

15"/20" COLOR LCD TELEVISION

LCD-B1504

LCD-B2004

The LCD panel is manufactured to provide many years of useful life. Occasionally a few non active pixels may appear as a tiny spec of color. This is not to be considered a defect in the LCD screen.

Wiring Diagram

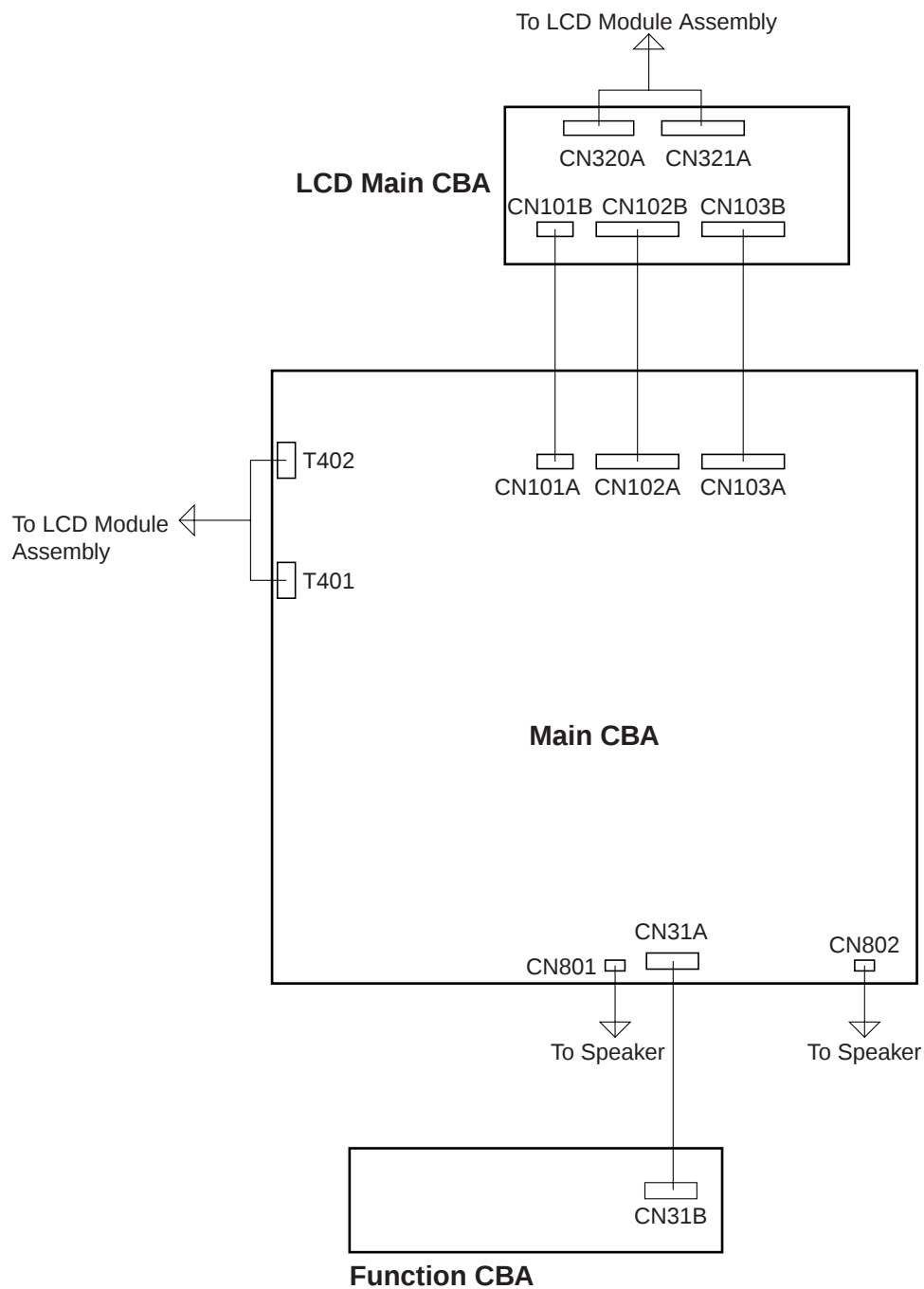


Fig. D3

Cable Wiring Diagram

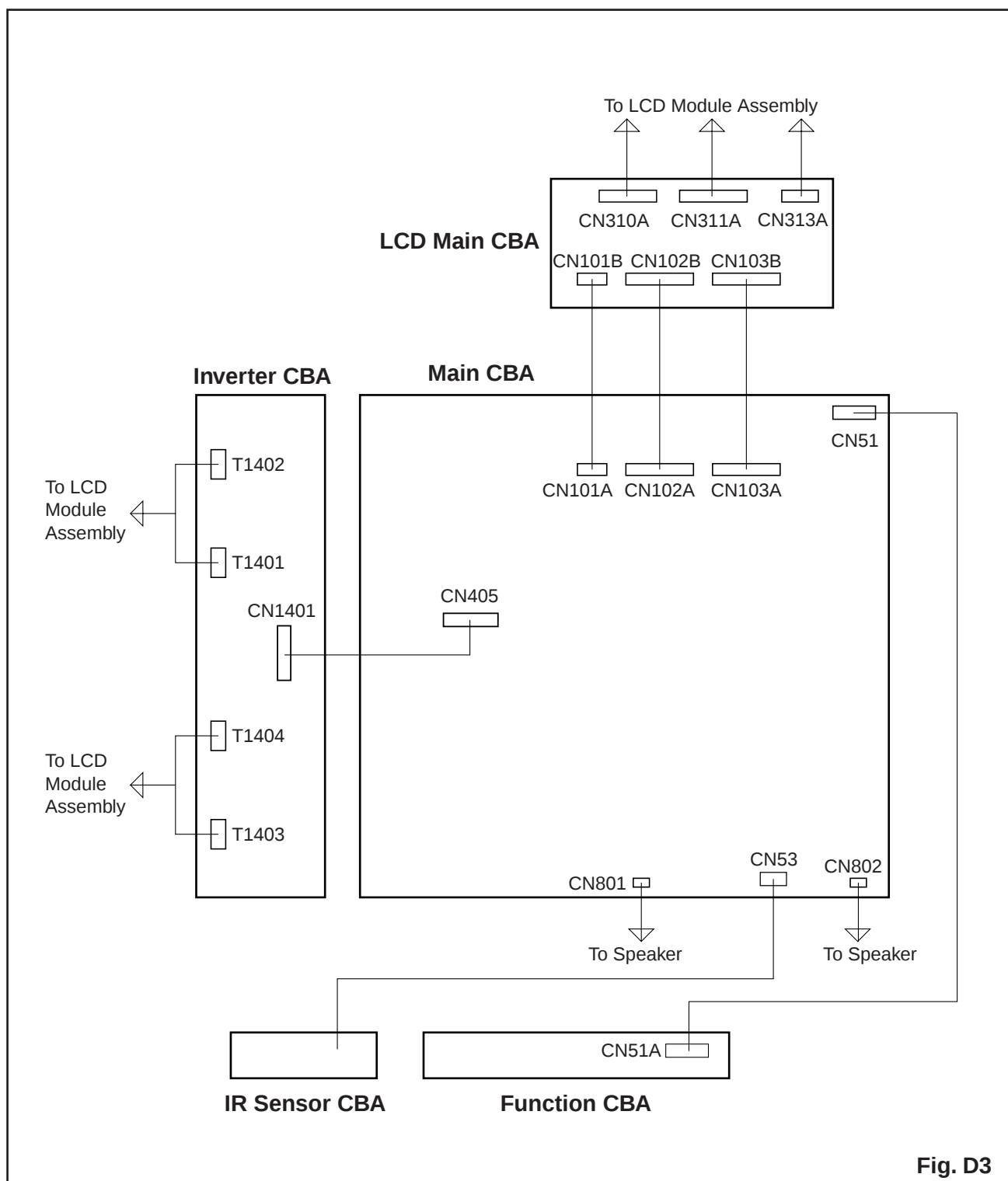


Fig. D3

HOW TO INITIALIZE THE LCD TELEVISION

To put the program back at the factory-default, initialize the LCD television as the following procedure.

How to initialize the LCD television:

1. Turn the power on. (Use main power on the TV unit.)
2. To enter the service mode, press [STANDBY], [2], [7], [1], and [MUTE] buttons on the remote control unit in that order within 5 seconds.
 - To cancel the service mode, press [STANDBY] button on the remote control.
3. To initialize the LCD television, press "DISPLAY" button on the remote control unit.
4. Confirm "FF" indication on the upper right of the screen.

ELECTRICAL ADJUSTMENT INSTRUCTIONS

General Note:

“CBA” is abbreviation for “Circuit Board Assembly.”

NOTE:

Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.

Test Equipment Required

1. DC Voltmeter
2. Pattern Generator
3. Color Analyzer

How to Set up the Service mode:

1. Turn the power on. (Use main power on the TV unit.)
2. Press [STANDBY], [2], [7], [1], and [MUTE] buttons on the remote control unit in that order within 5 seconds.
- To cancel the service mode, press [STANDBY] button on the remote control.

1. Initial Setting

General

Enter the Service mode.

Set the each initial data as shown on table 1 below.

