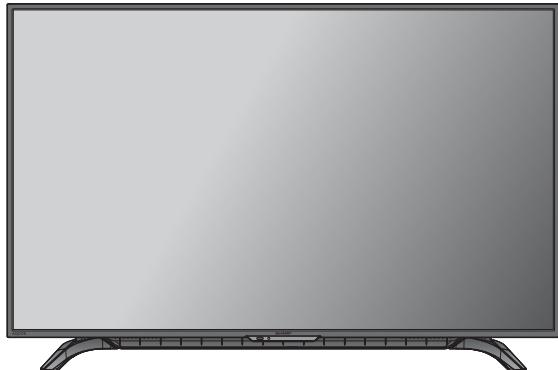


SHARP SERVICE MANUAL

No. S17M082T-C50AD1I



LED BACKLIGHT TV MODEL : 2T-C50AD1I

CONTENTS

SAFETY PRECAUTION

SAFETY PRECAUTION.....i

OUTLINE

MAJOR SERVICES PARTS.....iii

CHAPTER 1. SPECIFICATIONS

[1] SPECIFICATION 1-1

CHAPTER 2. OPERATION MANUAL

[1] OPERATION MANUAL 2-1

CHAPTER 3. DIMENSION

[1] DIMENSION 3-1

CHAPTER 4. ADJUSTMENT

[1] ADJUSTMENT 4-1

CHAPTER 5. TROUBLESHOOTING

[1] TROUBLESHOOTING 5-1

CHAPTER 6. DESCRIPTION OF SCHEMATIC DIAGRAM

[1] DESCRIPTION OF SCHEMATIC DIAGRAM 6-1

CHAPTER 7. REMOVING OF MAJOR PARTS

[1] REMOVING OF MAJOR PARTS 7-1

Parts Guide

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SAFETY PRECAUTION

SAFETY PRECAUTION

SAFETY PRECAUTION

IMPORTANT SERVICE SAFETY PRECAUTION

■ Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the servicing guidelines which follow:

WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

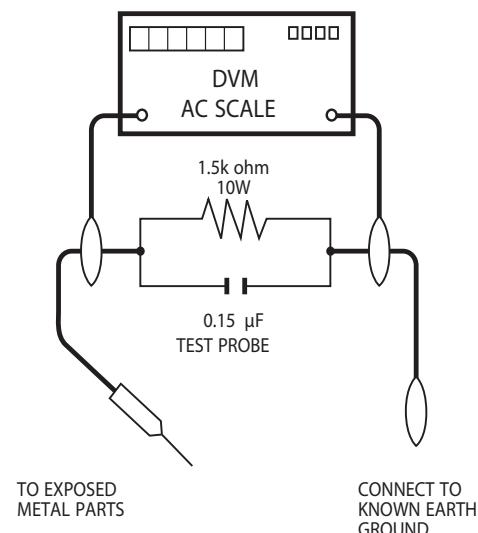
BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

Before returning the receiver to the user, perform the following safety checks:

3. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
4. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
5. To be sure that no shock hazard exists, check for leakage current in the following manner.
 - Plug the AC cord directly into a 110-240 volt AC outlet.
 - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
 - Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.
 - Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)

Any reading of 0.74 Vrms (this corresponds to 0.5 mA rms AC) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



CONNECT TO
KNOWN EARTH
GROUND

SAFETY NOTICE

Many electrical and mechanical parts in LCD colour television have special safety-related characteristics.

These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "▲" and shaded areas in the Replacement Parts List and Schematic Diagrams.

For continued protection, replacement parts must be identical to those used in the original circuit.

The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

PRECAUTIONS FOR USING LEAD-FREE SOLDER

Employing lead-free solder

- "PWBs" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

Example:

L F a

Sn-Ag-Cu

Indicates lead-free solder of tin, silver and copper.

L F a/a

Sn-Ag-Cu

Indicates lead-free solder of tin, silver and copper.

Using lead-free wire solder

- When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.

As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder, if you are not familiar with how to obtain lead-free wire solder or sold

ire solder by 40 °C, we recommend you to use a dedicated soldering bit, contact our service station or service branch in your area.

Soldering

- As the melting point of lead-free solder (Sn-Ag-Cu) is about 220 °C which is higher than the conventional lead solder by 40 °C and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.

Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.

If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.

When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

- Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

PARTS CODE	PRICE RANK	PART DELIVERY	DESCRIPTION
ZHNDAi123250E	BL	J	0.3mm 250g (1roll)
ZHNDAi126500E	BK	J	0.6mm 500g (1roll)
ZHNDAi12801KE	BM	J	1.0mm 1kg (1roll)

OUTLINE

MAJOR SERVICES PARTS

OUTLINE

MAJOR SERVICE PARTS

Ref. No	Part Code	Description	Note
PRINTED WIRING BOARD ASSEMBLIES			
1	DUNTKG895FM01	MAIN UNIT	
1	RDENCA516WJQZ	POWER UNIT	
1	DUNTKG884FM01	LED DRIVER	
1	DUNTKG896FM01	LED IR	
LCD PANEL MODULE UNIT			
1	DSETFG895WE10	PANEL MODULE ASSEMBLY	

CHAPTER 1. SPECIFICATIONS

[1] SPECIFICATION

Spesifikasi

Item	Model	2T-C50AD1I
Ukuran layar		126 cm
Jumlah dot		2.073.600 piksel (1920×1080)
Sistem Warna Video		PAL/SECAM/NTSC 3,58/NTSC 4,43/PAL 60
Fungsi TV	TV-standard	Analog PAL: B/G, D/K, I SECAM: B/G, D/K, K/K ₁ NTSC: M
		Digital DVB-T2
	Penerimaan Saluran	VHF/UHF 44,25–863,25 MHz
		CATV S1–S41 ch (termasuk Hyperband)
	Sistem Penalaan TV	Prasetel Otomatis 99 saluran
STEREO/BILINGUAL		NICAM: B/G, I, D/K A2 stereo: B/G MTS: M
Sudut Pandang		H : 178° V : 178°
Amplifier audio/Speaker		10 W×2 / 9,5×3 cm 2 buah
Terminal	Antena input	Tipe UHF/VHF 75 Ω DIN
	SERVICE ONLY	ϕ 3,5 mm jack
	INPUT 1 (HDMI/ARC)	Input HDMI
	INPUT 2 (HDMI)	Input HDMI
	INPUT 3	VIDEO in, AUDIO in
	AUDIO OUT	AUDIO out, Headphone (Stereo ϕ3.5 mm)
	USB	USB (output DC5V 1.5A)
Bahasa pada layar		Inggris/Bahasa Cina Sederhana/Arab/Prancis/Portugis/Rusia/Persia/Thailand/Vietnam/Bahasa Indonesia/Bahasa Melayu
Kebutuhan daya		AC 110 – 240 V, 50/60 Hz
Konsumsi daya		107 W (0.5 W Standby)
Ukuran	tanpa dudukan	1122(P) × 666 (T) × 74 (L) mm
	dengan dudukan	1122(P) × 708 (T) × 253 (L) mm
Berat tanpa dudukan (dengan dudukan)		11.5 kg (12.0 kg)
Suhu Pengoperasian		0°C – 40°C

- Sebagai bagian dari kebijakan untuk pengembangan berkelanjutan, SHARP berhak untuk membuat perubahan rancangan dan spesifikasi pengembangan produk tanpa pemberitahuan terlebih dahulu. Spesifikasi kinerja yang ditunjukkan unit-unit produksi adalah nilai-nilai nominal dari unit produksi. Ada beberapa perbedaan dari nilai-nilai tersebut untuk setiap unitnya.
- Spesifikasi bisa berbeda tergantung pada negara yang dipilih.

PERHATIAN

- Memasang TV LCD membutuhkan keahlian khusus dan seharusnya hanya dilakukan oleh petugas yang berkualifikasi. Jangan sekalipun mencoba memasang sendiri. SHARP tidak bertanggung jawab atas pemasangan yang tidak tepat atau pemasangan yang mengakibatkan cidera atau kecelakaan serius.
- Bacalah dengan hati-hati petunjuk yang berkaitan dengan braket sebelum memulai memasangnya.

CHAPTER 2. OPERATION MANUAL

[1] OPERATION MANUAL

Memasang dudukan

- Sebelum memasang atau melepaskan dudukan, cabut kabel listrik dari soket listrik.
- Sebelum bekerja, bentangkan kain pada lantai untuk meletakkan televisi di atasnya. Hal ini bertujuan untuk menghindari kerusakan.

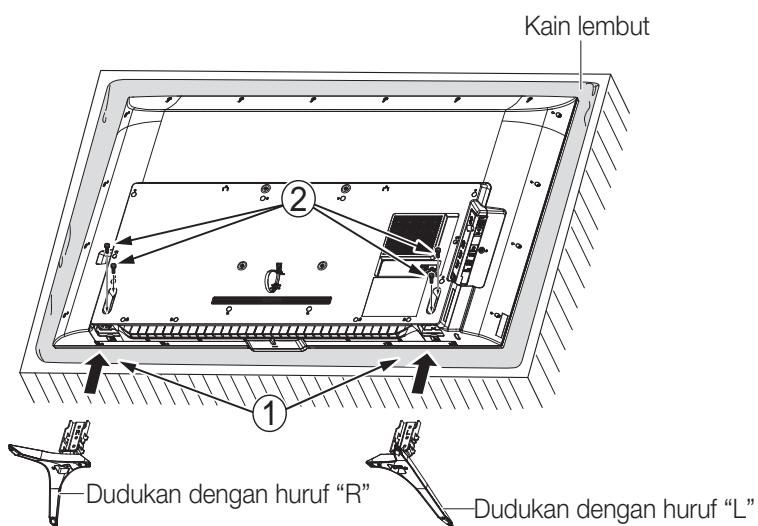
1 Periksa sekrup yang disediakan bersama televisi.

Sekrup (x 4)



2 Pasang dudukan pada dasar dudukan di bawah televisi. (①)

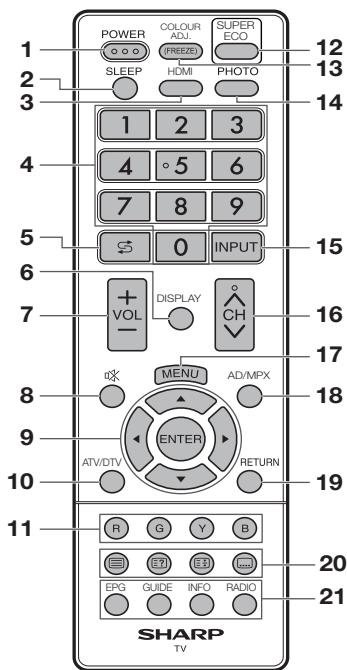
3 Masukkan dan kencangkan sekrup ke dalam lubang yang ada pada bagian belakang TV. (②)



CATATAN

- Untuk melepaskan dudukan, lakukan dengan arah yang berlawanan.
- Jangan memasang atau melepaskan dudukan tanpa memegangnya. Kelalaian dapat menyebabkan jatuhnya dudukan, yang mengakibatkan cedera serius serta kerusakan pada dudukan.

Unit remote kontrol



- 1 POWER (STANDBY/ON)**
Untuk menghidupkan dan mematikan. (Lihat halaman 8.)
- 2 SLEEP**
Mengatur waktu pemadaman.
0 jam. 30 men. → 1 jam. 00 men. → 1 jam. 30 men.
↑ Tidak Aktif ← 2 jam. 30 men. ← 2 jam. 00 men.
- 3 HDMI**
Memilih mode input HDMI.
- 4 0 – 9**
Mengatur saluran.
Mode TELETEXT: Mengatur halaman. (Lihat halaman 19.)
- 5 ⏪ (Mengulang kembali)**
Tekan ⏪ untuk kembali ke saluran yang dipilih sebelumnya atau mode input eksternal.
- 6 DISPLAY**
Menampilkan informasi saluran atau input.
- 7 VOL +/VOL -**
Mengatur volume.
(VOL +) Menaikkan volume.
(VOL -) Menurunkan volume.

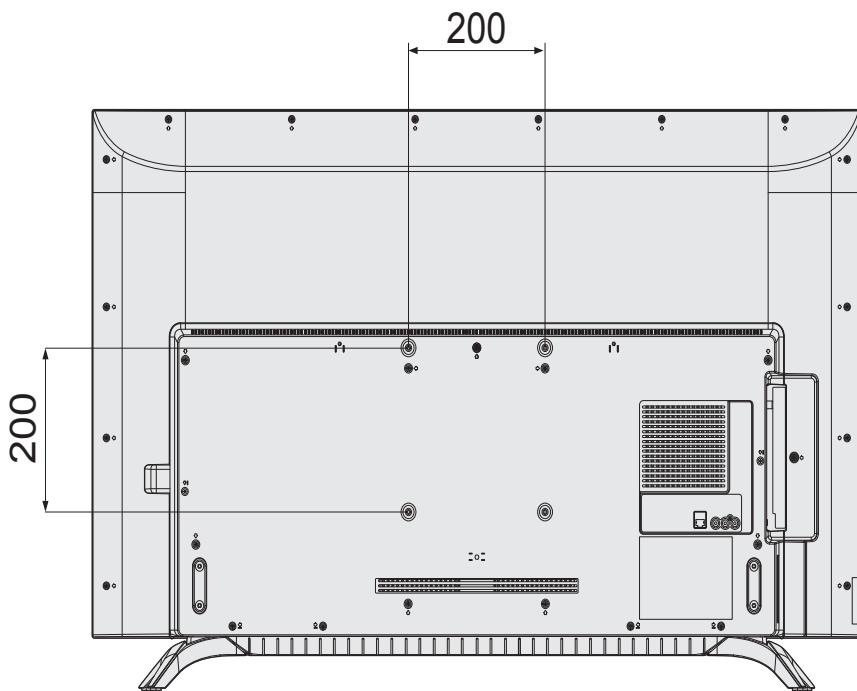
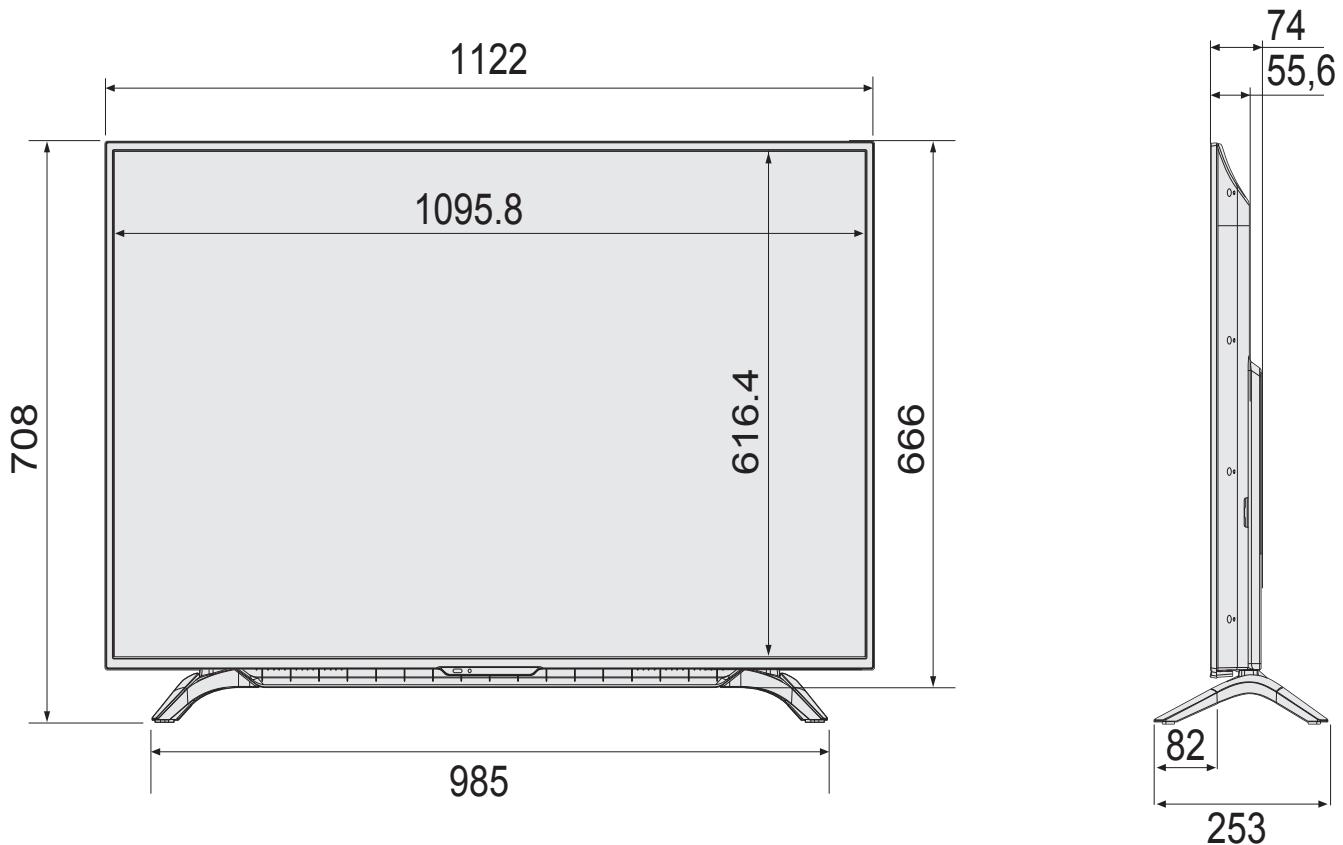
- 8 ⏻ (Diam)**
Tekan ⏻ → Membuat suara menjadi diam.
Tekan ⏻ lagi → Menghidupkan suara lagi.
Mode ini akan dibatalkan setelah 30 menit. Walaupun demikian, televisi tidak tiba-tiba bersuara keras namun diatur pada level 0 otomatis. Untuk meningkatkan level volume, tekan **VOL+**.
- 9 ▲/▼/◀/▶ (Kursor)**
Memilih item yang diinginkan pada layar pengaturan.
ENTER
Untuk menjalankan perintah.
- 10 ATV/DTV**
Tekan untuk mengakses mode TV analog dan digital. (Lihat halaman 17.)
- 11 Warna (Merah/Hijau/Kuning/Biru)**
Tombol berwarna masing-masing digunakan untuk memilih item yang warnanya sama pada layar.
Mode TELETEXT: Memilih halaman. (Lihat halaman 19.)
- 12 SUPER ECO**
Mengurangi kecerahan lampu latar untuk menghemat konsumsi daya. (Lihat halaman 18.)
- 13 COLOUR ADJ. (FREEZE)**
Menghentikan gambar gerak pada layar dan menyesuaikan nada warna pada gambar diam. (Lihat halaman 18.)
- 14 PHOTO**
Menampilkan gambar Anda langsung di layar TV. (Lihat halaman 19.)
- 15 INPUT (SUMBER INPUT)**
Memilih sumber masukan.
- 16 CH ▲/CH ▼**
Mode input TV: Memilih saluran.
(CH ▲) Meningkatkan jumlah saluran.
(CH ▼) Menurunkan jumlah saluran.
Mode TELETEXT: Memilih halaman. (Lihat halaman 19.)
- 17 MENU**
Tampilkan layar menu.
- 18 AD/MPX**
Memilih mode suara multiplek dan deskripsi audio.
- 19 RETURN**
Mode MENU: Kembali ke layar menu sebelumnya.
- 20 (TELETEXT), (INFO) (Menampilkan informasi tersembunyi untuk TELETEXT), (Tahan), (SUBTITLE) (Tahan), (SUBTITLE) (Menampilkan informasi tersembunyi untuk TELETEXT)**
Digunakan untuk mode TELETEXT. (Lihat halaman 19.)
- 21 EPG**
Mode DTV: Untuk menampilkan layar EPG (Panduan Program Elektronik). (Lihat halaman 18.)
GUIDE
Mode DTV: Menampilkan daftar saluran program. (Lihat halaman 15.)
INFO
Mode DTV: Menampilkan informasi program. (Lihat halaman 17.)
RADIO
Tekan untuk mengakses mode RADIO. (Lihat halaman 17.)

