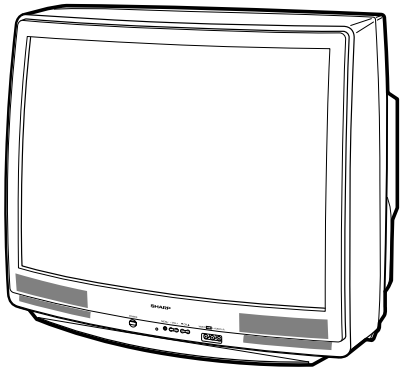
SHARP SERVICE MANUAL

S13W427UC4///



COLOR TELEVISION

Chassis No. GB-3U

MODEL 27UC4

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.

CONTENTS

ELECTRICAL SPECIFICATIONS

POWER INPUT ..... 120V AC, 60 Hz
POWER RATING 115W
PICTURE SIZE ..... 2187cm^2 (339sq inch)
CONVERGENCE ..... Magnetic
SWEEP DEFLECTION ..... Magnetic
FOCUS ..... Hi-Bi-Potential Electrostatic
INTERMEDIATE FREQUENCIES
  Picture IF Carrier Frequency ..... 45.75 MHz
  Sound IF Carrier Frequency ..... 41.25 MHz
  Color Sub-Carrier Frequency ..... 42.17 MHz (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 (EIA, Channel Plan U.S.A.)

Specifications are subject to change without prior notice.

SHARP CORPORATION

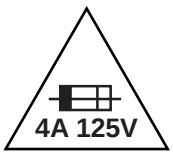
This document has been published to be used for after sales service only.
The contents are subject to change without notice.

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.



CAUTION: FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 4A-125V FUSE.

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)

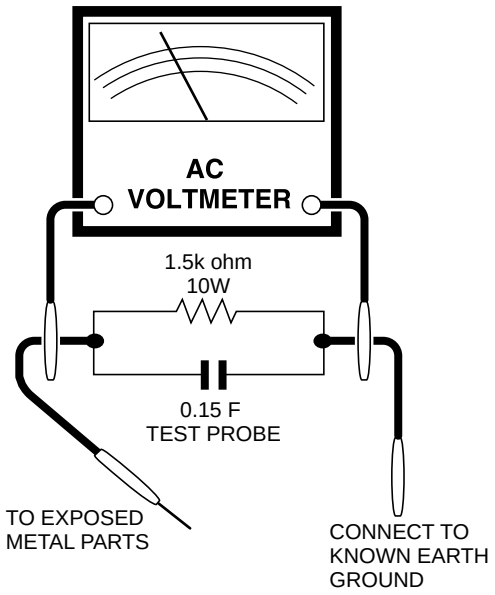
BEFORE RETURNING THE RECEIVER

(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 0.15µF 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.
  AII 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.



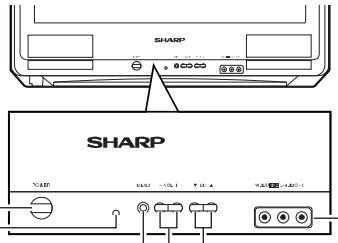
SAFETY NOTICE

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 "⚠" 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.

LOCATION OF USER'S CONTROL

Front Panel



POWER
Press → On.
Press again → Off.

REMOTE CONTROL SENSOR

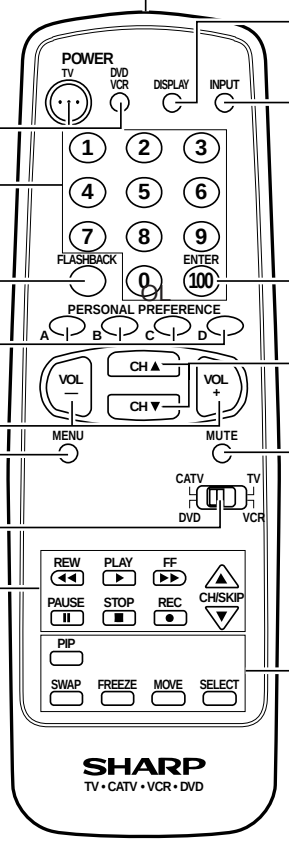
MENU
Press → Accesses MAIN MENU.
Press again → Exits MAIN MENU

VOLUME UP/DOWN
(+) Increases sound.
(–) Decreases sound.

VIDEO/AUDIO IN 2 TERMINALS

CHANNEL UP/DOWN
(▲) Selects next higher channel.
(▼) Selects next lower channel.

Basic Remote Control Functions



POWER
Press → On.
Press again → Off.

REMOTE KEYPAD
Accesses any channel from keypad.

FLASHBACK
Returns to previous channel.

PERSONAL PREFERENCE
With the Personal Preference buttons, you can program your favorite programs by using the 4 categories A, B, C and D. The channels can be accessed quickly by using these buttons.

VOLUME UP/DOWN
(+) Increases sound.
(–) Decreases sound.
• Changes or selects the TV adjustments on On-Screen Displey.

MENU
Press → Accesses MAIN MENU.
Press again → Exits MAIN MENU.

CATV/DVD-TV/VCR MODE SELECT SWITCH
In TV/VCR position, signals sent will be for TV and VCR control.
In CATV/DVD position, signals sent will be for cable TV converter and DVD control.