Table 1: Initial Data

ITEM	BUTTON (on the remote control)	DATA VALUE	
		LCD-B1504	LCD-B2004
BRT(PAL)	MENU → 1	130	134
CNT(PAL)		174	174
CLR-R(PAL)		78	74
CLR-B(PAL)		78	74
SHR(PAL)		143	143
S-BRT(PAL)	MENU → 2	130	134
S-CNT(PAL)		174	174
S-CLR-R(PAL)		78	74
S-CLR-B(PAL)		78	74
S-SHR(PAL)		143	143
C-BRT(PAL)	MENU → 3	134	134
C-CNT(PAL)		122	132
C-CLR-R(PAL)		156	154
C-CLR-B(PAL)		156	154
C-SHR(PAL)		143	143
BRT(SECAM)	MENU → 4	130	134
CNT(SECAM)		174	174
CLR-R(SECAM)		78	74
CLR-B(SECAM)		78	74
SHR(SECAM)		143	143
S-BRT(SECAM)	MENU → 5	130	134
S-CNT(SECAM)		174	174
S-CLR-R(SECAM)		78	74
S-CLR-B(SECAM)		78	74
S-SHR(SECAM)		143	143
C-BRT(SECAM)	MENU → 6	134	134
C-CNT(SECAM)		122	132
C-CLR-R(SECAM)		156	154
C-CLR-B(SECAM)		156	154
C-SHR(SECAM)		143	143
BRT(NTSC)	MENU → 7	134	134
CNT(NTSC)		172	174
CLR-R(NTSC)		78	70
CLR-B(NTSC)		78	70
TNT(NTSC)		148	148
SHR(NTSC)	MENU → 8	143	143
S-BRT(NTSC)		134	134
S-CNT(NTSC)		172	174
S-CLR-R(NTSC)		78	70
S-CLR-B(NTSC)		78	70
S-TNT(NTSC)		148	148
S-SHR(NTSC)		143	143

ITEM	BUTTON (on the remote control)	DATA VALUE	
		LCD-B1504	LCD-B2004
C-BRT(NTSC)	MENU → 9	134	134
C-CNT(NTSC)		122	132
C-CLR-R(NTSC)		156	154
C-CLR-B(NTSC)		156	154
C-TNT(NTSC)		148	148
C-SHR(NTSC)		143	143
BRIGHT	0	0	0
NORMAL	0	40	65
DARK	0	95	98
COR(C/D/S-1)	VOL. p → 1	131	131
COG(C/D/S-1)	VOL. p → 2	131	131
COB(C/D/S-1)	VOL. p → 3	131	131
DR(C/D/S-1)	VOL. p → 4	145	145
DG(C/D/S-1)	VOL. p → 5	143	143
DB(C/D/S-1)	VOL. p → 6	140	140
SBR(C/D/S-1)	VOL. p → 7	0	0
SBB(C/D/S-1)	VOL. p → 9	0	0
C-COR(C/D/S-2)	VOL. p → 1	131	131
C-COG(C/D/S-2)	VOL. p → 2	131	131
C-COB(C/D/S-2)	VOL. p → 3	131	131
C-DR(C/D/S-2)	VOL. p → 4	145	145
C-DG(C/D/S-2)	VOL. p → 5	143	143
C-DB(C/D/S-2)	VOL. p → 6	140	140
C-SBR(C/D/S-2)	VOL. p → 7	0	0
C-SBB(C/D/S-2)	VOL. p → 9	0	0
7F	VOL. p	FF	FF
LAST POWER		OFF	OFF
SYSTEM		PAL-I	PAL-I
NCM		ON	ON
ASPECT		OFF	OFF
RUSSIAN		OFF	OFF

2. +B Adjustment

Purpose: To obtain correct operation.

Symptom of Misadjustment: The picture is dark and the unit does not operate correctly.

Test Point	Adj. Point
TP401 (+B) TP300 (GND)	VR649
M. EQ.	Spec.
DC Voltmeter	+13.0±0.3V DC [LCD-B1504] +21.0±0.3V DC [LCD-B2004]

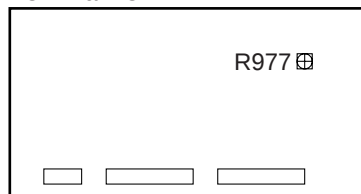
Note: TP401(+B), TP300(GND), VR649 --- Main CBA

1. Connect DC Volt Meter to TP401 and TP300(GND).
2. Adjust VR649 so that the voltage of TP401 becomes +13.0±0.3V DC [LCD-B1504] or +21.0±0.3V DC [LCD-B2004].

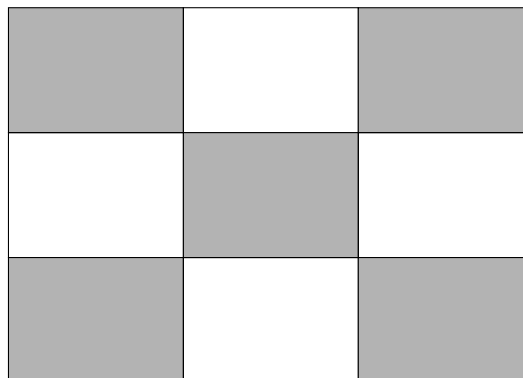
3. Flicker Adjustment

Adjustment Point: R977 (LCD Main CBA)

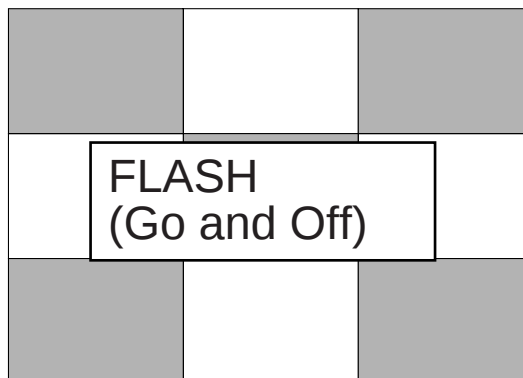
LCD Main CBA



1. Enter the Service mode.
2. Press "2" button on the remote control unit.
The following screen appears.



3. If Flicker Adjustment is not fit, the screen become the following.



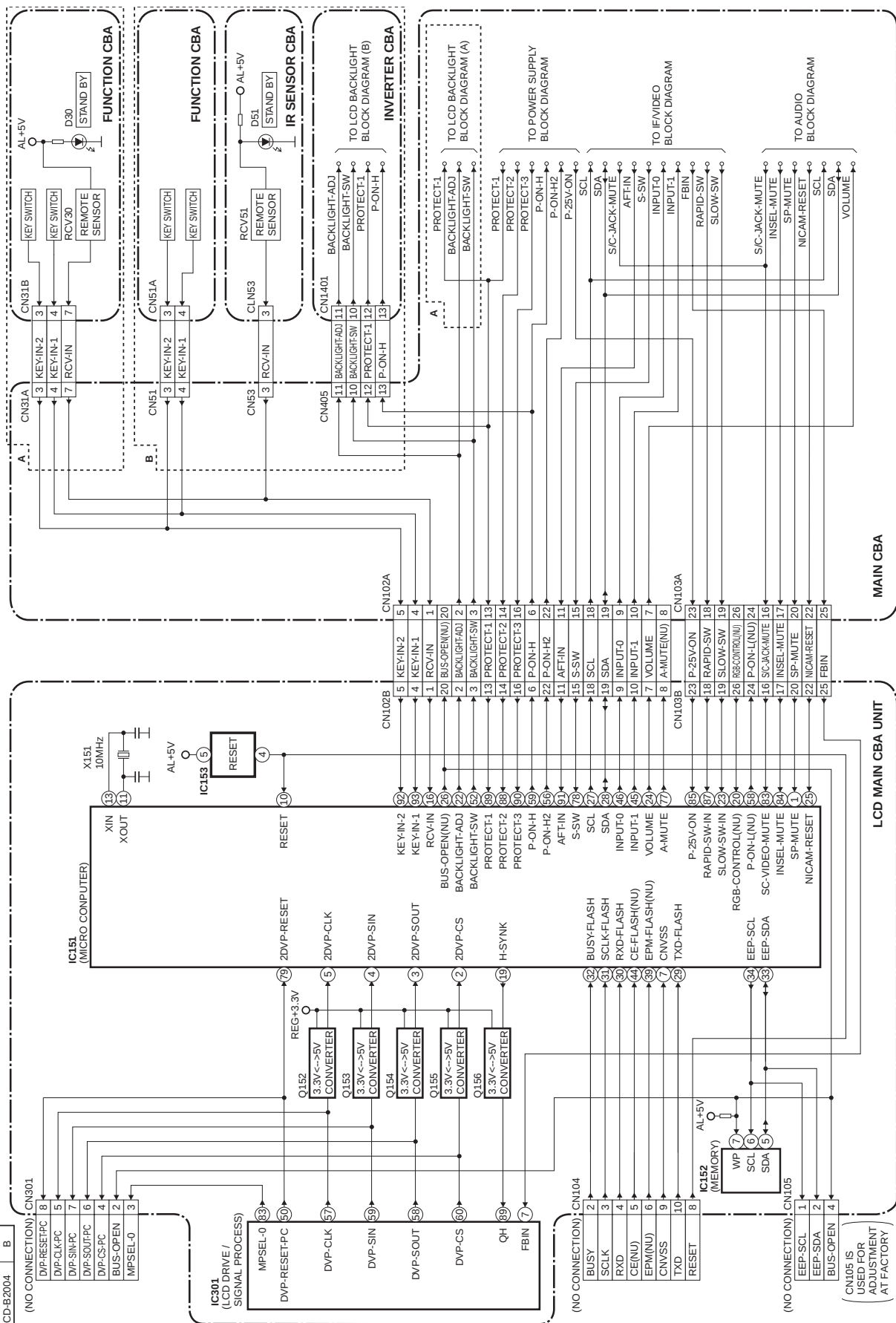
4. Adjust R977 so that flash stops.

