

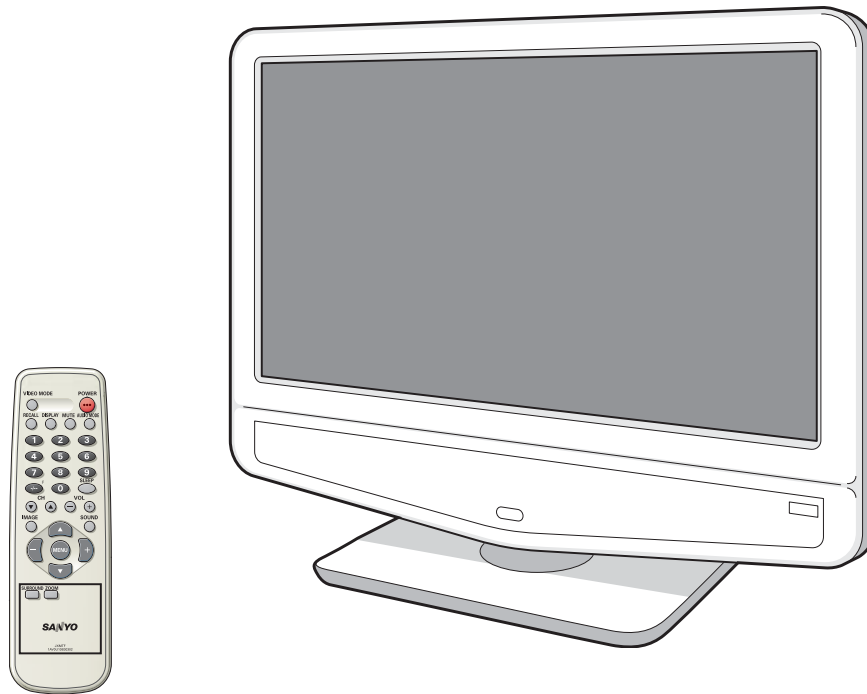
FILE NO.

SERVICE MANUAL LCD Television

Model No. LCD-23XL2

(Argentina)

Service Ref. No. LCD-23XL2-00



Contents

Safety Notice	2
Specifications	3
Chassis Block Diagrams	4-5
CPU Port Functions	6
Option Setting	7
On-screen Service Menu System	8-10
Service Adjustments	11
Protection Circuit	12
Mechanical Disassembly	13-17
Cabinet Parts List	18-19
Chassis Electrical Parts List	20-26
Printed Wiring Board	27-29

Product Code:111374316

Original Version

Chassis Series: UE1-B

Give complete "SERVICE REF. NO." for parts order or servicing. It is shown on the rating label 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.

Safety Notice

Safety Precautions

The following precautions must be observed.

- 1: Comply with all caution and safety-related notes provided on the cabinet back, cabinet bottom, inside the cabinet or on the chassis.
- 2: 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, etc..

DO NOT OPERATE THIS TELEVISION WITHOUT THE PROTECTIVE SHIELD IN POSITION AND PROPERLY SECURED.

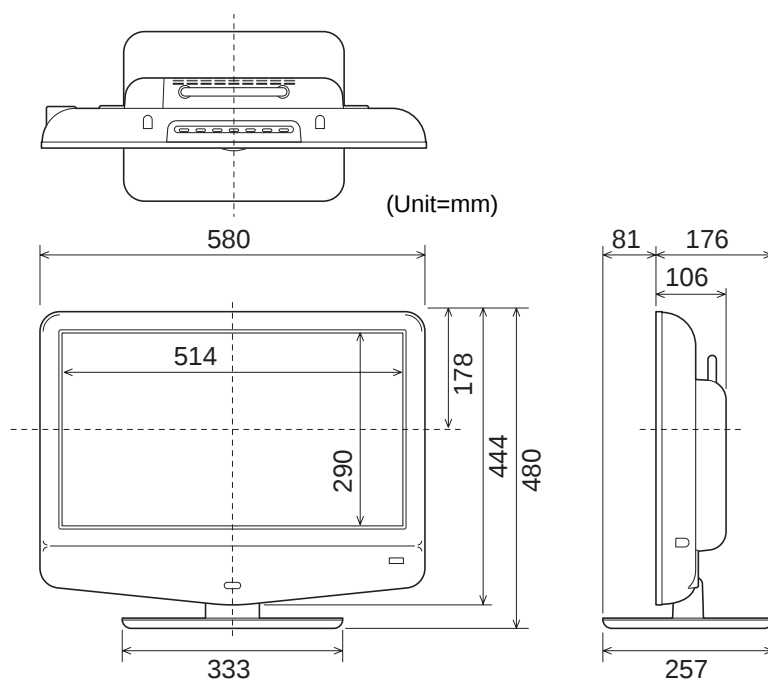
- 3: Before replacing the cabinet cover, thoroughly inspect the inside of the cabinet to see that no stray parts or tools have been left inside.

Before returning any television to the customer, the service personnel must be sure that it is completely safe to operate without danger of electrical shock.

Product Safety Notice

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by mark $\triangle$ 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 $\triangle$. No deviations from resistance wattage or voltage ratings may be made for replacement items designated by mark $\triangle$.

[Details of Dimensions]



Specifications

Power Source Monitor: DC24V
AC Adaptor: AC100-240 Volts, 50/60Hz, Output DC24V

Receiving System PAL-N/N/, PAL-M/M, 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

Aerial Input Impedance 75 Ω

LCD Panel

Screen Size (Measured Diagonally): 23 inch (58.4 cm)
Picture Resolution: WXGA 1280 (Horiz.) x 720 (Vert.) pixels
Viewing Angles: Horiz. 176°, Vert. 176°
Contrast Ratio: 800:1
Brightness: 550 cd/m²

Audio Output (RMS) 5W + 5W

Speaker 5 cm x 9 cm x 2 pcs.

AV Input Terminals

AV1 (Video): Composite Video Input x 1
AV1 (Audio): L/R Stereo Input x 1 set
AV2 or DVD (Video): Composite / Component-Y, CB, CR Input x 1 set
AV2 S-Video: Separated Y/C DIN Jack Input x 1
AV2 (Audio): L/R Stereo Input x 1 set
AV3 (Video): Composite Video Input x 1
AV3 (Audio): L/R Stereo Input x 1 set

Output Terminal

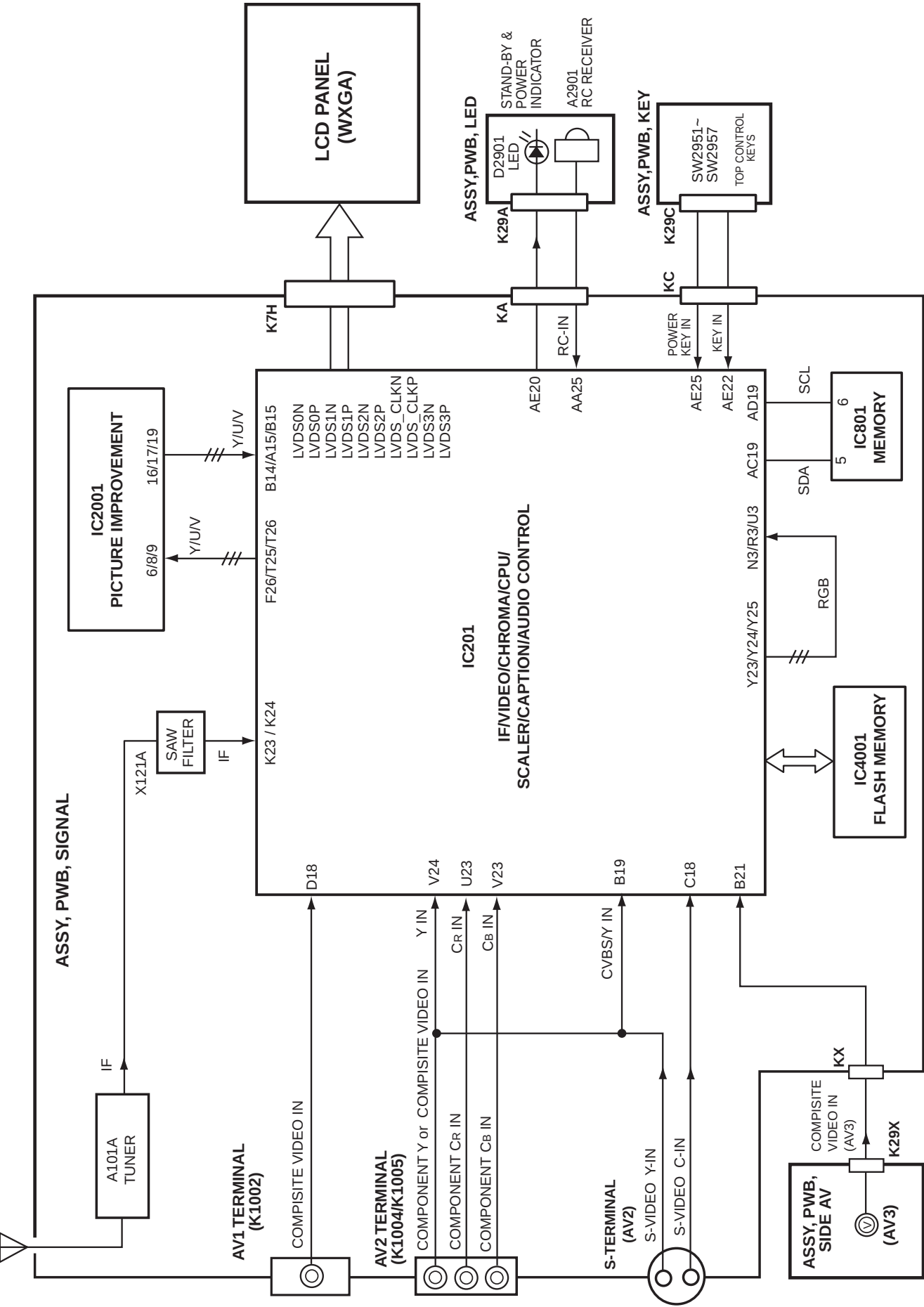
Mini Stereo Headphone Jack x 1

Dimensions 580 (W) X 480 (H) X 257 (D) mm (Included Swivel Stand)

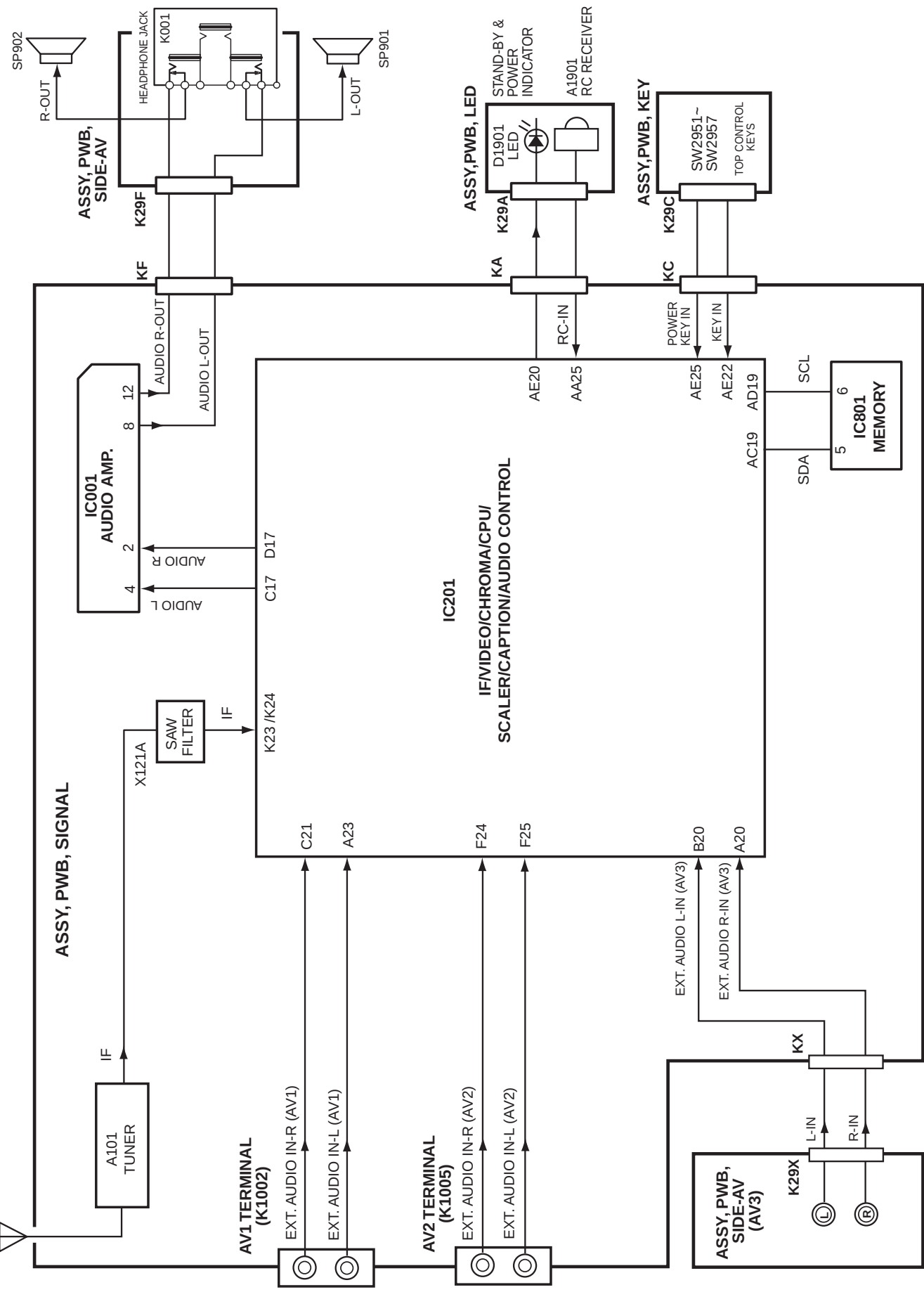
Weight Approx. 9.4 Kg (Included Swivel Stand)

Specifications subject to change without notice.

Chassis Block Diagrams (Video Signal Lines)



Chassis Block Diagrams (Audio Signal Lines)



CPU Port Functions (IC201)

Pad No.	Function Name	Pad Name	Description
163 (AE9)	A16	INT_N/GPIO10/A16	Interrupt request output, general purpose I/O
273 (G3)	SCL	SCL/GPIO12	I ² C clock HS-I ² C 3.4MHz, general purpose I/O
189 (F2)	SDA	SDA/GPIO13	
272 (H3)	Text Reset	GPIO9/ACLK	General purpose I/O / Analog video clock I/O
349 (H4)	LCD-BR	GPIO4/PWM1/TCP_TDO	General purpose I/O / Pulse width modul. output / Test control
93 (J1)	NRESET/FPGA reset	KBD0	Keyboard ADC input (Scaler) -Not used-
92 (K1)	A17	A17 / GPIO11	Memory address bus, general purpose I/O
185 (K2)	Scart-3 8-pin input	A17 / GPIO11	Keyboard ADC input (Scaler) -Not used-
91 (L1)	UART for test	GPIO6	General purpose I/O
346 (L4)	Text/RF sw	PWM0	Pulse width modulated back light brightness control
81 (AA1)	PC VSCL	ASCL / GPIO14	DDC clock 400 KHz, general purpose I/O
174 (AA2)	PC VSDA	ASDA / GPIO15	DDC data 400 KHz, general purpose I/O
97 (E1)	LCD-ON	GPIO3 / TRST	
102 (B3)	PC-Det	GPIO0 /T0/ TMS	-Not used-
352 (E4)	Scart-3 sw	GPIO1 /T1/ TD1	-Not used-
276 (D3)	Scart-3 sw	GPIO2 /TCK	-Not used-
98 (D1)	UART for test	RXD/GPIO5	
166 (AE6)	WE for Flash	WR-N / GPI8	
313 (AA23)	NVM-WE	P1.1 / T0	Port 1.1 or Counter Timer 0 input
232 (AA24)	Line off input	P1.1 / INT1	Port 1.0 or external interrupt 1 -Not used-
143 (AA25)	RC input	INT0 / P0.5	External interrupt 0 or port 0.5
320 (AC18)	Status input	P0.2 / I ² SDO2	Port 0.2 or I ² S digital output 2
319 (AC19)	I ² C SDA	P1.7 / SDA	Port 1.7 or I ² C bus data line
241 (AD18)	Power Error 2	P0.3 / I ² SCLK	Port 0.3 or I ² S clock (Power Error=Low)
240 (AD19)	I ² C SCL	P1.6 / SCL	Port 1.6 or I ² C clock line
239 (AD20)	RGB selector	P2.2 / PWM1	Port 2.2 or PWM1 output
238 (AD21)	Scart-2 8-pin input	P3.1 / ADC1	Port 3.2 or ADC1 input -Not used-
154 (AE18)	Power Error 1	P0.4 / I ² SWS	Port 0.4 or I ² S Word Select (Power Error=Low)
153 (AE19)	Power-2 ON/OFF	P1.3 / T1	LVDS on 20" model only (H=ON)
152 (AE20)	Power LED	P2.1 / PWM0	Port 2.1 or PWM0 output (H= LED ON)
151 (AE21)	Scart-1 8-pin input	P3.0 / ADC0	Port 3.0 or ADC0 input -Not used-
150 (AE22)	Key input	P3.3 / ADC3	Port 3.3 or ADC3 input
149 (AE23)	L/L/AV2 SW	P2.5 / PWM4	Port 2.2 or PWM4 output -Not used-
148 (AE24)	DM Power Error	P1.4 / RX	Port 1.4 or UART bus
147 (AE25)	Power key input	P1.5 / TX	Port 1.5 or UART bus
59 (AF18)	Power-3 ON/OFF	P0.1 / I ² SDO1	Panel Power ON 20" model only (H=ON)
58 (AF19)	Power-1 ON/OFF	P0.0 / I ² SDI1/O	3.3V, 5V Panel Power ON (L=ON)
57 (AF20)	(118-pin Reset)	P2.0 / TPWM	Port 2.0 or Tuning PWM output -Not used-
56 (AF21)	50/60	P2.3 / PWM2	Port 2.3 or PWM2 output (23" model only, 50=H, 60=L)
55 (AF22)	AGC input for factory	P3.2 / ADC2	Port 3.2 or ADC2 input
54 (AF23)	Sound mute	P2.4 / PWM3	Port 2.4 or PWM3 output
53 (AF24)	Scart-1 SW	P1.2 / INT2	Port 1.2 or external interrupt-2 -Not used-

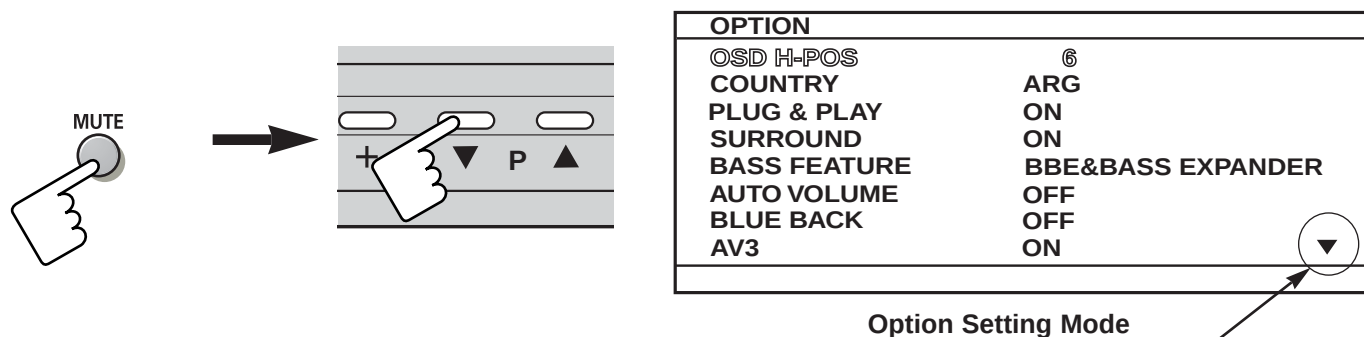
Option Setting

After replacing Memory IC (IC801)

The memory IC (IC801), stores the option data of TV set and service adjustments data for each circuit, therefore, when the memory IC is replaced, it should be programmed to the following settings and “Service Adjustment” on page 11.

