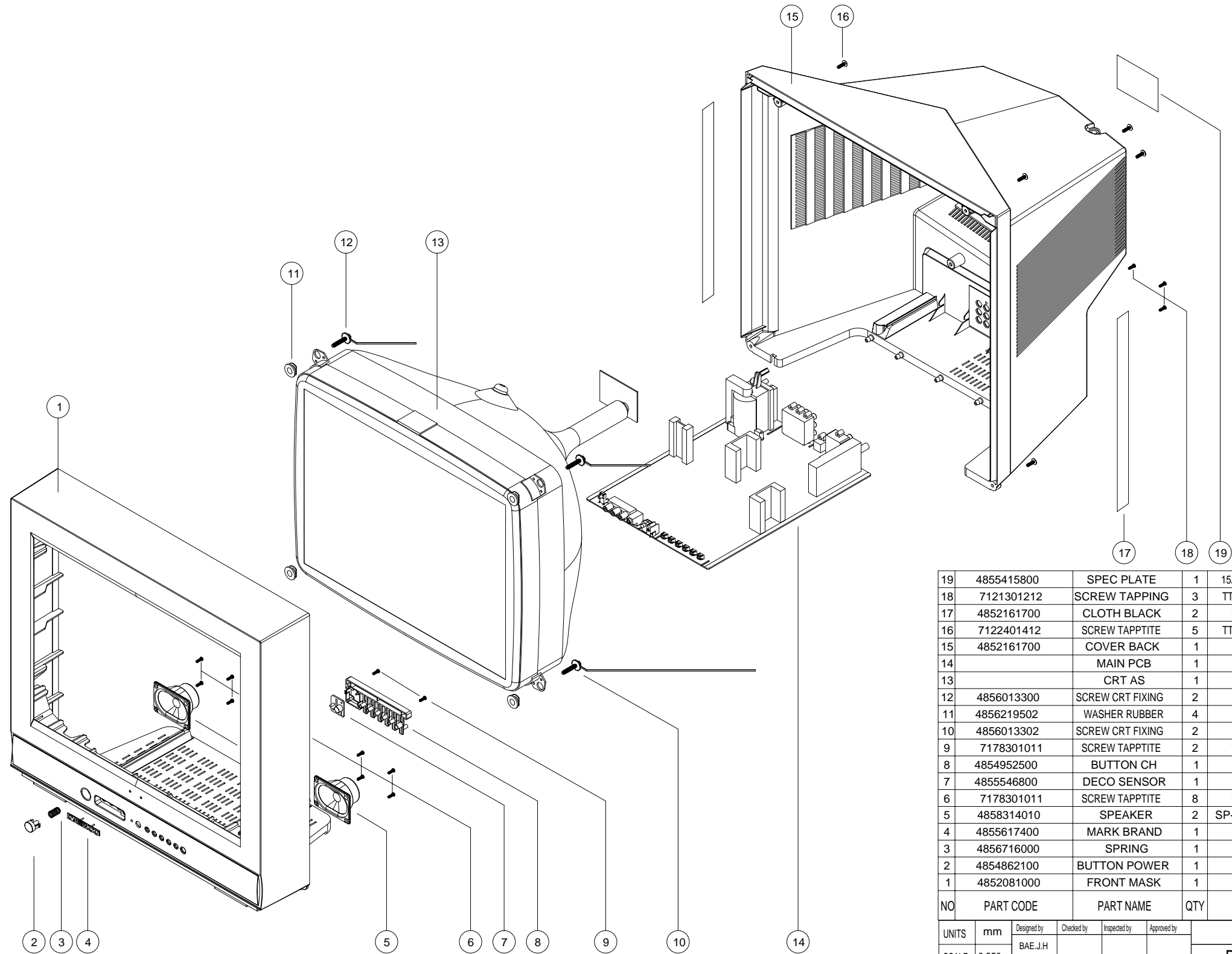
* NO 128~260 - 27INCH ONLY

* C315 C903 C910 C911 C965 D901 D903 E062 E063 E064 E065 E074 E079 J705 J903 P502

PA502 Q901 R315 R401 R881 R901 - 21INCH ONLY

EXPLODE VIEW

DTQ-20U4SC

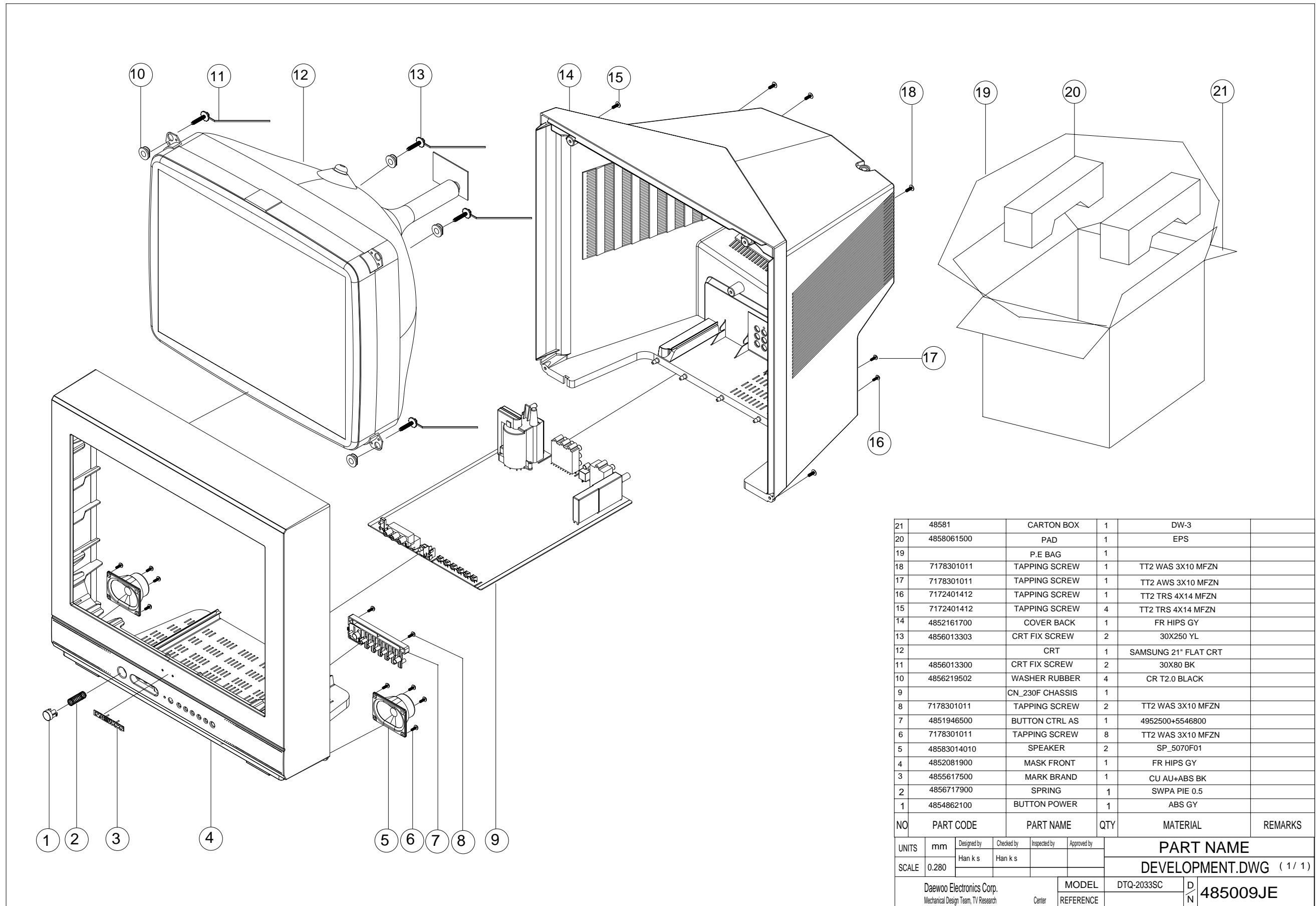


NO	PART CODE	PART NAME	QTY	MATERIAL	REMARKS
19	4855415800	SPEC PLATE	1	15ART P/E FILM (C/TV)	
18	7121301212	SCREW TAPPING	3	TT2 TRS 3X12 MFZN BK	
17	4852161700	CLOTH BLACK	2	FELT 400X20X0.7	
16	7122401412	SCREW TAPPTITE	5	TT2 TRS 4X14 MFZN BK	
15	4852161700	COVER BACK	1	FR HIPS GY	
14		MAIN PCB	1	CN-230F	
13		CRT AS	1		
12	4856013300	SCREW CRT FIXING	2	30X80 BK	
11	4856219502	WASHER RUBBER	4	CR T2.0 BLACK	
10	4856013302	SCREW CRT FIXING	2	30X190 BK	
9	7178301011	SCREW TAPPTITE	2	TT2 WAS 3X10 MFZN	
8	4854952500	BUTTON CH	1	FR ABS GY	
7	4855546800	DECO SENSOR	1	GPPS	
6	7178301011	SCREW TAPPTITE	8	TT2 WAS 3X10 MFZN	
5	4858314010	SPEAKER	2	SP-5070F01 3W 8OHM	
4	4855617400	MARK BRAND	1	CU AU+ABS BK	
3	4856716000	SPRING	1	SWPA PIE0.5	
2	4854862100	BUTTON POWER	1	FR ABS GY	
1	4852081000	FRONT MASK	1	FR HIPS GY	

UNITS	mm	Designed by	Checked by	Inspected by	Approved by	ASSY NAME	
SCALE	0.250	BAE.J.H				DEVELOPMENT DWG (1/1)	
Daewoo Electronics Corp. Mechanical Design Team, TV Research Center					MODEL	DTQ-20U4SC	D N 485009M6
					REFERENCE	CN-230F	