BLOCK DIAGRAMS

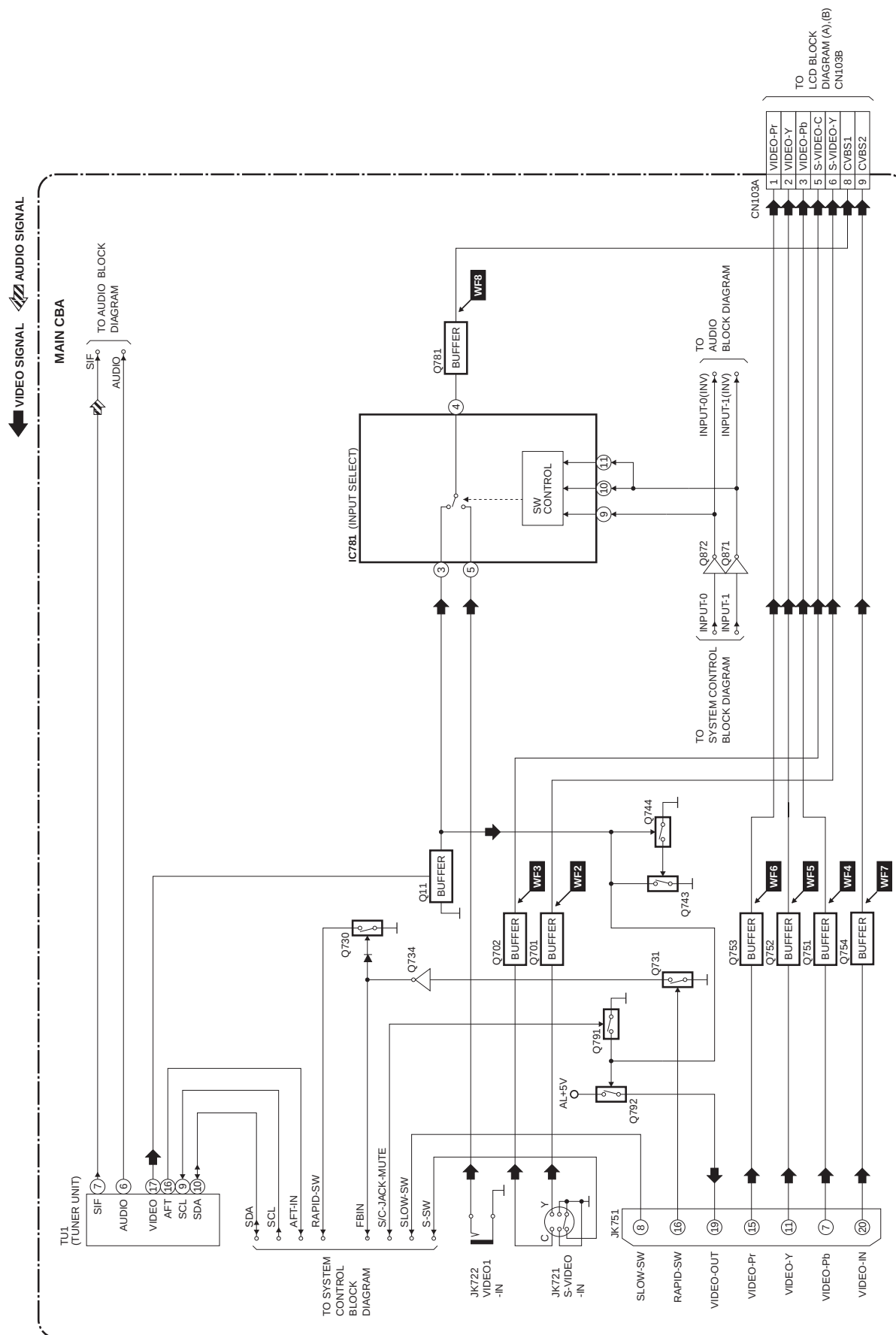
System Control Block Diagram

Comparison Chart of Models & Marks

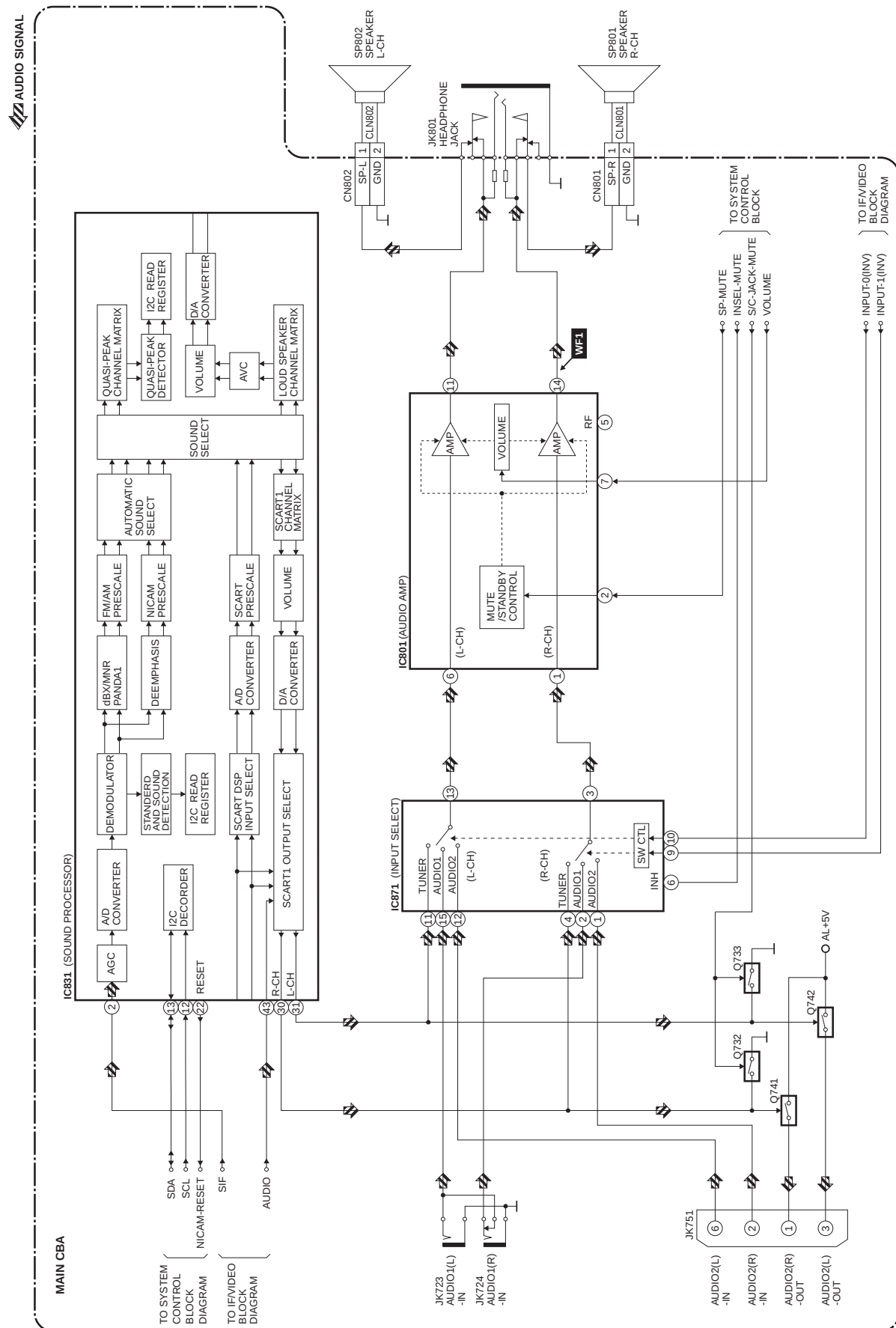
Model	Mark
