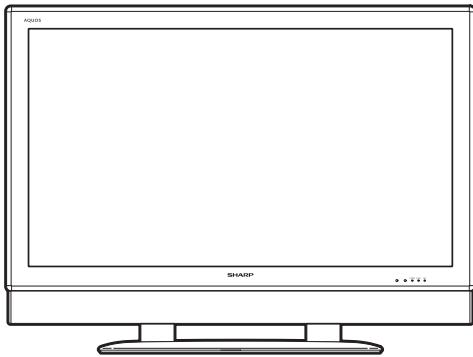


SHARP SERVICE MANUAL

No. S17B3LC60C46U



LCD COLOR TELEVISION

MODEL LC-60C46U

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

OUTLINE

This model is based on the LC-46D62U and is changed some parts. This Service Manual covers the modifications alone. For the other points, refer to the LC-46/52D62U Service Manual.

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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.

This document has been published to be used for

after sales service only.

The contents are subject to change without notice.

DIFFERENCES FROM BASE MODEL**LIST OF CHANGED PARTS**

Ref. No.	Description	LC-46D62U	LC-60C46U	Note
PWB ASSEMBLIES				
	R/C, LED Unit	DUNTKD909FM02	←	—
	KEY Unit	DUNTKD910FM02	←	—
	MAIN Unit	DUNTKD934FM01	DUNTKD934FM07	No Internal parts change
	TERMINAL Unit	DUNTKD935FM01	DUNTKD935FM07	No Internal parts change
	POWER SUPPLY Unit	RDENCA184WJQZ	←	—
CABINET AND MECHANICAL PARTS				
Please refer to a Parts list.				
PACKING PARTS, ACCESSORIES AND SERVICE JIGS				
Please refer to a Parts list.				

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.

CAUTION: FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE FUSE.

F701 (250V, 8A), F702 (250V, 1A)
F4702 (250V, 4A)
F4701/F4703 (250V, 3A, 127 °C)

■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 120 volt AC outlet.
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15μF 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.

SAFETY NOTICE

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

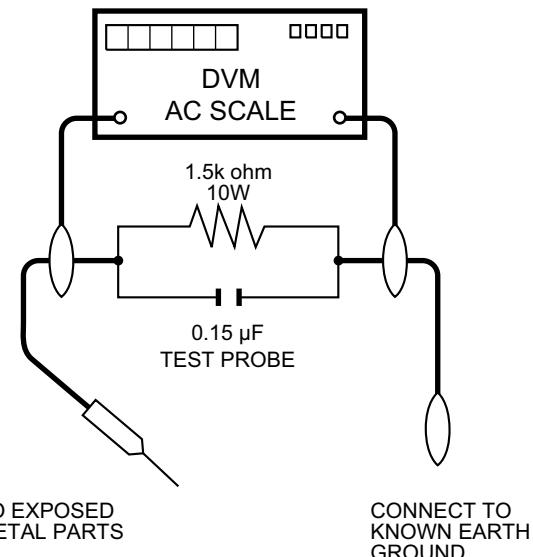
These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

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.

- 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 0.75 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.



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 A PRENDRE LORS DE LA REPARATION

■ Ne peut effectuer la réparation qu' un technicien spécialisé qui s'est parfaitement accoutumé à toute vérification de sécurité et aux conseils suivants.

■ AVERTISSEMENT

1. N'entreprendre aucune modification de tout circuit. C'est dangereux.
2. Débrancher le récepteur avant toute réparation.

PRECAUTION: POUR LA PROTECTION CONTINUE CONTRE LES RISQUES D'INCENDIE, REMPLACER LE FUSIBLE

F701 (250V, 8A), F702 (250V, 1A)
F4702 (250V, 4A)
F4701/F4703 (250V, 3A, 127 °C)

■ VERIFICATIONS CONTRE L'INCEN-DIE ET LE CHOC ELECTRIQUE

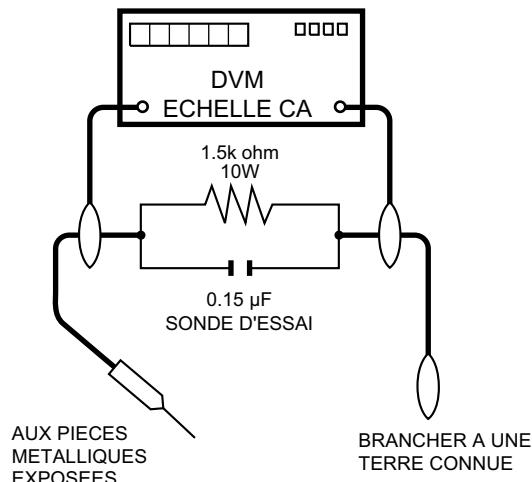
Avant de rendre le récepteur à l'utilisateur, effectuer les vérifications suivantes.

3. Inspecter tous les faisceaux de câbles pour s'assurer que les fils ne soient pas pincés ou qu'un outil ne soit pas placé entre le châssis et les autres pièces métalliques du récepteur.
4. Inspecter tous les dispositifs de protection comme les boutons de commande non-métalliques, les isolants, le dos du coffret, les couvercles ou blindages de réglage et de compartiment, les réseaux de résistancecapacité, les isolateurs mécaniques, etc.
5. S'assurer qu'il n'y ait pas de danger d'électrocution en vérifiant la fuite de courant, de la façon suivante:
- Brancher le cordon d'alimentation directement à une prise de courant de 120V. (Ne pas utiliser de transformateur d'isolation pour cet essai).

- A l'aide de deux fils à pinces, brancher une résistance de 1.5 kΩ 10 watts en parallèle avec un condensateur de 0.15µF en série avec toutes les pièces métalliques exposées du coffret et une terre connue comme une conduite électrique ou une prise de terre branchée à la terre.
- Utiliser un voltmètre CA d'une sensibilité d'au moins 5000Ω/V pour mesurer la chute de tension en travers de la résistance.
- Toucher avec la sonde d'essai les pièces métalliques exposées qui présentent une voie de retour au châssis (antenne, coffret métallique, tête des vis, arbres de commande et des boutons, écusson, etc.) et mesurer la chute de tension CA en-travers de la résistance. Toutes les vérifications doivent être refaites après avoir inversé la fiche du cordon d'alimentation. (Si nécessaire, une prise d'adpatation non polarisée peut être utilisée dans le but de terminer ces vérifications.)

La tension de pointe mesurée ne doit pas dépasser 0.75V (correspondante au courant CA de pointe de 0.5mA).

Dans le cas contraire, il y a une possibilité de choc électrique qui doit être supprimée avant de rendre le récepteur au client.



AVIS POUR LA SECURITE

De nombreuses pièces, électriques et mécaniques, dans les téléviseur ACL présentent des caractéristiques spéciales relatives à la sécurité, qui ne sont souvent pas évidentes à vue. Le degré de protection ne peut pas être nécessairement augmentée en utilisant des pièces de remplacement étalonnées pour haute tension, puissance, etc.

Les pièces de remplacement qui présentent ces caractéristiques sont identifiées dans ce manuel; les pièces électriques qui présentent ces particularités sont identifiées par la marque "Δ" et hachurées dans la liste des pièces de remplacement et les diagrammes schématiques.

Pour assurer la protection, ces pièces doivent être identiques à celles utilisées dans le circuit d'origine. L'utilisation de pièces qui n'ont pas les mêmes caractéristiques que les pièces recommandées par l'usine, indiquées dans ce manuel, peut provoquer des électrocutions, incendies, radiations X ou autres accidents.

PRECAUTIONS FOR USING LEAD-FREE SOLDER

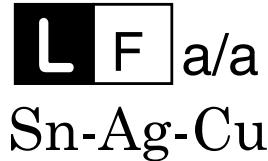
■Employing lead-free solder

- “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:



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



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 by 40 °C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or 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 the PWB for extended period of time. However, Since the land may be 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	φ0.3mm 250g (1roll)
ZHNDAi126500E	BK	J	φ0.6mm 500g (1roll)
ZHNDAi12801KE	BM	J	φ1.0mm 1kg (1roll)

CHAPTER 1. SPECIFICATIONS

[1] SPECIFICATIONS

Item			Model: LC-60C46U	
LCD panel			46" Advanced Super View & BLACK TFT LCD	
Number of dots			6,220,800 dots (1920 × 1080 × 3 dots)	
TV Function	TV-standard (CCIR)		American TV Standard ATSC/NTSC System	
	Receiving Channel	VHF/UHF	VHF 2-13ch, UHF 14-69ch	
		CATV	1-135ch (non-scrambled channel only)	
		Digital Terrestrial Broadcast (8VSB)	2-69ch	
		Digital cable* ¹ (64/256 QAM)	1-135ch (non-scrambled channel only)	
	Audio multiplex		BTSC System	
Audio out			15W × 2	
Terminals	Rear	INPUT 1	AV in, COMPONENT in	
		INPUT 2	AV in, COMPONENT in	
		INPUT 3	S-VIDEO in, AV in	
		INPUT 4	Audio in, HDMI in with HDCP	
		INPUT 5	HDMI in with HDCP	
		ANTENNA	75 Ω Unbalance, F Type × 1 for Analog (VHF/UHF/CATV) and Digital (AIR/CABLE)	
		DIGITAL AUDIO OUTPUT	Optical Digital audio output × 1 (PCM/Dolby Digital)	
		OUTPUT	Audio out	
OSD language			English/French/Spanish	
Power Requirement			AC 120 V, 60 Hz (FOR NORTH AMERICA) AC 110-240 V, 50/60 Hz (FOR OTHERS)	
Power Consumption			270 W (0.7 W Standby with AC 120V)	
Weight	w/o stand	70.6 lbs./32.0 kg		
	with stand	78.3 lbs./35.5 kg		
Dimension (W × H × D)	w/o stand	$44\frac{27}{64} \times 30\frac{13}{64} \times 4\frac{59}{64}$ inch		
	with stand	$44\frac{27}{64} \times 33\frac{5}{64} \times 13\frac{7}{16}$ inch		
Operating temperature			+32°F to +104°F (0°C to +40°C)	

*¹ Emergency alert messages via Cable are unreceivable.

