



SERVICE MANUAL

This service manual shows only the differences between the model DWT1905 and the original model ST419E. All other information is described in the service manual of the model ST419E.

19" COLOR TELEVISION DWT1905

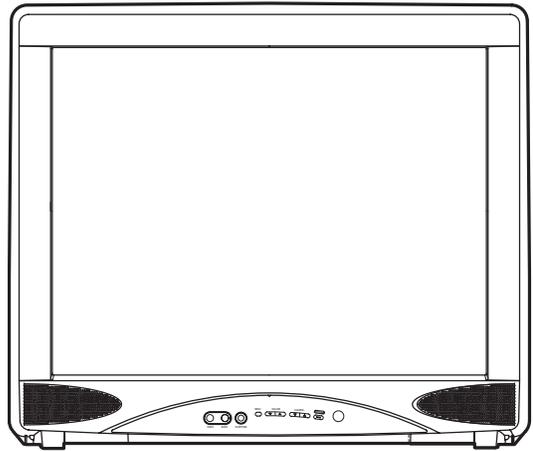


TABLE OF CONTENTS

The difference from the original model ST419E in ELECTRICAL ADJUSTMENT INSTRUCTIONS	1-1
Block Diagrams	2-1
Schematic Diagrams / CBA's and Test Points	3-1
Different parts from the original model (ST419E)	4-1

The difference from the original model ST419E in ELECTRICAL ADJUSTMENT INSTRUCTIONS

For 3-1. Setting for Data Values, “VIDEO TONE---set to” becomes “ON”, since SHARP function is installed in this model.

3-1. Setting for Data Values

General

1. Enter the Service mode.
2. To select the data value, press "VOL ▼" button on the service remote control unit.
3. To set the following each data value, press "CH ▲ / ▼" buttons on the service remote control unit.

7F --- set to 7F

LANGUAGE --- set to SPA/FRA

ACCESS CODE --- set to OFF

SOUND TYPE --- set to MONO

VIDEO TONE --- set to ON

FM-MODE --- set to OFF

V-OUT --- set to OFF

VIDEO --- set to V1

AV-MEMO --- set to OFF

STABLE SOUND --- set to OFF

FILTER --- set to OFF

PROTECTOR --- set to 1000

YUVMEMORY --- set to OFF

NO SIGNAL BRT --- set to 0

A-MUTE POL --- set to L

V-MENU --- set to OFF

SCHEMATIC DIAGRAMS / CBA'S AND TEST POINTS

Standard Notes

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark “▲” in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K = 10^3$, $M = 10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF ($P = 10^{-6} \mu F$).
5. All voltages are DC voltages unless otherwise specified.

Note of Capacitors:

ML --- Mylar Cap. PP --- Metallized Film Cap. SC --- Semiconductor Cap. L --- Low Leakage type

Temperature Characteristics of Capacitors are noted with the following:

B --- $\pm 10\%$ CH --- 0 ± 60 ppm/ $^{\circ}C$ CSL --- $+350 \sim 1000$ ppm/ $^{\circ}C$

Tolerance of Capacitors are noted with the following:

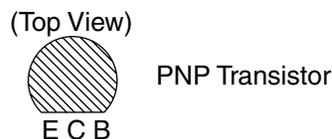
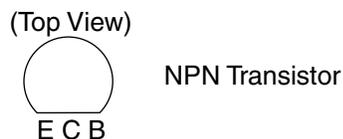
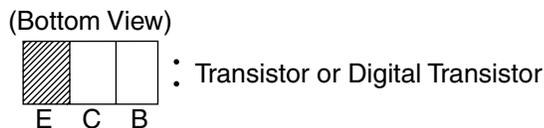
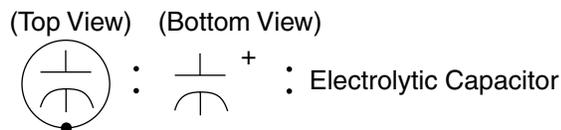
Z --- $+80 \sim -20\%$

Note of Resistors:

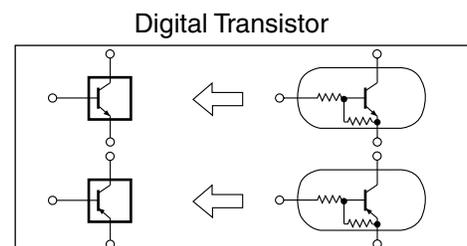
CEM --- Cement Res. MTL --- Metal Res. F --- Fuse Res.

