

SHARP SERVICE MANUAL

No. S46S3LC40C37U



LCD COLOR TELEVISION

MODEL LC-40C37U

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-37D40U and is changed some parts. This Service Manual covers the modifications alone. For the other points, refer to the LC-37/45D40U Service Manual.

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LC-40C37Ui

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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.

This document has been published to be used for

after sales service only.

The contents are subject to change without notice.

LIST OF CHANGED PARTS**LC-40C37U**

Ref. No.	Description	LC-37D40U	LC-40C37U	Note
PWB ASSEMBLIES				
	MAIN Unit	DUNTKD640FM06	DUNTKD640FM12	No parts changed
	LED Unit	DUNTKD641FM06	DUNTKD641FM12	No parts changed
	IF Unit	DUNTKD643FM06	DUNTKD643FM12	Some parts changed
	KEY Unit	DUNTKD716FM06	DUNTKD716FM12	No parts changed
	POWER SUPPLY Unit	RDENCA161WJQZ	←	—
LCD PANEL				
	37" WIDE LCD Panel Module Unit	R1LK370T3LZ5BY	R1LK370T3LZ5BW	—
IF Unit				
FB2707	Balun, BLN-A192WJ	—	RBLN-A192WJZZY	*Add
FB2708	Balun, BLN-A192WJ	—	RBLN-A192WJZZY	*Add
CABINET AND MECHANICAL PARTS				
Please refer to a Parts list.				
PACKING PARTS AND ACCESSORIES				
Please refer to a Parts list.				

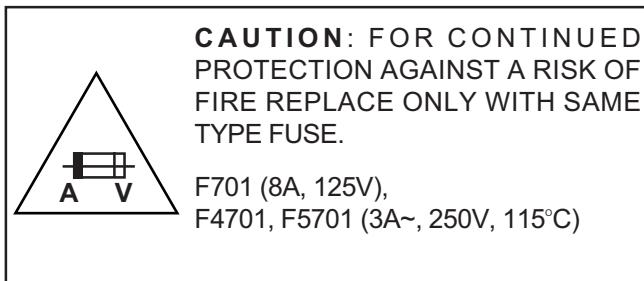
SAFETY PRECAUTION

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.



■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.

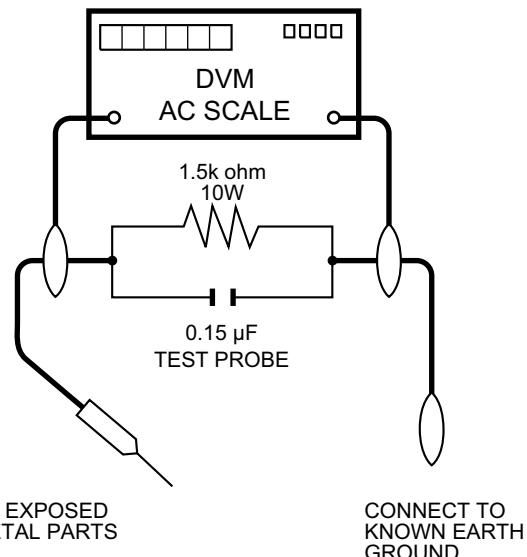
Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by " " and shaded areas in the Replacement Parts List and Schematic Diagrams.

- 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.

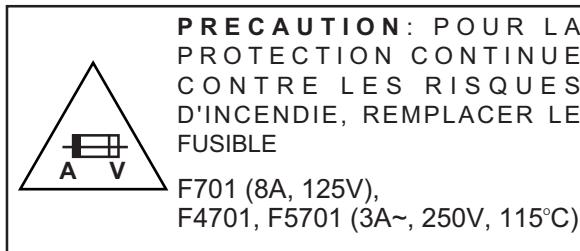
The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

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

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

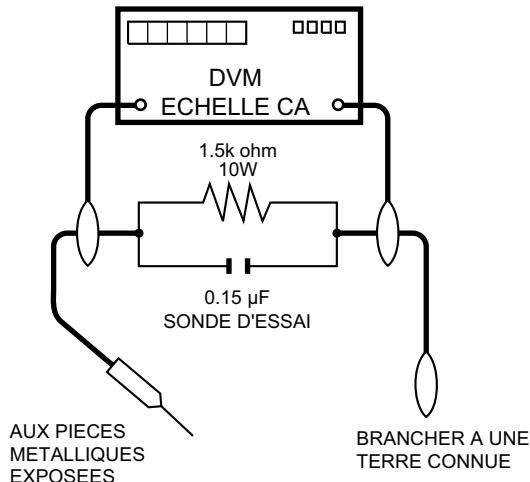


■ VERIFICATIONS CONTRE L'INCEN-DIE ET LE CHOC ELECTRIQUE

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

- 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.
- 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.
- 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 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

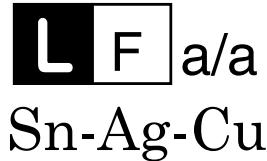
■Employing lead-free solder

- "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

Part No,	★	Description	Code
ZHNDAi123250E	J	φ0.3mm 250g(1roll)	BL
ZHNDAi126500E	J	φ0.6mm 500g(1roll)	BK
ZHNDAi12801KE	J	φ1.0mm 1kg(1roll)	BM