CHAPTER 3. DIMENSION

[1] DIMENSION

Gambar Dimensi

Satuan : mm



CHAPTER 4. ADJUSTMENT

ADJUSTMENT

Single key Specification

[KEYPAD POSITION]

TV BACK VIEW



Sub-menu display on TV screen(10s timeout)
When reach timeout, close OSD only, not execute anything



[KEYPAD CONTROL]

sub screen behaviors

No OSD displayed	During sub-menu display	Input highlighted	CH Up highlighted	CH Down highlighted	Vol Up highlighted	Vol Down highlighted
Single press	Power off	Scroll selection from top	Move cursor down	Move cursor down	Move cursor down	Move cursor down
Hold pressed(3second)	Sub-menu displayed	depend on selected item	Display Input menu	Change channel	Volume bar display	Volume bar display
Remark	In the OSD displayed, key act as power on/off			After change channel, during channel call display, press panel button with change channel up/down	During volume bar display, press panel key will volume up/down	

<input, volume screen behavior>

During Input displayed	Volume bar displayed	Channel call displayed
Single press	Scroll selection from top	Inc/Dec volume 1 step
Hold pressed(3second)	Select selected input	Inc/Dec volume continuous

TV power on by panel power key - (only panel power key case to wake up)

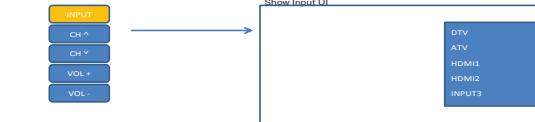


After SHARP logo, TV screen show below operation sentence for few sec, then disappear(No need if set to Store mode)

Single press : Power off
Hold press : Sub menu

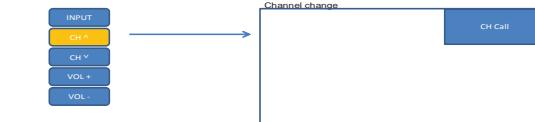
Need 11 language translation

Input selected



short press : selection of input
long press : decide input

CH Up/Down selected



go to channel up/down mode and during ch call display, if long press -> CH up /down continuously, short press, one channel up/down

VOL Up/Down selected



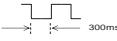
during Display the volume bar, If long press -> vol up /down continuously, short press, one vol up/down

(SPECIAL FUNCTION OF KEY INPUT AT SYSTEM BOOT)

1) If hold pressed during below condition at System-BootUp condition, **Ignore Lamp error and Temp error**.

KEY HOLD PRESSED	FUNCTION	LED
Without USB connected	Enter to PRE-SPECIAL SERVICE KEY MODE	RED_LED GREEN_LED
With USB connected	Enter to SOFTWARE VERSION UP	RED_LED GREEN_LED

Note:
USB detection during System-BootUp may cause startup delay(Tv power on time increase)

Note:


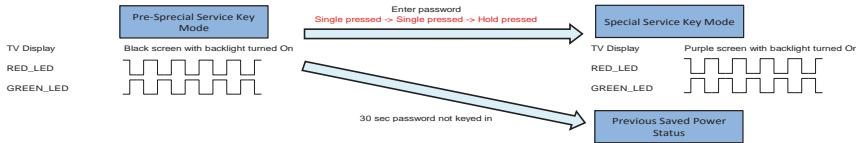
2) During PRE-SPECIAL SERVICE KEY MODE,

- i) All RC key is blocked during this period.
- ii) Backlight turned On, screen display show Black test pattern.

iii) LED blinking GREEN -> RED -> GREEN -> RED.

iv) Enter password **Single pressed -> Single pressed -> Hold pressed** to proceed to SPECIAL SERVICE KEY MODE(hold pressed is more than 5second)

v) After 30sec password not keyed in, or password keyed in wrong, exit PRE-SPECIAL SERVICE KEY MODE and go to previous Power Status (On, Standby, or Off).



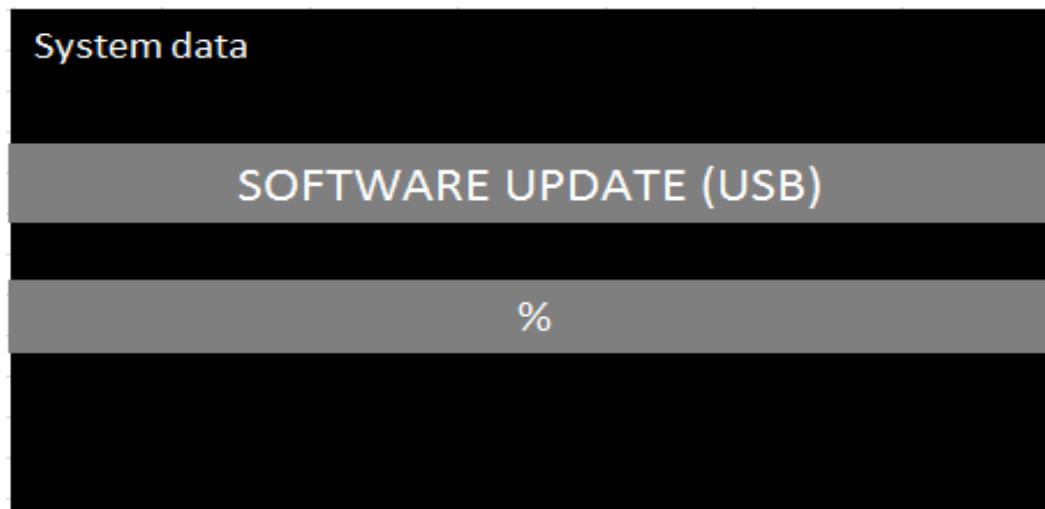
3. SOFTWARE UPGRADING

[1] Software upgrading using local key.

- 1) Plug off the LCD TV.
- 2) Insert the USB device to the USB terminal at the LCD TV.
(Make sure that the latest software is installed in the USB device)
- 3) Hold the LCD TV power key and plug on the LCD TV.
- 4) LCD TV is turn ON and detecting the USB device.
- 5) A few second later, the software upgrading will start automatically.
(LED Orange light will blinking indicate the software is upgrading)
- 6) TV will automatically restart when software is successfully installed.
- 7) LCD TV is running with the latest software.

[2] Software upgrading using remote control.

- 1) Make sure LCD TV is turn ON.
- 2) Insert the USB device to the USB terminal at the LCD TV.
(Make sure that the latest software is installed in the USB device)
- 3) Use below menu procedure to start upgrading software version
 - Menu >> Option >> System Data >> USB data trans.
 - Are you sure? >> YES
- 4) A few second later, the software upgrading will start automatically.
(LED Orange light will also blinking indicate the software is upgrading)



- 6) TV will automatically restart when software is successfully installed.
- 7) LCD TV is running with the latest software.

LCD TV ADJUSTMENT ITEM**1. VCOM ADJUSTMENT**

- i. Enter service mode key and go to VCOM/TEST PATTERN Page
- ii. Press "Enter" key (at VC OM)
- iii. Adjust the flicker effect by pressing "VOL +/-" of RCkey
- iv. Press "Enter" key after get the best value

2. MAIN SOFTWARE PACKAGE

Model	Software Package
2T-C50AD1I	Grape_Asia_Pack01_vXXX

Main Software Filename : XXX is Software version

If any changes of software, will be informed by MARUHEN

3. CHECKER PROCESS

- A. Function Check : Main PWB inspection / functional check
- B. K-MODE Color Indication
 - The default condition for K-Mode is Red colour.
 - Because of this model don't have HD component adjustment, Checker need to be set to send the command (RSWR0201) to change the colour of K-Mode from Red to Orange.

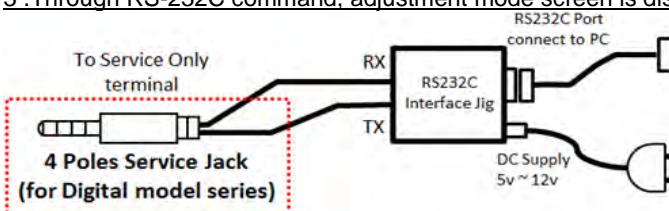
4. SIGNAL ADJUSTMENT**A. PICTURE ADJUSTMENT**

Adjustment Mode

NO.	ITEM	CONDITION	PROCEDURE
1	Adjustment Mode (K-Mode)		Press the test key at the test remote control

B. WHITE BALANCE ADJUSTMENT

a) New White Balance Adjustment

NO.	ITEM	CONDITION	PROCEDURE	
i	Setting	<p>Backlight : MAX AV Mode : DYNAMIC Active Backlight : OFF SUPER ECO: OFF</p> <p>Set the luminance meter on the centre of the screen</p>	<p>For the details of white balance adjustment procedure, please refer to white balance adjustment spec for Kameyama model.</p> <ol style="list-style-type: none"> 1. Confirm the set condition. 2. Connect the white balance jig. <ol style="list-style-type: none"> i. 3.5mm H/P Jack. (4 Point) ii: External RS-232 Convert Box. iii. RS-232 Cross cable (2 pcs) + Convert wire from RS-232 D-Sub (9 pin to 3.5mm H/P Jack (4 Pole Pin). 3 .Through RS-232C command, adjustment mode screen is displayed. 	
ii	Auto Adjustment	<p>Initial setting</p> <p>Panel Contrast R/G/B_MAX R/G/B_HIGH R/G/B_LOW</p>	<p>$C_{nt} = 5000:1$ $WB_{MAX} = 4080$ $WB_H = 3264/4080$ $WB_L = 640/4080$</p>	
	[command] Adjustment Mode KRSW0001 KKT10037 Setting KYOF0001 OSDS0001 SBSL0016 Multi point adj. Mode MSET0000 WBI20255 Point 2 WBI20204 MG2G**** MG2B**** MG2R**** Point 1 WBI10040 MG1G**** MG1B**** MG1R**** Write MSET0003	<p>(1) Measurement MAX Brightness (2) Set MIN Brightness (3) Measurement HIGH Brightness (4) Measurement LOW Brightness</p> <p>(5) Calculation H_y (6) Calculation L_y</p> <p>(7) Calculation HIGH luminance ($\gamma=2.2$)</p> <p>(8) Calculation Initial setting of R/G/B_HIGH</p> <p>(9) Set Initial setting of R/G/B_HIGH</p> <p>(10) Original WB adjustment is performed (HIGH) Set the specified gradation for point 2, fix the most faint colour to get reference value, adjust others 2 colours to minus adjustment for reference value of point 2.</p> <p>(11) Measurement (Set) HIGH Brightness $R_HIGH = G_HIGH$ $G_HIGH = G_HIGH$ $B_HIGH = G_HIGH$</p> <p>(12) Calculation MAX luminance after WB ADJ set to $\gamma=2.2$ (L_XHG)</p> <p>(13) Set R/G/B_MAX</p> <p>(14) Calculation LOW luminance ($\gamma=2.2$)</p>	<p>$L_{max}=305.7 \text{ cd/m}^2$ $L_{min}=L_{max}/Cnt = 0.102$ $L_{xH}=235.1 \text{ cd/m}^2$ $L_{xL}=2.06 \text{ cd/m}^2$</p> <p>$Hy=\log((L_{xH}-L_{min})/(L_{max}-L_{min}))/\log(WB_H/WB_{MAX})= 2.44$ $L_y=\log((L_{xL}-L_{min})/(L_{max}-L_{min}))/\log(WB_L/WB_{MAX})=2.73$</p> <p>$L_{H22}=(L_{max}-L_{min}) \times (WB_H/WB_{MAX})^{2.2}+L_{min}=241.31$</p> <p>$WB_{HX}=WB_{MAX} \times ((L_{H22}-L_{min})/(L_{max}-L_{min}))^{(1/H_y)}=3703$</p> <p>$R_HIGH=WB_{HX}'=3703$ $G_HIGH=WB_{HX}'=3703$ $B_HIGH=WB_{HX}'=3703$</p> <p>$R_HIGH=3702$ $G_HIGH=3641$ $B_HIGH=3703$</p> <p>$R_HIGH=3641$ $G_HIGH=3641$ $B_HIGH=3641$</p> <p>$L_{MX}=L_{xH}/((WB_H/WB_{MAX})^{2.2})=293.04$</p> <p>$R_MAX=G_MAX*(R_HIGH/G_HIGH)=4078$ $G_MAX=WB_{MAX} \times ((L_{MX}-L_{min})/(L_{max}-L_{min}))^{(1/H_y)}=4010$ $B_MAX=G_MAX*(B_HIGH/G_HIGH)=4078$</p> <p>$L_{XL}=(L_{MX}-L_{min}) \times (WB_L/WB_{MAX})^{2.2}+L_{min}=5.08$ $WB_{XL}=WB_{MAX} \times ((L_{XL}-L_{min})/(L_{max}-L_{min}))^{(1/L_y)}=901$</p>	<p>Example for Adjustment Method (be careful of INT setting)</p> <p>RESULT</p>

	<p>Set Max.Level</p> <p>MGMG**** MGMR**** MGMB****</p> <p>(15) Calculation Initial setting of R/G/B_LOW (16) Set Initial setting of R/G/B_LOW (17) Original WB adjustment is performed (LOW). Adjust RB to the reference value of point 1. (18) Calculate the slope $R_{2\text{slope}}$, $G_{2\text{slope}}$, $B_{2\text{slope}}$ between MAX and Point2. $R_{2\text{slope}} = (R_{\text{max}} - R_{\text{high}}) / (4080 - 3264)$ (19) Calculate the correction value $R_{\text{high}}, G_{\text{high}}, B_{\text{high}}$. $R_{\text{high}} = R_{2\text{slope}} \times (3561 - 3264)$ (20) Set the reference value R,G,B of point 2 $(R_{2'}) = R_2 + R_{\text{high}}$ (21) Calculate the slope $R_{1\text{slope}}$, $G_{1\text{slope}}$, $B_{1\text{slope}}$ between Point2 and Point1. $R_{1\text{slope}} = (R_{\text{high}} - R_{\text{low}}) / (3264 - 640)$ (22) Calculate the correction value R_{low}, $G_{\text{low}}, B_{\text{low}}$. $R_{\text{low}} = R_{1\text{slope}} \times (717 - 640)$ (23) Set the reference value R,G,B of point 1 $(R_{1'}) = R_1 + R_{\text{low}}$ (24) Adjusted value is writing at [command] MSET0003 (25) Shut down the AC power. Initial value at RGB 2 point : 3264 Initial value at RGB 1 point : 640</p> <p>[Adjustment value] Teaching set send by engineering dept is set as reference.</p> <p>[Reference values for adjustment reference] Equipment : Luminance meter [Minolta CS-2000]</p> <table border="1"> <thead> <tr> <th></th><th>Level</th><th>Spec Data</th><th>Adj. Spec.</th><th>Inspection Spec.</th></tr> </thead> <tbody> <tr> <td>Point 2 ref. values</td><td>204</td><td>x= 0.2685 y= 0.2670</td><td>0.0010</td><td>0.0020</td></tr> <tr> <td>Point 1 ref. values</td><td>40</td><td>x= 0.2685 y= 0.2670</td><td>0.0045</td><td>0.0090</td></tr> </tbody> </table> <p>Ref. : For Adjustment, set the LCD TV as below. AV MODE : [DYNAMIC] (Reset) Aging Time : Minimum 30 minutes</p>		Level	Spec Data	Adj. Spec.	Inspection Spec.	Point 2 ref. values	204	x= 0.2685 y= 0.2670	0.0010	0.0020	Point 1 ref. values	40	x= 0.2685 y= 0.2670	0.0045	0.0090	<p>R_LOW=WBxLX=901 G_LOW=WBxLX=901 B_LOW=WBxLX=901</p> <p>R_LOW= 921 G_LOW=901 B_LOW=971</p> <p style="border: 1px solid black; padding: 5px; text-align: center;">RESULT</p>
	Level	Spec Data	Adj. Spec.	Inspection Spec.													
Point 2 ref. values	204	x= 0.2685 y= 0.2670	0.0010	0.0020													
Point 1 ref. values	40	x= 0.2685 y= 0.2670	0.0045	0.0090													

Power Consumption Measurement Method

- 1- Aging time : minimum 30 minutes (during offline)
- 2- Signal : Color Bar
- 3- Audio frequency : 400Hz
- 4- AV Mode : Dynamic
- 5- Picture Setting : Backlight/ Brightness/ Contrast : MAX, Active Contrast : OFF
- 6- ECO Setting : OFF
- 7- Audio Output (400Hz) : 1/8 of Maximum Audio Output (10W + 10W) ; VOL= 23
- 8- AC Input: 240VAC 50Hz

5.1 Power Consumption Specification	TYPICAL	LIMIT
Power Consumption (Mode : Dynamic) (at 240V)	92 W	+10%
SUPER ECO (Mode ON) (at 240V)	40 W	
Power Consumption at Stand-by Operating (at 240V)	0.5 W	0.6W

6. HEADPHONE VOLUME SETTING.

Set TV volume to 50 at the checker process by using RS-232 communication (K-Mode)

7. FACTORY SETTING

AC power is plug off after shipment setting is done.

Caution: Do not plug on again after shipment setting is done. If do, please re-do the shipment setting. Do not off with remote control.

ITEM	CONDITION	PROCEDURE
Factory setting	AC power off to exit the factory setting.	<p>1. Setting is done with test remote control. 2. Press the 'Factory Setting' key on the remote control continuously. 3. When Green background appears on screen and 'K' mark disappears, setting is completed.</p> <p>The followings are initialised to factory setting: 1) User setting 2) Channel data (e.g. broadcast frequencies) 3) Manufacturer's option settings 4) Password data 5) Setting values are set based on model destination</p>

Model Name	Factory Setting Key Name	Remote Control Code	S-System Setting	OSD Language Setting
A3K5YAD1VI	General	10000 0111 0111 10	Multi	11 Languages

[4] PUBLIC MODE SETTING PROCEDURE

[1] How to start Public Mode.

There are the following 3 ways to get the public mode setup screen displayed.

