

S/M No : TCN400FEF2

Service Manual

Color Television

CHSSIS	MODEL
CN-400N	DTQ-29M5SSFV

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.

DAEWOO
ELECTRONICS



FEB. 2006

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SAFETY PRECAUTIONS

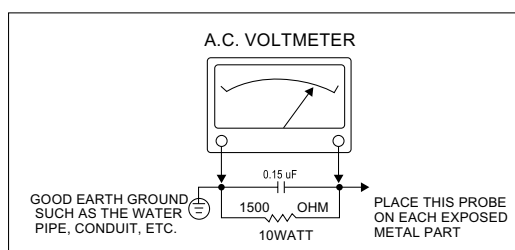
CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY. NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY. SERVICE WORK SHOULD BE PERFORMED 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 GENERICALLY 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.

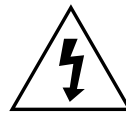
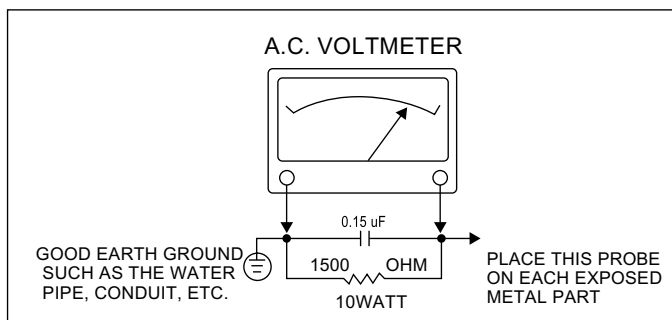
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guide-lines. To do otherwise, increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

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

SUBJECT : FIRE & SHOCK HAZARD

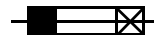
1. Be sure that all components are positioned in such a way as to avoid possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Never release a repair unless all protective devices such as insulators, barriers, covers, 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 sufficiently 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, 250V)" and "ATTENTION: AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE "4A, 250V".

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 air flow across the bottom, bolts or screws used for fasteners must not touch and parts or wiring. Perform leakage test on customized 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.

SPECIFICATION

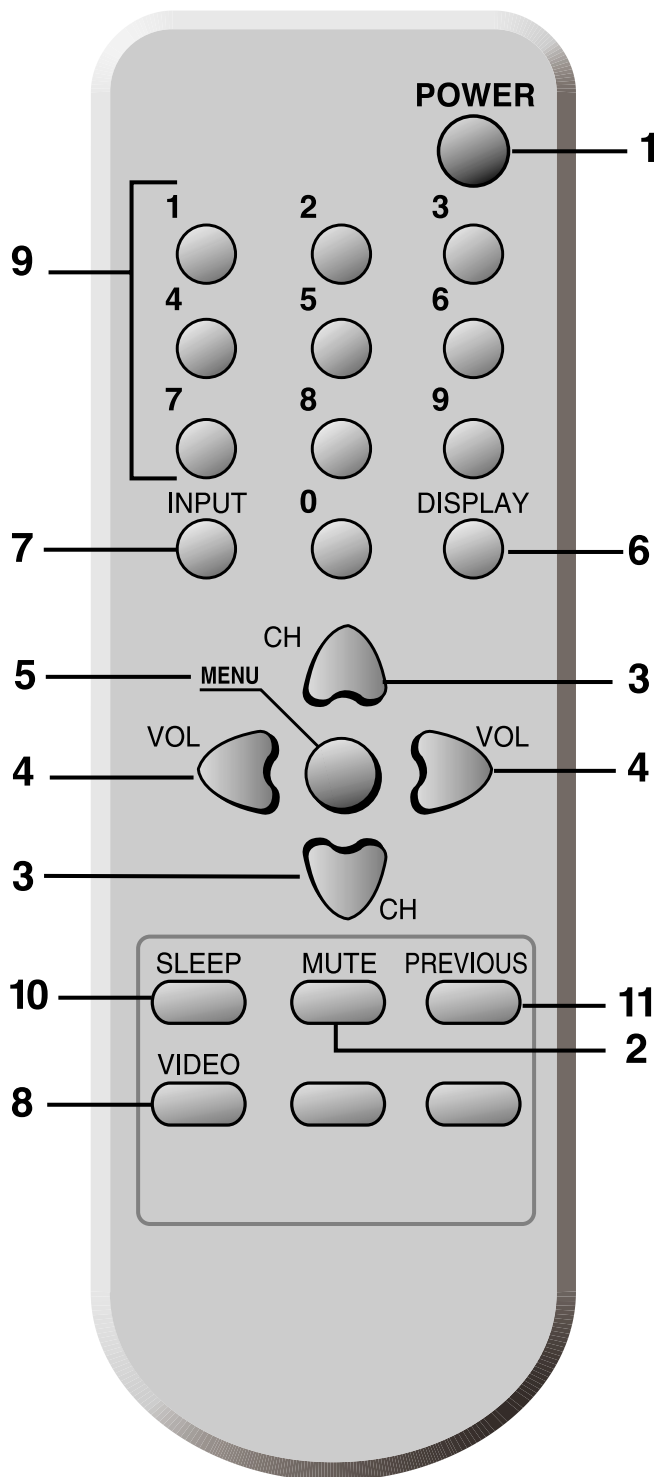
Item \ Model	DTQ-29M5SSFV
CHASSIS	CN-400N
TV Standard	NTSC-M
Power Input	AC 110-220V, 60Hz
Power Consumption	107W
Tuning System	Frequency Synthesizer(FS) Tuning System
Tuning Ranges	TV VHF(L) : CH2 - CH6 UHF(H) : CH7 - CH13 UHF : CH14 - CH69 CATV VHF(L) : 5A, A,B,A-5-A-1,CH2-CH6 VHF(H) : C-W+11,CH7 - CH13 UHF : W+12-W+84 "
Sound Output	5W + 5W
Speaker	8 ohm 10W x 2EA
Antenna Input Impedance	75 ohm Unbalanced
Auxiliary Input Terminal	Side : Video, Audio(L,R) - AV2 Rear : Video, Audio(L,R) - AV1 S-Video Y, Cb, Cr, Audio(L,R) - CVI
Auxiliary Output Terminal	Rear : Video, Audio(L,R) - MONITOR OUT
Intermediate Frequencies	Picture IF Carrier Frequency : 45.75MHz Sound IF Carrier Frequency : 41.25MHz Color Sub-Carrier Frequency : NTSC-M : 3.579545 Mhz PAL-N : 3.582056 Mhz PAL-M : 3.575611 Mhz
Remote Control	R-48C04(AAA)
Special Function	1) Closed Caption 2) Channel Label

CIRCUIT BLOCK DIAGRAM



ALIGNMENT INSTRUCTION

Your Remote Control(R-48C04)



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 channels on your TV, or select items in the menu system.

4. ◀VOL▶

Use these buttons to change your TV's volume, to activate selections in the menu 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 present status.

7. INPUT

Use this button to select the TV's signal source.

8. VIDEO

Use this button to display video adjustment items.

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.

SERVICE 02
SERVICE 03
SERVICE 04
SERVICE 05
SERVICE 06
SERVICE 07
SERVICE 08
SERVICE 09
SERVICE 10
SERVICE 11
SERVICE 12
▲ ▼ SELECT ◀ ▶ ADJUST ■ EXIT

- Using the channel up or channel down button, select the item you wish to adjust.
(The color of selected item turns into the blue.)
- 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.

- Don't have to press any 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)		O	Data is stored in I702.
I702 (EEPROM)	O		Initial setting values are written from I701. ADJUSTING ITEMS S6 : Geometry adjustmnt S8 : White balance S9 : Subbrightness
CRT	O		Adjust items related to picture tube only. (White Balance adjustment) CRT OPTION (Screen Option adjustment)

ALIGNMENT INSTRUCTION

Table-B. CN-400N(DTQ-29M5SSFV) EEPROM DATA

MODE	NAME	VAL	REMARKS	MODE	NAME	VAL	REMARKS
S1	HEAT RUN	RUN OFF		S7-2	SOC	0	
S2	SCREEN ADJUST	OEC : 650V			PWLDAC	0	
S5	AGC AUTO	OFF			CL	7	
	AGC LEVEL	22			CLD	0	
	IFOFF	37			GAM	1	
	QSS	1			HCT	0	
	BPB	1			ACL	0	
	FMI	1			BPS	1	
	AGN	0			CHSE	2	
	BPBS	1			FCO	0	
	DSG	0			CBPS	1	
	Fine Tunning				CB	0	
S6	V.SLOPE	29		S8	MUS	0	
	V.CENTER	40			FFI	0	
	V.SIZE	44			R-GAIN	32	
	H.CENTER	47			G-GAIN	32	
	H.SIZE	50			B-GAIN	40	
	V.LINEARITY	40			R-BIAS	32	
	S_CORRECTION	25			G-BIAS	32	
	H.PARALLEL	25			SRC R-BIAS	0	
	H-BOW	35		S9	SRC G-BIAS	0	
	PARABOLA	27			CVI R-BIAS	-8	
	EW TRAPEZ	29			CVI G-BIAS	10	
	CORNER TOP	41			DP-Brightness	15	
	CORNER BOTTOM	45		S10	DP-Contrast	10	
	50Hz.HC	5			DP-Color	5	
	50Hz.HS	0		S12	DP-Sharpness	17	
	50Hz.VC	0			OPTION		
	50Hz.VS	0		FACTORY SET			
S7-1	CFCLF	1	0	<div> <p>* <u>OPTION 1 : 1111 0101</u> OPTION 2 : 0110 0011 OPTION 3 : 0000 0011</p> </div>			
	YD TV	RF:4, AV:7					
	DTR	0					
	BPYD	0					
	TCCON	1					
	TCI2X	0					
	PF	3					
	TFR	1					
	NRR	0					
	WS	3					
	BLS	0					
	DSK	0					
	AAS	2					
	BSD	0					
	BKS	1					
	DSA	0					
	RPO	3					
	RPA	2					
	BPD	0					
	CFA0	0					

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 S2 button to exit in the screen adjustment mode.

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) AGC ADJUSTMENT

- Adjust the antenna signal level at 60 dBuV
- Tune a colour bar pattern.
- Find the "AGC" item in service mode.
(it's two way to entering the "AGC" item in service mode)
 - Enter the service mode and select service adjustment S5 and select AUTO-AGC.
 - Enter the service mode and select service adjustment S3.
- Wait until AGC level stabilise to the optimum value.
- Alternatively,
Enter the service mode and select service adjustment S5 and select AGC LEVEL.
Use "Vol Up/Dwn" keys to adjust manually to the desired Tuner Take Over Point.

4) GEOMETRIC ADJUSTMENTS (S6)

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

V.SIZE	43	H.PARALLEL	33
V.CENTER	42	H-BOW	35
V.SLOPE	28	PARABOLA	17
V.LINEARITY	37	EW TRAPEZ	38
S_CORRECT	32	CORNER TOP	54
H.CENTER	45	CORNER BOTTOM	46
H.SIZE	54		
▲ ▼ SELECT ◀ ▶ ADJUST ■ EXIT			

4-2) Vertical Position Adjustment.

- Select V.SLOPE item, adjust V.SLOPE data value till the horizontal line in the centre of the video signal is just at the position where the blanking starts.
- Select V.CENTER item, adjust V.CENTER data value to center the raster properly on the screen.

4-3) Vertical Size Adjustment

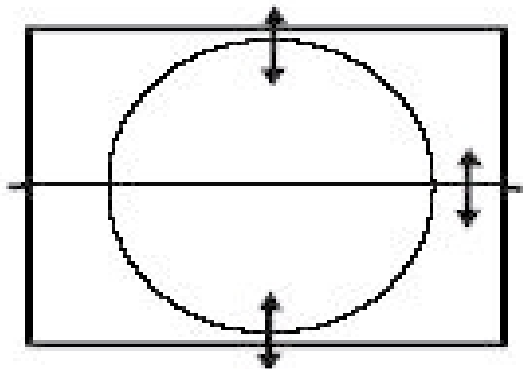
- Select V.SIZE item, adjust V.SIZE data value to proper vertical size as follows.

4-4) Horizontal Position Adjustment

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

4-5) Horizontal Size adjustment

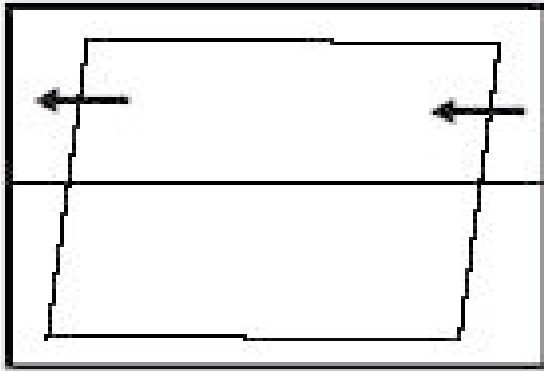
- Select H.SIZE item, adjust H.SIZE value to proper horizontal size.



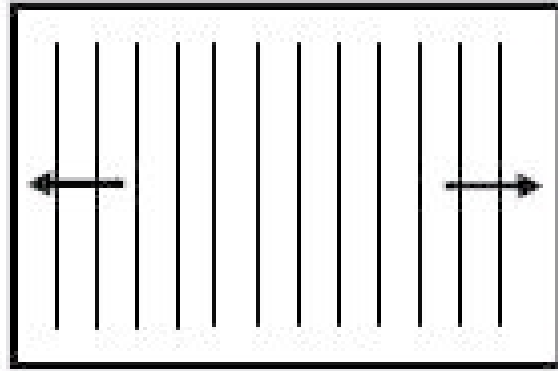
ALIGNMENT INSTRUCTION

4-4). EAST / WEST Adjustment

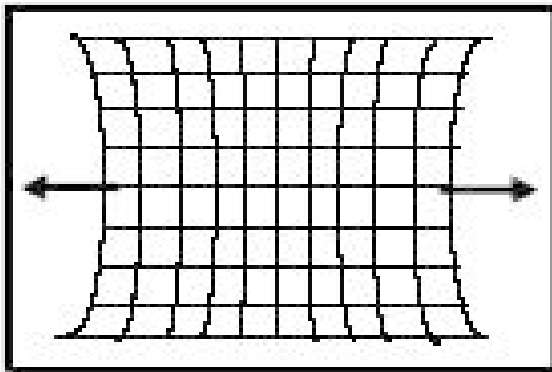
- Adjust the H.PARALLEL, H.SIZE, H-BOW, PARABOLA, EW TRAPEZ, CORNER TOP, CORNER BOTTOM to compensate for geometrical distortion.



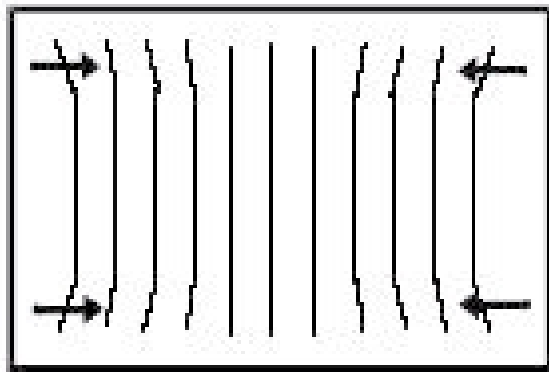
H.PARALLEL



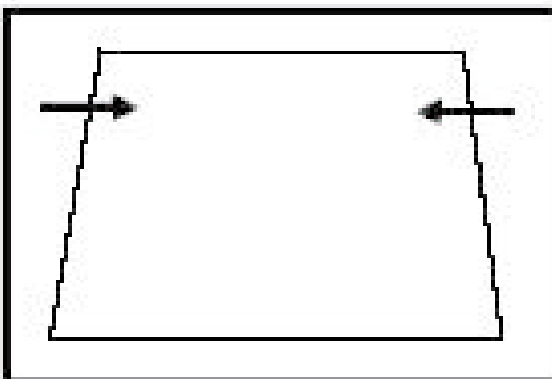
H.SIZE



PARABOLA



CORNER TOP, CORNER BOTTOM



EW TRAPEZ

5) 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.

R-GAIN	32	SRC R-BIAS	32
G-GAIN	32	SRC G-BIAS	32
B-GAIN	40	CVI R-BIAS	-8
R-BIAS	32	CVI G-BIAS	10
G-BIAS	32		

▲ ▼ SELECT ◀ ▶ ADJUST ■ EXIT

- Using volume up or volume down, adjust service adjustment data of R-GAIN/G-GAIN/B-GAIN and R-BIAS/G-BIAS until a good gray scale with normal whites is obtained.

6) 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.

DP-Brightness	15
DP-Contrast	10
DP-Color	5
DP-Sharpness	17

▲ ▼ SELECT ◀ ▶ ADJUST ■ EXIT

- Select DP-Brightness item, adjust DP-Brightness data value to obtain normal brightness level.

DP-Contrast

- Fixed value = 10

DP-Color

- Fixed value = 5

DP-Sharpness

- Fixed value = 17

7) FACTORY OUTGOING MODE (S12 : FACT)

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

IC DESCRIPTION

1. UOC III SERIES

1-1. UOC III BLOCK DIAGRAM

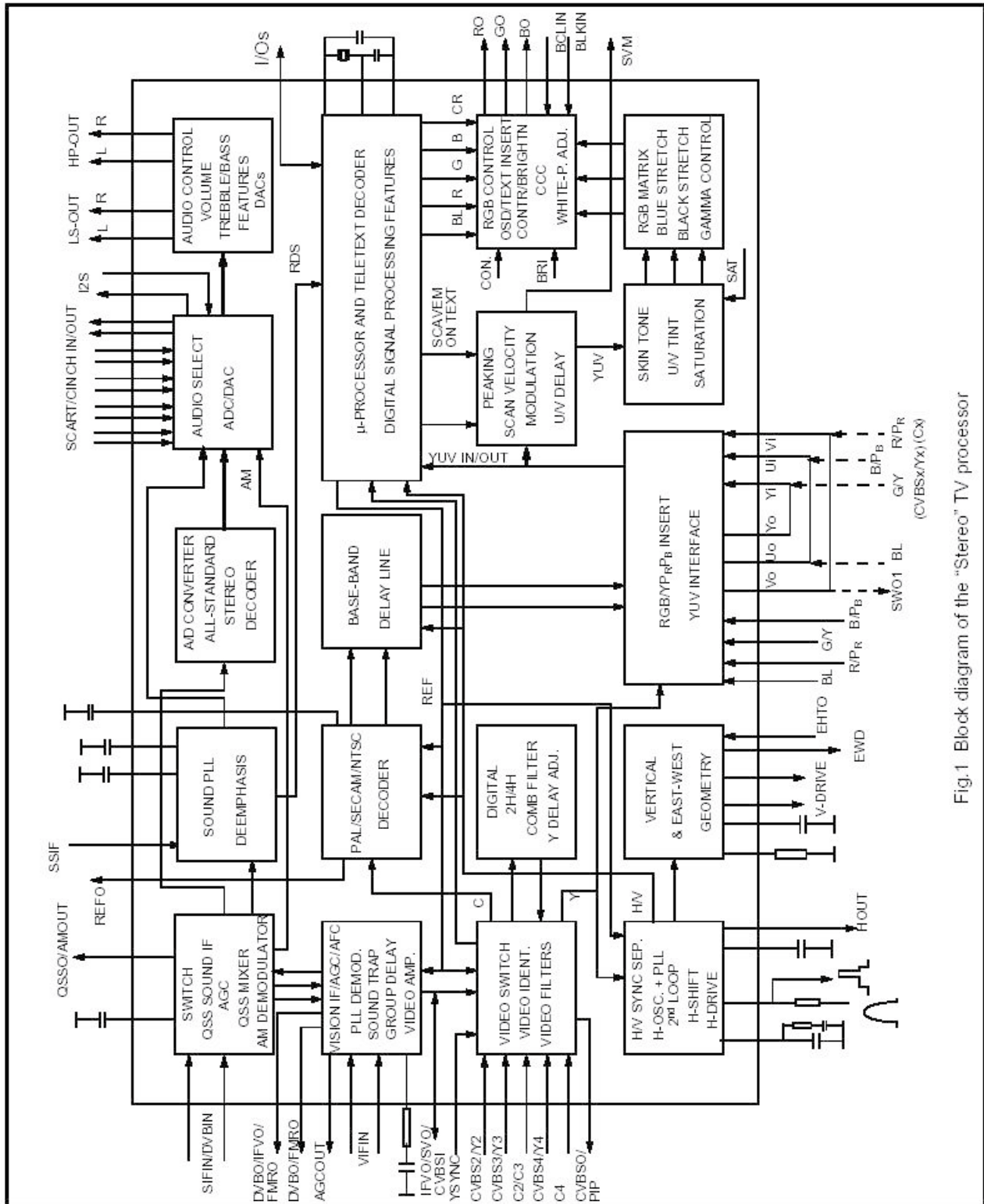


Fig.1 Block diagram of the "Stereo" TV processor

1-2. UOC III FEATURES

Analogue Video Processing (all versions)

- Multi-standard vision IF circuit with alignment-free PLL demodulator
- Internal (switchable) time-constant for the IF-AGC circuit
- Switchable group delay correction and sound trap (with switchable centre frequency) for the demodulated CVBS signal
- DVB/VSB IF circuit for preprocessing of digital TV signals.
- Video switch with 3 external CVBS inputs and a CVBS output. All CVBS inputs can be used as Y-input for Y/C signals. However, only 2 Y/C sources can be selected because the circuit has 2 chroma inputs. It is possible to add an additional CVBS(Y)/C input (CVBS/YX and CX) when the YUV interface and the RGB/YPRPB input are not needed.
- Automatic Y/C signal detector
- Adaptive digital (4H/2H) PAL/NTSC comb filter for optimum separation of the luminance and the chrominance signal.
- Integrated luminance delay line with adjustable delay time
- Picture improvement features with peaking (with switchable centre frequency, depeaking, variable positive/negative peak ratio, variable pre-/overshoot ratio and video dependent coring), dynamic skin tone control, gamma control and blue- and black stretching. All features are available for CVBS, Y/C and RGB/YPBPR signals.
- Switchable DC transfer ratio for the luminance signal
- Only one reference (24.576 MHz) crystal required for the TCG m-Controller, digital sound processor, Teletext and the colour decoder
- Multi-standard colour decoder with automatic search system and various “forced mode” possibilities
- Internal base-band delay line
- Indication of the Signal-to-Noise ratio of the incoming CVBS signal
- Linear RGB/YPBPR input with fast insertion.
- YUV interface. When this feature is not required some pins can be used as additional RGB/YPBPR input. It is also possible to use these pins for additional CVBS (or Y/C) input (CVBS/YX and CX).
- Tint control for external RGB/YPBPR signals
- Scan Velocity Modulation output. The SVM circuit is active for all the incoming CVBS, Y/C and RGB/YPBPR signals. The SVM function can also be used during the display of teletext pages.
- RGB control circuit with ‘Continuous Cathode Calibration’, white point and black level off-set adjustment so that the colour temperature of the dark and the light parts of the screen can be chosen independently.
- Contrast reduction possibility during mixed-mode of OSD and Text signals
- Adjustable ‘wide blanking’ of the RGB outputs
- Horizontal synchronization with two control loops and alignment-free horizontal oscillator
- Vertical count-down circuit
- Vertical driver optimized for DC-coupled vertical output stages
- Horizontal and vertical geometry processing with horizontal parallelogram and bow correction and horizontal and vertical zoom
- Low-power start-up of the horizontal drive circuit

Analogue video processing (stereo versions)

- The low-pass filtered ‘mixed down’ I signal is available via a single ended or balanced output stage.

