

NOBLEX

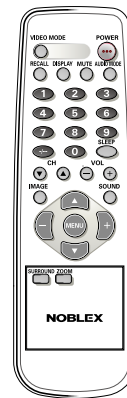
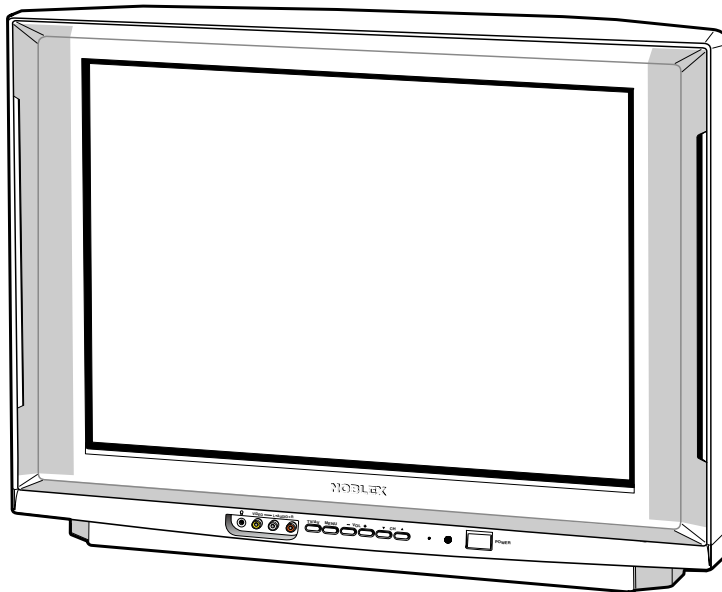
FILE NO.

SERVICE MANUAL Colour Television

Model No. 29TC667F

(Argentina)

Service Ref. No. 29TC667F-00



Specifications

Power Source AC220V, 50Hz / 60Hz

Receiving System PAL (M/M, N/N), NTSC (M/M)

Channel Coverage

Antenna mode VHF: CH02-CH13, UHF: CH14-CH69

CATV mode VHF band: CH01-CH13, Mid band: CH14-CH22

Super band: CH23-CH36, Hyper band: CH37-CH64

Ultra band: CH65-CH94 and CH100-CH125

Low mid band: CH95-CH99

Video IF 45.75MHz

Aerial Input Impedance 75 Ω

Input Terminals

AV1 (Video): Composite Video Input (Phone Jack) x 1
S-Video Input (Separated Y/C) DIN 4-pin Jack x 1

AV1 (Audio): L/R Stereo Input (Phone Jack) x 1 set

AV2 (Video): Composite Video Input (Phone Jack) x 1

AV2 (Audio): L/R Stereo Input (Phone Jack) x 1 set

AV3 (Video): Component Y, Cb, Cr Input (Phone Jack) x 1 set

AV3 (Audio): L/R Stereo Input (Phone Jack) x 1 set

Output Terminals

Video Monitor Output: Phono jack x 1

Audio Monitor Output: L/R Stereo Output (Phone Jack) x 1 set

Headphone Jack: Mini stereo jack x 1

Sound Output (RMS) . . . 5W + 5W

Speaker 6cm x 12cm x 2 pcs.

Dimensions 749(W) x 585(H) x 486(D)mm

Weight approx. 41.5 Kg

Product Code: 113003000

Original Version

Chassis Series: LB5-A

Give complete "SERVICE REF. NO." for parts order or servicing. It is shown on the rating plate at the cabinet back of the unit.

This T.V. receiver will not work properly in foreign countries where the television transmission system and power source differ from the design specifications. Refer to the specification table.

Specifications subject to change without notice.

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Safety Notice

SAFETY PRECAUTIONS

- 1: An isolation transformer should be connected in the power line between the receiver and the AC line when a service is performed on the primary of the converter transformer of the set.

2: Comply with all caution and safety-related notes provided on the cabinet back, inside the cabinet, on the chassis or the picture tube.
- 3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, isolation resistor-capacitor networks etc.. Before returning any television to the customer, the service technician must be sure that it is completely safe to operate without danger of electrical shock.

X-RADIATION PRECAUTION

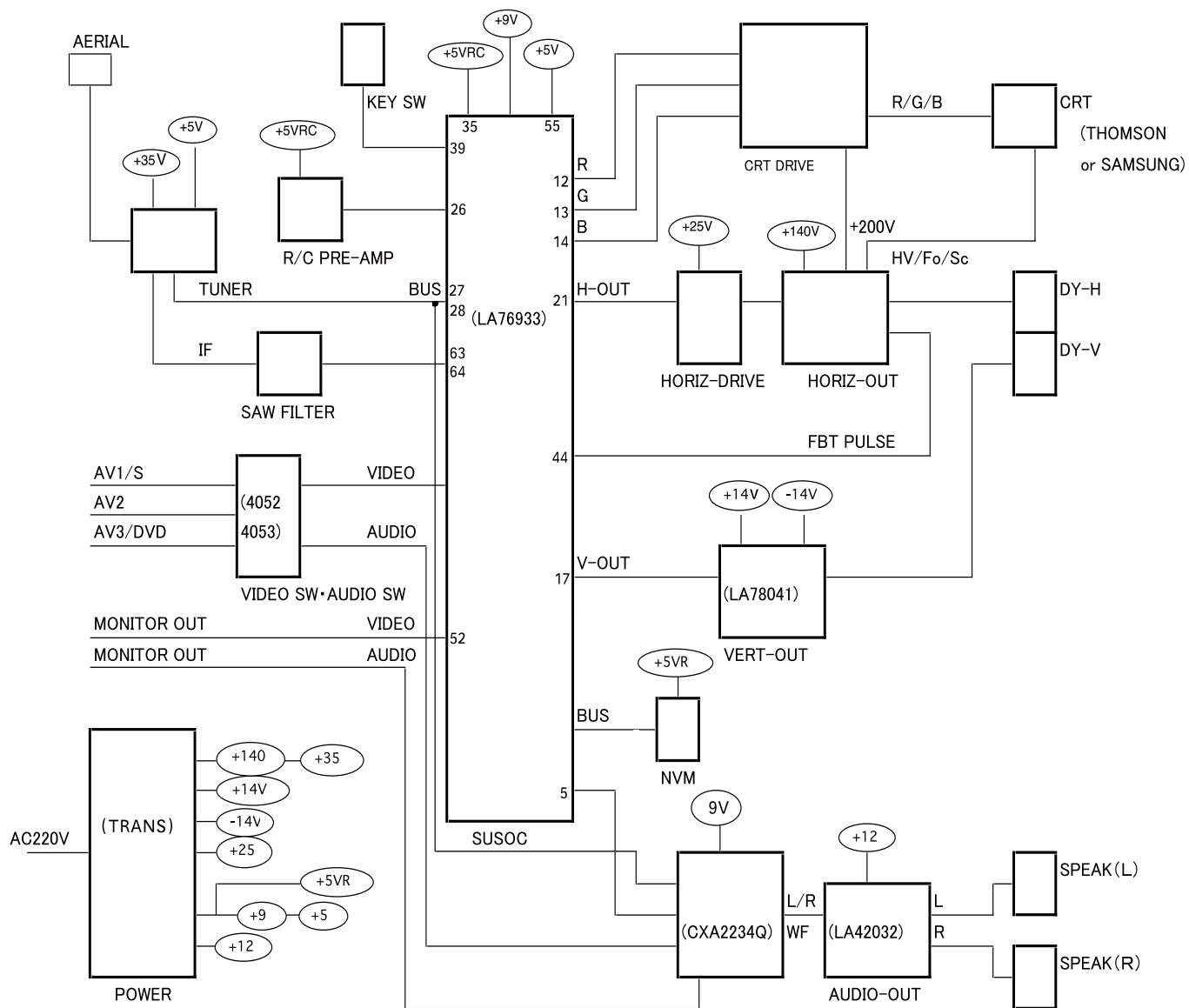
The primary source of X-RADIATION in television receiver is the picture tube. The picture tube is specially constructed to limit X-RADIATION emissions. For continued X-RADIATION protection, the replacement tube must be the same type as the original including suffix letter. Excessive high voltage may produce potentially hazardous X - RADIATION. To avoid such hazards, the high voltage must be maintained within specified limit. Refer to this service manual, high voltage adjustment for specific high voltage limit. If high voltage exceeds specified limits, take necessary corrective action. Carefully follow the instructions for + B1 volt power supply adjustment, and high voltage check to maintain the high voltage within the specified limits.

PRODUCT SAFETY NOTICE

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by mark ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is particularly recommended that only parts designated on the parts list in this manual be used for component replacement designated by mark ⚠ . No deviations from resistance wattage or voltage ratings may be made for replacement items designated by mark ⚠ .

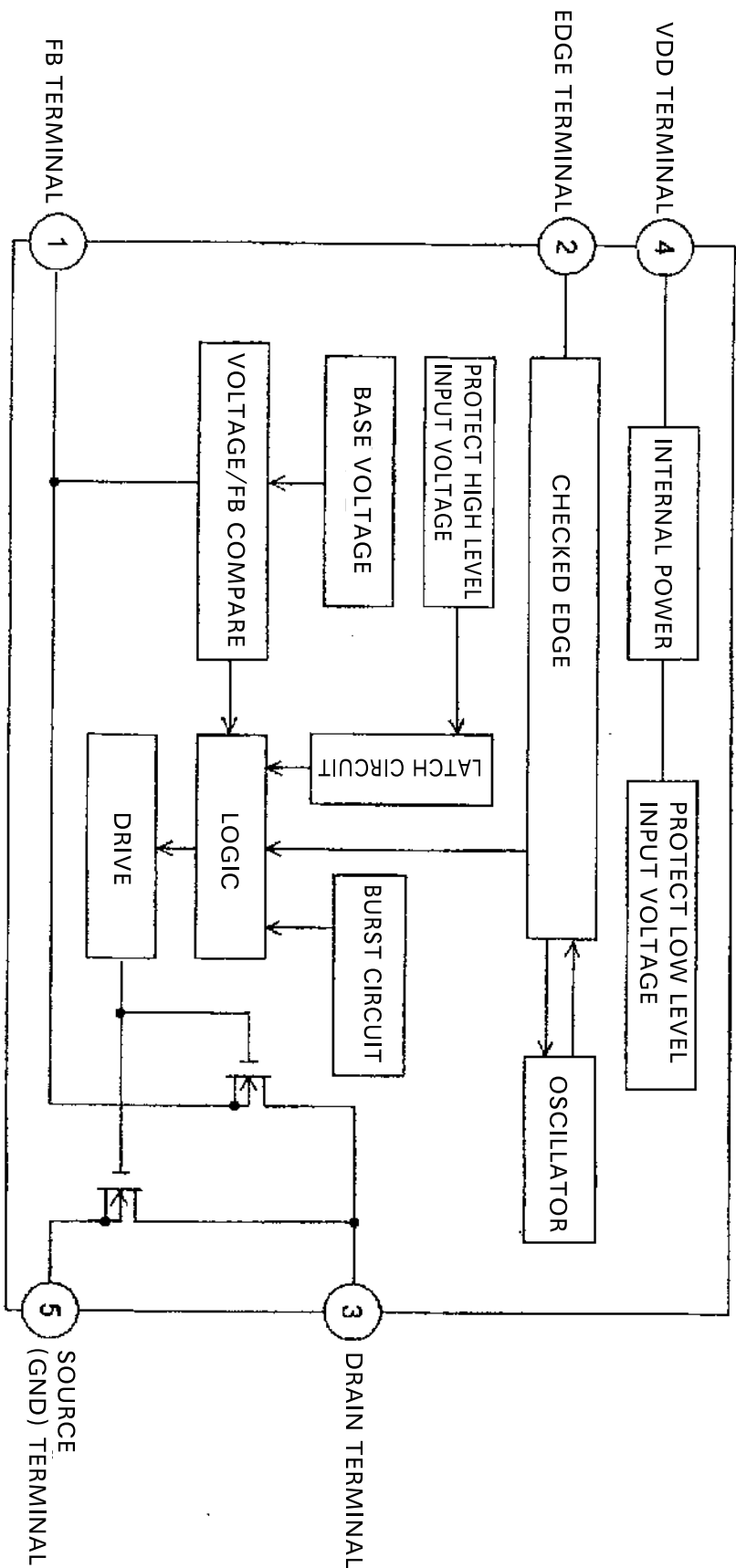
Chassis Block Diagrams

SIGNAL PROCESSING CIRCUIT



IC Block Diagrams

IC601 POWER SUPPLY IC (QTN6Q04-E)

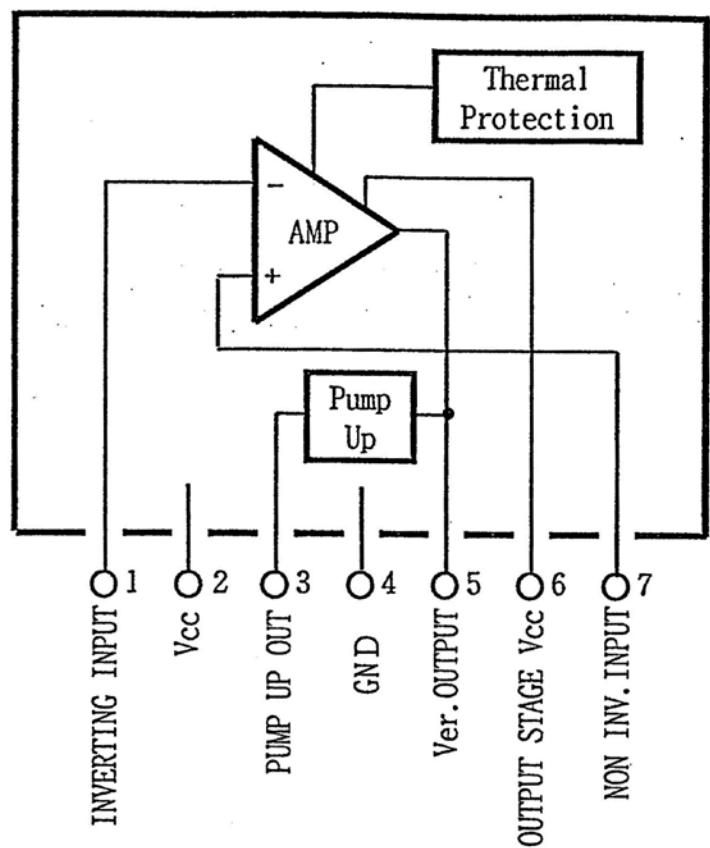


IC201 < IF/Video/Chroma/Def./CPU > LA76933

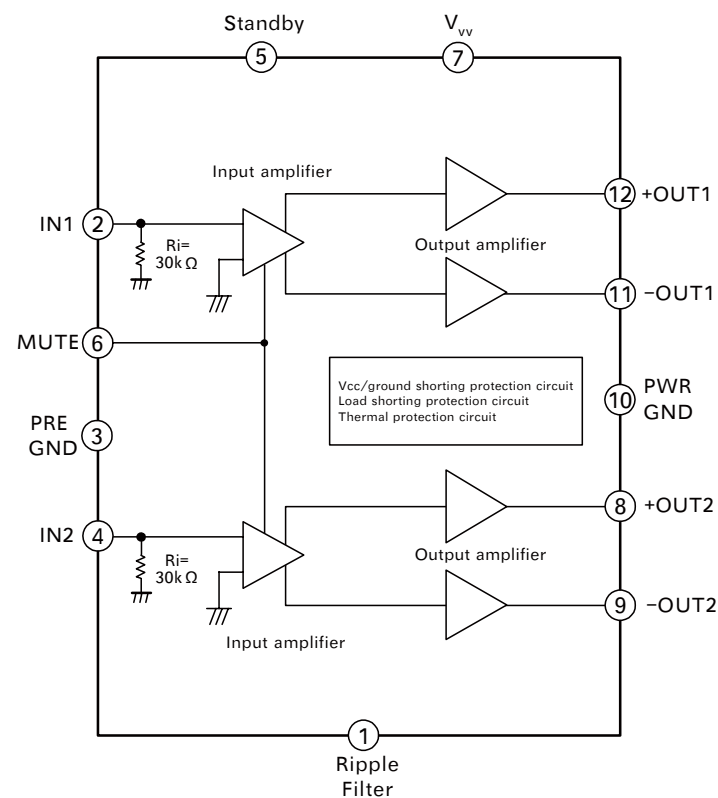


IC Block Diagrams

IC501<Vertical.Output> LA78041-E



IC001<AUDIO AMP> LA42032



IC3401 <MTS> CXA2234QP



Service Adjustments

General

This set has an On-screen Service Menu system included in the CPU that allows remote operation for most of the service adjustments.

