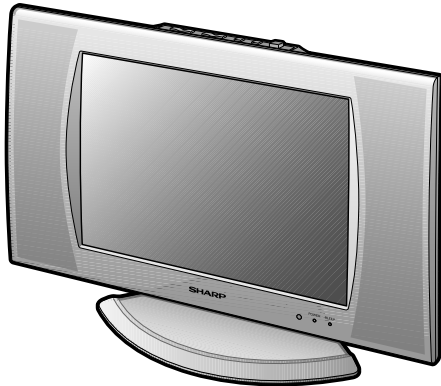


SHARP

SERVICE MANUAL

S35G1LC13SH4U



LCD COLOR TELEVISION

LC-13SH4U

MODELS LC-15SH4U

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.

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SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

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)

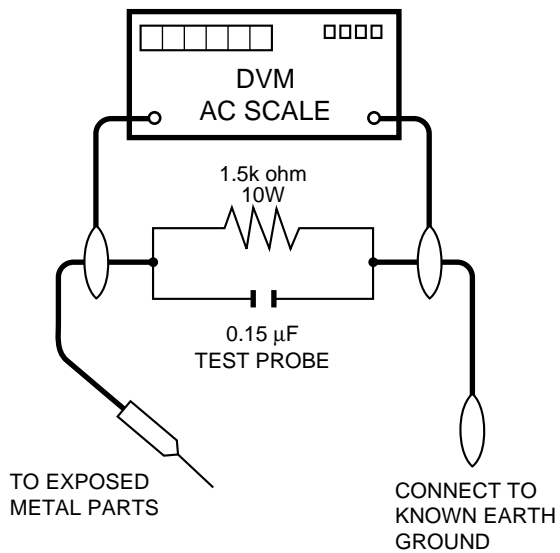
Before returning the receiver to the user, perform the following safety checks:

1. 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.
2. 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.
3. 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.

- 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 0.75V peak (this corresponds to 0.5 mA. peak 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 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 Lists** and **Schematic Diagrams**.

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

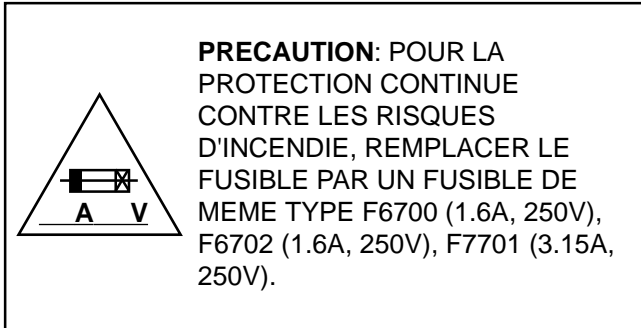
The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

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.



VERIFICATIONS CONTRE L'INCEN-DIE ET LE CHOC ELECTRIQUE

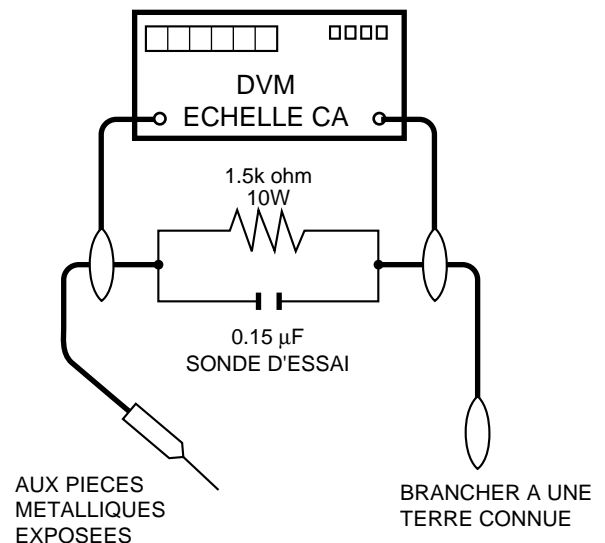
Avant de rendre le récepteur à l'utilisateur, effectuer les vérifications suivantes.

1. 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.
2. 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 résistance-capacité, les isolateurs mécaniques, etc.
3. S'assurer qu'il n'y ait pas de danger d'électrocution en vérifiant la fuite de courant, de la façon suivante:
 - Enficher le cordon d'alimentation directement dans une prise de 120V CA.
 - A l'aide de deux fils à pinces, brancher une résistance de 1.5k Ω 10 watts en parallèle avec un condensateur de 0.15 μ F 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 5000 Ω /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.) Tous les courants mesurés ne doivent pas dépasser 0,5 mA.

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 téléviseurs présentent des caractéristiques spéciales relatives à la sécurité, qui ne sont souvent pas évidentes à vue. Le degré de protection ne peut pas être nécessairement augmentée en utilisant des pièces de remplacement étalonnées pour haute tension, puissance, etc.

Les pièces de remplacement qui présentent ces caractéristiques sont identifiées dans ce manuel; les pièces électriques qui présentent ces particularités sont

identifiées par la marque " \triangle " 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

1 Employing lead-free solder

"All 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.

2 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.

3 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

SPECIFICATIONS

Items	Model	LC-13SH4U	LC-15SH4U
LCD panel		13" Advanced Super View & BLACK TFT LCD	15" Advanced Super View & BLACK TFT LCD
Number of dots		921,600 dots VGA	
Video color systems		N358	
TV function	TV Standard (CCIR)	NTSC	
	TV Tuning System	PLL 181 ch.	
	STEREO	MTS+SAP	
	CATV	125 ch.	
Brightness		430 cd/m ²	
Viewing angles		H: 170° V: 170°	
Audio amplifier		1.0 W × 2	
Speakers		1 ³⁷ / ₆₄ × 4 ¹¹ / ₃₂ in. (4 × 11 cm), 2 pcs.	
Terminals	INPUT1	COMPONENT-IN, AUDIO-IN	
	INPUT2	VIDEO-IN, S-VIDEO-IN, AUDIO-IN	
	AUDIO OUT	AUDIO-OUT	
	Antenna	F-Type	
	Headphone	Mini-jack for stereo (ø3.5 mm)	
OSD language		English/Spanish/French	
Power supply		AC 120V, 60Hz	
Power consumption		43 W (0.8 W standby): AC 120V	50 W (0.8 W standby): AC 120V
Weight (approx.)		9.0 lbs. (4.1 kg), w/o accessories	10.1 lbs. (4.6 kg), w/o accessories

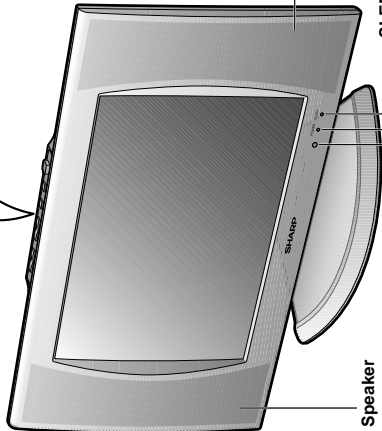
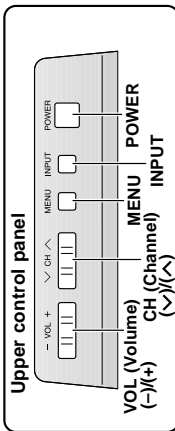
■ As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual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

OPERATION MANUAL

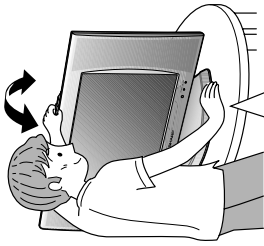
Part Names of Main Unit

The examples used throughout this manual are based on the LC-15SH4U model.

Controls



How to adjust the angle



Tilt the display by holding the upper part while securely holding down the stand with your other hand.

To change the vertical angle of the LCD TV set, tilt the screen up to 2.5 degrees forwards or 10 degrees backwards. Please adjust the angle so that the LCD TV set can be watched most comfortably.

SLEEP TIMER indicator

The SLEEP TIMER indicator lights up red when the SLEEP TIMER is set to 'ON'.

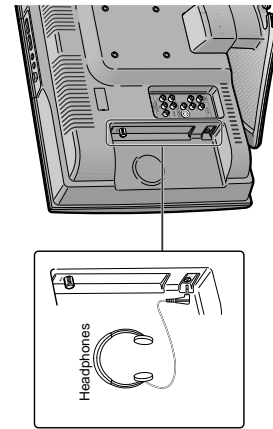
POWER indicator

The POWER indicator lights up green when the power is on, and red when in the standby mode (the indicator will not light up when the main power is off).

NOTE

- INPUT, CH (V)/(^), VOL (-)/(+) and MENU on the main unit have the same functions as the same buttons on the remote control. Fundamentally, this operation manual provides a description based on operation using the remote control.

Listening with Headphones



Plug the headphone mini-plug into the headphone jack located on the side of the LCD TV set. Adjust the sound volume using VOL (+)/(-) on the remote control.

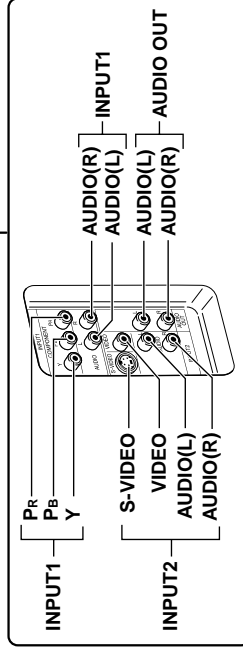
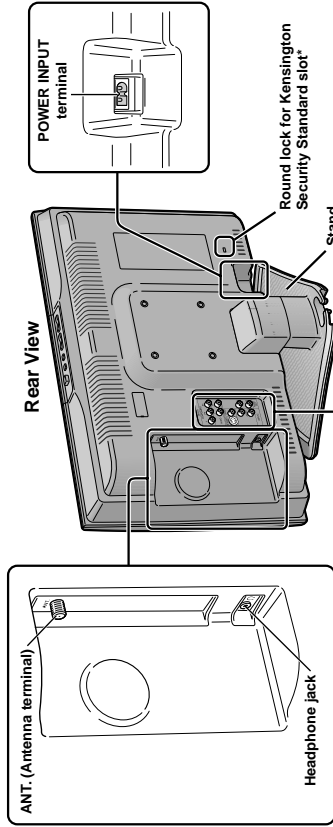
On-screen display



NOTE

- Headphones are not included in the supplied accessories.
- No sound is heard from the main unit speakers when a headphone mini-plug is connected into the headphone jack.
- Do not set the volume at a high level. Hearing experts advise against extended listening at high volume levels.

Terminals

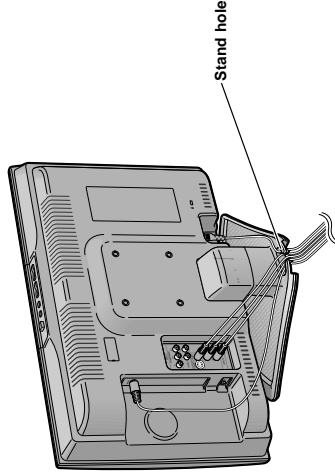


*Using the Kensington Lock

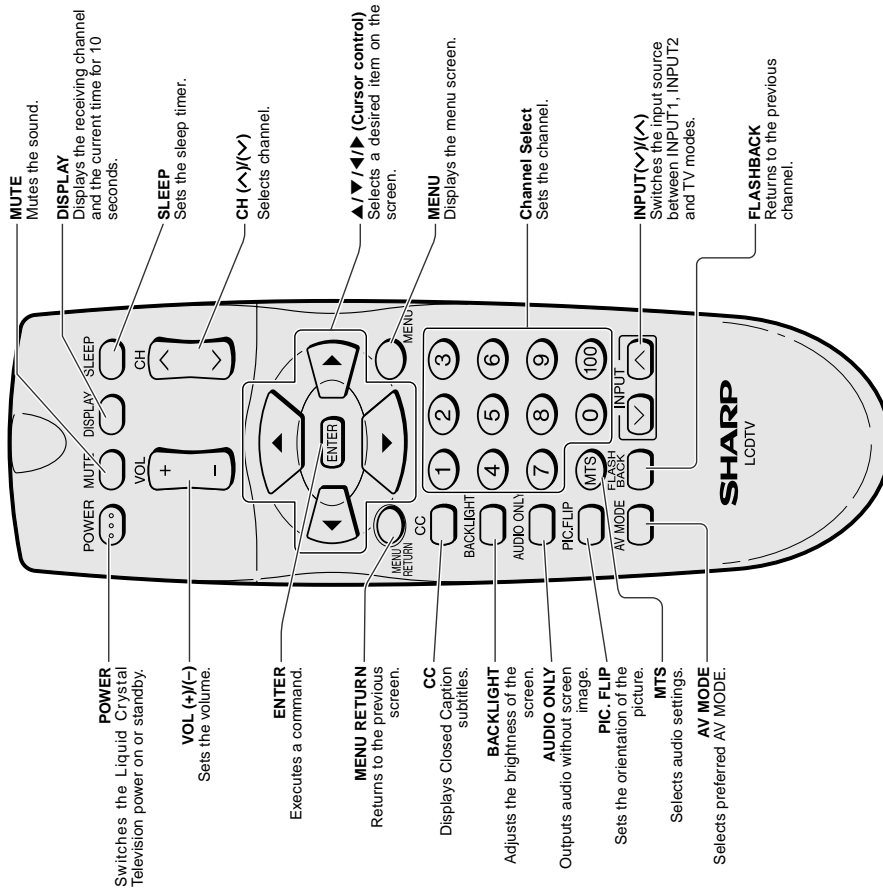
- This LCD TV set has a Kensington Security Standard slot for use with a Kensington MicroSaver Security System. Refer to the information that came with the system for instructions on how to use it to secure the LCD TV set.

How to Fix the Cables

Pull the cables connected to each terminal. Insert the cables into the stand hole and fix the cables.



Part Names of Remote Control

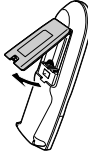


Preparation

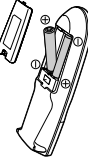
Installing Batteries in the Remote Control

Before using the LCD TV set for the first time, install the two "AA" size batteries (supplied) in the remote control. When the batteries become depleted and the remote control fails to operate, replace the batteries with new "AA" size batteries.

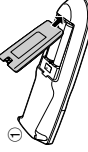
- 1 Open the battery cover.
- 2 Insert two "AA" size batteries.
- 3 Close the battery cover.



- Detach the cover while pressing the (▼) part.



- Place batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.



- Align the tab on the battery cover (1), and place it while pressing the tab (2) to close it.



⚠ Caution!

Precautions regarding batteries

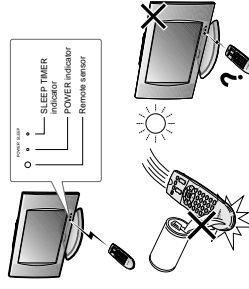
- Improper use of batteries can result in a leakage of chemicals and/or explosion. Be sure to follow the instructions below.
- Place batteries with their terminals corresponding to the (+) and (-) indications.
 - Different types of batteries have different characteristics. Do not mix batteries of different types.
 - Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries and/or cause old batteries to leak chemicals.
 - Remove batteries as soon as they are depleted. Chemicals that leak from batteries can cause a rash. If chemical leakage is found, wipe it off with a cloth.
 - The batteries supplied with the LCD TV set may have a shorter operating time due to storage conditions.
 - If the remote control is not to be used for an extended period of time, remove the batteries from the remote control.

Using the Remote Control

Use the remote control by pointing it towards the remote sensor window of the main unit. Objects between the remote control and sensor window may prevent proper operation.

Cautions regarding use of the remote control

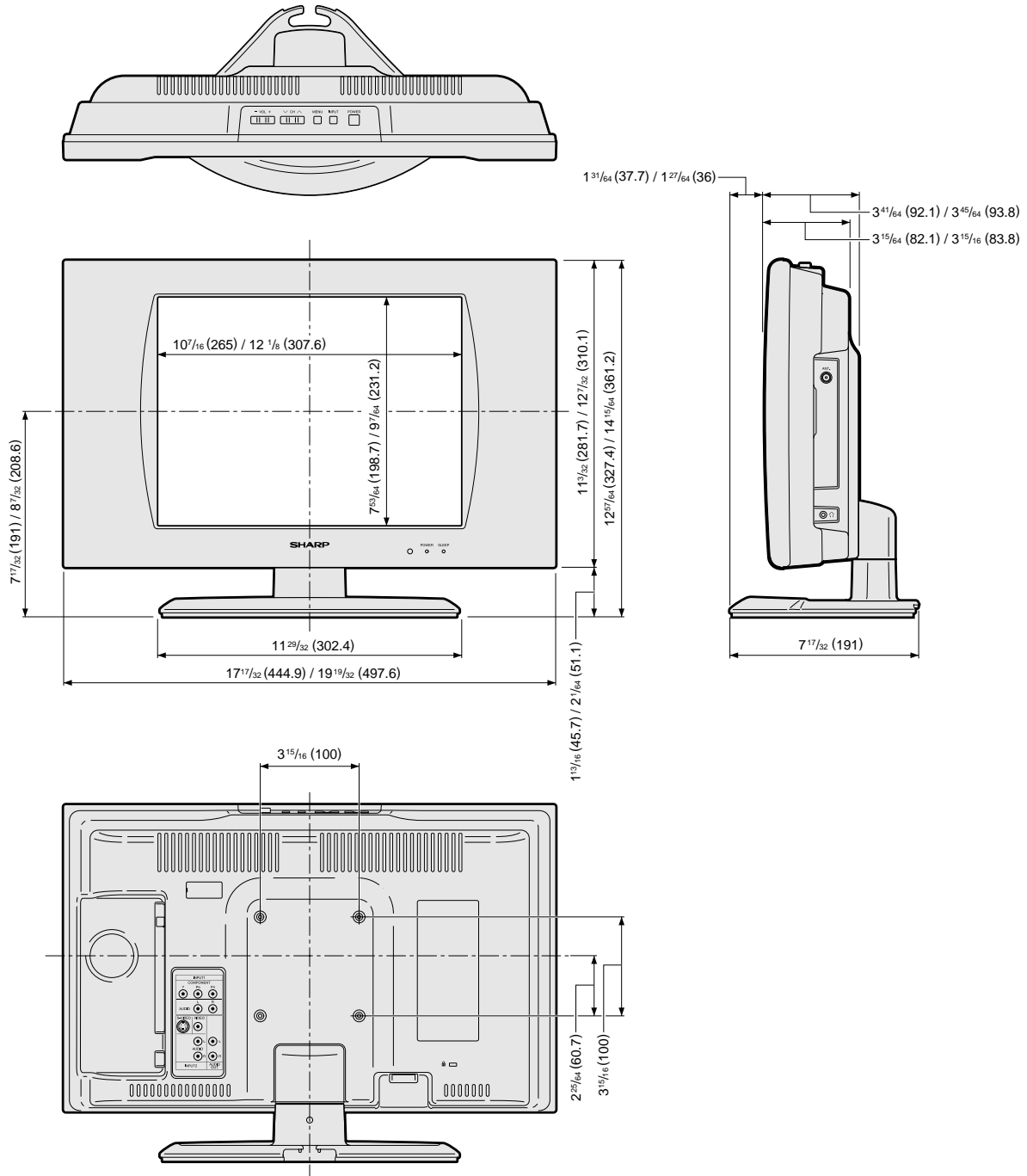
- Do not apply shock to the remote control. In addition, do not expose the remote control to liquids, and do not place it in an area with high humidity.
- Do not install or place the remote control under direct sunlight. The heat may cause deformation of the unit.
- The remote control may not work properly if the remote sensor window is under direct sunlight or strong lighting. In such a case, change the angle of the lighting or main unit, or operate the remote control closer to the remote sensor window.



DIMENSIONS

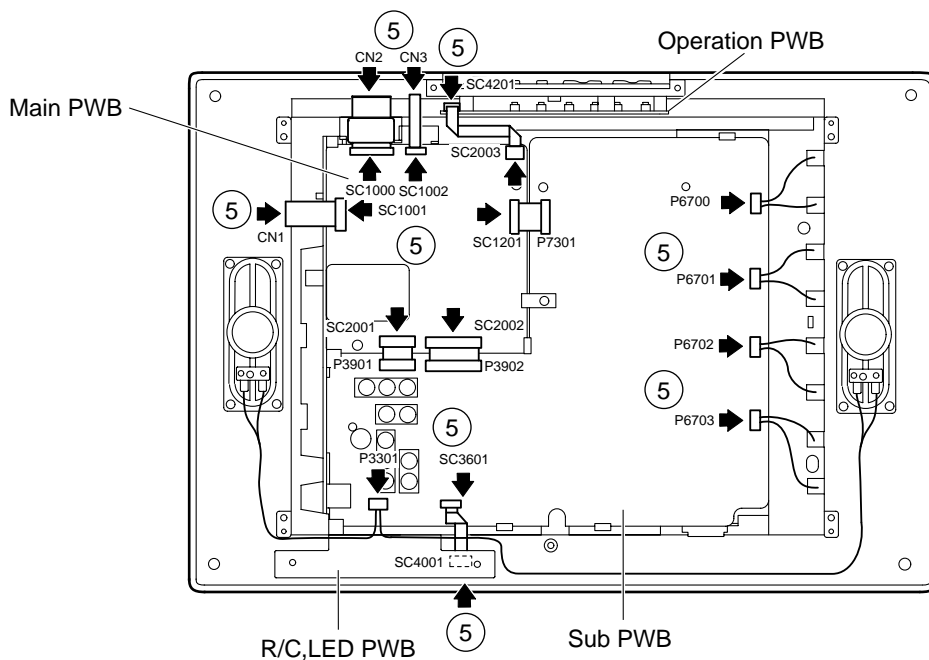
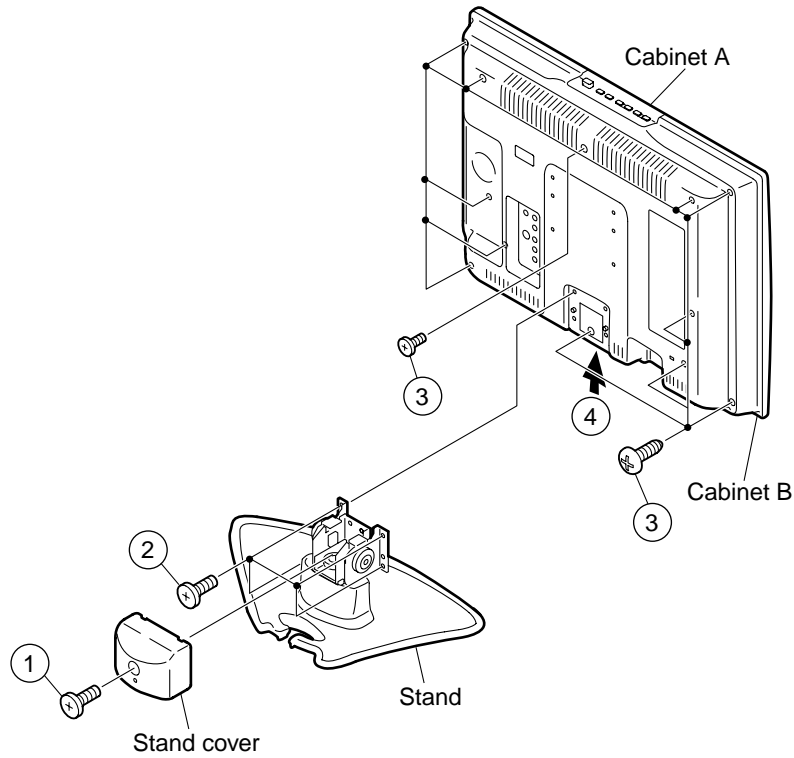
■ LC-13SH4U/LC-15SH4U

Unit: inch (mm)

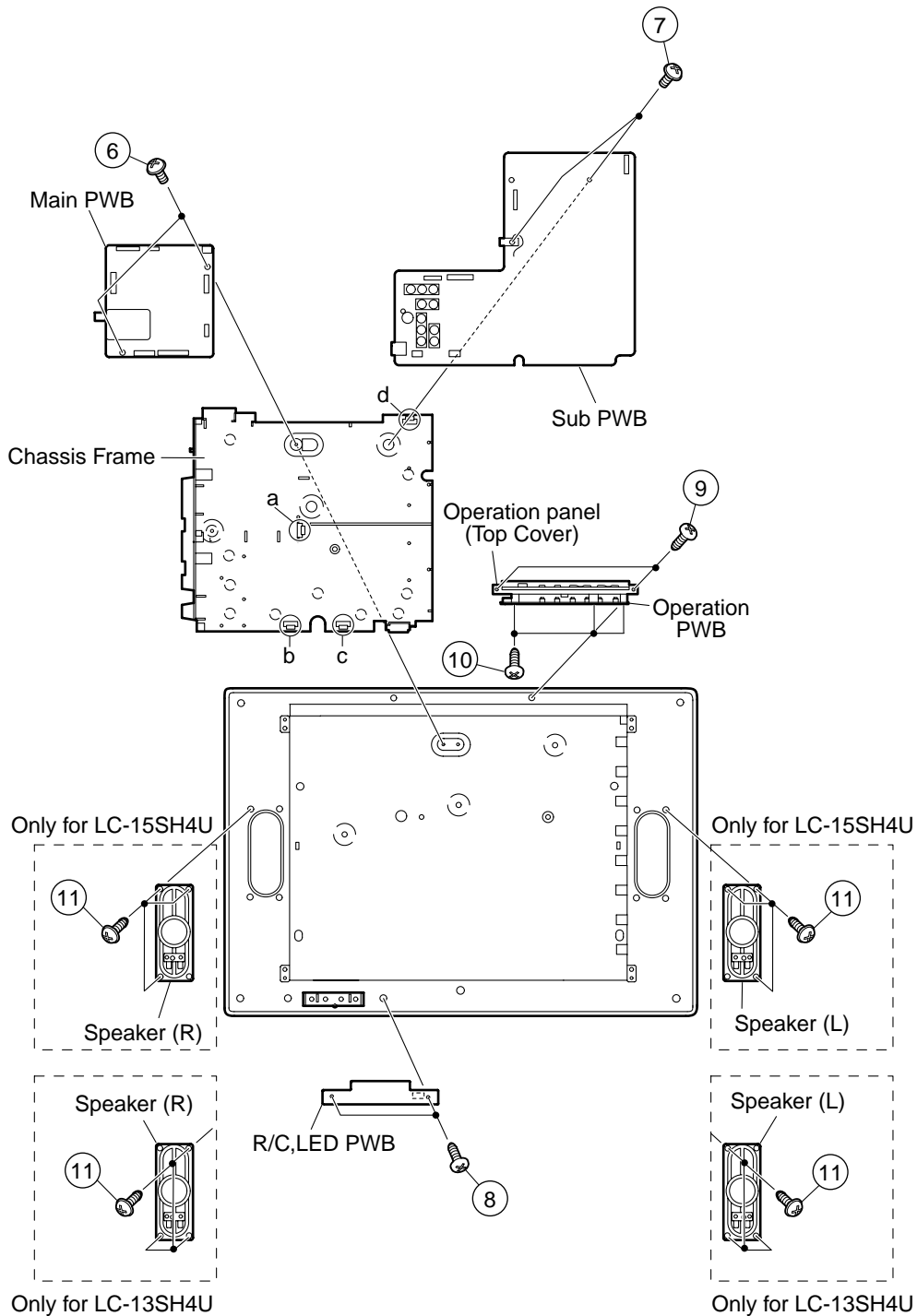


REMOVING OF MAJOR PARTS

1. Remove the stand cover fixing screws (1 pc.).
2. Remove the stand fixing screws (4 pcs.).
3. Remove the cabinet B fixing screws (12 pcs.).
4. Remove the cabinet B after opening from the direction of an arrow.
5. Detach the connector from each PWB.

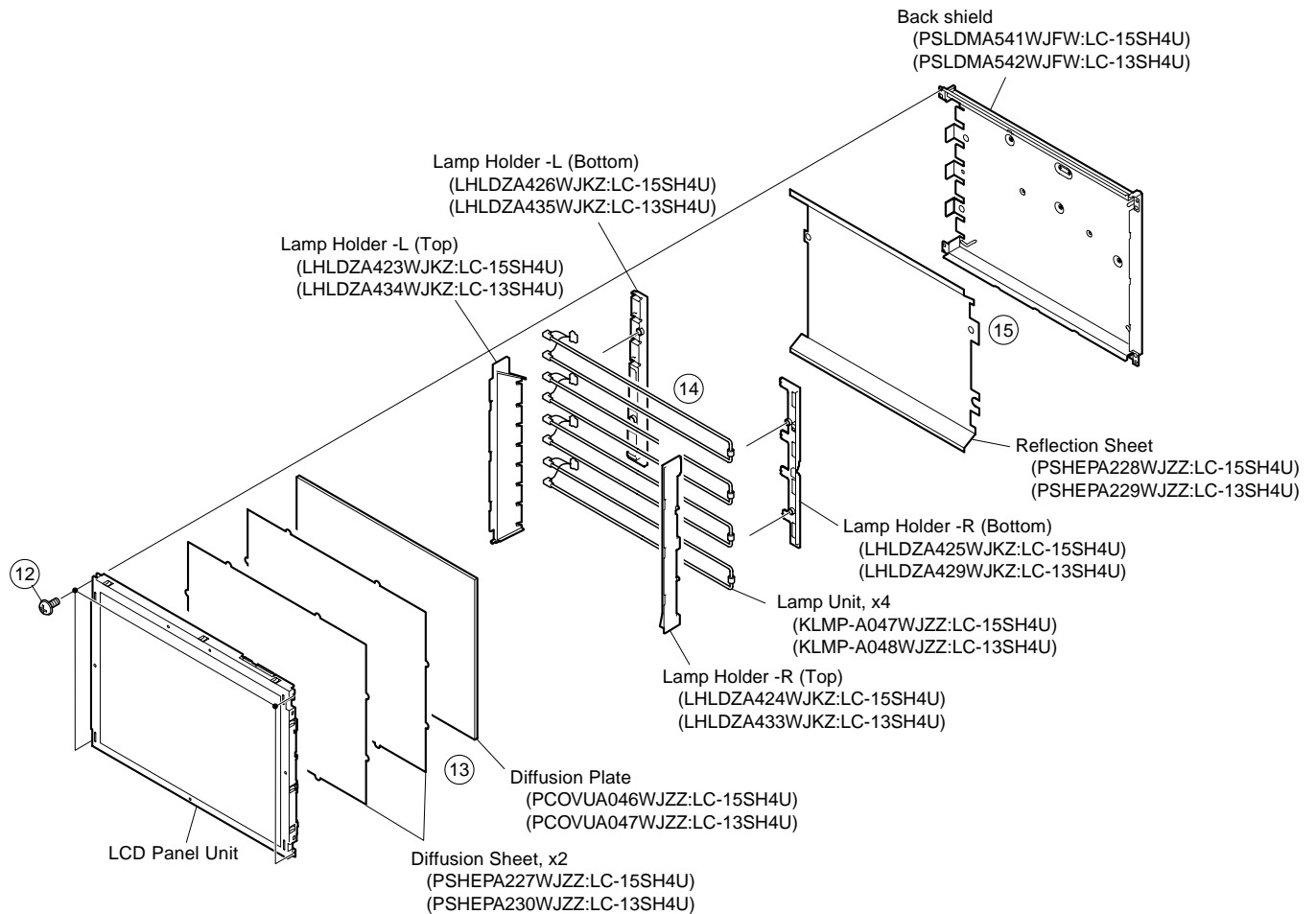


6. Remove the 2 lock screws from the main PWB and undo the hooks a. Detach the chassis frame, together with its terminals, from the main PWB.
7. Remove the 2 lock screws from the sub PWB and undo the hooks b, c and d. Detach the chassis frame together with its terminals, from the sub PWB.
8. Remove the 2 lock screws from the R/C, LED PWB and take out the R/C, LED PWB.
9. Remove the 2 lock screws from the operation panel (top cover), and detach the operation panel (top cover).
10. Remove the 3 lock screws from the operation PWB, and detach the operation PWB.
11. Remove the 3 lock screws each from the right and left speakers and take out both the speakers.



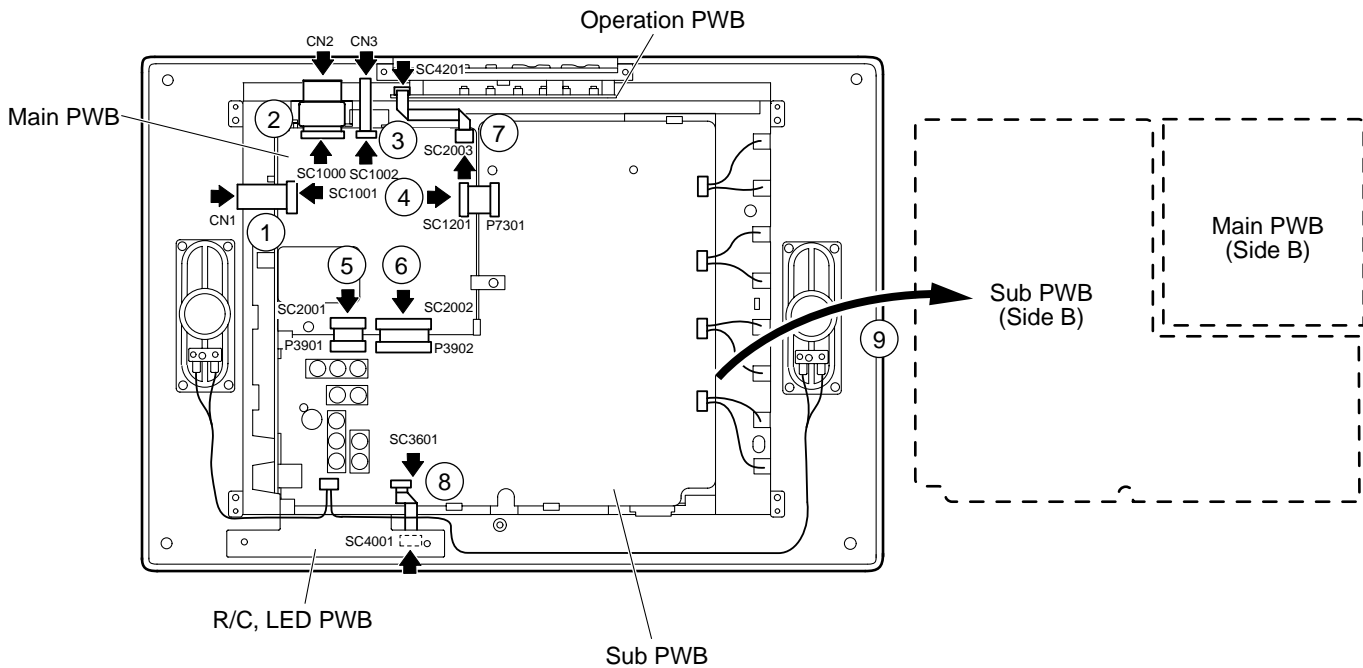
- Precautions in handling the LCD panels
 1. Work in a clean room (with humidities below 50%).
 2. Be sure to wear an anti-static armband.
 3. Handle the panels on an electro-conductive mat.
 4. Be careful not to fall, shake and shock the panels.

12. Remove the 4 lock screws from the LCD panel and detach the LCD panel.
13. Remove the diffusion sheets and diffusion plate.
14. Detach the lamp holders -R (top), -L (top) and -R (bottom), -L (bottom) from the lamp unit.
15. Detach the reflection sheet from the back shield.



● **Precautions at the time of the side B(back) service of main and sub unit.**

1. Remove the FFC for connection between Main unit (SC1001) and LCD panel (CN1), and connect the extended cable (QCNW-B784WJZZ) for service.
2. Remove the FFC for connection between Main unit (SC1000) and LCD panel (CN2), and connect the extended cable (QCNW-A556WJZZ) for service.
3. Remove the FFC for connection between Main unit (SC1002) and LCD panel (CN3), and connect the extended cable (QCNW-A555WJZZ) for service.
4. Remove only SC1201 side of the lead from between Main unit (SC1201) and Sub unit (P7301), and connect the extended cable (QCNW-C461WJQZ) for service.
5. Remove only SC2001 side of the lead from between Main unit (SC2001) and Sub unit (P3901), and connect the extended cable (QCNW-C461WJQZ) for service.
6. Remove only SC2002 side of the lead from between Main unit (SC2002) and Sub unit (P3902), and connect the extended cable (QCNW-D402WJQZ) for service.
7. Remove the FFC for connection between Main unit (SC2003) and Operation unit (SC4201), and connect the extended cable (QCNW-D444WJQZ) for service.
8. Remove the FFC for connection between Sub unit (SC3601) and R/C, LED unit (SC4001), and connect the extended cable (QCNW-D445WJQZ) for service.
9. Remove the PWB unit fixing screws (main unit: 2 pcs, sub unit: 2 pcs.)



Step	Part No.	Description
1	QCNW-B784WJZZ	Extension Cable 30-pin Main (SC1001)-LCD Panel (CN1)
2	QCNW-A556WJZZ	Extension Cable 50-pin Main (SC1000)-LCD panel (CN2)
3	QCNW-A555WJZZ	Extension Cable 20-pin Main (SC1002)-LCD panel (CN3)
4	QCNW-C461WJQZ	Extension Cable 15-pin Main (SC1201)-Sub (P7301)
5	QCNW-C461WJQZ	Extension Cable 15-pin Main (SC2001)-Sub (P3901)
6	QCNW-D402WJQZ	Extension Cable 23-pin Main (SC2002)-Sub (P3902)
7	QCNW-D444WJQZ	Extension Cable 5-pin Operation (SC4201)-Main (SC2003)
8	QCNW-D445WJQZ	Extension Cable 8-pin R/C, LED (SC4001)-Sub (SC3601)

ADJUSTING PROCEDURE OF EACH SECTION

The best adjustment is made before shipping. If any position deviation is found or after part replacement is performed, adjust as follows.

1. Preparations

(1) Plug the AC power cord directly into a wall outlet.

[1] Adjustment procedure

1-1. Adjusting the checker

Turning on the power (initialization) → Making the model and size settings → Transferring the model-related data to the setting E2PROM (I2C)

1-2. Adjusting the finish process

Final assembling → Turning on the power → Calling the adjustment process mode (bus connector) → Adjusting the common bias, TAMP, and white balance (cut-off and gain) settings

[2] Calling the checker mode/adjustment process mode

2-1. Calling the checker mode

* Keep KEY5 (pin (82) of microprocessor) at "L" and turn on the power.

KEY-4	KEY-5	Mode shift
H	H	Normal mode (Data is written and stored on EEP is brand-new.)
L	H	Shift to adjustment mode
H	L	Activated with the checker-oriented master ROM values (EEP still brand-new even after the checker mode)
L	L	The EEP gets initialized and the microprocessor's master values are written. (Process-adjusted settings not reprogrammed)

2-1. Calling the adjustment process mode

There are two ways to call this mode.

* Turn on the power and press the "ADJUST PROCESS" key on the remote controller.

* Keep KEY4 (pin (81) of microprocessor) at "L" and turn on the power.

* For servicing: Hold down the INPUT key and VOL (–) key at once, and turn on the power switch.

("K" appears at the top left of the screen to indicate the inspection process mode.)

→ Press the CH (∨) key and VOL (–) key at once. (The adjustment process mode screen shows up.) _ To quit, turn off the power. (Or turn off the power switch or turn off the remote controller.)

[3] Key operation in the adjustment process

Basic operation

Selecting the receiving channels

* Using the CH (∧)/(∨) keys, turn up and down an actual receiving channel.

Snap press: The channels are turned up and down one by one.

Continuous press: The next receivable channel is searched.

* Various adjustments The items are adjusted one by one by selecting on the menu screen and using the cursor key and VOL (+)/(–) keys.

* With the CURSOR UP/DOWN keys, select an adjustment item.

* Using the menu select key, the adjustment items are selected one after another.

When the bottom item on a page is already selected and the menu select key is pressed, the top item on the next page is selected.

* If any item on a page is selected and the preset key is pressed, the top item on the next page is selected.

Page 1 → Page 2 → Page 3 → Page 9 → Page 1 ...

* If any item on a page is selected and the manual memory key is pressed, the top item on the same page is selected.

* Using the CURSOR LEFT/RIGHT keys and VOL (+)/(–) keys, turn up and down the setting of a selected item.

Hierarchical shift

* When the ENTER key is pressed on any item other than I2C DATA on page 4, the setting page of the item shows up.

* To quit the setting page, press the front screen key.

[4] Initialization

- 4-1. Ground pins (81) and (82) of IC2001 (microprocessor) and turn on the power.
- 4-2. Make sure the screen size is set at "13" (LC-13SH4U), "15" (LC-15SH4U) inches.
- 4-3. Make sure the model number is A627A.

(Adjustment Process Menu Page 1)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
0	1																											
1		▶	M	O	D	E	L																A	6	2	7	A	
2			I	N	C	H		S	I	Z	E																*	
3			E	R	R	O	R		N	O		R	E	S	E	T											0	
4			P	U	B	L	I	C		M	O	D	E												O	F	F	
4			E	X	T		C	O	N	T	R	O	L												O	F	F	
6																												

* :13 (LC-13SH4U)
:15 (LC-15SH4U)

[5]

- 5-1. Model-by-model sending data
Separately published.

- 5-2. ROM collection
Separately published.

[6] Adjustment

6-1. Common bias adjustment

- 1) Feed a built-in signal.
- 2) Apply the specified instrument at the center of the screen.
- 3) Observe the instrument output on an oscilloscope.
- 4) Adjust the "COM BIAS" setting on Adjustment Process Page 2 so that the peak-to-peak of the wave be minimized.