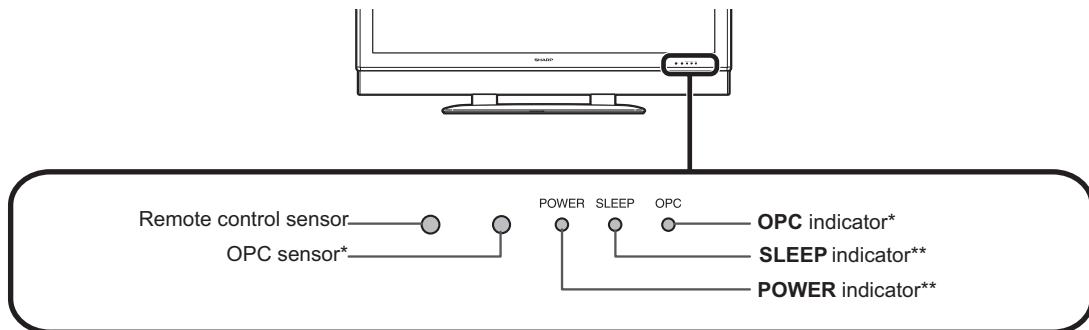
- As part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

CHAPTER 2. OPERATION MANUAL

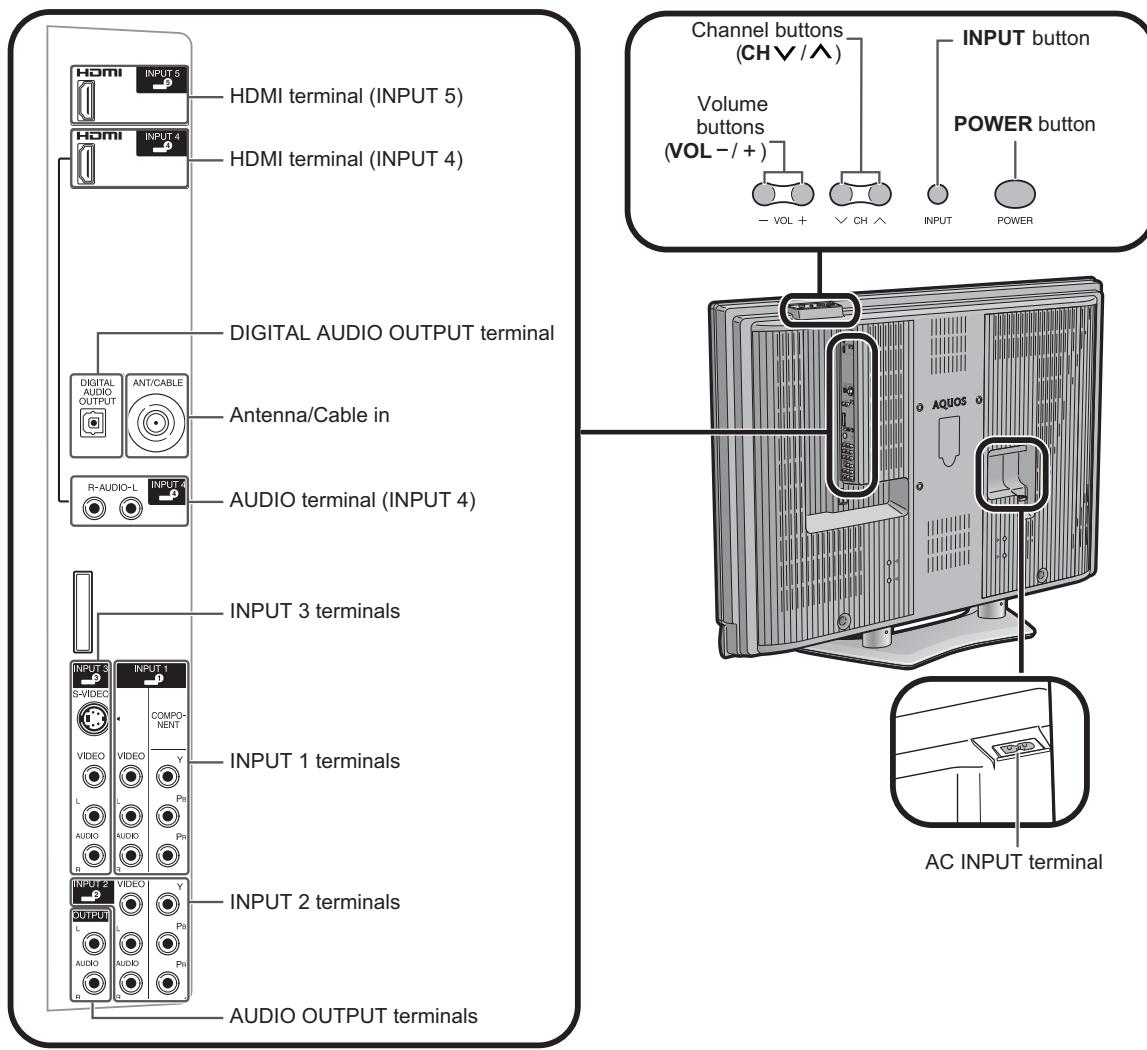
[1] OPERATION MANUAL

Part names

TV (Front)

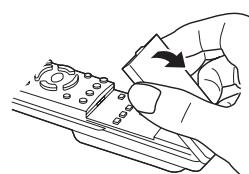
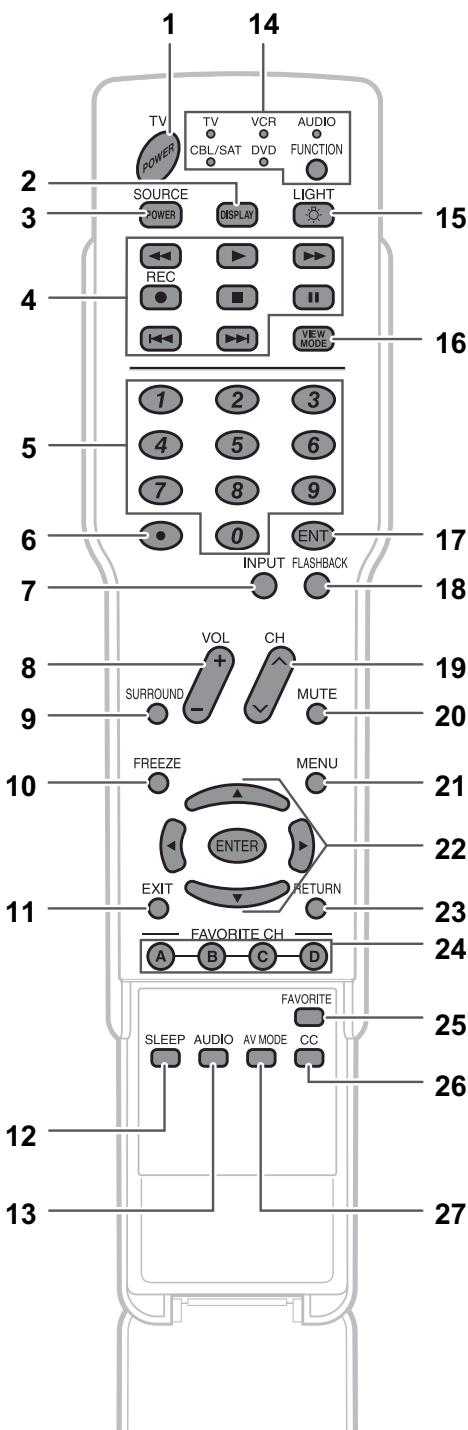


TV (Rear)