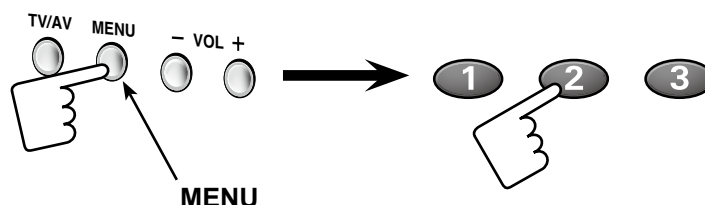
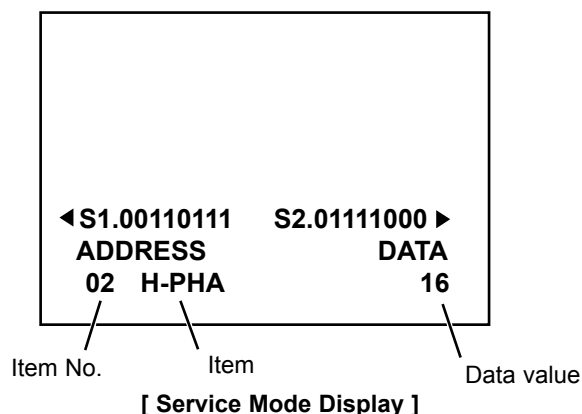
IC802 (EEPROM) Replacement

When IC802 (EEPROM) is replaced, IC201 (CPU) will automatically write the initial reference data into IC802 for basic TV operation. However, the bus data should be checked and some bus data should be set up before attempting the service adjustments. (See pages 9 ~ 11 for detailed information.)

Service Adjustment-1

1. Enter the Service Menu

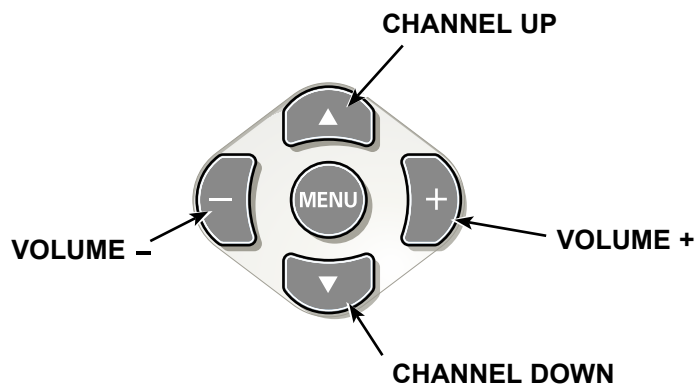
While pressing the **MENU** button on the television, press the Number Key **2** on the remote control unit. The Service Menu now appear.



2. Service Adjustments:

Press the **CHANNEL UP/DOWN** button on the remote control handset to select the desired service menu item you want to adjust.

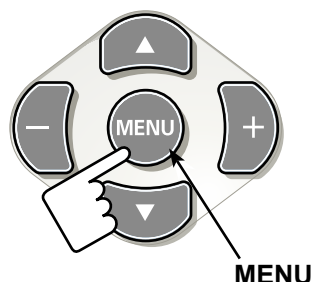
Use the **VOLUME + / -** button to adjust the data. The + or - button will increase or decrease the data sequentially.



3. Exit from the Service Menu

Press the **MENU** button to turn off the Service Menu display.

The data which is set in the service mode is stored into the memory IC automatically.



Service Adjustments

On-screen Service Menu

Following table shows the **initial values** which have been stored in the CPU ROM, and items for the service adjustments. When IC802 (EEPROM) is replaced, check the bus data to confirm they are the same as below. The shaded menu should be checked and be set up or readjusted according to the procedures described in the following pages. Initial Setup Data marked with an * should be changed from Initial Value Data.

No.	Item	Initial value	Range	Description
01	RFAGC	17	00~63	RF AGC adjustment
02	H-PHA	09	00~31	H-PHASE adjustment (50Hz)
03	V-DC	22	00~63	Vertical position adjustment (50Hz)
04	V-SIZ	83	00~127	Vertical size adjustment (50Hz)
05	V-SCO	18	00~31	Vertical-S compensation (50Hz)
06	V-LIN	16	00~31	Vertical linearity adjustment (50Hz)
07	H-P60	+4	-16 ~ +15	Difference value of H-PHASE adjustment (60Hz)
08	V-P60	0	-32~ +31	Difference value of V-POSITION adjustment (60Hz)
09	V-S60	0	-64~ +63	Difference value of V-SIZE adjustment (60Hz)
10	VSC60	0	-16~ +15	Difference value of Vertical-"S" compensation (60Hz)
11	VLI60	0	-16~ +15	Difference value of Vertical linear adjustment (60Hz)
12	H-PHAZ	-1	-16~ +15	Difference value of H-PHAZ adjustment (ZOOM)
13	V-SZZ5	+33	-64~ +63	Difference value of V-SIZE adjustment (ZOOM 50Hz)
14	V-SCOZ	+7	-16~ +15	Difference value of Vertical-"S" compensation (ZOOM)
15	V-LINZ	+4	-16~ +15	Difference value of Vertical linear adjustment (ZOOM)
16	V-SIZZ6	+31	-64~ +63	Difference value of V-SIZE adjustment (ZOOM 60Hz)
17	OSDHP	38	01~255	OSD horizontal remark position
18	OSDC	05	00~07	OSD contrast
19	EWDC	44	00~ 63	EW DC(50Hz)
20	EWAMP	06	00~ 63	EW Amp(50Hz)
21	EWTL	11	00~ 63	EW Tilt(50Hz)
22	EWCTP	05	00~ 15	EW Corner Top(50Hz)
23	EWCBM	03	00~ 15	EW Corner Bottom(50Hz)
24	EWAMZ	+6	-32~ +31	Difference value of EW Amp (ZOOM 50Hz)
25	EWDCN	0	-32~ +31	Difference value of EW DC (60Hz)
26	EWAMN	0	-32~ +31	Difference value of EW Amp (60Hz)
27	EWTLN	-1	-32~ +31	Difference value of EW Tilt (60Hz)
28	EWCTPN	+1	-8~ +7	Difference value of Corner Top (60Hz)
29	EWCBN	-2	-8~ +7	Difference value of Corner Bottom (60Hz)
30	EWAMZN	+5	-32~ +31	Difference value of EW Amp (ZOOM 60Hz)
31	EWCOR	00	0,1	EW COR SW
32	V-SCP	03	0~7	V-SIZE COMP
33	H-SCP	07	0~7	H-SIZE COMP
34	SBIAS	31	00~127	Sub Bias adjustment
35	RBIAS	02	00~255	Red Bias adjustment
36	GBIAS	06	00~255	Green Bias adjustment
37	BBIAS	04	00~255	Blue Bias adjustment
38	RDRIV	84	00~127	Red Drive adjustment
39	GDRIV	08	00~15	Green Drive adjustment
40	BDRIV	78	00~127	Blue Drive adjustment
41	--	--	--	White balance (a lateral line)
42	DRV	--	--	Bright and Dark of White balance adjustment
43	B-YD	11	00~15	B-Y DC Level
44	R-YD	11	00~15	R-Y DC Level
45	B-YDN	0	-16~ +15	Difference value of NTSC B-Y DC Level
46	R-YDN	0	-16~ +15	Difference value of NTSC R-Y DC Level
47	B-YDD	-4	-16~ +15	Difference value of DVD B-Y DC Level(50Hz)
48	R-YDD	-3	-16~ +15	Difference value of DVD R-Y DC Level(50Hz)
49	B-YDD6	-4	-16~ +15	Difference value of DVD B-Y DC Level(60Hz)
50	R-YDD6	-4	-16~ +15	Difference value of DVD R-Y DC Level(60Hz)

Service Adjustments

No.	Item	Initial value	Range	Description
51	G-YA	00	00,01	G-Y Angle
52	RBGB	10	00~15	R-Y/B-Y Gain Balance
53	RBAG	08	00~15	R-Y/B-Y Angle
54	G-YAN	00	00~01	Difference value of NTSC G-Y Angle
55	RBGBN	+7	-8~+7	Difference value of NTSC R-Y/B-Y Gain Balance
56	RBAGN	+4	-8~+7	Difference value of NTSC R-Y/B-Y Angle
57	RBADP	0	-8~+7	Difference value of DVD PAL R/B Angle
58	RBDN	-2	-8~+7	Difference value of DVD NTSC R/B Angle
59	RBBDP	0	-8~+7	Difference value of DVD NTSC R/B Balance
60	RBBDN	0	-8~+7	Difference value of DVD PAL R/B Balance
61	COGV	03	00~03	Coring Gain
62	BLKS	01	00~03	BLk. str. start(W/Defeat)
63	BLKG	00	00~03	BLk. STR. gain
64	BRTA	00	00~01	Brt.Abl.Def
65	BRST	00	00~01	Mid. Stp.Def
66	BRTH	00	00~07	Bright. Abl. Threshold
67	WPL	00	00~03	WPL Ope.Point(W/Defeat)
68	YGAM	00	00~03	Y Gamma Start
69	PRES	02	00~03	AV Mode Pre shoot adj
70	OVERS	03	00~03	AV Mode Over shoot adj.
71	RFCO	+1	-2~+1	Difference value of RF Coring Gain
72	PRESN	00	00~03	RF Mode Pre shoot adj
73	OVERSN	03	00~03	RF Mode Over shoot adj
74	TINT	-8	-16~+15	Tint
75	SHRF	+5	-16~+15	Difference value of RF sharpness
76	SHRFD	0	-16~+15	Difference value of DVD PAL sharpness
77	CODP	-10	-16~+15	Difference value of DVD PAL Colour
78	CODN	0	-16~+15	Difference value of DVD NTSC Colour
79	RFCOL	+5	-16~+15	Difference value of TV Color
80	TIDN	-8	-16~+15	Difference value of DVD NTSC Tint
81	SHRFS	0	-16~+15	Difference value of S-video Sharpness
82	TISN	0	-16~+15	Difference value of S-video NTSC Tint
83	COSPN	0	-16~+15	Difference value of S-video COLOR PALN
84	COSPM	0	-16~+15	Difference value of S-video COLOR PALM
85	COSN	-1	-16~+15	Difference value of S-video COLOR NTSC
86	ZOMCOL	-6	-16~+15	Difference value of Colour(ZOOM)
87	ZOMCON	-8	-16~+15	Difference value of Contrast(ZOOM)
88	ZOMBRI	-6	-16~+15	Difference value of Brightness(ZOOM)
89	TEXC	+3	-4~+3	OSD TEXT Contrast
90	AUFL	00	00~01	Auto. Flesh
91	COOP	07	00~07	Color Killer opt.
92	VCOFRQ	00	0~255	VCO Fre
93	DEEM	00	00~01	De-emphasis TC
94	V-LVL	06	00~07	Video Level
95	VER	--	--	VERSION and DATA
96	STRAP	04	00~07	Trap Test
97	IFOM-S	00	00~01	OVER MOD. SW
98	IFMN-S	00	00~01	AUDIO MONITOR SW,MONITOR/FM
99	IFTRPS	00	00~01	IC built-in SIF TRAP ON/OFF
100	OVMLVL	08	00~15	Video level coarse adjustment & MOD.operating dot setting
101	VBSW	00	00~01	VBLK SW
102	FBTS	00	00~01	FBPBLK. SW
103	HBLKL	05	00~07	H-Blanking Control Left
104	HBLKR	03	00~07	H-Blanking Control Right
105	AFCRF	00	00~01	Adj. of AFC Gain & gate (RF)

Service Adjustments

No.	Item	Initial value	Range	Description
106	VSURF	00	00~ 01	Adjustment of Vertical Sync. Separation Sensitivity (RF)
107	CDMRF	00	00~07	Vertical Count Down Loop Adjustment (RF)
108	AFCVAV	01	00~01	Adjustment of AFC Gain & Gate (AV)
109	VSUAV	00	00~01	Adjustment of Vertical Sync. Separation Sensitivity (AV)
110	CDMAV	00	00~07	Vertical Count Down Loop Adjustment (AV)
111	HLK-T	00	0, 1	H-lock, V-det. (under RF mode)
112	HLK-V	00	0, 1	H-lock, V-Det. (under AV mode)
113	VCOADJ	04	00~ 07	C. Vco Adjust (according to NTSC and PAL-N)
114	GRAY	00	0, 1	GRAY MODE
115	CROSS	00	0~3	CROSS B/W
116	HL-TON	00	0~3	HALF TONE LEVEL
117	AVNCON	64	00~127	CONTRAST (no signal in AV)
118	AVNBRI	64	00~127	BRIGHT (no signal in AV)
119	POMT	12	00~127	POWER MUTE TIME
120	CHMT	05	00~31	CH MUTE TIME
121	SYST	03	00~255	System N
122	RELAY	125	00~255	RELAT ON TIME(8msecXN)
123	CCD	35	1~63	Horizontal Position of Closed Captioning
124	V-POSZ	-1	-32~+31	V-POSITION(ZOOM)
125	EWDCZ	+1	-32~+31	E/W DC ZOO
126	EWTLZ	+4	-32~+31	E/W TILT ZOOM
127	EWCTPZ	+7	-8~+7	E/W CORNER TOP ZOOM
128	EWCBZ	+5	-8~+7	E/W CORNER BOTTOM ZOOM
129	VSCPZ	0	-4~+3	V.SIZE COMP(ZOOM)
130	HSCPZ	0	-4~+3	H.SIZE COMP(ZOOM)
131	AVTVTM	01	0~255	FEATHER MENU AV/TV CHAGNE
132	FM-G	01	00~01	FM gain
133	VSHIFT	00	0~15	V. SHIFT
134	CTRAP	04	0~7	C.TRAP adjust
135	CBPF	00	0~3	C.BPF adjust
136	C-KILL	00	0~1	C-KILL ON
137	G-YAMP	08	0~15	G-YAMP
138	B-YDPM	0	-16~+15	Different value of PALM B-Y DC level
139	R-YDPM	0	-16~+15	Different value of PALM R-Y DC leve
140	APCOFF	00	0~7	APC Offset
141	SYNCSP	02	0~7	Sync Sep Sence
142	YTH	00	0~3	Y TH
143	YGAIN	00	0~3	Y Gain
144	RWIDTH	00	0~3	R WIDTH
145	ROFSET	00	0~3	R OFSET
146	BWIDTH	00	0~3	B WIDTH
147	BOFSET	00	0~3	B OFSET
148	RGBTMP	00	0~1	RGB TEMP SW
149	VCOPLM	02	00~07	C.VCO Adjust (according to PAL-N)
150	OPTPOW	00	0~1	Last Power Status Option
151	OPTAVN	00	0~1	2AV or 3AV System Option

Service Adjustments

Important Notice:

Do not attempt to adjust service adjustments not listed on below otherwise it may cause loss of performance and for correct operation.

