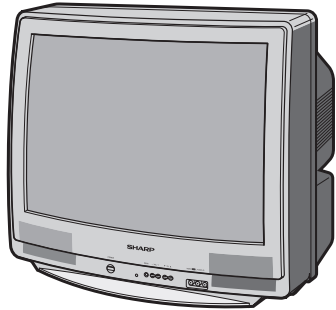


SHARP SERVICE MANUAL

No. S47E527SC370/



COLOR TELEVISION

Chassis No. GB-D7

MODEL 27SC370

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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ELECTRICAL SPECIFICATIONS

POWER INPUT 120V AC, 60 Hz
 POWER RATING 110W
 PICTURE SIZE 2,193.5 cm² (339sq inch)
 CONVERGENCE Magnetic
 SWEEP DEFLECTION Magnetic
 FOCUS Hi-Bi-Potential Electrostatic
 INTERMEDIATE FREQUENCIES
 Picture IF Carrier Frequency 45.75 MHz (Analog Terrestrial)
 Sound IF Carrier Frequency 41.25 MHz (Analog Terrestrial)
 Color Sub-Carrier Frequency 42.17 MHz (Analog Terrestrial)
 IF Center Frequency 44 MHz (Digital Terrestrial)
 (Nominal)

AUDIO POWER

OUTPUT RATING 3.0W + 3.0W (at 10% distortion and
 Dual CH Operate)

SPEAKER

SIZE 9 x 5 cm oval (2 pcs.)
 VOICE COIL IMPEDANCE 16 ohm at 400 Hz

ANTENNA INPUT IMPEDANCE

VHF/UHF 75 ohm Unbalanced

TUNING RANGES

VHF-Channels 2 thru 13
 UHF-Channels 14 thru 69
 CATV Channels 1 thru 125 (Analog)
 CATV Channels 1 thru 135 (Digital)
 Digital Terrestrial Broadcast (VHF/UHF) 2 thru 69
 (EIA, Channel Plan U.S.A.)

Specifications are subject to change without prior notice.

SHARP CORPORATION

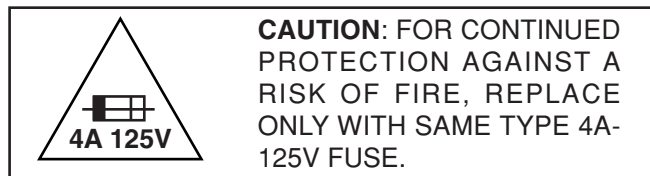
This document has been published to be used for after sales service only.
 The contents are subject to change without notice.

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.
3. Semiconductor heat sinks are potential shock hazards when the chassis is operating.
4. The chassis in this receiver has two ground systems which are separated by insulating material. The non-isolated (hot) ground system is for the B+ voltage regulator circuit. The isolated ground system is for the low B+ DC voltages and the secondary circuit of the high voltage transformer.
To prevent electrical shock use an isolation transformer between the line cord and power receptacle, when servicing this chassis.



SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove the static charge by connecting a 10k ohm resistor in series with an insulated wire (such as a test probe) between the picture tube ground and the anode lead. (AC line cord should be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage anode completely.

X-RADIATION AND HIGH VOLTAGE LIMITS

1. Be sure all service personnel are aware of the procedures and instructions covering X-radiation. The only potential source of X-ray in current solid state TV receivers is the picture tube. However, the picture tube does not emit measurable X-Ray radiation, if the high voltage is as specified in the "High Voltage Check" instructions.
It is only when high voltage is excessive that X-radiation is capable of penetrating the shell of the picture tube including the lead in the glass material. The important precaution is to keep the high voltage below the maximum level specified.
2. It is essential that servicemen have available at all times an accurate high voltage meter.
The calibration of this meter should be checked periodically.
3. High voltage should always be kept at the rated value -no higher. Operation at higher voltages may cause a failure of the picture tube or high voltage circuitry and;also, under certain conditions, may produce radiation in exceeding of desirable levels.
4. When the high voltage regulator is operating properly there is no possibility of an X-radiation problem. Every time a color chassis is serviced, the brightness should be tested while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly.
5. Do not use a picture tube other than that specified or make unrecommended circuit modifications to the high voltage circuitry.
6. When trouble shooting and taking test measurements on a receiver with excessive high voltage, avoid being unnecessarily close to the receiver.
Do not operate the receiver longer than is necessary to locate the cause of excessive voltage.

IMPORTANT SERVICE SAFETY PRECAUTION

(Continued)

BEFORE RETURNING THE RECEIVER

(Fire & Shock Hazard)

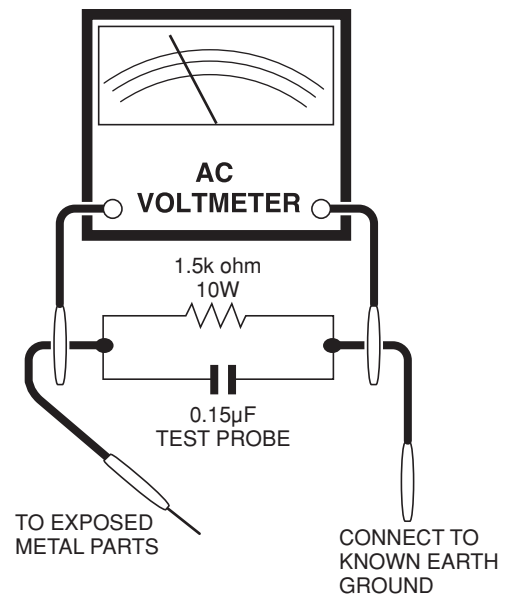
Before returning the receiver to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or 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, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity 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, (Do not use an isolation transformer for this test).
 - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to earth ground.
 - Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity to 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 line cord plug connection reversed. (If necessary, a non-polarized adapter plug must be used only for the purpose of completing these check.)

Any current measured must not exceed 0.5 milliamp. Any measurements not within the limits outlined above indicate of a potential shock hazard and corrective action must be taken before returning the instrument to the customer.



SAFETY NOTICE

Many electrical and mechanical parts in television receivers 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 " \triangle " 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 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, X-radiation or other hazards.

Precautions for using lead-free solder

1 Employing lead-free solder

"PWBs" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

Example:

LFa

Sn-Ag-Cu

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

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.

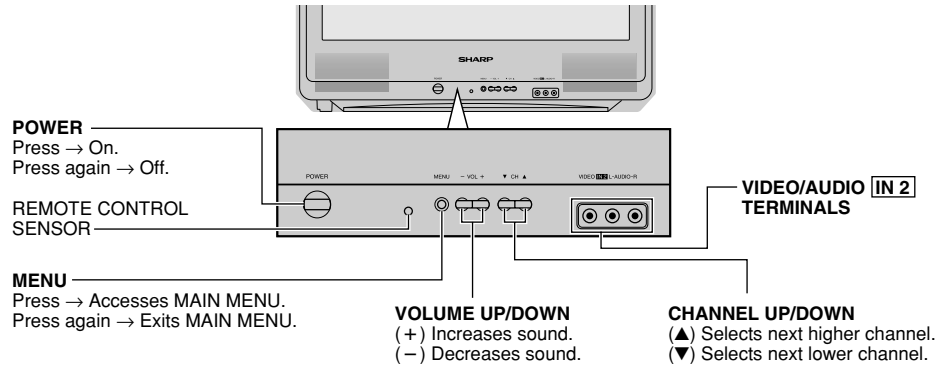
Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

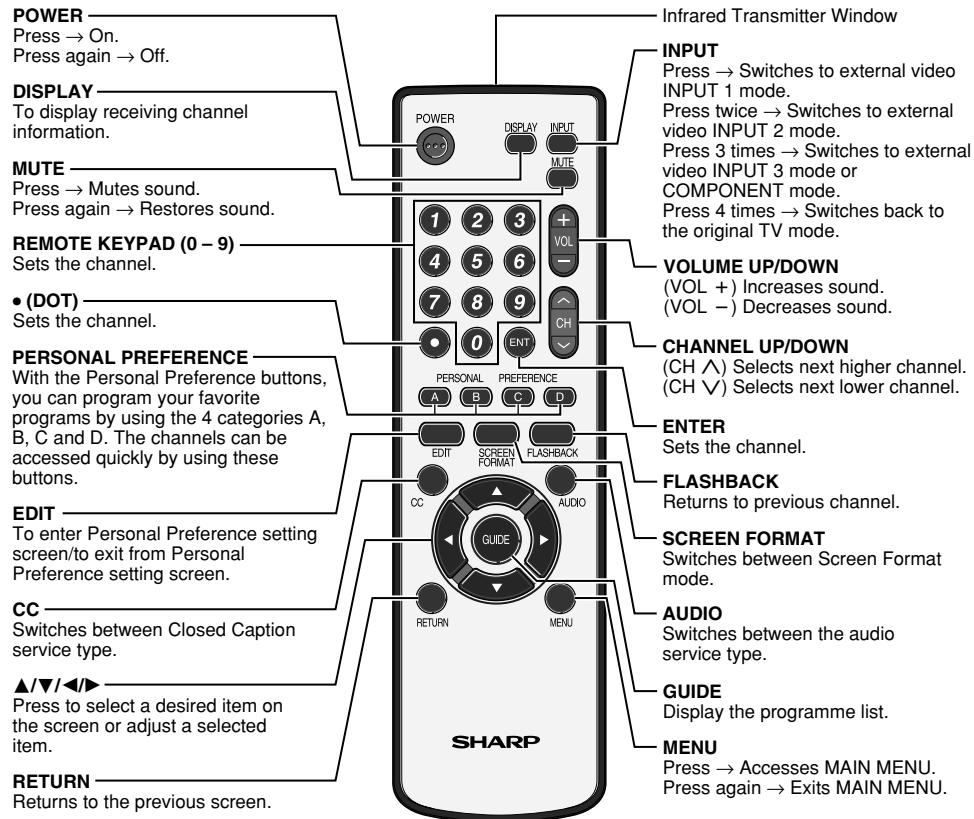
Part No.	★	Description	Code
ZHNDAi123250E	J	φ0.3mm 250g(1roll)	BL
ZHNDAi126500E	J	φ0.6mm 500g(1roll)	BK
ZHNDAi12801KE	J	φ1.0mm 1kg(1roll)	BM

LOCATION OF USER'S CONTROL

Front Panel



Basic Remote Control Functions



Note:

- The TV set and remote control illustrations and the on-screen displays in this manual may differ from their actual appearance.

INSTALLATION AND SERVICE INSTRUCTIONS

- Note:** (1) When performing any adjustments to resistor controls and transformers use non-metallic screwdrivers or TV alignment tools.
 (2) Before performing adjustments, the TV set must be on at least 15 minutes.

CIRCUIT PROTECTION

The receiver is protected by a 4.0A fuse (F701), mounted on PWB-A, wired into one side of the AC line input.

X-RADIATION PROTECTOR CIRCUIT TEST

After service has been performed on the horizontal deflection system, high voltage system, B+ system, test the X-Radiation protection circuit to ascertain proper operation as follows:

1. Apply 120V AC using a variac transformer for accurate input voltage.
2. Allow for warm up and adjust all customer controls for normal picture and sound.
3. Receive a good local channel.
4. Connect a digital voltmeter to TP651-3 (P651 Pin3) and make sure that the voltmeter reads $13.50 \pm 0.6V$ DC.
5. Apply external 17.2V DC at TP651-3 by using an external DC supply, TV must be shut off.
6. To reset the protector, unplug the AC cord (about 1 min.) and plug the AC cord power on. Now make sure that normal picture appears on the screen.
7. If the operation of the horizontal oscillator does not stop in step 5, the circuit must be repaired before the set is returned to the customer.

HIGH VOLTAGE CHECK

High voltage is not adjustable but must be checked to verify that the receiver is operating within safe and efficient design limitations as specified checks should be as follows:

1. Connect an accurate high voltage meter between ground and anode of picture tube.
2. Operate receiver for at least 15 minutes at 120V AC line voltage, with a strong air signal or a properly tuned in test signal.
3. Enter the service mode and select the service adjustment "V95" and Bus data "02" (Y-mute on, CRT Cut Off).
4. The voltage should be below 30.5kV (at zero beam). If a correct reading cannot be obtained, check circuitry for malfunctioning components. After the voltage test, make Y-mute off to the normal mode.

For adjustments of this model, the bus data is converted to various analog signals by the D/A converter circuit.

Note: There are still a few analog adjustments in this series such as focus and master screen voltage. Follow the steps below whenever the service adjustment is required. See "Table-B" to determine, if service adjustments are required.

1. Service mode

Before putting unit into the service mode, check that customer adjustments are in the normal mode. Use the reset function in the video adjustment menu to ensure customer controls are in their proper (reset) position.

2. Service number selection

Once in the service mode, press the Ch-up or Ch-down button on the remote controller or at the set. The service adjustment number will vary in increments of one, from "D01" to "M07". Select the item you wish to adjust.

3. Data number selection

Press the Vol-up or Vol-down button to adjust the data number.

To enter the service mode and exit service mode.

To enter the service mode manually just press and hold the Vol-down and Ch-up buttons at the same time, plug the AC cord into a wall socket.

Now the TV set is switched on and enters the service mode.

To exit the service mode, turn the television off by pressing the power button.

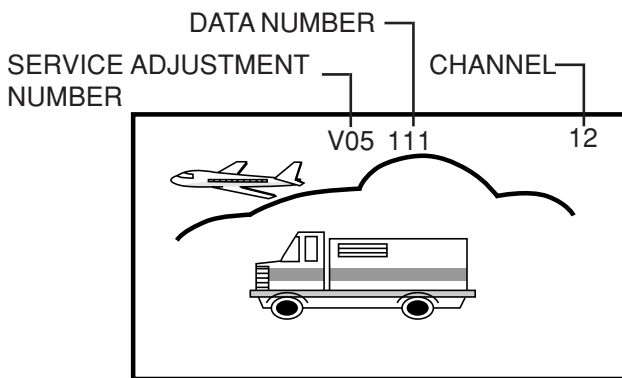
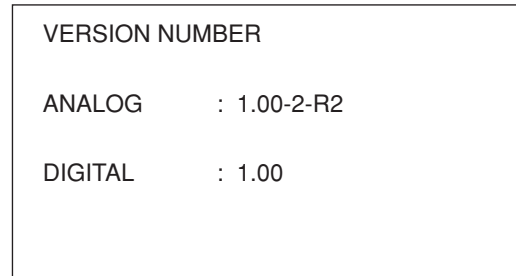


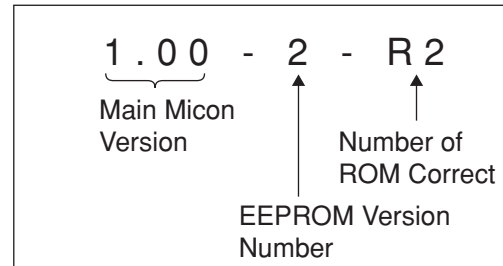
Figure A.

4. Donau and Main Micon version Check

1. After television power on, press test key "0x31" and the following screen will display.



* ANALOG – Main Micon IC (RH-IXB945WJQZQ) Software Version



* DIGITAL – Renesas IC (Inside Tuner) Software Version

2. The version display screen will disappear after 30 second or pressing any key (except test key) will cancel the version display.

3. Alternatively for analog version only, go to service mode. Press menu key/button until "INFO" page appears in OSD. Version will display at bottom right corner. Explanation as below

- MASK : 0S
- SOFT : (Main micon software ver.)
- CHK1 : (ROM1 correct)
- CHK2 : (ROM2 correct)

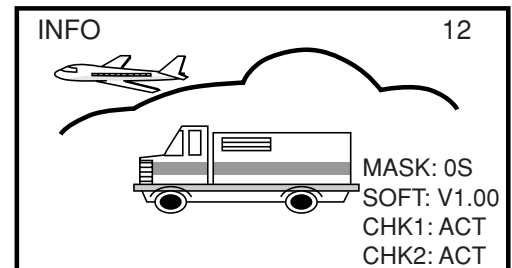


Figure B.