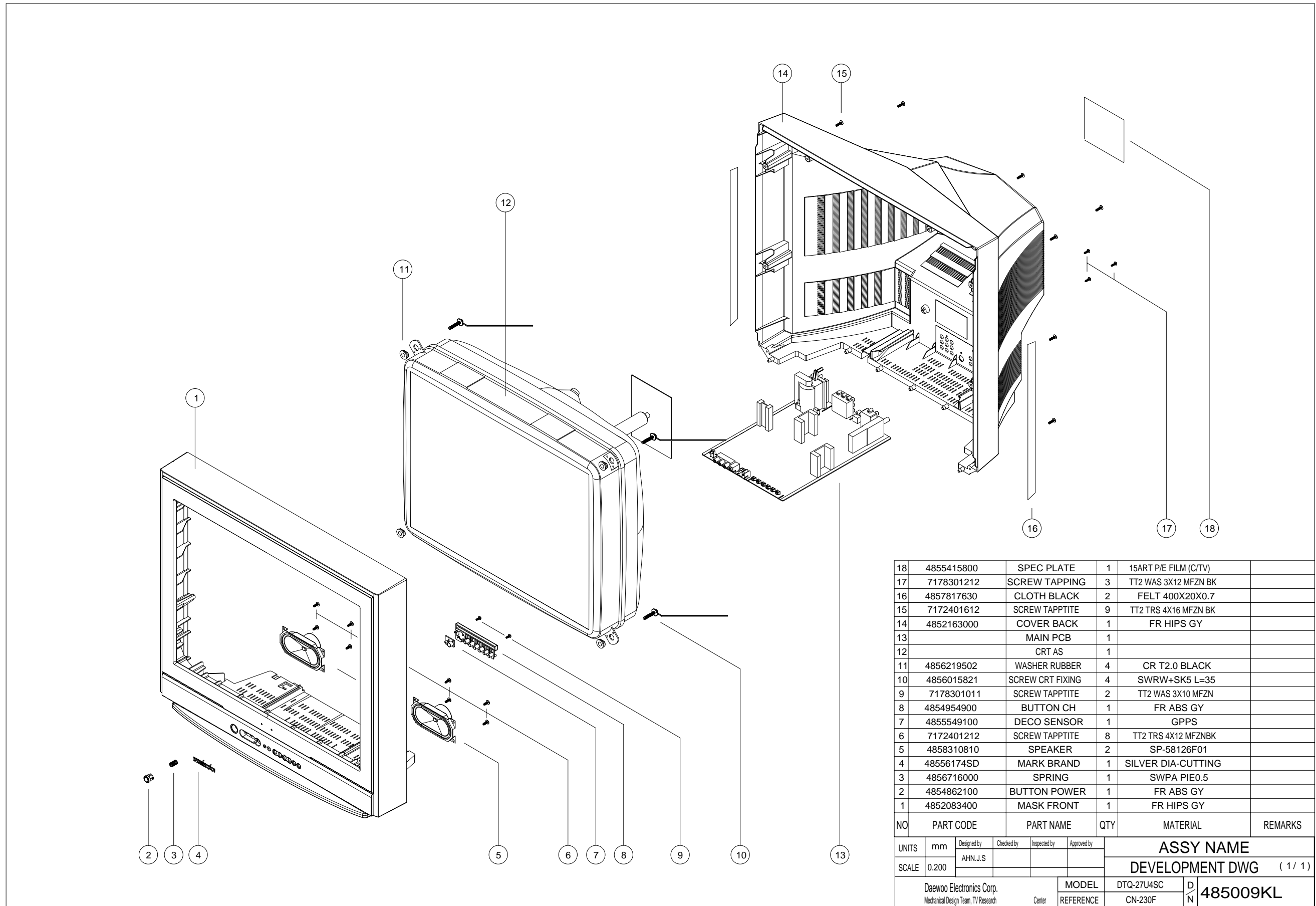
EXPLODE VIEW

DTQ-2033SC



EXPLODE VIEW

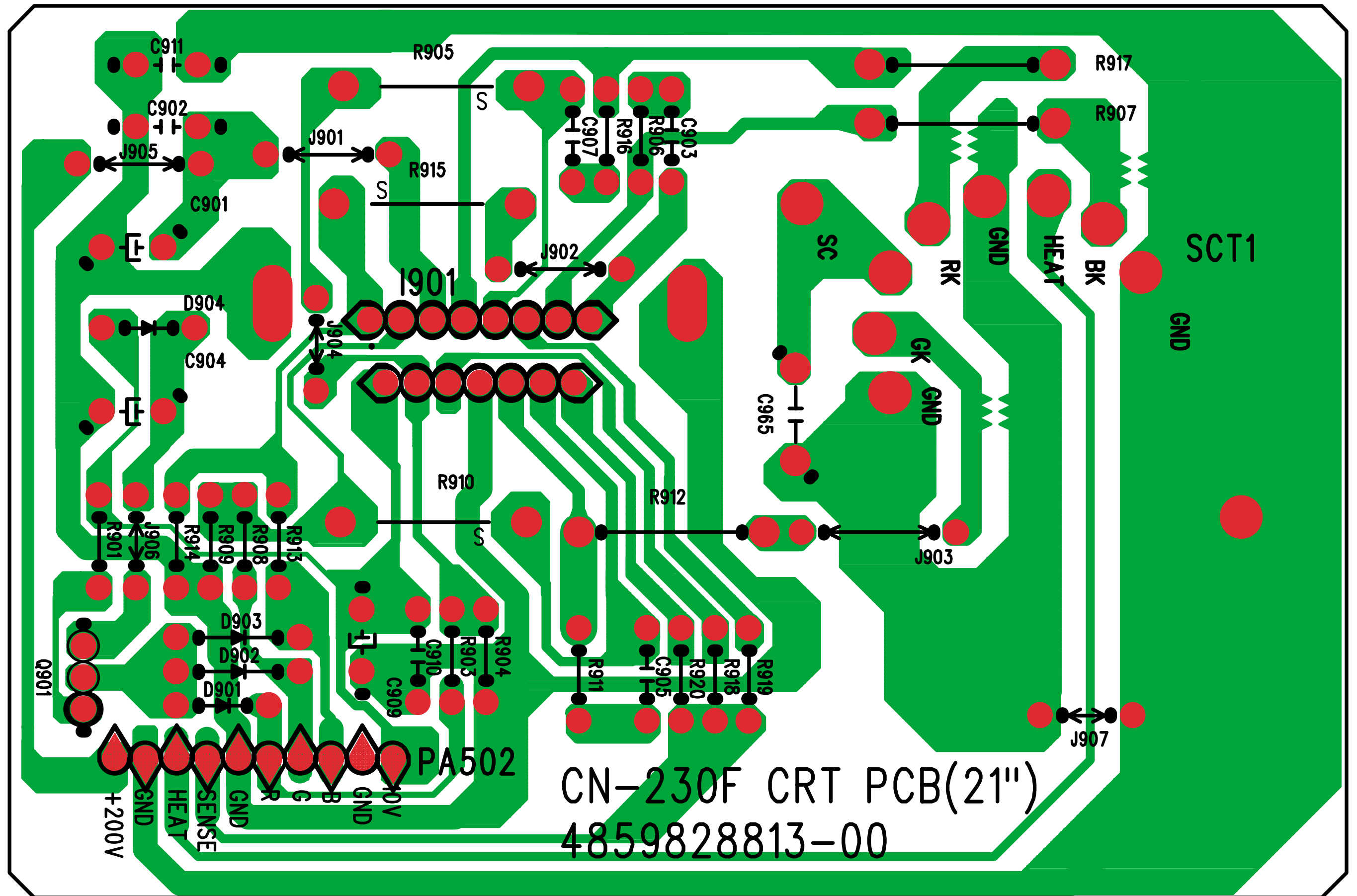
DTQ-27U4SC

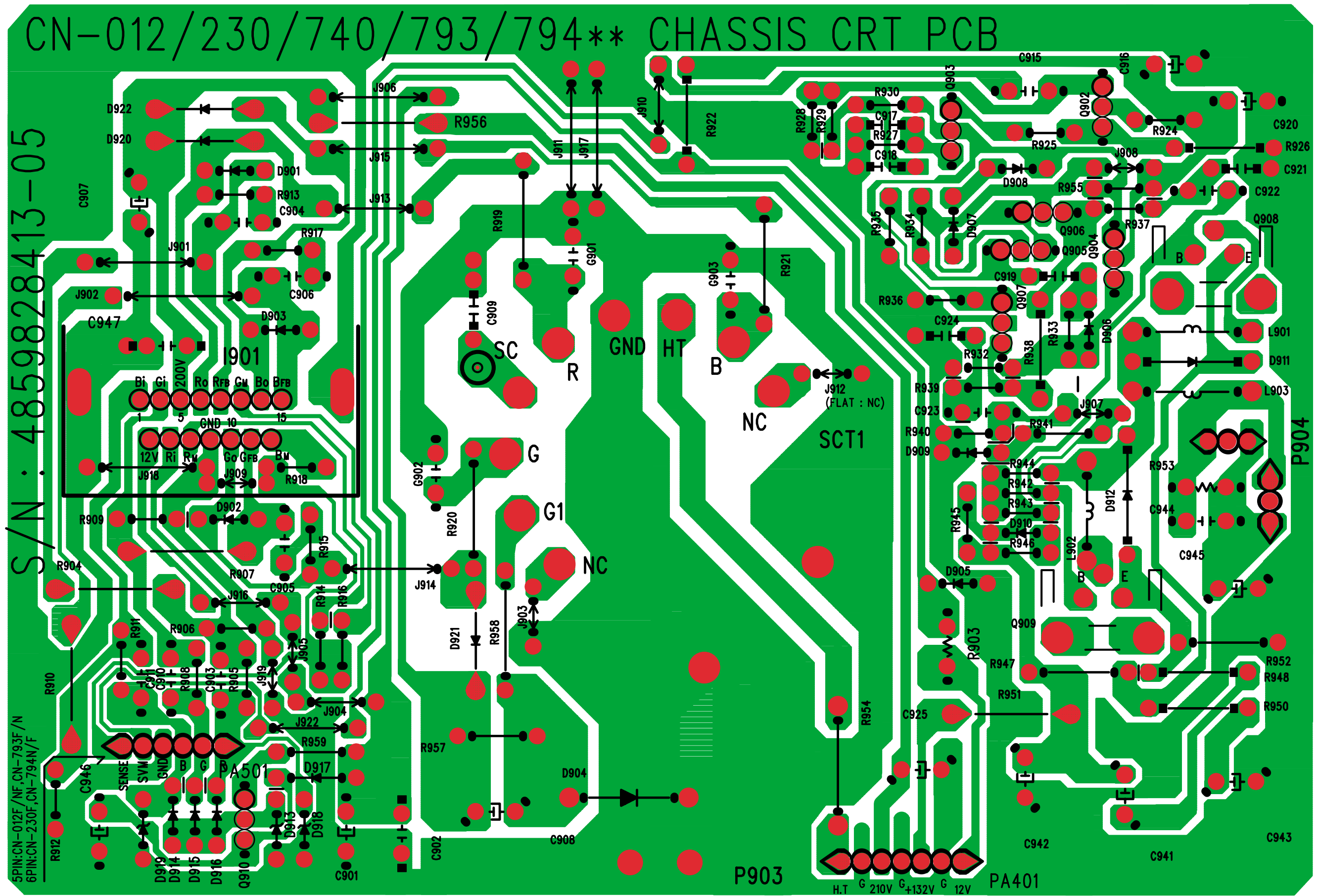


18	4855415800	SPEC PLATE	1	15ART P/E FILM (C/TV)	
17	7178301212	SCREW TAPPING	3	TT2 WAS 3X12 MFZN BK	
16	4857817630	CLOTH BLACK	2	FELT 400X20X0.7	
15	7172401612	SCREW TAPPTITE	9	TT2 TRS 4X16 MFZN BK	
14	4852163000	COVER BACK	1	FR HIPS GY	
13		MAIN PCB	1		
12		CRT AS	1		
11	4856219502	WASHER RUBBER	4	CR T2.0 BLACK	
10	4856015821	SCREW CRT FIXING	4	SWRW+SK5 L=35	
9	7178301011	SCREW TAPPTITE	2	TT2 WAS 3X10 MFZN	
8	4854954900	BUTTON CH	1	FR ABS GY	
7	4855549100	DECO SENSOR	1	GPPS	
6	7172401212	SCREW TAPPTITE	8	TT2 TRS 4X12 MFZNBK	
5	4858310810	SPEAKER	2	SP-58126F01	
4	48556174SD	MARK BRAND	1	SILVER DIA-CUTTING	
3	4856716000	SPRING	1	SWPA PIE0.5	
2	4854862100	BUTTON POWER	1	FR ABS GY	
1	4852083400	MASK FRONT	1	FR HIPS GY	
NO	PART CODE	PART NAME	QTY	MATERIAL	REMARKS