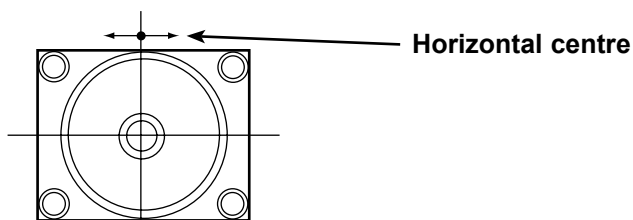
Item 01 [RFAGC] AGC

NOTE: Do not attempt this adjustment with weak signal.

1. Tune the receiver to most clearest (or strongest) VHF station in your area. Set the brightness and contrast controls to maximum. Set the colour control to minimum.
2. Select Item No. 01 [RFAGC] in the service mode.
3. Change value until the snow noise just disappears.
4. Exit from the service mode.

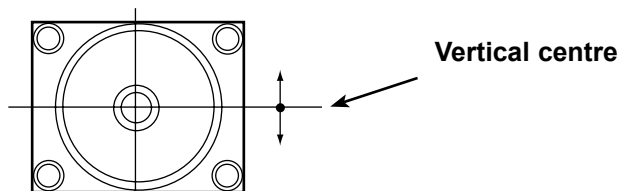
Item 02 [H-PHA] HORIZONTAL CENTRE

1. Receive a monochrome circular pattern.
2. Set the brightness and contrast to normal.
3. Select Item No. 02 [H-PHA] in the service mode.
4. Change value to be optimum horizontal centre position.
5. Exit from the service mode.



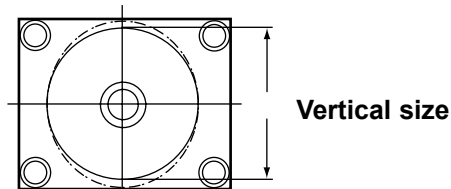
Item 03 [V-DC] VERTICAL CENTRE

1. Receive a monochrome circular pattern.
2. Set the brightness and contrast to maximum.
3. Select Item No. 03 [V-DC] in the service mode.
4. Change value to be optimum vertical centre position.
5. Exit from the service mode.



Item 04 [V-SIZ] VERTICAL SIZE

1. Receive a monochrome circular pattern.
2. Set the brightness to normal and contrast to maximum.
3. Select Item No. 04 [V-SIZ] in the service mode.
4. Change value to be optimum vertical size.
5. Exit from the service mode.

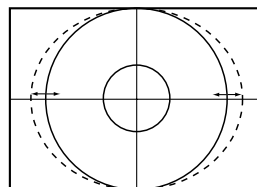


Item 17 [OSDHP] OSD H-POSITION

1. Receive a monochrome circular pattern.
2. Set the brightness and contrast to normal.
3. Select Item No. 17 [OSDHP] in the service mode.
4. Change value to be proper OSD horizontal position.
5. Exit from the service mode.

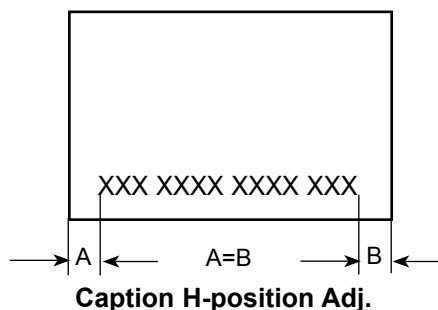
Item 19 [EWDC] HORIZONTAL WIDTH

1. Receive a monochrome circular pattern.
2. Set the brightness and contrast to maximum.
3. Select Item No.19 [EWDC] in the service mode.
4. Change value to be proper horizontal width.
5. Exit from the service mode.



Item 123 [CCD] CAPTION H-POSITION

1. Tune receiver to a caption channel.
2. Check that CAPTION position is in the horizontal center of the screen. If CAPTION center is too right or left, perform steps 3-6. (See figure below.)
3. Select Item No. 123 [CCD] in the service mode.
4. Adjust data with + or - key for proper horizontal center.
5. Exit from the service mode.

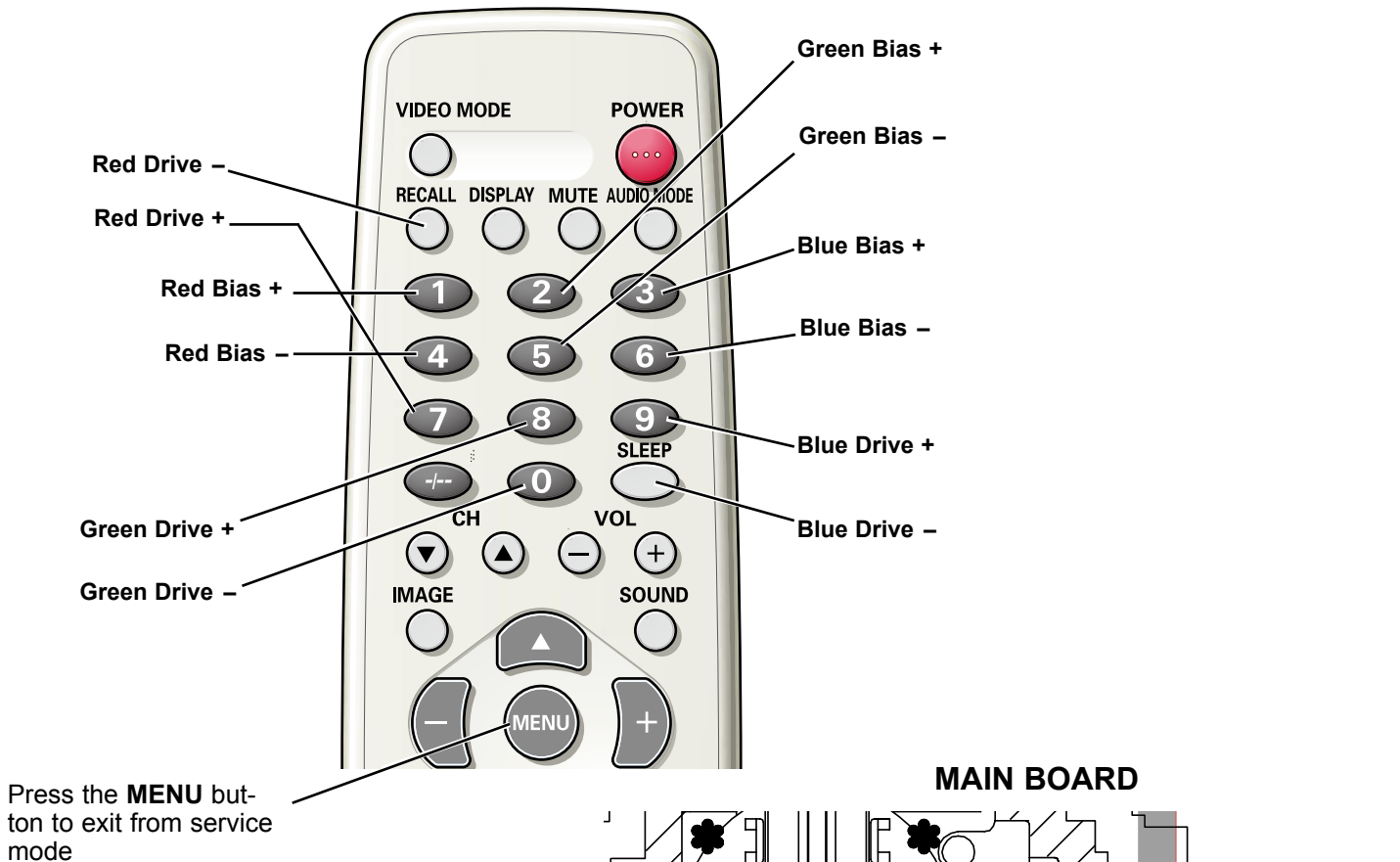


Service Adjustments

Items 35-42 GREY SCALE

1. Receive a monochrome circular pattern.
2. Set the brightness and colour to normal, contrast to maximum.
3. Enter to the service mode.
4. Set each value of Item-35 **RBIAS**, 36 **GBIAS**, 37 **BBIAS** mode to 00. Set each value of Item-38 **RDRIV**, 40 **BDRIV** mode to 64, 39 **GDRIV** to 08.
5. Select Item-41 mode to be one horizontal scanning line and turn the screen volume on the FBT to obtain just visible one coloured line.
6. Press the **1 (Red Bias +)**, **4 (Red Bias -)**, **2 (Green Bias +)**, **5 (Green Bias -)**, **3 (Blue Bias +)** or **6 (Blue Bias -)** button to adjust the brightness of each colour until a dim white line produced. Please see the control button allocations in this mode.
7. Select Item-42 **DRV** mode to enter the white balance adjusting mode.
8. Press the **7 (Red Drive +)**, **RECALL (Red Drive -)**, **8 (Green Drive +)**, **0 (Green Drive -)**, **9 (Blue Drive +)** or **SLEEP (Blue Drive -)** button alternately to produce normal black and white picture.
9. Exit from the service mode.
10. Check for proper grey scale tracking at all brightness levels.

NOTE: If the grey scale adjustment is made after picture tube replacement, check the high voltage.



Service Adjustments

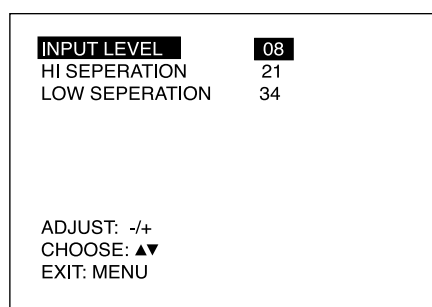
Service Adjustment-2 (MTS Adjustment)

Following table shows the initial values of MTS Adjustment which have been stored in the CPU ROM.

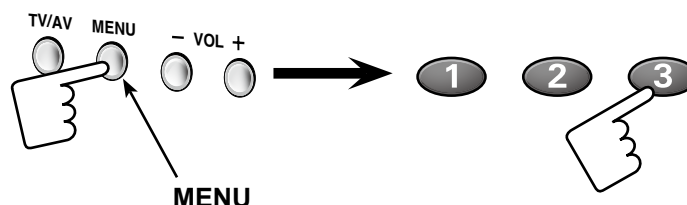
No.	Item	Initial value	Range
01	INPUT LEVEL	08	00~15
02	HIGH SEPERATION	21	00~63
03	LOW SEPERATION	34	00~63

1. Enter the Service Menu

While pressing the **MENU** button on the television, press the Number Key **3** on the remote control unit. The Service Menu now appear.



[MTS Adjustment Mode]

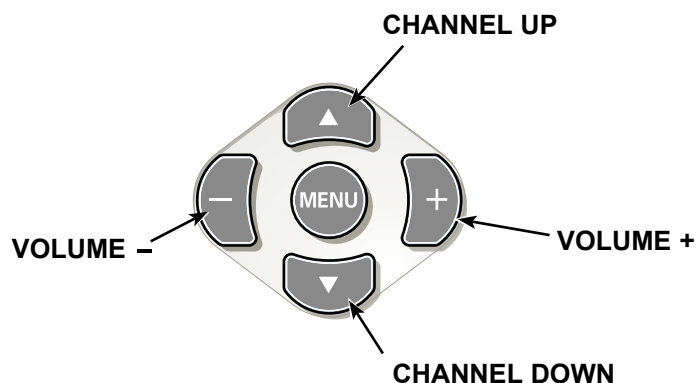


[Entering the Service Menu]

2. Service Adjustments:

Press the **CHANNEL UP/DOWN** button on the remote control handset to select the desired service menu item you want to adjust.

Use the **VOLUME + / -** button to adjust the data. The **+** or **-** button will increase or decrease the data sequentially.

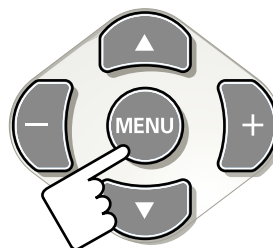


[Service Adjustment]

3. Exit from the Service Menu

Press the **MENU** button to turn off the Service Menu display.

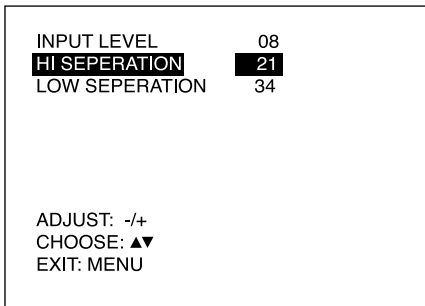
The data which is set in the service mode is stored into the memory IC automatically.



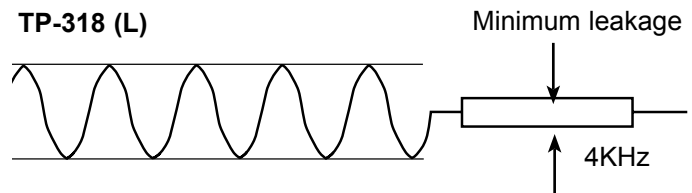
[Exit from the Service Menu]

Service Adjustments

- Select "HI SEPERATION" by pressing the **CHANNEL UP/DOWN** button on the remote control or TV set.



- Adjust the level of 4KHz at TP-318 (JE53) to become minimum level by pressing the **VOLUME (+/-)** button on the remote control or TV set.
- Repeat steps 4 to 7 for best separation.
- To exit from the service mode, press the **MENU** button.