Capacitors and transistors are represented by the following symbols.

CBA Symbols



Schematic Diagram Symbols



LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION:

CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE_A,_V FUSE.

ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE_A,_V.

2. CAUTION:

Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.

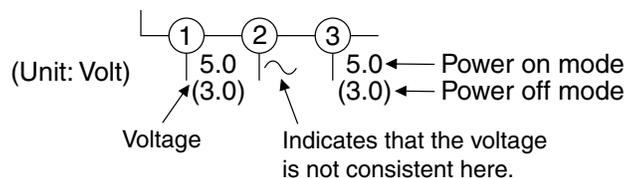
If Main Fuse (F601) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. Note:

- Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.
- To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

4. Voltage indications on the schematics are as shown below:

Plug the TV power cord into a standard AC outlet.:

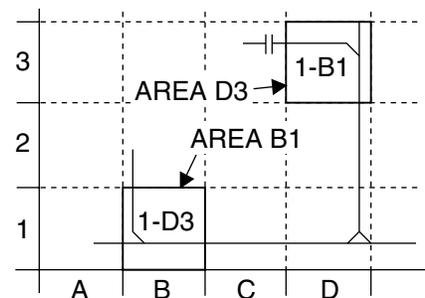


5. How to read converged lines

1-D3
 ↑ Distinction Area
 ↑ Line Number
 (1 to 3 digits)

Examples:

- "1-D3" means that line number "1" goes to the line number "1" of the area "D3".
- "1-B1" means that line number "1" goes to the line number "1" of the area "B1".



6. Test Point Information

⊕ : Indicates a test point with a jumper wire across a hole in the PCB.

□→ : Used to indicate a test point with a component lead on foil side.

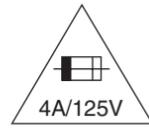
⊗ : Used to indicate a test point with no test pin.

● : Used to indicate a test point with a test pin.

Main 2/3 Schematic Diagram

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.



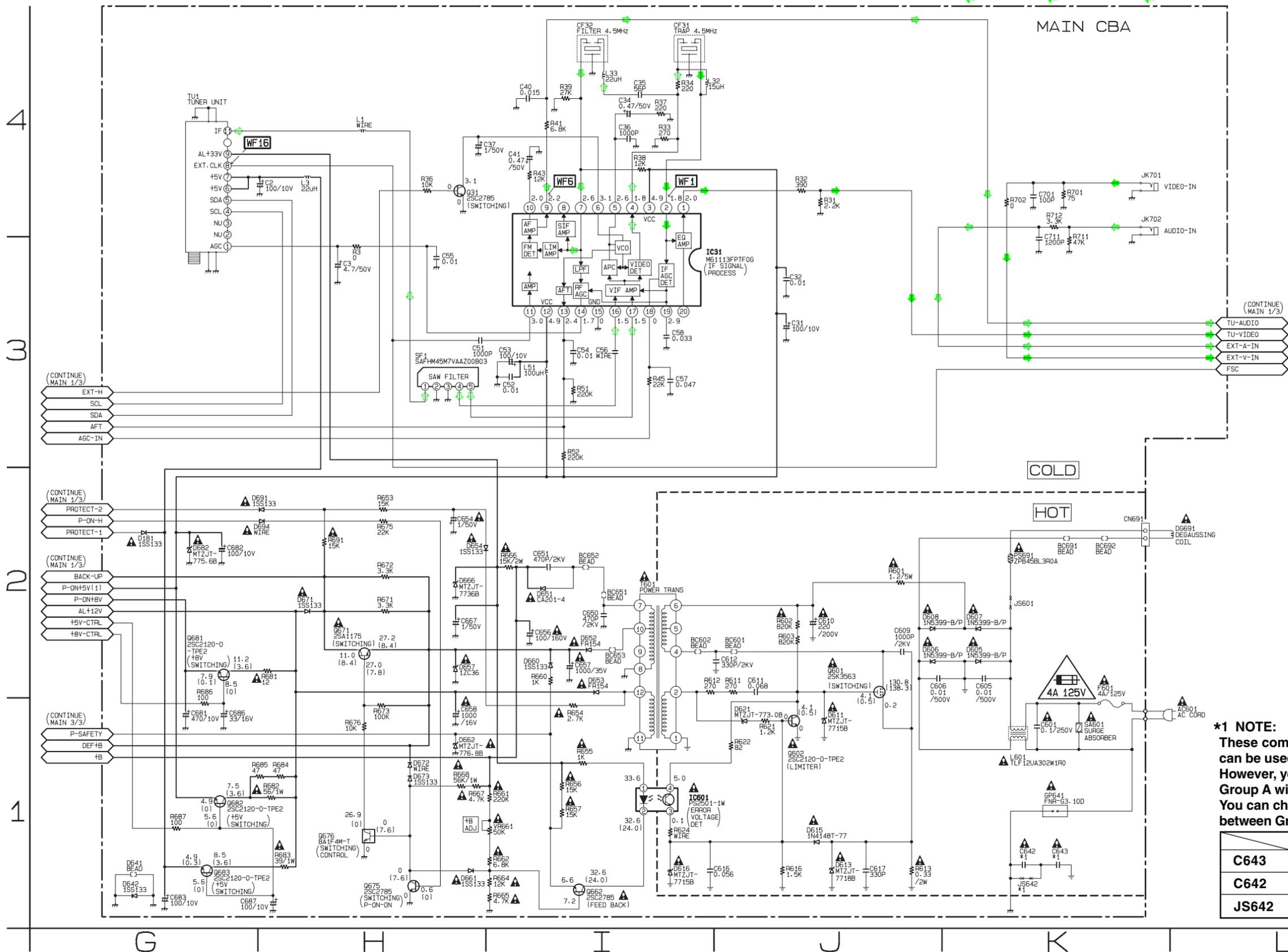
CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.

ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

NOTE:

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

IF SIGNAL VIDEO SIGNAL AUDIO SIGNAL



MAIN 2/3	
Ref No.	Position
ICS	
IC31	I-3
IC601	I-1
TRANSISTORS	
Q31	H-4
Q601	J-2
Q602	J-1
Q662	I-1
Q671	H-2
Q675	H-1
Q676	H-1
Q681	G-2
Q682	G-1
Q683	G-1
CONNECTOR	
CN691	K-2
VARIABLE RESISTOR	
VR661	I-1

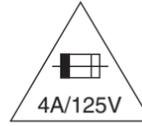
***1 NOTE:**
These components (C643, C642, JS642) can be used in any models.
However, you cannot mix components under Group A with the ones under Group B.
You can choose either Group. The difference between Group A and Group B is shown below.

	Group A	Group B
C643	0.01/250V	4700P/250V
C642	0.01/250V	Not Used
JS642	Not Used	WIRE

Main CBA Top View

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.

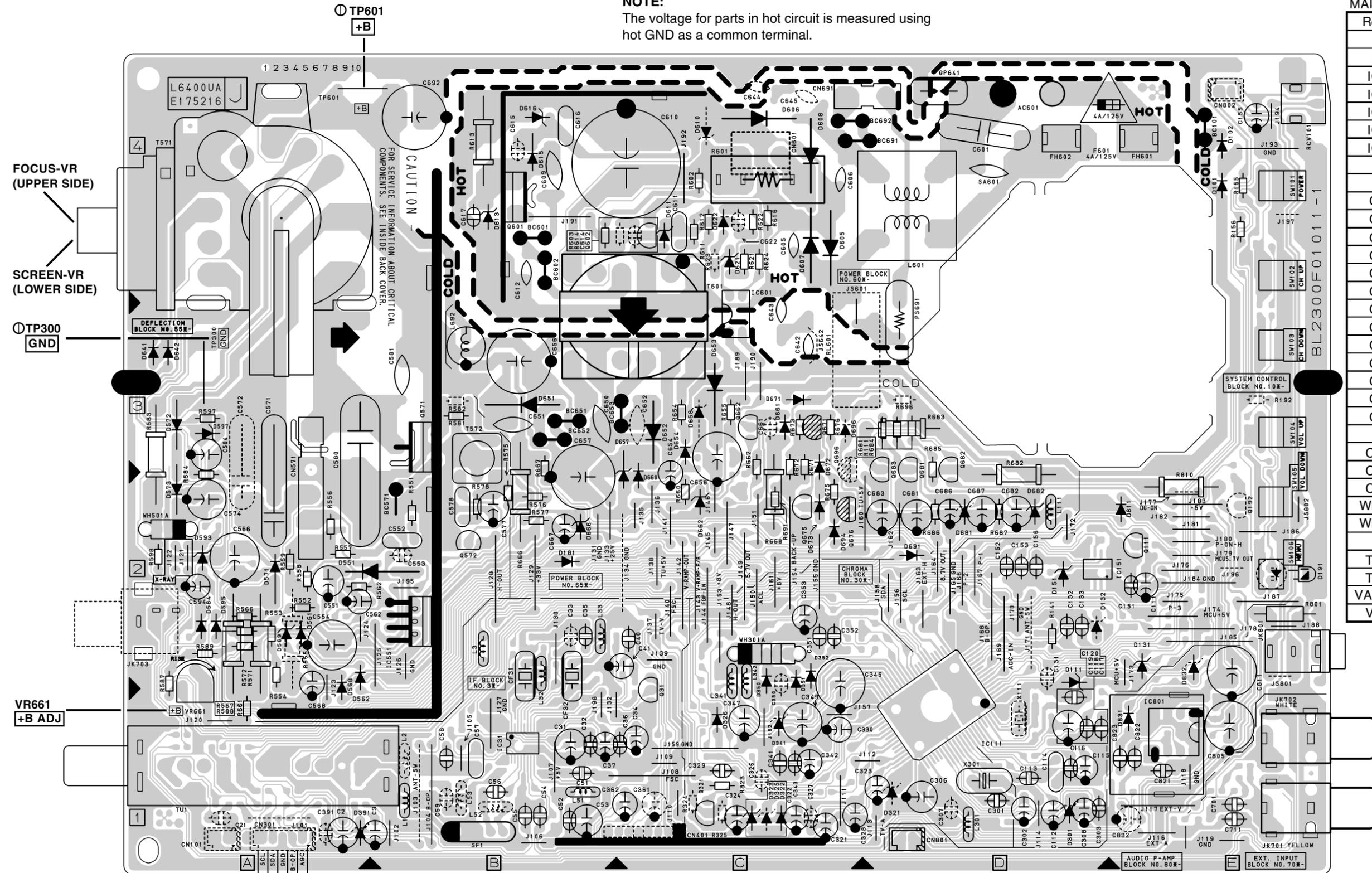


CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used.
Also, in order to have the ability to increase the input slowly, when troubleshooting this type power supply circuit, a variable isolation transformer is required.

NOTE:

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



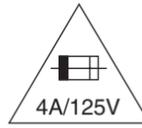
MAIN CBA

Ref No.	Position
ICs	
IC31	B-1
IC111	D-1
IC151	E-2
IC551	B-2
IC601	C-4
IC801	E-1
TRANSISTORS	
Q31	C-1
Q111	E-2
Q321	C-1
Q571	B-3
Q572	B-2
Q601	B-4
Q602	B-4
Q662	C-3
Q671	C-3
Q675	C-2
Q676	C-2
Q681	D-3
Q682	D-3
Q683	D-3
CONNECTORS	
CN571	A-3
CN691	C-4
CN801	D-1
WH301A	C-2
WH501A	A-2
TEST POINTS	
TP300	A-3
TP601	A-4
VARIABLE RESISTOR	
VR661	A-1

Main CBA Bottom View

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.

