

Service Manual

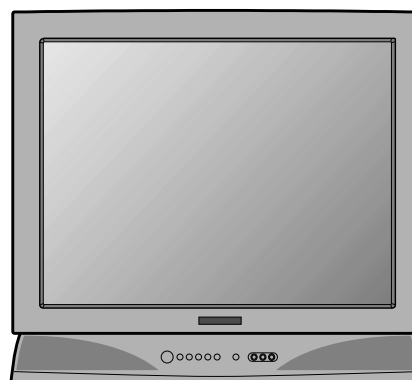
Color Television

CHASSIS : CN-011N

Model :

**DTQ-29S4FC
DTQ-29S4SC
DTQ-29S4SS**

**U.S.A
Canada**



■ SPECIFICATIONS

ITEMS	MODEL	DTQ-29S4FC	DTQ-29S4SC	DTQ-29S4SS
TV STANDARD		NTSC-M		
POWER INPUT		AC 120V 60Hz		
POWER CONSUMPTION		100W		
TUNING SYSTEM		Frequency Synthesizer(FS) Tuning System		
TUNING RANGES		VHF:2~13(12) UHF:14~69(65) CATV:1~125(125)		
SOUND OUTPUT		1.8W×1.8W		
SPEAKER		3W 8ohm		
ANTENNA INPUT IMPEDANCE		75ohm Unbalanced		
AUXILIARY INPUT TERMINAL		Front : Video, Audio Rear:Video, Audio		
INTERMEDIATE FREQUENCIES		Picture IF Carrier Frequency :45.75MHz Sound IF Carrier Frequency :41.25MHz Color Sub-Carrier Frequency :42.17MHz		
REMOTE CONTROL		R-43A01		
SPECIAL FUNCTIONS		3-Language OSD With CAPTION Wake-up On/Off Time Sleep Timer Power Restore		

DAEWOO ELECTRONICS CO., LTD

http : //svc.dwe.co.kr

Feb. 2002

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PRODUCT SAFETY SERVICING GUIDELINES FOR COLOR TELEVISION RECEIVERS

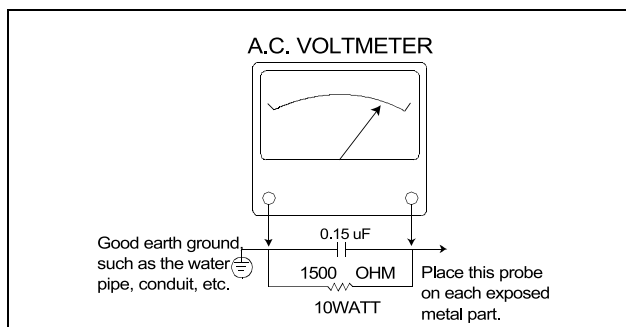
CAUTION : Do not attempt to modify this product in any way. Unauthorized modifications will not only void the warranty, but may lead to your being liable for any resulting property damage or user injury. Service work should be performed only after you are thoroughly familiar with all of the following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

SAFETY CHECKS

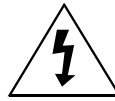
After the original service problem has been corrected, a check should be made of the following:

SUBJECT : FIRE & SHOCK HAZARD

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



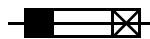
GRAPHIC SYMBOLS :



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



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



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

"CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE (5A, 125V)" and **"ATTENTION: AFIN D'ASSURER UNE PROTECTION PERMANENTE CONTRE LES RISQUES D'INCENDIE, REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE ET DE "5A, 125V".**

SUBJECT : X-RADIATION

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

SUBJECT : IMPLOSION

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

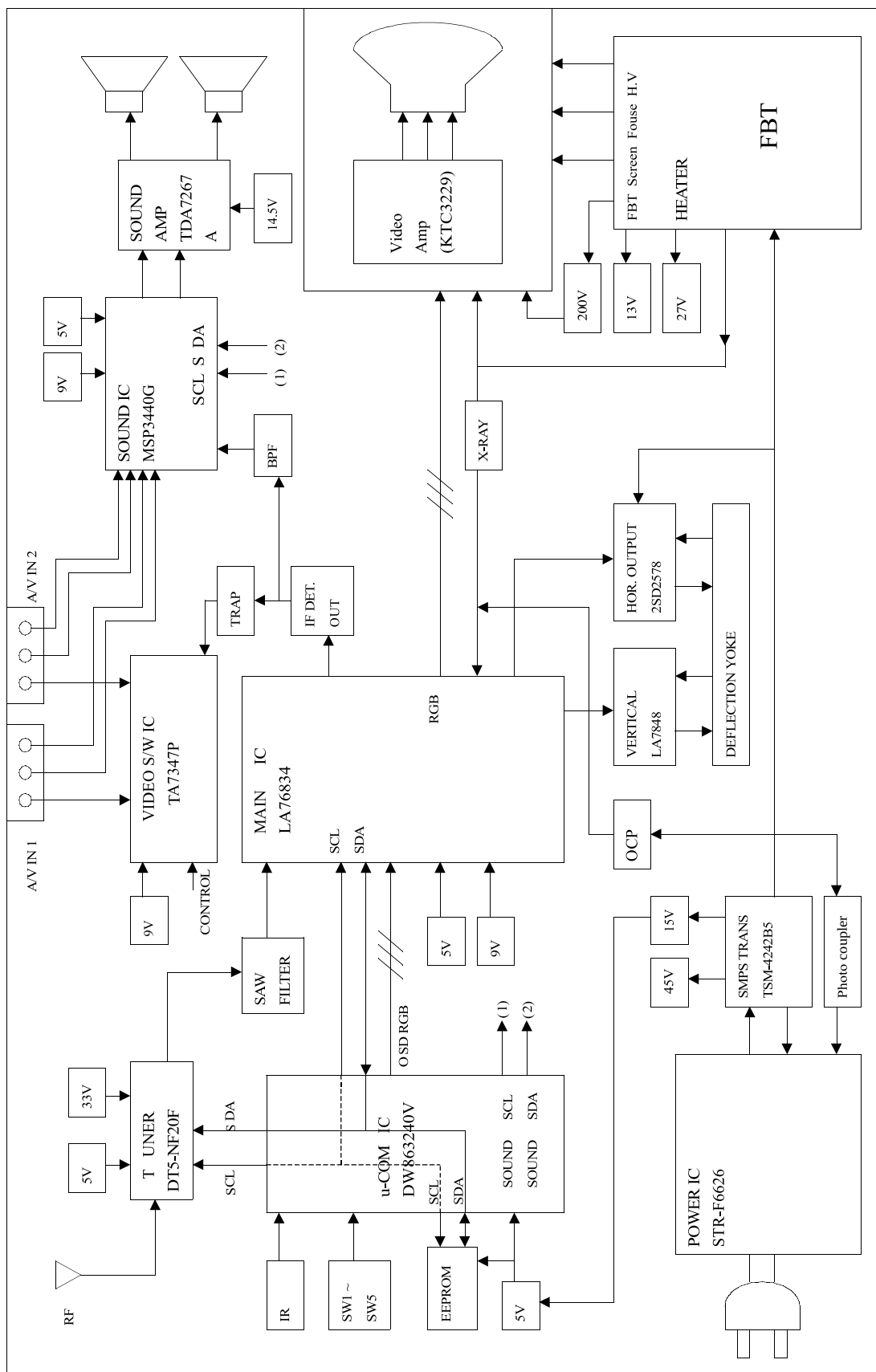
SUBJECT : TIPS ON PROPER INSTALLATION

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

SPECIFICATIONS

MODEL ITEMS	DTQ-29S4FC	DTQ-29S4SC	DTQ-29S4SS	REMARKS
TV STANDARD	NTSC-M			
POWER INPUT	AC 120V 60 Hz			
POWER CONSUMPTION	100W			
TUNING SYSTEM	Frequency Synthesizer (FS) Tuning System			
TUNING RANGES	VHF : 2 ~ 13 (12) UHF : 14 ~ 69 (56) CATV : 1 ~ 125 (125)			
SOUND OUTPUT	1.8W × 1.8W			
SPEAKER	3 W 8 ohm			
ANTENNA INPUT IMPEDANCE	75 ohm Unbalanced			
AUXILIARY INPUT TERMINAL	Front : Video, Audio Rear : Video, Audio			
INTERMEDIATE FREQUENCIES	Picture IF Carrier Frequency : 45.75 MHz Sound IF Carrier Frequency : 41.25 MHz Color Sub-Carrier Frequency : 42.17 MHz			
REMOTE CONTROL	R-43A01			
SPECIAL FUNCTIONS	3-Language OSD With CAPTION Wake-up On/Off Time Sleep Timer Power Restore			

CIRCUIT BLOCK DIAGRAM



ALIGNMENT INSTRUCTIONS

1. SERVICE MODE ADJUSTMENTS

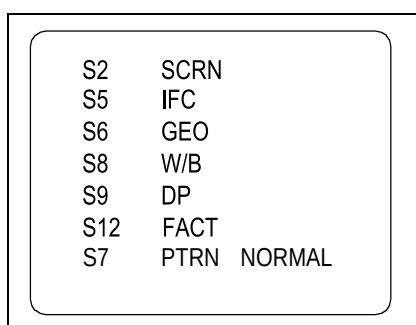
Follow the steps below whenever service adjustment is required. See Table- A and Table- B to determine if service adjustments are required.

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

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

1 → MUTE → DISPLAY → MUTE

- Then, the screen will appear as follows.



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

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

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

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

PART REPLACED	ADJUSTMENT		NOTES								
	NECESSARY	UNNECESSARY									
I701 (U-COM)		O	Data is stored in I702.								
I101 (MAIN)		O									
I70 2 (EEPROM)	O		Initial setting values are written from I701. ADJUSTING ITEMS <table><tr><td>S5</td><td>RFAGCD</td></tr><tr><td>S6</td><td>H.PHASE/V.POSI/V.SIZE</td></tr><tr><td>S8</td><td>RD/GD/BD/RB/GB/BB</td></tr><tr><td>S9</td><td>Subbrightness</td></tr></table>	S5	RFAGCD	S6	H.PHASE/V.POSI/V.SIZE	S8	RD/GD/BD/RB/GB/BB	S9	Subbrightness
S5	RFAGCD										
S6	H.PHASE/V.POSI/V.SIZE										
S8	RD/GD/BD/RB/GB/BB										
S9	Subbrightness										
CRT	O		Adjust items related to picture tube only.(White Balance adjustment)								

ALIGNMENT INSTRUCTIONS

Table-B

MODE	ADJUSTMENT	DATA		REMARKS
		INITIAL	RANGE	
S2	Screen Adjustment			
S5	Auto RF AGC			
	Video Level (VIDEOL)	7	0~7	Must be set to 7
	RF AGC Delay (RFAGCD)	30	0~63	Align RF AGC threshold
	FM Level (FM.LEV)	20	0~31	Must be set to 20
	AGC Point	3.75		Select AGC reference voltage
	A/D VALUE			
S6	H-PHASE	10	0~31	Align sync flyback pulse, using internal cross pattern(S7)
	H-SIZE	43	0~127	
	P-CUSHION	32	0~63	
	V-POSI	29	0~63	Align Vertical DC bias, using internal cross pattern(S7)
	V-SIZE	110	0~127	Align Vertical amplitude, using internal cross pattern(S7)
	V-LIN	13	0~31	Must be set to 16
	V-S	12	0~31	
	TILT	37	0~63	
	TOP-C	8	0~15	
	BOT-C	8	0~15	
	V-SIZE-C	7	0~7	
	NO SD POWER OFF	YES		Automatically turn off in 15min for no received signal.
S7-1	ABL-POINT	0		
	BK-LEVEL	0		
	BK-START	3		
	BRI-STOP	0		
	Y-CORING	0		
	PRE-SHOOT	3		
	DC-REST	3		
	W.PEAK	1		
	FIESH	0		
	OSD-GAIN	0		
	OSD-GRAY	0		
	OSD-SW	0		
	HT-SW	0		
	HT-LEVEL	0		
S7-2	C-BPF	0		
	C-KILL	1		
	RB-ANGLE	15		
	G-ANGLE	0		
	C-EXT	0		
	FILTER	1		
	TRAP-TEST	0		
	CORING-GN	3		
	H-SIZE-CP	4		
S8	Red Drive (RD)		0~127	Align RED OUT AC level
	Green Drive (GD)	15	0~15	Must be set to 10
	Blue Drive (BD)		0~127	Align BLUE OUT AC level
	Red Bias (RB)		0~255	Align RED OUT DC level
	Green Bias (GB)	127	0~255	Align GREEN OUT DC level
	Blue Bias (BB)		0~255	Align BLUE OUT DC level
S8-2	SCR R-BIAS	0	0~255	
	SCR G-BIAS	127	0~255	
	SCR B-BIAS	0	0~255	
	SCR R-DRIVE	64	0~127	
	SCR G-DRIVE	10	0~127	
	SCR B-DRIVE	64	0~127	
	SCR BRIGHT	110	0~127	
S9	SUB BRIGHT	90	0~127	
	CONTRAST	27	0~127	
	TINT	35	0~127	
	COLOR	27	0~127	
	SHARPNESS	7	0~127	
	FM/AM PRE	33	0~127	
	SCART PRE	33	0~127	
	MONI. VOL	60	0~127	
S11	Internal Black			Display Internal Black Pattern
	Internal 100% White			Display Internal 100% White
	Internal 60% White			Display Internal 60% White
	Internal Cross Pattern			Display Internal Cross Pattern
S12	Forwarding Mode			Factory Initialization

2. ASSEMBLY ADJUSTMENTS

1) SCREEN ADJUSTMENT (S2)

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

NOTE

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

2) FOCUS ADJUSTMENT

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

3) RF AGC DELAY ADJUSTMENT (S5)

- Receive a good local channel.
- Enter the service mode and select service adjustment S5.
- You can see the OSD as shown in below.

IF		CONTROL	
AUTO	RFAGC	START	
VIDEOL		7	
RFAGCD		30	
FM.LEV		20	
AGC POINT		3.75	
A/D VALUE : 75h			
◆ MOVE ◀▶ ADJUST RECALL : SET			

- Select RFAGCD item, press the volume up or down button until noise or beat in picture disappears.
- Press the DISPLAY button to memorize the data.

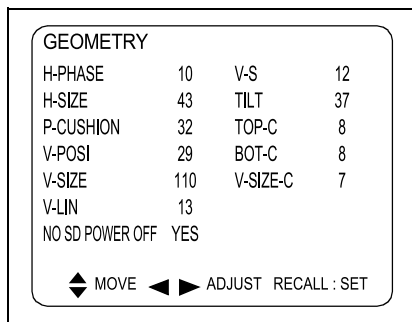
ALIGNMENT INSTRUCTIONS

4) GEOMETRIC ADJUSTMENTS (S6)

- Enter the service mode and select service adjustment S11.
- Whenever you select the “S11” using the volume up or down button, the screen is changing like this.



- Using the volume up or down button, select internal cross pattern.
- Select service adjustment S6
- You can see the OSD as shown in below.



4-1. Horizontal Position Adjustment

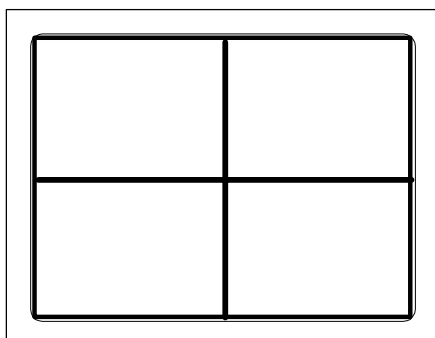
- Select H.PHASE item, adjust H.PHASE data value to obtain proper horizontal centering of the internal cross pattern at the left and right of the screen.

4-2. Vertical Position Adjustment

- Select V.POSI item, adjust V.POSI 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.



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.

S8-1

RD	90
GD	15
BD	90
RB	165
GB	127
BB	165
◀ MOVE ▶ ADJUST RECALL : SET	

S8-2

SCR R-BIAS	0
SCR G-BIAS	127
SCR B-BIAS	0
SCR R-DRIV	64
SCR G-DRIV	10
SCR B-DRIV	64
SCR BRIGHT	110
◀ MOVE ▶ ADJUST RECALL : SET	

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

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.

SUBBRIGHTNESS	90
CONTRAST	27
TINT	35
COLOR	27
SHARPNESS	7
FM/AM PRE	33
SCART PRE	33
MONI. VOL	60
◀ MOVE ▶ ADJUST RECALL : SET	