Analogue video processing (mono versions)

- The low-pass filtered ‘mixed down’ I signal is available via a single ended output stage

Digital Video Processing (some versions)

- Double Window mode applications. It is possible to display a video and a text window or 2 text

IC DESCRIPTION

windows in parallel.

- Linear and non-linear horizontal scaling of the video signal to be displayed.
- Sound Demodulation (all versions)
- Separate SIF (Sound IF) input for single reference QSS (Quasi Split Sound) demodulation.
- AM demodulator without extra reference circuit
- The mono intercarrier sound circuit has a selective FM-PLL demodulator which can be switched to the different FM sound frequencies (4.5/5.5/6.0/6.5 MHz). The quality of this system is such that the external band-pass filters can be omitted. In the stereo versions of UOCIII the use of this demodulator is optional for special applications. Normally the FM demodulators of the stereo demodulator/decoder part are used (see below).
- The FM-PLL demodulator can be set to centre frequencies of 4.72/5.74 MHz so that a second sound channel can be demodulated. In such an application it is necessary that an external bandpass filter is inserted.
- The vision IF and mono intercarrier sound circuit can be used for the demodulation of FM radio signals. With an external FM tuner also signals with an IF frequency of 10.7 MHz can be demodulated.
- Switch to select between 2nd SIF from QSS demodulation or external FM (SSIF)
- Audio Interfaces and switching (stereo versions with Audio DSP)
- Audio switch circuit with 4 stereo inputs, a stereo output for SCART/CINCH, 1 stereo output for HEADPHONE. The headphone channel has an analogue volume control circuit for the L and R channel. Finally 1 stereo SPEAKER output with digital controls.
- AVL (Automatic Volume Levelling) circuit for the headphone channel.
- Digital input crossbar switch for all digital signal sources and destinations
- Digital output crossbar for exchange of channel processing functionality
- Digital audio input interface (stereo I2S input interface)
- Digital audio output interface (stereo I2S output interface)
- Audio interfaces and switching (AV stereo versions without Audio DSP)
- Audio switch circuit with 4 stereo inputs, a stereo output for SCART/CINCH and a stereo SPEAKER output with analogue volume control.
- Analogue mono AVL circuit at left audio channel
- Audio interfaces and switching (mono versions)
- Audio switch circuit with 4 external audio (mono) inputs and a volume controlled output
- AVL circuit
- Stereo Demodulator and Decoder (full stereo versions)
- Demodulator and Decoder Easy Programming (DDEP)
- Auto standard detection (ASD)
- Static Standard Selection (SSS)
- DQPSK demodulation for different standards, simultaneously with 1-channel FM demodulation
- NICAM decoding (B/G, I, D/K and L standard)
- Two-carrier multistandard FM demodulation (B/G, D/K and M standard)
- Decoding for three analog multi-channel systems (A2, A2+ and A2*) and satellite sound
- Adaptive de-emphasis for satellite FM
- Optional AM demodulation for system L, simultaneously with NICAM
- Identification A2 systems (B/G, D/K and M standard) with different identification time constants
- FM pilot carrier present detector
- Monitor selection for FM/AM DC values and signals, with peak and quasi peak detection option
- BTSC MPX decoder
- SAP decoder
- dbx® noise reduction (4)
- Japan (EIAJ) decoder
- FM radio decoder
- Soft-mute for DEMDEC outputs DEC, MONO and SAP

- ### m-Controller

- 17-

IC DESCRIPTION

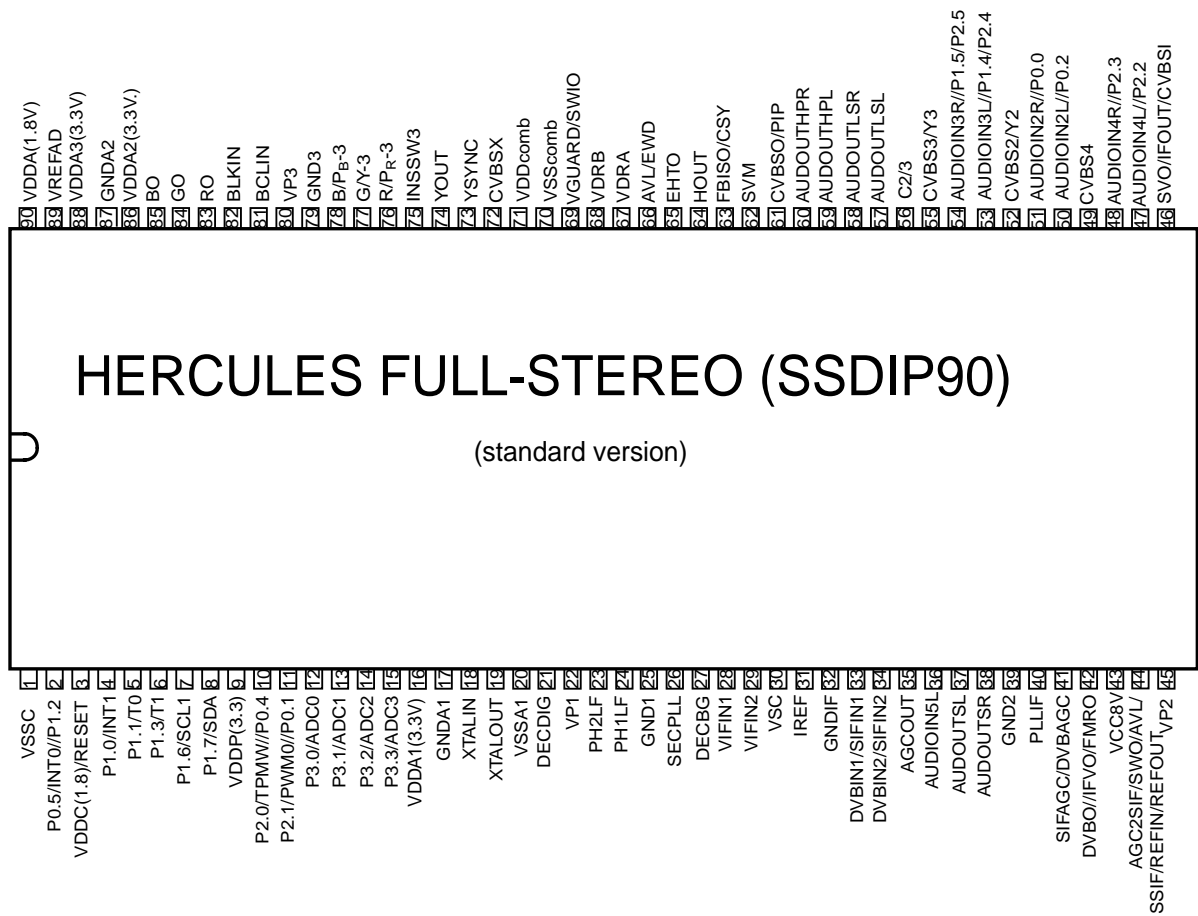
- 5 PWM (6-bits) outputs for analogue control functions
- Remote Control Pre-processor (RCP)
- Universal Asynchronous Receiver Transmitter (UART)

Data Capture

- Text memory up to 10 pages
- Inventory of transmitted Teletext pages stored in the Transmitted Page Table (TPT) and Subtitle Page Table (SPT)
- Data Capture for US Closed Caption
- Data Capture for 525/625 line WST, VPS (PDC system A) and Wide Screen Signalling (WSS) bit decoding
- Automatic selection between 525 WST/625 WST
- Automatic selection between 625 WST/VPS on line 16 of VBI
- Real-time capture and decoding for WST Teletext in Hardware, to enable optimized m-processor throughput
- Automatic detection of FASTEXT transmission
- Real-time packet 26 engine in Hardware for processing accented, G2 and G3 characters
- Signal quality detector for video and WST/VPS data types
- Comprehensive teletext language coverage
- Vertical Blanking Interval (VBI) data capture of WST data

Display

- Teletext and Enhanced OSD modes
- Features of level 1.5 WST and US Close Caption
- 50Hz/60Hz display timing modes
- Two page operation for 16:9 screens
- Serial and Parallel Display Attributes
- Single/Double/Quadruple Width and Height for characters
- Smoothing capability of both Double Size, Double Width & Double Height characters
- Scrolling of display region
- Variable flash rate controlled by software
- Soft colours using CLUT with 4096 colour palette
- Globally selectable scan lines per row (9/10/13/16/) and character matrix [12x9, 12x10, 12x13, 12x16, 16x18, (VxH)]
- Fringing (Shadow) selectable from N-S-E-W direction
- Fringe colour selectable
- Contrast reduction of defined area
- Cursor
- Special Graphics Characters with two planes, allowing four colours per character
- 64 software redefinable On-Screen display characters
- 4 WST Character sets (G0/G2) in single device (e.g. Latin, Cyrillic, Greek, Arabic)
- G1 Mosaic graphics, Limited G3 Line drawing characters
- WST Character sets and Closed Caption Character set in single device
- SVM for Text



IC DESCRIPTION

SYMBOL	STANDARD VERSION			FACE DOWN VERSION			DESCRIPTION
	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	
VSSP2	1	1		128	90		ground
VSSC4	2	1		127	90		ground
VDDC4	3	3		126	88		digital supply to SDACs (1.8V)
VDDA3(3.3V)	4	16		125	75		supply (3.3 V)
VREF_POS_LSL	5	16		124	75		positive reference voltage SDAC (3.3 V)
VREF_NEG_LSL+HPL	6	17		123	74		negative reference voltage SDAC (0 V)
VREF_POS_LSR+HPR	7	16		122	75		positive reference voltage SDAC (3.3 V)
VREF_NEG_HPL+HPR	8	17		121	74		negative reference voltage SDAC (0 V)
VREF_POS_HPR	9	16		120	75		positive reference voltage SDAC (3.3 V)
XTALIN	10	18		119	73		crystal oscillator input
XTALOUT	11	19		118	72		crystal oscillator output
VSSA1	12	20		117	71		ground
VGUARD/SWIO	13	69		116	22		V-guard input / I/O switch (e.g. 4 mA current sinking capability for direct drive of LEDs)
DECDIG	14	21		115	70		decoupling digital supply
VP1	15	22		114	69		1 st supply voltage TV-processor (+5 V)
PH2LF	16	23		113	68		phase-2 lter
PH1LF	17	24		112	67		phase-1 lter
GND1	18	25		111	66		ground 1 for TV-processor
SECPLL	19	26		110	65		SECAM PLL decoupling
DECBG	20	27		109	64		bandgap decoupling
EWD/AVL ⁽¹⁾	21	66		108	25		East-West drive output or AVL capacitor
VDRB	22	68		107	23		vertical drive B output
VDRA	23	67		106	24		vertical drive A output
VIFIN1	24	28		105	63		IF input 1

SYMBOL	STANDARD VERSION			FACE DOWN VERSION			DESCRIPTION
	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	
VIFIN2	25	29		104	62		IF input 2
VSC	26	30		103	61		vertical sawtooth capacitor
IREF	27	31		102	60		reference current input
GNDIF	28	32		101	59		ground connection for IF amplifier
SIFIN1/DVBIN1 ⁽²⁾	29	33		100	58		SIF input 1 / DVB input 1
SIFIN2/DVBIN2 ⁽²⁾	30	34		99	57		SIF input 2 / DVB input 2
AGCOUT	31	35		98	56		tuner AGC output
EHTO	32	65		97	26		EHT/overvoltage protection input
AVL/SWO/SSIF/ REFO/REFIN ⁽²⁾	33	44		96	47		Automatic Volume Levelling / switch output / sound IF input / subcarrier reference output / external reference signal input for I signal mixer for DVB operation
AUDIOIN5	-	-		-	-		audio 5 input
AUDIOIN5L	34	36/-		95	55/-		audio-5 input (left signal)
AUDIOIN5R	35	-		94	-		audio-5 input (right signal)
AUDOUTSL	36	37		93	54		audio output for SCART/CINCH (left signal)
AUDOUTSR	37	38		92	53		audio output for SCART/CINCH (right signal)
DECSDEM	38	-/72		91	-/19		decoupling sound demodulator
QSSO/AMOUT/AUDEEM ⁽²⁾	39	-/36		90	-/55		QSS intercarrier output / AM output / deemphasis (front-end audio out)
GND2	40	39		89	52		ground 2 for TV processor
PLLIF	41	40		88	51		IF-PLL loop filter
SIFAGC/DVBAGC ⁽²⁾	42	41		87	50		AGC sound IF / internal-external AGC for DVB applications
DVBO/IFVO/FMRO ⁽²⁾	43	42		86	49		Digital Video Broadcast output / IF video output / FM radio output
DVBO/FMRO ⁽²⁾	44	-		85	-		Digital Video Broadcast output / FM radio output
VCC8V	45	43		84	48		8 Volt supply for audio switches

IC DESCRIPTION

SYMBOL	STANDARD VERSION			FACE DOWN VERSION			DESCRIPTION
	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	
AGC2SIF	46	44/-		83	47/-		AGC capacitor second sound IF
VP2	47	45		82	46		2 nd supply voltage TV processor (+5 V)
IFVO/SVO/CVBSI ⁽²⁾	48	46		81	45		IF video output / selected CVBS output / CVBS input
AUDIOIN4	-	-		-	-		audio 4 input
AUDIOIN4L	49	47		80	44		audio-4 input (left signal)
AUDIOIN4R	50	48		79	43		audio-4 input (right signal)
CVBS4/Y4	51	49		78	42		CVBS4/Y4 input
C4	52	-		77	-		chroma-4 input
AUDIOIN2	-	-		-	-		audio 2 input
AUDIOIN2L	53	50		76	41		audio 2 input (left signal)
AUDIOIN2R	54	51		75	40		audio 2 input (right signal)
CVBS2/Y2	55	52		74	39		CVBS2/Y2 input
AUDIOIN3	-	-		-	-		audio 3 input
AUDIOIN3L	56	53		73	38		audio 3 input (left signal)
AUDIOIN3R	57	54		72	37		audio 3 input (right signal)
CVBS3/Y3	58	55		71	36		CVBS3/Y3 input
C2/C3	59	56		70	35		chroma-2/3 input
AUDOUTLSL	60	57		69	34		audio output for audio power amplifier (left signal)
AUDOUTLSR	61	58		68	33		audio output for audio power amplifier (right signal)
AUDOUT/AMOUT/FMOUT	-	-		-	-		audio output / AM output / FM output, volume controlled
AUDOUTHPL	62	59		67	32		audio output for headphone channel (left signal)
AUDOUTHPR	63	60		66	31		audio output for headphone channel (right signal)
CVBSO/PIP	64	61		65	30		CVBS / PIP output

SYMBOL	STANDARD VERSION			FACE DOWN VERSION			DESCRIPTION
	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	
SVM	65	62		64	29		scan velocity modulation output
FBISO/CSY	66	63		63	28		yellow input/sandcastle output or composite H/V timing output
HOUT	67	64		62	27		horizontal output
VSScomb	68	70		61	21		ground connection for comb filter
VDDcomb	69	71		60	20		supply voltage for comb filter (5 V)
VIN (R/P _R IN2/C _X)	70	-		59	-		V-input for YUV interface (2 nd R input / P _R input or C _X input)
UIN (B/P _B IN2)	71	-		58	-		U-input for YUV interface (2 nd B input / P _B input)
YIN (G/YIN2/CVBS-Y _X)	72	72/-		57	19/-		Y-input for YUV interface (2 nd G input / Y input or CVBS/Y _X input))
YSYNC	73	73		56	18		Y-input for sync separator
YOUT	74	74		55	17		Y-output (for YUV interface)
UOUT (INSSW2)	75	-		54	-		U-output for YUV interface (2 nd RGB / YP _B P _R insertion input)
VOOUT (SWO1)	76	-		53	-		V-output for YUV interface (general purpose switch output)
INSSW3	77	75		52	16		3 rd RGB / YP _B P _R insertion input
R/P _R IN3	78	76		51	15		3 rd R input / P _R input
G/YIN3	79	77		50	14		3 rd G input / Y input
B/P _B IN3	80	78		49	13		3 rd B input / P _B input
GND3	81	79		48	12		ground 3 for TV-processor
VP3	82	80		47	11		3 rd supply for TV processor
BCLIN	83	81		46	10		beam current limiter input
BLKIN	84	82		45	9		black current input
RO	85	83		44	8		Red output
GO	86	84		43	7		Green output
BO	87	85		42	6		Blue output

IC DESCRIPTION

SYMBOL	STANDARD VERSION			FACE DOWN VERSION			DESCRIPTION
	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	
VDDA1	88	86		41	5		analog supply for TCG mController and digital supply for TV-processor (+3.3 V)
VREFAD_NEG	89	87		40	4		negative reference voltage (0 V)
VREFAD_POS	90	88		39	3		positive reference voltage (3.3 V)
VREFAD	91	89		38	2		reference voltage for audio ADCs (3.3/2 V)
GNDA	92	87		37	4		ground
VDDA(1.8V)	93	90		36	1		analogue supply for audio ADCs (1.8 V)
VDDA2(3.3)	94	88		35	3		supply voltage SDAC (3.3 V)
VSSadc	95	1		34	90		ground for on-chip temperature sensor
VDDadc(1.8)	96	90		33	1		supply voltage video ADC
INT0/P0.5	97	2		32	89		external interrupt 0 or port 0.5 (4 mA current sinking capability for direct drive of LEDs)
P1.0/INT1	98	4		31	87		port 1.0 or external interrupt 1
P1.1/T0	99	5		30	86		port 1.1 or Counter/Timer 0 input
VDDC2	100	3		29	88		digital supply to core (1.8 V)
VSSC2	101	1		28	90		ground
P0.4/I2SWS	102	-		27	-		port 0.4 or I ² S word select
P0.4	-	-		-	-		port 0.4
P0.3/I2SCLK	103	-		26	-		port 0.3 or I ² S clock
P0.3	-	-		-	-		port 0.3
P0.2/I2SDO2	104	50		25	41		port 0.2 or I ² S digital output 2
P0.2	-	-		-	-		port 0.2
P0.1/I2SDO1	105	-		24	-		port 0.1 or I ² S digital output 1
P0.1	-	-		-	-		port 0.1
P0.0/I2SDI1/O	106	51		23	40		port 0.0 or I ² S digital input 1 or I ² S digital output
P0.0	-	-		-	-		port 0.0
P1.3/T1	107	6		22	85		port 1.3 or Counter/Timer 1 input

SYMBOL	STANDARD VERSION			FACE DOWN VERSION			DESCRIPTION
	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	STEREO + AV STEREO QFP128	FULL-STEREO/ MONO+ AV STEREO SSDIP90	MONO	
P1.6/SCL	108	7		21	84		port 1.6 or I ² C-bus clock line
P1.7/SDA	109	8		20	83		port 1.7 or I ² C-bus data line
VDDP(3.3V)	110	9		19	82		supply to periphery and on-chip voltage regulator (3.3 V)
P2.0/TPWM	111	10		18	81		port 2.0 or Tuning PWM output
P2.1/PWM0	112	11		17	80		port 2.1 or PWM0 output
P2.2/PWM1	113	47		16	44		port 2.2 or PWM1 output
P2.3/PWM2	114	48		15	43		port 2.3 or PWM2 output
P3.0/ADC0	115	12		14	79		port 3.0 or ADC0 input
P3.1/ADC1	116	13		13	78		port 3.1 or ADC1 input
VDDC1	117	3		12	88		digital supply to core (+1.8 V)
DECV1V8	118	3		11	88		decoupling 1.8 V supply
P3.2/ADC2	119	14		10	77		port 3.2 or ADC2 input
P3.3/ADC3	120	15		9	76		port 3.3 or ADC3 input
VSSC/P	121	1		8	90		digital ground for mController core and periphery
P2.4/PWM3	122	53		7	38		port 2.4 or PWM3 output
P2.5/PWM4	123	54		6	37		port 2.5 or PWM4 output
VDDC3	124	3		5	88		digital supply to core (1.8V)
VSSC3	125	1		4	90		ground
P1.2/INT2	126	2		3	89		port 1.2 or external interrupt 2
P1.4/RX	127	53		2	38		port 1.4 or UART bus
P1.5/TX	128	54		1	37		port 1.5 or UART bus

IC DESCRIPTION

2. TDA8358J VERTICAL AMPLIFIER

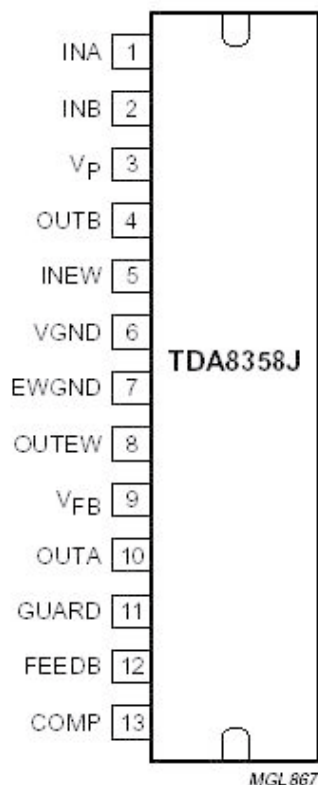
The TDA8358J are power circuit for use in 90° and 110° colour deflection systems for field frequencies of 25 to 200Hz field frequencies, and for 4:3 and 16/9 picture tubes. The IC contains a vertical deflection output circuit, operating as a high efficiency class G system. The full bridge output circuit allows DC coupling of the deflection coil in combination with single positive supply voltages.