Service Adjustment-3

FINE TUNING

This adjustment is used to do a fine tuning of the channels with poor reception after they have been stored by the automatic tuning.

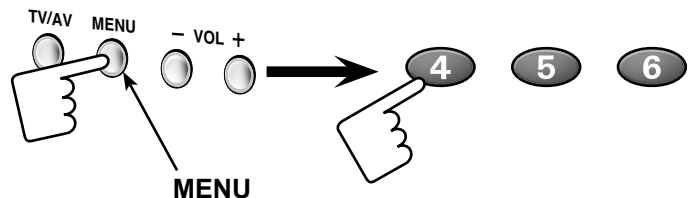
This function is available for one channel only and the fine-tuned channel is memorized into IC802 (EEPROM).

1. Enter the Service Menu

While pressing the **MENU** button on the television, press the "4" or **MENU** button on the remote control unit. The Service Menu now appear.



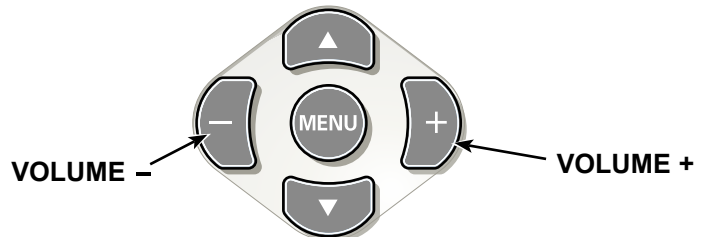
Fine tuning service mode



[Entering the Service Menu]

2. Service Adjustments:

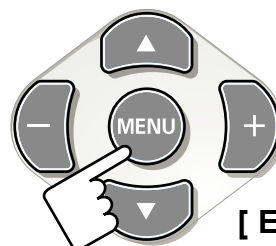
Press and hold the **VOLUME (+/-)** button on the remote control handset or TV set to make fine tuning adjustment. Press and hold the + button for higher frequency tuning, and press and hold the - for lower frequency tuning.



[Service Adjustment]

Fine tuning data value will be automatically stored in memory.

To return to normal TV mode, press the **MENU** button on the TV set or remote control handset. (Or will automatically return to normal TV mode after 5 seconds.)



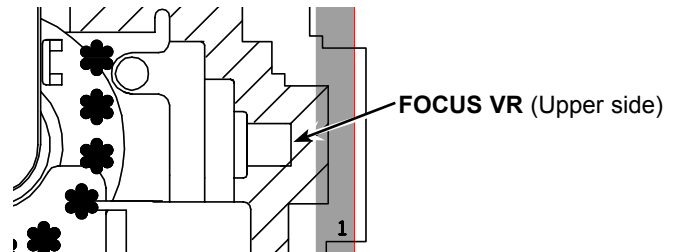
[Exit from the Service Menu]

Service Adjustments

Service Adjustment-4

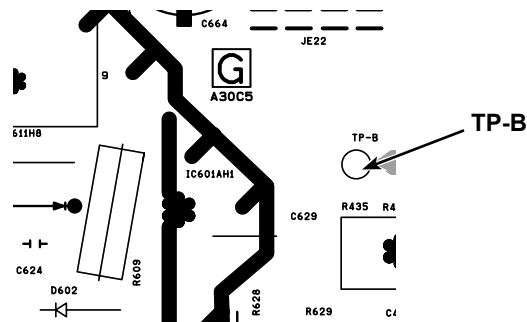
FOCUS ADJUSTMENT

1. Receive the monochrome circular pattern.
2. Set the brightness to normal and contrast to maximum.
3. Adjust the focus control on the F.B.T. for the best focus on the screen centre.



+B POWER SUPPLY CHECK

1. Connect a DC voltmeter to TP-B and the ground.
2. Set the brightness to normal and contrast to maximum.
3. Tune the receiver to an active channel and synchronized picture.
4. The +B voltage must be 140 ± 2.0 volt DC.



HIGH VOLTAGE CHECK

Note: +B (+140V) Voltage Check and Grayscale Adjustment must be completed before attempting High Voltage Check.

1. Connect high voltage voltmeter negative lead to ground, and connect + lead to anode of picture tube.
2. Tune receiver to an active channel and confirm TV is operating properly.
3. The high voltage must be $31KV \pm 1.5KV$ and less than $33.5KV$ at 0 beam current (Brightness and contrast minimum setting).

Note: If the picture tube is replaced, check the high voltage.

Protection Circuit

This TV set has a built-in power supply protection circuit.

It is provided to protect the TV set in case of a power supply circuit malfunctions. When something abnormality occurs during TV reception, the TV set goes to the stand-by mode.

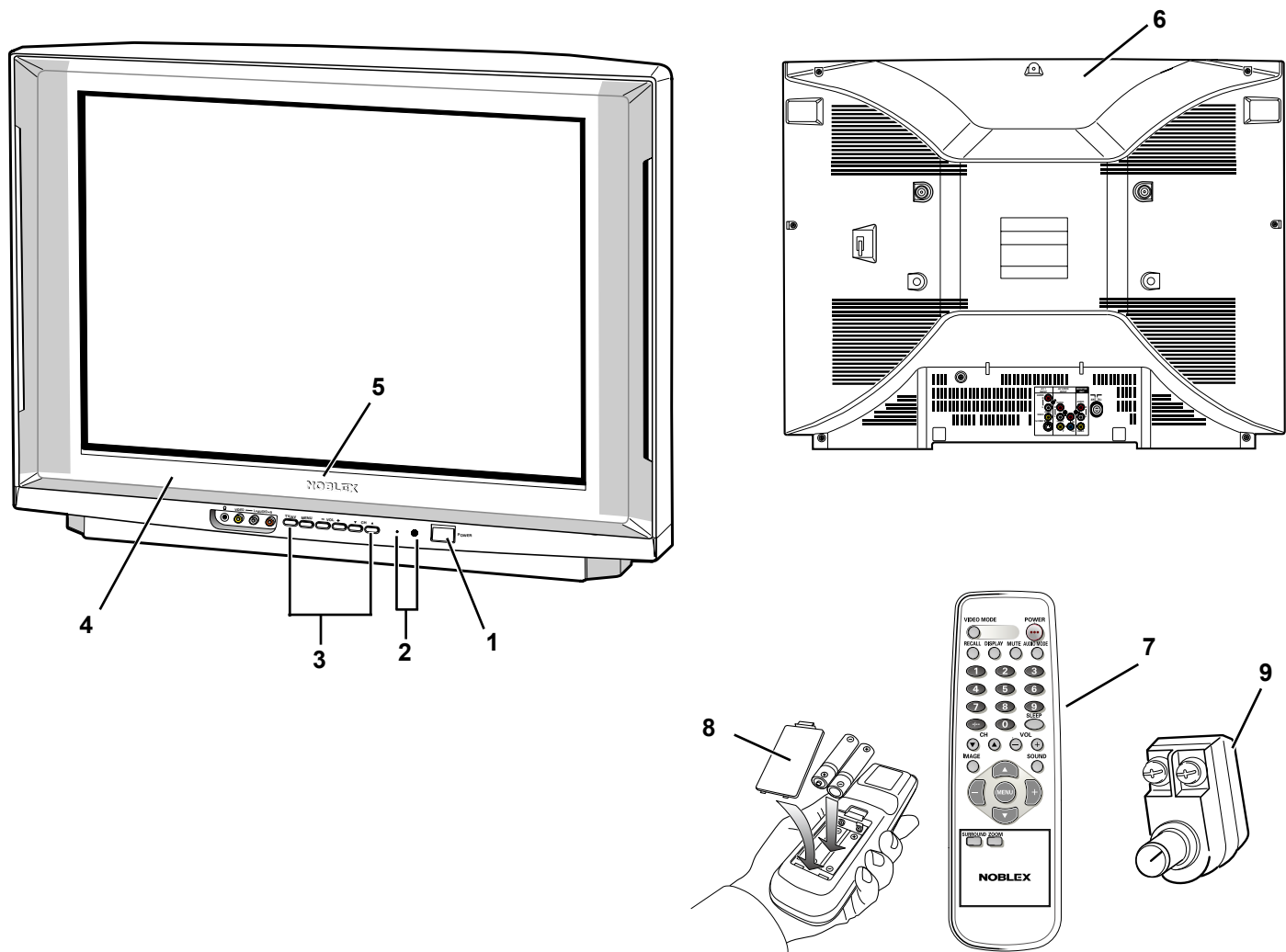
When an abnormality occurs during TV reception, it causes pin 23 of the CPU to go continually Low voltage for about one second. The CPU detects that this has occurred and outputs the signal from pin 36 to switch off the power supply lines.

Releasing the protective circuit and restoring power supply

To release the protective circuit and restore power supply, turn the power to the TV set OFF and then ON again via either the main power switch or the ON-OFF button on the remote control. This will work only if the power supply trouble was temporary. If there is permanent trouble such as a damaged circuit, power cannot be restored and the circuit will have to be repaired.

Cabinet Parts List

Note: Parts order must contain Service Ref. No., Part No., and descriptions.



Key No.	Part NO.	Description	Key No.	Part NO.	Description
1	1AA2BUM0473-- 1S00620	BUTTON POWER-C7SA COIL SPRING-D8HA			
2	1AA2DEM0363--	DEC IND-C7SA			
3	1AA2BUM0484--	BUTTON UNITED			
4	1AA2CAM0482--	CABINET FRONT-C8AA			
5	1AA2BAA0021-A	BADGE NOBLEX-C4CA			
6	1AA2CBM0355--	CABINET BACK-C8AA			
7	1AV0U10B30303	ASSY,REMOCON JXMTG			
8	1AA2RCM0226--	RC-BATTERY LID-JXMTA			
9	1AV4U19B00700	ANTENNA CONVERTER			
or	1AV4U19B00701	ANTENNA CONVERTER			
	1LG6P1P0178--	INSTRUCTION MANUAL-BA7A			

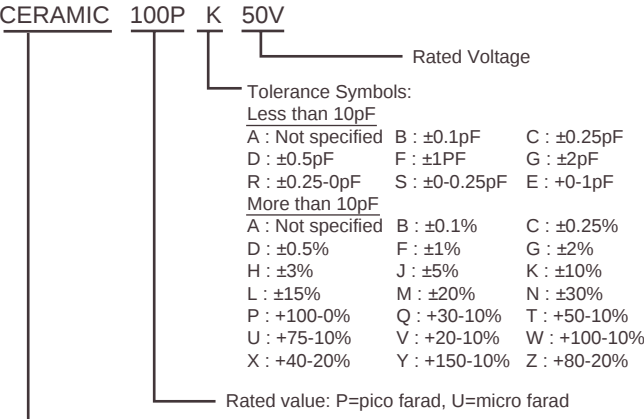
Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a Δ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

Note: Parts order must contain Service Ref. No., Part No., and descriptions. The main PCB unit will be supplied without tuner and flyback transformer. They should be ordered separately.

NOTES:

Read description in the Capacitor and Resistor as follows:

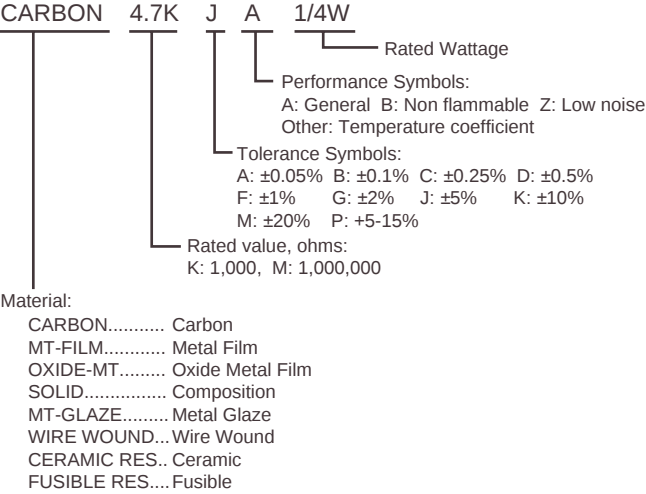
CAPACITOR



Material:

- CERAMIC..... Ceramic
- MT-PAPER..... Metallized Paper
- POLYESTER..... Polyester
- MT-POLYEST.....Metallized Polyester
- POLYPRO..... Polypropylene
- MT-POLYPRO.... Metallized Polypropylene
- COMPO FILM..... Composite film
- MT-COMPO.....Metallized Composite
- STYRENE.....Styrene
- TA-SOLID..... Tantalum Solid
- AL-SOLID..... Aluminium Solid
- ELECT..... Electrolytic
- NP-ELECT..... Non-polarised Electrolytic
- OS-SOLID..... Aluminium Solid with Organic Semiconductive Electrolytic
- DL-ELECT..... Double Layered Electrolytic