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

CONTRAST

- Fixed value = 27

TINT

- Fixed value = 35

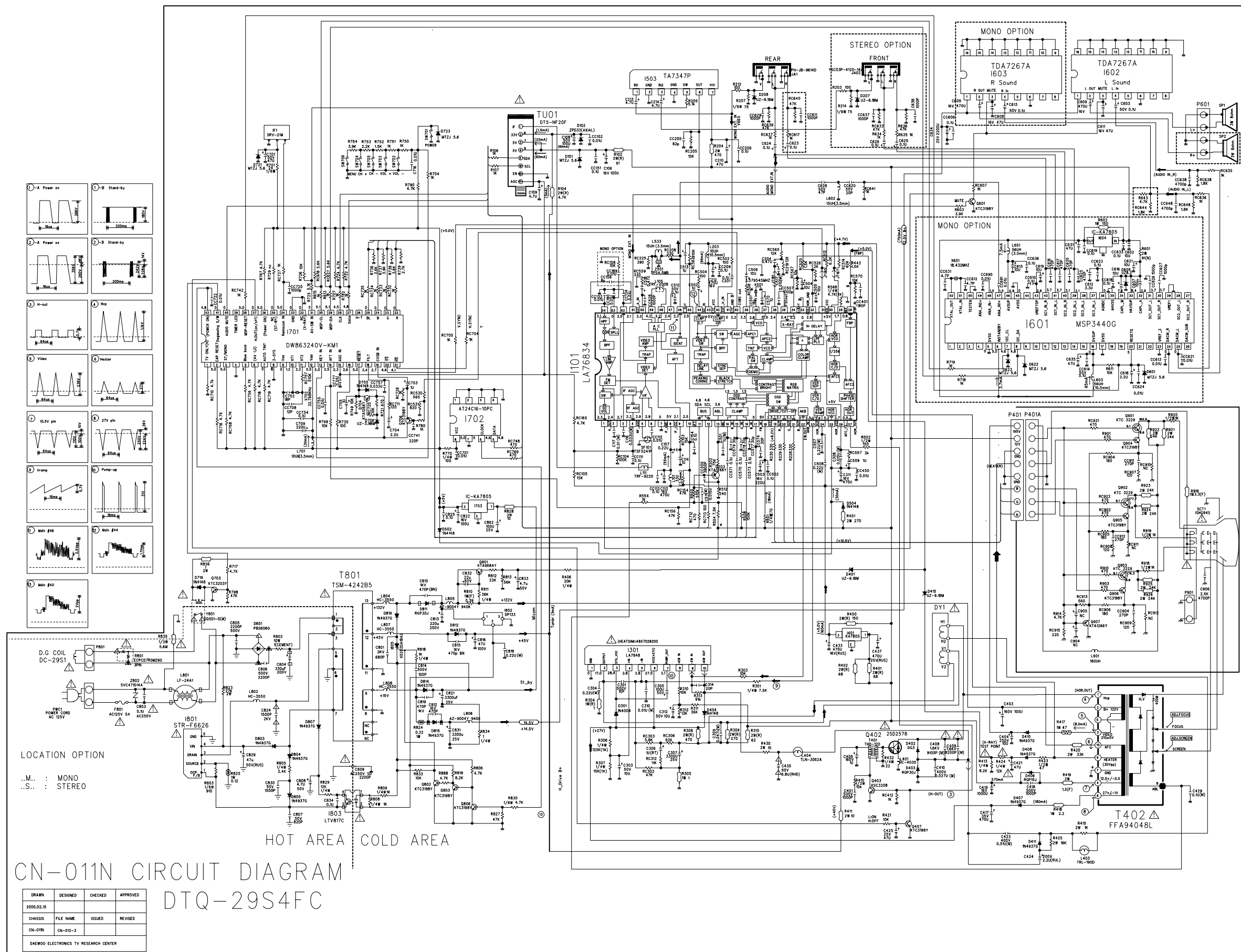
COLOR

- Fixed value = 27

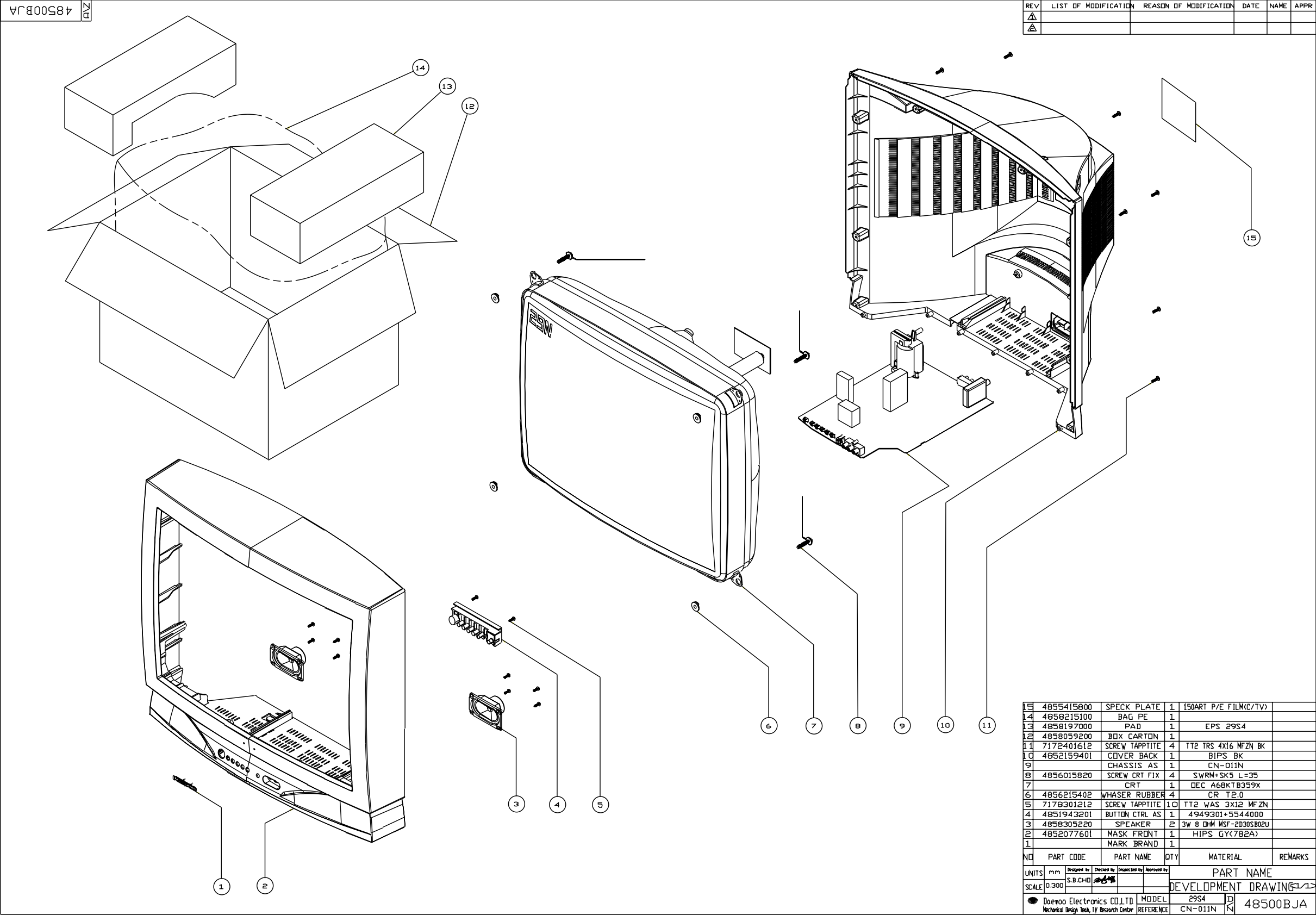
7) FACTORY OUTGOING MODE (S12 : FACT)

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

SCHEMATIC DIAGRAM



EXPLODED VIEW



PRINTED CIRCUIT BOARD

SERVICE PARTS LIST

CAUTION

“△” is a safety part, so it must be used the same part.
 “®” is a recommendable part for essential stock.

LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK	LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK
ZZ100	48B434A01	TRANSMITTER REMOCON	R-43A01 (AA)		C813	CEYN2D221T	C ELECTRO	200V FWS 220MF (22X30)	
ZZ110	PTACPWJ882	ACCESSORY AS	DTQ-29S4FC		C821	CEYF1E332V	C ELECTRO	25V RSS 3300MF (16X31.5)	
00020	48586054K1	MANUAL INSTRUCTION	DTM-2082CW		C824	CBYB3D152K	C CERA SEMI	2KV BL(N) 1500PF K	
M821	4858213800	BAG INSTRUCTION	L.D.P.E T0.05X250X400		C831	CEYF1E332V	C ELECTRO	25V RSS 3300MF (16X31.5)	
ZZ120	PTBCSHJ882	COVER BACK AS	DTQ-29S4FC		D402	DDG3—	DIODE	DG3	
M211	4852159400	COVER BACK	FR HIPS BK		D403	DRGP30J—	DIODE	RGP30J	
M781	4857817630	CLOTH BLACK	FELT 400X20X0.7		D801	DPBS606GU-	DIODE BRIDGE	PBS606G	
ZZ130	PTPKCPJ882	PACKING AS	DTQ-29S4FC		D811	DRGP30J—	DIODE	RGP30J	
10	6520010100	STAPLE PIN	AUTO W65		F801	5F1GB5021L	FUSE GLASS TUBE	CSA/UL 125V 5A	
M801	4858059200	BOX CARTON	SW-4		I101	1LA76834—	IC MAIN	LA76834	
M811	4858197000	PAD	EPS 29S4		I301	PTC2SW8202	HEAT SINK ASS'Y	1LA7848— + 7174300811	
M822	4858215100	BAG P.E	PE FOAM t0.5x1430x1270		00001	1LA7848—	IC VERTICAL	LA7848	
ZZ131	58G0000143	COIL DEGAUSSING	DC-29S1		0000A	4857028202	HEAT SINK	AL EX BK	
ZZ132	48519A6210	CRT GROUND AS	GND LINE IEA 29		0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
ZZ140	PTCACAJ882	CABINET AS	DTQ-29S4FC		I401	1K1A7805P1	IC REGULATOR	KIA7805API	
M201A	4856215402	WASHER RUBBER	CR T2.0		I503	1TA7347P—	IC SWITCH	TA7347P	
M201B	4856015830	SCREW CRT FIX	L=32		I601	1MSP3420B8	IC SOUND PROCESSOR	MSP3420G-P0-B8	
M211A	7172401612	SCREW TAPPTITE	TT2 TRS 4X16 MFZN BK		I602	1TDA7267A-	IC AMP	TDA7267A	
M541	4855415800	SPEC PLATE	150ART P/E FILM (C/TV)		I603	1TDA7267A-	IC AMP	TDA7267A	
SP01A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN		I604	1KA7805—	IC REGULATOR	KA7805	
SP02A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN		I701	1DW8632LA2	IC MICOM	DW863240V-LA2	
V901	4859633760	CRT	A68KTB359X001(B) P50		I702	1AT24C16PC	IC	AT24C16-10PC	
ZZ200	PTFMSJJ882	MASK FRONT AS	DTQ-29S4FC		I703	1K1A7805P1	IC REGULATOR	KIA7805API	
M191	4851943200	BUTTON CTRL	4949300+5544000		I801	PTF2SW7701	HEAT SINK ASS'Y	1STRF6626- + 7174300811	
M191A	7178301011	SCREW TAPPTITE	TT2 WAS 3X10 MFZN		I801	1STRF6626-	IC POWER	STR-F6626	
M201	4852077600	MASK FRONT	FR HIPS GY(782A)		I801A	4857027701	HEAT SINK	AL EX	
M201A	4857817610	CLOTH BLACK	FELT 300X20X0.7		I801B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN	
M561	4855617400	MARK BRAND	CU AU+ABS BK		I802	1DP133—	IC ERROR AMP	DP133	
ZZ210	PTSPPWJ882	SPEAKER AS	DTQ-29S4FC		I803	1LTV817C—	IC PHOTO COUPLER	LTV-817C	
P601A	4850704S27	CONNECTOR	YH025-04+35098+ULW=400		I805	TX0202DA—	THYRISTOR	X0202DA1BA2	
SP01	4858305220	SPEAKER	SP-5090F01		IF01	1SRV21M—	IC PREAMP	SRV-21M	
SP02	4858305220	SPEAKER	SP-5090F01		JA01	4859108450	JACK PIN BOARD	YSC03P-4120-14A	
ZZ290	PTMPMSJ882	PCB MAIN MANUAL AS	DTQ-29S4FC		JA02	4859109250	JACK PIN BOARD	PH-JB-9614A	
10	2193102005	SOLDER BAR	SN:PB=63:47 S63S-1320		L105	58N0000042	COIL VCO	TRF-V008	
30	2291050616	FLUX SOLDER	JS-64T3		L403	58H0000047	COIL H-LINEARITY	TRL-190D	
40	2291050301	FLUX SOLVENT	IM-1000		L404	58C7070085	COIL CHOKE	TLN-3062A	
C307	CEYF1E332V	C ELECTRO	25V RSS 3300MF (16X31.5)		L801	5PLF24A1—	FILTER LINE	LF-24A1	
C408	CMYH3C912J	C MYLAR	1.6KV BUP 9100PF J		P401A	4850708N08	CONNECTOR	BIC-08T-25T+C-20T+ULW=400	
C409	CMYH3C822J	C MYLAR	1.6KV BUP 8200PF J		PWC1	4859907810	CORD POWER AS	ME301P+TER=2100	
C410	CMYE2G273J	C MYLAR	400V PU 0.027MF J		Q402	PTB2SW7609	HEAT SINK ASS'Y	T2SD2578— + 7174300811	
C423	CMYE2G514J	C MYLAR	400V PU 0.51MF J		00001	T2SD2578—	TR	2SD2578	
C430	CEYD1H689W	C ELECTRO	50V RHD 6.8MF (16X35.5)		0000A	4857027609	HEAT SINK	AL EX	
C803	CL1UC3104M	C LINE ACROSS	WORLD AC250V 0.1UF M R.47		0000B	7174300811	SCREW TAPPTITE	TT2 RND 3X8 MFZN	
C804	CEYN2D331P	C ELECTRO	200V LHS 330MF		Q403	TKTC3229—	TR	KTC3229	
C809	CH1BFE222M	C CERA AC	U/C/V AC400V 2200PF		Q801	TKTA968AY-	TR	KTA968AY	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK	LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK
Q901	PTL2SW6900	HEAT SINK ASS'Y	TKTC3229— + 7174301011		CC574	HCQK300JCA	C CHIP CERA	50V CH 30PF J 2012	
00001	TKTC3229—	TR	KTC3229		CC577	HCQK300JCA	C CHIP CERA	50V CH 30PF J 2012	
0000A	4857026900	HEAT SINK	AL EX		CC578	HCQK300JCA	C CHIP CERA	50V CH 30PF J 2012	
0000B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN		CC579	HCQK300JCA	C CHIP CERA	50V CH 30PF J 2012	
Q902	PTL2SW6900	HEAT SINK ASS'Y	TKTC3229— + 7174301011		CC606	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
00001	TKTC3229—	TR	KTC3229		CC610	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
0000A	4857026900	HEAT SINK	AL EX		CC611	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
0000B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN		CC612	HCQK479CCA	C CHIP CERA	50V CH 4.7PF C 2012	
Q903	PTL2SW6900	HEAT SINK ASS'Y	TKTC3229— + 7174301011		CC613	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
00001	TKTC3229—	TR	KTC3229		CC614	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
0000A	4857026900	HEAT SINK	AL EX		CC616	HCQK471JCA	C CHIP CERA	50V CH 470PF J 2012	
0000B	7174301011	SCREW TAPPTITE	TT2 RND 3X10 MFZN		CC617	HCQK471JCA	C CHIP CERA	50V CH 470PF J 2012	
R801	DPB3R0M140	POSISTOR	2322 662 96693		CC618	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
R802	RX10B109JQ	R CEMENT	10W 1 OHM J BEN 25MM 4P		CC619	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
SCT1	4859303830	SOCKET CRT	ISHG94S		CC620	HCQK200JCA	C CHIP CERA	50V CH 20PF J 2012	
SF101	5PTS5241P	FILTER SAW	TSF5241P		CC621	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
T401	5TD0000018	TRANS DRIVE	THD-120		CC623	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
T402	50H0000222	FBT	BSC29-0197		CC624	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
T801	50M4242B5-	TRANS SMPS	TSM-4242B5		CC625	HCQK471JCA	C CHIP CERA	50V CH 470PF J 2012	
TU01	4859719130	TUNER VARACTOR	DT5-NF20F		CC626	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
X601	5XE18R432E	CRYSTAL QUARTZ	HC-49/U 18.43200MHZ 30PPM		CC627	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
X702	5XYR03276C	CRYSTAL QUARTZ	C-001R 32.768000KHZ 20PPM		CC629	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
Y801	5SC0101338	SW RELAY	DQ5D1-Q(M)/GJ-SS-105LM		CC631	HCQK479CCA	C CHIP CERA	50V CH 4.7PF C 2012	
Z501	5PYXT4R5MB	FILTER CERA	XT 4.5MB		CC633	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
Z802	DSVC471D14	VARISTOR	SVC471D14A		CC635	HCQK471JCA	C CHIP CERA	50V CH 470PF J 2012	
ZZ200	PTMPJ2J882	PCB CHIP MOUNT B AS	DTQ-29S4FC		CC636	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC102	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012		CC637	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CC111	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		CC638	HCBK472KCA	C CHIP CERA	50V X7R 4700PF K 2012	
CC112	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012		CC648	HCBK472KCA	C CHIP CERA	50V X7R 4700PF K 2012	
CC113	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		CC690	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
CC133	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012		CC691	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
CC134	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012		CC701	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
CC151	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		CC708	HCQK120JCA	C CHIP CERA	50V CH 12PF J 2012	
CC154	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		CC720	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012	
CC180	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012		CC722	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
CC205	HCQK820JCA	C CHIP CERA	50V CH 82PF J 2012		CC741	HCQK221JCA	C CHIP CERA	50V CH 220PF J 2012	
CC206	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		CC752	HCQK180JCA	C CHIP CERA	50V CH 18PF J 2012	
CC209	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		CC754	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012	
CC401	HCQK181JCA	C CHIP CERA	50V CH 180PF J 2012		CC755	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
CC450	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012		CC757	HCBK333KCA	C CHIP CERA	50V X7R 0.033MF K 2012	
CC500	HCBK392KCA	C CHIP CERA	50V X7R 3900PF K 2012		CC777	HCFK103ZCA	C CHIP CERA	50V Y5V 0.01MF Z 2012	
CC501	HCQK160JCA	C CHIP CERA	50V CH 16PF J 2012		CC904	HCQK271JCA	C CHIP CERA	50V CH 270PF J 2012	
CC502	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		CC911	HCQK271JCA	C CHIP CERA	50V CH 270PF J 2012	
CC507	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012		CC912	HCQK271JCA	C CHIP CERA	50V CH 270PF J 2012	
CC528	HCBK102KCA	C CHIP CERA	50V X7R 1000PF K 2012		RC103	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
CC570	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		RC104	HRFT104JCA	R CHIP	1/10 100K OHM J 2012	
CC571	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		RC105	HRFT153JCA	R CHIP	1/10 15K OHM J 2012	
CC573	HCFK104ZCA	C CHIP CERA	50V Y5V 0.1MF Z 2012		RC154	HRFT473JCA	R CHIP	1/10 47K OHM J 2012	

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LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK	LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK
RC165	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012		RC728	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC205	HRFT103JCA	R CHIP	1/10 10K OHM J 2012		RC732	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC208	HRFT331JCA	R CHIP	1/10 330 OHM J 2012		RC733	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC219	HRFT123JCA	R CHIP	1/10 12K OHM J 2012		RC734	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC225	HRFT391JCA	R CHIP	1/10 390 OHM J 2012		RC735	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC302	HRFT473JCA	R CHIP	1/10 47K OHM J 2012		RC742	HRFT102JCA	R CHIP	1/10 1K OHM J 2012	
RC303	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012		RC748	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC306	HRFT623JCA	R CHIP	1/10 62K OHM J 2012		RC756	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC312	HRFT113JCA	R CHIP	1/10 11K OHM J 2012		RC757	HRFT514JCA	R CHIP	1/10 510K OHM J 2012	
RC412	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		RC758	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012	
RC502	HRFT101JCA	R CHIP	1/10 100 OHM J 2012		RC769	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC504	HRFT101JCA	R CHIP	1/10 100 OHM J 2012		RC902	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC508	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		RC904	HRFT181JCA	R CHIP	1/10 180 OHM J 2012	
RC512	HRFT622JCA	R CHIP	1/10 6.2K OHM J 2012		RC905	HRFT181JCA	R CHIP	1/10 180 OHM J 2012	
RC514	HRFT623JCA	R CHIP	1/10 62K OHM J 2012		RC906	HRFT181JCA	R CHIP	1/10 180 OHM J 2012	
RC525	HRFT152JCA	R CHIP	1/10 1.5K OHM J 2012		RC907	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RC526	HRFT122JCA	R CHIP	1/10 1.2K OHM J 2012		RC908	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RC530	HRFT561JCA	R CHIP	1/10 560 OHM J 2012		RC909	HRFT121JCA	R CHIP	1/10 120 OHM J 2012	
RC531	HRFT821JCA	R CHIP	1/10 820 OHM J 2012		RC913	HRFT561JCA	R CHIP	1/10 560 OHM J 2012	
RC557	HRFT302JCA	R CHIP	1/10 3K OHM J 2012		RC915	HRFT221JCA	R CHIP	1/10 220 OHM J 2012	
RC559	HRFT331JCA	R CHIP	1/10 330 OHM J 2012		RC921	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC562	HRFT914JCA	R CHIP	1/10 910KOHM J 2012		RC922	HRFT471JCA	R CHIP	1/10 470 OHM J 2012	
RC565	HRFT123JCA	R CHIP	1/10 12K OHM J 2012		ZZ200	PTMPJ0J882	PCB MAIN (RHU) AS	DTQ-29S4FC	
RC567	HRFT103JCA	R CHIP	1/10 10K OHM J 2012		C113	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
RC570	HRFT103JCA	R CHIP	1/10 10K OHM J 2012		C212	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
RC607	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		C311	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
RC617	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		C403	CEXF2C101V	C ELECTRO	160V RSS 100MF (16X25) TP	
RC618	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012		C404	CEXF2E100V	C ELECTRO	250V RSS 10MF (10X20) TP	
RC627	HRFT562JCA	R CHIP	1/10 5.6K OHM J 2012		C417	CEXF1V471V	C ELECTRO	35V RSS 470MF (10X20) TP	
RC633	HRFT473JCA	R CHIP	1/10 47K OHM J 2012		C419	CEXF1C102V	C ELECTRO	16V RSS 1000MF (10X20) TP	
RC635	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		C424	CEXA2D229E	C ELECTRO	200V RUL 2.2MF (10X16) TP	
RC636	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		C433	CEXF1C471C	C ELECTRO	16V RUS 470MF (10X12.5)TP	
RC637	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		C437	CEXF1E471C	C ELECTRO	25V RUS 470MF (10X16) TP	
RC638	HRFT182JCA	R CHIP	1/10 1.8K OHM J 2012		C605	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
RC639	HRFT473JCA	R CHIP	1/10 47K OHM J 2012		C609	CEXF1C471V	C ELECTRO	16V RSS 470MF (10X12.5)TP	
RC640	HRFT473JCA	R CHIP	1/10 47K OHM J 2012		C634	CEXF1E222V	C ELECTRO	25V RSS 2200MF (16X25) TP	
RC641	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		C801	CCXB3D681K	C CERA	2KV B 680PF K (TAPPING)	
RC648	HRFT182JCA	R CHIP	1/10 1.8K OHM J 2012		C810	CBXB3D471K	C CERA SEMI	2KV BL(N) 470PF K (T)	
RC704	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		C816	CEXF2A470V	C ELECTRO	100V RSS 47MF (10X16) TP	
RC705	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		C906	CH1BEE472M	C CERA AC	U/C/V 2.5KV 4700PF TP	
RC710	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012		ZZ200	PTMPJB882	PCB MAIN M-10 AS	DTQ-29S4FC	
RC711	HRFT121JCA	R CHIP	1/10 120 OHM J 2012		10	2TM18006BE	TAPE MASKING	6.2X500	
RC712	HRFT471JCA	R CHIP	1/10 470 OHM J 2012		E001	4856310300	EYE LET	BSR T0.2 (R1.6)	
RC713	HRFT101JCA	R CHIP	1/10 100 OHM J 2012		E002	4856310300	EYE LET	BSR T0.2 (R1.6)	
RC716	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012		E003	4856310300	EYE LET	BSR T0.2 (R1.6)	
RC718	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012		E004	4856310300	EYE LET	BSR T0.2 (R1.6)	
RC719	HRFT472JCA	R CHIP	1/10 4.7K OHM J 2012		E005	4856310300	EYE LET	BSR T0.2 (R1.6)	
RC720	HRFT103JCA	R CHIP	1/10 10K OHM J 2012		E006	4856310300	EYE LET	BSR T0.2 (R1.6)	
RC727	HRFT102JCA	R CHIP	1/10 1K OHM J 2012		E007	4856310300	EYE LET	BSR T0.2 (R1.6)	