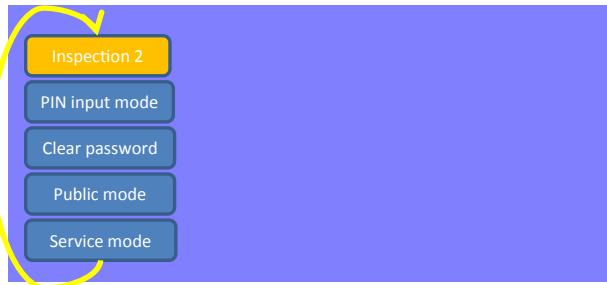
1) Start up from body key

During SPECIAL SERVICE KEY MODE,

- a) All RC key is blocked during this period.
- b) LED blinking RED -> GREEN -> RED -> GREEN.

	Function list menu displayed
Single press	Scroll selection from top
Hold pressed	Select selected item

- c) Backlight turned On, screen display show Purple test pattern. With function list menu displayed. First item highlighted



R: 128, G:128, B:255 (Or similar color)

Highlight will move to up when it come to the end

- d) After run function, Special Service Key mode is ended and LED -> GREEN.

2) Start up from Service remote to display Service Mode.

- a) To display Service mode, required by using Servie remote.
- b) When Service mode display, change the page to the next page.
- c) Then select Public Mode and switch it to ON state.
- d) Swithc the set by pushing ON/OFF button or by plugged off the supply.

Start up from body key to display Public Mode.

During SPECIAL SERVICE KEY MODE (same as Start up from body key method)

- a) All RC key is blocked during this period.
- b) By press One Push Button simultaneously with switch On the AC Cord.
- c) LED blinking GREEN repeatedly. Then press and release Single Push Button twice and for the third time press and hold Single Push Button until LED stop blinking and panel change to black with logo 'SHARP' display.
- d) Backlight turned On, screen display show Purple test pattern. With function list menu displayed. First item highlighted and by push Single press repeated to scroll down until at Public Mode column. Then Hold pressed to display.

3) Start up from remote control key.

- a) During POWER-ON state, if you push [Public-MODE] key of the remote controller, TV will display PublicSetting MENU.

[2] How to exit Public Mode.

- a) If you power off at remote controller, or body key, or AC-OFF during Public Setting MENU is displayed, TV cancel Public Setting MENU. So if you power on next time, TV will power on normally.
(Not display Public Setting MENU).
- b) If you push 'Public-MODE' key during Public Setting MENU is displayed, TV cancel Public Setting MENU and change to normal Power-ON mode.
- c) When cursor is focus on 'EXECUTE' and press 'OK' key, TV need do following operation:
 - ① TV will memorized of each item's setting (Except "PICTURE IMPORT")
 - ② Public menu disappear
 - * If Public Mode is "ON", all public setting valid immediately without reboot TV
 - * If Public Mode is "OFF", all public setting will not valid.

[3] Public Mode Setting Value

- a) Initialize value of public Setting

- * PublicSetting , (FactoryInit)
 - * UserReset
 - * Value of Public Setting init by Factory initialize
 - * But Value of PublicSetting does not init by User Reset

4. Public Mode Menu

The guidance is not displayed onscreen.

Setup procedure

- To move the cursor up and down, use the "cursor UP/DOWN Key (remote controller) and "CH (▲)/(▼)"Key (remote controller and set).
- To change the settings, use the "cursor RIGHT/LEFT" Key (remote controller) and "VOL(+)(-)"Key (remote controller and set).
- To save new settings, keep the cursor at "Execute" and use the "cursor RIGHT/LEFT" Key (remote controller) and "VOL(+)(-)"Key (remote controller and set)



< Example of image >

1) POWER ON MODE SELECT

Option	"VARIABLE","FIXED_ALL","FIXED_BODYKEY" or "RC RESPOND"(loop enable)
Default	"VARIABLE"
Functions	<ul style="list-style-type: none"> • VARIABLE : "POWER/RECEPTION" Key on TV unit or remote control is enabled. • FIXED_ALL : "POWER/RECEPTION" Key on TV unit or remote control is disabled. • FIXED_BODYKEY : Only the "MAIN POWER" Key on TV unit is disabled (The remote control is enabled) • RC RESPOND : The main unit's POWER switch toggles between ON and standby (the same operation by the remote control).
Key disabled when set other than default	• OFF TIMER (SLEEP) (*Only when setting to FIXED_ALL)
Remark	<ul style="list-style-type: none"> • When selecting to "FIXED_ALL", function related standby factors (see below) doesn't work, and selecting OFF TIMER (Sleep) No operation OFF No signal OFF (including the power management) • These items do not exist according to the model .

If the power is pressed in the ordinary more in setting to "FIXED_ALL" and "FIXED_BODYKEY" the caution is displayed for 5 seconds.

When power button on the main unit is pressed.

When power button on R/C is pressed



2.SHUT DOWN MODE

Option	"NORMAL" or "QUICK"				
Default	NORMAL				
Explanation	<ul style="list-style-type: none"> • This function decides whether scanning digital tuner is enabled or disabled when the power is standby. <table> <tr> <td>NORMAL</td> <td>: Scanning digital tuner is enabled when power is standby.</td> </tr> <tr> <td>QUICK</td> <td>: Scanning digital tuner is disabled. It is possible to put into the standby state instantaneously due to power off input, when the power is standby. Immediately, state is a complete standby.</td> </tr> </table>	NORMAL	: Scanning digital tuner is enabled when power is standby.	QUICK	: Scanning digital tuner is disabled. It is possible to put into the standby state instantaneously due to power off input, when the power is standby. Immediately, state is a complete standby.
NORMAL	: Scanning digital tuner is enabled when power is standby.				
QUICK	: Scanning digital tuner is disabled. It is possible to put into the standby state instantaneously due to power off input, when the power is standby. Immediately, state is a complete standby.				
Remarks	<ul style="list-style-type: none"> In selecting "QUICK", the function does not work for the following item. (selection impossible). <ul style="list-style-type: none"> • ON TIMER, QUICK START, DIGITAL FIXED, etc. *These items do not exist according to the model . 				

3.MAXIMUM VOLUME

Selection	Adjustment from 1 to 100 (no loop)
Default	100
Explanation	Sound volume not be adjusted higher than the preset value.
Limit in setting	<ul style="list-style-type: none"> When the sound volume is set lower than 99, only figures are displayed and the sound volume bar is not displayed. The maximum sound volume for ON-timer (WAKE UP TIMER) is limited also to the preset value.
Exception	<ul style="list-style-type: none"> In the item "VOLUME" of adjustment process, the sound can be set freely irrespective of this setting.
Remark	<ul style="list-style-type: none"> Setting is valid only for the speaker of the unit. (As for the headphone, the sound volume can be up to 100 irrespective of the limit). In line output (sound volume variable), the sound volume can be adjusted from-100 to 0 irrespective of pre-adjusted value. When the sound volume is set higher than the MAX setting by the adjusting process or headphone, the sound volume control operation is prohibited for turn-up and the sound volume should be turned down to MAX in this state.

4.VOLUME FIXED

Option	"VARIABLE","FIXED","AC CTRL " or "AC/RC CTRL " (loop enabled)
Default	"VARIABLE"
Explanation	<ul style="list-style-type: none"> VARIABLE : The volume is not fixed . FIXED : The volume is fixed to the value adjusted in the volume fixed level. AC CTRL : The unit starts at the volume specified in the volume fixed level, when power is turned on in the case of the AC-ON only. AC/RC CTRL : The unit starts at the volume specified in the volume fixed level, when power is turned on any case . (AC→ON,remote control →ON,main unit's Key →ON)
Limit in setting	<ul style="list-style-type: none"> The sound volume for the ON-timer (wake up timer) is fixed also without display of menu, Besides, the setting is made impossible .(Basically ,the manu is not displayed). The following keys become invalid. <ul style="list-style-type: none"> 1) Sound volume Up/Down(Vol +/-)(for both remote control 2)Mute (MUTE)
Exception	<ul style="list-style-type: none"> In the item "VOLUME" of adjustment process, the sound vomule can be set freely irrespective of the setting.
Remark	<ul style="list-style-type: none"> In "Variable" setting, the sound volume had been conventionally set at 1 but this operation had been abolished (and follow the last memory). The sound volume form the ON-timer is not set at 1 either and the sound volume set value of the ON-timer before the hotel mode is executed . Setting is valid only for the speakers of the unit.(As for the headphone, the sound volume can be set up yo 60 irrespective of the limit.) In line output (sound volume variable), the sound volume can be adjusted from-60 to 0 irrespective of pre-adjusted value. As for sound volume fixing and sound MAX level, the sound volume fixing has priority. Once the sound volume has been changed by adjustment process or headphone, it shoul be set back to the sound volume preset by sound volume fixing level when the adjustment process ends or when the headphone is removed.

5.VOLUME FIXED LEVEL

Selection	Adjustment from 1 to 100 (no loop)
Default	30
Explanation	The sound volume to be fixed by " volume fixed " is determined.
Limit in setting	None
Exception	None
Remarks	<p>Setting is valid only when "Volume fixed " is selected for " fixed ".</p> <p>This must be confirmed actualy by changing also the sound volume in accordance with setting.</p>

6.R/C BUTTON

Selection	Selection between " Respond ", "No respond " and Limited " (loop provide)						
Default	Respond						
Explanation	<p>The operation of the remote control's Keys is set.</p> <table> <tr> <td>Respond</td> <td>:The remote control's Keys in the normal state are enabled.</td> </tr> <tr> <td>No Respond</td> <td>:The remote control's Keys in the normal state are disabled.</td> </tr> <tr> <td>Limited</td> <td>The POWER Key (RECEPTIONS /STANDBY Key) is also disabled. Only a part of Keys (CHANNEL,etc) is enabled and other keys are disabled.</td> </tr> </table>	Respond	:The remote control's Keys in the normal state are enabled.	No Respond	:The remote control's Keys in the normal state are disabled.	Limited	The POWER Key (RECEPTIONS /STANDBY Key) is also disabled. Only a part of Keys (CHANNEL,etc) is enabled and other keys are disabled.
Respond	:The remote control's Keys in the normal state are enabled.						
No Respond	:The remote control's Keys in the normal state are disabled.						
Limited	The POWER Key (RECEPTIONS /STANDBY Key) is also disabled. Only a part of Keys (CHANNEL,etc) is enabled and other keys are disabled.						
Limit in setting	<ol style="list-style-type: none"> In " Limited " setting, only power ON/OFF, sound volume ▲▼ tuning ▲▼ and BACKLIGHT (brightnesssensor) are accepted. In "No respond " setting, all the keys (including the power key) are not accepted. 						
Exception	<ul style="list-style-type: none"> Adjusment process, factory setting, inspection process and hotel only keys are valid irrespective of setting. All the keys can be used is adjustment process, inspection mode and hotel menu irrespective of setting. 						
Remarks							

7.PANEL BUTTON

Selection	Selection between " Respond " and " No respond " (loop provide)
Default	Respond
Explanation	<ul style="list-style-type: none"> • Respond :The Main unit's keys are enabled. • No respond : The main unit's keys are excluding the POWER key (RECEPTION/STANDBY Key)
Limit in setting	
Exception	<ul style="list-style-type: none"> • Inspection mode and hotel menu mode can be started irrespective of setting • All the keys can be used in adjustment process, inspection mode and hotel menu irrespective of setting.
Remarks	

8.MENU BUTTON

Selection	Selection between " Respond " and " No respond " (loop provide)
Default	Respond
Explanation	<ul style="list-style-type: none"> • Respond : The menu key is enabled. • No respond : The menu key is disabled. <p>: In " No respond " setting, the menu operation by the menu key of the remote control and the menu key of the unit invalidated.</p>
Limit in setting	<ul style="list-style-type: none"> • ON-timer (wakeup Timer) in turn OFF. • The following keys become invalid. Wake-up timer and clock setting keys and all of the direct change keys to menu display.
Exception	<ul style="list-style-type: none"> • Inspection mode and hotel mode can be started irrespective of setting. • All the keys can be used in adjustment process, inspection mode and hotel menu irrespective of setting.
Remarks	

9.AV POSITION FIXED

Option	" Variable " or " Fixed " (loop enabled)
Default	" Variable "
Explanation	<ul style="list-style-type: none"> • Variable : AV position is not fixed. • Fixed : AV position is fixed. <p>: The image/ sound adjustment items in the menu are fixed in the selection state. : When receiving " AV POSITION " of the remote control, only the actual state is displayed, and setting is not changed.</p>
Limit in setting	
Exception	
Remarks	<ul style="list-style-type: none"> • When receiving the sound select direct key (AV POSITION key, OPC, FREEZE key, etc), only the selected state is displayed, no setting is changed. • The setting for the Public mode are retained after the personal data is initialized, each item for the AV position and image/sound adjustment are not initialized.

10. ON SCREEN DISPLAY

Selection	Selection between " Yes " , " No " (loop provide)
Default	Yes
Explanation	<ul style="list-style-type: none"> • Yes : OSD is displayed. • No : the following OSD is not displayed. Displayed of menu group, channel call, sound volume bar and direct key call.
Limit in setting	<ul style="list-style-type: none"> • Set timer of the OFF-timer (SLEEP TIMER) is cleared. • Setting of the no-signal power-OFF (AUTO POWER OFF) is cleared to " OFF ". • Setting of the no-operation power-OFF is cleared to " OFF ". • Keys falling under any of the following items become invalid. <ol style="list-style-type: none"> 1) Appearance of screen changes and the sound changes. 2) Personal functions which are hard to restore. Ex.) Screen display, menu, OFF-timer, ON-timer, AV MODE, screen size switching, clock setting, treble emphasis, AUDIO ONLY, sound change over, LANGUAGE, CLOSED CAPTION
Others	<ul style="list-style-type: none"> • Simple input switching is generated. Those which are restored soon after leaving as they are and may be requested for change by customer are not prohibited. Ex.) brightness sensor (BACKLIGHT) and PIC, FLIP. • Such a caution which is displayed independently is displayed as it is. Non-responding signal caution, TELE TEXT caution and power -ON fixing caution.

11.INPUT MODE START

Selection	Selection between "Normal" or "input source 1 (input selection or channel)". (loop provide.)
Default	Normal
Explanation	In power-ON, the input source to be started or channel can be set. (In standard mode, the operation follows the last memory)
About option	<ul style="list-style-type: none"> • All the input source in the model are made selectable. • When the input/output switchable input source is selected and the input source is set to output, the setting of input/output switching is changed to input at the execution of hotel menu. In addition, the input/output switching by menu is prohibited. • In TV mode, the display of all channels is stopped and it is treated as an input source. At this time, the channel to be set follows the last memory and the content of the last memory is included in the notation by option. Ex.) TV (CH2), TV (CH4) etc. • The order of appearance of option in the hotelmenu should agree with order toggles by input switching key.
Limit in setting	. The display of channel setting menu and the channel setting operation are prohibited (except for MCL)
Exception	None
Remarks	<ul style="list-style-type: none"> • In setting at "Normal", the setting of "input mode fixed" is changed to "Variable" and selection should be prohibited.

12.INPUT MODE FIXED

Selection	Selection between "Variable" and "Fixed" (loop provide)
Default	- (Variable)
Explanation	<ul style="list-style-type: none"> • Variable : If [INPUT MODE START] is set to normal, input mode is not fixed. • Fixed : When "INPUT MODE START" is active, it impossible to switch to another channel or input.
Limit in setting	<ul style="list-style-type: none"> • With the execution of hotel mode, the input source is forced to change to that set by "input mode starts" and the channel switching and input switching are prohibited thereafter. • The following keys are invalidated. CH ▼▲, direct tuning button, FLASHBACK, input * However, the keys (input switching and CH ▲▼ keys) of the unit for menu operation remain valid.
Exception	None
Remarks	<ul style="list-style-type: none"> • In the following case, setting is cancelled and mode is changed to "Variable". 1) When the setting of "input mode start" is set to "Standard (Normal)".

13. PICTURE IMPORT

Option	"Off" or "On" (loop enabled)
Default	Off
Explanation	To import picture from USB and stored to TV's flash memory.
Limit in setting	None
Exception	None
Remarks	<ul style="list-style-type: none"> • If "PUBLIC.JPG" name file under 4Mb in USB memory. A imported picture is stored to TV's flash memory, then display "OK" • If "PUBLIC.JPG" name file over 4Mb in USB memory. Don't import picture. And TV's flash does not change. Then display "ERR" • If "PUBLIC.JPG" name file not in USB memory or no "PUBLIC.JPG" file in USB memory, TV's flash memory erase. Then display "DEL" • If remove USB memory before finished stored image, don't import picture. And TV's flash does not change, Then display "ERR" • If no insert USB memory, don't import picture. And TV's flash memory does not change. The display "ERR".