Part names

Remote control unit



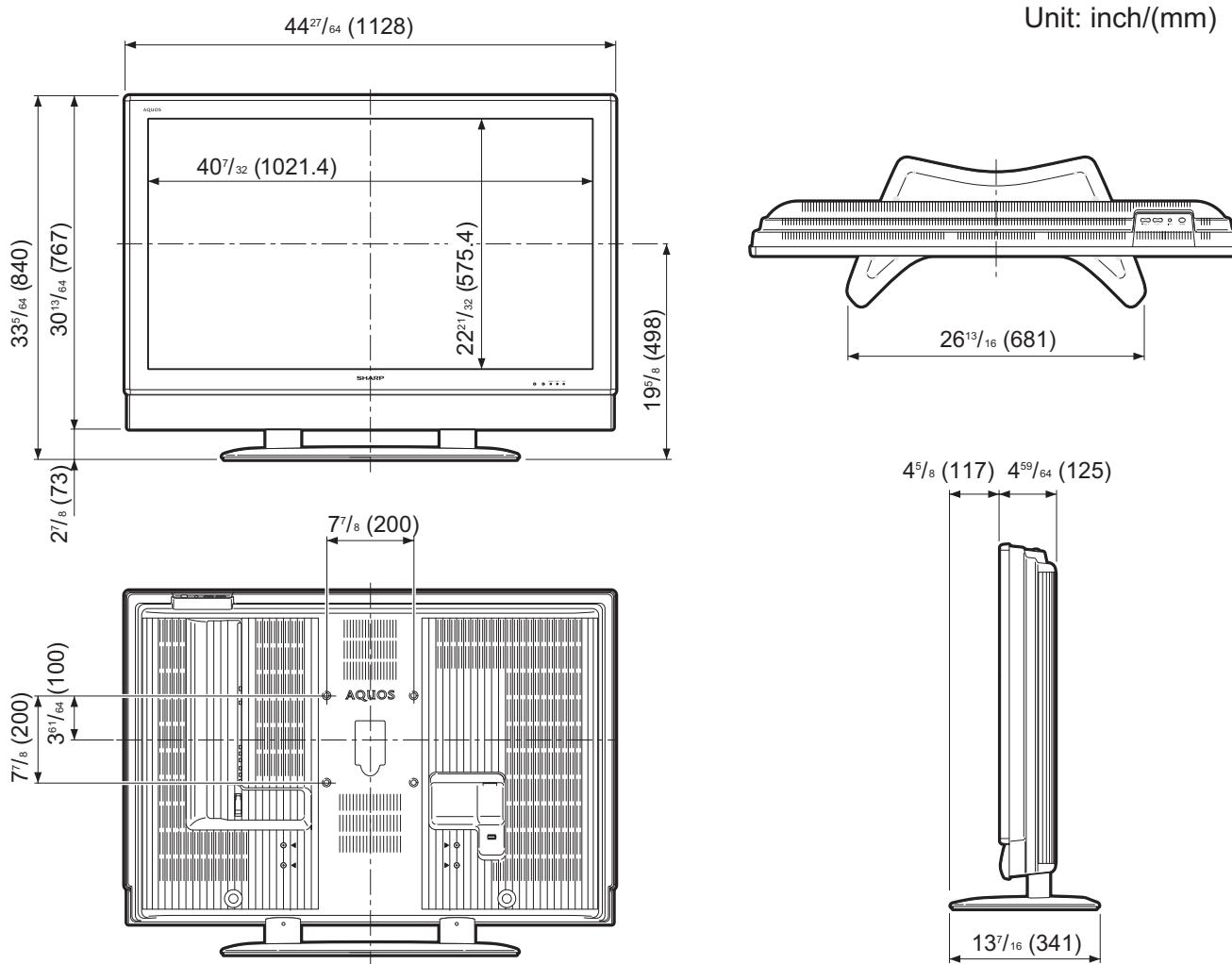
NOTE

- When using the remote control unit, point it at the TV.

- 1 TV POWER:** Switch the TV power on or enters standby mode.
- 2 DISPLAY:** Display the channel information.
- 3 SOURCE POWER:** Turns the power of the external equipment on and off.
- 4 External equipment operational buttons:** Operate the external equipment.
- 5 0 – 9:** Set the channel.
- 6 • (DOT):**
- 7 INPUT:** Select a TV input source. (TV, INPUT 1, INPUT 2, INPUT 3, INPUT 4, INPUT 5)
- 8 VOL + / -:** Set the volume.
- 9 SURROUND:** Select Surround settings.
- 10 FREEZE:** Set the still image. Press again to return to normal screen.
- 11 EXIT:** Turn off the menu screen.
- 12 SLEEP:** Set the sleep timer.
- 13 AUDIO:** Selects the MTS/SAP or the audio mode during multi-channel audio broadcasts.
- 14 FUNCTION:** Switches the remote control for TV, CBL/ SAT, VCR, DVD and AUDIO operation. Indicator lights up for the current mode.
* To enter the code registration mode, you need to press **FUNCTION** and **DISPLAY** at the same time.
- 15 LIGHT :** When pressed all buttons on the remote control unit will light. The lighting will turn off if no operations are performed within about 5 seconds. This button is used for performing operations in low-light situations.
- 16 VIEW MODE:** Select the screen size.
- 17 ENT:** Jumps to a channel after selecting with the **0 – 9** buttons.
- 18 FLASHBACK:** Return to the previous channel or external input mode.
- 19 CH ▲ / ▼:** Select the channel.
- 20 MUTE:** Mute the sound.
- 21 MENU:** Display the menu screen.
- 22 ▲ / ▼ / ◀ / ▶ / ENTER:** Select a desired item on the screen.
- 23 RETURN:** Return to the previous menu screen.
- 24 FAVORITE CH**
A, B, C, D: Select 4 preset favorite channels in 4 different categories.
While watching, you can toggle the selected channels by pressing A, B, C and D.
- 25 FAVORITE:** Register favorite channel.
- 26 CC:** Display captions from a closed-caption source.
- 27 AV MODE:** Select an audio or video setting. (When the input source is TV, INPUT 1, 2 or 3: STANDARD, MOVIE, GAME, USER, DYNAMIC (Fixed), DYNAMIC. When the input source is INPUT 4 or 5: STANDARD, MOVIE, GAME, PC, USER, DYNAMIC (Fixed), DYNAMIC)