A. Deflection

	no.	Item.	DATA	REG	Range	Remark	Revision / Change
4:3-Def-Adj	D01	V-SHIFT	FIX	V-SHIFT [13h D2...D0]	0 ... 7	0	
	D02	H-SHIFT	ADJ	H-PHASE [16h D4...D0]	0 ... 31	H-PHASE.DTV	
	D03	V-POS-4:3	ADJ	m-con	0 ... 255	V-PHASE.DTV	
	D04	V-SIZE-4:3	ADJ	V-SIZE [11h D5...D0]	0 ... 63	V-SIZE.DTV	
	D05	H-SIZE-4:3	ADJ	H-SIZE [1Bh D5...D0]	0 ... 63	H-SIZE.DTV	
	D06	VS-CORRECT -4:3	FIX	VS CORRECTION [19h D5...D0]	0 ... 63	28	
	D07	V-LINEARITY -4:3	ADJ	V-LINEARITY [1Dh D5...D0]	0 ... 63	V- LINEARITY.DTV	
	D08	E/W PARABOLA -4:3	ADJ	E/W PARABOLA [18h D5...D0]	0 ... 63	E/W PARABOLA.DTV	
	D09	E/W TRAPEZIUM -4:3	FIX	E/W TRAPEZIUM [1Ah D5...D0]	0 ... 63	27	
	D10	E/W CORNER -4:3	ADJ	E/W CORNER [1Ch D5...D0]	0 ... 63	E/W CORNER.DTV	
16:9-Def-Adj	D11	V-SHIFT-16:9	FIX	V-SHIFT [13h D2...D0]	0 ... 7	0	
	D12	H-SHIFT-16:9	ADJ	H-PHASE [16h D4...D0]	0 ... 31	H-PHASE.DTV	
	D13	V-POS-16:9	ADJ	m-con	0 ... 255	V-PHASE.DTV	
	D14	V-SIZE-16:9	ADJ	V-SIZE [11h D5...D0]	0 ... 63	V-SIZE.DTV	
	D15	H-SIZE-16:9	ADJ	H-SIZE [1Bh D5...D0]	0 ... 63	H-SIZE.DTV	
	D16	VS-CORRECT -16:9	FIX	V S CORRECTION [19h D5...D0]	0 ... 63	38	
	D17	V-LINEARITY -16:9	ADJ	V-LINEARITY [1Dh D5...D0]	0 ... 63	V- LINEARITY.DTV	
	D18	E/W PARABOLA -16:9	ADJ	E/W PARABOLA [18h D5...D0]	0 ... 63	E/W PARABOLA.DTV	
	D19	E/W TRAPEZIUM -16:9	FIX	E/W TRAPEZIUM [1Ah D5...D0]	0 ... 63	27	
	D20	E/W CORNER -16:9	ADJ	E/W CORNER [1Ch D5...D0]	0 ... 63	E/W CORNER.DTV	
	D21	V-BLK-TOP -16:9	FIX	Vert. Blanking Top [2Ch D3...D2]	0 ... 3	2	
	D22	V-BLK-BOTTOM -16:9	FIX	Vert. Blanking Bottom [2Ch D1...D0]	0 ... 3	2	
	D23	AFC1-IF	FIX	AFC1 Gain [27h D6]	0 / 1	0	
	D24	AFC2	FIX	AFC2-G [15h D6]	0 / 1	0	
	D25	V-FREE	FIX	V-FREE [10h D6]	0 / 1	1	
	D26	H-FREE	FIX	H-FREE [13h D7]	0 / 1	0	
	D27	HV-FREE	FIX	HV-FREE [25h D5]	0 / 1	0	
	D28	1W-TV	FIX	V.Window [13h D6]	0 / 1	0	
	D29	1W-AV-SAV	FIX	V.Window [13h D6]	0 / 1	0	
	D30	1W-YUV-DTV	FIX	V.Window [13h D6]	0 / 1	0	
	D31	SL-TV	FIX	S-SLICE DN [14h D3...D2] [24h D6]	0 ... 7	5	
	D32	SL-AV	FIX	S-SLICE DN [14h D3...D2] [24h D6]	0 ... 7	5	
	D33	SL-SAV	FIX	S-SLICE DN [14h D3...D2] [24h D6]	0 ... 7	5	
	D34	SL-YUV	FIX	S-SLICE DN [14h D3...D2] [24h D6]	0 ... 7	5	
	D35	SL-DTV	FIX	S-SLICE DN [14h D3...D2] [24h D6]	0 ... 7	5	
	D36	VD-DYTV	FIX	Vsync-Det [27h D3] [16h D7]	0 ... 3	0	
	D37	VD-AV	FIX	Vsync-Det [27h D3] [16h D7]	0 ... 3	0	
	D38	AS-TV	FIX	Auto-Slice [16h D6]	0 / 1	1	
	D39	AS-AV	FIX	Auto-Slice [16h D6]	0 / 1	1	

	no.	Item.	DATA	REG	Range	Remark	Revision / Change
	D40	AS-SAV	FIX	Auto-Slice [16h D6]	0 / 1	1	
	D41	AS-YUV	FIX	Auto-Slice [16h D6]	0 / 1	1	
	D42	AS-DTV	FIX	Auto-Slice [16h D6]	0 / 1	1	
	D43	FBP-TV	FIX	FBP VTH L [16h D5]	0 / 1	0	
	D44	AS-SPEED-UP	FIX	AS SPEED UP [28h D4]	0 / 1	0	
	D45	AS-SPEED-DN	FIX	AS SPEED DOWN [28h D5]	0 / 1	0	

B. Video

	no.	Item.	DATA	REG	Range	Remark	Revision / Change
TV-Picture-Adj	V01	SUB-CON	ADJ	CONTRAST [05h D6...D0]	0 ... 127	PIC.DTV	
	V02	SUB-TINT	ADJ	TINT [07h D6...D0]	0 ... 127	TINT.DTV	
	V03	SUB-COL	ADJ	COLOR [08h D6...D0]	0 ... 127	COLOR.DTV	
	V04	SUB-BRI	ADJ	BRIGHT [0Ah D7...D0]	0 ... 255	PIC.DTV	
	V05	SUB-SHP	FIX	VIDEO-TONE [04h D5...D0]	0 ... 63	40	
	V06	R-CUT	ADJ	R-CUTOFF [0Dh D7...D0]	0 ... 255	WHITE.DTV	
	V07	G-CUT	ADJ	G-CUTOFF [0Eh D7...D0]	0 ... 255	WHITE.DTV	
	V08	B-CUT	ADJ	B-CUTOFF [0Fh D7...D0]	0 ... 255	WHITE.DTV	
	V09	R-DRI	ADJ	R-DRIVE [0Bh D6...D0]	0 ... 127	WHITE.DTV	
	V10	B-DRI	ADJ	B-DRIVE [0Ch D6...D0]	0 ... 127	WHITE.DTV	
YUV-Picture-Adj	V11	SUB-CON-YUV	ADJ	CONTRAST [05h D6...D0]	0 ... 127	PIC.DTV	
	V12	SUB-BB-TINT-YUV	ADJ	BASEBAND-TINT [17h D6...D0]	0 ... 127	TINT.DTV	
	V13	SUB-COL-YUV	ADJ	COLOR [08h D6...D0]	0 ... 127	COLOR.DTV	
	V14	SUB-BRI-YUV	ADJ	BRIGHT [0Ah D7...D0]	0 ... 255	PIC.DTV	
	V15	SUB-SHP-YUV	FIX	VIDEO-TONE [04h D5...D0]	0 ... 63	37	
	V16	R-CUT-YUV	ADJ	R-CUTOFF [0Dh D7...D0]	0 ... 255	WHITE.DTV	
	V17	G-CUT-YUV	ADJ	G-CUTOFF [0Eh D7...D0]	0 ... 255	WHITE.DTV	
	V18	B-CUT-YUV	ADJ	B-CUTOFF [0Fh D7...D0]	0 ... 255	WHITE.DTV	
	V19	R-DRI-YUV	ADJ	R-DRIVE [0Bh D6...D0]	0 ... 127	WHITE.DTV	
	V20	B-DRI-YUV	ADJ	B-DRIVE [0Ch D6...D0]	0 ... 127	WHITE.DTV	
DTV-Picture-Adj	V21	SUB-CON-DTV	ADJ	CONTRAST [05h D6...D0]	0 ... 127	PIC.DTV	
	V22	SUB-BB-TINT-DTV	ADJ	BASEBAND-TINT [17h D6...D0]	0 ... 127	TINT.DTV	
	V23	SUB-COL-DTV	ADJ	COLOR [08h D6...D0]	0 ... 127	COLOR.DTV	
	V24	SUB-BRI-DTV	ADJ	BRIGHT [0Ah D7...D0]	0 ... 255	PIC.DTV	
	V25	SUB-SHP-DTV	FIX	VIDEO TONE [04h D5...D0]	0 ... 255	35	
	V26	R-CUT-DTV	ADJ	R-CUTOFF [0Dh D7...D0]	0 ... 255	WHITE.DTV	
	V27	G-CUT-DTV	ADJ	G-CUTOFF [0Eh D7...D0]	0 ... 255	WHITE.DTV	
	V28	B-CUT-DTV	ADJ	B-CUTOFF [0Fh D7...D0]	0 ... 255	WHITE.DTV	
	V29	B-DRI-DTV	ADJ	B-DRIVE [0Ch D6...D0]	0 ... 127	WHITE.DTV	
	V30	R-DRI-DTV	ADJ	R-DRIVE [0Bh D6...D0]	0 ... 127	WHITE.DTV	

	no.	Item.	DATA	REG	Range	Remark	Revision / Change
Component	V31	SHPG-YUV	FIX	V-TONE [02h D3]	0 / 1	1	
	V32	YDL-YUV	FIX	Y-Delay [06h D2...D0]	0 ... 7	1	
	V33	CrDL-FINE-YUV	FIX	CrDL FINE ADJ. [21h D3...D2]	0 ... 3	0	
	V34	CbDL-FINE-YUV	FIX	CbDL FINE ADJ. [21h D1...D0]	0 ... 3	0	
	V35	CB-P-YUV	FIX	CB PEDESTAL ADJ. [29h D3...D0]	0 ... 15	7	
	V36	CR-P-YUV	FIX	CR PEDESTAL ADJ. [28h D3...D0]	0 ... 15	7	
	V37	C-ANGLE-YUV	FIX	C.ANGLE 95 [15h D1]	0 / 1	0	
DTV	V38	SHPG-DTV	FIX	V-TONE [02h D3]	0 / 1	1	
	V39	YDL-DTV	FIX	Y-Delay [06h D2...D0]	0 ... 7	1	
	V40	CrDL-FINE-DTV	FIX	CrDL FINE ADJ. [21h D3...D2]	0 ... 3	0	
	V41	CbDL-FINE-DTV	FIX	CbDL FINE ADJ. [21h D1...D0]	0 ... 3	0	
	V42	CB-P-DTV	FIX	CB PEDESTAL ADJ. [29h D3...D0]	0 ... 15	7	
	V43	CR-P-DTV	FIX	CR PEDESTAL ADJ. [28h D3...D0]	0 ... 15	7	
	V44	C-ANGLE-DTV	FIX	C.ANGLE 95 [15h D1]	0 / 1	0	
TV	V45	SHPG-TV	FIX	V-TONE [02h D3]	0 / 1	1	
	V46	YDL-TV-AV	FIX	Y-Delay [06h D2...D0]	0 ... 7	5	
	V47	TAKE-OFF-TV	FIX	TAKE OFF [02h D0]	0 / 1	0	
	V48	C-ANGLE	FIX	C.ANGLE 95 [15h D1]	0 / 1	0	
COLOR TEMP	V49	R-R2	FIX	R-DR1(OFFSET) [0Bh D6...D0]	-32 ... +32	+13	
	V50	R-R	FIX	R-DR1(OFFSET) [0Bh D6...D0]	-32 ... +32	+2	
	V51	R-B	FIX	R-DR1(OFFSET) [0Bh D6...D0]	-32 ... +32	-6	
	V52	B-R2	FIX	B-DR1(OFFSET) [0Ch D6...D0]	-32 ... +32	-23	
	V53	B-R	FIX	B-DR1(OFFSET) [0Ch D6...D0]	-32 ... +32	-8	
	V54	B-B	FIX	B-DR1(OFFSET) [0Ch D6...D0]	-32 ... +32	+5	
S-VIDEO	V55	BRIGHT-OFF-SAV	FIX	BRIGHT(OFFSET) [0Ah D7...D0]	-63 ... +63	+7	
	V56	CON-OFF-SAV	FIX	CONTRAST(OFFSET) [05h D6...D0]	-32 ... +32	+11	
	V57	TINT-OFF-SAV	FIX	TINT(OFFSET) [07h D6...D0]	-32 ... +32	+1	
	V58	COL-OFF-SAV	FIX	COLOR(OFFSET) [08h D6...D0]	-32 ... +32	+5	
	V59	SHP-OFF-SAV	FIX	VIDEO-TONE(OFFSET) [04h D6...D0]	-32 ... +32	0	
	V60	YDL-SAV	FIX	Y-Delay [06h D2...D0]	0 ... 7	1	
F-AV	V61	BRIGHT-OFF-FAV	FIX	BRIGHT(OFFSET) [0Ah D7...D0]	-63 ... +63	-7	
	V62	CON-OFF-FAV	FIX	CONTRAST(OFFSET) [05h D6...D0]	-32 ... +32	+15	
	V63	TINT-OFF-FAV	FIX	TINT(OFFSET) [07h D6...D0]	-32 ... +32	+2	
	V64	COL-OFF-FAV	FIX	COLOR(OFFSET) [08h D6...D0]	-32 ... +32	+1	
	V65	SHP-OFF-FAV	FIX	VIDEO-TONE(OFFSET) [04h D6...D0]	-32 ... +32	0	

	no.	Item.	DATA	REG	Range	Remark	Revision / Change
RR-AV	V66	BRIGHT-OFF-AV	FIX	BRIGHT(OFFSET) [0Ah D7...D0]	-63 ... +63	-5	
	V67	CON-OFF-AV	FIX	CONTRAST(OFFSET) [05h D6...D0]	-32 ... +32	+15	
	V68	TINT-OFF-AV	FIX	TINT(OFFSET) [07h D6...D0]	-32 ... +32	+3	
	V69	COL-OFF-AV	FIX	COLOR(OFFSET) [08h D6...D0]	-32 ... +32	+1	
	V70	SHP-OFF-AV	FIX	VIDEO-TONE(OFFSET) [04h D6...D0]	-32 ... +32	0	
	V71	TINT-OFF-ADJ-TV	FIX	TINT [07h D6...D0]	-32 ... +32	0	
	V72	CON-OFF-16:9	FIX	CONTRAST(OFFSET) [05h D6...D0]	-15 ... +15	-7	
	V73	BRI-OFF-16:9	FIX	BRIGHT(OFFSET) [0Ah D7...D0]	-15 ... +15	0	
	V74	TRAP-FINE-TV-AV	FIX	TRAP-FINE [12h D1...D0]	0...3	2	
	V75	TRAP-TV-AV	FIX	C-TRAP OFF [02h D4]	0/1	1	
	V76	SHPG-AV	FIX	V-TONE [02h D3]	0/1	1	
	V77	SHPG-SAV	FIX	V-TONE [02h D3]	0/1	1	
	V78	COL-OFF-16:9	FIX	COLOR(OFFSET) [08h D6...D0]	-15 ... +15	0	
	V79	TRAP-DTV-YUV	FIX	C-TRAP OFF [02h D4]	0/1	1	
	V80	TAKE-OFF-AV	FIX	TAKE OFF [02h D0]	0/1	0	
	V81	TAKE-OFF-SAV	FIX	TAKE OFF [02h D0]	0/1	0	
	V82	RF-AGC	ADJ	RF-Delay [00h D6...D0]	0 ... 127	AGC.DTV	
	V83	VIF-AGC	FIX	VIF AGC Clip [27h D1]	0/1	0	
	V84	VIF-G	FIX	VIF-GAIN [06h D7...D5]	0 ... 7	7	
	V85	V-AGC	FIX	V-AGC [1Dh D6]	0/1	0	
	V86	VIF-VCO	ADJ	VIF-VCO [01h D5...D0]	0 ... 63	VIF-VCO.DTV	
	V87	H-VCO	ADJ	H-VCO [10h D2...D0]	0 ... 7	H-VCO.DTV	
	V88	BS	FIX	BS-OFF [02h D1]	0/1	0	
	V89	BS-GAIN	FIX	BLACK STRETCH GAIN [15h D2]	0/1	0	
	V90	BS-D	FIX	BS-DISCHARGE [14h D7...D6]	0 ... 3	2	
	V91	BS-C	FIX	BS-CHARGE [14h D5...D4]	0 ... 3	0	
	V92	ABCL	FIX	ABCL [02h D2]	0/1	0	
	V93	ABCL-Gain	FIX	ABCL-G [04h D7]	0/1	0	
	V94	GAMMA	FIX	GAMMA [12h D3...D2]	0 ... 3	0	
	V95	Y-MUTE	FIX	m-con	0,1,2	0	
	V96	CbCr-G	FIX	CbCr GAIN UP [29h D6]	0/1	1	
	V97	STP	FIX	Test Pattern Signal [2Fh D3...D0]	0 ... 15	0	
	V98	RGB-CLIP	FIX	ExtRGB-Clip [05h D7]	0/1	0	
	V99	OSD-LVL	FIX	OSD LEVEL [15h D5]	0/1	0	
	V100	YLPF	FIX	YSW-LPF [13h D5]	0/1	0	
	V101	C.Clip Level	FIX	C.Clip Level [02h D5]	0/1	0	
	V102	S-TRAP	FIX	S-TRAP [20h D7][1Fh D7...D5]	0 ... 31	16	
	V103	S-TRAP OFF	FIX	S-TRAP OFF [1Eh D7]	0/1	1	
	V104	OM-DET	FIX	OM DETECTOR [15h D3]	0/1	0	

	no.	Item.	DATA	REG	Range	Remark	Revision / Change
	V105	R-MTX-DN	FIX	R MTX DOWN [23h D6]	0 / 1	0	
	V106	CTI	FIX	CTI [23h D3]	0 / 1	1	
	V107	KILLER-LVL	FIX	KILLER LEVEL [15h D0]	0 / 1	1	
	V108	SIF-BW	FIX	SIF BPF WIDE [2Bh D5...D4]	0 ... 3	1	
	V109	E-SAVE	FIX	CONTRAST(OFFSET) [05h D6...D0]	0 ... 63	30	
	V110	MONITORING	FIX	Intelligent MON [1Ah D6][12h D7...D4]	0 ... 31	21	
	V111	OFF-ADJ-TINT-YUV	FIX	BB Tint Control [17h D6...D0]	-32 ... +32	0	
	V112	OFF-ADJ-TINT-DTV	FIX	BB Tint Control [17h D6...D0]	-32 ... +32	0	
	V113	CC-POS	ADJ	m-con	0 ... 255	CC.DTV	
	V114	CC LEVEL	FIX	m-con	0 ... 31	0	
	V115	OSD POS	FIX	m-con	0 ... 31	0	
	V116	DIGITAL POW OFF TIM	FIX	m-con	0...255	50	
	V117	BSW CONTROL	FIX	m-con	0...100	85	
	V118	SVM-SAV	FIX	DELAY Y ADJ [22h D5...D4]	0...3	0	
	V119	SVM-COMP	FIX	DELAY Y ADJ [22h D5...D4]	0...3	0	
	V120	SVM-DTV	FIX	DELAY Y ADJ [22h D5...D4]	0...3	0	
	V121	RGB ADJ	FIX	m-con	0...127	127	
	V122	ChromaBPF	FIX	ChromaBPF [26h D6]		1	

C. Sound

	no.	Item.	DATA	REG	Range	Remark	Revision / Change
	M01	MTS-ATT	ADJ	ATT [00h D3..D0]	0 ... 15	MS.DTV	
	M02	MTS-VCO	FIX	VCO [01h D5..D0]	0 ... 63	32	
	M03	MTS-FILT	FIX	FILTER [02h D5..D0]	0 ... 63	28	
	M04	MTS-WBND	ADJ	WIDEBAND [04h D5..D0]	0 ... 63	SEPA.DTV	
	M05	MTS-SPEC	ADJ	SPECTRAL [03h D5..D0]	0 ... 63	SEPA.DTV	
	M06	SUB-VOL	FIX	VOL [07h,08h D5..D0]	0 ... 63	63	
	M07	FAO-VOL	FIX	VOL [07h,08h D5..D0]	0 ... 50	26	

D. Option

		Model 27SC370	REMARKS/ REVISION
O 01	SPEAKER	1	
O 02	FAO	1	
O 03	VIEW TIMER	1	
O 04	PON-CH	1	
O 05	FAV-COL	1	
O 06	AV3/COMPONENT	1	
O 07	AV	1	
O 08	AV2	1	
O 09	MTS	1	
O 10	TONE-CTRL	1	
O 11	AUTO-OFF	1	
O 12	INIT-LANG	0	
O 13	S-IN	1	
O 14	COMB	0	
O 15	AUTO-INPUT	1	
O 16	FLAT	1	
O 17	WHITE-OUT	0	
O 18	CURSOR R/C	1	
O 19	EDIT KEY R/C	1	

Holding down both the VOL-up and CH-up buttons on the TV set at service mode for more than 2 seconds will automatically write the above initial values into IC2101.