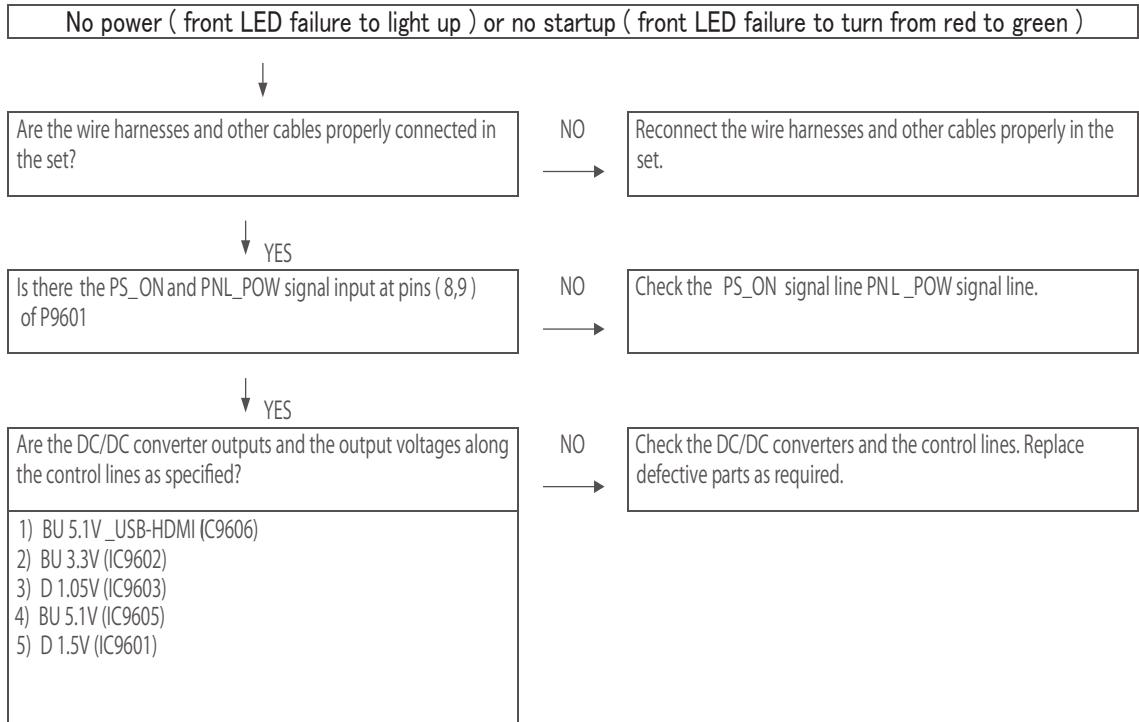
14.START UP SCREEN

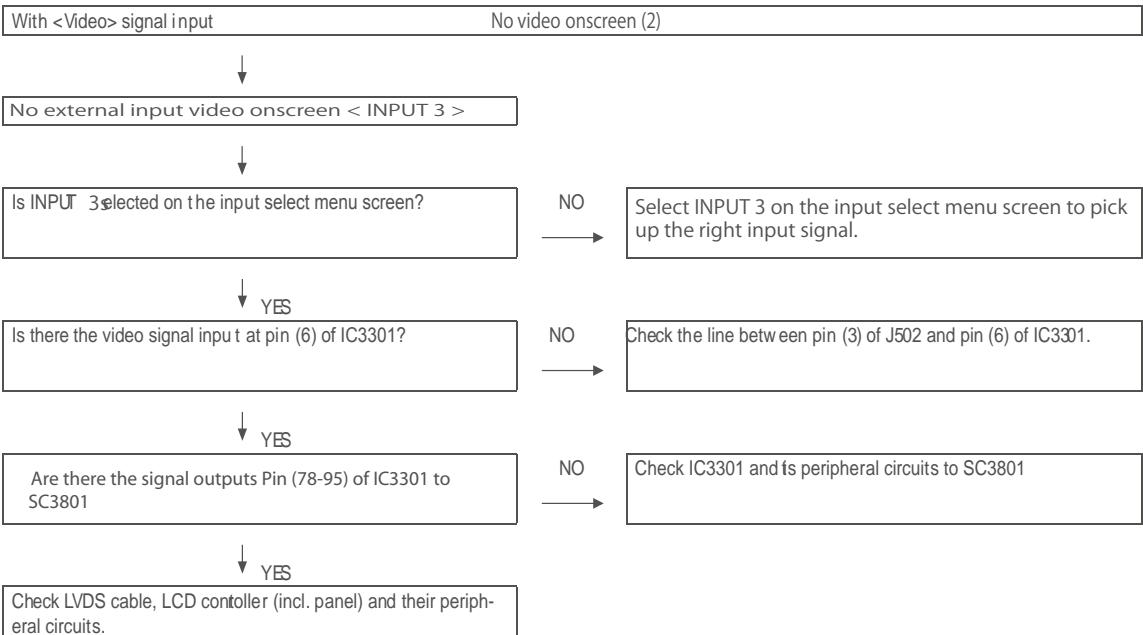
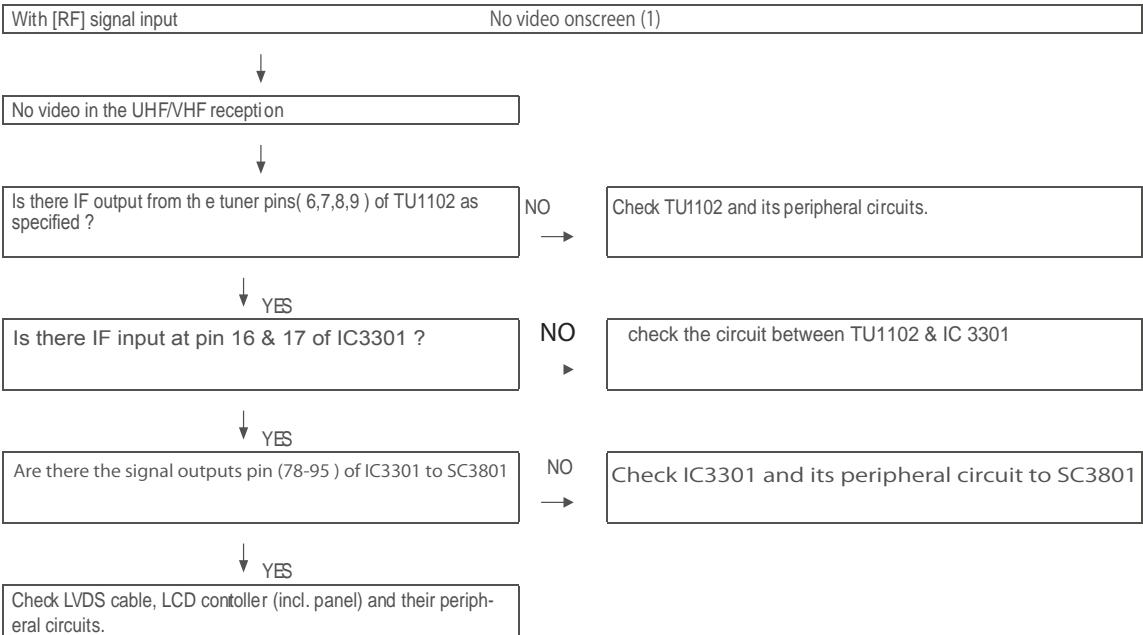
Option	"Off", "1 ~ 180" (loop enabled)
Default	Off
Explanation	<ul style="list-style-type: none"> • Off : Cannot setup picture display time. • 1 ~ 180 : To make user can setup picture display time. The range is 1 second to 180 seconds.
Remarks	<p>If "START UP SCREEN" item is 1 ~ 180.</p> <ul style="list-style-type: none"> • When TV power ON from deep standby, power off or AC off mode, TV needs to display PUBLIC picture for setting time • When TV power ON from standby mode, TV needn't to display PUBLIC picture. • When displaying PUBLIC picture, a key input : <ul style="list-style-type: none"> - Input key is RC Power key : TV change to standby mode. - Input key is panel Power key : TV change to power off mode. - Other keys (RC / Panel) : No operation

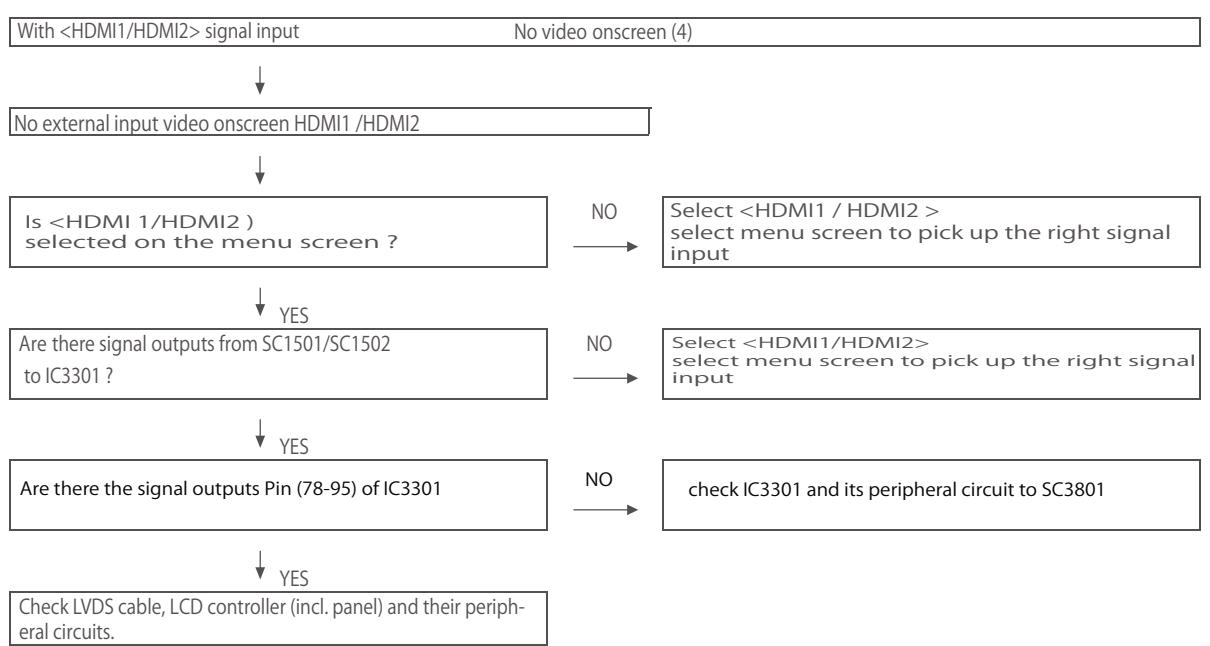
15.PUBLIC MODE

Selection	"Off and On"(loop enabled)				
Default	Off				
Explanation	<p>The item decide whether Public mode menu are enabled or disabled.</p> <p>The same item as [PUBLIC MODE] in the adjustment process menu.</p> <table style="margin-left: 40px;"> <tr> <td>OFF</td> <td>: Public mode is not active.</td> </tr> <tr> <td>On:</td> <td>: Public mode not active.</td> </tr> </table>	OFF	: Public mode is not active.	On:	: Public mode not active.
OFF	: Public mode is not active.				
On:	: Public mode not active.				
Exception	None				
Limit in setting	None				
Remarks	Each operation of the Public mode is impossible unless this item is set to ON				

[1] TROUBLESHOOTING TABLE







No audio heard (2)



No external audio heard

< INPUT 3 >

Is there the L-ch audio signal input from pin (5) of input terminal J502 to pin (124) of IC3301?

Is there the R-ch audio signal input from pin (7) of input terminal J502 to pin (123) of IC3301?



Is there the I2S signal output at pin (23,67,69,97) of IC3301?

NO →

Check IC3301 and its peripheral circuits.



Is there I2S signal at pin (1,2,3,4) of IC1702?

NO →

Check connection between IC3301 and IC1702 and its peripheral circuits.



Is the L-ch audio signal output at pin(8), (13) of IC1702 normal?

NO →

Check IC1702 and its peripheral circuits.

Is the R-ch audio signal output at pin(19), (23) of IC1702 normal?

NO →

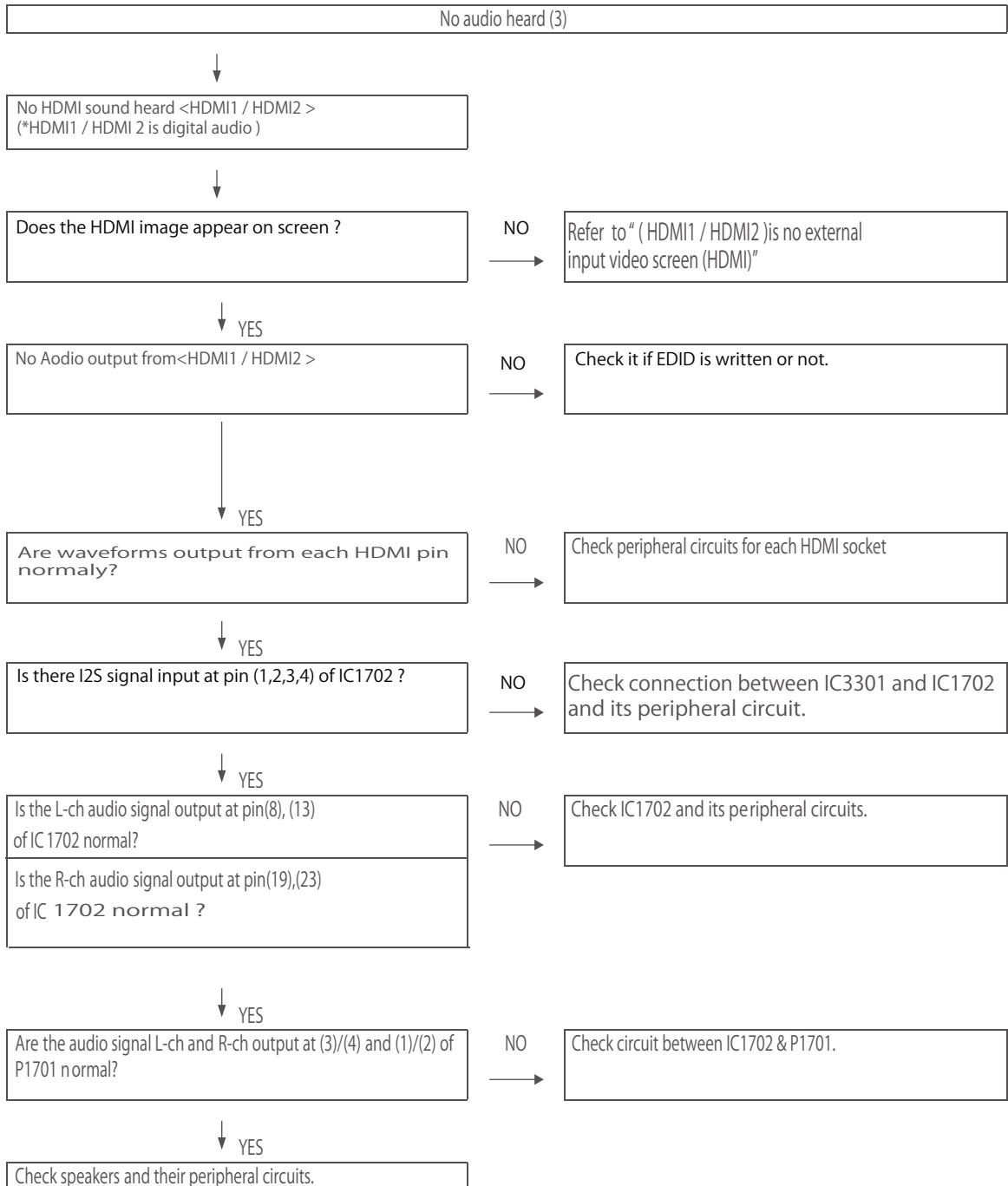
Are the audio signal L-ch and R-ch output at (3)/(4) and (1)/(2) of P1701 normal?

NO →

Check circuit between IC1702 & P1701.

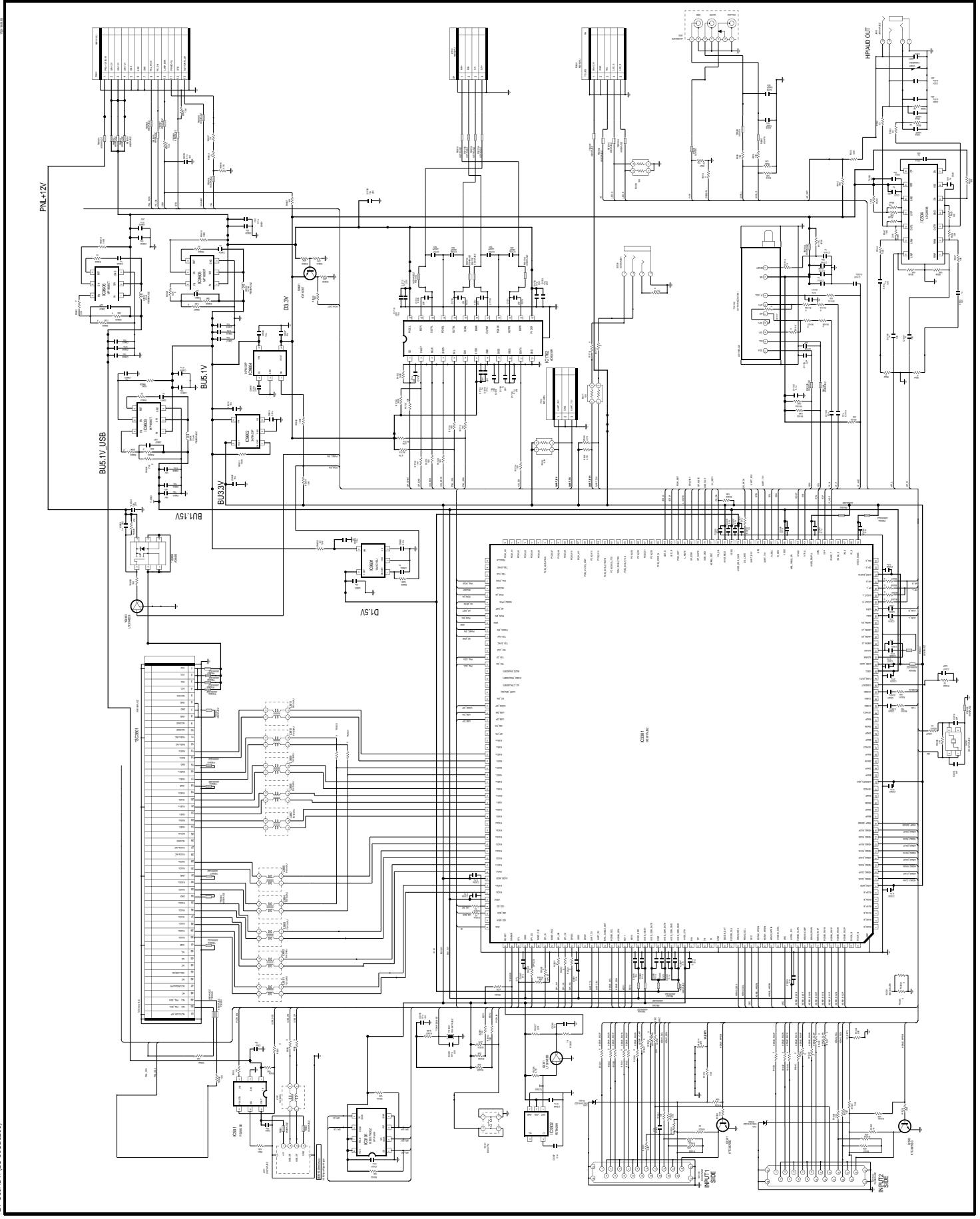


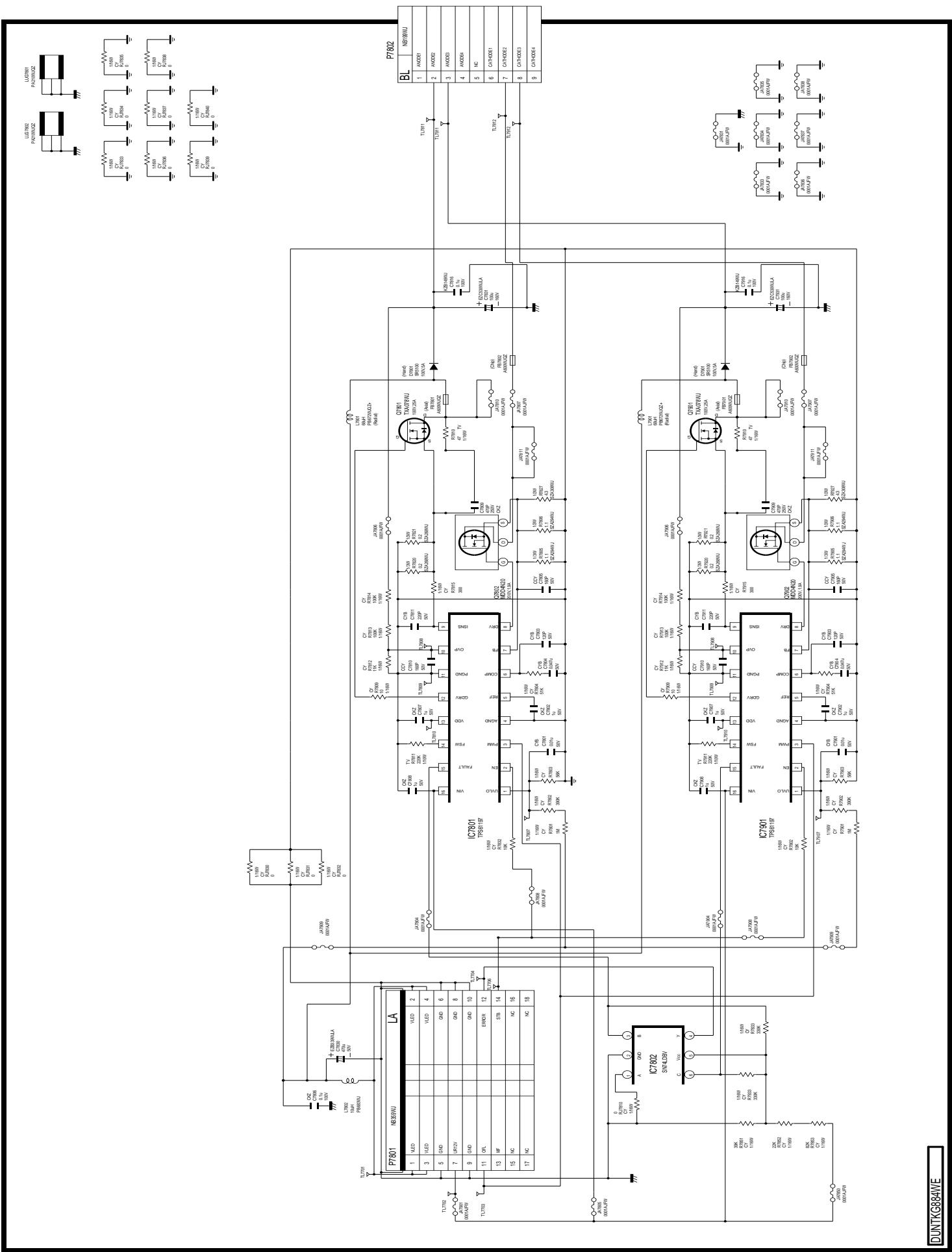
Check speakers and their peripheral circuits.