6-2. TAMP adjustment

- 1) Receive the standard color bar signal.
- 2) See if the "Y" reading (maximum) on Adjustment Process Page 2 is within the range in the following table.
If not, adjust the "NTSC TAMP" setting on the same page to have the "Y" reading (maximum) within this range.

Model	LC-13SH4U	LC-15SH4U
Setting (NTSC)	155~158	155~158

Reference

(Adjustment Process Menu Page 2)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
0	2																											
1		▶	C	O	M		B	I	A	S													1	2	0			
2			T	A	M	P		L															1	5	5			
3			Y	D	A	T	A																1	5	8			
4			T	A	M	P		H															1	5	8			
5			N	T	S	C		T	A	M	P												1	2	0			
6																												

Y Data
(White 75%)

6-3. White balance adjustment

1) Adjustment procedure

Adjust the RGB CUTOFF2 setting for white 40% first and then the RGB-GAIN setting for white 80%.

(1) Adjusting the test signal

[Input signal] Feed the DVP built-in signal: White 80% (191 gradations) for the left of screen, and white 40% (92 gradations) for the right.

[Specification] RGB CUTOFF2 and RGB-GAIN settings on Adjustment Process Page 3.

Adjustment spec. Inspection spec.

		(LC-13SH4U)	(LC-15SH4U)			
White 80%	x	0.277	0.283	0.004	0.01	Radius from the center
	y	0.293	0.296	0.004	0.01	Radius from the center
White 40%	x	0.263	0.266	0.002	0.01	Radius from the center
	y	0.278	0.279	0.002	0.01	Radius from the center

[Adjusting with the bus]

Gain (RGB-GAIN): Fix the G setting at "0". Vary the R and B settings accordingly. Adjustment range: ±40

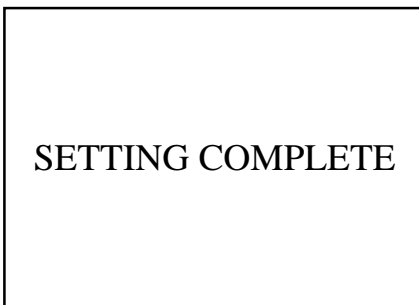
Cut-off (RGB CUTOFF2): Reduce the two strong colors Adjustment range: Down to -40
(Reading with Minolta CA-210)

[7] Factory settings

7-1. Making factory settings

Use the adjustment remote controller for the factory settings.

- 1) Hold down the remote controller's FACTORY SETTING key.
- 2) Several seconds later, "SETTING COMPLETE" appears at the center of the screen.
Now the settings are complete.



7-2. Description of Factory Settings.

MENU	PICTURE	Setting content/range		Initial Value	(AV1)	(AV2)	(COMPONENT1)		
		STANDARD/DYNAMIC/DYNAMIC(FIXED)/MOVIE/GAME	DYNAMIC	DYNAMIC	DYNAMIC	DYNAMIC	DYNAMIC	DYNAMIC	
		AV MODE		STANDARD/DYNAMIC/DYNAMIC(FIXED)/MOVIE/GAME	DYNAMIC				
		OPC		ON/OFF	OFF				
		BACKLIGHT		BRIGHT/NORMAL/DARK/VARIABLE	VARIABLE				
				1 (DARK) ~9 (NORMAL)~17 (BRIGHT)	(STANDARD)	(DYNAMIC)	(DYNAMIC(FIXED))	(MOVIE)	(GAME)
		CONTRAST		0-60	30	17	17	7	9
		BRIGHTNESS		-30~+30	0	45	60	25	30
		COLOR		-30~+30	0	0	0	0	0
		TINT		-30~+30	0	+5	+10	0	0
		SHARPNESS		-10~+10	0	0	0	0	0
		ADVANCED		USER/HIGH/MIDDLE/LOW	MIDDLE				
		COLOR TEMP.							
		RED		-30~+30	0				
		GREEN		-30~+30	0				
		BLUE		-30~+30	0				
		RESET		YES/NO	NO				
		RESET		YES/NO	NO				
	AUDIO	TREBLE		-10~+10	0				
		BASS		-10~+10	0				
		BALANCE		-10(L)~+10(R)	0				
		RESET		YES/NO	NO				
	SETUP	CH-SETTING	EZ-SETUP	YES/NO	YES				
			LANGUAGE	ENGLISH/ESPAÑOL/FRANCAIS	ENGLISH				
			CH SETTING	ON/OFF	ON				
			AUTO CLOCK	ON/OFF	ON				
			START	YES/NO	YES				
			AIR/CABLE	AIR/CABLE	AIR				
			CH SEARCH	-	-				
			CH MEMORY	-	-				
		MTS		STEREO/SAP/MONO	STEREO				
		CLOCK	SET	AUTO/MANUAL	AUTO				
			AUTO	AUTO[2]-[6S] or [1]-[12S]	AUTO				
			MANUAL	ON/OFF	OFF				
			DST	ON/OFF	ON				
			TIME	12:00AM-11:59PM	12:00AM				
			TIME DISPLAY	ON/OFF	ON				
		INPUT3 IN/OUT		IN/OUT/OUT x	IN				
		V-CHIP BLOCK	SECRET No.	4 digits input	Clear				
			MPAA	(NONE)/BLOCK	NONE				
			PG	(NONE)/BLOCK	NONE				
			PG-13	(NONE)/BLOCK	NONE				
			R	(NONE)/BLOCK	NONE				
			NC-17	(NONE)/BLOCK	NONE				
			X	(NONE)/BLOCK	NONE				
			TV GUIDELINES	(NONE)/BLOCK	NONE				
			TV-Y	(NONE)/BLOCK	NONE				
			TV-Y7	(NONE)/BLOCK	NONE				
			TV-G	(NONE)/BLOCK	NONE				
			TV-PG	(NONE)/BLOCK	NONE				
			TV-14	(NONE)/BLOCK	NONE				
			TV-MA	(NONE)/BLOCK	NONE				
			BLOCK	(NONE)/BLOCK	NONE				
			CONTENT						
			D	(BLANK)/BLOCK	BLANK	(UN BLOCK)			
			L	(BLANK)/BLOCK	BLANK	(UN BLOCK)			
			S	(BLANK)/BLOCK	BLANK	(UN BLOCK)			
			V	(BLANK)/BLOCK	BLANK	(UN BLOCK)			
			FV	(BLANK)/BLOCK	BLANK	(UN BLOCK)			
			CAN ENGLISH RATINGS	(NONE)/BLOCK	NONE				
			C	(NONE)/BLOCK	NONE				
			C8+	(NONE)/BLOCK	NONE				
			G	(NONE)/BLOCK	NONE				
			PG	(NONE)/BLOCK	NONE				
			14+	(NONE)/BLOCK	NONE				
			18+	(NONE)/BLOCK	NONE				
			CAN FRENCH RATINGS	(NONE)/BLOCK	NONE				
			G	(NONE)/BLOCK	NONE				
			8 ans+	(NONE)/BLOCK	NONE				
			13 ans+	(NONE)/BLOCK	NONE				
			16 ans+	(NONE)/BLOCK	NONE				
			18 ans+	(NONE)/BLOCK	NONE				
			STATUS	ON/OFF	OFF				
		CLOSED CAPTION		OFF/CC1/CC2/T1/T2	OFF				
					(TV)	(AV1)	(AV2)		
		COLOR SYSTEM	20	N358/N443/PAL-M/PAL-N/SECAM/PAL60 (Only for N358/PAL-M/PAL-N in TV mode)	N358	N358	N358		
		LANGUAGE		ENGLISH/ESPAÑOL/FRANCAIS	ENGLISH				
		VIEW MODE		4:3/16:9/ZOOM/STRETCH	4:3				
		AUDIO ONLY		ON/OFF	OFF				
		BLUE SCREEN		ON/OFF	OFF				
		SLEEP TIMER		OFF/30/60/90/120/150MIN	OFF				
		WAKE UP TIMER	TIMER	ON/OFF	OFF				
			TIME	12:00AM-11:59PM	12:00AM				
			CHANNEL	CH1~125/COMPONENT1/COMPONENT2 or AV1/AV2	CH2				
			VOL.	0-60	20				
		NO SIGNAL OFF		ENABLE/DISABLE	DISABLE				
		NO OPERATION OFF		ENABLE/DISABLE	DISABLE				
		PICTURE FLIP		NORMAL/MIRROR/ROTATE/UPSIDE DOWN	NORMAL				

(Items other than MENU)

EZ SETUP	ON
LAST CHANNEL	2ch
LAST TV/INPUT	TV
FLASH BACK	2ch
SKIP DATA CATV	ALL SKIP
SKIP DATA AIR	ALL SKIP
VOLUME	20
LINE OUT LEVEL(VAO)	0
EDS CH (AUTO)	

LIST OF THE ADJUSTMENT PROCESS MODE MENU

For calling the adjustment process mode and keying in this mode, refer back to "ADJUSTING PROCEDURE OF EACH SECTION".

ADJUSTMENT PROCESS 1st LEVEL ITEM DEFAULT TABLE

Page No.	Item	Initial Value		Function	Response precautions on servicing (Do not change other items than designated.)
		13inch	15inch		

BASIC SETTINGS

1	MODEL	A627A	A627A	MODEL NUMBER SELECT	NOT MODIFIABLE
	INCH SIZE	13	15	SCREEN SIZE SELECT (20-INCH AND 13/15-INCH SETTING NOT SWITCHABLE IN CASE OF DIFFERENT SYSTEMS)	USED FOR ADJUSTMENT PROCESS INITIALIZATION, NOT MODIFIABLE FOR OTHER CASES. DATA REWRITE AND READJUSTMENT REQUIRED WHEN INITIALIZED.
	ERROR NO RESET	0	0	LAMP ERROR COUNT AND RESET	SEE THE LAMP ERROR DETECTION.
	PUBLIC MODE	OFF	OFF	HOTEL MODE SETTING	NOT USED
	V-CHIP	1	1	VCHIP LINE MUTE SETTING	NOT USED
	EXT CONTROL	OFF	OFF	BUS, UART OPEN	NOT USED
	ROM AND GAIBU VERSION NUMBERS DISPLAYED AT THE BOTTOM.				

VIDEO ADJUSTMENT

2	COM BIAS	120	120	COMMON BIAS ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
	TAMP L	155	155	Y LOWER LIMIT SETTING AT TAMP ADJUSTMENT	NOT USED
	YDATA	—	—	DATA READ VALUE AT TAMP ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
	TAMP H	158	158	Y UPPER LIMIT SETTING AT TAMP ADJUSTMENT	NOT USED
	NTSC TAMP	90	90	TAMP ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
	PAL-M TAMP	96	96	TAMP ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.
	PAL-N TAMP	96	96	TAMP ADJUSTMENT	SEE THE ADJUSTMENT PROCEDURES.

BACKGROUND ADJUSTMENT

3	R CUTOFF2	0	0	RED CUT-OFF ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	G CUTOFF2	0	0	GREEN CUT-OFF ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	B CUTOFF2	0	0	BLUE CUT-OFF ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	R-GAIN	0	0	WHITE BALANCE ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	G-GAIN	0	0	WHITE BALANCE ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	B-GAIN	0	0	WHITE BALANCE ADJUSTMENT 2	SEE THE ADJUSTMENT PROCEDURES.
	RGB GAMMA	1.0	1.0	RGB γ COEFFICIENT SETTING	NOT USED

TABLE OF VARIOUS SETTINGS

9	I2C DATA	0	0	I2C BUS CONTROL IC DATA WRITE AND READ	NOT USED
	I2C DATA	WAIT	WAIT	WRITE AND READ EXECUTED	NOT USED
	SOUND	—	—	SHIFT TO THE SOUND ADJUSTMENT PAGE	USE ENTER KEY TO GO TO THE SOUND ADJUSTMENT PAGE.
	DVP	—	—	SHIFT TO THE DVP ADJUSTMENT PAGE	USE ENTER KEY TO GO TO THE TC ADJUSTMENT PAGE.
	TUNER	—	—	SHIFT TO THE TUNER ADJUSTMENT PAGE	USE ENTER KEY TO GO TO THE TUNER ADJUSTMENT PAGE.
	OTHERS	—	—	SHIFT TO THE OTHER ADJUSTMENT PAGE	USE ENTER KEY TO GO TO THE OTHER ADJUSTMENT PAGE.

AUDIO ADJUSTMENT PROCESS SPECIFICATIONS

Page No.	Item	Initial Value		Function	Response precautions on servicing (Do not change other items than designated.)
		13inch	15inch		

AUDIO ADJUSTMENT

SOUND1	VOLUME	20	20	SOUND VOLUME	NOT USED
	MSP DATA	0	0	AUDIO IC MSP DATA WRITE AND READ	NOT USED
	MSP DATA	WAIT	WAIT	WRITE AND READ EXECUTED	NOT USED
	CARRIER MUTE	ON	ON	AUDIO OUTPUT SETTING WITHOUT TV SYNC	NOT USED
	IGR THR	12D	12D	IGR THRESH LEVEL	NOT USED

AUDIO ADJUSTMENT

SOUND2	PRESCALE SCART	27	27	PRE-SCALE SETTING (EXTERNAL INPUT)	NOT USED
	PRESCALE FM/AM-M	31	31	PRE-SCALE SETTING (TV)	NOT USED

Page No.	Item	Initial Value		Function	Response precautions on servicing (Do not change other items than designated.)
		13inch	15inch		

AUDIO ADJUSTMENT

SOUND3	BAND1 MIN	TV	-0400	-0400	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0400	-0400	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND1 CNT	TV	+0400	+0400	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0400	+0400	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND1 MAX	TV	+1200	+1200	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+1200	+1200	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND2 MIN	TV	-0400	-0400	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0400	-0400	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND2 CNT	TV	-0100	-0100	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0100	-0100	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND2 MAX	TV	+0200	+0200	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0200	+0200	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND3 MIN	TV	-0250	-0250	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0250	-0250	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED

AUDIO ADJUSTMENT

SOUND4	BAND4 MIN	TV	+0150	+0150	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0150	+0150	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND4 CNT	TV	+0450	+0450	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0450	+0450	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND4 MAX	TV	+0750	+0750	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0750	+0750	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND5 MIN	TV	-0525	-0525	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	-0525	-0525	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND5 CNT	TV	+0275	+0275	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+0275	+0275	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED
	BAND5 MAX	TV	+1075	+1075	EQUALIZER SETTING (WITH TV INPUT)	NOT USED
		OTHER	+1075	+1075	EQUALIZER SETTING (WITH OTHER INPUT THAN TV)	NOT USED

AUDIO ADJUSTMENT PROCESS SPECIFICATIONS

Page No.	Item	Initial Value		Function	Response precautions on servicing (Do not change other items than designated.)
		13inch	15inch		

VIDEO ADJUSTMENT

DVP1	DVP DATA 0000 F0 -----(----	—	—	DVP-RELATED GENERAL-PURPOSE VARIABLE SETTINGS	NOT USED
	DVP TEST PATTERN	0	0	TEST PATTERN SELECT	SEE THE ADJUSTMENT PROCESS MODE TEST PATTERNS.
	VCDOFFSET	15	15	VERTICAL COUNT-DOWN MINIMUM OSCILLATION CYCLE	NOT USED
	VCDWINDOW	30	30	VERTICAL COUNT-DOWN SYNC RANGE	NOT USED

VIDEO ADJUSTMENT

DVP3	N358 TV CONTRAST	128	128	IMAGE SETTING (TV)	NOT USED
	N358 AV CONTRAST	128	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV BRIGHT	128	128	BRIGHTNESS SETTING (TV)	NOT USED
	N358 AV BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV COLOR	40	40	COLOR DENSITY SETTING (TV)	NOT USED
	N358 AV COLOR	40	40	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV TINT	128	128	TINT SETTING (TV)	NOT USED
	N358 AV TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV SHRAP V	100	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	N358 AV SHARP V	100	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	N358 TV SHRAP H1	150	150	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	N358 AV SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	N358 TV SHRAP H2	130	130	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	N358 AV SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

Page No.	Item	Initial Value		Function	Response precautions on servicing (Do not change other items than designated.)
		13inch	15inch		

VIDEO ADJUSTMENT

DVP4	N443 AV CONTRAST	128	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV COLOR	37	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV SHARP V	100	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	N443 AV SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	N443 AV SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

VIDEO ADJUSTMENT

DVP5	PAL AV CONTRAST	128	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV COLOR	37	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV SHARP V	100	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL AV SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	PAL AV SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

VIDEO ADJUSTMENT

DVP6	SECAM AV CONTRAST	128	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV COLOR	37	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV SHARP V	100	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	SECAM AV SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

VIDEO ADJUSTMENT

DVP7	PAL60 AV CONT	128	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV COLOR	37	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV SHARP V	100	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	PAL60 AV SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

VIDEO ADJUSTMENT

DVP8	PAL-M TV CONTRAST	128	128	IMAGE SETTING (TV)	NOT USED
	PAL-M AV CONTRAST	128	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV BRIGHT	128	128	BRIGHTNESS SETTING (TV)	NOT USED
	PAL-M AV BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV COLOR	37	37	COLOR DENSITY SETTING (TV)	NOT USED
	PAL-M AV COLOR	37	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV TINT	128	128	TINT SETTING (TV)	NOT USED
	PAL-M AV TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV SHRAP V	100	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	PAL-M AV SHARP V	100	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV SHRAP H1	150	150	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	PAL-M AV SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	PAL-M TV SHRAP H2	130	130	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	PAL-M AV SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED

Page No.	Item	Initial Value		Function	Response precautions on servicing (Do not change other items than designated.)
		13inch	15inch		

VIDEO ADJUSTMENT

DVP9	PAL-N TV CONTRAST	128	128	IMAGE SETTING (TV)	NOT USED
	PAL-N AV CONTRAST	128	128	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV BRIGHT	128	128	BRIGHTNESS SETTING (TV)	NOT USED
	PAL-N AV BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV COLOR	37	37	COLOR DENSITY SETTING (TV)	NOT USED
	PAL-N AV COLOR	37	37	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV TINT	128	128	TINT SETTING (TV)	NOT USED
	PAL-N AV TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV SHARP V	100	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	PAL-N AV SHARP V	100	100	V PICTURE QUALITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	PAL-N AV SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (COMPOSITE, S VIDEO)	NOT USED
	PAL-N TV SHARP H2	130	130	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
PAL-N AV SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (COMPOSITE, S VIDEO)	NOT USED	

VIDEO ADJUSTMENT

DVP10	525I CONT	133	133	IMAGE SETTING (TV)	NOT USED
	525I BRIGHT	128	128	BRIGHTNESS SETTING (TV)	NOT USED
	525I COLOR	52	52	COLOR DENSITY SETTING (TV)	NOT USED
	525I TINT	128	128	TINT SETTING (TV)	NOT USED
	525I SHARP V	100	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	525I SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	525I SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	525P CONT	133	133	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	525P BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	525P COLOR	52	52	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	525P TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	525P SHARP V	130	130	V PICTURE QUALITY SETTING (TV)	NOT USED
	525P SHARP H1	120	120	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	525P SHARP H2	120	120	H PICTURE QUALITY SETTING 2 (TV)	NOT USED

VIDEO ADJUSTMENT

DVP11	625I CONT	133	133	IMAGE SETTING (TV)	NOT USED
	625I BRIGHT	128	128	BRIGHTNESS SETTING (TV)	NOT USED
	625I COLOR	52	52	COLOR DENSITY SETTING (TV)	NOT USED
	625I TINT	128	128	TINT SETTING (TV)	NOT USED
	625I SHARP V	100	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	625I SHARP H1	150	150	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	625I SHARP H2	150	150	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	625P CONT	133	133	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	625P BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	625P COLOR	52	52	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	625P TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	625I SHARP V	130	130	V PICTURE QUALITY SETTING (TV)	NOT USED
	625I SHARP H1	120	120	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	625I SHARP H2	120	120	H PICTURE QUALITY SETTING 2 (TV)	NOT USED

ADJUSTMENT PROCESS TUNER ITEM DEFAULT TABLE

Page No.	Item	Initial Value		Function	Response precautions on servicing (Do not change other items than designated.)
		13inch	15inch		

VIDEO ADJUSTMENT

DVP12	1125I CONT	133	133	IMAGE SETTING (TV)	NOT USED
	1125I BRIGHT	128	128	BRIGHTNESS SETTING (TV)	NOT USED
	1125I COLOR	52	52	COLOR DENSITY SETTING (TV)	NOT USED
	1125I TINT	128	128	TINT SETTING (TV)	NOT USED
	1125I SHARP V	100	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	1125I SHARP H1	100	100	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	1125I SHARP H2	100	100	H PICTURE QUALITY SETTING 2 (TV)	NOT USED
	750P CONT	133	133	IMAGE SETTING (COMPOSITE, S VIDEO)	NOT USED
	750P BRIGHT	128	128	BRIGHTNESS SETTING (COMPOSITE, S VIDEO)	NOT USED
	750P COLOR	52	52	COLOR DENSITY SETTING (COMPOSITE, S VIDEO)	NOT USED
	750P TINT	128	128	TINT SETTING (COMPOSITE, S VIDEO)	NOT USED
	750P SHARP V	100	100	V PICTURE QUALITY SETTING (TV)	NOT USED
	750P SHARP H1	100	100	H PICTURE QUALITY SETTING 1 (TV)	NOT USED
	750P SHARP H2	100	100	H PICTURE QUALITY SETTING 2 (TV)	NOT USED

TUNER SETTINGS

TUNER1	AFT UP	1.80	1.80	AFT VOLTAGE REFERENCE LEVEL (ALL BANDS)	NOT USED
	AFT DOWN	1.20	1.20	AFT VOLTAGE REFERENCE LEVEL (ALL BANDS)	NOT USED
	LSYNC	150	150	SYNC JUDGMENT THRESHOLD (TV)	NOT USED
	HSYNC	162	162	SYNC JUDGMENT THRESHOLD (TV)	NOT USED
	AVSYNC	1	1	SYNC JUDGMENT THRESHOLD (EXTERNAL INPUT)	NOT USED
	COMPSYNC	3	3	SYNC JUDGMENT THRESHOLD (COLOR DIFFERENCE INPUT)	NOT USED
	EDS TEST	10	10	DURATION UNTIL JUDGMENT OF NO EDS TIME DATA (SECONDS)	NOT USED

TUNER SETTINGS

TUNER2	AFT FARTIME	50	50	CHANNEL PRESET TIME ADJUSTMENT 1	NOT USED
	AFT NEARTIME	30	30	CHANNEL PRESET TIME ADJUSTMENT 2	NOT USED
	AFT NEARMTIME	10	10	CHANNEL PRESET TIME ADJUSTMENT 3	NOT USED
	AFT 1STEPTIME	10	10	CHANNEL PRESET TIME ADJUSTMENT 4	NOT USED
	AFT CSYNCTIME	50	50	CHANNEL PRESET TIME ADJUSTMENT 5	NOT USED

OTHERS

OTHERS1	DAC DATA 00---	—	—	DAC-RELATED GENERAL-PURPOSE VARIABLE SETTINGS	NOT USED
	L ERROR WAIT	15s	15s	LAMP ERROR DETECT WAIT TIME	NOT USED
	L ERROR H TIME	1.0s	1.0s	LAMP ERROR DETECT TIME	NOT USED
	TV AUTO GAIN	OFF	OFF	UTO GAIN SETTING FOR TV	NOT USED
	PWM FREQ	150	150	DIMMER FREQUENCY SETTING (IN HZ)	NOT USED
	PWM DUTY	0	0	DIMMER DUTY SETTING	NOT USED
	OPC THRESHOLD	24	24	INPUT LEVEL THRESHOLD FROM BRIGHTNESS SENSOR STOP MODE TO OPERATION MODE	NOT USED
	HOTEL POWERFIX	OFF	OFF	USED FOR FIXED HOTEL MODE POWER ON	NOT USED
	COMP SYSTEM	AUTO	AUTO	COMPONENT SIGNAL SELECT IN ADJUSTMENT PROCESS	NOT USED

REMOCON CODE DISPLAYED AT THE BOTTOM

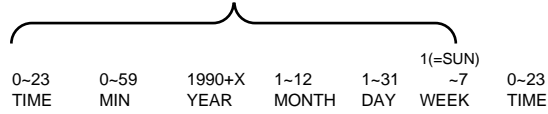
OTHERS2	3D Y/C	0	0	3D ON/OFF SETTING	NOT USED
	3DY/C DATA	0	0	3D YC DATA WRITE AND READ	NOT USED
	3DY/C DATA	WAIT	WAIT	WRITE AND READ EXECUTED	NOT USED
	KIL	OFF	OFF	FORCED KILLER SETTING FOR SIGNAL WITHOUT COLOR BURST	NOT USED
	CLOSED CAPTION	15	15	CLOSED CAPTION THRESH LEVEL	NOT USED

EDS DATA SHOULD DISPLAYED AT THE BOTTOM

Adjustment process auto clock display

0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38		
0	O	T	H	E	R	S	2																																		
1			3	D	Y	/	C																																		
2			3	D	Y	/	C		D	A	T	A																													
3			3	D	Y	/	C		D	A	T	A																													
4			K	I	L																																				
5			C	L	O	S	E	D		C	A	P	T	I	O	N																									
6																																									
7																																									
8																																									
9																																									
10																																									
11																																									
12																																									
13																																									

Time of Day (Greenwich Mean Time)



0	0	:	0	0	0	0	X	0	0	.	0	0	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Local Time Zone & DST Use

Time of Day (Greenwich Mean Time)

Reset SEC



D	0	L	0	Z	0	D	0
0	0	0	0				

Start code

* In the adjustment process, the local time can be freely obtained. Each time the local time is known, the colors of the following items change accordingly.
 (1) Time of Day (Greenwich Mean Time)
 (2) Local Time Zone & DST Use
 (3) Start code

TEST PATTERN IN THE ADJUSTMENT PROCESS MODE

IC1201 (LCD controller) test pattern

1) Getting the test pattern displayed

Call the adjustment process mode, select "DVP" on page 4, and press the ENTER button. Next select "DVP TEST PATTERN" in line 2 on page 1. (The "DVP TEST PATTERN" turns yellow.) Now use the cursor RIGHT/LEFT keys to get the test pattern displayed.

To quit the test pattern, enter "0" in the "DVP TEST PATTERN" setting. The test pattern is kept onscreen even by pressing the RETURN UP/DOWN buttons. The test pattern display is cancelled when the power is turned off, and the usual display appears instead when the power is turned on again.

2) Test pattern displayed

The following test pattern appears onscreen.

- The DVP test pattern comes in 22 different types.

1 Black & white (Size:Minimum)



2 Black & white (Size:Small)



3 Black & white (Size:Medium)



4 Black & white (Size:Large)



5 Crosshatch (Spacing:Minimum)



6 Crosshatch (Spacing:Small)



7 Crosshatch (Spacing:Medium)



8 Crosshatch (Spacing:Large)



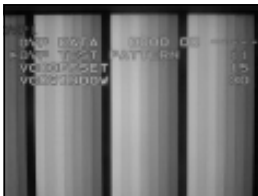
9 Color bar (Spacing:Minimum)



10 Color bar (Spacing:Small)



11 Color bar (Spacing:Medium)



12 Color bar (Spacing:Large)



13 Lamp (Spacing:Small)



14 Lamp (Spacing:Medium)



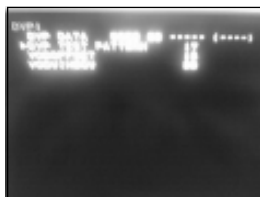
15 Vertical lamp (Spacing:Small)



16 Vertical lamp (Spacing:Medium)



17 Black-background pattern



18 White 100%



19 White 50%



20 Red-background pattern



21 Green-background pattern



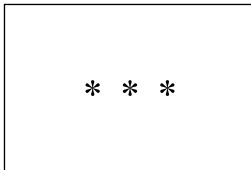
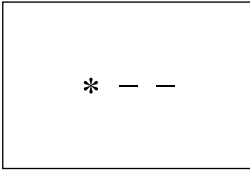
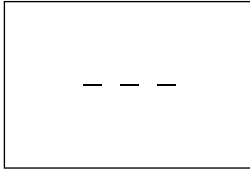
22 Blue-background pattern



PUBLIC MODE SETTING PROCEDURE

1. How to start Public Mode

- There are the following two ways to get the public mode setup screen displayed.
 - ① 1) Press the "INPUT" and "VOL (+)" keys on the set at once and turn on the power.
 - 2) Get the password input screen displayed.



Procedure

- The input starts with the leftmost digit.
- Use the numeric keys [1] thru [9] and [10/0] keys on the remote controller. The other keys are not acceptable.
- With a numeric-key input, "-" will change to "*". The input position will move one digit to the right.
- With all the 3 digits entered, the password will be verified.

- 3) The 3-digit password is now verified.

The password [0] [2] [7] provides for the public mode screen. (This screen comes on with whatever adjustment process settings.)

With any other passwords, the screen changes to the normal mode.

- ② In the adjustment process mode, turn on "PUBLIC MODE". Also press the "CH (^)" and "VOL (+)" keys on the set at once and turn on the power.

2. How to exit Public Mode

There are the following ways to quit the public mode setup screen.

- Turn off "PUBLIC MODE" in the adjustment process mode. (☆) ← This way alone is not for quitting the setup screen, but for quitting the mode itself.
- Turn off the power with the "POWER" key. (★)
- Select "ENTER". (★)
- Move the cursor to "RESET" and press the "FLASHBACK" key. (Back to the normal mode screen)(☆)

★ ... "PUBLIC MODE" stays on in the adjustment process mode.

☆ ... The settings will be back to the factory ones.

3. Public Mode Setting Values

- With the factory settings made, the public mode settings get initialized. (The adjustment process remains intact.)

4. Public Mode Menu

The guidance is not displayed onscreen.

Setup procedure

- To move the cursor up and down, use the "cursor UP/DOWN" key (remote controller) and "CH (^)/(v)" key (remote controller and set).
- To change the settings, use the "cursor RIGHT/LEFT" key (remote controller) and "VOL (+)/(-)" key (remote controller and set).
- To save new settings, keep the cursor at "Enter" and use the "cursor RIGHT/LEFT" key (remote controller) and "VOL (+)/(-)" key (remote controller and set).

Public mode		
Power on fixed	[Variable]
Maximum volume	[60]
Volume fixed	[Variable]
Volume fixed level	[20]
RC button	[Respond]
Panel button	[Respond]
Menu button	[Respond]
On screen display	[Yes]
Input mode start	[Normal]
Input mode fixed	[Variable]
Sound only mode	[No]
Reset		
Enter		

5. On Setting Items

* "EZ-SETUP" discussed below indicates "EZ-SETUP after the first power-on".

(1) POWER ON FIXED

Selection	Selection between "Variable" and "Fixed" (loop provided)
Default	– (Variable)
Explanation	In "Fixed" setting, the power-off by the power key of the unit is invalidated and the image is kept being received. The power can be turned off by stopping the power supply from AC.
Limit in Setting	Refer to the "Power-On Fixed" sheet.
Exception	None
Remarks	<ul style="list-style-type: none"> • Selection of "FIXED" depends on use of STB etc. • In "Variable" setting, the power operation is in wait for 1 sec. and then turned off when the main power switch is off. • Display ON/OFF in hotel menu is controlled by adjustment process "HOTEL POWERFIX".

(2) MAXIMUM VOLUME

Selection	Adjustment from 1 to 60 (no loop)
Default	60
Explanation	Sound volume can not be adjusted higher than the preset value.
Limit in Setting	<ul style="list-style-type: none"> • When the sound volume is set lower than 59, only figures are displayed and the sound volume bar is not displayed. • The maximum sound volume for ON-timer (Wake up timer) is limited also to the preset value.
Exception	<ul style="list-style-type: none"> • In the item "VOLUME" of adjustment process, the sound volume can be set freely irrespective of this setting.
Remarks	<ul style="list-style-type: none"> • Setting is valid only for the speakers of the unit. (As for the headphone, the sound volume can be set up to 60 irrespective of the limit.) • In line output (sound volume variable), the sound volume can be adjusted from -60 to 0 irrespective of pre-adjusted value. • When the sound volume is set higher than the MAX setting by the adjusting process or headphone, the sound volume control operation is prohibited for turn-up and the sound volume should be turned down to MAX in this state.

(3) VOLUME FIXED

Selection	Selection between "Variable" and "Fixed" (loop provided)
Default	Variable
Explanation	Sound volume is fixed and made invariable.
Limit in Setting	<ul style="list-style-type: none"> • The sound volume for the ON-timer (Wake up timer) is fixed also without display of menu. Besides, the setting is made impossible. (Basically, the menu is not displayed.) • The following keys become invalid: <ul style="list-style-type: none"> • Sound volume Up/Down (VOL +/-) [for both remote control and the unit] • Mute (MUTE)
Exception	<ul style="list-style-type: none"> • In the item "VOLUME" of adjustment process, the sound volume can be set freely irrespective of this setting.
Remarks	<ul style="list-style-type: none"> • In "Variable" setting, the sound volume had been conventionally set at 1 but this operation has been abolished (and follows the last memory). • The sound volume for the ON-time is not set at 1 either and the sound volume set value of the ON-timer before executing the hotel mode is held. • Setting is valid only for the speakers of the unit. (As for the headphone, the sound volume can be set up to 60 irrespective of the limit.) • In line output (sound volume variable), the sound volume can be adjusted from -60 to 0 irrespective of pre-adjusted value. • As for sound volume fixing and sound volume MAX level, the sound volume fixing has priority. • Once the sound volume has been changed by adjustment process or headphone, it should be set back to the sound volume preset by sound volume fixing level when the adjustment process ends or when the headphone is removed.

(4) VOLUME FIXED LEVEL

Selection	Adjustment from 1 to 60 (no loop)
Default	10
Explanation	The sound volume to be fixed by "Volume fixed" is determined.
Limit in Setting	None
Exception	None
Remarks	Setting is valid only when "Volume fixed" is selected for "fixed". This must be confirmed actually by changing also the sound volume in accordance with setting.

(5) R/C BUTTON

Selection	Selection between "Respond", "Limited" and "No respond" (loop provide)
Default	Respond
Explanation	Keys acceptable by remote control are limited or reception of keys can be prohibited.
Limit in Setting	① In "limited" setting, only power ON/OFF, sound volume ▲▼, tuning ▲▼ and BACKLIGHT (brightness sensor) are accepted. ② In "No respond" setting, all the keys (including the power key) are not accepted.
Exception	<ul style="list-style-type: none"> Adjustment process, factory setting, inspection process and hotel only keys are valid irrespective of setting. All the keys can be used in adjustment process, inspection mode and hotel menu irrespective of setting. All the keys can be used also in the initial EZ-Setup after power-ON irrespective of setting.
Remarks	

(6) PANEL BUTTON

Selection	Selection between "Respond" and "No respond" (loop provide)
Default	Respond
Explanation	All the operations by keys (except the power key) of the unit can be invalidated.
Limit in Setting	
Exception	<ul style="list-style-type: none"> Inspection mode and hotel menu mode can be started irrespective of setting. All the keys can be used in adjustment process, inspection mode and hotel menu irrespective of setting. In U.S.A model, all the keys can be used also in the initial EZ-Setup after power-ON irrespective of setting.
Remarks	

(7) MENU BUTTON

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

(8) ON SCREEN DISPLAY

Selection	Selection between "Yes" , "Limited" (loop provide)
Default	Yes
Explanation	The following OSD displays are made ineffective. Displays of menu group, channel call, sound volume bar and direct key call
Limit in Setting	<ul style="list-style-type: none"> • ON-timer (Wake-up timer) is cleared and set to "OFF". • Set time of the OFF-timer (SLEEP TIMER) is cleared. • Setting of the no-signal power-OFF (AUTO POWER OFF) is cleared to "OFF". • Setting of the no-operation power-OFF is cleared to "OFF". • Keys falling under any of the following items become invalid. <ul style="list-style-type: none"> ① Appearance of screen changes and the sound changes. ② Personal functions which are hard to restore. <p>Ex.) Screen display, menu, OFF-timer, ON-timer, AV MODE, screen size switching, clock setting, treble emphasis, AUDIO ONLY, sound changeover, LANGUAGE, CLOSED CAPTION</p>
Others	<ul style="list-style-type: none"> • Simple input switching is generated. Those which are restored soon after leaving as they are and may be requested for change by customer are not prohibited. <p>Ex.) Brightness sensor (BACKLIGHT) and PIC. FLIP</p>
Exception	<ul style="list-style-type: none"> • Such a caution which is displayed independently is displayed as it is. <p>Non-responding signal caution, V-Chip caution and power-ON fixing caution</p>
Remarks	<ul style="list-style-type: none"> • In "No" setting, the setting of "SOUND ONLY MODE" is changed to "OFF" and selecting operation is made prohibited. • When CC has already been ON, CLOSED CAPTION is displayed.

(9) INPUT MODE START

Selection	Selection between "Normal" , "TV (CH*)" "COMPONENT" "AV1" and "AV2" (loop provide)
Default	Normal
Explanation	In power-ON, the input source to be started or channel can be set. (In standard mode, the operation follows the last memory.)
About options	<ul style="list-style-type: none"> • All the input sources in the model are made selectable. • When the input/output switchable input source is selected and the input source is set to output, the setting of input/output switching is changed to input at the execution of hotel menu. In addition, the input/output switching by menu is prohibited. • In TV mode, the display of all channels is stopped and it is treated as an input source. At this time, the channel to be set follows the last memory and the content of the last memory is included in the notation by options. Ex.) TV (CH2), TV (CH4) etc. • The order of appearance of options in the hotel menu should agree with the order of toggles by input switching key.
Limit in Setting	<ul style="list-style-type: none"> • The display of channel setting menu and the channel setting operation are prohibited (except for MCL).
Exception	<ul style="list-style-type: none"> • In the start by "ON-timer (Wake-up timer)", the channel set by ON-timer (Wake-up timer) has priority.
Remarks	<ul style="list-style-type: none"> • In setting at "Normal", the setting of "Input mode fixed" is changed to "Variable" and selection should be prohibited.

(10) INPUT MODE FIXED

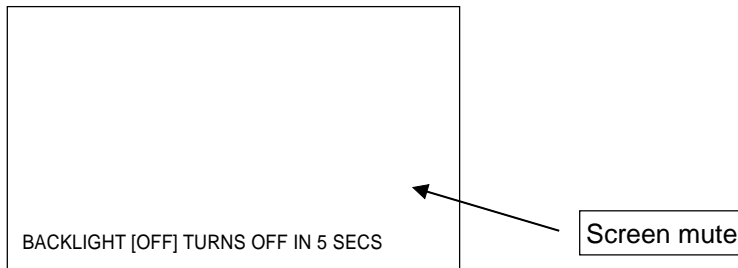
Selection	Selection between "Variable" and "Fixed" (loop provide)
Default	– (Variable)
Explanation	The input mode is fixed at the input source or the channel set at the "Input mode start" in 9 and other input sources and channels can be made non-selectable.
Limit in Setting	<ul style="list-style-type: none"> • With the execution of hotel mode, the input source is forced to change to that set by "Input mode start" and the channel switching and input switching are prohibited thereafter. • ON-timer's (Wake-up timer) channel items are not displayed or the operation is prohibited. (Basically, they are not displayed.) • The following keys are invalidated. CH ▲▼, direct tuning button, FLASHBACK, input *However, the keys (input switching and CH ▲▼ keys) of the unit for menu operation remain valid.
Exception	None
Remarks	<ul style="list-style-type: none"> • In the following case, setting is cancelled and mode is changed to "Variable". ①When the setting of "Input mode start" is set to "Standard (Normal)"

(11) SOUND ONLY MODE

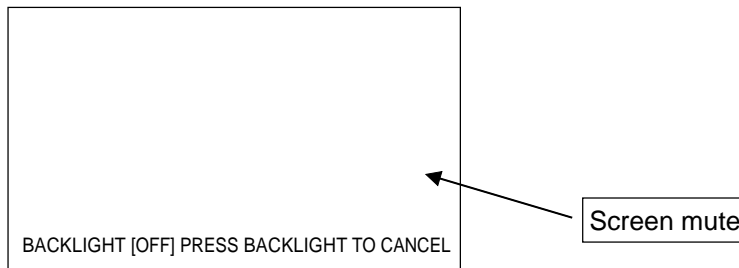
Selection	Selection between "No" and "Yes" (loop provide)
Default	No
Explanation	It is possible to turn off the image and add the mode to enjoy sound only.
Limit in Setting	Refer to the sound only mode sheet.
Exception	None
Remarks	<ul style="list-style-type: none"> • When the set value of "On screen display" is "Limited", setting is cancelled to be "NO".

Sound only mode function specifications

- ① Behavior of the remote control BACKLIGHT button.
BACKLIGHT [BRIGHT]→BACKLIGHT [NORMAL]→
BACKLIGHT [DARK]→BACKLIGHT [AUTO]→BACKLIGHT [OFF]→BACKLIGHT [BRIGHT]
(The "OFF" setting is added while the remote control BACKLIGHT button is effective.
With "YES" selected in "SOUND ONLY MODE".)
- ② When the "OFF" mode is selected, the screen becomes mute, the following message appears and the time is counted down. (Sound only mode setup process)
The time indication "IN 5 SEC" appearing in the message gets counted down.
IN 5 SEC → IN 4 SEC → IN 3 SEC → IN 2 SEC → IN 1 SEC
When the 5 seconds have passed, the backlight error detect function becomes off, the backlight turns off and the message disappears. (Sound only mode process)



At a temporary reset, the count-down does not take place and the following message appears.
(In this case too, the backlight error detect function becomes off, the backlight turns off and the message disappears in 5 seconds.)