CHAPTER 1. SPECIFICATIONS

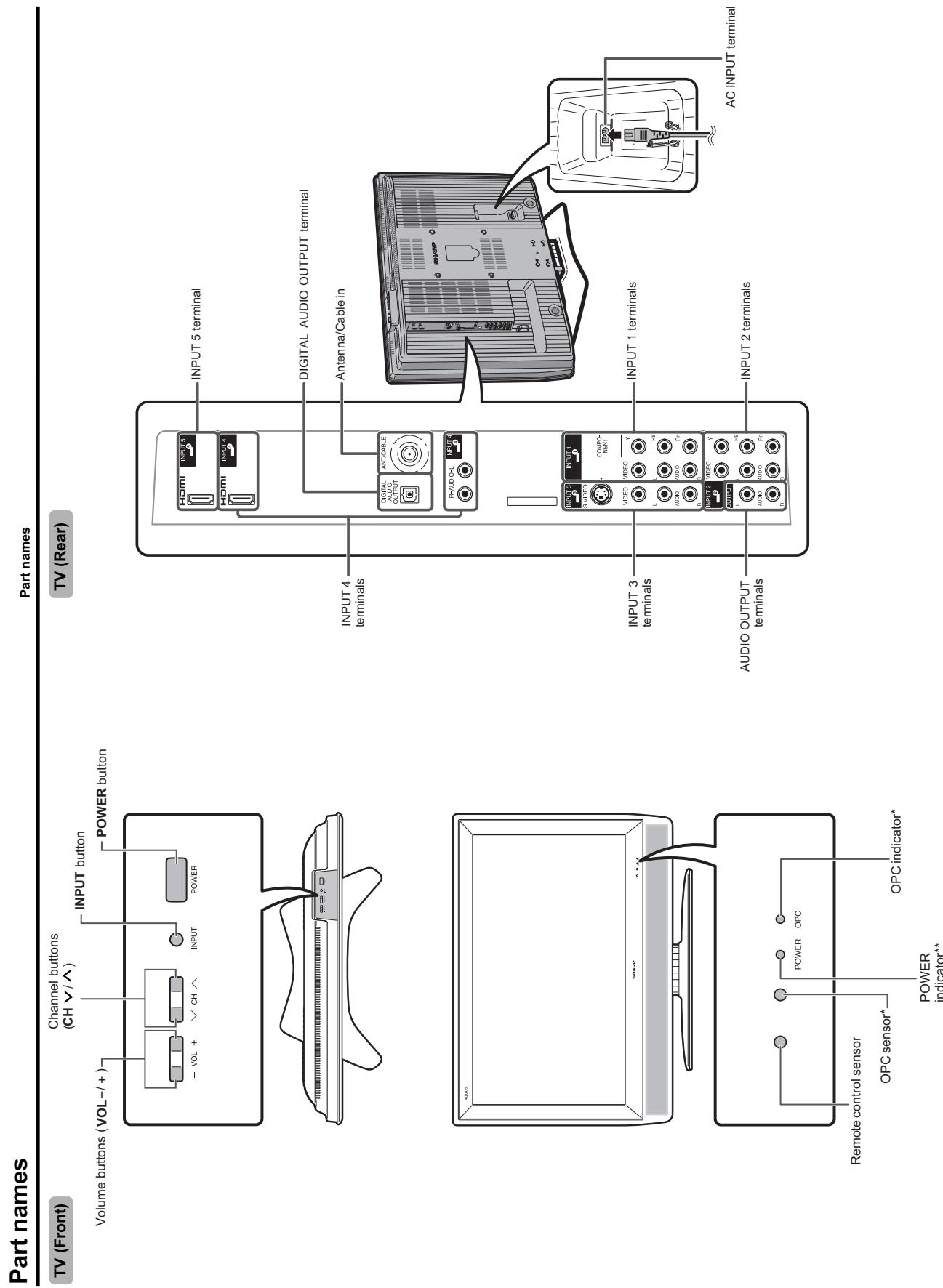
[1] SPECIFICATIONS

Item			Model: LC-40C37U	
LCD panel			37" Advanced Super View & BLACK TFT LCD	
Number of dots			3,147,264 dots (1366 x 768 x 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	
	Audio multiplex		BTSC System	
Audio out			10W x 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 x 1 for Analog (VHF/UHF/CATV) and Digital (AIR/CABLE)	
		DIGITAL AUDIO OUTPUT	Optical Digital audio output x 1 (PCM/Dolby Digital)	
		OUTPUT	Audio out	
OSD language			English/French/Spanish	
Power Requirement			AC 120 V, 60 Hz	
Power Consumption			186 W	
Weight	w/o stand	48.5 lbs./22.0 kg		
	with stand	53.8 lbs./24.4 kg		
Dimension (W x H x D)	w/o stand	37 ¹ / ₄ x 26 ¹⁵ / ₆₄ x 4 ⁵ / ₈ inch		
	with stand	37 ¹ / ₄ x 28 ³⁵ / ₆₄ x 12 ¹ / ₆₄ inch		
Accessories			Remote control unit (x1), AC cord (x 1), "AAA" size battery (x2), Cable clamp (x1), Cable tie (x1), Stand unit (x1), Operation manual (x1)	
Operating temperature			+ 32°F to + 104°F (0°C to + 40°C)	

- 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.