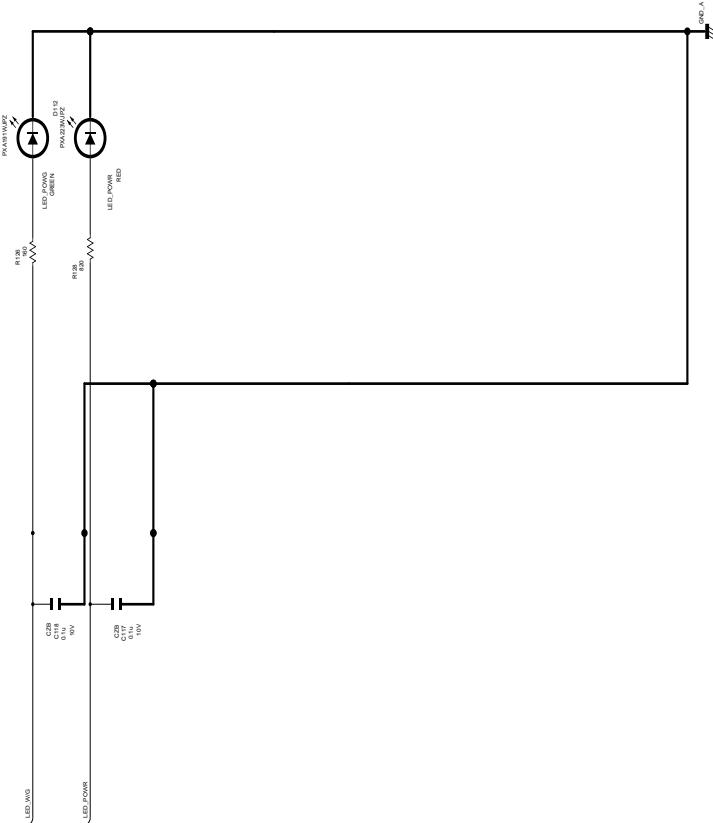
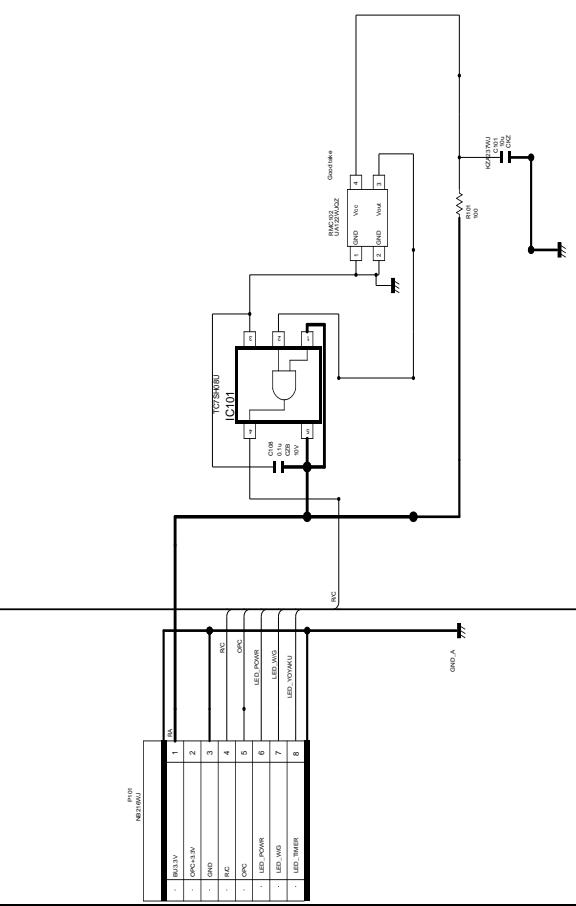
CHAPTER 6. DESCRIPTION OF SCHEMATIC DIAGRAM

[1] DESCRIPTION OF SCHEMATIC DIAGRAM





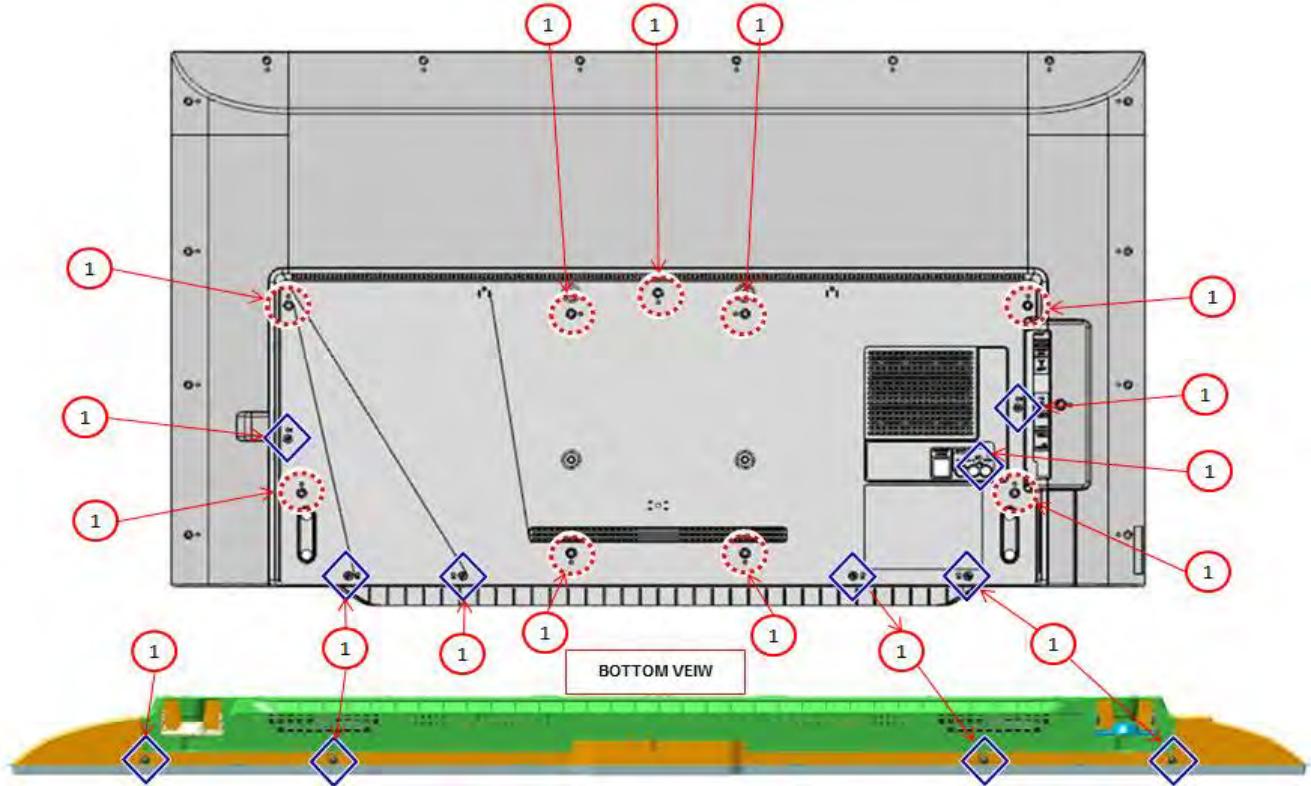
RC/OPC/LED UNIT
DUNTKG98xxxxx



CHAPTER 7. REMOVING OF MAJOR PARTS

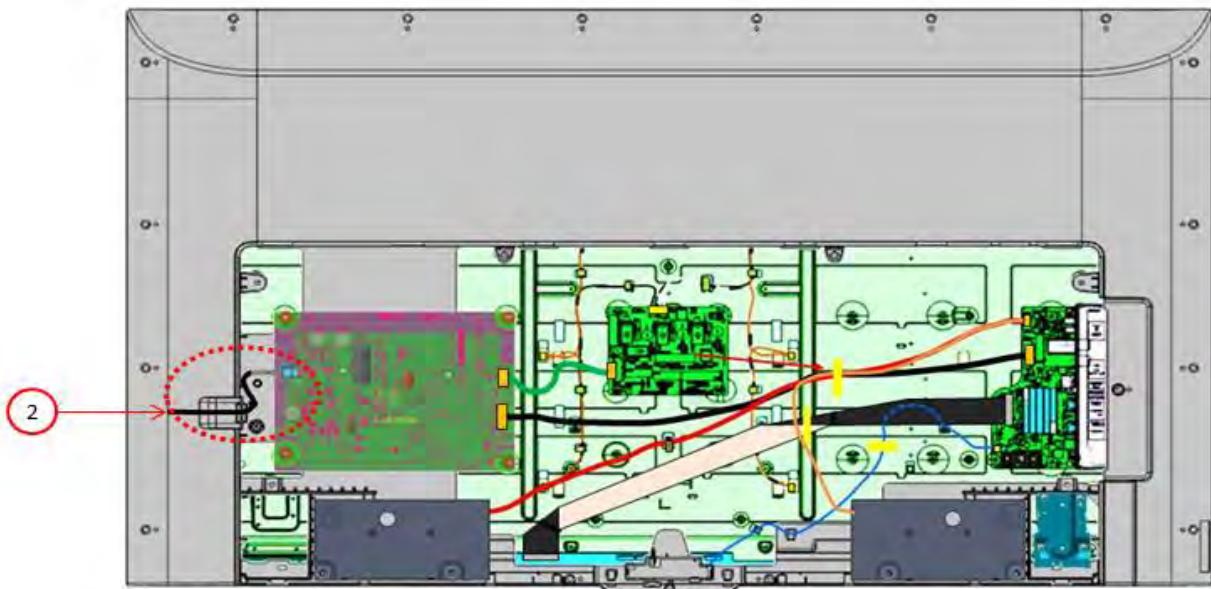
[1] REMOVING BACK COVER

1. Unscrew the 20 screws ①



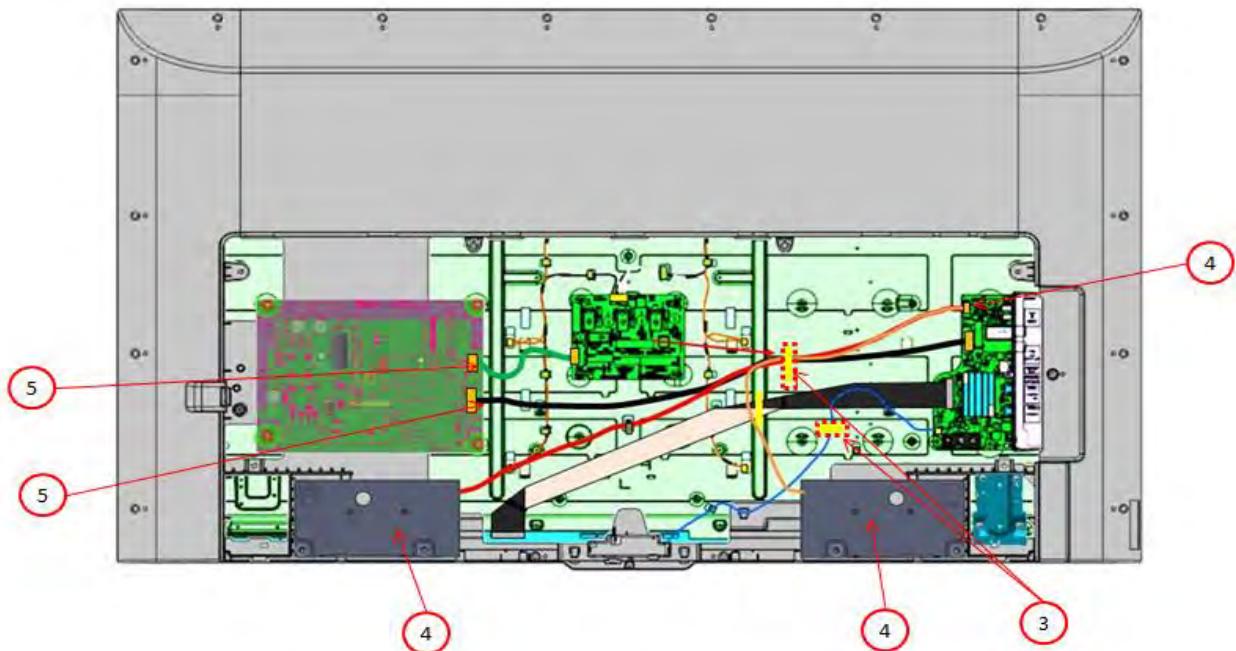
[2] REMOVING AC CORD

2. Remove AC Cord ②



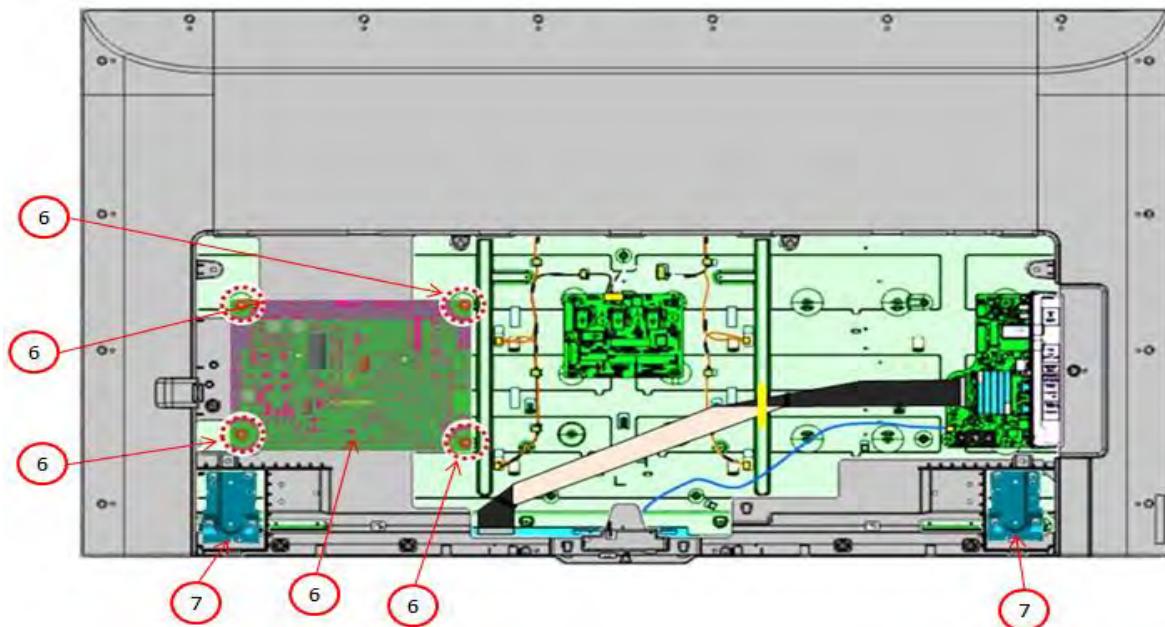
[3] REMOVING SPEAKER, PD WIRE

3. Remove ztape ③ (50mm x 10mm)
4. Disconnect and remove the Speaker Wire and Speaker④
5. Disconnect and remove PD wire ⑤



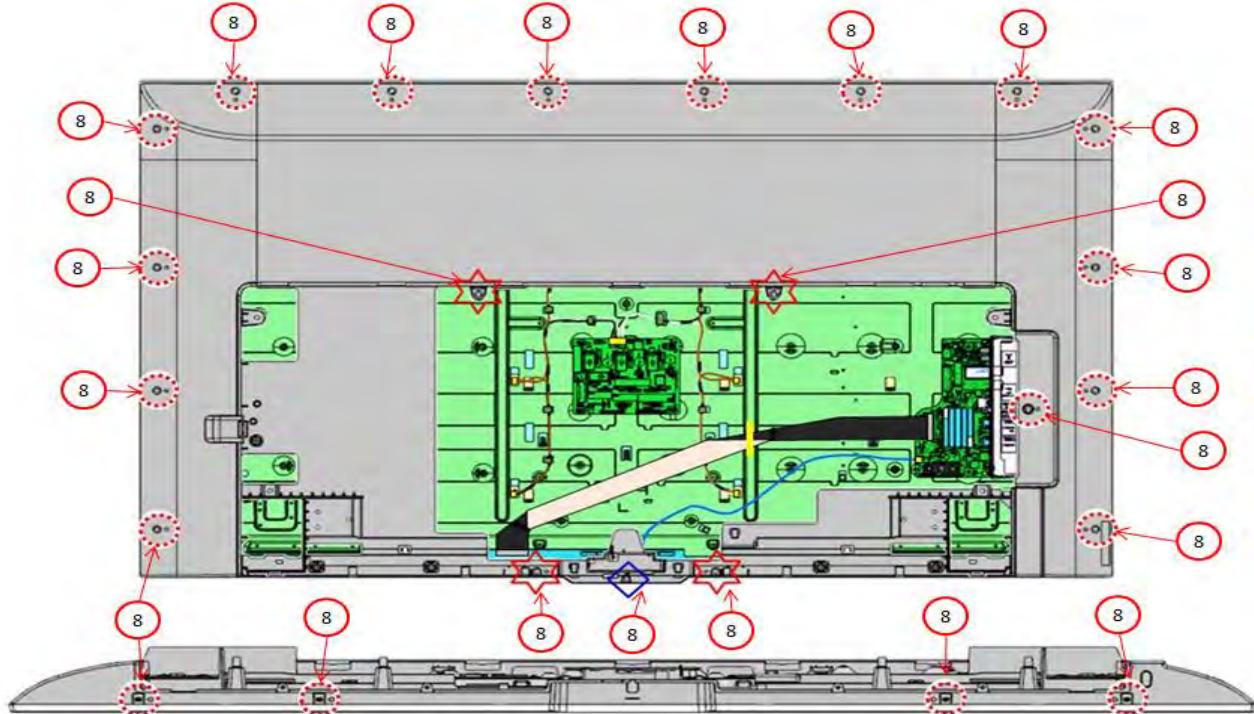
[4] REMOVING POWER UNIT AND FIX STAND BAR

