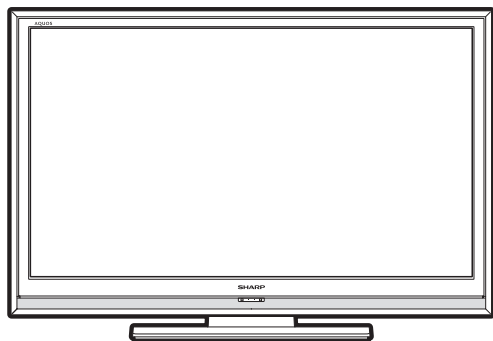


SHARP SERVICE MANUAL

No. S98Q2LC46D65U

LCD COLOR TELEVISION



MODELS LC-46D65U LC-52D65U

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-42D65U and is changed some parts. This Service Manual covers the modifications alone. For the other points, refer to the LC-42D65U (No. S78N2LC42D65U) Service Manual.

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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.

OUTLINE AND DIFFERENCES FROM BASE MODEL

OUTLINE

This model is based on the LC-42D65U and is changed some parts. This Service Manual covers the modifications alone. For the other points, refer to the LC-42D65U (No. S78N2LC42D65U) Service Manual.

DIFFERENCES FROM BASE MODEL

■LIST OF CHANGED PARTS

Ref. No.	Description	LC-42D65U (No. S78N2LC42D65U)	LC-46/52D65U (No. S98Q2LC46D65U)	Note
PRINTED WIRING BOARD ASSEMBLIES				
	KEY Unit	DUNTKE266FM02	←	—
	MAIN Unit	DUNTKE716FM02	DUNTKE716FM01	Some parts changed
	R/C, LED Unit	DUNTKE868FM01	←	—
	POWER Unit	RDENCA298WJQZ	RDENCA295WJQZ	—
LCD PANEL				
	42" LCD Panel Module Unit	R1LK420D3LF21Z	—	Delete
	46" LCD Panel Module Unit	—	R1LK460D3LW60Z	Add
	52" LCD Panel Module Unit	—	R1LK520D3LW10Z	Add
MAIN Unit				
IC1601	IC	VHiS24CS02J5ES	VHiS24CS02JBES	Change
IC1602	IC	VHiS24CS02J7ES	VHiS24CS02JDES	Change
IC1603	IC	VHiS24CS02J6ES	VHiS24CS02JCES	Change
IC1801	IC	VHiS24CS02J9ES	VHiS24CS02JFES	Change
IC1805	IC	VHiS24CS02J8ES	VHiS24CS02JEES	Change
R601	Resistor	VRS-CZ1JF000JY	VRS-CZ1JF470JY	Change
R602	Resistor	VRS-CZ1JF000JY	VRS-CZ1JF470JY	Change
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.

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

F7000 (T6.3AH 250V)

■BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

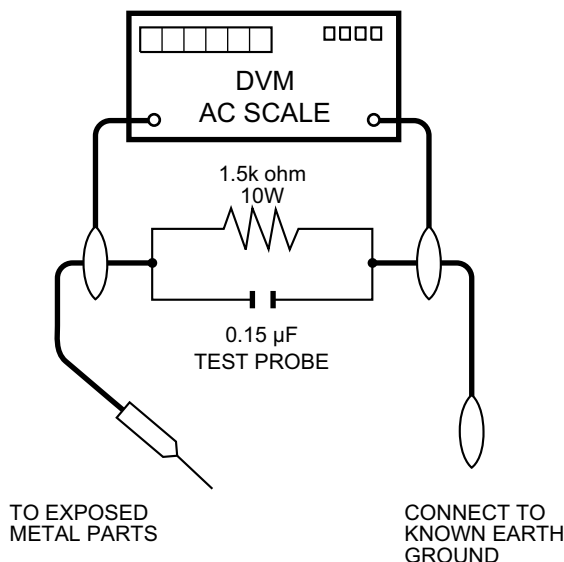
Before returning the receiver to the user, perform the following safety checks:

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. (for North America)
 - Plug the AC cord directly into a 110-240 volt AC outlet. (for Others)

- 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.
- 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.



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.

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

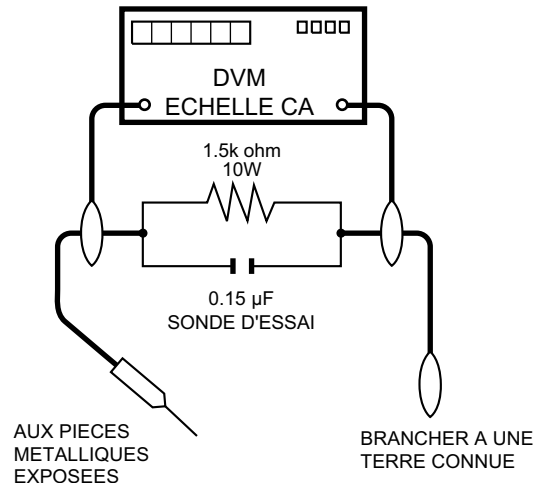
F7000 (T6.3AH 250V)

■ 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). (pour l'Amérique du Nord)
 - Brancher le cordon d'alimentation directement à une prise de courant de 110-240V. (Ne pas utiliser de transformateur d'isolation pour cet essai). (pour les autres régions)

- 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 étalonées 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 "⚠" 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:

LFa
Sn-Ag-Cu

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

LFa/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 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)

LC-46/52D65U

PRECAUTIONS IN SERVICING THE HDCP-KEY ROM

Applied part: HDCP-KEY ROM
IC8451 RH-IXC318WJQZY (updated ROM)

The HDCP-KEY ROM shall be protected and managed for its information inside. In servicing this ROM, therefore, take the following information protection/management measures.

- 1) When disposing of the component parts and PWBs, destruct the IC itself in a proper way.
(For repairing or replacing the component parts and PWBs as well as clearing those in stock)
- 2) In storing the component parts, protect and manage them against theft and disclosure.
(For storing the service parts, service units, etc.)

CHAPTER 1. SPECIFICATIONS

[1] SPECIFICATIONS

Item		Model: LC-46D65U	Model: LC-52D65U
LCD panel		46" Class (45 ⁵³ / ₆₄ " Diagonal) Advanced Super View & BLACK TFT LCD	52" Class (52 ¹ / ₃₂ " Diagonal) Advanced Super View & BLACK TFT LCD
Resolution		2,073,600 pixels (1,920 × 1,080)	
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		10W × 2	
Terminals	Rear	INPUT 1	AV in, COMPONENT in
		INPUT 2	COMPONENT in, S-VIDEO in
		INPUT 4	15-pin mini D-sub female connector, Audio in (Ø 3.5 mm jack)
		INPUT 6	HDMI in with HDCP, Audio in (Ø 3.5 mm jack)
		INPUT 7	HDMI in with HDCP
		INPUT 8	HDMI in with HDCP
		INPUT 9	HDMI in with HDCP
		ANT/CABLE	75 Ω Unbalance, F Type × 1 for Analog (VHF/UHF/CATV) and Digital (AIR/CABLE)
		AUDIO	Audio in (Ø 3.5 mm jack)
		DIGITAL AUDIO OUTPUT	Optical Digital audio output × 1 (PCM/Dolby Digital)
	OUTPUT	Audio out	
	RS-232C	9-pin D-sub male connector	
	Side	INPUT 3	AV in
		INPUT 5	HDMI in with HDCP
		SERVICE	Software update
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		254 W (0.4 W Standby with AC 120 V)	285 W (0.4 W Standby with AC 120 V)
Weight	TV + stand	52.9 lbs./24.0 kg	63.9 lbs./29.0 kg
	TV only	41.9 lbs./19.0 kg	52.9 lbs./24.0 kg
Dimension ² (W × H × D) (inches)	TV + stand	43 ⁵³ / ₆₄ × 30 ³ / ₆₄ × 12 ¹³ / ₁₆	49 ¹⁹ / ₆₄ × 33 ³ / ₄ × 12 ¹³ / ₁₆
	TV only	43 ⁵³ / ₆₄ × 27 ⁴⁷ / ₆₄ × 3 ²⁹ / ₃₂	49 ¹⁹ / ₆₄ × 31 ¹¹ / ₃₂ × 3 ²⁵ / ₃₂
Operating temperature		+ 32°F to + 104°F (0°C to + 40°C)	

¹ Emergency alert messages via Cable are unreceivable.

² The dimensional drawings are shown on the inside back cover.

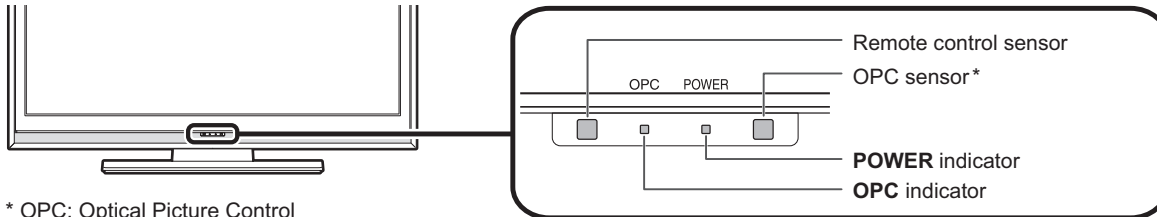
- As part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual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

CHAPTER 2. OPERATION MANUAL

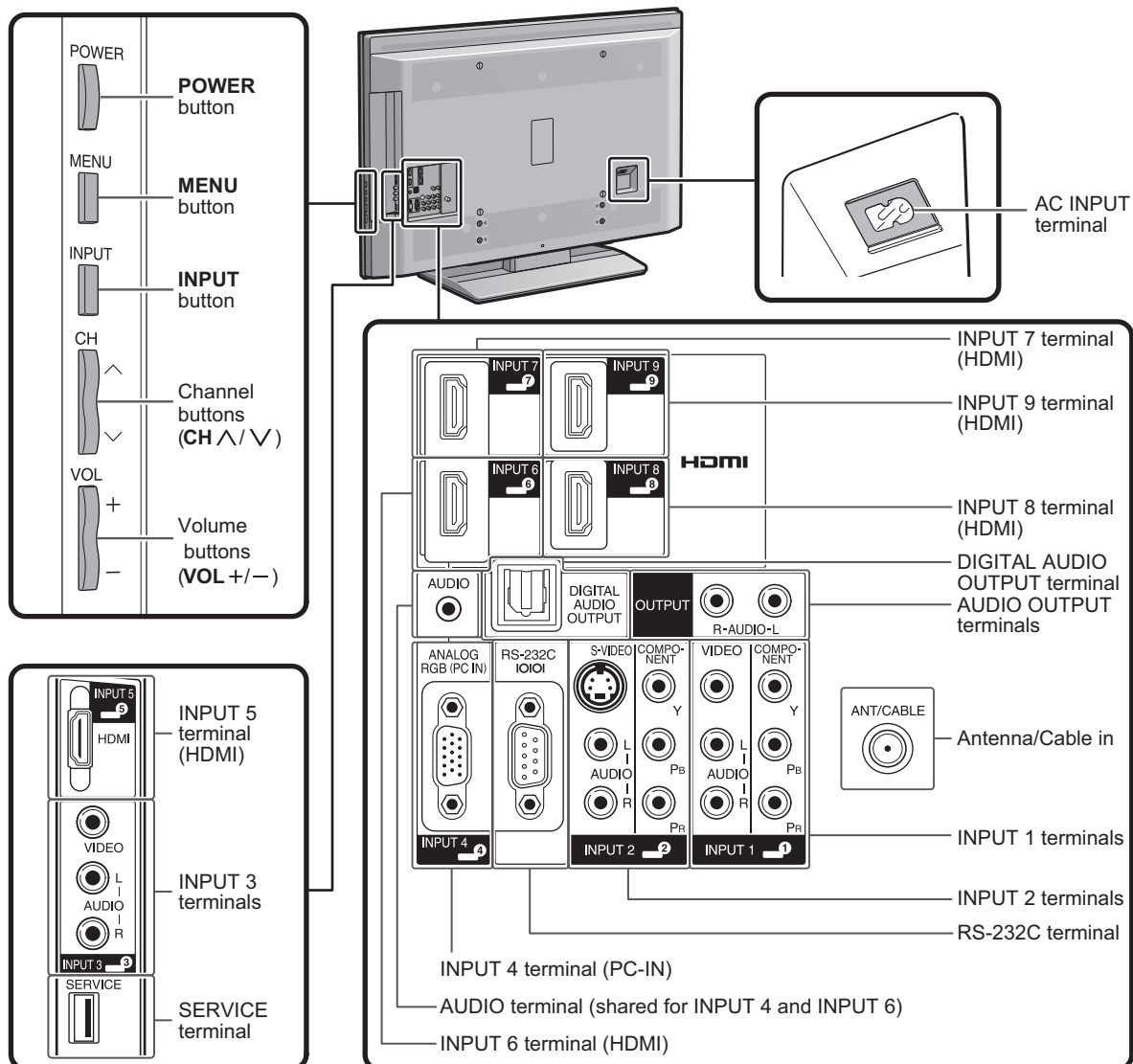
[1] OPERATION MANUAL

Part Names

TV (Front)



TV (Rear/Side)

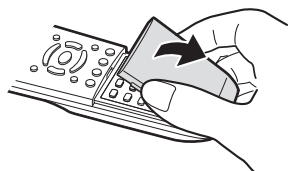
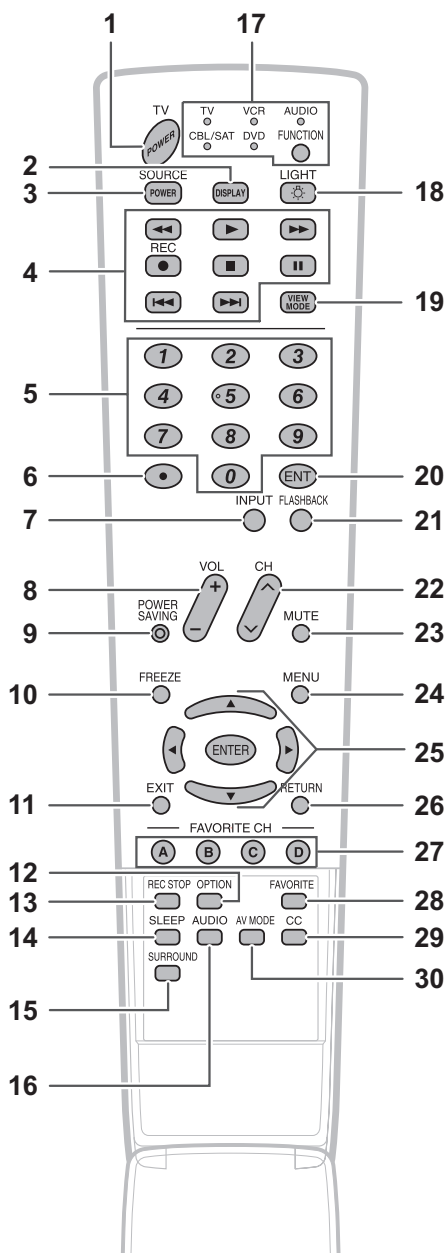


NOTE

- The illustrations in this operation manual are for explanation purposes and may vary slightly from the actual operations.
- The examples used throughout this manual are based on the LC-42D65U model.

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.
- 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, INPUT 6, INPUT 7, INPUT 8, INPUT 9)
- 8 **VOL+/-:** Set the volume.
- 9 **POWER SAVING:** Select Power Saving settings.
- 10 **FREEZE:** Set the still image. Press again to return to normal screen.
- 11 **EXIT:** Turn off the menu screen.
- 12 **OPTION:** Display the AQUOS LINK MENU screen. This button will function only when AQUOS LINK is used.
- 13 **REC STOP:** Stops one touch recording. This button will function only when AQUOS LINK is used.
- 14 **SLEEP:** Set the sleep timer.
- 15 **SURROUND:** Select Surround settings.
- 16 **AUDIO:** Selects the MTS/SAP or the audio mode during multi-channel audio broadcasts.
- 17 **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.
- 18 **LIGHT** ☼ : When this button is pressed, some buttons (for example, **VOL+/-** and **CH^/v**) 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.
- 19 **VIEW MODE:** Select the screen size.
- 20 **ENT:** Jumps to a channel after selecting with the **0-9** buttons.
- 21 **FLASHBACK:** Return to the previous channel or external input mode.
- 22 **CH^/v** : Select the channel.
- 23 **MUTE:** Mute the sound.
- 24 **MENU:** Display the menu screen.
- 25 **▲/▼/◀/▶, ENTER:** Select a desired item on the screen.
- 26 **RETURN:** Return to the previous menu screen.
- 27 **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**.
- 28 **FAVORITE:** Set the favorite channels.
- 29 **CC:** Display captions from a closed-caption source.
- 30 **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, 5, 6, 7, 8 or 9: STANDARD, MOVIE, GAME, PC, USER, DYNAMIC (Fixed), DYNAMIC)

QUICK REFERENCE

Attaching the Stand

- Before attaching (or detaching) the stand, unplug the AC cord from the AC INPUT terminal.
- Before performing work spread cushioning over the base area to lay the TV on. This will prevent it from being damaged.

CAUTION

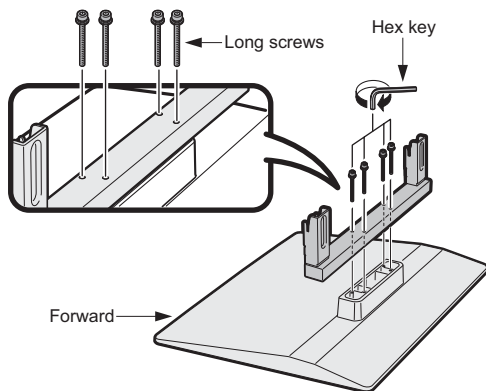
- **Attach the stand in the correct direction.**
- **Do not remove the stand from the TV unless using an optional wall mount bracket to mount it.**
- **Be sure to follow the instructions. Incorrect installation of the stand may result in the TV falling over.**

- 1 Confirm that there are 8 screws (4 short screws and 4 long screws) and a hex key supplied with the stand unit.



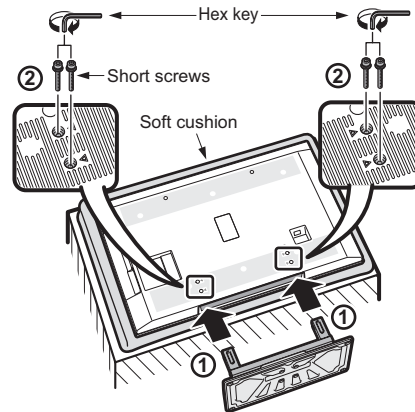
- 2 Attach the supporting post for the stand unit onto the base using the box for the stand unit as shown below.

- The supporting post attaches to the base at an off-centered location on the base. Be sure to attach the supporting post in the direction indicated below and attach the stand to the TV with the wider side of the base facing forward.



- 3 ① Insert the stand into the openings on the bottom of the TV.

- ② Insert and tighten the 4 short screws into the 4 holes on the rear of the TV.



NOTE

- To detach the stand, perform the steps in reverse order.