The east-west output stage is able to supply the sink current for a diode modulator circuit.

The IC is constructed in a Low Voltage DMOS(LVDMOS) process that combines bipolar, CMOS and DMOS devices. DMOS transistors are used in the output stage because of the absence of second breakdown.

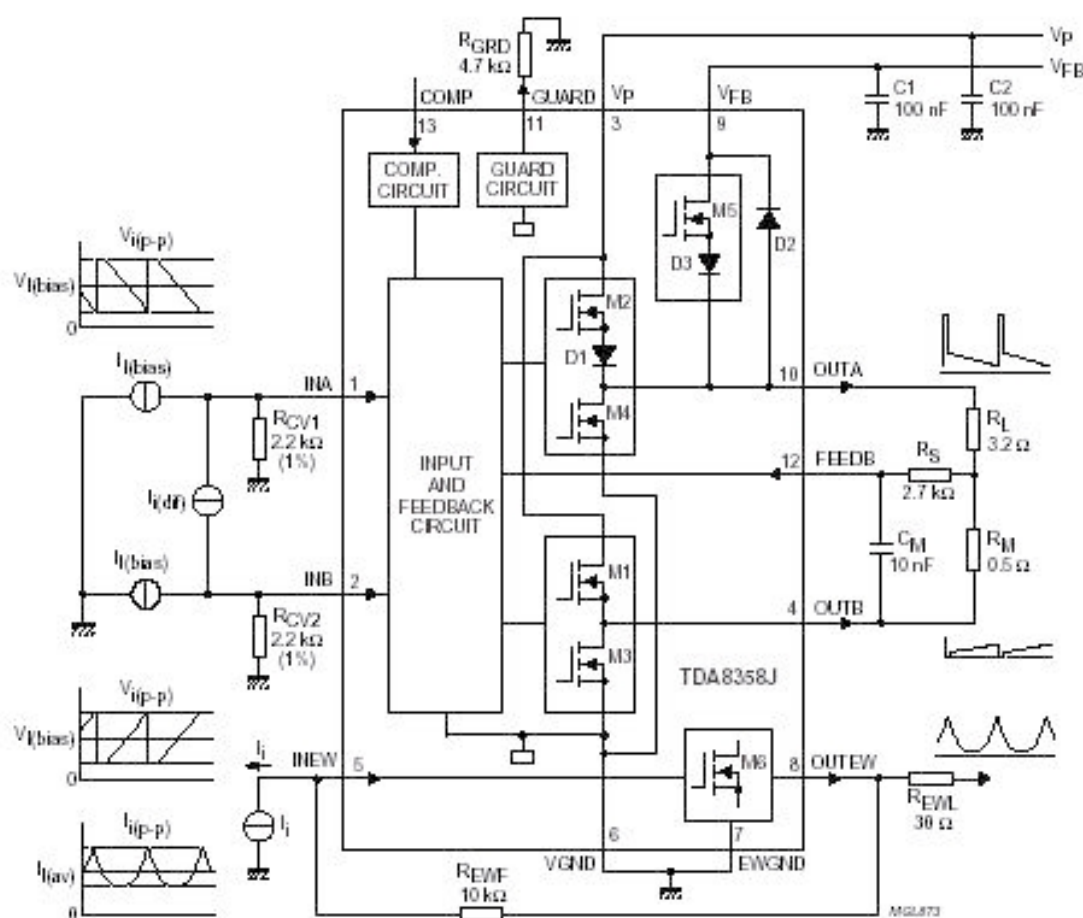
Features :

- Few external components
- Highly efficient fully DC-coupled vertical bridge output circuit
- Vertical flyback switch with short rise and fall times
- Built-in guard circuit
- Thermal protection circuit
- Improved EMC performance due to differential inputs
- East-west output stage



Pinning

Pin	Symbol	Description
1	INA	Positive vertical input
2	INB	Negative vertical input
3	V _P	Supply voltage
4	OUTB	Vertical output voltage B
5	INEW	East-west input voltage
6	VGND	Vertical ground
7	EWGND	East-west ground
8	OUTEW	East-west output voltage
9	V _{FB}	Flyback supply voltage
10	OUTA	Vertical output voltage A
11	GUARD	Guard output voltage
12	FEEDB	Input measuring resistor
13	COMP	Input compensation current



Block diagram TDA8358J

IC DESCRIPTION

3. TDA6107AJF

The TDA6107AJF includes three video output amplifiers and is intended to drive the three cathodes of a colour CRT directly. The device is contained in a plastic DIL-bent-SIL 9-pin medium power(DBS9MPF) package, and uses high-voltage DMOS technology.

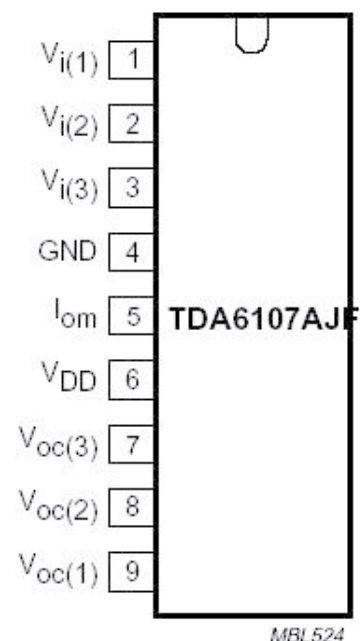
To obtain maximum performance, the amplifier should be used with black-current control.

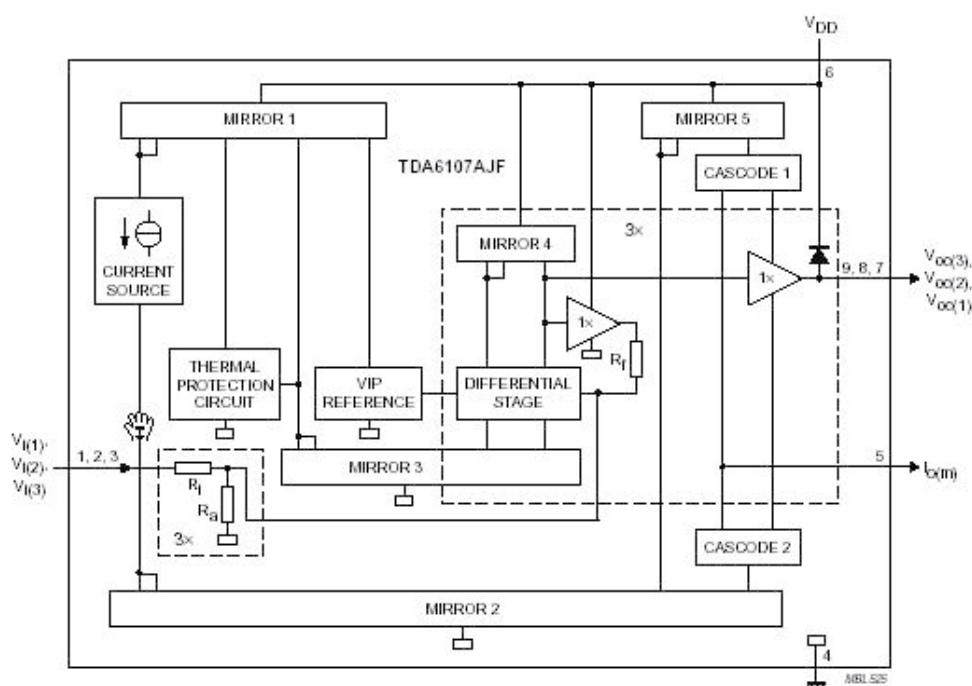
Features

- Typical bandwidth of 5.5 MHz for an output signal of 60 Vpp
- High slew rate of 900V/μs
- No external components required
- Very simple application
- Single supply voltage of 200V
- Internal reference voltage of 2.5 V
- Fixed gain of 81.
- Black-current stabilisation (BCS) circuit with voltage window from 1.8 to 6 V and current window from 100μA to -10mA
- Thermal protection
- Internal protection against positive flashover discharges appearing on the CRT

Pin description

Pin	Symbol	Description
1	$V_{i(1)}$	inverting input 1
2	$V_{i(2)}$	inverting input 2
3	$V_{i(3)}$	inverting input 3
4	GND	ground (fin)
5	I_{om}	black current measurement output
6	V_{DD}	supply voltage
7	$V_{OC(3)}$	cathode output 3
8	$V_{OC(2)}$	cathode output 2
9	$V_{OC(1)}$	cathode output 1





Block diagram TDA6107AJF

4. 24WC16 - 16 KB EEPROM

Features :

- 16 Kbit serial I2C bus EEPROM
- 400KHz I2C Bus Compatible
- supply voltage : 1.8 V to 6.0 V
- Low Power CMOS Technology
- 1 Million Erase/Write cycles (minimum)
- 100 year data retention (minimum)

Pin description

Pin No.	Name	Description
1, 2, 3	A0, A1, A2	Device address – not used
5	SDA	Serial Data/Address Input/Output
6	SCL	Serial clock
7	WP	Write control
8	Vcc	Supply voltage
4	Vss	Ground

The memory device is compatible with the I2C memory standard. This is a two wire serial interface that uses a bi-directional data bus and serial clock. The memory carries a built-in 4-bit unique device type identifier code (1010) in accordance with the I2C bus definition.

Serial Clock (SCL)

The SCL input is used to strobe all data in and out of the memory.

Serial Data (SDA)

The SDA pin is bi-directional, and is used to transfer data in or out of the memory.

IC DESCRIPTION

5. LA42072N-E AUDIO AMPLIFIER

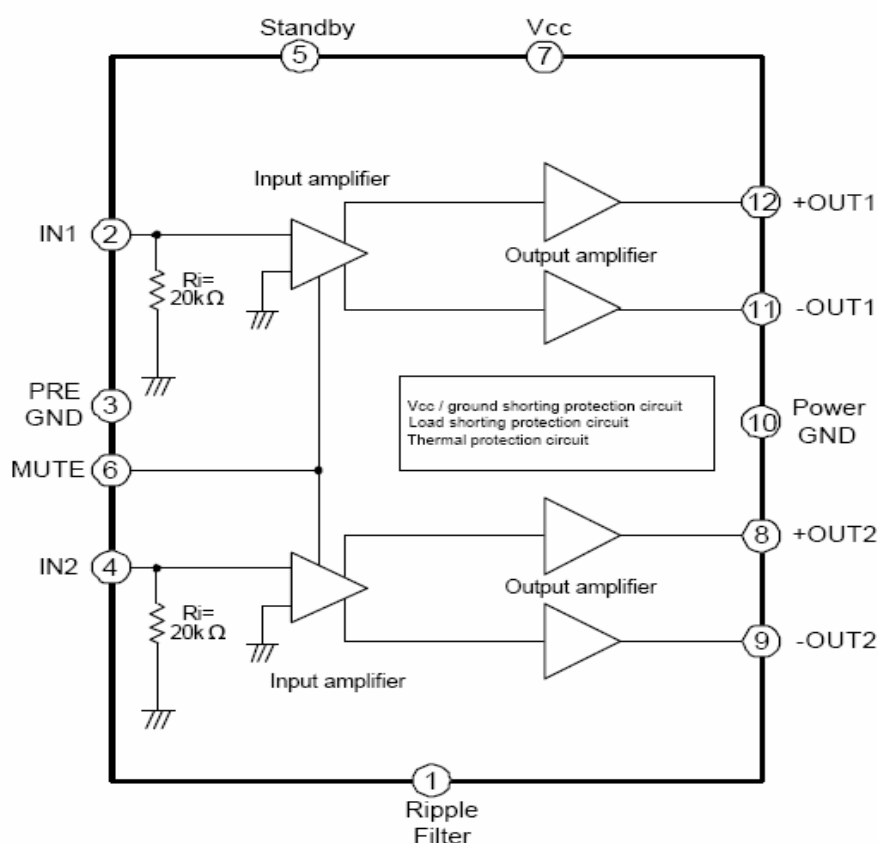
LA42000 series is power IC which made Pin compatible possible a ltogether in 5 to 15W.

They consist of four kinds of power ICs.

(mono, stereo, mono with volume function , stereo with volume function.)

They realized PCB layout communalization of an audio power block of TV.

Block Diagram



Operating Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = 12\text{V}$, $R_L = 8\Omega$, $f = 1\text{kHz}$, $z, R_g = 600\Omega$

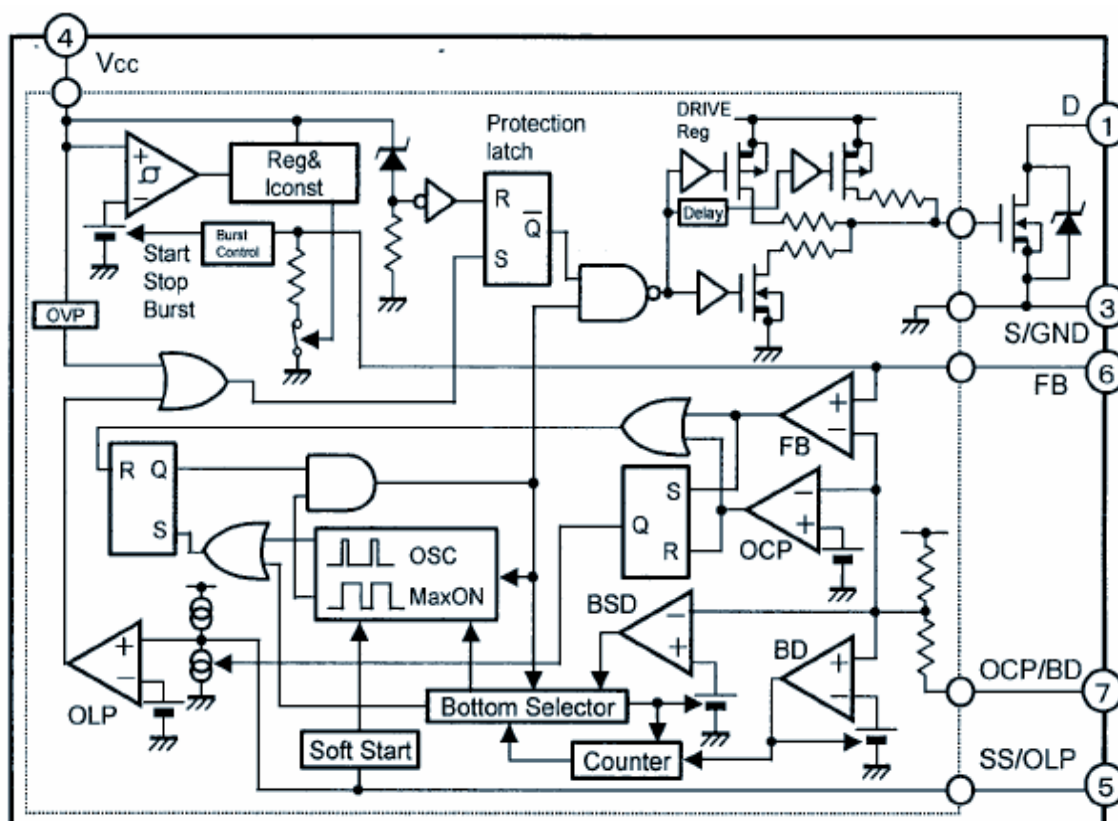
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Quiescent current	I_{CCO}	$R_g=0$	40	70	150	mA
Output power	P_o	THD=10%	6	7	-	W
Total harmonic distortion	THD	$P_o=1\text{W}$	-	0.06	0.2	%
Voltage gain	VG	$V_o=0\text{dBm}$	33	35	37	dB
Output noise voltage	V_{NO}	$R_g=0, \text{BPF}=20\text{Hz to } 20\text{kHz}$	-	0.1	0.3	mVrms
Ripple rejection	SVRR	$R_g=0, f_R=100\text{Hz}, V_{CCR}=0\text{dBm}$	50	60	-	dB
Channel separation	Sep.	$R_g=10\text{k}\Omega, V_o=0\text{dBm}$	50	60	-	dB
Muting attenuation	A_{TT}	$V_o=1\text{Vrms}, \text{BPF}=20\text{Hz to } 20\text{kHz}$	80	90	-	dB
Muting control voltage (The Pin 6 voltage)	$V_{MUTE} - H$	Muting on	1.7	-	3.0	V
	$V_{MUTE} - L$	Muting off	0	-	0.5	V
Standby control voltage (The Pin 5 voltage)	$V_{STB} - H$	Amplifier on	2.5	-	20	V
	$V_{STB} - L$	Amplifier off	0	-	0.5	V
Input resistance	R_i		21	30	39	k Ω

6. STR-W6756

FUNCTIONS OF EACH TERMINAL

TERMINAL No.	SYMBOLS	DESCRIPTIONS	FUNCTIONS
1	D	DRAIN TERMINAL	MOSFET DRAIN
3	S/GND	SOURCE/GND	MOSFET SOURCE / GND
4	Vcc	SET UP TERMINAL	INPUT OF POWER SUPPLY FOR CONTROL CIRCUIT
5	SS/OLP	DELAY AT OVERLOAD / SOFT START SET UP TERMINAL	OVERLOAD PROTECTION AND SOFT START OPERATION TIME SET UP
6	FB	FEEDBACK TERMINAL	CONSTANT VOLTAGE CONTROL SIGNAL INPUT, BURST (INTERMITTENT) MODE OSCILLATION
7	OCP/BD	OVERCURRENT PROTECTION INPUT / BOTTOM DETECTION TERMINAL	OVERCURRENT DETECTION SIGNAL INPUT / BOTTOM DETECTION SIGNAL INPUT