- ③ The key functions in the sound only mode setup process and sound only mode process are referred to in "Table of Key Allocation in Sound Only Mode" and "Table of Key Functions in Sound Only Mode"
- ④ To turn off the power with the power key, off-timer or no-signal power supply in the sound only mode, first end the sound only mode, then call the BACKLIGHT mode, and finally turn off the power.
- ⑤ Let's suppose that the power is on and the BACKLIGHT mode is off. In this case, call the BACKLIGHT mode first and then get started.
- ⑥ If the BACKLIGHT mode is turned off with the sound mute, the sound only mode setup process (caution displayed) goes on with no sound. Once the sound only mode is set up, the sound mute gets cleared (just when the backlight turns off). The sound volume level at this clearing will be the same as before the sound mute action.
- ⑦ To activate the V-CHIP block, make a temporary reset and keep on the caution display until the block is unlocked. The screen background will be black, not blue.
- ⑧ The closed caption is ignored (including the temporary reset).

Table of Key Allocation in Sound Only Mode (Unit keys/Remote control keys)

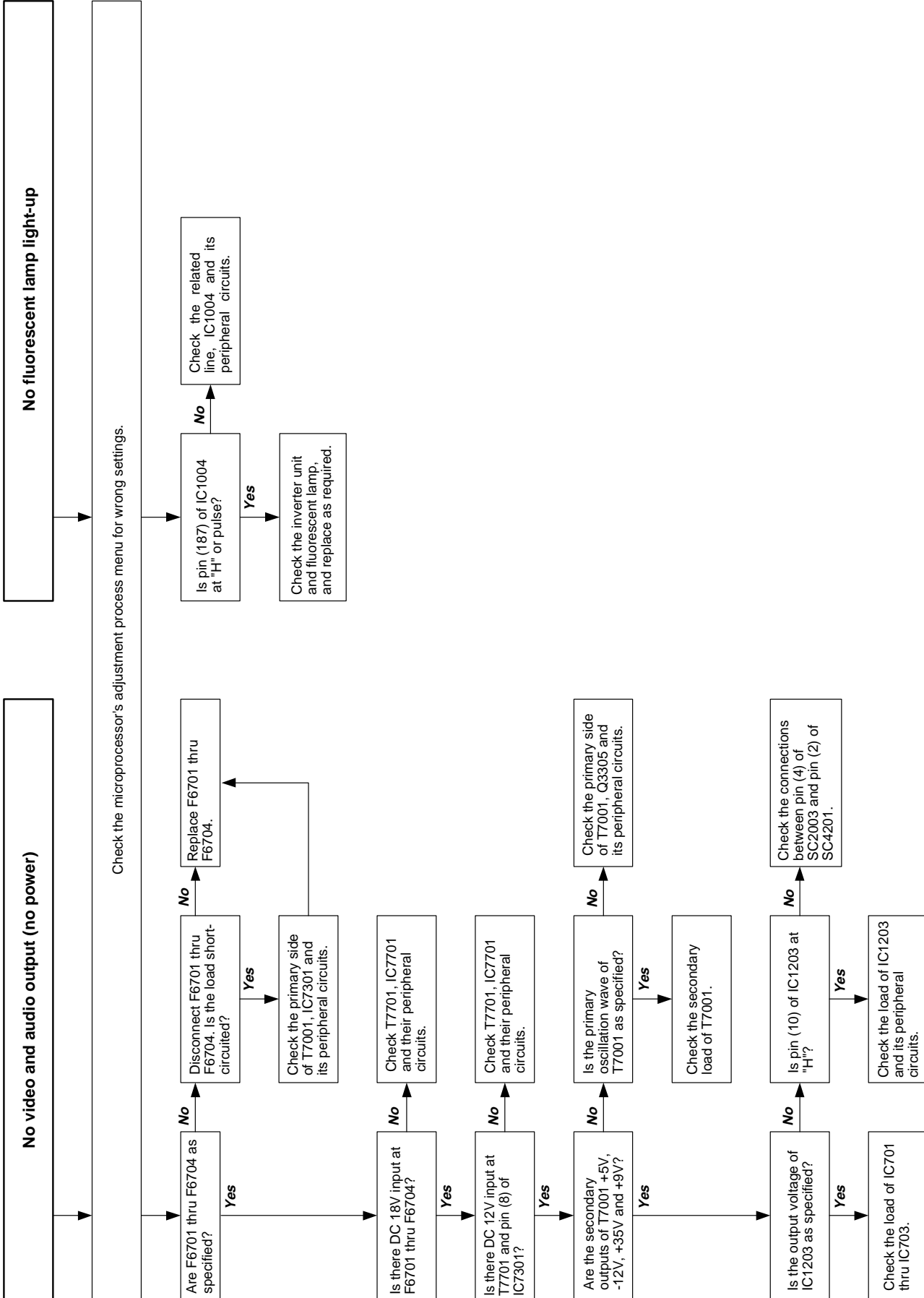
	Key	Allocation
Unit keys	POWER	Released
	INPUT	Temporary reset
	MENU	Released
	CH	Temporary reset
	VOL	Temporary reset
Remote control	POWER	Released
	PIC.FLIP	Released
	DISPLAY	Temporary reset
	SLEEP	Temporary reset
	MENU	Released
	CURSOR	Released
	ENTER	Released
	BACKLIGHT	Special reset
	MUTE	Temporary reset
	MTS	Temporary reset
	INPUT	Temporary reset
	VOL	Temporary reset
	AUDIO ONLY	Released
	CH	Temporary reset
	FLASHBACK	Temporary reset
	CH1~10/0	Temporary reset
	CH100	Temporary reset
	CLOSED CAPTION	Temporary reset
AV MODE	Released	
MENU RETURN	Released	

* When the VOLUME FIXED, INPUT MODE FIXED or other fixed status is set up, this status is given priority.

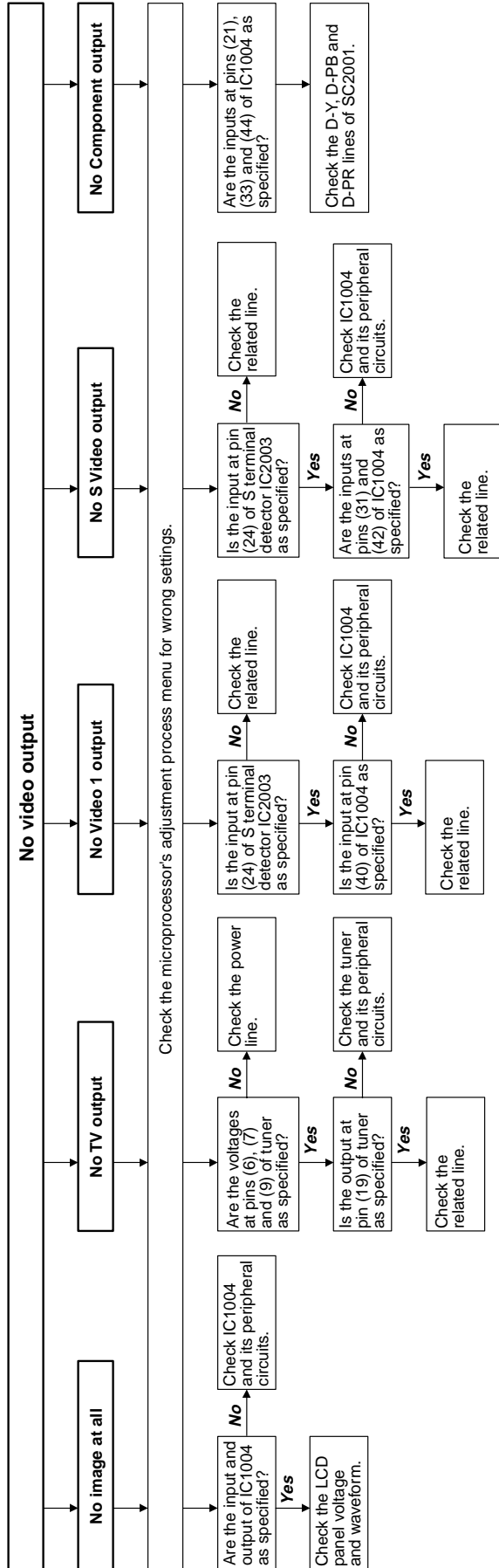
Table of Key Functions in Sound Only Mode

Key	Functions	
	Sound only mode setup process	Sound only mode process
Special reset key BACKLIGHT	<ul style="list-style-type: none"> Mute cleared. Message deleted. BACKLIGHT mode turned on. (Sound only mode ended) 	<ul style="list-style-type: none"> Backlight on. Backlight error detect on. Sound only mode clear guide message displayed. (Current BACKLIGHT mode status displayed)
Released key	<ul style="list-style-type: none"> Mute cleared. Message deleted. BACKLIGHT mode turned on. (Sound only mode ended) 	<ul style="list-style-type: none"> Backlight on. Backlight error detect on. Mute cleared BACKLIGHT mode turned on. (Sound only mode ended)
Temporary reset key	<ul style="list-style-type: none"> BACKLIGHT mode temporarily turned on (Externally OFF). Message deleted. Description of pressed key displayed for 3 seconds. Sound only mode setup message displayed. (Current BACKLIGHT mode status displayed) 	<ul style="list-style-type: none"> BACKLIGHT mode temporarily turned on (Externally OFF). Backlight on. Backlight error detect on. Description of pressed key displayed for 3 seconds. Sound only mode setup message displayed. (Current BACKLIGHT mode status displayed)

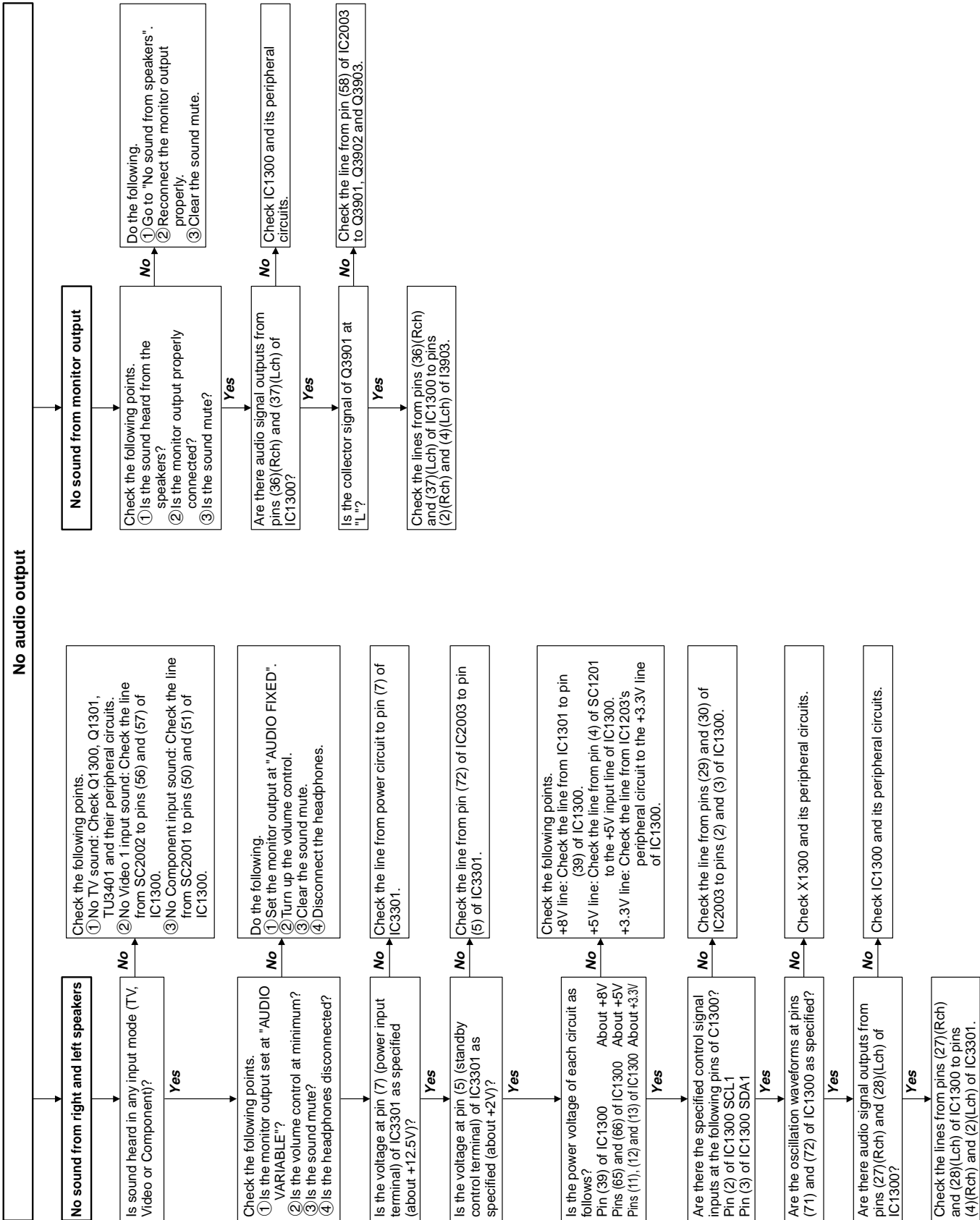
TROUBLE SHOOTING TABLE



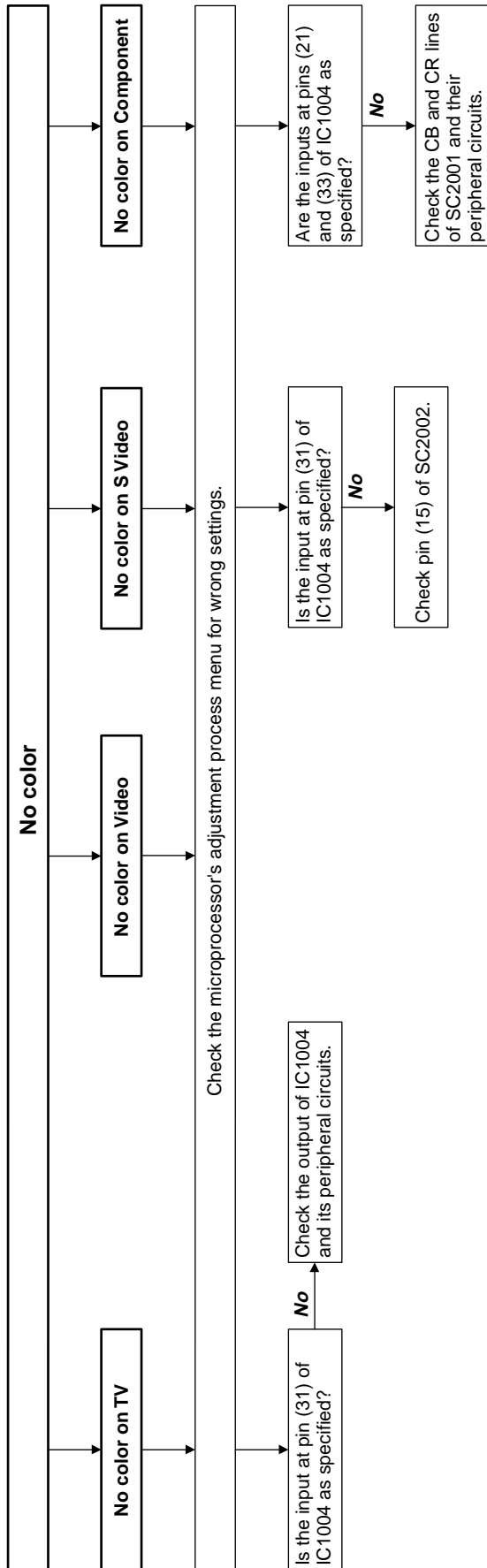
TROUBLE SHOOTING TABLE (Continued)



TROUBLE SHOOTING TABLE (Continued)



TROUBLE SHOOTING TABLE (Continued)



MAJOR IC INFORMATIONS

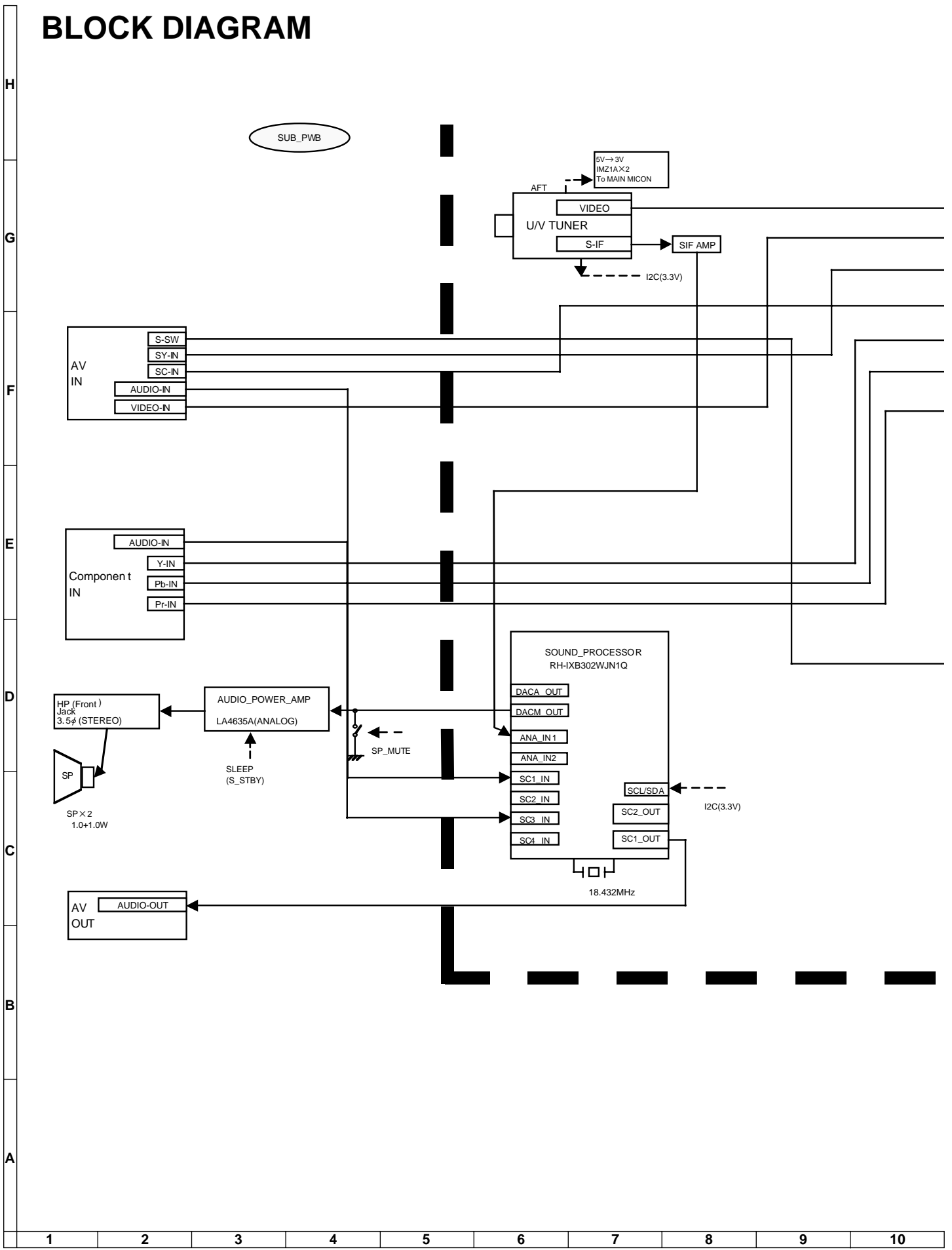
IC2003 (IXA627WJ)

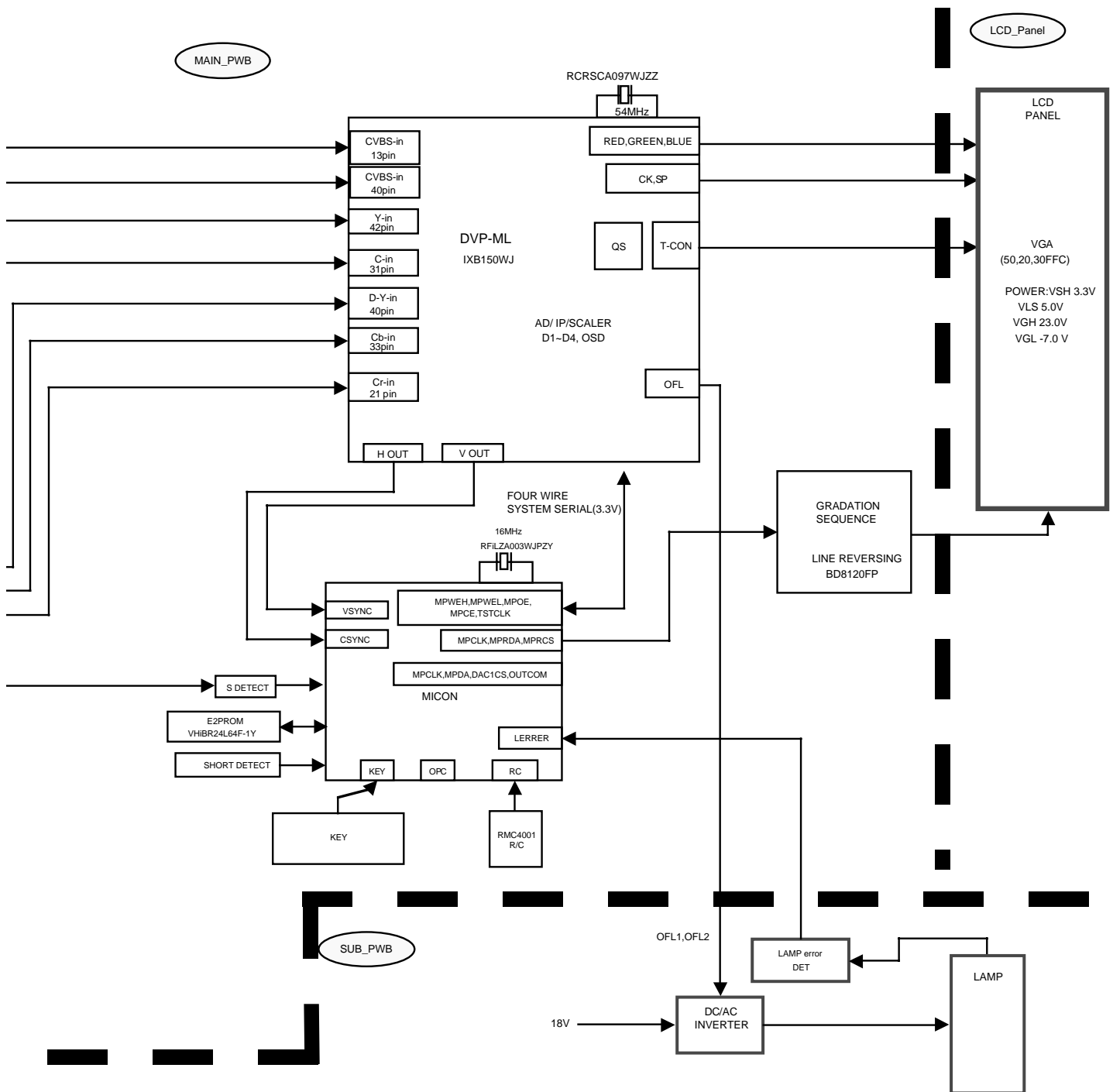
• Description of Pins

Pin No.	Pin Name	I/O	Pin Name	Function
1	P96	O		N.C
2	P95	O		N.C
3	P94	O		N.C
4	P93	O		N.C
5	P92	O		N.C
6	TB1in	I	CSYNC	Composite sync signal
7	TB0in	I	IREM1	Remote control signal
8	BYTE	I	BYTE	Connected to GND
9	CNVss	I	CNVss	Connected to GND (connected to Vcc1 for CNVSS at flash write)
10	Xcin	I	Xcin	32-kHz quartz oscillator (for clock count)
11	Xout	O	Xout	32-kHz quartz oscillator (for clock count)
12	RESET	I	RESET	Microprocessor reset at "L"
13	Xcout	O	Xcout	System clock output
14	Vss	I	Vss	GND
15	Xin	I	Xin	System clock input
16	Vccl	I	Vccl	VDD (+3.3V)
17	NMI	I	NMI	(Connected to Vcc1 for NMI at flash write)
18	P84	O		N.C
19	INT1	I	PSWin	Main power monitor
20	INT0	I	VSUNC	VSUNC signal input
21	P81	O		N.C
22	P82	O	AC_Ctrl	AC adaptor power consumption control
23	P77	O	DACICS	Gradation control IC chip select
24	P76	I	SSW	Connected to S terminal at "L"
25	P75	O		N.C
26	P74	O		N.C
27	P73	I/O	SDA2	Serial data line 2 for I2C bus 2 system
28	P72	I/O	SCL2	Serial clock line 2 for I2C bus 2 system (EEPROM)
29	P71	I/O	SCL1	Serial clock line 1 for I2C bus 2 system (others)
30	SDA1	I/O	SCA1	Serial data line 1 for I2C bus 2 system
31	P67	O	TxD	(TxD at flash write)
32	P66	O	RxD	(RxD at flash write)
33	P65	O	SCLK	(Clock input at flash write)
34	P64	O	BUSY	(Busy output at flash write)
35	TxD0	O	MPWEL	Data signal input for DVP 4-line serial (MPWEL)
36	RxD0	O	MPOE	Data output signal for DVP 4-line serial (MPOE)
37	CLK0	O	MPWEH	Clock for DVP 4-line serial (MPWEH)
38	P60	O		N.C
39	P57	O	MAIN SW	LED power control
40	P56	O		N.C
41	P55	I	POWin(EPM)	DC/DC start detect (connected to Vss for EPM at flash write)
42	P54	I(O)	L_ERR	Fluorescent lamp error detect
43	P53	O	S IN/OUT	Audio input/output select
44	P52	O	COMP	AV selector switch
45	P51	O	TIMER(RLED)	On timer LED control (power RLED control)
46	P50	I	MRDY(CE)	I ² C bus open connection detect (connected to Vcc2 for CE at flash write)
47	P47	O	LEDPOW(GLED)	Power GLED control
48	P46	O		N.C
49	P45	O	S_SEL	AV selector switch
50	P44	O	VSHOUT	Panel gate driver voltage control

Pin No.	Pin Name	I/O	Pin Name	Function
51	P43	O		N.C
52	P42	O	HPMUTE	Headphones mute
53	P41	O	SP MUTE1	Main speaker mute
54	P40	O		N.C
55	P37	I	HP DET	Headphones detect
56	P36	O	SSTBY	Amplifier power control
57	P35	I	VSH IN	Panel gate driver voltage confirm
58	P34	O	LMUTE	Line out audio mute
59	P33	O	V IN/OUT	Video input/output select
60	P32	O	SRESET	Audio IC reset output
61	P31	O		N.C
62	Xcc2	I	Vcc2	Power input
63	P30	O	TCON_OUT_OTL	DVP control output control
64	Vss	I	Vss	GND
65	P27	O	V_SEL	AV selector switch
66	P26	O	TV_SEL	AV selector switch
67	P25	O	BUS SELECT(I ² C)	DVP I2C/4-line communication system select (H: I2C control, L: Serial control)
68	P24	O	MPCE	DVP 4-line serial chip enable (MPCE)/DVP slave address select
69	P23	O	OPCLED	OPC LED light-up
70	P22	O	INV_POW	Separately-excited inverter power control
71	P21	O	VGH	Panel power control
72	P20	O	POWout	DC/DC control output
73	P17	I	ADPPOW	Adaptor ON/OFF input
74	P16	O	DACOUTCON	Gradation control IC output control
75	P15	O		N.C
76	P14	O		N.C
77	P13	O		N.C
78	P12	O	MP_DA	Gradation control IC data output
79	P11	O	MP_CLK	Temperature sensor or gradation control IC clock output
80	P10	O	DDC_RESET	Video IC reset output (Renesas DVP, 3D YC)
81	P07	I	KEY4	Key input 4
82	P06	I	KEY5	Key input 5
83	P05	O		N.C
84	P04	O		N.C
85	P03	O	MODEL	Model ID port
86	P02	I	SHORT_DET	Over-current protection detect
87	P01	I	INCH2	Screen size ID port 2
88	P00	I	INCH1	Screen size ID port 1
89	AN7	I	AFT	AFT voltage input
90	P106	O		N.C
91	AN5	I	KEY1	Key input 1
92	AN4	I	KEY2	Key input 2
93	P103	O		N.C
94	AN2	I	OPC_IN	OPC sensor level input
95				
96	AVss	I	AVss	Connected to GND
97	P100	O		N.C
98	VREF	I	VREF	Connected to +3.3V
99	AVcc	I	AVcc	Connected to +3.3V
100	P97	O		N.C

BLOCK DIAGRAM





10	11	12	13	14	15	16	17	18	19
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OVERALL WIRING DIAGRAM (LC-13SH4U)

H
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LCD SOURCE
(QCNW-D228WJQZ)

LCD GATE
(QCNW-C182WJQZ)

NOB9FJ	SE1000
GND	1
R7	2
RS	3
RS	4
R4	5
GND	6
R3	7
R2	8
R1	9
R0	10
GND	11
G7	12
G8	13
G5	14
G4	15
GND	16
G3	17
G2	18
G1	19
G0	20
GND	21
B7	22
B6	23
B5	24
B4	25
GND	26
B3	27
B2	28
B1	29
B0	30
GND	31
GND	32
CK	33
GND	34
GND	35
SPT0	36
SPT1	37
LBR	38
LS	39
POLA	40
Y0B10	41
Y0B19	42
Y0B18	43
Y0B17	44
Y0B16	45
Y0B15	46
Y0B14	47
Y0B13	48
Y0B12	49
Y0B11	50
VGL	51
VGL	52
VGL	53
VFE	54
VFE	55
VFE	56
GSF1	57
YSH3_V1	58
YSH3_V1	59
NC	60
GND	61
GND	62
GND	63
GND	64
GND	65
GND	66
GND	67
GND	68
GND	69
GND	70
GND	71
GND	72
GND	73
GND	74
GND	75
GND	76
GND	77
GND	78
GND	79
GND	80
GND	81
GND	82
GND	83
GND	84
GND	85
GND	86
GND	87
GND	88
GND	89
GND	90
GND	91
GND	92
GND	93
GND	94
GND	95
GND	96
GND	97
GND	98
GND	99
GND	100

NOB9FJ	SE1001
VALS	1
Y0B10	2
Y0B19	3
Y0B18	4
Y0B17	5
Y0B16	6
Y0B15	7
Y0B14	8
Y0B13	9
Y0B12	10
Y0B11	11
VGL	12
VGL	13
VGL	14
VFE	15
VFE	16
VFE	17
GSF1	18
YSH3_V1	19
YSH3_V1	20
NC	21
GND	22
GND	23
GND	24
GND	25
GND	26
GND	27
GND	28
GND	29
GND	30
GND	31
GND	32
GND	33
GND	34
GND	35
GND	36
GND	37
GND	38
GND	39
GND	40
GND	41
GND	42
GND	43
GND	44
GND	45
GND	46
GND	47
GND	48
GND	49
GND	50
GND	51
GND	52
GND	53
GND	54
GND	55
GND	56
GND	57
GND	58
GND	59
GND	60
GND	61
GND	62
GND	63
GND	64
GND	65
GND	66
GND	67
GND	68
GND	69
GND	70
GND	71
GND	72
GND	73
GND	74
GND	75
GND	76
GND	77
GND	78
GND	79
GND	80
GND	81
GND	82
GND	83
GND	84
GND	85
GND	86
GND	87
GND	88
GND	89
GND	90
GND	91
GND	92
GND	93
GND	94
GND	95
GND	96
GND	97
GND	98
GND	99
GND	100

20	RESET		CNVSS	19
18	SUB_DOUT		SUB_D IN	17
16	SCLK		BUSY	15
14	BSV		SDA2	13
12	SCL2		GND	11
10	MRDY		SDA1	9
8	SCL1		SYNC	7
6	NC		MPWEL	5
4	MPWEH		TSTCLK	3
2	MPCE		B3_3V_stv	1

P2001 NA144WJ

MAIN
DUNTKD034WEF 1
(QPWBXD034WJN1)

SE2001	WA030WA
15	NC
14	NC
13	GND
12	D1_R
11	D1_L
10	GND
9	D1_P
8	D1_Y
7	D1_B
6	AV_ACTL
5	F_BEL
4	SC_OUT
3	ENG
2	SC_V1
1	GND

SE2002	WA033WJ
1	GND
2	R_IN
3	L_IN
4	AUD_OUP_R
5	AUD_OUP_L
6	L_MUTE
7	SPUTE
8	SPMUTE
9	V1_R
10	V1_L
11	GND
12	V1_Y
13	S_SW
14	V1_SV
15	V1_SC
16	OP_CLED
17	SPS
18	TIMER_LED
19	POWER_LED
20	IREM
21	SSBY
22	GND
23	GND

SE2001	WA030WA
15	OP_L2
14	PCSV
13	OP_L1
12	PCSV
11	L_ERR
10	GND
9	B3_V1A
8	PCSV
7	POWER_FAIL
6	SHORT_DET
5	POW
4	PCSV
3	GND
2	13V/6_SV
1	PC-18V

TO MAIN	MASTER
NC(SC_OUT)	15
NC(SC_OUT)	14
GND	13
DR(SC_RIN)	12
DL(SC_LIN)	11
GND	10
PR(SC_R)	9
Y(SC_S)	8
PR(SC_B)	7
NC(AV_ACTL)	6
NC(EM_CTL)	5
NC(SC_OUT)	4
GND	3
NC(SC_V1)	2
GND	1

TO MAIN	MASTER
GND	1
R_IN	2
L_IN	3
AUD_OUP_R	4
AUD_OUP_L	5
L_MUTE	6
BRV_A	7
SPMUTE	8
V1_R	9
V1_L	10
GND	11
V1_Y	12
S_SW	13
V1_SV	14
V1_SC	15
OP_CLED	16
SPS	17
TIMER_LED	18
POWER_LED	19
IREM	20
M_SW	21
GND	22
GND	23

TO MAIN	MASTER
OP_L2	15
PCSV	14
OP_L1	13
PCSV	12
L_ERR	11
GND	10
B3_V1A	9
PCSV	8
POWER_FAIL	7
SHORT_DET	6
POW	5
PCSV	4
GND	3
13V/6_SV	2
PC-18V	1

POWER/AV
DUNTKD035WEF 1
(QPWBXD035WJN3)

1 2 3 4 5 6 7 8 9 10

ATE
2WJQZ)

LCD GRADUATION
(QCNW-D229WJQZ)

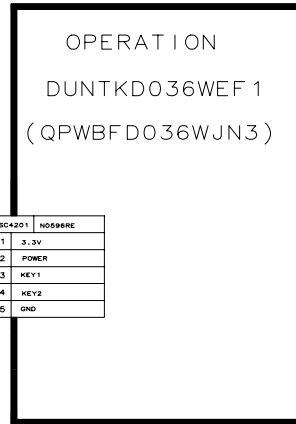
4	GSP1	18
	VSH3_3V	17
	VSH3_3V	16
	AC	19
	GND	20
	GND	21
	GND	22
	GLBR	23
	GCK	24
	POWER	25
	GSP2	26
	VGH	27
	VGH	28
	CSCOM	29
	CSCOM	30

H0598RE		SC2003	
	CSCOM	1	
	CSCOM	2	
	VCOM	3	
	VCOM	4	
	GND	5	
	GND	6	
	VLS	7	
	VLS	8	
	V255	9	
	V255	10	
	V176	11	
	V172	12	
	V84	13	
	V32	14	
	V21	15	
	V17	16	
	V7	17	
	V0	18	
	VSH2	19	
	VSH2	20	

H0598RE		SC2003	
	3.3V+V	5	
	POWER	4	
	KEY1	3	
	KEY2	2	
	GND	1	

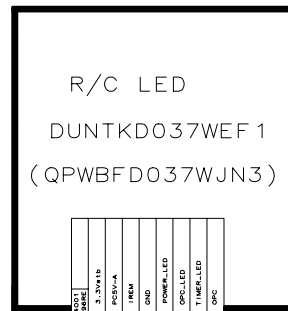
(QCNW-D362WJQZ)

SC4301		H0598RE	
	3.3V	1	
	POWER	2	
	KEY1	3	
	KEY2	4	
	GND	5	



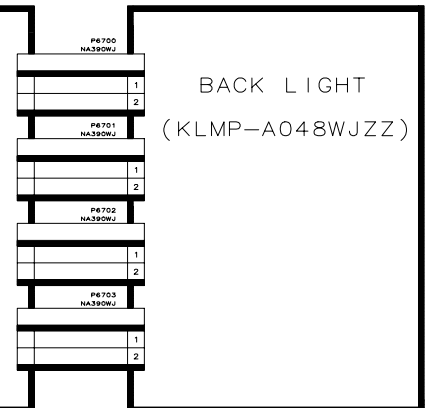
4	PCSV	
3	GND	
2	12V/8.8V	
1	PC-18V	

4	PCSV	
3	GND	
2	12V/8.8V	
1	PC-18V	

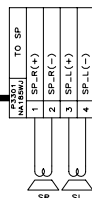


(QCNW-D461WJQZ)

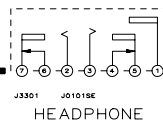
H0598RE		SC2003	
	3.3V+V	1	
	PCSV	2	
	IRFM	3	
	GND	4	
	POWERLED	5	
	OPC-LED	6	
	TIMERLED	7	
	OPC	8	



1
3)



AC IN TERMINAL



10	11	12	13	14	15	16	17	18	19
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OVERALL WIRING DIAGRAM (LC-15SH4U)

H
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F
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LCD SOURCE
(QCNW-D228WJQZ)

LCD GATE
(QCNW-B44 1WJQZ)

NOBVFJ	SC1000
GND	1
R7	2
R6	3
R5	4
R4	5
GND	6
R3	7
R2	8
R1	9
R0	10
GND	11
G8	12
G8	13
G5	14
G4	15
GND	16
G3	17
G2	18
G1	19
G0	20
GND	21
B7	22
B6	23
B5	24
B4	25
GND	26
B3	27
B2	28
B1	29
B0	30
GND	31
GND	32
GND	33
GND	34
GND	35
SPTD	36
SPTD	37
LBR	38
LS	39
POLA	40
YOB10	41
YOB19	42
YOB18	43
YOB17	44
YOB16	45
YOB15	46
YOB14	47
YOB13	48
YOB12	49
YOB11	50

NOBVFJ	SC1001
VLS	1
YOB10	2
YOB19	3
YOB18	4
YOB17	5
YOB16	6
YOB15	7
YOB14	8
YOB13	9
YOB12	10
YOB11	11
VGL	12
VGL	13
VEE	14
VEE	15
VEE	16
GSP1	17
VSH3_3V	18
VSH3_3V	19
NC	20
GND	21
GND	22
GLBR	23

20	RESET		CNVSS	19
18	SUB_DOUT		SUB_D IN	17
16	SCLK		BUSY	15
14	BSV		SDA2	13
12	SCL2		GND	11
10	MRDY		SDA1	9
8	SCL1		SYNC	7
6	NC		MPWEL	5
4	MPWEH		TSTCLK	3
2	MPOE		B3_3V_stv	1

P2001 NA144WJ

MAIN
DUNTKD034WEF2
(QPWBXD034WJN1)

SC2001	WA03WJ
12	NC
14	NC
13	GND
12	D1_R
11	D1_L
10	GND
9	D1_PP
8	D1_Y
7	D1_PB
6	AV_ACTL
5	F_REL
4	SCA_OUT
3	GND
2	SCA_IN
1	GND

SC2002	WA03WJ
1	GND
2	R_IN
3	L_IN
4	AUDIO_OUT_R
5	AUDIO_OUT_L
6	L_MUTE
7	SOUFF
8	SPMUTE
9	V1_R
10	V1_L
11	GND
12	V1_Y
13	S_SW
14	V1_SW
15	V1_SG
16	OPCLED
17	OPC
18	THMRLED
19	POWERLED
20	IREM
21	M_SW
22	GND
23	GND

SC2003	WA03WJ
15	DFL2
14	PC13V
13	DFL1
12	PC3V
11	L_ERR
10	GND
9	BS_3VA
8	PC33V
7	POWER_FAIL
6	SHORT_DET
5	POW
4	PC3V
3	GND
2	12V/R_BV
1	PC-18V

TO MAIN	MPWEL
12	NC
14	NC
13	GND
12	DFL_R
11	DFL_L
10	GND
9	DFL_PP
8	DFL_Y
7	DFL_PB
6	AV_ACTL
5	F_REL
4	NC
3	GND
2	NC
1	GND

TO MAIN	MPWEL
GND	1
R_IN	2
L_IN	3
AUDIO_OUT_R	4
AUDIO_OUT_L	5
L_MUTE	6
SOUFF	7
SPMUTE	8
V1_R	9
V1_L	10
GND	11
V1_Y	12
S_SW	13
V1_SW	14
V1_SG	15
OPCLED	16
OPC	17
THMRLED	18
POWERLED	19
IREM	20
M_SW	21
GND	22
GND	23

TO MAIN	MPWEL
15	DFL2
14	PC13V
13	DFL1
12	PC3V
11	L_ERR
10	GND
9	BS_3VA
8	PC33V
7	POWER_FAIL
6	SHORT_DET
5	POW
4	PC3V
3	GND
2	12V/R_BV
1	PC-18V

POWER/AV
DUNTKD035WEF2
(QPWBXD035WJN3)

1 2 3 4 5 6 7 8 9 10

ATE
1WJQZ)

LCD GRADUATION
(QCNW-D229WJQZ)

4	GSP1	16
3	VSH3_3V	17
2	VSH3_3V	18
1	NC	19
	GND	20
	GND	21
	GND	22
	GND	23
	GND	24
	GND	25
	GND	26
	GND	27
	GND	28
	GND	29
	GND	30

IMAG09U	SC2003
CSCOM	1
CSCOM	2
VCOM	3
VCOM	4
GND	5
GND	6
VLS	7
VLS	8
V255	9
V235	10
V176	11
V112	12
V64	13
VZ	14
V21	15
V17	16
V7	17
V0	18
VSH2	19
VSH2	20

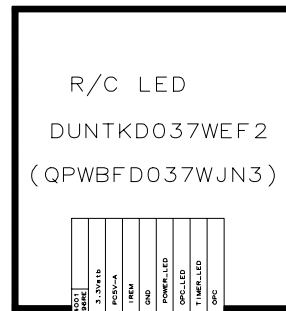
NO596RE	SC2003
3.3V+1V	5
POWER	4
KEY1	3
KEY2	2
GND	1

(QCNW-D362WJQZ)

SC4201	NO596RE
3.3V	1
POWER	2
KEY1	3
KEY2	4
GND	5

OPERATION
DUNTKD036WEF2
(QPWFDO36WJN3)

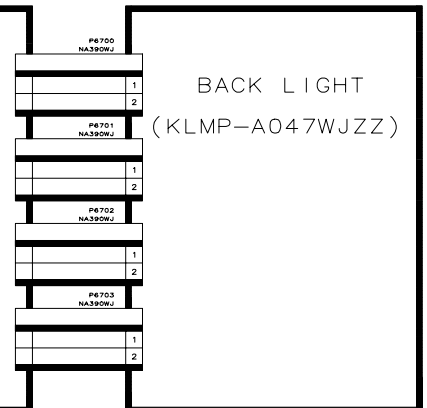
4	PC5V
3	GND
2	12V/6.8V
1	PC-18V



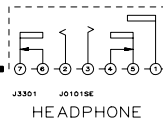
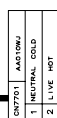
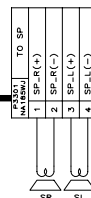
(QCNW-D519WJQZ)

4	PC5V
3	GND
2	12V/6.8V
1	PC-18V

TO LED	SC0303	NO596RE
VSH3_3V	1	
PC5V	2	
IREM	3	
GND	4	
POWER-LED	5	
OPC-LED	6	
TIMER-LED	7	
OPC	8	



2
13)



10	11	12	13	14	15	16	17	18	19
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DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. The voltages at test points are measured on the stable supply voltage of AC 120V. Signals are fed by a color bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω" is omitted.
(K=kΩ=1000 Ω, M=MΩ).
2. All resistors are ± 5%, unless otherwise noted.
(K= ± 10%, F= ± 1%, D= ± 0.5%)
3. All resistors are 1/16W, unless otherwise noted.