1) How to enter the Option Setting Mode

Press and hold the **MUTE** on the remote control and press the **CHANNEL DOWN (P▼)** button on the top control panel of the TV. The option window will appear on the screen.



The item not displayed exists when a triangular mark is displayed. Press **P▲** or **P▼** button to scroll the screen.

2) How to make the Option Setting

Select desired option item by pressing the **CHANNEL UP** or **DOWN** button.

To switch the option mode, use the **VOLUME +** or **-** button.

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

The following table shows the available option items and default setting mode.

Option Items	Mode	Default / Description
OSD H-POS	0 to 15	Default “ 6 ” / OSD horizontal position adjustment.
COUNTRY	ARG, BRA or SOUTH AMERICA	Default “ARG”(Argentina) / Shipping country selection.
PLUG & PLAY	ON or OFF	Default “ON” / Disable or enable Plug & Play function.
SURROUND	ON or OFF	Default “ON” / Disable or enable Surround function. Incase of inactive, the Sound menu will have no “SURROUND” item.
BASS FEATURE	VIRTUAL SUB WOOFER, BBE&BASS EXPANDER or OFF	Default “BBE&BASS EXPANDER” / Bass feature selection. Incase of “OFF”, item of Bass feature in Sound menu will be “BASS EXPANDER”.
AUTO VOLUME	ON or OFF	Default “OFF” / Disable or enable “Auto Volume Level” function.
BLUE BACK	ON or OFF	Default “ON” / Disable or enable AV blue back under the no signal.
AV3	ON or OFF	Default “ON” / Disable or enable “AV3”.
RESET START	STAND BY start or LAST POWER start	Default “STAND BY” / Selection of Stand-by or Last Power start.

3) Exit from the Option Mode

Press the **MENU** button or turn off the TV set by pressing the **Power ON/OFF** button.

On-screen Service Menu System

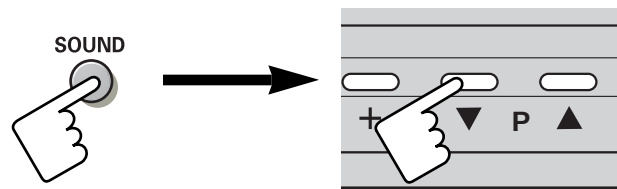
General

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

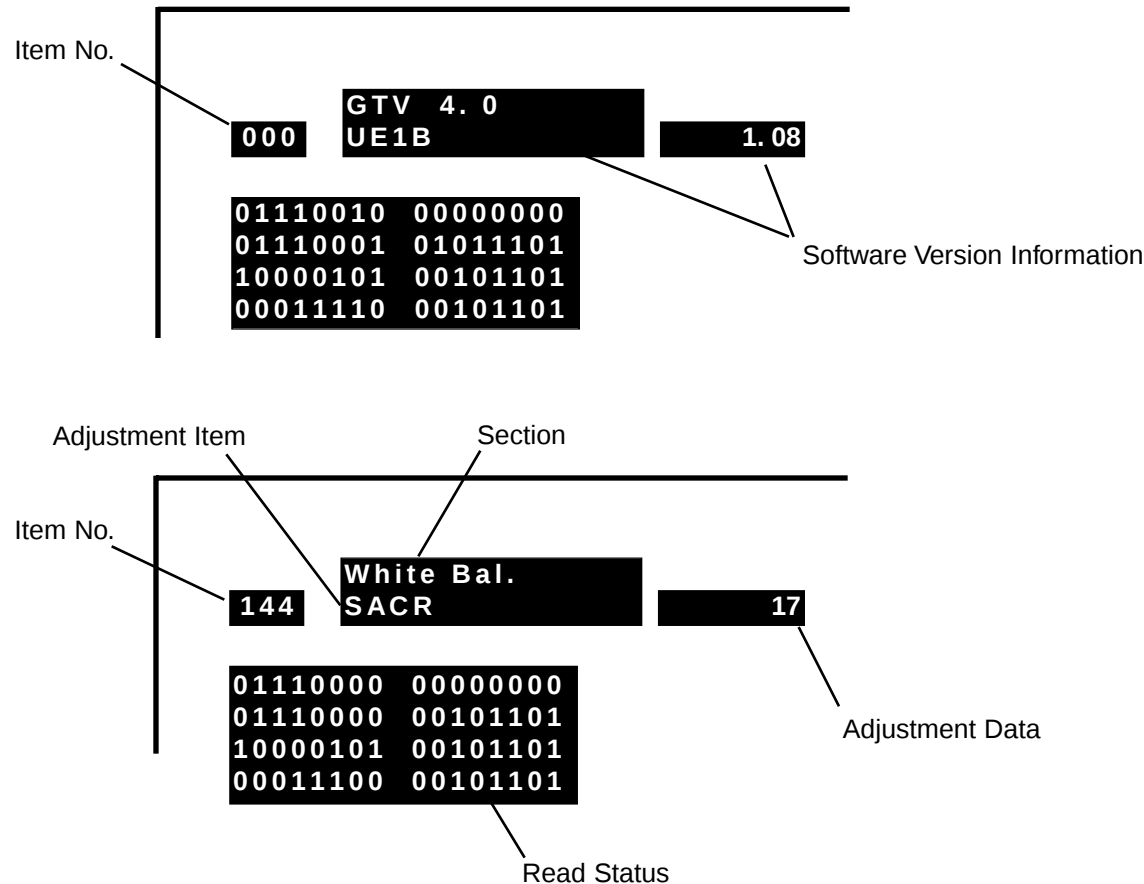
On-screen Service Menu System

1) How to enter the Service Menu

Press and hold the **SOUND MODE** button of the remote control and press the **CHANNEL DOWN (P▼)** button on the top control panel of the TV



Example of the Service Mode Display



2) How to make the Adjustments:

Press the **CHANNEL UP** or **DOWN** button on the remote control hand set to select service menu item.

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

3) Exit from the Service Menu

Press the **MENU** button or turn off the TV set by pressing the **Power ON/OFF** button.

On-Screen Service Menu System

On-screen Service Menu

Important Note: All data except in gray box area is fixed. Do not change for correct operating. Data in gray box area is initial. Can be set according to adjustment information on page 11.

No.	Title	Explanation	Initial Value
000	UE1B	GTV software version information	-
001	Init TV	Initialize TV	0
002	ISP Mode	Enter ISP mode	0
003	Sedna version	Sedna version information	4
004	PWT	Power time	0
005	DCXO	DCXO scanning control center	48
006	DCXO Auto	DCXO auto adjustment	0
007	WSS	Zoom option	1
008	WPR	White point Red	20
009	WPG	White point Green	20
010	WPB	White point Blue	20
011	BLOR	Black level offset Red	20
012	BLOG	Black level offset Green	20
013	WPR-SECAM	SECAM offset for WPR	0
014	WPG-SECAM	SECAM offset for WPG	0
015	WPB-SECAM	SECAM offset for WPB	0
016	BLOR-SECAM	SECAM offset for BLOR	0
017	BLOG-SECAM	SECAM offset for BLOG	0
018	Reserved	Not used	-
019	Reserved	Not used	-
020	RGB Bright	RGB brightness	29
021	CapBri MIN	Caption brightness min.	6
022	CapBri MID	Caption brightness mid.	16
023	CapBri MAX	Caption brightness max.	31
024	BR RF PN	Offset Brightness RF PAL/NTSC	245
025	BR AV	Offset Brightness AV PAL/NTSC	245
026	BR DVD	Offset Brightness DVD	243
027	Reserved	Not used	-
028	CN RF PN	Offset Contrast RF PAL/NTSC	0
029	CN AV	Offset Contrast AV PAL/NTSC	0
030	CN RGB	Offset Contrast AV RGB	254
031	Reserved	Not used	-
032	SH RF PN	Offset Sharpness RF PAL/NTSC	0
033	SH AV	Offset Sharpness AV PAL/NTSC	0
034	SH RGB	Offset Sharpness AV RGB	0
035	Reserved	Not used	-
036	CL RF P	Offset Colour RF PAL	0
037	CL AV P	Offset Colour AV PAL	0
038	CL N	Offset Colour NTSC	0
039	Reserved	Not used	-
040	CL DVD	Offset Colour DVD	8
041	PV-BR-DY	Preset Movie Brightness	40
042	PV-CL-DY	Preset Movie Colour	50
043	PV-CT-DY	Preset Movie Contrast	63
044	PV-SH-DY	Preset Movie Sharpness	32
045	PV-BR-ST	Preset Sport Brightness	32
046	PV-CL-ST	Preset Sport Colour	50
047	PV-CT-ST	Preset Sport Contrast	45
048	PV-SH-ST	Preset Sport Sharpness	32
049	PV-BR-EC	Preset Weak Signal Brightness	22
050	PV-CL-EC	Preset Weak Signal Colour	50
051	PV-CT-EC	Preset Weak Signal Contrast	32
052	PV-SH-EC	Preset Weak Signal Sharpness	32
053	CLO SECAM	Center frequency of cloche filter	0
054	DTR SECAM	Chroma trap mode	1
055	YSECAM	Y-delay adjustment	2
056	YNTSC	Y-delay adjustment	0
057	YPAL	Y-delay adjustment	4
058	YAV	Y-delay adjustment	4
059	ACL	Automatic colour limiting	0
060	MUS	NTSC matrix	1
061	PWLDAC	Peak White limiting	8
062	CB	CB default	1
063	CB RF-NT	CB for RF NTSC	1
064	BPS	Bypass of chroma base-band delay line	0
065	FCO	Forced colour-on	0
066	PeakFreqPAL443	Peaking center frequency and delay	3
067	PeakFreqPALM	Peaking center frequency and delay	3
068	PeakFreqPALN	Peaking center frequency and delay	3
069	PeakFreqNTSC443	Peaking center frequency and delay	3
070	PeakFreqNTSCM	Peaking center frequency and delay	3
071	PeakFreqSECAM	Peaking center frequency and delay	3
072	PeakFreqAV	Peaking center frequency and delay	3
073	UOC Tint Def	Base-band tint control	32
074	UOC Tint NT	Tint for NT	0
075	Blackstretch	Black stretch	1
076	Bluestretch	Blue stretch	0
077	Whitestretch	Gamma control and white stretch setting	0
078	GAM	Gamma control	0
079	PWL	Peak White limiting	0

No.	Title	Explanation	Initial Value
080	BSD	Black stretch Depth	0
081	AAS	Black stretch Area Selection	0
082	PeakRatioOvShot	Ratio of positive and negative peak	0
083	RatioPreAftShot	Ratio pre and after shoot	0
084	CRAO	Coring on SCAVEM	0
085	DL	Sets the Interlace	0
086	Tint NTSC	Current baseband tint	31
087	OSO	Switch-off in vertical overscan	0
088	FSL	Forced slicing level for vertical sync.	0
089	HP2	Synchronization of OSD TEXT display	0
090	SoftClipLevel	Soft clipping level	0
091	FO	Phase 1	0
092	Picture booster	Option of TDA9178	1
093	AMS	Luminance amplitude input	1
094	LDH	Luminance histogram	1
095	FHS	Line frequency selection	0
096	WLB	Window letterbox format	1
097	DEM	Demodulation mode on/off	0
098	CD2-O	Chroma delay	0
099	OSP	Overrule smart peaking	0
100	WPO	White point stretch off	0
101	DSK	Dynamic skintone on/off	1
102	ASK	Dynamic skintone angle	0
103	WSK	Dynamic skintone width	0
104	SSK	Dynamic skintone size	1
105	DGR	Green enhancement on/off	1
106	GGR	Green enhancement gain	0
107	WGR	Green enhancement width	0
108	SGR	Green enhancement size	1
109	DBL	Blue stretch on/off	0
110	GBL	Blue stretch gain	0
111	SBL	Blue stretch size	0
112	BON	Black offset on/off	0
113	BT5-0	Adaptive black stretch	0
114	NL5-0	Non linearity amplifier	0
115	VG5-0	Variable gamma	32
116	9178 CFS-RF	Contour filter section for RF	1
117	9178 VDC-RF	Video dependent coring on/off for RF	1
118	9178 CDS-RF	Colour sharpness on/off for RF	0
119	9178 CTI-RF	Colour transient improvement on/off for RF	1
120	9178 PK-RF	Peaking amplitude for RF	35
121	9178 SP-RF	Steepness correction for RF	32
122	9178 CR-RF	Coring Level for RF	32
123	9178 LW-RF	Line width for RF	32
124	UOC COR-RF	Video dependent coring (peaking) for RF	3
125	UOC PeakFreq-RF	Peaking control for RF	3
126	SCA Lit H Flt-RF	Sharpness Horiz. Filtering for RF	30
127	SCA Lit V Flt-RF	Sharpness Vert. Filtering for RF	27
128	9178 CFS-AV	Contour filter section for AV	1
129	9178 VDC-AV	Video dependent coring on/off for AV	1
130	9178 CDS-AV	Colour sharpness on/off for AV	0
131	9178 CTI-AV	Colour transient improvement on/off for AV	1
132	9178 PK-AV	Peaking amplitude for AV	35
133	9178 SP-AV	Steepness correction for AV	32
134	9178 CR-AV	Coring Level for AV	20
135	9178 LW-AV	Line width for AV	32
136	UOC COR-AV	Video dependent coring (peaking) for AV	3
137	UOC PeakFreq-AV	Peaking control for AV	3
138	SCA Lit H Flt-AV	Sharpness Horiz. Filtering for AV	38
139	SCA Lit V Flt-AV	Sharpness Vert. Filtering for AV	27
140	HPOS50	Horizontal position for 50Hz	425
141	VPOS50	Vertical position for 50Hz	14
142	HPOS60	Horizontal position for 60Hz	396
143	VPOS60	Vertical position for 60Hz	16
144	SACR	ADC Clamp Red	17
145	SACG	ADC Clamp Green	17
146	SACB	ADC Clamp Blue	17
147	SAGR	ADC Gain Red	31
148	SAGG	ADC Gain Green	31
149	SAGB	ADC Gain Blue	31
150	Reserved	Not used	-
151	Reserved	Not used	-
152	Reserved	Not used	-
153	Reserved	Not used	-
154	Reserved	Not used	-
155	OP AUDIO CONFIG	Not used	2
156	OP DUB DBE	DBE/DUB/BBE control for study	0
157	AVL-LEV	AVL reference level	5
158	AVL-WGT	AVL weighting filter	0
159	AVL-MOD	AVL decay time	3