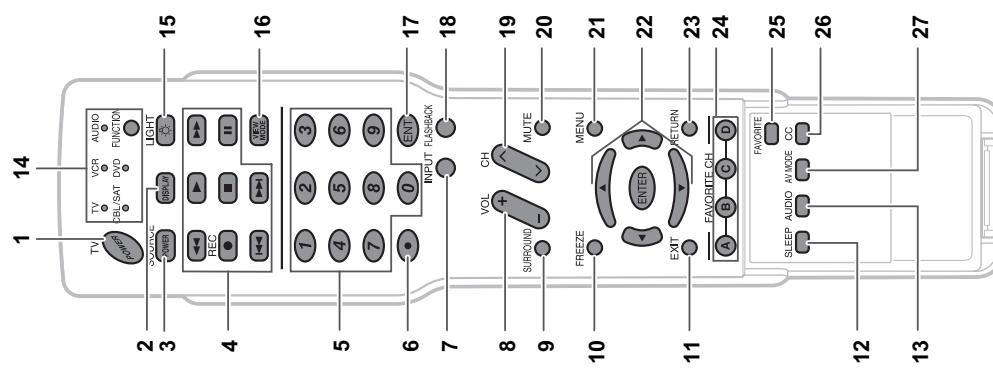
CHAPTER 2. OPERATION MANUAL

[1] OPERATION MANUAL



Part names

Remote control unit



Appendix

Removing the stand

Before detaching (or attaching) stand, unplug the AC cord from the AC INPUT terminal.

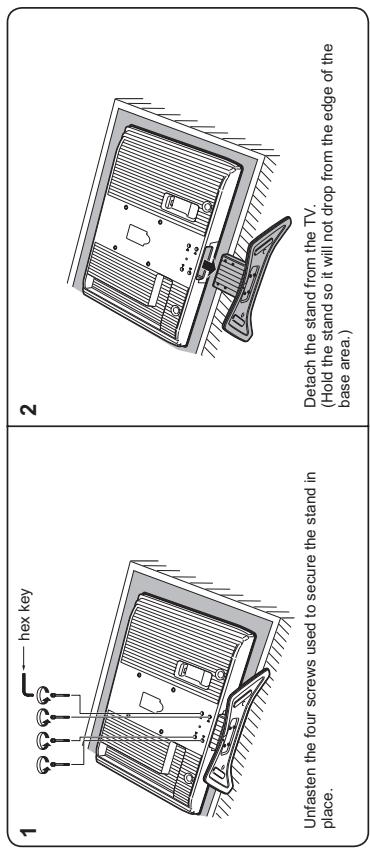


• Do not remove the stand from the TV unless using an optional wall mount bracket to mount it.

Before attaching/detaching stand

• Before performing work make sure to turn off the TV.

• Before performing work spread cushioning over the base area to lay the TV on. This will prevent it from being damaged.



Unfasten the four screws used to secure the stand in place.



• To attach the stand, perform the above steps in reverse order.

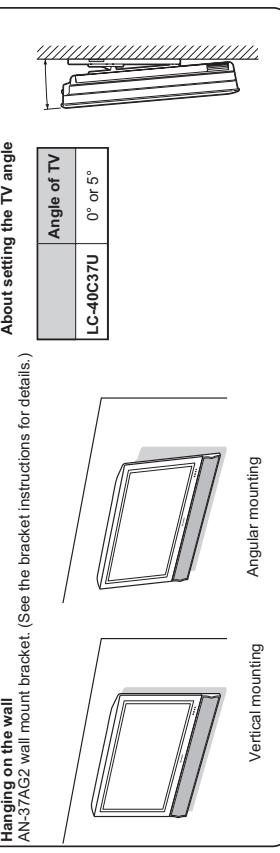
Setting the TV on the wall

• Installing the TV requires special skill that should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper mounting or mounting that results in accident or injury.

Using an optional bracket to mount the TV

• You can ask a qualified service professional about using an optional AN-37AG2 bracket to mount the TV to the wall.

• Carefully read the instructions that come with the bracket before beginning work.