Appendix

Removing the Stand

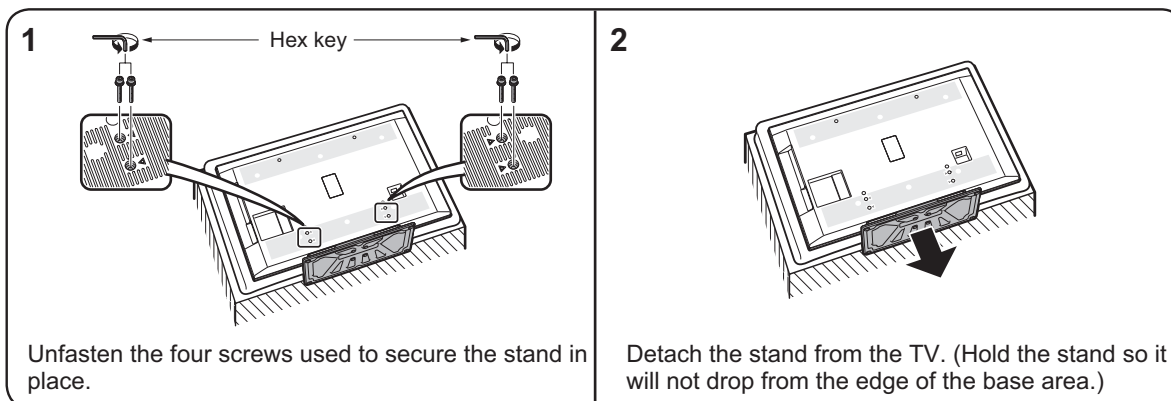
- Before detaching (or attaching) the stand, unplug the AC cord from the AC INPUT terminal.

CAUTION

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

Before attaching/detaching the 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.



NOTE

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

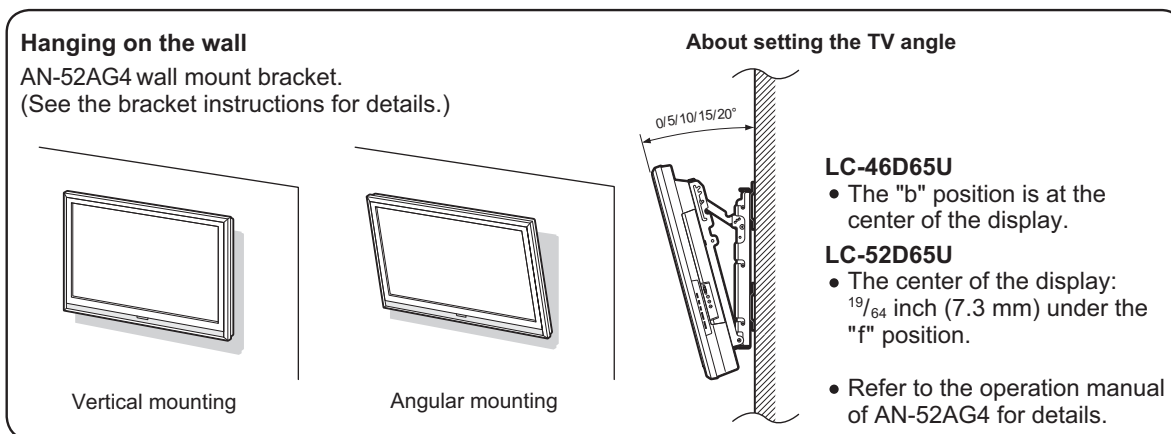
Setting the TV on the Wall

CAUTION

- This TV should be mounted on the wall only with the wall mount bracket AN-52AG4 (SHARP). The use of other wall mount brackets may result in an unstable installation and may cause serious injuries.
- 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-52AG4 bracket to mount the TV on the wall.
- Carefully read the instructions that come with the bracket before beginning work.



NOTE

- Detach the cable clamp on the rear of the TV when using the optional mount bracket.
- To use this TV mounted on a wall, remove the covers at the 4 locations on the rear of the TV, and then use the screws supplied with the wall mount bracket to secure the bracket to the rear of the TV.

Appendix

Troubleshooting

Problem	Possible Solution
<ul style="list-style-type: none"> No power 	<ul style="list-style-type: none"> Check if you pressed TV POWER on the remote control unit. If the indicator on the TV does not light up, press POWER on the TV. Is the AC cord disconnected? Has the power been turned on?
<ul style="list-style-type: none"> Unit cannot be operated. 	<ul style="list-style-type: none"> External influences such as lightning, static electricity, may cause improper operation. In this case, operate the unit after first turning off the power of the TV or unplugging the AC cord and replugging it in after 1 or 2 minutes.
<ul style="list-style-type: none"> Remote control unit does not operate. 	<ul style="list-style-type: none"> Is the FUNCTION set correctly? Set it to the TV setting position. Are batteries inserted with polarity (+, -) aligned? Are batteries worn out? (Replace with new batteries.) Are you using it under strong or fluorescent lighting? Is a fluorescent light illuminated near the remote control sensor?
<ul style="list-style-type: none"> Picture is cut off/with sidebar screen. 	<ul style="list-style-type: none"> Is the image position correct? Are screen mode adjustments such as picture size made correctly?
<ul style="list-style-type: none"> Strange color, light color, or color misalignment 	<ul style="list-style-type: none"> Adjust the picture tone. Is the room too bright? The picture may look dark in a room that is too bright. Check the input signal setting.
<ul style="list-style-type: none"> Power is suddenly turned off. 	<ul style="list-style-type: none"> Is the sleep timer set? Check the power control settings. The unit's internal temperature has increased. Remove any objects blocking vent or clean.
<ul style="list-style-type: none"> No picture 	<ul style="list-style-type: none"> Is connection to other components correct? Is correct input signal source selected after connection? Is the correct input selected? Is picture adjustment correct? Is "On" selected in "Audio Only"? Is a non-compatible signal being input?
<ul style="list-style-type: none"> No sound 	<ul style="list-style-type: none"> Is the volume too low? Is "Variable" selected in "Output Select"? Have you pressed MUTE on the remote control unit?
<ul style="list-style-type: none"> The TV sometimes makes a cracking sound. 	<ul style="list-style-type: none"> This is not a malfunction. This happens when the cabinet slightly expands and contracts according to change in temperature. This does not affect the TV's performance.

Troubleshooting-Digital Broadcasting

The error message about reception of broadcast

The example of an error message displayed on a screen	Error code	Possible Solution
<ul style="list-style-type: none"> Failed to receive broadcast. 	E202	<ul style="list-style-type: none"> Check the antenna cable. Check that the antenna is correctly setup.
<ul style="list-style-type: none"> No broadcast now. 	E203	<ul style="list-style-type: none"> Check the broadcast time in the program guide.

Cautions regarding use in high and low temperature environments

- When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the Liquid Crystal panel to malfunction.
Storage temperature: -4°F to +140°F (-20°C to +60°C)

On-Screen Display Menu

Menu Items

For TV/INPUT 1/2/3 Mode

Picture Menu

OPC
 Backlight
 Contrast
 Brightness
 Color
 Tint
 Sharpness
 Advanced
 C.M.S.-Hue
 C.M.S.-Saturation
 Color Temp.
 Active Contrast
 I/P Setting
 Film Mode
 Digital Noise Reduction
 3D-Y/C
 Monochrome
 Range of OPC

Reset

Audio Menu

Treble
 Bass
 Balance
 Surround
 Bass Enhancer
 Reset

Power Control Menu

Power Saving
 No Signal Off
 No Operation Off

Setup Menu

EZ Setup
 CH Setup
 Antenna Setup-DIGITAL
 Input Skip
 Input Label
 Parental CTRL
 Position
 Language
 Reset

Option Menu

AQUOS LINK Setup
 Audio Only
 Input Select
 PC Audio Select
 Output Select
 Color System
 Caption Setup
 Digital Caption Info. .
 Program Title Display
 Favorite CH
 Game Play Time
 Operation Lock Out
 Demo Mode

Digital Setup Menu

Audio Setup
 Identification
 Software Update

For HDMI/PC-IN Mode

Picture Menu

OPC
 Backlight
 Contrast
 Brightness
 Color
 Tint
 Sharpness
 Advanced
 C.M.S.-Hue
 C.M.S.-Saturation
 Color Temp.
 Active Contrast
 I/P Setting
 Film Mode
 Digital Noise Reduction
 Monochrome
 Range of OPC

Reset

Audio Menu

Treble
 Bass
 Balance
 Surround
 Bass Enhancer
 Reset

Power Control Menu

Power Saving
 No Signal Off
 No Operation Off

Setup Menu

Input Skip
 Input Signal
 Auto Sync.
 Input Label
 Fine Sync.
 Position
 Language
 Reset

Option Menu

AQUOS LINK Setup
 Audio Only
 HDMI Setup
 PC Audio Select
 Output Select
 Game Play Time
 Operation Lock Out
 Demo Mode

Digital Setup Menu

Software Update

NOTE

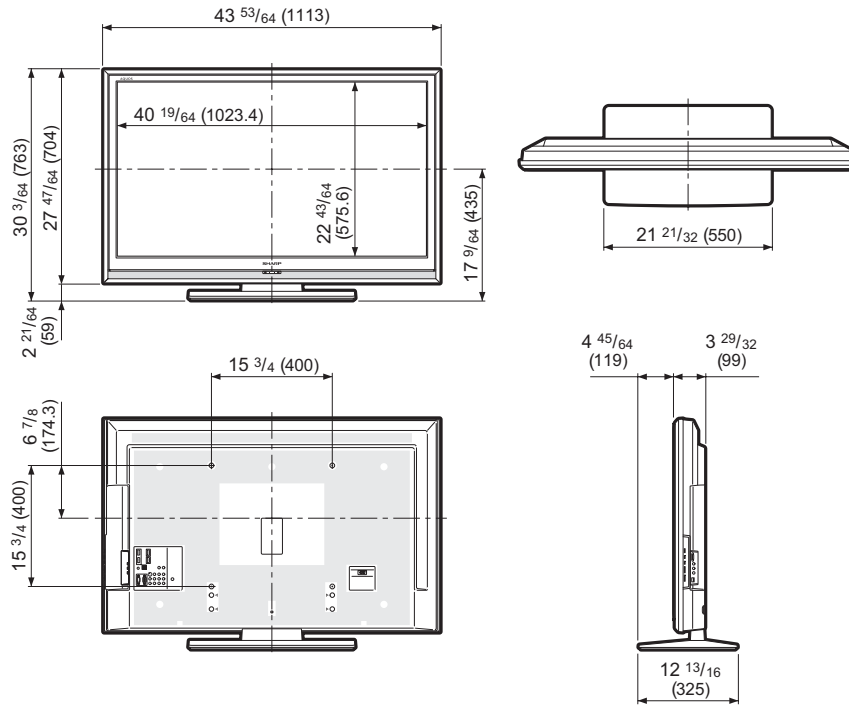
- Some menu items may not be displayed depending on the selected input source.

CHAPTER 3. DIMENSIONS

[1] DIMENSIONS

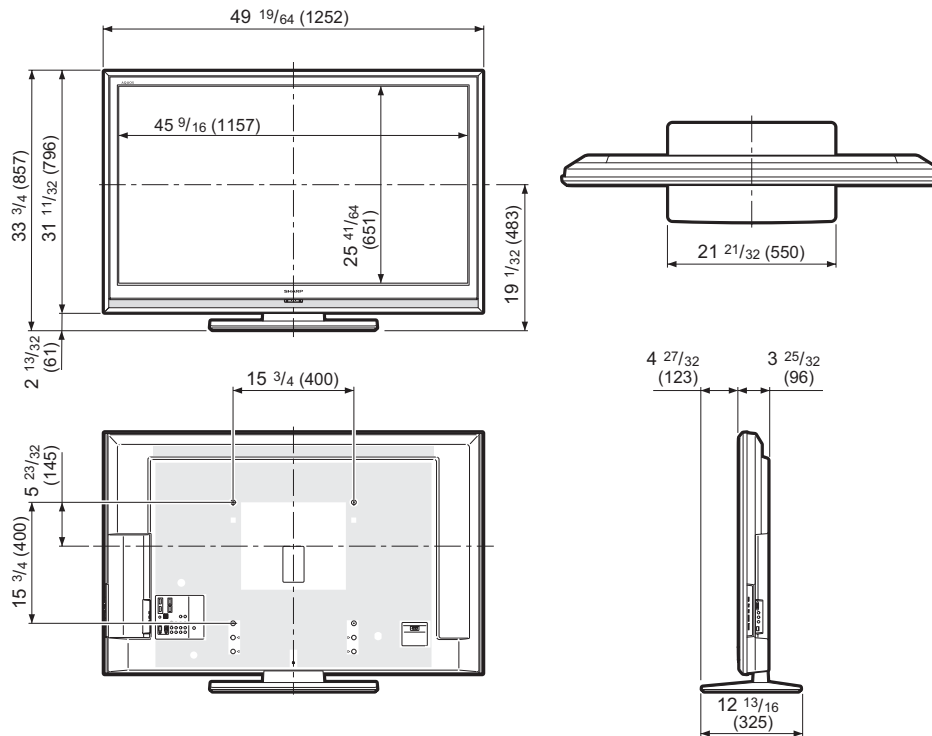
LC-46D65U

Unit: inch (mm)



LC-52D65U

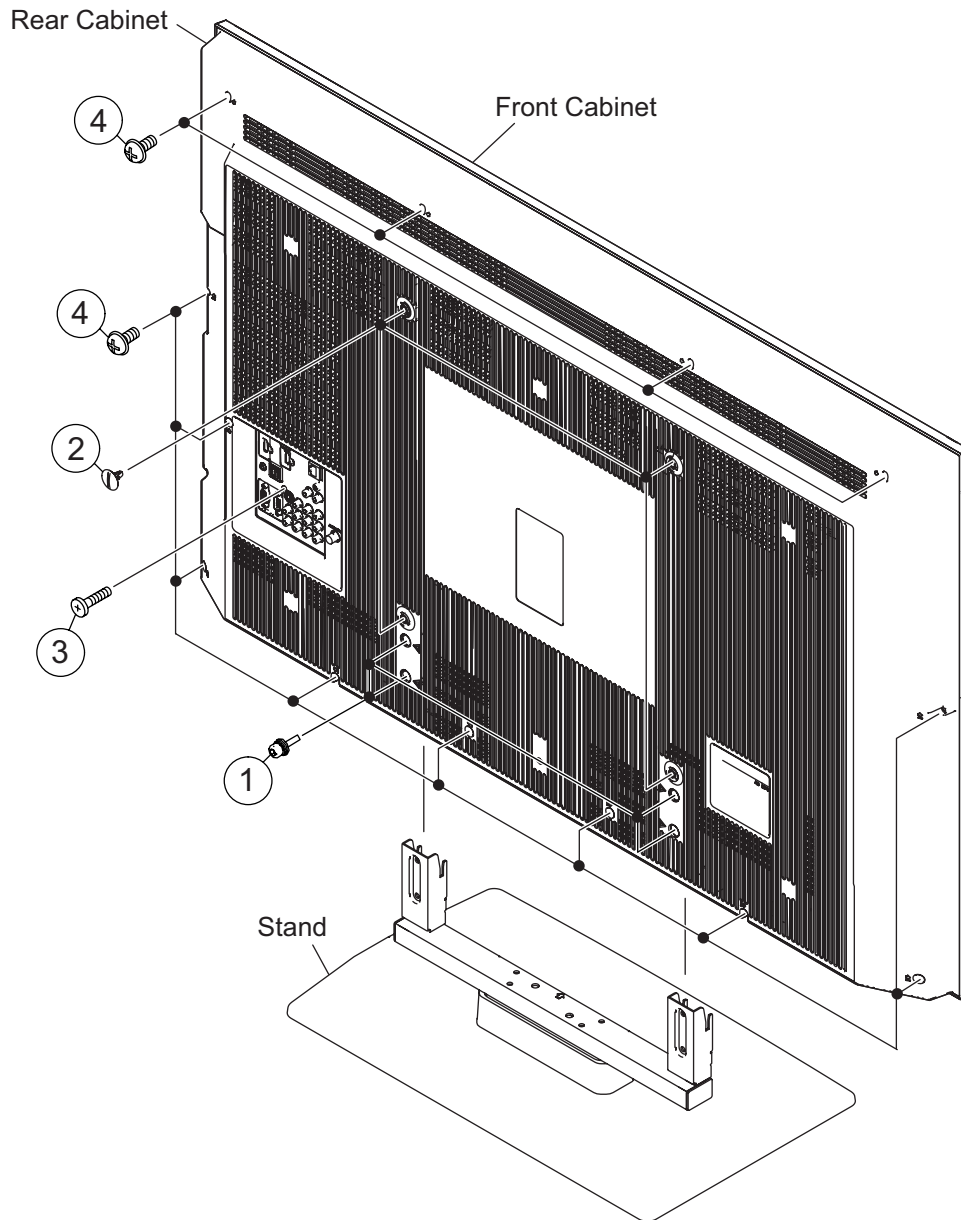
Unit: inch (mm)



CHAPTER 4. REMOVING OF MAJOR PARTS

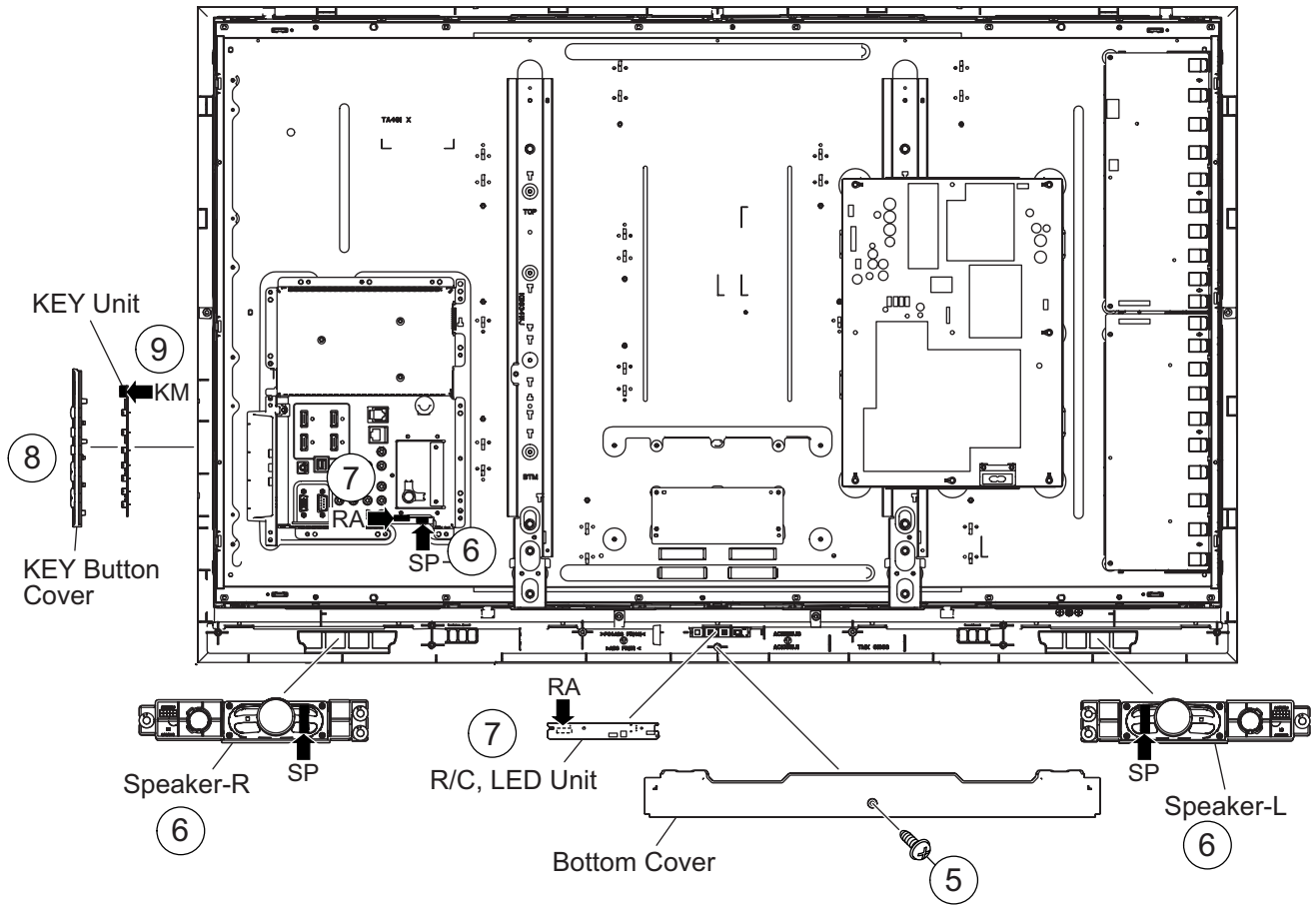
[1] REMOVING OF MAJOR PARTS (LC-46D65U)

1. Remove the 4 lock screws and detach the Stand.
2. Remove the 4 VESA Hole Covers.
3. Remove the 1 lock screw.
4. Remove the 4 lock screws, 9 lock screws and detach the Rear Cabinet.