DVD/VCR CONTROL

Infrared Transmitter Window

DISPLAY
Press → Displays receiving channel for 4 seconds.
Press again → Removes display.
• Temporarily displays receiving channel when in Closed Caption mode.

INPUT
Press → Switches to external video INPUT 1 mode.
Press twice → Switches to external video INPUT 2 mode.
Press 3 times → Switches to external video INPUT 3 mode or COMPONENT mode.
Press 4 times → Switches back to the original TV mode.

ENTER
Used in some instances where a Cable Converter Box requires an enter command after selecting channels, when using the REMOTE KEYPAD button.

CHANNEL UP/DOWN
(▲) Selects next higher channel.
(▼) Selects next lower channel.
• Moves the ● mark on the MENU screens.

MUTE
Press → Mutes sound.
Press again → Restores sound.
• When sound is muted, CLOSED CAPTION appears if available.

PIP FUNCTION
With the VIDEO inputs, you can watch two pictures at the same time.

Note:

- The above shaded buttons on the Remote Control glow in the dark. To use the glow-in-the-dark display on the remote control, place it under a fluorescent light or other lighting.
- The phosphorescent material contains no radioactive or toxic material, so it is safe to use.
- The degree of illumination will vary depending on the strength of lighting used.
- The degree of illumination will decrease with time and depending on the temperature.
- The time needed to charge the phosphorescent display will vary depending on the surrounding lighting.
- Sunlight and fluorescent lighting are the most effective when charging the display.

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(pin 3) and make sure that the voltmeter reads 13.65 ±0.6V DC.
5. Apply external 17.3V DC at TP651 by using an external DC supply, TV must be shut off.
6. To reset the protector, unplug the AC cord 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 "V11" and Bus data "01" (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 "V01" to "P08". 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.

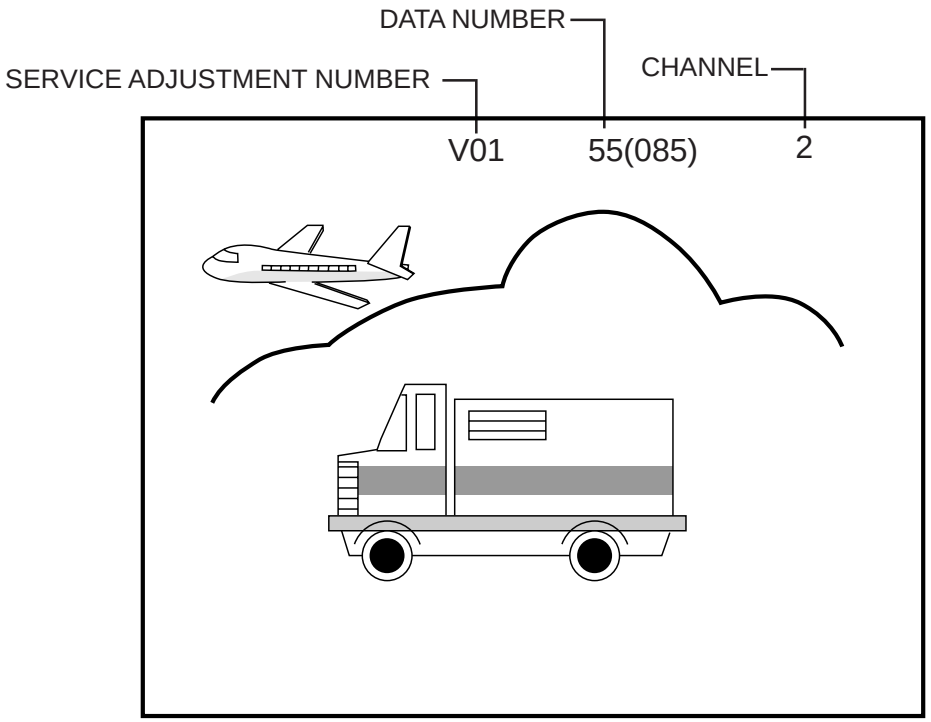


Figure A.

