S/M No : TCN403FEF1

Service Manual
Color Television

CHSSIS	MODEL
CM-403F	**DTH-211F**

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

TABLE OF CONTENTS

APPENDIX(Appendix is provide only by internet[http://svc.dwe.co.kr])

SAFETY PRECAUTIONS

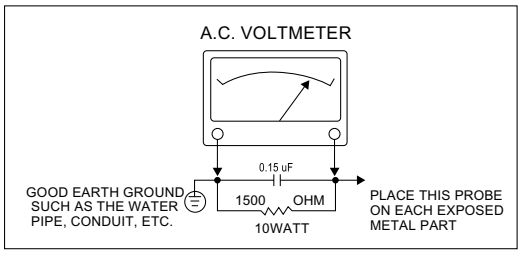
CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY. NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANT RESULTING PROPERTY DAMAGE OR USER INJURY.
SERVICE WORK SHOULD BE PERFORMED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

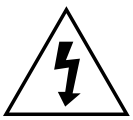
SUBJECT:FIRE & SHOCK HAZARD

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 STE 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 POPE, 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 MILLIAMP A.C. NAY 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 PRES-ENCE 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 VOLT-AGES MAY CAUSE A FAILURE OF THE PICTURE TUBE OR HIGH VOLTAGE SUPPLY AND UNDER CERTAIN CIRCUMSTANCES, AMY PRODUCE RADIA-TION 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 INTEGRA 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.

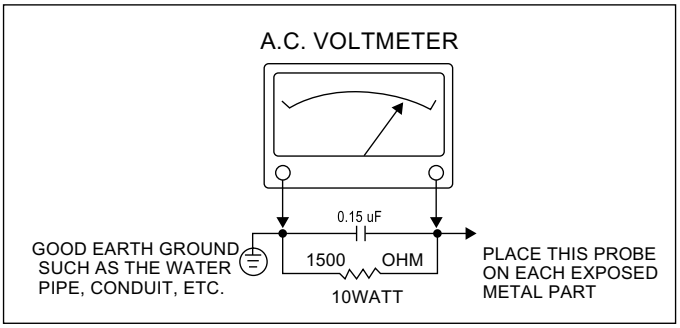
CAUTION : Do not attempt to modify this product in any way. Unauthorized modifications will not only void the warranty, but may lead to your being liable for any resulting property damage or user injury.
Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guide-lines. To do otherwise, increases the risk of potential hazards and injury to the user.

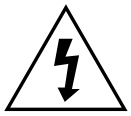
SAFETY CHECKS

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

SUBJECT : FIRE & SHOCK HAZARD

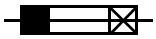
1. Be sure that all components are positioned in such a way as to avoid possibility of adjacent component shorts. This is especially important on those chassis which are transported to and from the repair shop.
2. Never release a repair unless all protective devices such as insula-tors, barriers, covers, 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 for-eign particals.
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 sur-faces must be avoided.
6. All critical components such as fuses, flameproof resistors, capaci-tors, 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 (9water 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 sufficienty magnitude to constitute a risk of electric shock.

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



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

“**CAUTION** : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE (4A, 125V)” and “**ATTENTION**: AFIN D’ASSU UNE PROTECTION PERMANENTE CONTRE LES RISQUES D’INCENDIE, REMPLACER UNIQUE-MENT PAR UN FUSIBLE DE MEME TYPE ET DE ”4A, 125V”.

SUBJECT : X-RADIATION

1. Be sure procedures and instructions to all service personnel cover the subject of X-rays in current T.V. receivers is the picture tube. However, this tube does not emit X-rays when the high voltage is at the factory specified level. The proper value is given in the applicable schematic. Operation at higher voltages may cause a failure of the picture tube or high voltage supply and, under certain circumstances, may produce radiation in excess of desirable levels.
2. Only factory specified C.R.T. anode connectors must be used. Degaussing shields also serve as X-ray shield in color sets. Always re-install them.
3. It is essential that the serviceman has available an accurate and reliable high voltage meter. The calibration of the meter should be checked perio - dically 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 tub eand the high voltage compartment. Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.
6. Refer to HV, B+and Shutdown adjustment procedures described in the appropriate schematic and diagrams(where used).

SAFETY PRECAUTIONS

SUBJECT : IMPLOSION

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

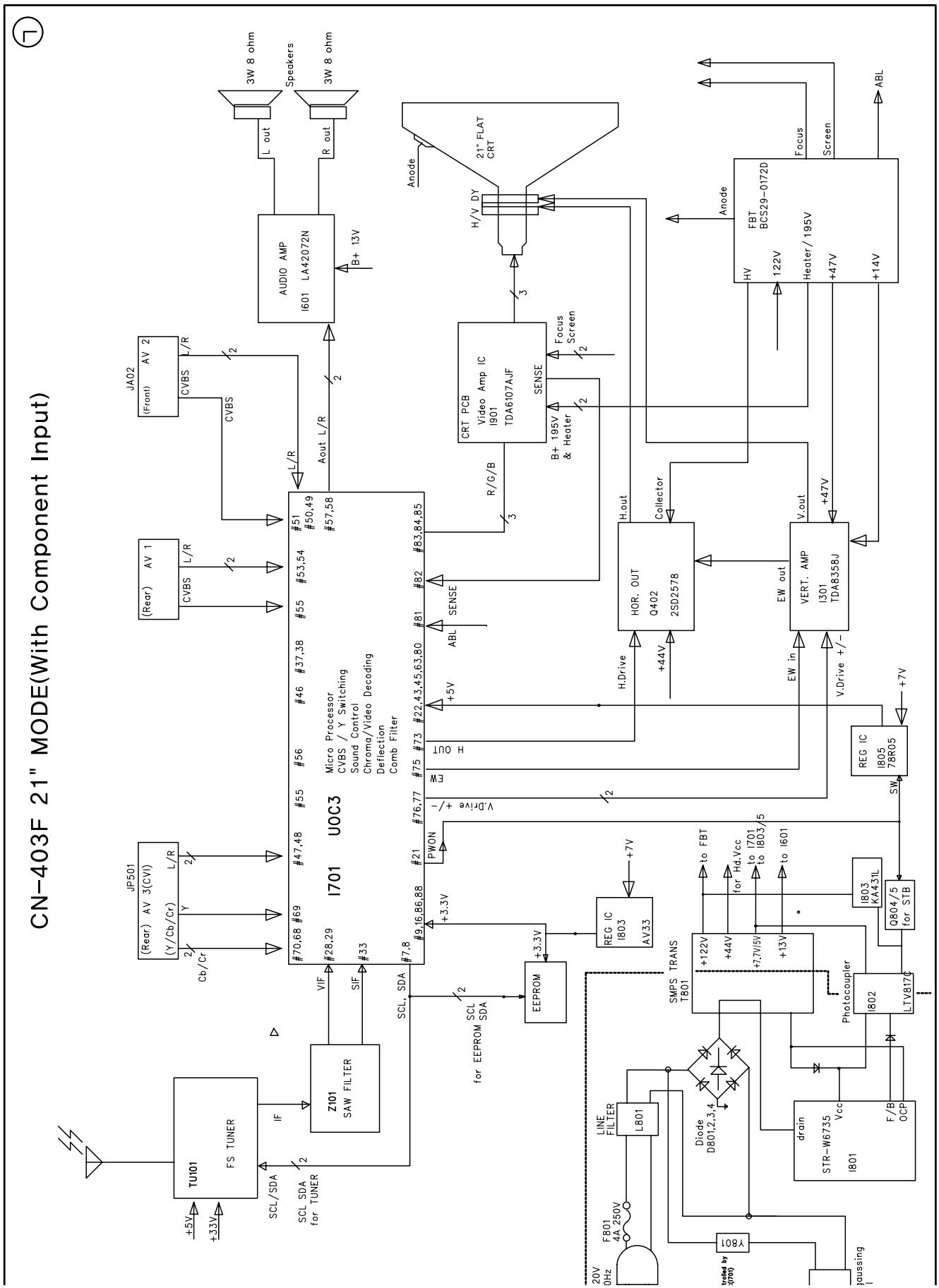
SUBJECT : TIPS ON PROPER INSTALLATION

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

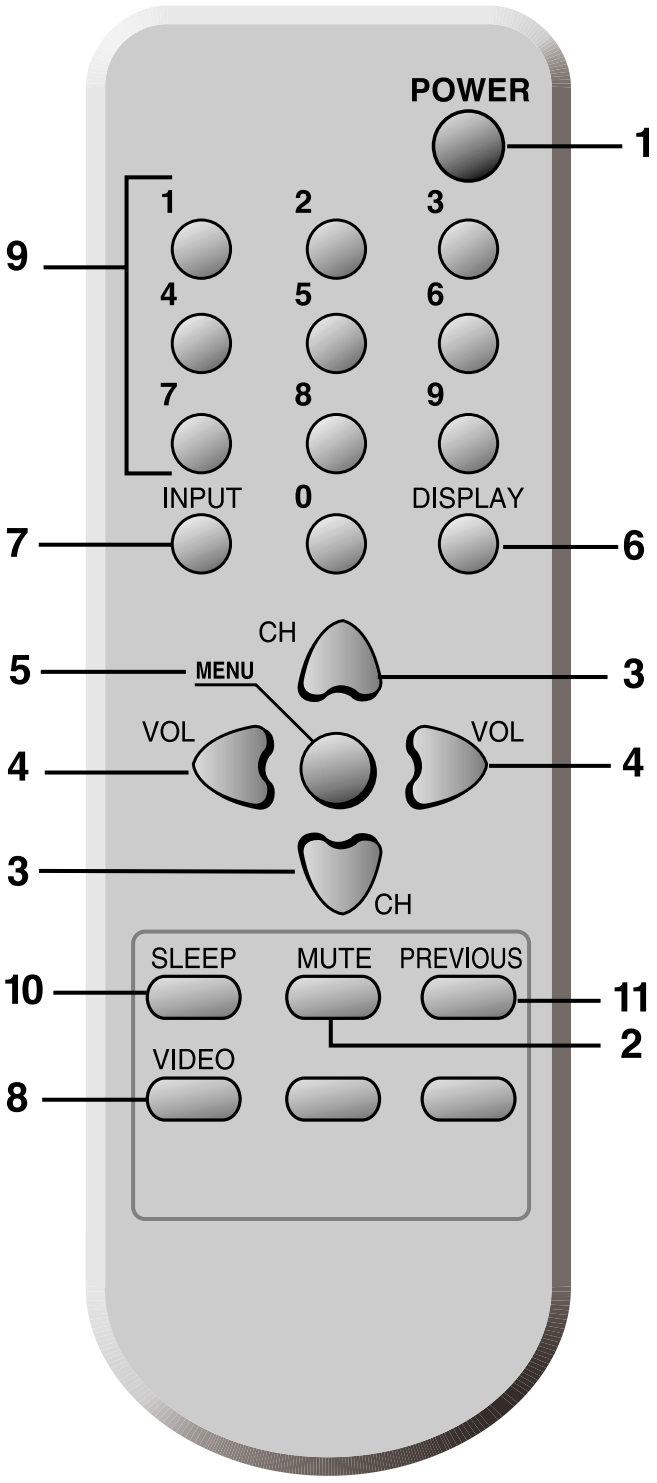
SPECIFICTION

Item \ Model	**DTH-211F**
CHASSIS	CM-403F
TV Standard	NTSC-M, PAL-N, PAL-M
Power Input	AC 220V, 50/60Hz
Power Consumption	85W
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	4.5W + 4.5W
Speaker	8 ohm 5W x 2EA
Antenna Input Impedance	75 ohm Unbalanced
Auxiliary Input Terminal	Front : Video, Audio(L,R) - AV2 Rear : Video, Audio(L,R) - AV1 Y, Cb, Cr, Audio(L,R) - CVI
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



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 adjustmrnt S8 : White balance S9 : Subbrightness
CRT	O		Adjust items related to picture tube only. (White Balance adjustment) CRT OPTION (Screen Option adjustment)

Table-B. CM-400F(DTH-291F) EEPROM DATA

MODE	NAME	VAL	REMARKS
S1	HEAT RUN	RUN OFF	
S2	SCREEN ADJUST	OEC : 650V	
S5	AGC AUTO	OFF	
	AGC LEVEL	22	
	IFOFF	37	
	QSS	1	
	BPB	1	
	FMI	1	
	AGN	0	
	BPBS	1	
	DSG	0	
	Fine Tunning		
S6	V.SLOPE	29	
	V.CENTER	40	
	V.SIZE	44	
	H.CENTER	47	
	H.SIZE	50	
	V.LINEARITY	40	
	S_CORRECTION	25	
	H.PARALLEL	25	
	H-BOW	35	
	PARABOLA	27	
	EW TRAPEZ	29	
	CORNER TOP	41	
	CORNER BOTTOM	45	
	50Hz.HC	5	
	50Hz.HS	0	
	50Hz.VC	0	
	50Hz.VS	0	
S7-1	CFCLF	1	0
	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	

MODE	NAME	VAL	REMARKS
S7-2	SOC	0	
	PWLDAC	0	
	CL	10	
	CLD	0	
	GAM	1	
	HCT	0	
	ACL	0	
	BPS	1	
	CHSE	2	
	FCO	0	
	CBPS	1	
	CB	0	
	MUS	0	
	FFI	0	
S8	R-GAIN	32	
	G-GAIN	32	
	B-GAIN	40	
	R-BIAS	32	
	G-BIAS	32	
	SRC R-BIAS	0	
	SRC G-BIAS	0	
	CVI R-BIAS	-8	
	CVI G-BIAS	10	
S9	DP-Brightness	15	
	DP-Contrast	10	
	DP-Color	5	
	DP-Sharpness	17	
S10	OPTION		
S12	FACTORY SET		

* OPTION 1 : 1111 0101
OPTION 2 : 0110 0011
OPTION 3 : 0000 0011

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.

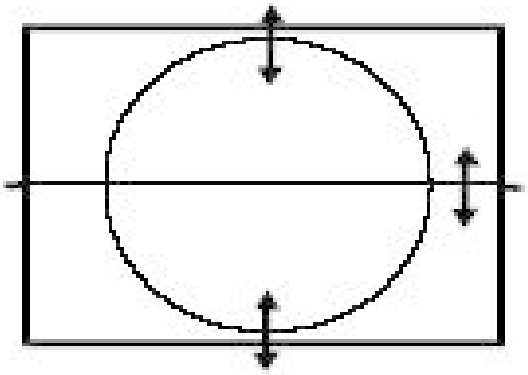
V.SIZE	43	H.PARALLEL	33
V.CENTER	42	H-BOW	35
V.SLOPE	28	PARABOLA	17
V.LINEARITY	37	EW TRAPEZ	38
S_CORRECT	32	CORNER TOP	54
H.CENTER	45	CORNER BOTTOM	46
H.SIZE	54		

▲ ▼ 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 stars.
- Select V.CENTER item, adjust V.CENTER data value to center the raster properly on the screen.

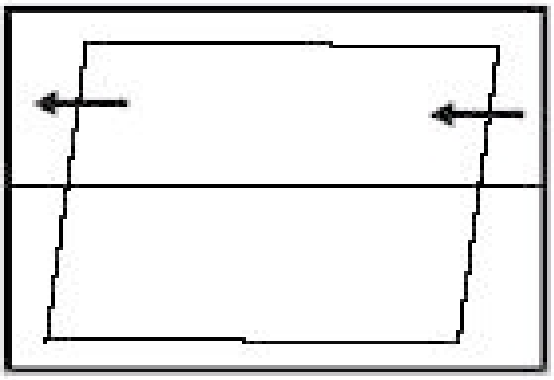
4-3) Vertical Size Adjustment
- Select V.SIZE item, adjust V.SIZE data value to proper vertical size as follows.

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). H.BOW, PARABOLA Adjustment

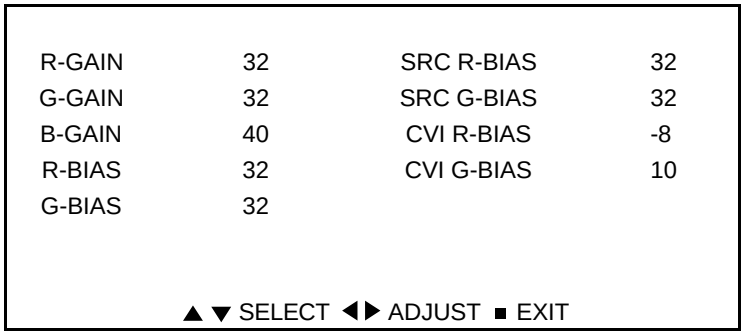
- Adjust the H.BOW, PARABOLA to compensate for geometrical distortion.
- You can not adjust the H.PARALLEL, H.SIZE, EW TRAPEZ, CORNER TOP and CORNER BOTTOM.



H.PARALLEL

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.

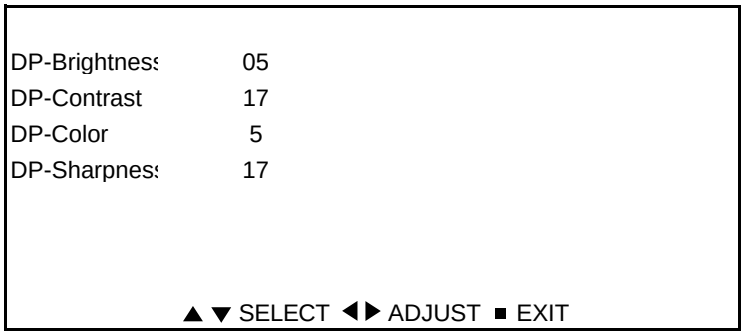


- Using volume up or volume down, adjust service adjustment data of R-GAIN/G-GAIN/B-GAIN and R-BIAS/G-BIAS until a good gray scale with normal whites is obtained.ALIGNMENT INSTRUCTIONS

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.