BLOCK DIAGRAM



IC DESCRIPTION

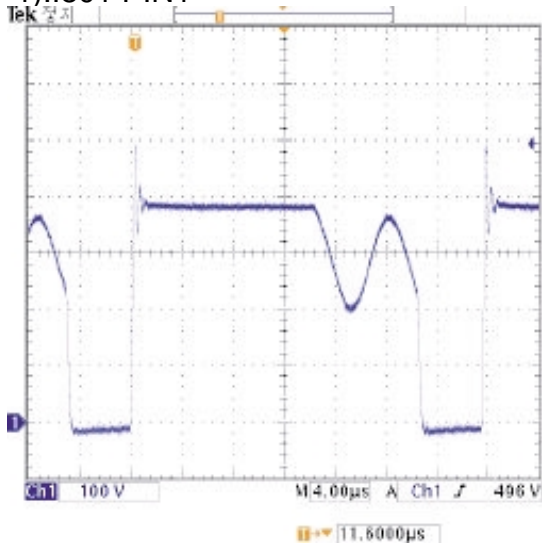
ELECTRICAL CHARACTERISTICS IN CONTROL PART

(Ta=25℃, Vcc=20V, UNLESS OTHERWISE SPECIFIED)

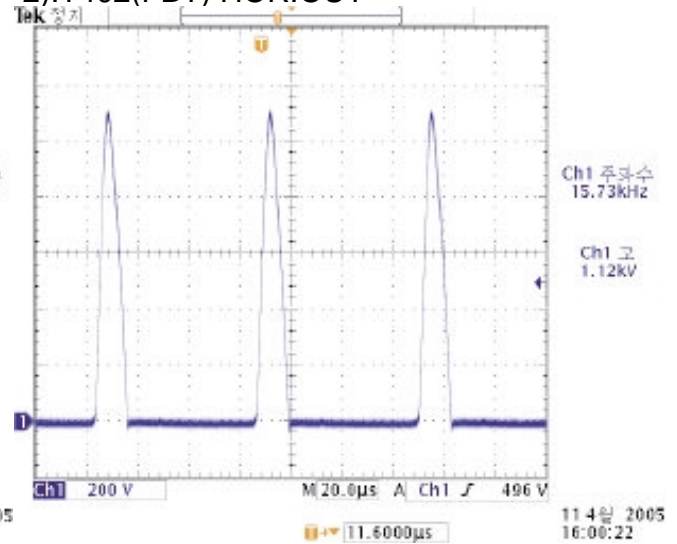
PARAMETER	TERMINAL	SYMBOL	RATINGS			UNITES
			MIN	TYP	MAX	
POWER SUPPLY START-UP OPERATION						
OPERATION START VOLTAGE	4-3	Vcc(on)	16.3	18.2	19.9	V
OPERATION STOP VOLTAGE	4-3	Vcc(off)	8.8	9.7	10.6	V
CIRCUIT CURRENT IN OPERATION	4-3	Icc(on)			6	mA
CIRCUIT CURRENT IN NON-OPERATION	4-3	Icc(off)			100	uH
OSCILLATION FREQUENCY	1-3	fosc	19	22	25	kHz
SOFT START OPERATION STOP VOLTAGE	5-3	Vssolp(ss)	1.1	1.2	1.4	v
SOFT START OPERATION CHARGING CURRENT	5-3	Issolp(ss)	-710	-550	-390	uA
NORMAL OPERATION						
BOTTOM-SKIP OPERATION THRESHOLD VOLTAGE1	7-3	Vocpbd(bs1)	-0.72	-0.660	-0.61	V
BOTTOM-SKIP OPERATION THRESHOLD VOLTAGE2	7-3	Vocpbd(bs2)	-0.485	-0.435	-0.385	V
OVERCURRENT DETECTION THRESHOLD VOLTAGE	7-3	Vocpbd(lim)	-0.995	-0.940	-0.895	V
OCP/BD TERMINAL OUTFLOW CURRENT	7-3	Iocpbd	-250	-100	-40	uA
QUASI-RESONANT OPERATION THRESHOLD VOLTAGE1	7-3	Vocpbd(th1)	0.28	0.40	0.52	V
QUASI-RESONANT OPERATION THRESHOLD VOLTAGE2	7-3	Vocpbd(th2)	0.67	0.80	0.93	V
FB TERMINAL THRESHOLD VOLTAGE	6-3	Vfb(off)	1.32	1.45	1.58	V
FB TERMINAL INFLOW CURRENT(NORMAL OPERATION)	6-3	Ifb(on)	600	1000	1400	uA
STAND-BY OPERATION						
STAND-BY OPERATION START VOLTAGE	4-3	Vcc(s)	10.3	11.2	12.1	V
STAND-BY OPERATION START VOLTAGE INTERVAL	4-3	Vcc(sk)	1.20	1.45	1.65	V
STAND-BY NON-OPERATION CIRCUIT CURRENT	4-3	Icc(s)		20	56	uA
FB TERMINAL INFLOW CURRENT(STAND-BY)	1-3	Ifb(s)		4	14	uA
STAND-BY OPERATION FB TERMINAL THRESHOLD VOLTAGE	6-3	Vfb(s)	0.55	1.10	1.50	V
MINIMUM ON TIME	1-3	Ton(min)		0.75	1.20	uSec
PROTECTION OPERATION						
MAXIMUM ON TIME	1-3	Ton(max)	27.5	32.5	39.0	uSec
OLP OPERATION THRESHOLD VOLTAGE	5-3	Vssolp(olp)	4.0	4.8	5.8	V
OLP OPERATION CHARGING CURRENT	5-3	Issolp(olp)	-16	-11	-6	uA
OLP OPERATION VOLTAGE	4-3	Vcc(ovp)	25.5	27.7	29.9	V
LATCH CIRCUIT HOLDING CURRENT	4-3	Icc(h)		45	140	uA
LATCH CIRCUIT RELEASE VOLTAGE	4-3	Vcc(la.off)	6.0	7.2	8.5	V

WAVEFORMS

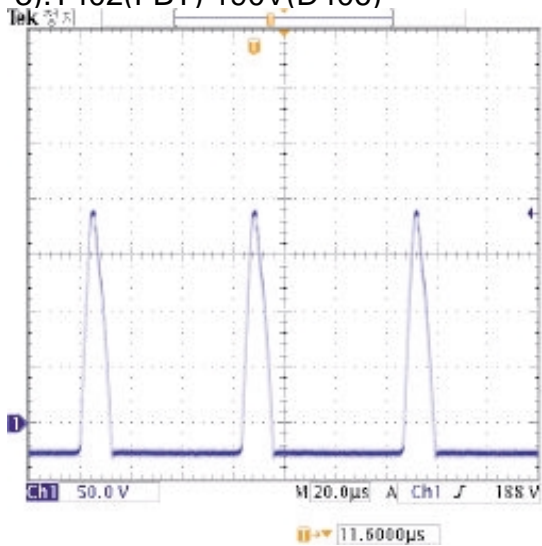
1).I801 PIN1



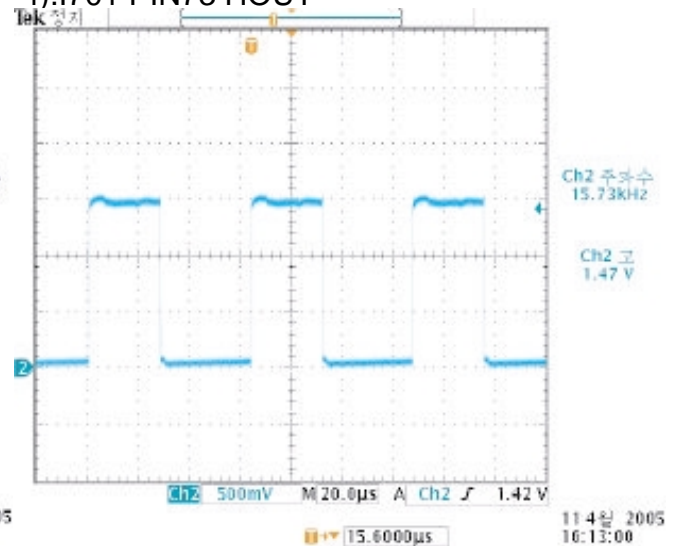
2).T402(FBT) HOR.OUT



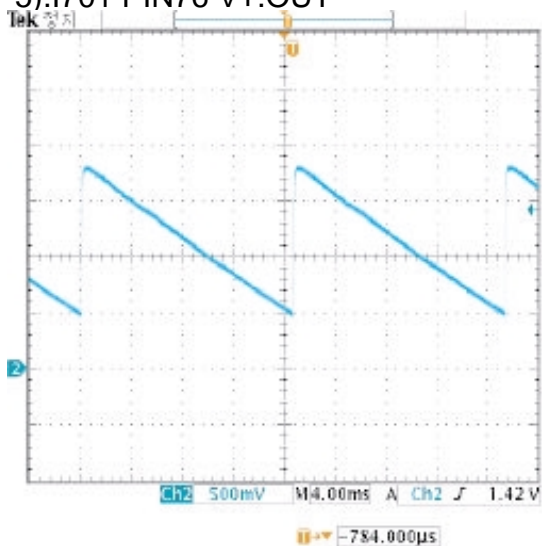
3).T402(FBT) 190V(D406)



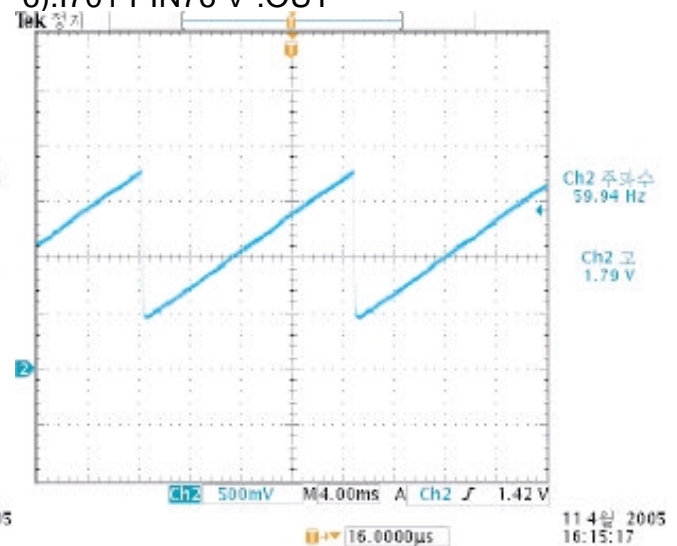
4).I701 PIN73 HOUT



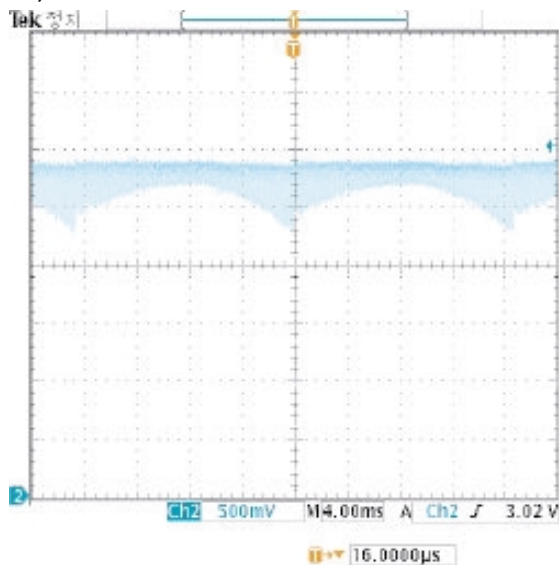
5).I701 PIN76 V+.OUT



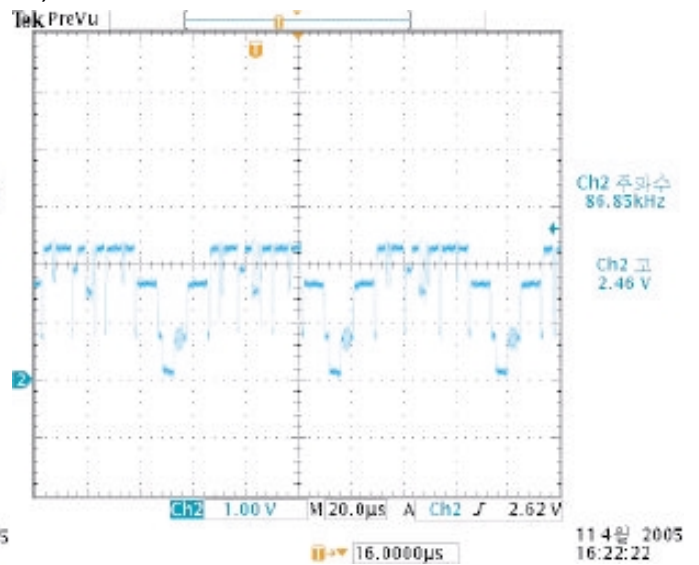
6).I701 PIN76 V-.OUT



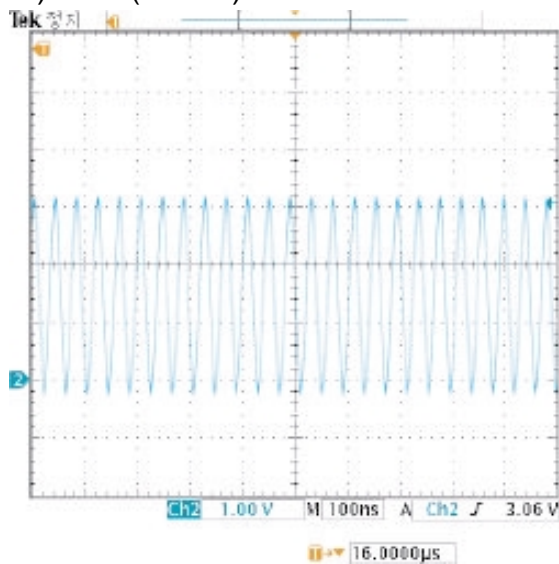
7).I701 PIN75 EW OUT



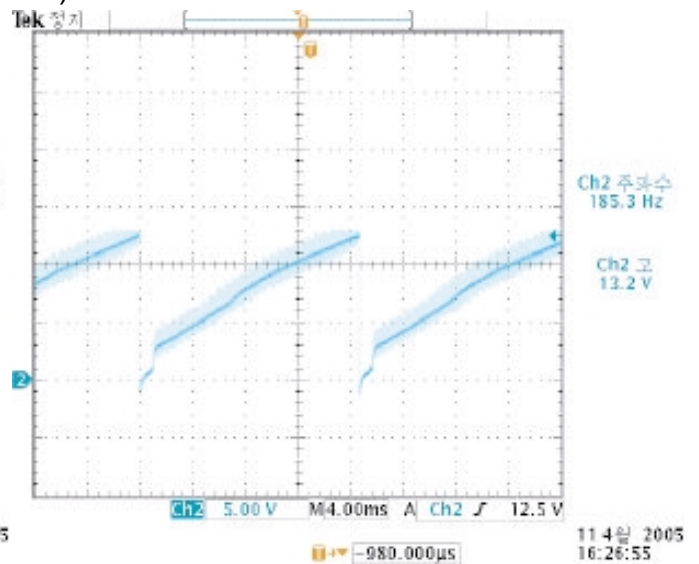
8).I701 PIN46 MONITOR OUT



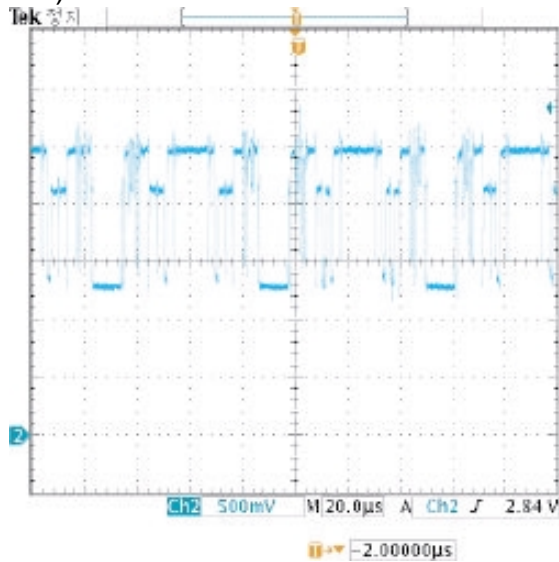
9).I701 (X-TAL)