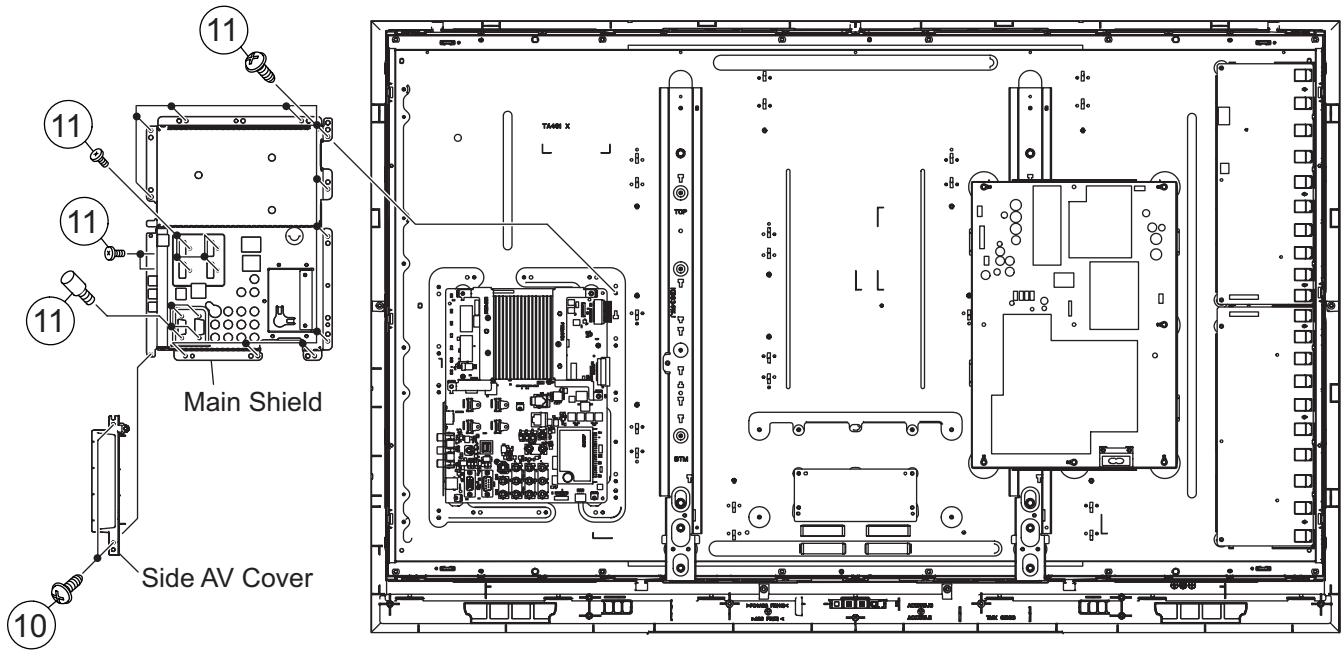
LC-46/52D65U

5. Remove the 1 lock screw and detach the Bottom Cover.
6. Disconnect SP-Wire and detach the Speaker-LR.
7. Detach the R/C, LED Unit, and disconnect RA-Wire.
8. Detach the KEY Unit Ass'y.
9. Detach the KEY Unit from the KEY Button Cover, and disconnect KM-Wire.

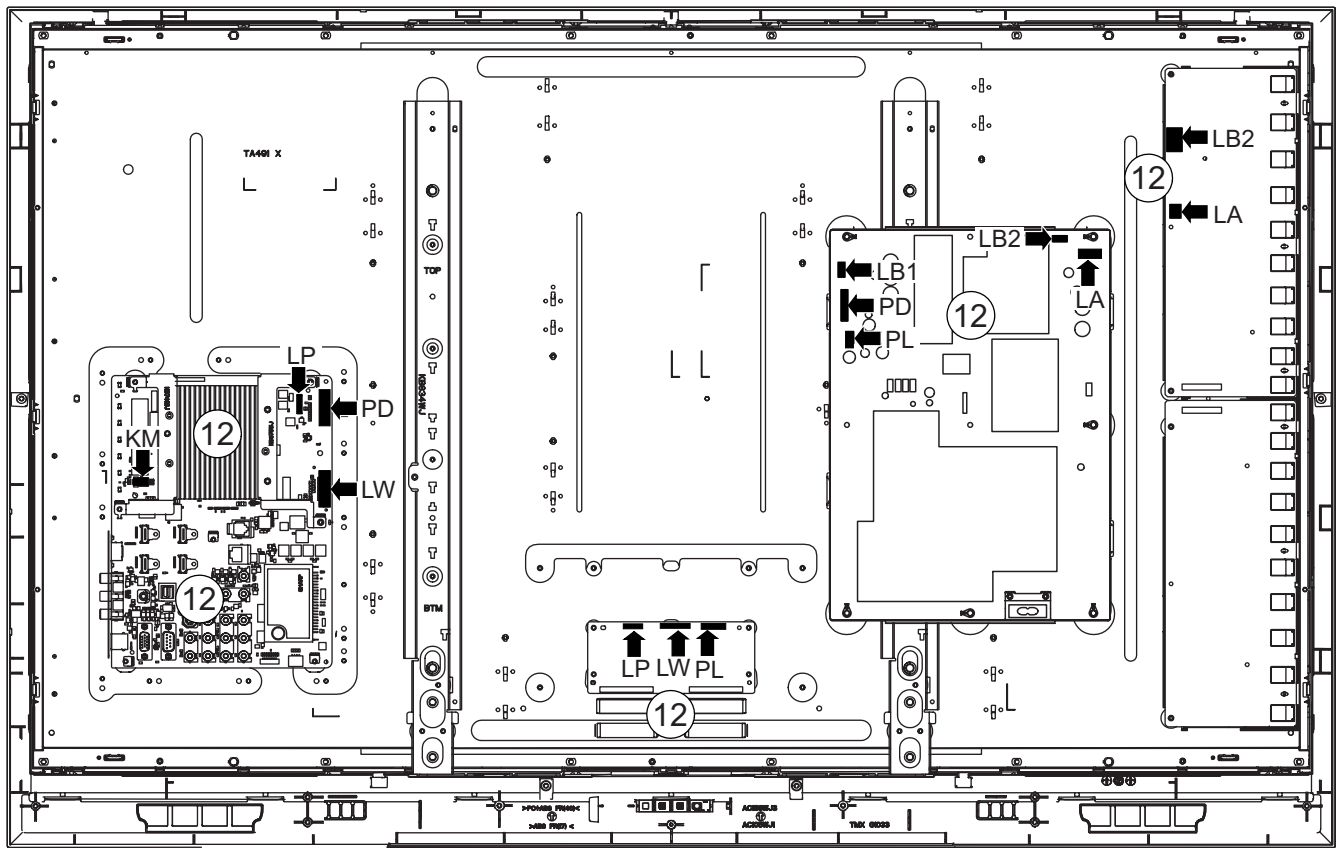


10. Remove the 2 lock screws and detach the Side AV Cover.

11. Remove the 11 lock screws, 4 lock shafts, 4 lock screws, 2 lock screws and detach the Main Shield.

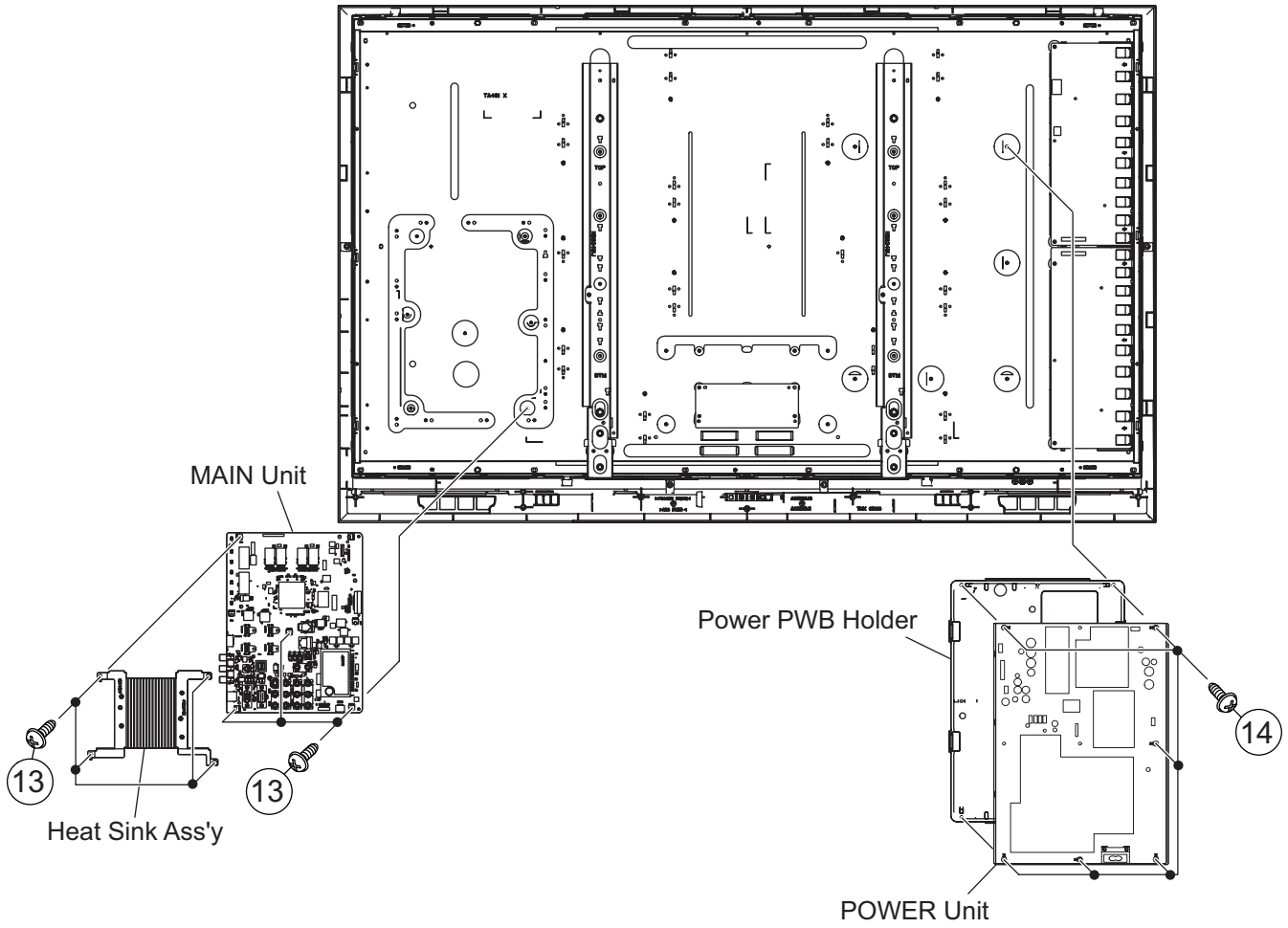


12. Disconnect all the connectors from all the PWBs.



13. Remove the 7 lock screws and detach the MAIN Unit, Heat Sink Ass'y.

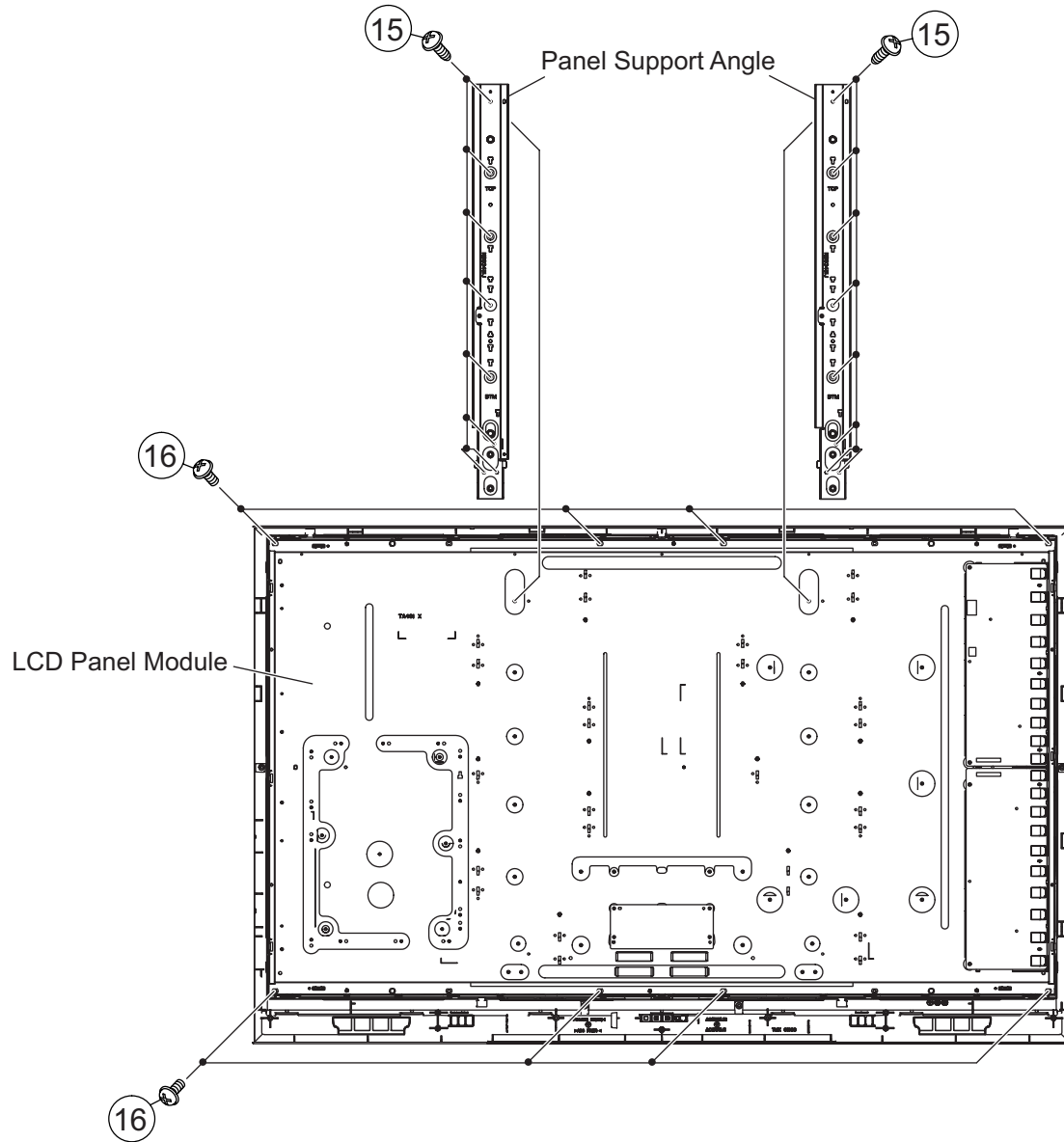
14. Remove the 6 lock screws and detach the POWER Unit Ass'y.



LC-46/52D65U

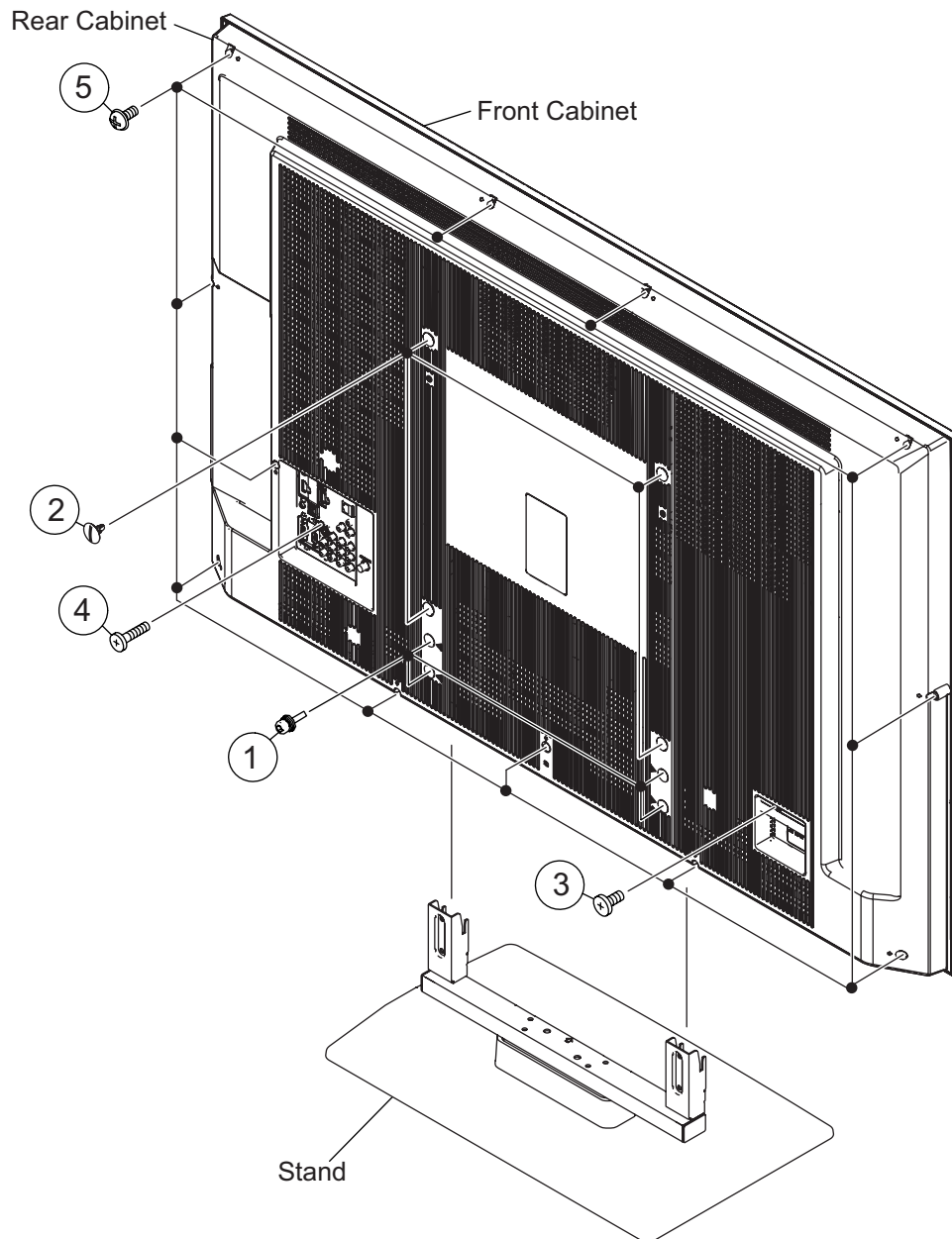
15.Remove the 16 lock screws and detach the Panel Support Angle.

16.Remove the 8 lock screws and detach the LCD Panel Module.