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

DP-Contrast

- Fixed value = 17

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

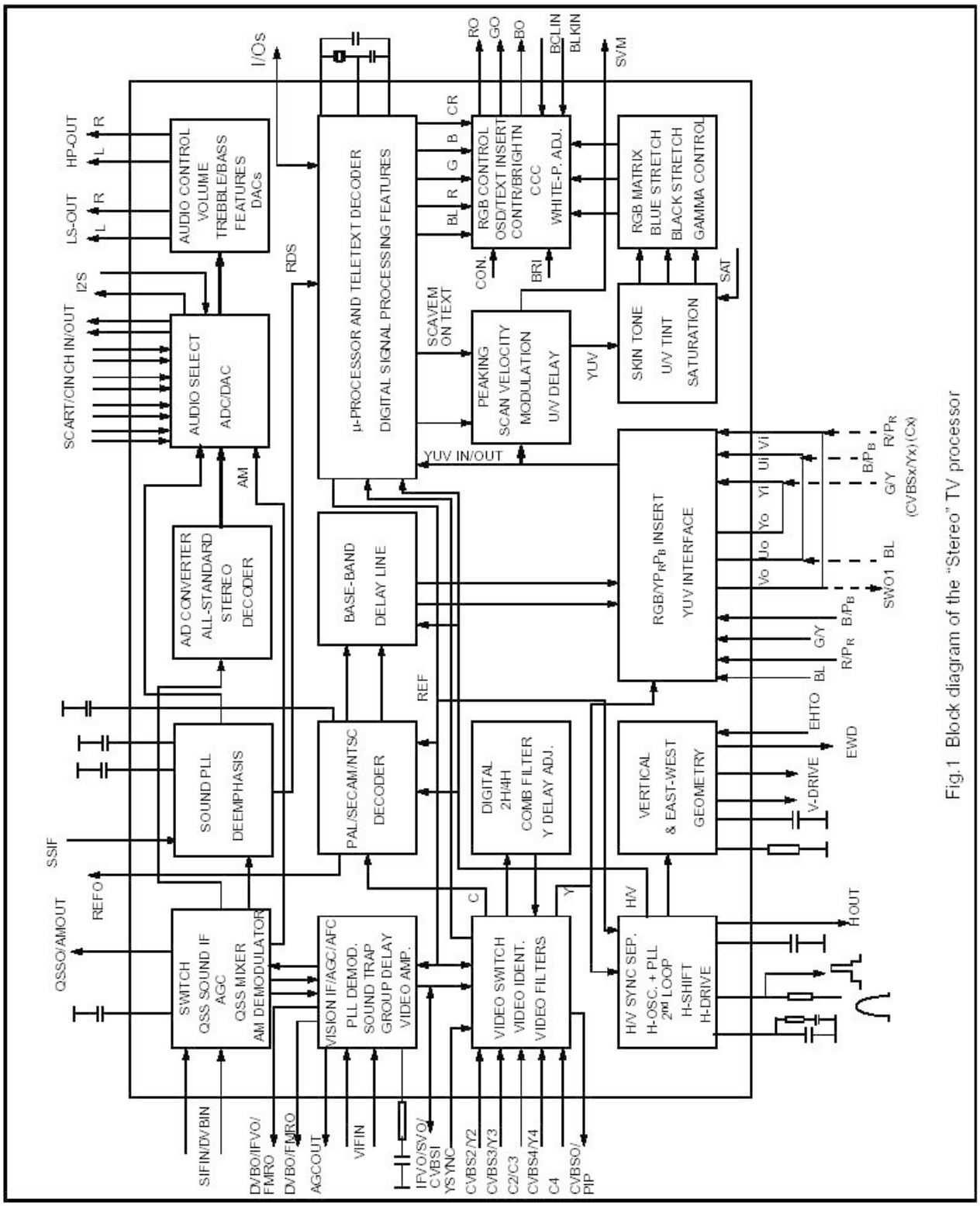


Fig.1 Block diagram of the "Stereo" TV processor

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

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

- FM overmodulation adaptation option to avoid clipping and distortion
  Audio Multi Channel Decoder (stereo versions with Audio DSP)
- Dolby® Pro Logic® (DPL) (1)
- Five channel processing for Main Left and Right, Subwoofer, Centre and Surround. To exploit this feature an external DAC is required.
  Volume and tone control for loudspeakers (stereo versions with Audio DSP)
- Automatic Volume Level (AVL) control
- Smooth volume control
- Master volume control
- Soft-mute
- Loudness
- Bass, Treble
- Dynamic Bass Boost (DBB) (2)
- Dynamic Virtual Bass (DVB) (3)
- BBE® Sound processing (4)
- Graphic equalizer
- Processed or non processed subwoofer
- Programmable beeper
  Reflection and delay for loudspeaker channels (stereo versions with Audio DSP)
- Dolby® Pro Logic® Delay (1)
- Pseudo hall/matrix function
  Psycho acoustic spatial algorithms, downmix and split in loudspeaker channels (stereo versions with Audio DSP)
- Extended Pseudo Stereo (EPS) (5)
- Extended Spatial Stereo (ESS) (6)
- Virtual Dolby® Surround (VDS 422,423) (1)
- SRS 3D and SRS TruSurround® (4)
  RDS/RBDS
- Demodulation of the European Radio Data system (RDS) or the USA Radio Broadcast Data System (RBDS) signal
- RDS and RBDS block detection
- Error detection and correction
- Fast block synchronisation
- Synchronisation control (flywheel)
- Mode control for RDS/RBDS processing
- Different RDS/RBDS block information output modes

m-Controller

- 80C51 m-controller core standard instruction set and timing
- 0.4883 ms machine cycle
- maximum of 256k x 8-bit flash programmable ROM
- maximum of 8k x 8-bit Auxiliary RAM
- 12-level Interrupt controller for individual enable/disable with two level priority
- Two 16-bit Timer/Counter registers
- One 24-bit Timer (16-bit timer with 8-bit Pre-scaler)
- WatchDog timer
- Auxiliary RAM page pointer
- 16-bit Data pointer
- Stand-by, Idle and Power Down modes
- 24 general I/O
- 14 bits PWM for Voltage Synthesis Tuning
- 8-bit A/D converter with 4 multiplexed inputs

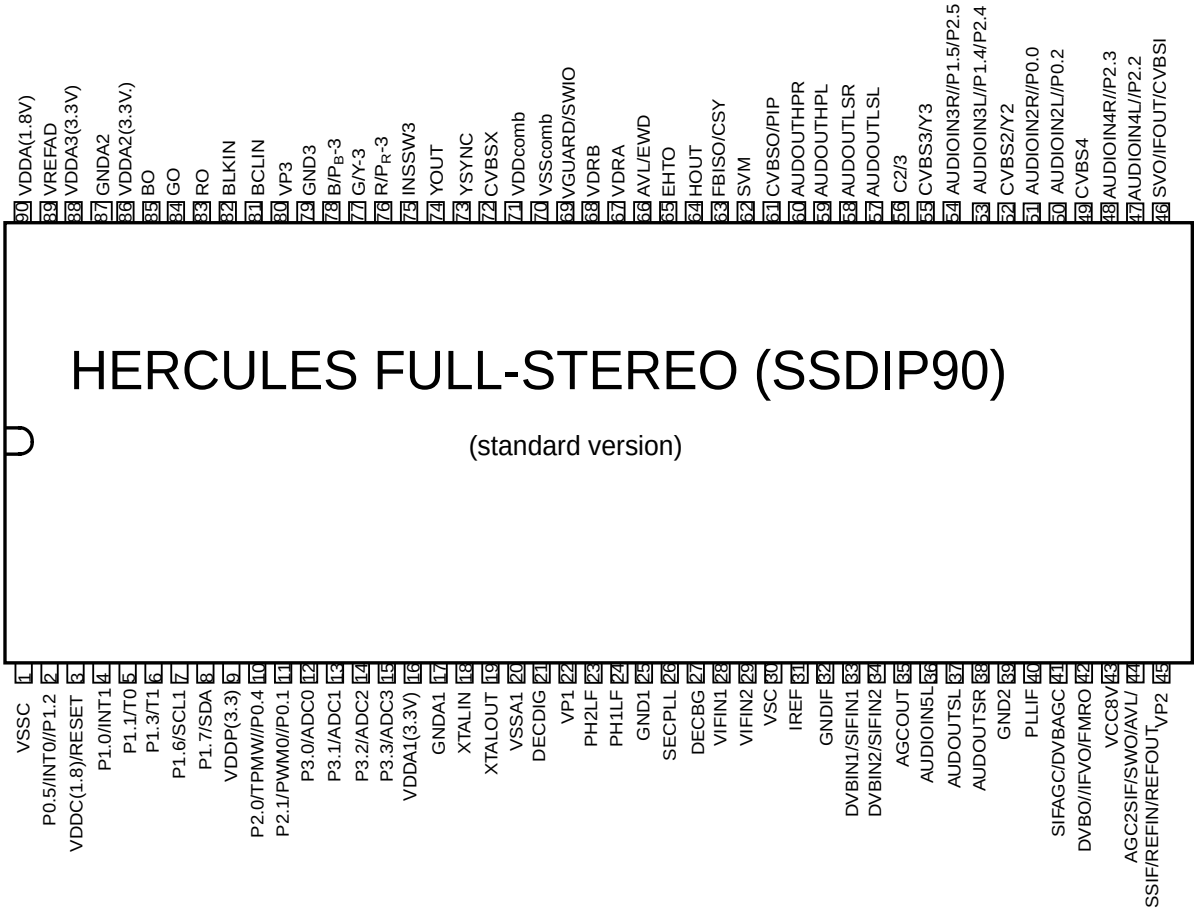
- 5 PWM (6-bits) outputs for analogue control functions
- Remote Control Pre-processor (RCP)
- Universal Asynchronous Receiver Transmitter (UART)

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


HERCULES FULL-STEREO (SSDIP90)
(standard version)
1 VSSC
2 P0.5/INT0//P1.2
3 VDDC(1.8)/RESET
4 P1.0/INT1
5 P1.1/T0
6 P1.3/T1
7 P1.6/SCL1
8 P1.7/SDA
9 VDDP(3.3)
10 P2.0/TPMW//P0.4
11 P2.1/PWM0//P0.1
12 P3.0/ADC0
13 P3.1/ADC1
14 P3.2/ADC2
15 P3.3/ADC3
16 VDDA1(3.3V)
17 GNDA1
18 XTALIN
19 XTALOUT
20 VSSA1
21 DECDIG
22 VP1
23 PH2LF
24 PH1LF
25 GND1
26 SECPLL
27 DECBG
28 VIFIN1
29 VIFIN2
30 VSC
31 IREF
32 GNDIF
33 DVBIN1/SIFIN1
34 DVBIN2/SIFIN2
35 AGCOUT
36 AUDOIN5L
37 AUDOUTSL
38 AUDOUTSR
39 GND2
40 PLLIF
41 SIFAGC/DVBAGC
42 DVBO//IFVO/FMRO
43 VCC8V
44 AGC2SIF/SWO/AVL/
45 SSIF/REFIN/REFOUT/P2
46 SVO/IFOUT/CVBSI
47 AUDIOIN4L//P2.2
48 AUDIOIN4R//P2.3
49 CVBS4
50 AUDIOIN2L//P0.2
51 AUDIOIN2R//P0.0
52 CVBS2/Y2
53 AUDIOIN3L//P1.4/P2.4
54 AUDIOIN3R//P1.5/P2.5
55 CVBS3/Y3
56 C2/3
57 AUDOUTLSL
58 AUDOUTLSR
59 AUDOUTHPL
60 AUDOUTHPR
61 CVBSO/PIP
62 SVM
63 FBISO/CSY
64 HOUT
65 EHTO
66 AVL/EWD
67 VDRA
68 VDRB
69 VGUARD/SWIO
70 VSScomb
71 VDDcomb
72 CVBSX
73 YSYNC
74 YOUT
75 INSSW3
76 R/P$_R$-3
77 G/Y-3
78 B/P$_B$-3
79 GND3
80 VP3
81 BCLIN
82 BLKIN
83 RO
84 GO
85 BO
86 VDDA2(3.3V.)
87 GNDA2
88 VDDA3(3.3V)
89 VREFAD
90 VDDA(1.8V)

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		1st 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 ampli er
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 lter
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		2nd 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 ampli er (left signal)
AUDOUTLSR	61	58		68	33		audio output for audio power ampli er (r ight 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		ybac k 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 lter
VDDcomb	69	71		60	20		supply voltage for comb lter (5 V)
VIN (R/P_RIN2/C_X)	70	-		59	-		V-input for YUV interface (2nd R input / P_R input or C_X input)
UIN (B/PBIN2)	71	-		58	-		U-input for YUV interface (2nd B input / PB input)
YIN (G/YIN2/CVBS-Y_X)	72	72/-		57	19/-		Y-input for YUV interface (2nd 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 (2nd RGB / YP_BP_R insertion input)
VOUT (SWO1)	76	-		53	-		V-output for YUV interface (general purpose switch output)
INSSW3	77	75		52	16		3rd RGB / YP_BP_R insertion input
R/P_RIN3	78	76		51	15		3rd R input / P_R input
G/YIN3	79	77		50	14		3rd G input / Y input
B/P_BIN3	80	78		49	13		3rd B input / P_B input
GND3	81	79		48	12		ground 3 for TV-processor
VP3	82	80		47	11		3rd 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

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 mControlle 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^2S word select
P0.4	-	-		-	-		port 0.4
P0.3/I2SCLK	103	-		26	-		port 0.3 or I^2S clock
P0.3	-	-		-	-		port 0.3
P0.2/I2SDO2	104	50		25	41		port 0.2 or I^2S digital output 2
P0.2	-	-		-	-		port 0.2
P0.1/I2SDO1	105	-		24	-		port 0.1 or I^2S digital output 1
P0.1	-	-		-	-		port 0.1
P0.0/I2SDI1/O	106	51		23	40		port 0.0 or I^2S digital input 1 or I^2S 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^2C-bus clock line
P1.7/SDA	109	8		20	83		port 1.7 or I^2C-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 m-Controller 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

2. TDA8358J VERTICAL AMPLIFIER

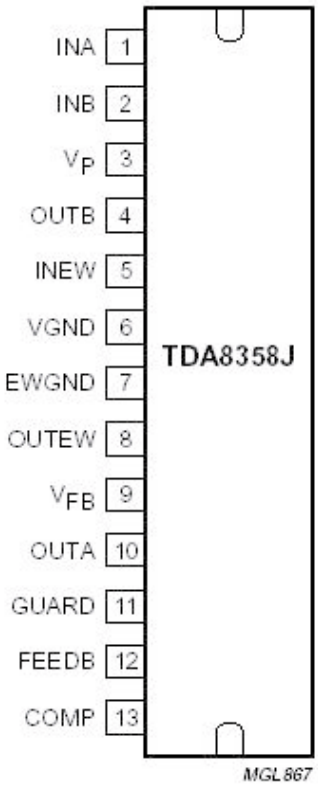
The TDA8358J are power circuit for use in 90° and 110° colour deflec tion systems for field frequencies of 25 to 200Hz field frequencies, and for 4:3 and 16/9 picture tubes. The IC contains a vertical deflection output circuit, operating as a high efficiency class G system. The full bridge output circuit 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.

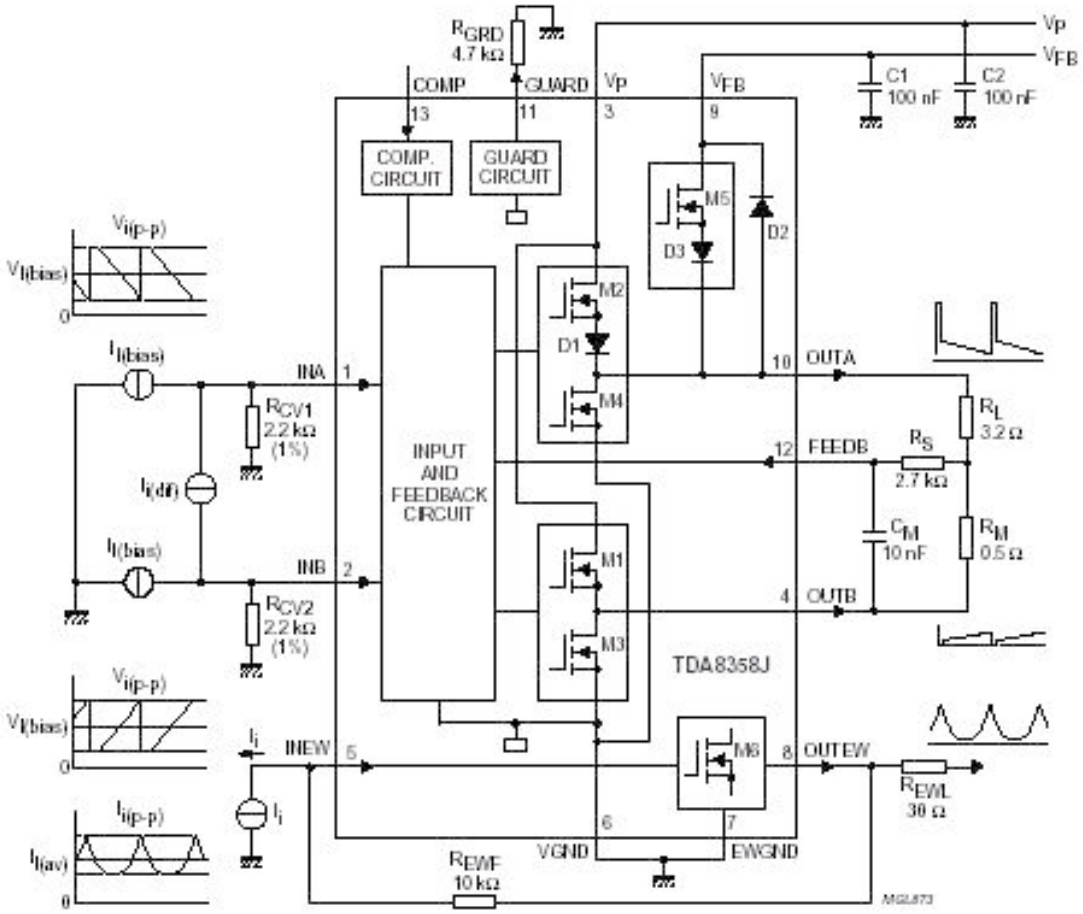
Features :

- Few external components
- Highly efficient fully DC-coupled vertical bridge output circuit
- Vertical flyback switch with short rise and fal 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	Positeve 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

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.