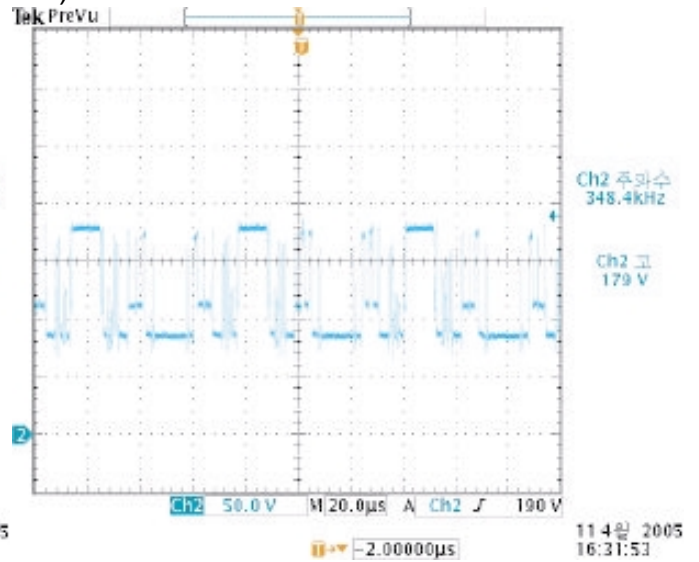
10).I301 PIN4 V.OUT



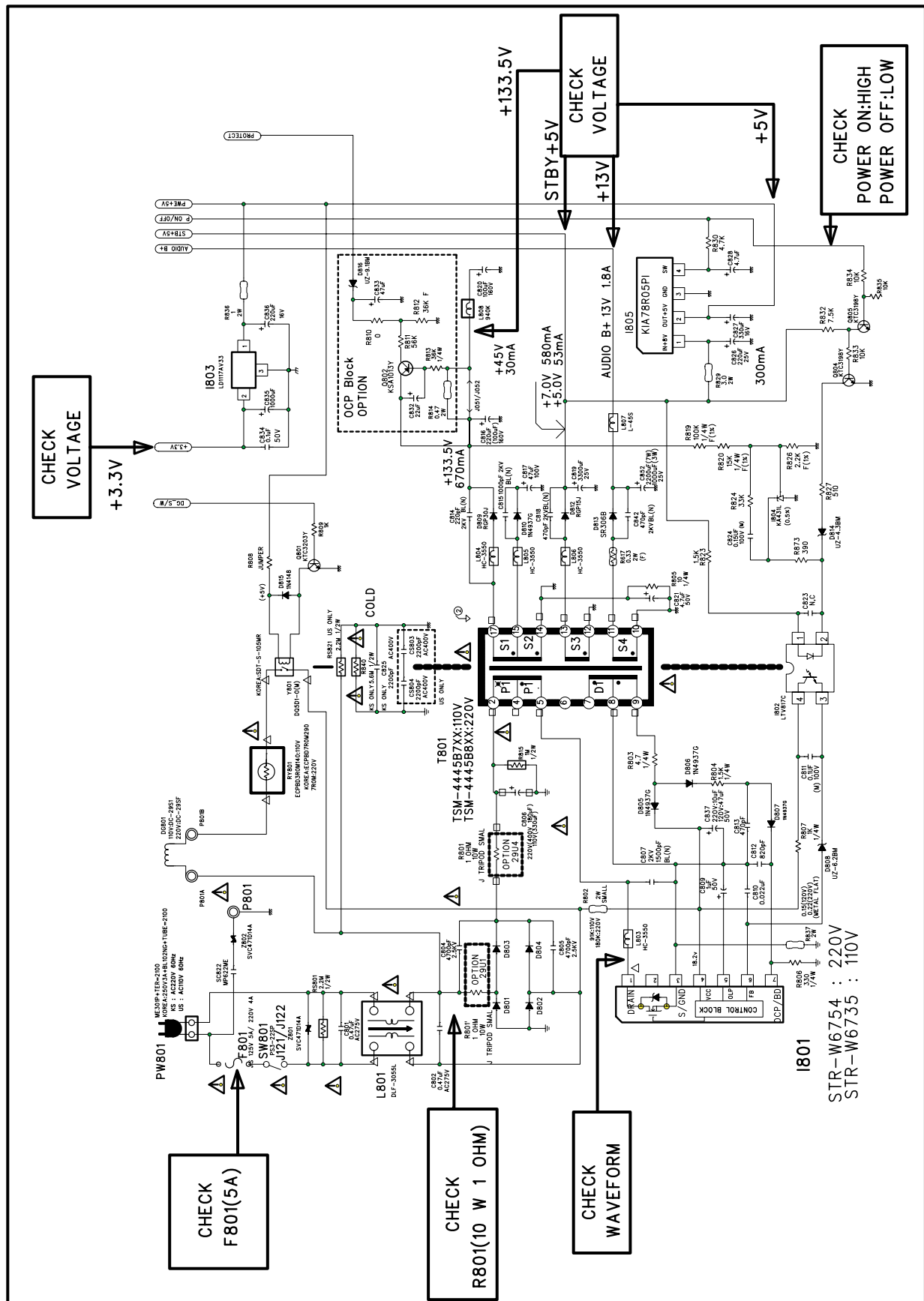
11).I901 PIN R.IN



12).I901 PIN R.OUT



1. NO POWER

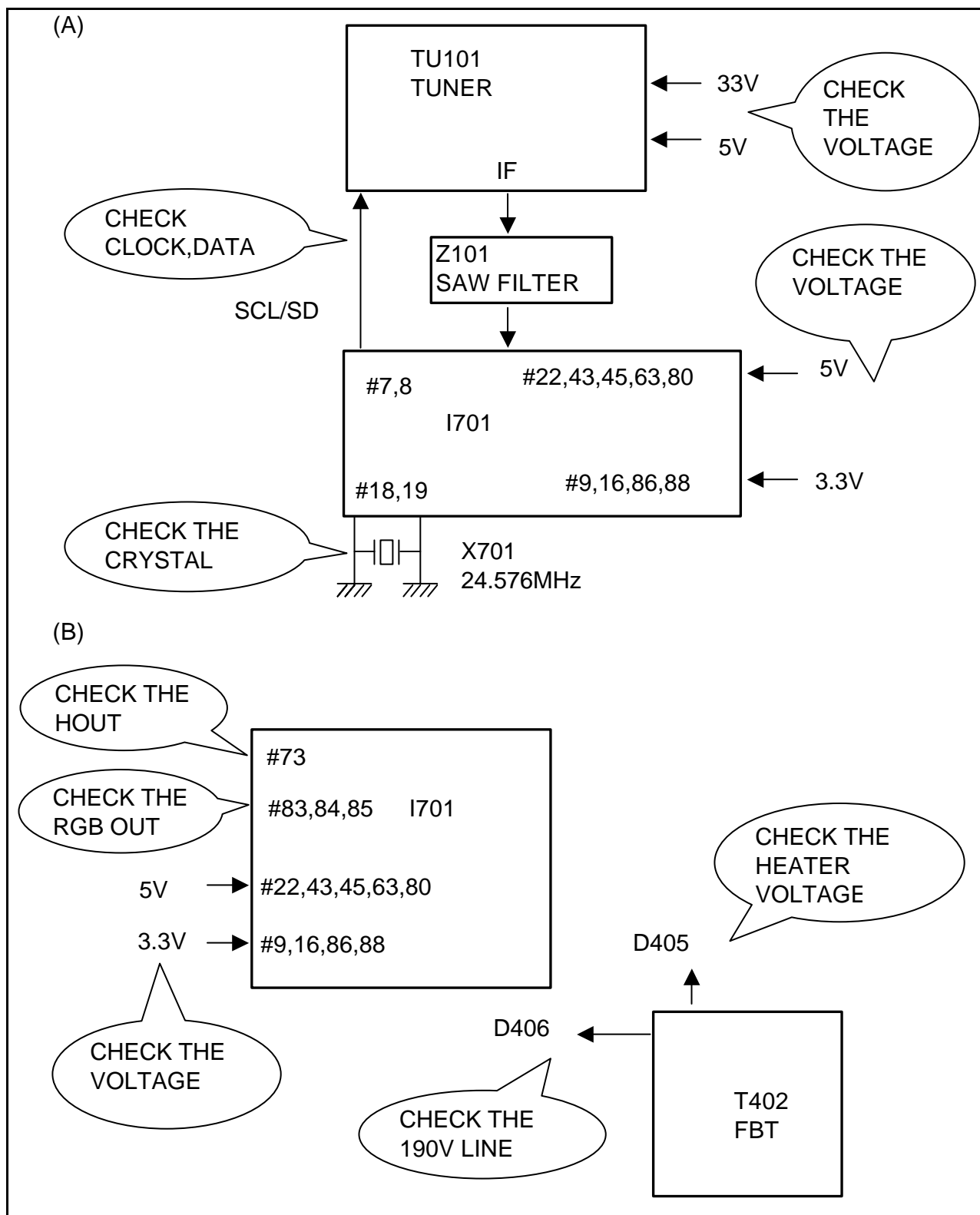


2. NO PICTURE

Check The Waveform of TU101 IF PIN

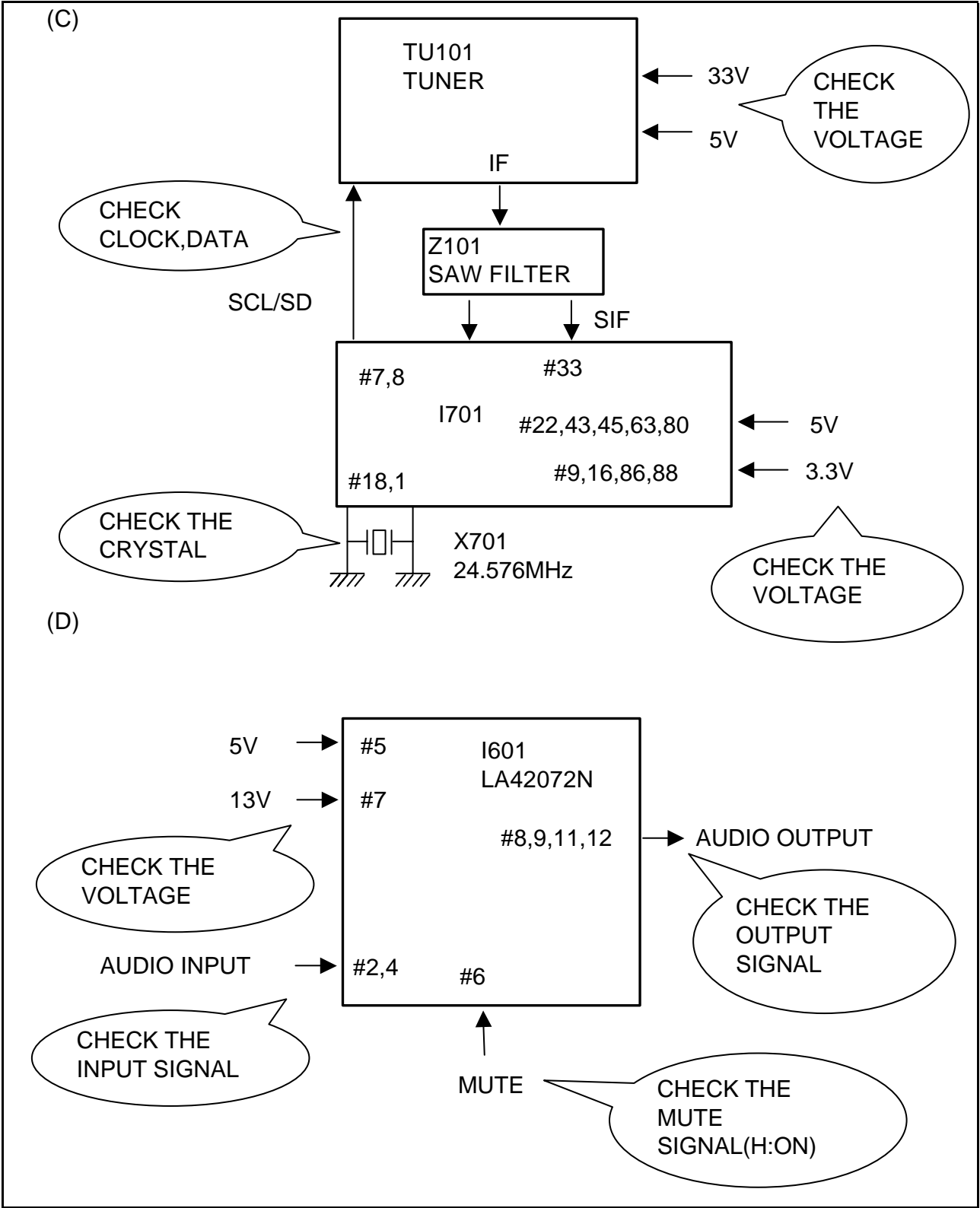
NG : Go To The Figure (A)

OK : Go To The Figure (B)



3. NO SOUND

Check The Output Signal of I701 #57,58	NG : Go To The Figure (C)
	OK : Go To The Figure (D)



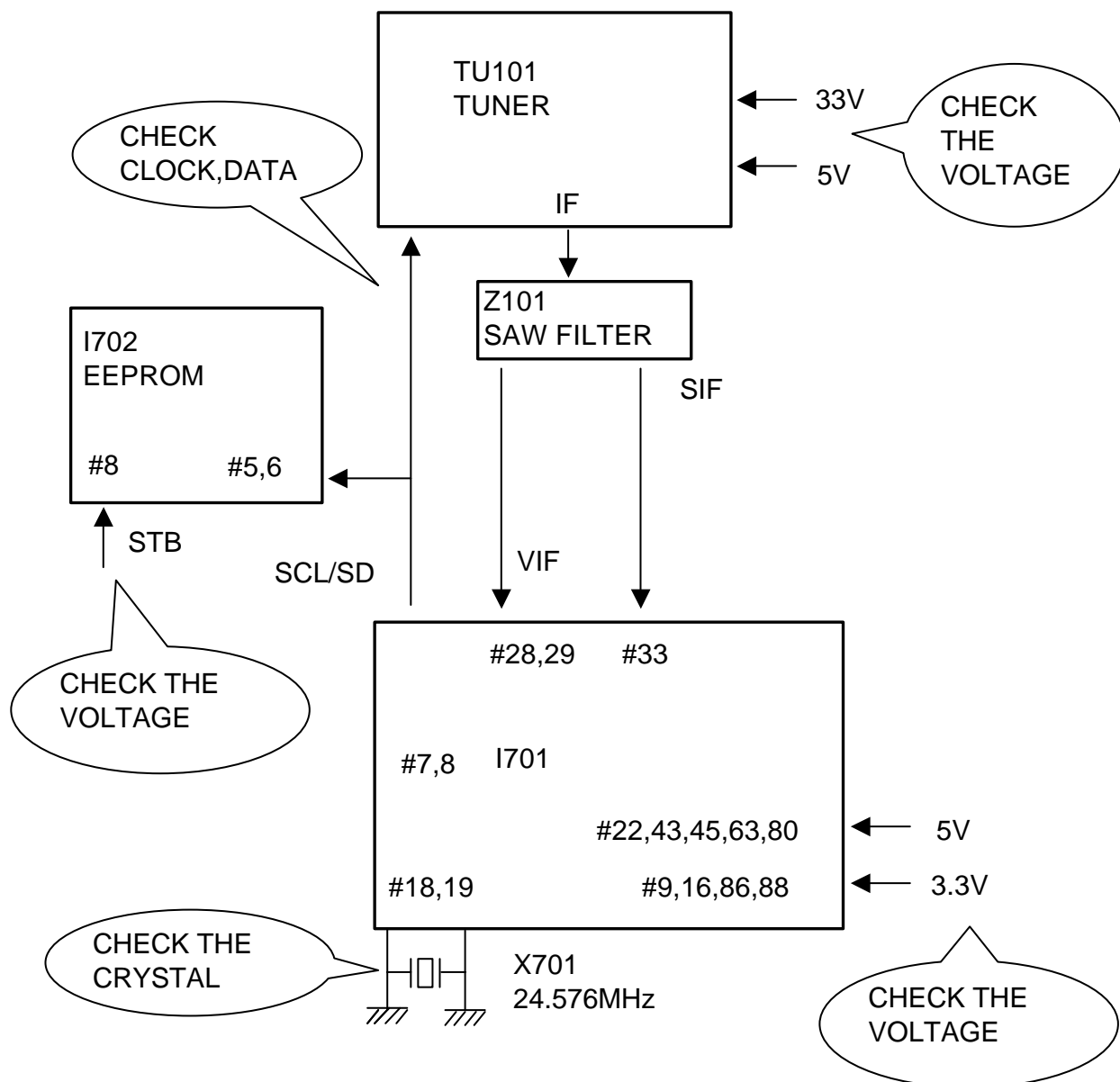
4. CH DON'T MEMORY or SKIP

Check The Iutput Signal Conditions

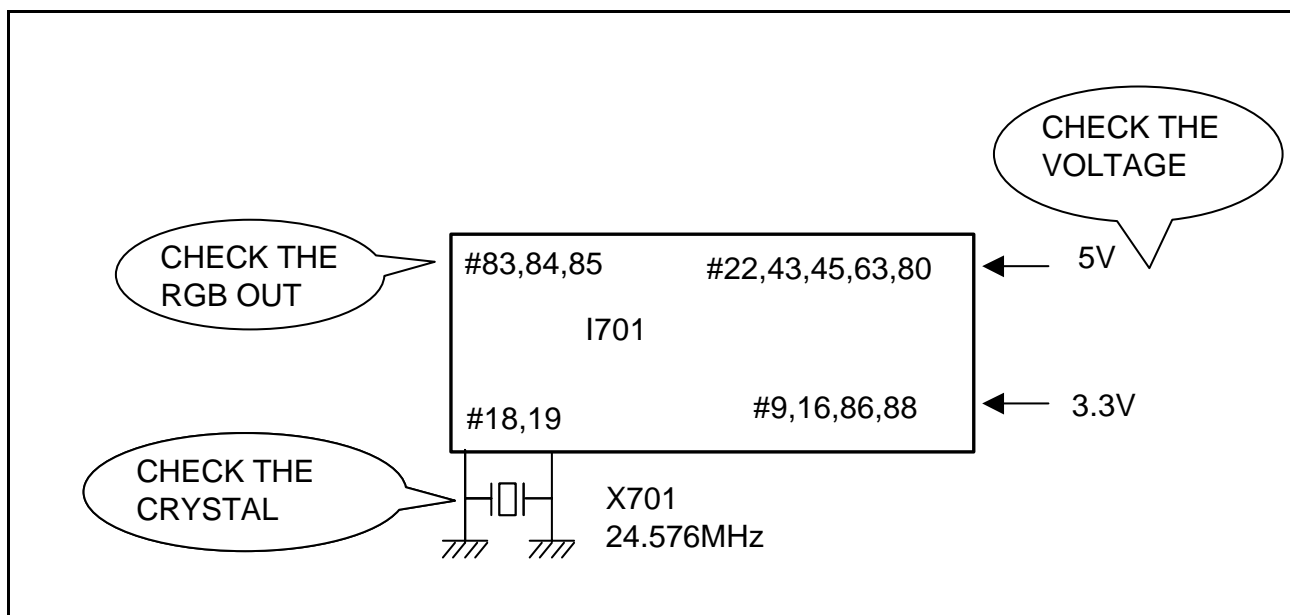
NG : Loss of Signal or Weak Signal

OK : Go To The Figure (E)

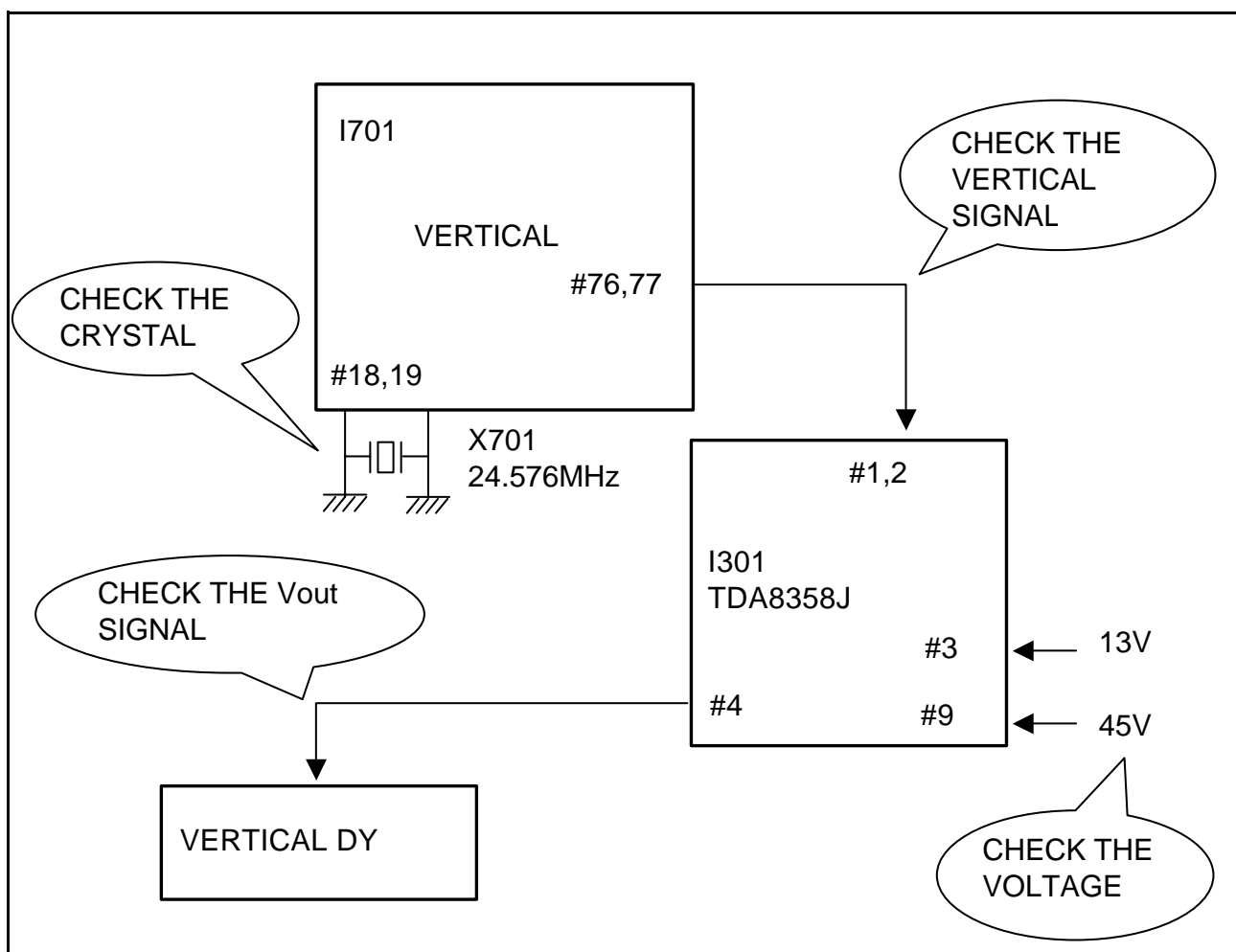
(E)



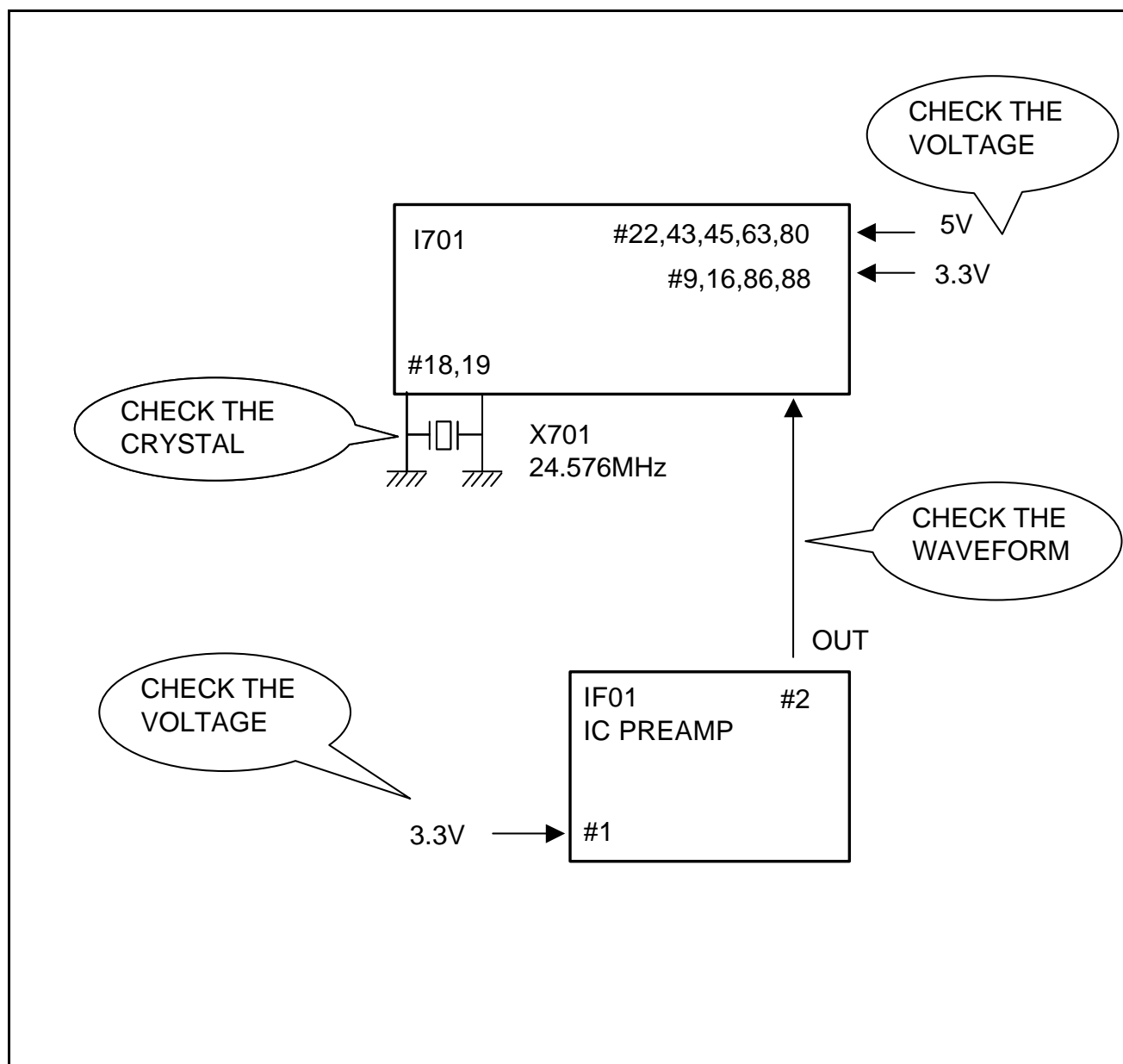
5. NO COLOR



6. NO VERTICAL DEFLECTION



7. REMOTE CONTROL DOES NOT OPERATE



ELECTRICAL PARTS LIST

★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>)