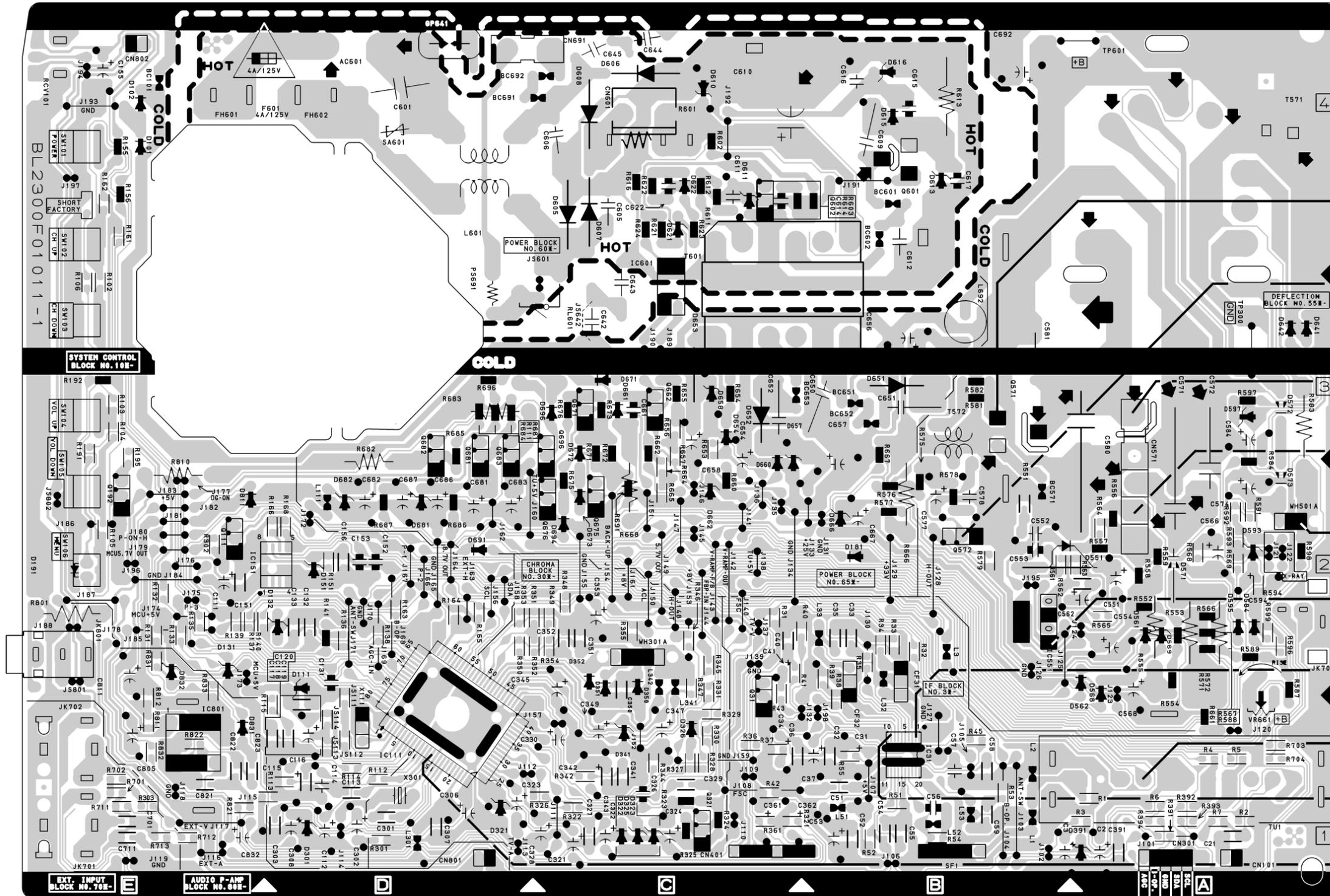


CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

NOTE:

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

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly, when troubleshooting this type power supply circuit, a variable isolation transformer is required.