CAPACITOR

1. All capacitors are μF, unless otherwise noted.
(P=pF=μμF).
2. All capacitors are 50V, unless otherwise noted.

CAUTION:

This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTES:

1. **DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.**
2. **SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.**

IMPORTANT SAFETY NOTICE:

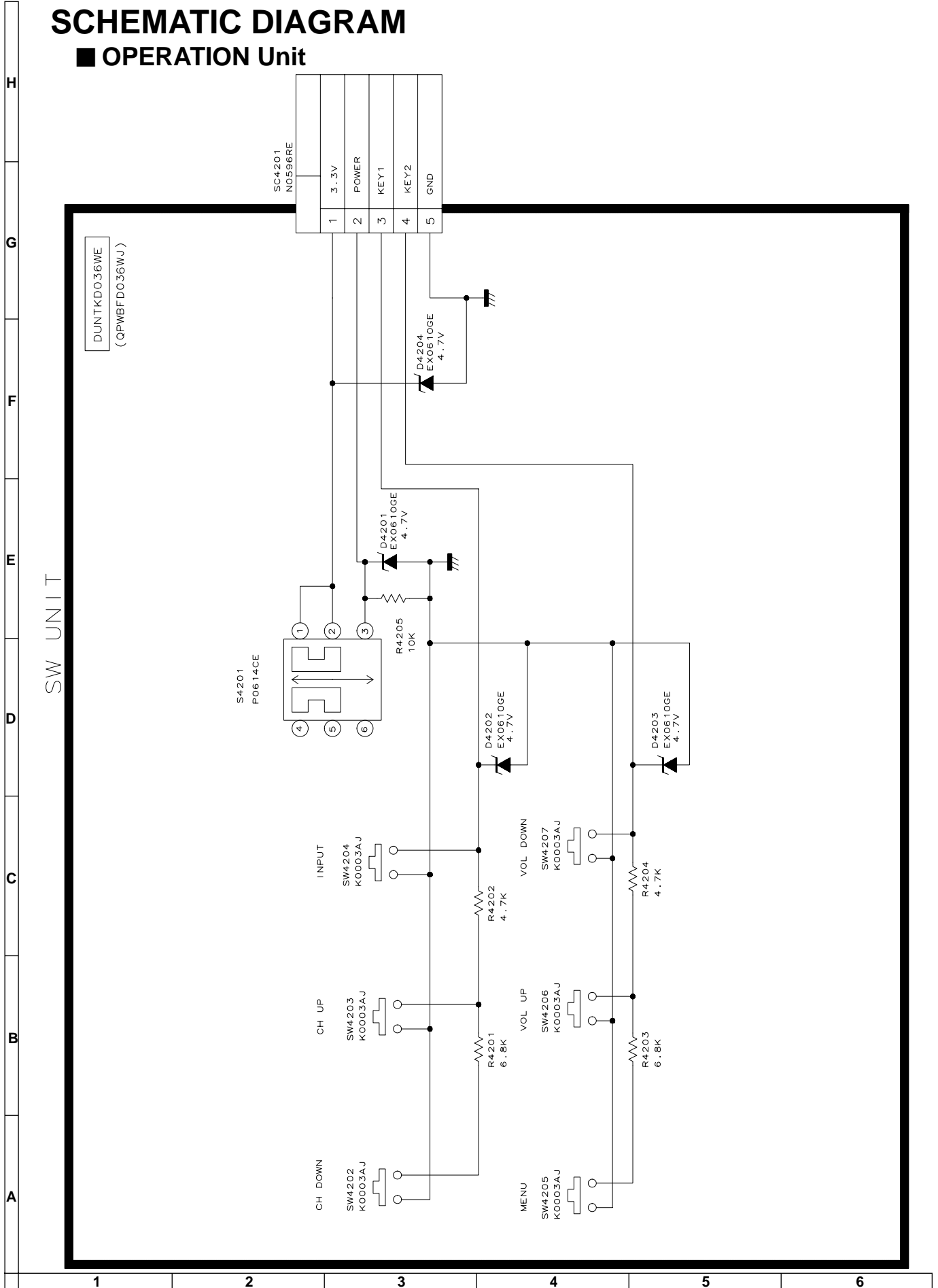
PARTS MARKED WITH "△" () ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

AVIS DE SECURITE IMPORTANT:

**LES PIECES MARQUEES "△" () SONT IMPORTANTES POUR MAINTENIR LA SECURITE DE L'APPAREIL.
NE REMPLACER CES PIECES QUE PAR DES PIECES DONT LE NUMERO EST SPECIFIE POUR MAINTENIR LA SECURITE ET PROTEGER LE BON FONCTIONNEMENT DE L'APPAREIL.**

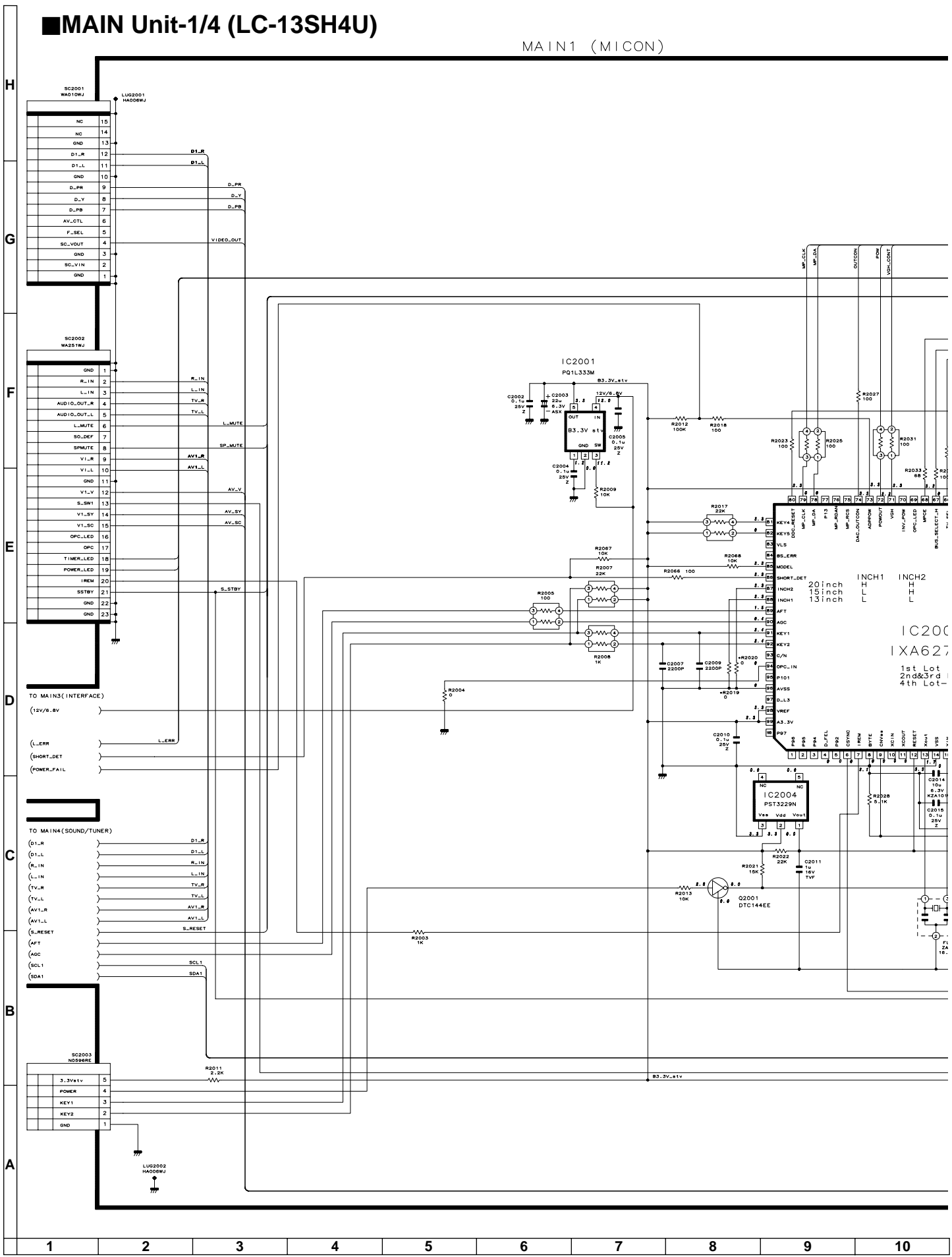
SCHEMATIC DIAGRAM

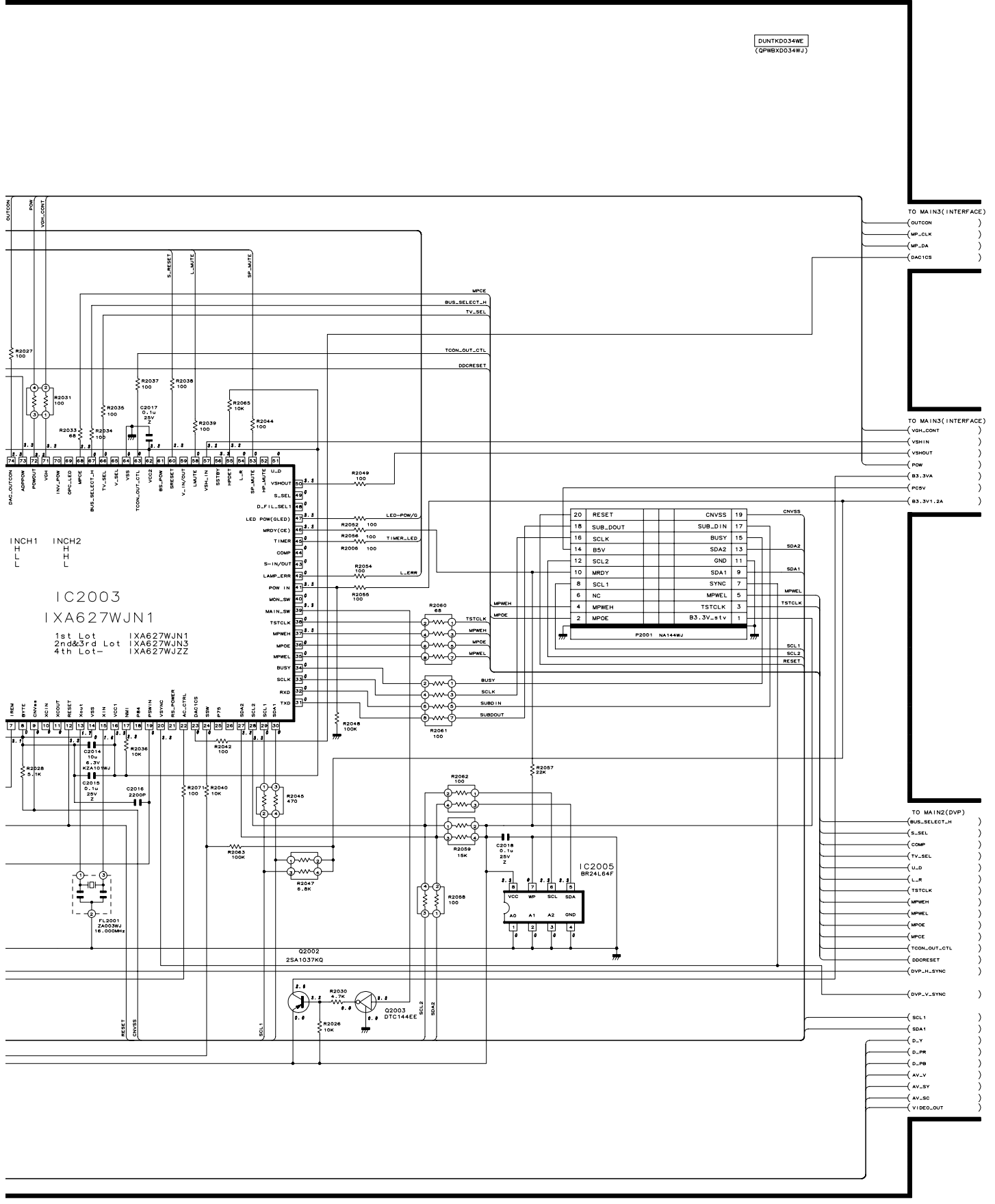
■ OPERATION Unit



MAIN Unit-1/4 (LC-13SH4U)

MAIN1 (MICON)

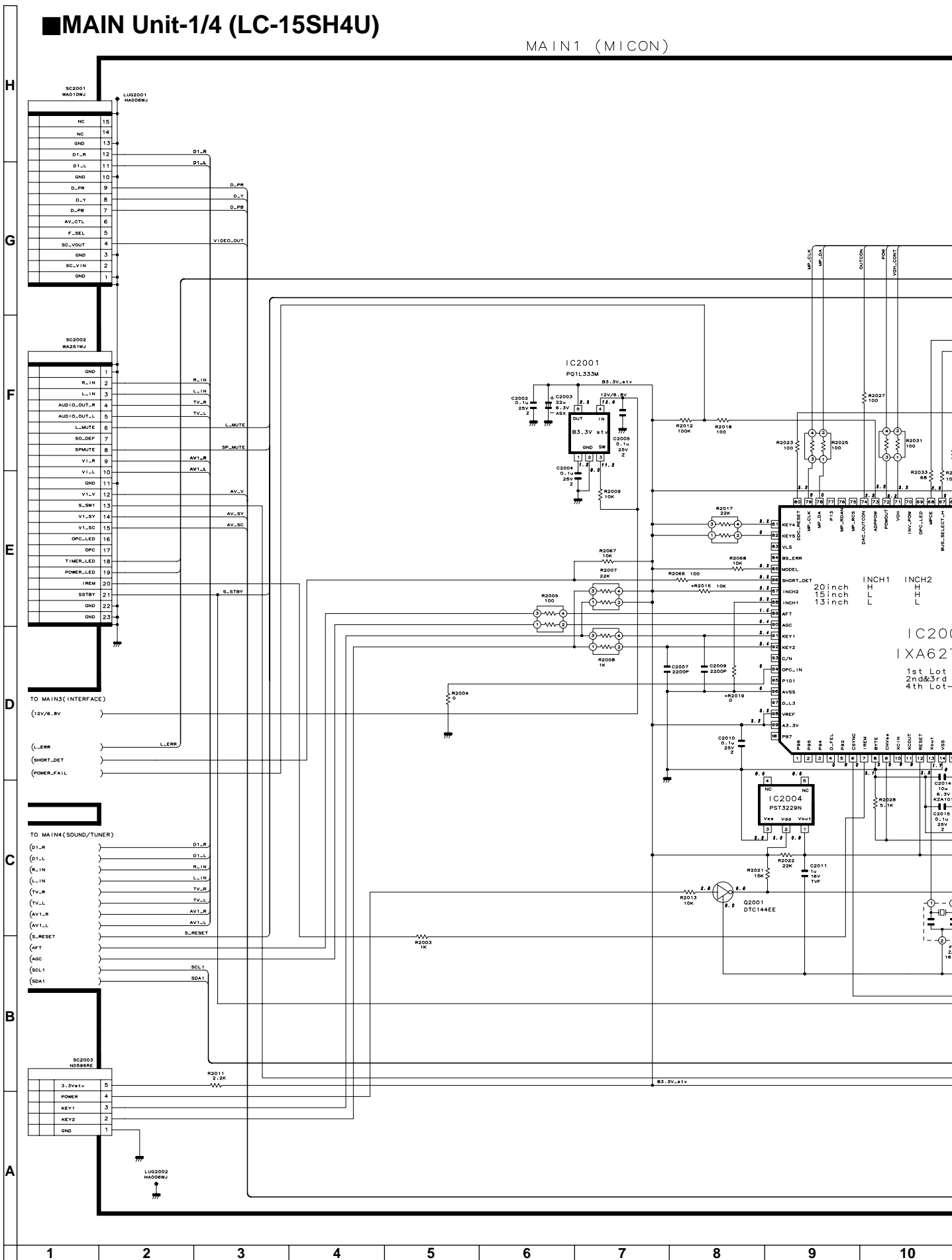


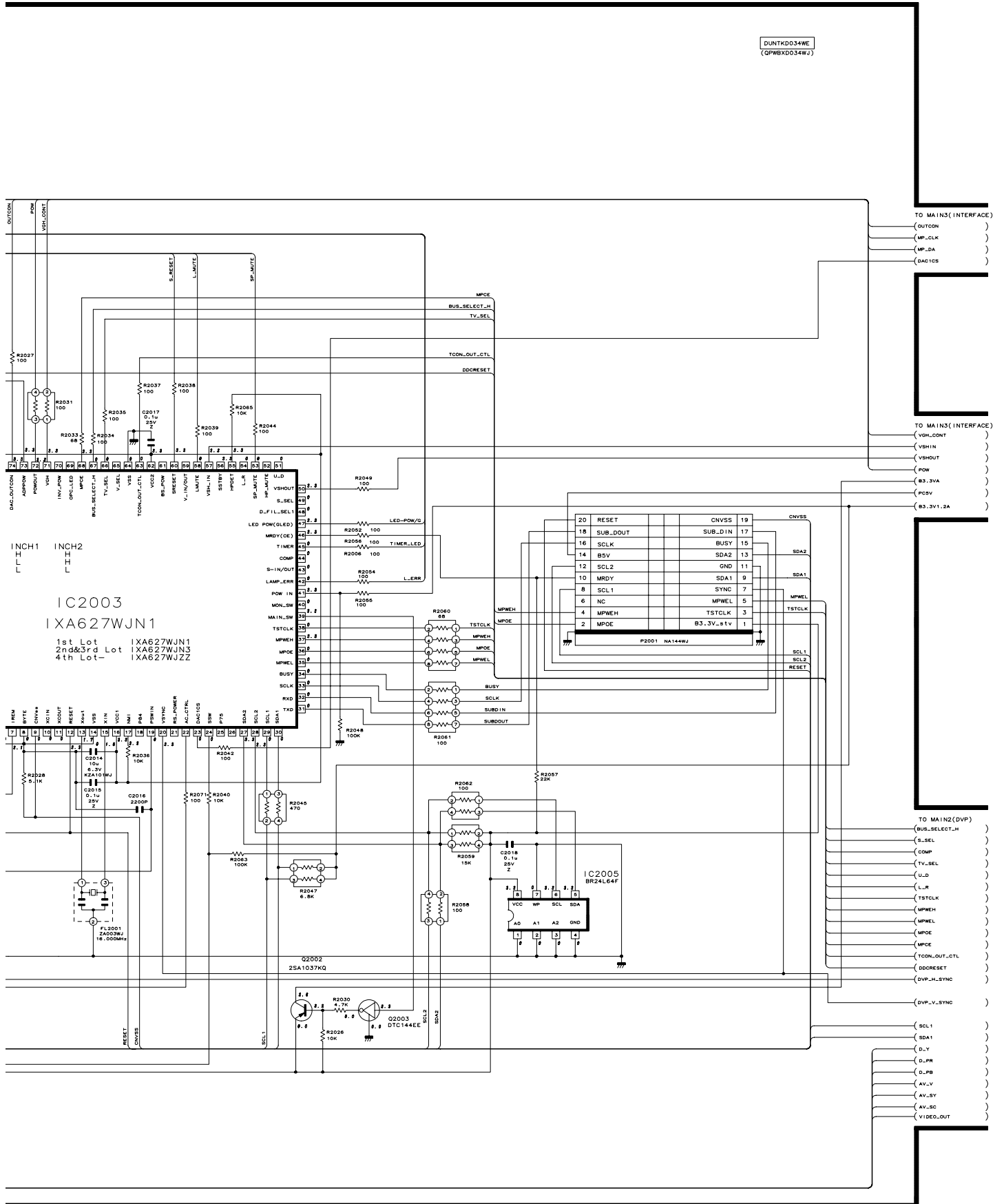


10	11	12	13	14	15	16	17	18	19
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MAIN Unit-1/4 (LC-15SH4U)

MAIN1 (MICON)

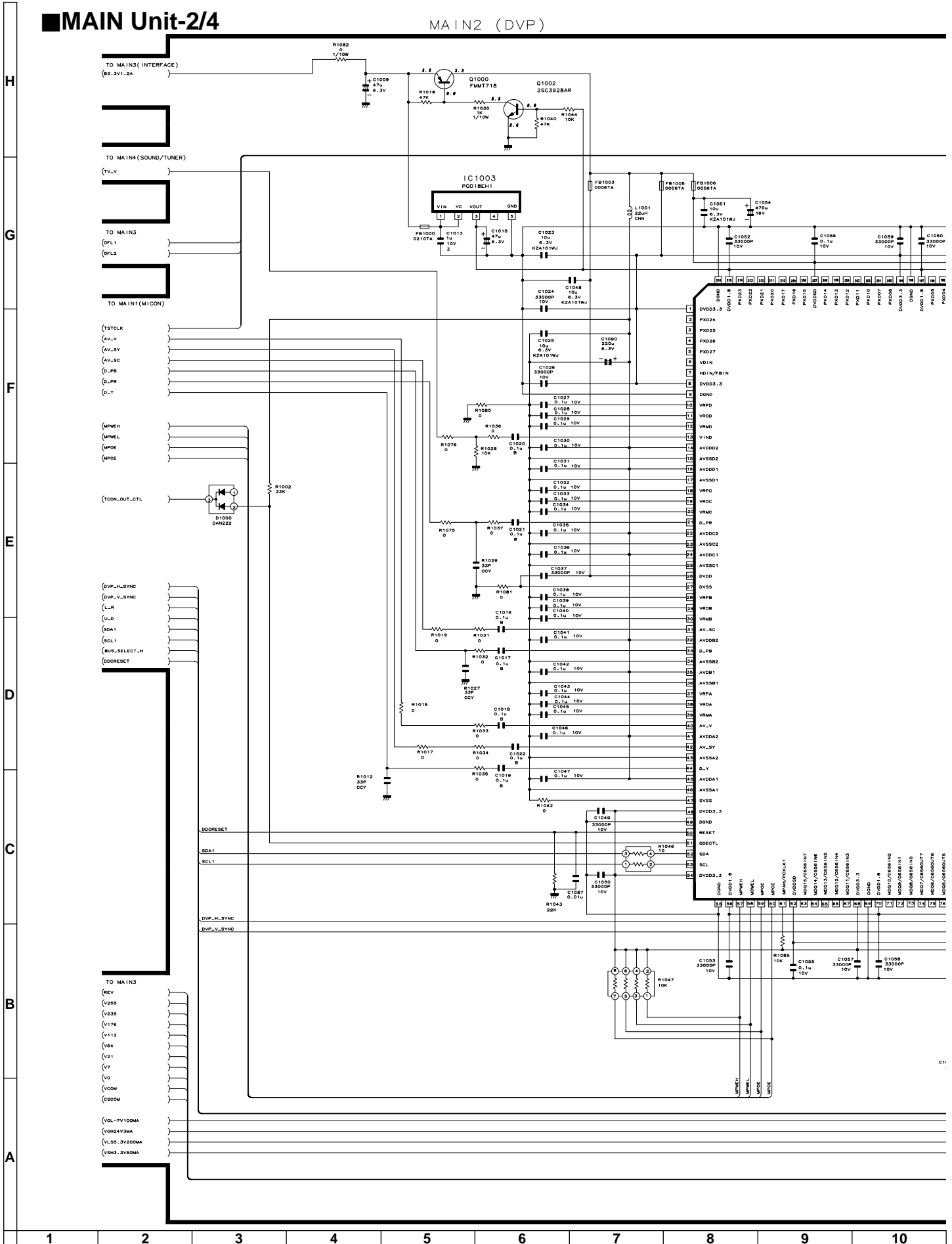


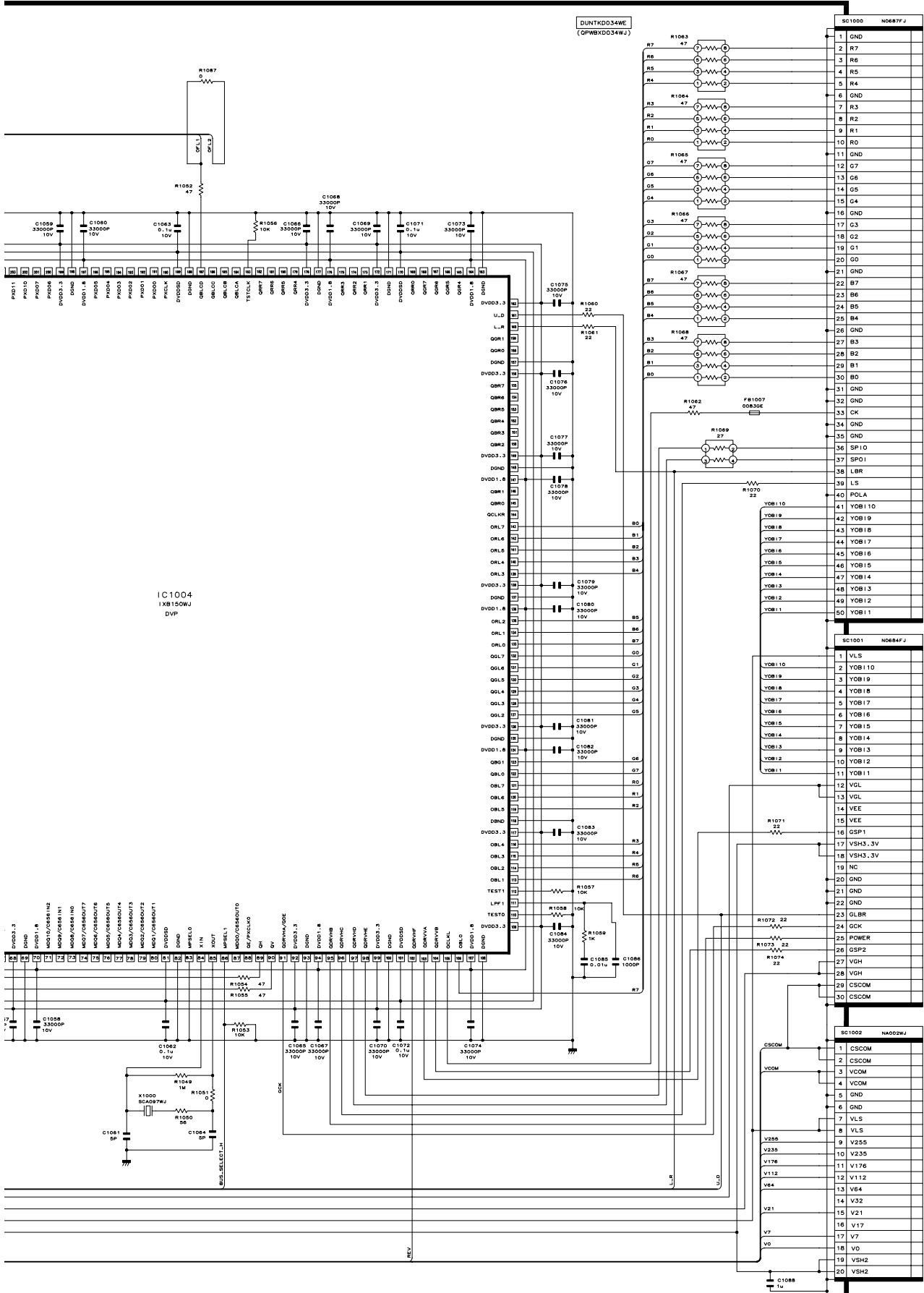


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■MAIN Unit-2/4

MAIN2 (DVP)

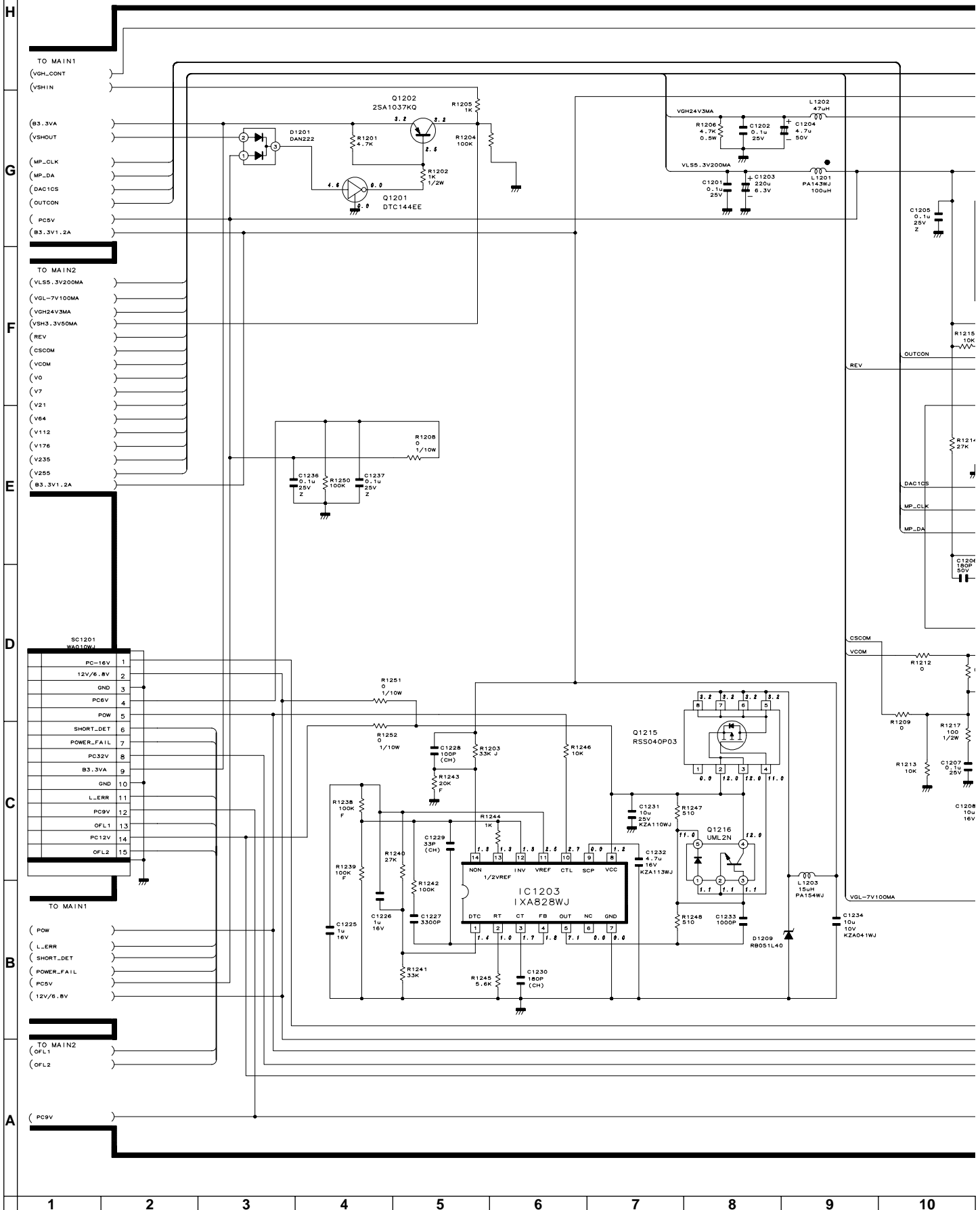


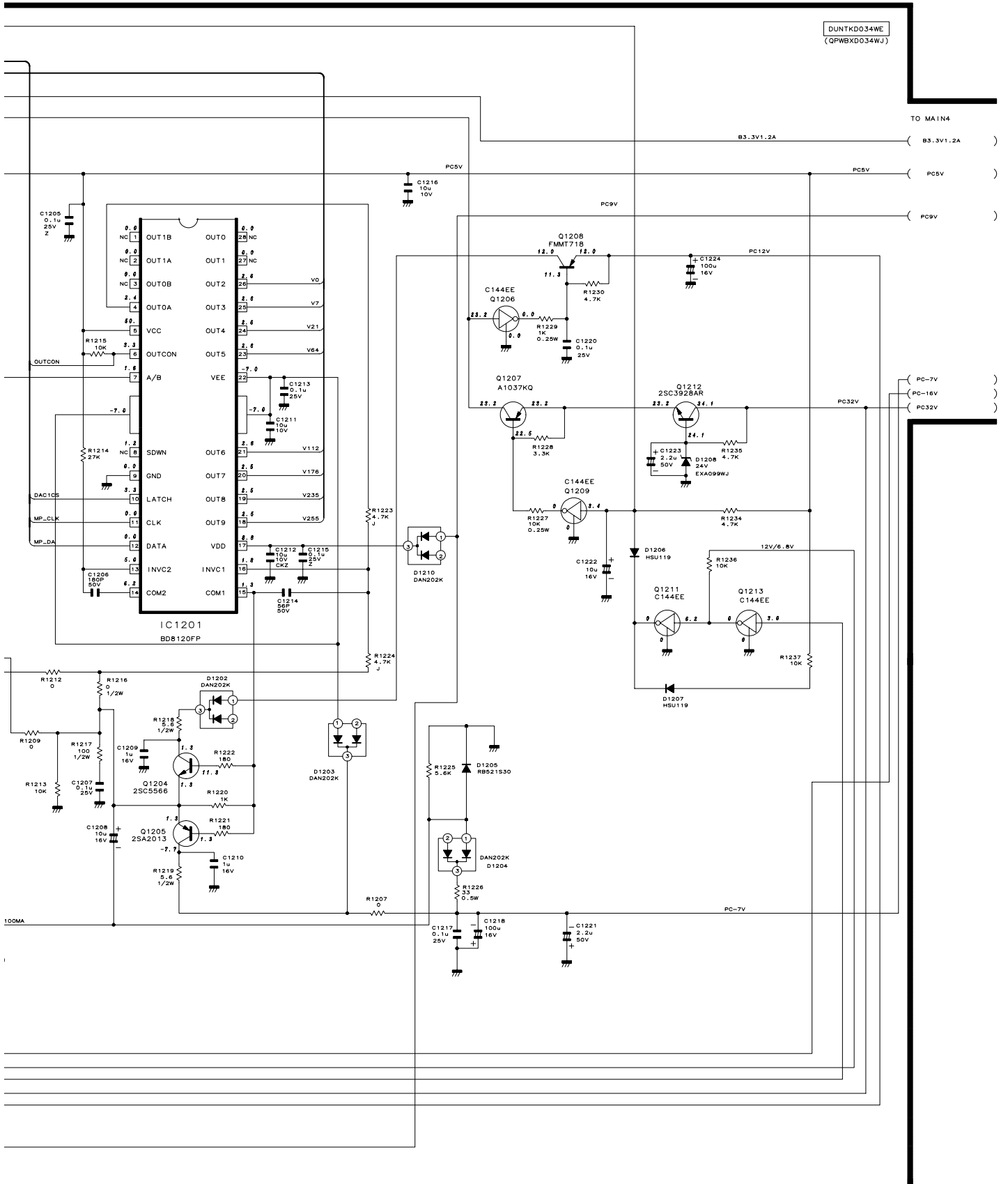


10	11	12	13	14	15	16	17	18	19
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MAIN Unit-3/4

MAIN3 (INTERFACE)





MAIN Unit-4/4

MAIN4 (SOUND/TUNER)

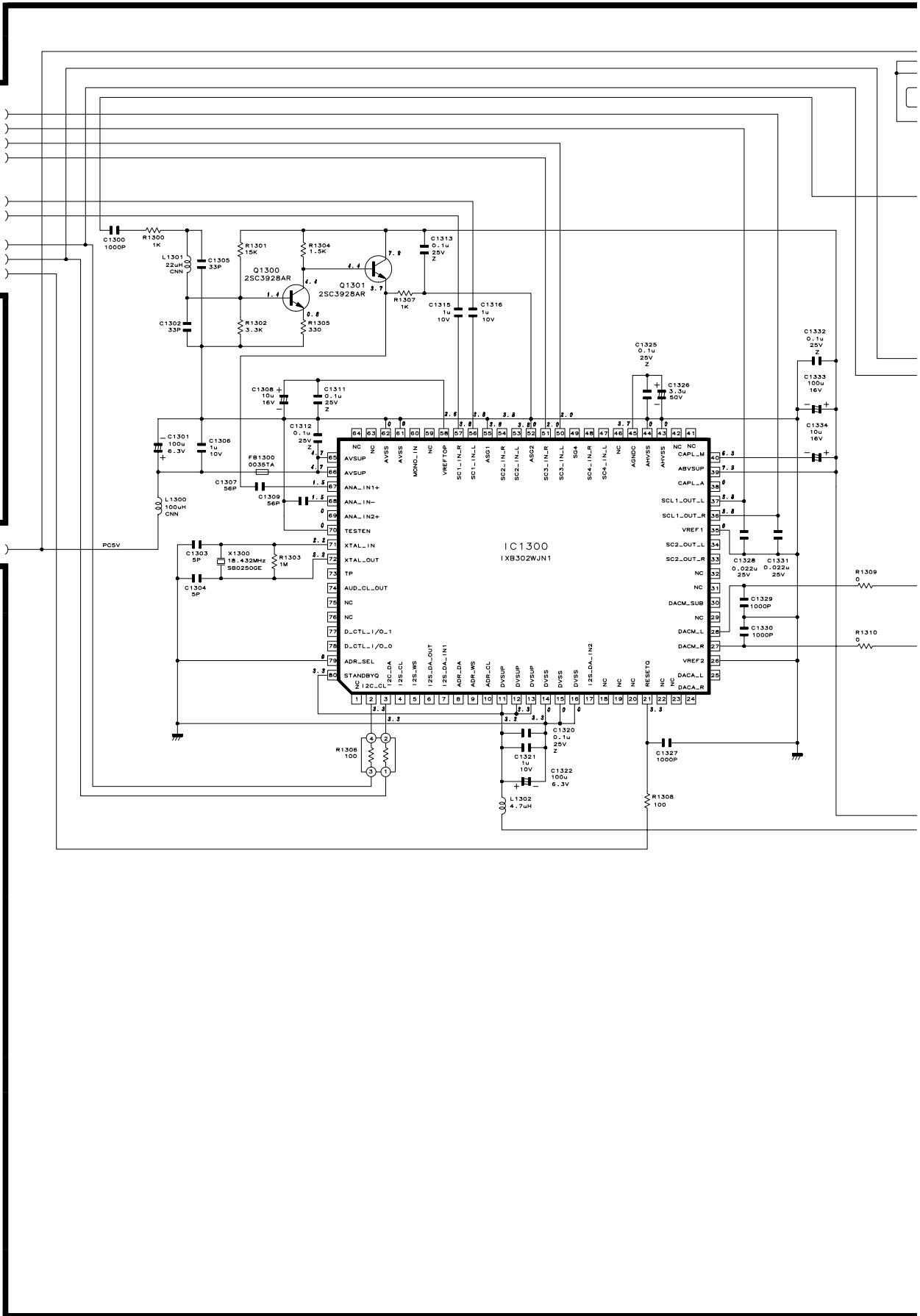
H
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TO MAIN1
(TV_R)
(TV_L)
(D1_L)
(D1_R)