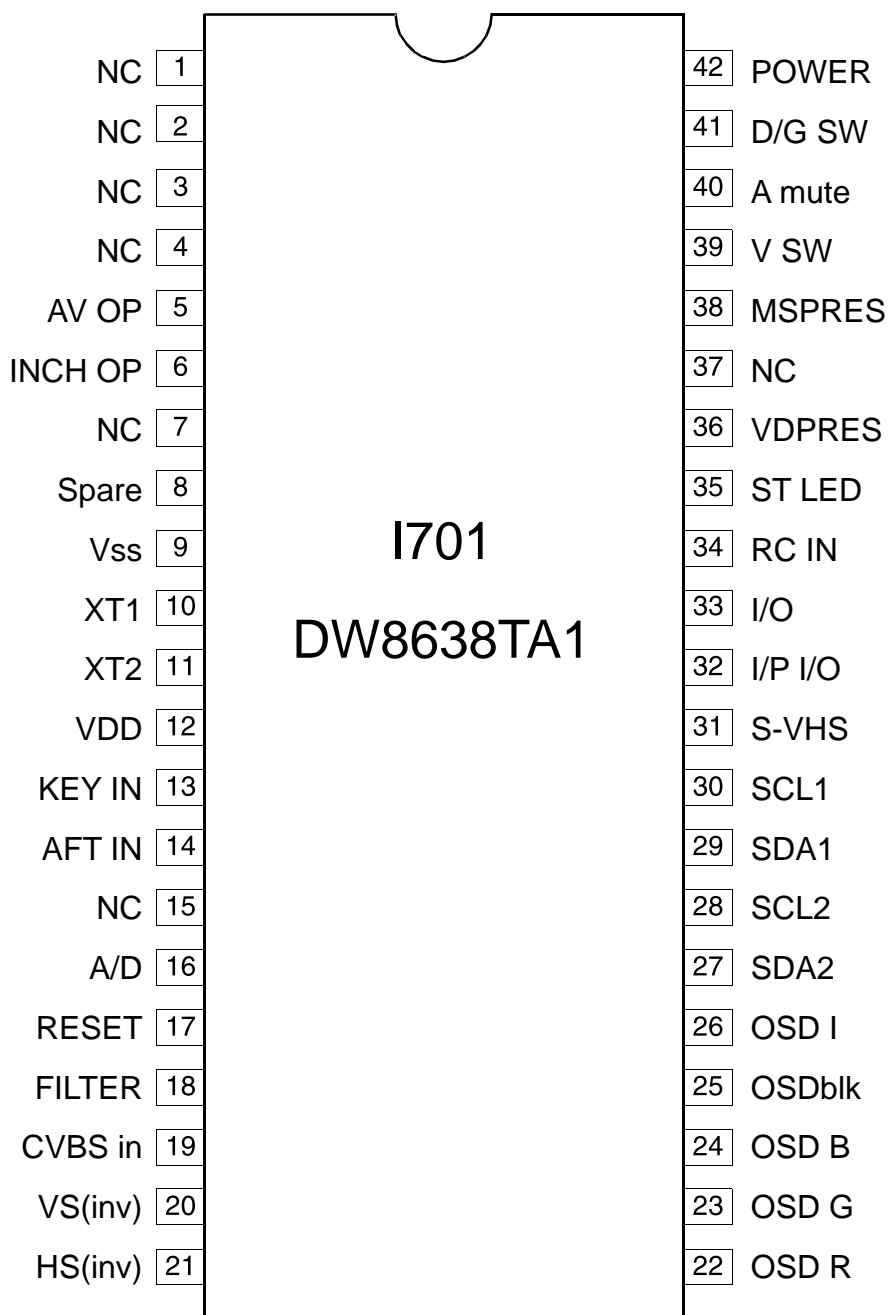
UNITS	mm	Designed by	Checked by	Inspected by	Approved by	ASSY NAME	
SCALE	0.200	AHN.J.S				DEVELOPMENT DWG (1 / 1)	
Daewoo Electronics Corp. Mechanical Design Team, TV Research Center				MODEL	DTQ-27U4SC	D	485009KL
				REFERENCE	CN-230F	N	

PRINTED CIRCUIT BOARD(CN-230F/20U4 CRT)





1. Pin Congiguration



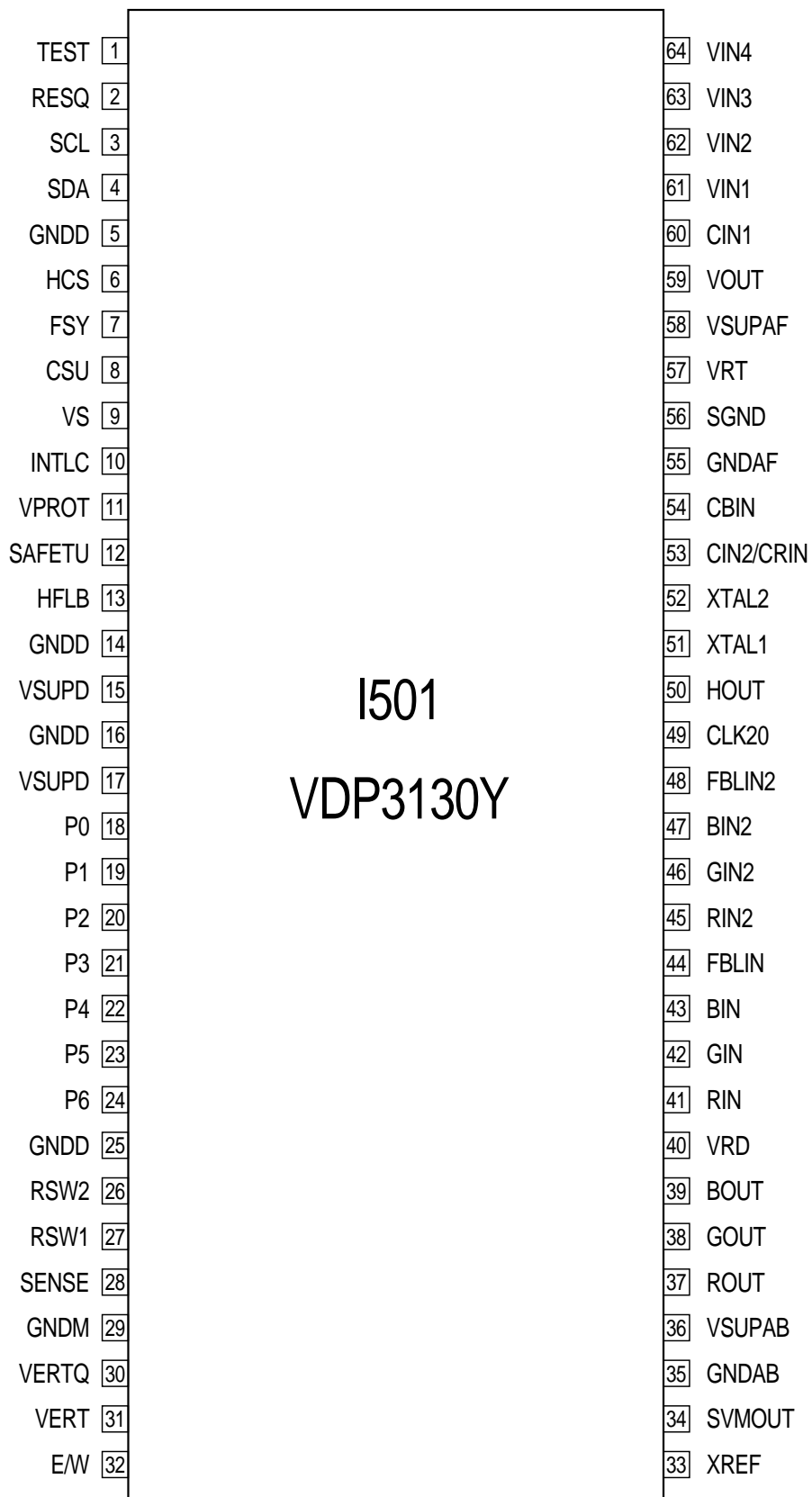
*SCL1/SDA1 -> VDP/MSP/EEPROM, SCL2/SDA2 -> TUNER.