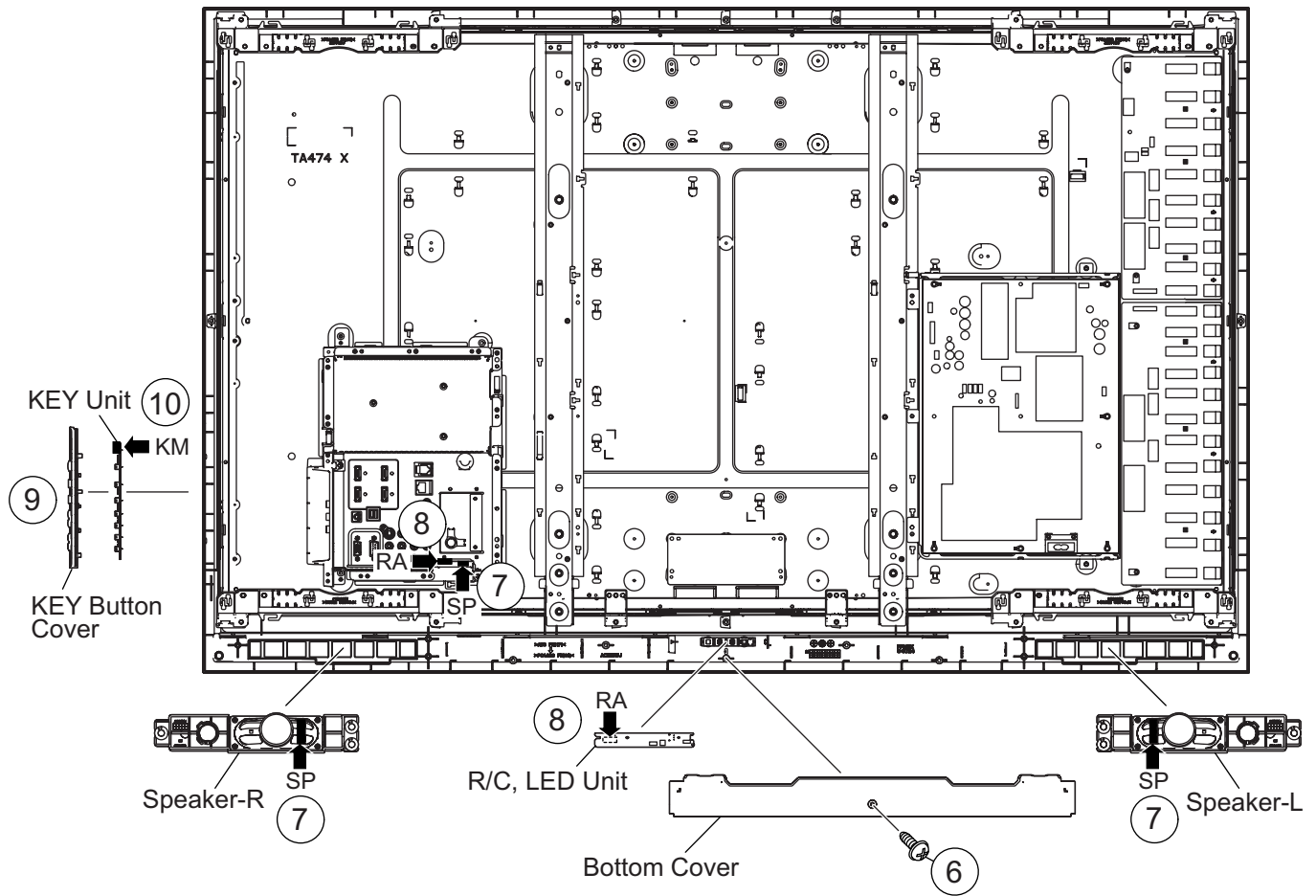
[2] REMOVING OF MAJOR PARTS (LC-52D65U)

1. Remove the 4 lock screws and detach the Stand.
2. Remove the 4 VESA Hole Covers.
3. Remove the 1 lock screw.
4. Remove the 1 lock screw.
5. Remove the 12 lock screws and detach the Rear Cabinet.



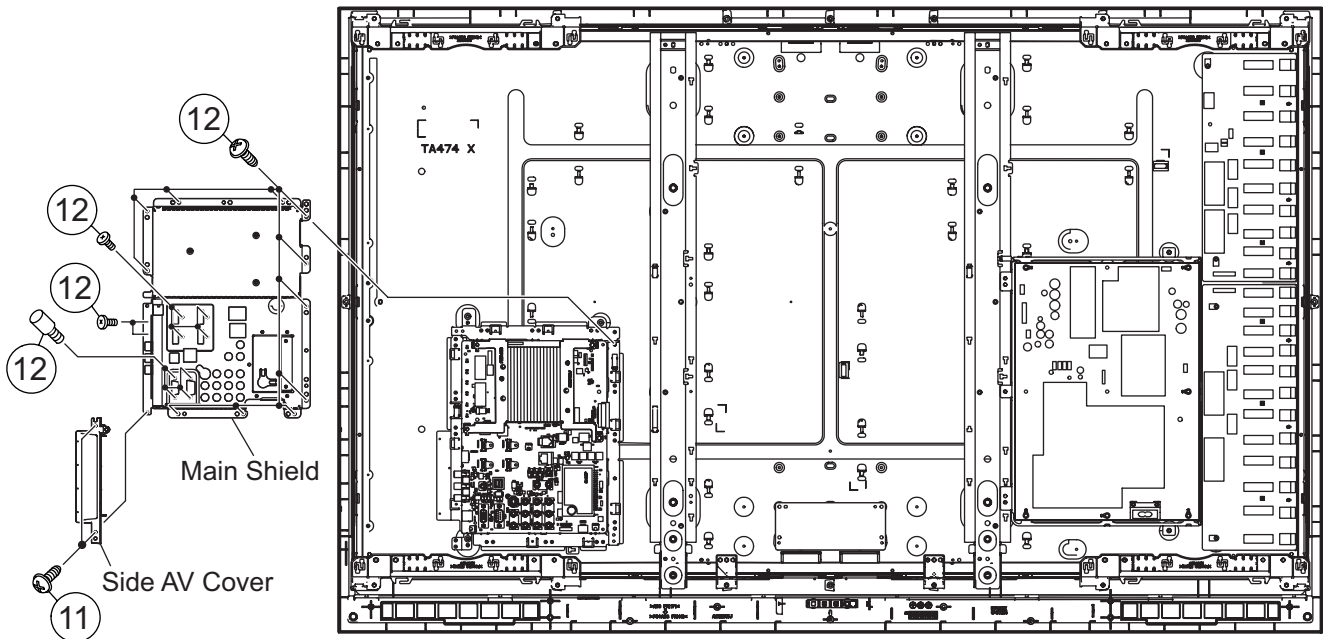
LC-46/52D65U

6. Remove the 1 lock screw and detach the Bottom Cover.
7. Disconnect SP-Wire and detach the Speaker-LR.
8. Detach the R/C, LED Unit, and disconnect RA-Wire.
9. Detach the KEY Unit Ass'y.
10. Detach the KEY Unit from the KEY Button Cover, and disconnect KM-Wire.

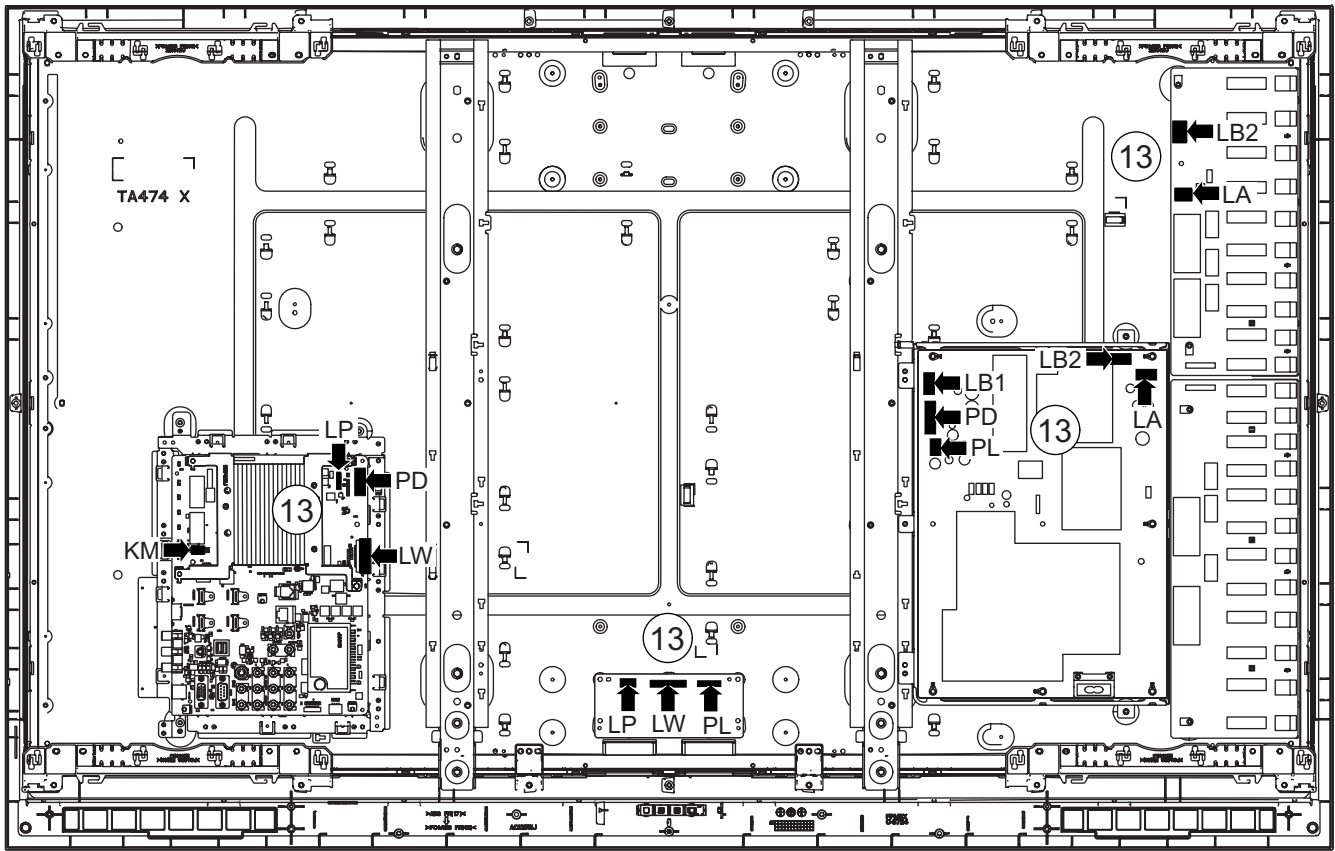


11. Remove the 2 lock screws and detach the Side AV Cover.

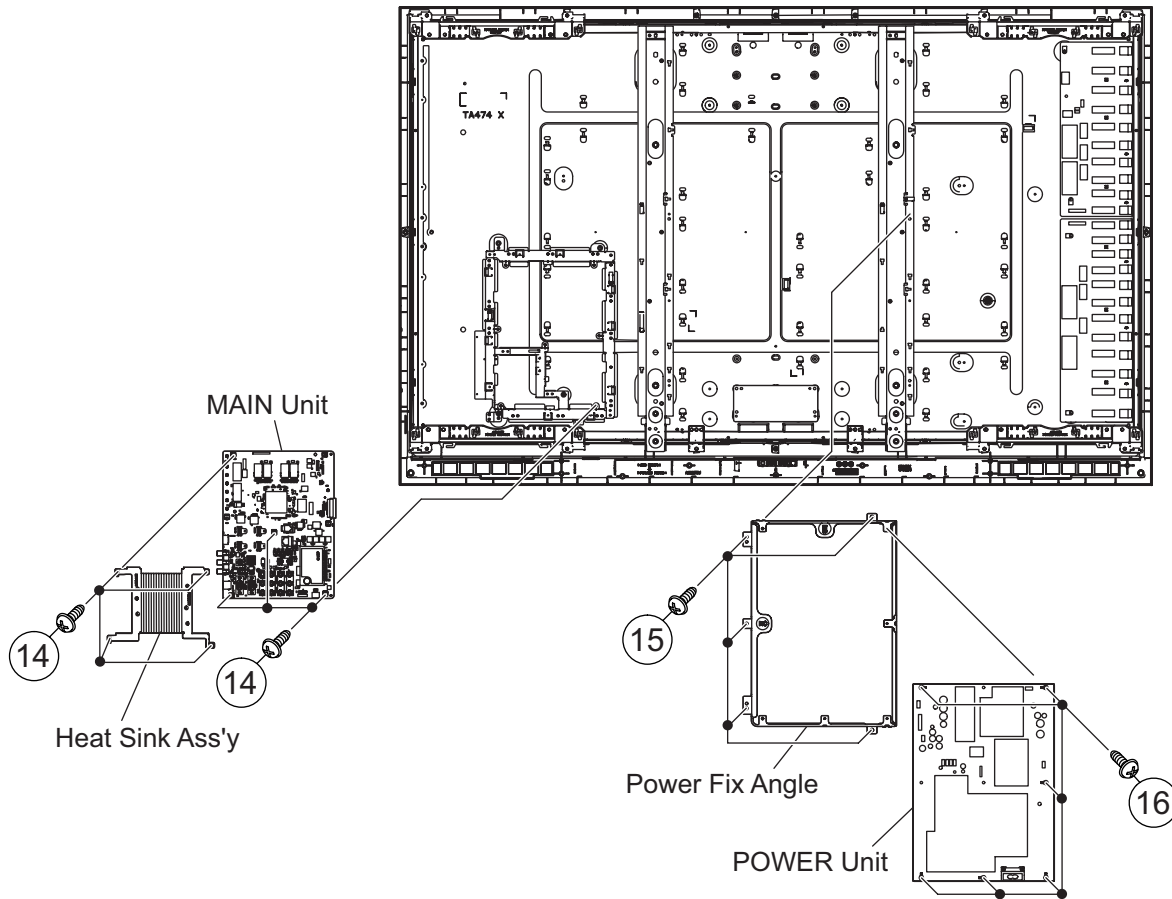
12. Remove the 11 lock screws, 4 lock shafts, 4 lock screws, 2 lock screws and detach the Main Shield.



13. Disconnect all the connectors from all the PWBs.



- 14.Remove the 7 lock screws and detach the MAIN Unit, Heat Sink Ass'y.
- 15.Remove the 5 lock screws and detach the POWER Unit Ass'y.
- 16.Remove the 6 lock screws and detach the POWER Unit from the Power Fix Angle.



LC-46/52D65U

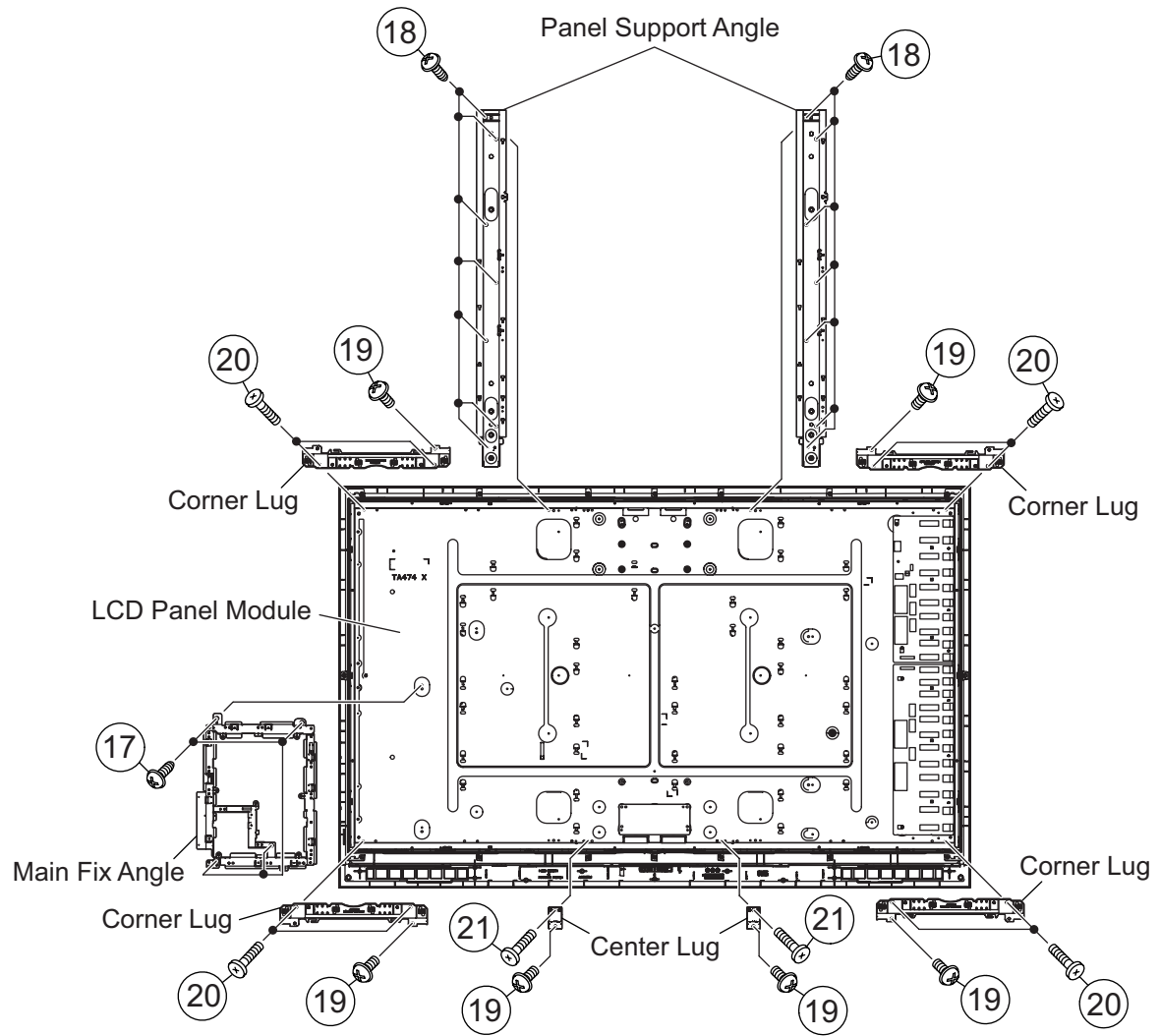
17.Remove the 4 lock screws and detach the Main Fix Angle.

18.Remove the 14 lock screws and detach the Panel Support Angle.

19.Remove the 6 lock screws and detach the LCD Panel Module.

20.Remove the 8 lock screws and detach the Corner Lug.

21.Remove the 2 lock screws and detach the Center Lug.



CHAPTER 5. ADJUSTMENT

[1] ADJUSTMENT PROCEDURE

The adjustment values are set to the optimum conditions at the factory before shipping. If a value should become improper or an adjustment is required due to part replacement, make an adjustment according to the following procedure.

1. After replacement of any PWB unit and/or IC for repair, please note the following.

- When replacing the following units, make sure to prepare the new units loaded with updated software.

MAIN Unit: DUNTKE716FM01

2. Upgrading of each microprocessor software

CAUTION: Never "POWER OFF" the unit when software upgrade is ongoing.

Otherwise the system may be damaged beyond recovery.

2.1. Software version upgrade

The model employs the following software.

- Main software
- Monitor microprocessor software.
- LCD controller software

The main software, monitor microprocessor software, and LCD controller software can be upgraded by using a general-purpose USB Memory.

The followings are the procedures for upgrading, explained separately for the main software, monitor microprocessor software, and LCD controller software.

2.2. Main software version upgrade

2.2.1 Get ready before you start

- USB Memory of 128MB or higher capacity.
- PC running on Windows 98/98SE/ME/2000/XP operating system.
- USB Memory reader/writer or PC with a USB port.
- The file system of a USB memory is FAT. (FAT32 is not applied)
- Use the USB memory without other functions. (lock and memory reader...etc)

2.2.2 Preparations

To upgrade the main software, it is necessary to get ready the USB Memory for version upgrade before you start.

Follow the steps below and create the USB Memory for version upgrade.

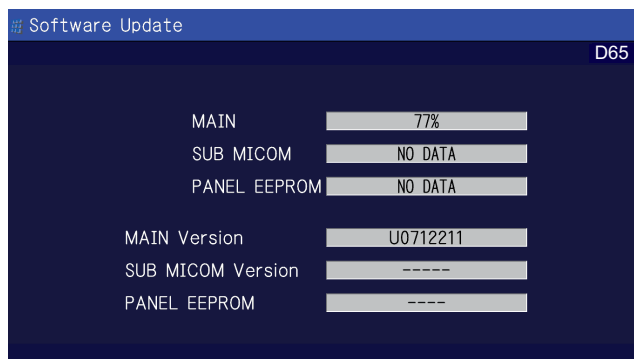
1. Copy the file LAKEAxxx.USB (named temporarily) for version upgrade to the root directory (folder) of the USB Memory.