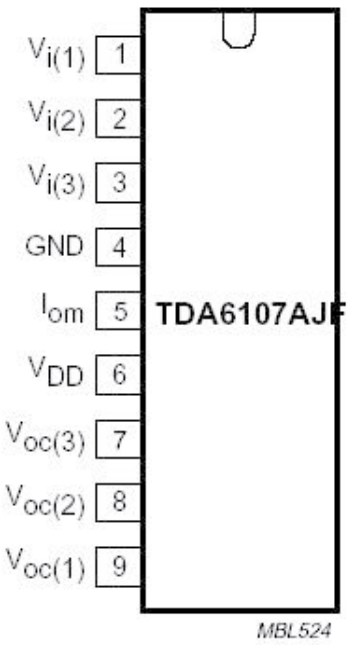
To obtain maximum performance, the amplifier should be used with black-current control.

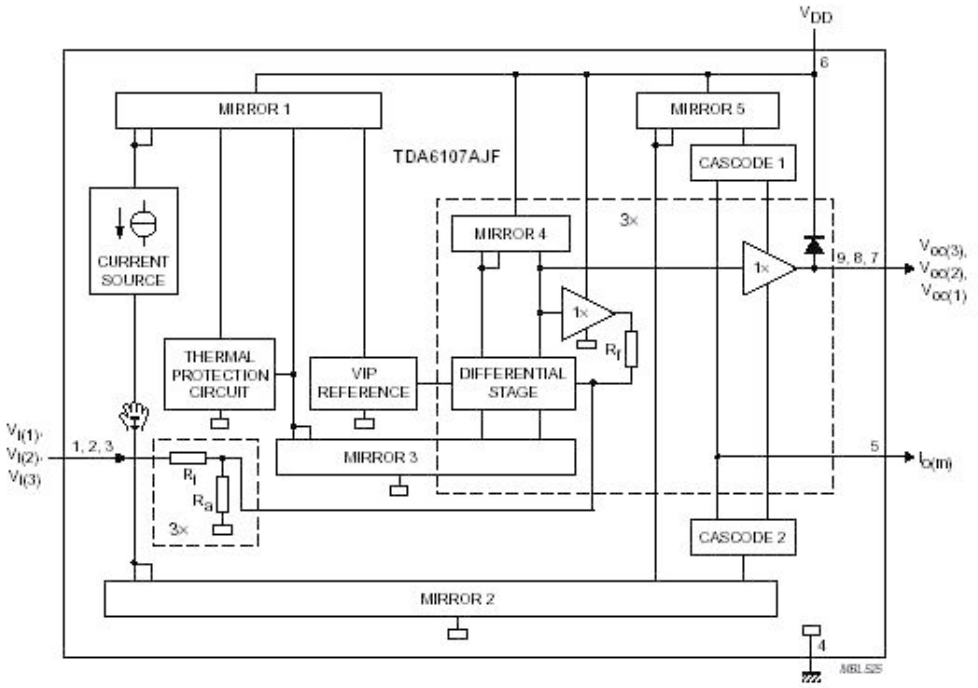
Features

- Typical bandwidth of 5.5 MHz for an output signal of 60 Vpp
- High slew rate of 900V/ms
- 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 form 100uA 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

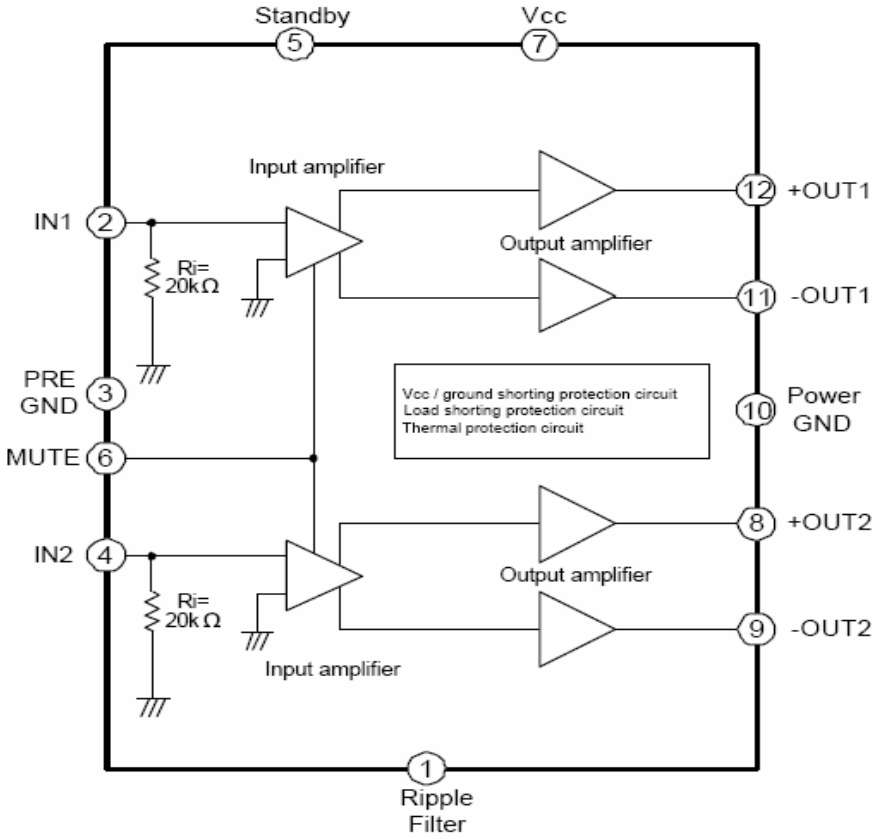
The memory device is compatible with the I2C memory standard. This is a two wire serial interface that uses a bi-directional data bus and serial clock. The memory carries a built-in 4-bit unique device type identifier code (1010) in accordance with the I2C bus definition.

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.

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 Ta = 25℃,VCC = 12V,RL = 8Ω,f = 1kH z,Rg = 600Ω

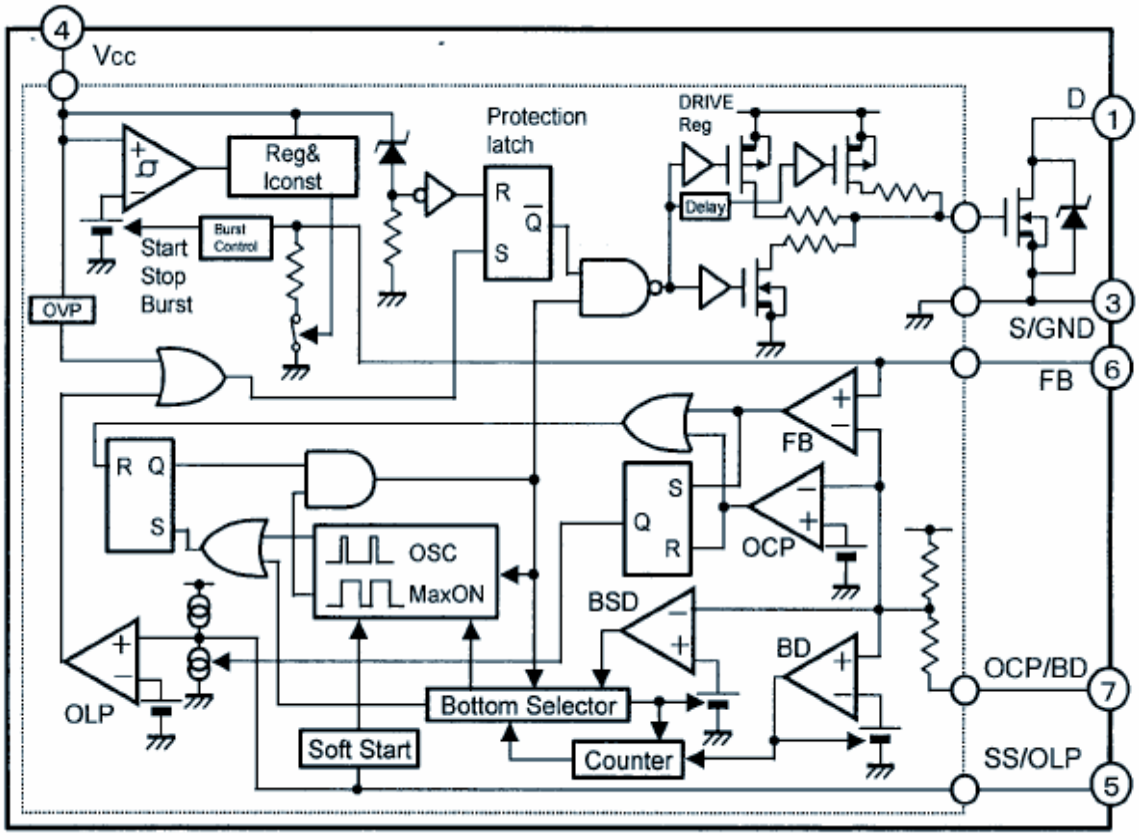
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Quiescent current	I_{CCO}	Rg=0	40	70	150	mA
Output power	Po	THD=10%	6	7	-	W
Total harmonic distortion	THD	Po=1W	-	0.06	0.2	%
Voltage gain	VG	Vo=0dBm	33	35	37	dB
Output noise voltage	V_{NO}	Rg=0,BPF=20Hz to 20kHz	-	0.1	0.3	mVrms
Ripple rejection	SVRR	Rg=0,f_R=100Hz,V_{CCR}=0dBm	50	60	-	dB
Channel separation	Sep.	Rg=10kΩ, Vo=0dBm	50	60	-	dB
Muting attenuation	A_{TT}	Vo=1Vrms, BPF=20Hz to 20k H	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	Ri		21	30	39	kΩ

6. STR-W6754

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 DECTION SIGNAL INPUT

BLOCK DIAGRAM



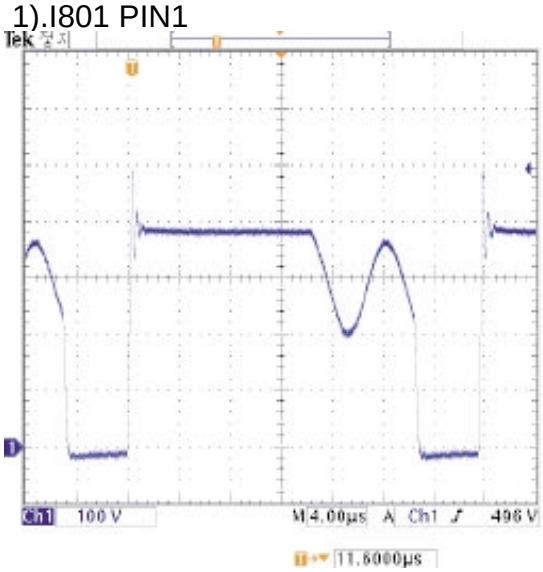
ELECTRICAL CHARACTERISTICS IN CONTROL PART

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

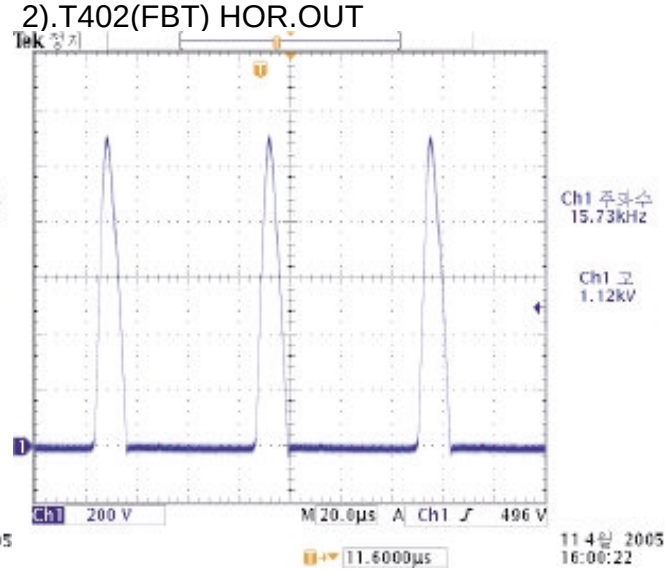
PARAMETER	TERMINAL	SYMBOL	RATINGS			UNITES
			MIN	TYP	MAX	
POWER SUPPLY START-UP OPERATION						
OPERATION START VOLTAGE	4-3	Vcc(on)	16.3	18.2	19.9	V
OPERATION STOP VOLTAGE	4-3	Vcc(off)	8.8	9.7	10.6	V
CIRCUIT CURRENT IN OPERATION	4-3	Icc(on)			6	mA
CIRCUIT CURRENT IN NON-OPERATION	4-3	Icc(off)			100	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)	1.1	1.35	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

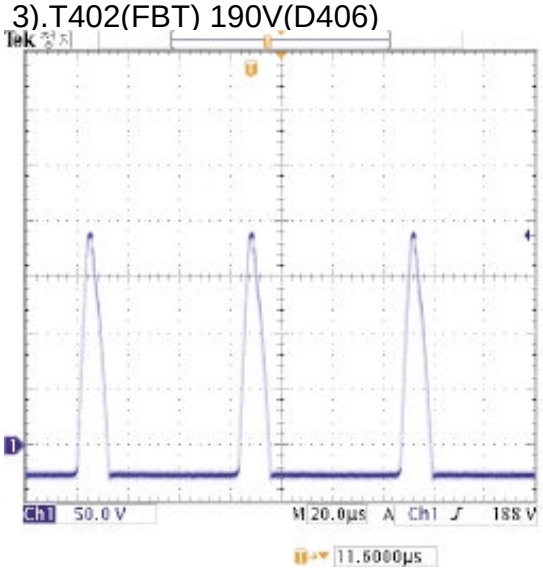
1).I801 PIN1



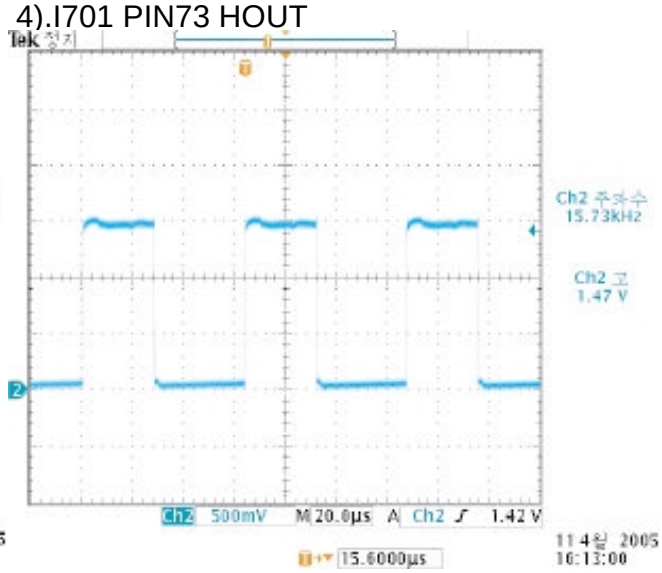
2).T402(FBT) HOR.OUT



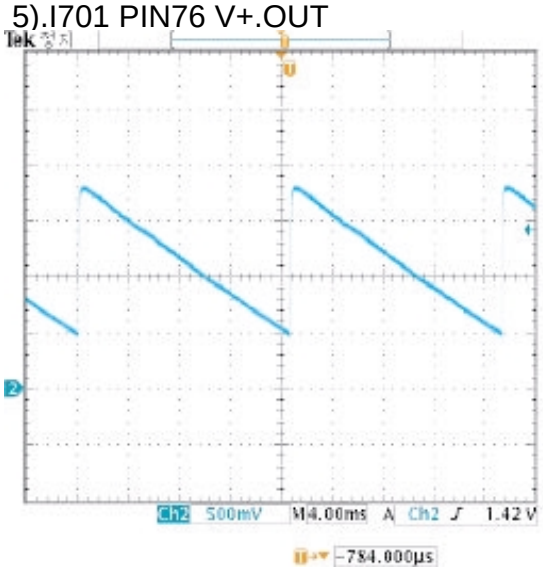
3).T402(FBT) 190V(D406)