CHAPTER 3. DIMENSIONS

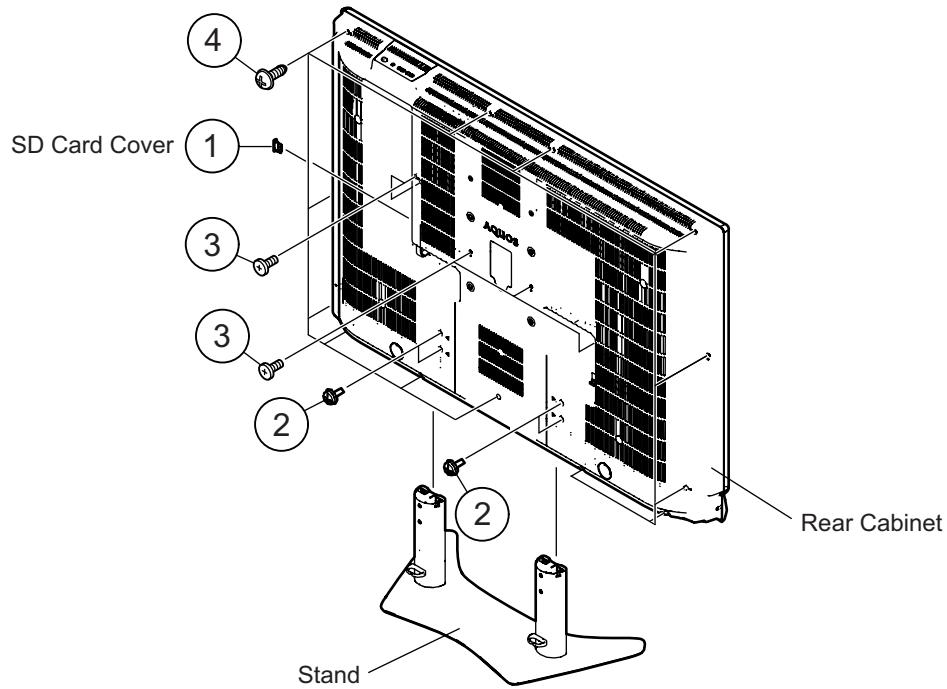
[1] DIMENSIONS



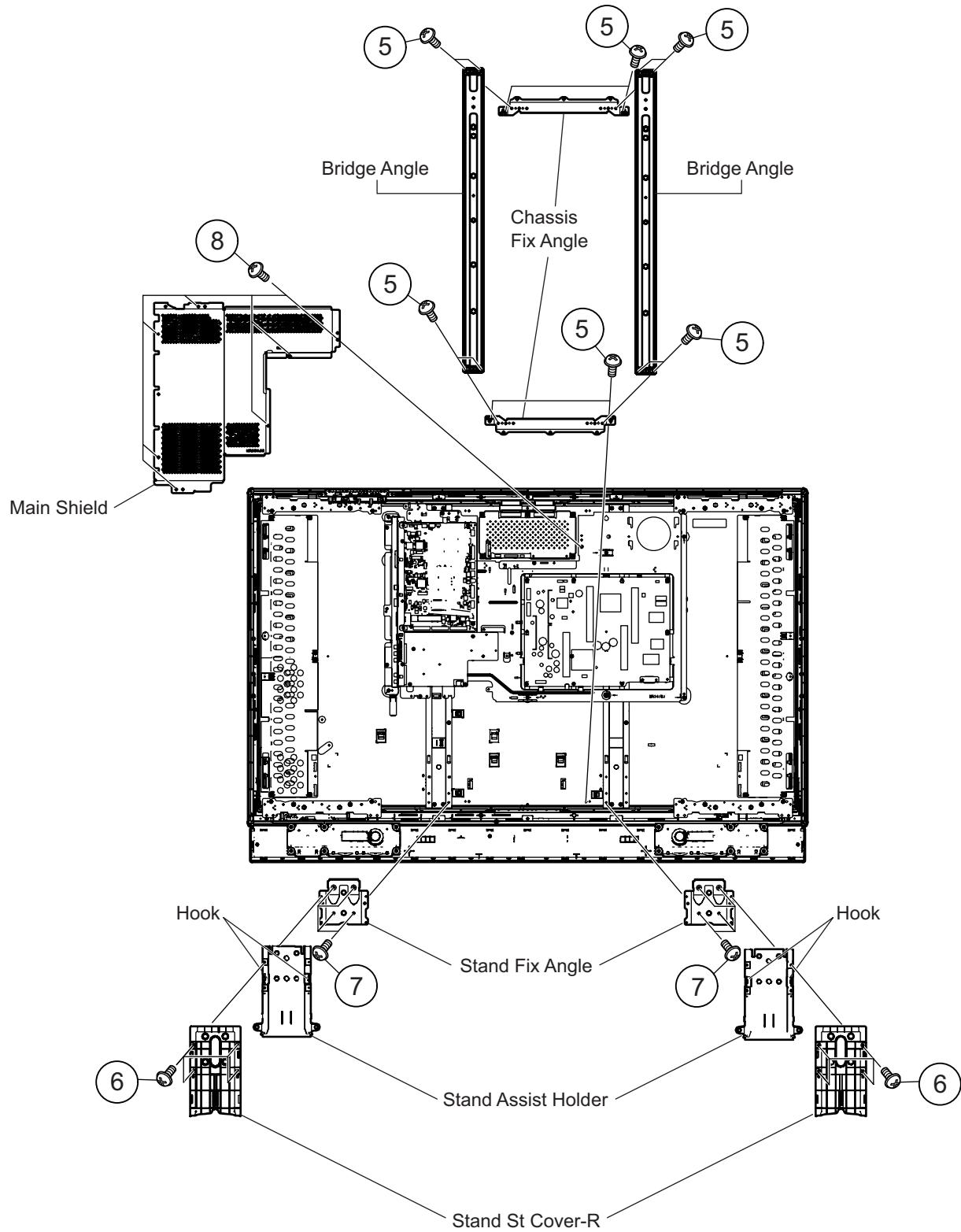
CHAPTER 4. REMOVING OF MAJOR PARTS

[1] REMOVING OF MAJOR PARTS

1. Detach the SD Card Cover ① .
2. Remove the 4 lock screws ② and detach the Stand.
3. Remove the 5 lock screws ③ .
4. Remove the 13 lock screws ④ and detach the Rear Cabinet.



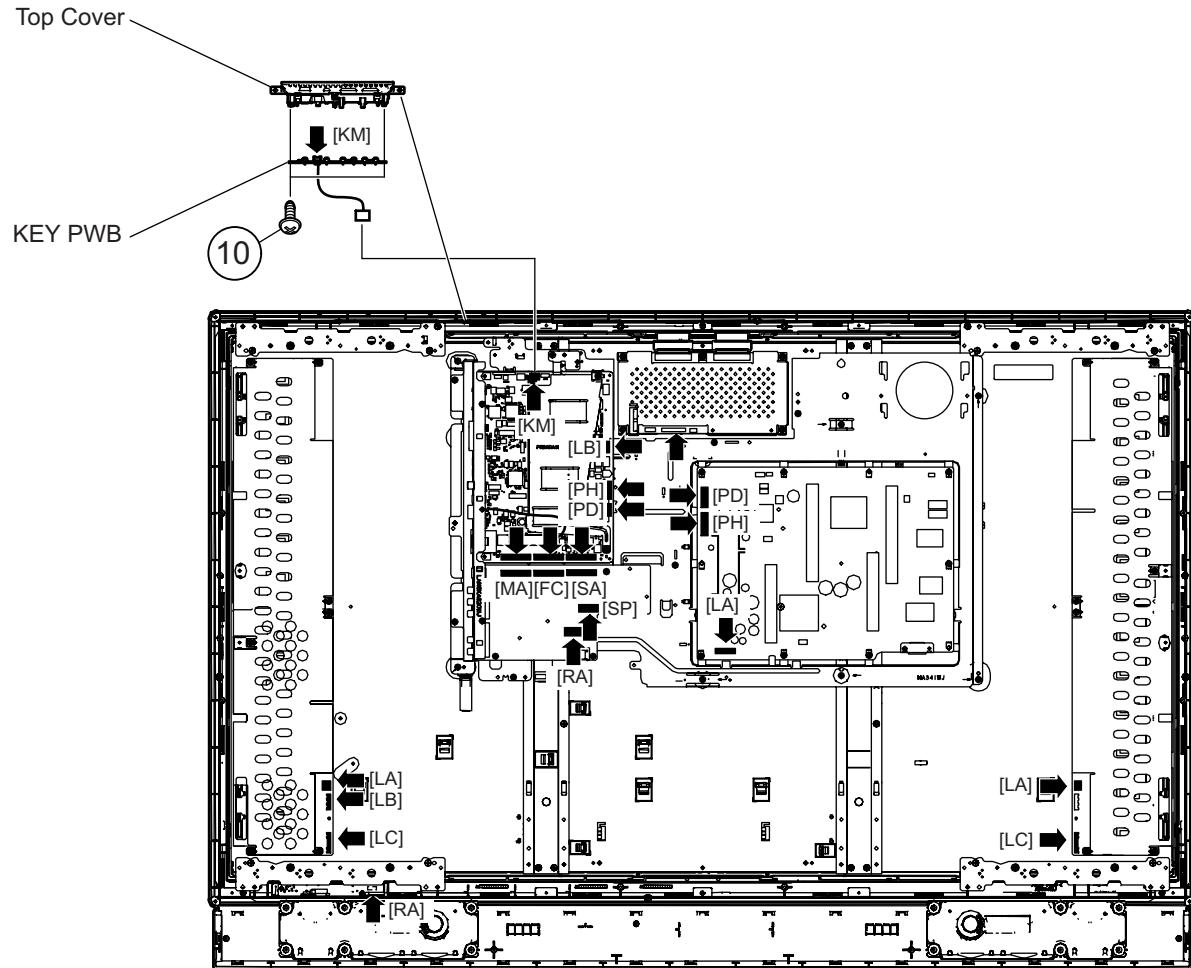
5. Remove the 12 lock screws ⑤ and detach the Bridge Angle and Chassis Fix Angle.
6. Remove the 8 lock screws ⑥ 8 lock point and detach the Stand St Cover-R.
7. Remove the 4 hook and detach the Stand Assist Holder.
8. Remove the 8 lock screws ⑦ and detach the Stand Fix Angle.
9. Remove the 7 lock screws ⑧ and detach the Main Shield.