NOTE: In the USB Memory drive, do not store other folders or unrelated files, or more than one file for version upgrade.

Now the USB Memory for version upgrade is ready.

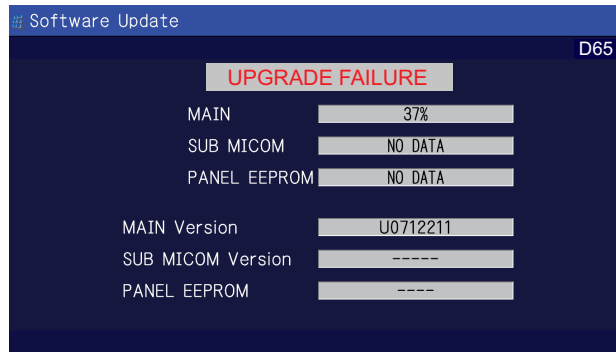
2.2.3 How to upgrade the software

1. Unplug the AC cord.
2. Insert the USB Memory for version upgrade (prepared as above) into the service socket located Right side of Main Board terminals, under INPUT3 terminal.
3. Plug in the AC cord with power button pressed down after 5 seconds, unpress the power button.
4. After the unit startup, the system upgrade screen as shown below appears within 20-40 seconds.



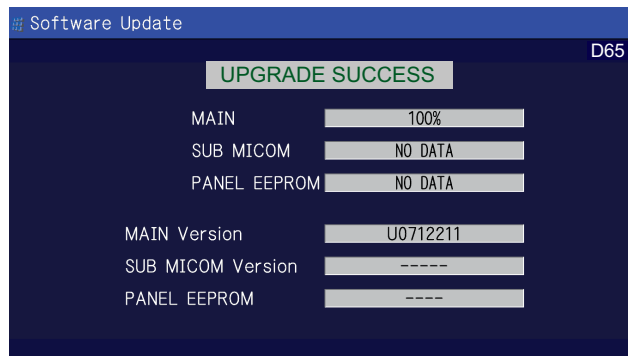
LC-46/52D65U

5. Even a single failure in the process will trigger the upgrade failure screen.



NOTE: In the event of a failure, repeat the upgrade process. If the process repeatedly fails, it is likely that the hardware need fixing.

6. Upon completion of the whole process, the upgrade success screen as shown below appears. You can check the new software version on this screen. The version information appears after the upgrade is complete.



7. Unplug the AC cord and remove the USB Memory for version upgrade.

8. Now the software version upgrade is complete.

NOTE: When you are done with the software version upgrade, start the set, go to the top page of the adjustment process screen and check the main software version information.

2.3. Monitor microprocessor software version upgrade

Create the USB memory for monitor microprocessor software version upgrade in the same manner as explained in the "Main software version upgrade".

Copy the file LAKEVx.x.USB and LAKEMx.x.BIN (named temporarily) for monitor microprocessor software version upgrade to the USB memory.

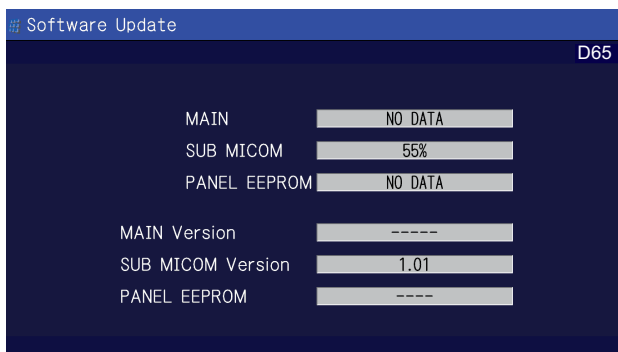
2.3.1 How to upgrade the software

1. Unplug the AC cord.
2. Insert the USB memory for version upgrade (prepared as above) into the service socket located Right side of Main Board terminals, under INPUT3 terminal.
3. Plug in the AC cord with power button pressed down.
4. After 5 seconds, unpress the power button.

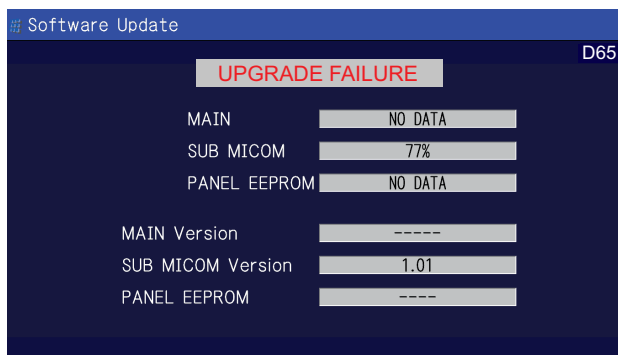
CAUTION: • The moment this operation is done, the upgrading of the monitor microprocessor software starts. While the upgrade is ongoing, never power off the unit. Otherwise the upgrade will fail and the system may be serious damaged beyond recovery (inability to start).

- After the monitor microprocessor software is upgraded, also perform the 'Industry Init'.

5. After the unit startup, the upgrade starts. The power led will blink continuously. Also, an upgrade screen will be shown during a minor upgrade.

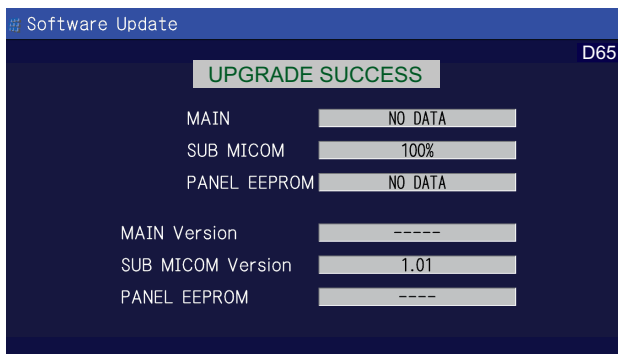


6. If the upgrade fails, power led will stop blinking. Also, the upgrade failure screen will be shown if upgrade screen was shown at 5.



NOTE: In the event of a transient failure, upgrade will be automatically retried up to three times. If the process repeatedly fails, hardware may be the cause.

7. Up on completion of the whole process, power and OPC LED will blink alternately. Also, the upgrade success screen will be shown if upgrade screen was shown at 5.



8. Unplug the AC cord and remove the USB Memory for version upgrade.
9. Now the software version upgrade is complete.

NOTE: When you are done with the software version upgrade, start the set, go to the top page of the adjustment process screen and check the monitor microprocessor software version information and panel size information.

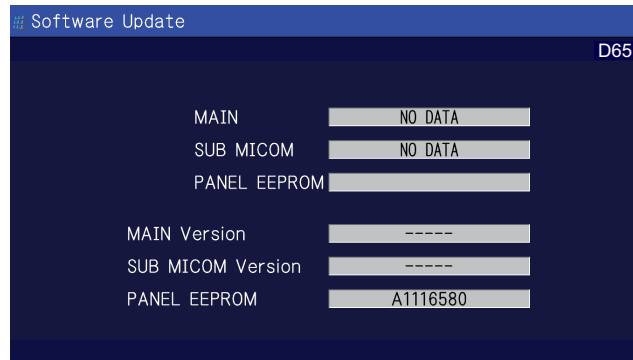
2.4. Upgrading LCD controller software

Create the USB memory for LCD controller software version upgrade in the same manner as explained in the "Main software version upgrade".

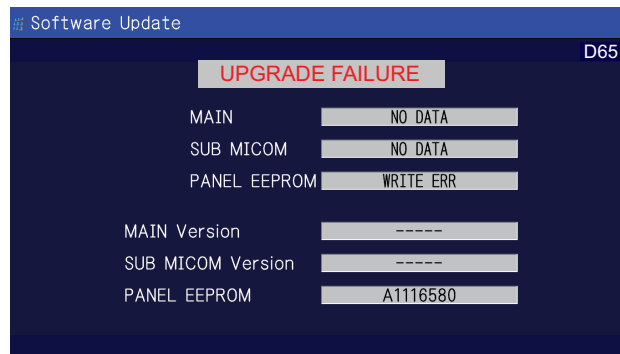
Copy the file LAKELAxX.USB and LAKELDxx.LCD to USB memory.

2.4.1 How to upgrade the software

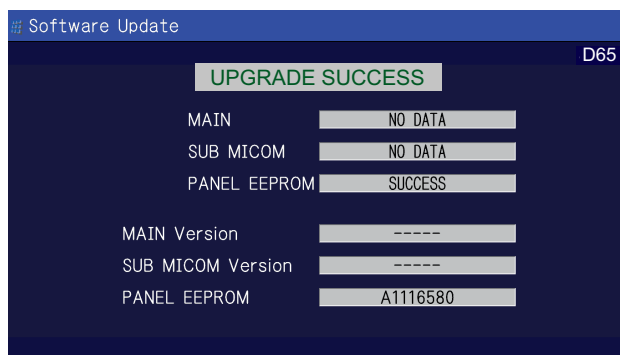
1. Unplug the AC cord.
2. Insert the USB Memory for version upgrade (prepared as above) into the service socket located Right side of Main Board terminals, under INPUT3 terminal.
3. Plug in the AC cord with power button pressed down after 5 seconds, unpress the power button.
4. After the unit startup, the system upgrade screen as shown below appears within 20-40 seconds.



5. Even a single failure in the process will trigger the upgrade failure screen.



6. Upon completion of the whole process, the upgrade success screen as shown below appears. You can check the new software version on this screen. The version information appears after the upgrade is complete.



7. Unplug the AC cord and remove the USB Memory for version upgrade.
8. Now the software version upgrade is complete.

3. Entering and exiting the adjustment process mode

- 1) Before entering the adjustment process mode, the AV position RESET in the video adjustment menu.
 - 2) While holding down the "VOL (-)" and "INPUT" keys at a time, plug in the AC cord of the main unit to turn on the power.
The letter "<K>" appears on the screen.
 - 3) Next, hold down the "VOL (-)" and "CH (\sphericalangle)" keys at a time.
(The "VOL (-)" and "CH (\sphericalangle)" keys should be pressed and held until the display appears.)
Multiple lines of blue characters appearing on the display indicate that the unit is now in the adjustment process mode.
When you fail to enter the adjustment process mode (the display is the same as normal startup), retry the procedure.
 - 4) To exit the adjustment process mode after the adjustment is done, unplug the AC cord from the outlet to make a forced shutdown. (When the power was turned off with the remote controller, once unplug the AC cord and plug it again. In this case, wait 10 seconds or so before plugging.)
- CAUTION: Use due care in handling the information described here lest your users should know how to enter the adjustment process mode. If the settings are tampered in this mode, unrecoverable system damage may result.

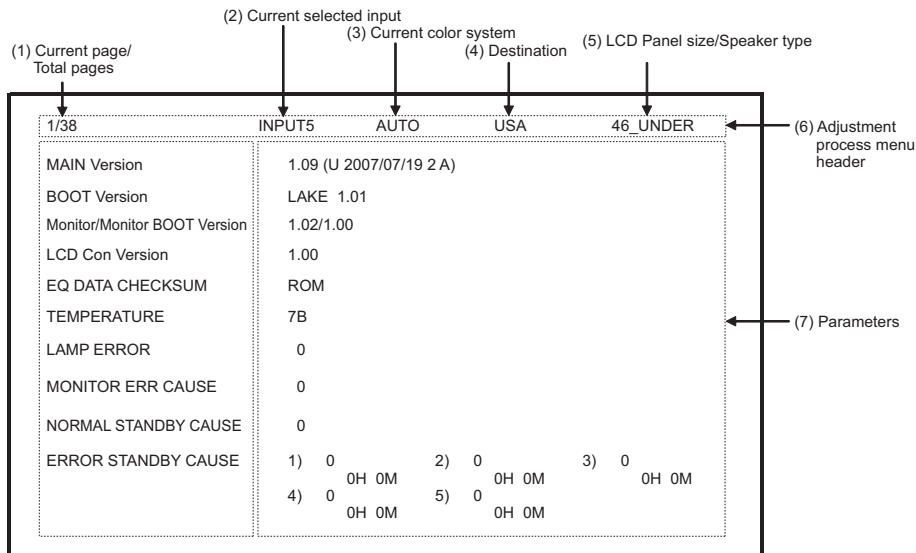
4. Remote controller key operation and description of display in adjustment process mode

1) Key operation

Remote controller key	Main unit key	Function
CH (\sphericalangle / \sphericalangle)	CH (\sphericalangle / \sphericalangle)	Moving an item (line) by one (UP/DOWN)
VOL (+/-)	VOL (+/-)	Changing a selected item setting (+1/ -1)
Cursor (UP/DOWN)	_____	Turing a page (PREVIOUS/NEXT)
Cursor (LEFT/RIGHT)	_____	Changing a selected line setting (+10/ -10)
INPUT	_____	Input switching (toggle switching)
ENTER	_____	Executing a function

*Input mode is switched automatically when relevant adjustment is started so far as the necessary input signal is available.

2) Description of display



5. List of adjustment process mode menu

The character string in brackets [] will appear as a page title in the adjustment process menu header.

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
1	1	MAIN Version	Main software version	Refer to *1 under the list for details Refer to *2 under the list for details
	2	BOOT Version		
	3	Monitor / Monitor BOOT Version	Monitor and monitor boot software version	
	4	LCD Con Version	LCD controller software version	
	5	EQ DATA CHECKSUM	Audio data checksum	
	6	TEMPERATURE	Panel temperature	
	7	LAMP ERROR	Number of termination due to lamp error	
	8	MONITOR ERR CAUSE		
	9	NORMAL STANDBY CAUSE		
	10	ERROR STANDBY CAUSE		
2	1	INDUSTRY INIT	Initialization to factory settings	Level appears in green on the upper right
	2	INDUSTRY INIT(-Hotel)		
	3	PUBLIC MODE	Public mode	
	4	Center Acutime	Accumulated main operation time	
	5	RESET	Reset	
	6	Backlight Acutime	Accumulated monitor operation time	
	7	RESET	Reset	
	8	LAMP ERROR RESET	Reset LAMP ERROR	
	9	VIC XPOS	X-coordinate setting for VIC READ	
	10	VIC YPOS	Y-coordinate setting for VIC READ	
	11	VIC COLOR	Collected color data setting for VIC READ	
	12	VIC SIGNAL TYPE	Signal type setting for VIC READ	
	13	VIC READ	Picture level acquisition function	
3	1	N358 ALL ADJ(INPUT1)	CVBS and TUNER signal level adjustment	
	2	N358 ALL ADJ(INPUT3)		
	3	N358 MAIN ADJ(INPUT1)	CVBS signal level adjustment	
	4	N358 MAIN ADJ(INPUT3)		
	5	TUNER DAC ADJ	TUNER signal level adjustment	
	6	N358 CONTRAST A_GAIN		
	7	N358 CONTRAST D_GAIN		
	8	N358 CONTRAST OFFSET		
	9	TUNER CONTRAST A_GAIN		
	10	TUNER CONTRAST D_GAIN		
4	1	TUNER VCHIP TEST(69ch)	Tuning test and VCHIP test (69ch)	
	2	TUNER VCHIP TEST(7ch)	Tuning test and VCHIP test (7ch)	
	3	TUNER VCHIP TEST(10ch)	Tuning test and VCHIP test (10ch)	
	4	TUNER VCHIP TEST(15ch)	Tuning test and VCHIP test (15ch)	
	5	INSPECT USB TERM		
	6	HDMI CEC TEST		
5	1	COMP15K ADJ(INPUT1)	Component 15K picture level adjustment (main)	
	2	COMP15K ADJ(INPUT2)		
	3	COMP15K Y A_GAIN		
	4	COMP15K Cb A_GAIN		
	5	COMP15K Cr A_GAIN		
	6	COMP15K Y D_GAIN		
	7	COMP15K Cb D_GAIN		
	8	COMP15K Cr D_GAIN		
	9	COMP15K Y OFFSET		
	10	COMP15K Cb OFFSET		
	11	COMP15K Cr OFFSET		
6	1	COMP33K ADJ(INPUT1)	Component 33K picture level adjustment (main)	
	2	COMP33K ADJ(INPUT2)		
	3	COMP33K Y A_GAIN		
	4	COMP33K Cb A_GAIN		
	5	COMP33K Cr A_GAIN		
	6	COMP33K Y D_GAIN		
	7	COMP33K Cb D_GAIN		
	8	COMP33K Cr D_GAIN		
	9	COMP33K Y OFFSET		
	10	COMP33K Cb OFFSET		
	11	COMP33K Cr OFFSET		

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
7	1	ANALOG RGB ADJ	Analog RGB picture level adjustment	
	2	R A_GAIN		
	3	G A_GAIN		
	4	B A_GAIN		
	5	R D_GAIN		
	6	G D_GAIN		
	7	B D_GAIN		
	8	R OFFSET		
	9	G OFFSET		
	10	B OFFSET		
8	1	VCOM ADJ	VCOM adjustment value	
9	1	LEV1	Standard value 1	Adjustment gradation setting.
	2	LEV2	Standard value 2	
	3	LEV3	Standard value 3	
	4	LEV4	Standard value 4	
	5	LEV5	Standard value 5	
	6	LEV6	Standard value 6	
10	1	MG1R	WB adjustment Point 1, R adjustment value	Parameter for six-point adjustment
	2	MG1G	WB adjustment Point 1, G adjustment value	
	3	MG1B	WB adjustment Point 1, B adjustment value	
	4	MG2R	WB adjustment Point 2, R adjustment value	
	5	MG2G	WB adjustment Point 2, G adjustment value	
	6	MG2B	WB adjustment Point 2, B adjustment value	
	7	MG3R	WB adjustment Point 3, R adjustment value	
	8	MG3G	WB adjustment Point 3, G adjustment value	
	9	MG3B	WB adjustment Point 3, B adjustment value	
11	1	MG4R	WB adjustment Point 4, R adjustment value	Parameter for six-point adjustment
	2	MG4G	WB adjustment Point 4, G adjustment value	
	3	MG4B	WB adjustment Point 4, B adjustment value	
	4	MG5R	WB adjustment Point 5, R adjustment value	
	5	MG5G	WB adjustment Point 5, G adjustment value	
	6	MG5B	WB adjustment Point 5, B adjustment value	
	7	MG6R	WB adjustment Point 6, R adjustment value	
	8	MG6G	WB adjustment Point 6, G adjustment value	
	9	MG6B	WB adjustment Point 6, B adjustment value	
12	1	MODE SELECT		
	2	POS SELECT		
	3	POS MIN		
	4	POS MID1		
	5	POS MID2		
	6	POS MID3		
	7	POS MID4		
	8	POS MID5		
	9	POS MID6		
	10	POS MAX		
13	1	CD MIN		
	2	CD MID1		
	3	CD MID2		
	4	CD MID3		
	5	CD MID4		
	6	CD MID5		
	7	CD MID6		
	8	CD MAX		
14	1	CALC		
	2	RESET		
	3	VAL1		
	4	VAL2		
	5	VAL3		
	6	VAL4		
	7	VAL5		
	8	VAL6		