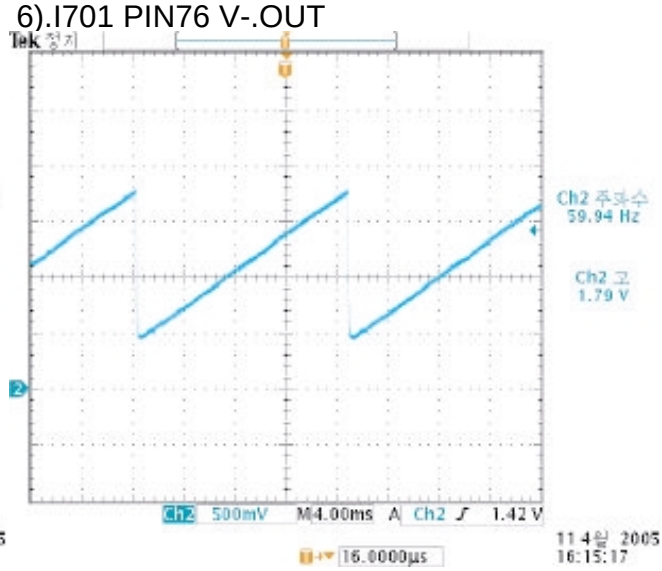
4).I701 PIN73 HOUT



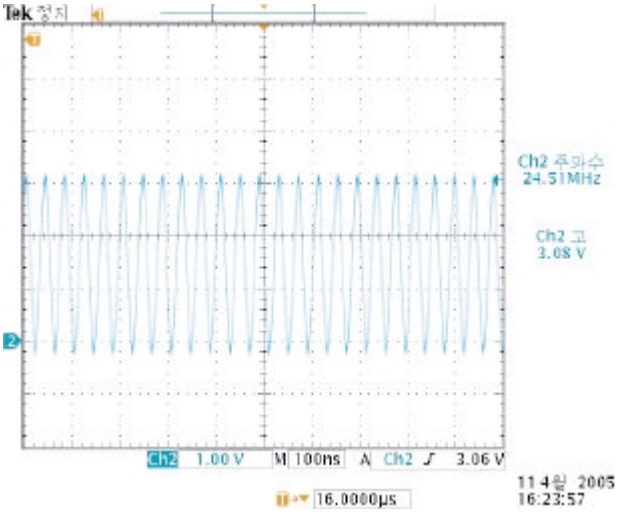
5).I701 PIN76 V+.OUT



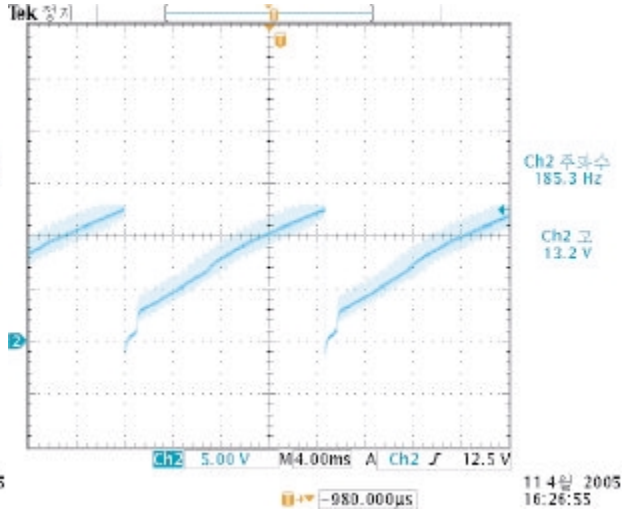
6).I701 PIN76 V-.OUT



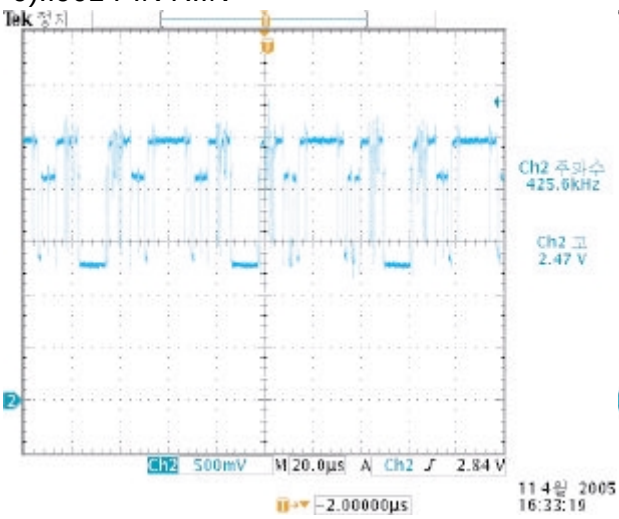
7).I701 (X-TAL)



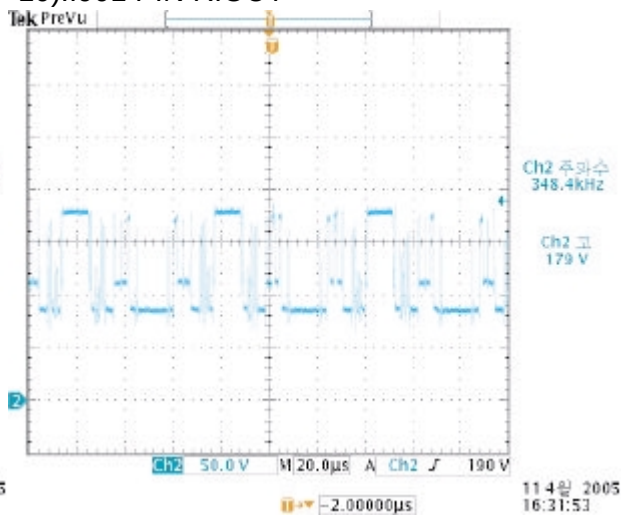
8).I301 PIN4 V.OUT



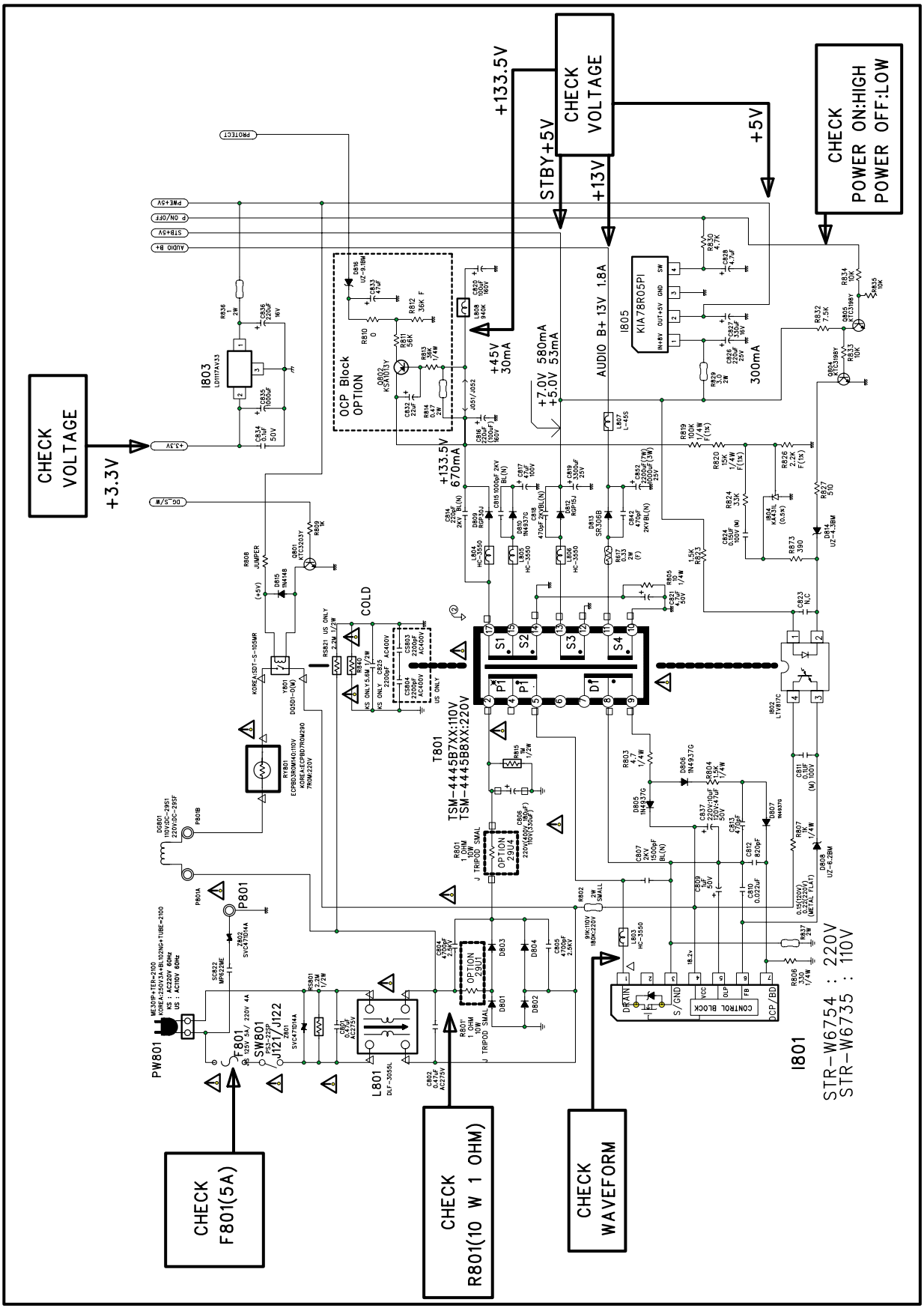
9).I901 PIN R.IN



10).I901 PIN R.OUT

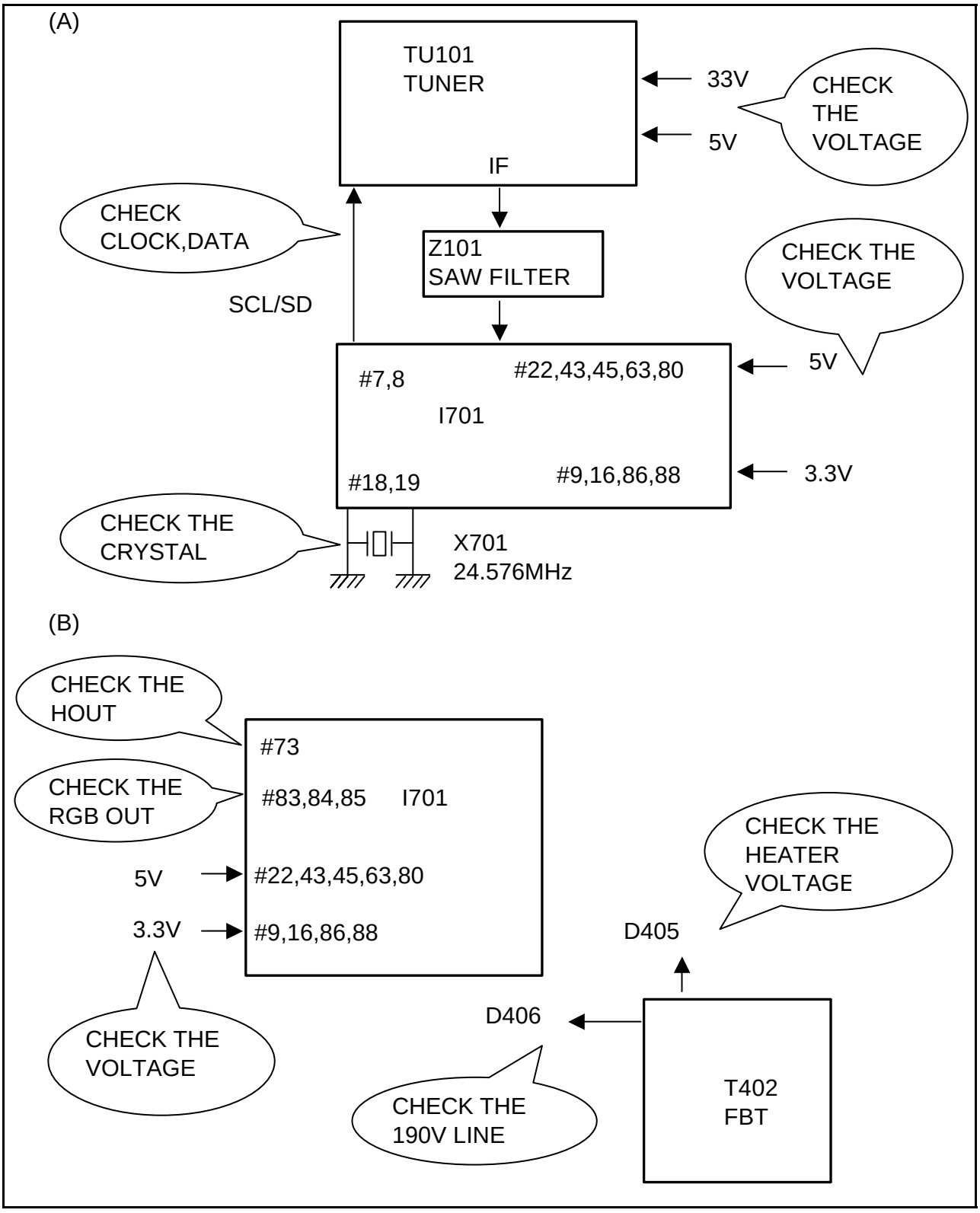


1. NO POWER


CHECK VOLTAGE
+3.3V
+133.5V
STBY+5V
CHECK VOLTAGE
+13V
+5V
CHECK POWER ON:HIGH POWER OFF:LOW
AUDIO B+ 13V 1.8A
I805
KIA78R05PI
300mA
+45V 30mA
+7.0V 580mA
+5.0V 53mA
+133.5V 670mA
OCP Block OPTION
I803
T801
TSM-4445B7XX:110V
TSM-4445B8XX:220V
I801
STR-W6754 : 220V
STR-W6735 : 110V
CHECK F801(5A)
CHECK R801(10 W 1 OHM)
CHECK WAVEFORM

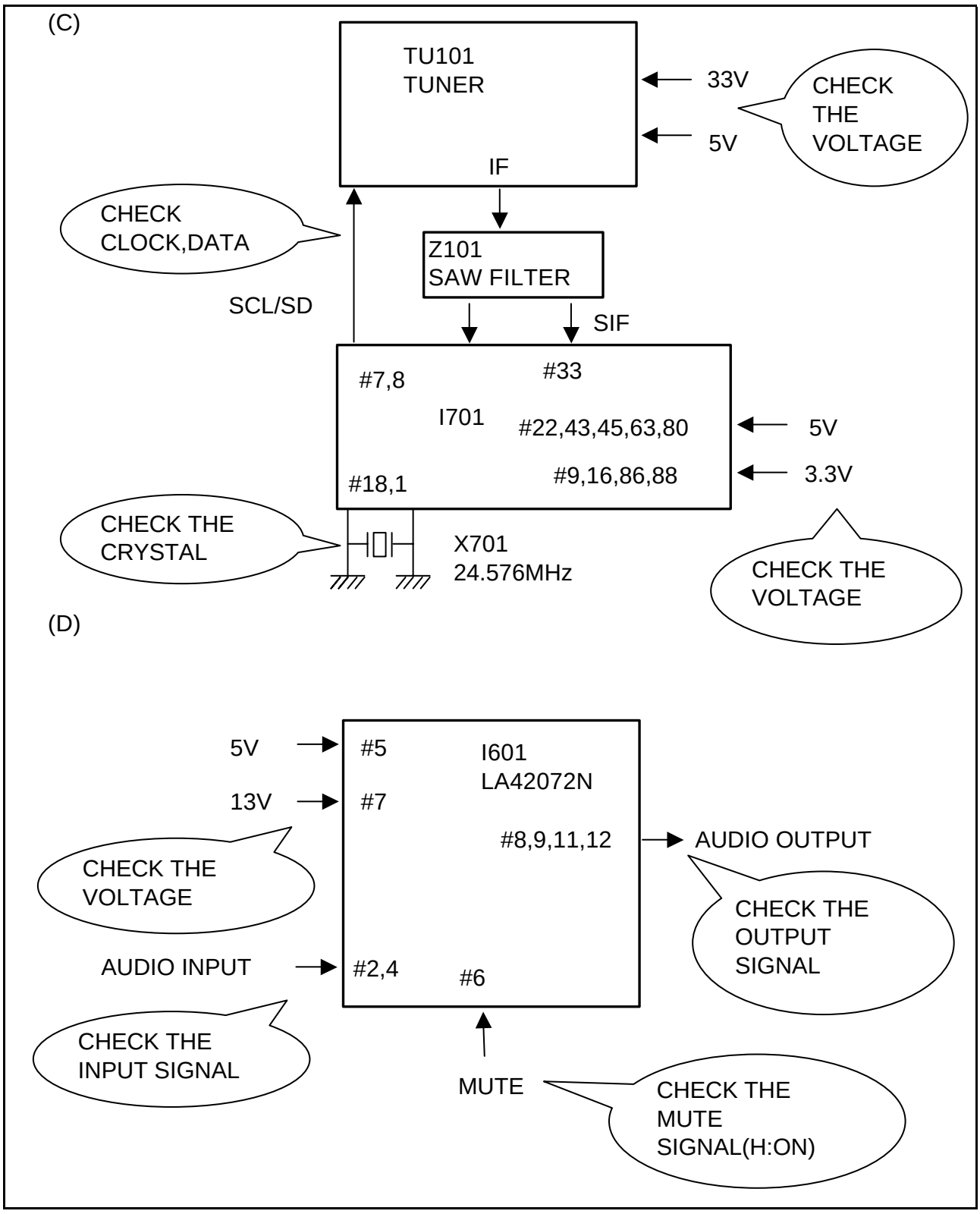
2. NO PICTURE

Check The Waveform of TU101 IF PIN	NG : Go To The Figure (A)
	OK : Go To The Figure (B)