A. VCJ IC ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTE	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
V01	PICTURE	0-15 (00h-0Fh)	8 (08h)		
V02	TINT	0-127 (00h-7Fh)	66 (42h)		
V03	COLOR	0-127 (00h-7Fh)	56 (38h)		
V05	BRIGHT	0-127 (00h-7Fh)	64 (40h)		
V06	R CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V07	G CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V08	B CUT-OFF	64-255 (40h-FFh)	64 (40h)		
V09	G/R DRIVE	0-127 (00h-7Fh)	64 (40h)		
V10	B DRIVE	0-127 (00h-7Fh)	64(40h)		
V11	Y-MUTE/V-STOP	0-2	0 (00h)	Y-Mute / Holizontal "–"	
V12	SHARP	0-63 (00h-3Fh)	50 (32h)		32
V13	DC RESTORATION	0-3 (00h-03h)	2 (02h)		02
V14	BLACK STRETCH	0-3 (00h-03h)	2 (02h)		02
V15	ABL START POINT	0-3 (00h-03h)	3 (03h)		03
V16	ABL GAIN	0-3 (00h-03h)	2 (02h)		02
V17	γ POINT	0-3 (00h-03h)	0 (00h)		00
V19	ENERGY SAVE	0-63 (00h-3Fh)	63 (3Fh)	Offset	3F
V24	LOW-G	0-255 (00h-FFh)	12 (0Ch)	Color Temp.	F4
V25	LOW-B	0-255 (00h-FFh)	241 (F1h)	Color Temp.	E6
V26	ML-G	0-255 (00h-FFh)	0 (00h)	Color Temp.	FD
V27	ML-B	0-255 (00h-FFh)	247 (F7h)	Color Temp.	F8
V28	HIGH-G	0-255 (00h-FFh)	2 (02h)	Color Temp.	01
V29	HIGH-B	0-255 (00h-FFh)	8 (08h)	Color Temp.	06
V30	WPL	0-1	1 (01h)		01
V31	RGB CONTRAST	0-63 (00h-3Fh)	59 (3Bh)		3B
V34	VSM GAIN	0-3 (00h-03h)	1 (01h)		01
V36	BPF/TOF-INPUT	0-1	0 (00h)	External Input	00
V37	CORING	0-1	0 (00h)		00
V38	VSM PHASE	0-1	0 (00h)		00
V39	COLOR γ	0-1	0 (00h)		00
V40	SHARP-INPUT	0-63 (00h-3Fh)	44 (2Ch)	External Input	2C
V41	TINT-INPUT	0-127 (00h-7Fh)	62 (3Eh)	External Input	3E
V42	PICTURE-COMPONENT	0-15 (00h-0Fh)	6 (06h)	Component Input	
V43	TINT-COMPONENT	0-127 (00h-7Fh)	62 (3Eh)	Component Input	3E
V44	COLOR-COMPONENT	0-127 (00h-7Fh)	72 (48h)	Component Input	48
V45	BRIGHT-COMPONENT	0-127 (00h-7Fh)	84 (54h)	Component Input	
V46	R CUT OFF-COMPONENT	64-255 (40h-FFh)	64 (40h)	Component Input	
V47	G CUT OFF-COMPONENT	64-255 (40h-FFh)	64 (40h)	Component Input	
V48	B CUT OFF-COMPONENT	64-255 (40h-FFh)	64 (40h)	Component Input	
V49	G/R DRIVE-COMPONENT	0-127 (00h-7Fh)	64 (40h)	Component Input	
V50	B DRIVE-COMPONENT	0-127 (00h-7Fh)	64 (40h)	Component Input	
V51	SHARP-COMPONENT	0-63 (00h-3Fh)	44 (2Ch)	Component Input	2C
V52	TINT-S	0-127 (00h-7Fh)	62 (3Eh)	S terminal input.	3E
V53	C-TRAP	0-1 (00h-01h)	0 (00h)		00
V59	AUTO FLESH	0-1 (00h-01h)	0 (00h)		00
V60	SHARP P F	0-1 (00h-01h)	1 (01h)		01
V61	CD MATRIX	0-3 (00h-03h)	2 (02h)		02
V62	B-Y ATT	0-1 (00h-01h)	0 (00h)		00
V63	R-Y ATT	0-1 (00h-01h)	0 (00h)		00
V64	CD MATRIX-COMPONENT	0-3 (00h-03h)	0 (00h)	Component Input	00
V65	B-Y ATT-COMPONENT	0-1 (00h-01h)	0 (00h)	Component Input	00
V66	R-Y ATT-COMPONENT	0-1 (00h-01h)	0 (00h)	Component Input	00
V67	BUZZ	0-1 (00h-01h)	1 (01h)		01
V68	RGB ABCL	0-1 (00h-01h)	1 (01h)		01
R01	RF-AGC	0-63 (00h-3Fh)	36 (24h)		
R03	RF-AGC REF	0-255 (00h-FFh)	170 (AAh)	Standard value for the self-adjustment	AA
D01	V POSITION	0-7 (00h-07h)	0 (00h)		00
D02	H POSITION	0-31 (00h-1Fh)	15 (0Fh)		
D03	V SIZE	0-127 (00h-7Fh)	89 (59h)		
D04	H SIZE	0-63 (00h-3Fh)	36 (24h)		
D05	V-LINEARITY	0-15 (00h-0Fh)	8 (08h)		
D06	V-S CORRECTION	0-15 (00h-0Fh)	12 (0Ch)		0C
D07	EW PARABOLA	0-63 (00h-3Fh)	43 (2Bh)		
D08	EW TRAPEZIUM	0-63 (00h-3Fh)	36 (24h)		
D10	AFC GAIN	0-3 (00h-03h)	2 (02h)		02
D11	V EHT	0-7 (00h-07h)	6 (06h)		06
D12	H EHT	0-7 (00h-07h)	6 (06h)		06
D13	EW CORNER	0-31 (00h-1Fh)	8 (08h)		08

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTE	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
D14	EW CORNER BOTTOM	19-81 (13h-51h)	50 (32h)	Offset toward D13.	32
D15	NOISE DET LEVEL	0-3 (00h-03h)	0 (00h)		00
D18	V CENTERING	0-63 (00h-3Fh)	36 (24h)		
D19	V-AGC	0-1 (00h-01h)	0 (00h)		00