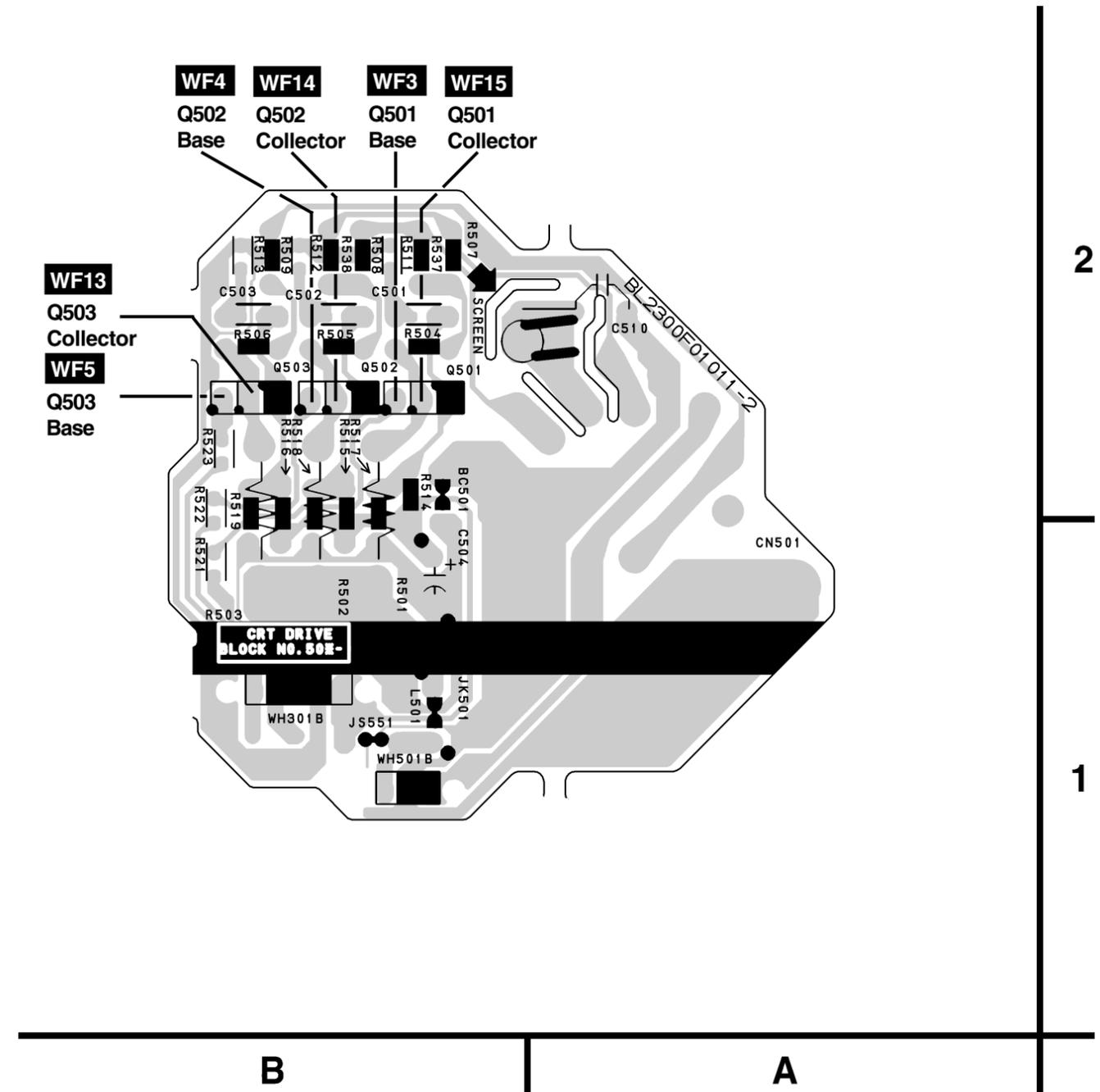
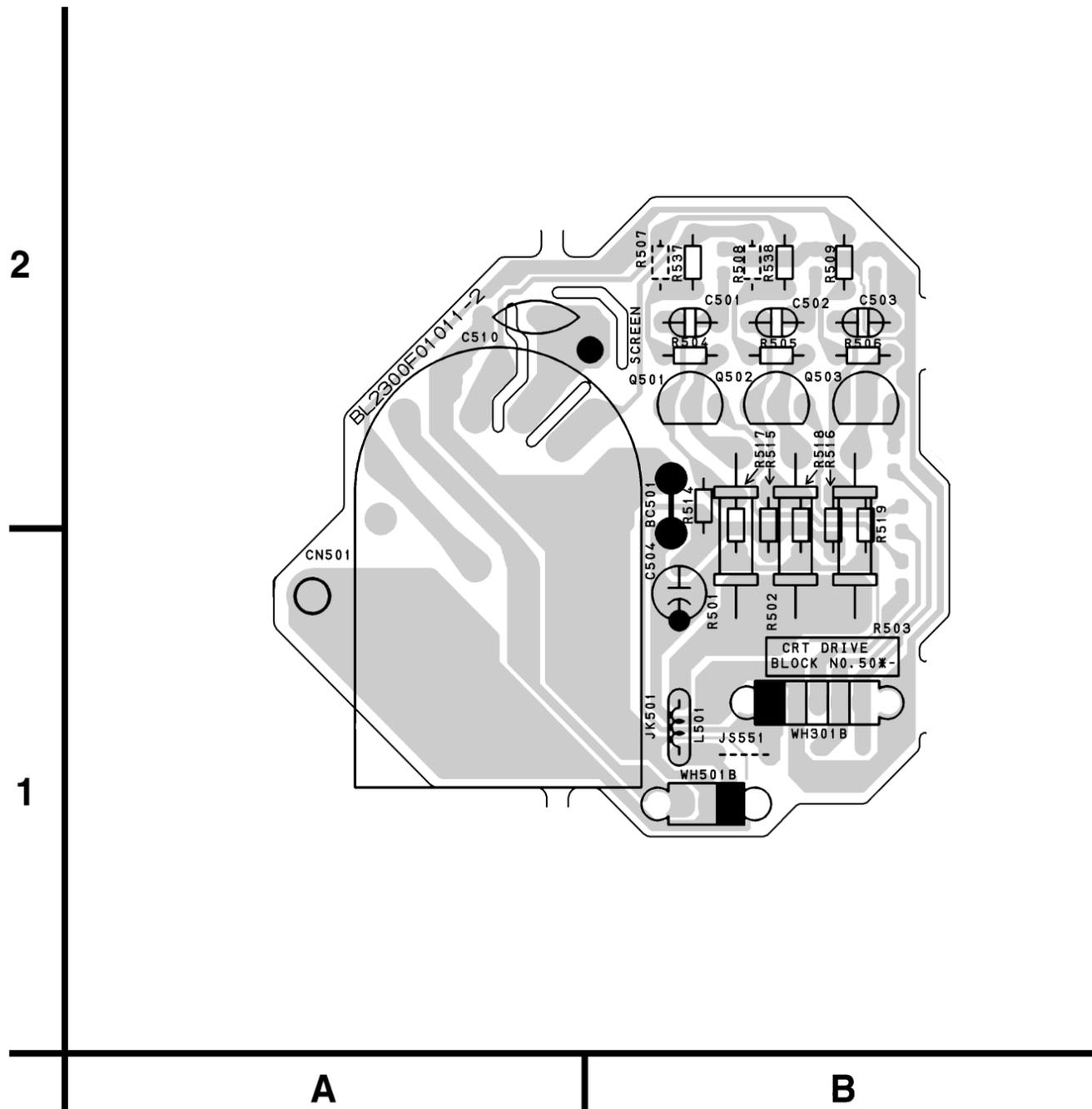
- WF8**
Q571
Base
- WF7**
Q572
Collector
- WF9**
PIN 1
OF CN571
- WF12**
PIN 4
OF CN571
- WF10**
PIN 3
OF WH501A
- WF11**
PIN 7
OF IC551
- WF1**
PIN 2
OF IC31
- WF16**
PIN 8
OF TU1
- WF6**
PIN 9
OF IC31
- WF2**
PIN 14
OF IC111