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LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK	LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK
E008	4856310300	EYE LET	BSR T0.2 (R1.6)		E057	4856310300	EYE LET	BSR T0.2 (R1.6)	
E009	4856310600	EYE LET	BSR T0.2 (R2.3)		E058	4856310300	EYE LET	BSR T0.2 (R1.6)	
E010	4856310600	EYE LET	BSR T0.2 (R2.3)		E059	4856310300	EYE LET	BSR T0.2 (R1.6)	
E011	4856310600	EYE LET	BSR T0.2 (R2.3)		E060	4856310300	EYE LET	BSR T0.2 (R1.6)	
E012	4856310600	EYE LET	BSR T0.2 (R2.3)		E061	4856310300	EYE LET	BSR T0.2 (R1.6)	
E013	4856310600	EYE LET	BSR T0.2 (R2.3)		E062	4856310600	EYE LET	BSR T0.2 (R2.3)	
E014	4856310600	EYE LET	BSR T0.2 (R2.3)		E063	4856310600	EYE LET	BSR T0.2 (R2.3)	
E015	4856310300	EYE LET	BSR T0.2 (R1.6)		E064	4856310300	EYE LET	BSR T0.2 (R1.6)	
E016	4856310300	EYE LET	BSR T0.2 (R1.6)		E065	4856310300	EYE LET	BSR T0.2 (R1.6)	
E017	4856310600	EYE LET	BSR T0.2 (R2.3)		E066	4856310300	EYE LET	BSR T0.2 (R1.6)	
E018	4856310600	EYE LET	BSR T0.2 (R2.3)		E067	4856310300	EYE LET	BSR T0.2 (R1.6)	
E019	4856310600	EYE LET	BSR T0.2 (R2.3)		E068	4856310300	EYE LET	BSR T0.2 (R1.6)	
E020	4856310600	EYE LET	BSR T0.2 (R2.3)		E069	4856310300	EYE LET	BSR T0.2 (R1.6)	
E021	4856310600	EYE LET	BSR T0.2 (R2.3)		E070	4856310300	EYE LET	BSR T0.2 (R1.6)	
E022	4856310600	EYE LET	BSR T0.2 (R2.3)		E071	4856310300	EYE LET	BSR T0.2 (R1.6)	
E023	4856310600	EYE LET	BSR T0.2 (R2.3)		E072	4856310600	EYE LET	BSR T0.2 (R2.3)	
E024	4856310300	EYE LET	BSR T0.2 (R1.6)		E073	4856310600	EYE LET	BSR T0.2 (R2.3)	
E025	4856310600	EYE LET	BSR T0.2 (R2.3)		E074	4856310600	EYE LET	BSR T0.2 (R2.3)	
E026	4856310300	EYE LET	BSR T0.2 (R1.6)		E075	4856310600	EYE LET	BSR T0.2 (R2.3)	
E027	4856310300	EYE LET	BSR T0.2 (R1.6)		E076	4856310300	EYE LET	BSR T0.2 (R1.6)	
E028	4856310300	EYE LET	BSR T0.2 (R1.6)		E077	4856310300	EYE LET	BSR T0.2 (R1.6)	
E029	4856310300	EYE LET	BSR T0.2 (R1.6)		E078	4856310300	EYE LET	BSR T0.2 (R1.6)	
E030	4856310600	EYE LET	BSR T0.2 (R2.3)		N005	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
E031	4856310600	EYE LET	BSR T0.2 (R2.3)		N006	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
E032	4856310300	EYE LET	BSR T0.2 (R1.6)		N007	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
E033	4856310600	EYE LET	BSR T0.2 (R2.3)		N008	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
E034	4856310600	EYE LET	BSR T0.2 (R2.3)		N009	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
E035	4856310600	EYE LET	BSR T0.2 (R2.3)		N010	4857417500	TERM PIN	DA-IB0214(D2.3/DY PIN)	
E036	4856310600	EYE LET	BSR T0.2 (R2.3)		P601	485923172S	CONN WAFER	YW025-04 (STICK)	
E037	4856310300	EYE LET	BSR T0.2 (R1.6)		R204	RS02Z471JS	R M-OXIDE FILM	2W 470 OHM J SMALL	
E038	4856310600	EYE LET	BSR T0.2 (R2.3)		R305	RS01Z109J-	R M-OXIDE FILM	1W 1 OHM J (TAPPING)	
E039	4856310600	EYE LET	BSR T0.2 (R2.3)		R411	RS02Z100JS	R M-OXIDE FILM	2W 10 OHM J SMALL	
E040	4856310300	EYE LET	BSR T0.2 (R1.6)		R415	RS02Z102JS	R M-OXIDE FILM	2W 1K OHM J SMALL	
E041	4856310300	EYE LET	BSR T0.2 (R1.6)		R417	RS02Z470JS	R M-OXIDE FILM	2W 47 OHM J SMALL	
E042	4856310300	EYE LET	BSR T0.2 (R1.6)		R418	RS01Z229J-	R M-OXIDE FILM	1W 2.2 OHM J (TAPPING)	
E043	4856310300	EYE LET	BSR T0.2 (R1.6)		R419	RF02Z159J-	R FUSIBLE	2W 1.5 OHM J (TAPPING)	
E044	4856310600	EYE LET	BSR T0.2 (R2.3)		R420	RS02Z333JS	R M-OXIDE FILM	2W 33K OHM J SMALL	
E045	4856310600	EYE LET	BSR T0.2 (R2.3)		R425	RS02Z153JS	R M-OXIDE FILM	2W 15K OHM J SMALL	
E046	4856310300	EYE LET	BSR T0.2 (R1.6)		R430	RS02Z100JS	R M-OXIDE FILM	2W 10 OHM J SMALL	
E047	4856310600	EYE LET	BSR T0.2 (R2.3)		R451	RS02Z271JS	R M-OXIDE FILM	2W 270 OHM J SMALL	
E048	4856310300	EYE LET	BSR T0.2 (R1.6)		R601	RS02Z910JS	R M-OXIDE FILM	2W 91 OHM J SMALL	
E049	4856310300	EYE LET	BSR T0.2 (R1.6)		R602	RS01Z121J-	R M-OXIDE FILM	1W 120 OHM J (TAPPING)	
E050	4856310300	EYE LET	BSR T0.2 (R1.6)		R810	RF01Z398K-	R FUSIBLE	1W 0.39 OHM K (TAPPING)	
E051	4856310300	EYE LET	BSR T0.2 (R1.6)		R823	RS02Z273JS	R M-OXIDE FILM	2W 27K OHM J SMALL	
E052	4856310300	EYE LET	BSR T0.2 (R1.6)		R824	RS01Z228J-	R M-OXIDE FILM	1W 0.22 OHM J	
E053	4856310300	EYE LET	BSR T0.2 (R1.6)		R825	RF02Z128J-	R FUSIBLE	2W 0.12 OHM J (TAPPING)	
E054	4856310300	EYE LET	BSR T0.2 (R1.6)		R826	RS02Z109JS	R M-OXIDE FILM	2W 1 OHM J SMALL	
E055	4856310600	EYE LET	BSR T0.2 (R2.3)		R828	RS02Z100JS	R M-OXIDE FILM	2W 10 OHM J SMALL	
E056	4856310300	EYE LET	BSR T0.2 (R1.6)		R916	RS01Z339J-	R M-OXIDE FILM	1W 3.3 OHM J (TAPPING)	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK	LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK
R921	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL		C602	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
R922	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL		C603	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP	
R923	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL		C607	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
R924	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL		C608	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
R925	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL		C611	CEXF1C470V	C ELECTRO	16V RSS 47MF (5X11) TP	
R926	RS02Z243JS	R M-OXIDE FILM	2W 24K OHM J SMALL		C612	CEXF1H339V	C ELECTRO	50V RSS 3.3MF (5X11) TP	
ZZ200	PTMPJRJ882	PCB MAIN RADIAL AS	DTQ-29S4FC		C613	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP	
C106	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP		C615	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C107	CEXF1H228V	C ELECTRO	50V RSS 0.22MF (5X11) TP		C616	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C108	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP		C618	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C109	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP		C619	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C114	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP		C621	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP	
C116	CMXM2A333J	C MYLAR	100V 0.033MF J (TP)		C623	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP	
C117	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)		C624	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP	
C201	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP		C625	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP	
C204	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP		C626	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP	
C210	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP		C631	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
C213	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP		C635	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
C214	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP		C701	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP	
C301	CXSL2H100D	C CERA	500V SL 10PF D (TAPPING)		C703	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C303	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP		C704	CEXF1H229V	C ELECTRO	50V RSS 2.2MF (5X11) TP	
C304	CMXM2A224J	C MYLAR	100V 0.22MF J		C705	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP	
C305	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP		C709	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP	
C306	CEXD1H109Q	C ELECTRO	50V RT 1MF (6.3X11) TP		C805	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	
C308	CMXM2A153J	C MYLAR	100V 0.015MF J (TP)		C806	CCXB2H222K	C CERA	500V B 2200PF K (TAPPING)	
C309	CMXM2A473J	C MYLAR	100V 0.047MF J (TP)		C807	CCXB1H821K	C CERA	50V B 820PF K (TAPPING)	
C310	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)		C808	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C312	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP		C812	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C401	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)		C814	CCXB2H101K	C CERA	500V B 100PF K (TAPPING)	
C405	CEXF2C109V	C ELECTRO	160V RSS 1MF (6.3X11) TP		C815	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C418	CCXB2H102K	C CERA	500V B 1000PF K (TAPPING)		C818	CMXM2A224J	C MYLAR	100V 0.22MF J	
C421	CEXF1H470V	C ELECTRO	50V RSS 47MF (6.3X11) TP		C819	CCXB3A471K	C CERA	1KV B 470PF K (T)	
C425	CEXF1E470V	C ELECTRO	25V RSS 47MF (5X11) TP		C822	CEXF1C101V	C ELECTRO	16V RSS 100MF (6.3X11) TP	
C429	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)		C829	CEXF1H470C	C ELECTRO	50V RUS 47MF (6.3X11) TP	
C501	CMXL1J105J	C MYLAR	63V MEU 1MF J		C830	CCXB1H152K	C CERA	50V B 1500PF K (TAPPING)	
C502	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP		C832	CEXF1H220V	C ELECTRO	50V RSS 22MF (5X11) TP	
C503	CEXF1C221V	C ELECTRO	16V RSS 220MF (8X11.5) TP		C833	CEXF1H479V	C ELECTRO	50V RSS 4.7MF (5X11) TP	
C504	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP		C834	CMXM2A104J	C MYLAR	100V 0.1MF J (TP)	
C505	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP		C862	CEXF1E101V	C ELECTRO	25V RSS 100MF (6.3X11) TP	
C506	CEXF1H100V	C ELECTRO	50V RSS 10MF (5X11) TP		F801A	4857415001	CLIP FUSE	PFC5000-0702	
C507	CMXM2A224J	C MYLAR	100V 0.22MF J		F801B	4857415001	CLIP FUSE	PFC5000-0702	
C508	CMXM2A224J	C MYLAR	100V 0.22MF J		L805	58CX430599	COIL CHOKE	AZ-9004Y 940K TP	
C509	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP		L806	58CX430599	COIL CHOKE	AZ-9004Y 940K TP	
C511	CMXM2A153J	C MYLAR	100V 0.015MF J (TP)		L901	5CPX181J—	COIL PEAKING	180UH J (RADIAL)	
C512	CEXF1H108V	C ELECTRO	50V RSS 0.1MF (5X11) TP		Q203	TKTA1266Y-	TR	KTA1266Y (TP)	
C513	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP		Q407	TKTC3198Y-	TR	KTC3198Y	
C517	CMXM2A103J	C MYLAR	100V 0.01MF J (TP)		Q601	TKTC3198Y-	TR	KTC3198Y	
C518	CEXF1H478V	C ELECTRO	50V RSS 0.47MF (5X11) TP		Q703	TKTC3203Y-	TR	KTC3203-Y	
C570	CEXF1H109V	C ELECTRO	50V RSS 1MF (5X11) TP		Q704	TKTA1266Y-	TR	KTA1266Y (TP)	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK	LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK
Q706	TKTC3198Y-	TR	KTC3198Y		D605	DUZ8R2BM—	DIODE ZENER	UZ-8.2BM	
Q802	TKTC3198Y-	TR	KTC3198Y		D622	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
Q803	TKTC3198Y-	TR	KTC3198Y		D623	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
Q806	TKTC3198Y-	TR	KTC3198Y		D705	D1N4148—	DIODE	1N4148 (TAPPING)	
Q904	TKTC3198Y-	TR	KTC3198Y		D706	DUZ3R9B—	DIODE ZENER	UZ-3.9B	
Q905	TKTC3198Y-	TR	KTC3198Y		D719	D1N4148—	DIODE	1N4148 (TAPPING)	
Q906	TKTC3198Y-	TR	KTC3198Y		D721	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
Q907	TKTA1266Y-	TR	KTA1266Y (TP)		D723	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B	
R102	RN02B910JS	R METAL FILM	2W 91 OHM J SMALL		D803	D1N4937G—	DIODE	1N4937G (TAPPING)	
R104	RN02B472JS	R METAL FILM	2W 4.7K OHM J SMALL		D804	D1N4937G—	DIODE	1N4937G (TAPPING)	
R304	RN01B109JS	R METAL FILM	1W 1 OHM J SMALL		D805	D1N4937G—	DIODE	1N4937G (TAPPING)	
R308	RN02B471JS	R METAL FILM	2W 470 OHM J SMALL		D807	D1N4937G—	DIODE	1N4937G (TAPPING)	
R309	RN02B271JS	R METAL FILM	2W 270 OHM J SMALL		D812	D1N4937G—	DIODE	1N4937G (TAPPING)	
R315	RN02B620JS	R METAL FILM	2W 62 OHM J SMALL		D814	D1N4937G—	DIODE	1N4937G (TAPPING)	
R401	RN02B680JS	R METAL FILM	2W 68 OHM J SMALL		D815	D1N4937G—	DIODE	1N4937G (TAPPING)	
R402	RN02B680JS	R METAL FILM	2W 68 OHM J SMALL		D819	D1N4937G—	DIODE	1N4937G (TAPPING)	
R450	RN02B151JS	R METAL FILM	2W 150 OHM J SMALL		J001	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
SW701	5S50101090	SW TACT	THVH472GCA		J002	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
SW702	5S50101090	SW TACT	THVH472GCA		J004	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
SW703	5S50101090	SW TACT	THVH472GCA		J005	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
SW704	5S50101090	SW TACT	THVH472GCA		J006	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
SW705	5S50101090	SW TACT	THVH472GCA		J007	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
SW706	5S50101090	SW TACT	THVH472GCA		J008	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
X501	5XEX3R579C	CRYSTAL QUARTZ	HC-49U 3.579545M (TP)		J010	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
ZZ200	PTMPJAJ882	PCB MAIN AXIAL AS	DTQ-29S4FC		J011	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
10	2TM14006LB	TAPE MASKING	3M #232 6.0X2000M		J012	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
20	2TM10006LB	TAPE MASKING	3M #232-MAP-C 6.2X2000M		J013	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
A001	4859813891	PCB MAIN	330X246 S1B		J014	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
C314	CZCH1H200J	C CERA	50V CH 20PF J (AXIAL)		J015	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
C628	CZSL1H470J	C CERA	50V SL 47PF J (AXIAL)		J016	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
C638	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)		J017	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
C716	CCZF1H103Z	C CERA	50V F 0.01MF Z		J018	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
C825	CBZF1H104Z	C CERA SEMI	50V F 0.1MF Z		J019	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D101	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B		J020	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D102	DUZ33B—	DIODE ZENER	UZ-33B		J021	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D207	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM		J022	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D208	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM		J023	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D301	D1N4004S—	DIODE	1N4004S		J025	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D401	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM		J026	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D404	D1N4148—	DIODE	1N4148 (TAPPING)		J027	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D406	DRGP15J—	DIODE	RGPI5J		J030	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D407	D1N4937G—	DIODE	1N4937G (TAPPING)		J031	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D408	D1N4937G—	DIODE	1N4937G (TAPPING)		J032	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D410	D1N4937G—	DIODE	1N4937G (TAPPING)		J033	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D411	D1N4937G—	DIODE	1N4937G (TAPPING)		J034	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D415	DUZ9R1BM—	DIODE ZENER	UZ-9.1BM		J035	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D502	D1N4148—	DIODE	1N4148 (TAPPING)		J036	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D504	D1N4148—	DIODE	1N4148 (TAPPING)		J037	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
D601	DMTZJ5R6B-	DIODE ZENER	MTZJ 5.6B		J038	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK	LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK
J039	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J089	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J040	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J090	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J041	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J091	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J042	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J092	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J043	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J094	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J044	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J095	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J045	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J096	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J046	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J097	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J048	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J099	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J049	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J101	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J050	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J102	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J051	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J104	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J052	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J105	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J053	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J106	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J054	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J108	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J055	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J109	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J056	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J111	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J057	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J112	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J058	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J113	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J059	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J114	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J060	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J115	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J061	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J116	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J062	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J117	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J063	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J118	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J064	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J119	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J065	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J120	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J066	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J122	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J067	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J123	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J068	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J124	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J069	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J125	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J070	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		J126	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING	
J071	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L101	5CPZ330K02	COIL PEAKING	33UH K (AXIAL 3.5MM)	
J072	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L111	5CPZ568M02	COIL PEAKING	0.56UH M (AXIAL 3.5MM)	
J073	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L203	5CPZ100K04	COIL PEAKING	10UH 10.5MM K (LAL04TB)	
J074	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L401	58C0000026	COIL BEAD	HC-4035	
J075	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L533	5CPZ150K02	COIL PEAKING	15UH K (AXIAL 3.5MM)	
J076	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L601	5CPZ560K02	COIL PEAKING	56UH K (AXIAL 3.5MM)	
J077	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L602	5CPZ150K02	COIL PEAKING	15UH K (AXIAL 3.5MM)	
J078	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L603	5CPZ560K04	COIL PEAKING	56UH K (AXIAL 10.5MM)	
J079	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L701	5CPZ100K02	COIL PEAKING	10UH K (AXIAL 3.5MM)	
J080	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L802	5MC0000100	COIL BEAD	HC-3550	
J081	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L804	5MC0000100	COIL BEAD	HC-3550	
J082	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L807	5MC0000100	COIL BEAD	HC-3550	
J083	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		L808	5MC0000100	COIL BEAD	HC-3550	
J084	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		R106	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
J085	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		R107	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
J086	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		R202	RD-AZ753J-	R CARBON FILM	1/6 75K OHM J	
J087	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		R203	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J	
J088	85801065GY	WIRE COPPER	AWG22 1/0.65 TIN COATING		R205	RD-AZ512J-	R CARBON FILM	1/6 5.1K OHM J	