B. SPECIAL SETTING

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTE	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
EX1	FAO VOLUME	0-50 (00h-32h)	36 (24h)		24
EX2	CC-POSITION	0-127 (00h-7Fh)	27 (1Bh)		1C
EX3	INT	0-255 (00h-FFh)	122 (7Ah)	Interrupt period adjustment.	7A
EX4	A-ATT	0-127 (00h-7Fh)	90 (5Ah)		5A
EX5	TUNER data	0-3 (00h-03h)	0 (00h)		00
EX6	Think chip-Slice LEVEL	0-255 (00h-FFh)	54 (36h)		12
EX7	RLY DELAY TIME	0-255 (00h-FFh)	0 (00h)	For the power control	00
EX8	ADG ON TIME	0-255 (00h-FFh)	10 (0Ah)	For the power control	0A

C. OPTION SETTING

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTE	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
OP1	OPTION1	0-255 (00h-FFh)	247 (F7h)		B7
OP2	OPTION2	0-255 (00h-FFh)	253 (FDh)		3C
OP3	OPTION3	0-255 (00h-FFh)	15 (0Fh)		0C

D. SOUND ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTE	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
M01	INPUT LEVEL	0-15 (00h-0Fh)	7 (07h)		
M02	MTS VCO	0-63 (00h-3Fh)	38 (26h)		
M03	FILTER	0-63 (00h-3Fh)	36 (24h)		
M04	WIDEBAND	0-63 (00h-3Fh)	28 (1Ch)		
M05	SPECTRAL	0-63 (00h-3Fh)	23 (17h)		

E. PIP IC ADJUSTMENT

SERVICE NUMBER	ADJUSTMENT ITEM	DATA		NOTE	FIXED VALUE (HEX)
		RANGE	INITIAL VALUE		
P01	CONTRAST-PIP	0-127 (00h-7Fh)	73 (49h)		
P02	TINT-PIP	0-63 (00h-3Fh)	41 (29h)		29
P03	COLOR-SAT-PIP	0-127 (00h-7Fh)	68 (44h)		
P04	Y-OFFSET-PIP	0-31 (00h-1Fh)	9 (09h)		09
P05	HXA-PIP	0-255 (00h-FFh)	10 (0Ah)		0A
P06	HADJ-PIP	0-15 (00h-0Fh)	0 (00h)		00
P07	FREE RUN-PIP	0-15 (00h-0Fh)	11 (0Bh)		0B
P08	TINT-PIP-INPUT	0-63 (00h-3Fh)	36 (24h)	External input for sub screen	24

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	
IC2001		X	Data is stored in IC2101.
IC201	X		The adjustment is needed to compensate for characteristics of parts including IC201 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~M20).
IC1801	X		Adjust items related to P-IN-P only (P01~P08).

SERVICE ADJUSTMENT

RF AGC Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "R01".
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 "V11" and adjust the data value to "01", this turn off the luminance signal (Y-mute).
4. Adjust the master screen control until the raster darkens 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 "V11" 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 "V46" red, "V47" green and "V48" blue is adjusted to follow the data value of "V06", "V07" and "V08" respectively.
8. 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 "V49" and "V50" is adjusted to follow the data value of "V09" and "V10" respectively.
5. Select the service adjustment "V03" and reset data to obtain normal color level.

Sub-picture and Sub-Bright Adjustments

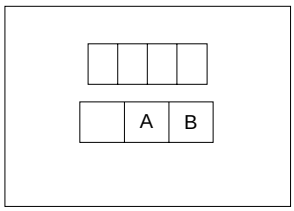
1. Receive the window pattern signal.

• RF INPUT (TU51)

2. Get into service adjustment data "V01" and "V05" and set the luminance as shown in figure "A" and "B" as below respectively.

• COMPONENT INPUT

3. Get in service adjustment data "V42" and "V45" and set the luminance as shown in figure "A" and "B" as below respectively.



LUMINESCENCE CONFIRMATION

A: 86±10cd/m^2

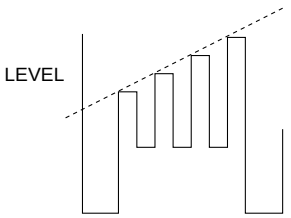
B: 1.25±0.5cd/m^2

Sub-Tint Adjustment

1. Receive the half color bar signal.

• RF INPUT (TU51)

2. Get into Y-Mute by R/C, or by setting the "V11" bus data to "01".
3. Vary the "V02" bus data until the waveform becomes as stated below.



B-AMP Base waveform in step (TP47B)

Sub-Color Adjustment

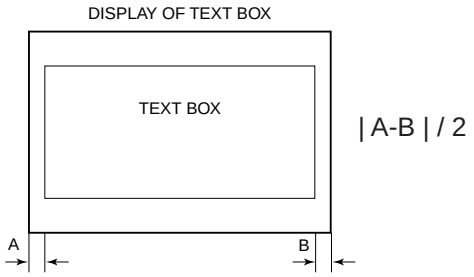
1. Receive a good local channel.
2. Make sure the customer color control is set to center position .