CRT CBA Top View

CRT CBA Bottom View

CRT CBA

Ref No.	Position
TRANSISTORS	
Q501	B-2
Q502	B-2
Q503	B-2
CONNECTORS	
CN501	A-1
WH301B	B-1
WH501B	B-1



Different parts from the original model (ST419E)

Ref. No.	Description	Part No.
MECHANICAL PARTS		
A1	FRONT CABINET L2314UQ	1EM020170
A2	CONTROL PLATE L2314UQ	1EM220118
A4▲	RATING LABEL L2314UQ	-----
A5	BRAND BADGE L2204UE	0EM408903
B3	Not Used	
S1	CARTON L2314UQ	1EM420767
S6	SERIAL NO. LABEL L2314UQ	-----
S7	LABEL, EAS(H3761UD) MAKER NO.ZLLFNSLE1	-----
X1▲	OWNERS MANUAL L2314UQ	1EMN20269
X2	REMOTE CONTROL NE142UD	NE142UD
X4	SHEET RETURN STOP L2204UE	0EM408998
ELECTRICAL PARTS		
	MMA CBA	1ESA10705
C38	Not Used	
C601▲	METALLIZED FILM CAP. 0.22 μ F/250V	CT2E224MS037
C609	CERAMIC CAP. B K 1000pF/2KV	CCD3DKD0B102
IC31	IC:VIF/SIF M61113FP TF0G	QSZBA0SHT035
R38▲	CHIP RES.(1608) 1/10W J 12K Ω	RRXAJB5Z0123
R132	Not Used	
TU1	TUNER ENV56K02G3	UTUNNTUMS012