LCD-B1504	A
LCD-B2004	B



IF/Video Block Diagram



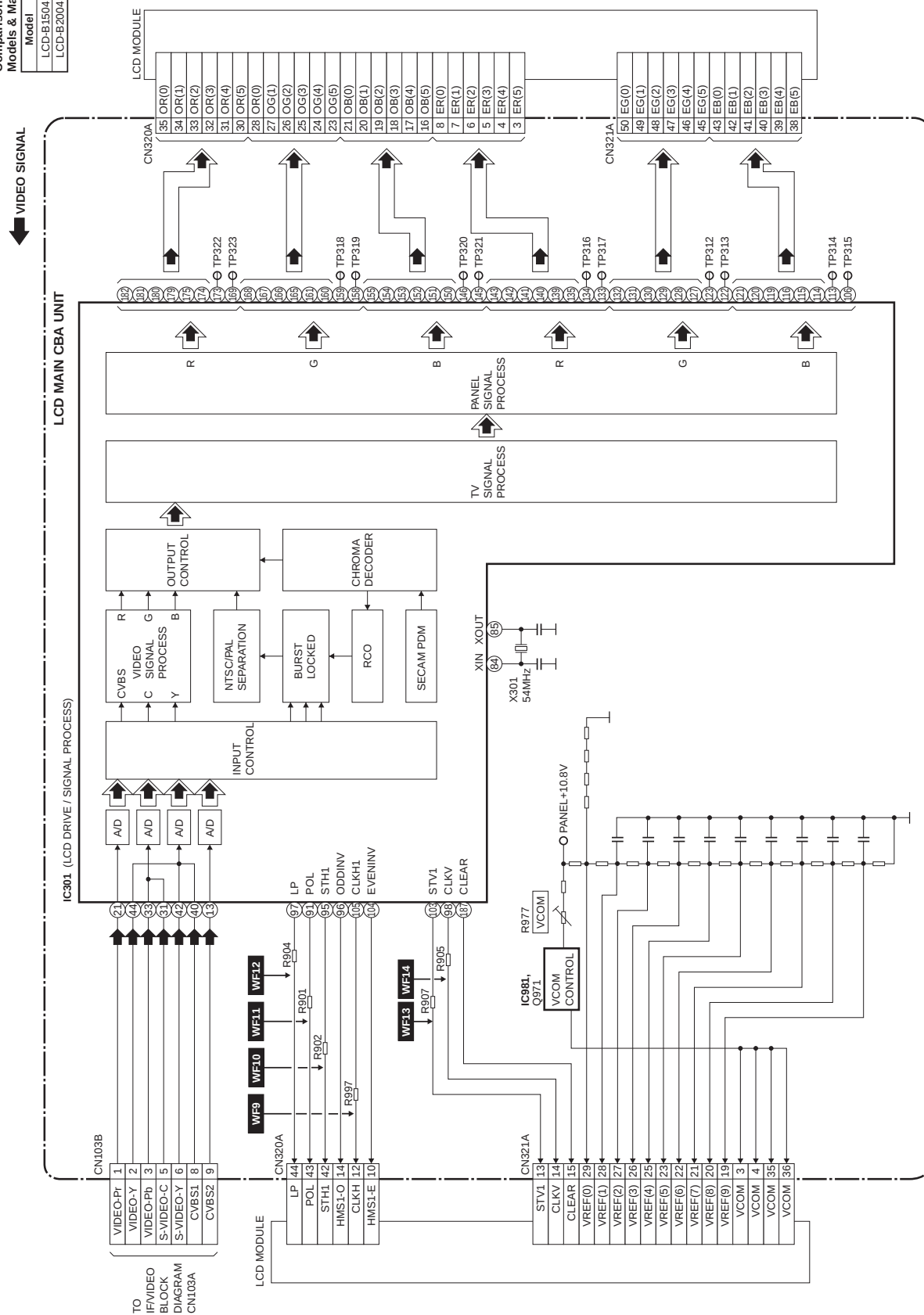
Audio Block Diagram



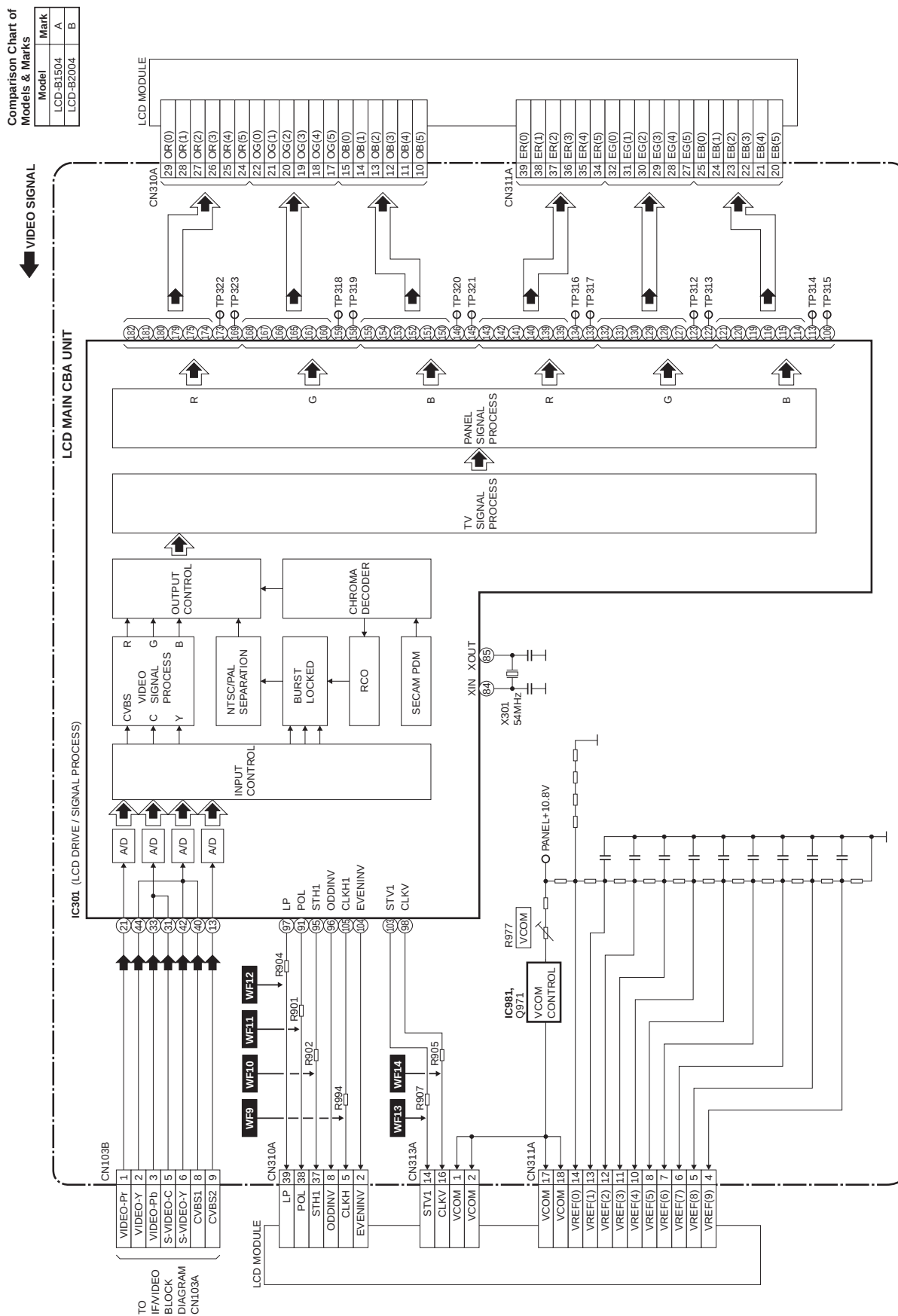
LCD Block Diagram (A)