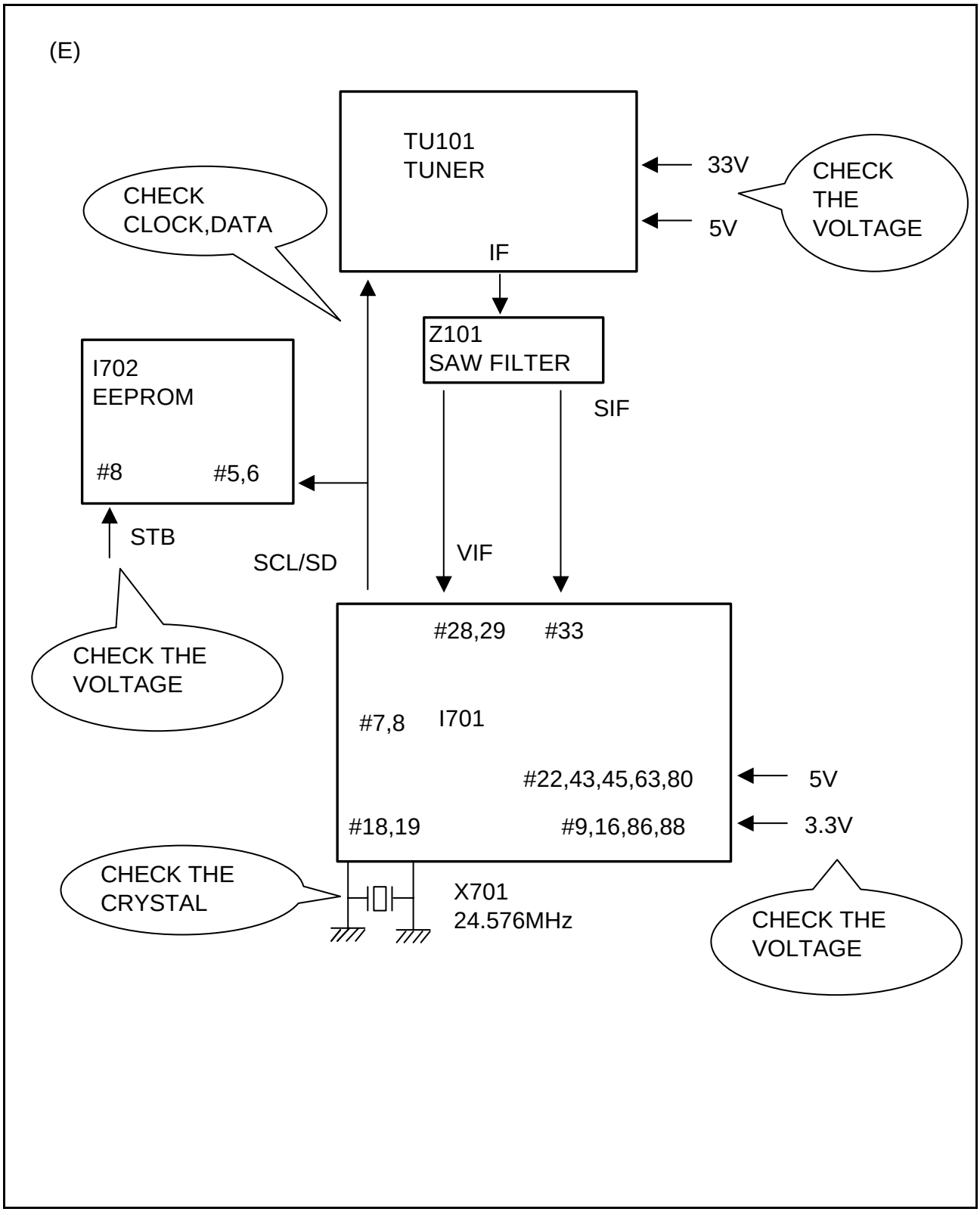
3. NO SOUND

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

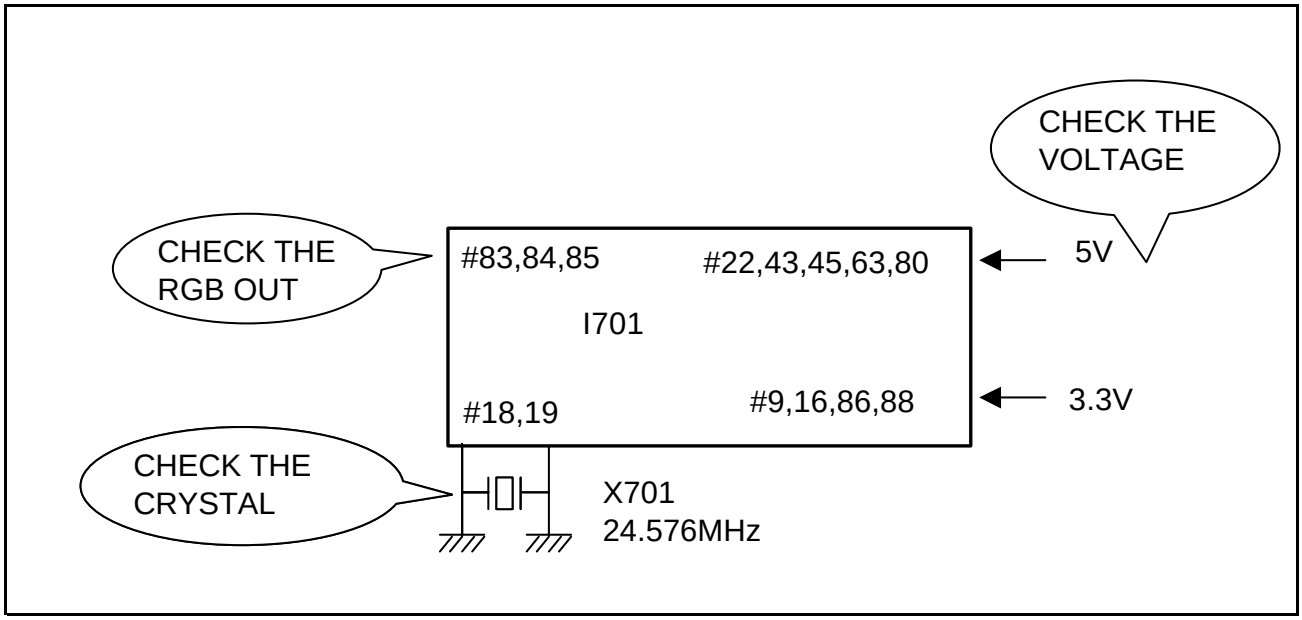


4. CH DON'T MEMORY or SKIP

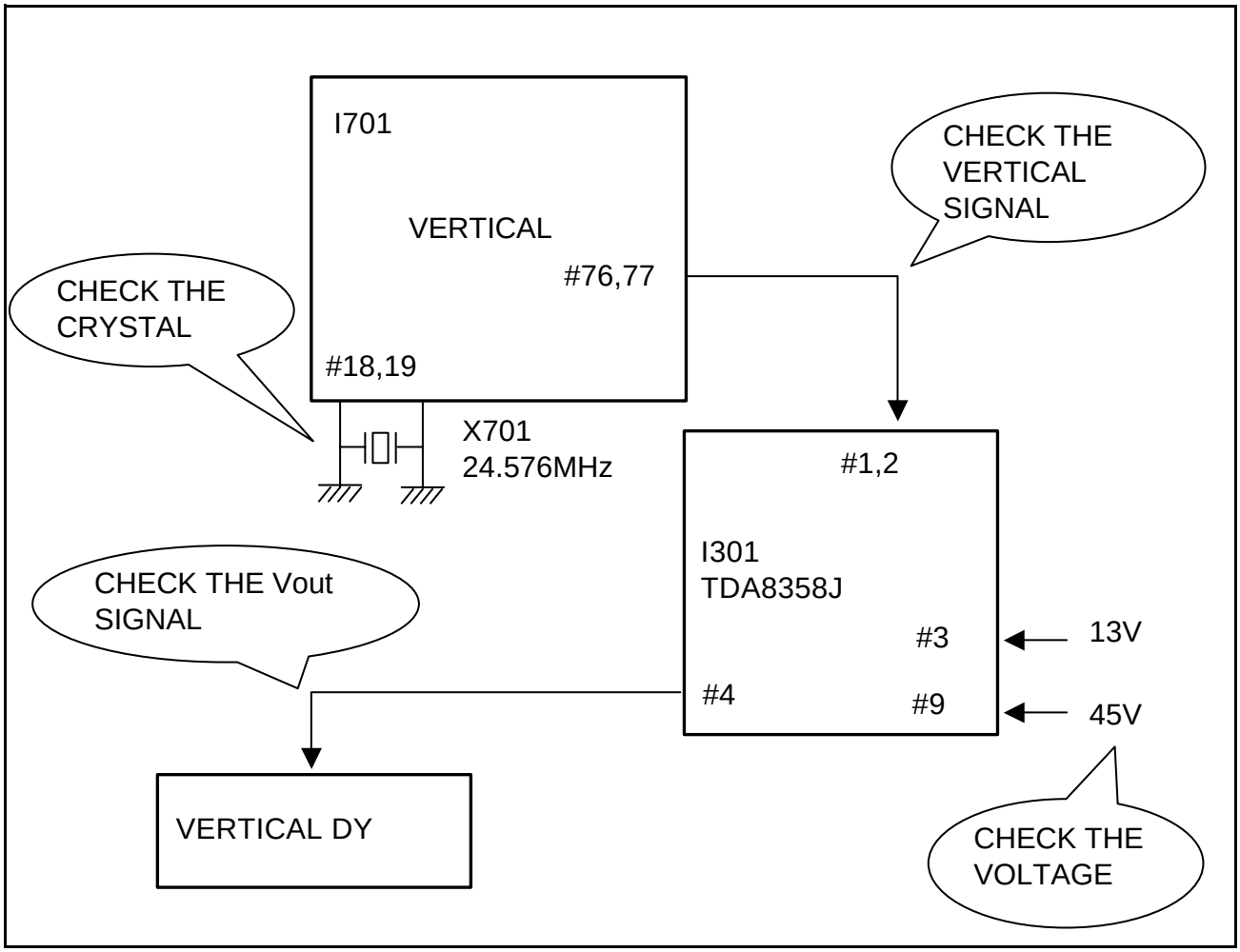
Check The Iutput Signal Conditions	NG : Loss of Signal or Weak Signal
	OK : Go To The Figure (E)