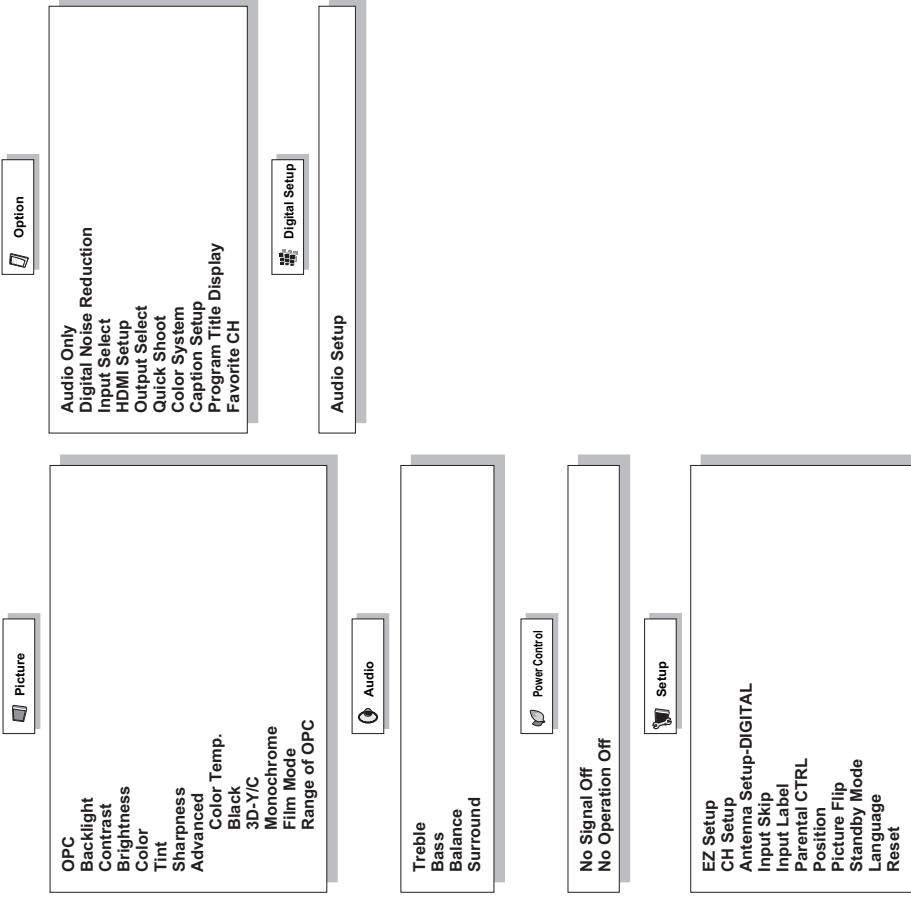


• Detach the cable clamp on the rear of the TV when using the optional mount bracket.

Basic adjustment settings

Menu items

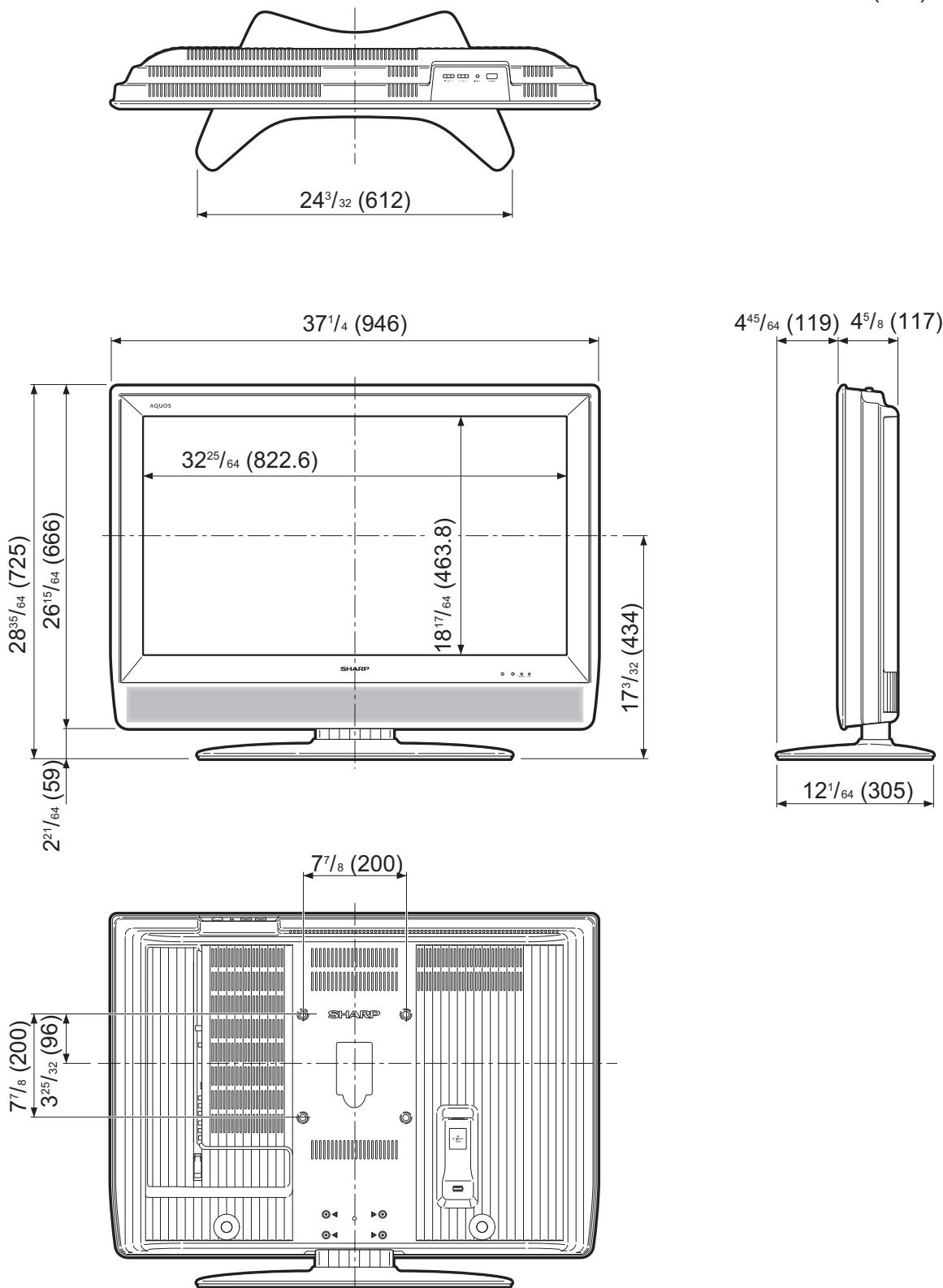
List of menu items to help you with operations