On-Screen Service Menu System

No.	Title	Explanation	Initial Value
160	LOUD-NA	Main loudness none attack volume level	3
161	LOUD-CH	Main loudness filter characteristic	0
162	BBE-CONT	BBE contour value	10
163	BBE-PROC	BBE process value	10
164	OP CLIP	Clip management	0
165	ADC-AV-L	Level adjust ADC	16
166	DEC-LEV	Level adjust DEC	16
167	MONO-LEV	Level adjust MONO	10
168	NIC-LEV	Level adjust NICAM	16
169	SAP-LEV	Level adjust SAP	16
170	E2D	Audio output signal on the AUDEEM pin.	0
171	FFI	Value of the last set in video signal process	0
172	MR VOL L	Master volume Low	63
173	MR VOL H	Master volume High	4
174	L HI CUT	Equalizer MAIN channel band 5 (8000Hz)	26
175	ASD SC1 THR		16
176	AGN	Gain FM demodulator	0
177	OVMADAPT	FM over modulation adaptation	1
178	OVMTHR	Over modulation level threshold relative to nominal	3
179	CHSE	PAL/NTSC ident sensitivity	3
180	NLEL	NICAM lower error limit	100
181	NUEL	NICAM upper error limit	200
182	DSG	Gai audio in out	1
183	FMWS	Window size for FM demodulator	1
184	CV2	CVBS2 input signal selection	0
185	PA-BA-MU		48
186	PA-TR-MU		45
187	PA-BA-TK		28
188	PA-TR-TK		40
189	PA-BA-NR		32
190	PA-TR-NR		32
191	BEEP-VOL	Alarm beeper volume	25
192	BEEP-FRQ	Alarm beeper frequency	4
193	AGC Speed	IF AGC speed	1
194	AGC Take over	AGC take over	23
195	OIF	Offset IF demodulator	32
196	VA	Video output signal amplitude	0
197	VAI	System I output signal amplitude correction	0
198	SVO	Function of IFVO/SVO/CVBS1 pin	0
199	GD	Group delay on CVBS1 signal	1
200	BPB	Bypass of sound bandpass filter at mono mode	0
201	BPB2	Bypass of sound bandpass filter section 2	1
202	OSD-H-POS	On-screen Display Horizontal position	6
203	CL	Cathode drive level	0
204	PGR	Preset Gain Red	45
205	PGG	Preset Gain Green	45
206	PGB	Preset Gain Blue	45
207	Back Light	Back-light	63
208	BL PWMMin	Back-light PWM Min. control	0
209	BL PWMMax	Back-light PWM Max. control	255
210	BL PWMFreq	Back-light PWM Frequency control	240
211	GAMMA	Gamma	32
212	BRIFE	Brightness control	52
213	SATBE	Saturation control	23
214	CONBE		40
215	PANEL	(Not used)	0
216	LPG	RGB gain preset	1
217	EGL	Enable gain loop in the CCC system	0
218	RBL	RGB blanking	0
219	OffsetMid		16
220	OffsetMin		48
221	OffsetMax		41
222	Interval		2
223	Wait-OffMid		8
224	Wait-OffMin		8
225	Wait-Next		8
226	Wait-Step		4
227	Wait Time		30
228	Judge Width		1
229	Scan Time	Auto Scan Time/Min. value=0 x 04	6
230	Phi1	Phase 1 time constant (Should be very slow.)	2
231	Reserved	Not used	-
232	Reserved	Not used	-
233	Reserved	Not used	-
234	Reserved	Not used	-
235	Reserved	Not used	-
236	Reserved	Not used	-
237	Reserved	Not used	-
238	Reserved	Not used	-
239	CC-VPos	Closed Caption Vertical Position	0
240	CC-HPos	Closed Caption Horizontal Position	14
241	HSyncDelay		4
242	POS change	Post Video & Sound mute time POS change to with ident channel	1
243	POS chg no sig	Post Video & Sound mute time POS change to with no ident channel	1
244	Zoom or Text	Post Video & Sound mute time at zoom mode change and text mode	96
245	NICPLIM	DCXO scaling control limit	96
246	CC-Wait		0
247	CC-LINE		21

Service Adjustments

Important Notice:

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

DCXO Adjustment

This adjustment is required when the crystal oscillator (X201 or X4001) is replaced.

1. Input PAL-N color bar signal from the AV1 input terminal. Set the brightness and contrast to normal.
2. Enter the service mode, and select item **No.006 DCXO Auto** with ▲ or ▼ key.
3. Press **VOLUME +** key, and the adjustment will start, then adjustment data will be changed automatically as follows;
"0" --> "1" --> "0"
(Oscillation frequency adjustment will be completed automatically.)

AGC Adjustment

1. Receive PAL-N color bar pattern.
(ANT Input Level: 62dB μ V, 75 ohms terminated)
2. Connect a Digital Volt Meter to Tuner-AGC terminal and the ground.
3. Enter the service mode, and select item **No.194 AGC Take over** with ▲ or ▼ key.
4. Adjust voltage of Tuner-AGC to become 3.2V $\pm$ 0.3V DC with **VOLUME +** or **-** key.

White Balance Adjustment

Note: This adjustment should be made 10 minutes after the TV is turned on.

[Setting]

1. Connect a colour-bar generator to the external video (composite) input terminal (AV1 or AV3 terminal), and input a White Pattern (90%) signal.
2. Set the television to following conditions:
Screen Size: FULL
Picture Mode: DYNAMIC

[White Balance Adjustment]

1. Enter the Service Mode.

Adjustment Item:

- No. 147 SAGR** (ADC Gain Red)
- No. 148 SAGG** (ADC Gain Green)
- No. 149 SAGB** (ADC Gain Blue)

2. Decide a fixed item which is maximum value "31".
(Example, let 31 of **No. 147 SAGR** be maximum value), select item of other 2 colours (Example, **No. 148 SAGG** or **No. 149 SAGB**) with ▲ or ▼ key, and adjust to produce a normal black and white picture in highlight areas with **VOLUME +** or **-** key.
After adjustment, confirm white balance again by normal picture.

Note: Adjusted data is less than the fixed data.

Black Balance Adjustment

Note: This adjustment should be made 10 minutes after the TV is turned on.

[Setting]

1. Connect a colour-bar generator to the external video (composite) input terminal (AV1 or AV3 terminal), and input a dark gray pattern (20% white).
2. Set the television to following conditions:
Screen Size: FULL
Picture Mode: DYNAMIC

[Black Balance Adjustment]

1. Enter the Service Mode.

Adjustment Item:

- No. 144 SACR** (ADC Clamp Red)
- No. 145 SACG** (ADC Clamp Green)
- No. 146 SACB** (ADC Clamp Blue)

2. Decide the fixed item which is maximum value "17".
(Example, let 17 of **No. 144 SACR** be maximum value), select item of other 2 colours (Example, **No. 145 SACG** or **No. 146 SACB**) with ▲ or ▼ key, and adjust to produce a normal black and white picture in dark gray areas with **VOLUME +** or **-** key.
After adjustment, confirm white balance again by normal picture.

Note: Adjusted data is less than the fixed data.

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.

Releasing the protective circuit and restoring power supply

To release the protective circuit and restore power supply, disconnect the AC cord or AC adaptor for a short time. 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.

When operating the Protection Circuit, the Stand-by and Power Indicator will blink.

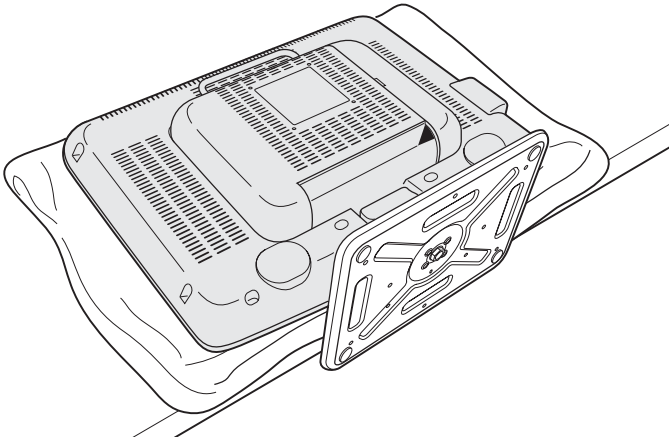
The number of blinks will be determined by the type of failure detected as shown below.

- 1. One time blinks:** Power failure of Video Decoder in IC 201.
- 2. Two times blinks:** Scaler error of IC 201.
- 3. Three times blinks:** Power failure of 2.5 V DecDig supply in IC 201.
(In case of 2.5V falls less than 2.0V for 1 second).
- 4. Four times blinks:** Power failure of 5V supply in IC 201. (In case of 5V falls less than 4.0V for 1 second).
- 5. Five times blinks :**Power fail-1 (Pad-154 AE18 of IC201).
Detected "5V_PANEL POWER", "1V8_SW", "5VCPU", "5V_SW", "3V3_SW" and "3V3STB".
(Normal=High, Failure=Low)
- 6. Six times blinks:** Power fail-2 (Pad-241 AD8 of IC201).
Detected "8V" (for IC2001) and "14V_AUDIO". (Normal=High, Failure=Low)

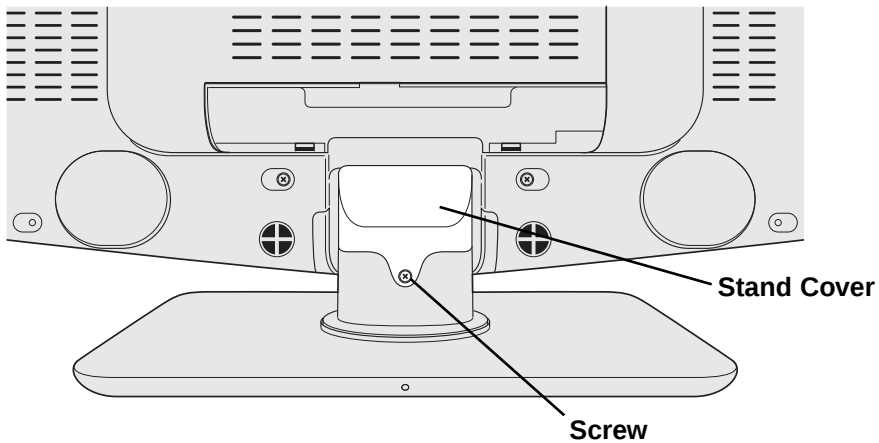
Mechanical Disassembly

1. Stand Removal

1. Position TV face down on a padded or cushioned surface to protect the screen and finish.

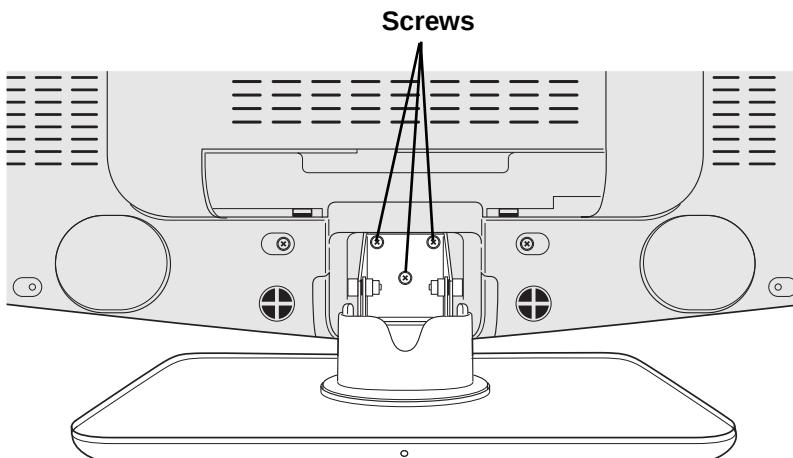


2. Remove one screw and remove a stand cover.



3. Remove 3 screws to take the stand off.

CAUTION: Hold the stand firmly as you remove the last screw.

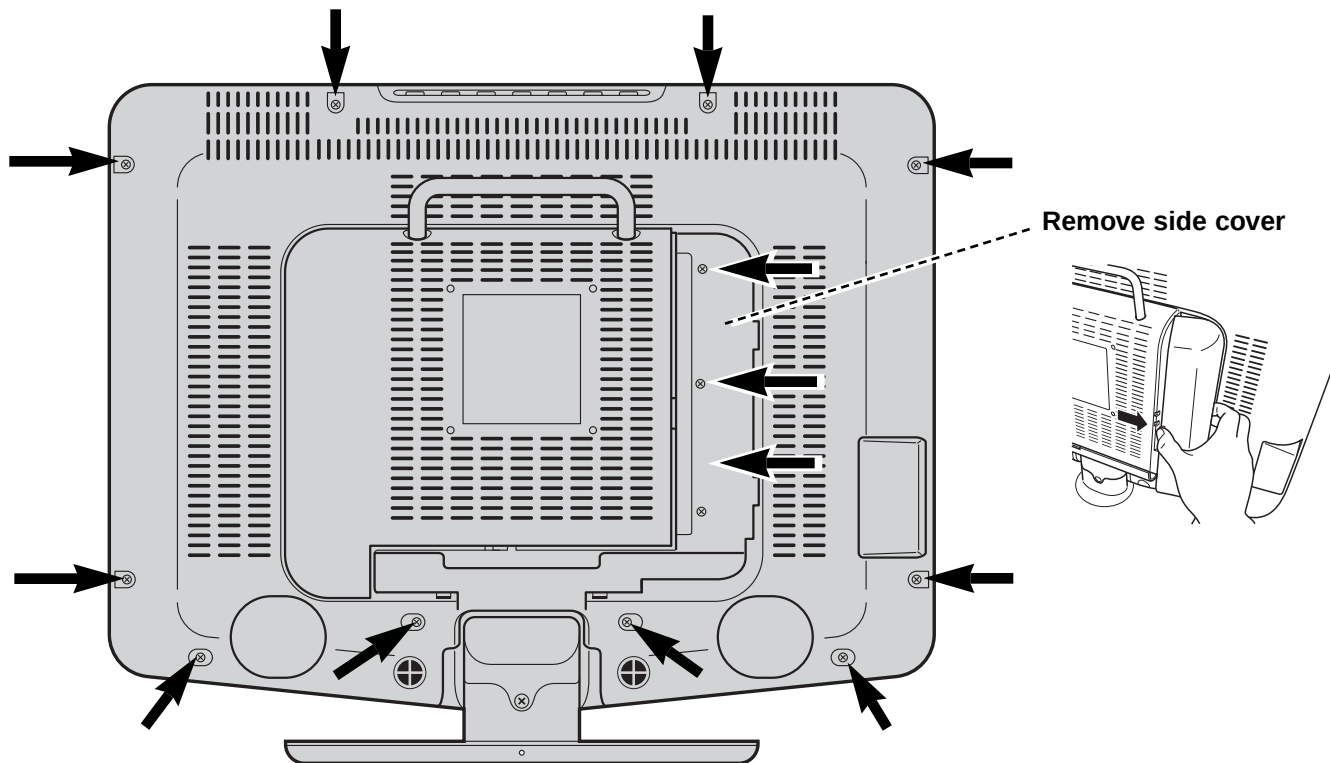


Mechanical Disassembly

2. Cabinet Back Removal

1. Remove side cover.
2. Remove 13 screws and take the Cabinet Back off.

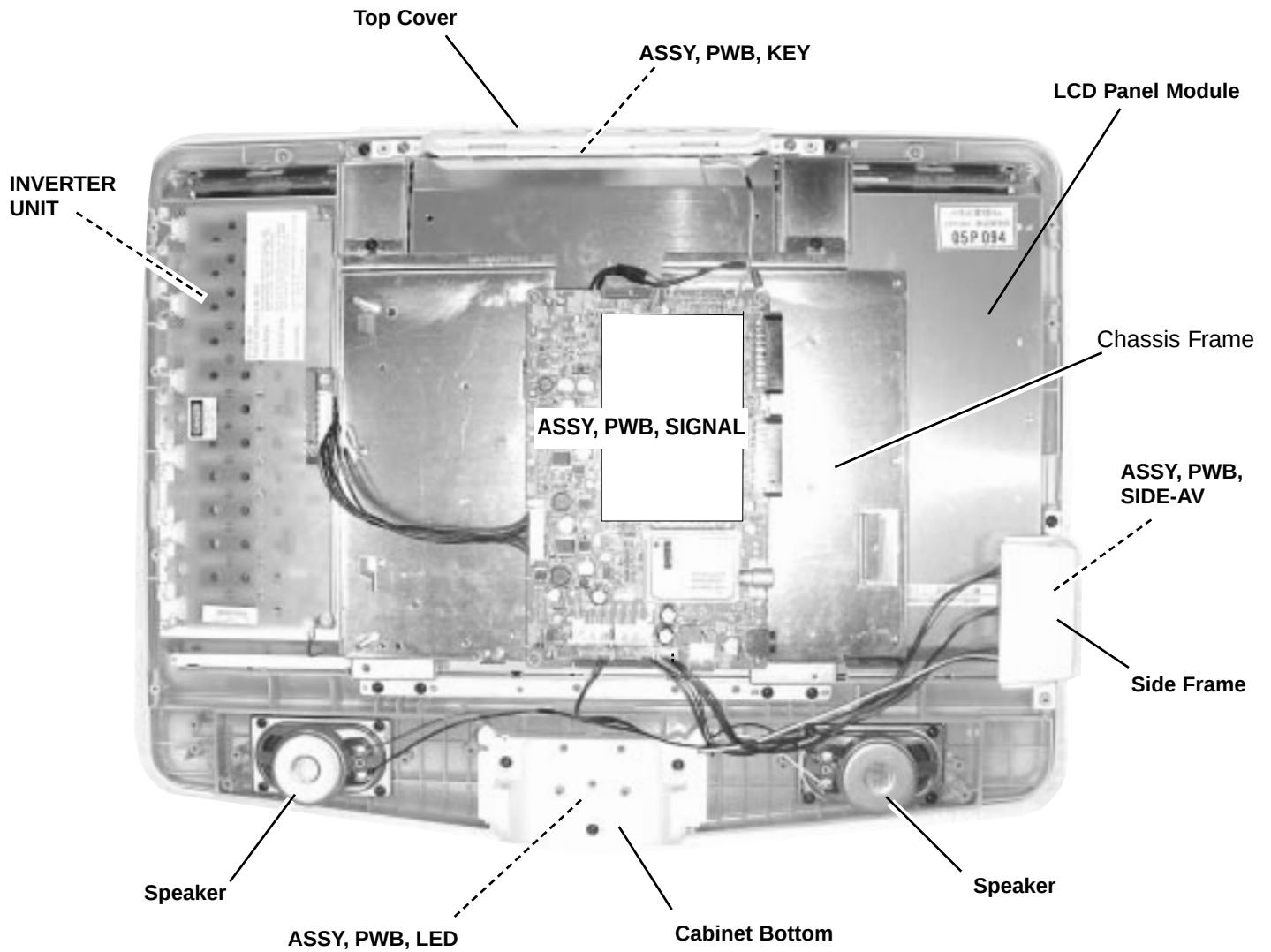
Note: Cabinet Back can be removed even if it does not remove a stand.