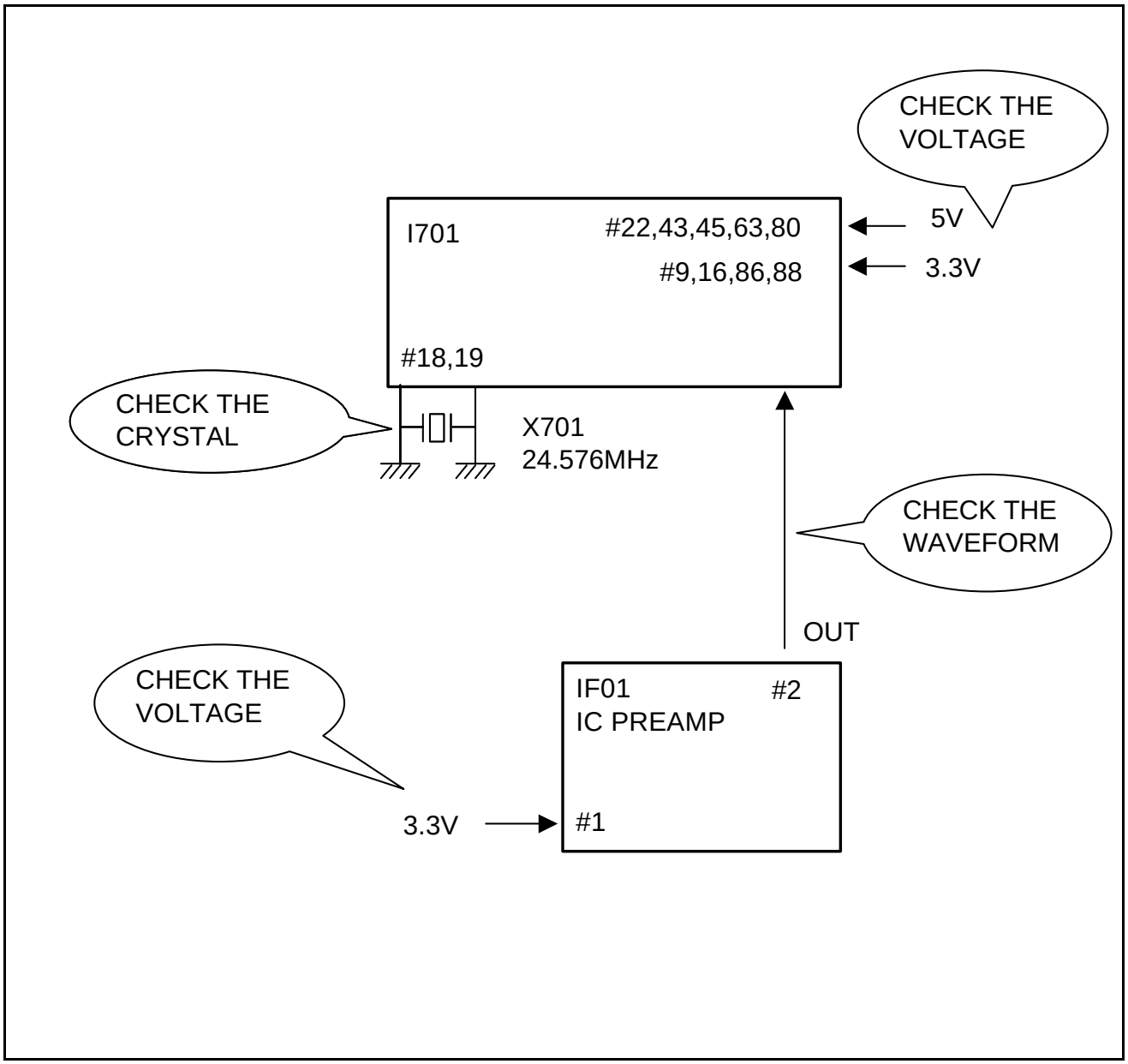
5. NO COLOR



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	48B5748C05	TRANSMITTER REMOCON	R-48C05 (AAA)	
2	ZZ110	PTACPWK163	ACCESSORY AS	DTQ-2130V	
3	00030	4850Q00910	BATTERY	R03/NN	
4	10000	48586054K1	MANUAL INSTRUCTION	DTM-2082CW	
5	M821	4858213803	BAG INSTRUCTION	L.D.P.E TO.05X250X400(+20)	
6	ZZ120	PTBCSHK163	COVER BACK AS	DTQ-2130V	
7	M211	4852161801	COVER BACK	HIPS BK 2130	
8	M781	4857817610	CLOTH BLACK	FELT 300X20X0.7	
9	ZZ130	PTPKCPK169	PACKING AS	DTH-2130SSPV	
10	10	6520010100	STAPLE PIN	AUTO W65	
11	M801	4858061400	BOX CARTON	DW-3 2130	
12	M811	4858100C00	PAD	EPS 2130	
13	M821	4858219101	BAG P.E	P.E FOAM T0.5X1300X1150	
14	ZZ131	48519A7610	CRT GROUND NET	2103S-1015-1P	
15	ZZ132	58G0000177	COIL DEGAUSSING	DC-21SF AL	
16	ZZ140	PTCACAK169	CABINET AS	DTH-2130SSPV	
17	40	2TF01612CL	TAPE FILAMENT	0.15X12mmX55mm	
18	CRT1	PTRTPWK113	CRT AS	DTN-21A1FJN	
19	V01	58D0000139	COIL DY	CDY-M2105D	
20	V04	2224050029	BOND SILICON	LDC7091 CARTRIDGE	
21	V05	4850PM010-	PCM	NY-88DTA	
22	V06	48A96R006-	RUBBER WEDGE	HMR 28SR(15X58)	
23	V901	48A9600621	CRT BARE	A51QDX993X(H)(A)	
24	M201A	4856017703	SCREW CRT FIX	5X30 L80 BK 3CR	
25	M201B	4856017710	SCREW CRT FIX	5X30 L190 BK 3CR	
26	M211A	7172401452	SCREW TAPPTITE	TT2 TRS 4X14 MFAN BK 3CR	
27	M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)	
28	M686	4856812001	TIE CABLE	NYLON66 DA100	
29	SP01A	7178301051	SCREW TAPPTITE	TT2 WAS 3X10 MFZN 3CR	
30	SP02A	7178301051	SCREW TAPPTITE	TT2 WAS 3X10 MFZN 3CR	
31	ZZ200	PTFMSJK156	MASK FRONT AS	DTQ-2130SSFV	
32	M191	4851946700	BUTTON CTRL	4952611+5546901 2130	
33	M191A	7178301051	SCREW TAPPTITE	TT2 WAS 3X10 MFZN 3CR	
34	M201	4852081111	MASK FRONT	HIPS GY 2130	
35	M481	4854862211	BUTTON POWER	ABS GY 2130	
36	M481A	4856716000	SPRING	SWPA PIE0.5	
37	M561	4855617500	MARK BRAND	CU AU+ABS BK	
38	M591	4855936101	DECO EYE	ABS BLUE	
39	M591B	7178301051	SCREW TAPPTITE	TT2 WAS 3X10 MFZN 3CR	
40	ZZ210	PTSPPWK163	SPEAKER AS	DTQ-2130V	
41	P601A	4850704S31	CONNECTOR	YH025-04+YRT205+ULW800400	
42	SP01	4858314910	SPEAKER	SP-33129A03	
43	SP02	4858314910	SPEAKER	SP-33129A03	
44	ZZ290	PTMPMSK169	PCB MAIN MANUAL AS	DTH-2130SSPV	
45	10	2193102005	SOLDER BAR	SN:PB=63:37 S63S-1320	
46	30	2291050616	FLUX SOLDER	JS-64T3	
47	40	2291050301	FLUX SOLVENT	IM-1000	
48	C118	CMXL1J154J	C MYLAR	63V MEU 0.15MF J	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
49	C406	CMYF2G274J	C MYLAR	400V MPP 0.27MF J	
50	C408	CMYH3C662J	C MYLAR	1.6KV BUP 6600PF J	
51	C801	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47	
52	C802	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47	
53	C806	CEYD2W181D	C ELECTRO	450V FHS 180MF (30X35)	
54	C807	CBYB3D102K	C CERA SEMI	2KV BL(N) 1000PF K	
55	C819	CEYF1E332V	C ELECTRO	25V RSS 3300MF (16X31.5)	
56	C825	CH1BFE332M	C CERA AC	4.0KV 3300PF M SD AC250V	
57	D809	DRGP30J—-	DIODE	RGP30J DO-201AD 600V 3A	
58	D813	DRGP30J—-	DIODE	RGP30J DO-201AD 600V 3A	
59	DL701	DLH2PR5MH3	LED HOLDER AS	LH-2P-R-5M-H3	
60	I301	PTC2SW8216	HEAT SINK ASS`Y	1TDA8358J- + 7174301051	
61	00001	1TDA8358J-	IC VERTICAL	TDA8358J	
62	0000A	4857028216	HEAT SINK	AL EX	
63	0000B	7174301051	SCREW TAPPTITE	TT2 RND 3X10 MFZN 3CR	
64	I601	PTP2SW8210	HEAT SINK ASS`Y	1LA42072N- + 7174300851	
65	00001	1LA42072N-	IC AUDIO AMP	LA42072N-E	
66	0000A	4857028210	HEAT SINK	AL EX	
67	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
68	I701	1DA12011PQ	IC MICOM FLASH	TDA12011PQ	
69	I702	124LC16B1B	IC MEMORY	24LC16B1B	
70	I801	PTD2SW4401	HEAT SINK ASS`Y	1STRW6754- + 7174300851	
71	00001	1STRW6754-	IC POWER	STR-W6754	
72	0000A	4857024401	HEAT SINK	AL EX	
73	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
74	I802	1LTV817C—	IC PHOTO COUPLER	LTV-817C	
75	I803	PTUASW6900	HEAT SINK ASS'Y	1LD1117V33 + 7174300851	
76	00001	1LD1117V33	IC REGULATOR	LD1117AV33 3.3V 2% TO-220	
77	0000A	4857026900	HEAT SINK	AL EX	
78	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
79	I805	1K78R05—-	IC REGULATOR	KIA78R05API	
80	IF01	1346VF6—-	IC PREAMP	346VF6	
81	JA02	4859108450	JACK PIN BOARD	YSC03P-4120-14A	
82	JP01	4859102130	JACK EARPHONE	YSC-1537	
83	JP02	4859111650	JACK PIN BOARD	PH-JB-9514	
84	L402	58H0000055	COIL H-LINEARITY	TRL-361A	
85	L801	5PDLF3055L	FILTER LINE	DLF-3055L	
86	L807	58C0000090	COIL CHOKE	L-45S	
87	M682	4853747800	RETA PCB	NYLON 66	
88	P401	4859242420	CONN WAFER	YFW800-04	
89	P802A	4859242220	CONN WAFER	YFW800-02	
90	PA906	4850705S04	CONNECTOR	YH025-05+YBNH250+ULW=400	
91	PWC1	4859909110	CORD POWER AS	LP-16+H03VVH2-F+HOU=2600	
92	PWC1A	4859242220	CONN WAFER	YFW800-02	
93	Q402	PTH2SW7609	HEAT SINK ASS`Y	T2SD2578— + 7174301051	
94	00001	T2SD2578—	TR HORI	2SD2578	
95	0000A	4857027609	HEAT SINK	AL EX	
96	0000B	7174301051	SCREW TAPPTITE	TT2 RND 3X10 MFZN 3CR	
97	R617	RF02Y338K-	R FUSIBLE	2W 0.33 OHM K	
98	R801	RX10T109JS	R CEMENT	10W 1 OHM J TRIPOD SMALL	
99	R837	RM02V278JM	R METAL FLAT	2W 0.27 OHM J MPR	
100	RY801	DDB7R0M290	POSISTOR	ECPBD7R0M290	
101	SW801	5S40101143	SW POWER PUSH	PS3-22SP (P.C.B)	
102	T401	50D10A3—-	TRANS DRIVE	TD-10A3	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
103	T402	50H0000302	FBT	LTC-545	
104	T801	50M3541C1-	TRANS SMPS	TSM-3541C1	
105	TU101	4859726730	TUNER VARACTOR	TAEC-H012F(A)	
106	X701	5XJ24R576E	CRYSTAL QUARTZ	HC-49/S 24.576MHZ 30PPM	
107	Y801	5SC0101339	SW RELAY	SDT-S-105LMR	
108	Z101	5PTSB6221C	FILTER SAW	TSB6221C	
109	Z801	DSVC471D14	VARISTOR	SVC471D14A (BULK)	
110	ZZ200	PTMPJ0K169	PCB MAIN (RHU) AS	DTH-2130SSPV	
111	C404	CEXA2D229E	C ELECTRO	200V RUL 2.2MF (10X16) TP	
112	C410	CMXB2G472J	C MYLAR	400V EU 4700PF J (TP)	
113	C411	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
114	C412	CCXB3D681K	C CERA	2KV B 680PF K (TAPPING)	
115	C417	CEXF1E471V	C ELECTRO	25V 470MF 10X12.5	
116	C419	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP	
117	C613	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
118	C804	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	
119	C805	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	
120	C814	CCXB3D221K	C CERA	2KV B 220PF K (TAPPING)	
121	C815	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
122	C816	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP	
123	C817	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP	
124	C818	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
125	C820	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP	
126	C835	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
127	C842	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
128	C852	CEXF1E102V	C ELECTRO	25V RSS 1000MF (13X20) TP	
129	ZZ200	PTMPJBK169	PCB MAIN M-10 AS	DTH-2130SSPV	
130	10	2TM18006BE	TAPE MASKING	6.2X500	
131	E001	4856310300	EYE LET	BSR T0.2 (R1.6)	
132	E002	4856310300	EYE LET	BSR T0.2 (R1.6)	
133	E003	4856310300	EYE LET	BSR T0.2 (R1.6)	
134	E004	4856310300	EYE LET	BSR T0.2 (R1.6)	
135	E005	4856310300	EYE LET	BSR T0.2 (R1.6)	
136	E006	4856310300	EYE LET	BSR T0.2 (R1.6)	
137	E007	4856310300	EYE LET	BSR T0.2 (R1.6)	
138	E008	4856310300	EYE LET	BSR T0.2 (R1.6)	
139	E009	4856310300	EYE LET	BSR T0.2 (R1.6)	
140	E010	4856310700	EYE LET	BSR T0.2 (R2.5)	
141	E011	4856310700	EYE LET	BSR T0.2 (R2.5)	
142	E013	4856310300	EYE LET	BSR T0.2 (R1.6)	
143	E014	4856310300	EYE LET	BSR T0.2 (R1.6)	
144	E015	4856310300	EYE LET	BSR T0.2 (R1.6)	
145	E017	4856310300	EYE LET	BSR T0.2 (R1.6)	
146	E018	4856310300	EYE LET	BSR T0.2 (R1.6)	
147	E019	4856310300	EYE LET	BSR T0.2 (R1.6)	
148	E020	4856310700	EYE LET	BSR T0.2 (R2.5)	
149	E021	4856310700	EYE LET	BSR T0.2 (R2.5)	
150	E022	4856310300	EYE LET	BSR T0.2 (R1.6)	
151	E023	4856310300	EYE LET	BSR T0.2 (R1.6)	
152	E024	4856310700	EYE LET	BSR T0.2 (R2.5)	
153	E025	4856310700	EYE LET	BSR T0.2 (R2.5)	
154	E026	4856310700	EYE LET	BSR T0.2 (R2.5)	
155	E027	4856310700	EYE LET	BSR T0.2 (R2.5)	
156	E028	4856310700	EYE LET	BSR T0.2 (R2.5)	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
157	E029	4856310700	EYE LET	BSR T0.2 (R2.5)	
158	E034	4856310300	EYE LET	BSR T0.2 (R1.6)	
159	E038	4856310700	EYE LET	BSR T0.2 (R2.5)	
160	E039	4856310700	EYE LET	BSR T0.2 (R2.5)	
161	E040	4856310300	EYE LET	BSR T0.2 (R1.6)	
162	E041	4856310300	EYE LET	BSR T0.2 (R1.6)	
163	E042	4856310300	EYE LET	BSR T0.2 (R1.6)	
164	E045	4856310300	EYE LET	BSR T0.2 (R1.6)	
165	E046	4856310300	EYE LET	BSR T0.2 (R1.6)	
166	E049	4856310700	EYE LET	BSR T0.2 (R2.5)	
167	E050	4856310700	EYE LET	BSR T0.2 (R2.5)	
168	E051	4856310700	EYE LET	BSR T0.2 (R2.5)	
169	E052	4856310700	EYE LET	BSR T0.2 (R2.5)	
170	E053	4856310300	EYE LET	BSR T0.2 (R1.6)	
171	E054	4856310300	EYE LET	BSR T0.2 (R1.6)	
172	E055	4856310300	EYE LET	BSR T0.2 (R1.6)	
173	E056	4856310300	EYE LET	BSR T0.2 (R1.6)	
174	P601	485923172S	CONN WAFER	YW025-04 (STICK)	
175	P705	485923172S	CONN WAFER	YW025-04 (STICK)	
176	P902	485923172S	CONN WAFER	YW025-04 (STICK)	
177	R106	RS02Z472JS	R M-OXIDE FILM	2W 4.7K OHM J SMALL	
178	R305	RS02Z189JS	R M-OXIDE FILM	2W 1.8 0HM J SMALL	
179	R402	RS02Z121JS	R M-OXIDE FILM	2W 120 OHM J SMALL	
180	R407	RS02Z163JS	R M-OXIDE FILM	2W 16K OHM J SMALL	
181	R408	RS02Z102JS	R M-OXIDE FILM	2W 1K OHM J SMALL	
182	R409	RS01Z103J-	R M-OXIDE FILM	1W 10K OHM J (TAPPING)	
183	R411	RS01Z330J-	R M-OXIDE FILM	1W 33 OHM J (TAPPING)	
184	R414	RS01Z159J-	R M-OXIDE FILM	1W 1.5 OHM J (TAPPING)	
185	R416	RF01Z338K-	R FUSIBLE	1W 0.33 OHM K (TAPPING)	
186	R417	RS01Z229J-	R M-OXIDE FILM	1W 2.2 OHM J (TAPPING)	
187	R802	RS02Z184JS	R M-OXIDE FILM	2W 180K OHM J SMALL	
188	R829	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
189	R836	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
190	ZZ200	PTMPJRK169	PCB MAIN RADIAL AS	DTH-2130SSPV	
191	C101	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)	
192	C102	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
193	C103	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)	
194	C104	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
195	C105	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)	
196	C106	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
197	C109	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)	
198	C112	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
199	C114	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
200	C115	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
201	C116	CCXF1H223Z	C CERA	50V F 0.022MF Z (TAPPING)	
202	C117	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
203	C119	CCXF1H103Z	C CERA	50V F 0.01MF Z (TAPPING)	
204	C124	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
205	C125	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
206	C127	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
207	C128	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
208	C130	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
209	C131	CCXB1H102K	C CERA	50V B 1000PF K (TAPPING)	
210	C201	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
211	C202	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
212	C204	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
213	C301	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
214	C305	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
215	C306	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
216	C307	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)	
217	C308	CCXF1H473Z	C CERA	50V F 0.047MF Z (TAPPING)	
218	C402	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
219	C403	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)	
220	C405	CCXB2H561K	C CERA	500V B 560PF K (TAPPING)	
221	C413	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
222	C422	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)	
223	C423	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
224	C601	CEXF1E470V	C ELECTRO	RSS 25V 47MF 5X11 P5.0 TA	
225	C602	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
226	C603	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
227	C604	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
228	C605	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
229	C606	CMXM2A682J	C MYLAR	100V 6800PF J (TP)	
230	C607	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
231	C608	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
232	C609	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
233	C610	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
234	C614	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
235	C622	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
236	C623	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
237	C624	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
238	C625	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
239	C626	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
240	C627	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
241	C628	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
242	C629	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP	
243	C701	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
244	C704	CEXF1E470V	C ELECTRO	RSS 25V 47MF 5X11 P5.0 TA	
245	C705	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
246	C707	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
247	C713	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
248	C716	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
249	C721	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
250	C722	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
251	C723	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
252	C724	CXCH1H809D	C CERA	50V CH 8PF D (TAPPING)	
253	C725	CXCH1H809D	C CERA	50V CH 8PF D (TAPPING)	
254	C726	CMXL1J104J	C MYLAR	63V MEU 0.1MF J	
255	C727	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
256	C729	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
257	C730	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
258	C731	CEXF1E470V	C ELECTRO	RSS 25V 47MF 5X11 P5.0 TA	
259	C732	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
260	C734	CMXL1J224J	C MYLAR	63V MEU 0.22MF J (TP)	
261	C735	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
262	C740	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
263	C809	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
264	C810	CCXF1H223Z	C CERA	50V F 0.022MF Z (TAPPING)	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
265	C811	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
266	C812	CCXB1H821K	C CERA	50V B 820PF K (TAPPING)	
267	C813	CCXB1H471K	C CERA	50V B 470PF K (TAPPING)	
268	C821	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
269	C824	CMXL1J154J	C MYLAR	63V MEU 0.15MF J	
270	C826	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
271	C827	CEXF1C331V	C ELECTRO	16V RSS 330MF (8X11.5) TP	
272	C828	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
273	C834	CCXF1H104Z	C CERA	50V F 0.1MF Z	
274	C836	CEXF1E221V	C ELECTRO	25V RSS 220MF (8X11.5) TP	
275	C837	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
276	CA15	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
277	CA16	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
278	F801	5FWPS4022L	FUSE	WIDE TL 250V 4A CASE	
279	I804	1K1A431B—	IC REGULATOR(SHUNT)	KIA431B 2.495V 0.5% TO-92	
280	L808	58C0000142	COIL CHOKE	ELC 0809 940K	
281	Q101	TKTC3198Y-	TR	KTC3198Y	
282	Q201	TKTA1266Y-	TR	KTA1266Y (TP)	
283	Q401	TKTC3207—	TR	KTC3207 (TP)	
284	Q602	TKTA1266Y-	TR	KTA1266Y (TP)	
285	Q704	TKTC3198Y-	TR	KTC3198Y	
286	Q705	TKTA1270Y-	TR	KTA1270Y (TP)	
287	Q706	TKTC3198Y-	TR	KTC3198Y	
288	Q707	TKTA1270Y-	TR	KTA1270Y (TP)	
289	Q708	TKTC3198Y-	TR	KTC3198Y	
290	Q801	TKTC3203Y-	TR	KTC3203-Y	
291	Q804	TKTC3198Y-	TR	KTC3198Y	
292	Q805	TKTC3198Y-	TR	KTC3198Y	
293	R302	RN02B331JS	R METAL FILM	2W 330 OHM J SMALL	
294	R403	RN01B472JS	R METAL FILM	1W 4.7K OHM J SMALL	
295	RA15	RN01B221JS	R METAL FILM	1W 220 OHM J SMALL	
296	RA16	RN01B221JS	R METAL FILM	1W 220 OHM J SMALL	
297	SW701	5S50101090	SW TACT	THVH472GCA	
298	SW702	5S50101090	SW TACT	THVH472GCA	
299	SW703	5S50101090	SW TACT	THVH472GCA	
300	SW704	5S50101090	SW TACT	THVH472GCA	
301	SW705	5S50101090	SW TACT	THVH472GCA	
302	SW706	5S50101090	SW TACT	THVH472GCA	
303	ZZ200	PTMPJAK169	PCB MAIN AXIAL AS	DTH-2130SSPV	
304	10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
305	20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	
306	A001	4859819791	PCB MAIN	330X246 D1B	
307	C110	CCZB1H222K	C CERA	50V B 2200PF K AXIAL	
308	C111	CCZB1H222K	C CERA	50V B 2200PF K AXIAL	
309	C126	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
310	C129	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
311	C203	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
312	C205	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
313	C206	CCZB1H472K	C CERA	HIKB 50V 4700PF K AXIAL	
314	C612	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
315	C702	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
316	C703	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
317	C706	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
318	C712	CCZB1H561K	C CERA	50V B 560PF K	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
319	C714	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
320	C715	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
321	C717	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
322	C719	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
323	C720	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
324	C728	CCZF1H103Z	C CERA	50V F 0.01MF Z	
325	C733	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
326	C736	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
327	C737	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
328	C738	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
329	C739	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
330	CA01	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
331	CA02	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
332	CA03	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
333	CA04	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
334	CA05	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
335	CA06	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
336	CA09	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
337	CA10	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	
338	CV13	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
339	CV14	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
340	CV15	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z	
341	D101	DUZ33B——	DIODE ZENER	UZ-33B	
342	D301	D1N4937G—	DIODE	1N4937G (TAPPING)	
343	D401	D1N4937G—	DIODE	1N4937G (TAPPING)	
344	D404	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM	
345	D405	D1N4937G—	DIODE	1N4937G (TAPPING)	
346	D406	D1N4937G—	DIODE	1N4937G (TAPPING)	
347	D407	DRGP15J—-	DIODE	RGP15J DO-204AC 600V 1.5A	
348	D408	DRGP15J—-	DIODE	RGP15J DO-204AC 600V 1.5A	
349	D602	D1N4148—-	DIODE	1N4148 (TAPPING)	
350	D701	DUZ3R9B—-	DIODE ZENER	UZ-3.9B	
351	D702	D1N4148—-	DIODE	1N4148 (TAPPING)	
352	D703	D1N4148—-	DIODE	1N4148 (TAPPING)	
353	D706	DUZ3R3B—-	DIODE ZENER	UZ-3.3B	
354	D801	DLT2A05G—	DIODE	LT2A05G (TP)	
355	D802	DLT2A05G—	DIODE	LT2A05G (TP)	
356	D803	DLT2A05G—	DIODE	LT2A05G (TP)	
357	D804	DLT2A05G—	DIODE	LT2A05G (TP)	
358	D805	D1N4937G—	DIODE	1N4937G (TAPPING)	
359	D806	D1N4937G—	DIODE	1N4937G (TAPPING)	
360	D807	D1N4148—-	DIODE	1N4148 (TAPPING)	
361	D808	DMTZJ6R2C-	DIODE ZENER	MTZJ 6.2C	
362	D810	D1N4937G—	DIODE	1N4937G (TAPPING)	
363	D812	DRGP15J—-	DIODE	RGP15J DO-204AC 600V 1.5A	
364	D814	DUZ4R3B—-	DIODE ZENER	UZ-4R3B	
365	D815	D1N4148—-	DIODE	1N4148 (TAPPING)	
366	DV01	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
367	J001	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
368	J002	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
369	J003	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
370	J004	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
371	J005	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
372	J006	85801060GY	WIRE COPPER	1/0.6 TIN COATING	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
373	J007	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
374	J008	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
375	J009	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
376	J010	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
377	J011	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
378	J012	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
379	J013	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
380	J015	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
381	J017	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
382	J018	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
383	J019	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
384	J020	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
385	J021	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
386	J022	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
387	J023	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
388	J024	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
389	J025	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
390	J026	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
391	J027	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
392	J028	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
393	J029	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
394	J030	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
395	J031	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
396	J032	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
397	J033	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
398	J034	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
399	J035	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
400	J036	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
401	J037	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
402	J038	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
403	J039	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
404	J040	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
405	J041	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
406	J042	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
407	J043	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
408	J044	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
409	J045	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
410	J046	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
411	J047	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
412	J048	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
413	J049	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
414	J050	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
415	J051	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
416	J052	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
417	J053	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
418	J054	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
419	J055	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
420	J056	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
421	J057	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
422	J058	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
423	J059	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
424	J060	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
425	J061	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
426	J062	85801060GY	WIRE COPPER	1/0.6 TIN COATING	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
427	J063	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
428	J064	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
429	J065	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
430	J066	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
431	J067	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
432	J068	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
433	J069	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
434	J070	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
435	J071	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
436	J072	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
437	J073	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
438	J074	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
439	J075	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
440	J076	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
441	J077	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
442	J078	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
443	J079	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
444	J080	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
445	J081	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
446	J082	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
447	J083	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
448	J084	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
449	J085	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
450	J086	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
451	J087	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
452	J088	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
453	J089	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
454	J090	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
455	J091	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
456	J092	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
457	J093	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
458	J094	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
459	J095	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
460	J096	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
461	J097	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J	
462	J098	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
463	J099	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
464	J100	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
465	J101	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
466	J102	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
467	J103	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
468	J104	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
469	J105	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
470	J106	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
471	J107	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
472	J108	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
473	J121	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
474	J122	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
475	J123	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
476	J124	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
477	J125	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
478	J126	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
479	J127	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
480	J128	85801060GY	WIRE COPPER	1/0.6 TIN COATING	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
481	J129	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
482	J130	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
483	J131	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
484	J2	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
485	J3	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
486	J6	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
487	J7	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
488	L101	5CPZ470K04	COIL PEAKING	47UH 10.5MM K (LAL04TB)	
489	L103	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
490	L104	5CPZ479K04	COIL PEAKING	4.7UH K (AXIAL 10.5MM)	
491	L201	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
492	L301	5MC0000100	COIL BEAD	HC-3550	
493	L302	5MC0000100	COIL BEAD	HC-3550	
494	L701	5CPZ479K04	COIL PEAKING	4.7UH K (AXIAL 10.5MM)	
495	L702	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
496	L703	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
497	L704	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
498	L705	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
499	L706	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
500	L707	5CPZ479K04	COIL PEAKING	4.7UH K (AXIAL 10.5MM)	
501	L709	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
502	L714	5CPZ479K02	COIL PEAKING	4.7UH K (AXIAL 3.5MM)	
503	L803	5MC0000100	COIL BEAD	HC-3550	
504	L804	5MC0000100	COIL BEAD	HC-3550	
505	L805	5MC0000100	COIL BEAD	HC-3550	
506	L806	5MC0000100	COIL BEAD	HC-3550	
507	R101	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
508	R102	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
509	R103	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
510	R104	RD-AZ100J-	R CARBON FILM	1/6 10 OHM J	
511	R105	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
512	R107	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
513	R108	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
514	R111	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
515	R114	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
516	R119	RN-AZ3902F	R METAL FILM	1/6 39K OHM F	
517	R121	RD-AZ183J-	R CARBON FILM	1/6 18K OHM J	
518	R201	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
519	R203	RN-AZ1801F	R METAL FILM	1/6 1.8K OHM F	
520	R204	RD-4Z392J-	R CARBON FILM	1/4 3.9K OHM J	
521	R213	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
522	R301	RD-4Z159J-	R CARBON FILM	1/4 1.5 OHM J	
523	R303	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
524	R306	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
525	R307	RN-AZ2201F	R METAL FILM	1/6 2.2K OHM F	
526	R308	RD-4Z514J-	R CARBON FILM	1/4 510K OHM J	
527	R312	RN-AZ2201F	R METAL FILM	1/6 2.2K OHM F	
528	R313	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
529	R314	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
530	R404	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
531	R405	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
532	R406	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J	
533	R410	RN-AZ9101F	R METAL FILM	1/6 9.1K OHM F	
534	R412	RN-AZ1202F	R METAL FILM	1/6 12K OHM F	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
535	R413	RD-4Z470J-	R CARBON FILM	1/4 47 OHM J	
536	R418	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
537	R601	RD-AZ622J-	R CARBON FILM	1/6 6.2K OHM J	
538	R602	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
539	R604	RD-AZ432J-	R CARBON FILM	1/6 4.3K OHM J	
540	R605	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
541	R606	RD-AZ432J-	R CARBON FILM	1/6 4.3K OHM J	
542	R607	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
543	R609	RD-AZ202J-	R CARBON FILM	1/6 2K OHM J	
544	R610	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
545	R612	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
546	R613	RD-4Z229J-	R CARBON FILM	1/4 2.2 OHM J	
547	R614	RD-4Z229J-	R CARBON FILM	1/4 2.2 OHM J	
548	R615	RD-4Z229J-	R CARBON FILM	1/4 2.2 OHM J	
549	R616	RD-4Z229J-	R CARBON FILM	1/4 2.2 OHM J	
550	R623	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
551	R624	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
552	R625	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
553	R626	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
554	R627	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
555	R628	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
556	R629	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
557	R630	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
558	R632	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
559	R633	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
560	R634	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
561	R635	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
562	R701	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
563	R702	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
564	R703	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
565	R704	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
566	R705	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
567	R707	RN-AZ5600F	R METAL FILM	1/6 560 OHM F	
568	R709	RD-AZ823J-	R CARBON FILM	1/6 82K OHM J	
569	R710	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J	
570	R712	RD-4Z222J-	R CARBON FILM	1/4 2.2K OHM J	
571	R713	RD-AZ470J-	R CARBON FILM	1/6 47 OHM J	
572	R714	RD-AZ123J-	R CARBON FILM	1/6 12K OHM J	
573	R719	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
574	R720	RD-AZ362J-	R CARBON FILM	1/6 3.6K OHM J	
575	R722	RD-AZ100J-	R CARBON FILM	1/6 10 OHM J	
576	R723	RD-AZ122J-	R CARBON FILM	1/6 1.2K OHM J	
577	R725	RD-AZ513J-	R CARBON FILM	1/6 51K OHM J	
578	R726	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
579	R727	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
580	R729	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
581	R730	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
582	R732	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
583	R733	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
584	R735	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
585	R736	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
586	R742	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	
587	R743	RD-AZ151J-	R CARBON FILM	1/6 150 OHM J	
588	R744	RD-AZ181J-	R CARBON FILM	1/6 180 OHM J	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
589	R745	RD-AZ241J-	R CARBON FILM	1/6 240 OHM J	
590	R746	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J	
591	R747	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
592	R769	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
593	R772	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
594	R773	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
595	R774	RD-4Z473J-	R CARBON FILM	1/4 47K OHM J	
596	R775	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
597	R776	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
598	R777	RD-AZ332J-	R CARBON FILM	1/6 3.3K OHM J	
599	R778	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
600	R779	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
601	R780	RN-AZ5600F	R METAL FILM	1/6 560 OHM F	
602	R803	RD-4Z100J-	R CARBON FILM	1/4 10 OHM J	
603	R804	RD-4Z152J-	R CARBON FILM	1/4 1.5K OHM J	
604	R805	RD-4Z100J-	R CARBON FILM	1/4 10 OHM J	
605	R806	RD-4Z331J-	R CARBON FILM	1/4 330 OHM J	
606	R807	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
607	R809	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
608	R819	RN-4Z1003F	R METAL FILM	1/4 100K OHM F	
609	R820	RN-4Z1602F	R METAL FILM	1/4 16.0K OHM F	
610	R823	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
611	R824	RD-AZ333J-	R CARBON FILM	1/6 33K OHM J	
612	R826	RN-AZ2401F	R METAL FILM	1/6 2.40K OHM F	
613	R827	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
614	R830	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
615	R832	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J	
616	R833	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
617	R834	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
618	R835	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
619	R840	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K	
620	R873	RD-AZ391J-	R CARBON FILM	1/6 390 OHM J	
621	RA01	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
622	RA02	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
623	RA03	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
624	RA04	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
625	RA05	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
626	RA06	RD-AZ224J-	R CARBON FILM	1/6 220K OHM J	
627	RS801	RC-2Z225KP	R CARBON COMP	1/2 2.2M OHM K	
628	RV01	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
629	RV02	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
630	RV03	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
631	RV04	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J	
632	RV09	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
633	RV10	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
634	RV15	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
635	RV16	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
636	RV17	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
637	ZZ300	PTCPMSK169	PCB CRT MANUAL AS	DTH-2130SSPV	
638	10	2193102005	SOLDER BAR	SN:PB=63:37 S63S-1320	
639	30	2291050616	FLUX SOLDER	JS-64T3	
640	40	2291050301	FLUX SOLVENT	IM-1000	
641	I901	PTE3SW1100	HEAT SINK ASS'Y	1TDA6107AJ + 7174300851	
642	00001	1TDA6107AJ	IC VIDEO	TDA6107AJF	

NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION	REMARK
643	0000A	4857031100	HEAT SINK	A1050P-H24 T2.0	
644	0000B	7174300851	SCREW TAPPTITE	TT2 RND 3X8 MFZN 3CR	
645	PA902	4850704S04	CONNECTOR	YH025-04+YST025+ULW=400	
646	SCT4	4859303530	SOCKET CRT	PCS629-03C	
647	ZZ200	PTCPJ0K169	PCB CRT RHU AS	DTH-2130SSPV	
648	C904	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16)TP	
649	C905	CEXF2E479V	C ELECTRO	250V RSS 4.7MF (10X16)TP	
650	C926	CBXB3D102K	C CERA SEMI	2KV BL(N) 1000PF K (T)	
651	ZZ200	PTCPJBK169	PCB CRT M-10 AS	DTH-2130SSPV	
652	10	2TM18006BE	TAPE MASKING	6.2X500	
653	P907	485923182S	CONN WAFER	YW025-05 (STICK)	
654	R911	RS02Z151JS	R M-OXIDE FILM	2W 150 0HM J SMALL	
655	R914	RS01Z129J-	R M-OXIDE FILM	1W 1.2 OHM J (TAPPING)	
656	ZZ200	PTCPJRK169	PCB CRT RADIAL AS	DTH-2130SSPV	
657	C902	CCXB1H561K	C CERA	50V B 560PF K (TAPPING)	
658	C903	CMXL2E104K	C MYLAR	250V MEU 0.1MF K	
659	C922	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
660	C923	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
661	C924	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
662	C925	4SG0DX0001	SPARK GAP	SSG-102-A1(1.0KV) TAP	
663	ZZ200	PTCPJAK169	PCB CRT AXIAL AS	DTH-2130SSPV	
664	10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M	
665	20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M	
666	A001	4859830213	PCB CRT	108X61.5(246X246) D1B	
667	D905	D1N4004S—	DIODE	1N4004S	
668	D906	D1N4004S—	DIODE	1N4004S	
669	D907	D1N4004S—	DIODE	1N4004S	
670	D908	DLT2A05G—	DIODE	LT2A05G (TP)	
671	J901	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
672	J902	85801060GY	WIRE COPPER	1/0.6 TIN COATING	
673	R901	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
674	R902	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
675	R903	RD-AZ511J-	R CARBON FILM	1/6 510 OHM J	
676	R905	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J	
677	R906	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J	
678	R907	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J	
679	R908	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
680	R909	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
681	R910	RC-2Z102K-	R CARBON COMP	1/2 1K OHM K	
682	R912	RC-2Z105KP	R CARBON COMP	1/2 1M OHM K	
683	R913	RD-2Z102J-	R CARBON FILM	1/2 1K 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.

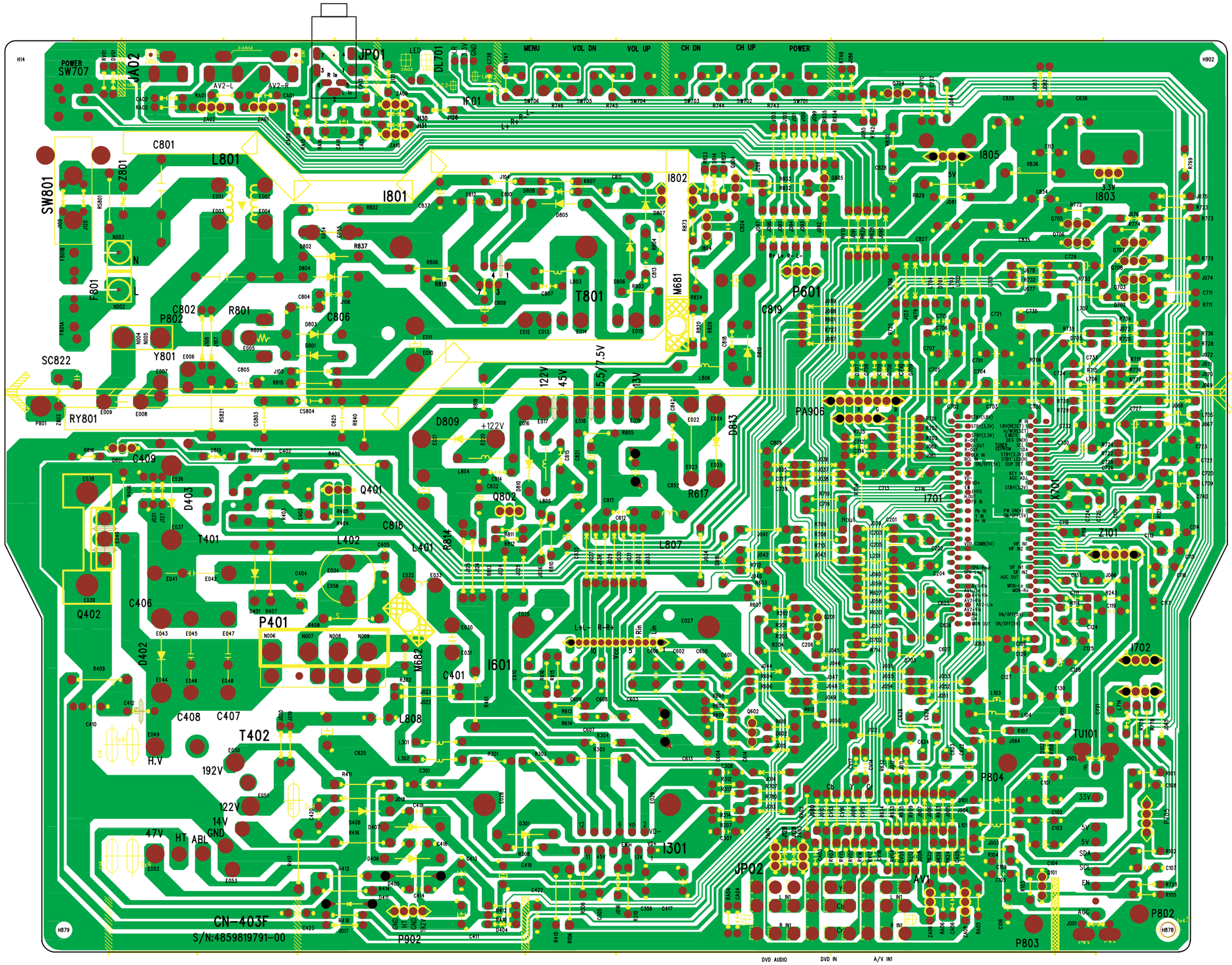
NO	LOC	PARTS CODE	PARTS NAME	PARTS DESCRIPTION
1	00001	1STRW6756-	IC POWER	STR-W6756
2	0000A	4857027602	HEAT SINK	AL EX BK
3	AD001	4859000240	ADAPTER	2P15A 300V(D=4.0)
4	C806	CEYD2G331D	C ELECTRO	400V FHS 330MF (30X45)
5	C825	CH1BFE222M	C CERA AC	U/C/V AC400V 2200PF
6	C832	CEXF1H220V	C ELECTRO	50V RSS 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

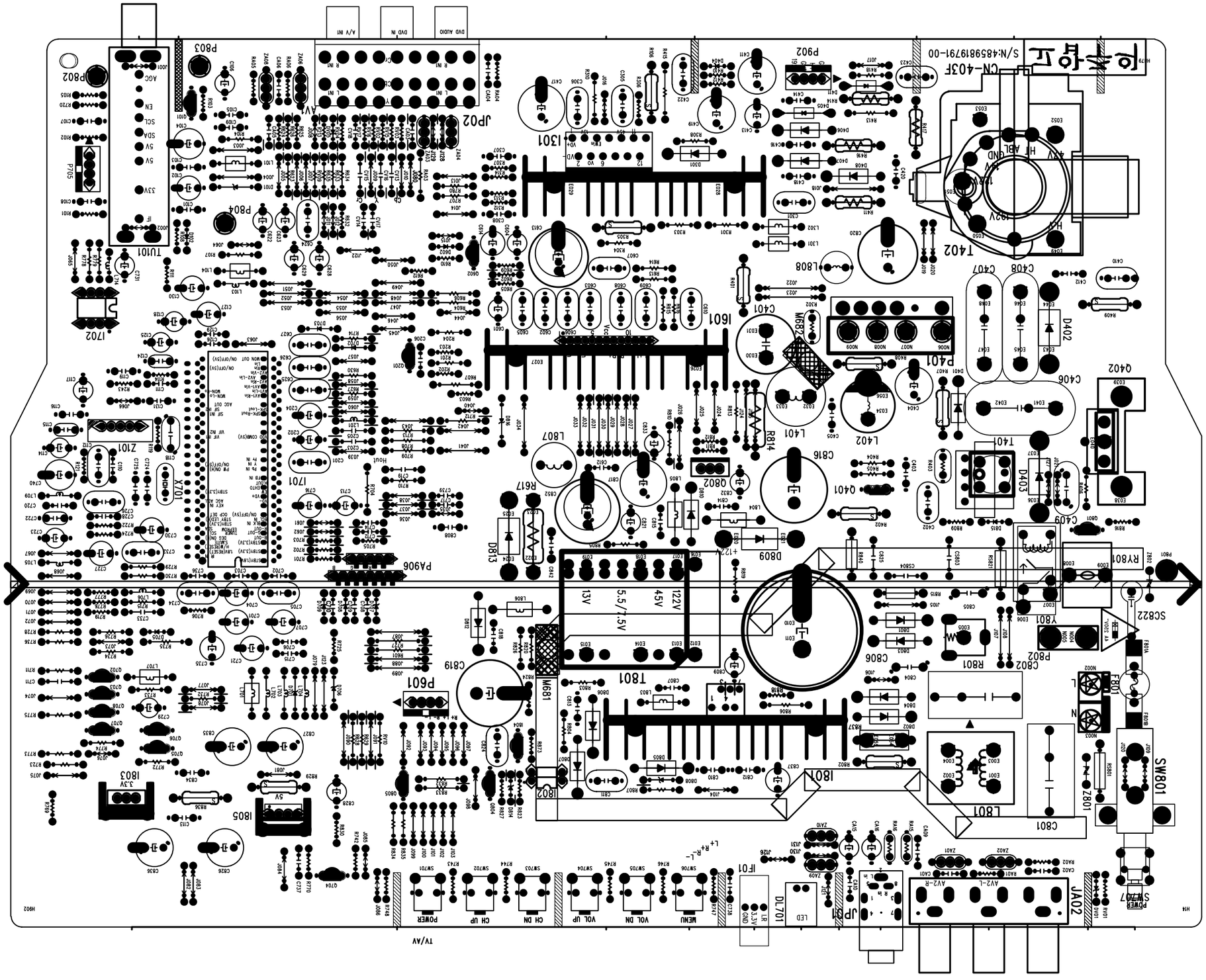
**This BOM is based on DTQ-29U1SCV, it is different parts list in comparison with DTQ-29U4SCV.