CHAPTER 3. DIMENSIONS

[1] DIMENSIONS

Unit: inch/(mm)



SHARP PARTS GUIDE

No. S46S3LC40C37U

MODEL LC-40C37U

★ MARK: SPARE PARTS-DELIVERY SECTION

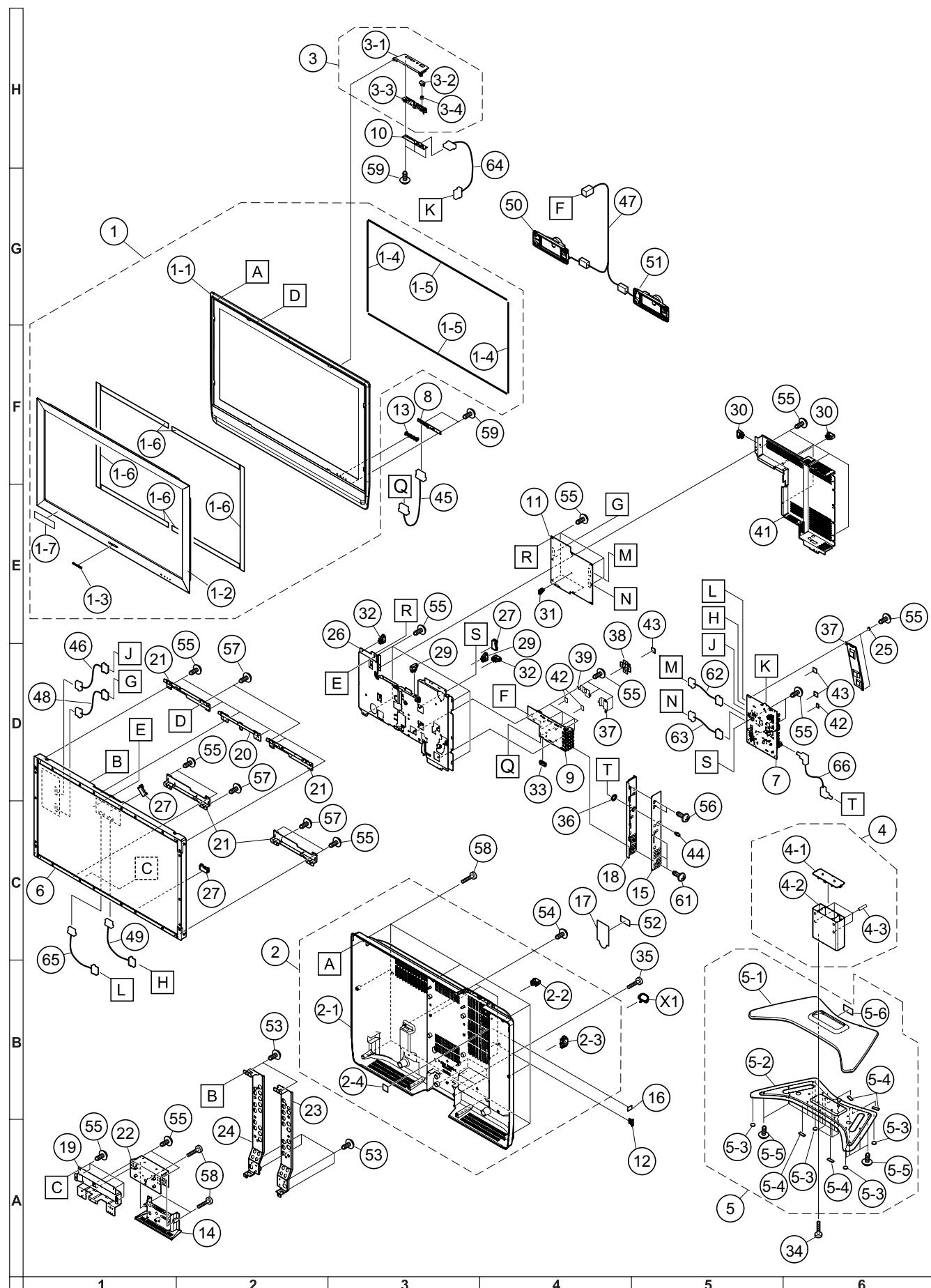
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- [1] PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)
- [2] LCD PANEL (NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.)
- [3] DUNTKD643FM12 (IF Unit)
- [4] CABINET AND MECHANICAL PARTS
- [5] SUPPLIED ACCESSORIES
- [6] PACKING PARTS (NOT REPLACEMENT ITEM)
- [7] SERVICE JIGS