6. Remove Power Unit ⑥ by unscrew the 4 screws
7. Remove both Fix Stand Bar ⑦ by unscrew the 8 screws



[5] REMOVING CAB B

8. Remove Cab B by unscrew the 25 screws ⑧



[6] REMOVING LVDS FFC, LED IR UNIT, LED IR WIRE, MAIN UNIT, BL WIRE

9. Disconnect and remove LED IR Unit ⑪ and LED IR Wire ⑫

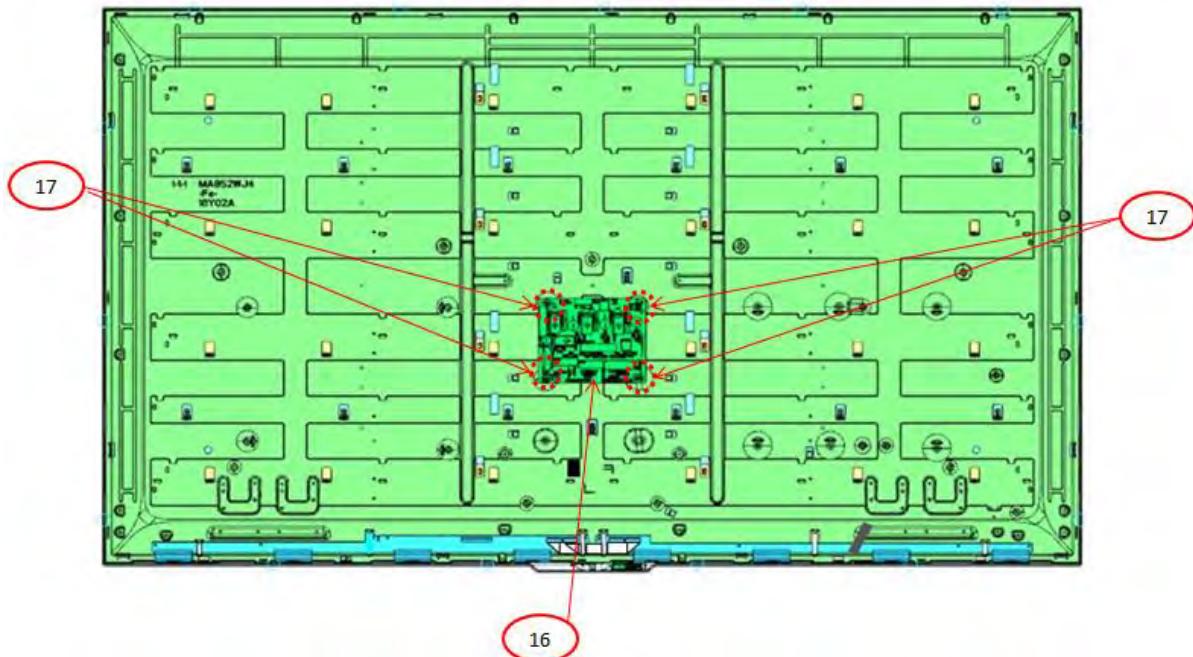
10. Remove Main Unit ⑭ by unscrew the screws ⑬

11. Disconnect and remove BL Wire ⑮



[7] REMOVING LED DRIVER

12. Remove LED DRIVER ⑯ by unscrew the 4 screws



SHARP PARTS GUIDE



No.S17M082T-C50AD1I

LED BACKLIGHT TV MODEL: 2T-C50AD1I

CONTENTS

- | | |
|-------------------------------------|--------------------------------|
| [1] PRINTED WIRING BOARD ASSEMBLIES | [6] CABINET & MECHANICAL PARTS |
| [2] LCD PANEL | [7] SUPPLIED ACCESSORIES |
| [3] MAIN UNIT (DUNTKG895FM01) | [8] PACKING ASSEMBLY PART |
| [4] LED IR UNIT (DUNTKG896FM01) | [9] MODULE UNIT |
| [5] LED DRIVER UNIT (DUNTKG884FM01) | ■ INDEX |

Parts marked with "▲" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[1] PRINTED WIRING BOARD ASSEMBLIES					
-	DUNTKG895FM01				MAIN UNIT
-	B3KUYAD1VI				MAIN UNIT (SEID Prod)
-	RDENCA516WJQZ				POWER UNIT
-	DUNTKG896FM01				LED IR UNIT
-	DUNTKG884FM01				LED DRIVER
-	B3KUYAD1II				LED DRIVER (SEID Prod)
[2] LCD PANEL					
-	DSETFG895WE10				MODULE ASSEMBLY
-	B3KUYAD1VAI				PANEL ASSY (SEID Prod)
[3] MAIN UNIT (DUNTKG895FM01)					
-	DUNTKG895FM01				MAIN KIT
-	DUNTKG895WE01				MAIN HAND
-	DUNTKG895WE01/				MAIN CHIP
-	DUNTKG895WE1A/				MAIN CHIP-A
-	CH-IXE017WJ01				GANG WR PROCESS
IC3101	RH-IXE017WJQZY				SPI FLASH IC
SC3801	QCNCWB143WJQZY				LVDS SOCKET
SC501	QJAKEA145WJN1Q				SERVICE JACK
J503	QJAKJA054WJQZY				HEADPHONE JACK
-	QKITPG895WJN1				MAIN PWB KIT
-	QPWBNG895WJN1				MAIN PWB
P1701	QPLGNB092WJZZY				PLUG
P9601	QPLGNB101WJZZY				PLUG
P103	QPLGNB148WJZZY				PLUG
P2001	QPLGNB150WJZZY				PLUG
-	QPWBNG895WJN1				MAIN PWB
-	QPWBNG895WJZZ				MAIN PWB
J501	QSOCZA370WJQZY				SOCKET
SC1501	QSOCZA390WJQZY				SOCKET
SC1502	QSOCZA390WJQZY				SOCKET
S101	QSW-KA037WJZZY				SWITCH
J502	QTANJA159WJPZQ				TERMINAL COV
FB506	RBLN-0104TAZZY				BALUN
FB507	RBLN-0104TAZZY				BALUN
FB503	RBLN-0244TAZZY				BALUN
FB1701	RBLN-A371WJQZY				BALUN
FB1702	RBLN-A371WJQZY				BALUN
FB1703	RBLN-A371WJQZY				BALUN
FB1704	RBLN-A371WJQZY				BALUN
FB1705	RBLN-A384WJQZY				BALUN
FB1706	RBLN-A384WJQZY				BALUN
FB1707	RBLN-A384WJQZY				BALUN
FB1708	RBLN-A384WJQZY				BALUN
FB501	RBLN-A589WJQZY				BALUN

FB502	RBLN-A589WJQZY				BALUN
FB9601	RBLN-A589WJQZY				BALUN
FB9602	RBLN-A589WJQZY				BALUN
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
FB9603	RBLN-A589WJQZY				BALUN
FB9604	RBLN-A589WJQZY				BALUN
FB1104	RBLN-A593WJQZY				BALUN
FB1105	RBLN-A593WJQZY				BALUN
FB1106	RBLN-A593WJQZY				BALUN
FB2001	RBLN-A593WJQZY				BALUN
FB2002	RBLN-A593WJQZY				BALUN
FB2003	RBLN-A593WJQZY				BALUN
FB2004	RBLN-A593WJQZY				BALUN
FB3301	RBLN-A593WJQZY				BALUN
FB3302	RBLN-A593WJQZY				BALUN
FB3303	RBLN-A593WJQZY				BALUN
FB3304	RBLN-A593WJQZY				BALUN
FB3305	RBLN-A593WJQZY				BALUN
FB3306	RBLN-A593WJQZY				BALUN
FB3307	RBLN-A593WJQZY				BALUN
FB3308	RBLN-A593WJQZY				BALUN
FB3309	RBLN-A593WJQZY				BALUN
FB3802	RBLN-A593WJQZY				BALUN
FB3804	RBLN-A593WJQZY				BALUN
FB3805	RBLN-A593WJQZY				BALUN
FB3806	RBLN-A593WJQZY				BALUN
FB3807	RBLN-A593WJQZY				BALUN
FB3809	RBLN-A593WJQZY				BALUN
FB3810	RBLN-A593WJQZY				BALUN
FB3814	RBLN-A593WJQZY				BALUN
FB3817	RBLN-A593WJQZY				BALUN
FB3818	RBLN-A593WJQZY				BALUN
FB3819	RBLN-A593WJQZY				BALUN
FB3823	RBLN-A593WJQZY				BALUN
FB9605	RBLN-A593WJQZY				BALUN
FB9606	RBLN-A593WJQZY				BALUN
FB9607	RBLN-A593WJQZY				BALUN
FB9608	RBLN-A593WJQZY				BALUN
FB9609	RBLN-A593WJQZY				BALUN
FB9610	RBLN-A593WJQZY				BALUN
C501	RC-KZA237WJZZY				CAPASITOR
C502	RC-KZA237WJZZY				CAPASITOR
C523	RC-KZA237WJZZY				CAPASITOR
C1114	RC-KZA237WJZZY				CAPASITOR
C3311	RC-KZA237WJZZY				CAPASITOR
C3345	RC-KZA237WJZZY				CAPASITOR

C9601	RC-KZA237WJZZY				CAPASITOR
C9603	RC-KZA237WJZZY				CAPASITOR
C9604	RC-KZA237WJZZY				CAPASITOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
C9610	RC-KZA237WJZZY				CAPASITOR
C9617	RC-KZA237WJZZY				CAPASITOR
C9619	RC-KZA237WJZZY				CAPASITOR
C9626	RC-KZA237WJZZY				CAPASITOR
C9627	RC-KZA237WJZZY				CAPASITOR
C9629	RC-KZA237WJZZY				CAPASITOR
C9630	RC-KZA237WJZZY				CAPASITOR
C9643	RC-KZA237WJZZY				CAPASITOR
C9645	RC-KZA237WJZZY				CAPASITOR
C504	RC-KZA520WJQZY				CAPASITOR
C513	RC-KZA520WJQZY				CAPASITOR
C514	RC-KZA520WJQZY				CAPASITOR
C522	RC-KZA520WJQZY				CAPASITOR
C524	RC-KZA520WJQZY				CAPASITOR
C1115	RC-KZA520WJQZY				CAPASITOR
C1706	RC-KZA520WJQZY				CAPASITOR
C1707	RC-KZA520WJQZY				CAPASITOR
C1702	RC-KZA620WJZZY				CAPASITOR
C1704	RC-KZA620WJZZY				CAPASITOR
C1709	RC-KZA620WJZZY				CAPASITOR
C1712	RC-KZA620WJZZY				CAPASITOR
C1722	RC-KZA620WJZZY				CAPASITOR
C9615	RC-KZA620WJZZY				CAPASITOR
C9631	RC-KZA620WJZZY				CAPASITOR
C9635	RC-KZA620WJZZY				CAPASITOR
C9647	RC-KZA620WJZZY				CAPASITOR
C1112	RC-KZA621WJQZY				CAPASITOR
C1703	RC-KZA621WJQZY				CAPASITOR
C1708	RC-KZA621WJQZY				CAPASITOR
C3826	RC-KZA621WJQZY				CAPASITOR
C9602	RC-KZA621WJQZY				CAPASITOR
C9611	RC-KZA621WJQZY				CAPASITOR
C9623	RC-KZA621WJQZY				CAPASITOR
C9624	RC-KZA621WJQZY				CAPASITOR
C9640	RC-KZA621WJQZY				CAPASITOR
C1503	RC-KZA691WJZZY				CAPASITOR
C3305	RC-KZA691WJZZY				CAPASITOR
C3313	RC-KZA691WJZZY				CAPASITOR
C3314	RC-KZA691WJZZY				CAPASITOR
C1713	RC-KZA709WJQZY				CAPASITOR
C1716	RC-KZA709WJQZY				CAPASITOR
C1718	RC-KZA709WJQZY				CAPASITOR

C1721	RC-KZA709WJQZY				CAPASITOR
C1705	RC-KZA980WJQZY				CAPASITOR
C1710	RC-KZA980WJQZY				CAPASITOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
C1723	RC-KZA980WJQZY				CAPASITOR
C1738	RC-KZA980WJQZY				CAPASITOR
C3824	RC-KZA980WJQZY				CAPASITOR
C9613	RC-KZA980WJQZY				CAPASITOR
C9628	RC-KZA980WJQZY				CAPASITOR
C9636	RC-KZA980WJQZY				CAPASITOR
L501	RCILFA154WJZZY				COIL
L3801	RCILFA154WJZZY				COIL
L3802	RCILFA154WJZZY				COIL
L3803	RCILFA154WJZZY				COIL
L3804	RCILFA154WJZZY				COIL
L3805	RCILFA154WJZZY				COIL
L3807	RCILFA154WJZZY				COIL
L3808	RCILFA154WJZZY				COIL
L3809	RCILFA154WJZZY				COIL
L3810	RCILFA154WJZZY				COIL
L3811	RCILFA154WJZZY				COIL
L9601	RCILPB085WJQZY				COIL
L9602	RCILPB088WJQZY				COIL
L9603	RCILPB088WJQZY				COIL
X3301	RCRSCA274WJQZY				CRYSTAL
D1501	RH-EXA741WJQZY				DIODE
D1504	RH-EXA741WJQZY				DIODE
TH3301	RH-HXA047WJQZY				THERMISTOR
IC3301	RH-IXE081WJQZQ				MAIN SOC
VA507	RH-VXA005WJZZY				AVR-M1005C270MTABB
TU1102	RTUDAA116WJQZQ				TUNNER
-	TLABNE421WJ01				orZLABL-089030E
C9607	VCCCCZ1HH100DY				CHIP CAPASITOR
C3317	VCCCCZ1HH121JY				CHIP CAPASITOR
C1105	VCCCCZ1HH220JY				CHIP CAPASITOR
C1106	VCCCCZ1HH220JY				CHIP CAPASITOR
C9621	VCCCCZ1HH220JY				CHIP CAPASITOR
C9641	VCCCCZ1HH220JY				CHIP CAPASITOR
C3318	VCCCCZ1HH8RODY				CHIP CAPASITOR
C3319	VCCCCZ1HH8RODY				CHIP CAPASITOR
C1724	VCKCY1HB222KY				CHIP CAPASITOR
C1725	VCKCY1HB222KY				CHIP CAPASITOR
C1726	VCKCY1HB222KY				CHIP CAPASITOR
C1727	VCKCY1HB222KY				CHIP CAPASITOR
C1102	VCKCYZ1AB104KY				CHIP CAPASITOR
C1111	VCKCYZ1AB104KY				CHIP CAPASITOR

C3101	VCKYCZ1AB104KY				CHIP CAPASITOR
C3301	VCKYCZ1AB104KY				CHIP CAPASITOR
C3302	VCKYCZ1AB104KY				CHIP CAPASITOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
C3303	VCKYCZ1AB104KY				CHIP CAPASITOR
C3306	VCKYCZ1AB104KY				CHIP CAPASITOR
C3307	VCKYCZ1AB104KY				CHIP CAPASITOR
C3308	VCKYCZ1AB104KY				CHIP CAPASITOR
C3309	VCKYCZ1AB104KY				CHIP CAPASITOR
C3310	VCKYCZ1AB104KY				CHIP CAPASITOR
C3312	VCKYCZ1AB104KY				CHIP CAPASITOR
C3315	VCKYCZ1AB104KY				CHIP CAPASITOR
C3322	VCKYCZ1AB104KY				CHIP CAPASITOR
C3323	VCKYCZ1AB104KY				CHIP CAPASITOR
C3325	VCKYCZ1AB104KY				CHIP CAPASITOR
C3326	VCKYCZ1AB104KY				CHIP CAPASITOR
C3327	VCKYCZ1AB104KY				CHIP CAPASITOR
C3328	VCKYCZ1AB104KY				CHIP CAPASITOR
C3329	VCKYCZ1AB104KY				CHIP CAPASITOR
C3330	VCKYCZ1AB104KY				CHIP CAPASITOR
C3331	VCKYCZ1AB104KY				CHIP CAPASITOR
C3332	VCKYCZ1AB104KY				CHIP CAPASITOR
C3334	VCKYCZ1AB104KY				CHIP CAPASITOR
C3335	VCKYCZ1AB104KY				CHIP CAPASITOR
C3336	VCKYCZ1AB104KY				CHIP CAPASITOR
C3337	VCKYCZ1AB104KY				CHIP CAPASITOR
C3347	VCKYCZ1AB104KY				CHIP CAPASITOR
C3348	VCKYCZ1AB104KY				CHIP CAPASITOR
C3349	VCKYCZ1AB104KY				CHIP CAPASITOR
C9606	VCKYCZ1AB104KY				CHIP CAPASITOR
C9618	VCKYCZ1AB104KY				CHIP CAPASITOR
C9633	VCKYCZ1AB104KY				CHIP CAPASITOR
C9644	VCKYCZ1AB104KY				CHIP CAPASITOR
C3320	VCKYCZ1AB473KY				CHIP CAPASITOR
C3321	VCKYCZ1AB473KY				CHIP CAPASITOR
C517	VCKYCZ1EB103KY				CHIP CAPASITOR
C520	VCKYCZ1EB103KY				CHIP CAPASITOR
C521	VCKYCZ1EB103KY				CHIP CAPASITOR
C3316	VCKYCZ1EB103KY				CHIP CAPASITOR
C9612	VCKYCZ1EB103KY				CHIP CAPASITOR
C9616	VCKYCZ1EB103KY				CHIP CAPASITOR
C9646	VCKYCZ1EB103KY				CHIP CAPASITOR
C1109	VCKYCZ1EB104KY				CHIP CAPASITOR
C1110	VCKYCZ1EB104KY				CHIP CAPASITOR
C1101	VCKYCZ1EB223KY				CHIP CAPASITOR
C515	VCKYCZ1HB102KY				CHIP CAPASITOR