**This BOM is based on DTQ-29U1SCV

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
1	ZZ100	48B5748C04	TRANSMITTER REMOCON	R-48C04 (AAA)	
2	ZZ110	PTACPWK143	ACCESSORY AS	DTQ-29M5SSV	
3	00030	4850Q00910	BATTERY	R03/NN	
4	00060	48586012K1	MANUAL INSTRUCTION	KOREAN	
5	AD001	4859000240	ADAPTER	2P15A 300V(D=4.0)	
6	M821	4858213803	BAG INSTRUCTION	L.D.PE TO.05X250X400(+20)	
7	ZZ120	PTBCSHK143	COVER BACK AS	DTQ-29M5SSV	
8	M211	4852161111	COVER BACK	HIPS GY	
9	M781	4857817630	CLOTH BLACK	FELT 400X20X0.7	
10	ZZ130	PTPKCPK143	PACKING AS	DTQ-29M5SSV	
11	10	6520010100	STAPLE PIN	AUTO W65	
12	M681	4856812400	BAND PP AUTO	T1.1XW17MMXL770M	
13	M801	4858057600	BOX CARTON	DW-3	
14	M811	4858199100	PAD	EPS 29M5	
15	M821	4858215601	BAG P.E	PE FOAM t0.5x1600x1270	
16	ZZ131	48519A4210	CRT GROUND NET	2901H-1015-2P	
17	ZZ132	58G0000182	COIL DEGAUSSING	DC-29SF AL	
18	ZZ140	PTCACAK146	CABINET AS	DTQ-29M5SSV	
19	40	2TF01612CL	TAPE FILAMENT	0.15X12mmX55mm	
20	AD001	4859000240	ADAPTER	2P15A 300V(D=4.0)	
21	M201A	4856017750	SCREW CRT FIX	6X27 L120 BK 3CR	
22	M201B	4856215402	WASHER RUBBER	CR T2.0	
23	M211A	7172401652	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK 3CR	
24	M211B	7172401652	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK 3CR	
25	M231A	7172401652	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK 3CR	
26	M541	4855419800	SPEC PLATE	ART 150	
27	M591	4855934900	DECO TERM	PVC T0.3	
28	M681	4856816300	CLAMP WIRE	NYLON 6 (V0)	
29	M901	2224050027	BOND SILICON	TSK-5370	
30	SP01A	7172401252	SCREW TAPPTITE	TT2 TRS 4X12 MFZN BK 3CR	
31	SP02A	7172401252	SCREW TAPPTITE	TT2 TRS 4X12 MFZN BK 3CR	
32	V901	4859647160	CRT	A68QBC320X09 P38	
33	ZZ200	PTFMSJK143	MASK FRONT AS	DTQ-29M5SSV	
34	M201	4852079701	MASK FRONT	HIPS GY	
35	M231A	7178301252	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK 3CR	
36	M561	48556174SD	MARK BRAND	SILVER DIA-CUTTING	
37	M781	4857821102	CLOTH BLACK	FELT 340X10X1.5	
38	ZZ204	PTJAMSK142	PCB JACK MANUAL AS	DTQ-29U1SCV	
39	10	2193102005	SOLDER BAR	SN:PB=63:37 S63S-1320	
40	JA02	4859105450	JACK PIN BOARD	YSC03P-4120-9S	
41	M111	4851114001	PANEL AV ASSY	2326801+5934300	
42	M111A	7178301051	SCREW TAPPTITE	TT2 WAS 3X10 MFZN 3CR	
43	M684	4856812001	TIE CABLE	NYLON66 DA100	
44	P201A	4850705N21	CONNECTOR	YH025-05+YBNH250+USW=400	
45	ZZ200	PTJAJRK142	PCB JACK RADIAL AS	DTQ-29U1SCV	
46	ZZ200	PTJAJAK142	PCB JACK AXIAL AS	DTQ-29U1SCV	
47	10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
48	20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
49	A001	4859802917	PCB JACK	79.05X27.3(197X246/14)S1B	
50	CC608	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
51	CCS07	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
52	RC636	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
53	RCS33	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
54	ZZ205	PTPCSWJ912	PANEL CONTROL AS	DTQ-29M5	
55	M191	4851945700	BUTTON CTRL	4951401+5545800	
56	M191A	7178301051	SCREW TAPPTITE	TT2 WAS 3X10 MFZN 3CR	
57	M231	4852328201	PANEL DECO	ABS GY	
58	M481	4854861401	BUTTON POWER	ABS GY	
59	M481A	4856716000	SPRING	SWPA PIE0.5	
60	M591	4855933401	DECO EYE	ABS BLUE	
61	M591A	7178301051	SCREW TAPPTITE	TT2 WAS 3X10 MFZN 3CR	
62	ZZ210	PTSPPWK143	SPEAKER AS	DTQ-29M5SSV	
63	P601A	4850704S32	CONNECTOR	YH025-04+YRT205+ULW=900	
64	SP01	4858310810	SPEAKER	SP-58126F01	
65	SP02	4858310810	SPEAKER	SP-58126F01	
66	ZZ280	PTCPMSK143	PCB CRT MANUAL AS	DTQ-29M5SSV	
67	I901	PTE3SW1100	HEAT SINK ASS'Y	1TDA6107AJ + 7174300851	
68	00001	1TDA6107AJ	IC VIDEO	TDA6107AJF	
69	0000A	4857031100	HEAT SINK	A1050P-H24 T2.0	
70	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
71	M684	4856812001	TIE CABLE	NYLON66 DA100	
72	P903	4859238620	CONN WAFER	YPW500-02	
73	PA902	4850704S04	CONNECTOR	YH025-04+YST025+ULW=400	
74	SCT1	4859303530	SOCKET CRT	PCS629-03C	
75	ZZ200	PTCPJ0K143	PCB CRT ODD SHAPE AS	DTQ-29M5SSV	
76	C904	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16)TP	
77	C905	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16)TP	
78	C926	CBXB3D102K	C CERA SEMI	2KV BL(N) 1000PF K (T)	
79	ZZ200	PTCPJBK143	PCB CRT M-10 AS	DTQ-29M5SSV	
80	10	2TM18006BE	TAPE MASKING	6.2X500	
81	P907	485923182S	CONN WAFER	YW025-05 (STICK)	
82	R911	RS02Z151JS	R M-OXIDE FILM	2W 150 OHM J SMALL	
83	R914	RS02Z279JS	R M-OXIDE FILM	2W 2.7 OHM J SMALL	
84	ZZ200	PTCPJRK143	PCB CRT RADIAL AS	DTQ-29M5SSV	
85	C902	CCXB1H561K	C CERA	50V B 560PF K (TAPPING)	
86	C903	CMXL2E104K	C MYLAR	250V MEU 0.1MF K	
87	C907	CXSL2H100D	C CERA	500V SL 10PF D (TAPPING)	
88	C922	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
89	C923	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
90	C924	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
91	C925	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
92	ZZ200	PTCPJAK143	PCB CRT AXIAL AS	DTQ-29M5SSV	
93	10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
94	20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	
95	A001	4859830213	PCB CRT	108X61.5(246X246) D1B	
96	D905	D1N4004S—	DIODE	1N4004S	
97	D906	D1N4004S—	DIODE	1N4004S	
98	D907	D1N4004S—	DIODE	1N4004S	
99	D908	DLT2A05G—	DIODE	LT2A05G (TP)	
100	J901	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
101	J902	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
102	R901	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
103	R902	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
104	R903	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
105	R905	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J	
106	R906	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J	
107	R907	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J	
108	R908	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
109	R909	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
110	R910	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
111	R912	RC-2Z105KP	R CARBON COMP	1/2 1M OHM K	
112	R913	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
113	ZZ290	PTMPMSK146	PCB MAIN MANUAL AS	DTQ-29M5SSFV	
114	C401	CEYD1H689W	C ELECTRO	50V RHD 6.8MF (16X35.5)	
115	C406	CMYF2G514J	C MYLAR	400V MPP 0.51MF J	
116	C407	CMYH3C912J	C MYLAR	1.6KV BUP 9100PF J	
117	C408	CMYH3C822J	C MYLAR	1.6KV BUP 8200PF J	
118	C409	CMYE2G273J	C MYLAR	400V PU 0.027MF J	
119	C801	CL1UC3474M	C LINE ACROSS	0.47MF 1J(UCVSNDF/SV)+Q/O	
120	C802	CL1UC3474M	C LINE ACROSS	0.47MF 1J(UCVSNDF/SV)+Q/O	
121	C806	CEYD2G331D	C ELECTRO	400V FHS 330MF (30X45)	
122	C819	CEYF1E332V	C ELECTRO	25V RSS 3300MF (16X31.5)	
123	CS802	CH1BFE222M	C CERA AC	U/C/V AC400V 2200PF	
124	D402	DDGP30L---	DIODE	DGP30L	
125	D403	DRGP30J---	DIODE	RGP30J DO-201AD 600V 3A	
126	D801	DGBJ606---	DIODE BRIDGE	GBJ606	
127	D809	DHER308G---	DIODE	HER308G	
128	D813	DRGP30J---	DIODE	RGP30J DO-201AD 600V 3A	
129	DL701	DLH2PR5MH3	LED HOLDER AS	LH-2P-R-5M-H3	
130	I301	PTA2SW8227	HEAT SINK ASS'Y	1TDA8358J- + 7174301051	
131	00001	1TDA8358J-	IC VERTICAL	TDA8358J	
132	0000A	4857028227	HEAT SINK	AL EX BK	
133	0000B	7174301051	SCREW TAPPTITE	TT2 RND 3X10 MFZN 3CR	
134	I601	PTI2SW8200	HEAT SINK ASS'Y	1LA42072N- + 7174300851	
135	00001	1LA42072N-	IC AUDIO AMP	LA42072N-E	
136	0000A	4857028200	HEAT SINK	AL EX BK	
137	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
138	I701	1DA12001PQ	IC MICOM FLASH	TDA12001PQ	
139	I702	124LC16B1B	IC MEMORY	24LC16B1B	
140	I703	1346VF6---	IC PREAMP	346VF6	
141	I801	PTE2SW4401	HEAT SINK ASS'Y	1STRW6756- + 7174300851	
142	00001	1STRW6756-	IC POWER	STR-W6756	
143	0000A	4857024401	HEAT SINK	AL EX	
144	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
145	I802	1LTV817C---	IC PHOTO COUPLER	LTV-817C	
146	I803	PTUASW6900	HEAT SINK ASS'Y	1LD1117V33 + 7174300851	
147	00001	1LD1117V33	IC REGULATOR	LD1117AV33 3.3V 2% TO-220	
148	0000A	4857026900	HEAT SINK	AL EX	
149	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
150	I805	1K78R05---	IC REGULATOR	KIA78R05API	
151	JP01	4859110050	JACK PIN BOARD	PH-JB-9614D	
152	JP03	4859110050	JACK PIN BOARD	PH-JB-9614D	
153	L401	58C7070085	COIL CHOKE	TLN-3062A	
154	L402	58H0000047	COIL H-LINEARITY	TRL-190D	
155	L801	5PDLF3055L	FILTER LINE	DLF-3055L	
156	L807	58C0000090	COIL CHOKE	L-45S	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
157	M681	4856812001	TIE CABLE	NYLON66 DA100	
158	M683	4853747800	RETA PCB	NYLON 66	
159	M684	4853747800	RETA PCB	NYLON 66	
160	P801A	4859289320	CONN WAFER	YW396-43V	
161	P903	4850705S12	CONNECTOR	YH025-05+YST025+ULW=500	
162	PW801	48599NL001	CORD POWER AS	CENT-AM KKP-419C+YH396-43V=2.0M	
163	Q401	TKTC3229—	TR	KTC3229	
164	Q402	PTP2SW7602	HEAT SINK ASS'Y	T2SD2578— + 7174300851	
165	00001	T2SD2578—	TR HORI	2SD2578	
166	0000A	4857027602	HEAT SINK	AL EX BK	
167	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
168	R617	RF02Y338K-	R FUSIBLE	2W 0.33 OHM K	
169	R801	RX10T109JS	R CEMENT	10W 1 OHM J TRIPOD SMALL	
170	R837	RM02Y228J-	R METAL FLAT	2W 0.22 OHM J	
171	RY801	DJ5020M270	POSISTOR	J502P72D070M270	
172	SW707	5S50101035	SW TACT	KPT-1112 1C-1P	
173	T401	5TD0000018	TRANS DRIVE	THD-120	
174	T402	50H0000287	FBT	BSC29-0172D	
175	T402A	7178301252	SCREW TAPPTITE	TT2 WAS 3X12 MFZN BK 3CR	
176	T801	50M4445B7-	TRANS SMPS	TSM-4445B7	
177	TU101	4859726730	TUNER VARACTOR	TAEC-H012F(A)	
178	X701	5XJ24R576E	CRYSTAL QUARTZ	HC-49/S 24.576MHZ 30PPM	
179	Y801	5SC0101339	SW RELAY	SDT-S-105LMR	
180	Z101	5PTSB6221C	FILTER SAW	TSB6221C	
181	Z802	DSVC471D14	VARISTOR	SVC471D14A (BULK)	
182	ZZ200	PTMPJ0K146	PCB MAIN (RHU) AS	DTQ-29M5SSFV	
183	C118	CMXF2E154J	C MYLAR	250V MPP 0.15MF J	
184	C402	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
185	C404	CEXA2D229E	C ELECTRO	200V RUL 2.2MF (10X16) TP	
186	C410	CMXB2G472J	C MYLAR	400V EU 4700PF J (TP)	
187	C411	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
188	C412	CCXB3D681K	C CERA	2KV B 680PF K (TAPPING)	
189	C417	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
190	C419	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP	
191	C613	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
192	C804	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	
193	C805	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	
194	C807	CBXB3D102K	C CERA SEMI	2KV BL(N) 1000PF K (T)	
195	C814	CCXB3D221K	C CERA	2KV B 220PF K (TAPPING)	
196	C815	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
197	C816	CEXF2C101C	C ELECTRO	160V RUS 100MF (16X25) TP	
198	C817	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP	
199	C818	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
200	C820	CEXF2C101C	C ELECTRO	160V RUS 100MF (16X25) TP	
201	C835	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
202	C842	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
203	C852	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
204	ZZ200	PTMPJBK146	PCB MAIN M-10 AS	DTQ-29M5SSFV	
205	10	2TM18006BE	TAPE MASKING	6.2X500	
206	E001	4856310600	EYE LET	BSR T0.2 (R2.3)	
207	E002	4856310600	EYE LET	BSR T0.2 (R2.3)	
208	E003	4856310600	EYE LET	BSR T0.2 (R2.3)	
209	E004	4856310300	EYE LET	BSR T0.2 (R1.6)	
210	E005	4856310300	EYE LET	BSR T0.2 (R1.6)	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
211	E006	4856310300	EYE LET	BSR T0.2 (R1.6)	
212	E007	4856310300	EYE LET	BSR T0.2 (R1.6)	
213	E008	4856310300	EYE LET	BSR T0.2 (R1.6)	
214	E009	4856310300	EYE LET	BSR T0.2 (R1.6)	
215	E010	4856310300	EYE LET	BSR T0.2 (R1.6)	
216	E011	4856310300	EYE LET	BSR T0.2 (R1.6)	
217	E012	4856310300	EYE LET	BSR T0.2 (R1.6)	
218	E013	4856310300	EYE LET	BSR T0.2 (R1.6)	
219	E016	4856310600	EYE LET	BSR T0.2 (R2.3)	
220	E017	4856310600	EYE LET	BSR T0.2 (R2.3)	
221	E018	4856310600	EYE LET	BSR T0.2 (R2.3)	
222	E019	4856310300	EYE LET	BSR T0.2 (R1.6)	
223	E020	4856310300	EYE LET	BSR T0.2 (R1.6)	
224	E021	4856310300	EYE LET	BSR T0.2 (R1.6)	
225	E025	4856310300	EYE LET	BSR T0.2 (R1.6)	
226	E026	4856310300	EYE LET	BSR T0.2 (R1.6)	
227	E027	4856310600	EYE LET	BSR T0.2 (R2.3)	
228	E028	4856310600	EYE LET	BSR T0.2 (R2.3)	
229	E029	4856310300	EYE LET	BSR T0.2 (R1.6)	
230	E031	4856310600	EYE LET	BSR T0.2 (R2.3)	
231	E032	4856310600	EYE LET	BSR T0.2 (R2.3)	
232	E033	4856310600	EYE LET	BSR T0.2 (R2.3)	
233	E034	4856310600	EYE LET	BSR T0.2 (R2.3)	
234	E036	4856310600	EYE LET	BSR T0.2 (R2.3)	
235	E037	4856310600	EYE LET	BSR T0.2 (R2.3)	
236	E038	4856310600	EYE LET	BSR T0.2 (R2.3)	
237	E039	4856310300	EYE LET	BSR T0.2 (R1.6)	
238	E041	4856310300	EYE LET	BSR T0.2 (R1.6)	
239	E042	4856310300	EYE LET	BSR T0.2 (R1.6)	
240	E043	4856310300	EYE LET	BSR T0.2 (R1.6)	
241	E044	4856310300	EYE LET	BSR T0.2 (R1.6)	
242	E045	4856310300	EYE LET	BSR T0.2 (R1.6)	
243	E046	4856310300	EYE LET	BSR T0.2 (R1.6)	
244	E047	4856310600	EYE LET	BSR T0.2 (R2.3)	
245	E048	4856310600	EYE LET	BSR T0.2 (R2.3)	
246	E049	4856310300	EYE LET	BSR T0.2 (R1.6)	
247	E050	4856310300	EYE LET	BSR T0.2 (R1.6)	
248	E051	4856310600	EYE LET	BSR T0.2 (R2.3)	
249	E052	4856310600	EYE LET	BSR T0.2 (R2.3)	
250	E053	4856310300	EYE LET	BSR T0.2 (R1.6)	
251	E054	4856310300	EYE LET	BSR T0.2 (R1.6)	
252	E055	4856310300	EYE LET	BSR T0.2 (R1.6)	
253	E056	4856310300	EYE LET	BSR T0.2 (R1.6)	
254	E057	4856310600	EYE LET	BSR T0.2 (R2.3)	
255	E058	4856310600	EYE LET	BSR T0.2 (R2.3)	
256	E060	4856310600	EYE LET	BSR T0.2 (R2.3)	
257	E062	4856310300	EYE LET	BSR T0.2 (R1.6)	
258	E063	4856310300	EYE LET	BSR T0.2 (R1.6)	
259	E065	4856310300	EYE LET	BSR T0.2 (R1.6)	
260	E066	4856310300	EYE LET	BSR T0.2 (R1.6)	
261	N004	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
262	N005	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
263	N006	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
264	N007	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
265	N008	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
266	N009	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
267	P601	485923172S	CONN WAFER	YW025-04 (STICK)	
268	P705	485923172S	CONN WAFER	YW025-04 (STICK)	
269	P902	485923172S	CONN WAFER	YW025-04 (STICK)	
270	PA907	485923182S	CONN WAFER	YW025-05 (STICK)	
271	R106	RS02Z512JS	R M-OXIDE FILM	2W 5.1K OHM J SMALL	
272	R305	RS02Z129JS	R M-OXIDE FILM	2W 1.2 OHM J SMALL	
273	R401	RS02Z100JS	R M-OXIDE FILM	2W 10 OHM J SMALL	
274	R402	RS02Z121JS	R M-OXIDE FILM	2W 120 OHM J SMALL	
275	R407	RS02Z163JS	R M-OXIDE FILM	2W 16K OHM J SMALL	
276	R408	RS02Z102JS	R M-OXIDE FILM	2W 1K OHM J SMALL	
277	R409	RS01Z103J-	R M-OXIDE FILM	1W 10K OHM J (TAPPING)	
278	R411	RS01Z229J-	R M-OXIDE FILM	1W 2.2 OHM J (TAPPING)	
279	R414	RS01Z209J-	R M-OXIDE FILM	1W 2 OHM J	
280	R416	RF01Z338K-	R FUSIBLE	1W 0.33 OHM K (TAPPING)	
281	R417	RS01Z229J-	R M-OXIDE FILM	1W 2.2 OHM J (TAPPING)	
282	R802	RS02Z913JS	R M-OXIDE FILM	2W 91K OHM J SMALL	
283	R829	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
284	R836	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
285	ZZ200	PTMPJRK146	PCB MAIN RADIAL AS	DTQ-29M5SSFV	
286	C101	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)	
287	C102	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
288	C103	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)	
289	C104	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
290	C105	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)	
291	C106	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
292	C112	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
293	C114	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
294	C115	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
295	C116	CCXF1H223Z	C CERA	50V F 0.022MF Z (TAPPING)	
296	C117	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
297	C122	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
298	C123	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
299	C124	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
300	C125	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
301	C127	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
302	C128	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
303	C130	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
304	C131	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)	
305	C201	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
306	C202	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
307	C204	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
308	C205	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)	
309	C206	CCXB1H472K	C CERA	50V B 4700PF K (TAPPING)	
310	C301	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
311	C305	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
312	C306	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
313	C307	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)	
314	C308	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)	
315	C403	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
316	C405	CCXB2H561K	C CERA	500V B 560PF K (TAPPING)	
317	C413	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
318	C414	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
319	C416	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
320	C418	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
321	C420	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
322	C422	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
323	C423	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
324	C601	CEXF1E470V	C ELECTRO	RSS 25V 47MF 5X11 P5.0 TA	
325	C602	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
326	C603	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
327	C604	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
328	C605	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
329	C606	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
330	C607	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
331	C608	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
332	C609	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
333	C610	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
334	C614	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
335	C622	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
336	C623	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
337	C624	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
338	C625	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
339	C626	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
340	C627	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
341	C701	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
342	C703	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)	
343	C704	CEXF1E470V	C ELECTRO	RSS 25V 47MF 5X11 P5.0 TA	
344	C707	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
345	C713	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
346	C716	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
347	C721	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
348	C722	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
349	C723	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
350	C724	CXCH1H809D	C CERA	50V CH 8PF D (TAPPING)	
351	C725	CXCH1H809D	C CERA	50V CH 8PF D (TAPPING)	
352	C726	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
353	C727	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
354	C729	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
355	C730	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
356	C731	CEXF1E470V	C ELECTRO	RSS 25V 47MF 5X11 P5.0 TA	
357	C732	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
358	C734	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
359	C735	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
360	C737	CBXF1H104Z	C CERA SEMI	50V F 0.1MF Z (TAPPING)	
361	C738	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)	
362	C740	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
363	C809	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
364	C810	CCXF1H223Z	C CERA	50V F 0.022MF Z (TAPPING)	
365	C811	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
366	C812	CCXB1H821K	C CERA	50V B 820PF K (TAPPING)	
367	C813	CCXB1H471K	C CERA	50V B 470PF K (TAPPING)	
368	C821	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
369	C824	CMXL1J154J	C MYLAR	63V MEU 0.15MF J	
370	C826	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
371	C827	CEXF1C331V	C ELECTRO	16V RSS 330MF (8X11.5) TP	
372	C828	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
373	C834	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
374	C836	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
375	C837	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
376	CA04	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)	
377	CA07	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)	
378	CA08	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)	
379	CA17	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)	
380	CV12	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
381	F801	5FWPS5022L	FUSE	WIDE TL 250V 5A CASE	
382	I804	1K1A431B—	IC REGULATOR(SHUNT)	KIA431B 2.495V 0.5% TO-92	
383	L808	58C0000142	COIL CHOKE	ELC 0809 940K	
384	Q101	TKTC3198Y-	TR	KTC3198Y	
385	Q201	TKTA1266Y-	TR	KTA1266Y (TP)	
386	Q602	TKTA1266Y-	TR	KTA1266Y (TP)	
387	Q704	TKTC3198Y-	TR	KTC3198Y	
388	Q705	TKTA1270Y-	TR	KTA1270Y (TP)	
389	Q706	TKTC3198Y-	TR	KTC3198Y	
390	Q707	TKTA1270Y-	TR	KTA1270Y (TP)	
391	Q708	TKTC3198Y-	TR	KTC3198Y	
392	Q801	TKTC3203Y-	TR	KTC3203-Y	
393	Q804	TKTC3198Y-	TR	KTC3198Y	
394	Q805	TKTC3198Y-	TR	KTC3198Y	
395	QV01	TKTC3198Y-	TR	KTC3198Y	
396	QV02	TKTA1266Y-	TR	KTA1266Y (TP)	
397	R302	RN02B271JS	R METAL FILM	2W 270 OHM J SMALL	
398	R403	RN01B472JS	R METAL FILM	1W 4.7K OHM J SMALL	
399	SW701	5S50101090	SW TACT	THVH472GCA	
400	SW702	5S50101090	SW TACT	THVH472GCA	
401	SW703	5S50101090	SW TACT	THVH472GCA	
402	SW704	5S50101090	SW TACT	THVH472GCA	
403	SW705	5S50101090	SW TACT	THVH472GCA	
404	SW706	5S50101090	SW TACT	THVH472GCA	
405	ZZ200	PTMPJAK146	PCB MAIN AXIAL AS	DTQ-29M5SSFV	
406	10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
407	20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	
408	A001	4859818991	PCB MAIN	246X330 D1B	
409	C107	CZSL1H470J	C CERA	50V SL 47PF J (AXIAL)	
410	C108	CZSL1H470J	C CERA	50V SL 47PF J (AXIAL)	
411	C109	CCZF1H103Z	C CERA	50V F 0.01MF Z	
412	C110	CCZB1H222K	C CERA	50V B 2200PF K AXIAL	
413	C111	CCZB1H222K	C CERA	50V B 2200PF K AXIAL	
414	C119	CCZF1H103Z	C CERA	50V F 0.01MF Z	
415	C126	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
416	C129	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
417	C203	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
418	C612	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
419	C702	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
420	C705	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
421	C706	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
422	C712	CCZB1H561K	C CERA	50V B 560PF K	
423	C714	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
424	C715	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
425	C717	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
426	C719	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
427	C720	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
428	C728	CCZF1H103Z	C CERA	50V F 0.01MF Z	
429	C733	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
430	C736	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
431	C739	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
432	D101	DUZ33B—	DIODE ZENER	UZ-33B	
433	D301	D1N4937G—	DIODE	1N4937G (TAPPING)	
434	D401	D1N4937G—	DIODE	1N4937G (TAPPING)	
435	D404	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM	
436	D405	D1N4937G—	DIODE	1N4937G (TAPPING)	
437	D406	D1N4937G—	DIODE	1N4937G (TAPPING)	
438	D407	DRGP15J—	DIODE	RGP15J DO-204AC 600V 1.5A	
439	D408	DRGP15J—	DIODE	RGP15J DO-204AC 600V 1.5A	
440	D602	D1N4148—	DIODE	1N4148 (TAPPING)	
441	D701	DUZ3R9B—	DIODE ZENER	UZ-3.9B	
442	D702	D1N4148—	DIODE	1N4148 (TAPPING)	
443	D703	D1N4148—	DIODE	1N4148 (TAPPING)	
444	D706	DUZ3R3B—	DIODE ZENER	UZ-3.3B	
445	D805	D1N4937G—	DIODE	1N4937G (TAPPING)	
446	D806	D1N4937G—	DIODE	1N4937G (TAPPING)	
447	D807	D1N4148—	DIODE	1N4148 (TAPPING)	
448	D808	DMTZJ6R2C-	DIODE ZENER	MTZJ 6.2C	
449	D810	D1N4937G—	DIODE	1N4937G (TAPPING)	
450	D812	DRGP15J—	DIODE	RGP15J DO-204AC 600V 1.5A	
451	D814	DUZ4R3B—	DIODE ZENER	UZ-4R3B	
452	D815	D1N4148—	DIODE	1N4148 (TAPPING)	
453	DV05	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
454	DV06	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
455	J001	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
456	J002	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
457	J004	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
458	J005	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
459	J006	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
460	J007	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
461	J008	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
462	J009	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
463	J011	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
464	J012	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
465	J013	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
466	J014	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
467	J015	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
468	J017	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
469	J018	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
470	J019	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
471	J020	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
472	J021	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
473	J022	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
474	J023	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
475	J024	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
476	J025	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
477	J027	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
478	J028	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
479	J029	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
480	J030	85801060GY	WIRE COPPER	1/0.6 TIN COATING	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
481	J031	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
482	J032	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
483	J033	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
484	J034	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
485	J035	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
486	J036	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
487	J037	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
488	J038	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
489	J039	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
490	J040	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
491	J041	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
492	J042	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
493	J043	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
494	J044	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
495	J045	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
496	J046	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
497	J047	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
498	J048	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
499	J049	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
500	J050	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
501	J051	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
502	J052	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
503	J053	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
504	J054	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
505	J055	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
506	J056	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
507	J059	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
508	J060	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
509	J061	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
510	J062	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
511	J063	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
512	J064	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
513	J065	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
514	J066	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
515	J067	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
516	J068	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
517	J071	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
518	J072	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
519	J074	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
520	J075	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
521	J076	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
522	J077	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
523	J078	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
524	J079	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
525	J081	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
526	J082	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
527	J084	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
528	J085	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
529	J086	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
530	J088	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
531	J089	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
532	J090	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
533	J091	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
534	J093	85801060GY	WIRE COPPER	1/0.6 TIN COATING	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
535	J095	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
536	J096	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
537	J099	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
538	J1	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
539	J100	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
540	J101	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
541	J102	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
542	J103	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
543	J107	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
544	J109	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
545	J112	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
546	J113	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
547	J114	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
548	J116	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
549	J117	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
550	J118	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
551	J119	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
552	J120	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
553	J121	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
554	J122	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
555	J2	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
556	J4	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
557	J6	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
558	L101	5CPZ470K04	COIL PEAKING	47UH 10.5MM K (LAL04TB)	
559	L103	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
560	L104	5CPZ479K04	COIL PEAKING	4.7UH K (AXIAL 10.5MM)	
561	L201	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
562	L301	5MC0000100	COIL BEAD	HC-3550	
563	L302	5MC0000100	COIL BEAD	HC-3550	
564	L403	5MC0000100	COIL BEAD	HC-3550	
565	L701	5CPZ479K04	COIL PEAKING	4.7UH K (AXIAL 10.5MM)	
566	L702	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
567	L703	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
568	L704	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
569	L705	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
570	L706	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
571	L707	5CPZ479K04	COIL PEAKING	4.7UH K (AXIAL 10.5MM)	
572	L709	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
573	L714	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
574	L803	5MC0000100	COIL BEAD	HC-3550	
575	L804	5MC0000100	COIL BEAD	HC-3550	
576	L805	5MC0000100	COIL BEAD	HC-3550	
577	L806	5MC0000100	COIL BEAD	HC-3550	
578	R101	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
579	R102	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
580	R103	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
581	R104	RD-AZ100J-	R CARBON FILM	1/6 10 OHM J	
582	R105	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
583	R107	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
584	R108	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
585	R111	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
586	R112	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
587	R113	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
588	R114	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
589	R119	RN-AZ3902F	R METAL FILM	1/6 39K OHM F	
590	R121	RD-AZ183J-	R CARBON FILM	1/6 18K OHM J	
591	R201	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
592	R203	RN-AZ1801F	R METAL FILM	1/6 1.8K OHM F	
593	R204	RD-4Z222J-	R CARBON FILM	1/4 2.2K OHM J	
594	R301	RD-4Z159J-	R CARBON FILM	1/4 1.5 OHM J	
595	R303	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
596	R304	RD-AZ823J-	R CARBON FILM	1/6 82K OHM J	
597	R306	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
598	R307	RN-AZ2201F	R METAL FILM	1/6 2.2K OHM F	
599	R308	RD-4Z514J-	R CARBON FILM	1/4 510K OHM J	
600	R310	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	
601	R311	RD-4Z563J-	R CARBON FILM	1/4 56K OHM J	
602	R312	RN-AZ2201F	R METAL FILM	1/6 2.2K OHM F	
603	R313	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
604	R314	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
605	R404	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
606	R405	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
607	R406	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J	
608	R410	RN-AZ9101F	R METAL FILM	1/6 9.1K OHM F	
609	R412	RN-AZ1302F	R METAL FILM	1/6 13K OHM F	
610	R413	RD-4Z470J-	R CARBON FILM	1/4 47 OHM J	
611	R418	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
612	R601	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHM J	
613	R602	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
614	R604	RD-AZ362J-	R CARBON FILM	1/6 3.6K OHM J	
615	R605	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
616	R606	RD-AZ362J-	R CARBON FILM	1/6 3.6K OHM J	
617	R607	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
618	R609	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J	
619	R610	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
620	R612	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
621	R613	RD-4Z229J-	R CARBON FILM	1/4 2.2 OHM J	
622	R614	RD-4Z229J-	R CARBON FILM	1/4 2.2 OHM J	
623	R615	RD-4Z229J-	R CARBON FILM	1/4 2.2 OHM J	
624	R616	RD-4Z229J-	R CARBON FILM	1/4 2.2 OHM J	
625	R623	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
626	R624	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
627	R625	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
628	R626	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
629	R627	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
630	R628	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
631	R629	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
632	R630	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
633	R636	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
634	R701	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
635	R702	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
636	R703	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
637	R704	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
638	R705	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
639	R707	RN-AZ5600F	R METAL FILM	1/6 560 OHM F	
640	R708	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
641	R709	RD-AZ823J-	R CARBON FILM	1/6 82K OHM J	
642	R710	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J	