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
15	1	Audio Switch		
	2	Flat Mode		
	3	ADC Volume 1		
	4	ADC Volume 2		
	5	ADC Volume 3		
	6	ADC Volume 4		
	7	ADC Volume 5		
	8	ADC Volume 6		
16	1	Lip Sync LR		
	2	Lip Sync Monitor		
	3	Lip Sync SW		
	4	LR Func Vol AIN(2ch)		
	5	LR Func Vol HDMI(2ch)		
	6	LR Func Vol ATV(2ch)		
	7	LR Func Vol DTV(2ch)		
	8	Input Trim(2ch)		
17	1	PEQ1 F0		
	2	PEQ1 Q		
	3	PEQ1 Gain		
	4	PEQ1 Gain Limit		
	5	PEQ1 Fade Time		
	6	PEQ2 F0		
	7	PEQ2 Q		
	8	PEQ2 Gain		
	9	PEQ2 Gain Limit		
	10	PEQ2 Fade Time		
18	1	PEQ3 F0		
	2	PEQ3 Q		
	3	PEQ3 Gain		
	4	PEQ3 Gain Limit		
	5	PEQ3 Fade Time		
	6	PEQ4 F0		
	7	PEQ4 Q		
	8	PEQ4 Gain		
	9	PEQ4 Gain Limit		
	10	PEQ4 Fade Time		
19	1	PEQ5 F0		
	2	PEQ5 Q		
	3	PEQ5 Gain		
	4	PEQ5 Gain Limit		
	5	PEQ5 Fade Time		
	6	PEQ6 F0		
	7	PEQ6 Q		
	8	PEQ6 Gain		
	9	PEQ6 Gain Limit		
	10	PEQ6 Fade Time		
20	1	PEQ7 F0		
	2	PEQ7 Q		
	3	PEQ7 Gain		
	4	PEQ7 Gain Limit		
	5	PEQ7 Fade Time		
	6	Subsonic Filter		
21	1	Output Trim		
	2	Clipper		
	3	SubVolume Default		
	4	SubVolume SH Bass		
	5	Mon Func Vol AIN		
	6	Mon Func Vol HDMI		
	7	Mon Func Vol ATV		
	8	Mon Func Vol DTV		
	9	SW Func Vol AIN		
	10	SW Func Vol HDMI		
	11	SW Func Vol ATV		
	12	SW Func Vol DTV		

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
22	1	BE ATT		
	2	BE G Limit		
	3	Bass Center ATT		
	4	Bass Vol0 MIN		
	5	Bass Vol60 MIN		
	6	Bass Vol60 Center		
	7	Bass Vol0 MAX		
	8	Bass Vol60 MAX		
23	1	Treble Center ATT		
	2	Treble Vol0 MIN		
	3	Treble Vol60 MIN		
	4	Treble Vol60 Center		
	5	Treble Vol0 MAX		
	6	Treble Vol60 MAX		
	7	VS Path		
	8	VS Option		
	9	VS SP Interval		
	10	VS Width		
	11	VS Input Gain(2ch)		
24	1	Bass AGC		
	2	Bass Harmonics		
	3	Bass LPF Fc		
	4	Bass HPF Fc		
	5	BassAGC Max		
	6	BassAGC Min		
	7	BassAGC Attack Time		
	8	BassAGC Release Time		
	9	BassAGC Threshold		
	10	BassAGC HPF F0		
	11	Bass Harmonics Level		
	12	Bass Harmonics LPF F		
	13	Bass Harmonics HPF F		
25	1	PANNEL SELECT		
	2	PWM		
	3	PWM FREQ		
	4	PWM DUTY		
	5	OSC FREQ		
	6	OSC DUTY		
26	1	BRIGHTNESS DA0		
	2	BRIGHTNESS DA1		
	3	BRIGHTNESS DA2		
	4	BRIGHTNESS DA3		
	5	BRIGHTNESS DA4		
	6	BRIGHTNESS DA5		
	7	BRIGHTNESS DA6		
	8	BRIGHTNESS DA7		
	9	BRIGHTNESS DA8		
	10	BRIGHTNESS DA9		
	11	BRIGHTNESS DA10		
	12	BRIGHTNESS DA11		
27	1	BRIGHTNESS DA12		
	2	BRIGHTNESS DA13		
	3	BRIGHTNESS DA14		
	4	BRIGHTNESS DA15		
	5	BRIGHTNESS DA16		
	6	BRIGHTNESS DA17		
	7	BRIGHTNESS DA18		
	8	BRIGHTNESS DA19		
	9	BRIGHTNESS DA20		
	10	BRIGHTNESS DA21		
	11	BRIGHTNESS DA22		

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
28	1	BRIGHTNESS DA23		
	2	BRIGHTNESS DA24		
	3	BRIGHTNESS DA25		
	4	BRIGHTNESS DA26		
	5	BRIGHTNESS DA27		
	6	BRIGHTNESS DA28		
	7	BRIGHTNESS DA29		
	8	BRIGHTNESS DA30		
	9	BRIGHTNESS DA31		
	10	BRIGHTNESS DA32		
29	1	OPC33 ADLEVEL 0		
	2	OPC33 ADLEVEL 1		
	3	OPC33 ADLEVEL 2		
	4	OPC33 ADLEVEL 3		
	5	OPC33 ADLEVEL 4		
	6	OPC33 ADLEVEL 5		
	7	OPC33 ADLEVEL 6		
	8	OPC33 ADLEVEL 7		
	9	OPC33 ADLEVEL 8		
	10	OPC33 ADLEVEL 9		
	11	OPC33 ADLEVEL 10		
	12	OPC33 ADLEVEL 11		
30	1	OPC33 ADLEVEL 12		
	2	OPC33 ADLEVEL 13		
	3	OPC33 ADLEVEL 14		
	4	OPC33 ADLEVEL 15		
	5	OPC33 ADLEVEL 16		
	6	OPC33 ADLEVEL 17		
	7	OPC33 ADLEVEL 18		
	8	OPC33 ADLEVEL 19		
	9	OPC33 ADLEVEL 20		
	10	OPC33 ADLEVEL 21		
	11	OPC33 ADLEVEL 22		
31	1	OPC33 ADLEVEL 23		
	2	OPC33 ADLEVEL 24		
	3	OPC33 ADLEVEL 25		
	4	OPC33 ADLEVEL 26		
	5	OPC33 ADLEVEL 27		
	6	OPC33 ADLEVEL 28		
	7	OPC33 ADLEVEL 29		
	8	OPC33 ADLEVEL 30		
	9	OPC33 ADLEVEL 31		
32	1	V6 OS THERMO 1		
	2	V6 OS THERMO 2		
	3	V6 OS THERMO 3		
	4	V6 OS THERMO 4		
	5	V6 OS THERMO 5		
	6	V6 OS THERMO 6		
	7	V6 OS THERMO 7		
33	1	V5 OS THERMO 1		
	2	V5 OS THERMO 2		
	3	V5 OS THERMO 3		
	4	V5 OS THERMO 4		
	5	V5 OS THERMO 5		
	6	V5 OS THERMO 6		
	7	V5 OS THERMO 7		
34	1	BL TEMP1		
	2	BL TEMP2		
	3	BL TDUTY		
35	1	MONITOR TIME OUT		
	2	MONITOR MAX TEMP		
	3	MONITOR ERROR CAUSE RESET		

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
36	1	LCD TEST PATTERN		
	2	TV TEST PATTERN 1		
	3	TV TEST PATTERN 2		
37	1	KEY LOCK(1217)		
	2	KOUTEI AREA ALL CLEAR		
	3	A MODE AREA CLEAR		
	4	BACKUP AREA CLEAR		
	5	B MODE AREA CLEAR		
	6	EXECUTION		
38	1	EEP SAVE	Writing setting values to EEPROM	
	2	EEP RECOVER	Reading setting values from EEPROM	
	3	STANDBY CAUSE RESET	Reset stand by cause	
	4	SETTING FOR ADJ		

***1 Details of P1.9 (NORMAL STANDBY CAUSE)**

2	No operation off	in the cause of "no operation off"
3	No signal off	in the cause of "no signal off"
4	PC power management mode 1	in the cause of "Standby mode MODE1"
5	PC power management mode 2	in the cause of "Standby mode MODE2"
6	Off timer	in the cause of "SLEEP timer"
8	Command from RS232C	in the cause of command by RS-232C

***2 Details of P1.10 (ERROR STANDBY CAUSE)**

11	Prolonged unspecified-signal input in PC mode	in the cause of continuous "out of range", PC input mode
17	Temperature error	in the cause of abnormal temperature
1A	Monitor trouble detected	in the cause of abnormal monitor mode
22	LCD controller Rom error	in the cause of software abnormality of LCD controller

6. Special features

- * STANDBY CAUSE (Page 1/38)
 Display of a cause (code) of the last standby
 The cause of the last standby is recorded in EEPROM whenever possible.
 Checking this code will be useful in finding a problem when you repair the troubled set.
- * EEP SAVE (Page 38/38)
 Storage of EEP adjustment value
- * EEP RECOVER (Page 38/38)
 Retrieval of EEP adjustment value from storage area

7. Video signal adjustment procedure

*Adjustment process mode menu is listed in section 5.

7.1. Signal check

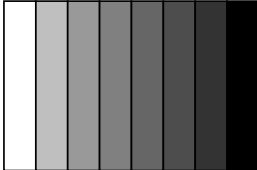
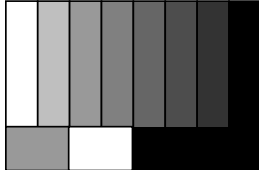
Signal generator level adjustment check (Adjustment to the specified level)

- Composite signal : 0.714Vp-p ± 0.02Vp-p (Pedestal to white level)
- 15K component signal : Y level : 0.714Vp-p ± 0.02Vp-p (Pedestal to white level)
 PB, PR level : 0.7Vp-p ± 0.02Vp-p
- 33K component signal : Y level : 0.7Vp-p ± 0.02Vp-p (Pedestal to white level)
 PB, PR level : 0.7Vp-p ± 0.02Vp-p
- Analog RGB : RGB level : 0.7Vp-p ± 0.02Vp-p (Pedestal to white level)

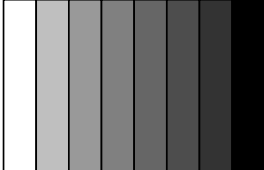
7.2. Entering the adjustment process mode

Enter the adjustment process mode according to the steps described in section 3.

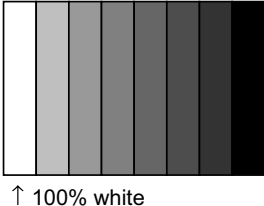
7.3. N358 composite signal adjustment (Tuner)

	Adjustment item	Adjustment conditions	Adjustment procedure
1	Adjustment	N358 signal US-10ch	Feed the NTSC (3.58) split field color bar signal (75% color saturation) to VIDEO 1 input. Feed the RF signal (by use of US-10ch) to TUNER-A. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>[Video input signal]</p>  <p>↑ 100% white</p> </div> <div style="text-align: center;"> <p>[US-10CH]</p>  <p>↑ 100% white</p> </div> </div>
2	Auto adjustment performance	Page 3/38	Bring the cursor on [●N358 ALL ADJ (INPUT1)] and press [ENTER]. [●N358 ALL ADJ (INPUT1) OK] appears when finished.

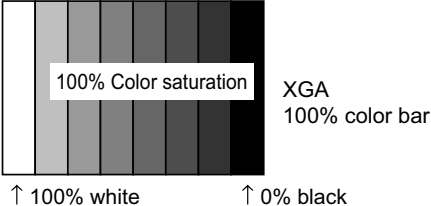
7.4. Component 15K signal adjustment

	Adjustment item	Adjustment conditions	Adjustment procedure
1	Adjustment	480i signal	Feed the 100% color bar signal to INPUT 1 component input. <div style="text-align: center;">  <p>↑ 100% white</p> </div>
2	Auto adjustment performance	Page 5/38	Bring the cursor on [●COMP 15K ADJ (INPUT1)] and press [ENTER]. [●COMP 15K ADJ (INPUT1) OK] appears when finished.

7.5. Component 33K signal adjustment

	Adjustment item	Adjustment conditions	Adjustment procedure
1	Adjustment	1080i signal	Feed the 100% color bar signal to INPUT 1 component input. 
2	Auto adjustment performance	Page 6/38	Bring the cursor on [COMP 33K ADJ (INPUT1)] and press [ENTER]. [COMP 33K ADJ (INPUT1) OK] appears when finished.

7.6. Analog RGB signal adjustment

	Adjustment item	Adjustment conditions	Adjustment procedure
1	Adjustment	Analog RGB signal: XGA (1024 x 768) 60Hz SYNC: HV separate	Feed the XGA 100% color bar signal to ANALOG RGB input. 
2	Auto adjustment performance		Bring the cursor on [ANALOG RGB ADJ] and press [ENTER]. [ANALOG RGB ADJ OK] appears when finished.

7.7. Tuner/V-Chip test

	Adjustment item	Adjustment conditions	Adjustment procedure
1	Adjustment	NTSC RF signal US-7 (AIR) ch	Feed the NTSC signal to RF ANTENNA input.
2	Auto adjustment performance		Bring the cursor on [TUNER VCHIP TEST (*07ch)] and press [ENTER]. (*Select the channel according to the RF signal.) [A-OK (***)/VM-OK] appears in blue when finished. (If [A-NG/VM-NG] appears in yellow or red, the test is incomplete.) Make sure a displacement of ± 0.0625 MHz from the center frequency is acceptable.

8. Adjustment of white balance

8.1. White balance adjustment

	Adjustment item	Adjustment conditions	Adjustment procedure																																														
1	Setting		<p>For detailed adjustment procedure, refer to "Kameyama Model Integral Monitor WB Adjustment Specifications V1.6".</p> <ol style="list-style-type: none"> Make the following settings for the set. AV MODE: [DYNAMIC] Backlight: +16 Active Backlight: OFF Aging time: Min. 60 minutes Connect the white balance adjustment tool to the set. 																																														
2	Automatic adjustment execution	<p>[Command] Process mode KRSW0001 KKT10037</p> <p>Setting KYOF0000 OSDS0001 SBSL0016</p> <p>Multi-point adjustment mode MSET0001</p> <p>Point 6 WBI60928 MG6G**** MG6B**** MG6R****</p> <p>Point 5 WBI50784 MG5G**** MG5B**** MG5R****</p> <p>Point 4 WBI40580 MG4G**** MG4B**** MG4R****</p> <p>Point 3 WBI30420 MG3G**** MG3B**** MG3R****</p> <p>Point 2 WBI20284 MG2G**** MG2B**** MG2R****</p> <p>Point 1 WBI10184 MG1G**** MG1B**** MG1R****</p> <p>Writing MSET0003</p>	<p>[Adjustment procedure]</p> <ol style="list-style-type: none"> Using the remote controller, transmit the "monitor adjustment process" code. Set the 6th point to the specified gradation level. With the strongest color being fixed, turn down the R, G and B settings to their reference levels. Set the 5th point to the specified gradation level. Correct the G setting (784 x 6th-point G setting / 928) (rounded off), and make the R and B settings to their reference levels. Set the 4th point to the specified gradation level. Correct the G setting (580 x 6th-point G setting / 928) (rounded off), and make the R and B settings to their reference levels. Set the 3rd point to the specified gradation level. Correct the G setting (420 x 6th-point G setting / 928) (rounded off), and make the R and B settings to their reference levels. Set the 2nd point to the specified gradation level. Correct the G setting (284 x 6th-point G setting / 928) (rounded off), and make the R and B settings to their reference levels. Set the 1st point to the specified gradation level. Correct the G setting (184 x 6th-point G setting / 928) (rounded off), and make the R and B settings to their reference levels. With the MSET0003 command, write the adjustment values and turn off the AC power. <p>* Initial R, G and B settings at point 6: Gradation level set at 928 * Initial R, G and B settings at points 1 thru 5: Corrected G setting at each point (This is because the adjustment is made to achieve the same remainder of RGB setting / 4 at each point.)</p> <p>[Adjustment value] •As per the "standard set" submitted by Engineering Department Teaching set [Adjustment reference] Instrument: Minolta CA-210 Engineering instrument</p> <table border="1"> <thead> <tr> <th></th> <th>Level</th> <th>Reference</th> <th>Adj. spec</th> <th>Ins. spec</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Point 6</td> <td rowspan="2">928</td> <td>X=0.272</td> <td rowspan="2">±0.0010</td> <td rowspan="2">±0.002</td> </tr> <tr> <td>y=0.277</td> </tr> <tr> <td rowspan="2">Point 5</td> <td rowspan="2">784</td> <td>X=0.272</td> <td rowspan="2">±0.0010</td> <td rowspan="2">±0.002</td> </tr> <tr> <td>y=0.277</td> </tr> <tr> <td rowspan="2">Point 4</td> <td rowspan="2">580</td> <td>X=0.272</td> <td rowspan="2">±0.0015</td> <td rowspan="2">±0.003</td> </tr> <tr> <td>y=0.277</td> </tr> <tr> <td rowspan="2">Point 3</td> <td rowspan="2">420</td> <td>X=0.272</td> <td rowspan="2">±0.0020</td> <td rowspan="2">±0.004</td> </tr> <tr> <td>y=0.277</td> </tr> <tr> <td rowspan="2">Point 2</td> <td rowspan="2">284</td> <td>X=0.272</td> <td rowspan="2">±0.0030</td> <td rowspan="2">±0.006</td> </tr> <tr> <td>y=0.277</td> </tr> <tr> <td rowspan="2">Point 1</td> <td rowspan="2">184</td> <td>X=0.272</td> <td rowspan="2">±0.0040</td> <td rowspan="2">±0.008</td> </tr> <tr> <td>y=0.277</td> </tr> <tr> <td>Note</td> <td></td> <td colspan="3"> Set conditions for inspection AV MODE: [DYNAMIC] (Reset) Monochro: ON Active Contrast: OFF Aging Time: Min. 60 minutes </td> </tr> </tbody> </table>		Level	Reference	Adj. spec	Ins. spec	Point 6	928	X=0.272	±0.0010	±0.002	y=0.277	Point 5	784	X=0.272	±0.0010	±0.002	y=0.277	Point 4	580	X=0.272	±0.0015	±0.003	y=0.277	Point 3	420	X=0.272	±0.0020	±0.004	y=0.277	Point 2	284	X=0.272	±0.0030	±0.006	y=0.277	Point 1	184	X=0.272	±0.0040	±0.008	y=0.277	Note		Set conditions for inspection AV MODE: [DYNAMIC] (Reset) Monochro: ON Active Contrast: OFF Aging Time: Min. 60 minutes		
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8.2. Adjusting procedure by use of [RS-232C]

1. Get ready the PC with COM port (RS-232C) running on Windows 95/98/ME/2000/XP operating system, as well as the RS-232C cross cable.
2. Start the unit with the RS-232C cable connected.
3. Start the terminal software. (The freeware readily available on the Internet will do.)
4. Make the following settings.

Baud rate	9,600 bps
Data LENGTH	8 bit
Parity bit	None
Stop bit	1 bit
Flow control	None

5. If the settings are correct, the terminal software indicates "ERR" against pressing of the "ENTER" key.
6. After the settings are done correctly, it is possible to make an adjustment by typing in the command shown in the table below and pressing the "ENTER" key on the keyboard.
7. Command entry is successful if the terminal software indicates "OK" when the "ENTER" is pressed. If "ERR" is shown, retry to enter the command.
8. Send the process mode switching command to switch from the RS232C operation mode to the process mode.
KRSW0001: "ERR" is returned.
KKT10037: When "OK" is returned, the process mode becomes active. When "ERR", start over from KRSW0001.
9. Send each adjustment command.

9. Initialization to factory settings

CAUTION: When initialization is performed, all user setting data including the channel settings are initialized. Be cautious when making this adjustment.