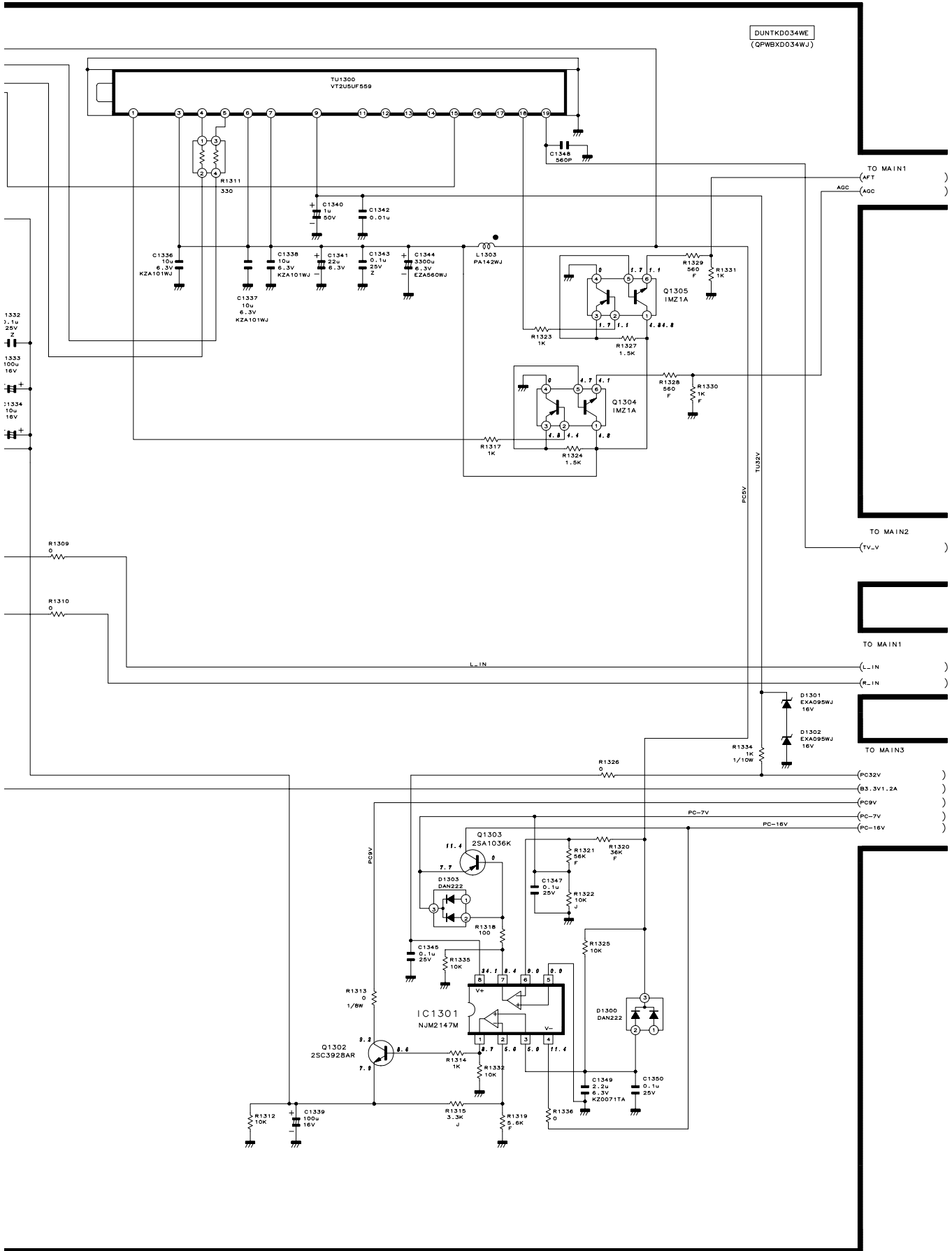
(AV1_L)
(AV1_R)

(SCL1)
(SDA1)
(S_RESET)

TO MAIN3
(PCSV)



1 2 3 4 5 6 7 8 9 10



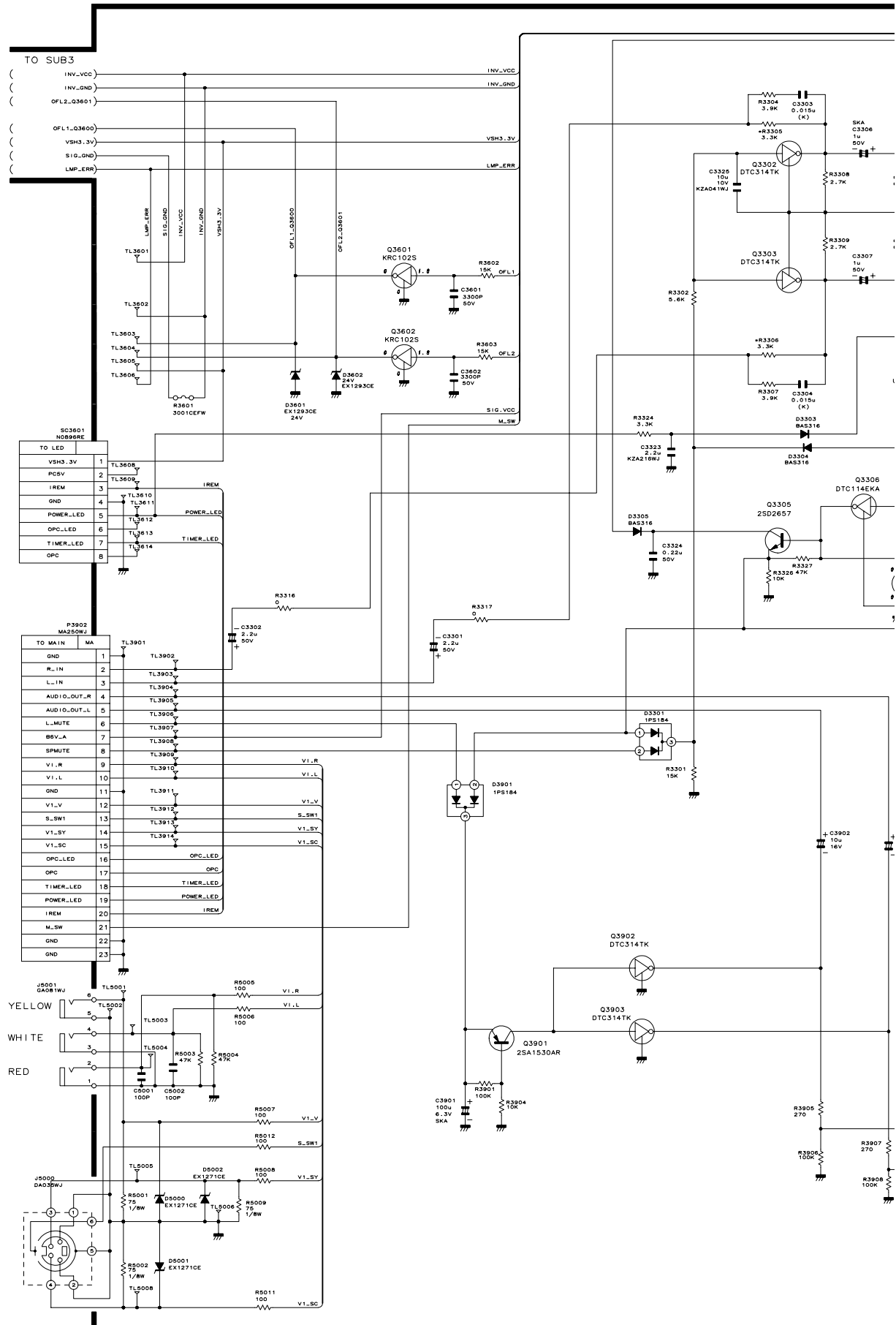
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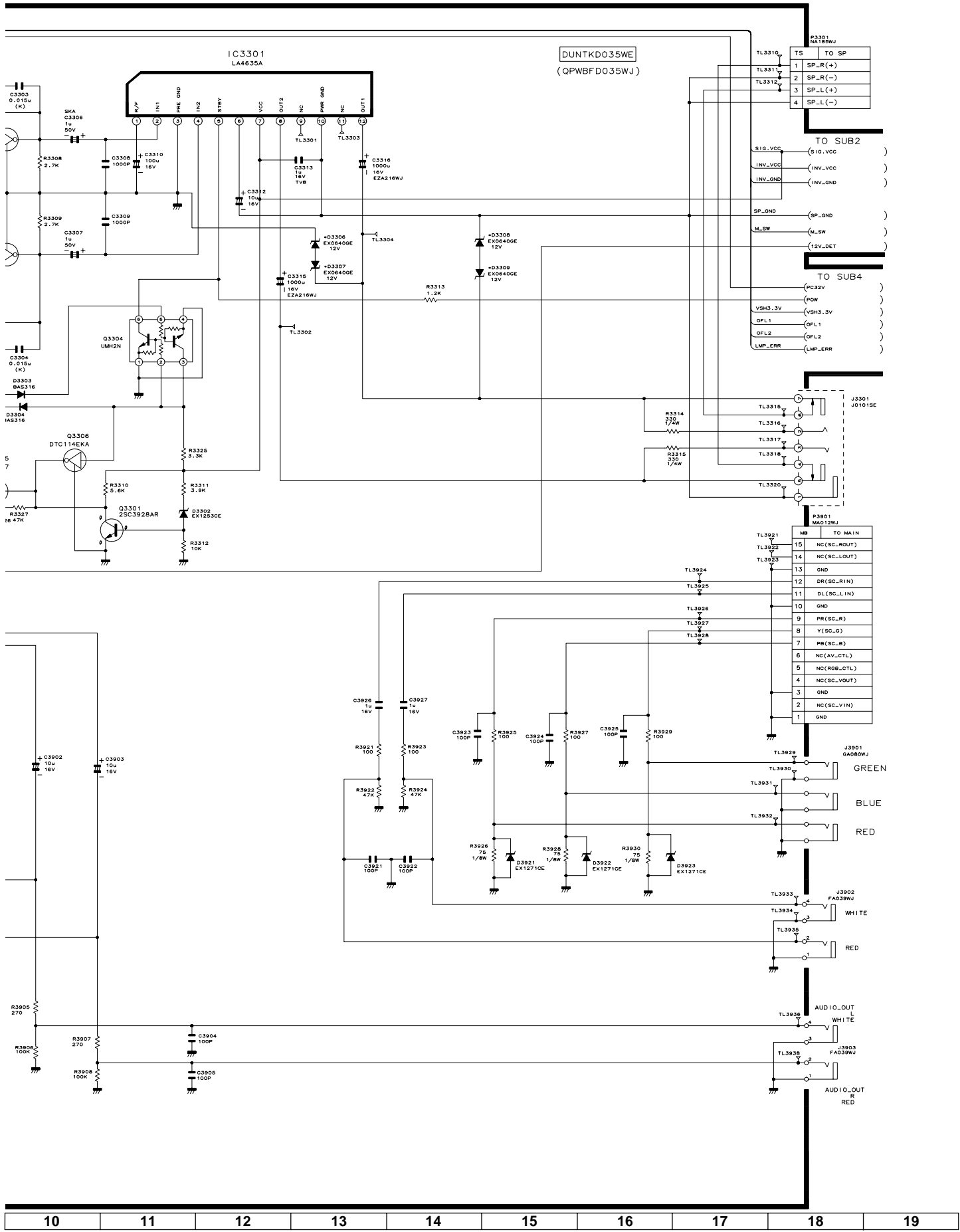
SUB Unit-1/4

SUB1 (AV_TERMINAL)

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1 2 3 4 5 6 7 8 9 10





TS	TO SP
1	SP_R(+)
2	SP_L(-)
3	SP_L(+)
4	SP_L(-)

TO SUB2	
SIG_VCC	(SIG_VCC)
INV_VCC	(INV_VCC)
INV_GND	(INV_GND)
SP_GND	(SP_GND)
M_SW	(M_SW)
12V_DET	(12V_DET)

TO SUB4	
PC32V	(PC32V)
POW	(POW)
VSH3_3V	(VSH3_3V)
OFL1	(OFL1)
OFL2	(OFL2)
LMP_ERR	(LMP_ERR)

J3301	
TL3310	
TL3311	
TL3312	
TL3313	
TL3314	
TL3315	
TL3316	
TL3317	
TL3318	
TL3319	
TL3320	

P3901	
MB	TO MAIN
15	NC(SC_R0UT)
14	NC(SC_L0UT)
13	GND
12	DR(SC_RIN)
11	DL(SC_LIN)
10	GND
9	PR(SC_R)
8	Y(SC_0)
7	PB(SC_B)
6	NC(AV_CTL)
5	NC(RGB_CTL)
4	NC(SC_V0UT)
3	GND
2	NC(SC_VIN)
1	GND

J3901	
TL3929	GREEN
TL3930	BLUE
TL3931	RED
TL3932	

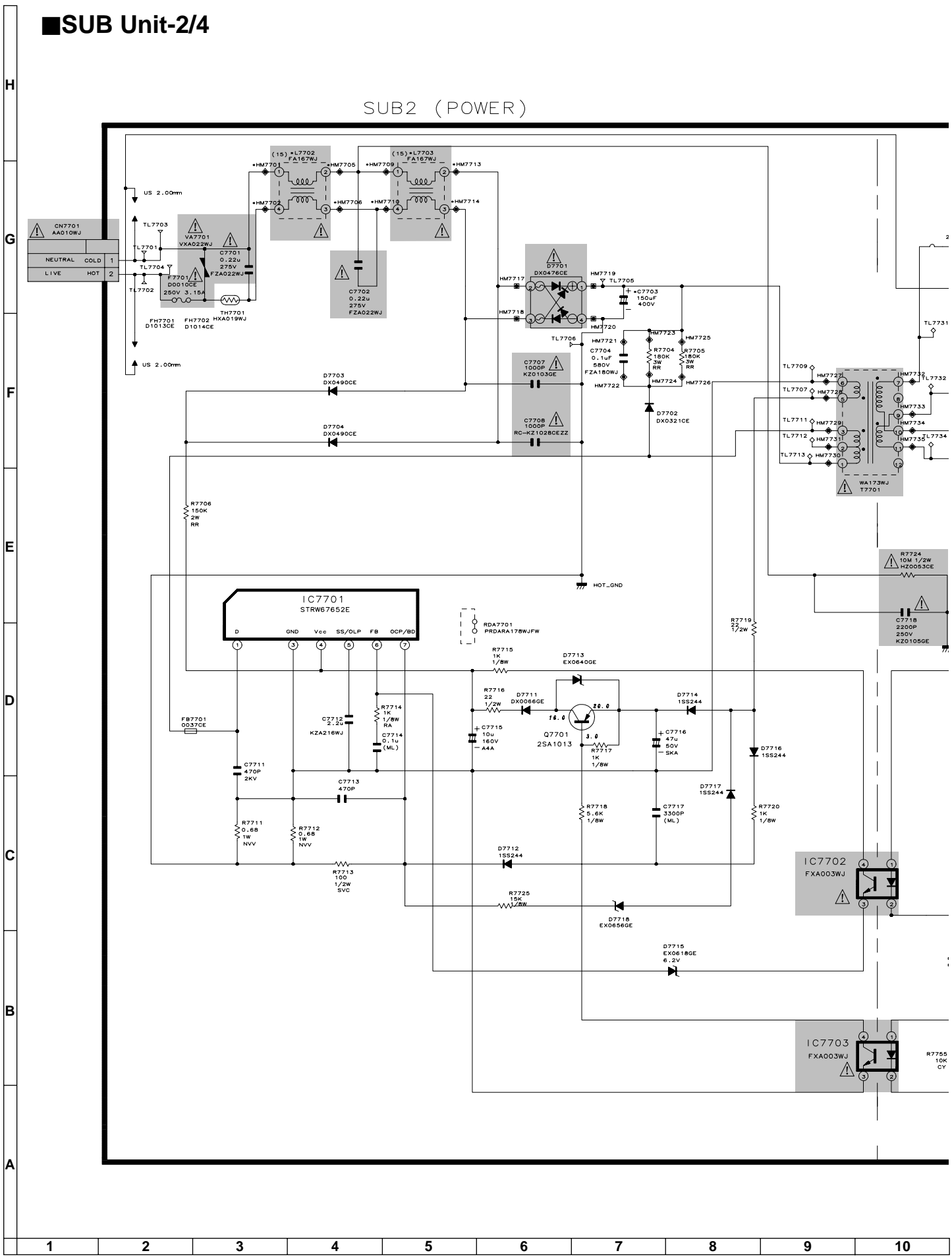
J3902	
TL3933	WHITE
TL3934	RED
TL3935	

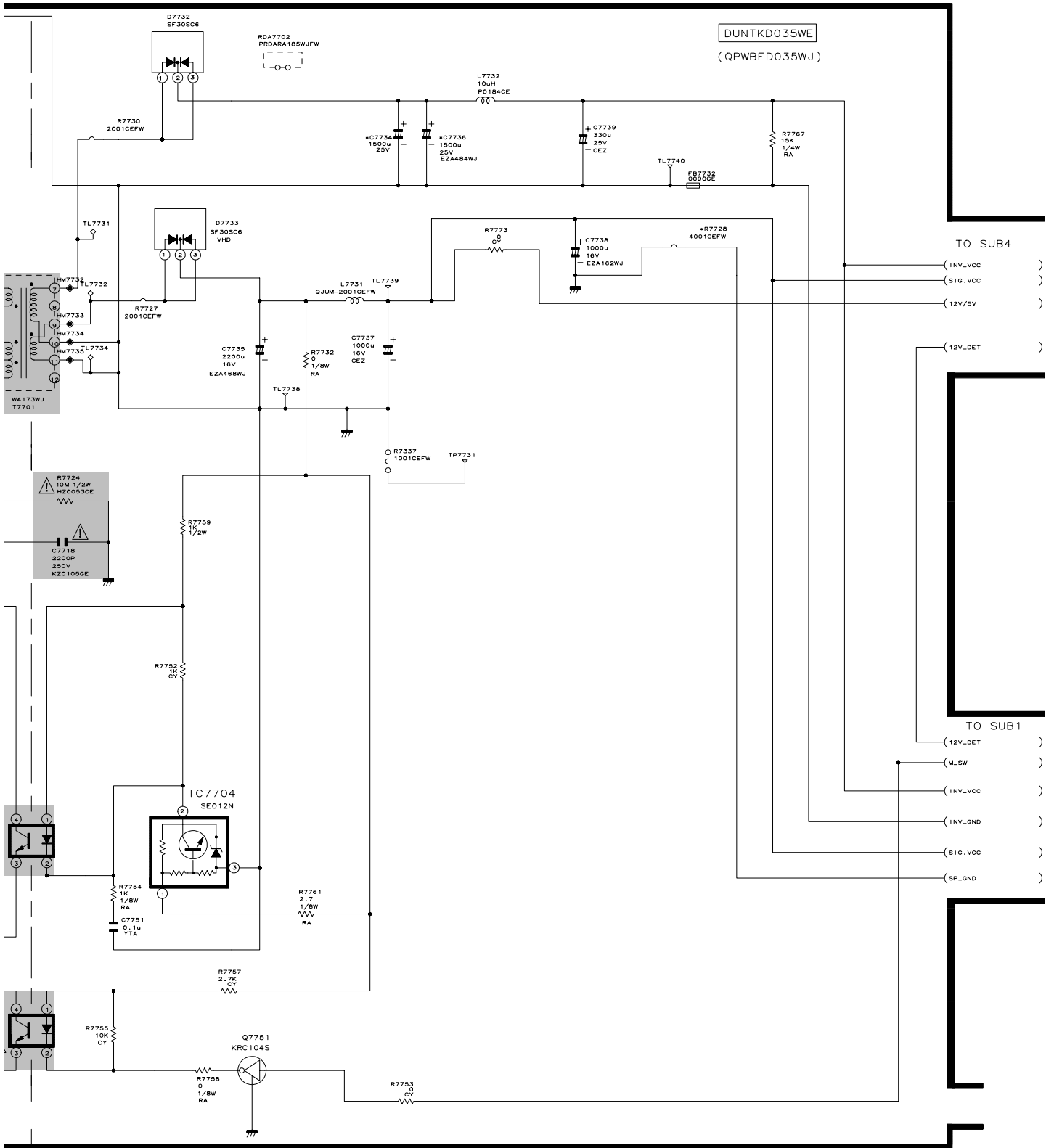
AUDIO_OUT	
TL3936	WHITE
TL3937	RED

10 11 12 13 14 15 16 17 18 19

SUB Unit-2/4

SUB2 (POWER)

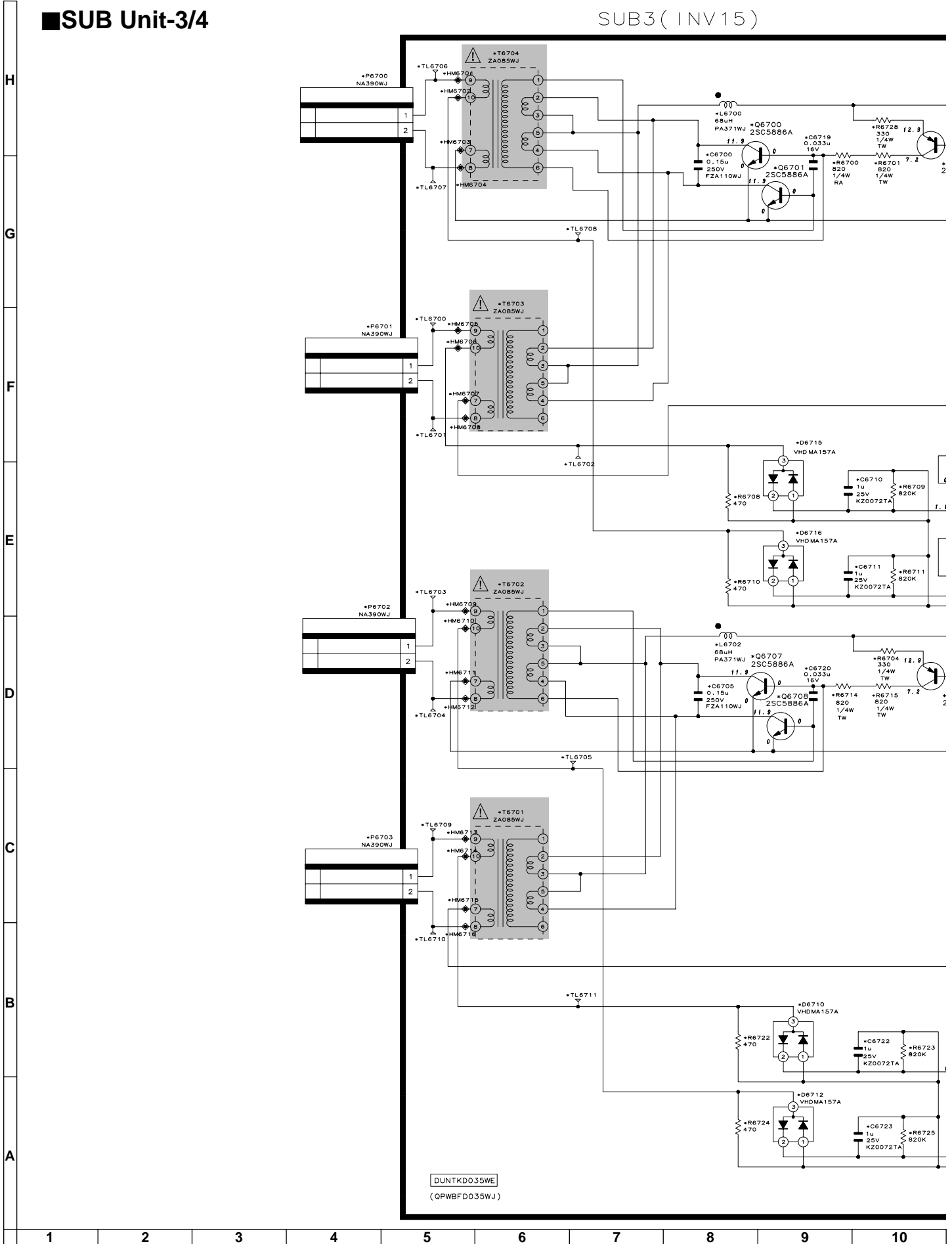


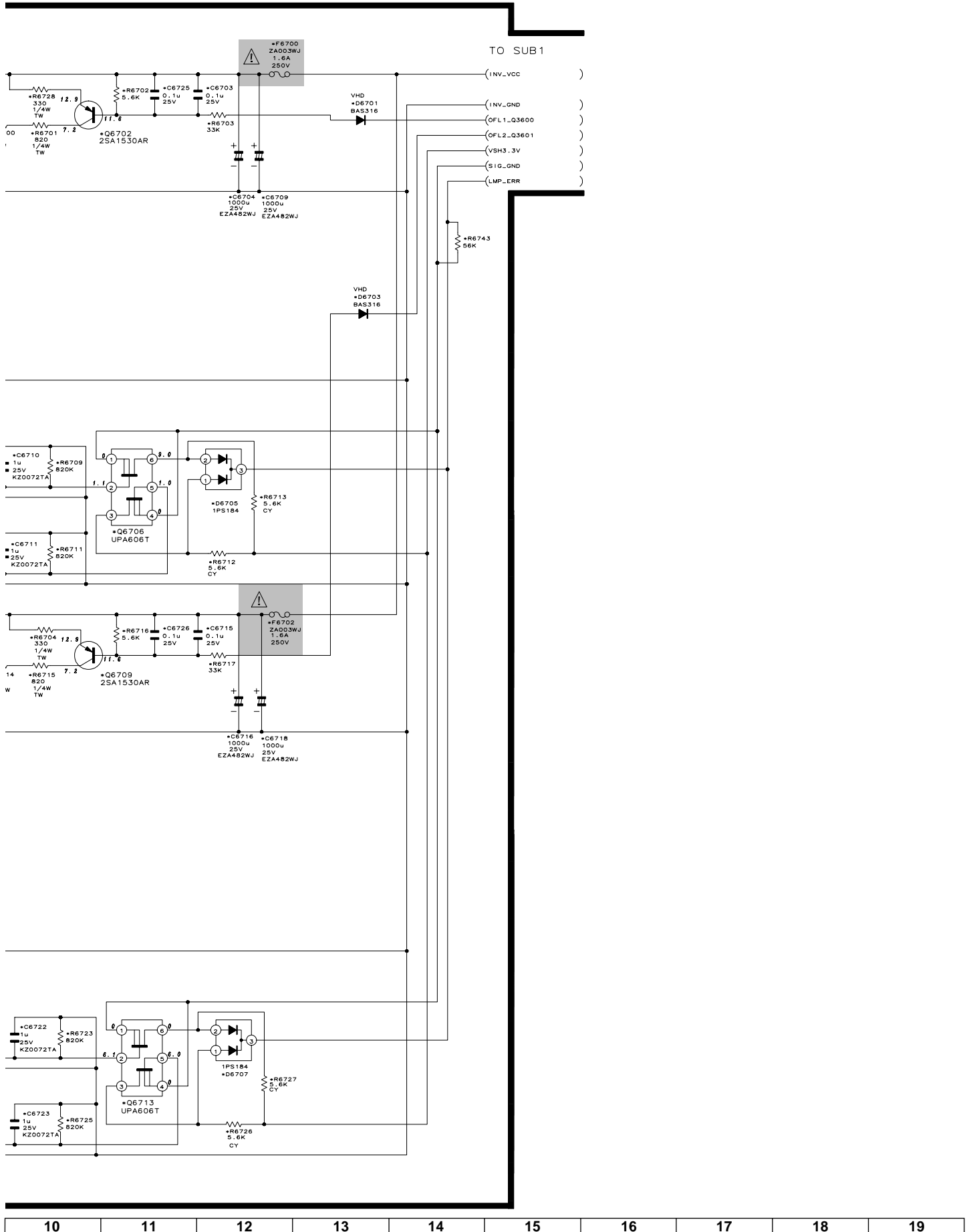


10	11	12	13	14	15	16	17	18	19
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SUB Unit-3/4

SUB3 (INV 15)

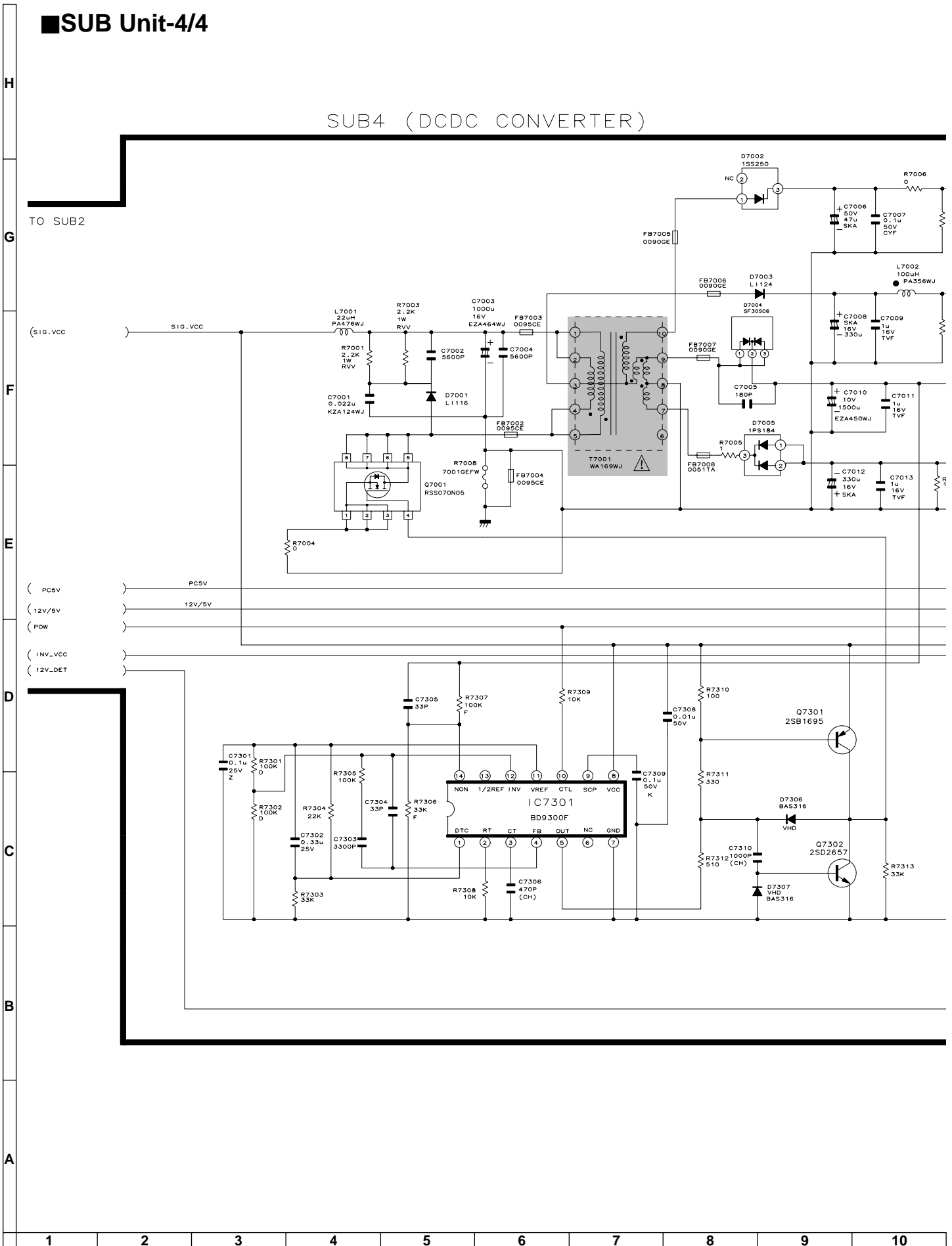


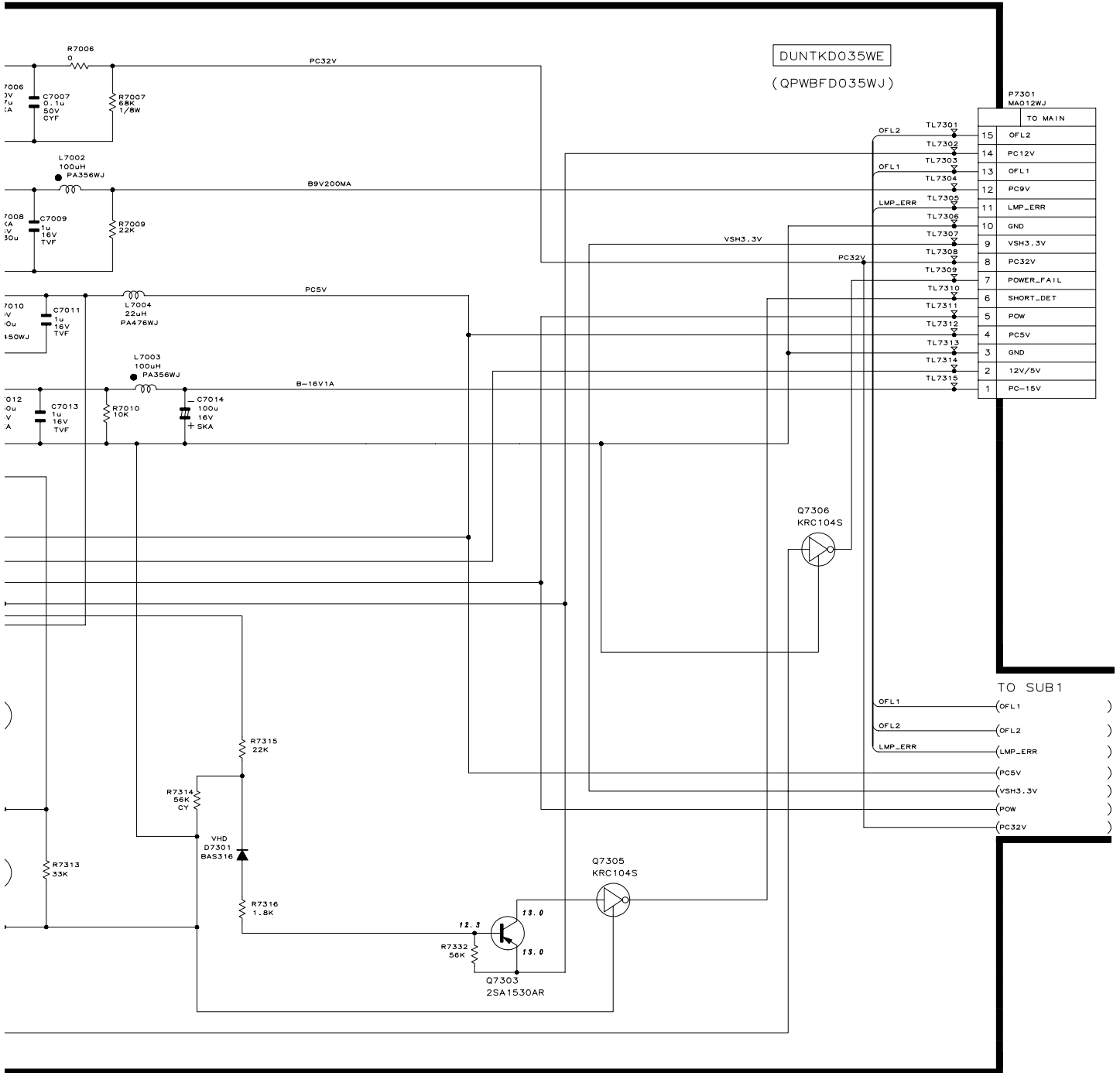


10	11	12	13	14	15	16	17	18	19
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SUB Unit-4/4

SUB4 (DCDC CONVERTER)





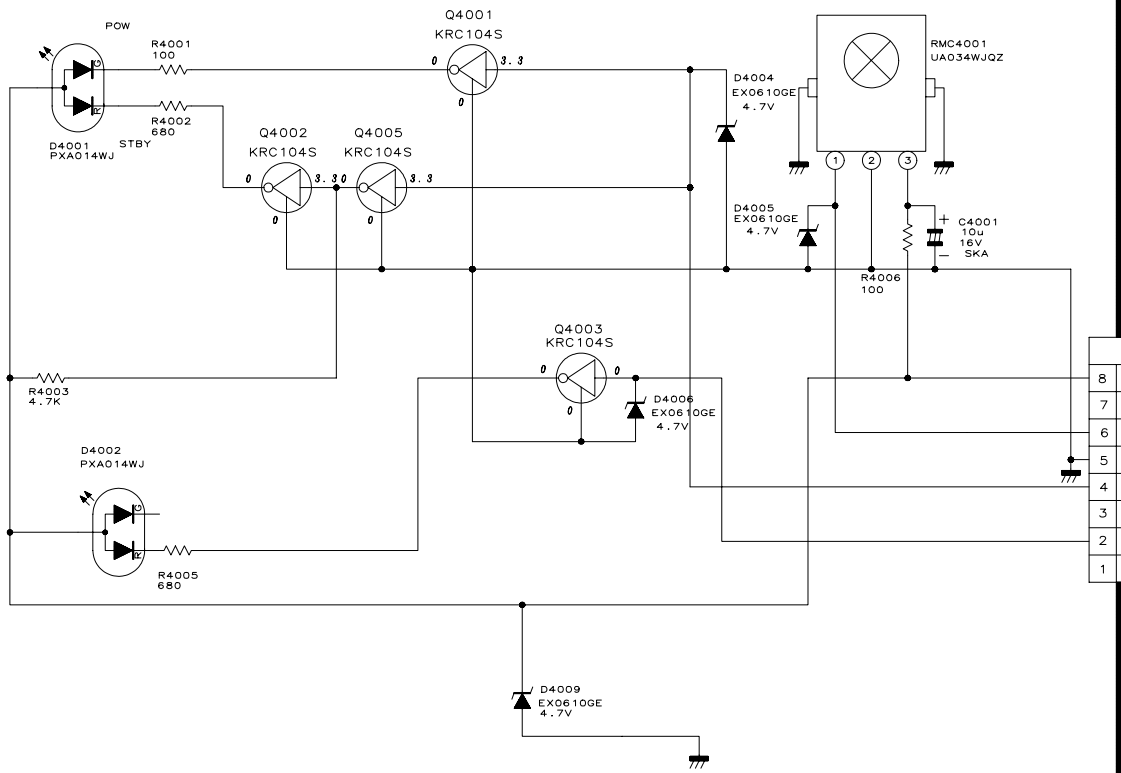
10	11	12	13	14	15	16	17	18	19
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■ R/C, LED Unit

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LED UNIT

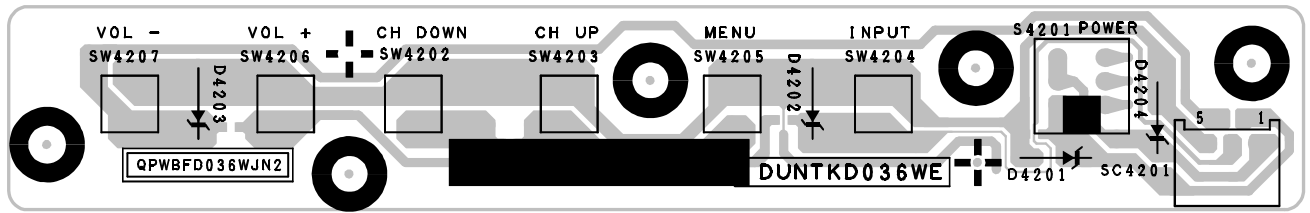
DUNTKD037WE
(QPWbfd037WJ)



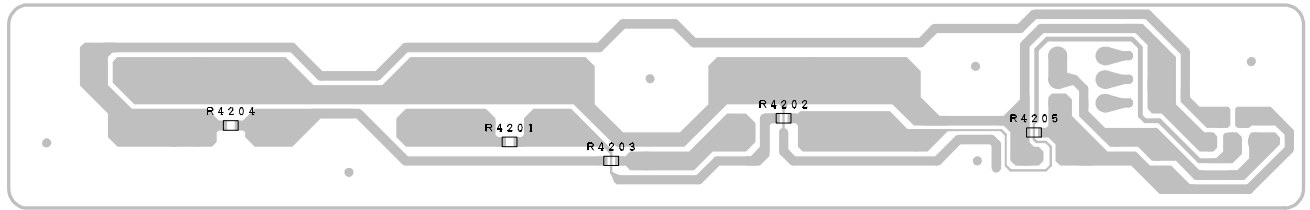
8	3.3Vstb
7	PCSV-A
6	I REM
5	GND
4	POWER_LED
3	OPC_LED
2	TIMER_LED
1	OPC