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	★	DESCRIPTION
[1] PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)					
N	DUNTKD640FM12	-		R	MAIN Unit
N	DUNTKD641FM12	-		X	LED Unit
N	DUNTKD643FM12	-		X	IF Unit
N	DUNTKD716FM12	-		X	KEY Unit
N	RDENCA161WJQZ	BQ		X	POWER SUPPLY Unit
[2] LCD PANEL (NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.)					
N	R1LK370T3LZ5BW	EX		X	37" WIDE LCD Panel Module Unit
[3] DUNTKD643FM12 (IF Unit)					
FB2707	RBLN-A192WJZZY	AA		X	Balun, BLN-A192WJ
FB2708	RBLN-A192WJZZY	AA		X	Balun, BLN-A192WJ

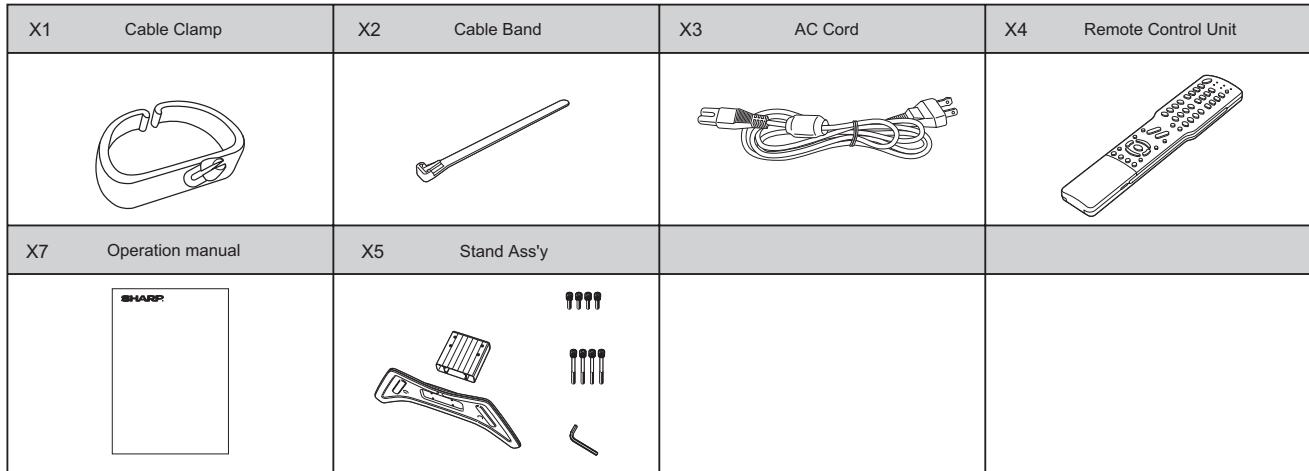
[4] CABINET AND MECHANICAL PARTS



NO.	PARTS CODE	PRICE RANK	NEW MARK	★	DESCRIPTION
[4] CABINET AND MECHANICAL PARTS					
1	CCABAB259WJ02	BK		X	Front Cabinet Ass'y
1-1	Not Available	-		-	Front Cabinet
1-2	Not Available	-		-	Front Cover
1-3	HBDGBA065WJSA	AD		X	Badge, SHARP
1-4	PSPAHA416WJZZ	AC		X	Mask Spacer, x2
1-5	Not Available	-		-	Mask Spacer, x2
1-6	Not Available	-		-	Spacer, x6
1-7	Not Available	-		-	POP Label
2	CCABBA726WJ01	BQ		X	Rear Cabinet Ass'y
2-1	Not Available	-		-	Rear Cabinet
2-2	LHLDWA055WJKZ	AC		X	Wire Holder (for AC-code)
2-3	LHLDWA131WJKZ	AF		X	Wire Holder
2-4	Not Available	-		-	Spacer
3	CCOVAB497WJ01	BD		X	Top Cover Ass'y
3-1	Not Available	-		-	Top Cover
3-2	JBTN-A429WJKA	AD		X	Power Button
3-3	JBTN-A535WJKA			X	Operation Button
3-4	MSPRCA049WJFW	AD		X	Power Button Spring
4	CDAi-A247WJ01	BC		X	Stand Support Ass'y
4-1	Not Available	-		-	Support Cover
4-2	Not Available	-		-	Stand Support
4-3	Not Available	-		-	Screw Guide, x4
5	CDAi-A246WJ03	BA		X	Stand Base Ass'y
5-1	Not Available	-		-	Stand Base Cover
5-2	Not Available	-		-	Base Angle
5-3	Not Available	-		-	LEG Cushion-A, x4
5-4	Not Available	-		-	LEG Cushion-B, x4
5-5	XEBS740P10000	AB		X	Screw, x10
5-6	Not Available	-		-	Stand Label
6	R1LK370T3LZ5BW	EX		X	37" WIDE LCD Panel Module Unit
7	DUNTKD640FM12	-		R	MAIN Unit
8	DUNTKD641FM12	-		X	LED Unit
9	DUNTKD643FM12	-		X	IF Unit
10	DUNTKD716FM12	-		X	KEY Unit
11	RDENCA161WJQZ	BQ		X	POWER SUPPLY Unit
12	GCOVA678WJKA	AG		X	SD Card Cover
13	GCOVAB501WJSA	AF		X	LED Cover
14	GCOVAB507WJKA	AU		X	Stand Cover
15	HINDPB603WJSA	AK		X	Jack Indicator