RESISTOR



Location	Part No.	Description	Safety	Location	Part No.	Description	Safety
A013	013BA7E	ELECTRICAL PARTS DIRECTORYL		C212	CC1H150JGQCNCZ	CERAMIC 15P J 50V	
901	1LB4L81B00700	COIL, DEGAUSSING	⚠	C213	RGRF0000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
Q901	BXXAVB429TFU-	CRT A68ELM021X003	⚠	C215	CPXLB1H1R0ZAN	NP-ELECT 1U M 50V	
SP901	1LB4A10B03800	SPEAKER, 8		C224	CK1E473KGQBNZ	CERAMIC 0.047U K 25V	
SP902	1LB4A10B03800	SPEAKER, 8		C225	CEXLB1HR47VDN	ELECT 0.47 U M 50V	
A1000	1LG0B10Y0030A	ASSY, PWB, MAIN BA7E		C226	CEXLB1HR47VDN	ELECT 0.47 U M 50V	
A101	1AV4F1BAM0340	TUNER, U/V		C227	CK1H103KGQBNZ	CERAMIC 0.01U K 50V	
A1901	1AV4U20B32400	UNIT, REMOCON RECEIVER		C231	CH1H474JAGANN	MT-COMPO 0.47U J 50V	
A1901	1AV4U20B35900	UNIT, REMOCON RECEIVER		C232	CK1H103KGQBNZ	CERAMIC 0.01U K 50V	
A1901	1AV4U20B63800	UNIT, REMOCON RECEIVER		C233	CEXLB1C470VDN	ELECT 47U M 16V	
C001	CEXLB1H470VEN	ELECT 47U M 50V		C234	CK1H103KGQBNZ	CERAMIC 0.01U K 50V	
C002	CEXLB1H4R7VDN	ELECT 4.7 U M 50V		C243	CK1H103KGQBNZ	CERAMIC 0.01U K 50V	
C003	CEXLB1H4R7VDN	ELECT 4.7 U M 50V		C244	CEXLB1A331VDN	ELECT 330U M 10V	
C004	CEXLB1H2R2VDN	ELECT 2.2 U M 50V		C245	CEXLB1H1R0VDN	ELECT 1U M 50V	
C005	CEXLB1E332VDN	ELECT 3300U M 25V		C246	CEXLB1HR47VDN	ELECT 0.47 U M 50V	
C006	CF1H104KADANN	POLYESTER 0.1U K 50V		C247	CEXLB1H2R2VDN	ELECT 2.2 U M 50V	
C006	CF1H104KBEANN	POLYESTER 0.1U K 50V		C248	CEXLB1H1R0VDN	ELECT 1U M 50V	
C007	CF1H104KADANN	POLYESTER 0.1U K 50V		C249	CEXLB1H1R0VDN	ELECT 1U M 50V	
C007	CF1H104KBEANN	POLYESTER 0.1U K 50V		C250	CEXLB1H1R0VDN	ELECT 1U M 50V	
C008	CF1H104KADANN	POLYESTER 0.1U K 50V		C273	CK1E104KGQBNZ	CERAMIC 0.1U K 25V	
C008	CF1H104KBEANN	POLYESTER 0.1U K 50V		C291	CEXLB1C470VDN	ELECT 47U M 16V	
C009	CF1H104KADANN	POLYESTER 0.1U K 50V		C3401	CEXLB1HR10VDN	ELECT 0.1U M 50V	
C009	CF1H104KBEANN	POLYESTER 0.1U K 50V		C3404	CPXLB1H4R7ZAN	NP-ELECT 4.7U M 50V	
C010	CEXLB1H100VEN	ELECT 10U M 50V		C3406	CK1H123KGQBNZ	CERAMIC 0.012U K 50V	
C011	CEXLB1C101VDN	ELECT 100U M 16V		C3407	CK1H562KGQBNZ	CERAMIC 5600P K 50V	
C012	CEXLB1E4R7VDN	ELECT 4.7U M 25V		C3408	CEXLB1HR47VDN	ELECT 0.47 U M 50V	
C013	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C3411	CEXLB1HR47VDN	ELECT 0.47 U M 50V	
C1001	CEXLB1H1R0VDN	ELECT 1U M 50V		C3412	CEXLB1C470VDN	ELECT 47U M 16V	
C1002	CEXLB1H100VDN	ELECT 10U M 50V		C3413	CEXLB1H4R7VDN	ELECT 4.7 U M 50V	
C1003	CEXLB1HR10VDN	ELECT 0.1U M 50V		C3414	CEXLB1C101VDN	ELECT 100U M 16V	
C1004	CEXLB1H100VDN	ELECT 10U M 50V		C3416	CPXLB1H4R7ZAN	NP-ELECT 4.7U M 50V	
C1005	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C3417	CEXLB1H4R7VDN	ELECT 4.7 U M 50V	
C1006	CEXLB1H1R0VDN	ELECT 1U M 50V		C3418	CPXLB1H4R7ZAN	NP-ELECT 4.7U M 50V	
C1007	CEXLB1H100VDN	ELECT 10U M 50V		C3420	CK1H103KGQBNZ	CERAMIC 0.01U K 50V	
C1009	CEXLB1H100VDN	ELECT 10U M 50V		C3421	CK1H272KGQBNZ	CERAMIC 2700P K 50V	
C101	CEXLB1C471VDN	ELECT 470U M 16V		C3422	CK1E473KGQBNZ	CERAMIC 0.047U K 25V	
C1010	CKXAV1H104EAG	CERAMIC 0.1U K 50V		C3423	CT1A3R3KDRANG	TA-SOLID 3.3U K 10V	
C1010	CK1H104KGQBNG	CERAMIC 0.1U K 50V		C3424	CPXLB1H4R7ZAN	NP-ELECT 4.7U M 50V	
C1011	CKXAV1H104EAG	CERAMIC 0.1U K 50V		C3426	CT1A100KDRANG	TA-SOLID 10U K 10V	
C1011	CK1H104KGQBNG	CERAMIC 0.1U K 50V		C3427	CEXLB1H1R0VDN	ELECT 1U M 50V	
C1021	CEXLB1H100VDN	ELECT 10U M 50V		C3431	CK1H472KGQBNZ	CERAMIC 4700P K 50V	
C1022	CEXLB1H100VDN	ELECT 10U M 50V		C3432	CEXLB1HR10VDN	ELECT 0.1U M 50V	
C1023	CEXLB1A471VDN	ELECT 470U M 10V		C3433	CK1H472KGQBNZ	CERAMIC 4700P K 50V	
C1031	CEXLB1C101VDN	ELECT 100U M 16V		C3434	CK1H223KGQBNZ	CERAMIC 0.022U K 50V	
C1032	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C3436	CPXLB1H4R7ZAN	NP-ELECT 4.7U M 50V	
C1033	CEXLB1C101VDN	ELECT 100U M 16V		C3439	CPXLB1H4R7ZAN	NP-ELECT 4.7U M 50V	
C1034	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C3451	CEXLB1H4R7VDN	ELECT 4.7 U M 50V	
C104	CEXLB1H330VDN	ELECT 33U M 50V		C3452	CEXLB1H4R7VDN	ELECT 4.7 U M 50V	
C106	CEXLB1H220VDN	ELECT 22 U M 50V		C355	CKXLB2H151ZEN	CERAMIC 150P K 500V	
C1101	CEXLB1H1R0VDN	ELECT 1U M 50V		C355	CK2H151KCBBJC	CERAMIC 150P K 500V	
C1102	CEXLB1H100VDN	ELECT 10U M 50V		C358	CEXLB1H1R0VDN	ELECT 1U M 50V	
C1103	CEXLB1H100VDN	ELECT 10U M 50V		C420	CMXAA3Y682AKN	MT-POLYPRO 6800P H 1.5K	
C111	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C420	CMXLB3C682YCN	MT-POLYPRO 6800P J 1.6K	
C1111	CPXLB1C100ZAN	NP-ELECT 10U M 16V		C423	CMXAA3Y682AKN	MT-POLYPRO 6800P H 1.5K	
C1112	CPXLB1C100ZAN	NP-ELECT 10U M 16V		C423	CMXLB3C682YCN	MT-POLYPRO 6800P J 1.6K	
C112	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C424	CNXLB2G153ZAN	POLYPRO 0.015U J 400V	
C114	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C424	CN2G153JBEAQN	POLYPRO 0.015U J 400V	
C121	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C425	CNXLB2G183ZAN	POLYPRO 0.018U J 400V	
C122	CEXLB1C101VDN	ELECT 100U M 16V		C425	CN2G183JBEAQN	POLYPRO 0.018U J 400V	
C138	CK1H223KGQBNZ	CERAMIC 0.022U K 50V		C432	CKXLB2H102ZEN	CERAMIC 1000P K 500V	
C171	CK1H152KGQBNZ	CERAMIC 1500P K 50V		C432	CK2H102KCBBJN	CERAMIC 1000P K 500V	
C172	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C433	CK2H392KCBBJN	CERAMIC 3900P K 500V	
C174	CC1H100DGQCNCZ	CERAMIC 10P D 50V		C434	CEXLB1V470VDN	ELECT 47U M 35V	
C1902	CEXLB1H220VDN	ELECT 22 U M 50V		C437	CG2E474JAAANN	MT-POLYEST 0.47U J 250V	
C201	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C441	CMXAV2D154ABS	MT-POLYPRO 0.15U M 200V	
C202	CF1H153JBEANN	POLYESTER 0.015U J 50V		C442	CMXAV2D154ABS	MT-POLYPRO 0.15U M 200V	
C203	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		C463	CK1H152KCBBJN	CERAMIC 1500P K 50V	
C204	CEXLB1E100VDN	ELECT 10U M 25V		C465	CG2A225KAAANN	MT-POLYEST 2.2U K 100V	
C210	CEXLB1C101VDN	ELECT 100U M 16V		C468	CEXLB1E220VDN	ELECT 22U M 25V	

Location	Part No.	Description	Safety	Location	Part No.	Description	Safety
C469	CEXLB1H100VDN	ELECT 10U M 50V		C681	CK3A102KCBBJN	CERAMIC 1000P K 1K	
C470	CK1H103ZCBFJN	CERAMIC 0.01U Z 50V		C682	CEXLB1E222VDN	ELECT 2200U M 25V	
C471	CPXAA2A2R2AAN	NP-ELECT 2.2U M 100V		C801	CC1H180JGQCNZ	CERAMIC 18P J 50V	
C471	CPXLB2A2R2YAN	NP-ELECT 2.2U M 100V		C802	CC1H180JGQCNZ	CERAMIC 18P J 50V	
C471	CPXLB2A2R2ZAN	NP-ELECT 2.2U M 100V		C805	CEXLB1C101VDN	ELECT 100U M 16V	
C475	CF1H473JBEANN	POLYESTER 0.047U J 50V		C815	CK1H103KGQBNZ	CERAMIC 0.01U K 50V	
C486	CE2E330M4VANN	ELECT 33U M 250V		C842	CK1E104KGQBNZ	CERAMIC 0.1U K 25V	
C491	CK2H681KCBBJN	CERAMIC 680P K 500V		C843	CK1E104KGQBNZ	CERAMIC 0.1U K 25V	
C501	CF2A224KBEANN	POLYESTER 0.22U K 100V		C850	CEXLB1H100VDN	ELECT 10U M 50V	
C502	CEXLB1E102VEN	ELECT 1000U M 25V		C863	CEXLB1H1R0VDN	ELECT 1U M 50V	
C503	CEXLB1V471VDN	ELECT 470U M 35V		C893	CEXLB1H2R2VDN	ELECT 2.2 U M 50V	
C504	CF2A104KBEANN	POLYESTER 0.1U K 100V		C894	CK1E333KGQBNZ	CERAMIC 0.033U K 25V	
C505	CEXLB1C1R0VDN	ELECT 1U M 16V		D001	DD1SS355- ---G	DIODE 1SS355-TE-17	
C506	CEXLB1E102VDN	ELECT 1K U M 25V		D003	DDXAAED0434- --	DIODE 1N4148	
C510	CF1H222KAAANN	POLYESTER 2200P K 50V		D003	DD1SS133- ---N	DIODE 1SS133	
C510	CF1H222KADANN	POLYESTER 2200P K 50V		D003	DD1S2076A- ---N	DIODE 1S2076A-E	
C510	CF1H222KBEANN	POLYESTER 2200P K 50V		D1001	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C511	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		D1007	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C512	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		D1008	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C513	CK2H101KCBBJN	CERAMIC 100P K 500V		D1010	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C601	CGXAA2E683BJN	MT-POLYEST 0.068U M 250V	△	D1011	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C601	CGXAV27683DBN	MT-POLYEST 0.068U M 275V	△	D102	DZMTZJ12B- ---N	ZENER DIODE MTZJ12B	
C607	CK3A102KAHBNN	CERAMIC 1000P K 1K		D103	DZMTZJ36A- ---N	ZENER DIODE MTZJ36A	
C607	CK3A102KCBBJN	CERAMIC 1000P K 1K		D103	DZRD36EB1- ---N	ZENER DIODE RD36EB1	
C609	CEXAA2G271ABN	ELECT 270U M 400V		D103	DZXLBZA36A- --N	ZENER DIODE MTZJ36A	
C609	CEXAA2G271ACN	ELECT 270U M 400V		D106	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C609	CEXAA2G271AMN	ELECT 270U M 400V		D107	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C609	CEXLB2G271UBN	ELECT 270U M 400V		D108	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C611	CFXLB1J682ZAN	POLYESTER 6800P J 63V		D109	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C611	CF1H682JADANN	POLYESTER 6800P J 50V		D110	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C611	CF1H682JBEANN	POLYESTER 6800P J 50V		D1101	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C612	CC1H470JCACJC	CERAMIC 47P J 50V		D1102	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C613	CK3D471KCRDNN	CERAMIC 470P K 2K		D1103	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C614	CN2J473JBEAQN	POLYPRO 0.047U J 630V		D1111	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C615	CFXLB1J473ZAN	POLYESTER 0.047U J 63V		D1112	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C615	CH2A473JAHANN	MT-COMPO 0.047U J 100V		D120	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C616	CEXLB1H470VDN	ELECT 47 U M 50V		D121	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C617	CK3A471KANHNN	CERAMIC 470P K 1K		D122	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C618	CEXLB1E222VEN	ELECT 2200U M 25V		D123	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C619	CEXLB1A222VDN	ELECT 2200U M 10V		D1301	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C620	CK1H103KGQBNZ	CERAMIC 0.01U K 50V		D1302	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C621	CEXLB1C221VDN	ELECT 220U M 16V		D1306	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C622	CEXLB1C100VEN	ELECT 10U M 16V		D1309	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C624	CK3D471KCRDNN	CERAMIC 470P K 2K		D1310	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C627	CKXAA2E102AHN	CERAMIC 1000P K 250V	△	D1311	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C627	CKXAA2G102ANN	CERAMIC 1000P M 400V	△	D1312	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C628	CKXAA2E102AHN	CERAMIC 1000P K 250V	△	D1321	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C628	CKXAA2G102ANN	CERAMIC 1000P M 400V	△	D1330	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C629	CKXAA2E102AHN	CERAMIC 1000P K 250V	△	D1901	DLSPR-39MVWFN	LED SPR-39MVWF	
C629	CKXAA2G102ANN	CERAMIC 1000P M 400V	△	D1901	DLXLB001- ---N	LED SPR-39MVWF	
C629	CKXAA2G102ANN	CERAMIC 1000P M 400V	△	D1903	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C631	CK3A102KAHBNN	CERAMIC 1000P K 1K		D1904	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C631	CK3A102KCBBJN	CERAMIC 1000P K 1K		D1905	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C632	CEXLB1E102VEN	ELECT 1000U M 25V		D1911	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C651	CK3A102KAHBNN	CERAMIC 1000P K 1K		D1912	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C651	CK3A102KCBBJN	CERAMIC 1000P K 1K		D1913	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C652	CEXLB1E102VEN	ELECT 1000U M 25V		D1914	DZUDZS12B- ---G	ZENER DIODE UDZS-TE-1712B	
C661	CK3D102KAHBNN	CERAMIC 1000P K 2K		D352	DZMTZJ5.1A- --N	ZENER DIODE MTZJ5.1A	
C661	CK3D102KANHAN	CERAMIC 1000P K 2K		D357	DDXAAED0434- --	DIODE 1N4148	
C661	CK3D102KANHNN	CERAMIC 1000P K 2K		D357	DD1SS133- ---N	DIODE 1SS133	
C663	CF1H222JBEANN	POLYESTER 2200P J 50V		D357	DD1S2076A- ---N	DIODE 1S2076A-E	
C664	CEXAA2C221AJN	ELECT 220U M 160V		D421	DZXLBZA16A- --N	ZENER DIODE MTZJ16A	
C664	CEXAA2D221ADN	ELECT 220U M 200V		D438	DDERD07-15L-N	DIODE ERD07-15L	
C664	CEXLB2C221UAN	ELECT 220U M 160V		D439	DDERB44-04- --N	DIODE ERB44-04	
C671	CK3A102KAHBNN	CERAMIC 1000P K 1K		D461	DDXAAED0434- --	DIODE 1N4148	
C671	CK3A102KCBBJN	CERAMIC 1000P K 1K		D461	DD1SS133- ---N	DIODE 1SS133	
C672	CEXLB1V102VEN	ELECT 1000U M 35V		D461	DD1S2076A- ---N	DIODE 1S2076A-E	
C681	CK3A102KAHBNN	CERAMIC 1000P K 1K		D462	DDXAAED0434- --	DIODE 1N4148	
				D462	DD1SS133- ---N	DIODE 1SS133	