1 2 3 4 5 6

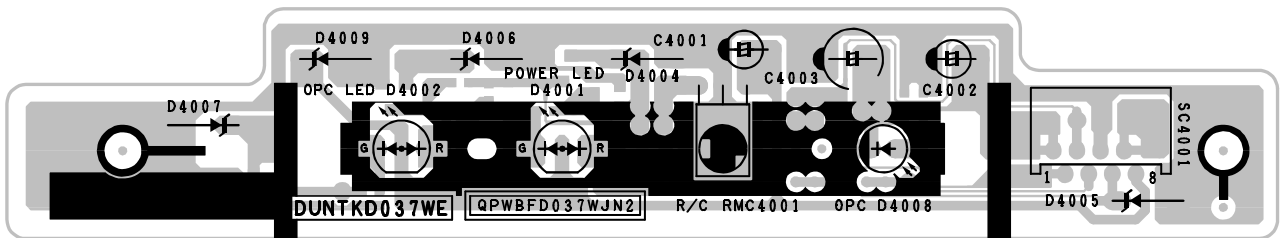
PRINTED WIRING BOARD ASSEMBLIES



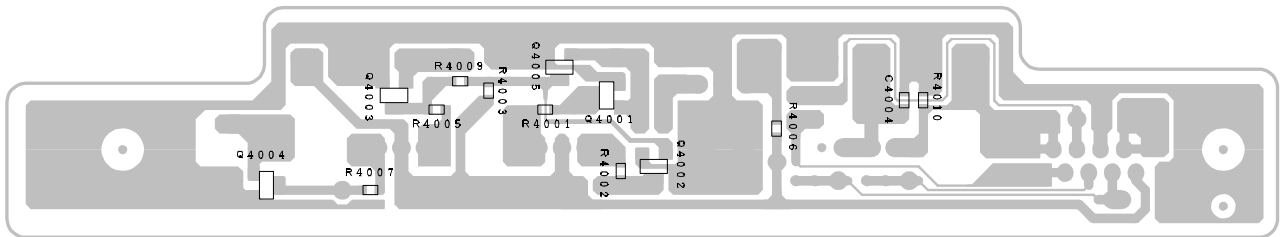
OPERATION Unit (Wiring Side)



OPERATION Unit (Chip Parts Side)



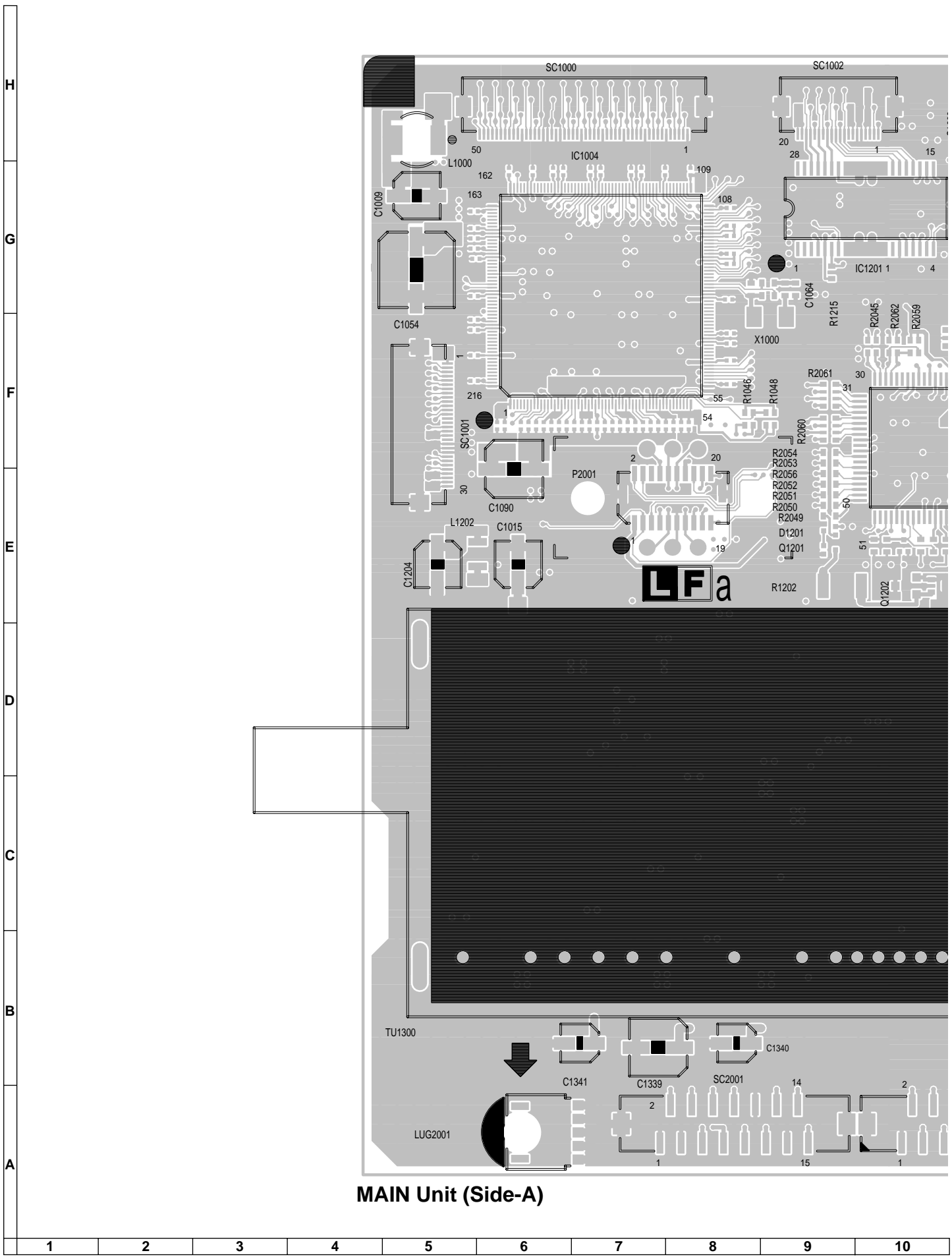
R/C, LED Unit (Wiring Side)



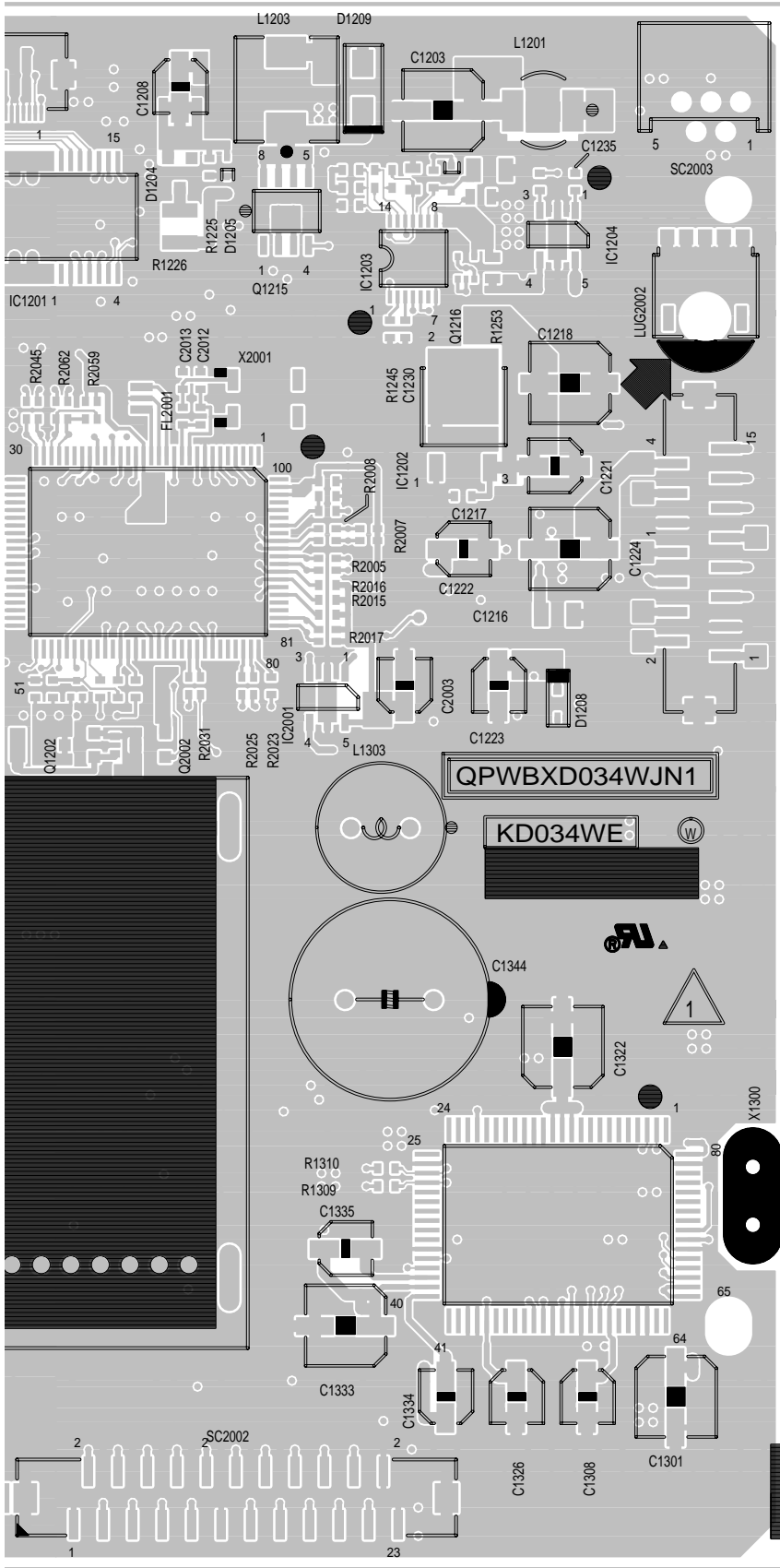
R/C, LED Unit (Chip Parts Side)

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1 2 3 4 5 6

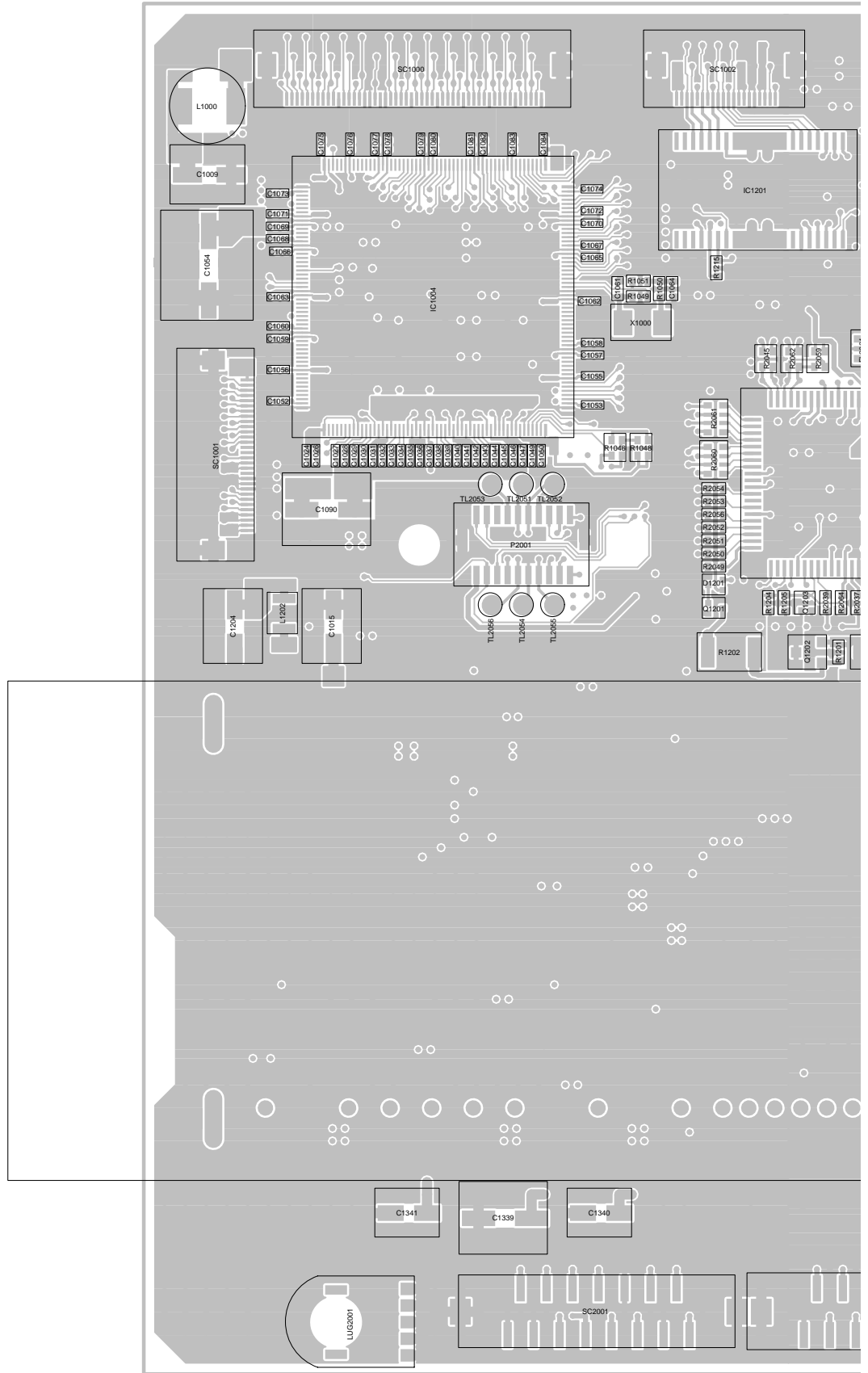


MAIN Unit (Side-A)



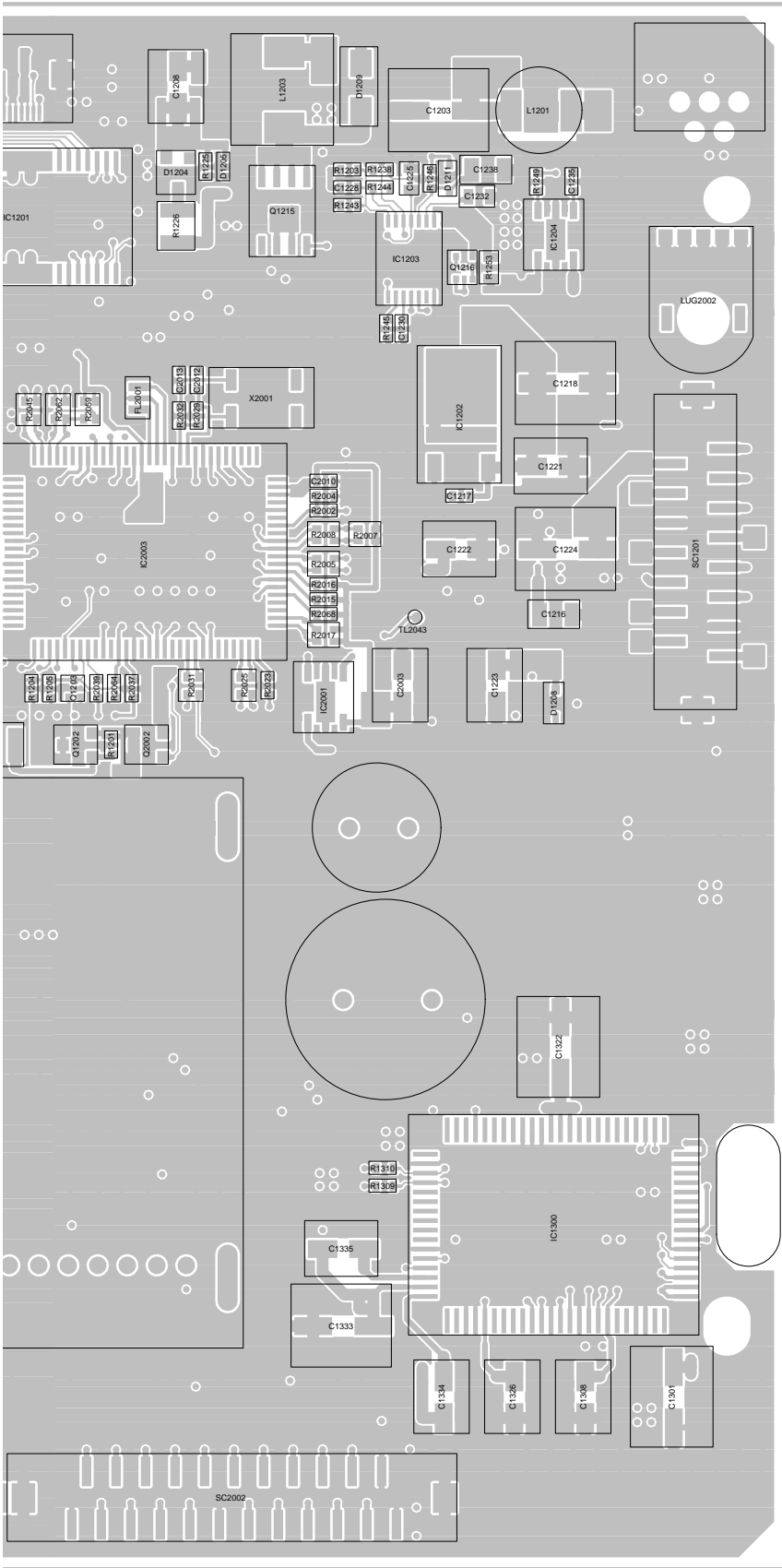
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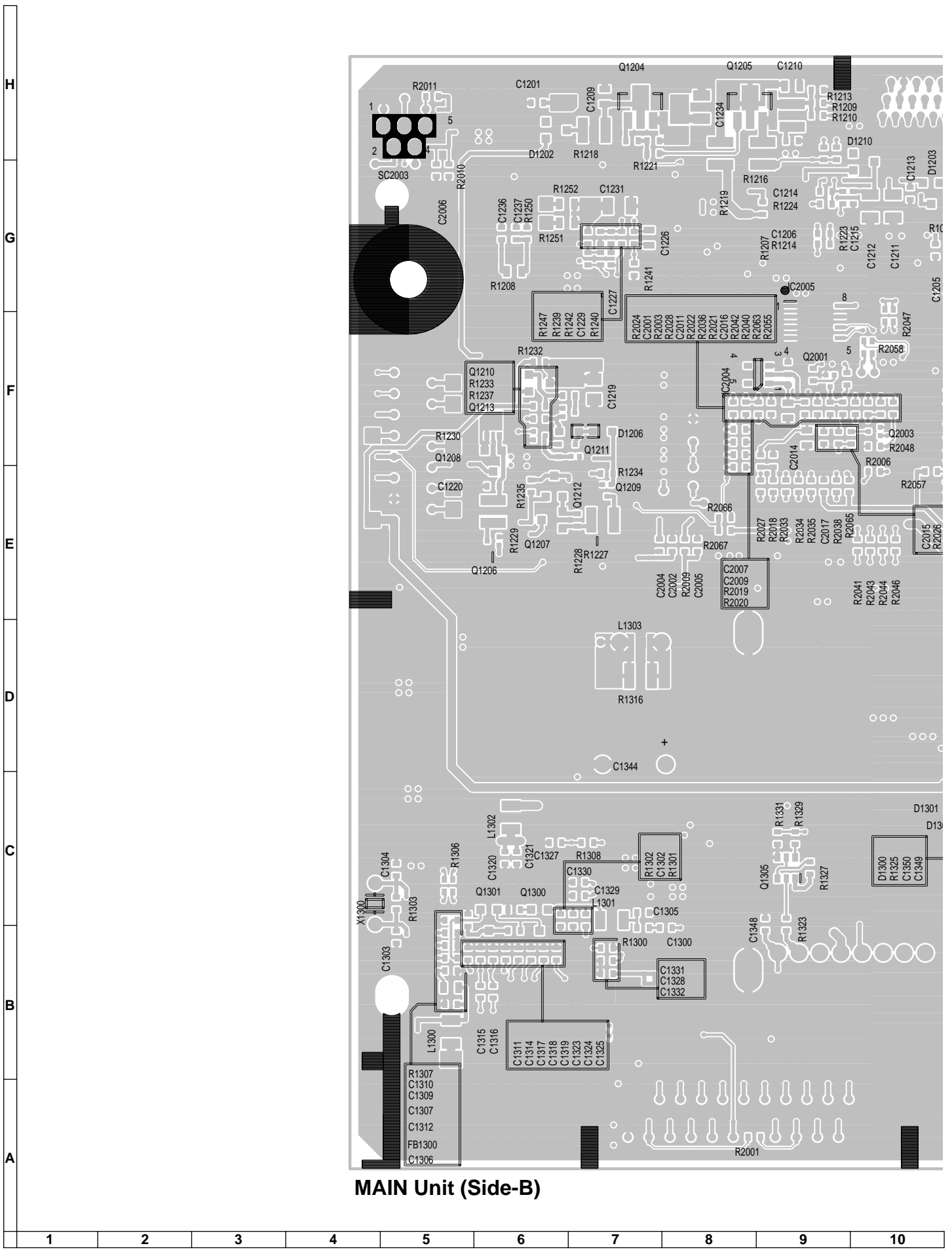


MAIN Unit (Chip Parts Side-A)

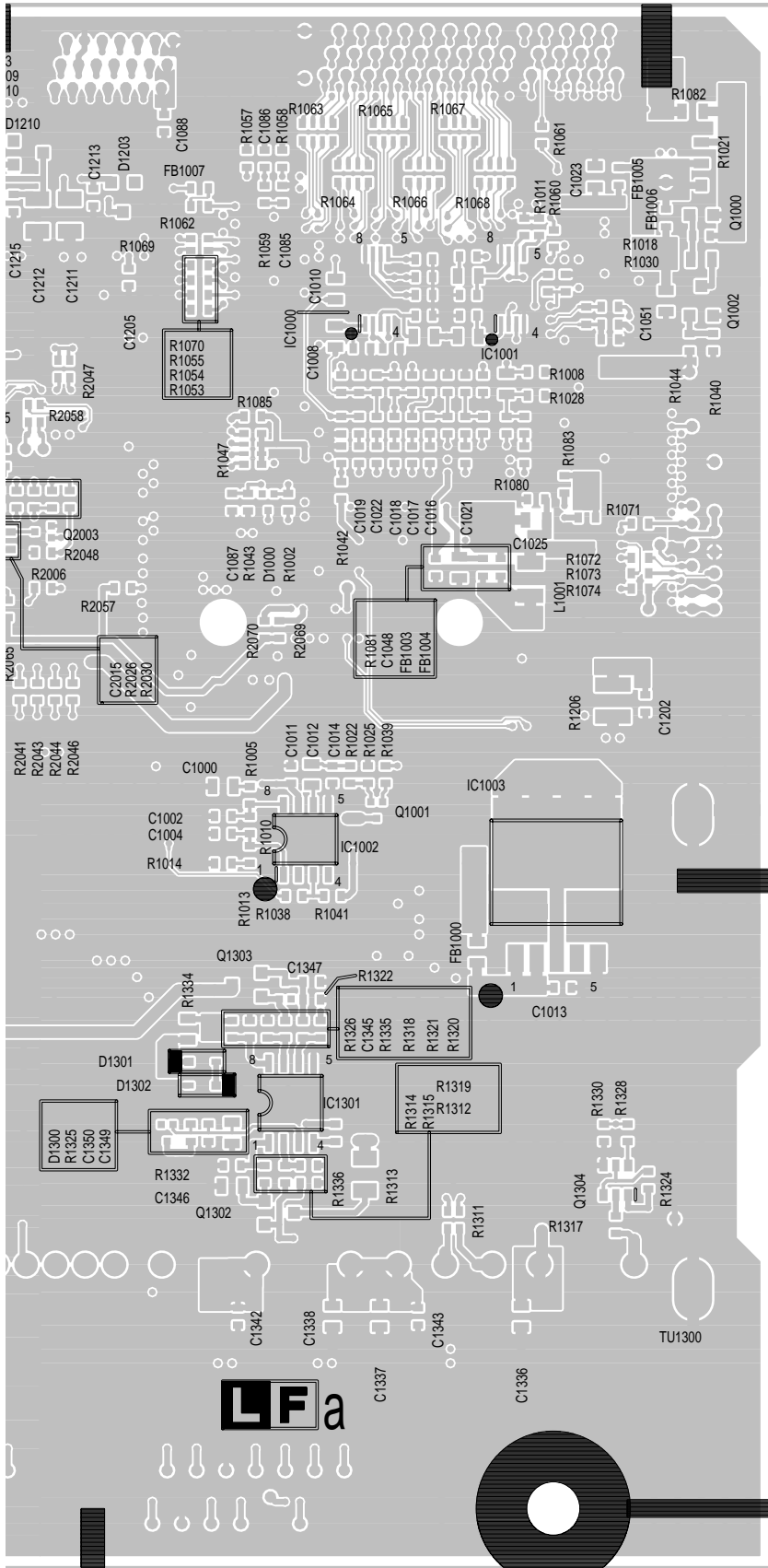
1 2 3 4 5 6 7 8 9 10



10	11	12	13	14	15	16	17	18	19
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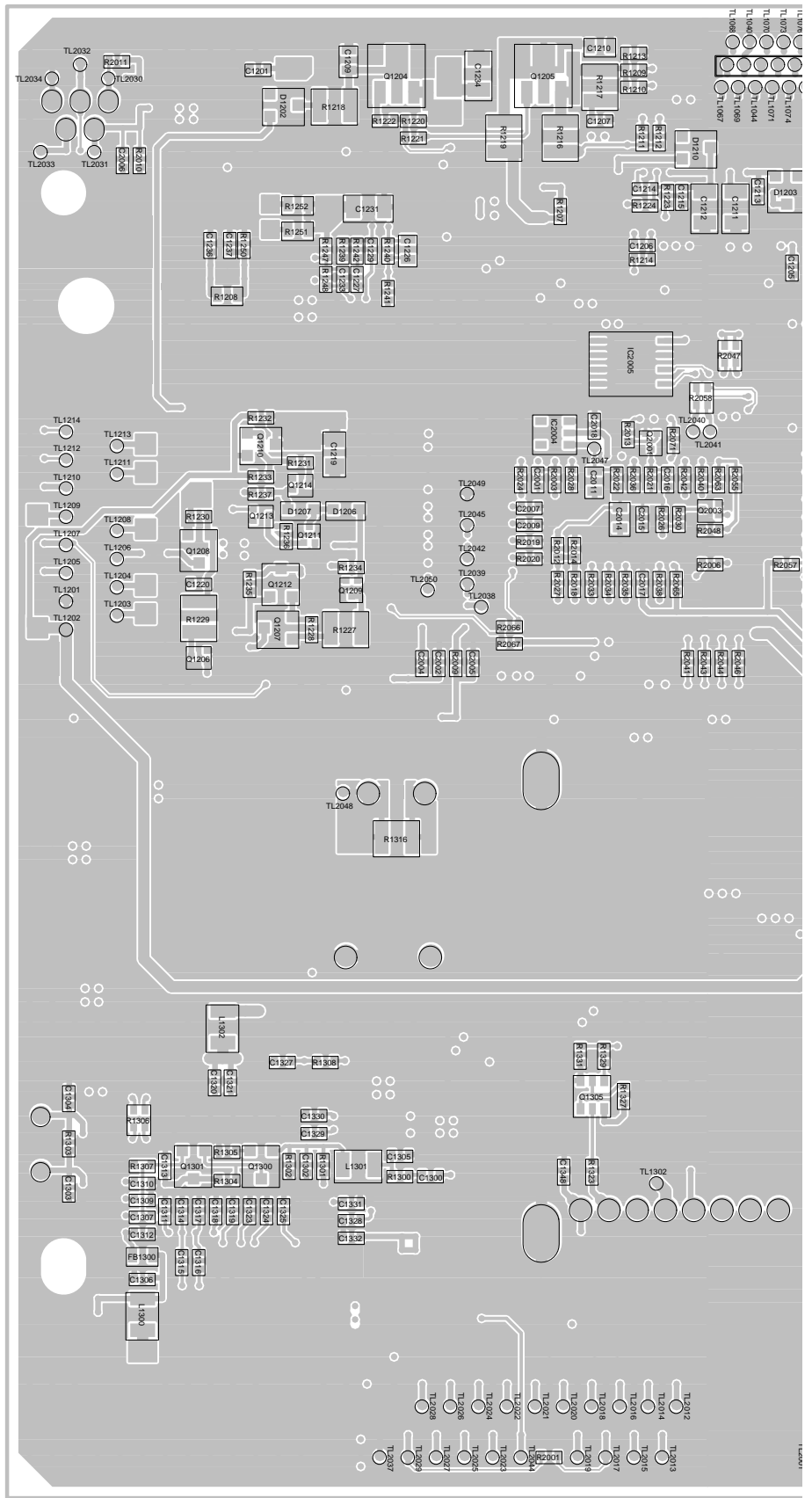


MAIN Unit (Side-B)



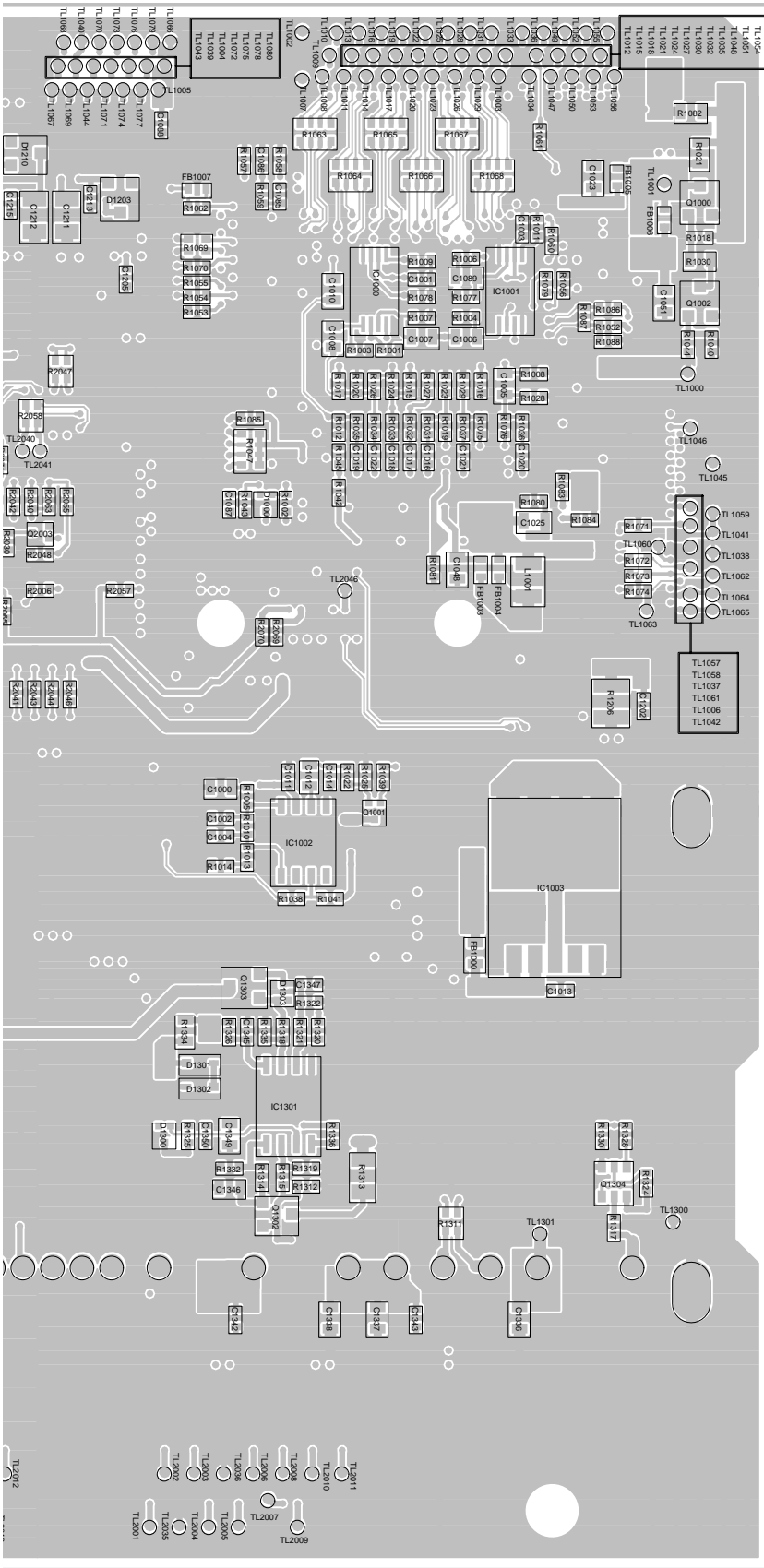
10	11	12	13	14	15	16	17	18	19
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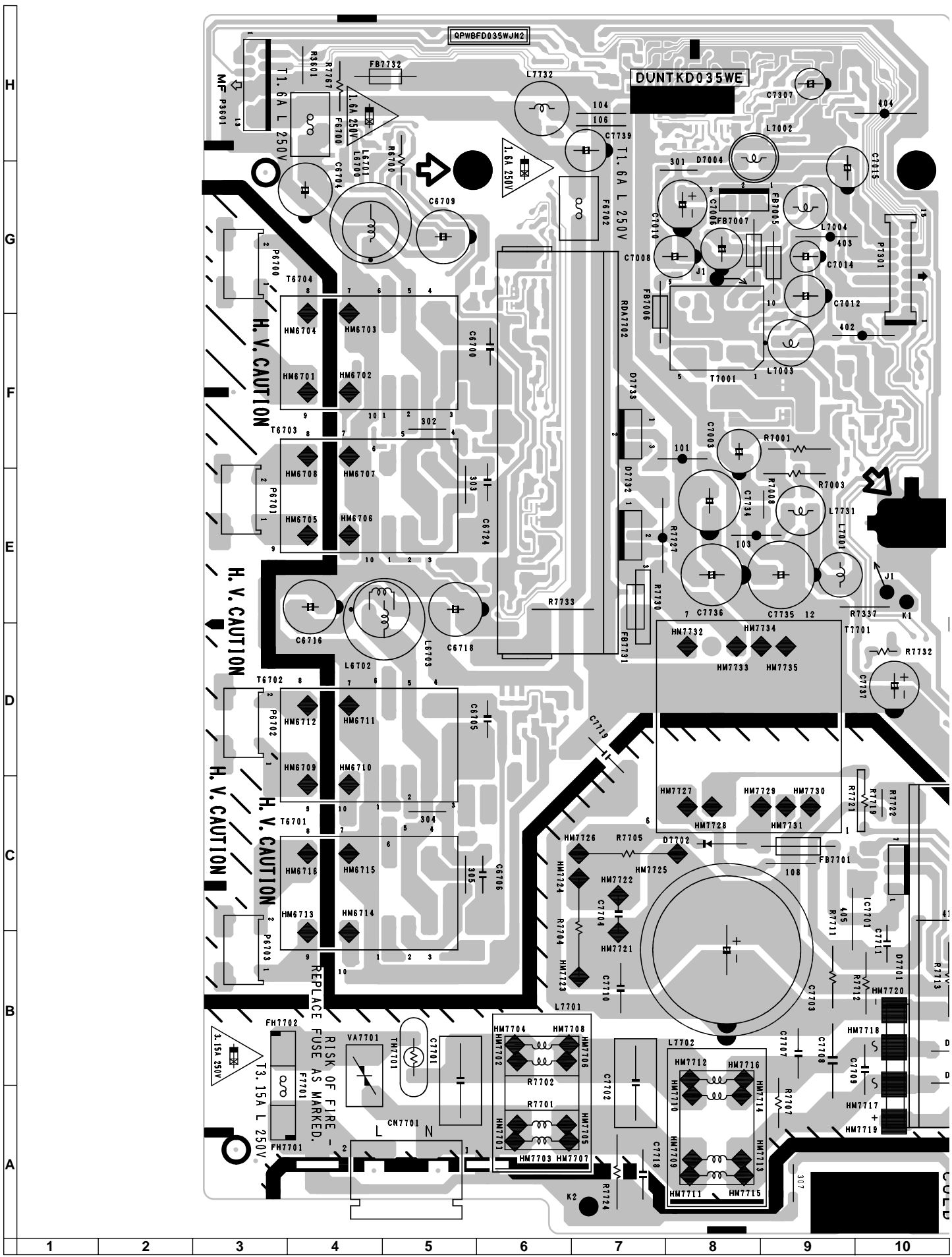


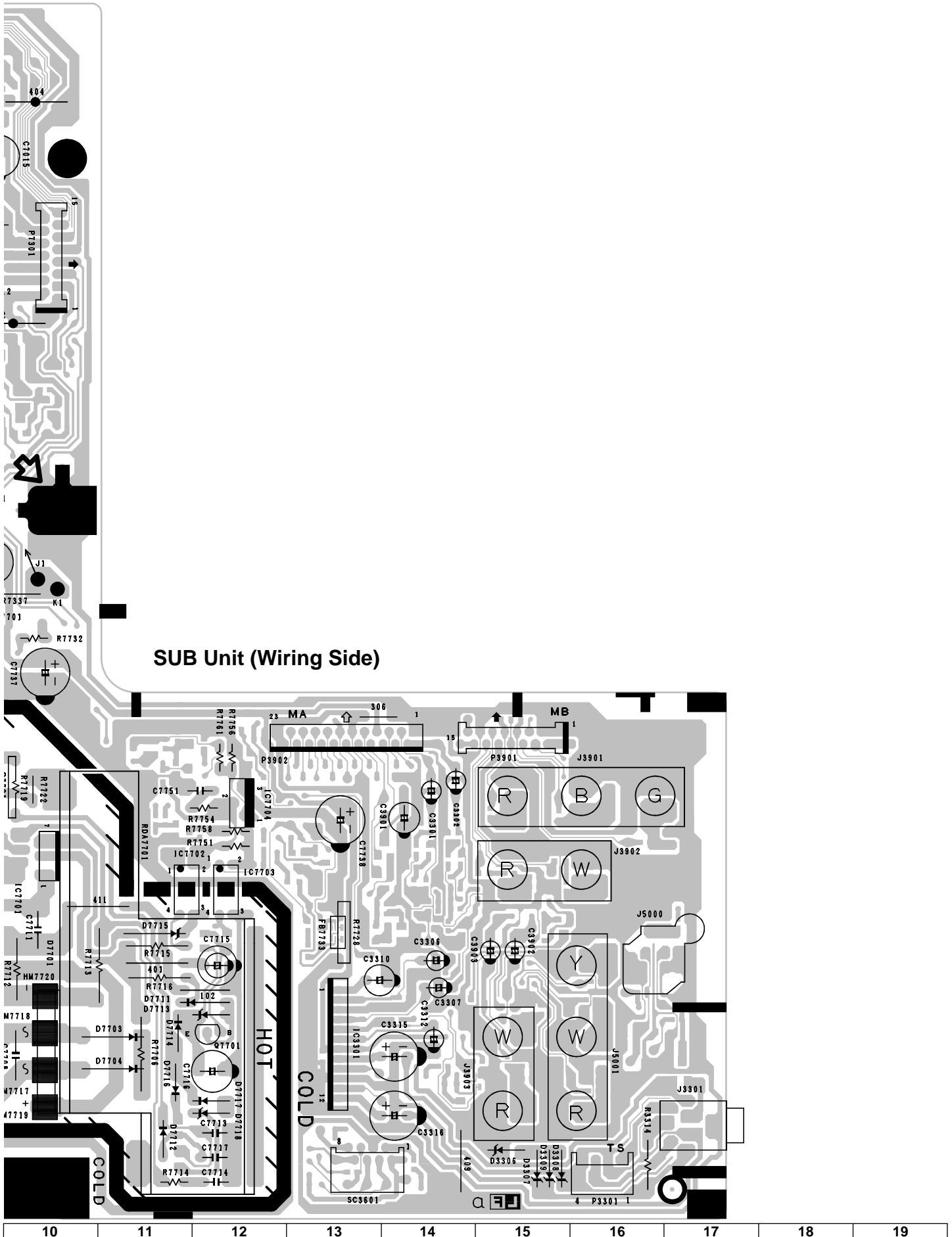
MAIN Unit (Chip Parts Side-B)