Comparison Chart of Models & Marks

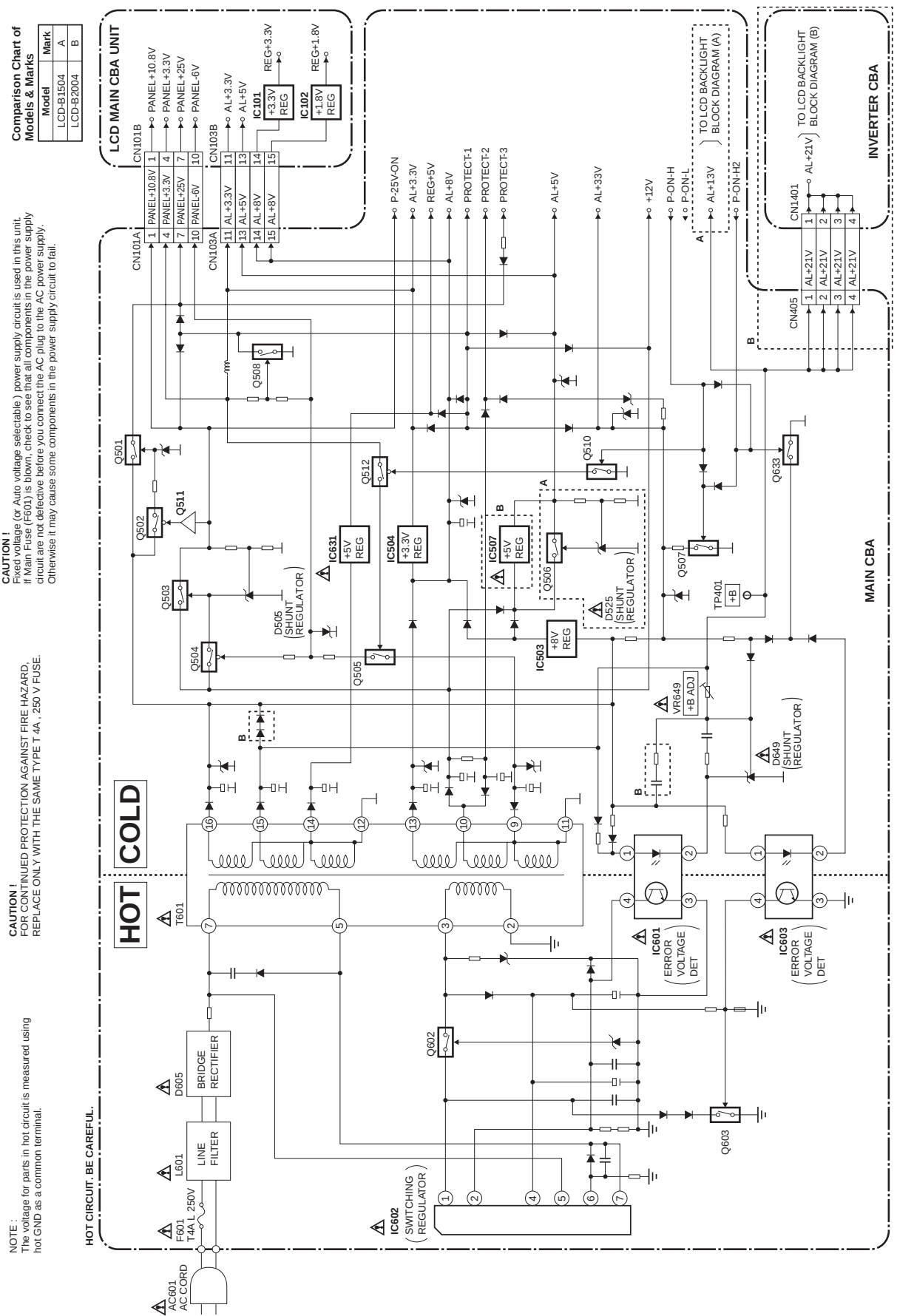
Model	Mark
LCD-B1504	A
LCD-B2004	B



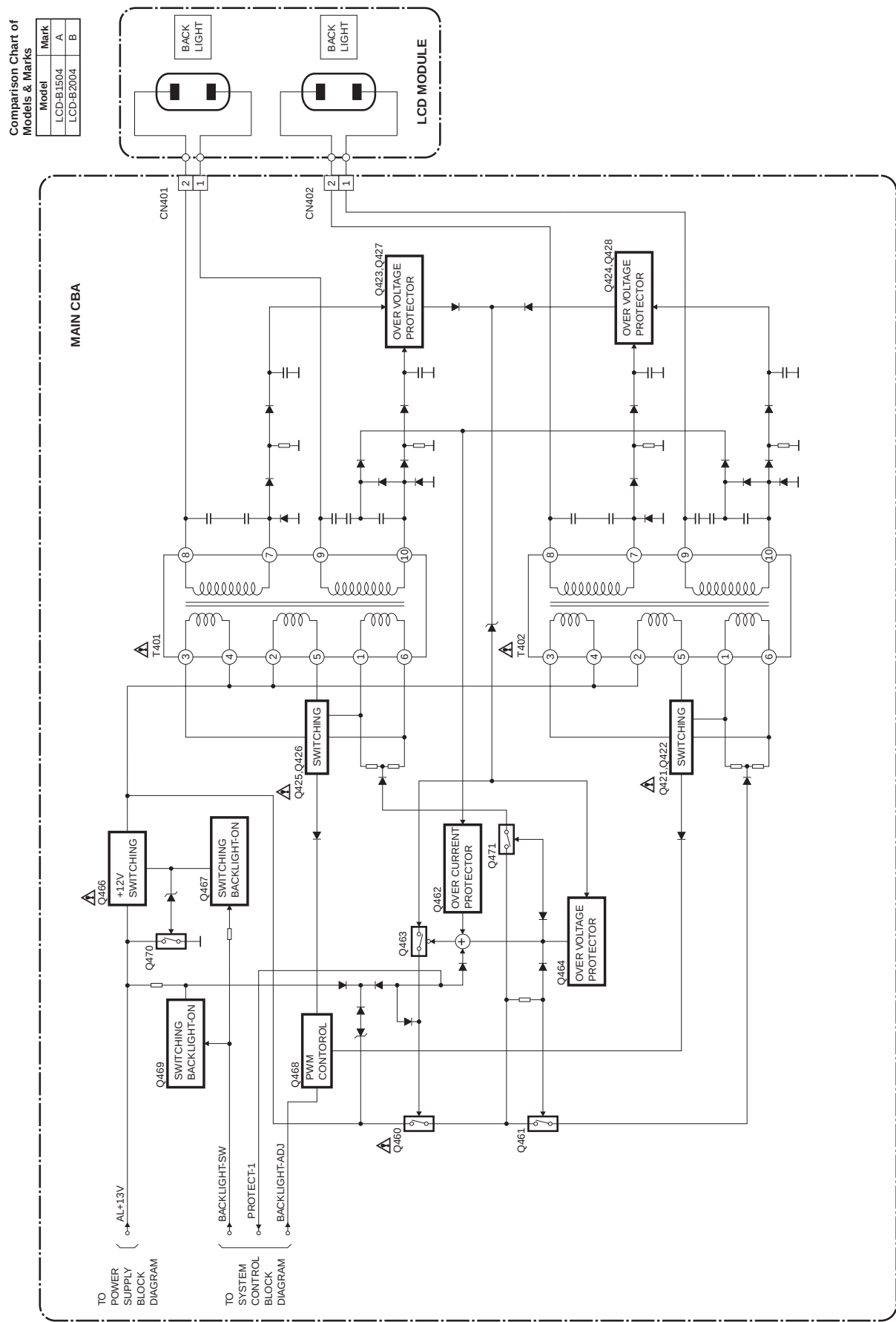
LCD Block Diagram (B)



Power Supply Block Diagram



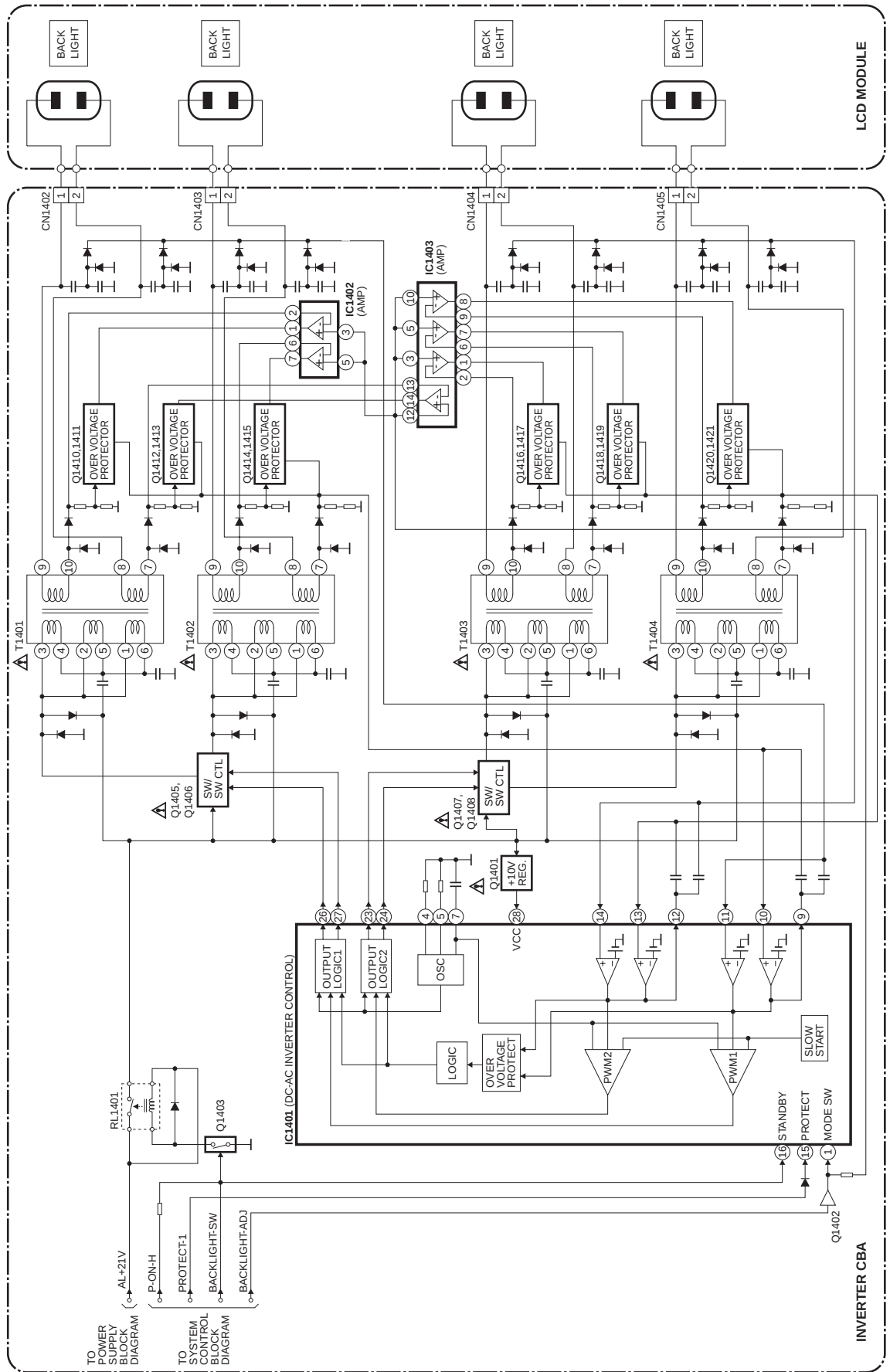
LCD Backlight Block Diagram (A)



LCD Backlight Block Diagram (B)