16	HINDPB715WJSA	AF		X	Terminal Label
17	HINDPB701WJSA	AH		X	MODEL Label
18	LANGKA644WJFW	AL		X	Jack Angle Long
19	LANGKA649WJFW	AR		X	Stand Fix Angle
20	LANGKA655WJFW	AH		X	Center Asist Angle
21	LANGKA663WJFW	AK		X	Rug Angle, x4
22	LANGTA266WJFW	AR		X	Stand Assist Angle
23	LANGTA291WJFW	AR		X	Center Angle-R
24	LANGTA292WJFW	AR		X	Center Angle-L
25	LBSHZA005WJZZ	AB		X	Clip, x2
26	LCHSMA286WJFW	AX		X	Chassis
27	LHLDW1173CEZZ	AE		X	Wire Holder, x3
29	LHLDWA043WJKZ	AC		X	Wire Holder (for Shield), x2
30	LHLDWA043WJKZ	AC		X	Wire Holder (for Chassis), x2
31	LHLDWA048WJKZ	AB		X	Wire Holder (for POWER Unit)
32	LHLDWA092WJZZ	AB		X	Wire Holder (for Chassis), x2
33	LHLDWA096WJKZ	AD		X	Wire Holder (for IF Unit)
34	Not Available	-		-	Screw (for Stand Ass'y), x4
35	Not Available	-		-	Screw (for Stand), x4
36	LX-NZ3047GEZZ	AB		X	Hexagonal Nut
37	PRDARA192WJFW	AE		X	Hest Sink (for AV Switch)
38	PRDARA204WJFW	AE		X	Hest Sink (for AMP-Bottom)
39	PRDARA312WJFW	AE		X	Hest Sink (for AMP-Top)
40	PRDARA330WJFW	AM		X	Hest Sink (for MAIN Unit)
41	PSLDMA910WJFW	AV		X	MAIN Shield
42	PSPAZA635WJKZ	AC		X	Spacer (Cool Sheet), x3
43	PSPAZA700WJKZ	AD		X	Spacer (Cool Sheet), x3
44	QCNCWA496WJZZ	AK		X	Connector (F-RCA)
45	QCNW-E265WJQZ	AK		X	Connecting Cord (RA)
46	QCNW-E267WJQZ	AG		X	Connecting Cord (LB)
47	QCNW-E286WJQZ	AH		X	Connecting Cord (SP)
48	QCNW-E439WJQZ	AH		X	Connecting Cord (LA)
49	QCNW-E537WJPZ	BA		X	Connecting Cord (LV)
50	RSP-ZA166WJZZ	AU		X	Speaker L
51	RSP-ZA167WJZZ	AU		X	Speaker R
52	Not Available	-		-	No. Label
53	XBBS740P06000	AA		X	Screw (for Angle), x6
54	XBBS930P06000	AA		X	Screw (for Cab-B), x5
55	XBPS730P06WS0	AB		X	Screw (for Angle, PWB), x39
56	XBPS930P08000	AA		X	Screw (for HDMI), x2
57	XEBS940P10000	AB		X	Screw (for Panel), x4
58	XEBS940P16000	AA		X	Screw (for Cab-B), x12
59	XEBSN30P10000	AA		X	Screw (for PWB), x5
61	XEBS930P08000	AA		X	Screw (for Jack), x3
62	QCNW-E257WJQZ	AH		R	Connecting Cord (PE)
63	QCNW-E258WJQZ	AG		R	Connecting Cord (PD)

NO.	PARTS CODE	PRICE RANK	NEW MARK	★	DESCRIPTION
[4] CABINET AND MECHANICAL PARTS					
64	QCNW-E266WJQZ	AF		R	Connecting Cord (KM)
65	QCNW-E278WJQZ	AH		R	Connecting Cord (SH)
66	QCNW-E442WJPZ	AH		R	Connecting Cord (COAXIAL)