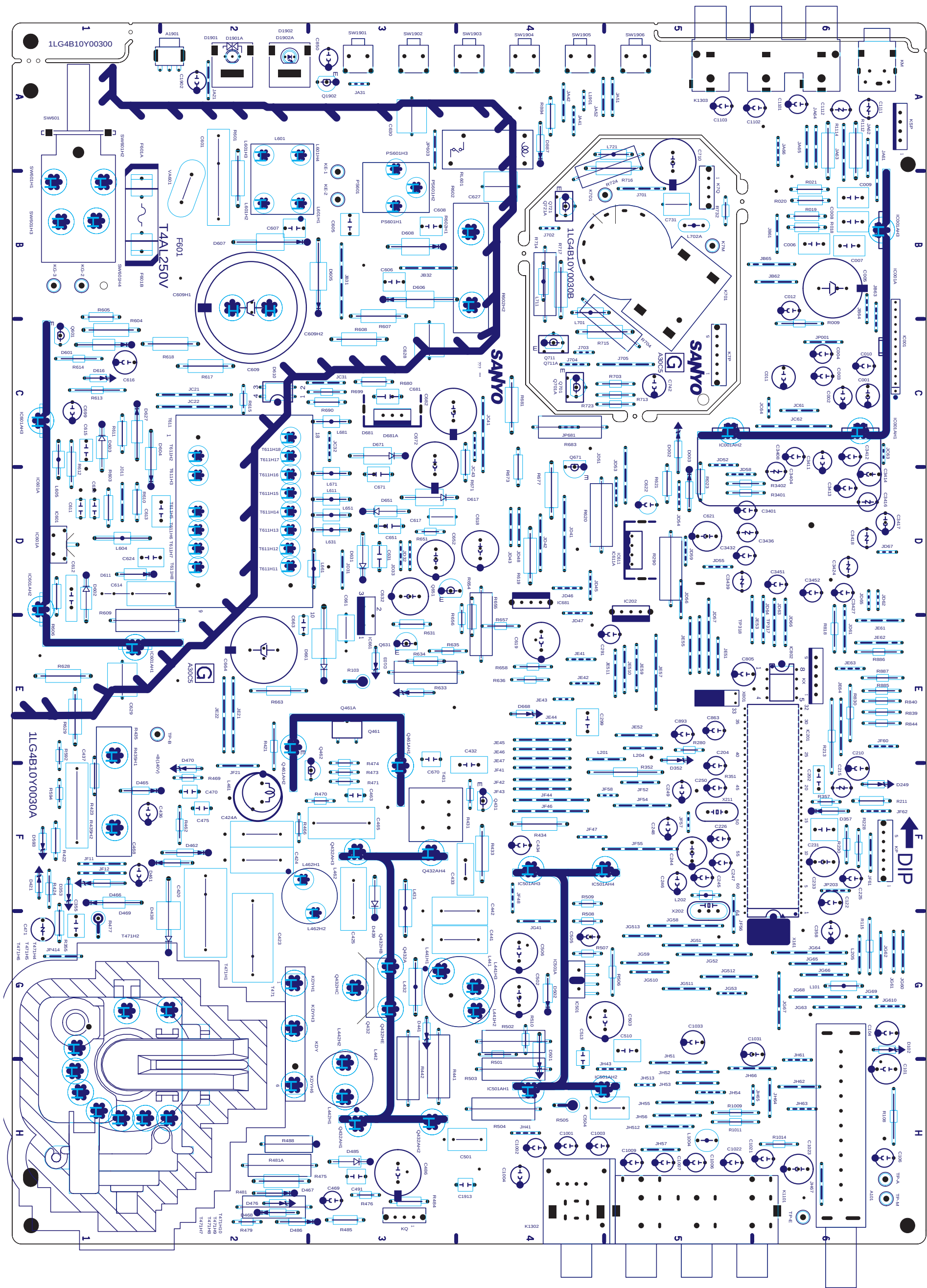
Location	Part No.	Description	Safety	Location	Part No.	Description	Safety
D462	DD1S2076A---N	DIODE 1S2076A-E		IC601	QTN6Q04-E---N	IC TN6Q04-HA11-E	
D465	DDXAAED0434--	DIODE 1N4148		IC611	QPQ09RD11---N	IC PQ09RD11	
D465	DD1SS133----N	DIODE 1SS133		IC611	QPQ09RF11---N	IC PQ09RF11J00H	
D465	DD1S2076A---N	DIODE 1S2076A-E		IC661	QSE140NL---N	IC SE140NL	
D466	DZMTZJ20A---N	ZENER DIODE MTZJ20A		IC681	QBA178M05T--N	IC BA178M05T	
D466	DZRD20EB1---N	ZENER DIODE RD20EB1		IC681	QKIA7805API-N	IC KIA7805API	
D467	DDXAAED0434--	DIODE 1N4148		IC681	QL78M05CV---N	IC L78M05CV	
D467	DD1SS133----N	DIODE 1SS133		IC681	QMC78M05CTG-N	IC MC78M05CTG	
D467	DD1S2076A---N	DIODE 1S2076A-E		IC802	Q24LC16B/P--N	IC 24LC16B/P	
D468	DDXAAED0434--	DIODE 1N4148		JC42	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D468	DD1SS133----N	DIODE 1SS133		JC65	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D468	DD1S2076A---N	DIODE 1S2076A-E		JC66	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D469	DDEU1-----N	DIODE EU1		JD34	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D470	DZMTZJ7.5A--N	ZENER DIODE MTZJ7.5A		JE591	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D476	DZXLBZA5.1B-N	ZENER DIODE MTZJ5.1B		JF51	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D485	DDEU1-----N	DIODE EU1		JF53	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D485	DDXLBB017---N	DIODE EU1		JF59	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D486	DDXAAED0434--	DIODE 1N4148		JG54	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D486	DD1SS133----N	DIODE 1SS133		JG56	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D486	DD1S2076A---N	DIODE 1S2076A-E		JG57	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D502	DDERA15-02--N	DIODE ERA15-02		JH44	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D602	DZMTZJ6.2B--N	ZENER DIODE MTZJ6.2B		JH45	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D603	DDEU1-----N	DIODE EU1		JH515	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D604	DDEU1-----N	DIODE EU1		JH58	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D605	DDERC05-10B-N	DIODE ERC05-10B		JH59	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D605	DDRM11C-----N	DIODE RM11C		JH591	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D605	DDXLBB016---N	DIODE ERC05-10B		JP004	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D606	DDERC05-10B-N	DIODE ERC05-10B		JP288	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D606	DDRM11C-----N	DIODE RM11C		JP3411	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D606	DDXLBB016---N	DIODE ERC05-10B		JP804	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
D607	DDERC05-10B-N	DIODE ERC05-10B		KM	1AV4J12B06000	JACK, PHONE D3.6	
D607	DDRM11C-----N	DIODE RM11C		K1101	1LB4J12B08300	JACK, RCA-8	
D607	DDXLBB016---N	DIODE ERC05-10B		K1303	1LB4J12B02000	JACK, RCA-3	
D608	DDERC05-10B-N	DIODE ERC05-10B		L101	1AV4L2C1101KN	INDUCTOR, 100U K	
D608	DDRM11C-----N	DIODE RM11C		L202	1AV4L2B9120KN	INDUCTOR, 12U K	
D608	DDXLBB016---N	DIODE ERC05-10B		L431	1LB4Z21B0160N	CORE, PIPE	
D610	DCPC817D----N	PHOTO COUPLE PC817D	△	L432	1LB4Z21B0160N	CORE, PIPE	
D611	DDEG01C-----N	DIODE EG01C		L441	1LB4L71B0100N	COIL, LINEARITY	
D616	DZMTZJ18B---N	ZENER DIODE MTZJ18B		L442	1LB4L26B0180N	INDUCTOR, 133UH	
D617	DDRL2Z-----N	DIODE RL2Z		L461	1AV4L26B0170N	INDUCTOR, 2200U K	
D617	DDRU3YX-----N	DIODE RU3YX		L461	1LB4L26B0030N	INDUCTOR, 2.0MH	
D619	DD1SS355----G	DIODE 1SS355-TE-17		L462	1LB4L26B0041N	INDUCTOR, 550UH	
D631	DDEU2-----N	DIODE EU2		L601	LQ0001	LINE FILTER	△
D631	DDEU2A-----N	DIODE EU2A		L601	1AV4F35B0470N	LINE FILTER	△
D651	DDEU2-----N	DIODE EU2		L604	ZZ0122	PIPE CORE	
D661	DDRU4AMLF-J3N	DIODE RU4AM LF-J3		L605	ZZ0122	PIPE CORE	
D661	DDRU4AMLF-K2N	DIODE RU4AM LF-K2		L611	ZZ0122	PIPE CORE	
D661	DDRU4AMLF-L1N	DIODE RU4AM LF-L1		L611	1LB4Z21B0150N	CORE, PIPE	
D665	DD1SS355----G	DIODE 1SS355-TE-17		L631	RDB1R00JPBBNN	CARBON 1 JB 1/4W	
D666	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W		L651	RDB1R00JPBBNN	CARBON 1 JB 1/4W	
D668	DZMTZJ5.1B--N	ZENER DIODE MTZJ5.1B		L661	ZZ0122	PIPE CORE	
D671	DDES1Z-----N	DIODE ES1Z		L661	1LB4Z21B0150N	CORE, PIPE	
D671	DDEU01Z-----N	DIODE EU01Z		L671	RDB1R00JPBBNN	CARBON 1 JB 1/4W	
D681	DDFMU12SLF-FN	DIODE DFMU12SLF-F		L681	ZZ0122	PIPE CORE	
D681	DDYG901C2---N	DIODE YG901C2		L681	1LB4Z21B0150N	CORE, PIPE	
D887	DDXAAED0434--	DIODE 1N4148		PS601	DXHAAEV0070--	TH PTDCA1BF4R5Q200	△
D887	DD1SS133----N	DIODE 1SS133		Q001	7T200221	TR 2SA1037K(P)-4	
D887	DD1S2076A---N	DIODE 1S2076A-E		Q002	7T200221	TR 2SA1037K(P)-4	
F601	F31S4R0A2H0TS	FUSE 250V 4A	△	Q003	7T200221	TR 2SA1037K(P)-4	
IC001	QLA42032-E--M	IC LA42032-E		Q1001	7T200221	TR 2SA1037K(P)-4	
IC1001	QTC4052BF---P	IC TC4052BF(EL)		Q1002	7T200221	TR 2SA1037K(P)-4	
IC1002	QTC4053BF---P	IC TC4053BF(EL)		Q1003	7T200221	TR 2SA1037K(P)-4	
IC201	QXXAVC865---N	IC LA769337FB58H0-E		Q111	T2SC2814-F4-P	TR 2SC2814-F4-TB	
IC202	QBA178M05T--N	IC BA178M05T		Q1902	T2SA1015YSANN	TR 2SA1015-Y(SAN)	
IC202	QKIA7805API-N	IC KIA7805API		Q1902	T2SA608NFNPAN	TR 2SA608NF-NPA	
IC202	QL78M05CV---N	IC L78M05CV		Q1902	T2SA933S-Q--N	TR 2SA933S-Q	
IC202	QMC78M05CTG-N	IC MC78M05CTG		Q1902	T2SA933S-R--N	TR 2SA933S-R	
IC3401	QCXA2234Q---P	IC CXA2234Q-T6		Q289	7T200221	TR 2SA1037K(P)-4	
IC501	QLA78041----N	IC LA78041-E		Q431	T2SC3332-R--N	TR 2SC3332-R	