• RF INPUT (TU51)

3. Enter the service mode and select service adjustment "V03".
4. Adjust "V03" data value to obtain a normal color level.

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 "EX2" to display the text box.
3. Adjust the "EX2" bus data to let the text box displayed in the center.



SPEC INSPECTION:| A-B | / 2 ≦ 5mm

Vertical-Size and Linearity Adjustments
1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "D03" for V-size.
3. Adjust the "D03" bus data to get the proper V-size.
4. For V-linearity adjustment, select data bus "D05" and adjust to get the proper vertical linearity.
   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
1. Enter the service mode and input "D01" data value to "00h".
2. Adjust "D18" data value so that picture is centered.

Horizontal Position Adjustment
1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "D02".
3. Adjust "D02" data value so that picture is centered.

■ MTS ADJUSTMENT

MTS Level Adjustment
1. Set the sound volume above 1.
   Monoral signal: 400Hz, 100% modulation
2. Confirm "EX4" data is "5Ah".
3. 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±10mVrms
   CHK spec: 490±20mVrms

MTS VCO Adjustment
1. Keep the unit in no-signal state.
2. Connect the frequency counter to pin (39) of IC3001.
3. Connect a capacitor (100μF, 50V) in between positive(+) side of C3005 and ground.
4. Enter the service mode and select the service adjustment "M02"
5. Adjust the data so that the frequency counter reads 62.94 ±0.75kHz.

Filter Adjustment
1. Feed the following stereo pilot signal to pin (14) of IC3001 at C3005 open.
   Stereo pilot signal: 9.4kHz, 600mVrms.
2. Enter the service mode and select the service adjustment "M03".
3. Adjust the data until "OK" appears in position on the screen. Make sure the "OK" is displayed almost at the center of the data range.

Separation Adjustment
1. Input "SIGNAL 1" and vary the "M04" bus data to get the minimun AC voltage to pin (39) of IC3001.
2. Input "SIGNAL 2" and vary the "M05" bus data to get the minimun 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 widebando
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

■ P-IN-P ADJUSTMENT

P-IN-P Y-LEVEL Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "P01".
3. Adjust "P01" data value to obtain normal contrast level.

P-IN-P TINT Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "P02".
3. Adjust data value to "29h".

P-IN-P COLOR Adjustment

1. Receive a good local channel.
2. Make sure the customer color control is set to center position.
3. Enter the service mode and select the service adjustment "P03".
4. Adjust "P03" data value to obtain normal color level.

P-IN-P Y-OFF SET Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "P04".
3. Adjust data value to "09h".

P-IN-P H-POSITION Adjustment

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "P05".
3. Adjust data value to "0Ah".

P-IN-P BURST GATE PULSE (for MAIN)

1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "P06".
3. Adjust data value to "00h".

P-IN-P FREERUN

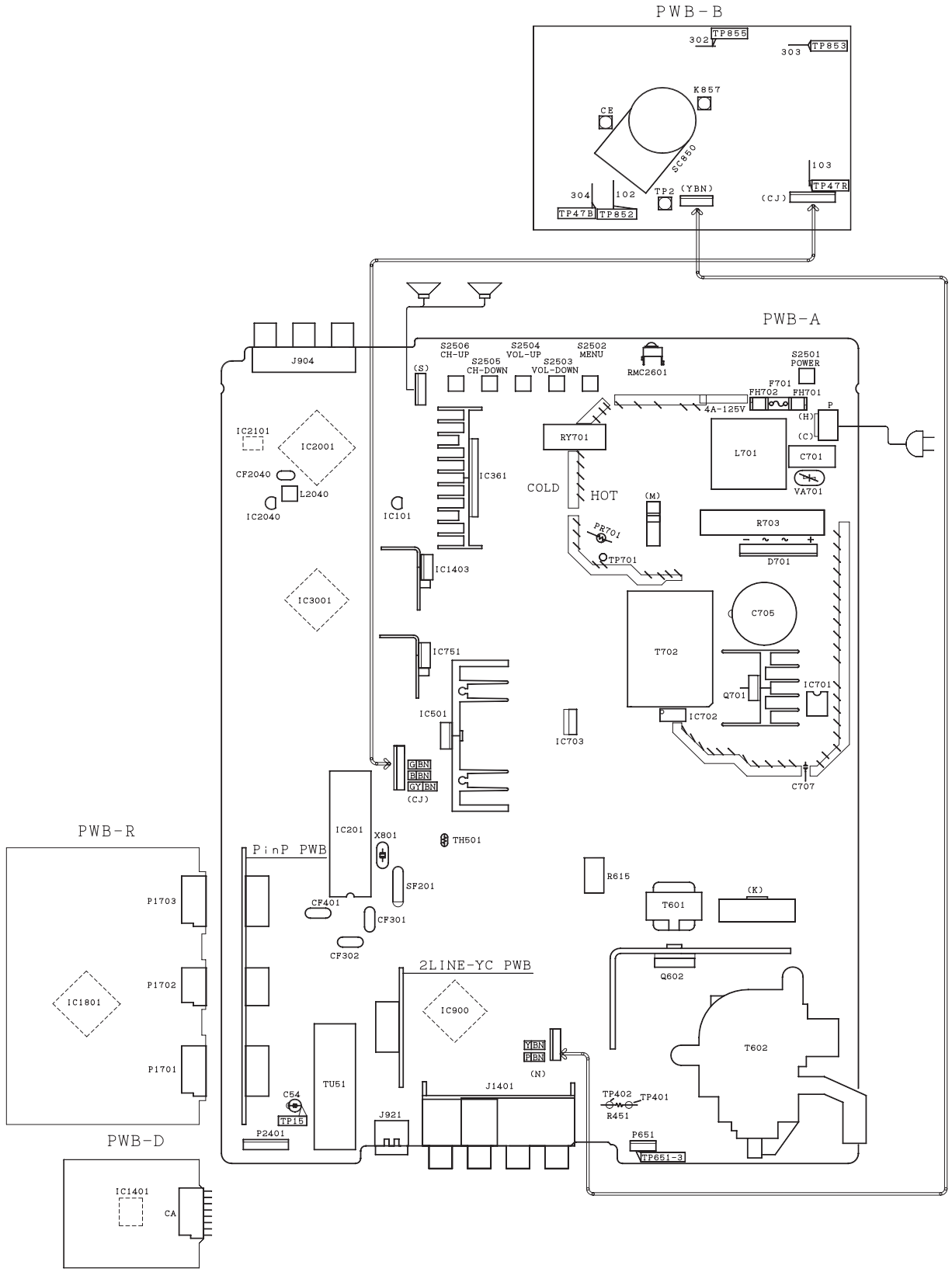
1. Receive a good local channel.
2. Enter the service mode and select the service adjustment "P07".
3. Adjust data value to "0Bh".