C516	VCKYCZ1HB102KY				CHIP CAPASITOR
C518	VCKYCZ1HB102KY				CHIP CAPASITOR
C519	VCKYCZ1HB102KY				CHIP CAPASITOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
C1113	VCKYCZ1HB102KY				CHIP CAPASITOR
IC9601	VHI13A1C15U-1Y				IC
IC9602	VHI3479A33P-1Y				IC
IC9604	VHI3479A33P-1Y				IC
IC504	VHIAD22653B-1Y				IC
IC1702	VHIAD82010R-1Y				IC
IC9603	VHIMP1658GT-1Y				IC
IC9605	VHIMP1658GT-1Y				IC
IC9606	VHIMP1658GT-1Y				IC
IC501	VHIPS2553DD-1Y				IC
IC3302	VHIPST8429N-1Y				IC
R511	VRK-SA1JF101JY				CHIP RESISTOR
R2003	VRK-SA1JF103JY				CHIP RESISTOR
R539	VRK-SA1JF472JY				CHIP RESISTOR
R505	VRS-CZ1JF000JY				CHIP RESISTOR
R506	VRS-CZ1JF000JY				CHIP RESISTOR
R518	VRS-CZ1JF000JY				CHIP RESISTOR
R530	VRS-CZ1JF000JY				CHIP RESISTOR
R541	VRS-CZ1JF000JY				CHIP RESISTOR
R542	VRS-CZ1JF000JY				CHIP RESISTOR
R1107	VRS-CZ1JF000JY				CHIP RESISTOR
R1108	VRS-CZ1JF000JY				CHIP RESISTOR
R1109	VRS-CZ1JF000JY				CHIP RESISTOR
R1110	VRS-CZ1JF000JY				CHIP RESISTOR
R1116	VRS-CZ1JF000JY				CHIP RESISTOR
R1117	VRS-CZ1JF000JY				CHIP RESISTOR
R1501	VRS-CZ1JF000JY				CHIP RESISTOR
R1502	VRS-CZ1JF000JY				CHIP RESISTOR
R1503	VRS-CZ1JF000JY				CHIP RESISTOR
R1504	VRS-CZ1JF000JY				CHIP RESISTOR
R1505	VRS-CZ1JF000JY				CHIP RESISTOR
R1506	VRS-CZ1JF000JY				CHIP RESISTOR
R1507	VRS-CZ1JF000JY				CHIP RESISTOR
R1508	VRS-CZ1JF000JY				CHIP RESISTOR
R1533	VRS-CZ1JF000JY				CHIP RESISTOR
R1537	VRS-CZ1JF000JY				CHIP RESISTOR
R1540	VRS-CZ1JF000JY				CHIP RESISTOR
R1541	VRS-CZ1JF000JY				CHIP RESISTOR
R1542	VRS-CZ1JF000JY				CHIP RESISTOR
R1545	VRS-CZ1JF000JY				CHIP RESISTOR
R1546	VRS-CZ1JF000JY				CHIP RESISTOR
R1547	VRS-CZ1JF000JY				CHIP RESISTOR

R1716	VRS-CZ1JF000JY				CHIP RESISTOR
R1717	VRS-CZ1JF000JY				CHIP RESISTOR
R1718	VRS-CZ1JF000JY				CHIP RESISTOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
R3319	VRS-CZ1JF000JY				CHIP RESISTOR
R3320	VRS-CZ1JF000JY				CHIP RESISTOR
R3321	VRS-CZ1JF000JY				CHIP RESISTOR
R3322	VRS-CZ1JF000JY				CHIP RESISTOR
R3323	VRS-CZ1JF000JY				CHIP RESISTOR
R3324	VRS-CZ1JF000JY				CHIP RESISTOR
R3325	VRS-CZ1JF000JY				CHIP RESISTOR
R3335	VRS-CZ1JF000JY				CHIP RESISTOR
R3336	VRS-CZ1JF000JY				CHIP RESISTOR
R3823	VRS-CZ1JF000JY				CHIP RESISTOR
R3824	VRS-CZ1JF000JY				CHIP RESISTOR
R9613	VRS-CZ1JF000JY				CHIP RESISTOR
R1114	VRS-CZ1JF100JY				CHIP RESISTOR
R3312	VRS-CZ1JF100JY				CHIP RESISTOR
R3313	VRS-CZ1JF100JY				CHIP RESISTOR
R3314	VRS-CZ1JF100JY				CHIP RESISTOR
R3318	VRS-CZ1JF100JY				CHIP RESISTOR
R9622	VRS-CZ1JF100JY				CHIP RESISTOR
R9624	VRS-CZ1JF100JY				CHIP RESISTOR
R9626	VRS-CZ1JF100JY				CHIP RESISTOR
R1113	VRS-CZ1JF101JY				CHIP RESISTOR
R1524	VRS-CZ1JF101JY				CHIP RESISTOR
R1525	VRS-CZ1JF101JY				CHIP RESISTOR
R1526	VRS-CZ1JF101JY				CHIP RESISTOR
R1527	VRS-CZ1JF101JY				CHIP RESISTOR
R1708	VRS-CZ1JF101JY				CHIP RESISTOR
R1710	VRS-CZ1JF101JY				CHIP RESISTOR
R1712	VRS-CZ1JF101JY				CHIP RESISTOR
R1724	VRS-CZ1JF101JY				CHIP RESISTOR
R1725	VRS-CZ1JF101JY				CHIP RESISTOR
R1726	VRS-CZ1JF101JY				CHIP RESISTOR
R2001	VRS-CZ1JF101JY				CHIP RESISTOR
R2002	VRS-CZ1JF101JY				CHIP RESISTOR
R3841	VRS-CZ1JF101JY				CHIP RESISTOR
R3842	VRS-CZ1JF101JY				CHIP RESISTOR
R9612	VRS-CZ1JF101JY				CHIP RESISTOR
R503	VRS-CZ1JF102JY				CHIP RESISTOR
R525	VRS-CZ1JF102JY				CHIP RESISTOR
R526	VRS-CZ1JF102JY				CHIP RESISTOR
R549	VRS-CZ1JF102JY				CHIP RESISTOR
R1523	VRS-CZ1JF102JY				CHIP RESISTOR
R1532	VRS-CZ1JF102JY				CHIP RESISTOR

R1550	VRS-CZ1JF102JY				CHIP RESISTOR
R3328	VRS-CZ1JF102JY				CHIP RESISTOR
R9617	VRS-CZ1JF102JY				CHIP RESISTOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
R9637	VRS-CZ1JF102JY				CHIP RESISTOR
R504	VRS-CZ1JF103JY				CHIP RESISTOR
R520	VRS-CZ1JF103JY				CHIP RESISTOR
R521	VRS-CZ1JF103JY				CHIP RESISTOR
R528	VRS-CZ1JF103JY				CHIP RESISTOR
R529	VRS-CZ1JF103JY				CHIP RESISTOR
R537	VRS-CZ1JF103JY				CHIP RESISTOR
R538	VRS-CZ1JF103JY				CHIP RESISTOR
R544	VRS-CZ1JF103JY				CHIP RESISTOR
R545	VRS-CZ1JF103JY				CHIP RESISTOR
R547	VRS-CZ1JF103JY				CHIP RESISTOR
R1101	VRS-CZ1JF103JY				CHIP RESISTOR
R1512	VRS-CZ1JF103JY				CHIP RESISTOR
R1528	VRS-CZ1JF103JY				CHIP RESISTOR
R1529	VRS-CZ1JF103JY				CHIP RESISTOR
R1530	VRS-CZ1JF103JY				CHIP RESISTOR
R1531	VRS-CZ1JF103JY				CHIP RESISTOR
R1534	VRS-CZ1JF103JY				CHIP RESISTOR
R1721	VRS-CZ1JF103JY				CHIP RESISTOR
R3101	VRS-CZ1JF103JY				CHIP RESISTOR
R3102	VRS-CZ1JF103JY				CHIP RESISTOR
R3304	VRS-CZ1JF103JY				CHIP RESISTOR
R3334	VRS-CZ1JF103JY				CHIP RESISTOR
R3840	VRS-CZ1JF103JY				CHIP RESISTOR
R9627	VRS-CZ1JF103JY				CHIP RESISTOR
R9640	VRS-CZ1JF103JY				CHIP RESISTOR
R9643	VRS-CZ1JF103JY				CHIP RESISTOR
R1709	VRS-CZ1JF104JY				CHIP RESISTOR
R9603	VRS-CZ1JF104JY				CHIP RESISTOR
R9610	VRS-CZ1JF104JY				CHIP RESISTOR
R9611	VRS-CZ1JF104JY				CHIP RESISTOR
R9619	VRS-CZ1JF104JY				CHIP RESISTOR
R9628	VRS-CZ1JF104JY				CHIP RESISTOR
R9642	VRS-CZ1JF104JY				CHIP RESISTOR
R3309	VRS-CZ1JF105FY				CHIP RESISTOR
R519	VRS-CZ1JF123JY				CHIP RESISTOR
R522	VRS-CZ1JF123JY				CHIP RESISTOR
R3310	VRS-CZ1JF151JY				CHIP RESISTOR
R550	VRS-CZ1JF152JY				CHIP RESISTOR
R501	VRS-CZ1JF153JY				CHIP RESISTOR
R3828	VRS-CZ1JF153JY				CHIP RESISTOR
R3311	VRS-CZ1JF181JY				CHIP RESISTOR

R1103	VRS-CZ1JF182JY				CHIP RESISTOR
R1104	VRS-CZ1JF182JY				CHIP RESISTOR
R1510	VRS-CZ1JF201JY				CHIP RESISTOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
R9605	VRS-CZ1JF204FY				CHIP RESISTOR
R536	VRS-CZ1JF223JY				CHIP RESISTOR
R546	VRS-CZ1JF223JY				CHIP RESISTOR
R1514	VRS-CZ1JF223JY				CHIP RESISTOR
R1548	VRS-CZ1JF223JY				CHIP RESISTOR
R3327	VRS-CZ1JF223JY				CHIP RESISTOR
R9639	VRS-CZ1JF223JY				CHIP RESISTOR
R1722	VRS-CZ1JF224JY				CHIP RESISTOR
R3331	VRS-CZ1JF272JY				CHIP RESISTOR
R9641	VRS-CZ1JF273JY				CHIP RESISTOR
R532	VRS-CZ1JF330JY				CHIP RESISTOR
R533	VRS-CZ1JF330JY				CHIP RESISTOR
R9606	VRS-CZ1JF333FY				CHIP RESISTOR
R9621	VRS-CZ1JF333FY				CHIP RESISTOR
R548	VRS-CZ1JF333JY				CHIP RESISTOR
R3329	VRS-CZ1JF333JY				CHIP RESISTOR
R3330	VRS-CZ1JF333JY				CHIP RESISTOR
R9644	VRS-CZ1JF333JY				CHIP RESISTOR
R1551	VRS-CZ1JF392JY				CHIP RESISTOR
R9609	VRS-CZ1JF393FY				CHIP RESISTOR
R9623	VRS-CZ1JF393FY				CHIP RESISTOR
R1713	VRS-CZ1JF472FY				CHIP RESISTOR
R1714	VRS-CZ1JF472FY				CHIP RESISTOR
R508	VRS-CZ1JF472JY				CHIP RESISTOR
R509	VRS-CZ1JF472JY				CHIP RESISTOR
R3301	VRS-CZ1JF472JY				CHIP RESISTOR
R3326	VRS-CZ1JF472JY				CHIP RESISTOR
R9614	VRS-CZ1JF472JY				CHIP RESISTOR
R512	VRS-CZ1JF473JY				CHIP RESISTOR
R1509	VRS-CZ1JF473JY				CHIP RESISTOR
R1517	VRS-CZ1JF473JY				CHIP RESISTOR
R1518	VRS-CZ1JF473JY				CHIP RESISTOR
R1520	VRS-CZ1JF473JY				CHIP RESISTOR
R3829	VRS-CZ1JF473JY				CHIP RESISTOR
R1115	VRS-CZ1JF474JY				CHIP RESISTOR
R523	VRS-CZ1JF562JY				CHIP RESISTOR
R3307	VRS-CZ1JF682FY				CHIP RESISTOR
R3308	VRS-CZ1JF750JY				CHIP RESISTOR
R9607	VRS-CZ1JF752FY				CHIP RESISTOR
R9620	VRS-CZ1JF752FY				CHIP RESISTOR
R9604	VRS-CZ1JF753FY				CHIP RESISTOR
R9608	VRS-CZ1JF823FY				CHIP RESISTOR

R9638	VRS-CZ1JF823JY				CHIP RESISTOR
R527	VRS-TQ2EF750JY				CHIP RESISTOR
R9602	VRS-TW2HF3R3JY				CHIP RESISTOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[3] MAIN UNIT (DUNTKG895FM01)					
Q3804	VSAO6405+++1Y				TRANSISTOR
Q9601	VSKTA1535T+-1Y				TRANSISTOR
Q1501	VSKTC3875SG-1Y				TRANSISTOR
Q1502	VSKTC3875SG-1Y				TRANSISTOR
Q3301	VSLTC014EEB-1Y				TRANSISTOR
Q3803	VSLTC014EEB-1Y				TRANSISTOR
-	ZHNDALA7-R01E				orZHNDALB1-R01E
E3301	PRDARB110WJFW				HEATSINK
-	PSPAZD474WJKZ				COOLER PAD
-	ZHNDAI127R01E				orZHNDAI128R01E
[4] LED IR UNIT (DUNTKG896FM01)					
-	DUNTKG896FM01				LED IR KIT
-	DUNTKG896WE01				IR HAND
-	DUNTKG896WE01/				IR CHIP
-	DUNTKG896WE1A/				IR CHIP-A
-	DUNTKG896WE3A/				IR CHIP-B
-	QKITPG896WJTN				RC/LED PWB KIT
-	QPWBNG896WJZZ				RC/LED PWB
P0101	QPLGNB216WJZZY				PLUG
-	QPWBNG896WJZZ				RC/LED PWB
C0101	RC-KZA237WJZZY				CAPASITOR
C0108	VCKYCZ1AB104KY				CHIP CAPASITOR
IC0101	VHITC7SH08U-1Y				IC
R0101	VRS-CZ1JF101JY				CHIP RESISTOR
-	ZHNDALA7-R01E				orZHNDALB1-R01E
D0107	RH-PXA191WJPZY				LED
D0112	RH-PXA223WJPZY				LED
RMC0102	RRMCUA122WJQZY				IR RECEIVER
-	TLABNE421WJ01				orZLABL-089030E
C0117	VCKYCZ1AB104KY				CHIP CAPASITOR
C0118	VCKYCZ1AB104KY				CHIP CAPASITOR
R0128	VRS-CZ1JF152JY				CHIP RESISTOR
R0126	VRS-CZ1JF511JY				CHIP RESISTOR
-	ZHNDALA7-R01E				orZHNDALB1-R01E
-	ZHNDAI127R01E				orZHNDAI128R01E
[5] LED DRIVER UNIT (DUNTKG884FM01)					
-	DUNTKG884FM01				LED DR KIT
-	DUNTKG884WE01				LED DR HAND
-	DUNTKG884WE01/				LED DR CHIP
-	DUNTKG884WE01+				LED DR RADIAL
-	DUNTKG884WE01*				LED DR AXIAL
JA7804	QJUM-0001AJFWY				JUMPER WIRE

JA7805	QJUM-0001AJFWY				JUMPER WIRE
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[5] LED DRIVER UNIT (DUNTKG884FM01)					
JA7808	QJUM-0001AJFWY				JUMPER WIRE
JA7809	QJUM-0001AJFWY				JUMPER WIRE
JA7810	QJUM-0001AJFWY				JUMPER WIRE
JA7811	QJUM-0001AJFWY				JUMPER WIRE
JA7831	QJUM-0001AJFWY				JUMPER WIRE
JA7833	QJUM-0001AJFWY				JUMPER WIRE
JA7834	QJUM-0001AJFWY				JUMPER WIRE
JA7835	QJUM-0001AJFWY				JUMPER WIRE
JA7836	QJUM-0001AJFWY				JUMPER WIRE
JA7837	QJUM-0001AJFWY				JUMPER WIRE
JA7838	QJUM-0001AJFWY				JUMPER WIRE
JA7850	QJUM-0001AJFWY				JUMPER WIRE
JA7901	QJUM-0001AJFWY				JUMPER WIRE
JA7904	QJUM-0001AJFWY				JUMPER WIRE
JA7906	QJUM-0001AJFWY				JUMPER WIRE
JA7907	QJUM-0001AJFWY				JUMPER WIRE
JA7908	QJUM-0001AJFWY				JUMPER WIRE
JA7909	QJUM-0001AJFWY				JUMPER WIRE
JA7910	QJUM-0001AJFWY				JUMPER WIRE
JA7911	QJUM-0001AJFWY				JUMPER WIRE
-	QKITPG884WJZZ				LED DR KIT
-	QPWBFG884WJZZ				LED DR PWB
-	QPWBFG884WJZZ				LED DR PWB
FB7801	RBLN-A609WJQZY				BALUN
FB7901	RBLN-A609WJQZY				BALUN
-	TLABNE421WJ01				orZLABL-089030E
LUG7801	QEAPRA210WJQZ+				LUG
LUG7802	QEAPRA210WJQZ+				LUG
L7801	RCILPB672WJQZ+				COIL
L7901	RCILPB672WJQZ+				COIL
FB7802	RBLN-A600WJQZY				BALUN
FB7902	RBLN-A600WJQZY				BALUN
C7809	RC-KZA416WJZZY				CAPASITOR
C7909	RC-KZA416WJZZY				CAPASITOR
C7802	RC-KZB048WJQZY				CAPASITOR
C7807	RC-KZB048WJQZY				CAPASITOR
C7808	RC-KZB048WJQZY				CAPASITOR
C7902	RC-KZB048WJQZY				CAPASITOR
C7907	RC-KZB048WJQZY				CAPASITOR
C7908	RC-KZB048WJQZY				CAPASITOR
C7806	RC-KZB149WJZZY				CAPASITOR
C7816	RC-KZB149WJZZY				CAPASITOR