2. Pin Description

PIN	PIN NAME	DESCRIPTION	DEF	ACT	I/O	PUD	STB
1	P10	NC				D	
2	P11	NC	-			D	
3	P12	NC	-			D	
4	P13	NC	-			D	-
5	P14	AV(CVBS in) OPTION H : AV1~AV2, CVI ; L : AV1~AV3, CVI	-	H	I	U	-
6	P15	INCH OPTION				D	
7	P16	NC				D	
8	P17	NC(Spare)					
9	VSS	GND					
10	XT1	Crystal INPUT			I		
11	XT2	Crystal OUTPUT			O		
12	VDD	Supply Voltage(+5V)			-		
13	P84/AN4	Key INPUT	-	-	I	U	H
14	P85/AN5	AFT Signal INPUT	-	H	I	-	L
15	P86/AN6	NC	-		I	-	
16	P87/AN7	NC	-		I	-	
17	RES(inv)	Reset	-	L	I	-	H
18	FILT	MCU PLL Filter					
19	CVBSIN	Composite Video (Closed Caption)		H	I		
20	VS(inv)	Vertical Sync		L	I	U	H
21	HS(inv)	Horizontal Sync		L	I	U	H
22	R	OSD RED Signal OUTPUT		H	O		
23	G	OSD GREEN Signal OUTPUT		H	O		
24	B	OSD BLUE Signal OUTPUT		H	O		
25	BL	OSD BLANKING Signal OUTPUT		H	O		
26	I	OSD Intensity					
27	SDA0	Tuner serial data OUTPUT		H	O	U	
28	SCLK0	Tuner clock OUTPUT		H	O	U	
29	SDA1	IC serial data INPUT/OUTPUT		H	I/O	U	
30	SCLK1	IC clock OUTPUT		H	O	U	
31	S-VHS	S-JACK ' H 'input - DEFAULT ' H ' *P70	L	H	I	-	
32	P71	NC			I		
33	P72	NC					
34	P73	Remote control Signal INPUT		L	I		H
35	P00	NC					
36	P01	VDP3130Y reset OUTPUT	L	H	O	-	L
37	P02	NC				-	
38	P03	MSP3420G reset OUTPUT	L	H	O	-	L
39	P04	Video SW OUTPUT : ONLY AV4 ' H '	L	H	O	-	L
40	P05	Audio mute OUTPUT	L	H	O	-	L
41	P06	Degaussing Coil SW OUTPUT	L	H	O	-	L
42	P07	Stand-by Power SW OUTPUT	L	H	O	-	H

NOTE : DEF(default), ACT(Active), I/O(Input/Output), PUD(Pull-up/-down), STB(Stand-by)

3. Pin Congration

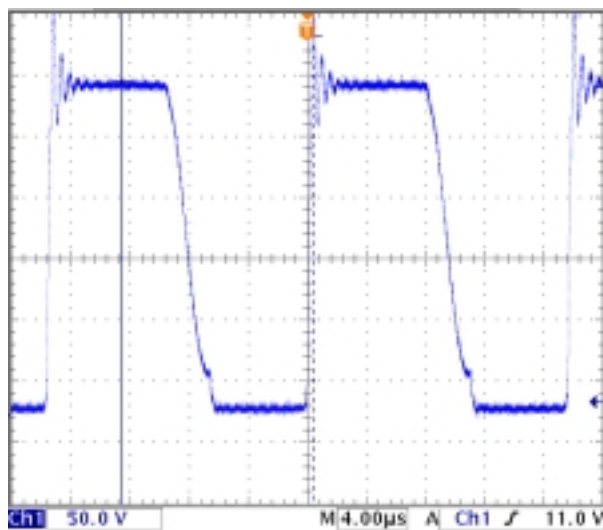


4. Pin Description

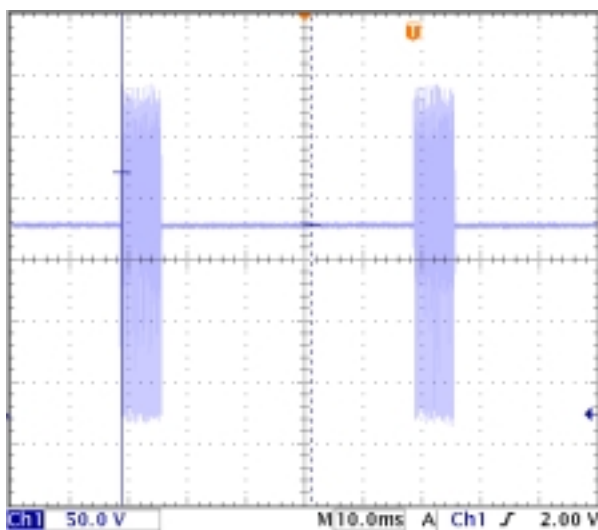
Pin No.	Pin Name	Type	Short Description
1	TEST	IN	Test Input
2	RESQ	IN	Reset Input
3	SCL	IN/OUT	I2C Bus Clock
4	SDA	IN/OUT	I2C Bus Data
5	GNDD	SUPPLY	Digital Ground
6	HCS	IN	Half Contrast Switch Input
7	FSY	OUT	Front Sync Out
8	CSY	OUT	Composite Sync Output
9	VS	OUT	Vertical Sync Output
10	INTLC	OUT	Interlace Control Output
11	VPROT	IN	Vertical Protection Input
12	SAFETY	IN	Safety Input
13	HFLB	IN	Horizontal Flyback Input
14	GNDD	SUPPLY	Digital Ground
15	VSUPD	SUPPLY	Digital Supply Voltage(3.3v)
16	GNDD	SUPPLY	Digital Ground
17	VSUPD	SUPPLY	Digital Supply Voltage(3.3v)
18	P0	IN/OUT	Port 1, Bit 0
19	P1	IN/OUT	Port 1, Bit 1
20	P2	IN/OUT	Port 1, Bit 2
21	P3	IN/OUT	Port 1, Bit 3
22	P4	IN/OUT	Port 1, Bit 4
23	P5	IN/OUT	Port 1, Bit 5
24	P6	IN/OUT	Port 1, Bit 6
25	GNDD	SUPPLY	Digital Ground
26	RSW2	OUT	Range Switch 2 for Measurement ADC
27	RSW1	OUT	Range Switch 1 for Measurement ADC
28	SENSE	IN	Sense ADC Input
29	GNDM	SUPPLY	Ground, MADC Input
30	VERTQ	OUT	Inverted Vertical Sawtooth Output
31	VERT	OUT	Vertical Sawtooth Output
32	E/W	OUT	Vertical Parabola Output
33	XREF	IN	Reference Input for RGB DACs
34	SVMOUT	OUT	Analog Scan Velocity Modulation Output
35	GNDAB	SUPPLY	Analog Ground Backend
36	VSUPAB	SUPPLY	Analog Supply Voltage(5.0v)Backend
37	ROUT	OUT	Analog Red Output
38	GOUT	OUT	Analog Green Output
39	BOUT	OUT	Analog Blue Output
40	VRD	IN	DAC Reference
41	RIN	IN	Analog Red Input
42	GIN	IN	Analog Green Input
43	BIN	IN	Analog Blue Input
44	FBLIN	IN	Fast Blank Input

Pin No.	Pin Name	Type	Short Description
45	RIN2	IN	Analog Red Input2
46	GIN2	IN	Analog Green Input2
47	BIN2	IN	Analog Blue Input2
48	FBLIN2	IN	Fast Blank Input
49	CLK20	OUT	20.25MHz System Clock Output
50	HOUT	OUT	Horizontal Drive Output
51	XTAL1	IN	Analog Crystal Input
52	XTAL2	OUT	Analog Crystal Output
53	CIN2/CRIN	IN	Analog chroma2/component CR Input
54	CBIN	IN	Component CB Input
55	GNDAF	SUPPLY	Analog Ground Frontend
56	SGND	IN	Signal Ground for Analog input
57	VRT	IN	Reference Voltage Top
58	VSUPAF	SUPPLY	Analog Supply Voltage(5.0V)Frontend
59	VOUT	OUT	Analog Vodeo output
60	CIN1	IN	Analog Chroma 1 Input
61	VIN1	IN	Analog Video 1 Input
62	VIN2	IN	Analog Video 2 Input
63	VIN3	IN	Analog Video 3 Input
64	VIN4	IN	Analog Video 4 Input