SERVICE PARTS LIST

LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK	LOC	PART CODE	PART NAME	PART DESCRIPTION	REMARK
R207	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J		R736	RD-AZ362J-	R CARBON FILM	1/6 3.6K OHM J	
R212	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J		R737	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	
R214	RD-AZ750J-	R CARBON FILM	1/6 75 OHM J		R738	RD-AZ362J-	R CARBON FILM	1/6 3.6K OHM J	
R228	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J		R739	RD-AZ272J-	R CARBON FILM	1/6 2.7K OHM J	
R229	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J		R749	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R230	RD-AZ331J-	R CARBON FILM	1/6 330 OHM J		R750	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R301	RD-4Z752J-	R CARBON FILM	1/4 7.5K OHM J		R751	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R303	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J		R752	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J	
R306	RD-4Z124J-	R CARBON FILM	1/4 120K OHM J		R753	RD-AZ222J-	R CARBON FILM	1/6 2.2K OHM J	
R307	RD-4Z153J-	R CARBON FILM	1/4 15K OHM J		R754	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J	
R310	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J		R767	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R311	RD-AZ363J-	R CARBON FILM	1/6 36K OHM J		R770	RD-4Z101J-	R CARBON FILM	1/4 100 OHM J	
R312	RD-AZ133J-	R CARBON FILM	1/6 13K OHM J		R780	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R313	RD-AZ913J-	R CARBON FILM	1/6 91K OHM J		R782	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	
R406	RD-4Z203J-	R CARBON FILM	1/4 20K OHM J		R790	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R410	RD-2Z103J-	R CARBON FILM	1/2 10K OHM J		R798	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R413	RD-4Z822J-	R CARBON FILM	1/4 8.2K OHM J		R799	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R421	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J		R803	RD-AZ911J-	R CARBON FILM	1/6 910 OHM J	
R423	RD-2Z470J-	R CARBON FILM	1/2 47 OHM J		R805	RD-4Z242J-	R CARBON FILM	1/4 2.4K OHM J	
R424	RD-4Z123J-	R CARBON FILM	1/4 12K OHM J		R806	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R432	RD-4Z220J-	R CARBON FILM	1/4 22 OHM J		R808	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R443	RD-AZ152J-	R CARBON FILM	1/6 1.5K OHM J		R809	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R500	RD-AZ514J-	R CARBON FILM	1/6 510K OHM J		R811	RD-4Z363J-	R CARBON FILM	1/4 36K OHM J	
R501	RD-4Z271J-	R CARBON FILM	1/4 270 OHM J		R812	RD-AZ223J-	R CARBON FILM	1/6 22K OHM J	
R502	RD-2Z151J-	R CARBON FILM	1/2 150 OHM J		R813	RD-AZ563J-	R CARBON FILM	1/6 56K OHM J	
R504	RD-AZ752J-	R CARBON FILM	1/6 7.5K OHM J		R818	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J	
R508	RD-AZ154J-	R CARBON FILM	1/6 150K OHM J		R819	RD-AZ822J-	R CARBON FILM	1/6 8.2K OHM J	
R512	RD-AZ241J-	R CARBON FILM	1/6 240 OHM J		R827	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	
R554	RD-4Z102J-	R CARBON FILM	1/4 1K OHM J		R829	RD-4Z123J-	R CARBON FILM	1/4 12K OHM J	
R568	RN-4Z4701F	R METAL FILM	1/4 4.70K OHM F		R830	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R603	RD-AZ392J-	R CARBON FILM	1/6 3.9K OHM J		R833	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	
R611	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J		R834	RD-4Z109J-	R CARBON FILM	1/4 1 OHM J	
R613	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J		R835	RC-2Z565KP	R CARBON COMP	1/2 5.6M OHM K	
R615	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J		R888	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R634	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J		R901	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R635	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J		R903	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R636	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J		R910	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J	
R701	RD-AZ240J-	R CARBON FILM	1/6 24 OHM J		R914	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	
R704	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J		R918	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R707	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J		R919	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R717	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J		R920	RD-2Z102J-	R CARBON FILM	1/2 1K OHM J	
R718	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J						
R719	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J						
R721	RD-AZ471J-	R CARBON FILM	1/6 470 OHM J						
R722	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J						
R724	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J						
R725	RD-AZ512J-	R CARBON FILM	1/6 5.1K OHM J						
R726	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J						
R730	RD-AZ101J-	R CARBON FILM	1/6 100 OHM J						

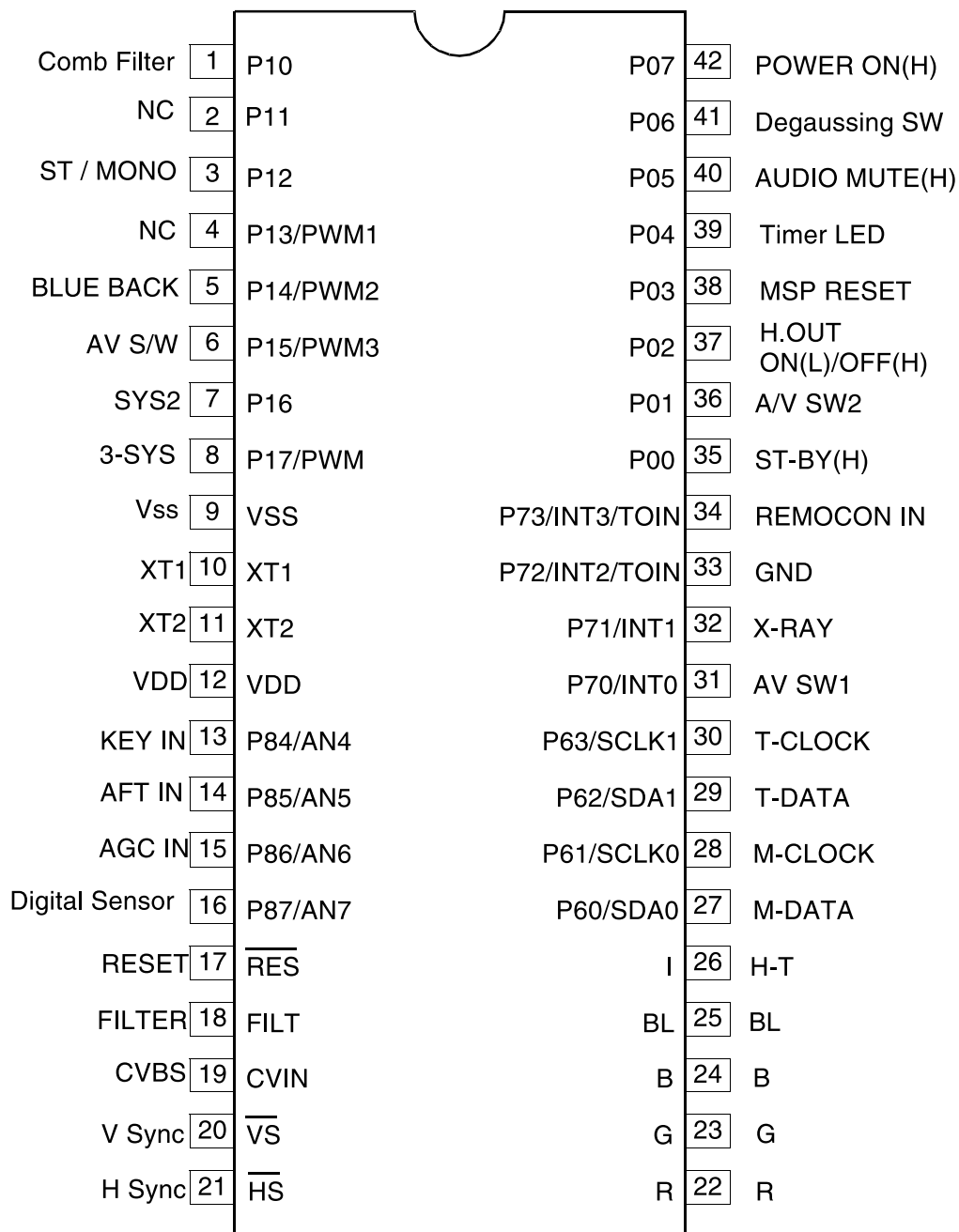
SERVICE PARTS LIST

1. DIFFERENT PARTS LIST

LOC	PART CODE	PART NAME	DESCRIPTION	29S4FC	29S4SC	29S4SS
00030	4850Q00810	BATTERY	R6P/LN	0	1	1
M191	4851943200	BUTTON CTRL	4949300+5544000	1	0	0
M191	4851943203	BUTTON CTRL	4949303+5544000	0	1	0
M191	4851943202	BUTTON CTRL	4943202+5544000	0	0	1
M201	4852077600	MASK FRONT	FR HIPS GY(782A)	1	0	0
M201	4852077602	MASK FRONT	FR HIPS GY 29S4	0	1	0
M201	4852077601	MASK FRONT	HIPS GY	0	0	1
ZZ110	PTACPWJ882	ACCESSORY AS	DTQ-29S4FC	1	0	0
ZZ110	PTACPWJ942	ACCESSORY AS	DTQ-29S4SC	0	1	0
ZZ110	PTACPWJ931	ACCESSORY AS	DTQ-29S4SS	0	0	1
ZZ140	PTCACAJ882	CABINET AS	DTQ-29S4FC	1	0	0
ZZ140	PTCACAJ942	CABINET AS	DTQ-29S4SC	0	1	0
ZZ140	PTCACAJ931	CABINET AS	DTQ-29S4SS	0	0	1
ZZ200	PTFMSJJ882	MASK FRONT AS	DTQ-29S4FC	1	0	0
ZZ200	PTFMSJJ942	MASK FRONT AS	DTQ-29S4SC	0	1	0
M211	4852159400	COVER BACK	FR HIPS BK	1	1	0
M211	4852159401	COVER BACK	HIPS GY	0	0	1
PWC1	4859907810	CORD POWER AS	ME301P+TER=2100	1	1	0
PWC1	4859902710	CORD POWER AS	KJ-10+SPT-2+YPT018=2100	0	0	1
V901	4859633760	CRT	A68KTB359X001(B) P50	1	1	0
V901	4859633763	CRT	A68KTB359X001(B) P23	0	0	1
ZZ120	PTBCSHJ882	COVER BACK AS	DTQ-29S4FC	1	1	0
ZZ120	PTBCSHJ931	COVER BACK AS	DTQ-29S4SS	0	0	1
ZZ200	PTMPJB882	PCB MAIN M-10 AS	DTQ-29S4FC	1	1	0
ZZ200	PTMPJ0882	PCB MAIN (RHU) AS	DTQ-29S4FC	1	1	0
ZZ200	PTMPJR882	PCB MAIN RADIAL AS	DTQ-29S4FC	1	1	0
ZZ200	PTMPJA882	PCB MAIN AXIAL AS	DTQ-29S4FC	1	1	0
ZZ200	PTMPJ2882	PCB CHIP MOUNT B AS	DTQ-29S4FC	1	1	0
ZZ200	PTFMSJJ931	MASK FRONT AS	DTQ-29S4SS	0	0	1
ZZ200	PTMPJB931	PCB MAIN M-10 AS	DTQ-29S4SS	0	0	1
ZZ200	PTMPJ0931	PCB MAIN (RHU) AS	DTQ-29S4SS	0	0	1
ZZ200	PTMPJR931	PCB MAIN RADIAL AS	DTQ-29S4SS	0	0	1
ZZ200	PTMPJA931	PCB MAIN AXIAL AS	DTQ-29S4SS	0	0	1
ZZ200	PTMPJ2931	PCB CHIP MOUNT B AS	DTQ-29S4SS	0	0	1
ZZ290	PTMPMSJ882	PCB MAIN MANUAL AS	DTQ-29S4FC	1	1	0
ZZ290	PTMPMSJ931	PCB MAIN MANUAL AS	DTQ-29S4SS	0	0	1

U-COM(I701)

DW863240V-LA1



- X'TAL : 32.768 KHz

NO	PIN	PIN NAME	DESCRIPTION (LEVEL)
1	1	Comb Filter	+5V
2	2	NC	NC
3	3	ST/MONO	+5V
4	4	NC	I503#6
5	5	BLUE BACK	+5V
6	6	AV S/W	+5V
7	7	SYS2	NC
8	8	3-SYS	GND
9	9	Vss	GND
10	10	XT1	32.768KHz
11	11	XT2	32.768KHz
12	12	Vdd	+5V
13	13	KEY IN	SW702~6
14	14	AFT IN	I101#10
15	15	AGC IN	TU01,I101#4
16	16	DIGITAL SENSOR	IF02
17	17	RESET	RESET ACTIVE "L"
18	18	FILTER	FILTER
19	19	CVBS	I501#12
20	20	VS	I101#30
21	21	HS	I101#31
22	22	R	I101#14
23	23	G	I101#15
24	24	B	I101#16
25	25	BL	I101#17
26	26	H-T	NC
27	27	MSP-DATA	IS601#8
28	28	MSP-CLOCK	IS601#7
29	29	T-DATA	TU01,I101#11
30	30	T-CLOCK	TU01,I101#12
31	31	AV S/W1	I503 #6
32	32	X-RAY	GND
33	33	GND	GND
34	34	REMOCON IN	IF01
35	35	STAND-BY	NC
36	36	AV S/W2	I503 #8
37	37	H-OUT	Q407 BASE (TO 2SD2578)
38	38	MSP-RESET	IS601#20 ACTIVE "L"
39	39	TIMER LED	STD-BY: "H", TV ON: "L"
40	40	AUDIO MUTE	I602#10
41	41	Degaussing sw	Q703 BASE (TO RELAY) Degaussing : "H"
42	42	PWR ON	Q806 BASE(TO STR-F6656) TV ON : "H"

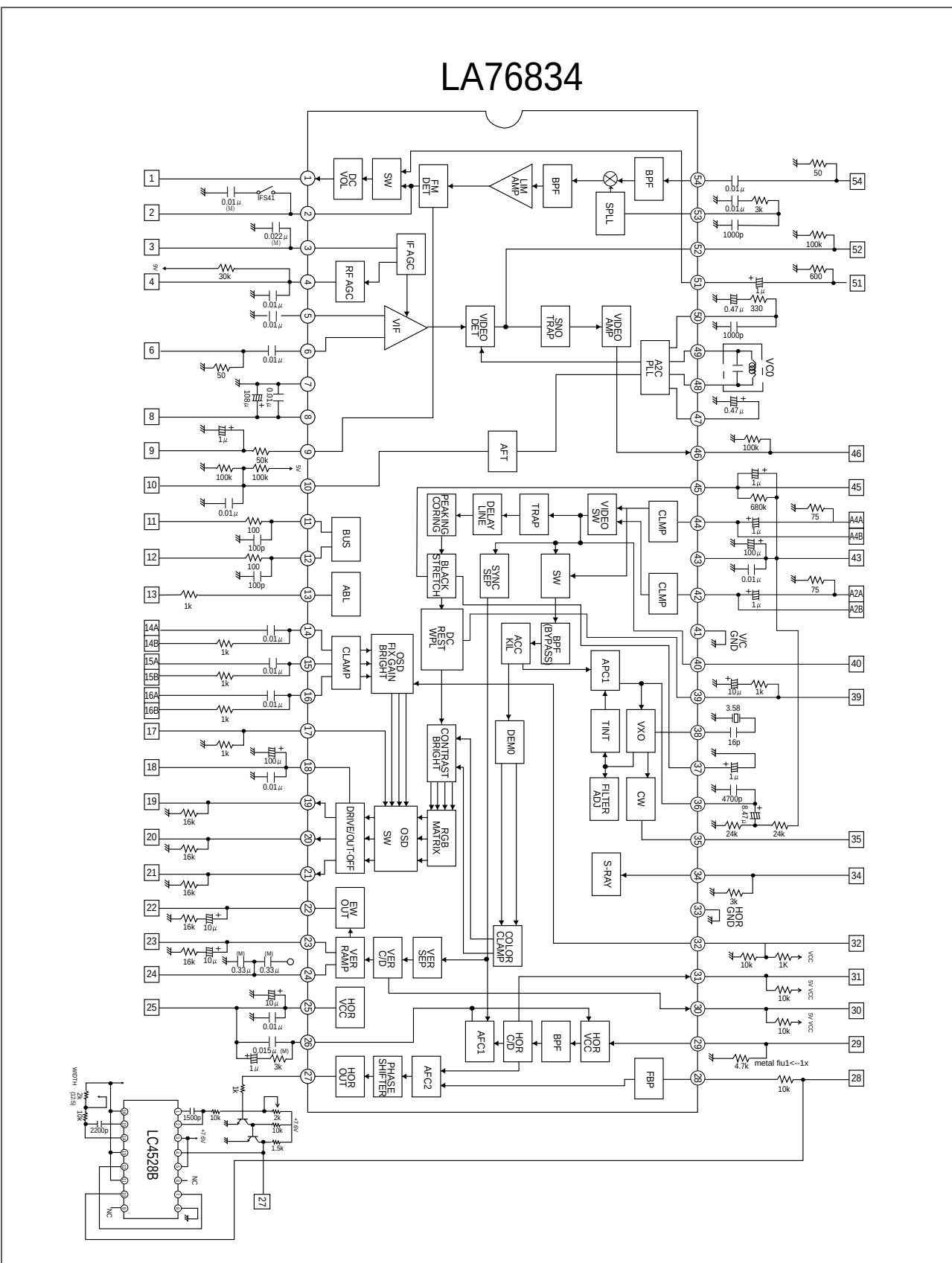
MSP(I601)

MSP 3420G

TP	1	52	XTAL_OUT
AUD_CL_OUT	2	51	XTAL_IN
D_CTR_I/O_1	3	50	TESTEN
D_CTR_I/O_0	4	49	ANA_IN2+
ADR_SEL	5	48	ANA_IN-
STANDBYQ	6	47	ANA_IN1+
12C_CL	7	46	AVSUP
12C_DA	8	45	AVSS
12S_CL	9	44	MONO_IN
12S_WS	10	43	VREFTOP
12S_DA_OUT	11	42	SC1_IN_R
12S_DA_IN1	12	41	SC1_IN_L
ADR_DA	13	40	SC2_IN_R
ADR_WS	14	39	SC2_IN_L
ADR_CL	15	38	SC3_IN_R
DVSUP	16	37	SC3_IN_L
DVSS	17	36	AGNDC
12S_DA_IN2	18	35	AHVSS
NC	19	34	CAPL_M
RESETQ	20	33	AHVSUP
DACA_R	21	32	CAPL_A
DACA_L	22	31	SC1_OUT_L
VREF2	23	30	SC1_OUT_R
DACM_R	24	29	VREF1
DACM_L	25	28	SC2_OUT_L
DACM_SUB	26	27	SC2_OUT_R