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

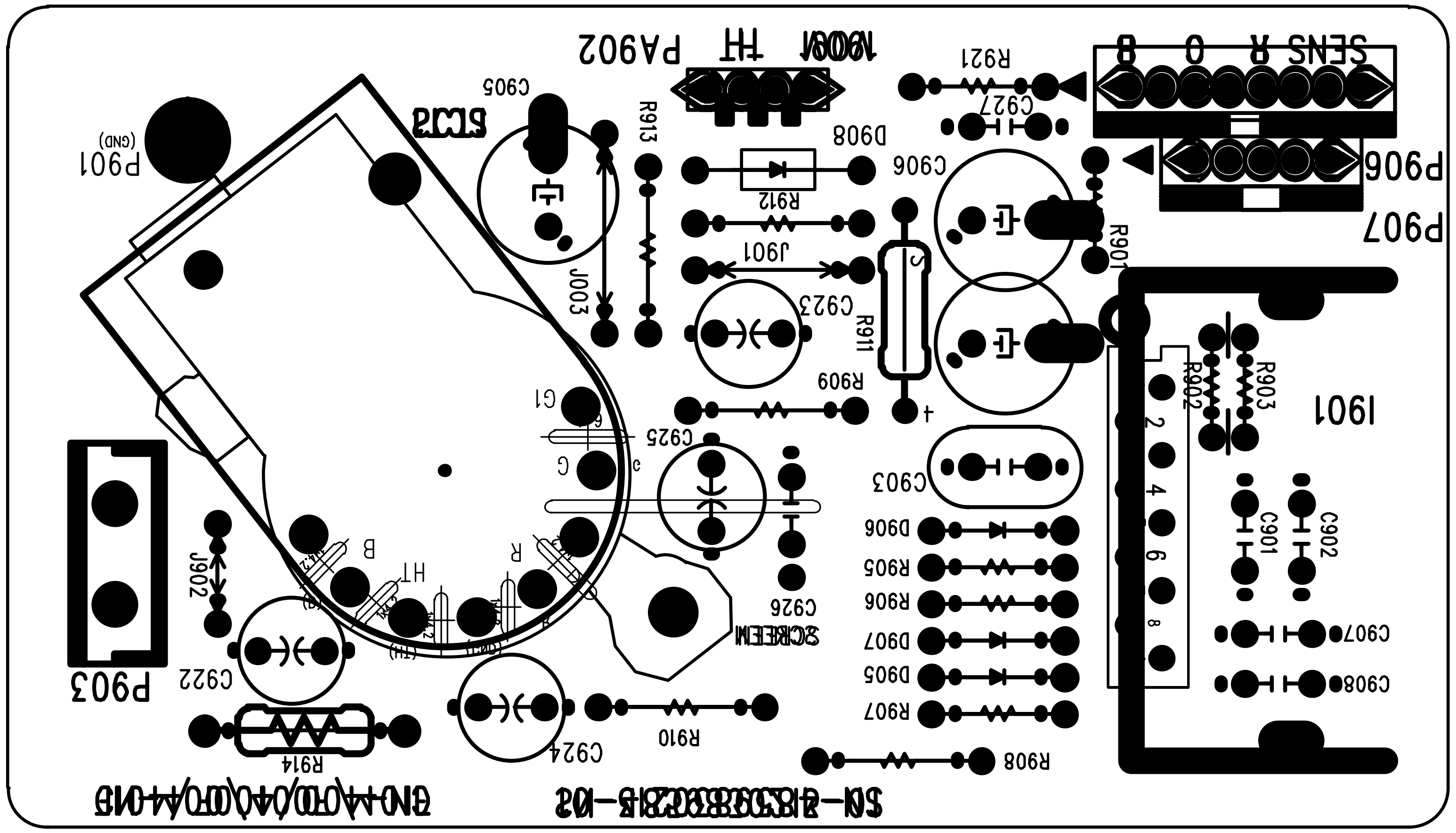
PRINTED CIRCUIT BOARD



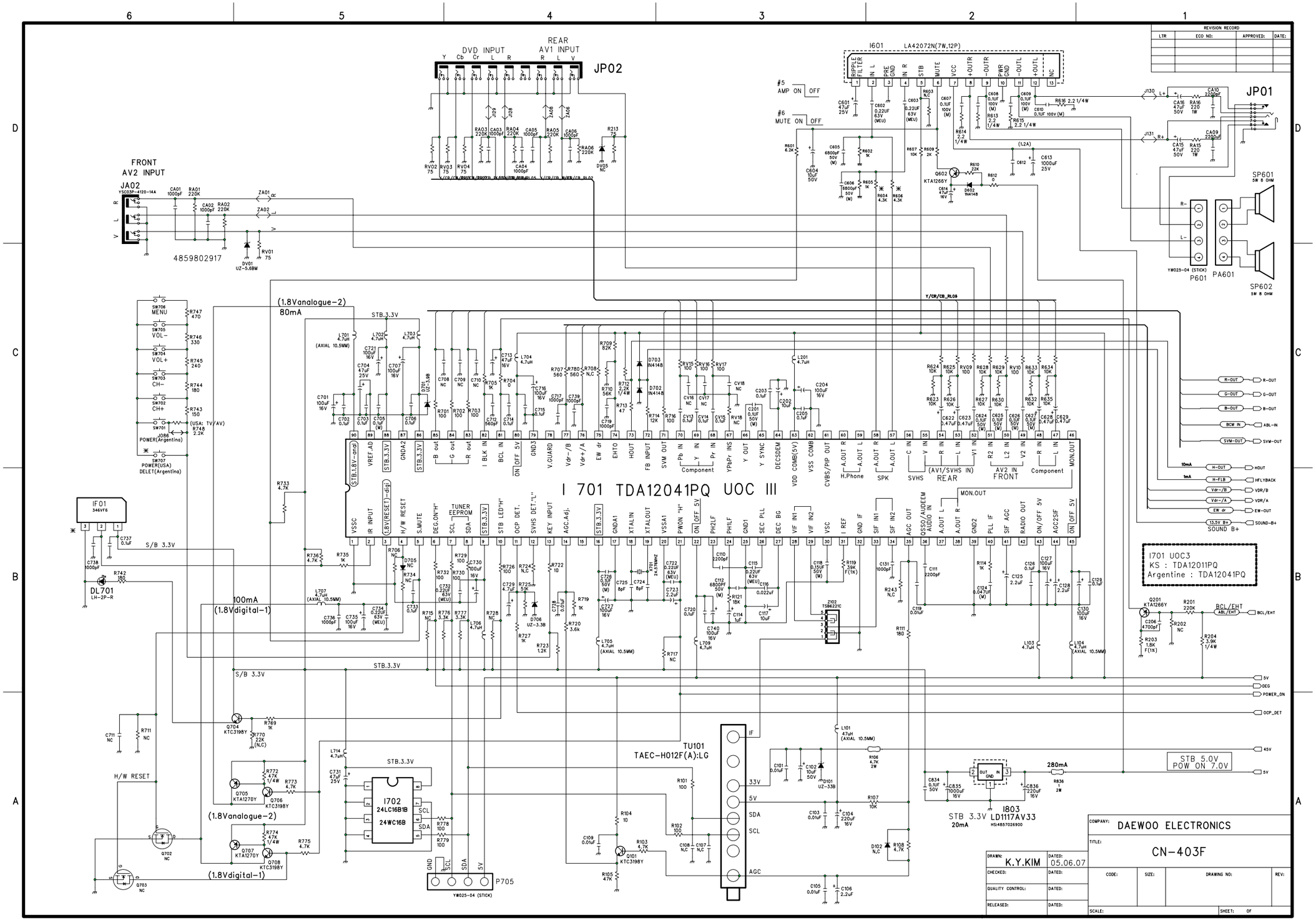
PRINTED CIRCUIT BOARD



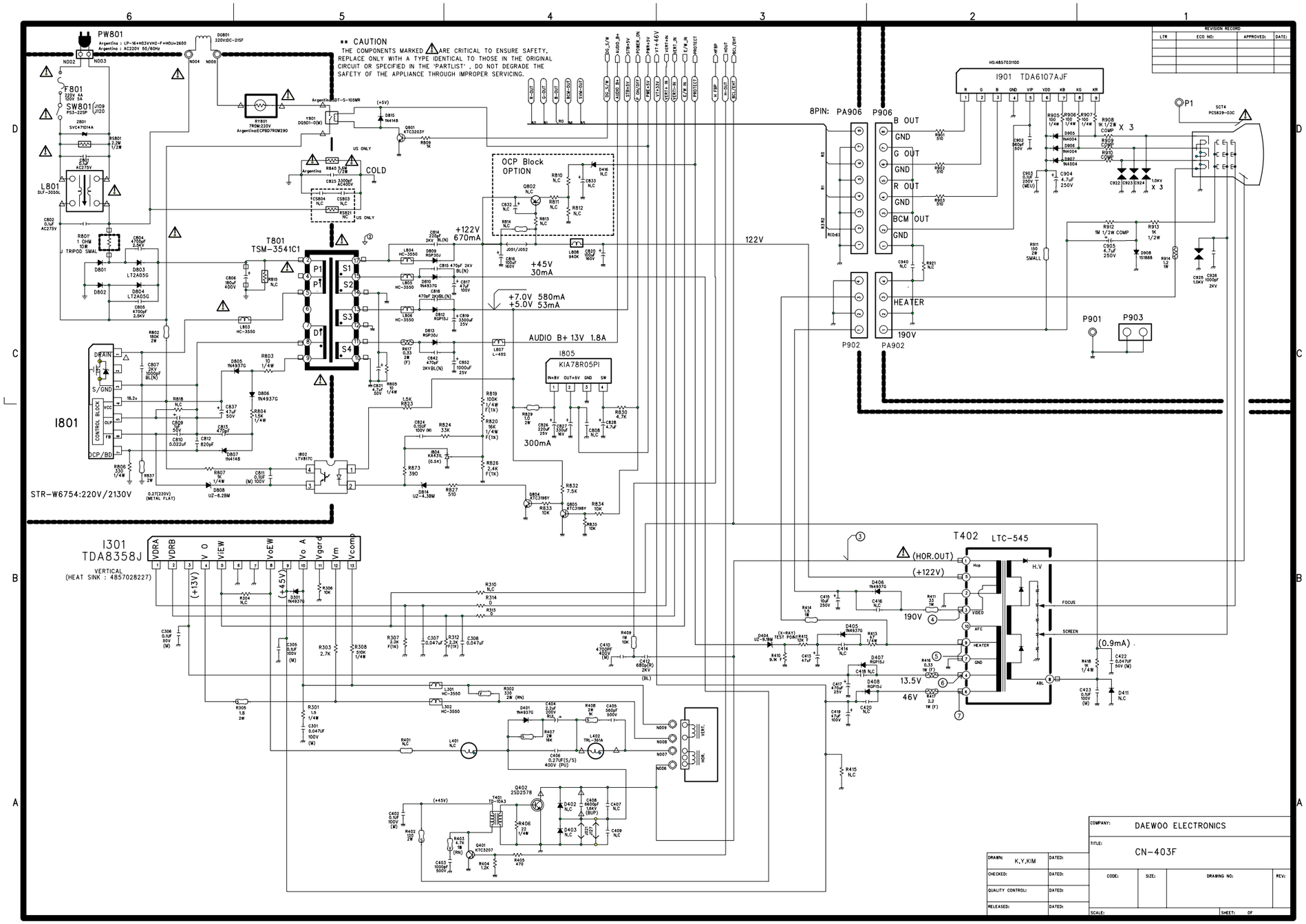
PRINTED CIRCUIT BOARD



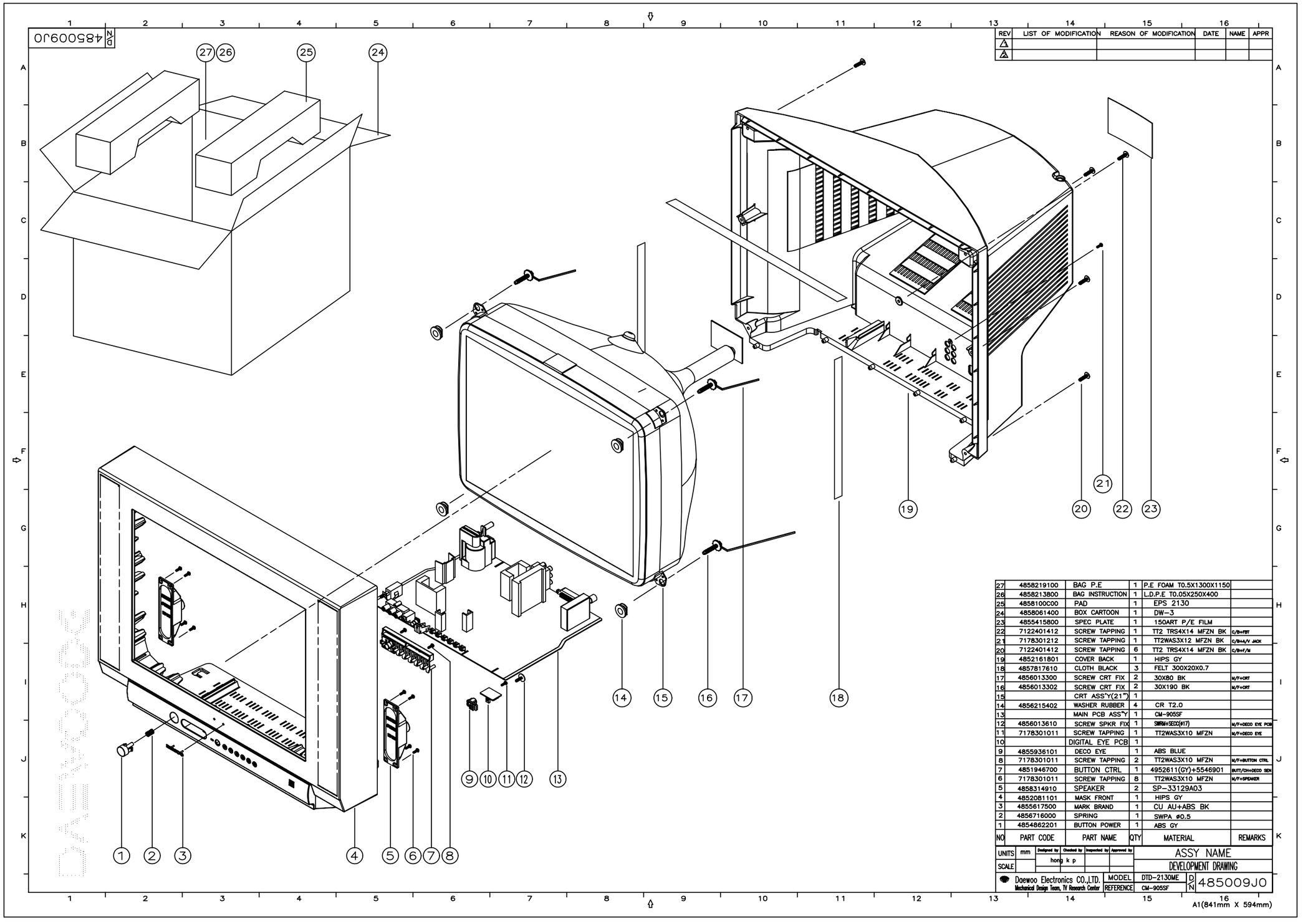
SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM



EXPLODE VIEW



NO	PART CODE	PART NAME	QTY	MATERIAL	REMARKS
27	4858219100	BAG P.E	1	P.E FOAM T0.5X1300X1150	
26	4858213800	BAG INSTRUCTION	1	L.D.P.E T0.05X250X400	
25	4858100C00	PAD	1	EPS 2130	
24	4858061400	BOX CARTOON	1	DW-3	
23	4855415800	SPEC PLATE	1	150ART P/E FILM	
22	7122401412	SCREW TAPPING	1	TT2 TRS4X14 MFZN BK	C/B+FBT
21	7178301212	SCREW TAPPING	1	TT2WAS3X12 MFZN BK	C/B+A/V JACK
20	7122401412	SCREW TAPPING	6	TT2 TRS4X14 MFZN BK	C/B+F/M
19	4852161801	COVER BACK	1	HIPS GY	
18	4857817610	CLOTH BLACK	3	FELT 300X20X0.7	
17	4856013300	SCREW CRT FIX	2	30X80 BK	M/F+CRT
16	4856013302	SCREW CRT FIX	2	30X190 BK	M/F+CRT
15		CRT ASS'Y(21")	1		
14	4856215402	WASHER RUBBER	4	CR T2.0	
13		MAIN PCB ASS'Y	1	CM-905SF	
12	4856013610	SCREW SPKR FIX	1	SWRM+SECC(#17)	M/F+DECO EYE PCB
11	7178301011	SCREW TAPPING	1	TT2WAS3X10 MFZN	M/F+DECO EYE
10		DIGITAL EYE PCB	1		
9	4855936101	DECO EYE	1	ABS BLUE	
8	7178301011	SCREW TAPPING	2	TT2WAS3X10 MFZN	M/F+BUTTON CTRL
7	4851946700	BUTTON CTRL	1	4952611(GY)+5546901	BUTT/CH+DECO SEN
6	7178301011	SCREW TAPPING	8	TT2WAS3X10 MFZN	M/F+SPEAKER
5	4858314910	SPEAKER	2	SP-33129A03	
4	4852081101	MASK FRONT	1	HIPS GY	
3	4855617500	MARK BRAND	1	CU AU+ABS BK	
2	4856716000	SPRING	1	SWPA ø0.5	
1	4854862201	BUTTON POWER	1	ABS GY	

UNITS	mm	Designed by	Checked by	Inspected by	Approved by	ASSY NAME
SCALE		hong k p				DEVELOPMENT DRAWING
Daewoo Electronics CO.,LTD. Mechanical Design Team, TV Research Center			MODEL	DTD-2130ME	DWG NO	485009J0
			REFERENCE	CM-905SF		

A1(841mm X 594mm)

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