ELECTRICAL PARTS LIST

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
643	R712	RD-4Z222J-	R CARBON FILM	1/4 2.2K OHM J	
644	R713	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J	
645	R714	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J	
646	R719	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
647	R720	RD-AZ362J-	R CARBON FILM	1/6 3.6K OHM J	
648	R722	RD-AZ100J-	R CARBON FILM	1/6 10 OHM J	
649	R723	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
650	R725	RD-AZ513J-	R CARBON FILM	1/6 51K OHM J	
651	R726	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
652	R727	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
653	R729	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
654	R730	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
655	R732	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
656	R733	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
657	R735	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
658	R736	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
659	R742	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
660	R743	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
661	R744	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
662	R745	RD-AZ561J-	R CARBON FILM	1/6 560 OHM J	
663	R746	RD-AZ911J-	R CARBON FILM	1/6 910 OHM J	
664	R747	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
665	R748	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
666	R769	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
667	R770	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
668	R772	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
669	R773	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
670	R774	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
671	R775	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
672	R776	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
673	R777	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
674	R778	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
675	R779	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
676	R780	RN-AZ5600F	R METAL FILM	1/6 560 OHM F	
677	R800	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K	
678	R803	RD-4Z479J-	R CARBON FILM	1/4 4.7 OHM J	
679	R804	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J	
680	R805	RD-4Z100J-	R CARBON FILM	1/4 10 OHM J	
681	R806	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
682	R807	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
683	R808	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
684	R809	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
685	R815	RC-2Z105KP	R CARBON COMP	1/2 1M OHM K	
686	R818	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
687	R819	RN-4Z1003F	R METAL FILM	1/4 100K OHM F	
688	R820	RN-4Z1602F	R METAL FILM	1/4 16.0K OHM F	
689	R823	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J	
690	R824	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J	
691	R826	RN-AZ2201F	R METAL FILM	1/6 2.2K OHM F	
692	R827	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
693	R830	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
694	R832	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J	
695	R833	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
696	R834	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
697	R835	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
698	R873	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J	
699	RA07	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
700	RA08	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
701	RS801	RC-2Z225KP	R CARBON COMP	1/2 2.2M OHM K	
702	RV02	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
703	RV03	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
704	RV04	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
705	RV09	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
706	RV11	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
707	RV12	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J	
708	RV13	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
709	RV14	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
710	RV15	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	

DIFFERENT PARTS LIST

**This BOM is based on DTQ-29U1SCV, it is different parts list in comparison with DTQ-29U1SSFV.

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION
1	00001	1STRW6756-	IC POWER	STR-W6756
2	0000A	4857027602	HEAT SINK	AL EX BK
3	0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN
4	0000B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN
5	10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M
6	20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M
7	AD001	4859000240	ADAPTER	2P15A 300V(D=4.0)
8	C806	CEYD2G331D	C ELECTRO	400V FHS 330MF (30X45)
9	C825	CH1BFE222M	C CERA AC	U/C/V AC400V 2200PF
10	C832	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
11	C833	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
12	C837	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
13	D416	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM
14	D809	DHER308G--	DIODE	HER308G
15	D813	DRGP30J---	DIODE	RGP30J DO-201AD 600V 3A
16	I801	PTE2SW4401	HEAT SINK ASS'Y	1STRW6756- + 7174300811
17	M191	4851948401	BUTTON CTRL	4955101+5549200 29U1
18	M201	4852083501	MASK FRONT	HIPS GY 29U1
19	M211	4852163101	COVER BACK	HIPS GY 29U1
20	M481	4854864101	BUTTON POWER	HIPS GY 29U1
21	PW801	4859900910	CORD POWER AS	KKP-419C+YPT-018=2100
22	Q402	PTP2SW7602	HEAT SINK ASS'Y	T2SD2578-- + 7174300811
23	Q802	TKSA1013Y-	TR	KSA1013Y (TP)
24	R604	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
25	R606	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
26	R810	85801060GY	WIRE COPPER	1/0.6 TIN COATING
27	R811	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J
28	R812	RN-AZ2202F	R METAL FILM	1/6 22K OHM F
29	R813	RD-AZ363J-	R CARBON FILM	1/6 36K OHM J
30	R814	RW02Z398F-	R WIRE WOUND	2W 0.39 OHM F
31	R815	RC-2Z105KP	R CARBON COMP	1/2 1M OHM K
32	R818	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
33	R820	RN-4Z1602F	R METAL FILM	1/4 16.0K OHM F
34	R837	RM02Y228J-	R METAL FLAT	2W 0.22 OHM J
35	R840	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K
36	RY801	DDB7R0M290	POSISTOR	ECPBD7R0M290
37	ZZ132	58G0000149	COIL DEGAUSSING	DC-29SF