Comparison Chart of Models & Marks

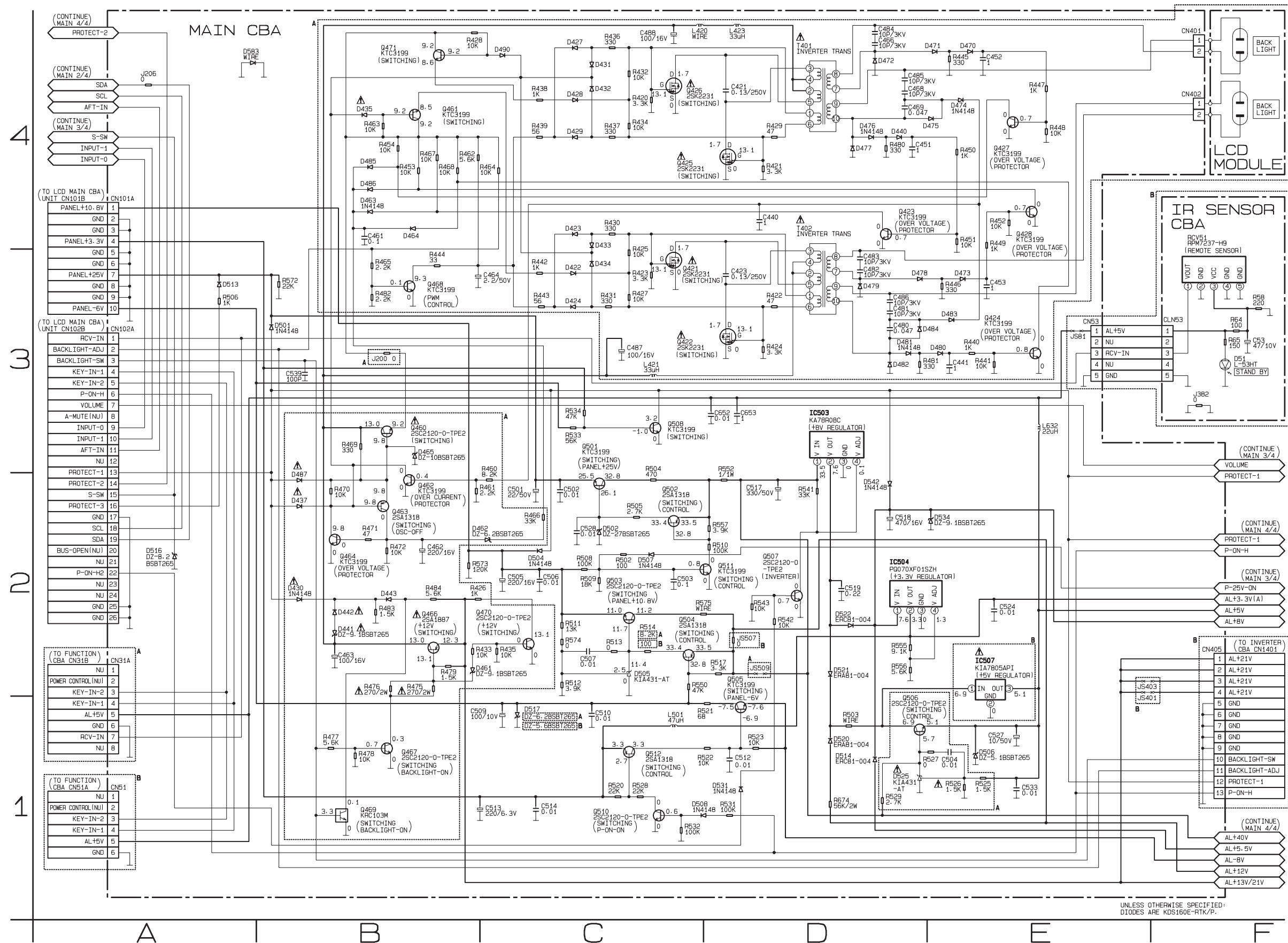
Model	Mark
LCD-B1504	A
LCD-B2004	B



Main 1/4 & IR Sensor Schematic Diagram

Comparison Chart of Models and Marks

MODEL	MARK
LCD-B1504	A
LCD-B2004	B



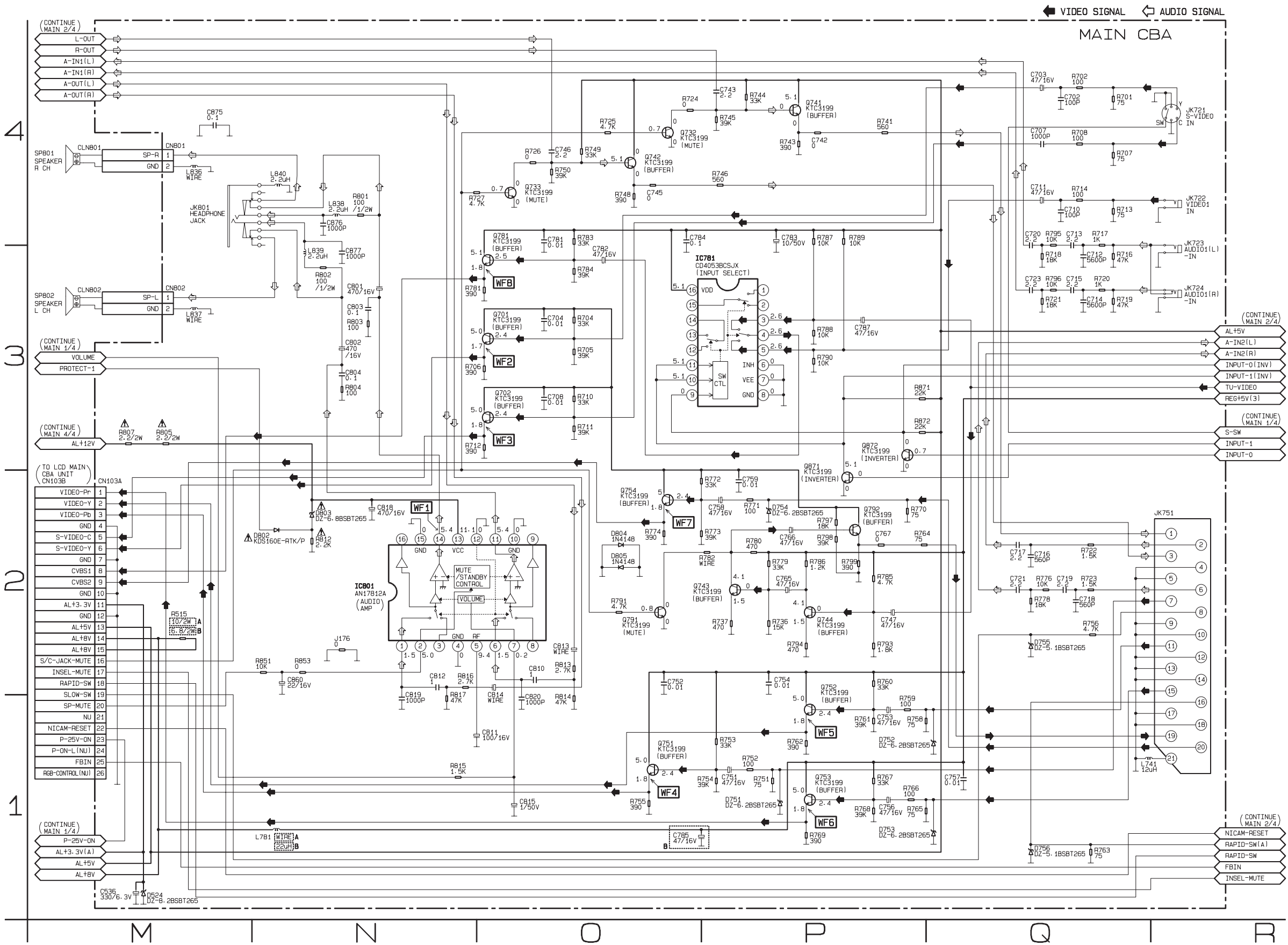
4



Main 3/4 Schematic Diagram

Comparison Chart of Models and Marks

MODEL	MARK
LCD-B1504	A
LCD-B2004	B



Main 4/4 Schematic Diagram

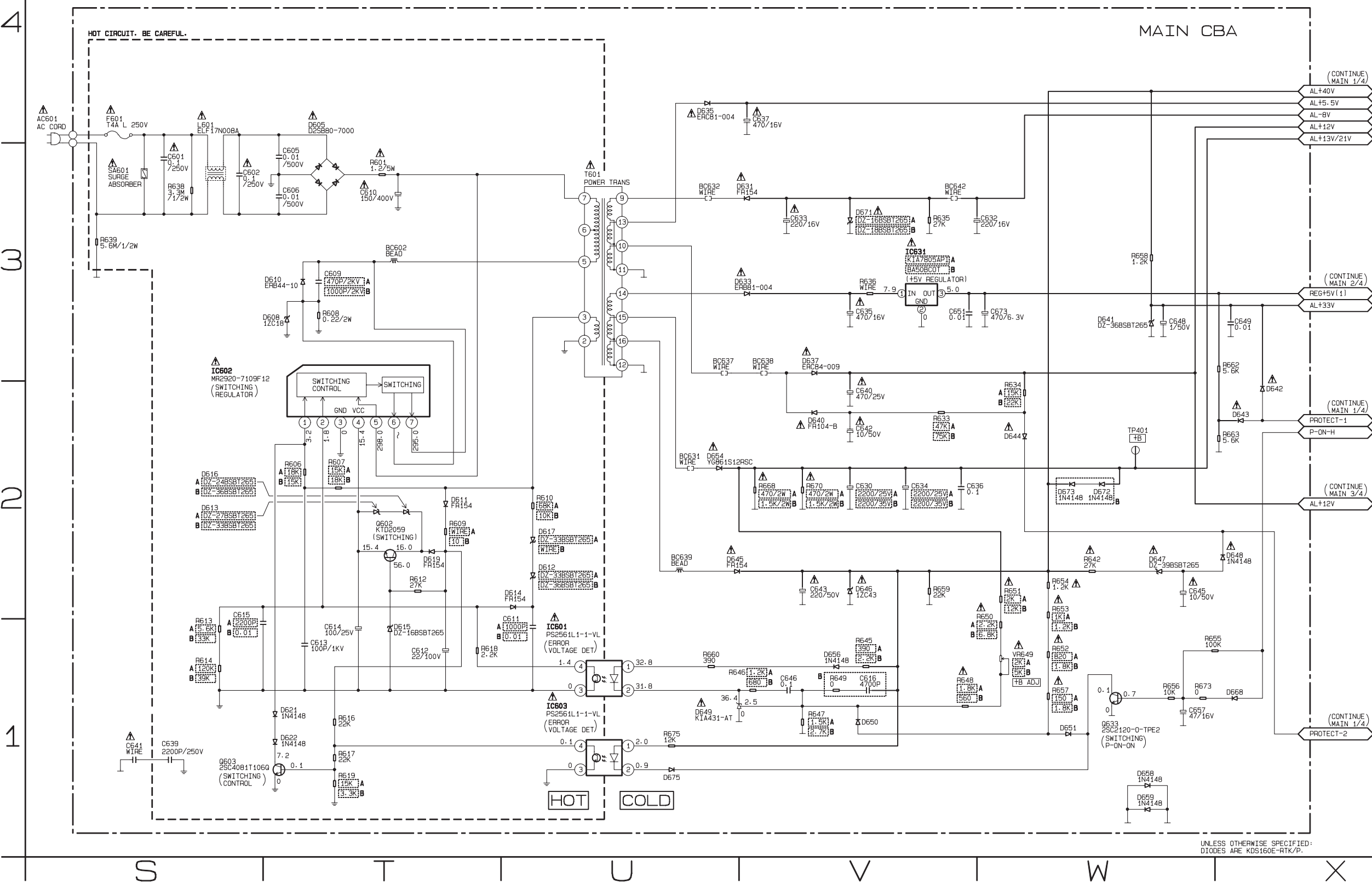
Comparison Chart of Models and Marks

MODEL	MARK
LCD-B1504	A