Mechanical Disassembly

3. Chassis Removal

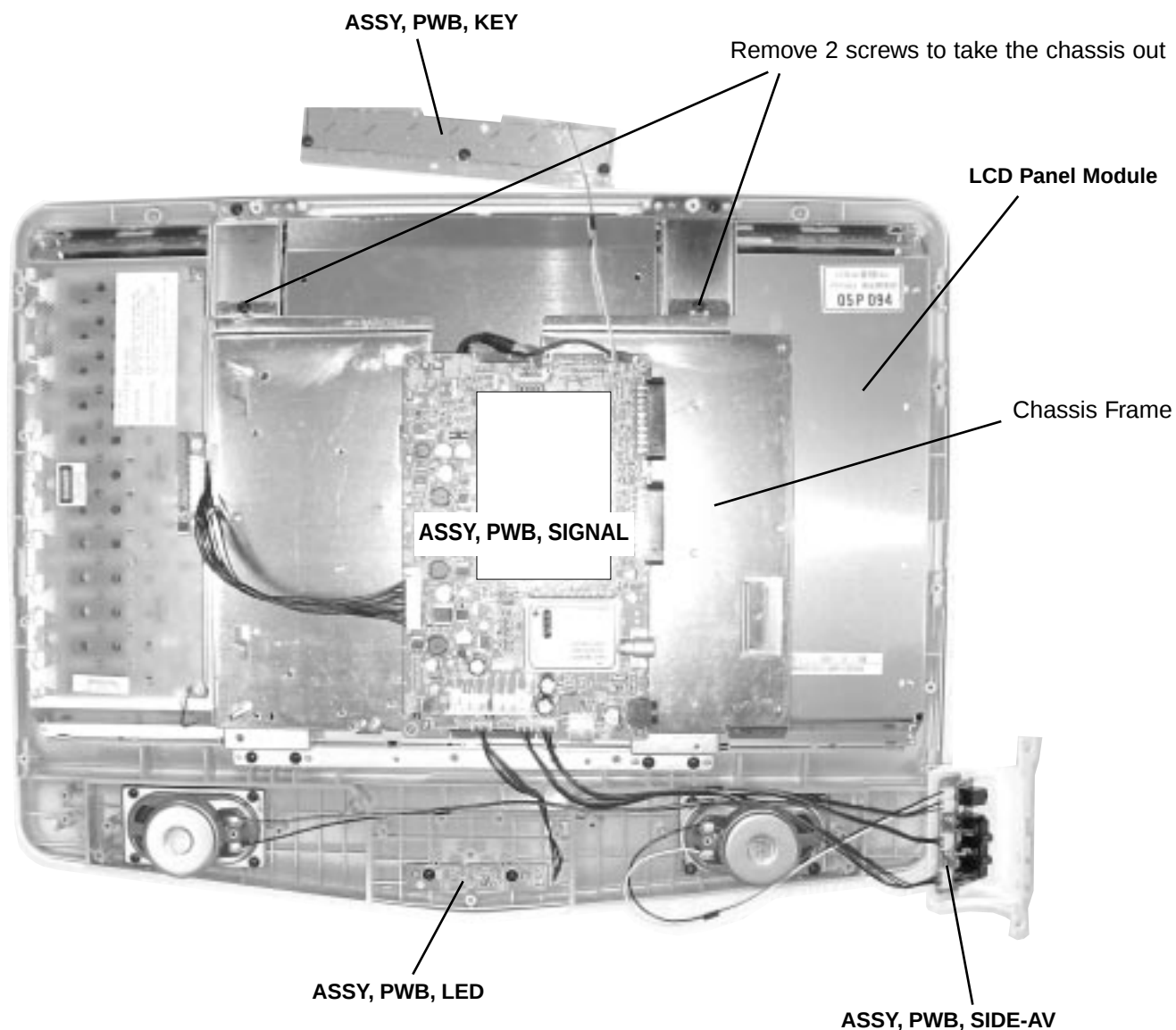
1. After removing Cabinet Back and Stand, remove Top Cover, Side Frame and Cabinet Bottom.



[Location of Circuit Board and Electrical Parts]

Mechanical Disassembly

2. Remove 2 screws in the upper part of chassis frame, remove Shield Cover, disconnect each connectors and the chassis can be taken out.



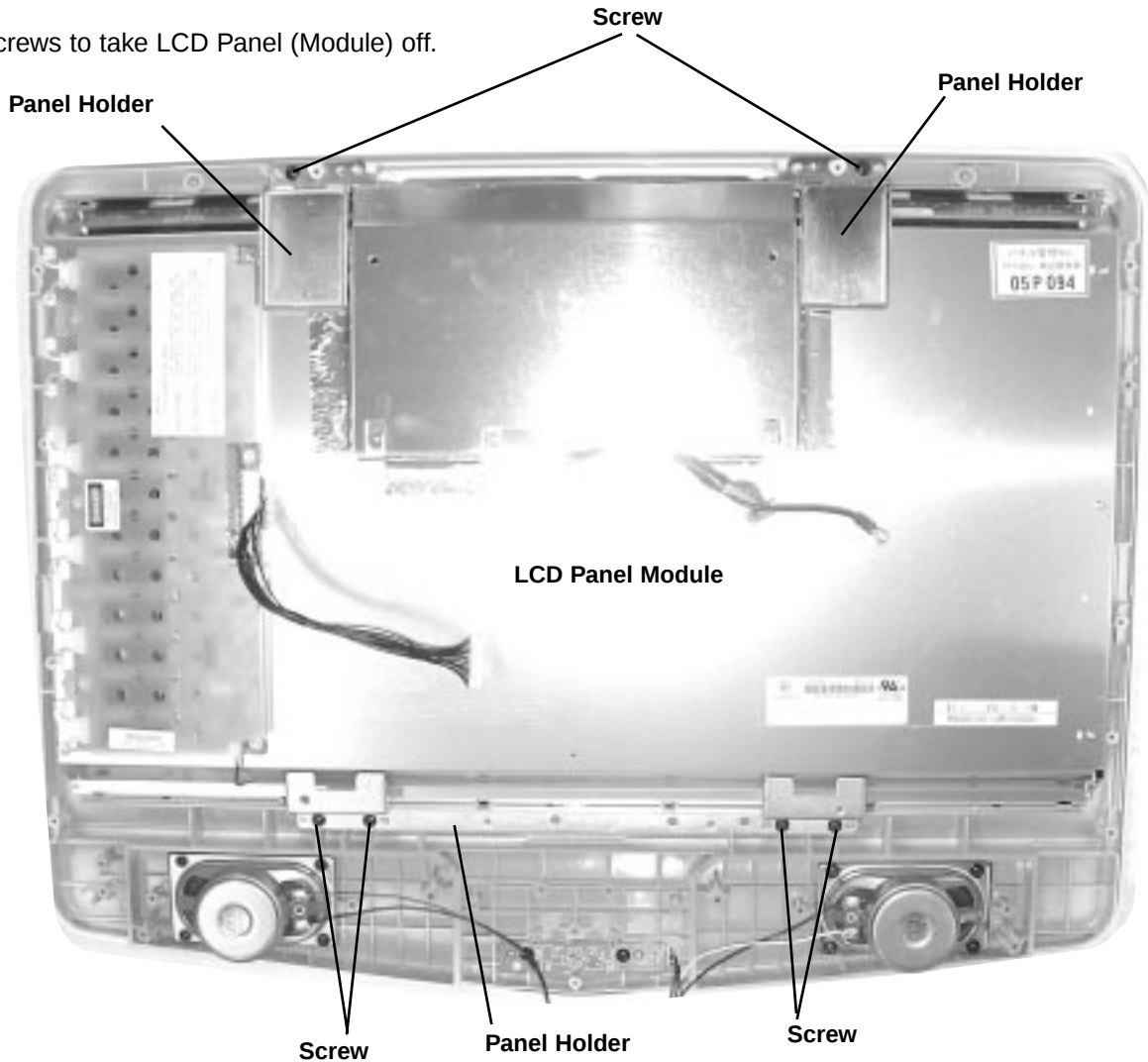
For Gasket

The gasket is provided to prevent exposure of interference for other radio and television receptions. The gasket should be **replaced on previous positions** after servicing.

Mechanical Disassembly

4. LCD Panel Removal

Remove 6 screws to take LCD Panel (Module) off.

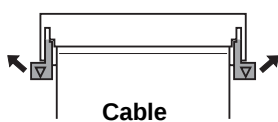


= Appendix =

How to Remove Flat Cable

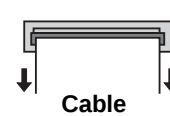
There are following kinds of the connectors of flat cable. Be careful not to damage a connector in the case of removal of a flat cable or attachment.

Type-A



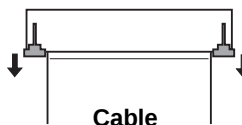
For removal of flat cable, lift up the hook of both sides.
For insert and fixing, hold down the hook after inserting the flat cable.

Type-C



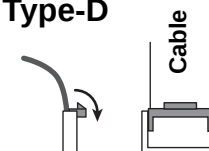
For removal of flat cable, pull off only.
For fixing, insert into the socket.

Type-B



For removal of flat cable, slide the hook of both sides.
For insert and fixing, slide the hook to previous position after inserting the flat cable.

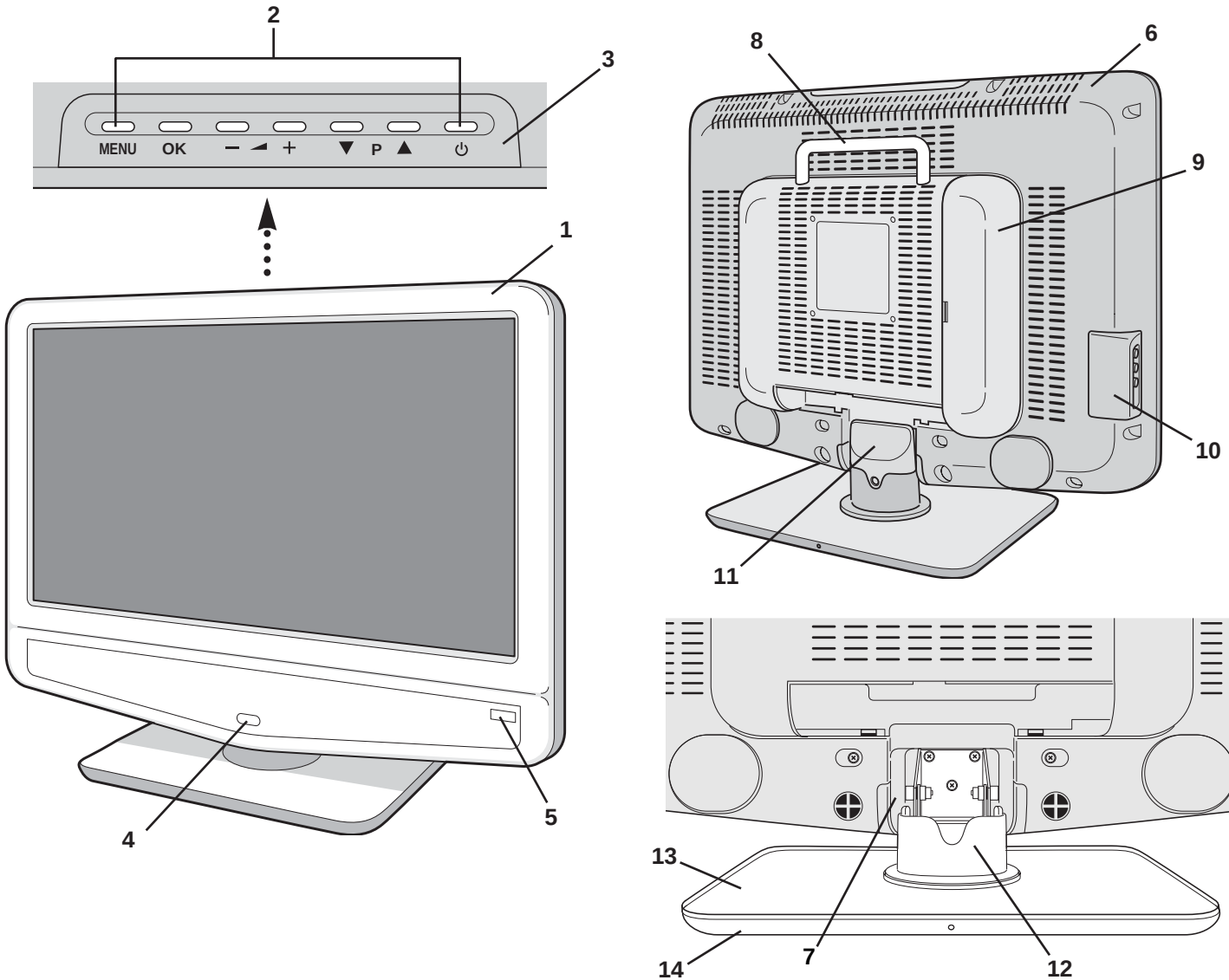
Type-D



For removal of flat cable, hold down the hook.
For insert and fixing, lift up the hook after inserting the flat cable.

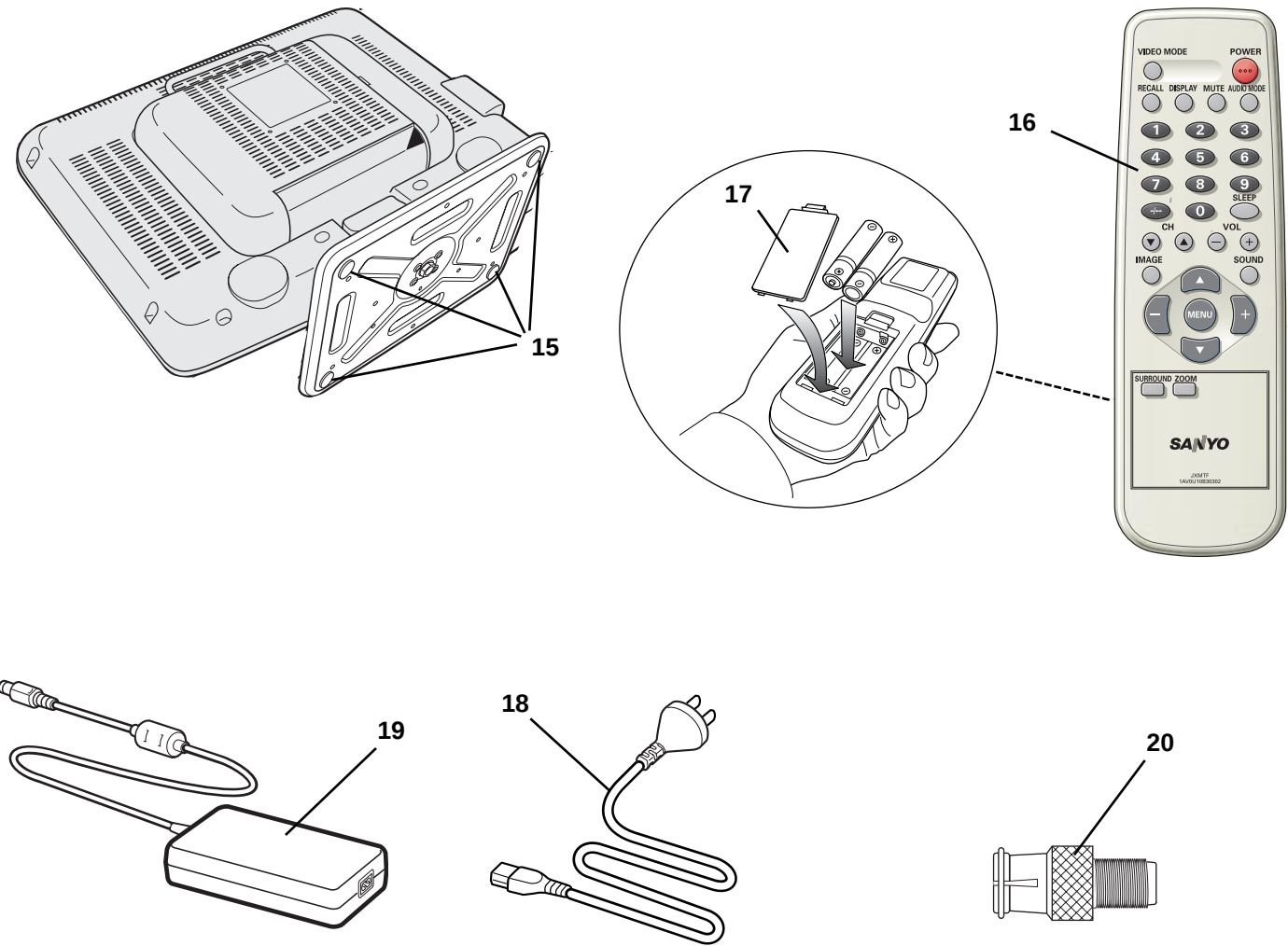
Cabinet Parts List

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



Key No.	Part No.	Description	Key No.	Part No.	Description
1	610 324 8714	CABINET FRONT-N2RV			
2	610 324 8998	BUTTON UNITED-N2RV			
3	610 324 8721	COVER TOP-N2RV			
4	610 324 1081	DEC IND-N2RC			
5	610 325 6726	COVER USB SHEET-N2RV			
6	610 324 8622	CABINET BACK-N2RV			
7	610 324 8943	CABINET BOTTOM-N2RV			
8	610 321 1831	HANDLE-N2RJ			
9	610 324 8844	LID SIDE-N2RV			
10	610 324 9001	FRAME SIDE-N2RV			
11	610 324 8813	COVER SHAFT TOP-N2RV			
12	610 324 8882	COVER SHAFT-N2RV			
13	610 322 3278	DEC STAND-N2RC			
or	610 322 5289	DEC STAND-N2RY			
14	610 321 8328	STAND TOP-N2RC			