PART REPLACED	ADJUSTMENT		NOTES
	NECESSARY	UNNECESSARY	
IC801	X		The adjustment is needed to compensate for characteristics of parts including IC801 and MTS level (M01).
IC2101	X		Holding down both the VOL-up and CH-up buttons on the TV set in the service mode for more than 2 seconds will automatically write the above initial values into IC2101 Then perform a complete adjustment.
CRT	X		Adjust items related to picture tube only.
IC3001	X		Adjust items related to MTS only (M01~M07).

SERVICE ADJUSTMENT

H-VCO ADJ (I²C BUS CONTROL) (Auto & Manual Adj)

- Manual Adj.
 1. In No Signal (RASTER) condition.
 2. Go to service mode, choose service data V87.
 3. Connect oscilloscope to IC801 Pin15, adjust V87 until frequency become 15.75 ± 0.15 kHz.
- Auto Adj.
 4. In No Signal (RASTER) condition.
 5. Go to service mode, choose service data V87, by pressing R/C Auto (HEX 44) key, OSD will appear "OK" at screen.
 6. If appear "NG", please repeat step 3.

VIF-VCO ADJ (I²C BUS CONTROL) (Auto & Manual Adj)

- Manual Adj.
 1. In No Signal (RASTER) condition.
 2. Go to service mode, choose service data V86.
 3. Connect oscilloscope to IC801 Pin9, adjust V86 until voltage between 2.5 ± 1.0 V.
- Auto Adj.
 4. In No Signal (RASTER) condition.
 5. Go to service mode, choose service data V86.
 6. Press the R/C Auto (HEX C5) key, OSD will appear "OK" at screen.
 7. If appear "NG", please repeat step 3.

RF AGC Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V82".
3. Set the data value to point where no noise or beat appears.
4. Select another channel to confirm that no noise or beat appears.

Note 1 : You will have to come out of the service mode to select another channel.

Note 2 : Setting the data to "00" will produce a black raster.

Screen Adjustment

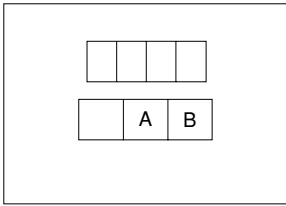
1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set the data value to "00" to set the color level to minimum. (Record original data code under adjustment "V03" before changing) You may skip this step, if you selected a B/W picture or monoscope pattern.
3. Select the service adjustment "V95" and adjust the data value to "02", this turn off the luminance signal (Y-mute).
4. Adjust the master screen control until the raster darkness to the point where raster is barely seen.
5. Adjust the service adjustments "V06" red, "V07" green and "V08" blue to obtain a good grey scale with normal whites at low brightness level.
6. Select the service adjustment "V95" and reset data to "00". Select the service adjustment "V03" and reset data to obtain normal color level.
7. For component input, the data value of "V16" red, "V17" green and "V18" blue is adjusted to follow the data value of "V06", "V07" and "V08" respectively.
8. For digital RF input, the data value of "V26" red, "V27" green and "V28" blue is adjusted to follow the data value of "V06", "V07" and "V08" respectively.
9. Reset the master screen control to obtain normal brightness range.

White Balance Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "V03" and set to "00" (minimum color) (Record original data code under adjustment "V03" before changing). "V03" does not have to be adjusted, if you selected a B/W picture or monoscope pattern.
3. Alternately adjust the service adjustment data of "V09" and "V10" until a good grey scale with normal whites is obtained. (RF Input)
4. For component input, the data value of "V19" and "V20" is adjusted to follow the data value of "V09" and "V10" respectively.
5. For digital RF input, the data value of "V29" and "V30" is adjusted to follow the data value of "V09" and "V10" respectively.
6. Select the service adjustment "V03" and reset data to obtain normal color level.

Sub-picture and Sub-Bright Adjustments

1. Receive the window pattern signal.
 - RF INPUT (TU1101)
2. Get into service adjustment data "V01" and "V04" and set the luminance as shown in figure "A" and "B" as below respectively.
 - COMPONENT INPUT
3. Get in service adjustment data "V11" and "V14" and set the luminance as shown in figure "A" and "B" as below respectively.



LUMINESCENCE CONFIRMATION

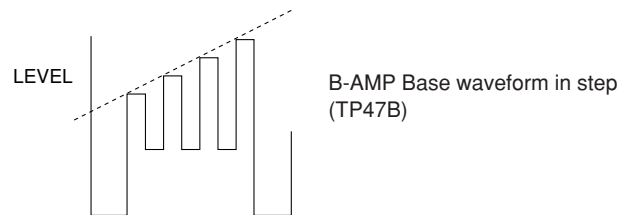
A: $86 \pm 10 \text{cd/m}^2$

B: $1.25 \pm 0.5 \text{cd/m}^2$

- DIGITAL RF INPUT (TU1101)
4. Get in service adjustment data "V21", "V24".
 - 4-1 Input data of "V21" = "V01" - 05 Steps
 - 4-2 Input data of "V24" = "V04" + 09 Steps

Sub-Tint Adjustment

1. Receive the half color bar signal.
 - RF INPUT (TU1101)
2. Get into Y-Mute by R/C, or by setting the "V95" bus data to "01".
3. Vary the "V02" bus data until the waveform becomes as stated below.
4. Reset "V95" bus data to "00".
 - Component Input
5. Get into Y-mute by R/C, or by setting the "V95" bus data to "01".
6. Vary the "V12" bus data until the waveform becomes as stated below.
7. Reset "V95" bus data to "00".
 - Digital RF Input (TU1101)
8. Input data of "V22" = "V02" + 13 steps.
9. Reset "V95" bus data to "00".



Sub-Color Adjustment

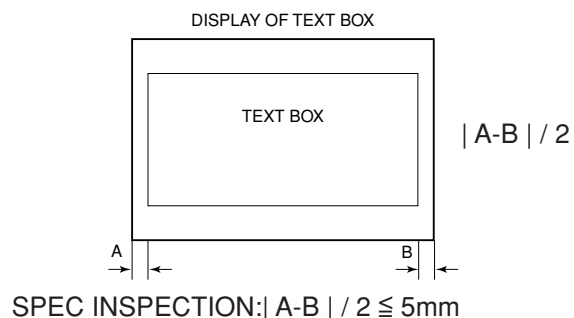
1. Receive a good local channel.
2. Make sure the customer color control is set to center position.
 - RF INPUT (TU1101)
3. Enter the service mode and select service adjustment "V03".
4. Adjust "V03" data value to obtain a normal color level.
 - Component Input
5. Enter the service mode and select service adjustment "V13".
6. Adjust "V13" data value to obtain a normal color level.
 - Digital RF Input (TU1101)
7. Input data of "V23" = "V03" + 59 steps.

Focus Adjustment

1. Receive a good local channel.
2. Adjust the FOCUS VR of the flyback transformer to make the image as fine as possible.

C. C Display Position Adjustment

1. Receive the lion head pattern signal.
2. Select "V113" to display the text box.
3. Adjust the "V113" bus data to let the text box displayed in the center.



Vertical-Size and Linearity Adjustments

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D04" for V-size.
3. Adjust the "D04" bus data to get the proper V-size.
4. For V-linearity adjustment, select data bus "D07" and adjust to get the proper vertical linearity.
(SCREEN FORMAT 16:9)
5. Input data of "D14" to minus 26 steps from "D04" data. (V-SIZE)
6. Input data of "D17" to minus 3 steps from "D07" data. (V-LIN)

Note: Aging for 10 min before adjustment. After the adjustment of V-center and V-size, re-adjustment for this V-line.

Vertical Phase Adjustment

- (SCREEN FORMAT 4:3)
1. Enter the service mode and input data of "00" on "D01".
 2. Adjust "D03" data value so that picture is centered.
(SCREEN FORMAT 16:9)
 3. Input data of "00" on "D11".
 4. Input data of "D13" is additional 10 steps from data "D03".

Horizontal Position Adjustment

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D02".
3. Adjust "D02" data value so that picture is centered.
(SCREEN FORMAT 16:9)
4. Input data of "D12" same as "D02" data.

Horizontal-Size Adjustment

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D05" for H-size.
3. Adjust the "D05" bus data to get the proper H-size.
(SCREEN FORMAT 16:9)
4. Input data of "D15" is additional 1 step from data "D05".

EW-Parabola

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D08" for EW parabola.
3. Adjust the "D08" bus data to get the proper vertical straight line for both left and right side.
(SCREEN FORMAT 16:9)
4. Input data of "D18" to minus 10 steps from "D08" data.

EW-Corner

1. Receive a good local channel.
(SCREEN FORMAT 4:3)
2. Enter the service mode and select the service adjustment "D10" for EW-Corner.
3. Adjust the "D10" bus data to get the best position display.
(SCREEN FORMAT 16:9)
4. Input data of "D20" is plus 2 steps of "D10" data.

■ MTS ADJUSTMENT

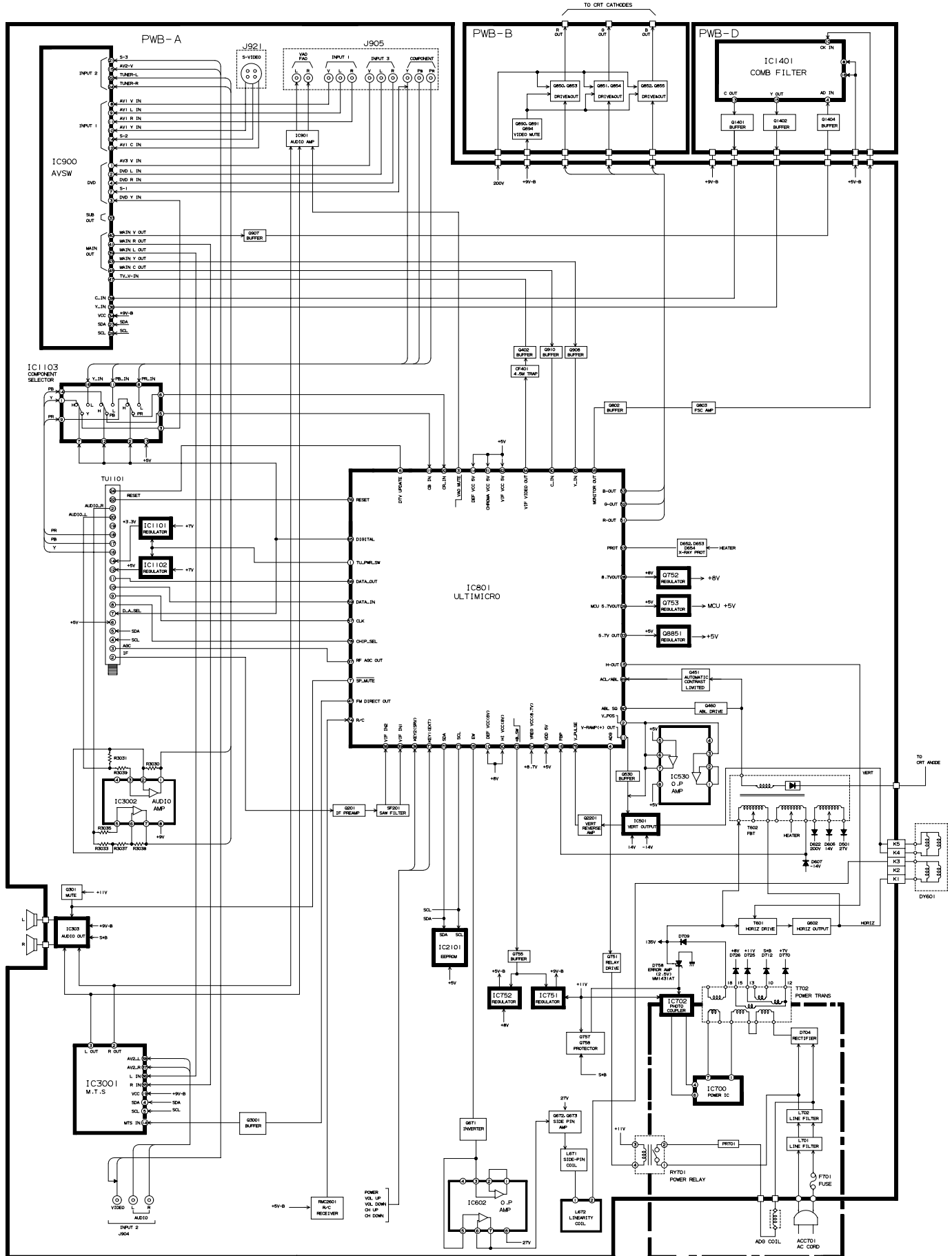
MTS Level Adjustment

1. Set the sound volume above 1.
Monoral signal: 400Hz, 100% modulation
2. Vary the "M01" bus data until the voltage to pin (39) of IC3001 to become the value as stated below.
SETTING VOLTAGE
ADJ spec : $490 \pm 10 \text{mVrms}$
CHK spec: $490 \pm 20 \text{mVrms}$

Separation Adjustment

1. Input "SIGNAL 1" and vary the "M04" bus data to get the minimum AC voltage to pin (39) of IC3001.
 2. Input "SIGNAL 2" and vary the "M05" bus data to get the minimum AC voltage to pin (39) of IC3001.
SIGNAL 1: 300Hz, 30% modulation, Lch only, NR-ON
SIGNAL 2: 3kHz, 30% modulation, Lch only, NR-ON
- Note:** SIGNAL 1 Adj. for wideband
SIGNAL 2 Adj. for spectral
- Check the output of the speaker at the maximum volume as stated below.
Confirmation spec:
ADJ spec: above 25 dB
CHK spec: above 20 dB

BLOCK DIAGRAM



DESCRIPTION OF SCHEMATIC DIAGRAMS

NOTES:

1. The unit of resistance "ohm" is omitted.
(K=kW=1000W, M=MW)
2. All resistors are 1/16 watt, unless otherwise noted.
3. All capacitors are μF , unless otherwise noted.
(P=pF= $\mu\mu F$)
4. (G) indicates $\pm 2\%$ tolerance may be used.
5. \perp indicates line isolated ground.

WAVEFORM MEASUREMENT CONDITIONS:

1. Photographs taken on a standard gated color bar signal, the tint setting adjusted for proper color. The wave shapes at the red, green and blue cathodes of the picture tube depend on the tint, color level and picture control.
2. \odot indicates waveform check points (See chart, waveforms are measured from point indicated to chassis ground.)

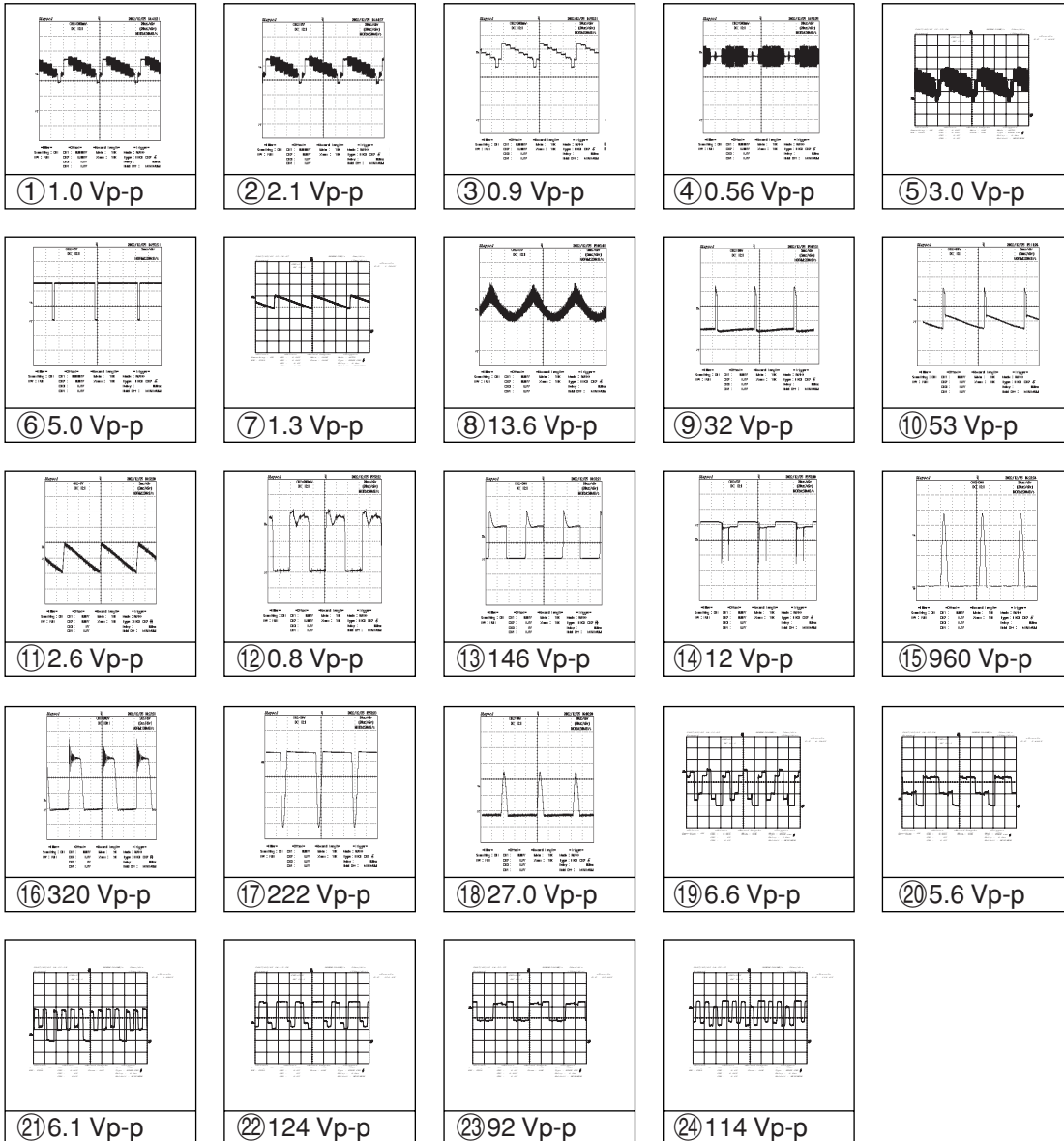
\triangle AND SHADED () COMPONENTS = SAFETY RELATED PARTS.
 \blacktriangle MARK= X-RAY RELATED PARTS.

This circuit diagram is a standard one, printed circuits may be subject to change for product improvement without prior notice.