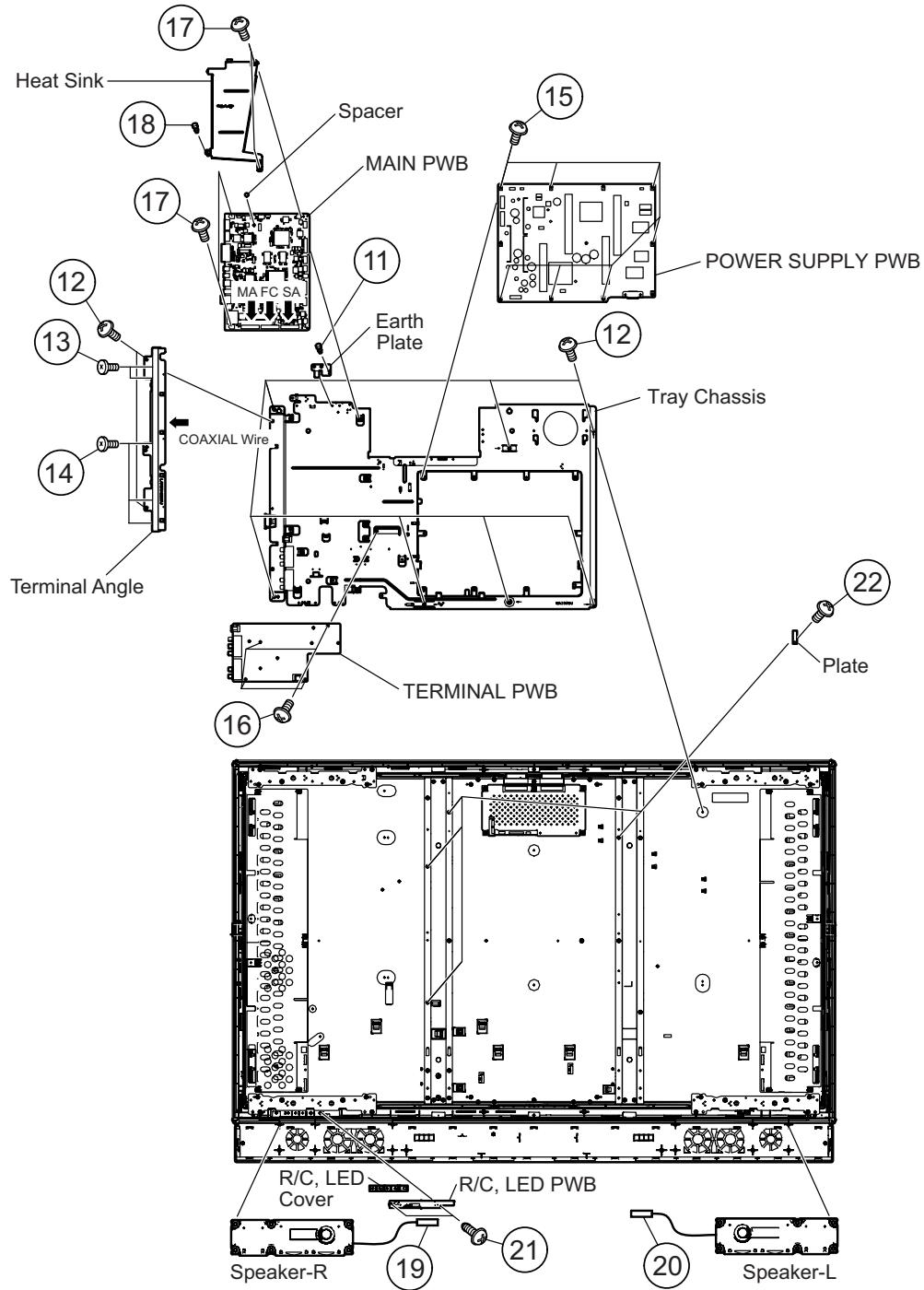
LC-60C46U

10. Disconnect all the connectors from all the PWBs.

11. Remove the 2 lock screws ⑩ and detach the KEY PWB.



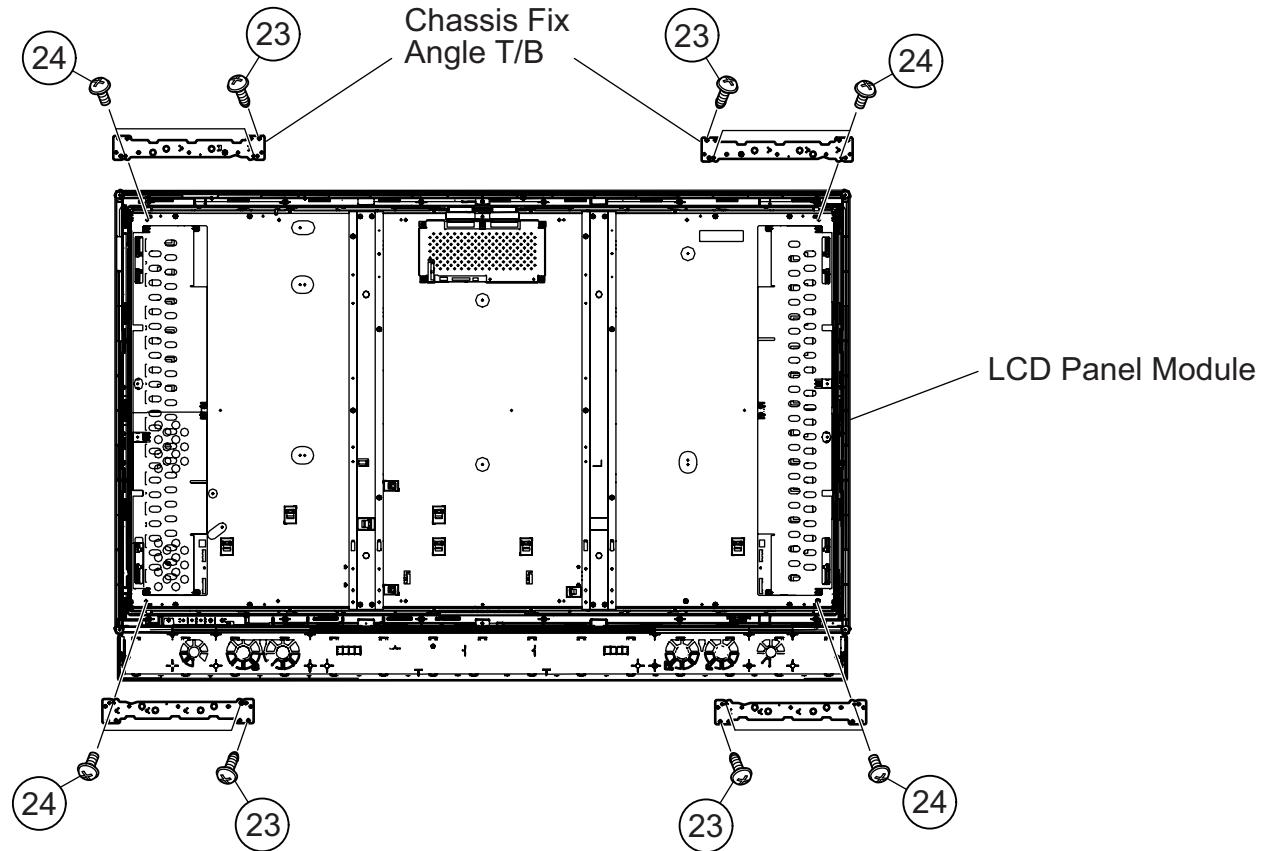
12. Remove the 1 rivet ⑪ and detach the earth plate.
13. Remove the 9 lock screws ⑫ and detach the Tray Chassis.
14. Disconnect the 3 connectors (MA, FC, SA), and COAXIAL Wire.
15. Remove the 2 lock screws ⑬ , 3 lock screws ⑭ and detach the Terminal Angle.
16. Remove the 7 lock screws ⑮ and detach the POWER SUPPLY PWB.
17. Remove the 4 lock screws ⑯ and detach the TERMINAL PWB.
18. Remove the 4 lock screws ⑰ , and the spacer, rivet ⑱ and detach the Heat Sink and MAIN PWB.
19. Disconnect the 2 connectors ⑲ , ⑳ and detach the Speaker-L and R.
20. Remove the 2 lock screws ㉑ and detach the R/C, LED PWB.
21. Remove the 4 lock screws ㉒ and detach the plates.



LC-60C46U

22.Remove the 4 lock screws ㉓ and detach the LCD Panel Module.

23.Remove the 8 lock screws ㉔ and detach the Chassis Fix Angle T/B.



SHARP PARTS GUIDE

No. S17B3LC60C46U

Note:

The reference numbers on the PWB
are arranged in alphabetical order.

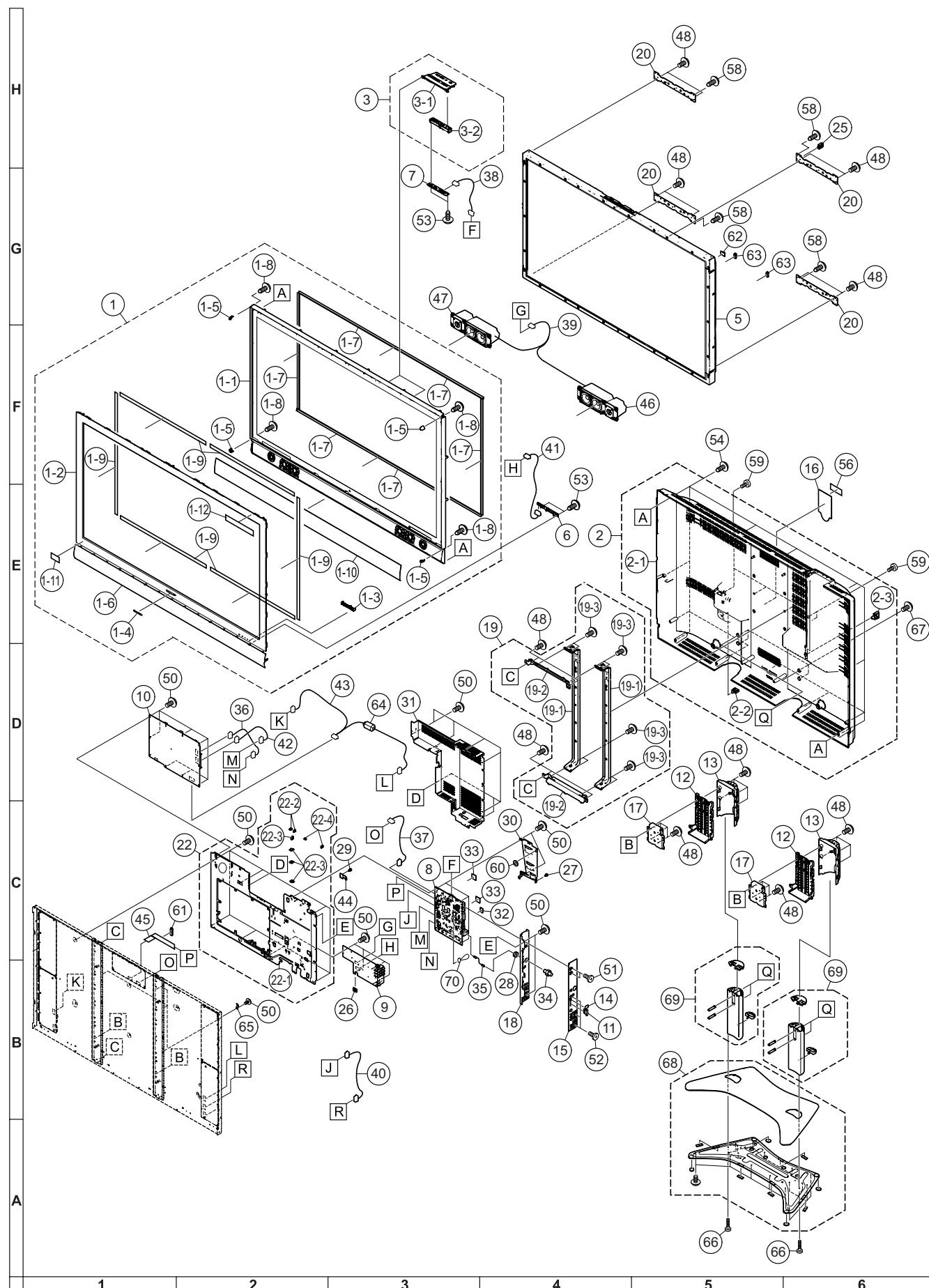
MODEL LC-60C46U**CONTENTS**

- | | |
|-------------------------------------|--|
| [1] PRINTED WIRING BOARD ASSEMBLIES | [4] PACKING PARTS (NOT REPLACEMENT ITEM) |
| [2] CABINET AND MECHANICAL PARTS | [5] SERVICE JIG (USE FOR SERVICING) |
| [3] SUPPLIED ACCESSORIES | |