C7916	RC-KZB149WJZZY				CAPASITOR
Q7801	RH-TXA078WJZZY				DIODE
Q7901	RH-TXA078WJZZY				DIODE
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[5] LED DRIVER UNIT (DUNTKG884FM01)					
R7820	RR-SZA268WJZZY				RESISTOR
R7920	RR-SZA268WJZZY				RESISTOR
R7805	RR-SZA294WJZZY				RESISTOR
R7806	RR-SZA294WJZZY				RESISTOR
R7905	RR-SZA294WJZZY				RESISTOR
R7906	RR-SZA294WJZZY				RESISTOR
R7827	RR-SZA308WJZZY				RESISTOR
R7927	RR-SZA308WJZZY				RESISTOR
C7805	VCCCCY1HH161JY				CHIP CAPASITOR
C7810	VCCCCY1HH161JY				CHIP CAPASITOR
C7905	VCCCCY1HH161JY				CHIP CAPASITOR
C7910	VCCCCY1HH161JY				CHIP CAPASITOR
C7801	VCKCYC1HB103KY				CHIP CAPASITOR
C7901	VCKCYC1HB103KY				CHIP CAPASITOR
C7803	VCKCYC1HB121KY				CHIP CAPASITOR
C7903	VCKCYC1HB121KY				CHIP CAPASITOR
C7811	VCKCYC1HB221KY				CHIP CAPASITOR
C7911	VCKCYC1HB221KY				CHIP CAPASITOR
C7804	VCKCYC1HB473KY				CHIP CAPASITOR
C7904	VCKCYC1HB473KY				CHIP CAPASITOR
IC7802	VHISN74LDBV-1Y				ERROR LOGIC IC
IC7801	VHITPS61197-1Y				LED DRIVER
IC7901	VHITPS61197-1Y				LED DRIVER
RJ7810	VRS-CY1JF000JY				CHIP RESISTOR
RJ7830	VRS-CY1JF000JY				CHIP RESISTOR
RJ7831	VRS-CY1JF000JY				CHIP RESISTOR
RJ7832	VRS-CY1JF000JY				CHIP RESISTOR
RJ7833	VRS-CY1JF000JY				CHIP RESISTOR
RJ7834	VRS-CY1JF000JY				CHIP RESISTOR
RJ7835	VRS-CY1JF000JY				CHIP RESISTOR
RJ7836	VRS-CY1JF000JY				CHIP RESISTOR
RJ7837	VRS-CY1JF000JY				CHIP RESISTOR
RJ7838	VRS-CY1JF000JY				CHIP RESISTOR
RJ7839	VRS-CY1JF000JY				CHIP RESISTOR
RJ7840	VRS-CY1JF000JY				CHIP RESISTOR
R7809	VRS-CY1JF100FY				CHIP RESISTOR
R7909	VRS-CY1JF100FY				CHIP RESISTOR
R7832	VRS-CY1JF103JY				CHIP RESISTOR
R7932	VRS-CY1JF103JY				CHIP RESISTOR
R7813	VRS-CY1JF104JY				CHIP RESISTOR
R7814	VRS-CY1JF104JY				CHIP RESISTOR
R7913	VRS-CY1JF104JY				CHIP RESISTOR

R7914	VRS-CY1JF104JY				CHIP RESISTOR
R7801	VRS-CY1JF105JY				CHIP RESISTOR
R7901	VRS-CY1JF105JY				CHIP RESISTOR
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[5] LED DRIVER UNIT (DUNTKG884FM01)					
R7812	VRS-CY1JF113JY				CHIP RESISTOR
R7912	VRS-CY1JF113JY				CHIP RESISTOR
R7852	VRS-CY1JF223JY				CHIP RESISTOR
R7815	VRS-CY1JF301JY				CHIP RESISTOR
R7915	VRS-CY1JF301JY				CHIP RESISTOR
R7833	VRS-CY1JF334JY				CHIP RESISTOR
R7933	VRS-CY1JF334JY				CHIP RESISTOR
R7851	VRS-CY1JF393JY				CHIP RESISTOR
R7802	VRS-CY1JF394JY				CHIP RESISTOR
R7902	VRS-CY1JF394JY				CHIP RESISTOR
R7804	VRS-CY1JF513JY				CHIP RESISTOR
R7904	VRS-CY1JF513JY				CHIP RESISTOR
R7803	VRS-CY1JF563JY				CHIP RESISTOR
R7903	VRS-CY1JF563JY				CHIP RESISTOR
R7853	VRS-CY1JF823JY				CHIP RESISTOR
R7811	VRS-TV1JD224JY				CHIP RESISTOR
R7911	VRS-TV1JD224JY				CHIP RESISTOR
R7810	VRS-TV1JD470JY				CHIP RESISTOR
R7910	VRS-TV1JD470JY				CHIP RESISTOR
Q7802	VSMDD4N20//-1Y				DAMMING RESISTOR
Q7902	VSMDD4N20//-1Y				DAMMING RESISTOR
-	ZBOND-88-R01E				BOND
P7802	QPLGNB199WJZZ				PLUG
P7801	QPLGNB359WJZZY				PLUG
C7830	RC-EZB339WJLA				CAPASITOR
C7831	RC-EZC530WJLA				CAPASITOR
C7931	RC-EZC530WJLA				CAPASITOR
L7802	RCILPB683WJQZ				COIL
D7801	VHDSR5100/-1				SCONDARY DIODE
D7901	VHDSR5100/-1				SCONDARY DIODE
-	ZFLUX-70-R10E				PLUG
-	ZHNDAI127R01E				orZHNDAI128R01E
-	ZHNDAS50-R10E				orZHNDAS52-R10E
-	ZSLCN-098R30E				SILICON
[6] CABINET AND MECHANICAL PARTS					
-	CDAI-B255WJ42				KS STAND ASSY L
-	CCOVAF569WJ41				KS STND COVER L
-	GCOVAF569WJ41				STD DECO COV_L
-	GDAI-B255WJ41				STAND COVER L
-	LANGKF399WJ41				NECK ANGLE L
-	LANGKF570WJ41				BASE ANG L
-	LX-TZA021WJ41				SCREW

-	LX-TZA022WJ41				SCREW STD NECK
-	PSPAZD720WJ41				LEG CUSHION
-	SPAKPC446WJ41				STAND SACK-L
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION

[6] CABINET AND MECHANICAL PARTS

-	SSAKAA284WJ41				NECK SACK-L
-	TLABVC146WJ41				STD LABEL L
-	ZSFIM-95T400E				PROTECT SHEET
-	ZTAPES18T080E				TAPE
-	ZTAPES18T130E				TAPE
-	CDAI-B256WJ42				KS STAND ASSY R
-	CCOVAF571WJ41				KS STND COVER R
-	GCOVAF571WJ41				STD DECO COV R
-	GDAI-B256WJ41				STAND COVER R
-	LANGKF400WJ41				NECK ANG R
-	LANGKF571WJ41				BASE ANG R
-	LX-TZA021WJ41				SCREW
-	LX-TZA022WJ41				SCRW STD NECK
-	PSPAZD720WJ41				LEG CUSHION
-	SPAKPC447WJ41				STD SACK R
-	SSAKAA284WJ41				NECK SACK R
-	TLABVC147WJ41				STD LABEL R
-	ZSFIM-90T300E				PROTECT SHEET
-	ZTAPES18T080E				TAPE
-	ZTAPES18T130E				TAPE
-	CINS-H072WE01				MANUAL SET
-	SSAKHA068WJZZ				SACK
-	TGAN-C209WJN1				WARRANTY CARD
-	TINGS-H045WJZZ				SETUP GUIDE
-	UBATUA042WJZZ				BATTERY
-	XBBS840P14JS0				SCREW
-	ZTAPES12T030E				TAPE
-	DLAB-K269WE61				WS LABEL
-	TLABMG756WJ61				MODEL LABEL
-	TLABTR001WJZZ				RIBBON
-	TLABVA405WJZZ				NO CARD
-	DSETFG895FM09				PNL+UNT ASY ADJ
-	DSETFG895FM01				PNL+UNT ASY

[7] SUPPLIED ACCESSORIES

X1	RRMCGB291WJSA				REMOTE CONTROL
X2	TINS-H045WJZZ				SETUP GD (INDO)
X3	UBATUA042WJZZ				BATTERY
X4	CDAI-B255WJ42				STAND_ASSY_L
X4	CDAI-B256WJ42				STAND_ASSY_R
X5	XBBS840P14JS0				STAND SCREW

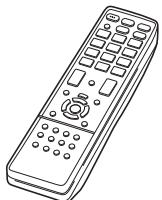
NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[8] PACKING ASSEMBLY PARTS					
S1	SPAKAA820WJ41				FRONT PAD
S2	SPAKCJ992WJ4Z				PACKING CASE
S3	SPAKFC455WJ41				CARTON SHEET
S4	SPAKPC202WJ4Z				HOSO PP
S5	SPAKPC352WJ41				PE BAG
S6	SPAKXF525WJ41				TOP-L AD
S7	SPAKXF526WJ41				TOP-R AD
S8	SPAKXF527WJ41				BTM-L AD
S9	SPAKXF528WJ41				BTM-R AD
S10	TCAUZA693WJZZ				CAUTION SHEET
S11	TLABV0178AJZZ				PACKING LABEL
S12	ZSFIM-45TA20E				PROTECT SHEET
S13	ZTAPEH72TA80E				PACKING TAPE-M
S14	ZTAPEQ25-150E				PAPER TAPE
S15	ZTAPES18T050E				TAPE FOR C/SHT
X1	RRMCGB289WJSA				REMOTE CONTROL
X2	TINS-H072WJZZ				SETUP GD (INDO)
X3	UBATUA042WJZZ				BATTERY
X4	CDAI-B255WJ42				STAND_ASSY_L
X4	CDAI-B256WJ42				STAND_ASSY_R
X5	XBBS840P14JS0				STAND SCREW
[9] MODULE UNIT					
-	DSETFG895FM10				COMPLETE MODULE
-	DSETFG895WE10				MODULE ASSY
-	CCABAD273WJ41				KS CAB A
-	GCABAD273WJ41				CAB-A
-	HDECPA327WJ41				DEC0 SHEET
-	HDECQC033WJ41				RC/LED LENS
-	LANGKF002WJ41				GROUNDING ANGLE
-	PSLDMC017WJ41				COND TAPE
-	PSLDMC046WJ41				COND TAPE
-	PSPAGB745WJ41				COND FOAM H
-	PSPAGB746WJ41				COND FOAM V
-	PTPEZA473WJ41				SHADING TAPE
-	ZSFIM-22T700E				PROTECT SHEET
-	ZSFIM-22TA20E				PROTECT SHEET
-	CCOVAF567WJ41				KS BACK COV
-	GCOVAF567WJ41				BACK COVER
-	LANGKE818WJ4W				SMALL VESA ANG
-	LANGKF030WJ41				BIG VESA ANGLE
-	LHLDWA357WJKZ				WH
-	CLCDTA520WE01				LCD ASSY UNIT
-	CHLDZC575WJ41				KS P-FRAME TOP
-	LHLDZC575WJ41				P-FRAME TOP
-	PSPAGB737WJ41				PORON H

NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[9] MODULE UNIT					
-	PTPEHA082WJ41				Dble Side Tape
-	CHLDZC576WJ41				KS- P-FRAME BTM
-	LHLDZC576WJ41				P-FRAME BTM
-	PSPAGB737WJ41				PORON H
-	CHLDZC577WJ41				KS- P-FRAME L
-	LHLDZC577WJ41				P-FRAME L
-	PSPAGB738WJ41				PORON V
-	CHLDZC578WJ41				KS- P-FRAME R
-	LHLDZC578WJ41				P-FRAME R
-	PSPAGB738WJ41				PORON V
-	LCHSMA852WJ41				BL CHASSIS
-	LHLDWA360WJUZ				WH
-	LHLDWA361WJUZ				WH
-	LHLDZC587WJ41				SUPPORT PIN
-	PCOVUA297WJZZ				DIFFUSION PLATE
-	PMIR-A441WJ4A				REFLECTION SHT
-	PSHEPB711WJZZ				TOP DIFFUSION
-	PSHEPB712WJZZ				DIFFUSION SHEET
-	QCNW-Q900WJPZ				S-PWB FFC
-	QCNW-R384WJPZ				LED BL WIRE
-	RLCDTA520WJZZ				50_2K OPEN CELL
-	RUNTKB686WJZZ				LED BAR
-	DUNTKG896FM01				LED IR KIT
-	DUNTKG896WE01				IR HAND
-	DUNTKG896WE01/				IR CHIP
-	DUNTKG896WE1A/				IR CHIP-A
-	DUNTKG896WE3A/				IR CHIP-B
-	QKITPG896WJTN				RC/LED PWB KIT
-	QPWBNG896WJZZ				RC/LED PWB
-	QPLGNB216WJZZY				PLUG
-	QPWBNG896WJZZ				RC/LED PWB
-	RC-KZA237WJZZY				CAPASITOR
-	VCKYCZ1AB104KY				CHIP CAPASITOR
-	VHITC7SH08U-1Y				IC
-	VRS-CZ1JF101JY				CHIP RESISTOR
-	ZHNDALA7-R01E				orZHNDALB1-R01E
-	RH-PXA191WJPZY				LED
-	RH-PXA223WJPZY				LED
-	RRMCUA122WJQZY				IR RECEIVER
-	TLABNE421WJ01				orZLABL-089030E
-	VCKYCZ1AB104KY				CHIP CAPASITOR
-	VCKYCZ1AB104KY				CHIP CAPASITOR
-	VRS-CZ1JF152JY				CHIP RESISTOR
-	VRS-CZ1JF511JY				CHIP RESISTOR
-	ZHNDALA7-R01E				orZHNDALB1-R01E

NO	PART CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[9] MODULE UNIT					
-	ZHNDAI127R01E				orZHNDAI128R01E
-	GCABBC700WJ41				CAB B
-	LANGKF551WJ41				STD FIX BRA L
-	LANGKF552WJ41				STD FIX BRA R
-	LX-BZA556WJZZ				FOR EMC GASKET
-	NSFTZA839WJF7				NUT FOR MAIN
-	PSHEPB519WJ41				SHADING TAPE
-	QCNW-R383WJPZ				LED IR WIRE
-	XBPS730P05WS0				FOR FIX BRKET
-	XBPS830P06WS0				FOR CABB/COV
-	XEBS830P08000				FOR CABB-CABA
-	ZTAPEP109020E				YELLOW TAPE
-	ZTAPEP179030E				YELLOW TAPE
-	SPAKAA820WJ41				FRONT PAD
-	SPAKCJ952WJ4Z				PCASE DUMMY
-	SPAKFC455WJ41				CARTON SHEET
-	SPAKPC202WJ4Z				HOSO PP
-	SPAKPC352WJ41				PE BAG
-	SPAKXF525WJ41				TOP-L AD
-	SPAKXF526WJ41				TOP-R AD
-	SPAKXF527WJ41				BTM-L AD
-	SPAKXF528WJ41				BTM-R AD
-	TCAUZA693WJZZ				CAUTION SHEET
-	TLABV0182AJZZ				PACKING LABEL
-	ZSFIM-45T700E				PROTECT SHEET
-	ZSFIM-45TA20E				PROTECT SHEET
-	ZTAPEH48TA80E				PACKING TAPE-M
-	ZTAPEQ25-150E				PAPER TAPE
-	ZTAPES18T050E				TAPE FOR C/SHT

Aksesoris yang disediakan

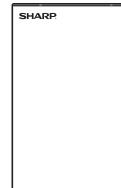
Unit remote control



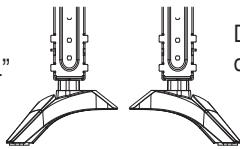
Baterai berukuran "AAA" (x 2)



Petunjuk Pengoperasian



Dudukan
dengan huruf "L"



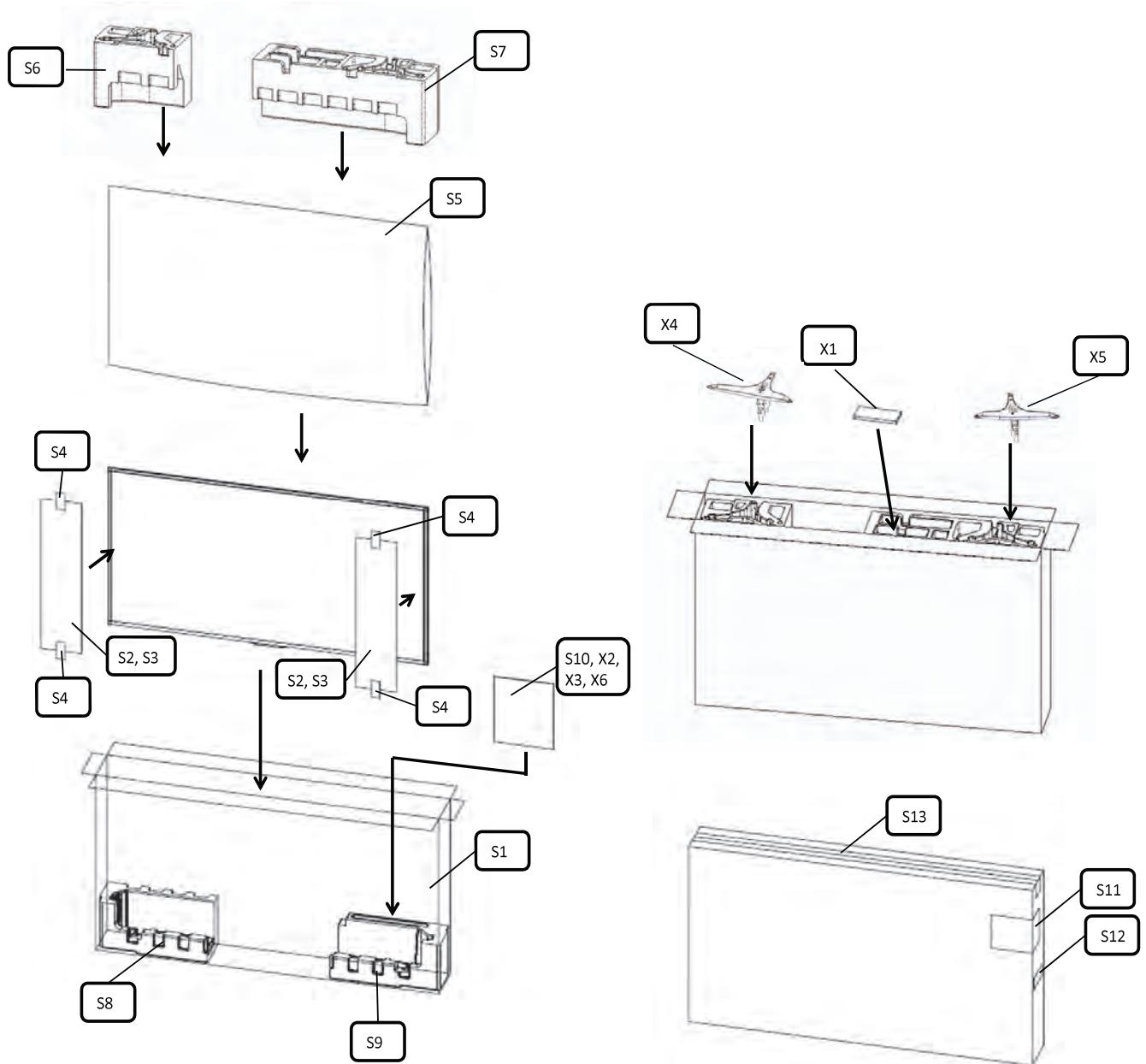
Dudukan

Dudukan
dengan huruf "R"



Sekrup (x 4)

PACKING PARTS (NOT REPLACEMENT ITEM)



SHARP

COPYRIGHT © 2017 BY SHARP CORPORATION

ALL RIGHTS RESERVED

No part of this publication may be reproduced,
stored in a retrieval system, or transmitted in
any form or by any means, electronic, mechanical,
photocopying, recording, or otherwise, without
prior written permission of the publisher.

Design and Production Information	
Design	:SEM
Production	:SEID

PT SHARP ELECTRONICS INDONESIA
ENGINEERING TV DEPARTMENT
Karawang,Jawa Barat
Indonesia