Cabinet Parts List



Key No.	Part No.	Description	Key No.	Part No.	Description
15	610 317 2033	PAD RUBBER-N2RA			
or	610 322 7832	PAD RUBBER-N2RY			
16	645 072 9782	ASSY,REMOCON JXMTF			
17	610 297 9879	RC-BATTERY LID-JXMTA			
18	645 081 2705	CORD,POWER-2.0MK-ARG			
19	645 075 9666	ADAPTOR,AC-DC			
20	645 082 5941	PLUG,ADAPTOR ANT(PAL)			
or	652 001 7528	PLUG,ADAPTOR ANT(PAL)			
	610 324 8004	INSTRUCTION MANUAL-N2RV (Spanish)			

Chassis Electrical Parts List

N2RV

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.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
NOTES: Read description in the Capacitor and Resistor as follows: CAPACITOR CERAMIC100PK50V					

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R2956	401 105 2716	MT-GLAZE 220 JA 1/16W		405 014 4618	TR 2SC2412K T146 S
R2957	401 105 0316	MT-GLAZE 10 JA 1/16W		405 015 8724	TR 2SC2812-L6-TB
DIODE				405 015 8922	TR 2SC2812-L7-TB
D2951	407 206 5618	ZENER DIODE UDZS-TE-1710B		405 163 1612	TR 2SC2812N-L6-TB0
D2952	407 206 5618	ZENER DIODE UDZS-TE-1710B		405 173 9813	TR 2SC3928A1R
MISCELLANEOUS			Q202	405 173 9912	TR 2SC3928A1S
SW2951	645 026 2791	SWITCH,PUSH 1P-1TX1		405 212 1617	TR 2SA2048-Q TSMT3
SW2952	645 026 2791	SWITCH,PUSH 1P-1TX1		405 171 8511	TR 50A02CH-TL-E
SW2953	645 026 2791	SWITCH,PUSH 1P-1TX1	Q203	405 212 1617	TR 2SA2048-Q TSMT3
SW2954	645 026 2791	SWITCH,PUSH 1P-1TX1		405 171 8511	TR 50A02CH-TL-E
SW2955	645 026 2791	SWITCH,PUSH 1P-1TX1	Q204	405 014 4519	TR 2SC2412K T146 R
SW2956	645 026 2791	SWITCH,PUSH 1P-1TX1		405 014 4618	TR 2SC2412K T146 S
SW2957	645 026 2791	SWITCH,PUSH 1P-1TX1		405 015 8724	TR 2SC2812-L6-TB
610 325 3213 ASSY,PWB,LED, N2SV				405 015 8922	TR 2SC2812-L7-TB
1AA0B10N135BC				405 163 1612	TR 2SC2812N-L6-TB0
CAPACITOR				405 173 9813	TR 2SC3928A1R
C2901	403 368 7316	CERAMIC 10U K 6.3V		405 173 9912	TR 2SC3928A1S
	403 370 7618	CERAMIC 10U M 6.3V	Q211	405 014 4519	TR 2SC2412K T146 R
C2902	403 368 7316	CERAMIC 10U K 6.3V		405 014 4618	TR 2SC2412K T146 S
	403 370 7618	CERAMIC 10U M 6.3V		405 015 8724	TR 2SC2812-L6-TB
C2904	403 113 3815	CERAMIC 1000P K 50V		405 015 8922	TR 2SC2812-L7-TB
RESISTOR				405 163 1612	TR 2SC2812N-L6-TB0
R2901	401 105 0415	MT-GLAZE 100 JA 1/16W	Q212	405 173 9912	TR 2SC3928A1S
R2902	401 105 0415	MT-GLAZE 100 JA 1/16W		405 014 4519	TR 2SC2412K T146 R
R2905	401 105 4512	MT-GLAZE 390 JA 1/16W		405 014 4618	TR 2SC2412K T146 S
DIODE				405 015 8724	TR 2SC2812-L6-TB
D2901	407 116 6504	LED SLP-181B-51		405 015 8922	TR 2SC2812-L7-TB
D2904	407 206 5618	ZENER DIODE UDZS-TE-1710B	Q213	405 163 1612	TR 2SC2812N-L6-TB0
MISCELLANEOUS				405 173 9813	TR 2SC3928A1R
A2901	645 075 9734	UNIT,REMOCON RECEIVER		405 173 9912	TR 2SC3928A1S
SC2903	645 076 3502	SURGE-ABSORBER	Q4001	405 014 4519	TR 2SC2412K T146 R
SC2904	645 076 3502	SURGE-ABSORBER		405 014 4618	TR 2SC2412K T146 S
610 325 1738 ASSY,PWB,SIGNAL, N2RV				405 015 8724	TR 2SC2812-L6-TB
1AA0B10N150EA				405 015 8922	TR 2SC2812-L7-TB
TRANSISTOR				405 163 1612	TR 2SC2812N-L6-TB0
Q001	405 014 4519	TR 2SC2412K T146 R		405 173 9813	TR 2SC3928A1R
	405 014 4618	TR 2SC2412K T146 S		405 173 9912	TR 2SC3928A1S
	405 015 8724	TR 2SC2812-L6-TB	Q4002	405 014 4519	TR 2SC2412K T146 R
	405 015 8922	TR 2SC2812-L7-TB		405 014 4618	TR 2SC2412K T146 S
	405 163 1612	TR 2SC2812N-L6-TB0		405 015 8724	TR 2SC2812-L6-TB
	405 173 9813	TR 2SC3928A1R		405 015 8922	TR 2SC2812-L7-TB
	405 173 9912	TR 2SC3928A1S		405 163 1612	TR 2SC2812N-L6-TB0
Q114	405 210 9912	TR 2SC5730-R		405 173 9813	TR 2SC3928A1R
Q1203	405 014 4519	TR 2SC2412K T146 R		405 173 9912	TR 2SC3928A1S
	405 014 4618	TR 2SC2412K T146 S	Q6600	405 014 4519	TR 2SC2412K T146 R
	405 015 8724	TR 2SC2812-L6-TB		405 014 4618	TR 2SC2412K T146 S
	405 015 8922	TR 2SC2812-L7-TB		405 015 8724	TR 2SC2812-L6-TB
	405 163 1612	TR 2SC2812N-L6-TB0		405 015 8922	TR 2SC2812-L7-TB
	405 173 9813	TR 2SC3928A1R		405 163 1612	TR 2SC2812N-L6-TB0
	405 173 9912	TR 2SC3928A1S		405 173 9813	TR 2SC3928A1R
Q1204	405 014 4519	TR 2SC2412K T146 R		405 173 9912	TR 2SC3928A1S
	405 014 4618	TR 2SC2412K T146 S	Q6606	405 014 4519	TR 2SC2412K T146 R
	405 015 8724	TR 2SC2812-L6-TB		405 014 4618	TR 2SC2412K T146 S
	405 015 8922	TR 2SC2812-L7-TB		405 015 8724	TR 2SC2812-L6-TB
	405 163 1612	TR 2SC2812N-L6-TB0		405 015 8922	TR 2SC2812-L7-TB
	405 173 9813	TR 2SC3928A1R		405 163 1612	TR 2SC2812N-L6-TB0
	405 173 9912	TR 2SC3928A1S		405 173 9813	TR 2SC3928A1R
Q201	405 014 4519	TR 2SC2412K T146 R		405 173 9912	TR 2SC3928A1S
			Q6607	405 014 4519	TR 2SC2412K T146 R

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
Q6608	405 014 4618	TR 2SC2412K T146 S	C101	403 391 5419	ELECT 22U M 6.3V
	405 015 8724	TR 2SC2812-L6-TB		403 184 7910	ELECT 22U M 6.3V
	405 015 8922	TR 2SC2812-L7-TB	C1019	403 157 3611	CERAMIC 100P J 50V
	405 163 1612	TR 2SC2812N-L6-TB0	C102	403 215 2211	CERAMIC 0.01U K 50V
	405 173 9813	TR 2SC3928A1R	C1021	403 157 3611	CERAMIC 100P J 50V
	405 173 9912	TR 2SC3928A1S	C1022	403 157 3611	CERAMIC 100P J 50V
	405 014 4519	TR 2SC2412K T146 R	C1023	403 157 3611	CERAMIC 100P J 50V
	405 014 4618	TR 2SC2412K T146 S	C1024	403 157 3611	CERAMIC 100P J 50V
	405 015 8724	TR 2SC2812-L6-TB	C1025	403 157 3611	CERAMIC 100P J 50V
	405 015 8922	TR 2SC2812-L7-TB	C103	403 398 1513	ELECT 1000U M 6.3V
	405 163 1612	TR 2SC2812N-L6-TB0	C104	403 215 2211	CERAMIC 0.01U K 50V
	405 173 9813	TR 2SC3928A1R	C1043	403 207 0317	CERAMIC 1U Z 16V
	405 173 9912	TR 2SC3928A1S	C1044	403 207 0317	CERAMIC 1U Z 16V
	405 134 5925	TR 2SA1037AK-T146-R	C1045	403 207 0317	CERAMIC 1U Z 16V
	405 147 2215	TR 2SA1037AK-S-T146	C1046	403 215 2211	CERAMIC 0.01U K 50V
Q802	405 002 0318	TR 2SA1037K T146 R	C106	403 073 1210	CERAMIC 0.033U K 50V
	405 002 0417	TR 2SA1037K T146 S	C107	403 073 1210	CERAMIC 0.033U K 50V
	405 002 6726	TR 2SA1179-M6-TB	C108	403 215 2211	CERAMIC 0.01U K 50V
	405 002 6924	TR 2SA1179-M7-TB	C112	403 368 7316	CERAMIC 10U K 6.3V
	405 163 1513	TR 2SA1179N-M6-TB		403 370 7618	CERAMIC 10U M 6.3V
	405 173 9615	TR 2SA1235A1E	C113	403 155 2319	CERAMIC 4700P K 50V
Q803	405 173 9714	TR 2SA1235A1F	C114	403 155 2319	CERAMIC 4700P K 50V
	405 014 4519	TR 2SC2412K T146 R	C115	403 155 2319	CERAMIC 4700P K 50V
	405 014 4618	TR 2SC2412K T146 S	C116	403 172 6116	CERAMIC 270P J 50V
	405 015 8724	TR 2SC2812-L6-TB	C117	403 073 1210	CERAMIC 0.033U K 50V
	405 015 8922	TR 2SC2812-L7-TB	C122	403 215 2211	CERAMIC 0.01U K 50V
	405 163 1612	TR 2SC2812N-L6-TB0	C1231	403 164 0214	CERAMIC 0.1U Z 25V
	405 173 9813	TR 2SC3928A1R	C1233	403 314 5915	CERAMIC 0.47U K 16V
	405 173 9912	TR 2SC3928A1S	C1234	403 314 5915	CERAMIC 0.47U K 16V
			C1241	403 314 5915	CERAMIC 0.47U K 16V
			C1242	403 314 5915	CERAMIC 0.47U K 16V
INTEGRATED CIRCUIT			C131	403 265 3213	CERAMIC 1000P J 50V
IC001	409 569 1907	IC LA42052-E	C133	403 155 2418	CERAMIC 5600P K 50V
IC2001	409 436 3716	IC TDA9178T/N1	C134	403 155 2418	CERAMIC 5600P K 50V
IC201	410 602 6704	IC TDA15521E/N1CC2	C135	403 215 2211	CERAMIC 0.01U K 50V
IC4001	410 580 9506	IC SST39VF020-70-4C-NHE	C136	403 215 2211	CERAMIC 0.01U K 50V
IC4002	409 636 6725	IC BD5260G	C1607	403 398 8215	ELECT 330U M 35V
IC6600	409 550 1414	IC PQ1CY1032ZP	C2001	403 207 0317	CERAMIC 1U Z 16V
IC6602	409 533 3312	IC PQ1CZ41H2ZP	C2002	403 215 2211	CERAMIC 0.01U K 50V
IC6604	409 608 8914	IC BA08CC0WFP	C2003	403 164 0214	CERAMIC 0.1U Z 25V
IC6605	409 550 1414	IC PQ1CY1032ZP	C2004	403 145 9915	CERAMIC 22P J 50V
IC6606	409 503 8019	IC BA05SFP	C2006	403 145 9915	CERAMIC 22P J 50V
IC6607	409 588 6313	IC BA33BC0FP	C2007	403 145 9915	CERAMIC 22P J 50V
IC6608	409 563 0312	IC BA00BC0WFP-E2	C201	403 164 0214	CERAMIC 0.1U Z 25V
IC6642	409 588 6313	IC BA33BC0FP	C202	403 164 0214	CERAMIC 0.1U Z 25V
IC801	409 636 7405	IC M24C64-WBN6P	C203	403 164 0214	CERAMIC 0.1U Z 25V
CAPACITOR			C204	403 164 0214	CERAMIC 0.1U Z 25V
C003	403 299 1612	CERAMIC 1U K 16V	C205	403 157 3611	CERAMIC 100P J 50V
C004	403 299 1612	CERAMIC 1U K 16V	C206	403 368 7316	CERAMIC 10U K 6.3V
C005	403 157 7312	CERAMIC 6800P K 50V		403 370 7618	CERAMIC 10U M 6.3V
C006	403 157 7312	CERAMIC 6800P K 50V	C207	403 164 0214	CERAMIC 0.1U Z 25V
C009	403 410 7209	ELECT 1000U M 25V	C208	403 164 0214	CERAMIC 0.1U Z 25V
C010	403 410 7209	ELECT 1000U M 25V	C209	403 398 6518	ELECT 2.2U M 50V
C011	403 164 0214	CERAMIC 0.1U Z 25V		403 184 8511	ELECT 2.2U M 50V
C012	403 164 0214	CERAMIC 0.1U Z 25V	C210	403 157 3611	CERAMIC 100P J 50V
C013	403 164 0214	CERAMIC 0.1U Z 25V	C211	403 164 0214	CERAMIC 0.1U Z 25V
C021	403 387 6918	ELECT 100U M 25V	C212	403 368 7316	CERAMIC 10U K 6.3V
C022	403 391 5716	ELECT 4.7U M 25V		403 370 7618	CERAMIC 10U M 6.3V
	403 184 8412	ELECT 4.7U M 25V	C213	403 164 0214	CERAMIC 0.1U Z 25V
C023	403 410 7209	ELECT 1000U M 25V	C214	403 323 8815	CERAMIC 2.2U Z 16V
C030	403 164 0214	CERAMIC 0.1U Z 25V	C215	403 157 3611	CERAMIC 100P J 50V
C1001	403 398 3210	ELECT 47U M 10V	C216	403 157 7213	CERAMIC 3900P K 50V
	403 174 6213	ELECT 47U M 10V	C217	403 323 8815	CERAMIC 2.2U Z 16V
C1003	403 157 3611	CERAMIC 100P J 50V	C218	403 391 5716	ELECT 4.7U M 25V
C1006	403 157 3611	CERAMIC 100P J 50V		403 184 8412	ELECT 4.7U M 25V
C1008	403 157 3611	CERAMIC 100P J 50V	C219	403 164 0214	CERAMIC 0.1U Z 25V
C1009	403 157 3611	CERAMIC 100P J 50V	C221	403 314 5915	CERAMIC 0.47U K 16V