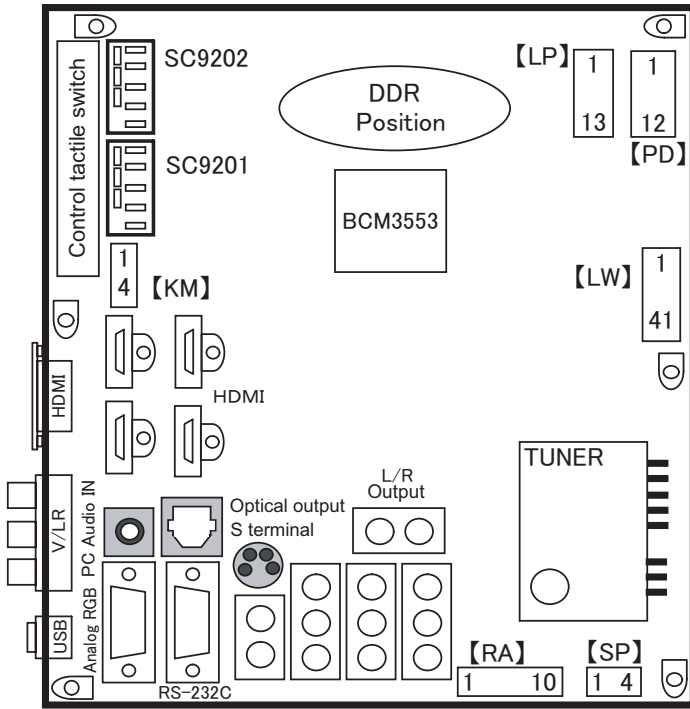
(The adjustments done in the adjustment process mode are not initialized.)

	Adjustment item	Adjustment conditions	Adjustment procedure
1	Initialization	It turns off with AC power supply.	<p>Enter the adjustment process mode. Bring the cursor on to [INDUSTRY INIT] in page 2/38. Set to [ON] using [VOL] key, and press [ENTER] to execute the initialization. When the version number screen shows up on the green background and "SUCCESS" gets displayed at the top on screen, it means the procedure has been successfully carried out. (If an error occurs, "ERROR" is displayed on the red background.) •Turn off the AC power. *Never shut off the power during the initialization process. The following settings are initialized in this adjustment.</p> <p>1) User setting 2) Channel data (e.g. broadcast frequencies) 3) Password data 4) Operation time 5) Auto installation flag 6) V-CHIP block setting</p>

**After the adjustment, cancel the adjustment process mode.
To exit the adjustment process mode, unplug the AC power cable from the outlet to make a forced shutdown. (When the power was turned off with the remote controller, once unplug the power cable and plug it again. In this case, wait 10 seconds or so before plugging.)**

10. Model number ID plug

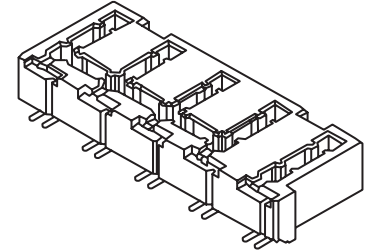
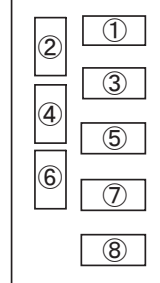
Model numbers are identified by inserting the destination ID plug (QCNCMA275WJQZ) in its specified slot of the destination ID connector SC9201/SC9202 (QCNCWA715WJQZY).



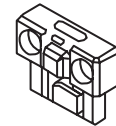
Destination ID connector locations

	SC9201	SC9202
LC-46D65U	③	⑦
LC-52D65U	⑤	⑦

Plug locations



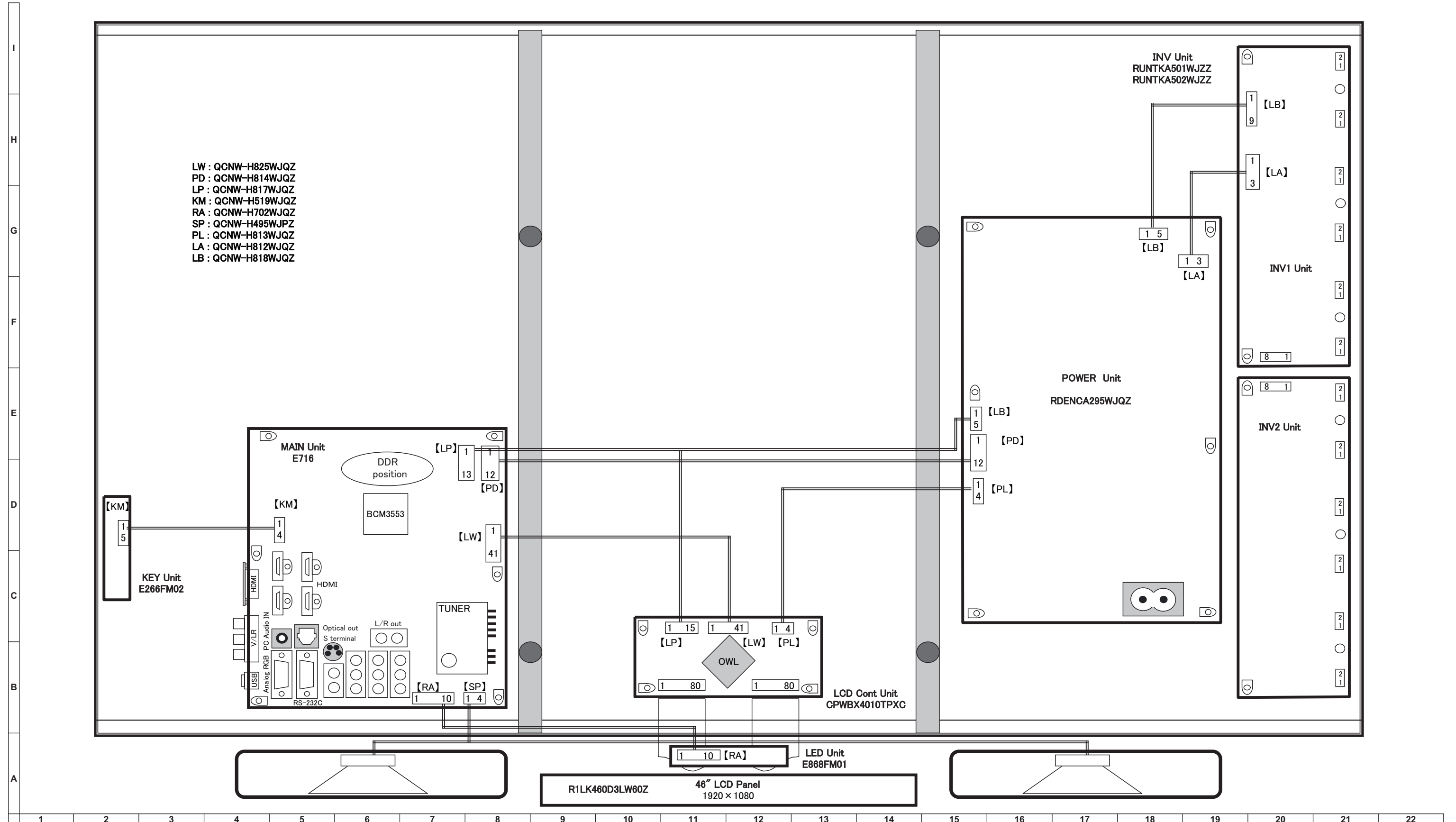
Destination ID connector (QCNCWA715WJQZY)



Destination ID plug (QCNCMA275WJQZ)

CHAPTER 6. OVERALL WIRING DIAGRAM

[1] OVERALL WIRING DIAGRAM (LC-46D65U)



SHARP PARTS GUIDE

No. S98Q2LC46D65U

Note:

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

MODELS **LC-46D65U**
LC-52D65U

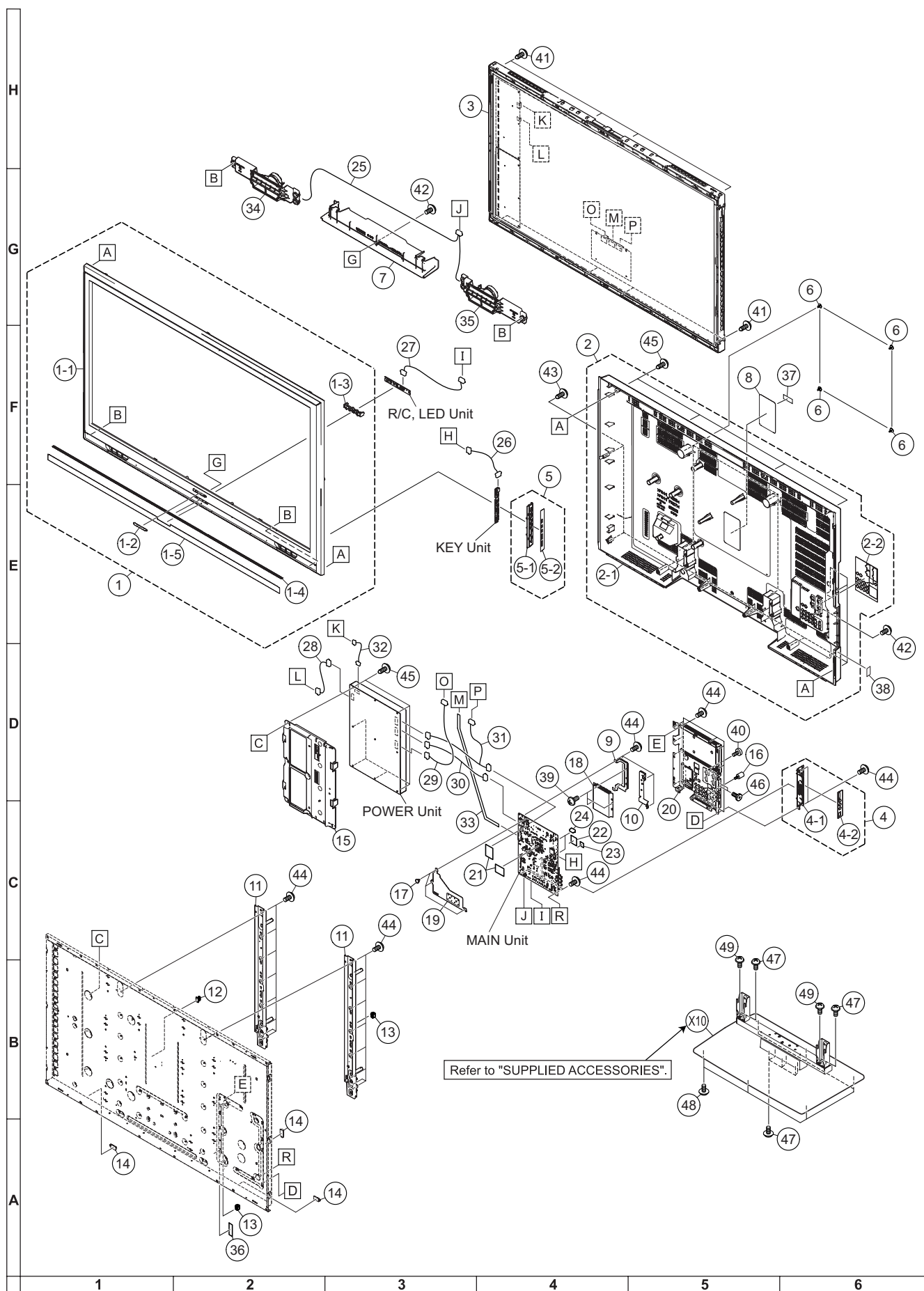
CONTENTS

- | | |
|---|--|
| [1] PRINTED WIRING BOARD ASSEMBLIES | [6] SUPPLIED ACCESSORIES |
| [2] LCD PANEL (NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.) | [7] PACKING PARTS (NOT REPLACEMENT ITEM) (LC-46D65U) |
| [3] DUNTKE716FM01 (MAIN Unit) | [8] PACKING PARTS (NOT REPLACEMENT ITEM) (LC-52D65U) |
| [4] CABINET AND MECHANICAL PARTS (LC-46D65U) | [9] SERVICE JIG (USE FOR SERVICING) |
| [5] CABINET AND MECHANICAL PARTS (LC-52D65U) | |

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.

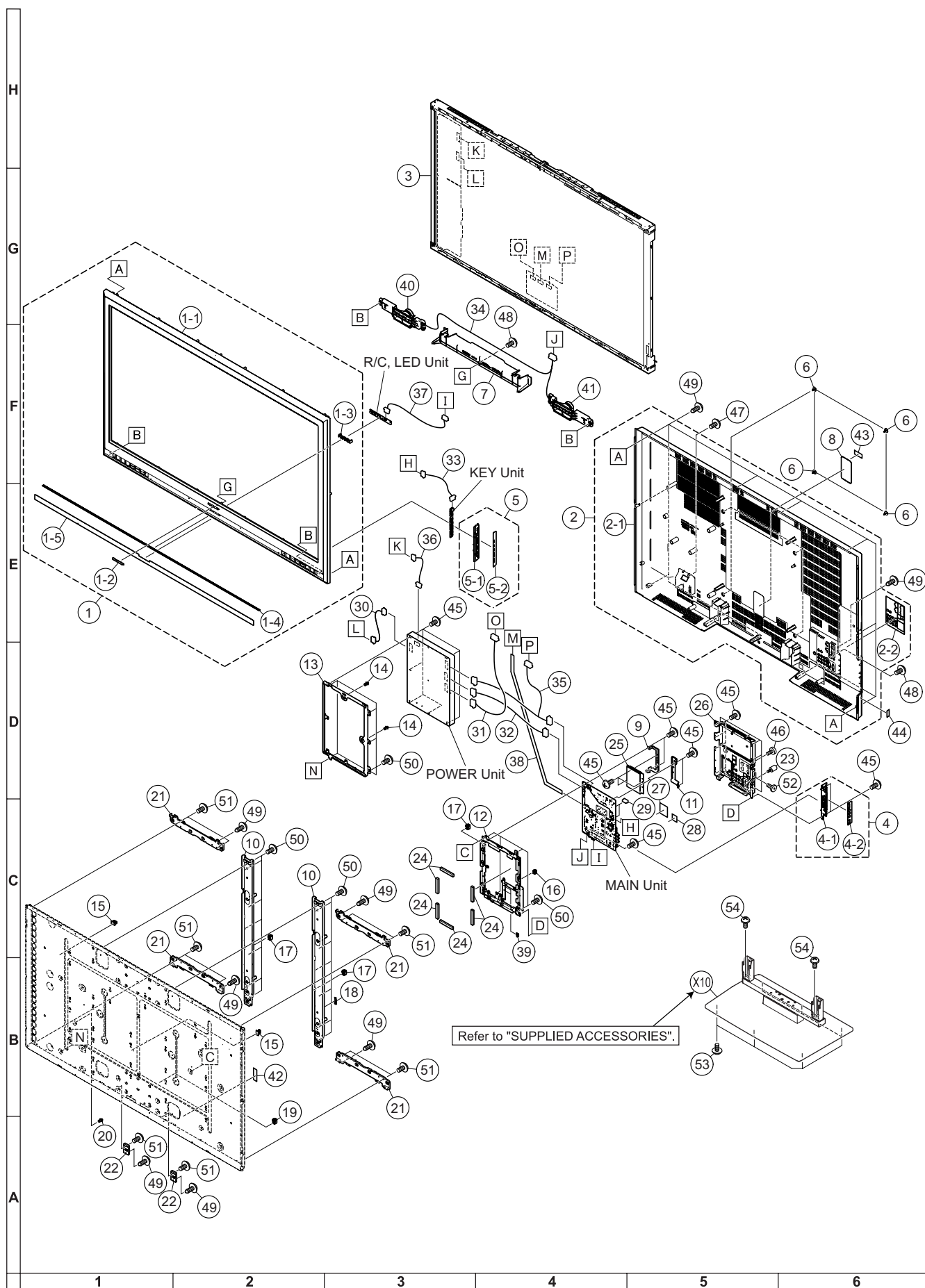
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[1] PRINTED WIRING BOARD ASSEMBLIES					
N	DUNTKE266FM02	AG		X	KEY Unit
N	DUNTKE716FM01	CC		X	MAIN Unit
N	DUNTKE868FM01	AN		X	R/C, LED Unit
N	RDENCA295WJQZ	BR		X	POWER Unit
[2] LCD PANEL (NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.)					
N	R1LK460D3LW60Z	EH	N	J	46" LCD Panel Module Unit (LC-46D65U)
N	R1LK520D3LW10Z	FK		J	52" LCD Panel Module Unit (LC-52D65U)
[3] DUNTKE716FM01 (MAIN Unit)					
IC1601	VH i S24CS02JBES	AL	N	J	IC, BQC (HDMI1 EDID)
IC1602	VH i S24CS02JDES	AL	N	J	IC, BQC (HDMI3 EDID)
IC1603	VH i S24CS02JCES	AL	N	J	IC, BQC (HDMI2 EDID)
IC1801	VH i S24CS02JFES	AL	N	J	IC, BQC (HDMI5 EDID)
IC1805	VH i S24CS02JEES	AL	N	J	IC, BQC (HDMI4 EDID)
R601	VRS-CZ1JF470JY	AA		J	Resistor, 47 1/16W Metal Oxide
R602	VRS-CZ1JF470JY	AA		J	Resistor, 47 1/16W Metal Oxide

[4] CABINET AND MECHANICAL PARTS (LC-46D65U)



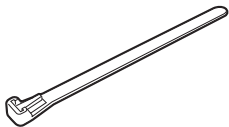
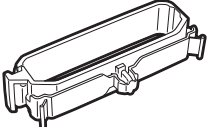
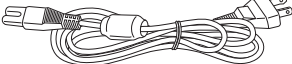
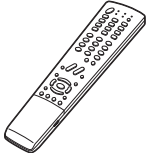


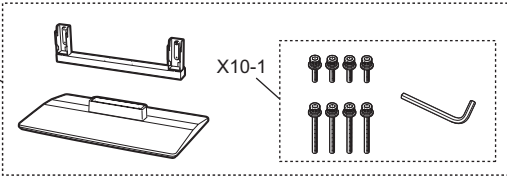
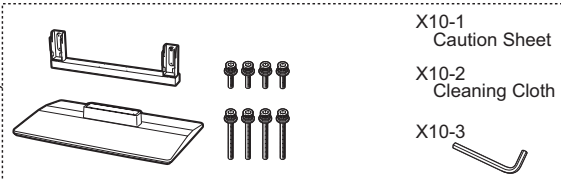
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] CABINET AND MECHANICAL PARTS (LC-46D65U)					
1	CCABAC158WJ32	BL	N	X	Front Cabinet Ass'y
1-1	Not Available	-	N	-	Front Cabinet
1-2	Not Available	-	-	-	Badge, SHARP
1-3	HDECQA992WJ3A	AD		X	LED Decoration
1-4	HDECSA045WJ3A	AN		X	Shine Trim
1-5	HPNLSA213WJ3B	AS	N	X	SP Sheet
2	CCABBB367WJ31	BQ	N	X	Rear Cabinet Ass'y
2-1	Not Available	-	N	-	Rear Cabinet
2-2	HINDPC966WJSA	AF		X	Terminal Label (Back)
3	R1LK460D3LW60Z	EH	N	J	46" LCD Panel Module Unit
4	CCOVAC951WJ01	AK		X	Side AV Cover Ass'y
4-1	Not Available	-	N	-	Side Terminal Cover
4-2	HINDPC909WJSA	AD	N	X	Side Terminal Label
5	CCOVAC952WJ01	AK		X	KEY Button Cover Ass'y
5-1	Not Available	-	N	-	KEY Button Cover
5-2	Not Available	-	N	-	Control Button Label
6	GCOVAC576WJKZ	AC		J	VESA Hole Cover, x4
7	GCOVAC954WJKA	AM		X	Bottom Cover
8	HINDPD036WJSA	AD	N	X	Model Label
9	LANGKB675WJFW	AF		X	Radiator Angle-A
10	LANGKB741WJFW	AF		X	Radiator Angle-B
11	LANGKB834WJFW	AT	N	X	Panel Support Angle, x2
12	LHLDWA133WJKZ	AC		J	Wire Holder
13	LHLDWA151WJKZ	AB		J	Wire Holder, x2
14	LHLDWA175WJUJ	AC		J	Wire Holder, x3
15	LHLDZB230WJ3Z	AN	N	X	Power PWB Holder
16	NSFTZA284WJFW	AC	N	X	Shaft, x4
17	PCLICA004WJKZ	AC		J	Rivet, x3
18	PRDARA510WJFW	AX		J	Radiator
19	PRDARA618WJFW	AL		X	Heat Sink
20	PSLDMB421WJM1	AQ		X	Main Shield
21	PSPA ZB774WJKZ	AG		J	Spacer, x2
22	PSPA ZC062WJKZ	AH		X	Spacer
23	PSPA ZC094WJKZ	AF		X	Spacer
24	QCNCMA275WJQZ	AC		J	Connector (MODEL SELECT), x2
25	QCNCMA275WJQZ	AL		X	Connecting Cord (SP)
26	QCNCMA275WJQZ	AF		X	Connecting Cord (KM)
27	QCNCMA275WJQZ	AK		X	Connecting Cord (RA)
28	QCNCMA275WJQZ	AF	N	X	Connecting Cord (LA)
29	QCNCMA275WJQZ	AF	N	X	Connecting Cord (PL)
30	QCNCMA275WJQZ	AN	N	X	Connecting Cord (PD)
31	QCNCMA275WJQZ	AM	N	X	Connecting Cord (LP-LP/LB1)
32	QCNCMA275WJQZ	AF	N	X	Connecting Cord (LB2-LB)
33	QCNCMA275WJQZ	AX	N	X	Connecting Cord (LW)
34	RSP-ZA379WJZZ	AQ	N	X	Speaker-L
35	RSP-ZA380WJZZ	AQ	N	X	Speaker-R
36	TLABK0023TAZZ	AA		J	Label
37	Not Available	-	-	-	Serial No. Label (Back)
38	Not Available	-	N	-	Serial No. Label (Side)
39	XBPS730P06WS0	AA		J	Screw (for PWB), x3
40	XBPS830P06000	AA		J	Screw (for HDMI), x4
41	XEBS740P08000	AB		J	Screw (for Panel), x8
42	XEBS930P10000	AA		J	Screw (for S-Video, Bottom Cover), x2
43	XEBS940P16000	AB		J	Screw (for CAB-A/B), x9
44	XHPS830P06WS0	AA		J	Screw (for BL), x36
45	XHPS830P10WS0	AB		J	Screw (for Power PWB), x6/(for CAB-B), x4
46	XIPSN20P04000	AA		J	Screw (for Side HDMI), x2
47	XBBS950P08000	AB		X	Screw, x6, x4
48	XEBS740P08000	AB		J	Screw, x6
49	XBBS940P08000	AB		J	Screw, x4