VOLTAGE MEASUREMENT CONDITIONS:

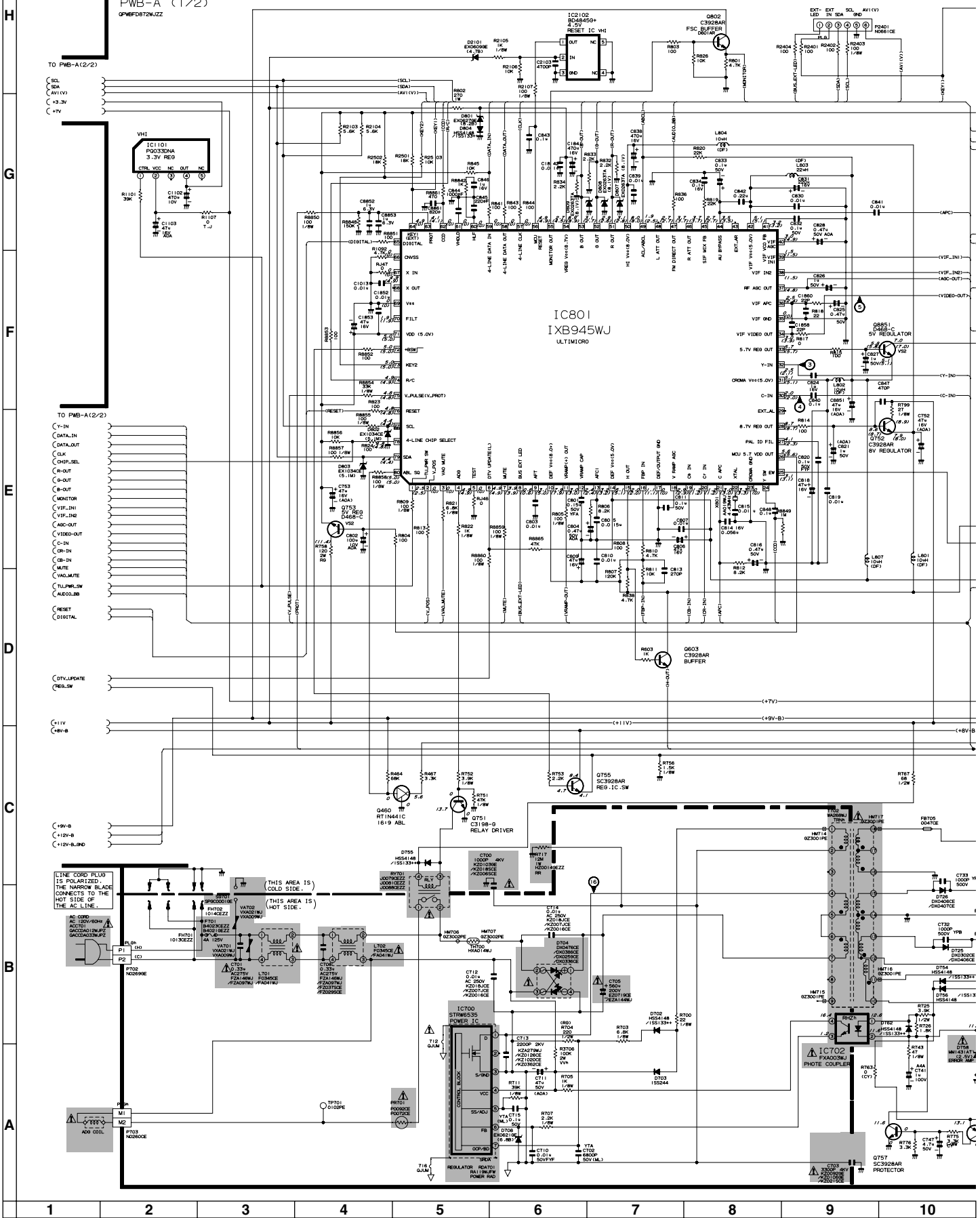
1. All DC voltages are measured with DVM connected between points indicated and chassis ground, line voltage set at 120V AC and all controls set for normal picture unless otherwise indicated.
2. All voltages measured with 1000 μV B & W or Color signal.

WAVEFORMS



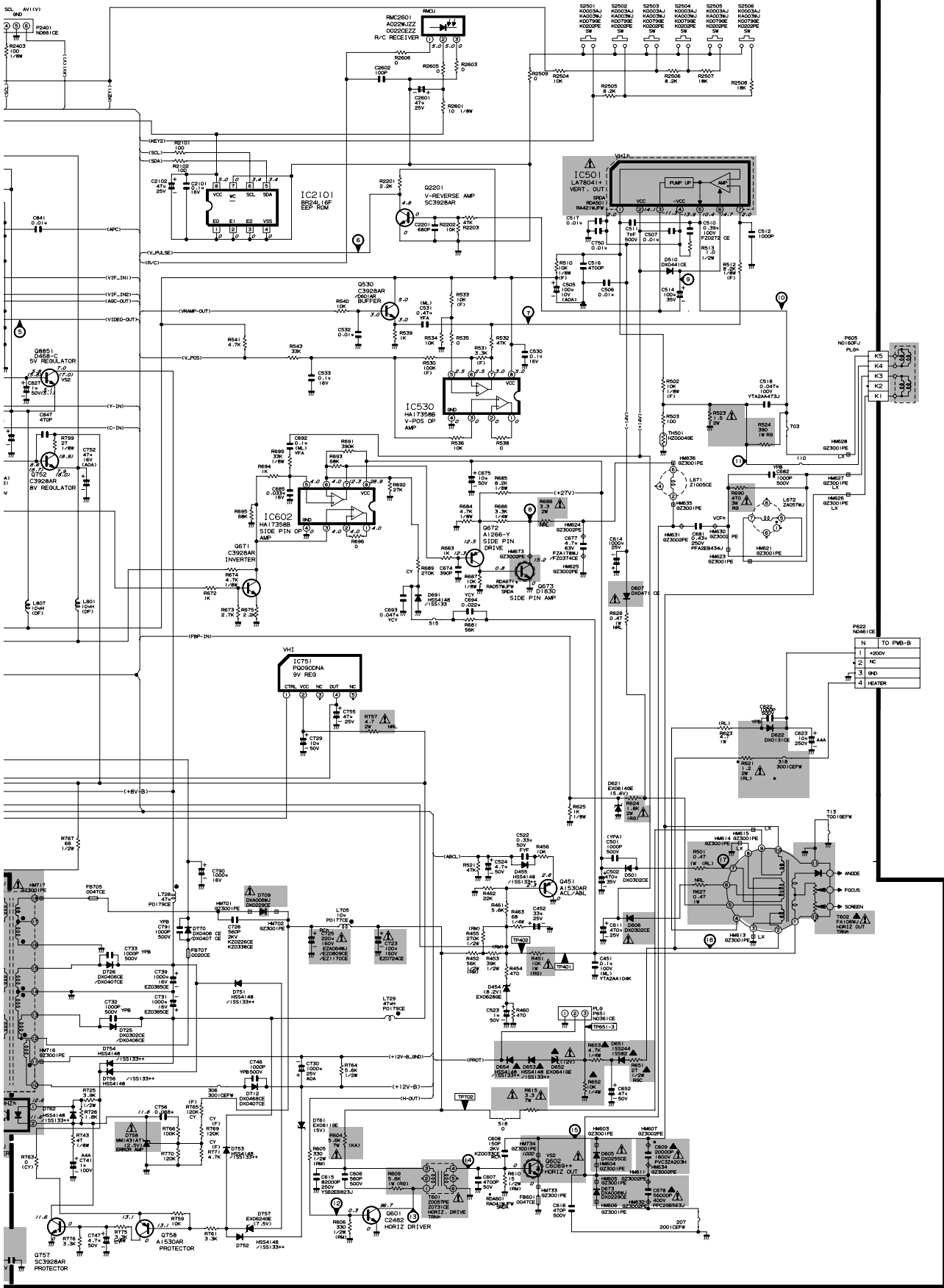
SCHEMATIC DIAGRAM: MAIN-1 Unit

MAIN1



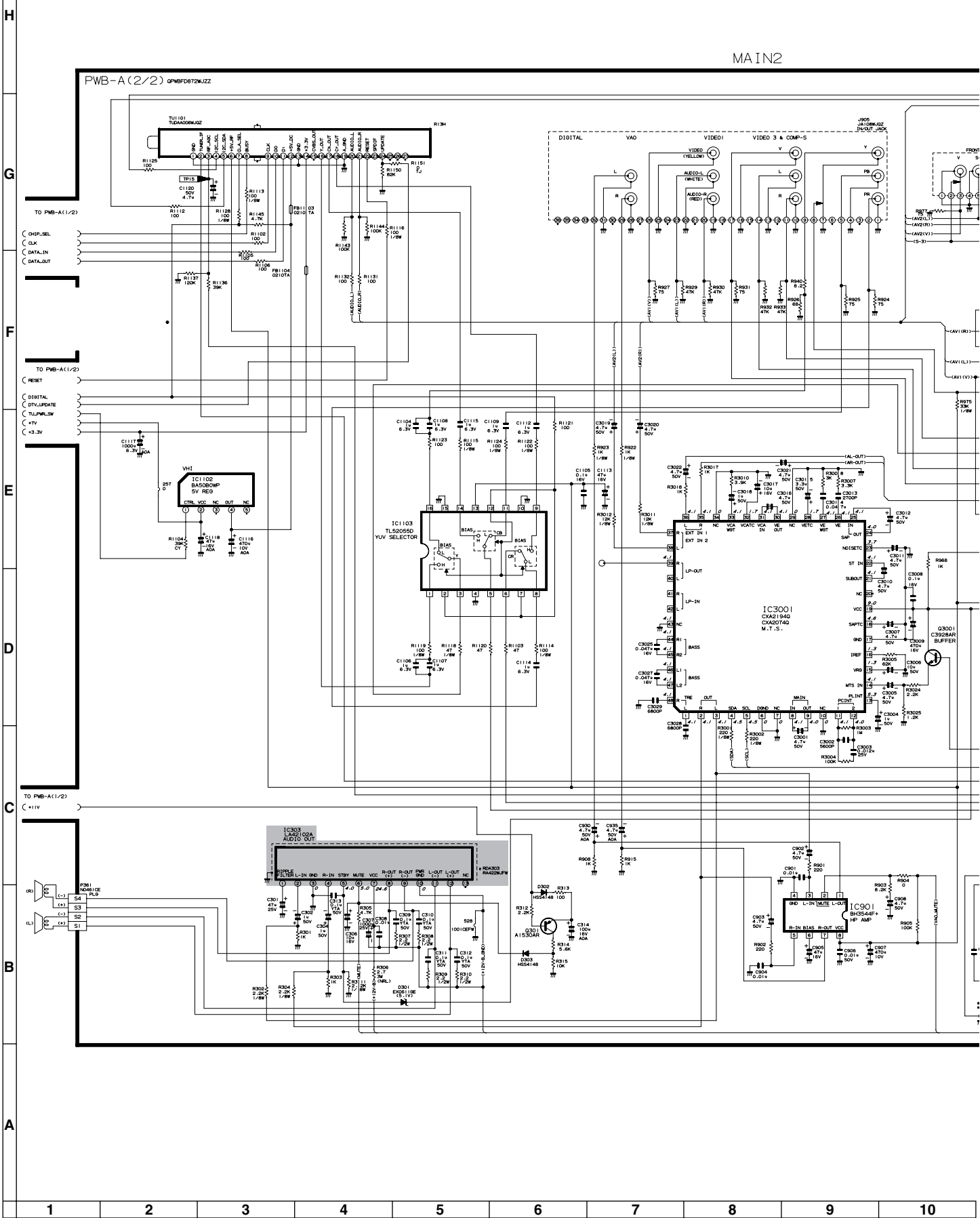
MAIN1

NOTE: 1. THE UNIT OF RESISTANCE * OHM IS OMITTED
 (K=1000 OHMS, M=10000 OHMS)
 2. ALL RESISTORS ARE 1/16 WATT UNLESS OTHERWISE NOTED.
 3. UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
 (% P. ETC.)



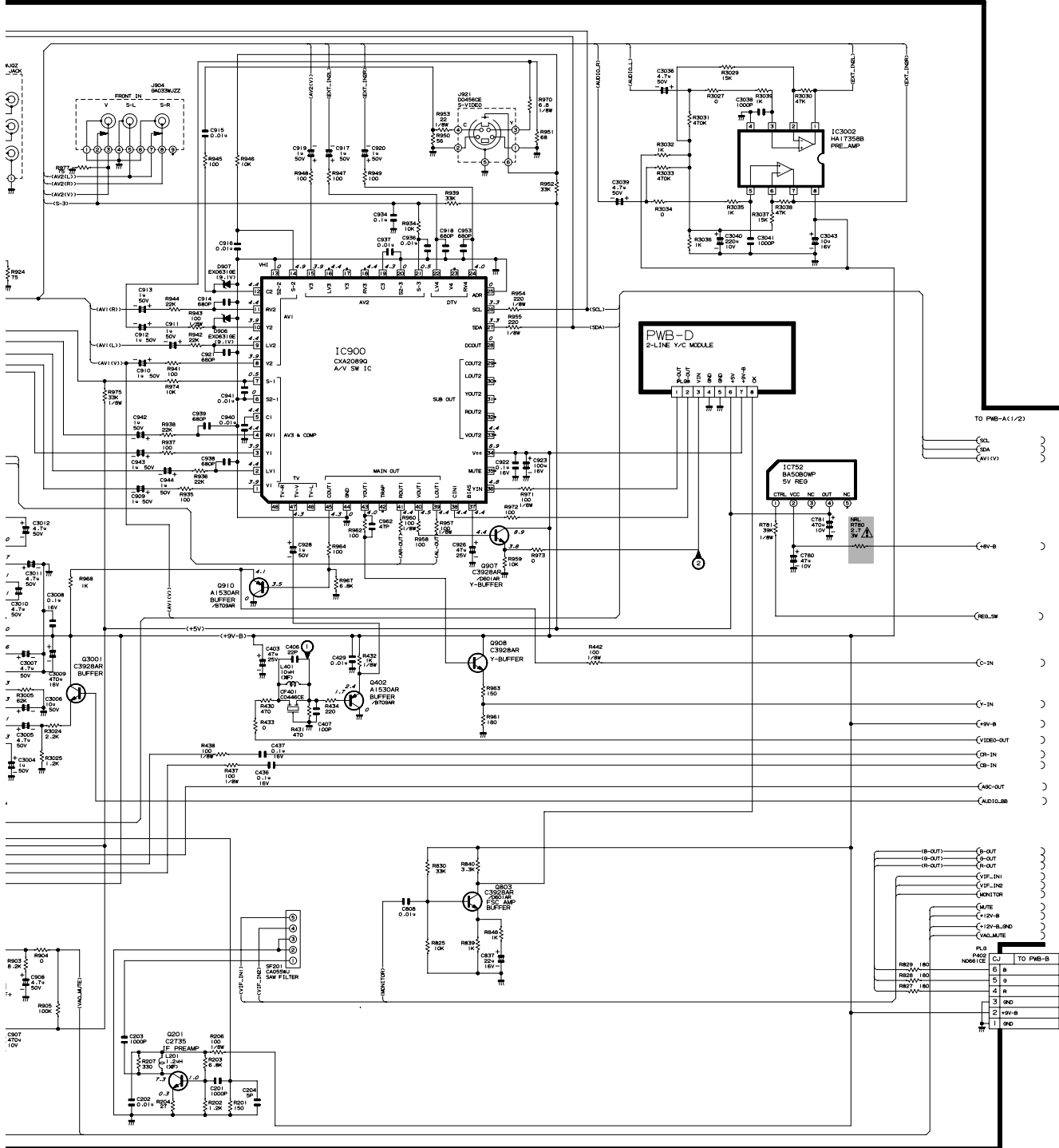
10	11	12	13	14	15	16	17	18	19
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SCHEMATIC DIAGRAM: MAIN-2 Unit



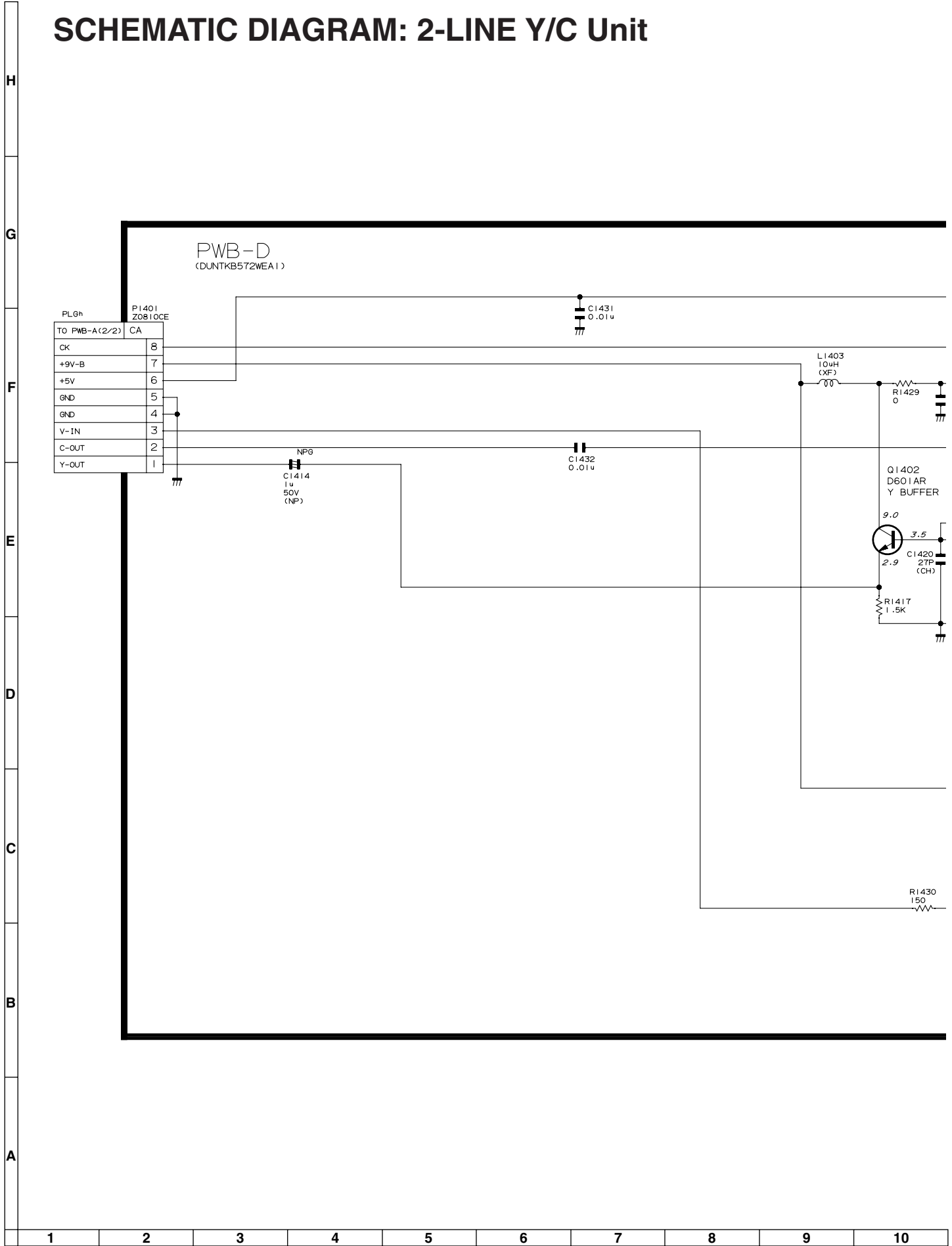
▲ AND SHADED COMPONENTS
 = SAFETY RELATED PARTS.
 ▲ MARK = X-RAY RELATED PARTS.

NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED
 (K=1000 OHMS, M=1000000).
 2. ALL RESISTORS ARE 1/8 WATT UNLESS OTHERWISE NOTED.
 3. UNIT OF ALL CAPACITORS ARE P WITH PREFIX SYMBOL
 (P, ETC.).

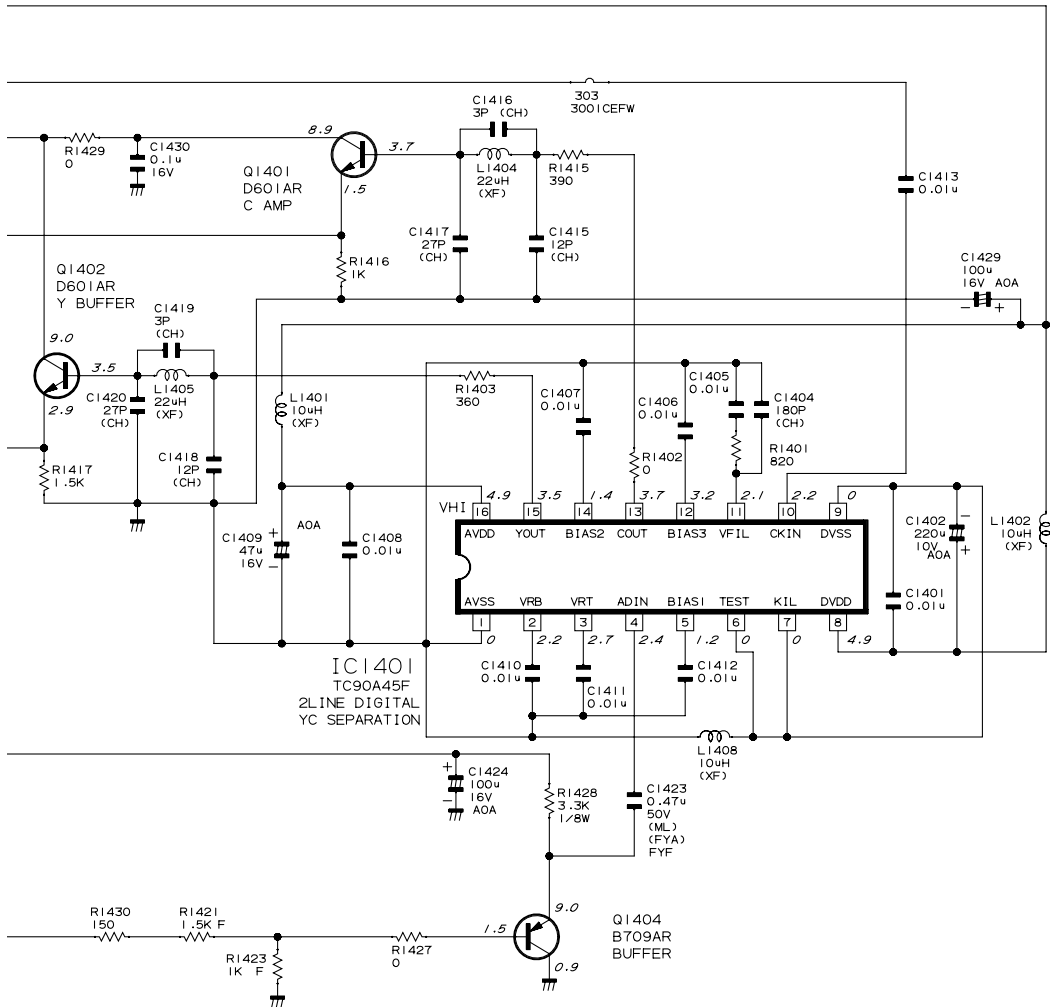


10	11	12	13	14	15	16	17	18	19
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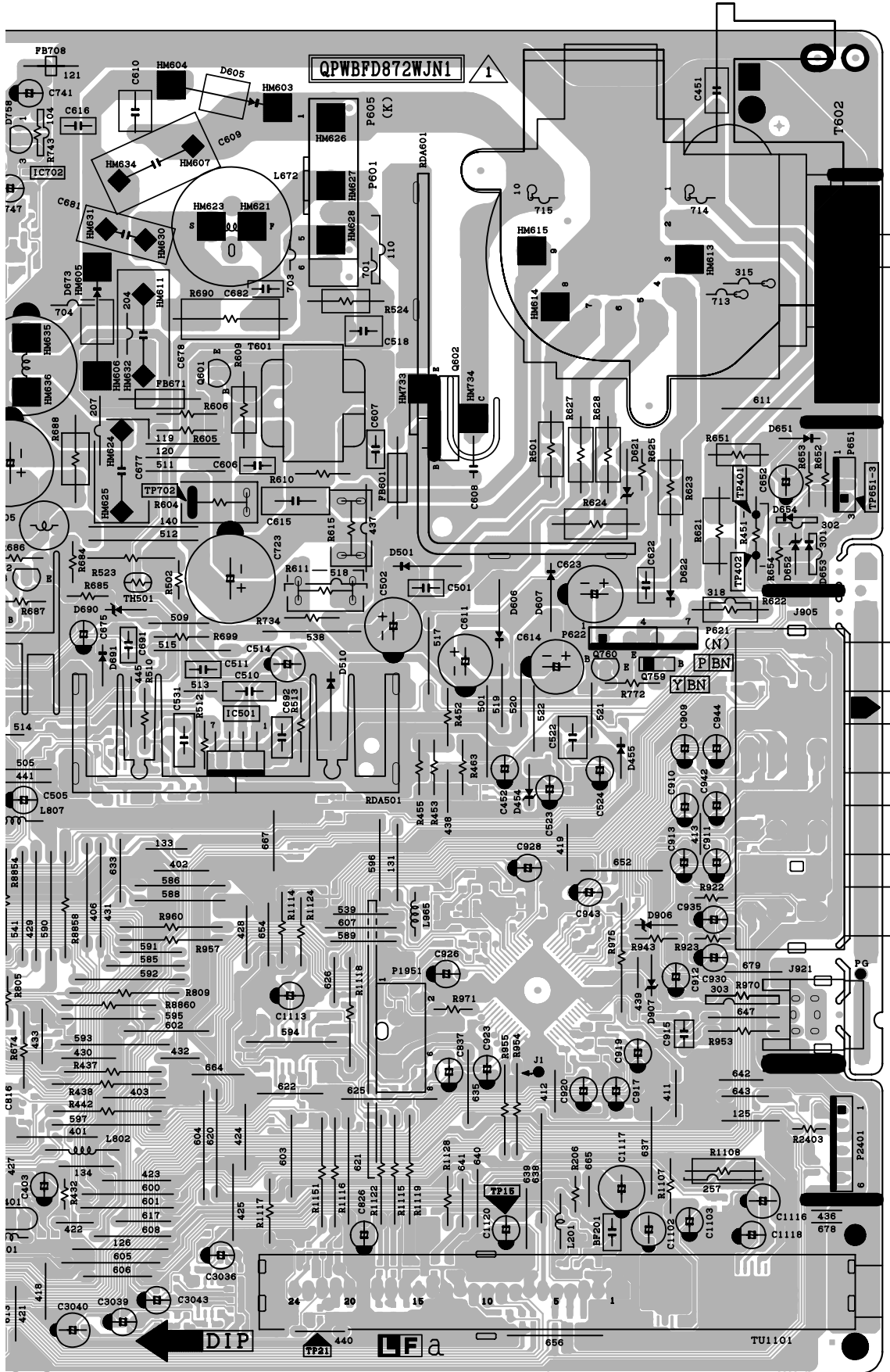
SCHEMATIC DIAGRAM: 2-LINE Y/C Unit



NOTE: 1. THE UNIT OF RESISTANCE "OHM" IS OMITTED
 (K=1000 OHMS, M=MEGAOHM) .
 2. ALL RESISTORS ARE 1/16 WATT UNLESS OTHERWISE NOTED .
 3. UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
 (u, P, ETC) .

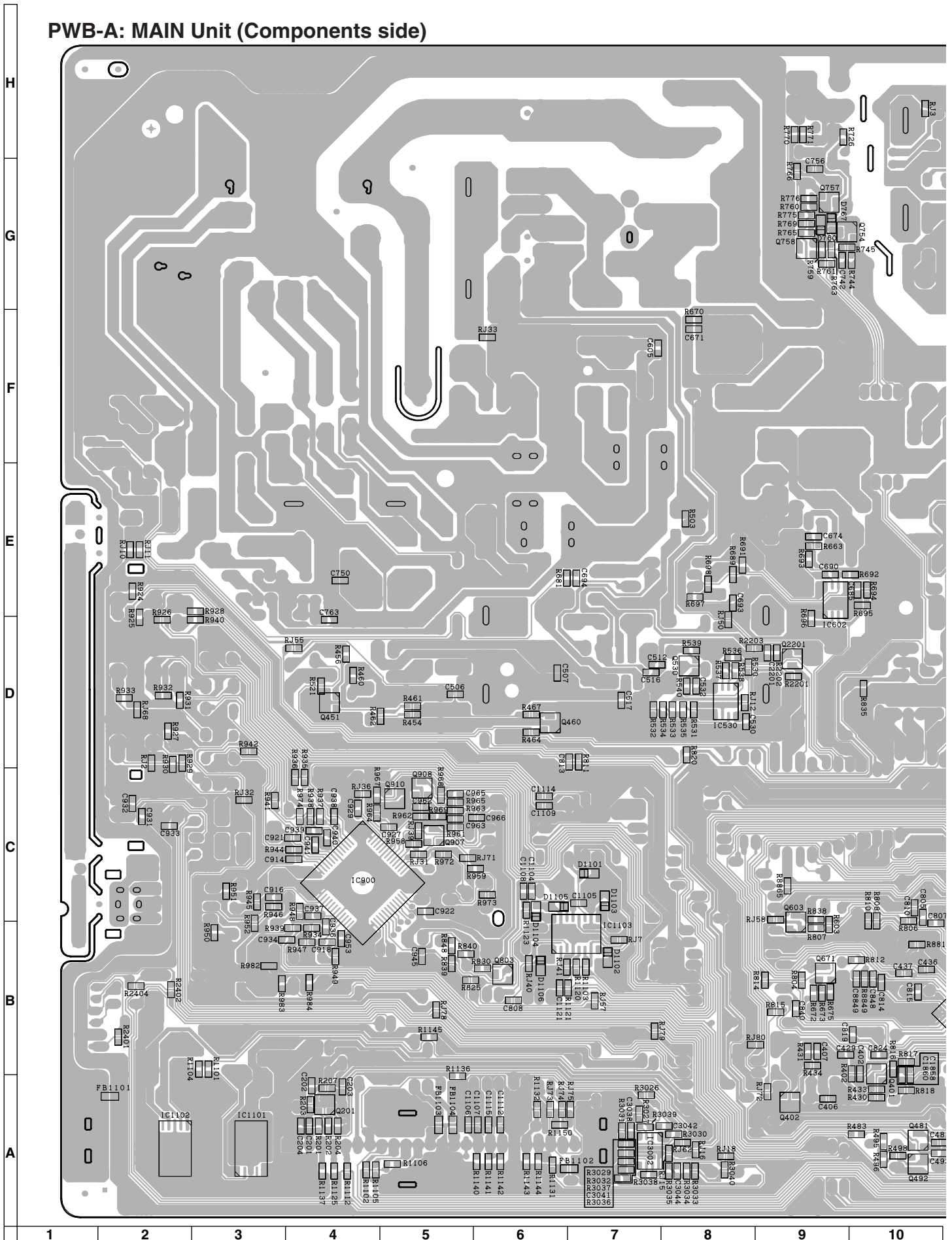


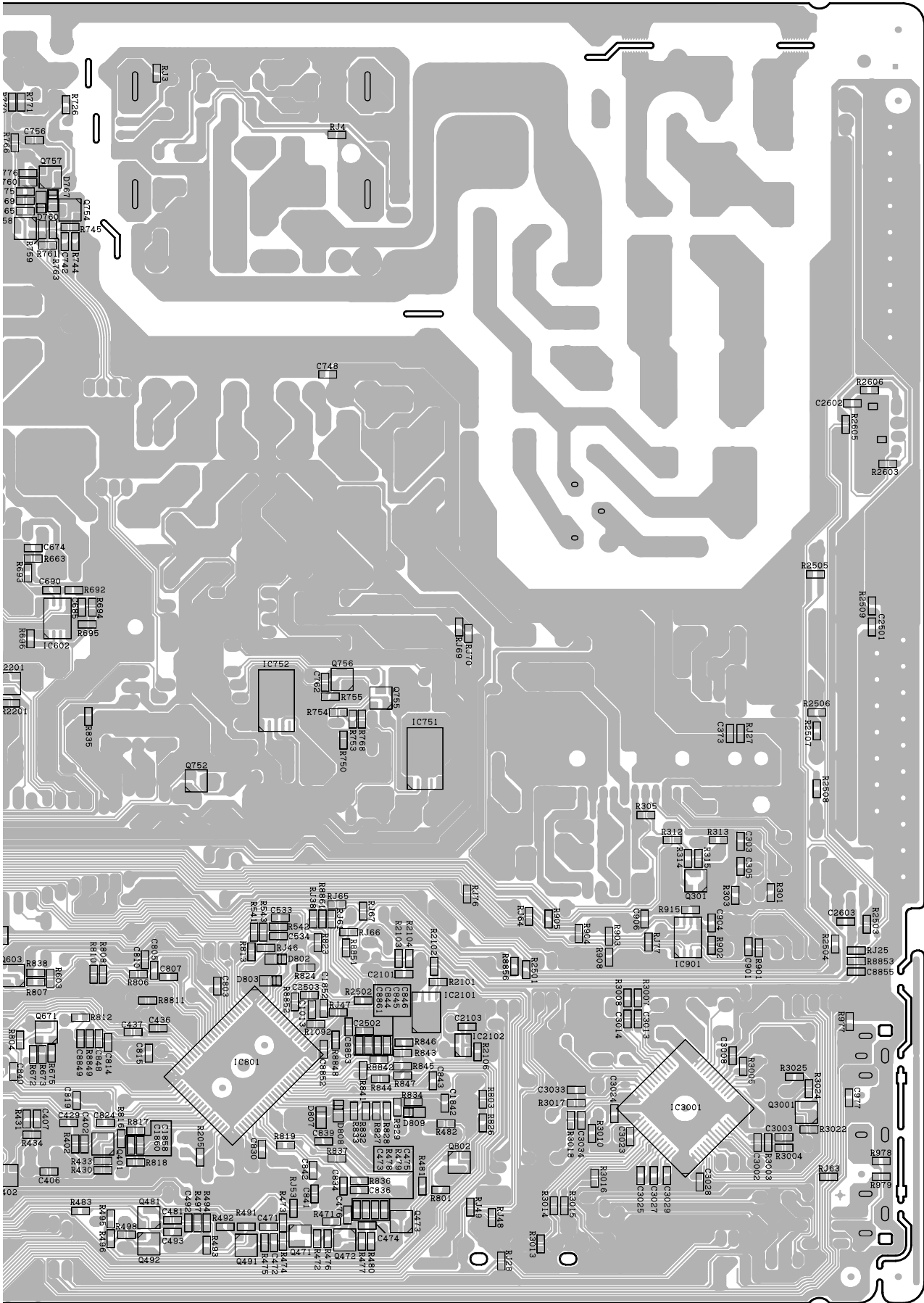
10	11	12	13	14	15	16	17	18	19
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10	11	12	13	14	15	16	17	18	19
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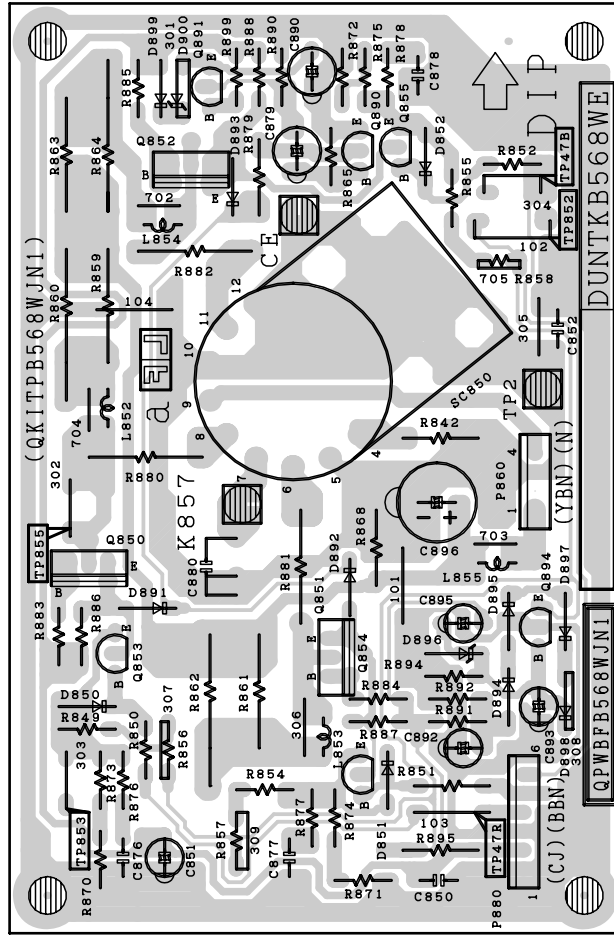
PWB-A: MAIN Unit (Components side)



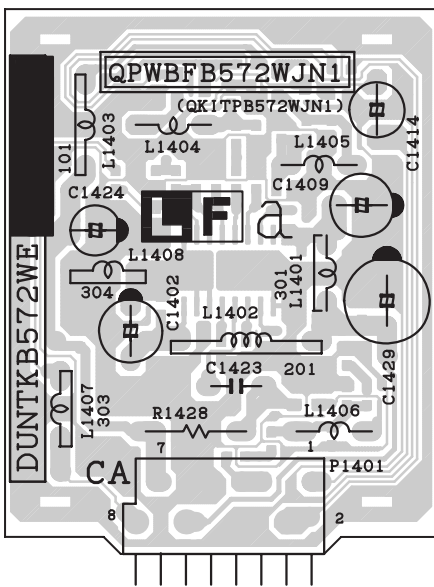


10	11	12	13	14	15	16	17	18	19
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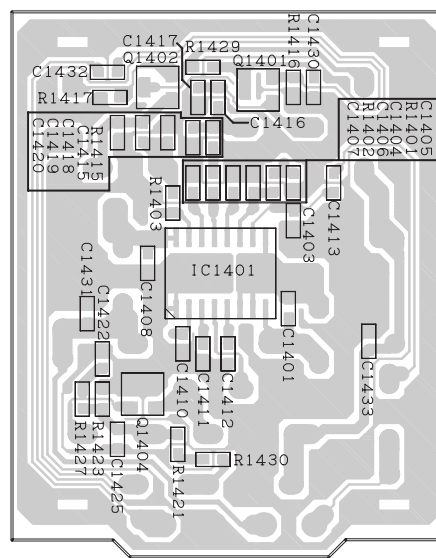
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PWB-B: CRT Unit (Wiring Side)



PWB-D: 2-LINE Y/C Unit (Wiring Side)



PWB-D: 2-LINE Y/C Unit (Chip Parts Side)

1 2 3 4 5 6 7 8 9 10

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 no 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 informations.