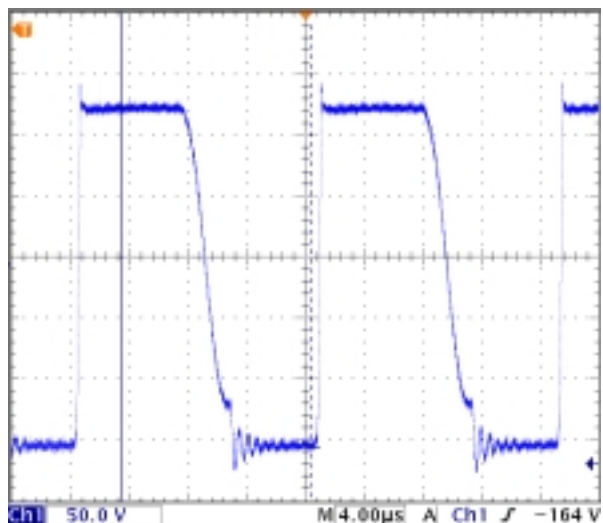
(1) I801 PIN7 POWER ON



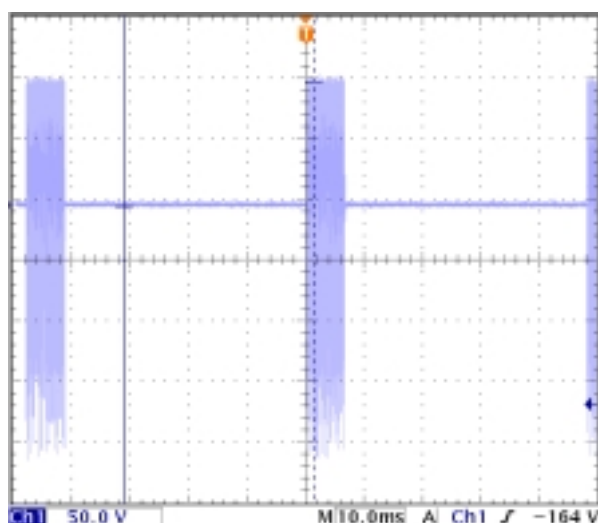
(1) I801 PIN7 STAND-BY



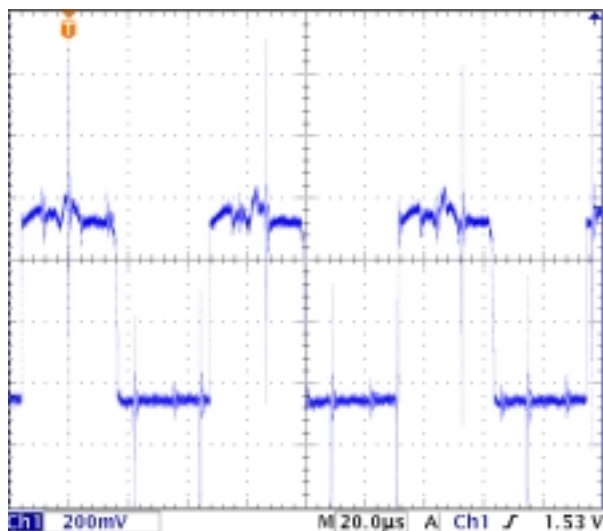
(2) T801 PIN17 POWER ON



(2) T801 PIN17 STAND-BY

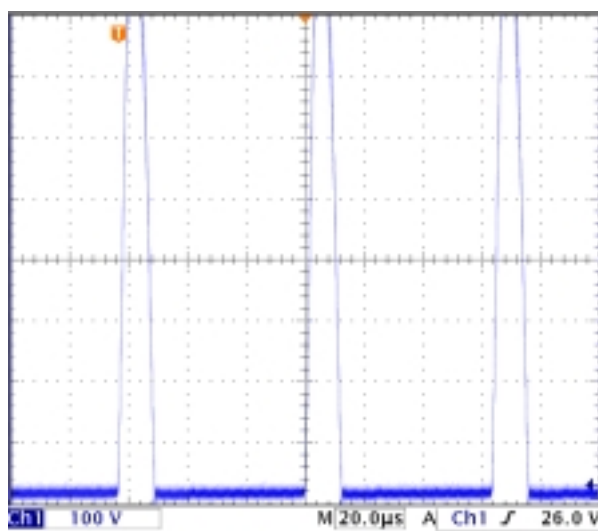


(3) I501 PIN50 HOUT

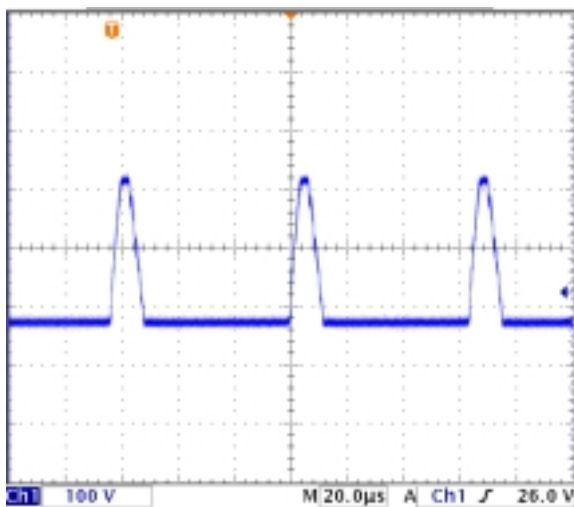


(4) T402 PIN1 HOR.OUT

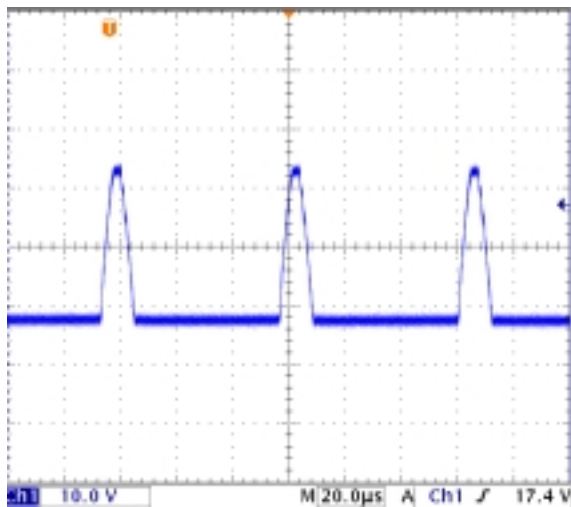
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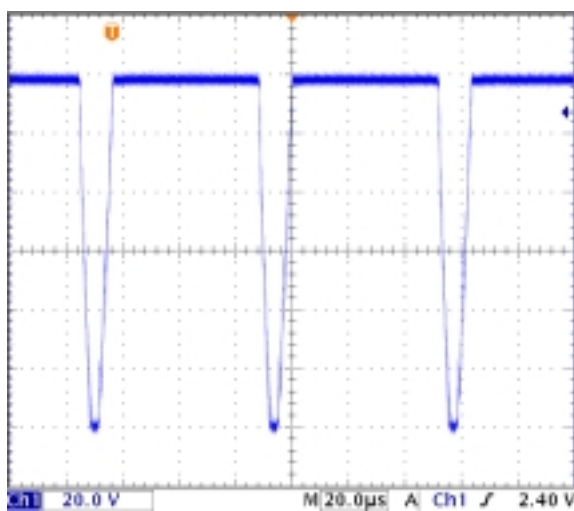
(5) T402 PIN3 200V LINE



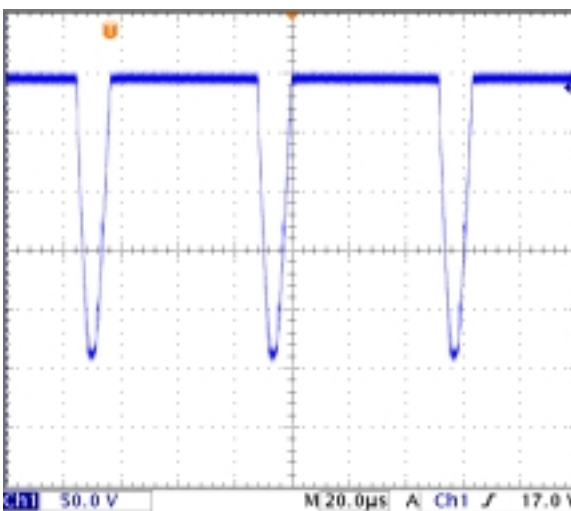
(6) T402 PIN9 HEATER LINE



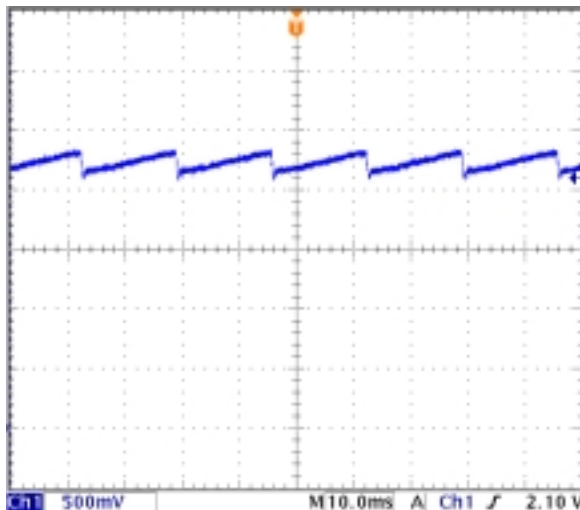
(7) T402 PIN4 12V LINE



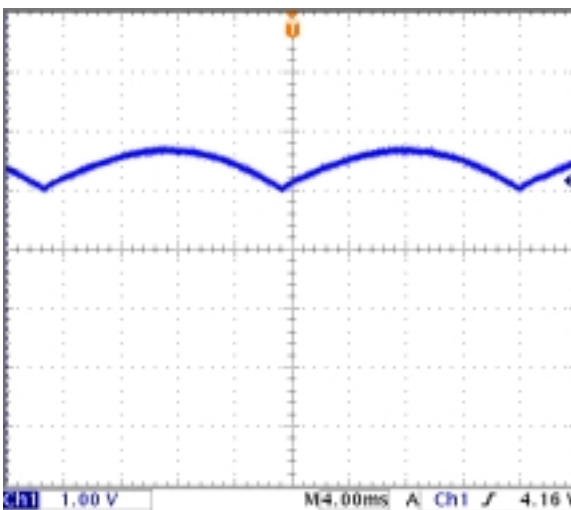
(8) T402 PIN6 27V LINE



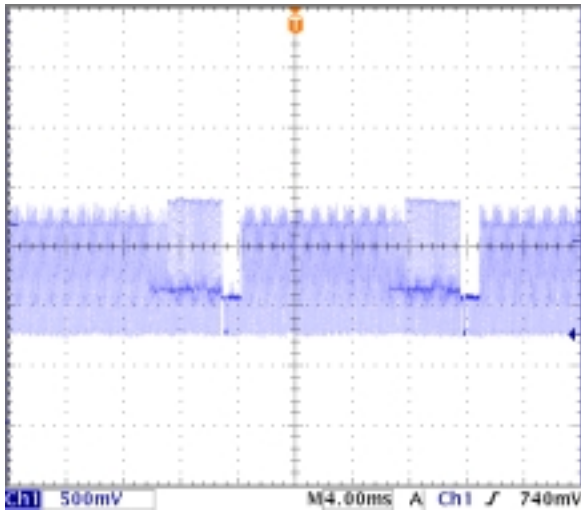
(9) I501 PIN31 VERTICAL RAMP



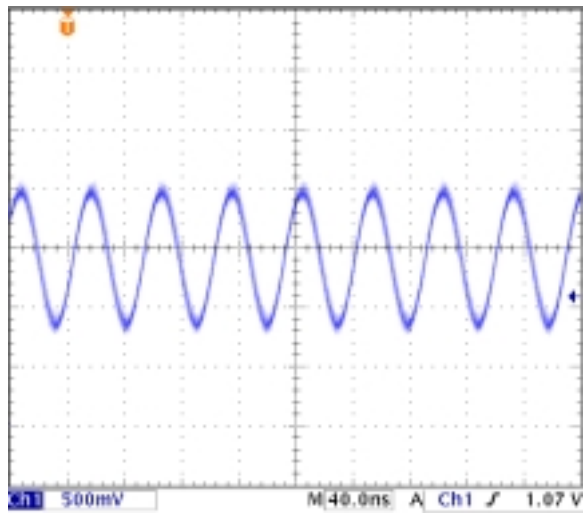
(10) I501 PIN32 E/W



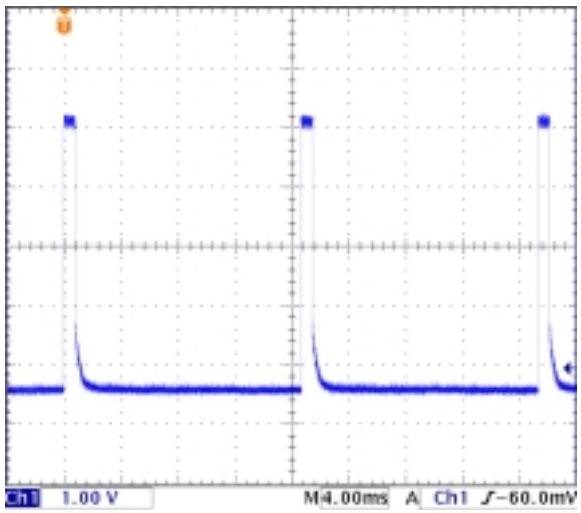
(11) CVBS (Composite Video)