PIN NUMBER (PSDIP52-PIN)	PIN NAME	TYPE	CONNECTION (IF NOT USED)	SHORT DESCRIPTION
1	TP		LV	TEST PIN
2	AUD-CL-OUT	OUT	LV	AUDIO CLOCK OUTPUT (18.432MHz)
3	D_CTR_I/O_1	IN/OUT	LV	D_CTR_I/O_1
4	D_CTR_I/O_0	IN/OUT	LV	D_CTR_I/O_0
5	ADR_SEL	IN	X	I ² C Bus address select
6	STANDBYQ	IN	X	Stand-by (low-active)
7	I2C_CL	IN/OUT	X	I ² C clock
8	I2C_DA	IN/OUT	X	I ² C DATA
9	12S_CL	IN/OUT	LV	I ² C clock
10	12S_WS	IN/OUT	LV	I ² S word strobe
11	12S_DA_OUT	OUT	LV	I ² S data output
12	12S_DA_IN1	IN	LV	I ² S1 data input
13	ADR_DA	OUT	LV	ADR data output
14	ADR_WS	OUT	LV	ADR word strobe
15	ADR_CL	OUT	LV	ADR clock
16	DVSUP		X	Digital power supply 5V
17	DVSS		X	Digital ground
18	I2S_DA_IN2	IN	LV	I ² S2-data input
19	NC		LV	Not connected
20	RESETQ	IN	X	Power-on-reset
21	DACA_R	OUT	LV	Headphone out, right
22	DACA_L	OUT	LV	Headphone out, left
23	VREF2		X	Reference ground 2
24	DACM_R	OUT	LV	Loudspeaker out, right
25	DACM_L	OUT	LV	Loudspeaker out, left
26	DACM-SUB	OUT	LV	Subwoofer output
27	SC2_OUT_R	OUT	LV	SCART output2, right
28	SC2_OUT_L	OUT	LV	SCART output2, left
29	VREF1		X	Reference ground 1
30	SC1_OUT_R	OUT	LV	SCART output1, right
31	SC1_OUT_L	OUT	LV	SCART output1, left
32	CAPL_A		X	Volume capacitor AUX
33	AHVSUP		X	Analog power supply 8V
34	CAPL_M		X	Volume capacitor MAIN
35	AHVSS		X	Analog ground
36	AGNDC		X	Analog reference voltage
37	SC3_IN_L	IN	LV	SCART 3 input, left
38	SC3_IN_R	IN	LV	SCART 3 input, right
39	SC2_IN_L	IN	LV	SCART 2 input, left
40	SC2_IN_R	IN	LV	SCART 2 input, right
41	SC1_IN_L	IN	LV	SCART 1 input, left
42	SC1_IN_R	IN	LV	SCART 1 input, right
43	VREFTOP		X	Refrence voltage IF A/D converter
44	MONO_IN	IN	LV	Mono input
45	AVSS		X	Analog ground
46	AVSUP		X	Analog power supply 5V
47	ANA_IN1+	IN	LV	IF input 1
48	ANA_IN-	IN	AVSS via 56pF/LV	IF common(can be left vacant, only if IF input 1 is also not in use)
49	ANA_IN_2+	IN	AVSS via 56pF/LV	IF input 2(can be left vacant, only it IF input 1 is also not in use)
50	TESTEN	IN	X	TEST PIN
51	XTAL_IN	IN	X	Crystal oscillator
52	XTAL_OUTA	OUT	X	Crystal oscillator

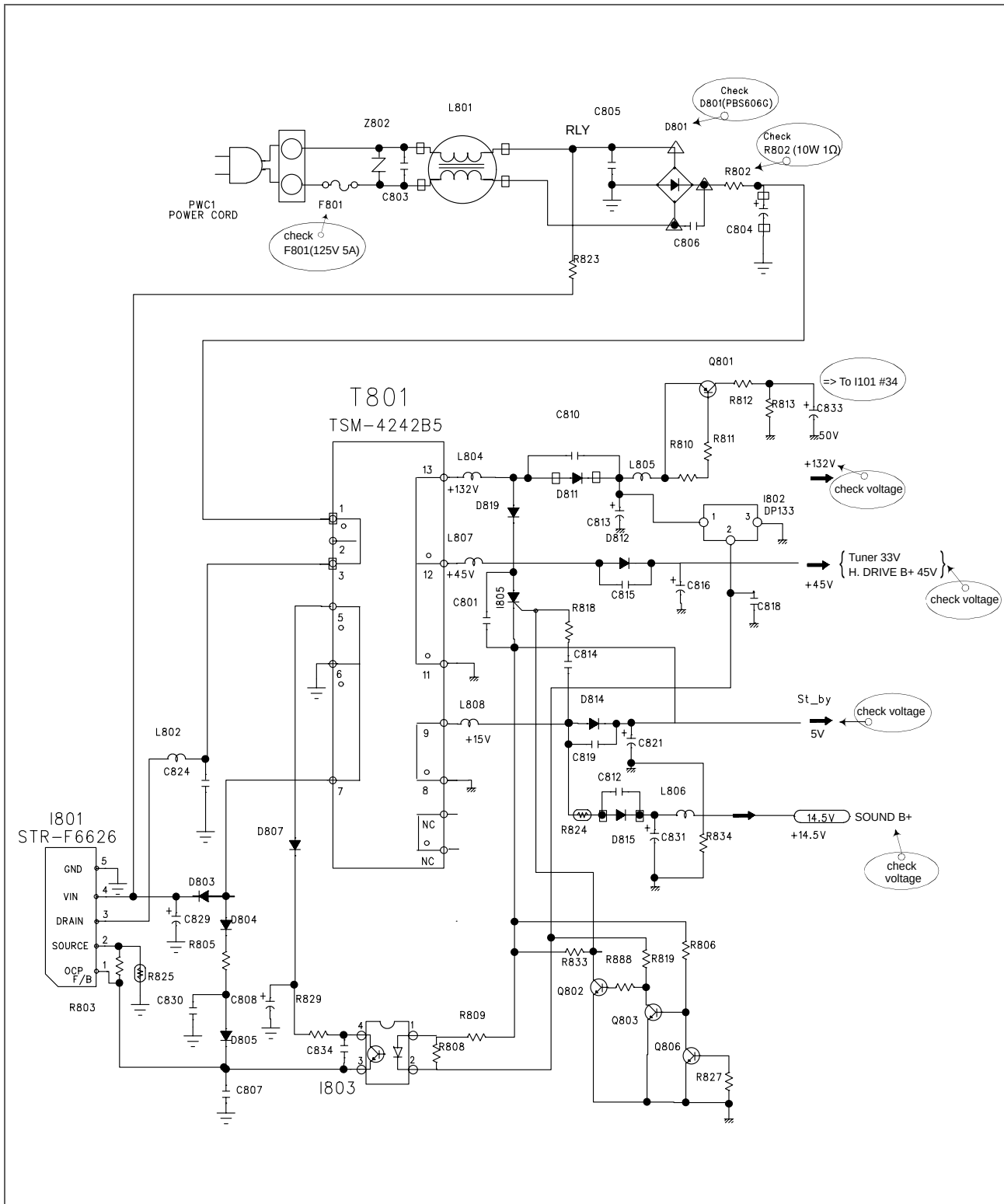
Main IC(I101)



LA76834 Pin Assignment

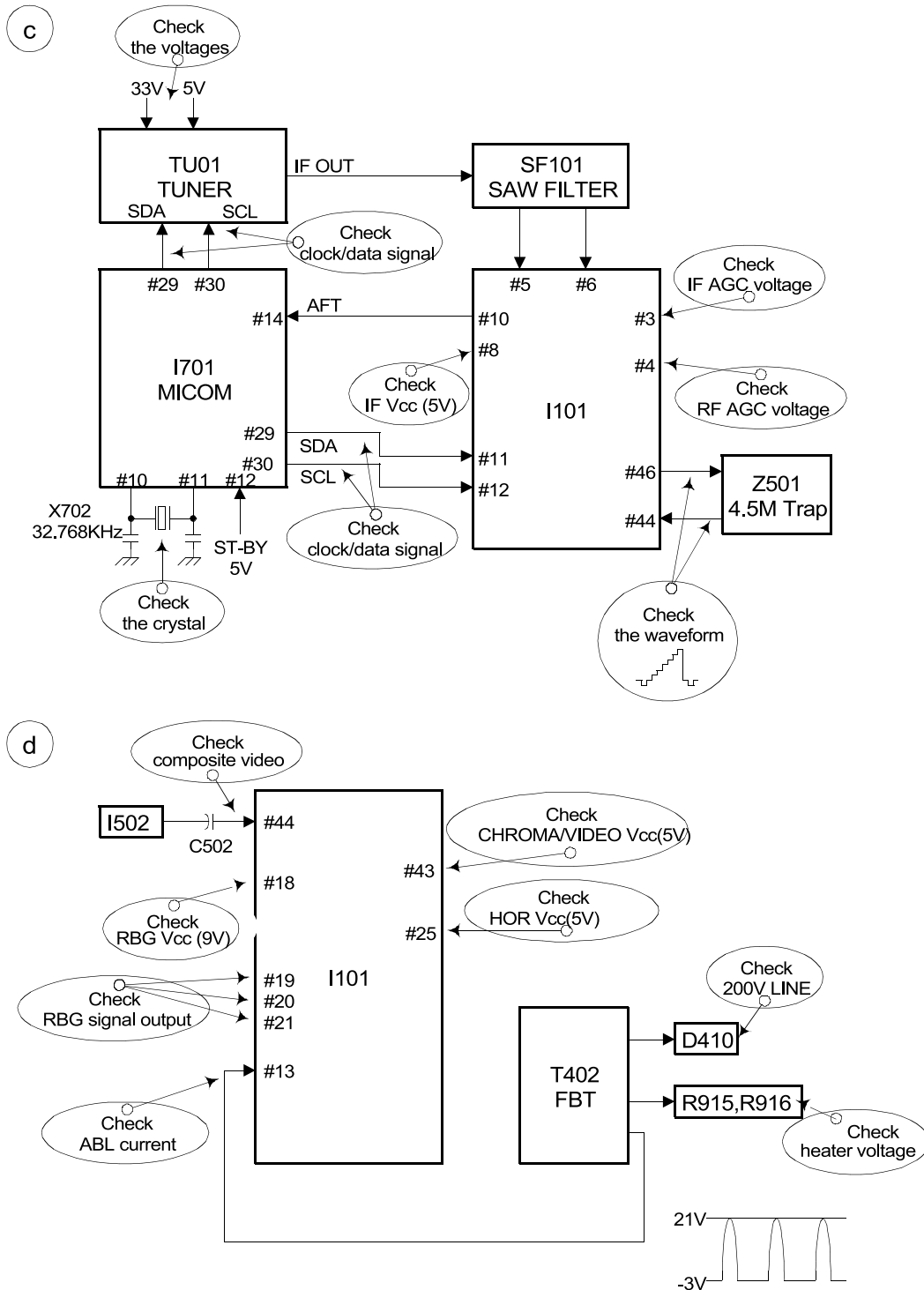
PIN	FUNCTION	PIN	FUNCTION
1	Audio Output	54	SIF Input
2	FM Output	53	SIF APC Filter
3	PIF AGC	52	SIF Output
4	RF AGC Output	51	Ext. Audio Input
5	PIF Input 1	50	APC Filter
6	PIF Input 1	49	VCO Coil 1
7	IF Ground	48	VCO Coil 2
8	IF Vcc	47	FLL Filter
9	FM Filter	46	Video Output
10	AFT Output	45	Black Level Detector
11	Bus Data	44	Internal Video Input(S-C IN)
12	Bus Clock	43	Video/Vertical Vcc
13	ABL	42	External Video Input(Y IN)
14	Red Input	41	Video/Vertical/BUS Ground
15	Green Input	40	Selected Video Output
16	Blue Input	39	DC Rest Filter
17	Fast Blanking Input	38	3.58MHz Crystal
18	RGB Vcc	37	Clamp Filter
19	Red Output	36	Chroma APC Filter
20	Green Output	35	fsc(3.58MHz) Output
21	Blue Output	34	XRAY
22	East/West Output	33	Horizontal Ground
23	Vertical Output	32	OSD Contrast(White Level)
24	Ramp ALC Filter	31	HS
25	Horizontal/BUS Vcc	30	VS
26	Horizontal AFC Filter	29	VCO IREF
27	Horizontal Output	28	Flyback Pulse Input

1. NO POWER



2. NO PICTURE

Check the waveform of I101 #46	NG : GO to the figure ㉓
	OK : Go the figure ㉔

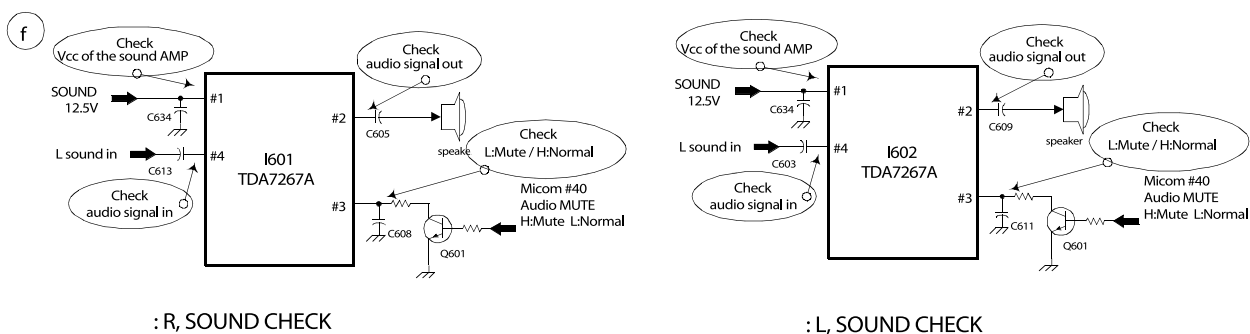
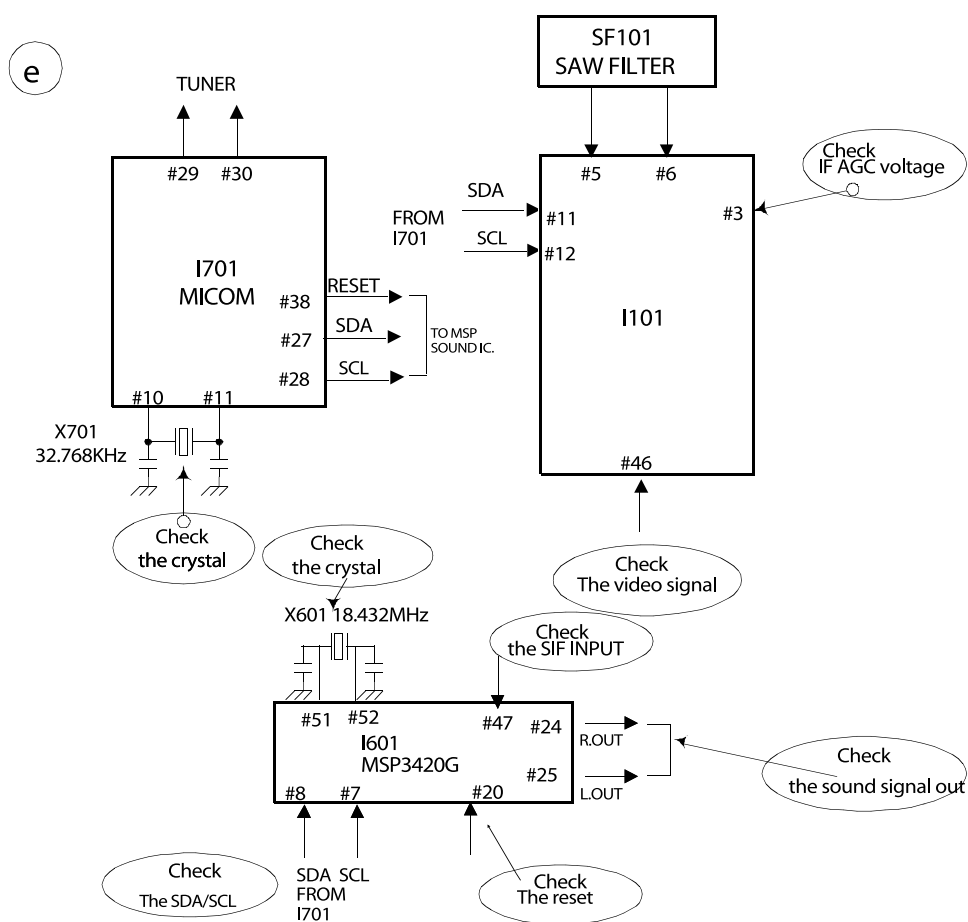