P-IN-P TINT INPUT Adjustment

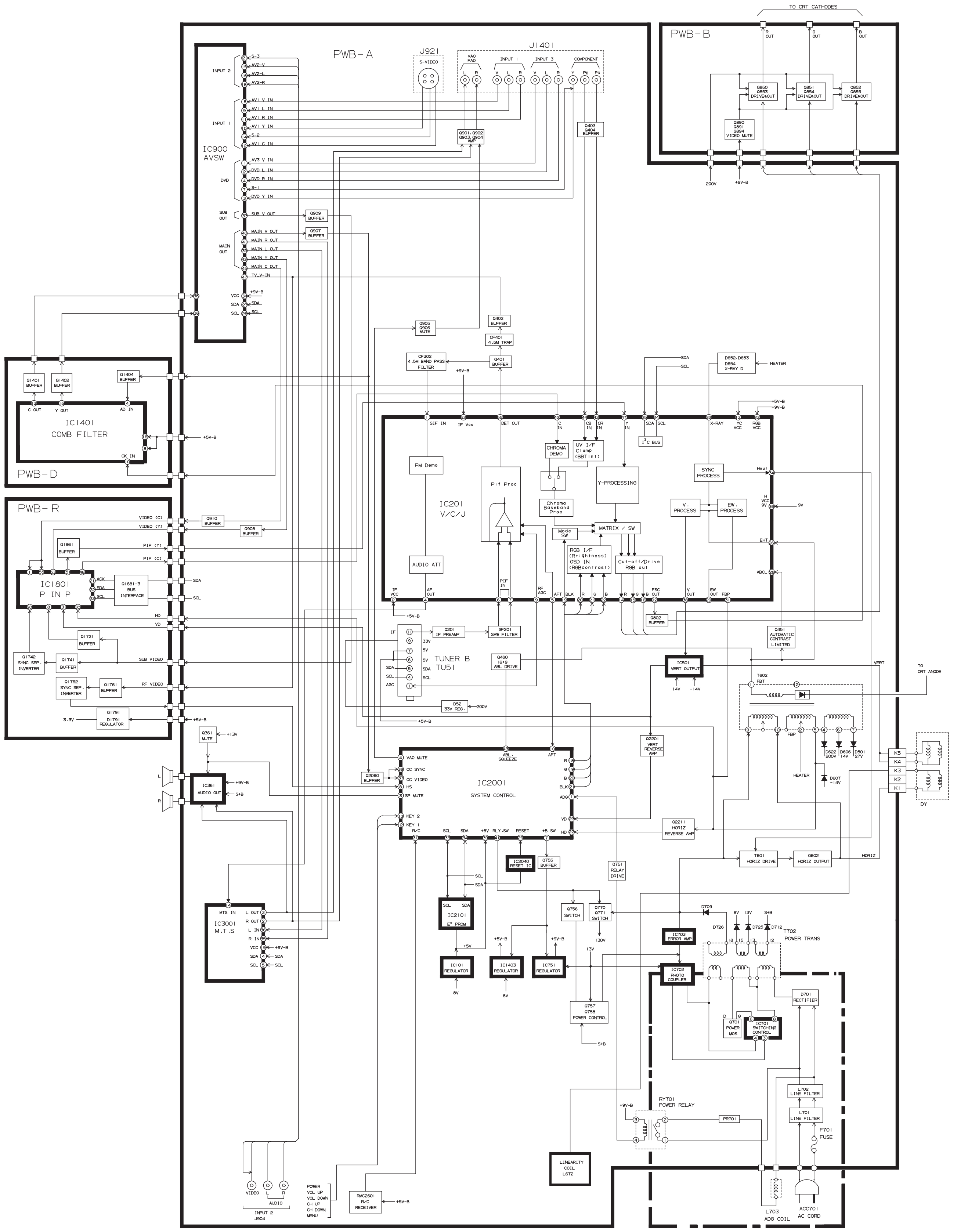
1. Receive an AV/Component input signal.
2. Enter the service mode and select the service adjustment "P08".
3. Adjust data value to "24h".