DIFFERENT PARTS LIST

**This BOM is based on DTQ-29U1SCV, it is different parts list in comparison with DTQ-29U5SSFV.

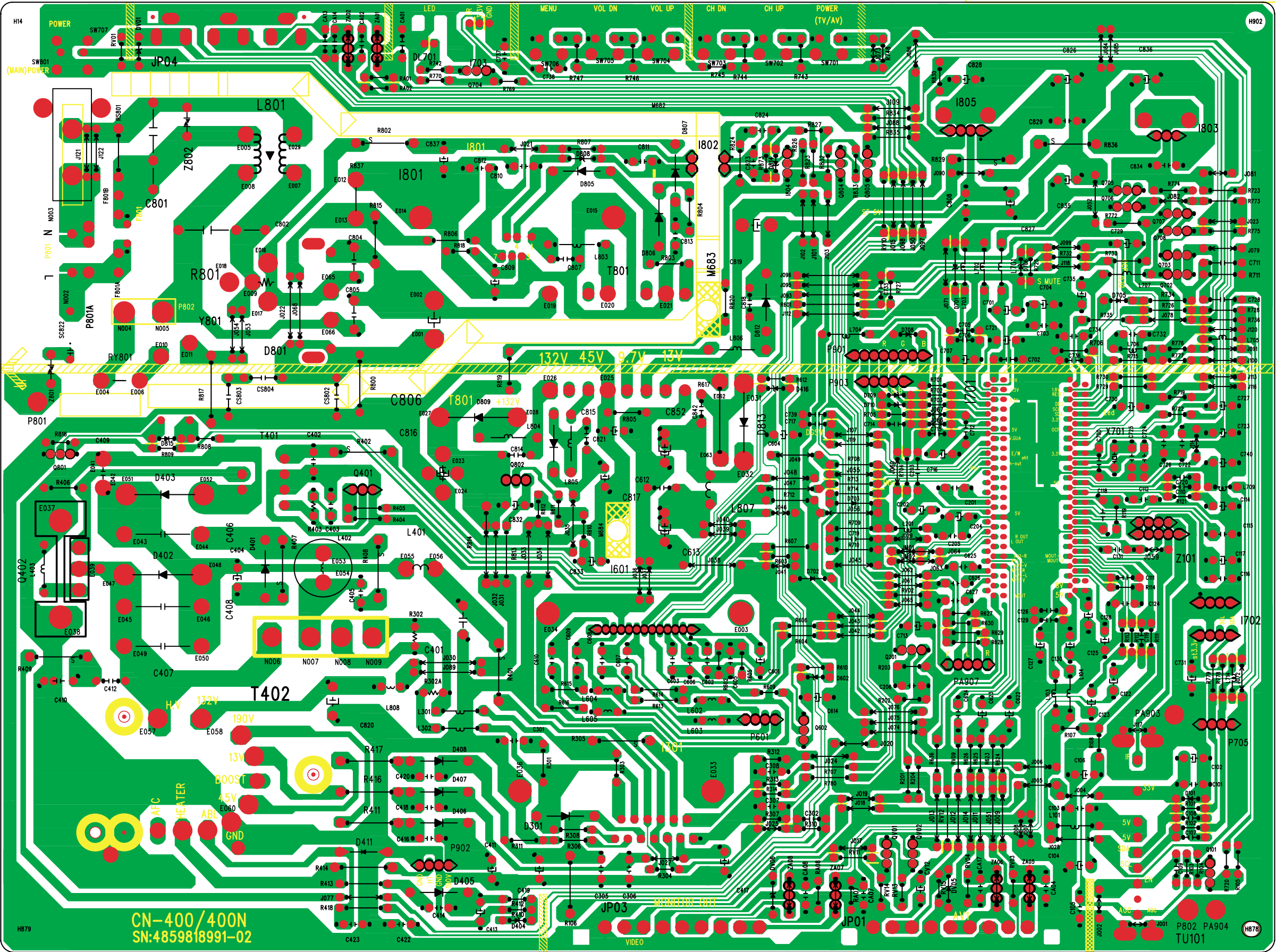
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1	00001	1STRW6756-	IC POWER	STR-W6756
2	0000A	4857027602	HEAT SINK	AL EX BK
3	AD001	4859000240	ADAPTER	2P15A 300V(D=4.0)
4	C806	CEYD2G331D	C ELECTRO	400V FHS 330MF (30X45)
5	C825	CH1BFE222M	C CERA AC	U/C/V AC400V 2200PF
6	C832	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
7	C833	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP
8	C837	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP
9	D416	DUZ9R1BM--	DIODE ZENER	UZ-9.1BM
10	D809	DHER308G--	DIODE	HER308G
11	D813	DRGP30J---	DIODE	RGP30J DO-201AD 600V 3A
12	I801	PTE2SW4401	HEAT SINK ASS'Y	1STRW6756- + 7174300811
13	M191	4854955501	BUTTON CH	ABS GY 29U5
14	M201	4852084001	MASK FRONT	HIPS GY 29U5
15	M211	4852163101	COVER BACK	HIPS GY 29U1
16	M481	4854864601	BUTTON POWER	HIPS GY 29U5
17	M492	4855549700	DECO SENSOR	PC SMOG 29U5
18	M811	4858101600	PAD	EPS 29U5
19	PW801	4859900910	CORD POWER AS	KKP-419C+YPT-018=2100
20	Q402	PTP2SW7602	HEAT SINK ASS'Y	T2SD2578-- + 7174300811
21	Q802	TKSA1013Y-	TR	KSA1013Y (TP)
22	R604	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
23	R606	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J
24	R810	85801060GY	WIRE COPPER	1/0.6 TIN COATING
25	R811	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J
26	R812	RN-AZ2202F	R METAL FILM	1/6 22K OHM F
27	R813	RD-AZ363J-	R CARBON FILM	1/6 36K OHM J
28	R814	RW02Z398F-	R WIRE WOUND	2W 0.39 OHM F
29	R815	RC-2Z105KP	R CARBON COMP	1/2 1M OHM K
30	R818	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J
31	R820	RN-4Z1602F	R METAL FILM	1/4 16.0K OHM F
32	R837	RM02Y228J-	R METAL FLAT	2W 0.22 OHM J
33	R840	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K
34	RY801	DDB7R0M290	POSISTOR	ECPBD7R0M290
35	ZZ132	58G0000149	COIL DEGAUSSING	DC-29SF

DIFFERENT PARTS LIST

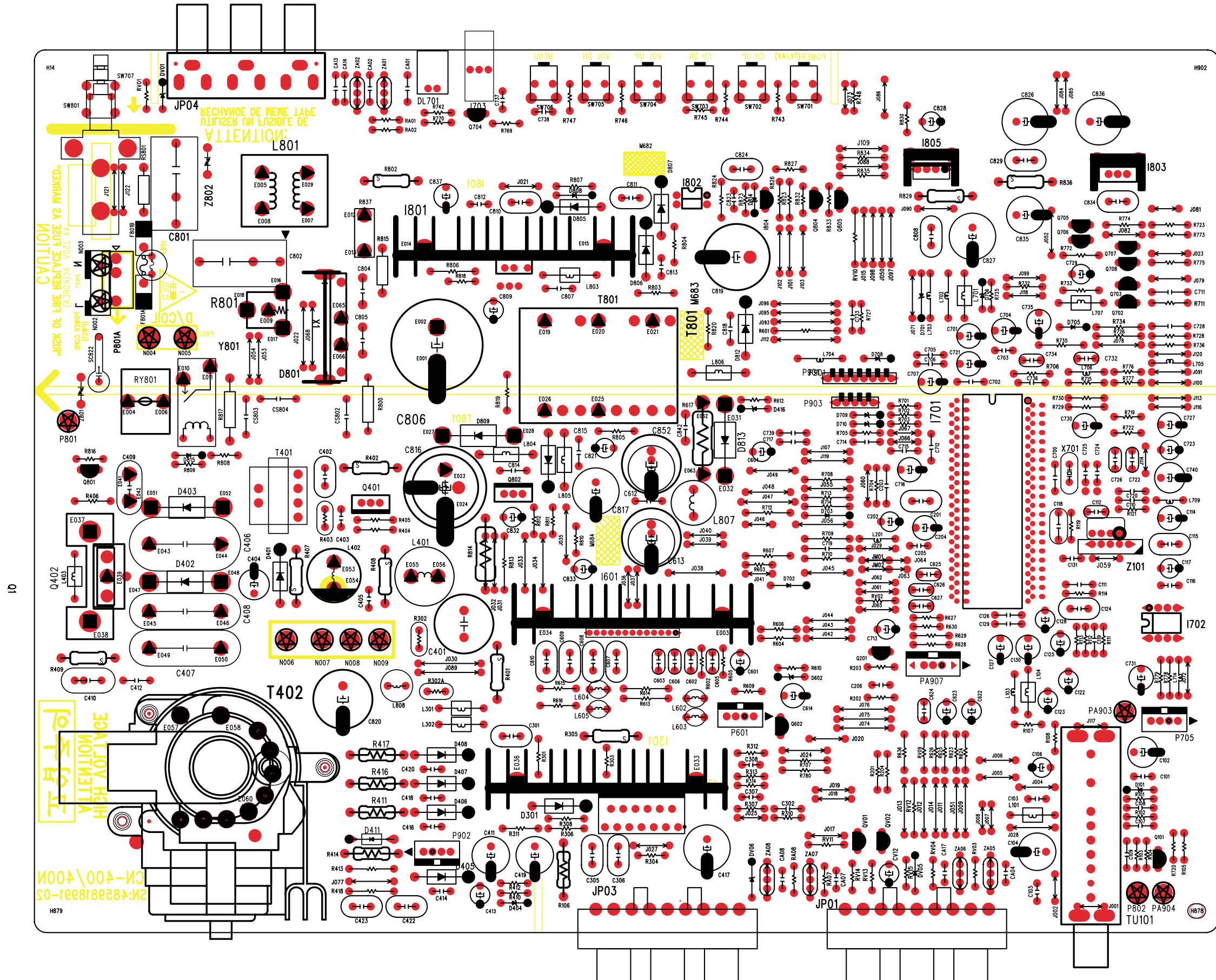
**This BOM is based on DTQ-29U1SCV, it is different parts list in comparison with DTQ-29U4SCV.

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION
1	A001	4859819191	PCB MAIN	330X246 D1B
2	C118	CMXL1J154J	C MYLAR	63V MEU 0.15MF J
3	C415	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP
4	C705	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z
5	C738	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
6	CA01	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
7	CA02	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
8	CA03	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
9	CA04	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
10	CA05	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
11	CA06	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)
12	D807	D1N4937G--	DIODE	1N4937G (TAPPING)
13	DA01	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B
14	DA02	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B
15	DV01	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B
16	JP504	4859108450	JACK PIN BOARD	YSC03P-4120-14A
17	L705	5CPZ479K04	COIL PEAKING	4.7UH K (AXIAL 10.5MM)
18	M191	4851948700	BUTTON CTRL	4954900+5549100 29U4
19	M201	4852083400	MASK FRONT	FR HIPS GY 29U4
20	M211	4852163000	COVER BACK	FR HIPS GY 29U4
21	M481	4854864000	BUTTON POWER	FR HIPS GY 29U4
22	M561	48556174SD	MARK BRAND	SILVER DIA-CUTTING
23	P907	485923182S	CONN WAFER	YW025-05 (STICK)
24	PA601	4850704S41	CONNECTOR	YH025-04+YRT205+ULW=300
25	PA907	4850705S12	CONNECTOR	YH025-05+YST025+ULW=500
26	R119	RD-AZ393J-	R CARBON FILM	1/6 39K OHM J
27	R407	RN02B223JS	R METAL FILM	2W 22K OHM J SMALL
28	R408	RN02B102JS	R METAL FILM	2W 1K OHM J SMALL
29	R612	RD-AZ153J-	R CARBON FILM	1/6 15K OHM J
30	R829	RS02Z309JS	R M-OXIDE FILM	2W 3 OHM J SMALL
31	RA02	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J
32	RV03	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J
33	RV17	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J
34	SW701	5S50101035	SW TACT	KPT-1112 1C-1P
35	SW707	5S50101090	SW TACT	THVH472GCA
36	Y801	5SC0101335	SW RELAY	DY2-5

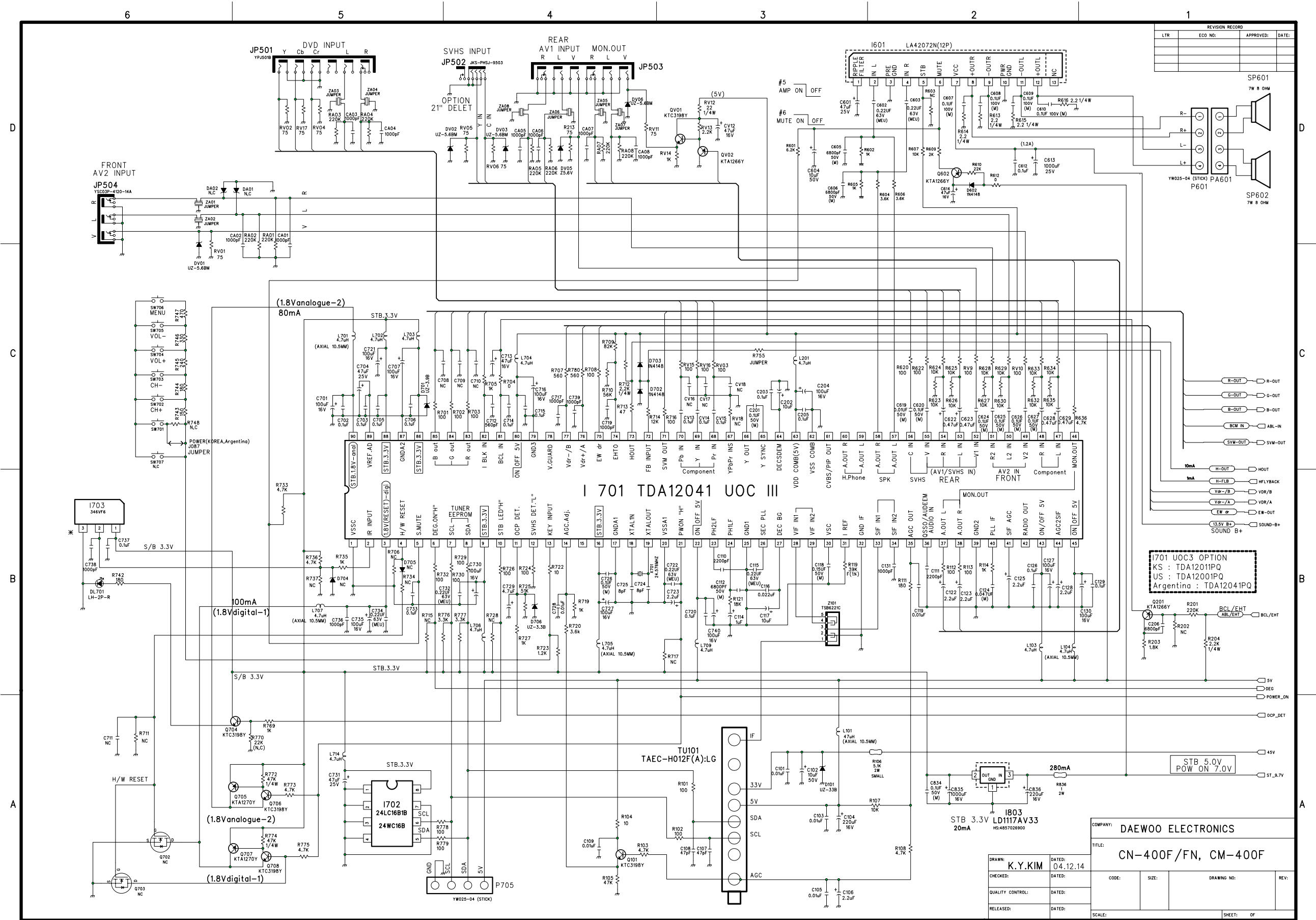
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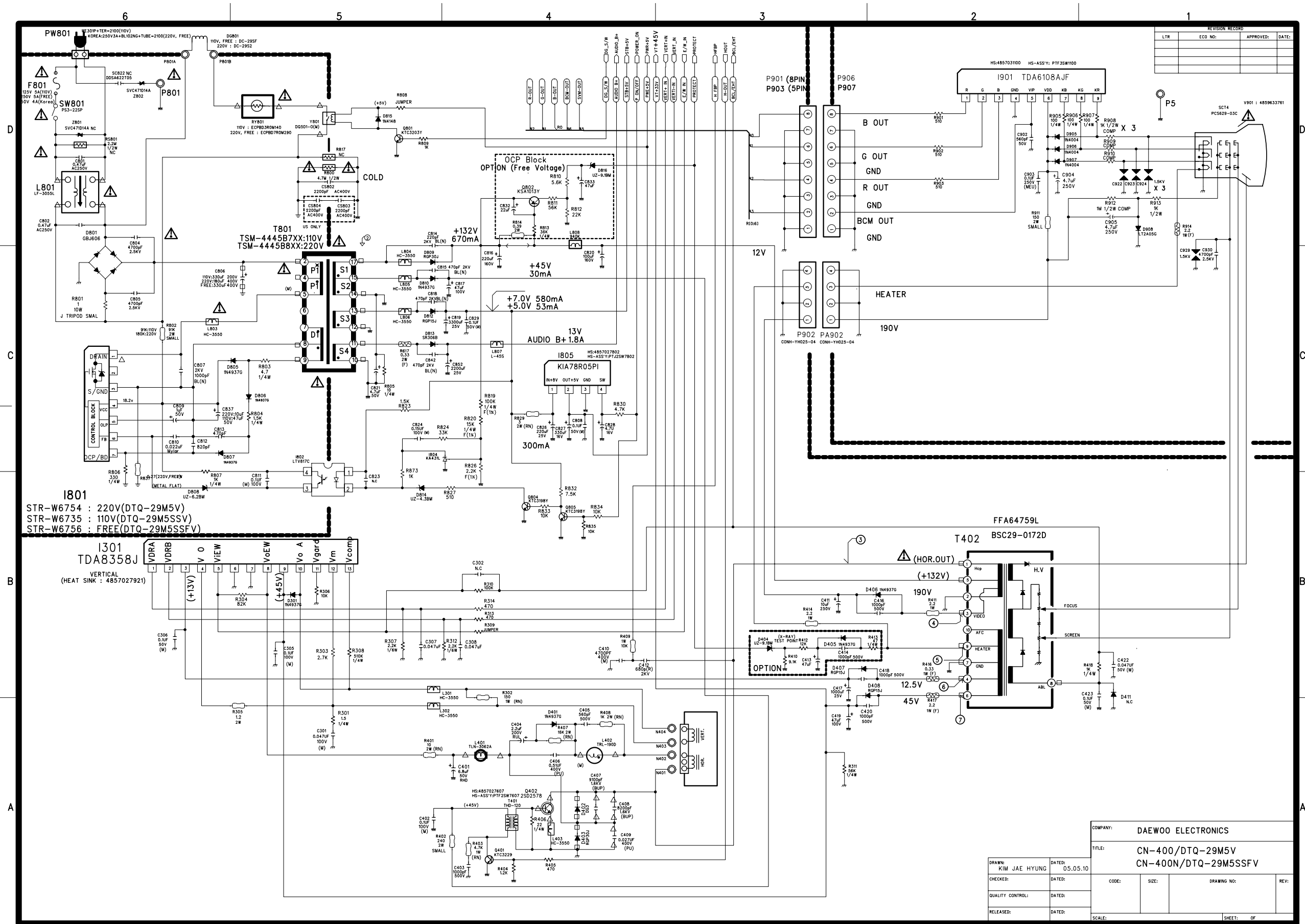
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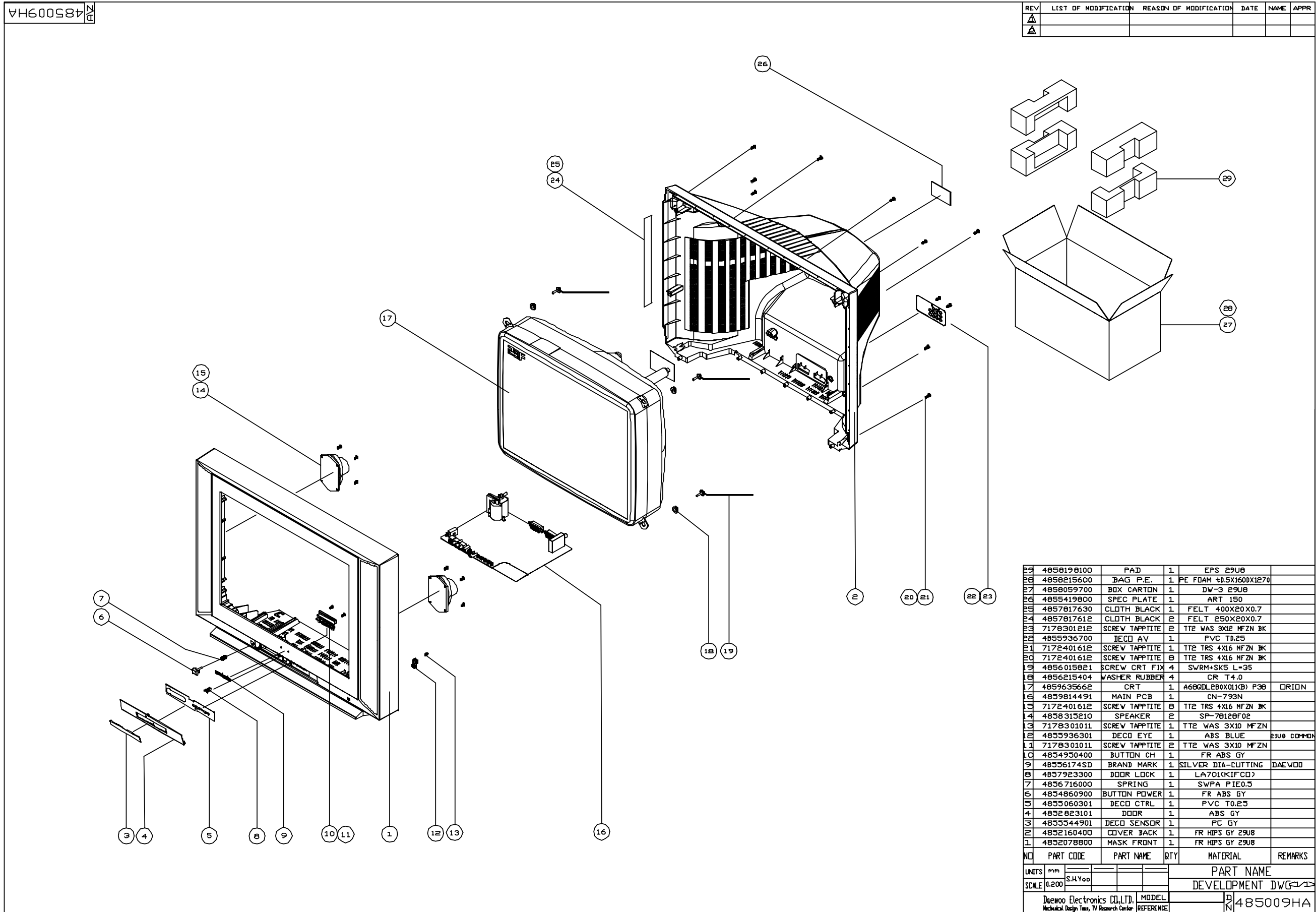
SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM



EXPLODE VIEW





DAEWOO ELECTRONICS CORP.

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SEOUL, KOREA.

C.P.O. BOX 8003 SEOUL KOREA

PRINTED DATE : FEB. 2006