3. NO SOUND

Check audio output signal of I601 #24 #25

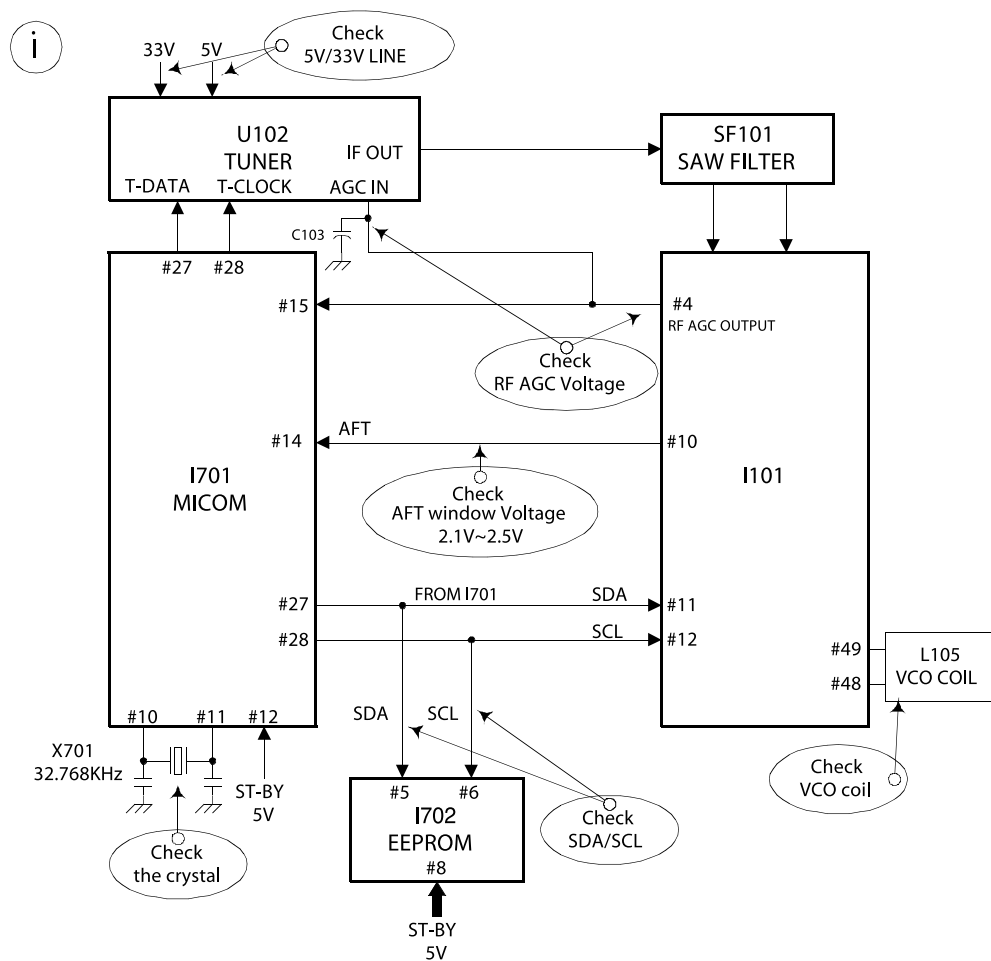
NG : Go to the figure ⑤

OK : Go to the figure ⑥

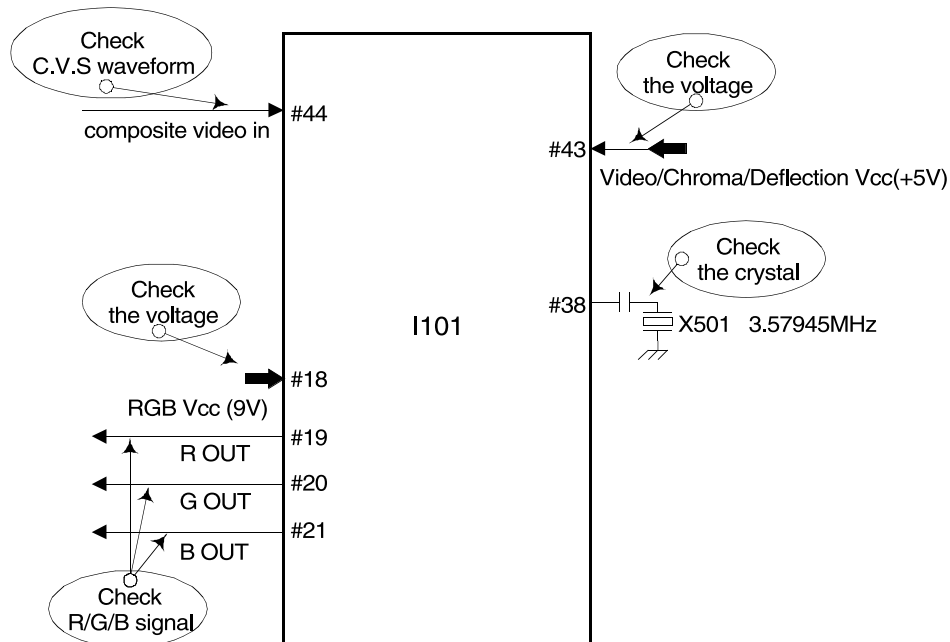


4. CH DON'T STOP

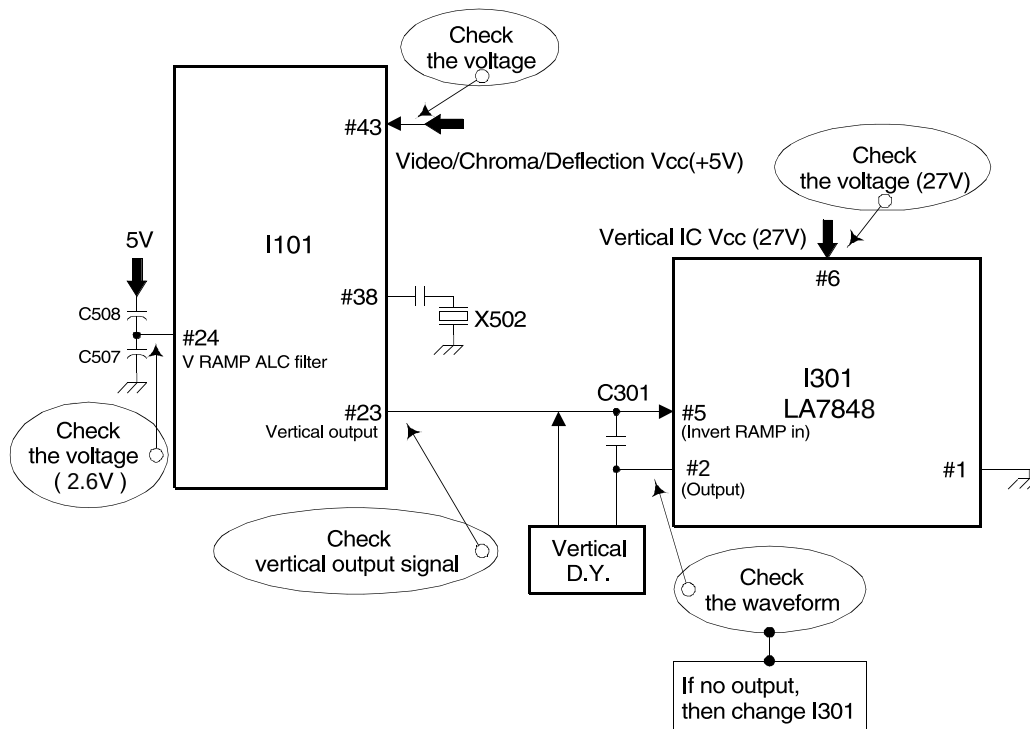
Check the input signal conditions	NG : Loss of signal or weak signal
	OK : Go to the figure ①



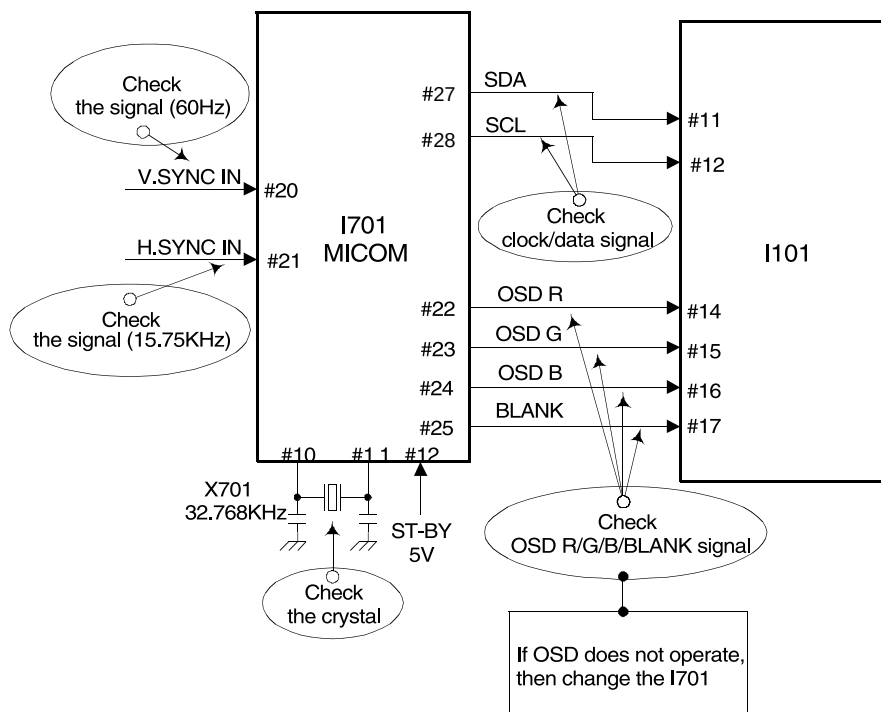
5. NO COLOR



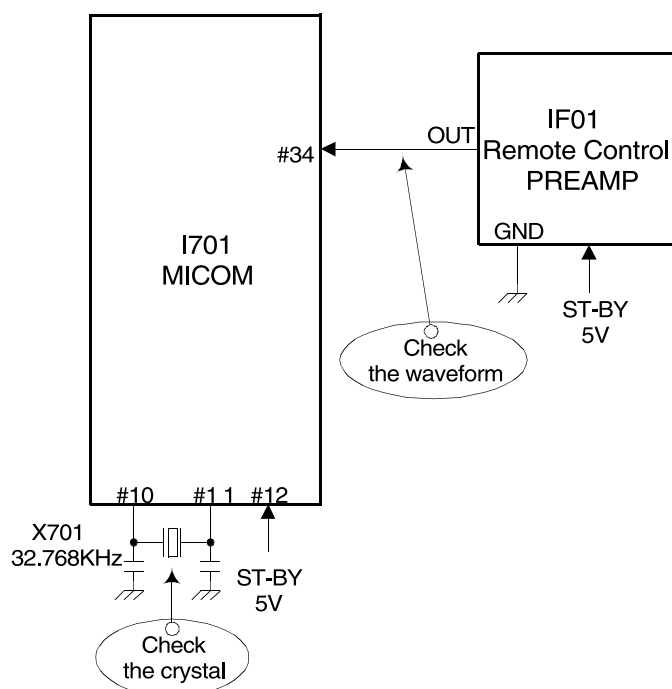
6. NO VERTICAL DEFLECTION



7. NO OSD (ON SCREEN DISPLAY)



8. NO REMOCON RECEIPT



DAEWOO

DAEWOO ELECTRONICS CO., LTD

686, AHYEON-DONG MAPO-GU
SEOUL, KOREA
C.P.O. BOX 8003 SEOUL, KOREA
TELEX : DWELEC K28177-8
CABLE : "DAEWOOELEC"

DAEWOO

INSTRUCTION MANUAL

Color Television

DTQ 25S3FC

DTQ 27S3FC

DTQ 27S4FC



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and servicing instructions in the literature accompanying the appliance.

WARNING

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURER COULD VOID THE USER’S AUTHORITY TO OPERATE THE EQUIPMENT.

NOTE TO CATV SYSTEM INSTALLER

THIS REMINDER IS PROVIDED TO CALL THE CATV SYSTEM INSTALLER’S ATTENTION TO ARTICLE 820-40 OF THE NEC THAT PROVIDES GUIDELINES FOR PROPER GROUNDING AND, IN PARTICULAR, SPECIFIES THAT THE CABLE GROUND SHALL BE CONNECTED TO THE GROUNDING SYSTEM OF THE BUILDING, AS CLOSE TO THE POINT OF CABLE ENTRY AS PRACTICAL.

CAUTION

The AC power cord provided with this product is polarized (one blade wider than the other). To prevent electrical shock, match wide blade of plug to wide slot, fully insert the AC plug into a standard 120V~, 60Hz polarized outlet.

NOTE

Never connect the plug to an electrical source other than one providing 120V 60Hz power. Use only the attached power cord. If the polarized AC cord does not fit into a non-polarized outlet, do not cut or file the blade. You are responsible for having the obsolete outlet replaced with a polarized outlet.

If you feel a static discharge when touching the unit, and the unit does not function, simply unplug the unit from the outlet. When you plug the unit back in, it should work normally.

Do not install power cords near any heating element or cooking appliances.

IMPORTANT SAFEGUARDS

PLEASE READ ALL THESE INSTRUCTIONS REGARDING YOUR TELEVISION EQUIPMENT AND RETAIN FOR FUTURE REFERENCE. FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE TV RECEIVER.

- 1** Read all of these instructions.
- 2** Save these instructions for later use.
- 3** Unplug this television equipment from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 4** Do not use attachments not recommended by the television equipment manufacturer as they may result in the risk of fire, electric shock or other personal injury.
- 5** Do not use this television equipment near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, or the like.
- 6** Do not place this television equipment on an unstable cart, stand, or table. The television equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Use only with a cart or stand recommended by the manufacturer, or sold with the television equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
- 6A** An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
- 7** Slots and openings in the cabinet and the back or bottom are provided for ventilation and to ensure reliable operation of the television equipment; and to protect it from overheating, these openings, must not be blocked or covered. The openings should never be blocked by placing the television equipment on a bed, sofa, rug, or other similar surface. (This equipment should never be placed near or over a radiator or heat register.) This television equipment should not be placed in a built-in installation, such as a bookcase, unless proper ventilation is provided.
- 8** This television equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your television dealer or local power company.
- 9** This television equipment is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 10** Do not allow anything to rest on the power cord. Do not locate this television equipment where the cord will be abused by persons walking on it.
- 11** Follow all warnings and instructions marked on the television equipment.
- 12** For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the equipment due to lightning and power-line surges.



- 13** An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.
- 14** Do not overload wall outlets and extension cords, as this can result in fire or electric shock.
- 15** Never push objects of any kind into this television equipment through openings, as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television equipment.
- 16** Do not attempt to service this television equipment yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- 17** Unplug this television equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:
- (a) When the power-supply cord or plug is damaged or frayed.
 - (b) If liquid has been spilled, or objects have fallen into the television equipment.
 - (c) If the television equipment has been exposed to rain or water.
 - (d) If the television equipment does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the TV receiver to its normal operation.
 - (e) If the television equipment has been dropped or the cabinet has been damaged.
- (f) When the television equipment exhibits a distinct change in performance - this indicates a need for service.
- 18** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
- 19** Upon completion of any service or repairs to this television equipment, ask the service technician to perform safety checks to determine that the television is in a safe operating condition.
- 20** If an outside antenna or cable system is connected to the television receiver, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges.
- Section 810 of the National Electrical Code, ANSI/NFPA N0.70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

EXAMPLE OF ANTENNA GROUNDING

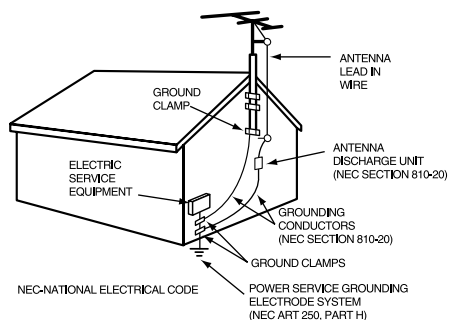


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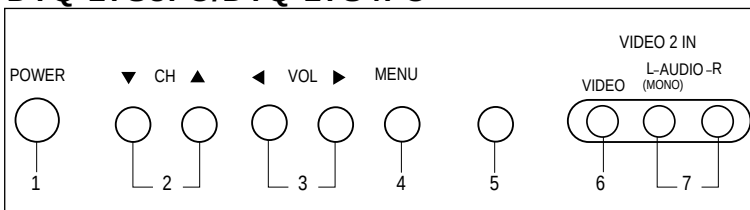
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Overview of Your Equipment

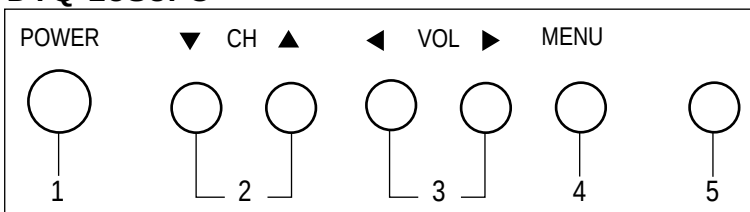
Your TV comes with a remote control. The section below summarizes the buttons, controls, and terminals that you will use with your TV.

Your TV's Front Panel

DTQ-27S3FC/DTQ-27S4FC



DTQ-25S3FC



1 POWER

Use this button to turn your TV on or off.

2 WCH V

Use these buttons to change channels on your TV, or to select items in the menu system.

3 CVOLB

Use these buttons to change your TV's volume, to activate selections in the menu system, or to change audio and video settings.

4 MENU

Use this button to turn the TV's menu system on and off.

5 Remote control receiver

This receiver receives a signal from your remote control. Do not block it.

6 VIDEO IN jack

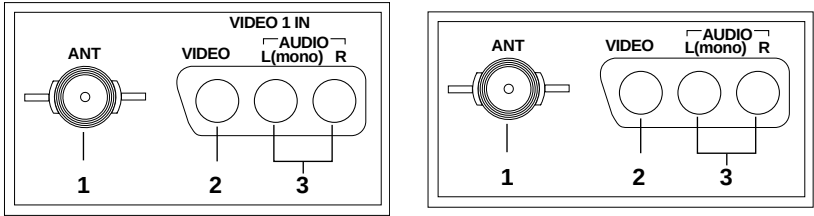
Use this jack to receive a video signal from another A/V component.

7 AUDIO IN jack

This receiver uses this jack to receive an audio signal from another A/V component.

Your TV's Back Panel

DTQ-27S3FC/DTQ-27S4FC DTQ-25S3FC



1 Antenna terminal(ANT)

Use this terminal to attach an antenna or cable system to your TV.

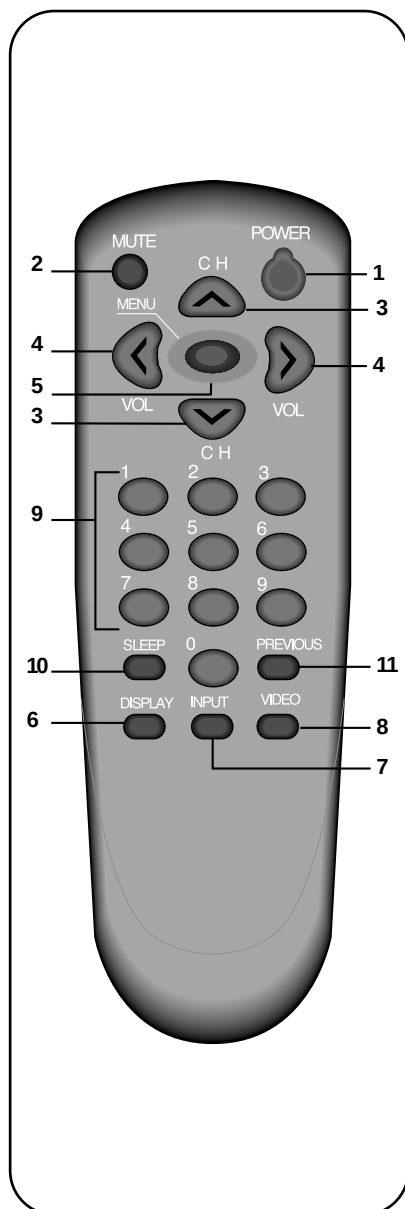
2 VIDEO IN

This terminal allows the TV to receive a video signal from another component, such as a VCR.

3 AUDIO IN

This terminal allows the TV to receive an audio signal from another component, such as a VCR.

Your Remote Control



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. **WCH V**

Use these buttons to change channels on your TV, or select items in the menu system.

4. **CVOLB**

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 channel number and status.

7. **INPUT**

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

8. **VIDEO**

Use this button to display video adjustment items.

9. **0-9**

Use these buttons to change channels.

10. **SLEEP**

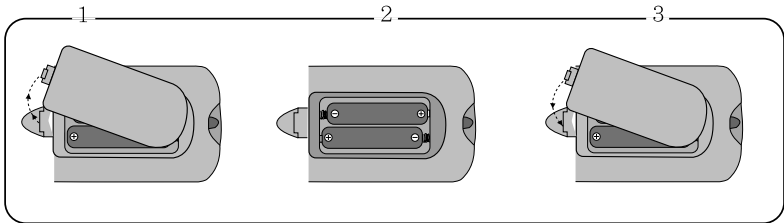
Use this button to program the TV to turn off after a certain time.

11. **PREVIOUS**

Use this button to return to the previous channel you were watching.

Installing your remote control batteries

- 1 Open the battery compartment on the back of the remote control.
- 2 Install two AA-size batteries (not included) as shown. Make sure the “+” and “-” terminals are oriented correctly.
- 3 Replace the cover.



Notes

Do not mix different types of batteries, or mix an old and a new battery.

Remove and replace weak batteries. Weak batteries can leak and damage your controller. Dispose of batteries properly; never throw them into a fire.

Point your remote at the center of the front of the TV. Make sure the receiver is not blocked.

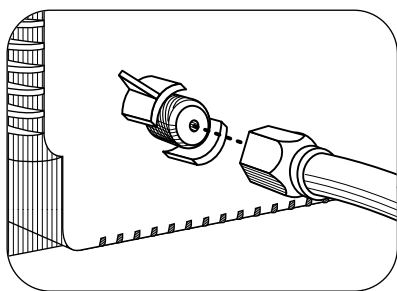
The remote control can operate up to 30 feet away from the TV, if you are directly facing the front of the TV. Operating distance diminishes as you move to the sides of the TV.

Connecting an Antenna or Cable to Your TV

Your TV will provide you with the best performance if you connect it to an external antenna or cable system. Follow the directions below to make this connection. Please note that you will normally only have to make one of the connections shown below, not all of them.

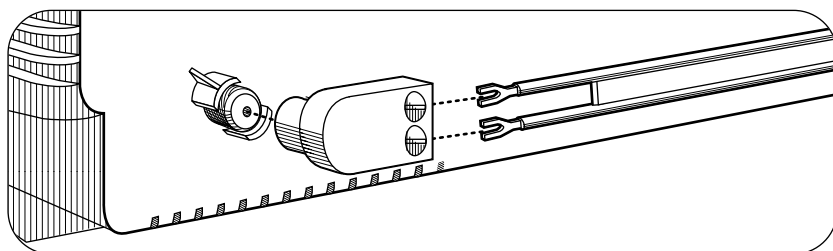
All connections will be made to the antenna terminal on the back of your TV. The antenna terminal is a silver metal post partially surrounded by two plastic tabs. For help in locating the antenna terminal, see “Your TV’s Back Panel” on page 5.

Connecting an Antenna



If your antenna ends in a single coaxial lead, simply press or screw the cable onto the antenna terminal on the back of your TV.

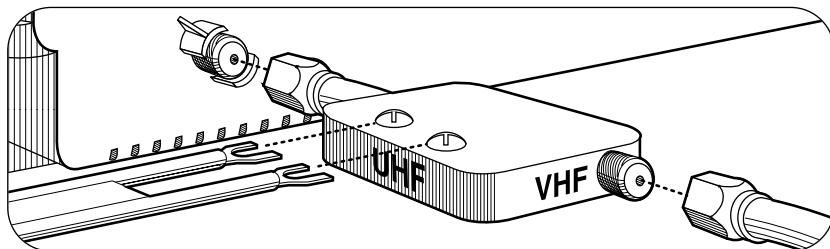
If your antenna ends in a pair of 300 ohm twin leads, you must use a 300-ohm/75-ohm adapter (available at your local electronics store). Place the leads underneath the screws on the adapter, tighten the screws, then press the adapter onto the antenna terminal on the back of the TV.