Location	Part No.	Description	Safety	Location	Part No.	Description	Safety
Q431	T2SC3332-S--N	TR 2SC3332-S		R1060	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
Q432	T2SD2634-YB-N	TR 2SD2634-YB		R1061	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
Q461	T2SB1274-Q-RAN	TR 2SB1274-Q-RA		R1062	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
Q461	T2SB1274-RRAN	TR 2SB1274-R-RA		R107	RGF1000JTCANZ	MT-GLAZE 100 JA 1/10W	
Q462	7QT00202	TR 2SC1740S		R108	RDD1802JPAANN	CARBON 18K JA 1/6W	
Q631	T2SB985-S---N	TR 2SB985-S		R109	RGF6802JTCANZ	MT-GLAZE 68K JA 1/10W	
Q632	7T200220	TR 2SC2412K(P)-6		R1101	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
Q651	T2SD1347-S--N	TR 2SD1347-S		R1101A	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
Q652	7T200221	TR 2SA1037K(P)-4		R1103	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
Q671	T2SB985-S---N	TR 2SB985-S		R1105	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
Q672	7T200220	TR 2SC2412K(P)-6		R111	RGF1001JTCANZ	MT-GLAZE 1K JA 1/10W	
Q673	7T200220	TR 2SC2412K(P)-6		R1112	RDB3900JPBANN	CARBON 390 JA 1/4W	
Q674	7T200220	TR 2SC2412K(P)-6		R1114	RDB3900JPBANN	CARBON 390 JA 1/4W	
Q684	7T200220	TR 2SC2412K(P)-6		R112	RGF5601JTCANZ	MT-GLAZE 5.6K JA 1/10W	
Q685	7T200220	TR 2SC2412K(P)-6		R114	RGF2200JTCANZ	MT-GLAZE 220 JA 1/10W	
Q850	7T200220	TR 2SC2412K(P)-6		R115	RDD1000JPAANN	CARBON 100 JA 1/6W	
Q851	7T200220	TR 2SC2412K(P)-6		R116	RGF3900JTCANZ	MT-GLAZE 39 JA 1/10W	
Q886	7T200220	TR 2SC2412K(P)-6		R121	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W	
Q887	7T200220	TR 2SC2412K(P)-6		R130	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
RL601	1AV4S20B0460N	RELAY	△	R1301	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R001	RGF1201JTCANZ	MT-GLAZE 1.2K JA 1/10W		R1301A	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R002	RGF1001JTCANZ	MT-GLAZE 1K JA 1/10W		R1302	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R003	RGF1201JTCANZ	MT-GLAZE 1.2K JA 1/10W		R1302A	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R004	RGF1001JTCANZ	MT-GLAZE 1K JA 1/10W		R1304	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
R006	RGF1802JTCANZ	MT-GLAZE 18K JA 1/10W		R1305	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
R007	RGF3301JTCANZ	MT-GLAZE 3.3K JA 1/10W		R1307	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
R009	RDD1001JPAANN	CARBON 1K JA 1/6W		R1308	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
R010	RGF6801JTCANZ	MT-GLAZE 6.8K JA 1/10W		R1309	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R011	RGF3301JTCANZ	MT-GLAZE 3.3K JA 1/10W		R1309A	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R015	RGF6800JTCANZ	MT-GLAZE 680 JA 1/10W		R1310	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R017	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R1310A	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R018	RDB2R20JPBANN	CARBON 2.2 JA 1/4W		R1311	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R019	RDB2R20JPBANN	CARBON 2.2 JA 1/4W		R1311A	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W	
R020	RDB2R20JPBANN	CARBON 2.2 JA 1/4W		R1314	RGF6800JTCANZ	MT-GLAZE 68 JA 1/10W	
R021	RDB2R20JPBANN	CARBON 2.2 JA 1/4W		R1315	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W	
R024	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W		R132	RGF4700JTCANZ	MT-GLAZE 470 JA 1/10W	
R025	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W		R140	RGF4700JTCANZ	MT-GLAZE 470 JA 1/10W	
R1009	RDD4700JPAANN	CARBON 470 JA 1/6W		R141	RGF5600JTCANZ	MT-GLAZE 560 JA 1/10W	
R1011	RDD4700JPAANN	CARBON 470 JA 1/6W		R176	RGF3901JTCANZ	MT-GLAZE 3.9K JA 1/10W	
R1012	RGF2200JTCANZ	MT-GLAZE 220 JA 1/10W		R1901	RGF1502JTCANZ	MT-GLAZE 15K JA 1/10W	
R1013	RGF1001JTCANZ	MT-GLAZE 1K JA 1/10W		R1902	RGF3901JTCANZ	MT-GLAZE 3.9K JA 1/10W	
R1014	RDD1001JPAANN	CARBON 1K JA 1/6W		R1903	RGF1801JTCANZ	MT-GLAZE 1.8K JA 1/10W	
R1015	RGF1001JTCANZ	MT-GLAZE 1K JA 1/10W		R1904	RGF1001JTCANZ	MT-GLAZE 1K JA 1/10W	
R1020	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R1905	RGF6800JTCANZ	MT-GLAZE 680 JA 1/10W	
R103	RSXAV1393JDAK	OXIDE-MT 39KJB 1W		R1906	RGF4700JTCANZ	MT-GLAZE 470 JA 1/10W	
R1032	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W		R1907	RGF4700JTCANZ	MT-GLAZE 470 JA 1/10W	
R1033	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W		R1908	RGF2001JTCANL	MT-GLAZE 2K JA 1/10W	
R1036	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W		R1910	RGF1000JTCANZ	MT-GLAZE 100 JA 1/10W	
R1036A	RGF1500JTCANZ	MT-GLAZE 150 JA 1/10W		R1911	RGF2200JTCANZ	MT-GLAZE 220 JA 1/10W	
R1037	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R1912	RGF2200JTCANZ	MT-GLAZE 220 JA 1/10W	
R1038	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R1913	RGF2200JTCANZ	MT-GLAZE 220 JA 1/10W	
R1041	RGF1000JTCANZ	MT-GLAZE 100 JA 1/10W		R210	RGF3001JTCANL	MT-GLAZE 3K JA 1/10W	
R1042	RGF1000JTCANZ	MT-GLAZE 100 JA 1/10W		R211	RDB1200JPBANN	CARBON 120 JA 1/4W	
R1045	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R213	RDD1500JPAANN	CARBON 150 JA 1/6W	
R1046	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R215	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W	
R1047	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R225	RGF1202JTCANZ	MT-GLAZE 12K JA 1/10W	
R1048	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R226	RGF2702JTCANZ	MT-GLAZE 27K JA 1/10W	
R1049	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R227	RGF3302JTCANZ	MT-GLAZE 33K JA 1/10W	
R1050	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R228	RDD1803JPAANN	CARBON 180K JA 1/6W	
R1051	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R229	RGF6803JTCANZ	MT-GLAZE 680K JA 1/10W	
R1052	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R230	RDD47R0JPAANN	CARBON 47 JA 1/6W	
R1053	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R234	RGF1200JTCANZ	MT-GLAZE 120 JA 1/10W	
R1054	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R235	RGF1200JTCANZ	MT-GLAZE 120 JA 1/10W	
R1055	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R236	RGF1200JTCANZ	MT-GLAZE 120 JA 1/10W	
R1056	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R244	RGF4702JTCANZ	MT-GLAZE 47K JA 1/10W	
R1057	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R245	RGF4702JTCANZ	MT-GLAZE 47K JA 1/10W	
R1058	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R280	RDD1000JPAANN	CARBON 100 JA 1/6W	
R1059	RGF1003JTCANZ	MT-GLAZE 100K JA 1/10W		R284	RGF3303JTCANZ	MT-GLAZE 330K JA 1/10W	
R106	RGF1000JTCANZ	MT-GLAZE 100 JA 1/10W		R285	RGF1803JTCANZ	MT-GLAZE 180K JA 1/10W	

Location	Part No.	Description	Safety	Location	Part No.	Description	Safety
R286	RGF4701FTCANL	MT-GLAZE	4.7K FA 1/10W	R506	RDD1001JPAANN	CARBON	1K JA 1/6W
R287	RGF1001JTCANZ	MT-GLAZE	1K JA 1/10W	R507	RDD3301JPAANN	CARBON	3.3K JA 1/6W
R288	RGF3901JTCANZ	MT-GLAZE	3.9K JA 1/10W	R508	RDD1801JPAANN	CARBON	1.8K JA 1/6W
R289	RGF3301JTCANZ	MT-GLAZE	3.3K JA 1/10W	R509	RDD5601JPAANN	CARBON	5.6K JA 1/6W
R290	RSXLB26R8JXAS	OXIDE-MT	6.8 JA 2W	R601	RDA2203JPCANN	CARBON	220K JA 1/2W
R290	RS26R80JGDAGN	OXIDE-MT	6.8 JA 2W	R602	RWXLB71R8KZAL	WIRE WOUND	1.8 KA 7W
R290	RS26R80JGDANN	OXIDE-MT	6.8 JA 2W	R603	RFXLBB221JZAN	FUSIBLE RES	220 J 1/4W
R340	RGF8202JTCANZ	MT-GLAZE	82K JA 1/10W	R606	RDB1201JPBANN	CARBON	1.2K JA 1/4W
R3401	RDD2200JPAANN	CARBON	220 JA 1/6W	R607	RDA1003JPCANN	CARBON	100K JA 1/2W
R3402	RDD2200JPAANN	CARBON	220 JA 1/6W	R608	RDA1003JPCANN	CARBON	100K JA 1/2W
R3406	RGF1003JTCANZ	MT-GLAZE	100K JA 1/10W	R609	RSXLB2473JXAS	OXIDE-MT	47KJA 2W
R3407	RGF1004JTCANZ	MT-GLAZE	1M JA 1/10W	R609	RS24702JGDAGN	OXIDE-MT	47K JA 2W
R3411	RGF6802FTCANZ	MT-GLAZE	68K FA 1/10W	R609	RS24702JGDANN	OXIDE-MT	47K JA 2W
R3421	RGF3301JTCANZ	MT-GLAZE	3.3K JA 1/10W	R610	RDB2201JPBANN	CARBON	2.2K JA 1/4W
R3422	RGF3001JTCANL	MT-GLAZE	3K JA 1/10W	R611	RDB4R70JPBANN	CARBON	4.7 JA 1/4W
R3426	RGF3901JTCANZ	MT-GLAZE	3.9K JA 1/10W	R615	RDD4700JPAANN	CARBON	470 JA 1/6W
R3432	RGF1002JTCANZ	MT-GLAZE	10K JA 1/10W	R617	RDA2203JPCANN	CARBON	220K JA 1/2W
R3433	RGF1002JTCANZ	MT-GLAZE	10K JA 1/10W	R618	RDA2203JPCANN	CARBON	220K JA 1/2W
R351	RGF2002JTCANZ	MT-GLAZE	20K JA 1/10W	R619	RFXAAA10R0JFN	FUSIBLE RES	10 J- 1/2W
R352	RDB1002JPBANN	CARBON	10K JA 1/4W	R619	RFXAVA100JFNW	FUSIBLE RES	10 J- 1/2W
R355	RDB1002JPBANN	CARBON	10K JA 1/4W	R619	RFXLBA100JZAN	FUSIBLE RES	10 J 1/2W
R357	RDD3901JPAANN	CARBON	3.9K JA 1/6W	R620	RSXLB21R0JXAS	OXIDE-MT	1.0 JA 2W
R358	RGF3902JTCANZ	MT-GLAZE	39K JA 1/10W	R620	RS21R00JGDAGN	OXIDE-MT	1 JA 2W
R421	RDD3901JPAANN	CARBON	3.9K JA 1/6W	R620	RS21R00JGDANN	OXIDE-MT	1 JA 2W
R422	RDB4702JPBANN	CARBON	47K JA 1/4W	R621	RDB4701JPBANN	CARBON	4.7K JA 1/4W
R423	RDB3902JPBANN	CARBON	39K JA 1/4W	R628	RCXAAA5604KGN	SOLID	5.6M KA 1/2W
R424	RDD1001JPAANN	CARBON	1K JA 1/6W	R629	RCXAAA5604KGN	SOLID	5.6M KA 1/2W
R426	RGF1502JTCANZ	MT-GLAZE	15K JA 1/10W	R631	RDB1003JPBANN	CARBON	100K JA 1/4W
R432	RGF1001JTCANZ	MT-GLAZE	1K JA 1/10W	R632	RGF3901JTCANZ	MT-GLAZE	3.9K JA 1/10W
R433	RDA1001JPCANN	CARBON	1K JA 1/2W	R633	RSXLB22R7JXAS	OXIDE-MT	2.7JA 2W
R434	RDA2700JPCANN	CARBON	270 JA 1/2W	R633	RS22R70JGDAGN	OXIDE-MT	2.7 JA 2W
R435	RWXLB75R6KZAL	WIRE WOUND	5.6 KA 7W	R633	RS22R70JGDANN	OXIDE-MT	2.7 JA 2W
R441	RSXLB2102JXAS	OXIDE-MT	1KJA 2W	R634	RDB1801JPBANN	CARBON	1.8K JA 1/4W
R441	RS21001JGDAGN	OXIDE-MT	1K JA 2W	R636	RDD2202JPAANN	CARBON	22K JA 1/6W
R441	RS21001JGDANN	OXIDE-MT	1K JA 2W	R637	RGF2201JTCANZ	MT-GLAZE	2.2K JA 1/10W
R442	RSXLB2102JXAS	OXIDE-MT	1KJA 2W	R651	RDD1003JPAANN	CARBON	100K JA 1/6W
R442	RS21001JGDAGN	OXIDE-MT	1K JA 2W	R652	RGF1003JTCANZ	MT-GLAZE	100K JA 1/10W
R442	RS21001JGDANN	OXIDE-MT	1K JA 2W	R653	RGF1003JTCANZ	MT-GLAZE	100K JA 1/10W
R462	RDD3302JPAANN	CARBON	33K JA 1/6W	R654	RDB2201JPBANN	CARBON	2.2K JA 1/4W
R469	RDD2204JPAANN	CARBON	2.2M JA 1/6W	R655	RSXLB22R7JXAS	OXIDE-MT	2.7JA 2W
R470	RDD1803JPAANN	CARBON	180K JA 1/6W	R655	RS22R70JGDAGN	OXIDE-MT	2.7 JA 2W
R471	RDD1501JPAANN	CARBON	1.5K JA 1/6W	R655	RS22R70JGDANN	OXIDE-MT	2.7 JA 2W
R473	RDD6800JPAANN	CARBON	680 JA 1/6W	R656	RDD1002JPAANN	CARBON	10K JA 1/6W
R475	RDA3300JPCANN	CARBON	330 JA 1/2W	R657	RDD1002JPAANN	CARBON	10K JA 1/6W
R477	RSXAV1561JDAK	OXIDE-MT	560JB 1W	R658	RDD1002JPAANN	CARBON	10K JA 1/6W
R479	RDD3901JPAANN	CARBON	3.9K JA 1/6W	R659	RGF8201JTCANZ	MT-GLAZE	8.2K JA 1/10W
R481	RSXLB21R2JXAS	OXIDE-MT	1.2JA 2W	R660	RGF3301JTCANZ	MT-GLAZE	3.3K JA 1/10W
R481	RS21R20JGDAGN	OXIDE-MT	1.2 JA 2W	R663	1AV4S30FA2R0N	PROTECTOR, 2A	125V
R481	RS21R20JGDANN	OXIDE-MT	1.2 JA 2W	R671	RDB1003JPAANN	CARBON	100K JA 1/4W
R481A	RSXLB21R5JXAS	OXIDE-MT	1.5JA 2W	R673	RDB3901JPBANN	CARBON	3.9K JA 1/4W
R481A	RS21R50JGDAGN	OXIDE-MT	1.5 JA 2W	R676	RGF2202JTCANZ	MT-GLAZE	22K JA 1/10W
R481A	RS21R50JGDANN	OXIDE-MT	1.5 JA 2W	R677	RDA1801JPCANN	CARBON	1.8K JA 1/2W
R484	RDB1003JPBANN	CARBON	100K JA 1/4W	R680	RFXAAB10R0JPN	FUSIBLE RES	10 J- 1/4W
R485	RDB8202JPBANN	CARBON	82K JA 1/4W	R680	RFXLBB100JZAN	FUSIBLE RES	10 J 1/4W
R486	RGF5601JTCANZ	MT-GLAZE	5.6K JA 1/10W	R681	RDA1003JPCANN	CARBON	100K JA 1/2W
R488	RFXAAA10R0JFN	FUSIBLE RES	10 J- 1/2W	R684	RGF1002JTCANZ	MT-GLAZE	10K JA 1/10W
R488	RFXAVA100JFNW	FUSIBLE RES	10 J- 1/2W	R685	RGF3301JTCANZ	MT-GLAZE	3.3K JA 1/10W
R488	RFXLBA100JZAN	FUSIBLE RES	10 J 1/2W	R686	RGF1002JTCANZ	MT-GLAZE	10K JA 1/10W
R501	RDD1002JPAANN	CARBON	10K JA 1/6W	R687	RGF1002JTCANZ	MT-GLAZE	10K JA 1/10W
R502	RSXLB21R0JXAS	OXIDE-MT	1.0 JA 2W	R690	RFXAVB102JFNN	FUSIBLE RES	1K J- 1/4W
R502	RS21R00JGDAGN	OXIDE-MT	1 JA 2W	R690	RFXLBB102JZAN	FUSIBLE RES	1K J 1/4W
R502	RS21R00JGDANN	OXIDE-MT	1 JA 2W	R801	RGF2703JTCANZ	MT-GLAZE	270K JA 1/10W
R503	RSXLB2181JXAS	OXIDE-MT	180JA 2W	R803	RGFR0002JTCANZ	MT-GLAZE	0.000 ZA 1/10W
R503	RS21800JGDAGN	OXIDE-MT	180 JA 2W	R804	RGFR0002JTCANZ	MT-GLAZE	0.000 ZA 1/10W
R503	RS21800JGDANN	OXIDE-MT	180 JA 2W	R813	RGF1002JTCANZ	MT-GLAZE	10K JA 1/10W
R504	RSXLB2101JXAS	OXIDE-MT	100JA 2W	R818	RDD1001JPAANN	CARBON	1K JA 1/6W
R504	RS21000JGDAGN	OXIDE-MT	100 JA 2W	R819	RGF1002JTCANZ	MT-GLAZE	10K JA 1/10W
R504	RS21000JGDAGN	OXIDE-MT	100 JA 2W	R830	RDD1001JPAANN	CARBON	1K JA 1/6W
R505	RSXAV11R0JDAK	OXIDE-MT	1.0JB 1W	R834	RGF1002JTCANZ	MT-GLAZE	10K JA 1/10W