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C224	403 314 5915	CERAMIC 0.47U K 16V	C4031	403 164 0214	CERAMIC 0.1U Z 25V
C226	403 260 2944	MT-COMPO 0.33U J 50V	C4032	403 164 0214	CERAMIC 0.1U Z 25V
C227	403 164 0214	CERAMIC 0.1U Z 25V	C4033	403 164 0214	CERAMIC 0.1U Z 25V
C228	403 178 6318	ELECT 100U M 6.3V	C4034	403 372 7517	CERAMIC 2.2U K 6.3V
C229	403 164 0214	CERAMIC 0.1U Z 25V	C4036	403 113 3815	CERAMIC 1000P K 50V
C231	403 368 7316	CERAMIC 10U K 6.3V	C4037	403 164 0214	CERAMIC 0.1U Z 25V
	403 370 7618	CERAMIC 10U M 6.3V	C4038	403 368 7316	CERAMIC 10U K 6.3V
C232	403 269 5916	CERAMIC 0.22U K 16V		403 370 7618	CERAMIC 10U M 6.3V
C233	403 157 7312	CERAMIC 6800P K 50V	C4039	403 368 7316	CERAMIC 10U K 6.3V
C234	403 398 6112	ELECT 1U M 50V		403 370 7618	CERAMIC 10U M 6.3V
	403 175 7318	ELECT 1U M 50V	C4041	403 139 7316	CERAMIC 18P J 50V
C236	403 314 5915	CERAMIC 0.47U K 16V	C4042	403 139 7316	CERAMIC 18P J 50V
C239	403 269 5916	CERAMIC 0.22U K 16V	C4043	403 368 7316	CERAMIC 10U K 6.3V
C241	403 323 8815	CERAMIC 2.2U Z 16V		403 370 7618	CERAMIC 10U M 6.3V
C242	403 269 5916	CERAMIC 0.22U K 16V	C4044	403 368 7316	CERAMIC 10U K 6.3V
C243	403 398 1513	ELECT 1000U M 6.3V		403 370 7618	CERAMIC 10U M 6.3V
C244	403 164 0214	CERAMIC 0.1U Z 25V	C4046	403 368 7316	CERAMIC 10U K 6.3V
C246	403 269 5916	CERAMIC 0.22U K 16V		403 370 7618	CERAMIC 10U M 6.3V
C248	403 368 7316	CERAMIC 10U K 6.3V	C4047	403 368 7316	CERAMIC 10U K 6.3V
	403 370 7618	CERAMIC 10U M 6.3V		403 370 7618	CERAMIC 10U M 6.3V
C249	403 164 0214	CERAMIC 0.1U Z 25V	C4048	403 368 7316	CERAMIC 10U K 6.3V
C250	403 269 5916	CERAMIC 0.22U K 16V		403 370 7618	CERAMIC 10U M 6.3V
C251	403 269 5916	CERAMIC 0.22U K 16V	C4053	403 157 4212	CERAMIC 220P J 50V
C252	403 178 6318	ELECT 100U M 6.3V	C4054	403 073 1210	CERAMIC 0.033U K 50V
C253	403 269 5916	CERAMIC 0.22U K 16V	C4056	403 073 1210	CERAMIC 0.033U K 50V
C254	403 269 5916	CERAMIC 0.22U K 16V	C4057	403 073 1210	CERAMIC 0.033U K 50V
C256	403 164 0214	CERAMIC 0.1U Z 25V	C4058	403 072 1617	CERAMIC 0.022U K 50V
C257	403 178 6318	ELECT 100U M 6.3V	C4059	403 157 4212	CERAMIC 220P J 50V
C258	403 164 0214	CERAMIC 0.1U Z 25V	C4061	403 073 1210	CERAMIC 0.033U K 50V
C259	403 178 6318	ELECT 100U M 6.3V	C4062	403 073 1210	CERAMIC 0.033U K 50V
C261	403 269 5916	CERAMIC 0.22U K 16V	C4063	403 157 4212	CERAMIC 220P J 50V
C262	403 164 0214	CERAMIC 0.1U Z 25V	C4064	403 073 1210	CERAMIC 0.033U K 50V
C263	403 164 0214	CERAMIC 0.1U Z 25V	C4065	403 164 0214	CERAMIC 0.1U Z 25V
C264	403 164 0214	CERAMIC 0.1U Z 25V	C4066	403 284 4314	CERAMIC 0.022U K 50V
C266	403 113 3815	CERAMIC 1000P K 50V	C6600	403 398 8215	ELECT 330U M 35V
C267	403 398 3210	ELECT 47U M 10V	C6601	403 215 2211	CERAMIC 0.01U K 50V
	403 174 6213	ELECT 47U M 10V	C6602	403 164 0214	CERAMIC 0.1U Z 25V
C268	403 157 2911	CERAMIC 47P J 50V	C6603	403 398 8215	ELECT 330U M 35V
C269	403 157 2911	CERAMIC 47P J 50V	C6604	403 397 6014	ELECT 1000U M 10V
C271	403 157 2911	CERAMIC 47P J 50V	C6605	403 382 7811	CERAMIC 2.2U K 10V
C276	403 172 6116	CERAMIC 270P J 50V	C6606	403 164 0214	CERAMIC 0.1U Z 25V
C277	403 172 6116	CERAMIC 270P J 50V	C6609	403 368 7316	CERAMIC 10U K 6.3V
C278	403 172 6116	CERAMIC 270P J 50V		403 370 7618	CERAMIC 10U M 6.3V
C4001	403 164 0214	CERAMIC 0.1U Z 25V	C6610	403 398 8215	ELECT 330U M 35V
C4002	403 164 0214	CERAMIC 0.1U Z 25V	C6617	403 164 0214	CERAMIC 0.1U Z 25V
C4003	403 164 0214	CERAMIC 0.1U Z 25V	C6618	403 397 6717	ELECT 470U M 25V
C4004	403 164 0214	CERAMIC 0.1U Z 25V	C6624	403 279 4312	CERAMIC 0.33U K 16V
C4006	403 164 0214	CERAMIC 0.1U Z 25V	C6625	403 391 5112	ELECT 100U M 16V
C4007	403 164 0214	CERAMIC 0.1U Z 25V		403 296 9512	ELECT 100U M 16V
C4008	403 164 0214	CERAMIC 0.1U Z 25V	C6627	403 164 0214	CERAMIC 0.1U Z 25V
C4009	403 164 0214	CERAMIC 0.1U Z 25V	C6628	403 397 6014	ELECT 1000U M 10V
C4011	403 164 0214	CERAMIC 0.1U Z 25V	C6629	403 279 4312	CERAMIC 0.33U K 16V
C4012	403 164 0214	CERAMIC 0.1U Z 25V	C6630	403 178 6318	ELECT 100U M 6.3V
C4013	403 164 0214	CERAMIC 0.1U Z 25V	C6632	403 279 4312	CERAMIC 0.33U K 16V
C4014	403 164 0214	CERAMIC 0.1U Z 25V	C6633	403 398 2114	ELECT 330U M 6.3V
C4016	403 164 0214	CERAMIC 0.1U Z 25V	C6634	403 279 4312	CERAMIC 0.33U K 16V
C4017	403 164 0214	CERAMIC 0.1U Z 25V	C6635	403 178 6318	ELECT 100U M 6.3V
C4018	403 164 0214	CERAMIC 0.1U Z 25V	C6636	403 279 4312	CERAMIC 0.33U K 16V
C4019	403 164 0214	CERAMIC 0.1U Z 25V	C6637	403 204 4417	ELECT 10U M 50V
C4021	403 164 0214	CERAMIC 0.1U Z 25V	C6638	403 164 0214	CERAMIC 0.1U Z 25V
C4022	403 164 0214	CERAMIC 0.1U Z 25V	C6639	403 164 0214	CERAMIC 0.1U Z 25V
C4023	403 164 0214	CERAMIC 0.1U Z 25V	C6640	403 164 0214	CERAMIC 0.1U Z 25V
C4024	403 113 3815	CERAMIC 1000P K 50V	C6641	403 164 0214	CERAMIC 0.1U Z 25V
C4026	403 164 0214	CERAMIC 0.1U Z 25V	C6642	403 164 0214	CERAMIC 0.1U Z 25V
C4027	403 164 0214	CERAMIC 0.1U Z 25V	C701	403 164 0214	CERAMIC 0.1U Z 25V
C4028	403 164 0214	CERAMIC 0.1U Z 25V	C753	403 157 3611	CERAMIC 100P J 50V
C4029	403 113 3815	CERAMIC 1000P K 50V	C754	403 169 2817	CERAMIC 330P J 50V

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C801	403 269 5916	CERAMIC 0.22U K 16V	R1244	401 105 1115	MT-GLAZE 12K JA 1/16W
C803	403 164 0214	CERAMIC 0.1U Z 25V	R1246	401 105 0415	MT-GLAZE 100 JA 1/16W
C804	403 269 5916	CERAMIC 0.22U K 16V	R1247	401 105 0415	MT-GLAZE 100 JA 1/16W
C806	403 269 5916	CERAMIC 0.22U K 16V	R1248	401 105 0613	MT-GLAZE 10K JA 1/16W
C807	403 368 7316	CERAMIC 10U K 6.3V	R1249	401 105 0613	MT-GLAZE 10K JA 1/16W
	403 370 7618	CERAMIC 10U M 6.3V	R132	401 105 0613	MT-GLAZE 10K JA 1/16W
C808	403 269 5916	CERAMIC 0.22U K 16V	R141	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
C809	403 269 5916	CERAMIC 0.22U K 16V	R142	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
RESISTOR			R143	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R001	401 105 4611	MT-GLAZE 3.9K JA 1/16W	R144	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R002	401 105 4611	MT-GLAZE 3.9K JA 1/16W	R145	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R003	401 105 2013	MT-GLAZE 1.8K JA 1/16W	R146	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R004	401 105 2013	MT-GLAZE 1.8K JA 1/16W	R147	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R007	401 259 1511	MT-GLAZE 2.2 JA 1/3W	R148	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R008	401 259 1511	MT-GLAZE 2.2 JA 1/3W	R1606	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R011	401 105 4017	MT-GLAZE 330 JA 1/16W	R1607	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R012	401 105 0613	MT-GLAZE 10K JA 1/16W	R1608	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R013	401 258 8214	MT-GLAZE 680 JA 1/3W	R1609	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R015	401 105 5410	MT-GLAZE 47K JA 1/16W	R1611	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R016	401 105 0613	MT-GLAZE 10K JA 1/16W	R1613	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R022	401 258 8214	MT-GLAZE 680 JA 1/3W	R1801	645 036 3894	INDUCTOR, 220 OHM
R1001	401 105 1412	MT-GLAZE 150 JA 1/16W	R1802	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R1002	401 105 1412	MT-GLAZE 150 JA 1/16W	R1803	645 036 3894	INDUCTOR, 220 OHM
R1007	401 260 8417	MT-GLAZE 22 JA 1/3W	R1804	645 036 3894	INDUCTOR, 220 OHM
R1009	401 105 2815	MT-GLAZE 2.2K JA 1/16W	R1806	645 036 3894	INDUCTOR, 220 OHM
R101	401 105 0415	MT-GLAZE 100 JA 1/16W	R1807	645 036 3894	INDUCTOR, 220 OHM
R1011	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R1808	645 036 3894	INDUCTOR, 220 OHM
R1014	401 105 2815	MT-GLAZE 2.2K JA 1/16W	R1809	645 036 3894	INDUCTOR, 220 OHM
R102	401 105 0415	MT-GLAZE 100 JA 1/16W	R1811	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R1021	401 105 1412	MT-GLAZE 150 JA 1/16W	R1812	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R1022	401 105 1412	MT-GLAZE 150 JA 1/16W	R1813	645 036 3894	INDUCTOR, 220 OHM
R1028	401 105 2815	MT-GLAZE 2.2K JA 1/16W	R1814	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R1029	401 105 2815	MT-GLAZE 2.2K JA 1/16W	R1816	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R103	401 105 4710	MT-GLAZE 39K JA 1/16W	R1817	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R1032	401 105 4116	MT-GLAZE 3.3K JA 1/16W	R1818	645 036 3894	INDUCTOR, 220 OHM
R1036	401 113 4412	MT-GLAZE 75 JA 1/16W	R1819	645 036 3894	INDUCTOR, 220 OHM
R1038	401 113 4412	MT-GLAZE 75 JA 1/16W	R1820	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R104	401 105 1115	MT-GLAZE 12K JA 1/16W	R2001	401 105 0415	MT-GLAZE 100 JA 1/16W
R1041	401 105 0415	MT-GLAZE 100 JA 1/16W	R2002	401 105 0415	MT-GLAZE 100 JA 1/16W
R1042	401 105 0415	MT-GLAZE 100 JA 1/16W	R2003	401 105 0415	MT-GLAZE 100 JA 1/16W
R1043	401 105 0415	MT-GLAZE 100 JA 1/16W	R2004	401 105 0415	MT-GLAZE 100 JA 1/16W
R1053	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R2006	401 105 0415	MT-GLAZE 100 JA 1/16W
R1054	401 105 1412	MT-GLAZE 150 JA 1/16W	R2007	401 105 0415	MT-GLAZE 100 JA 1/16W
R1055	401 105 1412	MT-GLAZE 150 JA 1/16W	R2008	401 105 0415	MT-GLAZE 100 JA 1/16W
R1056	401 105 0613	MT-GLAZE 10K JA 1/16W	R2009	401 105 0415	MT-GLAZE 100 JA 1/16W
R107	401 105 3416	MT-GLAZE 27K JA 1/16W	R201	401 105 0316	MT-GLAZE 10 JA 1/16W
R108	401 105 3416	MT-GLAZE 27K JA 1/16W	R202	401 105 3416	MT-GLAZE 27K JA 1/16W
R109	401 105 2617	MT-GLAZE 22 JA 1/16W	R203	401 105 0613	MT-GLAZE 10K JA 1/16W
R110	401 105 4215	MT-GLAZE 33K JA 1/16W	R204	401 105 0415	MT-GLAZE 100 JA 1/16W
R111	401 105 5113	MT-GLAZE 47 JA 1/16W	R205	401 105 0415	MT-GLAZE 100 JA 1/16W
R1203	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R206	401 105 0415	MT-GLAZE 100 JA 1/16W
R1204	401 105 0613	MT-GLAZE 10K JA 1/16W	R208	401 105 0415	MT-GLAZE 100 JA 1/16W
R1205	401 105 0613	MT-GLAZE 10K JA 1/16W	R209	401 105 4512	MT-GLAZE 390 JA 1/16W
R1206	401 105 0613	MT-GLAZE 10K JA 1/16W	R214	401 105 1115	MT-GLAZE 12K JA 1/16W
R1208	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R215	401 105 1115	MT-GLAZE 12K JA 1/16W
R122	401 105 6516	MT-GLAZE 680 JA 1/16W	R216	401 105 6615	MT-GLAZE 6.8K JA 1/16W
R1228	401 105 1412	MT-GLAZE 150 JA 1/16W	R217	401 105 6615	MT-GLAZE 6.8K JA 1/16W
R1229	401 105 1412	MT-GLAZE 150 JA 1/16W	R218	401 105 0712	MT-GLAZE 100K JA 1/16W
R1231	401 105 0415	MT-GLAZE 100 JA 1/16W	R219	401 105 8015	MT-GLAZE 1M JA 1/16W
R1232	401 105 6615	MT-GLAZE 6.8K JA 1/16W	R221	401 235 7018	MT-GLAZE 39K FA 1/16W
R1233	401 105 6615	MT-GLAZE 6.8K JA 1/16W	R222	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R1234	401 105 1115	MT-GLAZE 12K JA 1/16W	R223	401 105 0316	MT-GLAZE 10 JA 1/16W
R1235	401 105 1115	MT-GLAZE 12K JA 1/16W	R224	401 105 0613	MT-GLAZE 10K JA 1/16W
R1241	401 105 6615	MT-GLAZE 6.8K JA 1/16W	R226	401 105 5410	MT-GLAZE 47K JA 1/16W
R1242	401 105 6615	MT-GLAZE 6.8K JA 1/16W	R227	401 105 1115	MT-GLAZE 12K JA 1/16W
R1243	401 105 1115	MT-GLAZE 12K JA 1/16W	R228	401 105 0514	MT-GLAZE 1K JA 1/16W
			R231	401 105 5311	MT-GLAZE 4.7K JA 1/16W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R232	401 105 0613	MT-GLAZE 10K JA 1/16W	R6630	401 230 2513	MT-GLAZE 1K FA 1/16W
R233	401 148 6016	MT-GLAZE 2.2 JA 1/16W	R6631	401 218 4416	MT-GLAZE 1.2K FA 1/16W
R234	401 148 6016	MT-GLAZE 2.2 JA 1/16W	R6638	401 230 4616	MT-GLAZE 560 JA 1W
R236	401 148 6016	MT-GLAZE 2.2 JA 1/16W	R6639	401 230 4616	MT-GLAZE 560 JA 1W
R237	401 148 6016	MT-GLAZE 2.2 JA 1/16W	R6640	401 105 0712	MT-GLAZE 100K JA 1/16W
R238	401 105 0613	MT-GLAZE 10K JA 1/16W	R6641	401 105 4215	MT-GLAZE 33K JA 1/16W
R239	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R6642	401 105 4215	MT-GLAZE 33K JA 1/16W
R243	401 036 9617	MT-GLAZE 56 JA 1/8W	R6643	401 230 4616	MT-GLAZE 560 JA 1W
R244	401 105 0415	MT-GLAZE 100 JA 1/16W	R6644	401 230 4616	MT-GLAZE 560 JA 1W
R246	401 105 0415	MT-GLAZE 100 JA 1/16W	R6647	401 247 0212	MT-GLAZE 3.9K FA 1/16W
R247	401 105 0415	MT-GLAZE 100 JA 1/16W	R6648	401 230 8911	MT-GLAZE 390 FA 1/16W
R256	401 113 4719	MT-GLAZE 130 JA 1/16W	R6649	401 218 4416	MT-GLAZE 1.2K FA 1/16W
R257	401 113 4719	MT-GLAZE 130 JA 1/16W	R6650	401 234 4711	MT-GLAZE 3.3 JA 1W
R258	401 113 4719	MT-GLAZE 130 JA 1/16W	R6653	401 105 0613	MT-GLAZE 10K JA 1/16W
R259	401 113 4412	MT-GLAZE 75 JA 1/16W	R6654	401 105 4215	MT-GLAZE 33K JA 1/16W
R261	401 113 4412	MT-GLAZE 75 JA 1/16W	R6655	401 105 4215	MT-GLAZE 33K JA 1/16W
R262	401 113 4412	MT-GLAZE 75 JA 1/16W	R6658	401 258 7514	MT-GLAZE 12 JA 1/3W
R4001	401 105 5113	MT-GLAZE 47 JA 1/16W	R6659	401 285 1615	MT-GLAZE 15 JA 1/3W
R4002	401 105 0613	MT-GLAZE 10K JA 1/16W	R6660	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R4006	401 105 3317	MT-GLAZE 2.7K JA 1/16W	R6661	401 217 3816	MT-GLAZE 27K FA 1/16W
R4007	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R6662	401 217 5414	MT-GLAZE 47K FA 1/16W
R4009	401 105 0613	MT-GLAZE 10K JA 1/16W	R6663	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R401	401 105 2815	MT-GLAZE 2.2K JA 1/16W	R6669	401 105 0613	MT-GLAZE 10K JA 1/16W
R4011	401 105 0613	MT-GLAZE 10K JA 1/16W	R6670	401 105 4215	MT-GLAZE 33K JA 1/16W
R4012	401 105 7315	MT-GLAZE 820 JA 1/16W	R6671	401 105 4215	MT-GLAZE 33K JA 1/16W
R4013	401 105 0613	MT-GLAZE 10K JA 1/16W	R702	401 105 0514	MT-GLAZE 1K JA 1/16W
R4014	401 105 2815	MT-GLAZE 2.2K JA 1/16W	R703	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4016	401 105 1511	MT-GLAZE 1.5K JA 1/16W	R705	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4017	401 105 1610	MT-GLAZE 15K JA 1/16W	R706	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
R4018	401 105 1610	MT-GLAZE 15K JA 1/16W	R707	401 037 5014	MT-GLAZE 0.000 ZA 1/10W
R4023	401 105 7513	MT-GLAZE 82K JA 1/16W	R801	401 105 0415	MT-GLAZE 100 JA 1/16W
R4026	401 105 5113	MT-GLAZE 47 JA 1/16W	R802	401 105 0613	MT-GLAZE 10K JA 1/16W
R4027	401 105 5113	MT-GLAZE 47 JA 1/16W	R803	401 105 0415	MT-GLAZE 100 JA 1/16W
R4028	401 105 0316	MT-GLAZE 10 JA 1/16W	R805	401 105 0415	MT-GLAZE 100 JA 1/16W
R4029	401 105 0316	MT-GLAZE 10 JA 1/16W	R806	401 105 0613	MT-GLAZE 10K JA 1/16W
R4031	401 105 0316	MT-GLAZE 10 JA 1/16W	R808	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R4032	401 105 5113	MT-GLAZE 47 JA 1/16W	R809	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R4033	401 105 5113	MT-GLAZE 47 JA 1/16W	R810	401 105 0415	MT-GLAZE 100 JA 1/16W
R4034	401 105 5113	MT-GLAZE 47 JA 1/16W	R811	401 105 4215	MT-GLAZE 33K JA 1/16W
R4035	401 105 2716	MT-GLAZE 220 JA 1/16W	R812	401 105 0613	MT-GLAZE 10K JA 1/16W
R4036	401 105 0613	MT-GLAZE 10K JA 1/16W	R813	401 105 0415	MT-GLAZE 100 JA 1/16W
R4037	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R814	401 105 0415	MT-GLAZE 100 JA 1/16W
R4038	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R816	401 105 0415	MT-GLAZE 100 JA 1/16W
R4039	401 105 0613	MT-GLAZE 10K JA 1/16W	R821	401 105 0415	MT-GLAZE 100 JA 1/16W
R4040	401 105 0613	MT-GLAZE 10K JA 1/16W	R822	401 105 0613	MT-GLAZE 10K JA 1/16W
R4041	401 105 0712	MT-GLAZE 100K JA 1/16W	R823	401 105 0613	MT-GLAZE 10K JA 1/16W
R4042	401 105 1610	MT-GLAZE 15K JA 1/16W	R824	401 105 1511	MT-GLAZE 1.5K JA 1/16W
R4043	401 105 6615	MT-GLAZE 6.8K JA 1/16W	R826	401 105 0316	MT-GLAZE 10 JA 1/16W
R4045	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R827	401 105 0415	MT-GLAZE 100 JA 1/16W
R4046	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	R828	401 105 0415	MT-GLAZE 100 JA 1/16W
R4047	401 105 5311	MT-GLAZE 4.7K JA 1/16W	R829	401 105 0415	MT-GLAZE 100 JA 1/16W
R6600	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R831	401 105 4116	MT-GLAZE 3.3K JA 1/16W
R6601	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R832	401 105 0415	MT-GLAZE 100 JA 1/16W
R6604	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R833	401 105 0316	MT-GLAZE 10 JA 1/16W
R6605	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R834	401 105 2716	MT-GLAZE 220 JA 1/16W
R6608	401 105 3911	MT-GLAZE 33 JA 1/16W	R836	401 105 0316	MT-GLAZE 10 JA 1/16W
R6609	401 217 3915	MT-GLAZE 3.3K FA 1/16W	R837	401 105 0316	MT-GLAZE 10 JA 1/16W
R6610	401 105 3218	MT-GLAZE 270 JA 1/16W	R838	401 105 0316	MT-GLAZE 10 JA 1/16W
R6611	401 218 4416	MT-GLAZE 1.2K FA 1/16W	R839	401 105 0316	MT-GLAZE 10 JA 1/16W
R6613	401 105 4215	MT-GLAZE 33K JA 1/16W	R841	401 105 4215	MT-GLAZE 33K JA 1/16W
R6614	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R842	401 105 4215	MT-GLAZE 33K JA 1/16W
R6615	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R843	401 105 0613	MT-GLAZE 10K JA 1/16W
R6620	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R844	401 105 0613	MT-GLAZE 10K JA 1/16W
R6621	401 035 4118	MT-GLAZE 0.000 ZA 1/8W	R846	401 105 5311	MT-GLAZE 4.7K JA 1/16W
R6625	401 105 5113	MT-GLAZE 47 JA 1/16W	R851	401 105 0415	MT-GLAZE 100 JA 1/16W
R6628	401 105 4215	MT-GLAZE 33K JA 1/16W	R852	401 105 0415	MT-GLAZE 100 JA 1/16W
R6629	401 212 0018	MT-GLAZE 15K FA 1/16W	R853	401 105 0415	MT-GLAZE 100 JA 1/16W