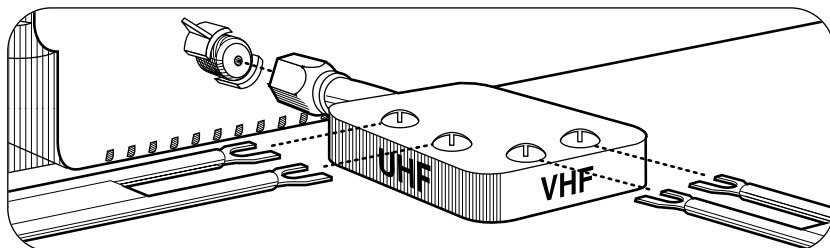
Antennas with two sets of leads

You might have two sets of leads from your antenna system, especially if you have one antenna for VHF signals and one antenna for UHF signals.

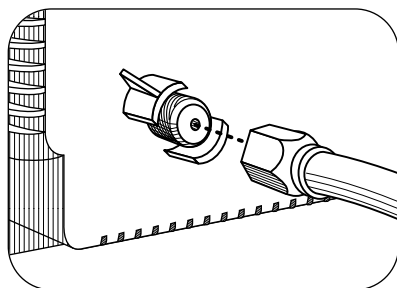
If your antenna system has both a coaxial lead and twin 300-ohm leads, you must obtain a combiner (available at your local electronics store). Press or screw the coaxial lead onto the combiner; place the twin leads underneath the screws on the combiner and tighten the screws. Press the cable from combiner onto the antenna terminal on the back of your TV.



If your antenna system has two sets of twin 300-ohm leads, you must obtain a combiner (available at your local electronics store). Place one set of twin leads underneath the screws on the combiner and tighten the screws. Do the same with the other set of twin leads. Press the cable from the combiner onto antenna terminal on the back of your TV.



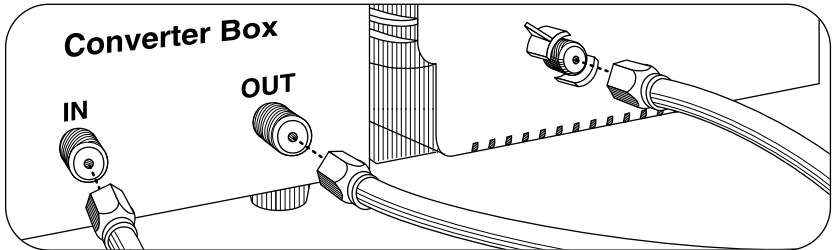
Connecting a cable system



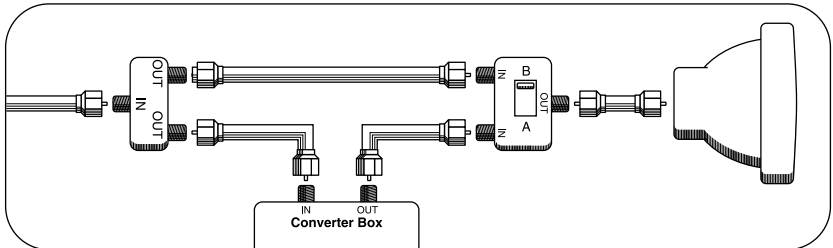
If your cable set-up is not described below, please contact your cable company for more information.

If your cable system does not require the use of a cable box, simply press or screw the incoming cable onto the antenna terminal on the back of your TV.

If your cable system requires you to use a converter box for all channels, connect the incoming cable to the IN terminal on the converter box. Connect another cable between the OUT terminal on the converter box and the antenna terminal on the TV. You will need to keep your TV tuned to channel 3 or 4 and change channels using the converter box.



If your cable system only requires you to use a converter box for some channels (i. e. pay-TV channels), follow these steps: Find the primary incoming coaxial cable. Plug this cable into a splitter (available at your local electronics store). Connect one coaxial cable between one OUT terminal on the splitter and the IN terminal on the converter box. Connect another coaxial cable between the other OUT terminal on the splitter and the B-IN terminal on an A/B switch (available at your local electronics store.) Connect a third coaxial cable between the OUT terminal on the converter box and the A-IN terminal on the A/B switch. Finally, connect a coaxial cable between the OUT terminal on the A/B switch and the antenna terminal on the back of your TV.



When the A/B switch is in the A position, you need to change channels on the converter box (and your TV should be tuned to channel 3 or 4); when the A/B switch is in the B position you can change channels on the TV.

Connecting Other Pieces of Equipment

You may want to connect a VCR, laser disc player, satellite receiver, or another type of equipment to your TV. We recommend that you follow the instructions included with the piece of equipment you wish to connect.

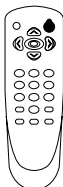
Safety Note

If you plan on being away from your home for an extended period of time, or if a thunderstorm is approaching, you should unplug your television, and you may wish to disconnect your TV from a rooftop or satellite antenna. You do not need to disconnect your TV from a cable system.

Operating Your TV

Once you have connected your TV to an antenna or cable system, plugged the TV in, and put batteries in the remote, you are ready to use the TV. The first thing you should do is to program your TV so it memorizes all of available channels.

Turning Your TV On



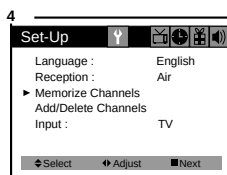
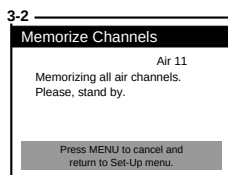
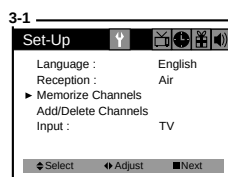
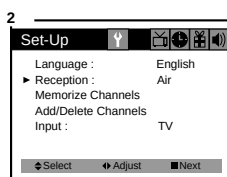
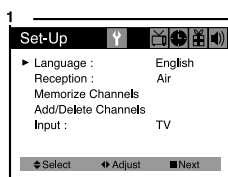
- 1 To turn your TV on, press the POWER button on the remote control. You can also use the POWER button on the front panel. Make sure your TV is plugged in before you try to turn it on.

Programming Your TV's Channel Memory

Your TV's memory determines the channels that are available using the WCHV buttons. If a channel is not in memory, you can tune to it with the number buttons, but not with the WCHV buttons. Follow these steps to program your TV's memory:

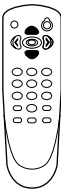
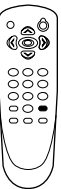
- 1 With the TV on, press the MENU button twice, then the "Set-Up" menu will appear.
- 2 Use the WCHV buttons to select "Reception", then use the CVOLB buttons to select 'Air' or 'Cable'. If you connected an antenna to your TV, select 'Air'; If you connected a cable system, select 'Cable'.
- 3 Use the WCHV buttons to select "Memorize Channels", then use the CVOLB buttons to enter the "Memorize Channels" process.
- 4 Press the MENU button to return to Set-Up menu.
- 5 Press the MENU button four times to return to normal TV viewing.

Your TV's channel memory will not be affected by a power outage. You will not need to re-program the memory unless you change the type of cable or antenna connected to your TV.

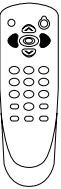
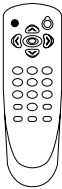


Changing Channels

You can change channels in three ways:

- 1**  The WCH V buttons will take you through all memorized channels, one by one. The WCH V buttons will not access channels that have not been programmed into the TV's memory. For more information about programming channels into memory, see the section "Programming your TV's Channel Memory" on the previous page.
- 2**  The number buttons (0-9) will take you to any channel, even if it has not been memorized. To change to a channel, enter its number; the TV will tune to the new channel when you enter the second digit of the channel.
- 3**  The PREVIOUS button will take you instantly to the last channel you were watching.

Changing the Volume

- 1**  To change the volume of the TV set, use the CVOLB buttons on the remote controller or on the front panel.
- 2**  To quickly turn off the sound, press the MUTE button on the remote. The 'MUTE' will appear on screen, colored green. To return the volume to its previous level, press MUTE again.

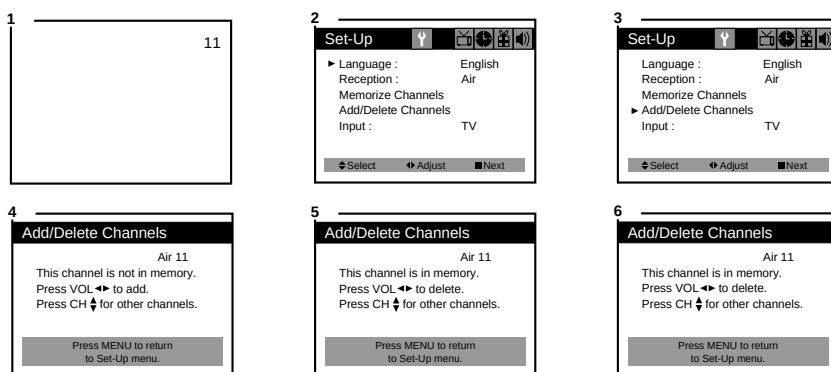
Changing the TV's Channel Memory

Your TV's memory determines the channels that are available using the WCHV buttons. You can add channels to this memory or remove them from memory. If a channel is removed from memory, you can tune to it with the number buttons, but you cannot tune to it with the WCHV buttons.

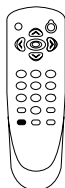
If there is just one channel memorized, then the Add/Delete Channels function will search all the channels. But if there are two or more channels memorized, then the Add/Delete Channels function will search the memorized channels only.

Adding/Deleting a channel to memory

- 1 Use the number buttons to tune to the channel.
- 2 Press the MENU button twice, then “Set-Up” menu will be displayed.
- 3 Use the WCHV buttons to select “Add/Delete Channels”, then use the CVOLB buttons to enter the “Add/Delete Channels” process.
- 4 If the channel is not in memory, then use the CVOLB buttons to add the channel to memory.
- 5 If the channel is in memory, then use the CVOLB buttons to delete the channel from memory.
- 6 If you are going to delete another channel, then press the WCHV buttons until desired channel is selected. And press the CVOLB buttons to delete the channel.
- 7 Wait 10 seconds, or press the MENU button to return to normal TV viewing.



Displaying the Current Channel



- 1 To quickly see the current channel number and status, press DISPLAY button on the remote control.
The current channel number and status will be displayed.

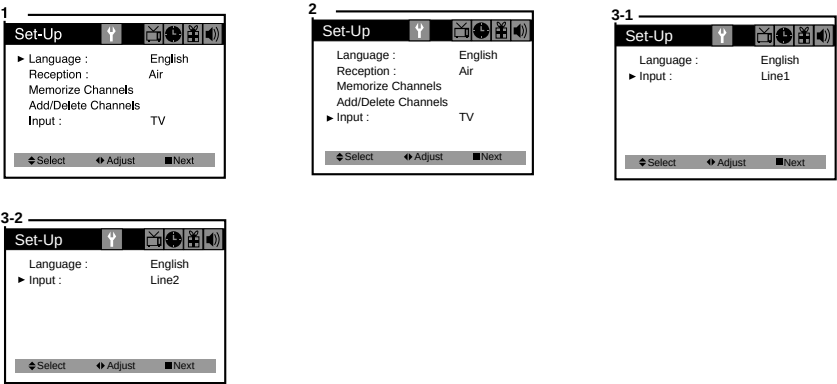
Changing the TV's Input

Normally, your TV displays the signal coming through the antenna terminal. However, If you’ve connected another component to your TV(such as a VCR) using the Video/Audio input, you will want to be able to view the signal from the component.

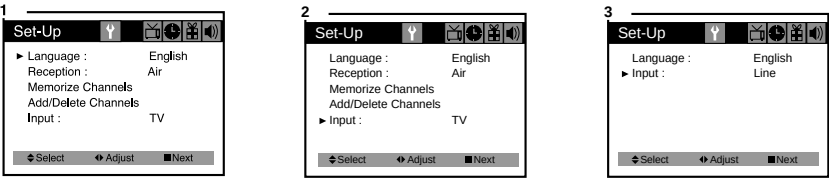
To do this, you will need to switch from the ‘ TV ’ input to the ‘ Line1, Line2 ’ Input, as follows:

- 1 With the TV on, press the MENU button twice, then “ Set-Up ” menu will appear.
- 2 Use the WCHV buttons to select “ Input ”.
- 3 Press the CVOLB buttons to change from ‘ TV ’ to ‘ Line1, Line 2 ’.
- 4 Wait 10 seconds, or press the MENU button to return to normal TV viewing.

DTQ-27S3FC/DTQ-27S4FC



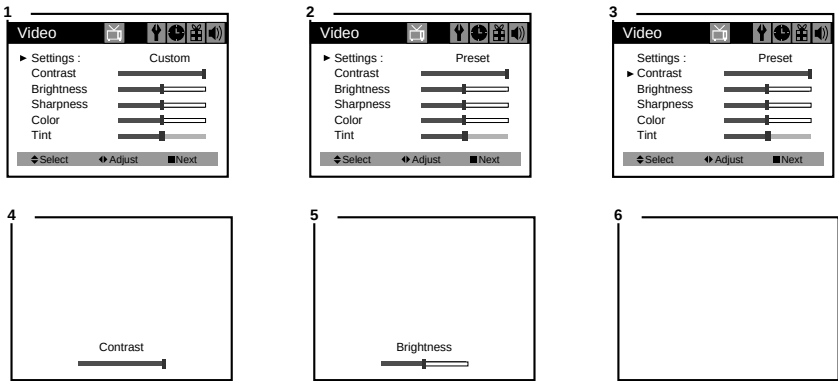
DTQ-25S3FC



Adjusting Video Settings

You may wish to adjust the video settings (e. g. contrast or color) to obtain the most pleasing picture. To do so, follow these directions:

- 1 With the TV on, press the MENU button, then “Video” menu will appear.
- 2 The “Settings” item will be selected. Use the CVOLB buttons to turn Settings to Preset or Custom.
- 3 Use the WCHV buttons to select the video setting you wish to adjust. Descriptions of the video settings are on the next page.
- 4 Use the CVOLB buttons to adjust the video setting to the level you prefer.
- 5 Use the WCHV buttons to select another video setting to adjust.
- 6 When you are finished, press the MENU button to return to normal TV viewing.
- 7 Video button on the Remote Controller can do the same function.

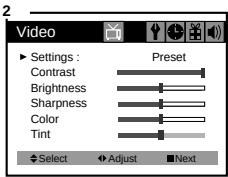
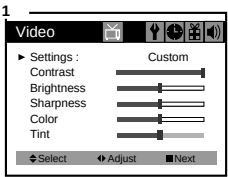


Returning to the factory settings

If you would like to return to the original video settings, as they were calibrated at the factory, follow these steps :

- 1 With the TV on, press the MENU button, then “Video” menu will appear.
- 2 Press the CVOLB buttons to set the “Settings” to ‘Preset’.

The TV will remember the ‘Custom’ settings you had previously chosen. When you set “Settings” to ‘Custom’ again, your previous custom settings will be restored.



Descriptions of video settings

The contrast setting controls the relation between the light and black areas of the screen. If the light areas are too bright and are losing details, press the CVOL button; if the picture is gray and lacks contrast, press the VOLB button.

The brightness setting controls the overall amount of light in the picture. If the picture is too bright, press the CVOL button; if the picture is too dark, press the VOLB button.

Sharpness controls how the TV displays edges of objects on-screen. If the TV shows multiple vertical lines at the edges of an object, press the CVOL button; if the vertical edges of on-screen objects are fuzzy, press the VOLB button.

The color setting controls the intensity of color. If the color is over-saturated, press the CVOL button; if the color is washed out, press the VOLB button.

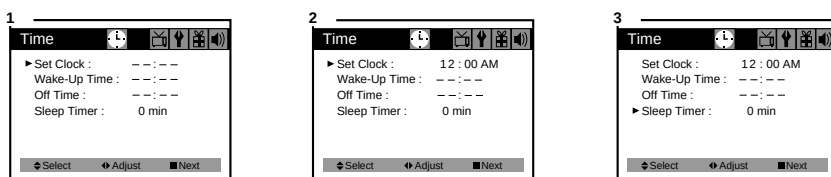
The tint setting controls the relationship of red and green in a picture. Tint is especially noticeable in flesh tones. If flesh tones seem too red or purple, press the VOLB button; if flesh tones are too green, press the CVOL button.

Using Timer Functions

Your TV has a built in-clock, and you can set the TV to turn on and off at times that you select. You can also set your TV to turn off after counting down a certain amount of time.

Setting the Clock

- 1 With the TV turned on, press the MENU button until “Time” menu is displayed.
- 2 The “Set Clock” item will be selected. Press the CVOLB buttons to set the clock. If you hold down either CVOL or VOLB button, the corresponding numbers will change more quickly.
- 3 When the clock is set correctly, use the WCHV buttons to select another “Time” function, or press the MENU button to return to normal TV viewing.



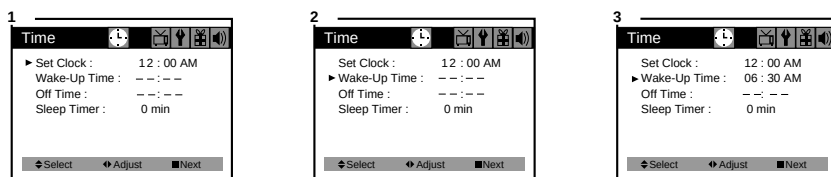
Setting the Wake-up time

If you enter a time in the “Wake-Up Time” setting, your TV will automatically turn on at that time. Follow these instructions to set the “Wake-Up Time”.

After Wake-up Time is turned on the TV set, if user does not input the user control (e.g. remote CH or VOL key) within 15 minutes, the TV set will turn off automatically. If user inputs the user control within 15 minutes, the TV set will turn on continuously.

It is a safety feature to prevent any kind of problem without human control.

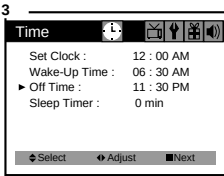
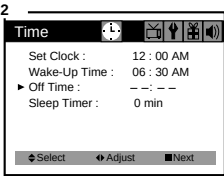
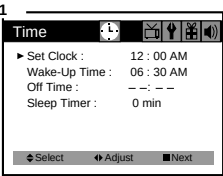
- 1 With the TV turned on, press the MENU button until “Time” menu is displayed.
- 2 Use the WCHV buttons to select “Wake-Up Time” item.
- 3 If you hold down either CVOL or VOLB button, the corresponding numbers will change more quickly.
- 4 When the setting is correct, use the WCHV buttons to select another “Time” function, or press the MENU button to return to normal TV viewing.



Setting the Off Time

If you enter a time in the “Off Time” setting, your TV will automatically turn off at that time. Follow these instructions to set the “Off Time”:

- 1 With the TV turned on, press the MENU button until “Time” menu is displayed.
- 2 Use the WCH V buttons to select “Off time” item.
- 3 If you hold down either CVOL or VOL B button, the corresponding numbers will change more quickly.
- 4 When the setting is correct, use the WCH V buttons to select another “Time” function, or press the MENU button to return to normal TV viewing.



Canceling the Wake-up Time or Off Time

If you would like to cancel the Wake-up Time or the Off Time, Press the CVOLB buttons until the time settings return to “- - : - -”.

The Wake-up Time and Off Time will not function correctly unless the clock has been set.

Setting the Sleep Timer

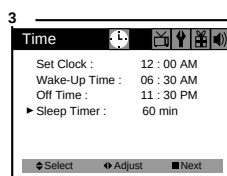
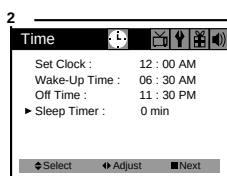
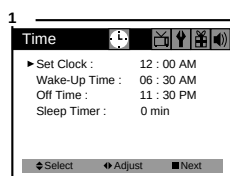
The sleep timer allows you to set an amount of time from 15 minutes to 120 minutes.

TV will count down the amount of time you set, then turn itself off.