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.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[1] PRINTED WIRING BOARD ASSEMBLIES					
N	DUNTKD909FM02	AQ		X	R/C, LED Unit
N	DUNTKD910FM02	AH		X	KEY Unit
N	DUNTKD934FM07	CQ	N	R	MAIN Unit
N	DUNTKD935FM07	BG	N	X	TERMINAL Unit
N	RDENCA184WJQZ	BU		X	POWER SUPPLY Unit (Unit exchange)

[2] CABINET AND MECHANICAL PARTS

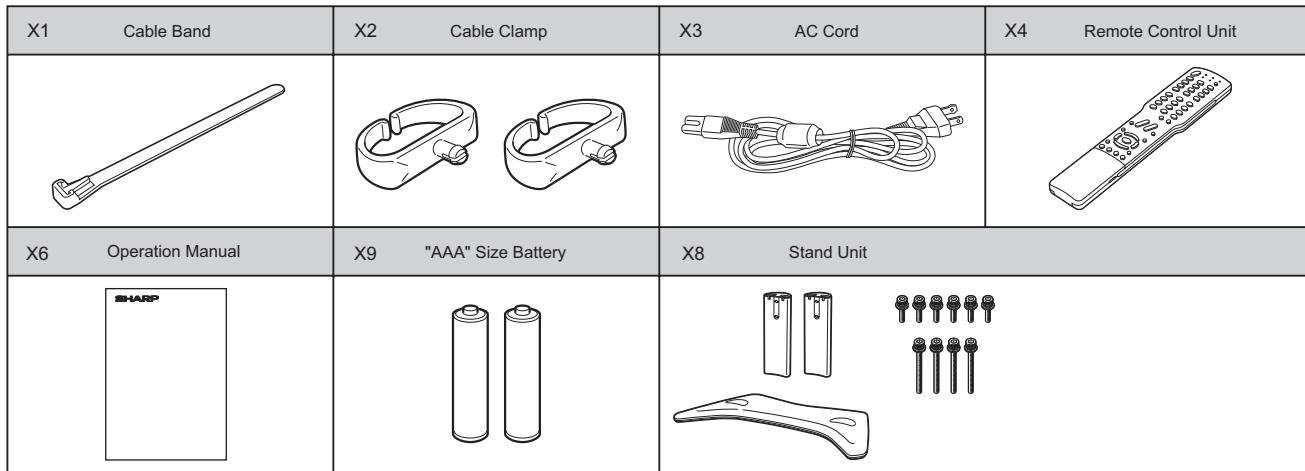


1	2	3	4	5	6
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NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[2] CABINET AND MECHANICAL PARTS					
1	CCABAB523WJ01	BZ		X	Front Cabinet Ass'y
1-1	Not Available	-		-	Front Cabinet
1-2	Not Available	-	N	-	Front Cover
1-3	Not Available	-	N	-	LED Cover
1-4	HBDGBA061WJSA	AG		X	Badge, "SHARP"
1-5	Not Available	-	N	-	Corner Cover, x4
1-6	HPNC-A159WJSA	BB	N	X	Punching Net
1-7	PSPAHA899WJZZ		N	X	Spacer, x6
1-8	XEBS930P08000	AA		X	Screw for Conner Cover, x4
1-9	Not Available	-	N	-	Spacer, x6
1-10	Not Available	-	N	-	Jersey Net
1-11	TLABZA635WJZZ	AD		X	E-Star Label
1-12	TLABBZ393WJSA	AF		X	POP Label
2	CCABBA898WJ01	BR		X	Rear Cabinet Ass'y
2-1	Not Available	-		-	Rear Cabinet
2-2	LHLDWA012WJKZ	AC		X	Wire Holder
2-3	LHLDWA131WJKZ	AF		X	Wire Holder
3	CCOVAB823WJ01	AD		X	Top Cover Ass'y
3-1	Not Available	-		-	Top Cover
3-2	Not Available	-	N	-	Control Button
5	R1LK460D3LZ10Y	GC		X	46"LCD Panel Module Unit
6	DUNTKD909FM02	AQ		X	R/C, LED Unit
7	DUNTKD910FM02	AH		X	KEY Unit
8	DUNTKD934FM07	CQ	N	R	MAIN Unit
9	DUNTKD935FM07	BG	N	X	TERMINAL Unit
10	RDENCA184WJQZ	BU		X	POWER SUPPLY Unit
11	GCOVAA678WJKA	AG		X	SD Cover
12	LHLDZA797WJKA	AD		X	Stand Assist Holder, x2
13	GCOVAB822WJKA	AD		X	Stand Bottom Cover, x2
14	HINDPB715WJSA	AF		X	Terminal Label
15	HINDPB893WJSA	AH		X	Jack Indicator Plate.
16	HINDPC129WJSA	AH	N	X	Model Label
17	LANGKA819WJN1	AP		X	Stand Fix Angle, x2
18	LANGKA820WJFW	AK		X	Terminal Angle
19	CANGTA373WJ01	BB		X	Bridge Angle Ass'y
19-1	Not Available	-		-	Bridge Angle, x2
19-2	LANGTA377WJFW		N	X	Fix Angle Center, x2
19-3	XBBS740P08000	AB		X	Screw for Angle Fix, x8
20	LANGTA375WJFW	AK		X	Chassis Fix Angle Top/Bottom, x4
22	CCHSMA341WJ01	BA		X	Tray Chassis Ass'y
22-1	Not Available	-		-	Tray Chassis
22-2	LHLDWA102WJKZ	AB		X	Wire Holder, x2
22-3	LHLDWA120WJKZ	AB		X	Wire Holder, x4
22-4	LHLDWA123WJKZ	AB		X	Wire Holder, x2
25	LHLDWA123WJKZ	AB		X	Wire Holder
26	LHLDWA150WJKZ	AC		X	Wire Holder for IF PWB
27	PCLICA004WJKZ	AC		R	Rivet
28	LX-NZ3047GEZZ	AB		X	Hexagonal Nut
29	PCLICA008WJZZ	AB		X	Rivet
30	PRDARA390WJFW	AM		X	Heat Sink for Main Unit
31	PSLDMA910WJN1	AV		X	Main Shield
32	PSPAZB192WJKZ	AG		X	Cool Sheet
33	PSPAZA917WJKZ	AH		R	Cool Sheet, x2
34	QCNCWA496WJZZ	AK		X	F-RCA Connector
35	QCNW-E249WJPZ	AH		R	Connecting Cord (Tuner)
36	QCNW-E258WJQZ	AG		R	Connecting Cord (PD)
37	QCNW-E894WJQZ	AP		R	Connecting Cord (LP)
38	QCNW-E895WJQZ	AG		R	Connecting Cord (KM)
39	QCNW-F199WJQZ	AH	N	X	Connecting Cord (SP)
40	QCNW-E898WJQZ	AH	N	X	Connecting Cord (LB)
41	QCNW-E901WJQZ	AM	N	X	Connecting Cord (RA)
42	QCNW-E902WJQZ	AH		R	Connecting Cord (PH)
43	QCNW-E903WJQZ	AN	N	X	Connecting Cord (LA)
44	QEARPAA228WJFW	AD		X	Earth Plate
45	QPWBHD838WJQZ	AY		X	Printed Wiring Board (LV)
46	RSP-ZA192WJZZ	AX		X	Speaker (Right)
47	RSP-ZA193WJZZ	AX		X	Speaker (Left)
48	XBBS740P08000	AB		X	Screw for Angle Fix, x28
50	XBPS730P06WS0	AB		X	Screw for Angle, x35
51	XBPS830P06000	AA		X	Screw for HDMI, x2
52	XEBS930P08000	AA		X	Screw for Jack, x3
53	XEBS930P10000	AA		X	Screw, x4
54	XEBS940P20000	AA		X	Screw for Rear Cabinet, x13
56	Not Available	-		-	Label
58	XEBSN40P16000	AB		R	Screw for Panel Angle, x4
59	XBPS930P08JS0	AB		R	Screw for Rear Cabinet, x5
60	XWHS742-10120	AB		X	Washer
61	LHLDW1141CEZZ	AE		R	Wire Holder for LV
62	LHLDWA141WJZZ	AD		X	Wire Holder For Speaker Wire
63	LHLDW1173CEZZ	AD		R	Wire Holder For Speaker Wire, x2
64	RCORFA020WJZZ	AN		R	Core
65	QEARBAA025WJZZ	AD		X	Ground Part, x4
66	LX-BZA162WJF7		N	X	Screw for Stand Ass'y, x6
67	Not Available	-	N	-	Screw to Set, x4
68	Not Available	-	N	-	Stand Base Ass'y