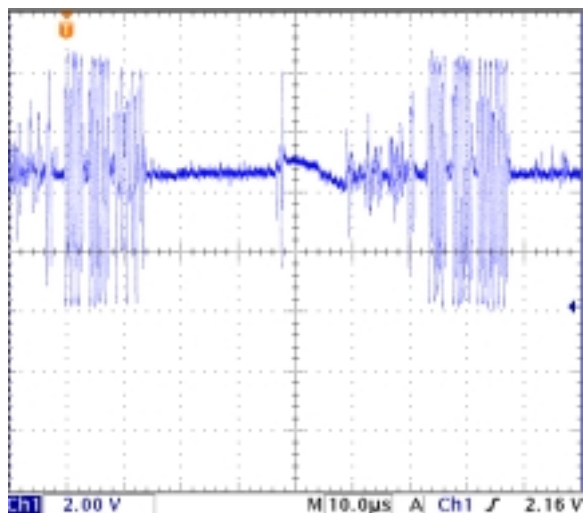
(12) I501 PIN52 VDP X-TAL



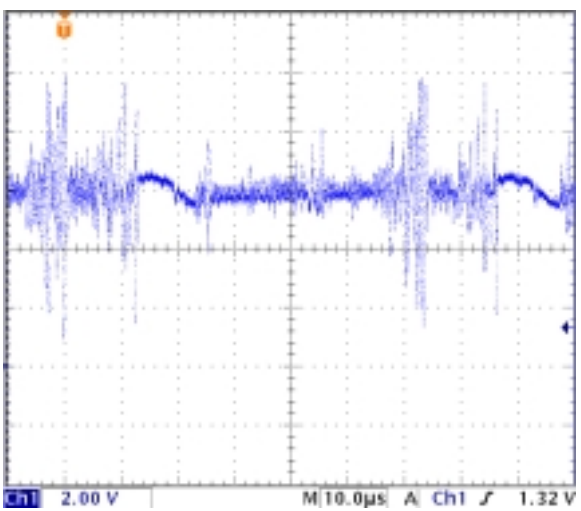
(13) I501 PIN11 VSYNC



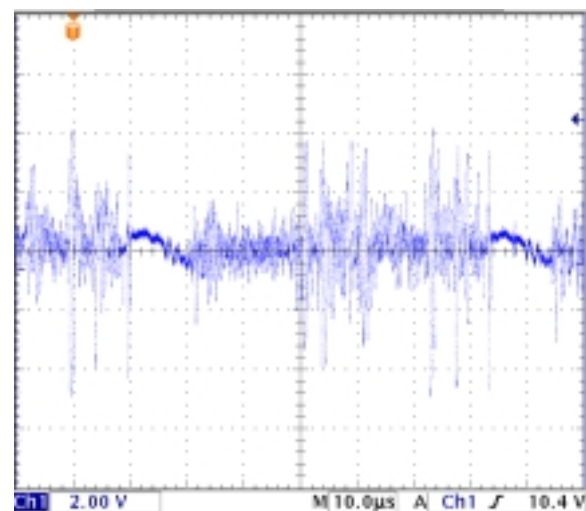
(14) SVM Q902 BASE



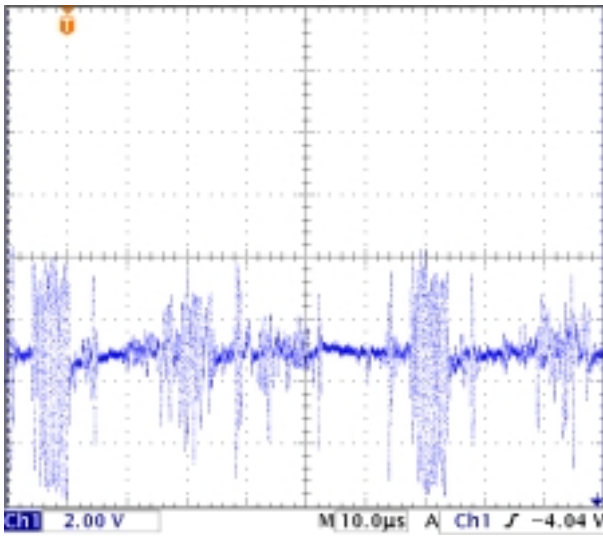
(15) SVM Q906 BASE



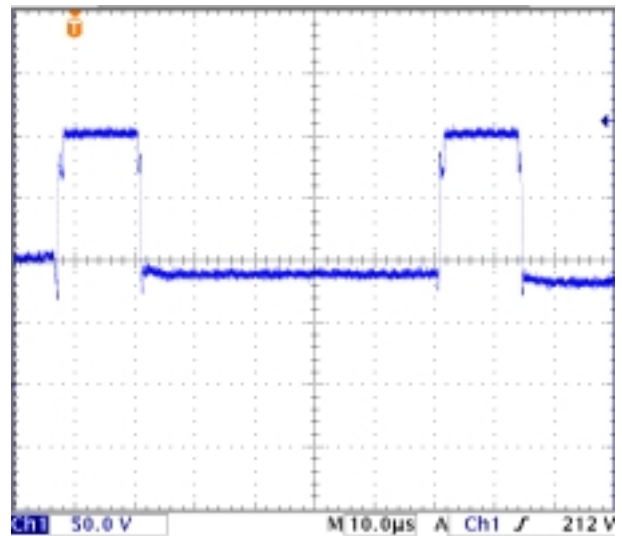
(16) SVM Q907 BASE



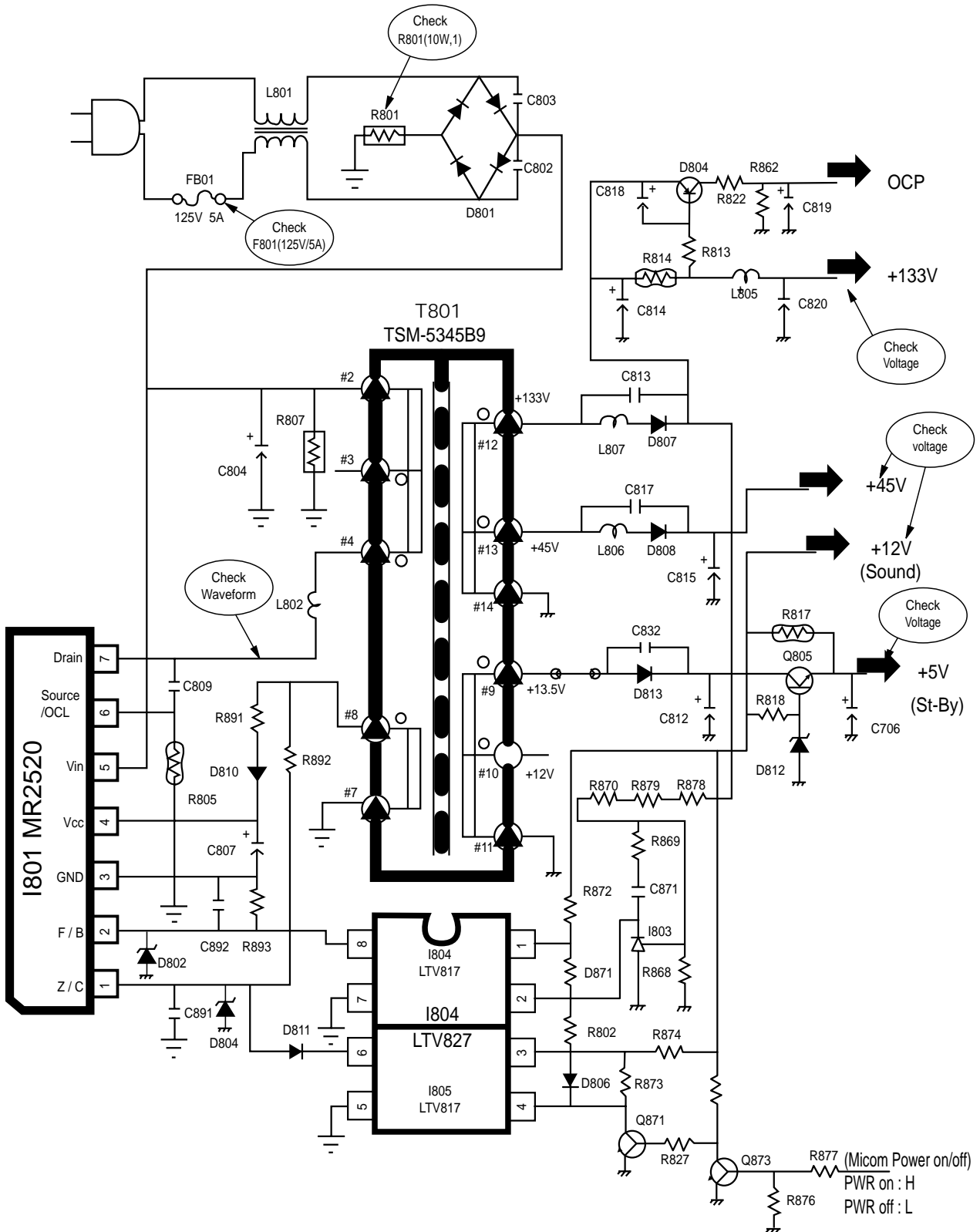
(17) SVM Q909 BASE



(18) I901 PIN7 ROUT