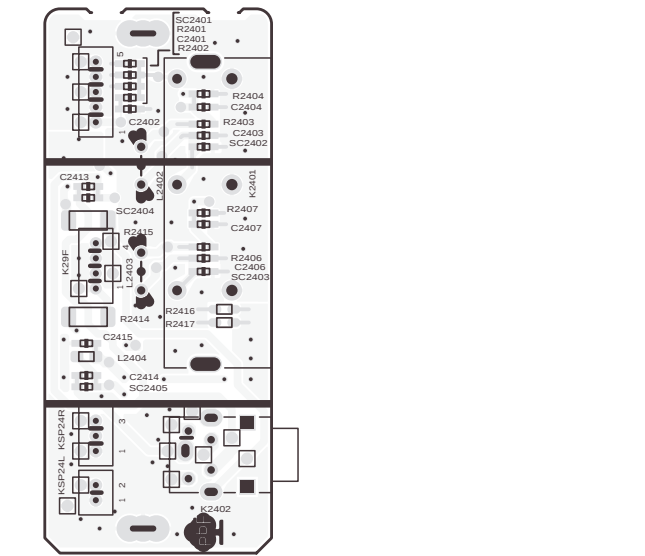
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R854	401 105 0415	MT-GLAZE 100 JA 1/16W	D1005	407 206 5618	ZENER DIODE UDZS-TE-1710B
R855	401 105 0415	MT-GLAZE 100 JA 1/16W	D1009	407 206 5618	ZENER DIODE UDZS-TE-1710B
R856	401 105 0415	MT-GLAZE 100 JA 1/16W	D101	407 149 0817	DIODE 1SS355-TE-17
R867	401 105 2815	MT-GLAZE 2.2K JA 1/16W	D102	407 149 0817	DIODE 1SS355-TE-17
R892	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	D1020	407 206 5618	ZENER DIODE UDZS-TE-1710B
R893	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	D1021	407 206 5618	ZENER DIODE UDZS-TE-1710B
R894	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	D1022	407 206 5618	ZENER DIODE UDZS-TE-1710B
RB4001	645 037 0670	R-NETWORK 47X4 0.063W	D103	407 149 0817	DIODE 1SS355-TE-17
	645 018 8930	R-NETWORK 47X4 1/16W	D104	407 228 4910	ZENER DIODE UDZS33B-TE-17
RB4002	645 037 0670	R-NETWORK 47X4 0.063W	D1202	407 149 0817	DIODE 1SS355-TE-17
	645 018 8930	R-NETWORK 47X4 1/16W	D1231	407 206 5618	ZENER DIODE UDZS-TE-1710B
RB4003	645 037 0670	R-NETWORK 47X4 0.063W	D201	407 206 5618	ZENER DIODE UDZS-TE-1710B
	645 018 8930	R-NETWORK 47X4 1/16W	D202	407 206 5618	ZENER DIODE UDZS-TE-1710B
RB4004	645 037 0670	R-NETWORK 47X4 0.063W	D4001	407 149 0817	DIODE 1SS355-TE-17
	645 018 8930	R-NETWORK 47X4 1/16W	D6600	407 213 8520	DIODE SPB-G56SVR
RB4006	645 037 0670	R-NETWORK 47X4 0.063W	D6607	407 124 0719	DIODE SFPB-64-V
	645 018 8930	R-NETWORK 47X4 1/16W	D6608	407 149 0817	DIODE 1SS355-TE-17
RB4007	645 037 0670	R-NETWORK 47X4 0.063W	D6611	407 149 0817	DIODE 1SS355-TE-17
	645 018 8930	R-NETWORK 47X4 1/16W	D6613	407 149 0817	DIODE 1SS355-TE-17
			D6617	407 206 6318	ZD UDZS-TE-175.1B
			D6618	407 149 0817	DIODE 1SS355-TE-17
			D6619	407 213 8520	DIODE SPB-G56SVR
			D802	407 206 5618	ZENER DIODE UDZS-TE-1710B
COIL			MISCELLANEOUS		
L1002	645 036 3894	INDUCTOR,220 OHM	A101A	645 080 8555	TUNER,U/V
L101	645 049 6875	IMPEDANCE,1000 OHM P	JS1001	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L102	645 075 7419	INDUCTOR,390U J	JS1003	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L103	645 059 2782	INDUCTOR,47U M	JS101	401 148 6016	MT-GLAZE 2.2 JA 1/16W
L1600	645 075 9703	INDUCTOR,15U M	JS102	401 105 2617	MT-GLAZE 22 JA 1/16W
L2001	645 049 6875	IMPEDANCE,1000 OHM P	JS1205	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L201	645 049 6875	IMPEDANCE,1000 OHM P	JS1206	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L202	645 049 6875	IMPEDANCE,1000 OHM P	JS1207	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L203	645 049 6875	IMPEDANCE,1000 OHM P	JS122	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L204	645 036 3894	INDUCTOR,220 OHM	JS1221	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L206	645 049 6875	IMPEDANCE,1000 OHM P	JS1222	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L207	645 049 6875	IMPEDANCE,1000 OHM P	JS1223	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L208	645 049 6875	IMPEDANCE,1000 OHM P	JS1231	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L209	645 049 6875	IMPEDANCE,1000 OHM P	JS1251	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L211	645 049 6875	IMPEDANCE,1000 OHM P	JS1252	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L212	645 049 6875	IMPEDANCE,1000 OHM P	JS1253	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L213	645 049 6875	IMPEDANCE,1000 OHM P	JS130	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L214	645 049 6875	IMPEDANCE,1000 OHM P	JS131	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L216	645 049 6875	IMPEDANCE,1000 OHM P	JS1601	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L4001	645 049 6875	IMPEDANCE,1000 OHM P	JS201	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L4002	645 049 6875	IMPEDANCE,1000 OHM P	JS202	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L4003	645 049 6875	IMPEDANCE,1000 OHM P	JS203	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L4004	645 049 6875	IMPEDANCE,1000 OHM P	JS4001	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L4006	645 049 6875	IMPEDANCE,1000 OHM P	JS4002	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L4007	645 049 6875	IMPEDANCE,1000 OHM P	JS801	401 105 7919	MT-GLAZE 0.000 ZA 1/16W
L4008	645 049 6875	IMPEDANCE,1000 OHM P	K1002	645 073 5813	JACK,RCA-3
L4009	645 049 6875	IMPEDANCE,1000 OHM P	K1004	645 076 2284	TERMINAL, BOARD
L4011	645 049 6875	IMPEDANCE,1000 OHM P	K1005	645 076 2291	JACK,RCA-4
L6600	645 077 5840	INDUCTOR,1000 OHM	K7J	652 001 3988	SOCKET,DC
L6601	645 075 0502	INDUCTOR,100U M	KCP1	645 045 8484	SOCKET,DIN 9P
L6604	645 075 1028	INDUCTOR,47U M	X121A	421 011 4304	SAW F TSF5235G
L6606	645 075 9710	INDUCTOR,47U M		421 012 0503	SAW F TSF5235PL
L700	645 068 9680	IMPEDANCE,600 OHM P	X201	645 024 7484	OSC,CRYSTAL 24.576MHZ
L701	645 068 9680	IMPEDANCE,600 OHM P	X4001	645 024 7484	OSC,CRYSTAL 24.576MHZ
L702	645 068 9680	IMPEDANCE,600 OHM P	XL701	645 068 8317	FILTER,EMI 100MHZ
L703	645 068 9680	IMPEDANCE,600 OHM P	XL702	645 068 8317	FILTER,EMI 100MHZ
L704	645 068 9680	IMPEDANCE,600 OHM P	XL703	645 068 8317	FILTER,EMI 100MHZ
L801	401 105 7919	MT-GLAZE 0.000 ZA 1/16W	XL704	645 068 8317	FILTER,EMI 100MHZ
L802	645 049 6875	IMPEDANCE,1000 OHM P	XL705	645 044 9031	FILTER,EMI 2200PF
L803	645 049 6875	IMPEDANCE,1000 OHM P	XL706	645 044 9031	FILTER,EMI 2200PF
L804	645 049 6875	IMPEDANCE,1000 OHM P			
L806	645 049 6875	IMPEDANCE,1000 OHM P			
DIODE					
D1003	407 206 5618	ZENER DIODE UDZS-TE-1710B			
D1004	407 206 5618	ZENER DIODE UDZS-TE-1710B			

To ASSY,PWB,KEY (K29C)