LCD-B2004	B

CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.

NOTE:
The voltage for parts in hot circuit is measured using
hot GND as a common terminal.

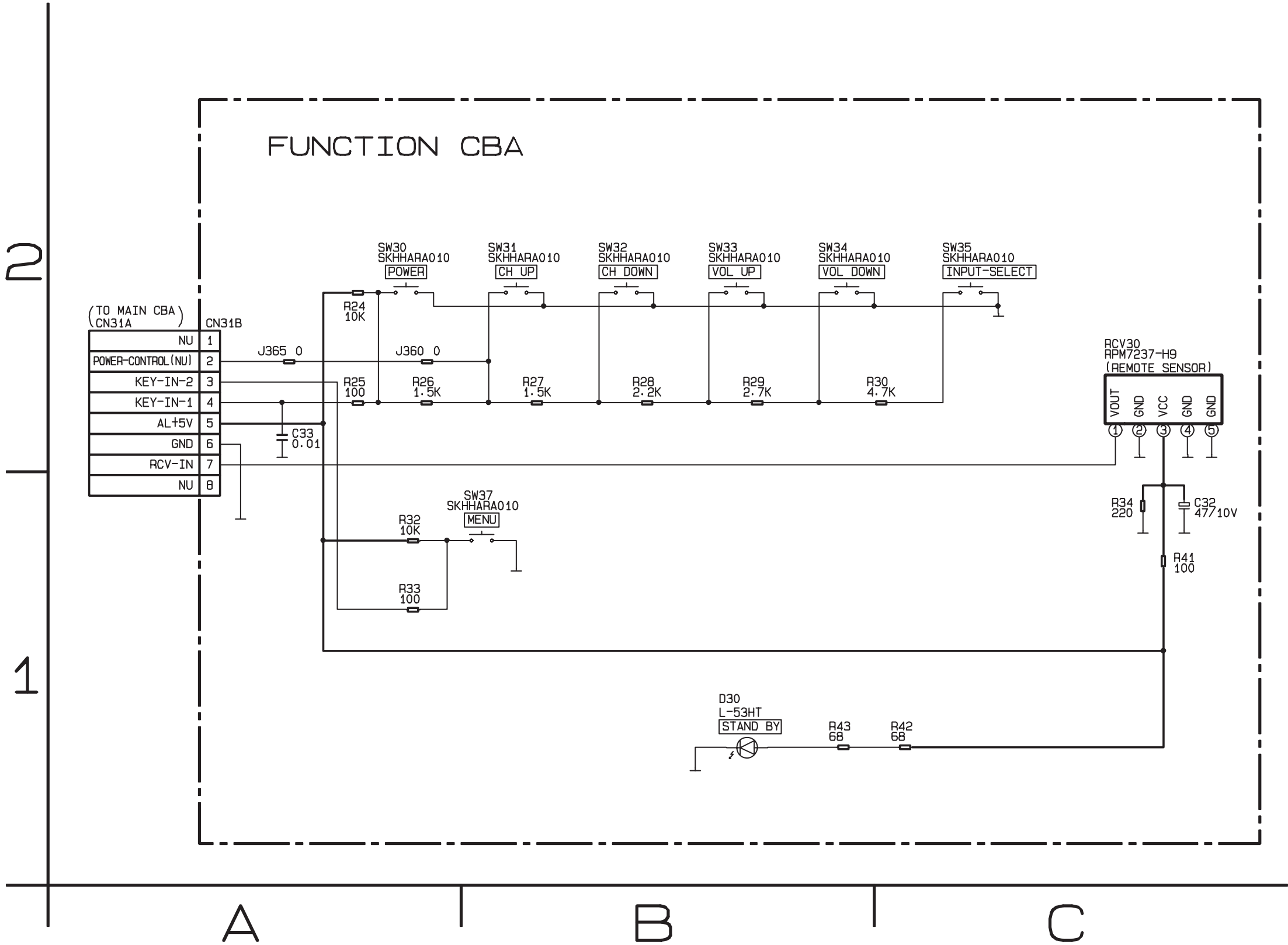
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply
circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



Function Schematic Diagram (A)

Comparison Chart of Models and Marks

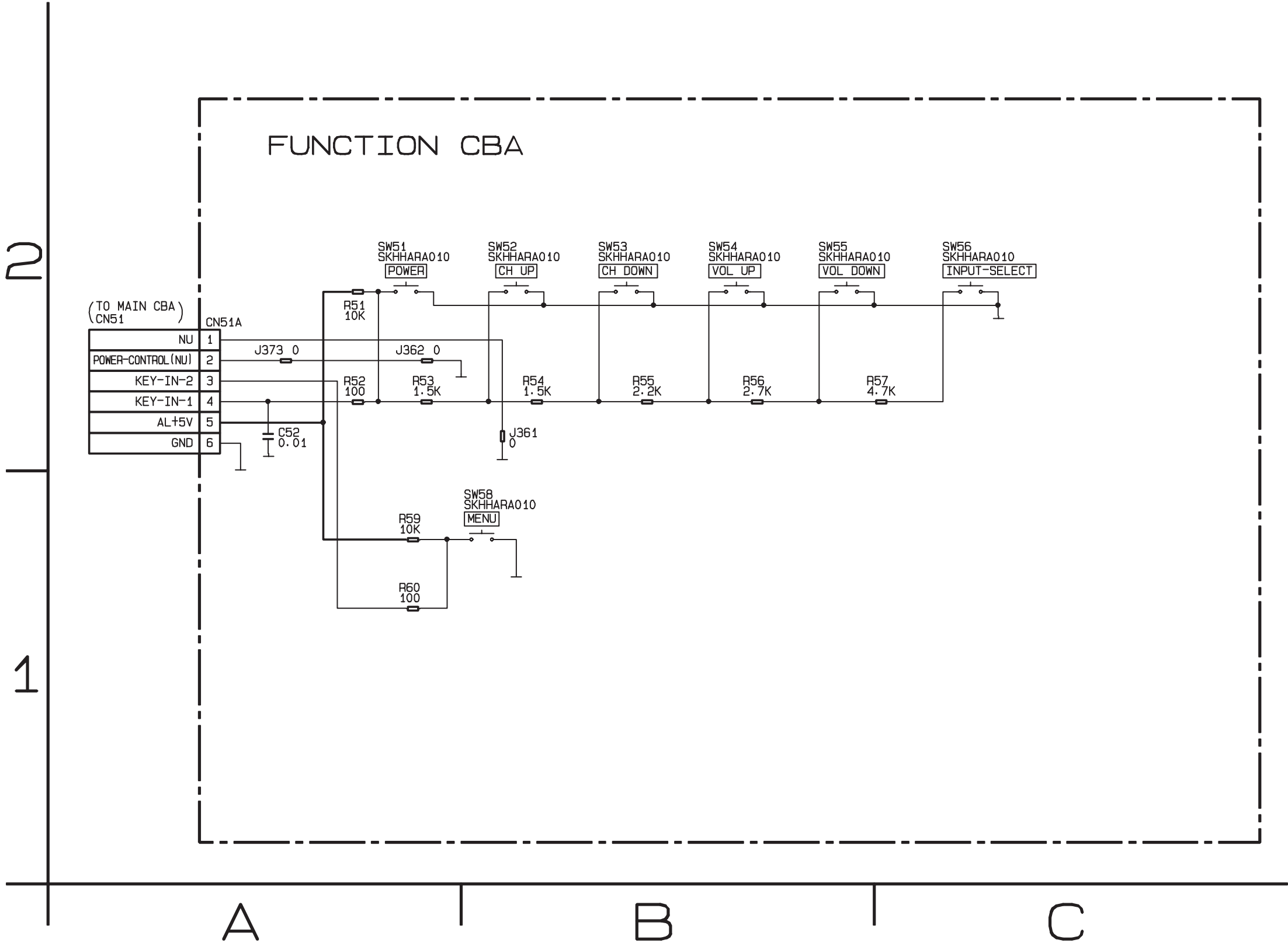
MODEL	MARK
LCD-B1504	A
LCD-B2004	B



Function Schematic Diagram (B)