- | | |
|-----------------|----------------|
| 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

▲ MARK: X-RAY RELATED PARTS

Ref. No.	Part No.	★	Description	Code
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PICTURE TUBE

Δ	VB68AGA20X/5E	X	Picture Tube	CD
	RCILGA137WJN1	X	Degaussing Coil	AN
	QEARCA027WJZZ	X	Ground-Part	AG

PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

PWB-A DUNTKD872WEA1	—	MAIN Unit	—
PWB-B DUNTKB568WEA0	—	CRT Unit	—
PWB-D DUNTKB572WEA1	—	2-LINE Y/C Unit	—

Ref. No. Part No. ★ Description Code

DUNTKD872WEA1 PWB-A MAIN UNIT

TUNER

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

TU1101	RTUDAA006WJQZ	X	Tuner	BT
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INTEGRATED CIRCUITS

Δ	IC303	VHILA42102A-1	X	LA42102A-E	AH
Δ	IC501	VHILA78041+-1	J	LA78041-E	AK
	IC530	VHIHA17358B-1Y	J	HA17358B	AE
	IC602	VHIHA17358B-1Y	J	HA17358B	AE
Δ	IC700	VHISTRW6535-1	X	STR-W6535A LF NO.2003	AM
Δ	IC702	RH-FXA003WJZZ	J	PC123Y82	AD
	IC751	VHIPQ090DNA-1Y	J	PQ090DNA1ZPH	AE
	IC752	VHIBA50B0WP-1Y	X	BA50BC0WFP-E2	AF
	IC801	RH-IXB945WJQZ	X		AU
	IC900	VHICXA2089Q-2Y	X	CXA2089Q-T6	AM
	IC901	VHIBH3544F+-1Y	J	BH3544F-E2	AE
	IC1101	VHIPQ033DNA-1Y	J	PQ033DNA1ZPH	AE
	IC1102	VHIBA50B0WP-1Y	J	BA50BC0WFP-E2	AF
	IC1103	VHITL52055D-1Y	X	TL52055DR	AE
	IC2101	VHIBR24L16F-1Y	J	BR24L16F-WE2	AF
	IC2102	VHIBD4845G+-1Y	X	BD4845G-TR	AC
	IC3001	VHICXA2194Q-1Y	X	CXA2194Q-T6	AS
	IC3002	VHIHA17358B-1Y	J	HA17358B	AE

TRANSISTORS

	Q201	VS2SC2735//1EY	J	2SC2735	AC
	Q301	VS2SA1530AR-1Y	J	2SA1530AR	AB
	Q402	VS2SA1530AR-1Y	J	2SA1530AR	AB
	Q451	VS2SA1530AR-1Y	J	2SA1530AR	AB
	Q460	VSRT1N441C/-1Y	J	RT1N441C	AB
	Q530	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q601	VS2SC2482//-1+	J	2SC2482	AD
	Q602	VS2SC6089++-F	X	2SC6089	AH
	Q603	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q671	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q672	VS2SA1266-Y-1+	J	2SA1266	AA
	Q673	VS2SD1830//1E	J	2SD1830	AF
Δ	Q751	VS2SC3198-G-1+	J	2SC3198	AA
	Q752	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q753	VS2SD468-C/-1+	J	2SD468	AD
	Q755	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q757	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q758	VS2SA1530AR-1Y	J	2SA1530AR	AB
	Q802	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q803	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q907	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q908	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q910	VS2SA1530AR-1Y	J	2SA1530AR	AB
	Q2201	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q3001	VS2SC3928AR-1Y	J	2SC3928AR	AB
	Q8851	VS2SD468-C/-1+	J	2SD468	AD

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
DIODES					TRANSFORMERS				
D301	RH-EX0611GEZZY	J	Zener Diode MTZJT-725.1A	AA	△ T601	RTRNZ0057PEZZ	J	Transformer	AK
D302	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	▲△ T602	RTRNFA106WJZZ	X	H-Volt Transformer	AW
D303	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	△ T702	RTRNWA268WJQZ	X	Transformer	AP
D454	RH-EX0628GEZZY	J	Zener Diode MTZJT-728.2C	AC	CAPACITORS				
D455	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C201	VCKYCY1HB102KY J		1000p 50V Ceramic	AA
D501	RH-DX0302CEZZY	J	Zener Diode EU2A	AC	C202	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
D510	RH-DX0441CEZZY	J	Zener Diode IN4002G23	AC	C203	VCKYCY1HB102KY J		1000p 50V Ceramic	AA
△ D605	RH-DX0255CEZZ	J	Zener Diode RH4FLF-L1	AC	C204	VCCCCY1HH5R0CYJ		5p 50V Ceramic	AA
△ D606	RH-DX0302CEZZY	J	Zener Diode EU2A	AC	C301	VCEA0A1EW476M+J		47 25V Electrolytic	AB
△ D607	RH-DX0471CEZZY	J	Zener Diode EG01ZV1	AE	C302	VCEA0A1HW105M+J		1 50V Electrolytic	AB
△ D621	RH-EX0614GEZZY	J	Zener Diode MTZJT-725.6A	AB	C304	VCEA0A1HW105M+J		1 50V Electrolytic	AB
△ D622	RH-DX0131CEZZY	J	Zener Diode EU1V	AC	C306	VCEA0A1CW106M+J		10 16V Electrolytic	AB
▲△ D651	VHD1SS244//1Y	J	1SS244T-72	AB	C307	VCEA0A1EW108M+J		1000 25V Electrolytic	AD
▲△ D652	RH-EX0641GEZZY	J	Zener Diode MTZJT-7212C	AA	C308	VCKYPA1HF103Z+ J		0.01 50V Ceramic	AA
▲△ D653	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C309	VCQYTA1HM104J+ J		0.1 50V Mylar	AB
▲△ D654	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C310	VCQYTA1HM104J+ J		0.1 50V Mylar	AB
△ D673	RH-DXA006WJZZ	J	Zener Diode RU4AM LF NO.015-308	AD	C311	VCQYTA1HM104J+ J		0.1 50V Mylar	AB
D691	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C312	VCQYTA1HM104J+ J		0.1 50V Mylar	AB
D702	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C313	VCQYTA1HM104J+ J		0.1 50V Mylar	AB
D703	VHD1SS244//1Y	J	1SS244T-72	AB	C314	VCEA0A1CW107M+J		100 16V Electrolytic	AC
△ D704	RH-DX0476CEZZ	J	Zener Diode D3SB60	AG	C403	VCEA0A1EW476M+J		47 25V Electrolytic	AB
D708	RH-EX0621GEZZY	J	Zener Diode MTZJT-726.8B	AB	C406	VCCCCY1HH220JY J		22p 50V Ceramic	AA
△ D709	RH-DXA006WJZZ	J	Zener Diode RU4AM LF NO.015-308	AD	C407	VCCCCY1HH101JY J		100p 50V Ceramic	AA
D712	RH-DX0468CEZZ	J	Zener Diode S3L20U	AE	C429	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
D725	RH-DX0302CEZZY	J	Zener Diode EU2A	AC	C436	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA
D726	RH-DX0406CEZZY	J	Zener Diode RK16V1	AD	C437	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA
D751	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C451	VCQYTA2AA104K+ J		0.1 100V Mylar	AB
D752	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C452	VCEA0A1EW336M+ X		33 25V Electrolytic	AA
D753	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C501	VCKYPA2HB102K+ J		1000p 500V Ceramic	AA
D754	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C502	VCEA0A1VW477M+J		470 35V Electrolytic	AB
D755	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C505	VCEA0A1AW107M+J		100 10V Electrolytic	AB
D756	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C506	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
D757	RH-EX0624GEZZY	J	Zener Diode MTZJT-727.5B	AB	C507	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
△ D758	VHIMM1431AT-1+	J	MM1431ATT	AD	C510	RC-FZ0272CEZZ+ J		0.39 100V Mylar	AD
D761	RH-EX0611GEZZY	J	Zener Diode MTZJT-725.1A	AA	C511	VCCSPA2HL7R0D+ J		7p 500V Ceramic	AB
D762	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C512	VCKYCY1HB102KY J		1000p 50V Ceramic	AA
D770	RH-DX0406CEZZY	J	Zener Diode RK16V1	AD	C514	VCEA0A1VW107M+J		100 35V Electrolytic	AC
D801	RH-EX0627GEZZY	J	Zener Diode MTZJT-728.2B	AA	C516	VCKYCY1HB472KY J		4700p 50V Ceramic	AA
D802	RH-EX1034CEZZY	J	Zener Diode	AB	C517	VCKYCY1HF103ZY J		0.01 50V Ceramic	AA
D803	RH-EX1034CEZZY	J	Zener Diode	AB	C518	VCQYTA2AA473J+ J		0.047 100V Mylar	AC
D804	VHDHSS4148+-1Y	J	HSS4148TA-E	AA	C522	VCFYFA1HA334J+ J		0.33 50V Mylar	AB
D807	RH-EX0263TAZZY	J	Zener Diode PDZ8.2B,115	AC	C523	VCEA0A1HW105M+J		1 50V Electrolytic	AB
D808	RH-EX0263TAZZY	J	Zener Diode PDZ8.2B,115	AC	C524	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
D809	RH-EX0263TAZZY	J	Zener Diode PDZ8.2B,115	AC	C530	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA
D906	RH-EX0631GEZZY	J	Zener Diode MTZJT-729.1C	AA	C531	VCFYFA1HA474J+ J		0.47 50V Mylar	AC
D907	RH-EX0631GEZZY	J	Zener Diode MTZJT-729.1C	AA	C532	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
D2101	RH-EX0609GEZZY	J	Zener Diode MTZJT-724.7B	AA	C533	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA
PACKAGED CIRCUITS					TRANSFORMERS				
TH501	RH-HZ0004GEZZ+	J	Thermistor 100D-5FT	AE	C606	VCKYPA2HB561K+ J		560p 500V Ceramic	AA
TH700	RH-HXA014WJZZ+	J	Thermistor B57237-S0479-A004AD	AD	C607	VCKYPA1HB472K+ J		4700p 50V Ceramic	AB
△ VA701	RH-VXA021WJZZ	X	Varistor B72210S2271K102	AC	C608	RC-KZ0033CEZZ	J	150p 2kV Ceramic	AB
△ VA702	RH-VXA021WJZZ	X	Varistor B72210S2271K102	AC	▲△ C609	VCFPVC3ZA203H X		0.020 1800V Metalized Polypro Film	AD
△ PR701	RMPTP0092CEZZ	J	Packaged Circuit	AH	C611	VCEA0A1EW477M+J		470 25V Electrolytic	AD
X801	RCRSAA019WJZZ	J	Crystal	AF	C614	VCEA0A1EW108M+J		1000 25V Electrolytic	AD
FILTERS AND COILS					TRANSFORMERS				
CF401	RFILC0446CEZZ+	J	Filter	AD	C615	VCFYSA2EB823J J		0.082 250V Mylar	AD
L201	VP-XF1R2K0000Y	J	Coil Peaking 1.2uH	AB	C616	VCKYPA2HB471K+ J		470p 500V Ceramic	AA
L401	VP-XF100K0000Y	J	Coil Peaking 10uH	AB	C622	VCKYPA2HB102K+ J		1000p 500V Ceramic	AA
L671	RCILZ1005CEZZ	J	Coil	AH	C623	VCEA4A2EN106M+ J		10 250V Electrolytic	AD
L672	RCILZA057WJZZ	X	Coil	AG	C652	VCEA0A1HW476M+J		47 50V Electrolytic	AB
△ L701	RCILF0345CEZZ	J	Coil	AH	C674	VCKYCY1HB391KY J		390p 50V Ceramic	AA
△ L702	RCILF0345CEZZ	J	Coil	AH	C675	VCEA0A1HW106M+J		10 50V Electrolytic	AB
L705	RCILP0177CEZZ+	J	Coil	AC	C677	RC-FZA178WJZZ J		4.7 63V	AG
L728	RCILP0179CEZZ+	J	Coil	AD	▲△ C678	VCQPPC2GB563J J		0.056 400V Film	AC
L729	RCILP0179CEZZ+	J	Coil	AD	C681	VCFPFA2EB434J X		0.43 250V Metalized Polypro Film	AC
L801	VP-DF100K0000Y	J	Coil Peaking 10uH	AB	C682	VCKYPA2HB102K+ J		1000p 500V Ceramic	AA
L802	VP-DF100K0000Y	J	Coil Peaking 10uH	AB	C685	VCKYCY1CB333KY J		0.033 16V Ceramic	AA
L803	VP-DF220K0000Y	J	Coil Peaking 22uH	AB	C692	VCFYFA1HA104J+ J		0.1 50V	AA
L804	VP-DF100K0000Y	J	Coil Peaking 10uH	AB	C693	VCKYCY1HF473ZY J		0.047 50V Ceramic	AA
L807	VP-DF100K0000Y	J	Coil Peaking 10uH	AB	C694	VCKYCY1HB223KY J		0.022 50V Ceramic	AA
SF201	RFILCA055WJQZS	X	Filter	AE	△ C700	RC-KZ0103GEZZ	J	1000p 4kV Ceramic	AD
					△ C701	RC-FZA146WJZZ	X	0.33 275V	AC
					C702	VCQYTA1HM682J+ J		6800p 50V Mylar	AB
					△ C703	RC-KZ0092GEZZ	X	3300p 4kV Ceramic	AC