- M E M O -

CHASSIS LAYOUT



BLOCK DIAGRAM



DESCRIPTION OF SCHEMATIC DIAGRAM

NOTES:

1. *The unit of resistance "ohm" is omitted. (K=kΩ=1000Ω, M=MΩ)*
2. *All resistors are 1/16 watt, unless otherwise noted.*
3. *All capacitors are μ F, unless otherwise noted. (P=pF=μμF)*
4. *(G) indicates ±2% tolerance may be used.*
5. *⏚ indicates line isolated ground.*

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 1000μ V B & W or Color signal.*

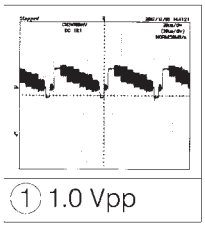
WAVEFORM MEASUREMENT CONDITIONS:

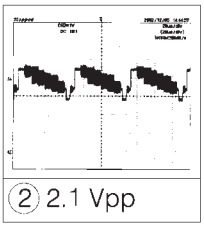
1. *Photographs taken on a standard gated color bar signal, the tint setting adjusted for proper color. The wave shapes at the red, green and blue cathodes of the picture tube depend on the tint, color level and picture control.*
2. *◔ indicates waveform check points (See chart, waveforms are measured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

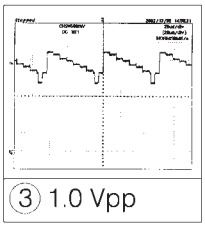
⚠ AND SHADED ( ) COMPONENTS = SAFETY RELATED PARTS.
▲ MARK= X-RAY RELATED PARTS.

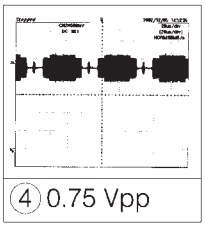
This circuit diagram is a standard one, printed circuits may be subject to change for product improvement without prior notice.