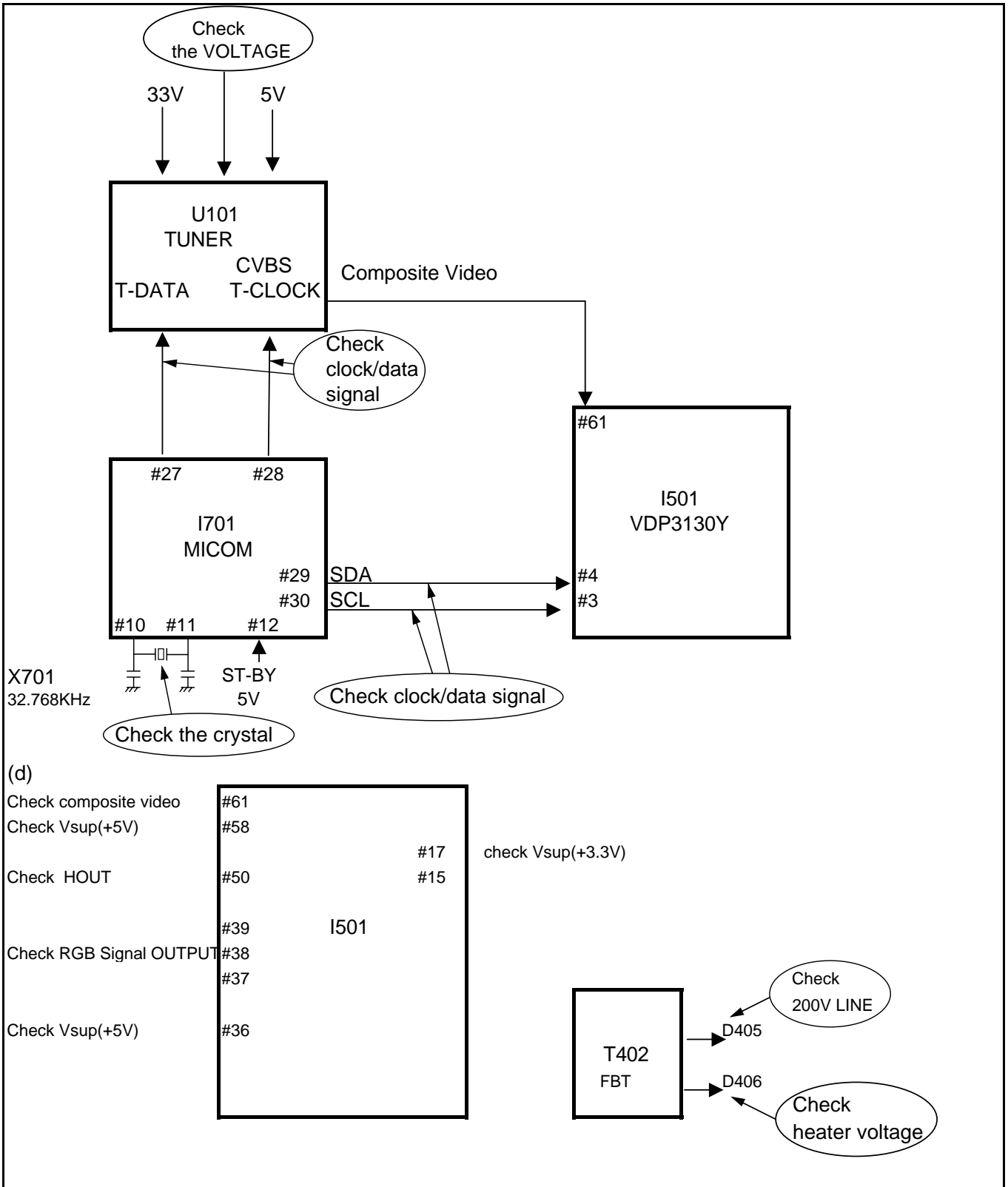


1.NO POWER



2.NO PICTURE

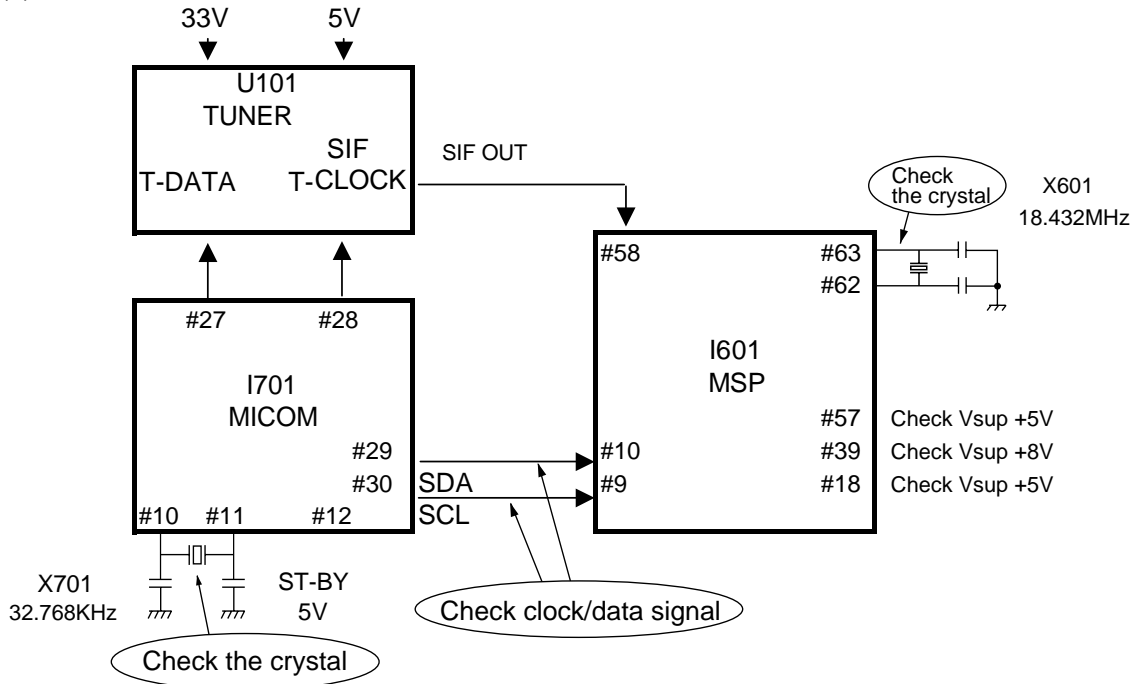
check the waveform of I501 #61	NG : Go to the figure (c)
	OK : Go to the figure (d)



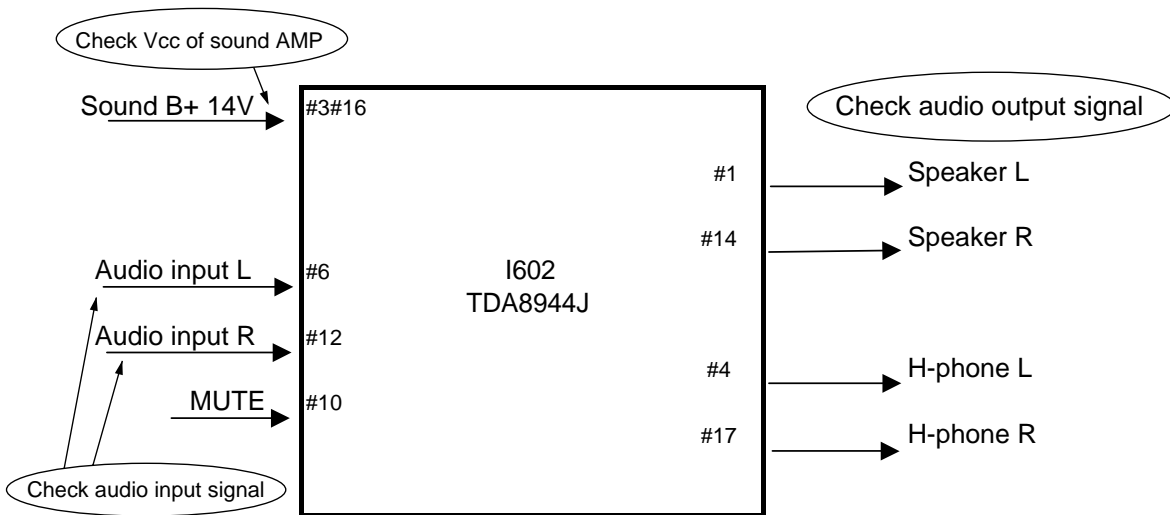
3. NO SOUND

Check MSP output data signal of I601 #28, #29	NG : Go to the figure (e)
	OK : Go to the figure (f)

(e)



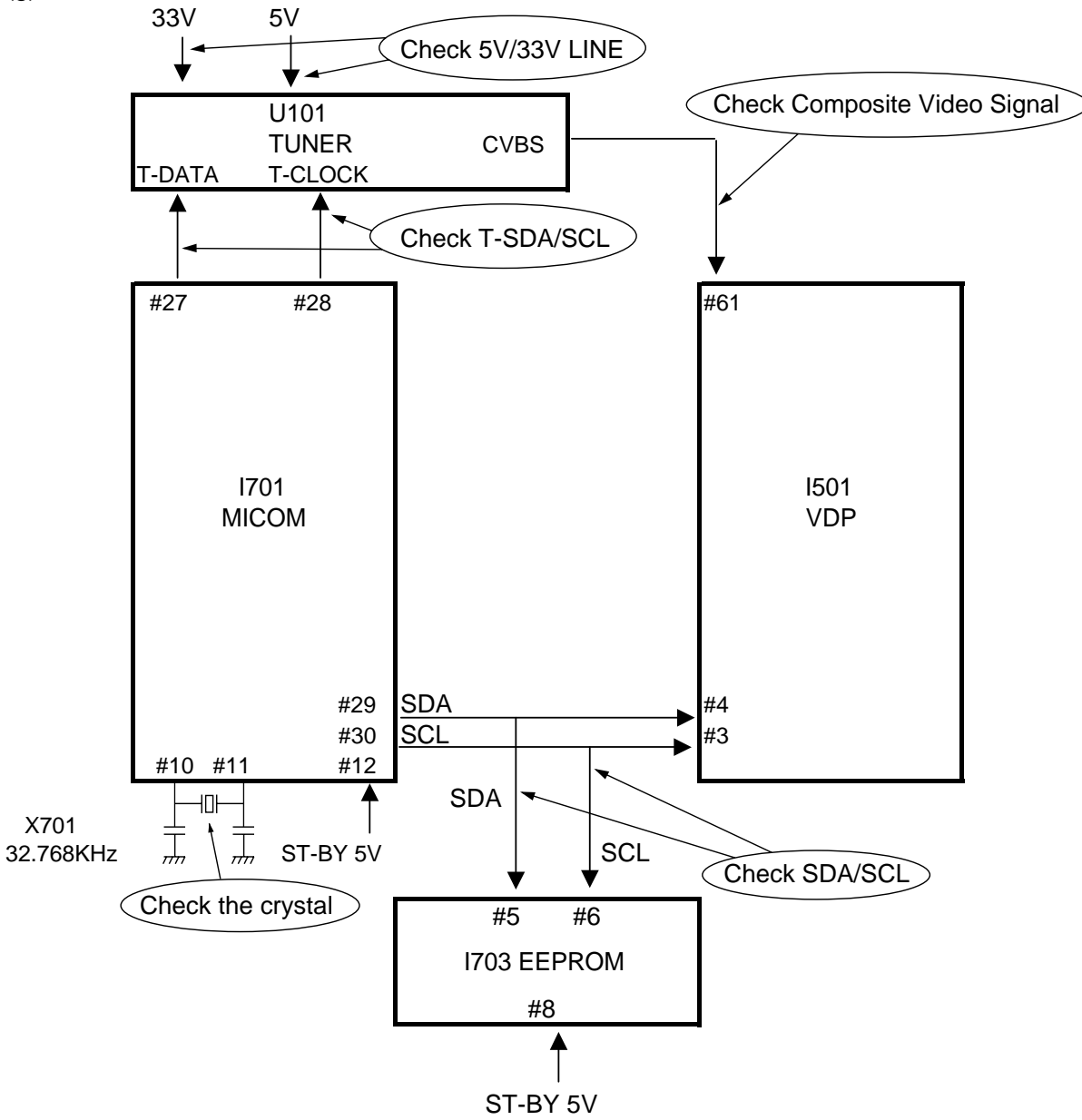
(f)