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
△ C705	RC-EZ0719CEZZ	X	560 200V Electrolytic	AH	C907	VCEA0A1AW477M+J		470 10V Electrolytic	AC
△ C708	RC-FZA146WJZZ	X	0.33 275V	AC	C908	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C710	VCFYFA1HA103J+	J	0.01 50V	AB	C909	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C711	VCEA0A1HW476M+J		47 50V Electrolytic	AB	C910	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C712	RC-KZ018JCEZZ	J	0.01 250V Ceramic	AC	C911	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C713	RC-KZA279WJZZ	X	2200p 2kV	AD	C912	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C714	RC-KZ018JCEZZ	J	0.01 250V Ceramic	AC	C913	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C715	VCQYTA1HM104J+	J	0.1 50V Mylar	AB	C914	VCKYCY1HB681KY J		680p 50V Ceramic	AA
△ C723	RC-EZ0724CEZZ	J	100 160V Electrolytic	AG	C915	VCKYPA1HF103Z+ J		0.01 50V Ceramic	AA
△ C725	RC-EZA064WJZZ	J	220 160V Electrolytic	AH	C916	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
C726	RC-KZ0226CEZZ+	J	560p 2kV Ceramic	AC	C917	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C729	VCEA0A1HW106M+J		10 50V Electrolytic	AB	C918	VCKYCY1HB681KY J		680p 50V Ceramic	AA
C730	VCEA0A1EW108M+J		1000 25V Electrolytic	AD	C919	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C731	RC-EZ0385CEZZ+	X	1000 16V Electrolytic	AD	C920	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C732	VCKYPA2HB102K+	J	1000p 500V Ceramic	AA	C921	VCKYCY1HB681KY J		680p 50V Ceramic	AA
C733	VCKYPA2HB102K+	J	1000p 500V Ceramic	AA	C922	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA
C739	RC-EZ0385CEZZ+	X	1000 16V Electrolytic	AD	C923	VCEA0A1CW107M+J		100 16V Electrolytic	AC
C741	VCEA4A2AN105M+	X	1 100V Electrolytic	AB	C926	VCEA0A1EW476M+J		47 25V Electrolytic	AB
C746	VCKYPA2HB102K+	J	1000p 500V Ceramic	AA	C928	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C747	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	C930	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C750	VCKYCY1HF103ZY J		0.01 50V Ceramic	AA	C934	VCKYCY1HB104KY J		0.1 50V Ceramic	AA
C752	VCEA0A1CW476M+J		47 16V Electrolytic	AB	C935	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C753	VCEA0A1CW476M+J		47 16V Electrolytic	AB	C936	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
C755	VCEA0A1EW476M+J		47 25V Electrolytic	AB	C937	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
C756	VCKYCY1HB683KY X		0.068 50V Ceramic	AB	C938	VCKYCY1HB681KY J		680p 50V Ceramic	AA
C780	VCEA0A1AW476M+J		47 10V Electrolytic	AB	C939	VCKYCY1HB681KY J		680p 50V Ceramic	AA
C781	VCEA0A1AW477M+J		470 10V Electrolytic	AC	C940	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
C790	VCEA0A1CW108M+J		1000 16V Electrolytic	AD	C941	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
C791	VCKYPA2HB102K+	J	1000p 500V Ceramic	AA	C942	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C801	VCFYFA1HA154J+	J	0.15 50V	AB	C943	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C802	VCEA0A1AW107M+J		100 10V Electrolytic	AB	C944	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C803	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C953	VCKYCY1HB681KY J		680p 50V Ceramic	AA
C804	VCEA0A1HW474M+J		0.47 50V Electrolytic	AB	C962	VCCCY1HH470JY J		47p 50V Ceramic	AA
C805	VCKYCY1HB153KY J		0.015 50V Ceramic	AA	C1013	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
C806	VCEA0A1CW476M+J		47 16V Electrolytic	AB	C1102	VCEA0A1AW477M+J		470 10V Electrolytic	AC
C807	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C1103	VCEA0A1CW476M+J		47 16V Electrolytic	AB
C808	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C1104	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB
C809	VCEA0A1CW476M+J		47 16V Electrolytic	AB	C1105	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA
C810	VCKYCY1HF103ZY J		0.01 50V Ceramic	AA	C1106	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB
C811	VCFYFA1HA104J+	J	0.1 50V	AA	C1107	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB
C813	VCKYCY1HB271KY J		270p 50V Ceramic	AA	C1108	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB
C814	VCKYCY1CB563KY J		0.056 16V Ceramic	AB	C1109	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB
C815	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C1112	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB
C816	VCEA0A1HW474M+J		0.47 50V Electrolytic	AB	C1113	VCEA0A1CW476M+J		47 16V Electrolytic	AB
C818	VCEA0A1CW476M+J		47 16V Electrolytic	AB	C1114	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB
C819	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C1115	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB
C820	VCFYFA1HA104J+	J	0.1 50V	AA	C1116	VCEA0A1AW477M+J		470 10V Electrolytic	AC
C821	VCEA0A1HW105M+J		1 50V Electrolytic	AB	C1117	VCEA0A0JW108M+ J		1000 6.3V Electrolytic	AC
C824	VCKYCY1CF105ZY J		1 16V Ceramic	AA	C1118	VCEA0A1CW476M+J		47 16V Electrolytic	AB
C825	VCEA0A1HW474M+J		0.47 50V Electrolytic	AB	C1120	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C826	VCEA0A1HW105M+J		1 50V Electrolytic	AB	C1841	VCEA0A1CW477M+J		470 16V Electrolytic	AC
C827	VCEA0A1HW105M+J		1 50V Electrolytic	AB	C1842	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
C828	VCEA0A1HW474M+J		0.47 50V Electrolytic	AB	C1852	VCKYCY1HB103KY J		0.01 50V Ceramic	AA
C830	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C1853	VCEA0A1CW476M+J		47 16V Electrolytic	AB
C831	VCEA0A1CW227M+J		220 16V Electrolytic	AC	C1858	VCCCY1HH220JY J		22p 50V Ceramic	AA
C832	VCFYFA1HA104J+	J	0.1 50V	AA	C1860	VCCCY1HH220JY J		22p 50V Ceramic	AA
C833	VCEA0A1HW104M+J		0.1 50V Electrolytic	AB	C2101	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA
C834	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA	C2102	VCEA0A1EW476M+J		47 25V Electrolytic	AB
C837	VCEA0A1CW226M+J		22 16V Electrolytic	AB	C2103	VCKYCY1HB472KY J		4700p 50V Ceramic	AA
C838	VCEA0A1CW477M+J		470 16V Electrolytic	AC	C2201	VCKYCY1HB681KY J		680p 50V Ceramic	AA
C839	VCKYCY1HF103ZY J		0.01 50V Ceramic	AA	C2601	VCEA0A1EW476M+J		47 25V Electrolytic	AB
C840	VCKYCY1HB104KY J		0.1 50V Ceramic	AA	C2602	VCCCY1HH101JY J		100p 50V Ceramic	AA
C841	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C3001	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C842	VCKYCY1HF224ZY J		0.22 50V Ceramic	AA	C3002	VCKYCY1HB562KY J		5600p 50V Ceramic	AA
C843	VCKYCY1HB104KY J		0.1 50V Ceramic	AA	C3003	VCKYCY1EB123KY J		0.012 25V Ceramic	AA
C844	VCKYCY1HB102KY J		1000p 50V Ceramic	AA	C3004	VCEA0A1HW105M+J		1 50V Electrolytic	AB
C845	VCKYCY1HB221KY J		220p 50V Ceramic	AA	C3005	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C846	VCKYCY1CF105ZY J		1 16V Ceramic	AA	C3006	VCEA0A1HW106M+J		10 50V Electrolytic	AB
C847	VCKYPA1HB471K+	J	470p 50V Ceramic	AA	C3007	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C848	VCKYCY1HB104KY J		0.1 50V Ceramic	AA	C3008	VCKYCY1CF104ZY J		0.1 16V Ceramic	AA
C901	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C3009	VCEA0A1CW477M+J		470 16V Electrolytic	AC
C902	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	C3010	VCE9GA1HW475M+J		4.7 50V Electrolytic (N.P)	AB
C903	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	C3011	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C904	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C3012	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB
C905	VCEA0A1CW476M+J		47 16V Electrolytic	AB	C3013	VCKYCY1HB272KY J		2700p 50V Ceramic	AA
C906	VCKYCY1HB103KY J		0.01 50V Ceramic	AA	C3014	VCKYCY1CB473KY J		0.047 16V Ceramic	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C3015	VCEACA1HC335K+ X		3.3 50V Electrolytic	AC	R305	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
C3016	VCE9GA1HW475M+J		4.7 50V Electrolytic (N.P)	AB	R306	VRN-RL3LB2R7J+ X	X	2.7 3.0W Metal Film	AC
C3017	VCEACA1CC106K+ X		10 16V Electrolytic	AC	R307	VRD-RM2HD2R2JY J		2.2 1/2W Carbon	AA
C3018	VCEA0A1HW105M+J		1 50V Electrolytic	AB	R308	VRD-RM2HD2R2JY J		2.2 1/2W Carbon	AA
C3019	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	R309	VRD-RM2HD2R2JY J		2.2 1/2W Carbon	AA
C3020	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	R310	VRD-RM2HD2R2JY J		2.2 1/2W Carbon	AA
C3021	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	R311	VRD-RA2BE222JY J		2.2k 1/8W Carbon	AA
C3022	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	R312	VRS-CY1JF222JY J		2.2k 1/16W Metal Oxide	AA
C3025	VCKYCY1CB473KY J		0.047 16V Ceramic	AA	R313	VRS-CY1JF101JY J		100 1/16W Metal Oxide	AA
C3027	VCKYCY1CB473KY J		0.047 16V Ceramic	AA	R314	VRS-CY1JF562JY J		5.6k 1/16W Metal Oxide	AA
C3028	VCKYCY1HB682KY J		6800p 50V Ceramic	AA	R315	VRS-CY1JF103JY J		10k 1/16W Metal Oxide	AA
C3029	VCKYCY1HB682KY J		6800p 50V Ceramic	AA	R430	VRS-CY1JF471JY J		470 1/16W Metal Oxide	AA
C3036	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	R431	VRS-CY1JF471JY J		470 1/16W Metal Oxide	AA
C3038	VCKYCY1HB102KY J		1000p 50V Ceramic	AA	R432	VRD-RA2BE102JY J		1k 1/8W Carbon	AA
C3039	VCEA0A1HW475M+J		4.7 50V Electrolytic	AB	R433	VRS-CY1JF000JY J		0 1/16W Metal Oxide	AA
C3040	VCEA0A1AW227M+ J		220 10V Electrolytic	AB	R434	VRS-CY1JF221JY J		220 1/16W Metal Oxide	AA
C3041	VCKYCY1HB102KY J		1000p 50V Ceramic	AA	R437	VRD-RA2BE101JY J		100 1/8W Carbon	AA
C3043	VCEA0A1CW106M+J		10 16V Electrolytic	AB	R438	VRD-RA2BE101JY J		100 1/8W Carbon	AA
C8851	VCEA0A1CW476M+J		4.7 50V Electrolytic	AB	R442	VRD-RA2BE101JY J		100 1/8W Carbon	AA
C8852	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB	△ R451	VRS-RG3AB103J+ J		10k 1W Metal Oxide	AB
C8853	VCKYCY0JF105ZY J		1 6.3V Ceramic	AB	R452	VRD-RM2HD563JY J		56k 1/2W Carbon	AA
C8861	VCKYCY1HB821KY J		820p 50V Ceramic	AA	R453	VRD-RM2HD393JY J		39k 1/2W Carbon	AA
RESISTORS									
RJ2	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R454	VRS-CY1JF471JY J		470 1/16W Metal Oxide	AA
RJ3	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R455	VRD-RM2HD274JY J		270k 1/2W Carbon	AA
RJ4	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R456	VRS-CY1JF103JY J		10k 1/16W Metal Oxide	AA
RJ7	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R460	VRS-CY1JF471JY J		470 1/16W Metal Oxide	AA
RJ12	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R461	VRS-CY1JF562JY J		5.6k 1/16W Metal Oxide	AA
RJ15	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R462	VRS-CY1JF223JY J		22k 1/16W Metal Oxide	AA
RJ16	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R463	VRD-RA2EE680JY J		68 1/4W Carbon	AA
RJ18	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R464	VRS-CY1JF683JY J		68k 1/16W Metal Oxide	AA
RJ28	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R467	VRS-CY1JF332JY J		3.3k 1/16W Metal Oxide	AA
RJ31	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R501	VRN-RL3ABR47J+ J		0.47 1W Metal Film	AB
RJ32	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R502	VRN-RA2BK103FY J		10k 1/8W Metal Film	AB
RJ33	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R503	VRS-CY1JF101JY J		100 1/16W Metal Oxide	AA
RJ36	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R510	VRN-RA2BK103FY J		10k 1/8W Metal Film	AB
RJ38	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R512	VRN-RA2BK822FY J		8.2k 1/8W Metal Film	AB
RJ39	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R513	VRD-RM2HD1R0JY J		1 1/2W Carbon	AA
RJ40	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R521	VRS-CY1JF473JY J		47k 1/16W Metal Oxide	AA
RJ41	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R523	VRN-RL3DB1R5J+ J		1.5 2W Metal Film	AB
RJ46	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R524	VRS-RG3AB391J+ J		390 1W Metal Oxide	AB
RJ47	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R530	VRS-CY1JF104FY J		100k 1/16W Metal Oxide	AA
RJ48	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R531	VRS-CY1JF332FY J		3.3k 1/16W Metal Oxide	AA
RJ49	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R532	VRS-CY1JF473JY J		47k 1/16W Metal Oxide	AA
RJ50	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R533	VRS-CY1JF103FY J		10k 1/16W Metal Oxide	AA
RJ53	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R534	VRS-CY1JF103JY J		10k 1/16W Metal Oxide	AA
RJ55	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R535	VRS-CY1JF000JY J		0 1/16W Metal Oxide	AA
RJ58	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R536	VRS-CY1JF103JY J		10k 1/16W Metal Oxide	AA
RJ61	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R538	VRS-CY1JF000JY J		0 1/16W Metal Oxide	AA
RJ62	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R539	VRS-CY1JF102JY J		1k 1/16W Metal Oxide	AA
RJ63	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R540	VRS-CY1JF103JY J		10k 1/16W Metal Oxide	AA
RJ64	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R541	VRS-CY1JF472JY J		4.7k 1/16W Metal Oxide	AA
RJ65	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R543	VRS-CY1JF333JY J		33k 1/16W Metal Oxide	AA
RJ66	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R603	VRS-CY1JF102JY J		1k 1/16W Metal Oxide	AA
RJ67	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R604	VRS-KA3NG562J X		5.6k 7.0W Metal Oxide	AD
RJ68	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R605	VRD-RM2HD331JY J		330 1/2W Carbon	AA
RJ71	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R606	VRD-RM2HD331JY J		330 1/2W Carbon	AA
RJ72	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R609	VRS-RG3AB562J+ X		5.6k 1W Metal Oxide	AB
RJ73	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R610	VRD-RM2HD150JY J		15 1/2W Carbon	AA
RJ74	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R615	VRS-KA3NG3R3K J		3.3 7.0W Metal Oxide	AD
RJ76	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R621	VRN-RL3DB1R2J+ J		1.2 2W Metal Film	AB
RJ77	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R623	VRN-RL3AB4R7J+ J		4.7 1W Metal Film	AB
RJ78	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R624	VRS-RG3DB182J+ X		1.8k 2W Metal Oxide	AB
RJ79	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R625	VRD-RA2BE102JY J		1k 1/8W Carbon	AA
RJ80	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	△ R627	VRN-RL3ABR47J+ J		0.47 1W Metal Film	AB
R201	VRS-CY1JF151JY J		150 1/16W Metal Oxide	AA	R628	VRN-RL3ABR47J+ J		0.47 1W Metal Film	AB
R202	VRS-CY1JF122JY J		1.2k 1/16W Metal Oxide	AA	▲ R651	VRS-RG2HC270J+ X		27 1/2W Metal Oxide	AA
R203	VRS-CY1JF682JY J		6.8k 1/16W Metal Oxide	AA	▲ R652	VRD-RA2EE103GY J		10k 1/4W Carbon	AA
R204	VRS-CY1JF270JY J		27 1/16W Metal Oxide	AA	▲ R653	VRD-RA2EE472GY J		4.7k 1/4W Carbon	AA
R206	VRD-RA2BE101JY J		100 1/8W Carbon	AA	R663	VRS-CY1JF102JY J		1k 1/16W Metal Oxide	AA
R207	VRS-CY1JF331JY J		330 1/16W Metal Oxide	AA	R672	VRS-CY1JF102JY J		1k 1/16W Metal Oxide	AA
R301	VRS-CY1JF102JY J		1k 1/16W Metal Oxide	AA	R673	VRS-CY1JF272JY J		2.7k 1/16W Metal Oxide	AA
R302	VRD-RA2BE222JY J		2.2k 1/8W Carbon	AA	R674	VRD-RA2BE472JY J		4.7k 1/8W Carbon	AA
R303	VRS-CY1JF102JY J		1k 1/16W Metal Oxide	AA	R675	VRS-CY1JF222JY J		2.2k 1/16W Metal Oxide	AA
R304	VRD-RA2BE222JY J		2.2k 1/8W Carbon	AA	R681	VRS-CY1JF563JY J		56k 1/16W Metal Oxide	AA
					R684	VRD-RA2BE472JY J		4.7k 1/8W Carbon	AA
					R685	VRD-RA2BE822JY J		8.2k 1/8W Carbon	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
R686	VRD-RA2EE332JY	J	3.3k 1/4W Carbon	AA	R838	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R687	VRD-RA2BE103JY	J	10k 1/8W Carbon	AA	R839	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
△ R688	VRN-RL3DB3R3J+	J	3.3 2W Metal Film	AB	R840	VRS-CY1JF332JY	J	3.3k 1/16W Metal Oxide	AA
R689	VRS-CY1JF274JY	J	270k 1/16W Metal Oxide	AA	R841	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
△ R690	VRS-RG3LB471J+	X	470 3.0W Metal Oxide	AB	R843	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R691	VRS-CY1JF394JY	J	390k 1/16W Metal Oxide	AA	R844	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R692	VRS-CY1JF273JY	J	27k 1/16W Metal Oxide	AA	R845	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R693	VRS-CY1JF683JY	J	68k 1/16W Metal Oxide	AA	R848	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R694	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA	R901	VRS-CY1JF221JY	J	220 1/16W Metal Oxide	AA
R695	VRS-CY1JF683JY	J	68k 1/16W Metal Oxide	AA	R902	VRS-CY1JF221JY	J	220 1/16W Metal Oxide	AA
R696	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R903	VRS-CY1JF822JY	J	8.2k 1/16W Metal Oxide	AA
R699	VRD-RA2BE333JY	J	33k 1/8W Carbon	AA	R904	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R700	VRD-RA2BE220JY	J	22 1/8W Carbon	AA	R905	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA
R703	VRD-RA2BE682JY	J	6.8k 1/8W Carbon	AA	R908	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R704	VRS-RG2HC221J+	X	220 1/2W Metal Oxide	AA	R915	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R705	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA	R922	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R707	VRD-RA2BE222JY	J	2.2k 1/8W Carbon	AA	R923	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA
R711	VRD-RA2BE393JY	J	39k 1/8W Carbon	AA	R924	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
△ R717	RR-HZ0014GEZZY	J	12M 1W Coat-insulated fixed anti-surge	AE	R925	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R725	VRD-RM2HD392JY	J	3.9k 1/2W Carbon	AA	R926	VRS-CY1JF680JY	J	68 1/16W Metal Oxide	AA
R726	VRS-CY1JF182JY	J	1.8k 1/16W Metal Oxide	AA	R927	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R743	VRD-RA2BE470JY	J	47 1/8W Carbon	AA	R929	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R751	VRD-RA2BE473JY	J	47k 1/8W Carbon	AA	R930	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R752	VRD-RA2BE392JY	J	3.9k 1/8W Carbon	AA	R931	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R753	VRS-CY1JF222JY	J	2.2k 1/16W Metal Oxide	AA	R932	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
R756	VRD-RA2BE152JY	J	1.5k 1/8W Carbon	AA	R933	VRS-CY1JF473JY	J	47k 1/16W Metal Oxide	AA
△ R757	VRN-RL3DB4R7J+	J	4.7 2W Metal Film	AB	R934	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R758	VRS-RG3DB121J+	J	120 2W Metal Oxide	AB	R935	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R759	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	R936	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA
R761	VRS-CY1JF332JY	J	3.3k 1/16W Metal Oxide	AA	R937	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R763	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R938	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA
R764	VRD-RM2HD562JY	J	5.6k 1/2W Carbon	AA	R939	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA
R765	VRS-CY1JF124FY	J	120k 1/16W Metal Oxide	AA	R940	VRS-CY1JF8R2JY	J	8.2 1/16W Metal Oxide	AA
R766	VRS-CY1JF104JY	J	100k 1/16W Metal Oxide	AA	R941	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R767	VRD-RM2HD680JY	J	68 1/2W Carbon	AA	R942	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA
R769	VRS-CY1JF124FY	J	120k 1/16W Metal Oxide	AA	R943	VRD-RA2BE101JY	J	100 1/8W Carbon	AA
R770	VRS-CY1JF124JY	J	120k 1/16W Metal Oxide	AA	R944	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA
R771	VRS-CY1JF472FY	J	4.7k 1/16W Metal Oxide	AA	R945	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R775	VRS-CY1JF332JY	J	3.3k 1/16W Metal Oxide	AA	R946	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R776	VRS-CY1JF332JY	J	3.3k 1/16W Metal Oxide	AA	R947	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
△ R780	VRN-RL3LB2R7J+	X	2.7 3.0W Metal Film	AC	R948	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R781	VRD-RA2BE393JY	J	39k 1/8W Carbon	AA	R949	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R799	VRD-RA2BE270JY	X	27 1/8W Carbon	AA	R950	VRS-CY1JF560JY	J	56 1/16W Metal Oxide	AA
R801	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA	R951	VRS-CY1JF680JY	J	68 1/16W Metal Oxide	AA
R802	VRS-RG3AB271J+	J	270 1W Metal Oxide	AA	R952	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA
R803	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R953	VRD-RA2BE220JY	J	22 1/8W Carbon	AA
R804	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R954	VRD-RA2BE221JY	J	220 1/8W Carbon	AA
R805	VRD-RA2BE101JY	J	100 1/8W Carbon	AA	R955	VRD-RA2BE221JY	J	220 1/8W Carbon	AA
R806	VRS-CY1JF822JY	J	8.2k 1/16W Metal Oxide	AA	R957	VRD-RA2BE101JY	J	100 1/8W Carbon	AA
R807	VRS-CY1JF124JY	J	120k 1/16W Metal Oxide	AA	R958	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R808	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R959	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R809	VRD-RA2BE101JY	J	100 1/8W Carbon	AA	R960	VRD-RA2BE101JY	J	100 1/8W Carbon	AA
R810	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA	R961	VRS-CY1JF181FY	J	180 1/16W Metal Oxide	AA
R811	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	R962	VRS-CY1JF101FY	J	100 1/16W Metal Oxide	AA
R812	VRS-CY1JF822JY	J	8.2k 1/16W Metal Oxide	AA	R963	VRS-CY1JF151FY	J	150 1/16W Metal Oxide	AA
R813	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R964	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R814	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R967	VRS-CY1JF682JY	J	6.8k 1/16W Metal Oxide	AA
R815	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R968	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R817	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA	R970	VRD-RA2BE6R8JY	J	6.8 1/8W Carbon	AA
R818	VRS-CY1JF220JY	J	22 1/16W Metal Oxide	AA	R971	VRD-RA2BE101JY	J	100 1/8W Carbon	AA
R819	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA	R972	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R820	VRS-CY1JF223JY	J	22k 1/16W Metal Oxide	AA	R973	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R821	VRD-RA2BE682JY	J	6.8k 1/8W Carbon	AA	R974	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA
R822	VRD-RA2BE102JY	J	1k 1/8W Carbon	AA	R975	VRD-RA2BE333JY	J	33k 1/8W Carbon	AA
R823	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R977	VRS-CY1JF750JY	J	75 1/16W Metal Oxide	AA
R824	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R1092	VRS-CY1JF472JY	J	4.7k 1/16W Metal Oxide	AA
R825	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	R1101	VRS-CY1JF393JY	J	39k 1/16W Metal Oxide	AA
R826	VRS-CY1JF103JY	J	10k 1/16W Metal Oxide	AA	R1102	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R827	VRS-CY1JF181JY	J	180 1/16W Metal Oxide	AA	R1103	VRS-CY1JF470JY	J	47 1/16W Metal Oxide	AA
R828	VRS-CY1JF181JY	J	180 1/16W Metal Oxide	AA	R1104	VRS-CY1JF393JY	J	39k 1/16W Metal Oxide	AA
R829	VRS-CY1JF181JY	J	180 1/16W Metal Oxide	AA	R1105	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R830	VRS-CY1JF333JY	J	33k 1/16W Metal Oxide	AA	R1106	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R832	VRS-CY1JF222JY	J	2.2k 1/16W Metal Oxide	AA	R1112	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA
R833	VRS-CY1JF222JY	J	2.2k 1/16W Metal Oxide	AA	R1113	VRD-RA2BE101JY	J	100 1/8W Carbon	AA
R834	VRS-CY1JF222JY	J	2.2k 1/16W Metal Oxide	AA	R1114	VRD-RA2BE101JY	J	100 1/8W Carbon	AA
R836	VRS-CY1JF101JY	J	100 1/16W Metal Oxide	AA	R1115	VRD-RA2BE101JY	J	100 1/8W Carbon	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
P2401	QPLGN0661CEZZA	X	Plug 6pin	AB	R856	VRD-RA2BE121JY	J	120 1/8W Carbon	AA
△ RDA303	PRDARA422WJFW	X	Heat Sink	AF	R857	VRD-RA2BE121JY	J	120 1/8W Carbon	AA
△ RDA501	PRDARA421WJFW	X	Heat Sink	AG	R858	VRD-RA2BE121JY	J	120 1/8W Carbon	AA
RDA601	PRDARA041WJFW	X	Heat Sink	AG	△ R859	VRS-VV3AB393J	J	39k 1W Metal Oxide	AA
RDA671	PRDARA057WJFW	X	Heat Sink	AE	△ R860	VRS-VV3LB123J	J	12k 3.0W Metal Oxide	AB
△ RDA701	PRDARA119WJFW	J	Heat Sink	AF	△ R861	VRS-VV3AB393J	J	39k 1W Metal Oxide	AA
RMC2601	RRMCJUA022WJZZ	J	Remote Receiver	AG	△ R862	VRS-VV3LB123J	J	12k 3.0W Metal Oxide	AB
△ RY701	RRLYJ0081CEZZ	J	Relay	AL	△ R863	VRS-VV3AB393J	J	39k 1W Metal Oxide	AA
TP701	QLUGP0102PEZZ	J	Lug	AA	△ R864	VRS-VV3LB123J	J	12k 3.0W Metal Oxide	AB
△ SG701	QSPGC0001GEZZY	J	Spark Gap	AF	R865	VRD-RA2BE103JY	J	10k 1/8W Carbon	AA
N	CRDARA041WE13	X		AM	R868	VRD-RM2HD224JY	J	230k 1/2W Carbon	AA
N	CRDARA057WE04	X		AH	R870	VRD-RA2BE471JY	J	470 1/8W Carbon	AA
N	CRDARA119WE31	X		AN	R871	VRD-RA2BE471JY	J	470 1/8W Carbon	AA
N	CRDARA421WE01	X		AL	R872	VRD-RA2BE471JY	J	470 1/8W Carbon	AA
N	CRDARA422WE01	X		AL	R873	VRD-RA2BE681JY	J	680 1/8W Carbon	AA
N	LHLDW1067PEKZ	J	Holder	AC	R874	VRD-RA2BE681JY	J	680 1/8W Carbon	AA
N	LX-BZ3049GEF7	J	Screw	AA	R875	VRD-RA2BE681JY	J	680 1/8W Carbon	AA
N	LX-BZ3049GEF7	J	Screw	AA	R876	VRD-RA2BE121JY	J	120 1/8W Carbon	AA
N	LX-BZ3049GEF7	J	Screw	AA	R877	VRD-RA2BE121JY	J	120 1/8W Carbon	AA
N	LX-BZ3100CEF7	J	Screw	AA	R878	VRD-RA2BE121JY	J	120 1/8W Carbon	AA
N	LX-BZ3100CEF7	J	Screw	AA	R879	VRD-RM2HD100JY	J	10 1/2W Carbon	AA
N	LX-TZ3004CEF7	J	Screw	AA	R880	VRC-MA2HG332KY	J	3.3k 1/2W Solid	AB