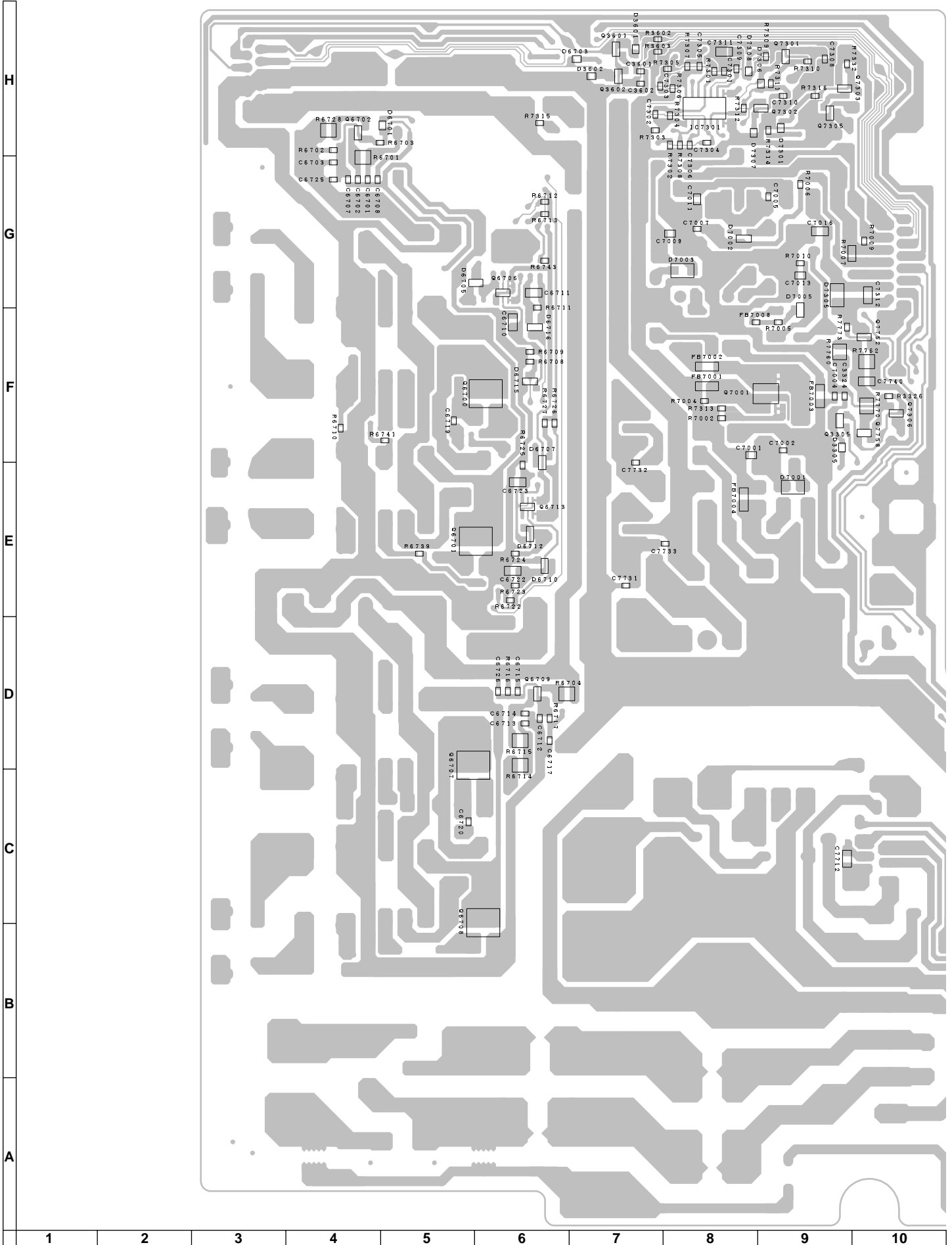
1 2 3 4 5 6 7 8 9 10

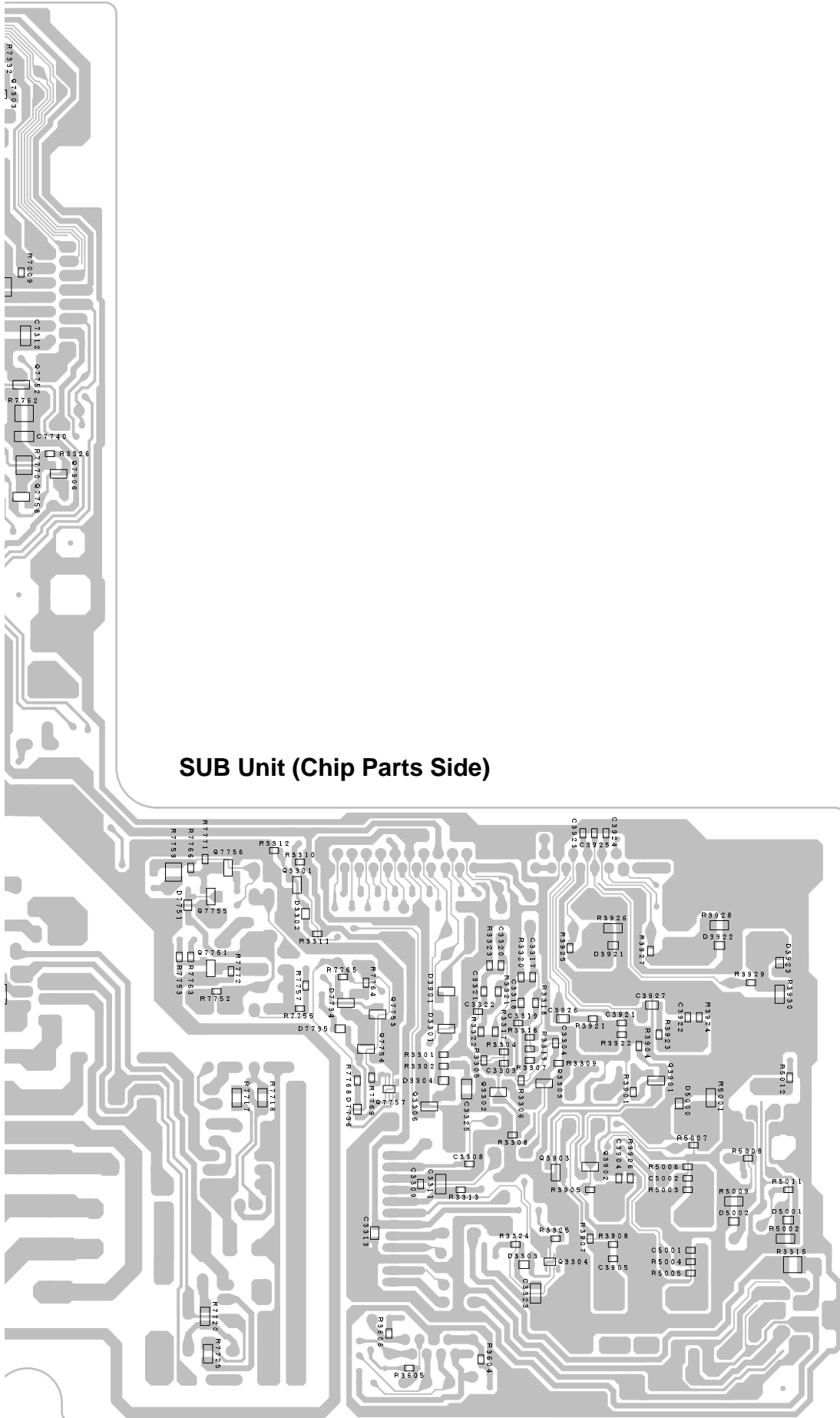


10	11	12	13	14	15	16	17	18	19
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SUB Unit (Chip Parts Side)

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PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual ; electrical components having such features are identified by Δ and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does not have the same safety characteristic as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

- | | |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO. |
| 3. PART NO. | 4. DESCRIPTION |

in **USA**: Contact your nearest SHARP Parts Distributor to order. For location of SHARP Parts Distributor, Please call Toll-Free; 1-800-BE-SHARP

★ MARK: SPARE PARTS-DELIVERY SECTION

Ref. No.	Part No.	★	Description	Code
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PRINTED WIRING BOARD ASSEMBLYS (NOT REPLACEMENT ITEM)

LC-13SH4U

DUNTKD034FMF1	-	MAIN Unit	—
DUNTKD035WEF1	-	SUB Unit	—
DUNTKD036WEF1	-	OPERATION Unit	—
DUNTKD037WEF1	-	R/C, LED Unit	—

LC-15SH4U

DUNTKD034FMF2	-	MAIN Unit	—
DUNTKD035WEF2	-	SUB Unit	—
DUNTKD036WEF2	-	OPERATION Unit	—
DUNTKD037WEF2	-	R/C, LED Unit	—

LCD PANEL

NOTE: THE PARTS HERES SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

RLCDA023WJZZ	J	13" LCD Panel Unit (LC-13SH4U)	CQ
RLCDA024WJZZ	J	15" LCD Panel Unit (LC-15SH4U)	CT

LISTE DES PIECES

CHANGE DES PIECES

Les pièces de rechange qui présentent ces caractéristiques spéciales de sécurité, sont identifiées dans ce manuel : les pièces électriques qui présentent ces particularités, sont représentées par la marque Δ et sont hachurées dans les listes de pièces et dans les diagrammes schématiques.

La substitution d'une pièce de rechange par une autre qui ne présente pas les mêmes caractéristiques de sécurité que la pièce recommandée par l'usine et dans ce manuel de service, peut provoquer une électrocution, un incendie ou tout autre sinistre.

"COMMENT COMMANDER LES PIECES DE RECHANGE"

Pour que votre commande soit rapidement et correctement remplie, veuillez fournir les renseignements suivants.

- | | |
|---------------------|----------------|
| 1. NUMERO DU MODELE | 2. NO. DE REF |
| 3. NO. DE PIECE | 4. DESCRIPTION |

in **CANADA**: Contact SHARP Electronics of Canada Limited
Phone (416) 890-2100

★ MARQUE: SECTION LIVRAISON DES PIECES DERECHANGE

Ref. No.	Part No.	★	Description	Code
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DUNTKD034FMF1 (LC-13SH4U) DUNTKD034FMF2 (LC-15SH4U) MAIN Unit

TUNER

NOTE: THE PARTS HERES SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

TU1300	VTUVT2U5UF559	J	Tuner	BB
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INTEGRATED CIRCUITS

IC1003	VHiPQ018EH1-1Y	J	PQ018EH01ZPH	AF
IC1004	RH-iXB150WJZZQ	J	R8A66605A02FP	BG
IC1201	VHiBD8120FP-1Y	J	BD8120FP	AX
IC1203	RH-iXA828WJZZY	J	BD9300FV-FE2	AH
IC1300	RH-iXB302WJN1Q	J	MSP3445G-QA-S1	AT
IC1301	VHiNJM2147M-1Y	J	NJM2147M-TE1	AF
IC2001	VHiPQ1L333M-1Y	J	PQ1L333M2SP	AD
IC2003	RH-iXA627WJZZQ	J	I.C.	BB
IC2004	VHiPST3229N1EY	J	PST3229	AD
IC2005	VHiBR24L64F-1Y	J	BR24L64F-WE2	AK

TRANSISTORS

Q1000	VSFMMT718//-1Y	J	FMMT718	AE
Q1002	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q1201	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1202	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q1204	VS2SC5566+-1Y	J	2SC5566	AD
Q1205	VS2SA2013+-1Y	J	2SA2013	AD
Q1206	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1207	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q1208	VSFMMT718//-1Y	J	FMMT718	AE
Q1209	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1211	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1212	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q1213	VSDTC144EE/-1Y	J	DTC144EE	AA
Q1215	VSRSS040P03-1Y	J	RSS040P03	AE
Q1216	VSUML2N++++-1Y	J	UML2N	AC
Q1300	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q1301	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q1302	VS2SC3928AR-1Y	J	2SC3928AR	AB
Q1303	VS2SA1036K/-1Y	J	2SA1036K	AC
Q1304	VSiMZ1A////-1Y	J	IMZ1A	AC
Q1305	VSiMZ1A////-1Y	J	IMZ1A	AC
Q2001	VSDTC144EE/-1Y	J	DTC144EE	AA
Q2002	VS2SA1037KQ-1Y	J	2SA1037KQ	AA
Q2003	VSDTC144EE/-1Y	J	DTC144EE	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKD034FMF1 (LC-13SH4U)					DUNTKD034FMF2 (LC-15SH4U)				
MAIN Unit (Continued)									
DIODES									
D1000	VHDDAN222//1Y	J	Diode	AA	C1051	RC-KZA101WJZZY	J	10 6.3V Ceramic	AC
D1201	VHDDAN222//1Y	J	Diode	AA	C1052	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
D1202	VHDDAN202K/1Y	J	Diode	AB	C1053	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
D1203	VHDDAN202K/1Y	J	Diode	AB	C1054	VCEASY1CN477MY	J	470 16V Electrolytic	AD
D1204	VHDDAN202K/1Y	J	Diode	AB	C1055	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
D1205	VHDRB521S30-1Y	J	Diode	AC	C1056	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
D1206	VHDHSU119//1Y	J	Diode	AB	C1057	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
D1207	VHDHSU119//1Y	J	Diode	AB	C1058	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
D1208	RH-EXA099WJZZY	J	Zener Diode, 24V	AB	C1059	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
D1209	VHDRB051L40-1Y	J	Diode	AD	C1060	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
D1210	VHDDAN202K/1Y	J	Diode	AB	C1061	VCCCCY1HH5R0CY	J	5p 50V Ceramic	AA
D1300	VHDDAN222//1Y	J	Diode	AA	C1062	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
D1301	RH-EXA095WJZZY	J	Zener Diode, 16V	AB	C1063	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
D1302	RH-EXA095WJZZY	J	Zener Diode, 16V	AB	C1064	VCCCCY1HH5R0CY	J	5p 50V Ceramic	AA
D1303	VHDDAN222//1Y	J	Diode	AA	C1065	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
PACKAGED CIRCUITS									
X1000	RCRSCA097WJZZY	J	Crystal	AG	C1066	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
X1300	RCRSB0250GEZZ	J	Crystal, 18.432MHz	AG	C1067	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
FILTER AND COILS									
FL2001	RFILZA003WJPZY	J	Filter, 16MHz	AD	C1068	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
L1001	VPCNN220J2R9NY	J	Peaking 22μH	AB	C1069	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
L1201	RCILPA143WJZZY	J	Coil	AD	C1070	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
L1202	VP-1M470J5R4NY	J	Peaking 47μH	AC	C1071	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
L1203	RCILPA154WJZZY	J	Coil	AE	C1072	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB
L1300	VPCNN101J7R7NY	J	Peaking 100μH	AB	C1073	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
L1301	VPCNN220J2R9NY	J	Peaking 22μH	AB	C1074	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
L1302	VPCNN4R7J1R2NY	J	Peaking 4.7μH	AB	C1075	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
L1303	RCILPA142WJZZ	J	Coil	AD	C1076	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
CAPACITORS									
C1009	VCAAPC0JJ476MY	J	47 6.3V Electrolytic	AE	C1077	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
C1013	VCKYCY1AF105ZY	J	1 10V Ceramic	AC	C1078	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
C1015	VCEASX0JN476MY	J	47 6.3V Electrolytic	AC	C1079	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
C1016	VCKYCY1HB104KY	J	0.1 50V Ceramic	AA	C1080	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
C1017	VCKYCY1HB104KY	J	0.1 50V Ceramic	AA	C1081	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
C1018	VCKYCY1HB104KY	J	0.1 50V Ceramic	AA	C1082	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
C1019	VCKYCY1HB104KY	J	0.1 50V Ceramic	AA	C1083	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
C1020	VCKYCY1HB104KY	J	0.1 50V Ceramic	AA	C1084	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB
C1021	VCKYCY1HB104KY	J	0.1 50V Ceramic	AA	C1085	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
C1022	VCKYCY1HB104KY	J	0.1 50V Ceramic	AA	C1086	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA
C1023	RC-KZA101WJZZY	J	10 6.3V Ceramic	AC	C1087	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
C1024	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB	C1088	VCKYCY1AB105KY	J	1 10V Ceramic	AB
C1025	RC-KZA101WJZZY	J	10 6.3V Ceramic	AC	C1090	VCEASX0JN227MY	J	220 6.3V Electrolytic	AC
C1026	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB	C1201	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C1027	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1202	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C1028	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1203	VCEASX0JN227MY	J	220 6.3V Electrolytic	AC
C1029	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1204	VCEASX1HN475MY	J	4.7 50V Electrolytic	AC
C1030	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1205	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C1031	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1206	VCCCCY1HH181JY	J	180p 50V Ceramic	AA
C1032	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1207	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C1033	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1208	VCEASX1CN106MY	J	10 16V Electrolytic	AC
C1034	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1209	VCKYTV1CF105ZY	J	1 16V Ceramic	AB
C1035	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1210	VCKYTV1CF105ZY	J	1 16V Ceramic	AB
C1036	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1211	RC-KZA041WJZZY	J	10 10V Ceramic	AC
C1037	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB	C1212	RC-KZA041WJZZY	J	10 10V Ceramic	AC
C1038	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1213	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C1039	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1214	VCCCCY1HH560JY	J	56p 50V Ceramic	AB
C1040	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1215	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C1041	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1216	RC-KZA041WJZZY	J	10 10V Ceramic	AC
C1042	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1217	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C1043	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1218	VCEASX1CN107MY	J	100 16V Electrolytic	AC
C1044	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1220	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
C1045	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1221	VCEASX1HN225MY	J	2.2 50V Electrolytic	AB
C1046	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1222	VCEASX1CN106MY	J	10 16V Electrolytic	AC
C1047	VCKYCZ1AB104KY	J	0.1 10V Ceramic	AB	C1223	VCEASX1HN225MY	J	2.2 50V Electrolytic	AB
C1048	RC-KZA101WJZZY	J	10 6.3V Ceramic	AC	C1224	VCEASX1CN107MY	J	100 16V Electrolytic	AC
C1049	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB	C1225	VCKYTV1CF105ZY	J	1 16V Ceramic	AB
C1050	VCKYCZ1AB333KY	J	0.033 10V Ceramic	AB	C1226	VCKYTV1CF105ZY	J	1 16V Ceramic	AB
					C1227	VCKYCY1HB332KY	J	3300p 50V Ceramic	AA
					C1228	VCCCCY1HH101JY	J	100p 50V Ceramic	AA
					C1229	VCCCCY1HH330JY	J	33p 50V Ceramic	AA
					C1230	VCCCCY1HH181JY	J	180p 50V Ceramic	AA
					C1231	RC-KZA110WJZZY	J	10 25V Ceramic	AD
					C1232	RC-KZA113WJZZY	J	4.7 16V Ceramic	AB
					C1233	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA
					C1234	RC-KZA041WJZZY	J	10 10V Ceramic	AC
					C1236	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C1237	VCKYCY1EF104ZY	J	0.1 25V Ceramic	AA
					C1300	VCKYCY1HB102KY	J	1000p 50V Ceramic	AA

Ref. No.	Part No.	★	Description	Code
DUNTKD034FMF1 (LC-13SH4U)				
DUNTKD034FMF2 (LC-15SH4U)				
MAIN Unit (Continued)				
C1301	VCEASX0JN107MY	J 100	6.3V Electrolytic	AC
C1302	VCCCCY1HH330JY	J 33p	50V Ceramic	AA
C1303	VCCCCY1HH5R0CY	J 5p	50V Ceramic	AA
C1304	VCCCCY1HH5R0CY	J 5p	50V Ceramic	AA
C1305	VCCCCY1HH330JY	J 33p	50V Ceramic	AA
C1306	VCKYCY1AB105KY	J 1	10V Ceramic	AB
C1307	VCCCCY1HH560JY	J 56p	50V Ceramic	AB
C1308	VCEASX1CN106MY	J 10	16V Electrolytic	AC
C1309	VCCCCY1HH560JY	J 56p	50V Ceramic	AB
C1311	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1312	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1313	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1315	VCKYCY1AB105KY	J 1	10V Ceramic	AB
C1316	VCKYCY1AB105KY	J 1	10V Ceramic	AB
C1320	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1321	VCKYCY1AB105KY	J 1	10V Ceramic	AB
C1322	VCEASX0JN107MY	J 100	6.3V Electrolytic	AC
C1325	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1326	VCEASX1HN335MY	J 3.3	50V Electrolytic	AB
C1327	VCKYCY1HB102KY	J 1000p	50V Ceramic	AA
C1328	VCKYCY1EB223KY	J 0.022	25V Ceramic	AA
C1329	VCKYCY1HB102KY	J 1000p	50V Ceramic	AA
C1330	VCKYCY1HB102KY	J 1000p	50V Ceramic	AA
C1331	VCKYCY1EB223KY	J 0.022	25V Ceramic	AA
C1332	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1333	VCEASX1CN107MY	J 100	16V Electrolytic	AC
C1334	VCEASX1CN106MY	J 10	16V Electrolytic	AC
C1336	RC-KZA101WJZZY	J 10	6.3V Ceramic	AC
C1337	RC-KZA101WJZZY	J 10	6.3V Ceramic	AC
C1338	RC-KZA101WJZZY	J 10	6.3V Ceramic	AC
C1339	VCEASX1CN107MY	J 100	16V Electrolytic	AC
C1340	VCEASX1HN105MY	J 1	50V Electrolytic	AB
C1341	VCAAPC0JJ226MY	J 22	6.3V Electrolytic	AE
C1342	VCKYCY1HB103KY	J 0.01	50V Ceramic	AA
C1343	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1344	RC-EZA560WJZZY	J 3300	6.3V Electrolytic	AE
C1345	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1347	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C1348	VCCCCY1HH561JY	J 560p	50V Ceramic	AB
C1349	RC-KZ0071TAZZY	J 2.2	6.3V Ceramic	AD
C1350	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2002	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2003	VCEASX0JN226MY	J 22	6.3V Electrolytic	AB
C2004	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2005	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2007	VCKYCY1HB222KY	J 2200p	50V Ceramic	AA
C2009	VCKYCY1HB222KY	J 2200p	50V Ceramic	AA
C2010	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2011	VCKYTV1CF105ZY	J 1	16V Ceramic	AB
C2014	RC-KZA101WJZZY	J 10	6.3V Ceramic	AC
C2015	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2016	VCKYCY1HB222KY	J 2200p	50V Ceramic	AA
C2017	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA
C2018	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA

RESISTORS

R1002	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA
R1012	VCCCCY1HH330JY	J 33p	50V Ceramic	AA
R1015	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1017	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1018	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
R1019	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1027	VCCCCY1HH330JY	J 33p	50V Ceramic	AA
R1028	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1029	VCCCCY1HH330JY	J 33p	50V Ceramic	AA
R1030	VRS-TV1JD102JY	J 1k	1/10W Metal Oxide	AA
R1031	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1032	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1033	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1034	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1035	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA

R1036	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1037	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1040	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
R1042	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1043	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA
R1044	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1046	VRS-CJ1JF100JY	J 10	1/16W Metal Oxide	AA
R1047	VRS-CH1JF103JY	J 10k	1/16W Metal Oxide	AA
R1049	VRS-CY1JF105JY	J 1M	1/16W Metal Oxide	AA
R1050	VRS-CY1JF560JY	J 56	1/16W Metal Oxide	AA
R1051	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1052	VRS-CY1JF470JY	J 47	1/16W Metal Oxide	AA
R1053	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1054	VRS-CY1JF470JY	J 47	1/16W Metal Oxide	AA
R1055	VRS-CY1JF470JY	J 47	1/16W Metal Oxide	AA
R1056	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1057	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1058	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1059	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1060	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R1061	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R1062	VRS-CY1JF470JY	J 47	1/16W Metal Oxide	AA
R1063	VRS-CH1JF470JY	J 47	1/16W Metal Oxide	AA
R1064	VRS-CH1JF470JY	J 47	1/16W Metal Oxide	AA
R1065	VRS-CH1JF470JY	J 47	1/16W Metal Oxide	AA
R1066	VRS-CH1JF470JY	J 47	1/16W Metal Oxide	AA
R1067	VRS-CH1JF470JY	J 47	1/16W Metal Oxide	AA
R1068	VRS-CH1JF470JY	J 47	1/16W Metal Oxide	AA
R1069	VRS-CJ1JF270JY	J 27	1/16W Metal Oxide	AA
R1070	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R1071	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R1072	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R1073	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R1074	VRS-CY1JF220JY	J 22	1/16W Metal Oxide	AA
R1075	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1076	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1080	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1081	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1082	VRS-TV1JD000JY	J 0	1/10W Metal Oxide	AA
R1085	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1087	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1201	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1202	VRS-TX2HF102JY	J 1k	1/2W Metal Oxide	AB
R1203	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA
R1204	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R1205	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1206	VRS-TW2HF472JY	J 4.7k	1/2W Metal Oxide	AA
R1207	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1208	VRS-TV1JD000JY	J 0	1/10W Metal Oxide	AA
R1209	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1212	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R1213	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1214	VRS-CY1JF273JY	J 27k	1/16W Metal Oxide	AA
R1215	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1216	VRS-TW2HF000JY	J 0	1/2W Metal Oxide	AA
R1217	VRS-TW2HF101JY	J 100	1/2W Metal Oxide	AA
R1218	VRS-TW2HF5R6JY	J 5.6	1/2W Metal Oxide	AA
R1219	VRS-TW2HF5R6JY	J 5.6	1/2W Metal Oxide	AA
R1220	VRS-CY1JF102JY	J 1k	1/16W Metal Oxide	AA
R1221	VRS-CY1JF181JY	J 180	1/16W Metal Oxide	AA
R1222	VRS-CY1JF181JY	J 180	1/16W Metal Oxide	AA
R1223	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1224	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1225	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
R1226	VRS-TW2HF330JY	J 33	1/2W Metal Oxide	AA
R1227	VRS-TW2ED103JY	J 10k	1/4W Metal Oxide	AA
R1228	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
R1229	VRS-TW2ED102JY	J 1k	1/4W Metal Oxide	AA
R1230	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1234	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1235	VRS-CY1JF472JY	J 4.7k	1/16W Metal Oxide	AA
R1236	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1237	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R1238	VRS-CY1JF104FY	J 100k	1/16W Metal Oxide	AA
R1239	VRS-CY1JF104FY	J 100k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKD034FMF1 (LC-13SH4U) DUNTKD034FMF2 (LC-15SH4U) MAIN Unit (Continued)									
R1240	VRS-CY1JF273JY	J	27k 1/16W Metal Oxide	AA	R2030	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R1241	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA	R2031	VRS-CJ1JF101JY	J	100 1/16W Metal Oxide	AA
R1242	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA	R2033	VRS-CY1JF680JY	J	68 1/16W Metal Oxide	AA
R1243	VRS-CY1JF203FY	J	20k 1/16W Metal Oxide	AA	R2034	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1244	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	R2035	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1245	VRS-CY1JF562JY	J	5.6k 1/16W Metal Oxide	AA	R2036	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R1246	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	R2037	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1247	VRS-CY1JF511JY	J	510 1/16W Metal Oxide	AA	R2038	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1248	VRS-CY1JF511JY	J	510 1/16W Metal Oxide	AA	R2039	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1250	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA	R2040	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R1251	VRS-TV1JD000JY	J	0 1/10W Metal Oxide	AA	R2042	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1252	VRS-TV1JD000JY	J	0 1/10W Metal Oxide	AA	R2044	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1300	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	R2045	VRS-CJ1JF471JY	J	470 1/16W Metal Oxide	AA
R1301	VRS-CY1JF153JY	J	15k 1/16W Metal Oxide	AA	R2047	VRS-CJ1JF682JY	J	6.8k 1/16W Metal Oxide	AA
R1302	VRS-CY1JF332JY	J	3.3k 1/16W Metal Oxide	AA	R2048	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R1303	VRS-CY1JF105JY	J	1M 1/16W Metal Oxide	AA	R2049	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1304	VRS-CY1JF152JY	J	1.5k 1/16W Metal Oxide	AA	R2052	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1305	VRS-CY1JF331JY	J	330 1/16W Metal Oxide	AA	R2054	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1306	VRS-CJ1JF101JY	J	100 1/16W Metal Oxide	AA	R2055	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1307	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	R2056	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1308	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R2057	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA
R1309	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R2058	VRS-CJ1JF101JY	J	100 1/16W Metal Oxide	AA
R1310	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R2059	VRS-CJ1JF153JY	J	15k 1/16W Metal Oxide	AA
R1311	VRS-CJ1JF331JY	J	330 1/16W Metal Oxide	AA	R2060	VRS-CH1JF680JY	J	68 1/16W Metal Oxide	AA
R1312	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	R2061	VRS-CH1JF101JY	J	100 1/16W Metal Oxide	AA
R1313	VRS-TQ2BD000JY	J	0 1/8W Metal Oxide	AA	R2062	VRS-CJ1JF101JY	J	100 1/16W Metal Oxide	AA
R1314	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	R2063	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R1315	VRS-CY1JF332JY	J	3.3k 1/16W Metal Oxide	AA	R2065	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R1317	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	R2066	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1318	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R2067	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R1319	VRS-CY1JF562FY	J	5.6k 1/16W Metal Oxide	AA	R2068	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R1320	VRS-CY1JF363FY	J	36k 1/16W Metal Oxide	AA	R2071	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R1321	VRS-CY1JF563FY	J	56k 1/16W Metal Oxide	AA	MISCELLANEOUS PARTS				
R1322	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	FB1000	RBLN-0210TAZZY	J	Ferrite Bead	AB
R1323	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	FB1003	RBLN-0006TAZZY	J	Ferrite Bead	AB
R1324	VRS-CY1JF152JY	J	1.5k 1/16W Metal Oxide	AA	FB1005	RBLN-0006TAZZY	J	Ferrite Bead	AB
R1325	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	FB1006	RBLN-0006TAZZY	J	Ferrite Bead	AB
R1326	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	FB1007	RBLN-0083GEZZY	J	Ferrite Bead	AB
R1327	VRS-CY1JF152JY	J	1.5k 1/16W Metal Oxide	AA	FB1300	RBLN-0035TAZZY	J	Ferrite Bead	AB
R1328	VRS-CY1JF561FY	J	560 1/16W Metal Oxide	AA	P2001	QPLGNA144WJZZY	J	Plug, 20-pin	AF
R1329	VRS-CY1JF561FY	J	560 1/16W Metal Oxide	AA	SC1000	QSOCN0687FJZZY	J	Socket, 50-pin	AF
R1330	VRS-CY1JF102FY	J	1k 1/16W Metal Oxide	AA	SC1001	QSOCN0684FJZZY	J	Socket, 30-pin	AF
R1331	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	SC1002	QSOCNA002WJPZY	J	Socket, 20-pin	AD
R1332	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	SC1201	QCNCWA010WJZZY	J	Connector, 15-pin	AE
R1333	VRS-TV1JD102JY	J	1k 1/10W Metal Oxide	AA	SC2001	QCNCWA010WJZZY	J	Connector, 15-pin	AE
R1335	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	SC2002	QCNCWA251WJZZY	J	Connector, 23-pin	AH
R1336	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	SC2003	QSOCN0596REZZ	J	Socket, 5-pin	AB
R2003	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	LUG2001	QLUGHA006WJZZY	J	Lug	AC
R2004	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	LUG2002	QLUGHA006WJZZY	J	Lug	AC
R2005	VRS-CJ1JF101JY	J	100 1/16W Metal Oxide	AA					
R2006	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA					
R2007	VRS-CJ1JF223JY	J	22k 1/16W Metal Oxide	AA					
R2008	VRS-CJ1JF102JY	J	1k 1/16W Metal Oxide	AA					
R2009	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA					
R2011	VRS-CY1JF222JY	J	2.2k 1/16W Metal Oxide	AA					
R2012	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA					
R2013	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA					
R2015	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA					
(LC-15SH4U)									
R2017	VRS-CJ1JF223JY	J	22k 1/16W Metal Oxide	AA					
R2018	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA					
R2019	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA					
R2020	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA					
(LC-13SH4U)									
R2021	VRS-CY1JF153JY	J	15k 1/16W Metal Oxide	AA					
R2022	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA					
R2023	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA					
R2025	VRS-CJ1JF101JY	J	100 1/16W Metal Oxide	AA					
R2026	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA					
R2027	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA					
R2028	VRS-CY1JF512JY	J	5.1k 1/16W Metal Oxide	AA					

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code	
DUNKTD035WEF1 (LC-13SH4U)					DUNKTD035WEF2 (LC-15SH4U)					
SUB Unit										
INTEGRATED CIRCUITS										
IC3301	VHILA4635A+-1S	J	LA4635A	AM	D7307	VHDBAS316/-1Y	J	Diode	AB	
IC7301	VHIBD9300F+-1Y	J	BD9300F-FE2	AG	△ D7701	RH-DX0476CEZZ	J	Diode	AG	
IC7701	VHISTRW67652E	J	STR-W6765N	AL	D7702	RH-DX0321CEZZY	J	Diode	AC	
△ IC7702	RH-FXA003WJZZ	J	PC123Y82	AD	D7703	RH-DX0490CEZZY	J	Diode	AC	
△ IC7703	RH-FXA003WJZZ	J	PC123Y82	AD	D7704	RH-DX0490CEZZY	J	Diode	AC	
IC7704	VHISE012N//-1	J	SE012N	AH	D7711	RH-DX0066GEZZY	J	Diode	AC	
TRANSISTORS										
Q3301	VS2SC3928AR-1Y	J	2SC3928AR	AB	D7712	VHD1SS244/-1Y	J	Diode	AB	
Q3302	VS2SC314TK/-1Y	J	DTC314TK	AC	D7713	RH-EX0640GEZZY	J	Zener Diode, 12V	AA	
Q3303	VS2SC314TK/-1Y	J	DTC314TK	AC	D7714	VHD1SS244/-1Y	J	Diode	AB	
Q3304	VSUMH2N++++-1Y	J	UMH2N	AC	D7715	RH-EX0618GEZZY	J	Zener Diode, 6.2V	AB	
Q3305	VS2SD2657+-1Y	J	2SD2657	AB	D7716	VHD1SS244/-1Y	J	Diode	AB	
Q3306	VS2DT114EKA-1Y	J	DTC114EKA	AB	D7717	VHD1SS244/-1Y	J	Diode	AB	
Q3601	VSKRC102S/-1Y	J	KRC102S	AA	D7718	RH-EX0656GEZZY	J	Zener Diode	AB	
Q3602	VSKRC102S/-1Y	J	KRC102S	AA	D7732	VHDSF30SC6+-1	J	Diode	AH	
Q3901	VS2SA1530AR-1Y	J	2SA1530AR	AB	D7733	VHDSF30SC6+-1	J	Diode	AH	
Q3902	VS2DT314TK/-1Y	J	DTC314TK	AC	TH7701	RH-HXA019WJZZ	J	Thermistor	AE	
Q3903	VS2DT314TK/-1Y	J	DTC314TK	AC	△ VA7701	RH-VXA022WJZZ	J	Varistor	AD	
Q6700	VS2SC5886A+-1Y	J	2SC5886A	AD	COILS					
Q6701	VS2SC5886A+-1Y	J	2SC5886A	AD	L6700	RCILPA371WJZZ	J	Coil	AC	
Q6702	VS2SA1530AR-1Y	J	2SA1530AR	AB	L6702	RCILPA371WJZZ	J	Coil	AC	
Q6706	VSUPA606T/-1Y	J	UPA606T	AD	L7001	RCILPA476WJZZ+	J	Coil	AC	
Q6707	VS2SC5886A+-1Y	J	2SC5886A	AD	L7002	RCILPA356WJZZ+	J	Coil	AC	
Q6708	VS2SC5886A+-1Y	J	2SC5886A	AD	L7003	RCILPA356WJZZ+	J	Coil	AC	
Q6709	VS2SA1530AR-1Y	J	2SA1530AR	AB	L7004	RCILPA476WJZZ+	J	Coil	AC	
Q6713	VSUPA606T/-1Y	J	UPA606T	AD	△ L7703	RCILFA167WJZZ	J	Coil	AD	
Q7001	VRSO70N05-1Y	J	RSS070N05	AF	△ L7704	RCILFA167WJZZ	J	Coil	AD	
Q7301	VS2SB1695+-1Y	J	2SB1695	AC	L7732	RCILP0184CEZZ+	J	Coil	AD	
Q7302	VS2SD2657+-1Y	J	2SD2657	AC	TRANSFORMER					
Q7303	VS2SA1530AR-1Y	J	2SA1530AR	AB	△ T6701	RTRNZA085WJZZ	J	Transformer	AL	
Q7305	VSKRC104S/-1Y	J	KRC104S	AA	△ T6702	RTRNZA085WJZZ	J	Transformer	AL	
Q7306	VSKRC104S/-1Y	J	KRC104S	AA	△ T6703	RTRNZA085WJZZ	J	Transformer	AL	
Q7701	VS2SA1013//1E+	J	2SA1013	AD	△ T6704	RTRNZA085WJZZ	J	Transformer	AL	
Q7751	VSKRC104S/-1Y	J	KRC104S	AA	△ T7001	RTRNWA169WJZZ	J	Transformer	AG	
DIODES										
D3301	VHD1PS184+-1Y	J	Diode	AB	△ T7701	RTRNWA173WJZZ	J	Transformer	AQ	
D3302	RH-EX1253CEZZY	J	Zener Diode	AB	CAPACITORS					
D3303	VHDBAS316/-1Y	J	Diode	AB	C3301	VCESKA1HM225M+	J	2.2 50V	Electrolytic	AB
D3304	VHDBAS316/-1Y	J	Diode	AB	C3302	VCESKA1HM225M+	J	2.2 50V	Electrolytic	AB
D3305	VHDBAS316/-1Y	J	Diode	AB	C3303	VCKYCY1HB153KY	J	0.015 50V	Ceramic	AA
D3306	RH-EX0640GEZZY	J	Zener Diode, 12V	AA	C3304	VCKYCY1HB153KY	J	0.015 50V	Ceramic	AA
D3307	RH-EX0640GEZZY	J	Zener Diode, 12V	AA	C3306	VCESKA1HM105M+	J	1 50V	Electrolytic	AB
D3308	RH-EX0640GEZZY	J	Zener Diode, 12V	AA	C3307	VCESKA1HM105M+	J	1 50V	Electrolytic	AB
D3309	RH-EX0640GEZZY	J	Zener Diode, 12V	AA	C3308	VCKYCY1HB102KY	J	1000p 50V	Ceramic	AA
D3601	RH-EX1293CEZZY	J	Zener Diode, 24V	AB	C3309	VCKYCY1HB102KY	J	1000p 50V	Ceramic	AA
D3602	RH-EX1293CEZZY	J	Zener Diode, 24V	AB	C3310	VCESKA1CM107M+	J	100 16V	Electrolytic	AC
D3901	VHD1PS184+-1Y	J	Diode	AB	C3312	VCESKA1CM106M+	J	10 16V	Electrolytic	AB
D3921	RH-EX1271CEZZY	J	Zener Diode	AB	C3313	VCKYTV1CB105KY	J	1 16V	Ceramic	AC
D3922	RH-EX1271CEZZY	J	Zener Diode	AB	C3315	RC-EZA216WJZZ	J	1000 16V	Electrolytic	AD
D3923	RH-EX1271CEZZY	J	Zener Diode	AB	C3316	RC-EZA216WJZZ	J	1000 16V	Electrolytic	AD
D5000	RH-EX1271CEZZY	J	Zener Diode	AB	C3323	RC-KZA216WJZZY	J	2.2 50V	Ceramic	AC
D5001	RH-EX1271CEZZY	J	Zener Diode	AB	C3324	VCKYCY1HF224ZY	J	0.22 50V	Ceramic	AA
D5002	RH-EX1271CEZZY	J	Zener Diode	AB	C3325	RC-KZA041WJZZY	J	10 10V	Ceramic	AC
D6701	VHDBAS316/-1Y	J	Diode	AB	C3601	VCKYCY1HB332KY	J	3300p 50V	Ceramic	AA
D6703	VHDBAS316/-1Y	J	Diode	AB	C3602	VCKYCY1HB332KY	J	3300p 50V	Ceramic	AA
D6705	VHD1PS184+-1Y	J	Diode	AB	C3901	VCESKA0JM107M+	J	100 6.3V	Electrolytic	AB
D6707	VHD1PS184+-1Y	J	Diode	AB	C3902	VCESKA1CM106M+	J	10 16V	Electrolytic	AB
D6710	VHDMA157A/-1Y	J	Diode	AC	C3903	VCESKA1CM106M+	J	10 16V	Electrolytic	AB
D6712	VHDMA157A/-1Y	J	Diode	AC	C3904	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
D6715	VHDMA157A/-1Y	J	Diode	AC	C3905	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
D6716	VHDMA157A/-1Y	J	Diode	AC	C3921	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
D7001	VHDLi116+++1Y	J	Diode	AC	C3922	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
D7002	VHD1SS250//1EY	J	Diode	AB	C3923	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
D7003	VHDLi124+++1Y	J	Diode	AC	C3924	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
D7004	VHDSF30SC6+-1	J	Diode	AH	C3925	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
D7005	VHD1PS184+-1Y	J	Diode	AB	C3926	VCKYTV1CB105KY	J	1 16V	Ceramic	AC
D7301	VHDBAS316/-1Y	J	Diode	AB	C3927	VCKYTV1CB105KY	J	1 16V	Ceramic	AC
D7306	VHDBAS316/-1Y	J	Diode	AB	C5001	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
					C5002	VCCCCY1HH101JY	J	100p 50V	Ceramic	AA
					C6700	RC-FZA110WJZZ	J	0.15 250V	Film	AC
					C6703	VCKYCY1EB104KY	J	0.1 25V	Ceramic	AB
					C6704	RC-EZA482WJZZ	J	1000 25V	Electrolytic	AD
					C6705	RC-FZA110WJZZ	J	0.15 250V	Film	AC
					C6709	RC-EZA482WJZZ	J	1000 25V	Electrolytic	AD