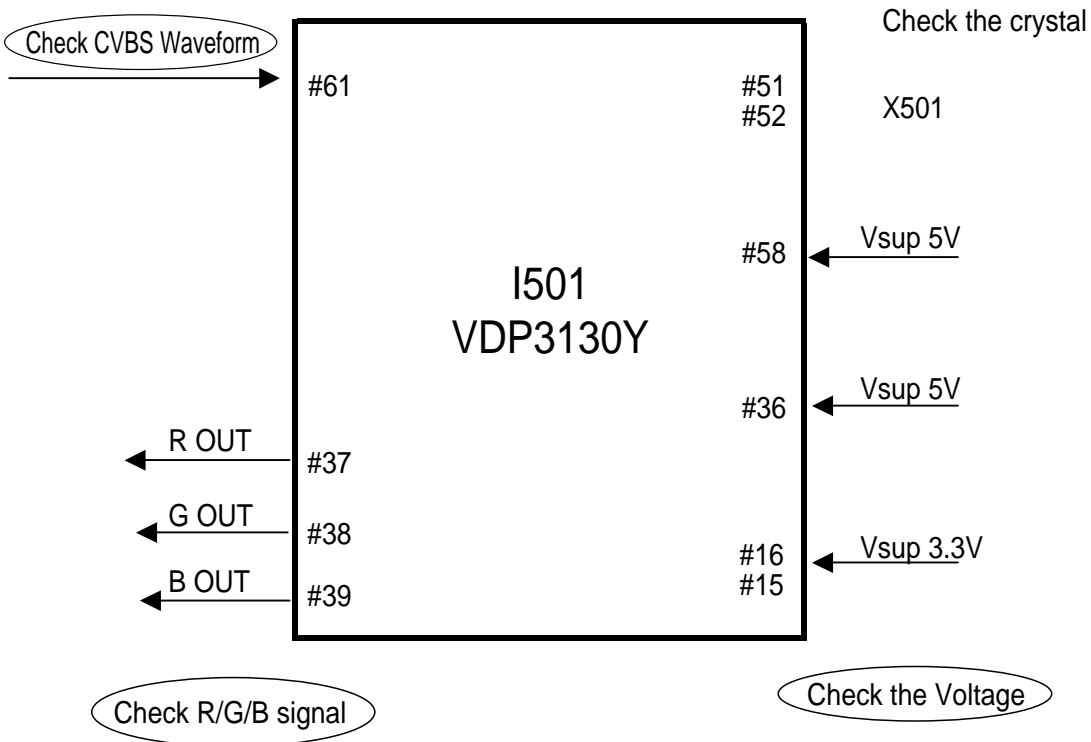
4. CH DON'T MEMORY or SKIP

Check the input signal conditions	NG : Loss of signal or weak signal
	OK : Go to the figure (g)

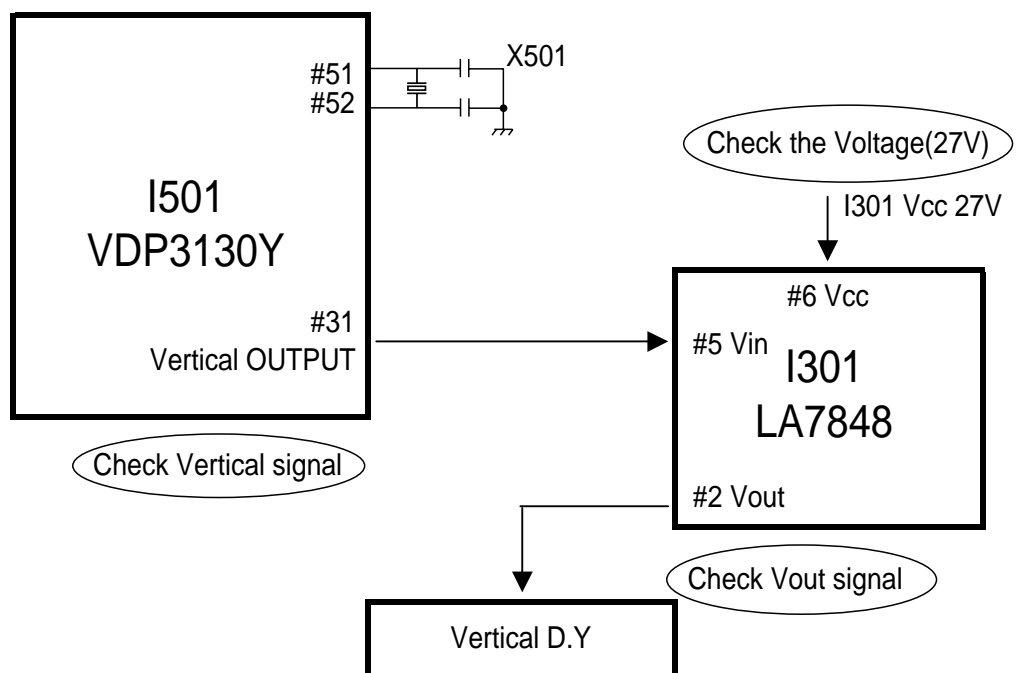
(g)



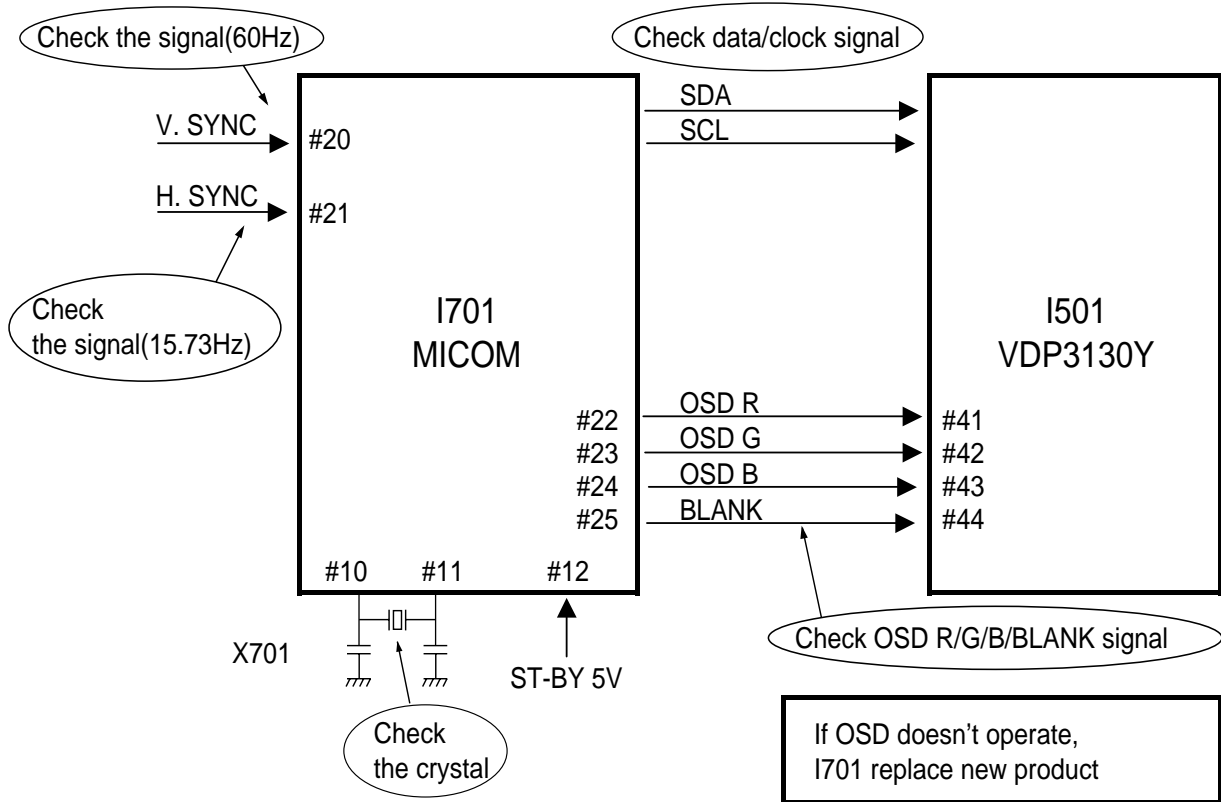
5. NO COLOR



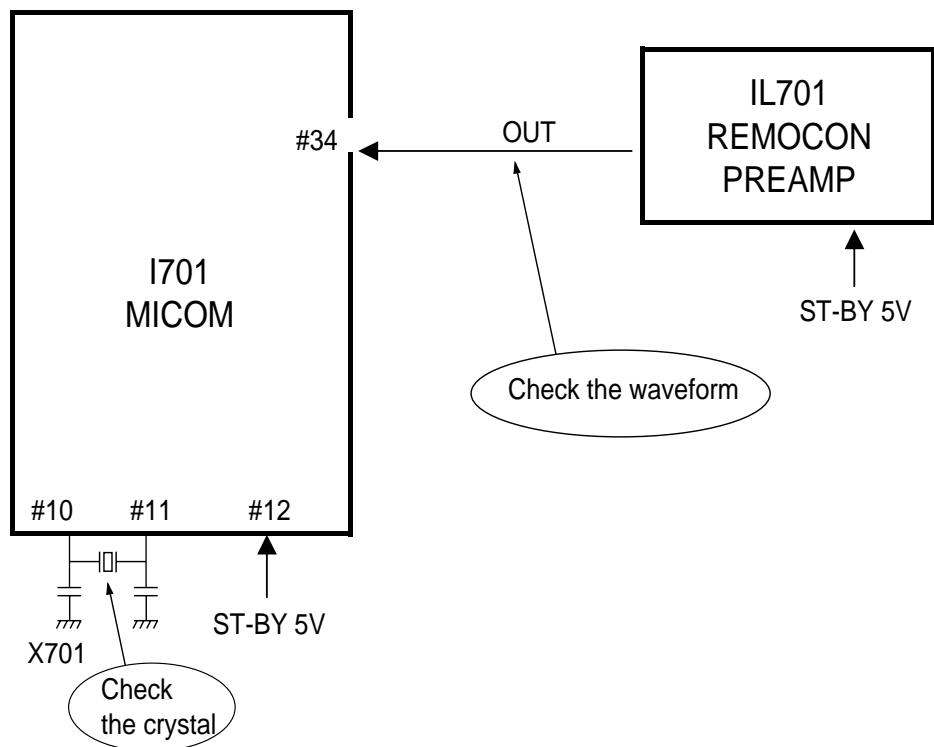
6. NO VERTICAL DEFLECTION



7. NO ON-SCREEN DISPLAY



8. REMOTE CONTROL DOES NOT OPERATE





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