DUNTKB568WEA0 PWB-B CRT UNIT

TRANSISTORS

Q850	VS2SC3789//2E	J	2SC3789	AF
Q851	VS2SC3789//2E	J	2SC3789	AF
Q852	VS2SC3789//2E	J	2SC3789	AF
Q853	VS2SC3198-G-1+	J	2SC3198	AA
Q854	VS2SC3198-G-1+	J	2SC3198	AA
Q855	VS2SC3198-G-1+	J	2SC3198	AA
Q890	VS2SC3198-G-1+	J	2SC3198	AA
Q891	VS2SA1266-Y-1+	J	2SA1266	AA
Q894	VS2SA1266-Y-1+	J	2SA1266	AA

COILS

L852	VP-MK820K0000+	J	Coil Peaking 82Mh	AB
L853	VP-MK820K0000+	J	Coil Peaking 82Mh	AB
L854	VP-MK820K0000+	J	Coil Peaking 82Mh	AB

DIODES

D891	VHDHSS4148+-1Y	J	HSS4148TA-E	AA
D892	VHDHSS4148+-1Y	J	HSS4148TA-E	AA
D893	VHDHSS4148+-1Y	J	HSS4148TA-E	AA
D894	VHDHSS4148+-1Y	J	HSS4148TA-E	AA
D895	VHDHSS4148+-1Y	J	HSS4148TA-E	AA
D897	VHDHSS4148+-1Y	J	HSS4148TA-E	AA
D899	VHDHSS4148+-1Y	J	HSS4148TA-E	AA

CAPACITORS

C850	VCKYPA1HF103Z+	J	0.01 50V Ceramic	AA
C851	VCEAOA1CW107M+J	J	100 16V Electrolytic	AC
C852	VCKYPA1HB102K+	J	1000p 50V Ceramic	AA
C876	VCCSPA1HL391J+	X	390p 50V Ceramic	AA
C877	VCCSPA1HL331J+	J	330p 50V Ceramic	AB
C878	VCCSPA1HL391J+	X	390p 50V Ceramic	AA
C879	VCEAOA1EW476M+J	J	47 25V Electrolytic	AB
C880	RC-KZ018JCEZZ	J	0.01 15kV Ceramic	AC
C890	VCEAOA1CW227M+J	J	220 16V Electrolytic	AC
C893	VCEAOA1HW106M+J	J	10 50V Electrolytic	AB
C896	VCEAOA2EW106M+J	J	10 250V Electrolytic	AD

RESISTORS

R849	VRD-RA2BE271JY	J	270 1/8W Carbon	AA
R850	VRD-RA2BE470JY	J	47 1/8W Carbon	AA
R851	VRD-RA2BE470JY	J	47 1/8W Carbon	AA
R852	VRD-RA2BE470JY	J	47 1/8W Carbon	AA
R854	VRD-RA2BE271JY	J	270 1/8W Carbon	AA
R855	VRD-RA2BE271JY	J	270 1/8W Carbon	AA

MISCELLANEOUS PARTS

P860	QPLGN0441CEZZ	J	Plug 4pin	AB
P880	QPLGN0641CEZZ	J	Plug 6pin	AB
SC850	QSOCV0937CEZZ	J	Socket 12pin	AL

DUNTKB572WEA1 PWB-D 2-LINE Y/C UNIT

INTEGRATED CIRCUIT

IC1401	VHITC90A45F-1Y	J	TC90A45FG(ELP)	AM
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TRANSISTORS

Q1401	VS2SD601AR/-1Y	J	2SD601AR	AB
Q1402	VS2SD601AR/-1Y	J	2SD601AR	AB
Q1404	VS2SB709AR/-1Y	J	2SB709AR	AB

COILS

L1401	VP-XF100K0000Y	J	Coil Peaking 10uH	AB
L1402	VP-XF100K0000Y	J	Coil Peaking 10uH	AB
L1403	VP-XF100K0000Y	J	Coil Peaking 10uH	AB
L1404	VP-XF220K0000Y	J	Coil Peaking 22uH	AB
L1405	VP-XF220K0000Y	J	Coil Peaking 22uH	AB
L1408	VP-XF100K0000Y	J	Coil Peaking 10uH	AB

CAPACITORS

C1401	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
C1402	VCEAOA1AW227M+J	J	220 10V Electrolytic	AB
C1404	VCCCY1HH181JY	J	180p 50V Ceramic	AA
C1405	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
C1406	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
C1407	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA
C1408	VCKYCY1HB103KY	J	0.01 50V Ceramic	AA

Ref. No.	Part No.	★	Description	Code	Ref. No.	Part No.	★	Description	Code
C1409	VCEA0A1CW476M+J		47 16V Electrolytic	AB					
C1410	VCKYCY1HB103KY J		0.01 50V Ceramic	AA					
C1411	VCKYCY1HB103KY J		0.01 50V Ceramic	AA					
C1412	VCKYCY1HB103KY J		0.01 50V Ceramic	AA					
C1413	VCKYCY1HB103KY J		0.01 50V Ceramic	AA					
C1414	VCE9GA1HW105M+J		1 50V Electrolytic (N.P)	AB					
C1415	VCCCCY1HH120JY J		12p 50V Ceramic	AA					
C1416	VCCCCY1HH3R0CYJ		3p 50V Ceramic	AA					
C1417	VCCCCY1HH270JY J		27p 50V Ceramic	AA					
C1418	VCCCCY1HH120JY J		12p 50V Ceramic	AA					
C1419	VCCCCY1HH3R0CYJ		3p 50V Ceramic	AA					
C1420	VCCCCY1HH270JY J		27p 50V Ceramic	AA					
C1423	VCFYFA1HA474J+ J		0.47 50V Mylar	AC					
C1424	VCEA0A1CW107M+J		100 16V Electrolytic	AC					
C1429	VCEA0A1CW107M+J		100 16V Electrolytic	AC					
C1430	VCKYCY1CB104KY J		0.1 16V Ceramic	AB					
C1431	VCKYCY1HB103KY J		0.01 50V Ceramic	AA					
C1432	VCKYCY1HB103KY J		0.01 50V Ceramic	AA					

RESISTORS

R1401	VRS-CY1JF821JY	J	820 1/16W Metal Oxide	AA
R1402	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R1403	VRS-CY1JF361JY	J	360 1/16W Metal Oxide	AA
R1415	VRS-CY1JF391JY	J	390 1/16W Metal Oxide	AA
R1416	VRS-CY1JF102JY	J	1k 1/16W Metal Oxide	AA
R1417	VRS-CY1JF152JY	J	1.5k 1/16W Metal Oxide	AA
R1421	VRS-CY1JF152FY	J	1.5k 1/16W Metal Oxide	AA
R1423	VRS-CY1JF102FY	J	1k 1/16W Metal Oxide	AA
R1427	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R1428	VRD-RA2BE332JY	J	3.3k 1/8W Carbon	AA
R1429	VRS-CY1JF000JY	J	0 1/16W Metal Oxide	AA
R1430	VRS-CY1JF151JY	J	150 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

P1401	QPLGZ0810CEZZ	J	Plug 8pin	AD
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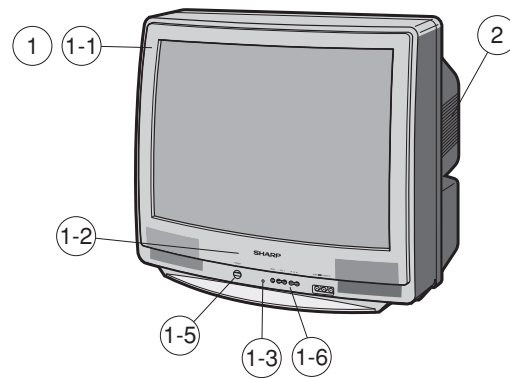
Ref. No.	Part No.	★	Description	Code
MISCELLANEOUS PARTS				
SP1	VSP9050PB35WA	X	Speaker (L)	AK
SP2	VSP9050PB35WA	X	Speaker (R)	AK
	QCNW-0134MEZZ	X	Connecting Cord	AD
	QCNW-B018WJZZ	X	Connecting Cord	AD
	QCNW-B126WJZZ	X	Connecting Cord	AD

Ref. No.	Part No.	★	Description	Code
PACKING PARTS (NOT REPLACEMENT ITEM)				
S1	SPAKCD137WJZZ	-	Packing Case	—
S2	SPAKX0134WJZZ	-	Buffer Material	—
S3	SPAKP0109GJZZ	-	Wrapping Sheet	—
S4	SSAKA0101GJZZ	-	Wrapping Sack	—

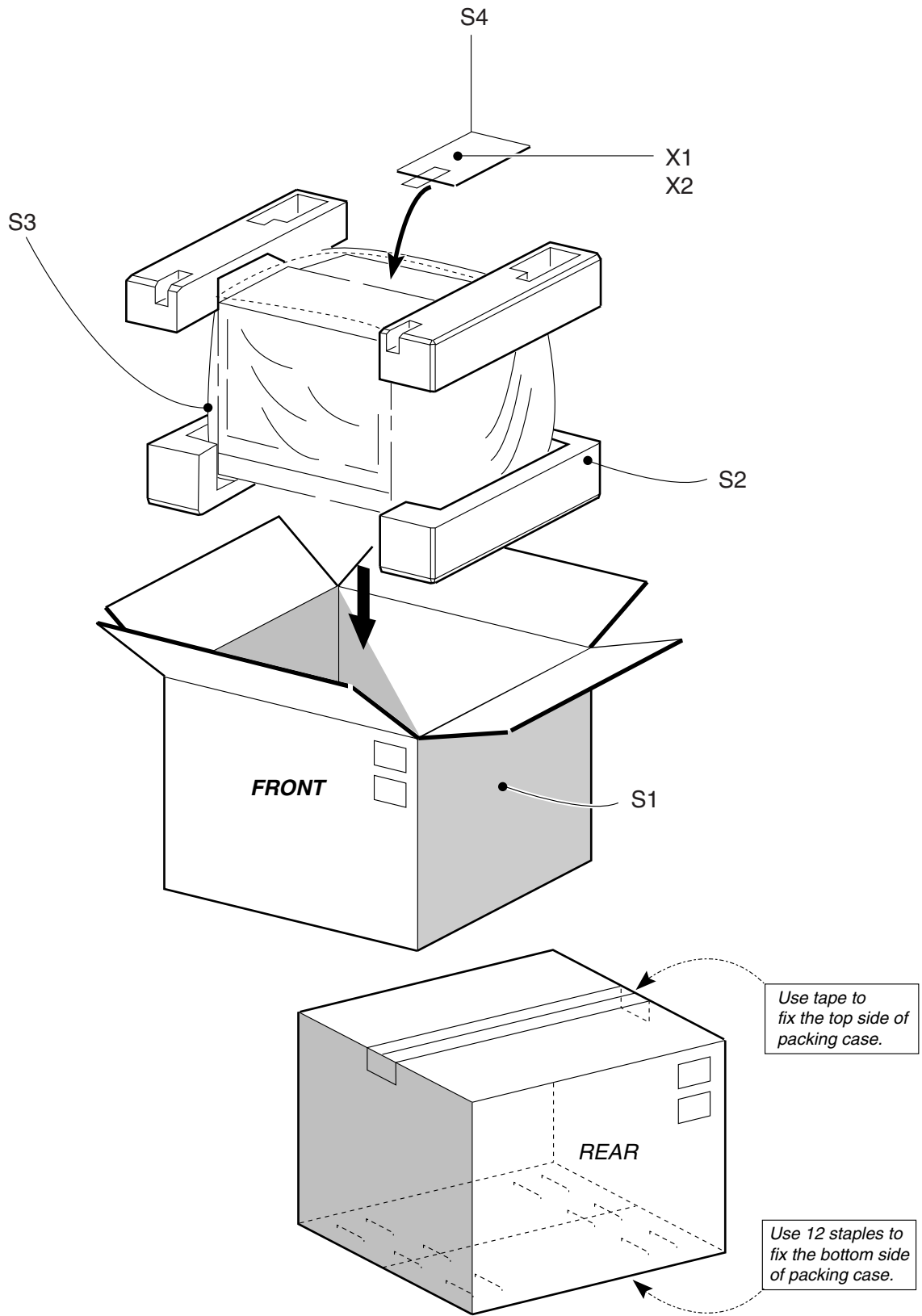
SUPPLIED ACCESSORIES				
X1	RRMCGA536WJSA	X	Infrared Remote Control Unit	AP
X2	TINS-C817WJZZ	X	Operation Manual	AH
	TGAN-A216WJN1	X	Guarantee Card	AC

CABINET PARTS				
1	CCABAB574WEH2	X	Front Cabinet Assembly	BL
1-1	<i>Not Available</i>	-	Front Cabinet	—
1-2	HBDGB1009MESB	X	SHARP Badge	AD
1-3	GCOVA0121GJSA	X	LED R/C Cover	AE
1-5	<i>Not Available</i>	-	Power Button	—
1-6	<i>Not Available</i>	-	Button	—
2	GCABBA721WJKA	X	Rear Cabinet	BE

CABINET PARTS LOCATION



PACKING OF THE SET



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