Location	Part No.	Description	Safety	Location	Part No.	Description	Safety
R837	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R701	RGF1800JTCANZ	MT-GLAZE 180 JA 1/10W	
R838	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R703	RDD4700JPAANN	CARBON 470 JA 1/6W	
R839	RDD1000JPAANN	CARBON 100 JA 1/6W		R704	RSXLB2123JXAS	OXIDE-MT 12KJA 2 W	
R840	RDD4700JPAANN	CARBON 470 JA 1/6W		R704	RS21202JGDAGN	OXIDE-MT 12K JA 2W	
R841	RGF4701JTCANZ	MT-GLAZE 4.7K JA 1/10W		R704	RS21202JGDANN	OXIDE-MT 12K JA 2W	
R842	RGF4701JTCANZ	MT-GLAZE 4.7K JA 1/10W		R711	RGF1800JTCANZ	MT-GLAZE 180 JA 1/10W	
R844	RDD1000JPAANN	CARBON 100 JA 1/6W		R713	RDD4700JPAANN	CARBON 470 JA 1/6W	
R850	RGF4702JTCANZ	MT-GLAZE 47K JA 1/10W		R714	RSXLB2123JXAS	OXIDE-MT 12KJA 2 W	
R851	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R714	RS21202JGDAGN	OXIDE-MT 12K JA 2W	
R853	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R714	RS21202JGDANN	OXIDE-MT 12K JA 2W	
R854	RGF4702JTCANZ	MT-GLAZE 47K JA 1/10W		R715	RDA2701JPCANN	CARBON 2.7K JA 1/2W	
R859	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W		R716	RDA2701JPCANN	CARBON 2.7K JA 1/2W	
R863	RGF4702JTCANZ	MT-GLAZE 47K JA 1/10W		R717	RDA2701JPCANN	CARBON 2.7K JA 1/2W	
R884	RDB22R0JPBANN	CARBON 22 JA 1/4W		R721	RGF1800JTCANZ	MT-GLAZE 180 JA 1/10W	
R885	RDD1501JPAANN	CARBON 1.5K JA 1/6W		R723	RDD4700JPAANN	CARBON 470 JA 1/6W	
R886	RDD2202JPAANN	CARBON 22K JA 1/6W		R724	RSXLB2123JXAS	OXIDE-MT 12KJA 2 W	
R887	RDD2202JPAANN	CARBON 22K JA 1/6W		R724	RS21202JGDAGN	OXIDE-MT 12K JA 2W	
R888	RGF5600JTCANZ	MT-GLAZE 560 JA 1/10W		R724	RS21202JGDANN	OXIDE-MT 12K JA 2W	
R893	RGF1004JTCANZ	MT-GLAZE 1M JA 1/10W		R732	RDD10R0JPAANN	CARBON 10 JA 1/6W	
R894	RGF1000JTCANZ	MT-GLAZE 100 JA 1/10W		R741	RGF1201JTCANZ	MT-GLAZE 1.2K JA 1/10W	
SW1901	1AV4S10B5650J	SWITCH, PUSH 1P-1TX1		R742	RGF5601JTCANZ	MT-GLAZE 5.6K JA 1/10W	
SW1902	1AV4S10B5650J	SWITCH, PUSH 1P-1TX1		R744	RGF5600JTCANZ	MT-GLAZE 560 JA 1/10W	
SW1903	1AV4S10B5650J	SWITCH, PUSH 1P-1TX1		R745	RGF1002JTCANZ	MT-GLAZE 10K JA 1/10W	
SW1904	1AV4S10B5650J	SWITCH, PUSH 1P-1TX1					
SW1905	1AV4S10B5650J	SWITCH, PUSH 1P-1TX1					
SW1906	1AV4S10B5650J	SWITCH, PUSH 1P-1TX1					
SW601	1AV4S10B5560N	SWITCH, PUSH POWER 2P-2T	△				
SW601	1AV4S10B5750N	SWITCH, PUSH POWER 2P-2T	△				
SW601	1LB4S10B0090N	SWITCH, PUSH POWER 2P-2T	△				
T431	1LB4L18B0160N	TRANS, PULSE					
T471	1LB4L40B08800	TRANS, FLYBACK	△				
T611	1LB4L51B0920N	TRANS, POWER, PULSE	△				
VA601	DVENE621D14AN	VARISTOR ENE621D-14A					
X161	WFSTSF5235PL-	SAW F TSF5235PL					
X202	1AV4F32B0290N	TRAP CERAMIC 4.5MHZ					
X211	1AV4V10B2930N	OSC, CRYSTAL 4.433619MHZ					
X211	1LB4V10B0040N	OSC, CRYSTAL 4.433619MHZ					
X211	1LB4V10B0180N	OSC, CRYSTAL 4.433619MHZ					
X801	1AV4V10B0560N	OSC, CRYSTAL 32.768KHZ					
X801	1LB4V10B0190N	OSC, CRYSTAL 32.768KHZ					
A1001	1LG0B10Y0030B	ASSY, PWB, CRT BA7E					
C701	CK1H561KGQBNZ	CERAMIC 560P K 50V					
C710	CE2E100M4VANN	ELECT 10U M 250V					
C710	CE2E100M5AANN	ELECT 10U M 250V					
C711	CK1H561KGQBNZ	CERAMIC 560P K 50V					
C721	CK1H561KGQBNZ	CERAMIC 560P K 50V					
C731	CK3D471KAHBJN	CERAMIC 470P K 2K					
C731	CK3D471KANHAN	CERAMIC 470P K 2K					
C731	CK3D471KANHNN	CERAMIC 470P K 2K					
C731	CK3D471KCRDJN	CERAMIC 470P K 2K					
C742	CEXLB1C101VDN	ELECT 100U M 16V					
D741A	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W					
D742A	RGFR000ZTCANZ	MT-GLAZE 0.000 ZA 1/10W					
D743	DD1SS355----G	DIODE 1SS355-TE-17					
D744	DD1SS355----G	DIODE 1SS355-TE-17					
K701	1LB4J11B0070N	SOCKET, CRT 8P	△				
K701	1LB4J11B0170N	SOCKET, CRT 12P	△				
K701	1LB4J11B0350N	SOCKET, CRT 8P	△				
L701	1AV4L2C1331KN	INDUCTOR, 330U K					
L702A	1LB4Z21B0090N	CORE, PIPE					
L711	1AV4L2C1331KN	INDUCTOR, 330U K					
L721	1AV4L2C1331KN	INDUCTOR, 330U K					
Q701	TXXAAQT0392--	TR 2SC4544					
Q711	TXXAAQT0392--	TR 2SC4544					
Q721	TXXAAQT0392--	TR 2SC4544					
Q741	7T200221	TR 2SA1037K(P)-4					
Q742	7T200221	TR 2SA1037K(P)-4					

Component Location



Waveforms & Voltages

(On the Main Board)

IC001 (AUDIO AMP.)																
Pin-112.82V	2	0V	3	GND	4	0V	5	2.9V	6	0V	7	13.4V	8	5.6V	9	5.7V
10	GND	11	6V	12	5.7V	13	0V									

IC201 (IF/VIDEO/CHROMA)																	
Pin-1	2.0V	2	0V	3	3.1V	4	0V	5	2.3V	6	0V	7	2.3V	8	5.0V	9	2.5V
10	3.8V	11	8.2V	12	2.6V	13	2.6V	14	2.7V	15	0V	16	2.2V	17	2.3V	18	1.7V
19	5.1V	20	2.7V	21	0.9V	22	0V	23	5V	24	5.6V	25	0V	26	4.8V	27	4.1V
28	4.3V	29	5V	30	0V	31	5V	32	5V	33	1.6V	34	2.6V	35	5V	36	4.7V
37	0V	38	0V	39	0V	40	0V	41	3.2V	42	0V	43	4.5V	44	0V	45	2.5V
46	0V	47	0V	48	2.6V	49	2.5V	50	2.8V	51	2.5V	52	2.5V	53	2.5V	54	2.6V
55	5V	56	2.8V	57	2.6V	58	2.3	59	2.5V	60	2.3V	61	1.8V	62	0V	63	2.8V
64	2.8V																

IC202 (REG.)					IC611 (REG.)					IC681 (REG.)									
Pin-1	6.7V	2	GND	3	5.0V	Pin-1	11.5V	2	9V	3	GND	4	0V	Pin-1	12.9V	2	GND	3	5.0V

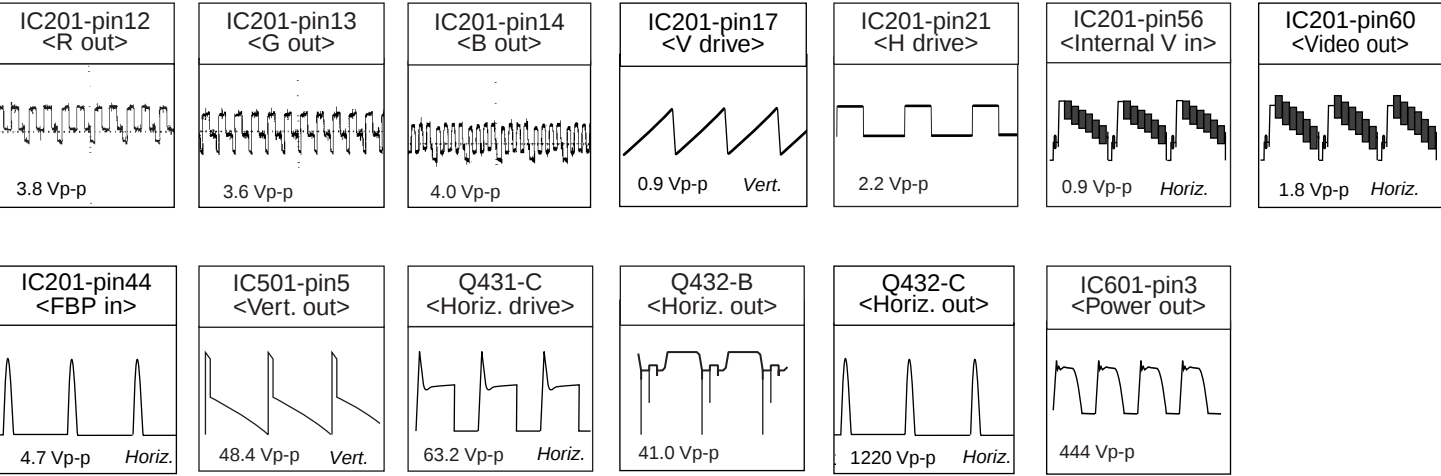
IC1001 (AV SELECTOR)																	
Pin-1:	4.5V	2:	0.3V	3:	3.5V	4:	3.5V	5:	3.8V	6:	4.0V	7:	4.59V	8:	4.3V	9:	8.9V
10:	8.9V	11:	4.0V	12:	0.3V	13:	3.4V	14:	4.0V	15:	0.3V	16:	8.9V				

IC1002 (AV SELECTOR)																	
Pin-1:	4.0V	2:	2V	3:	3V	4:	2.5V	5:	2.8V	6:	2.0V	7:	0V	8:	4.3V	9:	8.8V
10:	0V	11:	8.9V	12:	0.3V	13:	2.0V	14:	2.0V	15:	2.0V	16:	8.9V				

IC501 (VERT. OUT)													
Pin-1	2.4V	2	26.6V	3	14.5V	4	GND	5	3.4V	6	26.3V	7	2.4V

IC802 (MEMORY)															
Pin-1	GND	2	GND	3	GND	4	GND	5	5.0V	6	5.0V	7	GND	8	5.0V

Q001 B 4.17V C 4.66V E 0V	Q002 B 0V C 0.7V E 0V	Q003 B 13.2V C 13.2V E 0V	Q850 B 0V C 9.0V E 0V	Q851 B 0V C 9.0V E 0V	Q1902 B 4.99V C 4.99V E 0V	Q1006 B 3.5V C 9.0V E 2.9V	Q886 B 0.7V C 0V E 0V	Q631 B 13.1V C 13.2V E 12.6V	Q632 B 0.65V C 0V E 0V	Q1002 B 4.1V C 4.7V E 0V	Q1001 B 4.1V C 4.7V E 0V	Q651 B 0V C 13.2V E 13.2V
Q652 B 0.6V C 0V E 0V	Q685 B 0.1V C 5V E 0V	Q684 B 0.63V C 0V E 0V	Q671 B 23.7V C 24.4V E 24.4V	Q672 B 0.66V C 0.1V E 0V	Q673 B 0.7V C 0V E 0V	Q674 B 0V C 11.3V E 0.5V	Q887 B 0V C 5V E 0V	Q1003 B 2.8V C 3.1V E 0V	Q481 B 0.9V C 4.6V E 0.4V	Q431 B 0.3V C 14V E 0V	Q111 B 1.1V C 7.8V E 0.3V	Q461 B 12.4V C 13.1V E 0V
Q462 B 0.6V C 12.4V E 0V												



IC3401 (MTS)																	
Pin-1	4.1V	2	4.2V	3	4.1V	4	4.1V	5	4.1V	6	3.9V	7	GND	8	4.1V	9	4.1V
10	4.1V	11	4.2V	12	5.1V	13	4.1V	14	1.3V	15	1.3V	16	NC	17	GND	18	3.8V
19	8.2V	20	NC	21	4.1V	22	4.1V	23	4.1V	24	4.1V	25	4.1V	26	4.1V	27	4.1V
28	1.8V	29	4.1V	30	4.1V	31	1.7V	32	4.0V	33	4.1V	34	4.1V	35	NC	36	4.1V
37	4.1V	38	4.1V	39	4.1V	40	4.1V	41	4.2V	42	NC	43	4.1V	44	4.2V	45	4.2V
46	NC	47	4.2V	48	4.1V												

(On the CRT Board)

Q701 B 2.6V C 2.4V E 1.41V	Q721 B 0.7V C 1.4V E 0V	Q711 B 0.7V C 1.4V E 0V
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