To set the sleep timer:

- 1 With the TV turned on, press the MENU button until “Time” menu is displayed.
- 2 Use the WCHV buttons to select “Sleep Timer” item.
- 3 Use the CVOLB buttons to set the sleep time. Each time you press VOL, you step between the available sleep times : 15min, 30min, 45min, 60min, 90min, or 120min.
- 4 When the setting is correct, use the WCHV buttons to select another “Time” function, or press the MENU button to return to normal TV viewing.
- 5 You can also set the “Sleep Timer” during normal TV viewing, simply by pressing the SLEEP button on the remote control. This button steps through the available sleep times(see step 3), one by one.

To cancel the Sleep timer, turn the TV off, or set the sleep time to “0” using one of the methods described above.



Using the Special Features

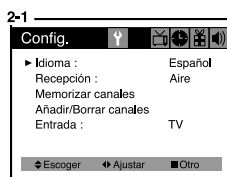
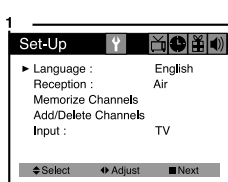
This section contains descriptions of the more advanced features of your TV.

Changing the Language of the On-screen Menus

You can choose to display the on-screen menus in English, Spanish, French.

To change the on-screen language:

- 1 With the TV on, press the MENU button twice, then “Set-Up” menu will appear.
- 2 The “Language” item will be selected. Press the CVOLB buttons to select the language you want to use: English, Español, Français.
- 3 To return normal TV viewing, press the MENU button to return to normal TV viewing.

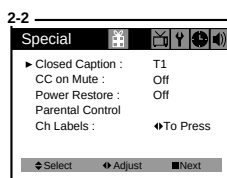
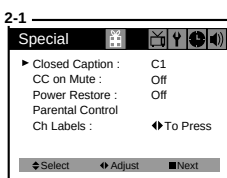
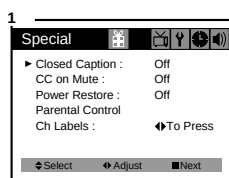


Captioning

Many TV shows contains “Closed Caption”. These captions are hidden words that can be displayed on your TV screen. There are two types of these words : “captions” usually follow the action on-screen, providing a written version of the dialogue, narration, and sound effects ; “text” is not usually related to the action on-screen, often providing information such as news or weather. A TV program might be providing more than one set of captions or one set of text.

To set your TV to display captions or text:

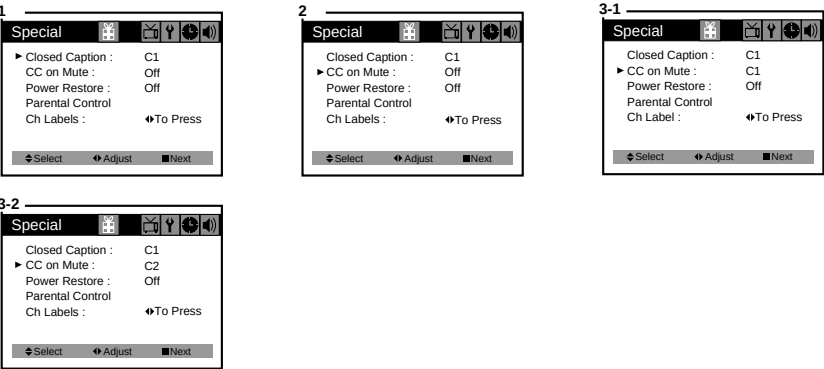
- 1 With the TV turned on, press the MENU button until “Special” menu is displayed.
- 2 The “Closed Caption” item be selected. To turn captioning on, use the CVOLB buttons to select Captions (C1 or C2) or Text (T1 or T2).
At the time these instructions were written, only C1 was normally available, but feel free to try the other selections.
- 3 Wait 10 seconds, or press the MENU button to return to normal TV viewing.
Your setting will remain intact until you change it.



CC on Mute

When the sound is muted, user can select the caption display. It will display the caption content instead of sound mute.

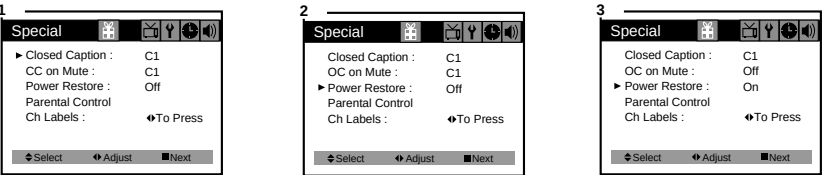
- 1 With the TV turned on, press the MENU button until “Special” menu is displayed.
- 2 Use the WCHV buttons to select “CC on Mute” item.
- 3 Use the CVOLB buttons to select “C1” or “C2”.



Power Restore

User can select the On/Off status when the power cord is plugged into the wall outlet. If user has a cable box with AC outlet, then user can connect the TV power cord to the AC outlet and control the TV without TV remote control. This function is rarely used for home use, so special care is needed while using.

- 1 With the TV turned on, press the MENU button until “Special” menu is displayed.
- 2 Use the WCHV buttons to select “Power Restore” item.
- 3 Use the CVOLB buttons to select “On” or “Off”.

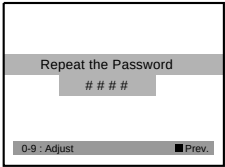
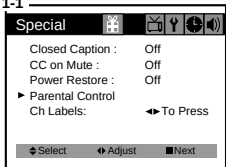


Parental Control Settings

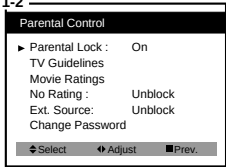
This item helps parents to set the standard for the programs which their children are going to watch.

- 1 With the TV on, press the MENU button until “Special” menu appears.
- 2 Use the WCHV buttons to select “Parental Control” item.
- 3 Use the CVOLB buttons to enter into “Parental Control” settings.
- 4 Use the number buttons(0-9) to enter your password, then “Parental Control” menu is displayed.
If this is the first time you are using your “Parental Control” menu, after entering your password, please remember it.
- 5 The Parental Lock feature will be selected. Use the CVOLB buttons to toggle “On” or “Off”.
- 6 Use the WCHV buttons to select the Parental Control settings you wish to adjust. Descriptions of the Parental Control settings are on the next page.
- 7 Use the WCHV buttons to adjust the Parental Control settings.
- 8 Use the MENU button to return to the menu one level up.

1-1

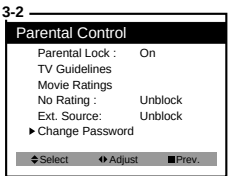
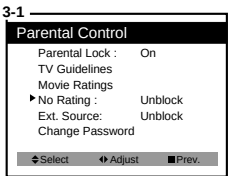
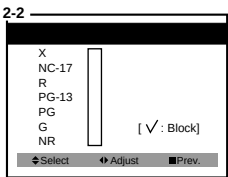
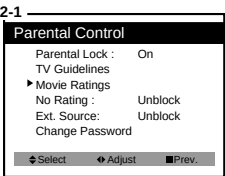
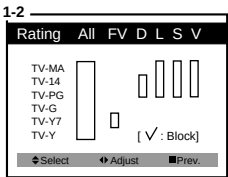
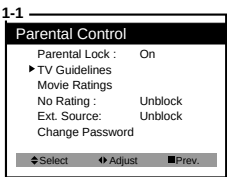


1-2



Description of Parental Control Settings

- 1 The TV Guidelines set the standard for TV programs, excluding sports and news.
Use the WCH V buttons to select, CVOLB buttons to adjust. You can set individual settings with CVOLB buttons.
- 2 The Movie Ratings set the standard for movie, video, and other media excluding TV programs.
Use the WCH V buttons to select, CVOLB buttons to adjust.
- 3 The No Rating item toggles between “Unblock” and “Block”.
This item determines whether or not to block the programs which are not rated by “Movie Ratings ” and “TV Guidelines”.
Use VOL buttons to change the settings.
- 4 The Set Password item lets you change the password for entering Parental Control item.
You must change the initial password “0000”. Use CVOLB buttons to enter the password input display, and use the number buttons(0-9) to enter new password. After you entered the new password, a confirmation display will appear. Type the password again.



No Ratings means

- 1 When V-chip data is in error.
- 2 When any ratings are not deleted.
- 3 Received a rating of “None” like news, sports, and emergency broadcast signals.

Mini Glossary

MOVIE RATING SYSTEM

X	Hard Core Films Restricted	Not for children under age 17 under any circumstance. Strong sexual content.
NC-17	Restricted viewing	Same as X rating.
R	Restricted viewing	Not for children under age 17. Strong element of sex and/or violence.
PG-13	Parental Guidance Suggested	Program is inappropriate for preteens, with a greater degree of offensive material than a PG rated program.
PG	Parental Guidance Suggested	Content is such that parents may not want their children to view the program.
G	General Audience	Content not offensive to most viewers.
NR	Not Rated	A motion picture that did not receive a rating for a variety of possible reasons.

TV PARENTAL GUIDELINE RATING SYSTEM

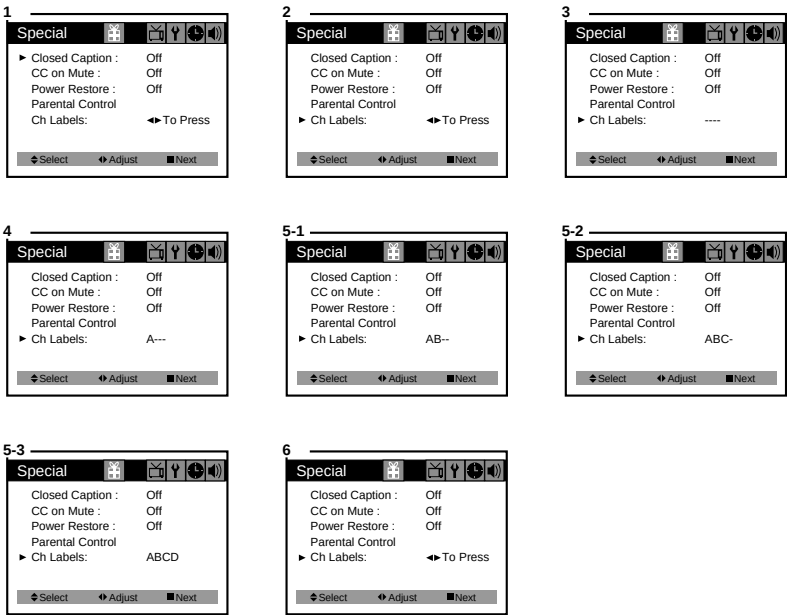
TV-MA	Mature Audience Only	Adults only, may contain Strong Dialog, Bad Language, Sex.
TV-14	Parents Strongly Cautioned	Unsuitable for children under 14, may contain Strong Dialog, Bad Language, Sex, and Violence Scenes.
TV-PG	Parental Guidance Suggested	Unsuitable for younger children, may contain Suggestive Dialog, Bad Language, Sex, and Violence Scenes.
TV-G	General Audience	Considered suitable for all audiences; children may watch unattended.
TV-Y	Children	Consider suitable for all children under 7 years old.
TV-Y7	Children 7 and over	Consider suitable for children over 7, may contain Fantasy Violence Scenes.

Ch Labels

This feature allows you to enter a 4 letter channel identifier of your choice that will appear over the channel number display.

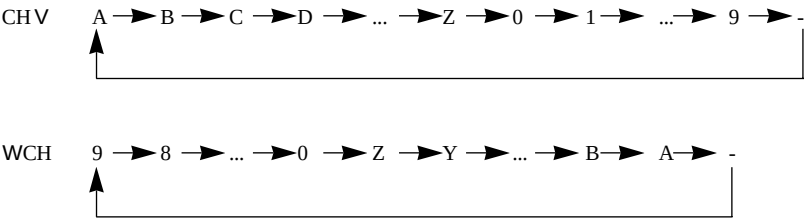
The labeling can be anything you want.

- 1 With the TV turned on, press the MENU button until “Special” menu is displayed.
- 2 Use the WCHV buttons to select “Ch Labels” item.
- 3 Press VOLB on the remote control, or on the TV, to select the 1st character space.
- 4 Press WCHV repeatedly until the 1st character(“A” in this example) appears in the 1st character space.
- 5 Press VOLB once to enter the 1st character and to advance to the next character space.
- 6 Repeat steps 4~5 to enter the 2nd, 3rd, and 4th characters(“B”, “C”, “D” in this example), and when you press VOLB for the last time, the channel label has been stored in the memory.



NOTE

Each time you press the WCHV buttons, the displayed character will change in the following order:



Cearing Channel Labels

- 1. Select the channel which has the label you want to clear.
- 2. 3. 4. Follow steps 1~3 on the “Ch Labels” to call up the Ch Labels mode display.
- 5. Enter “-” in first character spaces.

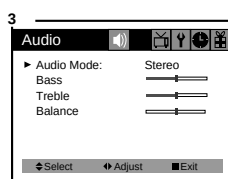
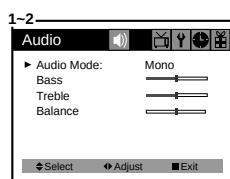
Adjusting the Sound

Selecting stereo/SAP

The MTS(Multi-channel TV Sound) provides for an extra sound channel. So MTS feature allows you to improve your TV viewing with high fidelity stereo sound. SAP(Second Audio Program) is used to transmit a second language of other audio information. If your TV receives a stereo sound (or SAP) broadcast, when the TV is turned on, select another channel or press the RECALL button on the remote control until the word “Stereo”(or “SAP”) is displayed on the screen.

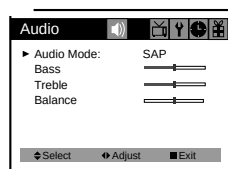
Listening to stereo sound

- 1 With the TV turned on, press the MENU button until “Audio” menu is displayed.
- 2 Use the WCHV buttons select “Audio Mode” item.
- 3 Press the CVOLB buttons repeatedly until “Stereo” is displayed.
- 4 Press the button twice or wait a few seconds to return to normal TV viewing.
- 5 Your setting will remain intact until you change it. Your TV will then automatically reproduce either stereo or monaural sound, whichever is broadcast.



Listening to second Language

- 1 Follow steps 1~2 in “Listening to stereo sound” above.
- 2 Press the CVOLB buttons repeatedly until “SAP” is displayed.
- 3 Press the MENU button twice or wait a few seconds to return to normal TV viewing.
- 4 If a SAP broadcast is received, you will hear only the second language from the speaker.



Using Direct button on the remote control

- 1 You can also change the Audio Mode setting with the remote control. Press the MTS button on the remote control to select Audio Mode.
- 2 Use this button to select the Stereo, Mono or SAP.

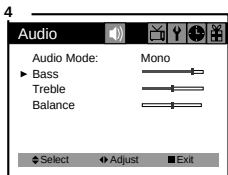
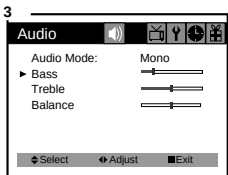
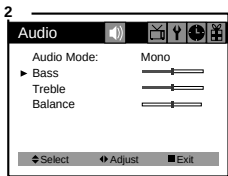
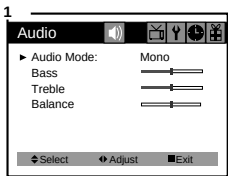
Present Broadcast	Your Selection	Speaker Out
MONO	Stereo	Mono
MONO	SAP	Mono
STEREO	SAP	Mono
STEREO and SAP	Stereo	Stereo
STEREO and SAP	SAP	SAP

Note

If a broadcast signal is weak, it may cause noise and hum in stereo sound. Please select the Mono mode, the noise and hum should be reduced.

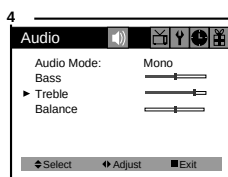
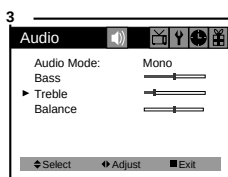
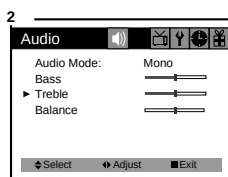
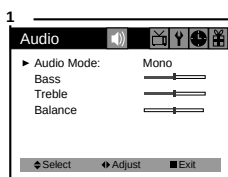
Adjusting the Bass

- 1 With the TV turned on, press the MENU button until “Audio” menu is displayed.
- 2 Use the WCH V buttons select “Bass” item.
- 3 Press the CVOL button to decrease the bass volume.
- 4 Press the VOL B button to increase the bass volume.
- 5 Press the MENU button twice or wait few seconds to return to normal TV viewing.
- 6 Your setting will remain intact until you change it. Your TV will then automatically reproduce either stereo or monaural sound, whichever is broadcast.



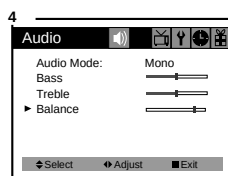
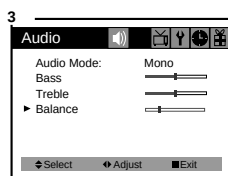
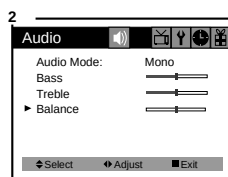
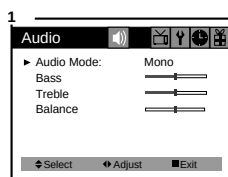
Adjusting the Treble

- 1 With the TV turned on, press the MENU button until “Audio” menu is displayed.
- 2 Use the WCHV buttons to select “Treble” item.
- 3 Press the CVOL button to decrease the treble volume.
- 4 Press the VOLB button to increase the treble volume.
- 5 Press the MENU button twice or wait a few seconds to return to normal TV viewing.
- 6 Your setting will remain intact until you change it. Your TV will then automatically reproduce either stereo or monaural sound, whichever is broadcast.



Adjusting the Balance

- 1 With the TV turned on, press the MENU button until “Audio” menu is displayed.
- 2 Use the WCHV buttons to select “Balance” item.
- 3 Press the CVOL button to decrease the left speaker volume.
- 4 Press the VOLB button to decrease the right speaker volume.
- 5 Press the MENU button twice or wait a few seconds to return to normal TV viewing.
- 6 Your setting will remain intact until you change it. Your TV will then automatically reproduce either stereo or monaural sound, whichever is broadcast.



Troubleshooting

Your Daewoo television is designed to give you trouble-free performance for many years. If you have a problem with your TV, try the solutions listed below.

If the suggestions listed below do not solve your problem, contact your Daewoo dealer or an authorized Daewoo service center.

There is no picture or sound, or the TV doesn't turn on.

- Make sure the TV is plugged in.
- Make sure the MUTE is not set.
- Make sure the power is on.
- If there is neither picture or sound, unplug the TV for 30 seconds, then plug it in and try again.

There is no picture or sound on some UHF channels.

- Try another station. If the other stations are OK, it may be a station problem.
- Check that the antenna is connected, is in good working order, has no broken wires, and is adjusted correctly.
- See if anything is interfering with the antenna signal.
- Make sure the AIR/CABLE setting is correct.

The sound is OK, but the picture is poor.

- Try another station. If the other stations are OK, it may be a station problem.
- Check that the antenna is connected and is in good working order, has no broken wires, and is adjusted correctly.

The picture is OK, but the sound is poor.

- Try another station. If the other stations are OK, it may be a station problem.
- Check that the antenna is connected, is in good working order, has no broken wires, and is adjusted correctly.

There is poor reception on some channels.

- Try another station. If the other stations are OK, it may be a station problem.
- Check that the antenna is connected, is in good working order, has no broken wires, and is adjusted correctly.

You cannot tune to a cable channel.

- Make sure the AIR/CABLE setting is correct.
- The channel may not be programmed into memory.

The picture rolls, slants, shows lines, is grainy, has poor color, or has ghosts.

- Try another station. If the other stations are OK, it may be a station problem.
- Check that the antenna is connected, is in good working order, has no broken wires, and is adjusted correctly.
- See if anything is interfering with the antenna signal.

The remote control does not work.

- Make sure the TV is plugged in.
- Make sure there are fresh batteries in the remote control.
- Make sure there is nothing blocking the remote control signal.