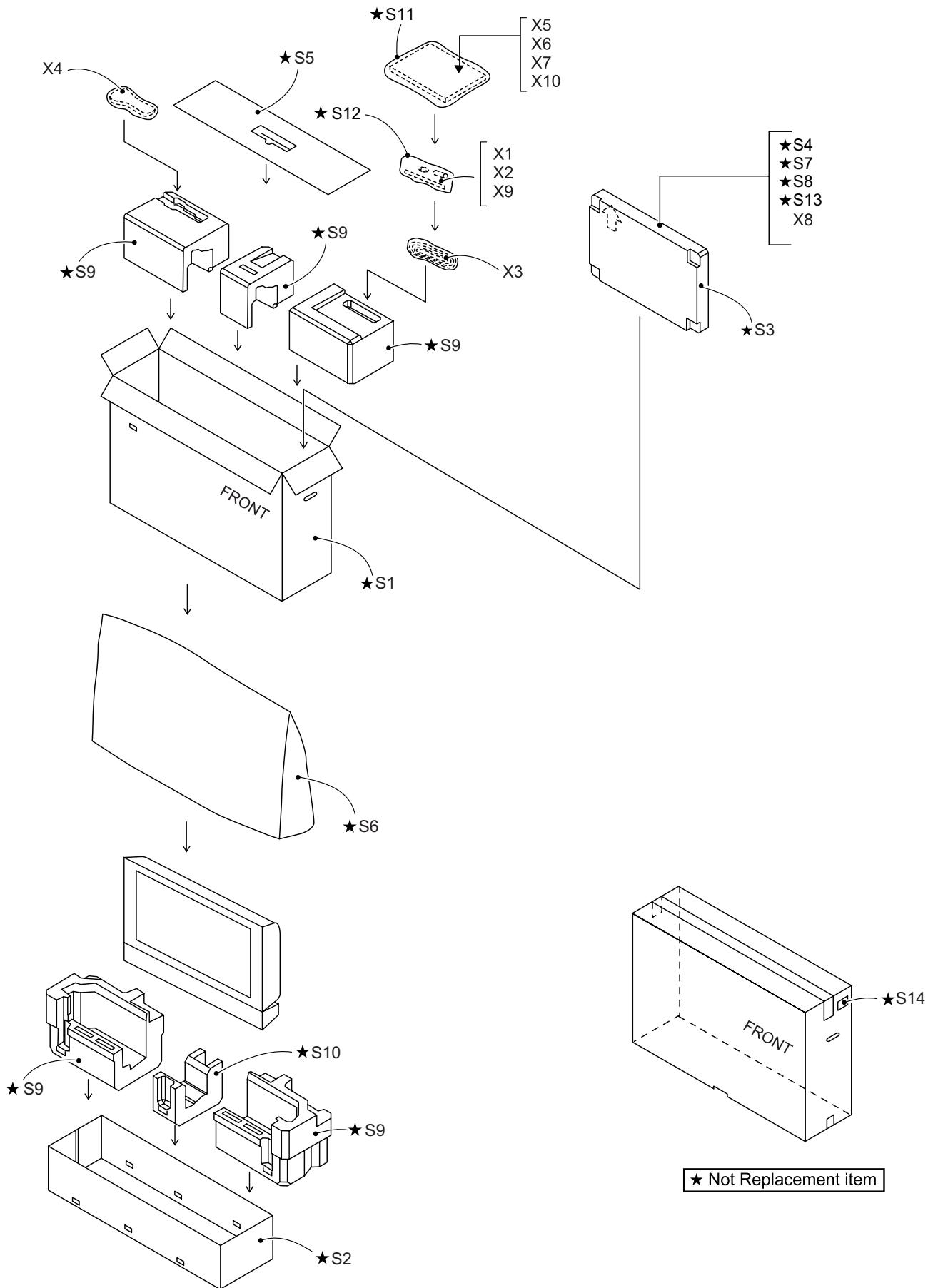
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[2] CABINET AND MECHANICAL PARTS					
69	CDA i-A310WJ01	AZ		X	Support Ass'y, x2
70	QCNW-F382WJQZ	AE	N	R	Connecting Cord (for P2003)

[3] SUPPLIED ACCESSORIES



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[3] SUPPLIED ACCESSORIES					
X1	LHLDWA083WJ00	AD		X	Cable Band
X2	LHLDWA149WJSB	AF		X	Cable Clamp, x2
X3	QACCDAA039WJPZ	AR		X	AC Cord
X4	RRMCGA416WJSB	AZ		X	Remote Control Unit
X5	TCADEA208WJZZ	AD		X	Enquete Card
X6	TINS-D031WJZZ	AN	N	X	Operation Manual
X7	TCAUHA263WJZZ	AD	N	X	Setup Guide
X8	CDA i-A309WJ04	BN		X	Stand Unit
X9	Not Available	-		-	"AAA" Size Battery
X10	TGAN-A768WJZZ	AD		X	Guarantee Card



[4] PACKING PARTS (NOT REPLACEMENT ITEM)

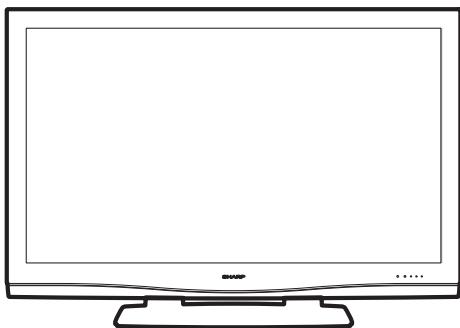
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] PACKING PARTS (NOT REPLACEMENT ITEM)					
S1	SPAKCD141WJZZ	-		-	Packing Case
S2	SPAKCD142WJZZ	-		-	Bottom Case
S3	SPAKFB058WJZZ	-		-	Stand Case
S4	SPAKFB061WJZZ	-		-	Stand Pad
S5	SPAKFB148WJZZ	-		-	Top Pad
S6	SPAKPA711WJZZ	-		-	Wrapping Paper for Monitor
S7	SPAKPA727WJZZ	-		-	Mirror Mat Sup
S8	SPAKPA728WJZZ	-		-	Mirror Mat Base
S9	SPAKXB219WJZZ	-		-	Packing Add.
S10	SPAKXB318WJZZ	-		-	Packing Add.
S11	SSAKA0101GJZZ	-		-	Polyethylene Bag
S12	SSAKAA032WJZZ	-		-	Polyethylene Bag
S13	SSAKHA020WJZZ	-		-	Polyethylene Bag (for Screw)
S14	TLABKA009WJZZ	-		-	Label
[5] SERVICE JIG (USE FOR SERVICING)					
N	QCNW-C222WJQZ	AW		J	80pins FFC L=1000mm Pitch=0.5mm, x2used,
N					LCD Controller Unit to LCD Panel Unit
N	QCNW-C799WJPZ	AG		J	RCA Cable L=1500mm, Tuner Extension
N	QCNW-E134WJQZ	BG		J	41pins L=400mm,
N					Main Unit to LCD Controller Unit (LV)
N	QCNW-F135WJQZ	AS		J	6pins-3pins/3pins L=1000mm,
N					Power Unit (LA) to Inv-2 (LA1) / Inv-4 (LA2)
N	QCNW-F136WJQZ	AP		J	4pins-9pins L=1000mm,
N					Main Unit to Inv-2 Unit (LB)
N	QCNW-F137WJQZ	AX		J	20pins L=1000mm,
N					Main Unit to LCD Controller (LP)
N	QCNW-F138WJQZ	AP		J	4pins-2pins/2pins L=1000mm,
N					Terminal Unit to Speaker-R / Speaker-L (SP)
N	QCNW-F139WJQZ	AX		J	13pins L=1000mm,
N					Terminal Unit to R/C LED Unit (RA)

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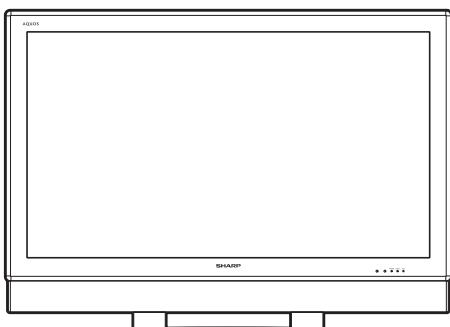
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SHARP SERVICE MANUAL



LC-46D62U



LC-60C46U

SUPPLEMENT

LCD COLOR TELEVISION

**LC-46D62U
MODELS LC-60C46U**

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

OUTLINE

In this Service Manual, only parts in the LCD module are shown. For the other points, refer to the LC-46D62U/LC-60C46U (S86V8LC52D62U/S17B3LC60C46U) Service Manual.

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.

OUTLINE AND ADJUSTMENT

[1] Outline

In this Service Manual, only parts in the LCD module are shown. For the other points, refer to the LC-46D62U/LC-60C46U (S86V8LC52D62U/S17B3LC60C46U) Service Manual.

[2] Adjustment

When replacing the LCD control PCB, follow these steps to adjust VCOM.

- 1) Remove the wire from the LCD control PCB CN3.
- 2) Connect a wire of the VCOM adjustment jig (electronic volume adjustment BOX) to CN3 (see Fig. 1).
- 3) Turn on the TV set.
- 4) Turn on the jig (connect to the AC).
- 5) Enter the process mode to display the item "LCD TEST PATTERN OFF" (see Fig. 2).
- 6) Press the volume up key once to display a flicker pattern.
- 7) Press the jig's UP/DOWN switch while looking at the screen to adjust the point so that the flicker is minimized (see Fig. 3).
- 8) After completing adjustment, press the WRITE switch and make sure the lamp of the WRITE button goes out. (Writing is complete when the lamp goes out.)
- 9) Turn off the jig (turn the AC off).
- 10) Turn off the TV set.
- 11) Remove the jig's wire connected to CN3.
- 12) Reconnect the wire of the set to CN3.