[5] CABINET AND MECHANICAL PARTS (LC-52D65U)



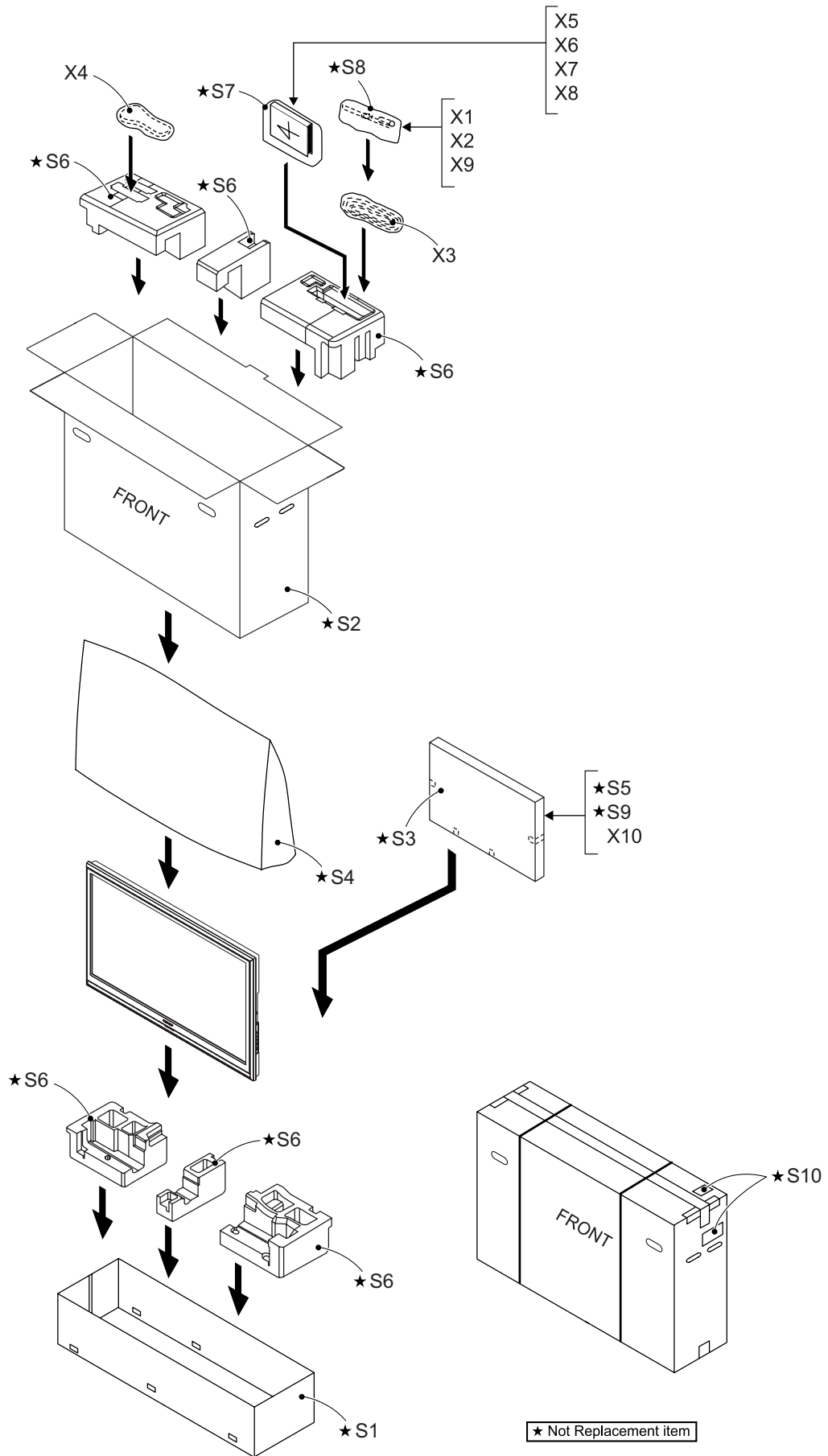
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[5] CABINET AND MECHANICAL PARTS (LC-52D65U)					
1	CCABAC125WJ32	BQ	N	X	Front Cabinet Ass'y
1-1	Not Available	-	-	-	Front Cabinet
1-2	Not Available	-	-	-	Badge, SHARP
1-3	HDECQA992WJ3A	AD		X	LED Decoration
1-4	HDECSA043WJ3A	AP		X	Shine Trim
1-5	HPNLSA205WJ3B	AS	N	X	SP Sheet
2	CCABBB352WJ02	BP		X	Rear Cabinet Ass'y
2-1	Not Available	-	-	-	Rear Cabinet
2-2	HINDPC966WJSA	AF		X	Terminal Label (Back)
3	R1LK520D3LW10Z	FK		J	52" LCD Panel Module Unit
4	CCOVAC951WJ01	AK		X	Side AV Cover Ass'y
4-1	Not Available	-	N	-	Side Terminal Cover
4-2	HINDPC909WJSA	AD	N	X	Side Terminal Label
5	CCOVAC952WJ01	AK		X	KEY Button Cover Ass'y
5-1	Not Available	-	N	-	KEY Button Cover
5-2	Not Available	-	N	-	Control Button Label
6	GCOVAC576WJKZ	AC		J	VESA Hole Cover, x4
7	GCOVAC954WJKA	AM		X	Bottom Cover
8	HINDPC993WJSA	AE	N	X	Model Label
9	LANGKB675WJFW	AF		X	Radiator Angle-A
10	LANGKB678WJN3	AV	N	X	Panel Support Angle, x2
11	LANGKB741WJFW	AF		X	Radiator Angle-B
12	LANGKB751WJM3	AS	N	X	Main Fix Angle
13	LANGKB754WJM1	AQ		X	Power Fix Angle
14	LHLDFA036WJKZ	AB		J	PWB Holder, x2
15	LHLDWA133WJKZ	AC		J	Wire Holder, x2
16	LHLDWA143WJKZ	AC		J	Wire Holder
17	LHLDWA151WJKZ	AB		J	Wire Holder, x3
18	LHLDWA172WJKZ	AD		J	Wire Holder
19	LHLDWA176WJUJ	AC		J	Wire Holder
20	LHLDZB067WJKZ	AC		J	PWB Holder
21	LHLDZB144WJKZ	AH		X	Corner Lug, x4
22	LHLDZB145WJKZ	AD		X	Center Lug, x2
23	NSFTZA284WJFW	AC	N	X	Shaft, x4
24	PMLT-A562WJZZ	AE		X	Gasket, x6
25	PRDARA510WJFW	AX		J	Radiator
26	PSLDMB421WJM1	AQ		X	Main Shield
27	PSPA ZB596WJKZ	AL		J	Cool Sheet
28	PSPA ZC022WJKZ	AD		X	Spacer
29	QCNCMA275WJQZ	AC		J	Connector (MODEL SELECT), x2
30	QCNW-G163WJQZ	AG		X	Connecting Cord (LA1)
31	QCNW-G170WJQZ	AF		X	Connecting Cord (PL)
32	QCNW-H490WJQZ	AN		X	Connecting Cord (PD)
33	QCNW-H493WJQZ	AF		X	Connecting Cord (KM)
34	QCNW-H495WJPZ	AL		X	Connecting Cord (SP)
35	QCNW-H646WJQZ	AM		X	Connecting Cord (LP-LP/LB1)
36	QCNW-H647WJQZ	AF		X	Connecting Cord (LB2-LB)
37	QCNW-H702WJQZ	AK		X	Connecting Cord (RA)
38	QCNW-H825WJQZ	AX	N	X	Connecting Cord (LW)
39	QEARBA033WJZZ	AE		X	Main Earth Spring, x2
40	RSP-ZA379WJZZ	AQ	N	X	Speaker-L
41	RSP-ZA380WJZZ	AQ	N	X	Speaker-R
42	TLABK0023TAZZ	AA		J	Label
43	Not Available	-	-	-	Serial No. Label (Back)
44	Not Available	-	N	-	Serial No. Label (Side)
45	XBPS730P06WS0	AA		J	Screw (for PWB), x29
46	XBPS830P06000	AA		J	Screw (for HDMI), x4
47	XBPS930P08JS0	AB		J	Screw (for AC Inlet)
48	XEBS930P10000	AA		J	Screw (for S-Video, Bottom Cover), x2
49	XEBS940P16000	AB		J	Screw (for CAB-A/B), x18
50	XHPS830P06WS0	AA		J	Screw (for BL), x23
51	XHPS840P08WS0	AB		X	Screw (for Lug), x10
52	XiPSN20P04000	AA		J	Screw (for Side HDMI), x2
53	XEBS740P08000	AB		J	Screw, x6
54	XBTS840P10000	AS	N	J	Screw, x4

[6] SUPPLIED ACCESSORIES

X1	Cable Band	X2	Cable Clamp	X3	AC Cord	X4	Remote Control Unit
							
X8	Operation Manual	X9	"AAA" Size Battery	Stand Unit (LC-46D65U)			
							
Stand Unit (LC-52D65U)							
							

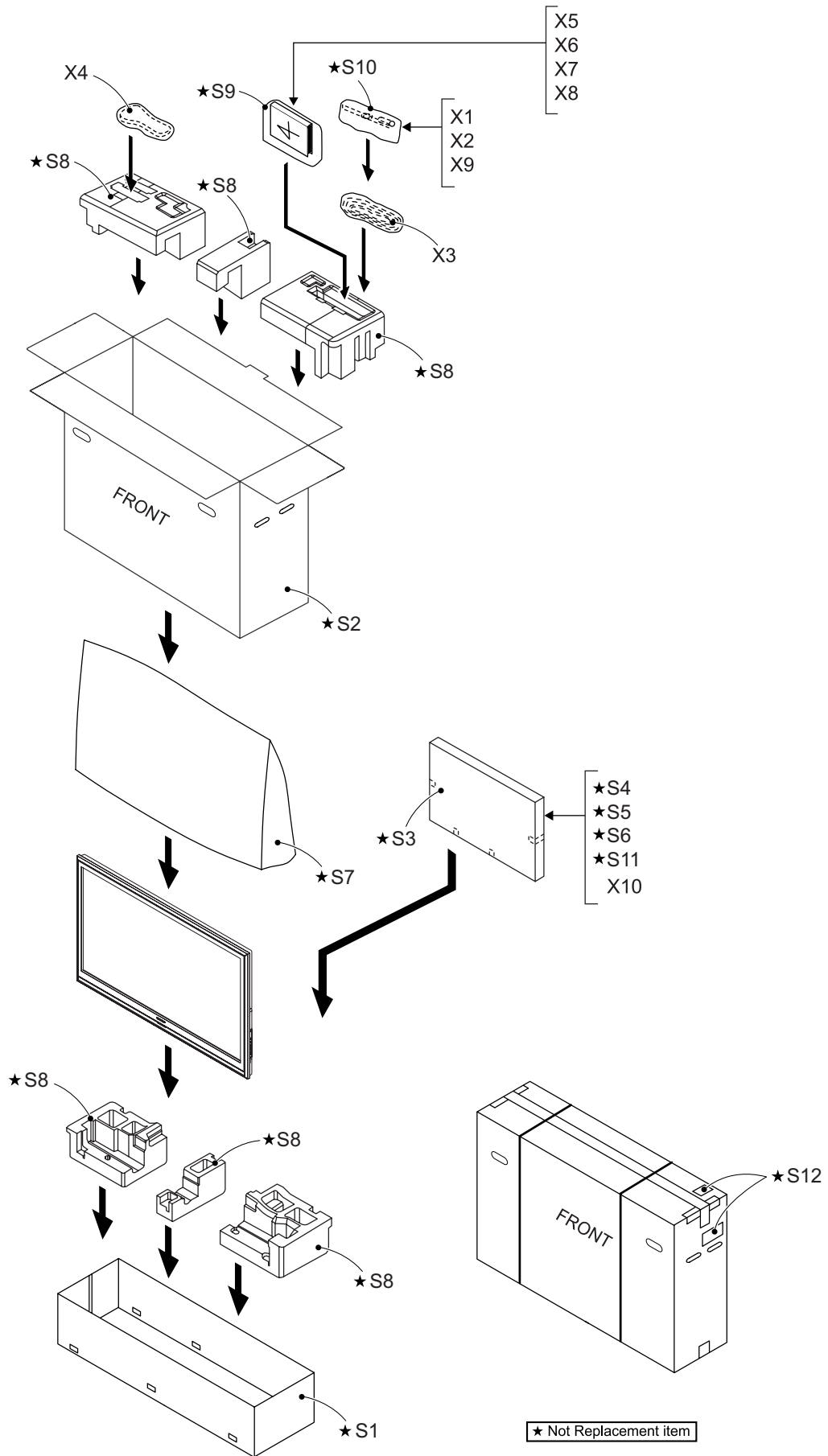
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[6] SUPPLIED ACCESSORIES					
X1	LHLDWA083WJ00	AD		J	Cable Band
X2	LHLDWA173WJKZ	AE	N	J	Cable Clamp
X3	QACCD A039WJPZ	AQ		J	AC Cord
X4	RRMCGA724WJSA	AX		X	Remote Control Unit
X5	TCAD E A243WJZZ	AD		X	Enquete Card
X6	Not Available	-		-	Transition Note
X7	Not Available	-		-	Extend Warranty
X8	TINS-D779WJN1	AN	N	X	Operation Manual
X9	Not Available	-	N	-	"AAA" Size Battery
X10	CDAi-A418WJ36	BQ		X	Stand Unit (LC-46D65U)
X10-1	CX-BZA208WJ01	AM		X	Stand Screw Ass'y (LC-46D65U)
X10	CDAi-A376WJ32	BP		X	Stand Unit (LC-52D65U)
X10-1	TCAUZA286WJZZ	AB		J	Caution Sheet (LC-52D65U)
X10-2	UCLEZA001WJZZ	AD		J	Cleaning Cloth (LC-52D65U)
X10-3	UKOGLA004WJZZ	AG		J	Tool for Stand (LC-52D65U)

[7] PACKING PARTS (NOT REPLACEMENT ITEM) (LC-46D65U)



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[7] PACKING PARTS (NOT REPLACEMENT ITEM) (LC-46D65U)					
S1	SPAKCE471WJZZ	-		-	Packing Case (Bottom)
S2	SPAKCE506WJZZ	-	N	-	Packing Case (Main)
S3	SPAKFB577WJZZ	-	N	-	Stand Case
S4	SPAKPA999WJZZ	-		-	Wrapping Paper
S5	SPAKPB263WJZZ	-	N	-	Mirror Sheet
S6	SPAKXC170WJZZ	-		-	Packing Add.
S7	SSAKA0101GJZZ	-		-	Polyethylene Bag
S8	SSAKAA032WJZZ	-		-	Polyethylene Bag
S9	SSAKHA036WJZZ	-		-	Polyethylene Bag (for Screw)
S10	TLABKA009WJZZ	-		-	No. Label

[8] PACKING PARTS (NOT REPLACEMENT ITEM) (LC-52D65U)



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[8] PACKING PARTS (NOT REPLACEMENT ITEM) (LC-52D65U)					
S1	SPAKCE353WJZZ	-		-	Packing Case (Bottom)
S2	SPAKCE448WJZZ	-	N	-	Packing Case (Main)
S3	SPAKFB265WJ1Z	-		-	Stand Case
S4	SPAKFB295WJZZ	-	N	-	Stand Pad
S5	SPAKPA780WJZZ	-		-	Mirror Mat Base
S6	SPAKPA904WJZZ	-		-	Mirror Mat Sup
S7	SPAKPA992WJZZ	-		-	Wrapping Paper
S8	SPAKXC099WJZZ	-		-	Packing Add.
S9	SSAKA0101GJZZ	-		-	Polyethylene Bag
S10	SSAKA032WJZZ	-		-	Polyethylene Bag
S11	SSAKA106WJZZ	-		-	Polyethylene Bag (for Screw)
S12	TLABKA009WJZZ	-		-	No. Label
[9] SERVICE JIG (USE FOR SERVICING)					
N N	QCNW-C222WJQZ	AW		J	Connecting Cord (80pin L=1000mm) FFC, x2 LCD CONTROL to LCD Panel Unit
N N	QCNW-E343WJQZ	AM		J	Connecting Cord (3pin L=1000mm) POWER to INVERTER Unit (LA)
N N	QCNW-G186WJQZ	BL		J	Connecting Cord (41pin L=600mm) MAIN to LCD CONTROL Unit (LW)
N N	QCNW-H184WJQZ	AX		J	Connecting Cord (12pin L=1000mm) MAIN to POWER Unit (PD)
N N	QCNW-G401WJQZ	AP		J	Connecting Cord (4-5pin L=1000mm) MAIN to KEY Unit (KM)
N N	QCNW-G405WJQZ	AP		J	Connecting Cord (4pin L=1000mm) POWER to LCD CONTROL Unit (PL)
N N	QCNW-H762WJQZ	AV		J	Connecting Cord (10pin L=1000mm) MAIN to R/C, LED Unit (RA)
N N	QCNW-H648WJQZ	AW		J	Connecting Cord (13-15-5pin L=1500mm) MAIN to LCD CONTROL, POWER Unit (LP)
N N	QCNW-H649WJPZ	AP		J	Connecting Cord (4pin L=1000mm) MAIN Unit to SPEAKER (SP)
N N	QCNW-H730WJQZ	AP		J	Connecting Cord (5-9pin L=1500mm) POWER to INVERTER Unit (LB)

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