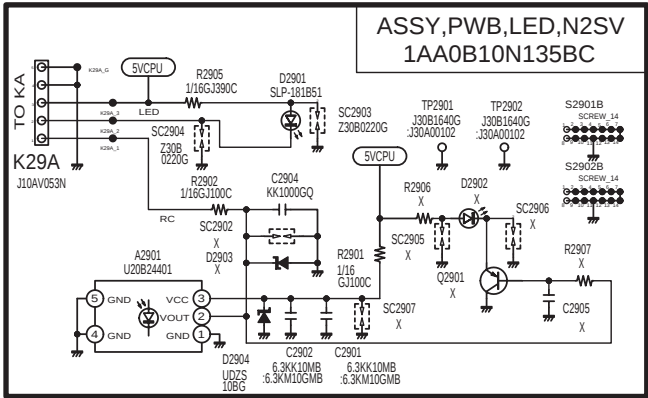
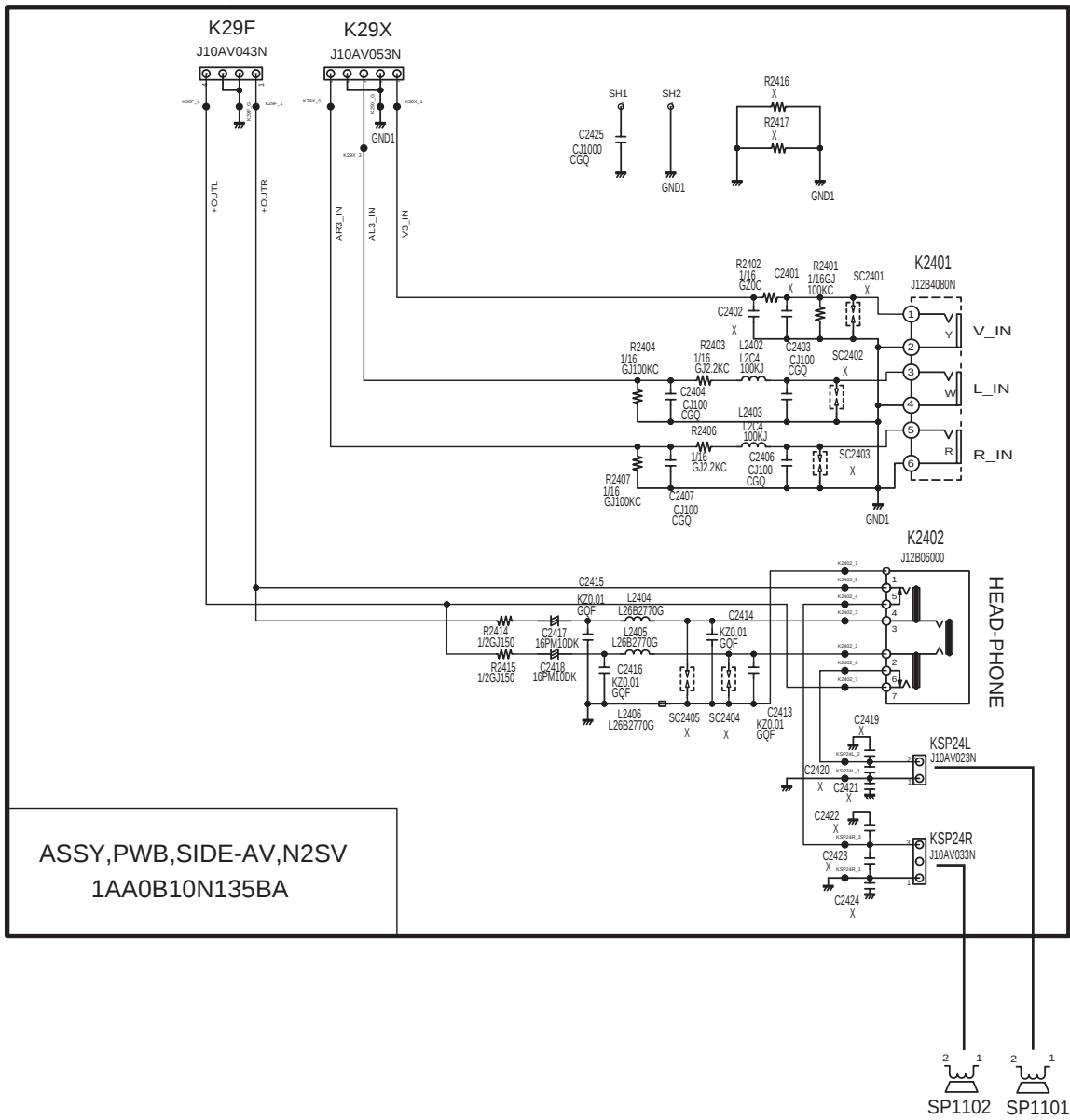
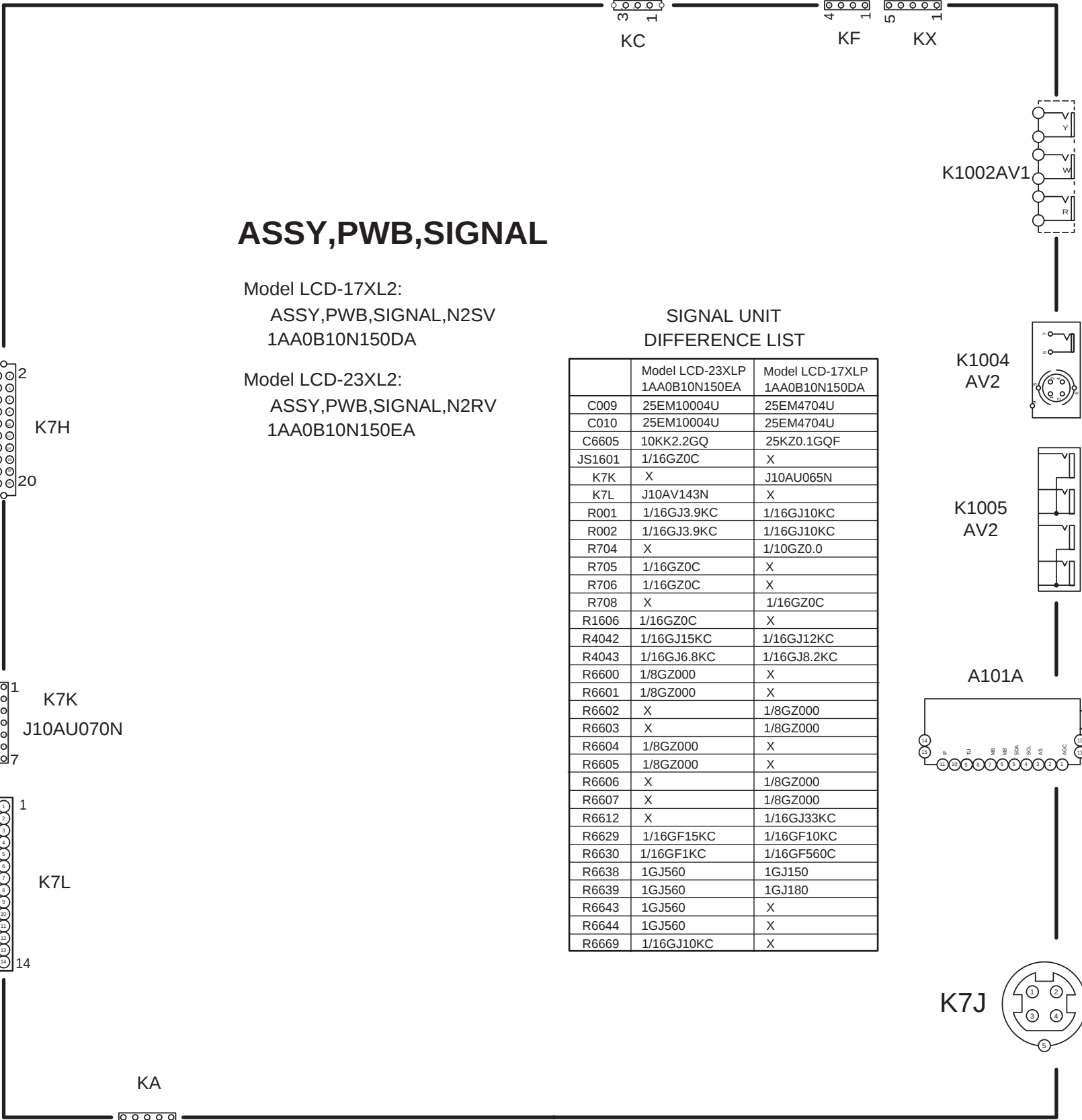
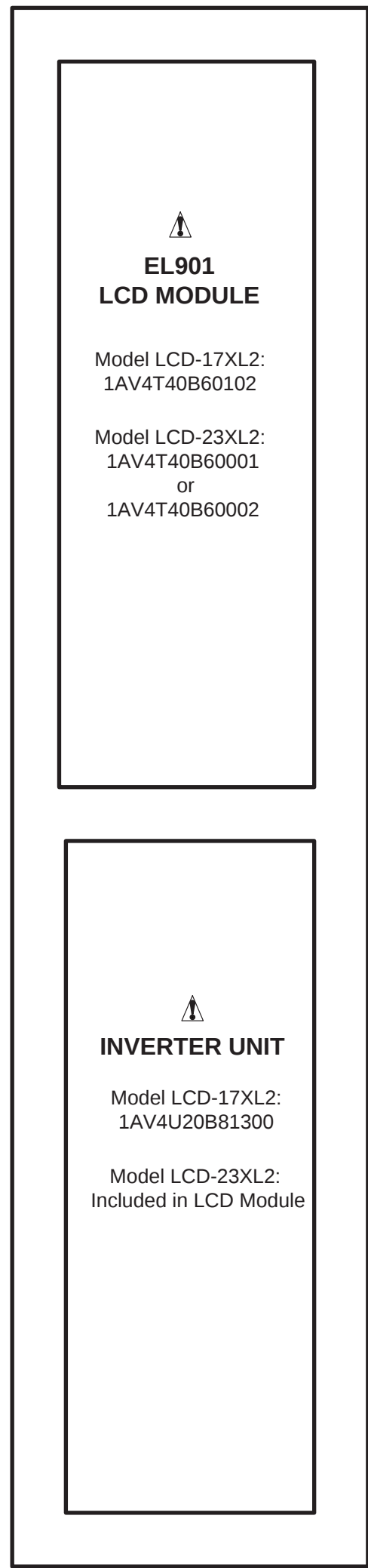


ASSY, PWB, SIGNAL (Solder Side)









COLOUR TELEVISION

UE1-B

CHASSIS SERIES

SERVICE REF. NO. LCD-17XL2-00
LCD-23XL2-00

PRODUCT SAFETY NOTICE:

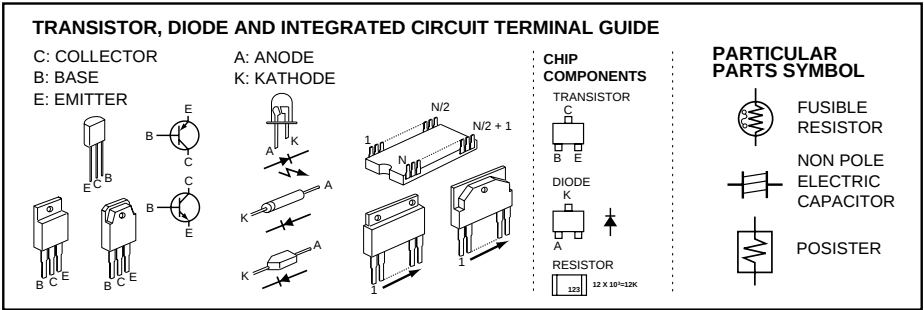
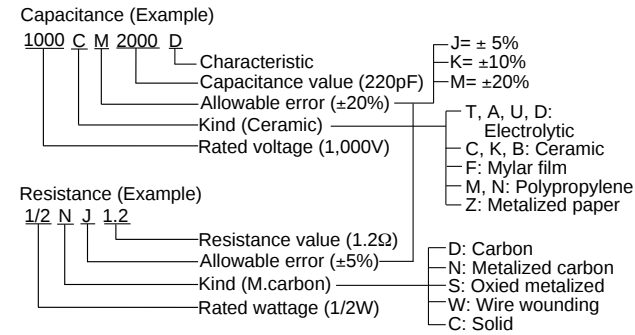
Product safety should be considered when a component replacement is made in any area of a receiver.

Components indicated by a mark Δ in this circuit diagram show components whose values have special significance to product safety. It is particularly recommended that only parts specified on the part service manual be used for components replacement pointed out by the mark.

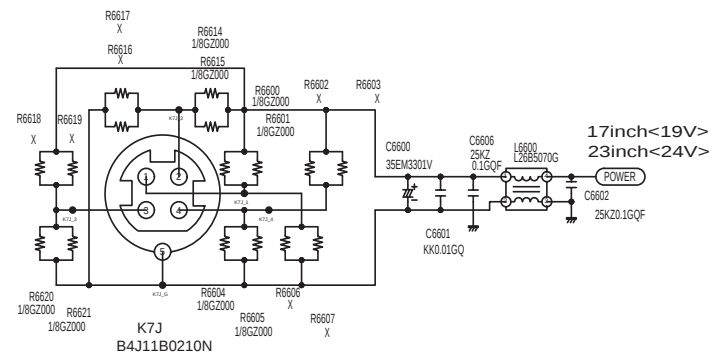
CIRCUIT DIAGRAM NOTICE:

- All resistance value are in ohms, K=1,000, M=1,000,000.
- All resistance rated wattages are 1/6W unless otherwise noted.
- Excepting electrolytic capacitors, all capacitance values of less than 1are expressed in μ F and more than 1 are μ F.
- All capacitance rated voltages are 50V unless otherwise noted.
- All inductance values are in μ H.
- This circuit diagram covers a basic or representative chassis only. There may be some components or partial circuit differences between the actual chassis and the circuit diagram.
- Parts specified with "X" are not installed in this model.
- Parts specified with "J" are just jumper wires.

9. Expression of capacitance and resistance in circuit diagrme.



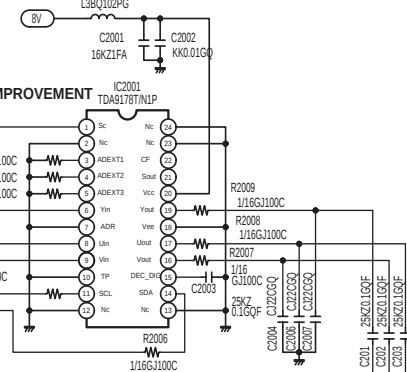
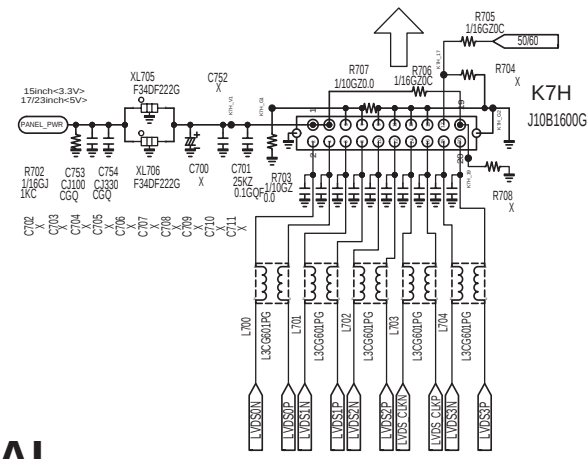
TO LCD PANEL <17/23V>



ASSY,PWB,SIGNAL

Model LCD-17XL2:
ASSY,PWB,SIGNAL,N2SV
1AA0B10N150DA

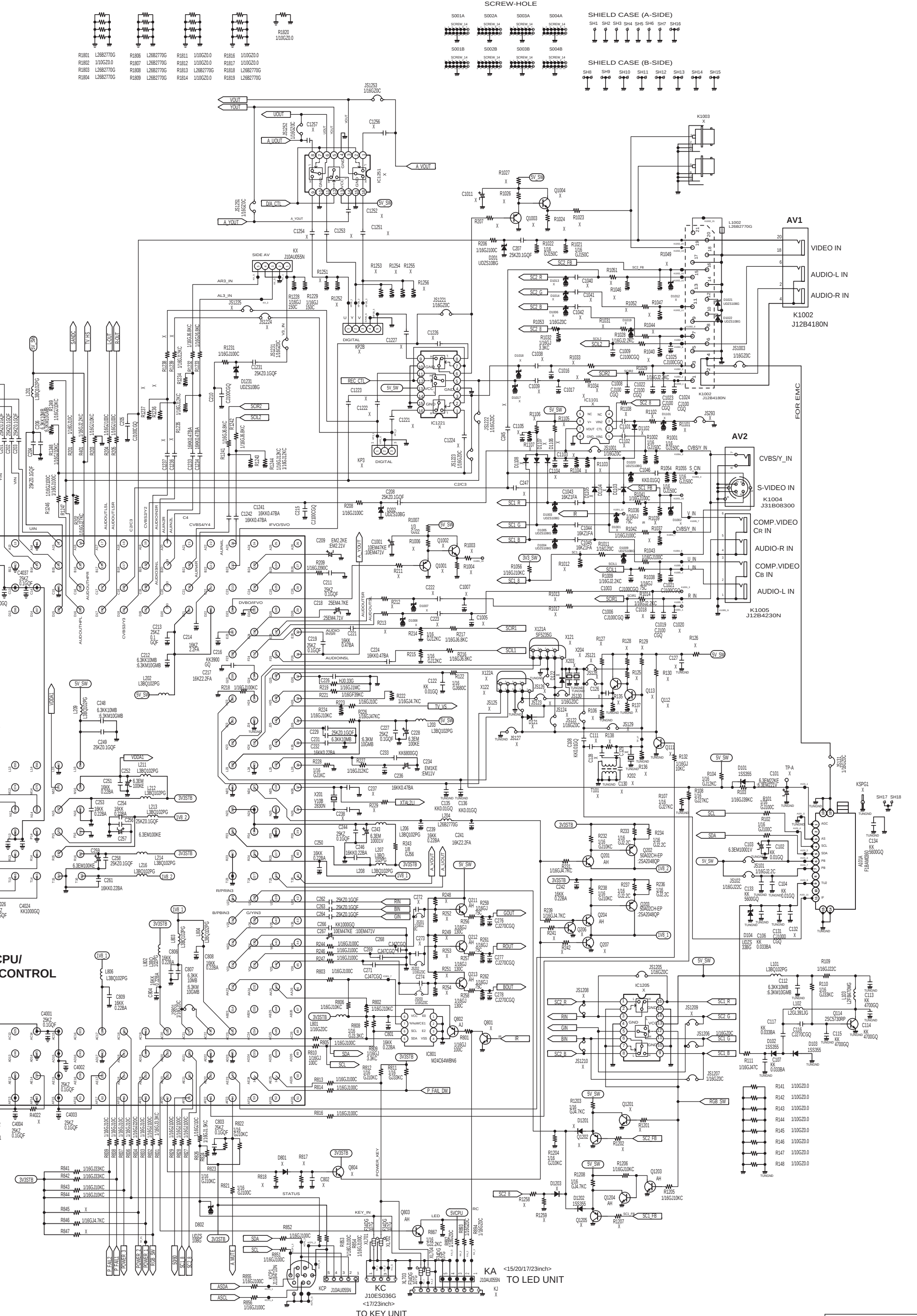
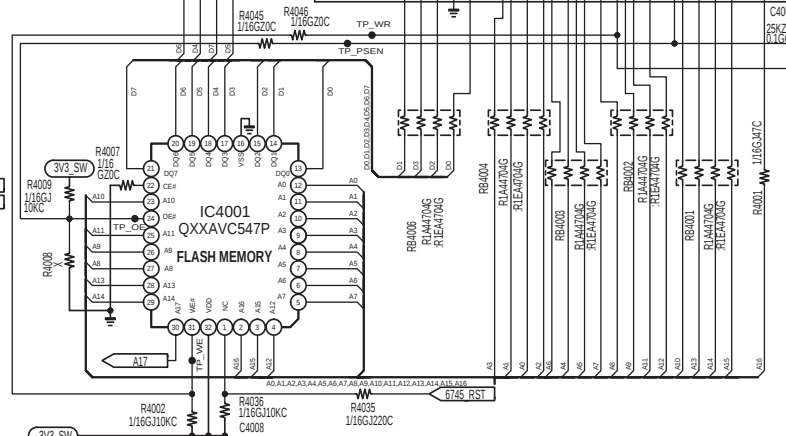
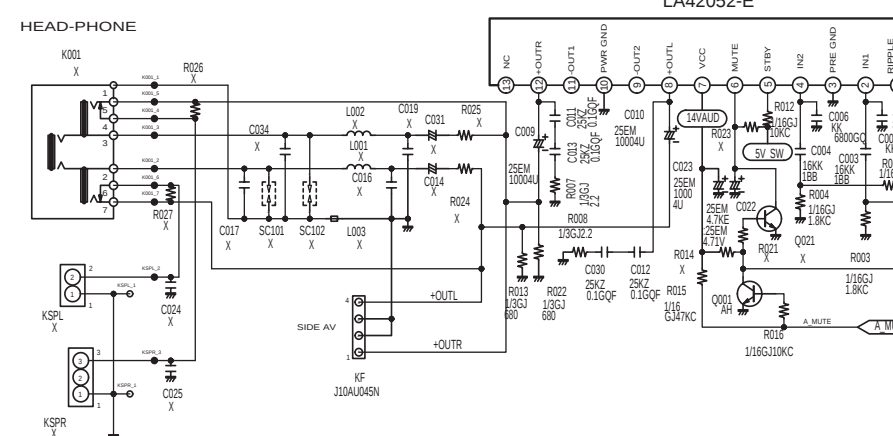
Model LCD-23XL2:
ASSY,PWB,SIGNAL,N2RV
1AA0B10N150EA



<TOP_VIEW>

IC201
QXXAVC725M
IF/VIDEO/CHROMA/CPU/
SCALER/CAPTION/AUDIO CONTROL

IC001
LA42052-E
AUDIO AMP.



N2SV/N2RV