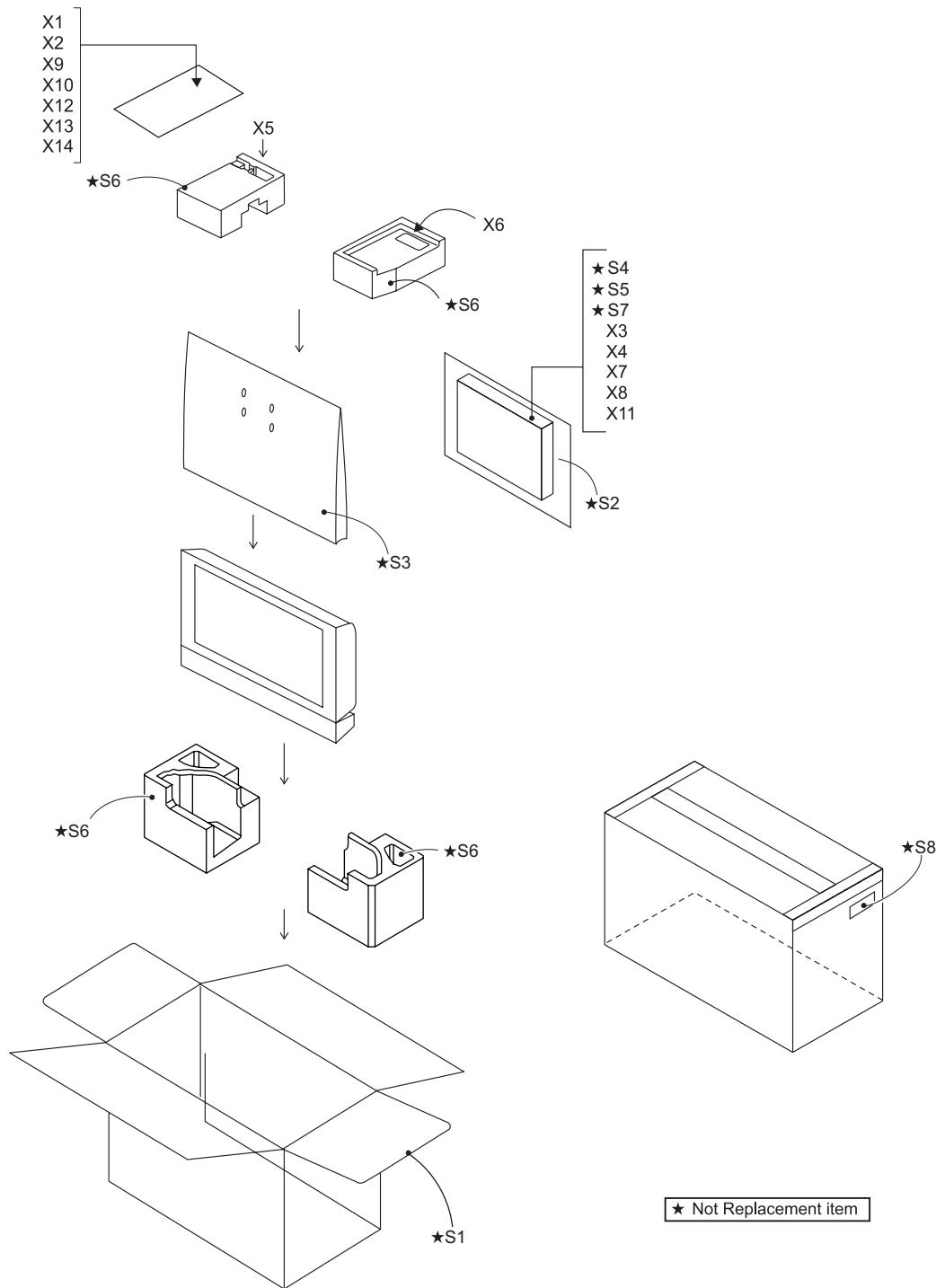
[5] SUPPLIED ACCESSORIES



NO.	PARTS CODE	PRICE RANK	NEW MARK	★	DESCRIPTION
[5] SUPPLIED ACCESSORIES					
X1	LHLDW0110CESD	AF		X	Cable Clamp
X2	LHLDWA083WJ00	AD		X	Cable Band
X3	QACCDA039WJPZ	AR		X	AC Cord
X4	RRMCGA416WJSA	BA		X	Remote Control Unit
X5	CDAi-A246WJ25	BL		X	Stand Ass'y
X6	TCADEA126WJZZ	AC		X	Enquette Card
X7	TINS-C413WJZZ	AQ		X	Operation Manual
X8	TCAUZA228WJZZ			X	Caution Card
X9	TCAUHA184WJZZ	AD		X	Set up Guide
X10	Not Available	-		-	"AAA" Size Battery

△

[6] PACKING PARTS (NOT REPLACEMENT ITEM)



NO.	PARTS CODE	PRICE RANK	NEW MARK	★	DESCRIPTION
[6] PACKING PARTS (NOT REPLACEMENT ITEM)					
S1	SPAKCC521WJZZ	-	-	-	Packing Case
S2	SPAKFA916WJZZ	-	-	-	Stand Case
S3	SPAKPA338WJZZ	-	-	-	Wrapping Paper (Monitor)
S4	SPAKPA601WJZZ	-	-	-	Wrapping Paper (Mirror Mat A)
S5	SPAKPA602WJZZ	-	-	-	Wrapping Paper (Mirror Mat B)
S6	SPAKXA957WJZZ	-	-	-	Packing Add.
S7	SPAKXB198WJZZ	-	-	-	Stand Pad
S8	TLABKA009WJZZ	-	-	-	No. Label

NO.	PARTS CODE	PRICE RANK	NEW MARK	★	DESCRIPTION
[7] SERVICE JIGS					
N	QCNW-C799WJPZ	AG		J	RCA Cable L=1500mm, Tuner to Terminal
N	QCNW-D483WJQZ	AX		J	12pins L=1000mm, Main to Power Unit (PE)
N	QCNW-E068WJQZ	AS		J	6pins L=1000mm, Main to Power Unit (PD)
N	QCNW-E670WJQZ	AP		J	4-8pins L=1000mm, Main to Inverter Unit (LB)
N	QCNW-E671WJQZ	AW		J	10-14pins L=1000mm, Power to Inverter Unit (LA)
N	QCNW-E673WJQZ	BE		J	32pins L=1000mm, Main to Controller Unit (LV)
N	QCNW-E674WJQZ	AS		J	7pins L=1000mm, Main to Controller Unit (SH)

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