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DUNTKD035WEF1 (LC-13SH4U) DUNTKD035WEF2 (LC-15SH4U) SUB Unit (Continued)									
C6710	RC-KZ0072TAZZY	J 1	25V Ceramic	AC	R3316	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C6711	RC-KZ0072TAZZY	J 1	25V Ceramic	AC	R3317	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
C6715	VCKYCY1EB104KY	J 0.1	25V Ceramic	AB	R3324	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
C6716	RC-EZA482WJZZ	J 1000	25V Electrolytic	AD	R3325	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA
C6718	RC-EZA482WJZZ	J 1000	25V Electrolytic	AD	R3326	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
C6719	VCKYCY1CB333KY	J 0.033	16V Ceramic	AA	R3327	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
C6720	VCKYCY1CB333KY	J 0.033	16V Ceramic	AA	R3602	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA
C6722	RC-KZ0072TAZZY	J 1	25V Ceramic	AC	R3603	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA
C6723	RC-KZ0072TAZZY	J 1	25V Ceramic	AC	R3901	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
C6725	VCKYCY1EB104KY	J 0.1	25V Ceramic	AB	R3904	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
C6726	VCKYCY1EB104KY	J 0.1	25V Ceramic	AB	R3905	VRS-CY1JF271JY	J 270	1/16W Metal Oxide	AA
C7001	RC-KZA124WJZZY	J 0.022	50V Ceramic	AD	R3906	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
C7002	VCKYCY1HB562KY	J 5600p	50V Ceramic	AA	R3907	VRS-CY1JF271JY	J 270	1/16W Metal Oxide	AA
C7003	RC-EZA464WJZZ+	J 1000	16V Electrolytic	AD	R3908	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
C7004	VCKYCY1HB562KY	J 5600p	50V Ceramic	AA	R3921	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7005	VCCCCY1HH181JY	J 180p	50V Ceramic	AA	R3922	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
C7006	VCESKA1HM476M+	J 47	50V Electrolytic	AD	R3923	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7007	VCKYCY1HF104ZY	J 0.1	50V Ceramic	AA	R3924	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
C7008	VCESKA1CM337M+	J 330	16V Electrolytic	AD	R3925	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7009	VCKYTV1CF105ZY	J 1	16V Ceramic	AB	R3926	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
C7010	RC-EZA450WJZZ+	J 10	150V Electrolytic	AD	R3927	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7011	VCKYTV1CF105ZY	J 1	16V Ceramic	AB	R3928	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
C7012	VCESKA1CM337M+	J 330	16V Electrolytic	AD	R3929	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7013	VCKYTV1CF105ZY	J 1	16V Ceramic	AB	R3930	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
C7014	VCESKA1CM107M+	J 100	16V Electrolytic	AC	R5001	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
C7301	VCKYCY1EF104ZY	J 0.1	25V Ceramic	AA	R5002	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
C7302	VCKYCY1EB334KY	J 0.33	25V Ceramic	AB	R5003	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
C7303	VCKYCY1HB332KY	J 3300p	50V Ceramic	AA	R5004	VRS-CY1JF473JY	J 47k	1/16W Metal Oxide	AA
C7304	VCCCCY1HH330JY	J 33p	50V Ceramic	AA	R5005	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7305	VCCCCY1HH330JY	J 33p	50V Ceramic	AA	R5006	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7306	VCCCCY1HH471JY	J 470p	50V Ceramic	AA	R5007	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7308	VCKYCY1HB103KY	J 0.01	50V Ceramic	AA	R5008	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
C7309	VCKYCY1HB104KY	J 0.1	50V Ceramic	AA	R5009	VRS-TQ2BD750JY	J 75	1/8W Metal Oxide	AA
C7310	VCCCCY1HH102JY	J 1000p	50V Ceramic	AB	R5011	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
△ C7701	RC-FZA022WJZZ	J 0.22	275V Film	AD	R5012	VRS-CY1JF101JY	J 100	1/16W Metal Oxide	AA
△ C7702	RC-FZA022WJZZ	J 0.22	275V Film	AD	R6700	VRD-RA2EE821JY	J 820	1/4W Carbon	AA
C7703	RC-EZA735WJQZ	J 150	400V Electrolytic	AN	R6701	VRS-TW2ED821JY	J 820	1/4W Metal Oxide	AB
C7704	RC-FZA180WJZZ	J 0.1	580V Film	AD	R6702	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
△ C7707	RC-KZ0103GEZZ	J 1000p	250V Ceramic	AD	R6703	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA
△ C7708	RC-KZ1028CEZZ	J 1000p	250V Ceramic	AC	R6704	VRS-TW2ED331JY	J 330	1/4W Metal Oxide	AB
C7711	RC-KZA271WJZZ	J 470p	2kV Ceramic	AC	R6708	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA
C7712	RC-KZA216WJZZY	J 2.2	50V Ceramic	AC	R6709	VRS-CY1JF824JY	J 820k	1/16W Metal Oxide	AA
C7713	VCKYPA1HB471K+	J 470p	50V Ceramic	AA	R6710	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA
C7714	VQCQYTA1HM104J+	J 0.1	50V Mylar	AB	R6711	VRS-CY1JF824JY	J 820k	1/16W Metal Oxide	AA
C7715	VCEA4A2CN106M+	J 10	160V Electrolytic	AC	R6712	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
C7716	VCESKA1HM476M+	J 47	50V Electrolytic	AD	R6713	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
C7717	VQCQYTA1HM332J+	J 3300p	50V Mylar	AA	R6714	VRS-TW2ED821JY	J 820	1/4W Metal Oxide	AB
△ C7718	RC-KZ0105GEZZ	J 2200p	250V Ceramic	AD	R6715	VRS-TW2ED821JY	J 820	1/4W Metal Oxide	AB
C7734	RC-EZA484WJZZ+	J 1500	25V Electrolytic	AE	R6716	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
C7735	RC-EZA468WJZZ+	J 2200	16V Electrolytic	AE	R6717	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA
C7736	RC-EZA484WJZZ+	J 1500	25V Electrolytic	AE	R6722	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA
C7737	RC-EZA162WJZZ+	J 1000	16V Electrolytic	AD	R6723	VRS-CY1JF824JY	J 820k	1/16W Metal Oxide	AA
C7738	RC-EZA162WJZZ+	J 1000	16V Electrolytic	AD	R6724	VRS-CY1JF471JY	J 470	1/16W Metal Oxide	AA
C7739	RC-EZA476WJZZ+	J 330	25V Electrolytic	AC	R6725	VRS-CY1JF824JY	J 820k	1/16W Metal Oxide	AA
C7751	VQCQYTA1HM104J+	J 0.1	50V Mylar	AB	R6726	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA
RESISTORS									
R3301	VRS-CY1JF153JY	J 15k	1/16W Metal Oxide	AA	R7001	VRS-VV3AB222J	J 2.2k	1W Metal Oxide	AA
R3302	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA	R7003	VRS-VV3AB222J	J 2.2k	1W Metal Oxide	AA
R3304	VRS-CY1JF392JY	J 3.9k	1/16W Metal Oxide	AA	R7004	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R3305	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA	R7005	VRS-CY1JF1R0JY	J 1	1/16W Metal Oxide	AA
R3306	VRS-CY1JF332JY	J 3.3k	1/16W Metal Oxide	AA	R7006	VRS-CY1JF000JY	J 0	1/16W Metal Oxide	AA
R3307	VRS-CY1JF392JY	J 3.9k	1/16W Metal Oxide	AA	R7007	VRS-TQ2BD683JY	J 68k	1/8W Metal Oxide	AA
R3308	VRS-CY1JF272JY	J 2.7k	1/16W Metal Oxide	AA	R7009	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA
R3309	VRS-CY1JF272JY	J 2.7k	1/16W Metal Oxide	AA	R7010	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
R3310	VRS-CY1JF562JY	J 5.6k	1/16W Metal Oxide	AA	R7301	VRS-CY1JF104DY	J 100k	1/16W Metal Oxide	AA
R3311	VRS-CY1JF392JY	J 3.9k	1/16W Metal Oxide	AA	R7302	VRS-CY1JF104DY	J 100k	1/16W Metal Oxide	AA
R3312	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA	R7303	VRS-CY1JF333JY	J 33k	1/16W Metal Oxide	AA
R3313	VRS-CY1JF122JY	J 1.2k	1/16W Metal Oxide	AA	R7304	VRS-CY1JF223JY	J 22k	1/16W Metal Oxide	AA
R3314	VRD-RA2EE331JY	J 330	1/4W Carbon	AA	R7305	VRS-CY1JF104JY	J 100k	1/16W Metal Oxide	AA
R3315	VRS-TW2ED331JY	J 330	1/4W Metal Oxide	AB	R7306	VRS-CY1JF333FY	J 33k	1/16W Metal Oxide	AA
					R7307	VRS-CY1JF104FY	J 100k	1/16W Metal Oxide	AA
					R7308	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA
					R7309	VRS-CY1JF103JY	J 10k	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
DUNTKD035WEF1 (LC-13SH4U)				
DUNTKD035WEF2 (LC-15SH4U)				
SUB Unit (Continued)				
R7310	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R7311	VRS-CY1JF331JY	J	330 1/16W Metal Oxide	AA
R7312	VRS-CY1JF511JY	J	510 1/16W Metal Oxide	AA
R7313	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA
R7314	VRS-CY1JF563JY	J	56k 1/16W Metal Oxide	AA
R7315	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA
R7316	VRS-CY1JF182JY	J	1.8k 1/16W Metal Oxide	AA
R7332	VRS-CY1JF563JY	J	56k 1/16W Metal Oxide	AA
R7704	RR-DZA033WJZZ	J	180k 3W Special Carbon Film	AD
R7705	RR-DZA033WJZZ	J	180k 3W Special Carbon Film	AD
R7706	RR-DZA036WJZZ	J	150k 2W Special Carbon Film	AC
R7711	VRN-VV3ABR68J	J	0.68 1W Metal Film	AA
R7712	VRN-VV3ABR68J	J	0.68 1W Metal Film	AA
R7713	VRS-SV2HC101J	J	100 1/2W Metal Oxide	AA
R7714	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R7715	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R7716	VRD-RM2HD220JY	J	22 1/2W Carbon	AA
R7717	VRS-TQ2BD102JY	J	1k 1/8W Metal Oxide	AA
R7718	VRS-TQ2BD562JY	J	5.6k 1/8W Metal Oxide	AA
R7719	VRD-RM2HD220JY	J	22 1/2W Carbon	AA
R7720	VRS-TQ2BD102JY	J	1k 1/8W Metal Oxide	AA
△ R7724	RR-HZ0053CEZZY	J	10M 1/2W Coat-Insulated fixed anti-surge	AC
R7725	VRS-TQ2BD153JY	J	15k 1/8W Metal Oxide	AA
R7732	VRD-RA2BE000JY	J	0 1/8W Carbon	AA
R7752	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R7753	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R7754	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R7755	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R7757	VRS-CY1JF272JY	J	2.7k 1/16W Metal Oxide	AA
R7758	VRD-RA2BE000JY	J	0 1/8W Carbon	AA
R7759	VRS-TW2HF102JY	J	1k 1/2W Metal Oxide	AA
R7761	VRD-RA2BE2R7JY	J	2.7 1/8W Carbon	AA
R7767	VRD-RA2EE153JY	J	15k 1/4W Carbon	AA
R7773	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

△ F6700	QFS-ZA003WJZZ	J	Fuse, 1.6A/250V	AD
△ F6702	QFS-ZA003WJZZ	J	Fuse, 1.6A/250V	AD
△ F7701	QFS-D0010CEZZ	J	Fuse, 3.15A/250V	AE
FH7701	QFSDH1013CEZZ+	J	Fuse Holder	AC
FH7702	QFSDH1014CEZZ+	J	Fuse Holder	AC
FB7002	RBLN-0095CEZZY	J	Ferrite Bead	AD
FB7003	RBLN-0095CEZZY	J	Ferrite Bead	AD
FB7004	RBLN-0095CEZZY	J	Ferrite Bead	AD
FB7005	RBLN-0090GEZZY	J	Ferrite Bead	AB
FB7006	RBLN-0090GEZZY	J	Ferrite Bead	AB
FB7007	RBLN-0090GEZZY	J	Ferrite Bead	AB
FB7008	RBLN-0051TAZZY	J	Ferrite Bead	AC
FB7701	RBLN-0037CEZZY	J	Ferrite Bead	AB
FB7732	RBLN-0090GEZZY	J	Ferrite Bead	AB
△ CN7701	QSOC AA010WJZZ	J	POWER INPUT Terminal	AD
J3301	QJAKJ0101SEZZ	J	Headphone Jack	AE
J3901	QJAKGA080WJZZ	J	PR/PB/Y(INPUT1) Terminal	AE
J3902	QJAKFA039WJZZ	J	AUDIO(L/R)(INPUT1) Terminal	AD
J3903	QJAKFA039WJZZ	J	AUDIO(L/R)(AUDIO OUT) Terminal	AD
J5000	QSOCDA035WJZZ	J	S-VIDEO(INPUT2) Terminal	AD
J5001	QJAKGA081WJZZ	J	AUDIO/VIDEO(INPUT2) Terminal	AE
P3301	QPLGNA185WJZZ	J	Plug, 4-pin(TS)	AB
P3901	QCNCMA012WJZZ	J	Connector, 15-pin(MB)	AD
P3902	QCNCMA250WJZZ	J	Connector, 23-pin(MA)	AE
P6700	QPLGNA390WJZZ	J	Plug, 2-pin	AC
P6701	QPLGNA390WJZZ	J	Plug, 2-pin	AC
P6702	QPLGNA390WJZZ	J	Plug, 2-pin	AC
P6703	QPLGNA390WJZZ	J	Plug, 2-pin	AC

Ref. No.	Part No.	★	Description	Code
P7301	QCNCMA012WJZZ	J	Connector, 15-pin	AD
SC3601	QSOCN0896REZZ	J	Socket, 8-pin	AC
HM6701	LX-GZ3002PEZZ	J	Screw	AB
HM6702	LX-GZ3002PEZZ	J	Screw	AB
HM6703	LX-GZ3002PEZZ	J	Screw	AB
HM6704	LX-GZ3002PEZZ	J	Screw	AB
HM6705	LX-GZ3002PEZZ	J	Screw	AB
HM6706	LX-GZ3002PEZZ	J	Screw	AB
HM6707	LX-GZ3002PEZZ	J	Screw	AB
HM6708	LX-GZ3002PEZZ	J	Screw	AB
HM6709	LX-GZ3002PEZZ	J	Screw	AB
HM6710	LX-GZ3002PEZZ	J	Screw	AB
HM6711	LX-GZ3002PEZZ	J	Screw	AB
HM6712	LX-GZ3002PEZZ	J	Screw	AB
HM6713	LX-GZ3002PEZZ	J	Screw	AB
HM6714	LX-GZ3002PEZZ	J	Screw	AB
HM6715	LX-GZ3002PEZZ	J	Screw	AB
HM6716	LX-GZ3002PEZZ	J	Screw	AB
HM7701	LX-GZ3002PEZZ	J	Screw	AB
HM7702	LX-GZ3002PEZZ	J	Screw	AB
HM7705	LX-GZ3002PEZZ	J	Screw	AB
HM7706	LX-GZ3002PEZZ	J	Screw	AB
HM7709	LX-GZ3002PEZZ	J	Screw	AB
HM7710	LX-GZ3002PEZZ	J	Screw	AB
HM7713	LX-GZ3002PEZZ	J	Screw	AB
HM7714	LX-GZ3002PEZZ	J	Screw	AB
HM7717	LX-GZ3001PEZZ	J	Screw	AB
HM7718	LX-GZ3001PEZZ	J	Screw	AB
HM7719	LX-GZ3001PEZZ	J	Screw	AB
HM7720	LX-GZ3001PEZZ	J	Screw	AB
HM7721	LX-GZ3002PEZZ	J	Screw	AB
HM7722	LX-GZ3002PEZZ	J	Screw	AB
HM7723	LX-GZ3002PEZZ	J	Screw	AB
HM7724	LX-GZ3002PEZZ	J	Screw	AB
HM7725	LX-GZ3002PEZZ	J	Screw	AB
HM7726	LX-GZ3002PEZZ	J	Screw	AB
HM7727	LX-GZ3002PEZZ	J	Screw	AB
HM7728	LX-GZ3002PEZZ	J	Screw	AB
HM7729	LX-GZ3002PEZZ	J	Screw	AB
HM7730	LX-GZ3002PEZZ	J	Screw	AB
HM7731	LX-GZ3002PEZZ	J	Screw	AB
HM7732	LX-GZ3002PEZZ	J	Screw	AB
HM7733	LX-GZ3002PEZZ	J	Screw	AB
HM7734	LX-GZ3002PEZZ	J	Screw	AB
HM7735	LX-GZ3002PEZZ	J	Screw	AB
RD7701	PRDARA178WJFW	J	Heat Sink	AM
RD7702	PRDARA185WJFW	J	Heat Sink	AL
	QCNW-D459WJQZ	J	Connecting Cord	AC
	QCNW-D513WJPZ	J	Connecting Cord	AC
	QCNW-D692WJQZ	J	Connecting Cord	AD
	XBPS730P10JS0	J	Screw, x4	AA

Ref. No.	Part No.	★	Description	Code
DUNTKD036WEF1 (LC-13SH4U)				
DUNTKD036WEF2 (LC-15SH4U)				
OPERATION Unit				
DIODES				
D4201	RH-EX0610GEZZY	J	Zener Diode, 4.7V	AA
D4202	RH-EX0610GEZZY	J	Zener Diode, 4.7V	AA
D4203	RH-EX0610GEZZY	J	Zener Diode, 4.7V	AA
D4204	RH-EX0610GEZZY	J	Zener Diode, 4.7V	AA
RESISTORS				
R4201	VRS-CY1JF682JY	J	6.8k 1/16W Metal Oxide	AA
R4202	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R4203	VRS-CY1JF682JY	J	6.8k 1/16W Metal Oxide	AA
R4204	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R4205	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
SWITCHES				
S4201	QSW-P0614CEZZ	J	POWER	AF
SW4202	QSW-K0003AJZZ+	J	CH(∨)	AB
SW4203	QSW-K0003AJZZ+	J	CH(∧)	AB
SW4204	QSW-K0003AJZZ+	J	INPUT	AB
SW4205	QSW-K0003AJZZ+	J	MENU	AB
SW4206	QSW-K0003AJZZ+	J	VOL(+)	AB
SW4207	QSW-K0003AJZZ+	J	VOL(-)	AB
MISCELLANEOUS PARTS				
SC4201	QSOCN0596REZZ	J	Socket, 5-pin	AB

Ref. No.	Part No.	★	Description	Code
DUNTKD037WEF1 (LC-13SH4U)				
DUNTKD037WEF2 (LC-15SH4U)				
R/C, LED Unit				
TRANSISTORS				
Q4001	VSKRC104S//-1Y	J	KRC104S	AA
Q4002	VSKRC104S//-1Y	J	KRC104S	AA
Q4003	VSKRC104S//-1Y	J	KRC104S	AA
Q4005	VSKRC104S//-1Y	J	KRC104S	AA
DIODES				
D4001	RH-PXA014WJZZ+	J	POWER Indicator	AD
D4002	RH-PXA014WJZZ+	J	SLEEP TIMER Indicator	AD
D4004	RH-EX0610GEZZY	J	Zener Diode, 4.7V	AA
D4005	RH-EX0610GEZZY	J	Zener Diode, 4.7V	AA
D4006	RH-EX0610GEZZY	J	Zener Diode, 4.7V	AA
D4009	RH-EX0610GEZZY	J	Zener Diode, 4.7V	AA
CAPACITOR				
C4001	VCESKA1CM106M+	J	10 16V Electrolytic	AB
RESISTORS				
R4001	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R4002	VRS-CY1JF681JY	J	680 1/16W Metal Oxide	AA
R4003	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R4005	VRS-CY1JF681JY	J	680 1/16W Metal Oxide	AA
R4006	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
MISCELLANEOUS PARTS				
SC4001	QSOCN0896REZZ	J	Socket, 8-pin	AC
RMC4001	RRMCUA034WJQZ	J	R/C Receiver	AE
	LHLDZA555WJZZ	J	LED Holder	AD

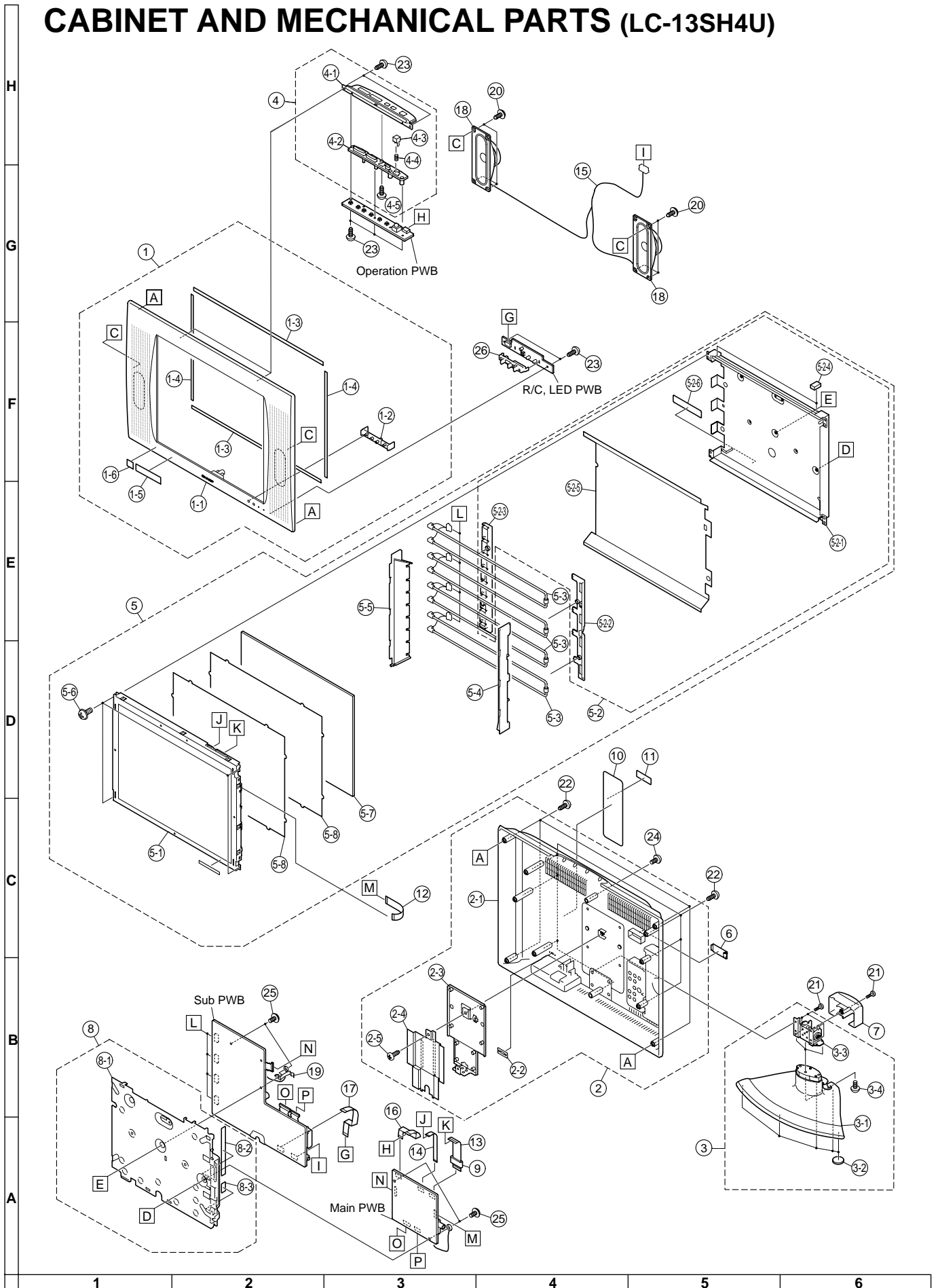
Ref. No. Part No. ★ Description Code

CABINET AND MECHANICAL PARTS

LC-13SH4U

1	CCABAA850WJ01	J	Cabinet A Ass'y	AZ
1-1	<i>Not Available</i>	-	Cabinet A	—
1-2	HDECQA528WJSA	J	R/C, LED Cover	AD
1-3	PSPAHA578WJZZ	J	Mask Spacer(L), x2	AC
1-4	PSPAHA579WJZZ	J	Mask Spacer(S), x2	AC
1-5	TLABZA459WJZZ	J	"EDTV" Label	AB
1-6	TLABZA635WJZZ	J	"EnergyStar" Label	AC
2	CCABBA538WJ01	J	Cabinet B Ass'y	AK
2-1	<i>Not Available</i>	-	Cabinet B	—
2-2	LANGFA085WJFW	J	Kensington Angle	AC
2-3	LANGTA229WJFW	J	Reinforcement Angle	AN
2-4	PZETKA129WJZZ	J	Insulating Spacer, x1	AP
2-5	XEBSN30P08000	J	Screw, x1	AA
3	CDAi-A187WJ01	J	Stand Ass'y	BE
3-1	<i>Not Available</i>	-	Stand Base	—
3-2	GLEGA010WJZZ	J	Rubber Leg, x5	AC
3-3	MHNG-A125WJ01	J	Stand Hinge	AZ
3-4	XBPSN40P14JS0	J	Screw, x3	AB
4	CCOVAB302WJ01	J	Top Cover Ass'y	AP
4-1	<i>Not Available</i>	-	Top Cover	—
4-2	JBTN-A353WJSA	J	Operation Button	AK
4-3	JBTN-A354WJSA	J	Power Button	AF
4-4	MSPRCA014WJFW	J	Spring, for Power Button	AB
4-5	XEBSN30P08000	J	Screw, x2	AA
5	<i>Not Available</i>	-	13" LCD Panel Unit Ass'y	—
5-1	RLCDA023WJZZ	J	13" LCD Panel Unit	CQ
5-2	<i>Not Available</i>	-	Back Shield Ass'y	—
5-2-1	PSLDMA542WJFW	J	Back Shield	AR
5-2-2	LHLDZA429WJKZ	J	Lamp Holder-R(Bottom)	AF
5-2-3	LHLDZA435WJKZ	J	Lamp Holder-L(Bottom)	AF
5-2-4	PMLT-A149WJZZ	J	Light Shielding Spacer, x2	AB
5-2-5	PSHEPA229WJZZ	J	Reflection Sheet	AK
5-2-6	TCAUZA031WJZZ	J	Caution Label	AB
△ 5-3	KLMP-A048WJZZ	J	Lamp Unit, x4	AV
5-4	LHLDZA433WJKZ	J	Lamp Holder-R(Top)	AH
5-5	LHLDZA434WJKZ	J	Lamp Holder-L(Top)	AH
5-6	LX-BZA084WJF7	J	Screw, x4	AA
5-7	PCOVUA047WJZZ	J	Diffusion Plate, x1	AT
5-8	PSHEPA230WJZZ	J	Diffusion Sheet, x2	AH
6	GCOVAA984WJKB	J	Bass-Conne Cover	AE
7	GCOVAB254WJKA	J	Stand Cover	AH
8	CCHSMA184WJ02	J	Chassis Frame Ass'y	AS
8-1	<i>Not Available</i>	-	Chassis Frame	—
8-2	PSPAHA557WJ00	J	Spacer, x1	AC
8-3	PSPAHA558WJ00	J	Spacer, x1	AB
9	RCORFA028WJZZ	J	Ferrite Core	AK
10	TLABMB426WJZZ	J	Model Label	AC
11	<i>Not Available</i>	-	Serial No. Label	—
12	QCNW-C182WJQZ	J	Connecting Cord	AC
13	QCNW-D228WJQZ	J	Connecting Cord	AD
14	QCNW-D229WJQZ	J	Connecting Cord	AC
15	QCNW-D297WJQZ	J	Connecting Cord	AK
16	QCNW-D362WJQZ	J	Connecting Cord	AB
17	QCNW-D461WJQZ	J	Connecting Cord	AE
18	VSP1104PB038A	J	Speaker, x2	AK
19	QEARPA125WJFW	J	Grounding Part	AD
20	XEBSN40P10000	J	Screw, x6	AB
21	XBBS940P10000	J	Screw, x5	AB
22	XEBS930P14000	J	Screw, x11	AA
23	XEBSN30P08000	J	Screw, x7	AA
24	XHBS830P10000	J	Screw, x1	AA
25	XHPS730P08WS0	J	Screw, x4	AA
26	LHLDZA555WJZZ	J	LED Holder	AD

CABINET AND MECHANICAL PARTS (LC-13SH4U)



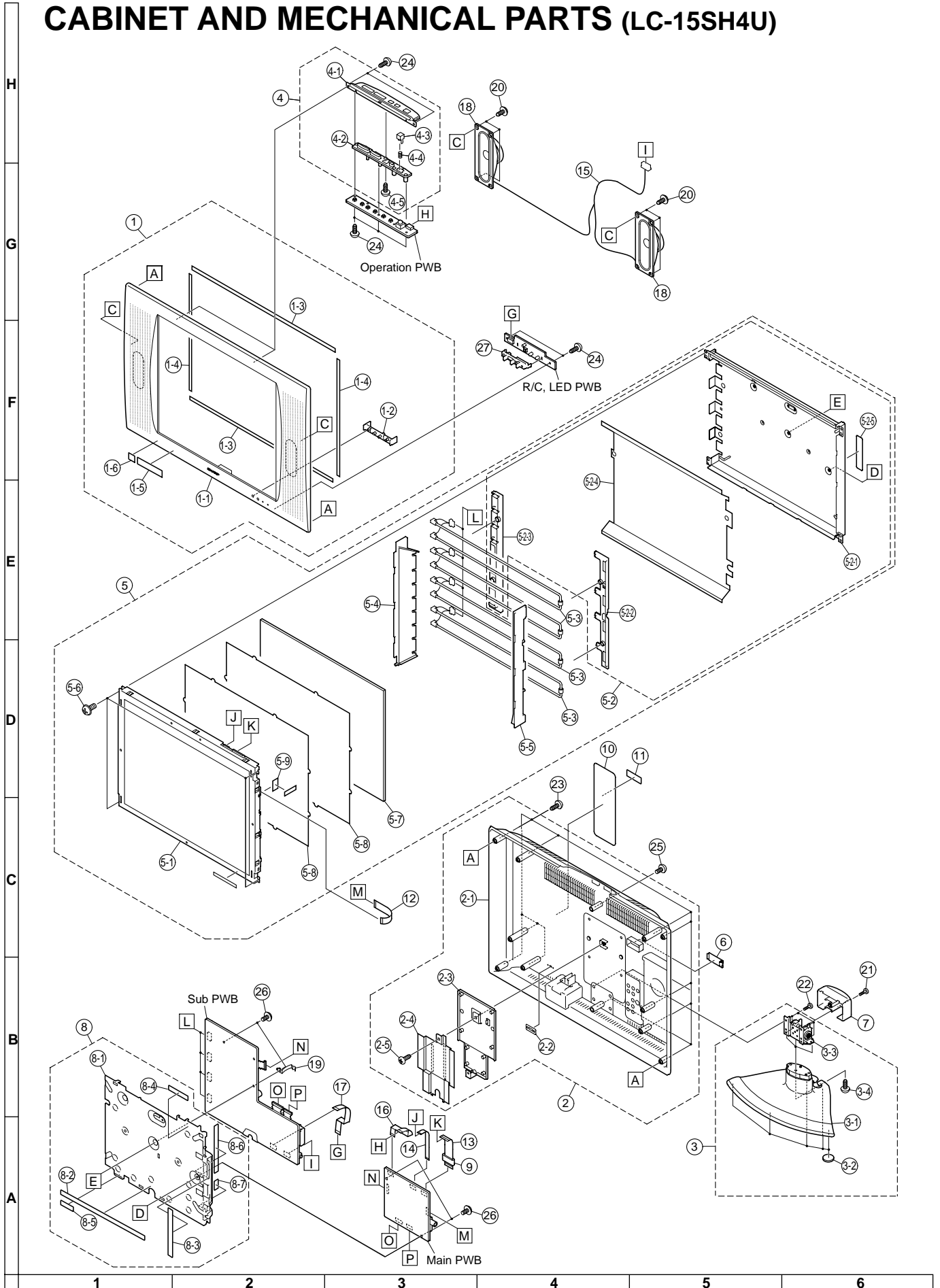
Ref. No. Part No. ★ Description Code

CABINET AND MECHANICAL PARTS
LC-15SH4U

1	CCABAA849WJ01	J	Cabinet A Ass'y	AZ
1-1	<i>Not Available</i>	-	Cabinet A	—
1-2	HDECQA528WJSA	J	R/C, LED Cover	AD
1-3	PSPAHA568WJ00	J	Mask Spacer(L), x2	AC
1-4	PSPAHA569WJ00	J	Mask Spacer(S), x2	AC
1-5	TLABZA459WJZZ	J	"EDTV" Label	AB
1-6	TLABZA635WJZZ	J	"EnergyStar" Label	AC
2	CCABBA537WJ01	J	Cabinet B Ass'y	BD
2-1	<i>Not Available</i>	-	Cabinet B	—
2-2	LANGFA085WJFW	J	Kensington Angle	AC
2-3	LANGTA212WJFW	J	Reinforcement Angle	AN
2-4	PZETKA127WJZZ	J	Insulating Spacer, x1	AL
2-5	XEBSN30P10000	J	Screw, x1	AA
3	CDAi-A187WJ01	J	Stand Ass'y	BE
3-1	<i>Not Available</i>	-	Stand Base	—
3-2	GLEGA010WJZZ	J	Rubber Leg, x5	AC
3-3	MHNG-A125WJ01	J	Stand Hinge	AZ
3-4	XBPSN40P14JS0	J	Screw, x3	AB
4	CCOVAB228WJ01	J	Top Cover Ass'y	AQ
4-1	<i>Not Available</i>	-	Top Cover	—
4-2	JBTN-A353WJSA	J	Operation Button	AK
4-3	JBTN-A354WJSA	J	Power Button	AF
4-4	MSPRCA014WJFW	J	Spring, for Power Button	AB
4-5	XEBSN30P08000	J	Screw, x1	AA
5	<i>Not Available</i>	-	15" LCD Panel Unit Ass'y	—
5-1	RLCDA024WJZZ	J	15" LCD Panel Unit	CT
5-2	<i>Not Available</i>	-	Back Shield Ass'y	—
5-2-1	PSLDMA541WJFW	J	Back Shield	AS
5-2-2	LHLDZA425WJKZ	J	Lamp Holder-R(Bottom)	AF
5-2-3	LHLDZA426WJKZ	J	Lamp Holder-L(Bottom)	AF
5-2-4	PSHEPA228WJZZ	J	Reflection Sheet	AL
5-2-5	TCAUZA031WJZZ	J	Caution Label	AB
△ 5-3	KLMP-A047WJZZ	J	Lamp Unit, x4	AV
5-4	LHLDZA423WJKZ	J	Lamp Holder-L(Top)	AK
5-5	LHLDZA424WJKZ	J	Lamp Holder-R(Top)	AH
5-6	LX-BZA084WJF7	J	Screw, x4	AA
5-7	PCOVUA046WJZZ	J	Diffusion Plate	AV
5-8	PSHEPA227WJZZ	J	Diffusion Sheet, x2	AK
5-9	PSPAKA045WJZZ	J	Insulating Spacer	AB
6	GCOVAA984WJKB	J	Bass-Conne Cover	AE
7	GCOVAB254WJKA	J	Stand Cover	AH
8	CCHSMA184WJ01	J	Chassis Frame Ass'y	AT
8-1	<i>Not Available</i>	-	Chassis Frame	—
8-2	PSPAHA552WJ00	J	Spacer, x1	AD
8-3	PSPAHA553WJ00	J	Spacer, x1	AC
8-4	PSPAHA554WJ00	J	Spacer, x1	AB
8-5	PSPAHA556WJ00	J	Spacer, x1	AB
8-6	PSPAHA557WJ00	J	Spacer, x1	AC
8-7	PSPAHA558WJ00	J	Spacer, x1	AB
9	RCORFA028WJZZ	J	Ferrite Core	AK
10	TLABMB425WJZZ	J	Model Label	AC
11	<i>Not Available</i>	-	Serial No. Label	—
12	QCNW-B441WJQZ	J	Connecting Cord	AC
13	QCNW-D228WJQZ	J	Connecting Cord	AD
14	QCNW-D229WJQZ	J	Connecting Cord	AC
15	QCNW-D298WJQZ	J	Connecting Cord	AG
16	QCNW-D362WJQZ	J	Connecting Cord	AB
17	QCNW-D519WJQZ	J	Connecting Cord	AD
18	VSP1104PB038A	J	Speaker, x2	AK
19	QEARPA125WJFW	J	Grounding Part	AD
20	XEBSN40P12000	J	Screw, x6	AB
21	XBBS940P10000	J	Screw, x1	AB
22	XBPSN40P14JS0	J	Screw, x4	AB
23	XEBS930P14000	J	Screw, x11	AA

Ref. No.	Part No.	★	Description	Code
24	XEBSN30P12000	J	Screw, x7	AA
25	XHBS830P10000	J	Screw, x1	AA
26	XHPS730P08WS0	J	Screw, x4	AA
27	LHLDZA555WJZZ	J	LED Holder	AD

CABINET AND MECHANICAL PARTS (LC-15SH4U)



Ref. No. Part No. ★ Description Code

SUPPLIED ACCESORIES

△ X1	QACCD A038WJPZ	J	AC Cord (LC-15SH4U)	AL
△ X1	QACCD A041WJPZ	J	AC Cord (LC-13SH4U)	AL
X2	RRMCGA367WJSA	J	Wireless Remote Control	AV
X3	TCAD E A141WJZZ	J	Questionnaire Card	AC
X4	TINS-B819WJN1	J	Operation Manual (English)	AD
X5	TINS-B820WJN1	J	Operation Manual (French)	AD
X6	TINS-B905WJN1	J	Operation Manual (Spanish)	AD
X7	Not Available	-	"AA" size Battery, x2	-

Ref. No. Part No. ★ Description Code


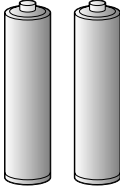


PACKING PARTS (NOT REPLACEMENT ITEM)

S1	SPAKCB850WJZZ	-	Packing Case (LC-15SH4U)	-
S1	SPAKCB851WJZZ	-	Packing Case (LC-13SH4U)	-
S2	SPAKPA230WJZZ	-	Wrapping Paper (LC-13SH4U)	-
S2	SPAKPA531WJZZ	-	Wrapping Paper (LC-15SH4U)	-
S3	SPAKXA728WJZZ	-	Buffer Material (LC-15SH4U)	-
S3	SPAKXA729WJZZ	-	Buffer Material (LC-13SH4U)	-
S4	SSAKA0001SEZZ	-	Polyethylene Bag	-
S5	TLABKA025WJZZ	-	No. Label	-

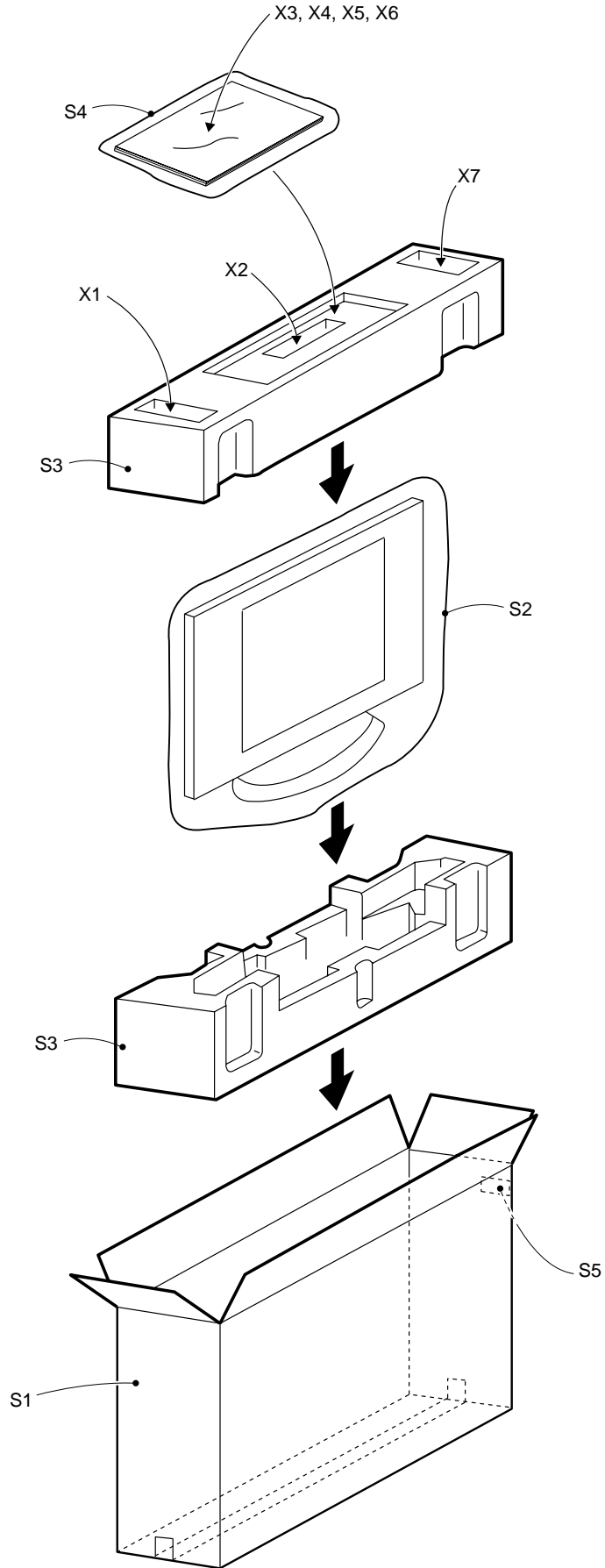
SERVICE JIGS (USE FOR SERVICING)

QCNW-A555WJZZ	J	Extension Cable, 20-pin (SC1002-LCD)	AU
QCNW-A556WJZZ	J	Extension Cable, 50-pin (SC1000-LCD)	AU
QCNW-B784WJZZ	J	Extension Cable, 30-pin (SC1001-LCD)	BA
QCNW-C461WJQZ	J	Extension Cable, 15-pin, x2 CD (SC1201-P7301, SC2001-P3901)	
QCNW-D402WJQZ	J	Extension Cable, 23-pin (SC2002-P3902)	CE
QCNW-D444WJQZ	J	Extension Cable, 5-pin (SC2003-SC4201)	AQ
QCNW-D445WJQZ	J	Extension Cable, 8-pin (SC3601-SC4001)	AQ
JiGiNF-001	J	Interface Jig	CC

Supplied Accessories

Wireless remote control	"AA" size batteries (x2)	AC cord
X2 	X7 	X1  LC-13SH4U  LC-15SH4U
Operation manual : X4, X5, X6		

PACKING OF THE SET



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SHARP CORPORATION
AV Systems Group
Quality & Reliability Control Center
Yaita, Tochigi 329-2193, Japan