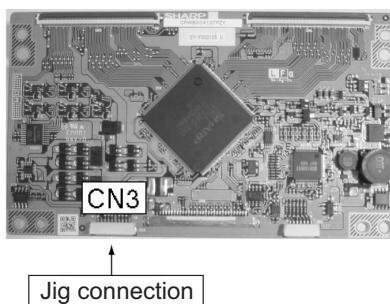


Fig. 1 Jig connecting location



Fig. 2 Test pattern selection screen

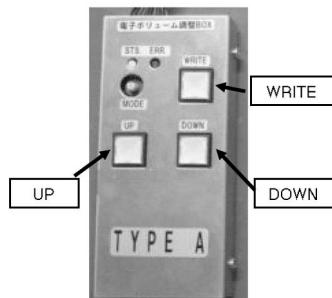
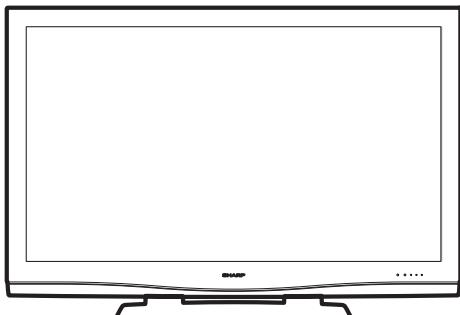


Fig. 3 VCOM adjustment jig (RUNTZA059WJZZ)

SHARP PARTS GUIDE

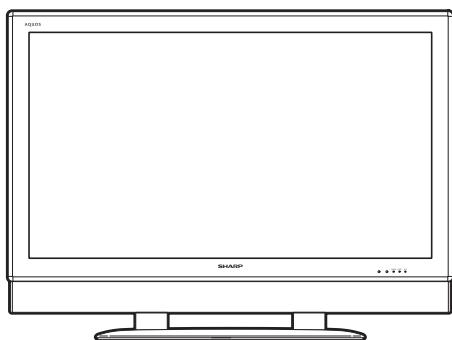
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LC-46D62U

LCD COLOR TELEVISION

**LC-46D62U
MODELS LC-60C46U**

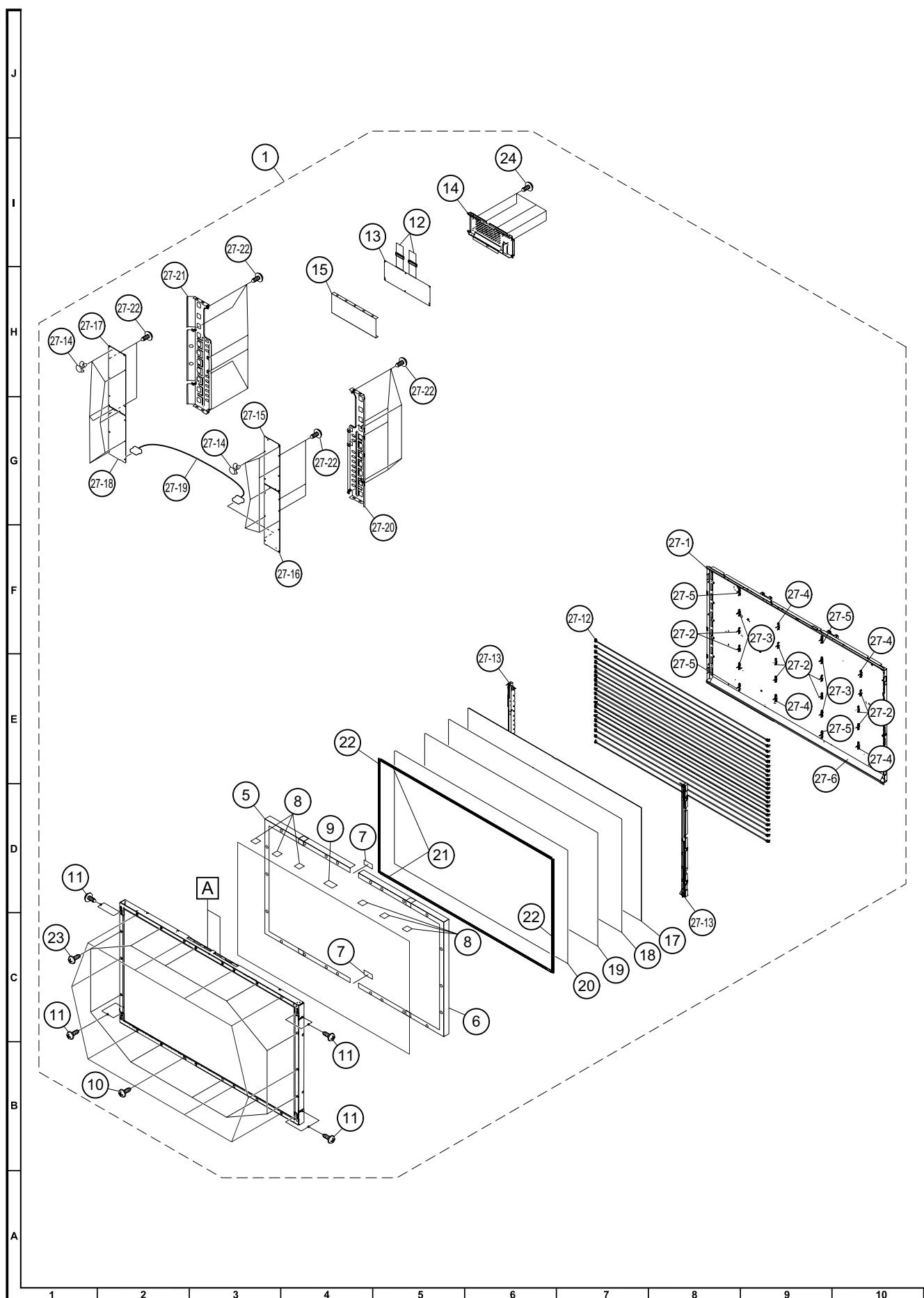


LC-60C46U

CONTENTS

- [1] LCD MODULE Assembly

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.

[1] LCD MODULE Assembly

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[1] LCD MODULE Assembly					
1	R1LK460D3LZ10Y	FT	N	J	LCD Module Ass'y
5	LHLDZ3351TPXZ	BB	N	J	Frame
6	LHLDZ3352TPXZ	BA	N	J	Frame
7	LHLDZ3364TPXZ	AD	N	J	Plate, x2
8	LHLDZ3350TPXZ	AC	N	J	Clip, x6
9	LHLDZ3363TPXZ	AD	N	J	Clip
10	LX-HZ2076TPZZ	AA	N	J	Screw, x10
11	LX-BZ2146TPZZ	AB	N	J	Screw, x8
12	QPWBM0327TPZZ	AG	N	J	CS-FPC1, x2
13	CPWBX3520TPXA	BW	N	J	LCD CONTROL Unit
14	LANGTA395WJTW	AN	N	J	Cover (LCD Control Unit (Top))
15	LANGTA396WJT1	AR	N	J	Cover (LCD Control Unit (Bottom))
17	PCOVUA095WJN1	BK	N	J	Diffusion Panel
18	PSHEPA458WJN1	BC	N	J	Diffusion Sheet
19	PSHEPA465WJN1	BU	N	J	Prism Sheet
20	PSHEPA462WJN1	CC	N	J	Optical Sheet
21	CHLDZA788WJT1	AU	N	J	Sheet Holder Ass'y, x2
22	CHLDZA789WJT1	AQ	N	J	Sheet Holder Ass'y, x2
23	XBPS730P16000	AA		J	Screw, x10
24	XBPS730P06WS0	AA		J	Screw, x5
27-1	CCHSMA328WJ02	BV	N	J	Chassis Ass'y
27-2	LHLDZA786WJTZ	AB	N	J	Lamp clip, x10
27-3	LHLDZA787WJTZ	AB	N	J	Lamp clip, x4
27-4	LHLDZA799WJTZ	AB	N	J	Lamp clip, x4
27-5	LHLDZA801WJTZ	AC	N	J	Lamp clip, x4
27-6	PMIR-A117WJN1	BB	N	J	Reflection Mirror
27-12	CLMP-A128WJ01	BK	N	J	Lamp Unit, x11
27-13	LHLDZA784WJTZ	AR	N	J	Lamp Holder, x2
27-14	PSPAzb202WJTZ	AC	N	J	Inverter Spacer, x13
27-15	RUNTKA255WJTZ	AZ	N	J	INVERTER Unit A
27-16	RUNTKA256WJTZ	BG	N	J	INVERTER Unit B
27-17	RUNTKA257WJTZ	BA	N	J	INVERTER Unit C
27-18	RUNTKA258WJTZ	BD	N	J	INVERTER Unit D
27-19	QCNW-E874WJTZ	AS	N	J	Connecting Cord
27-20	LANGTA350WJFW	AQ	N	J	Inverter Cover A
27-21	LANGTA351WJFW	AQ	N	J	Inverter Cover B
27-22	XBPSN30P08KS0	AA		J	Screw, x17

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