Comparison Chart of Models and Marks

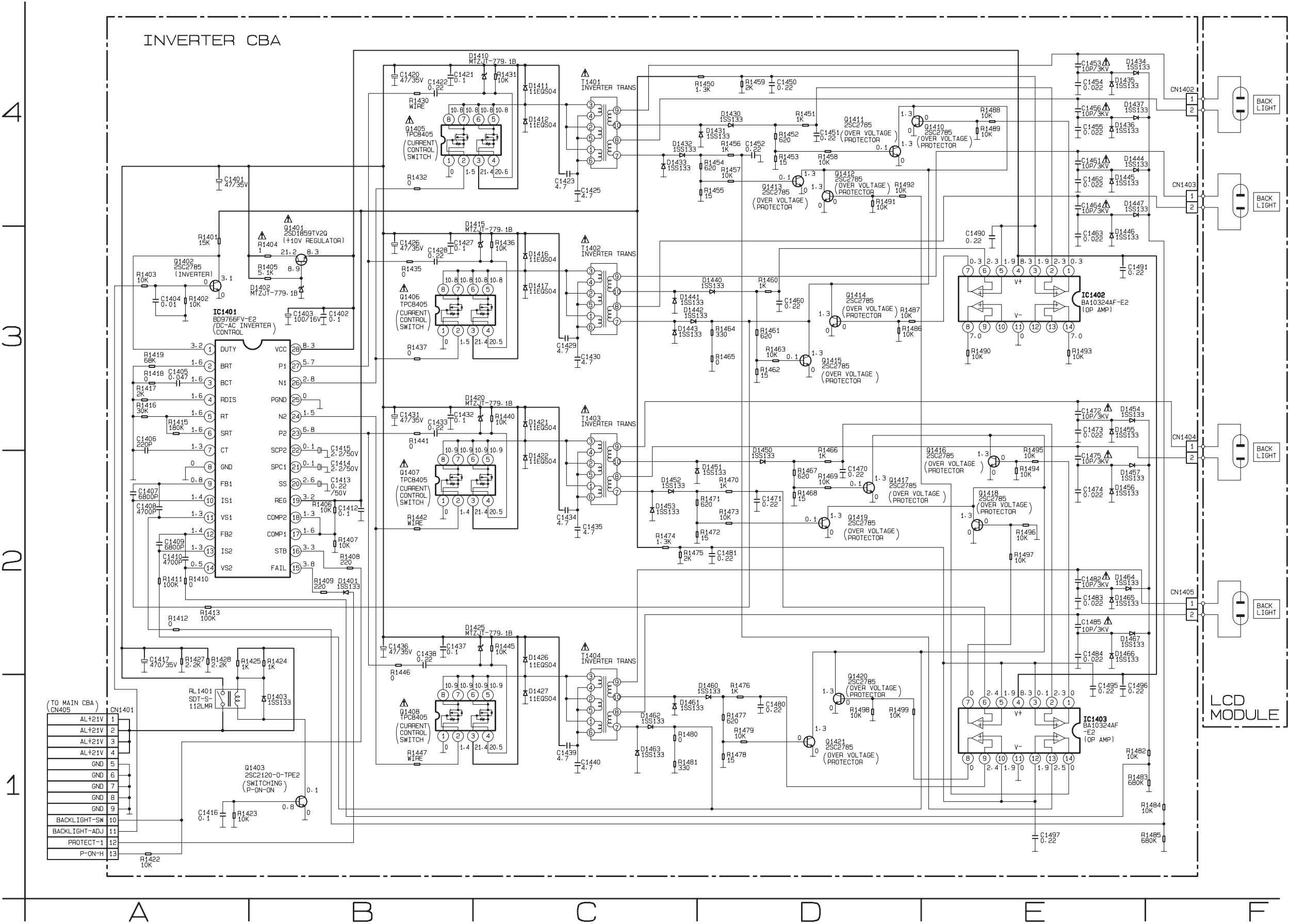
MODEL	MARK
LCD-B1504	A
LCD-B2004	B



Inverter Schematic Diagram (B)

Comparison Chart of Models and Marks

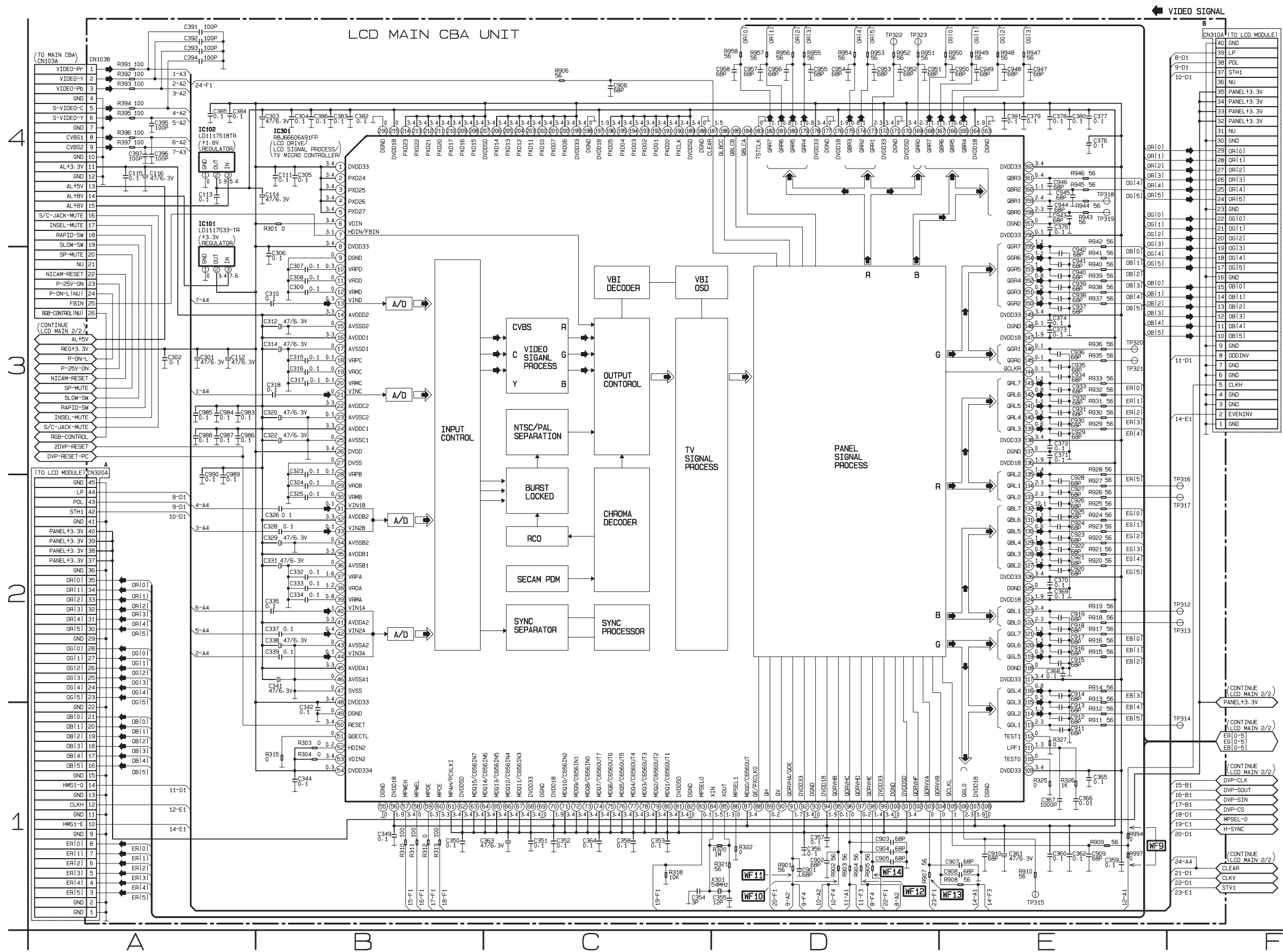
MODEL	MARK
LCD-B1504	A
LCD-B2004	B



LCD Main 1/2 Schematic Diagram

Comparison Chart of Models and Marks

MODEL	MARK
LCD-B1504	A
LCD-B2004	B



1

IC153
PSTQ129ND

MODEL	MARK
LCD-B1504	A
LCD-B2004	B