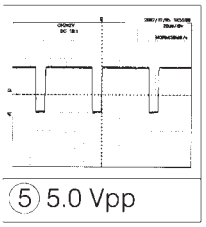
WAVEFORMS

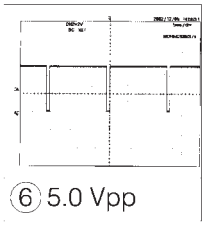

① 1.0 Vpp

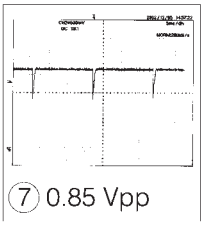

② 2.1 Vpp

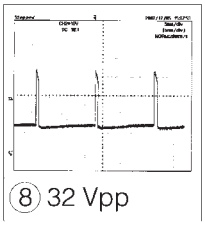

③ 1.0 Vpp

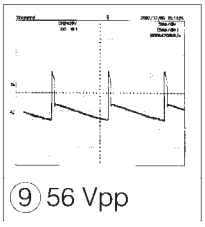

④ 0.75 Vpp

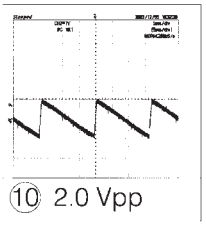

⑤ 5.0 Vpp

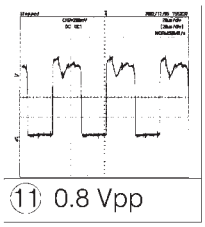

⑥ 5.0 Vpp

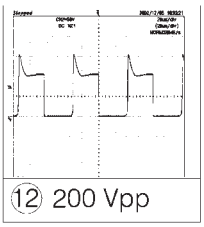

⑦ 0.85 Vpp

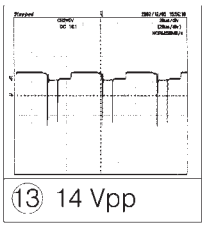

⑧ 32 Vpp

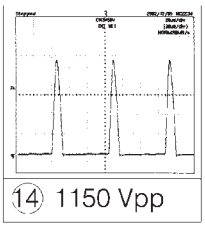

⑨ 56 Vpp

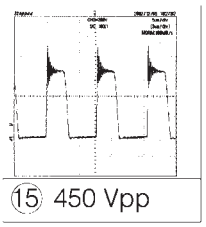

⑩ 2.0 Vpp

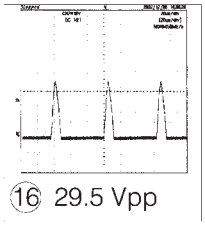

⑪ 0.8 Vpp

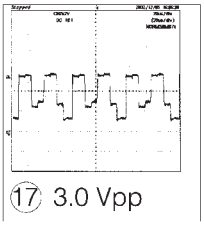

⑫ 200 Vpp

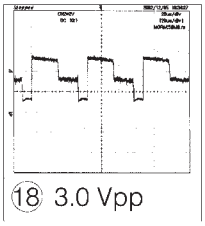

⑬ 14 Vpp

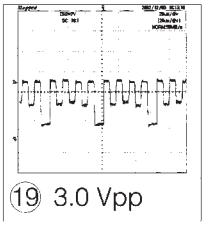

⑭ 1150 Vpp

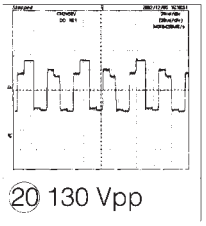

⑮ 450 Vpp

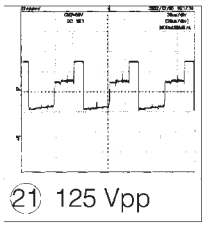

⑯ 29.5 Vpp

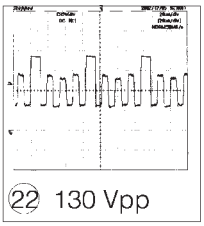

⑰ 3.0 Vpp


⑱ 3.0 Vpp

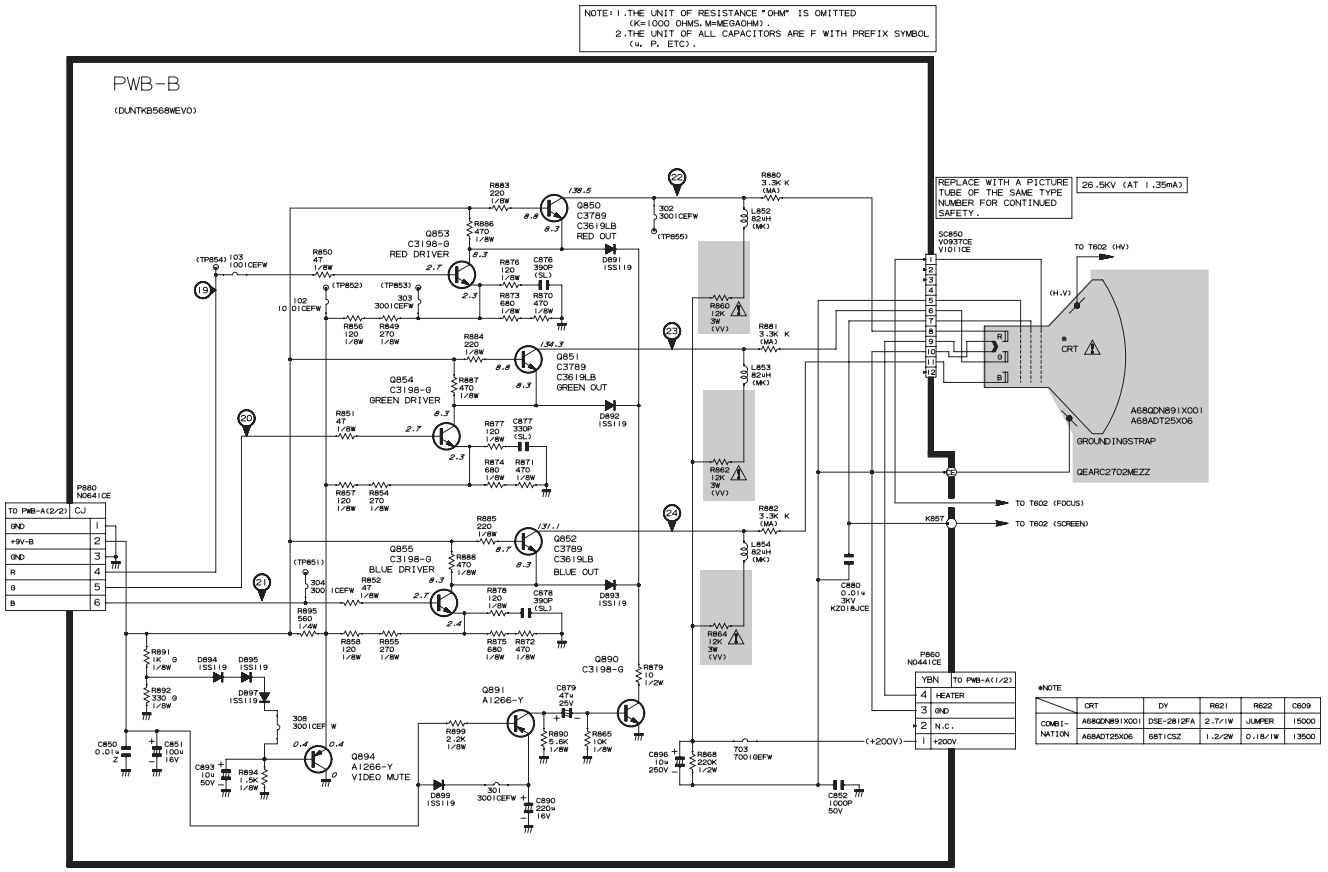

⑲ 3.0 Vpp


⑳ 130 Vpp

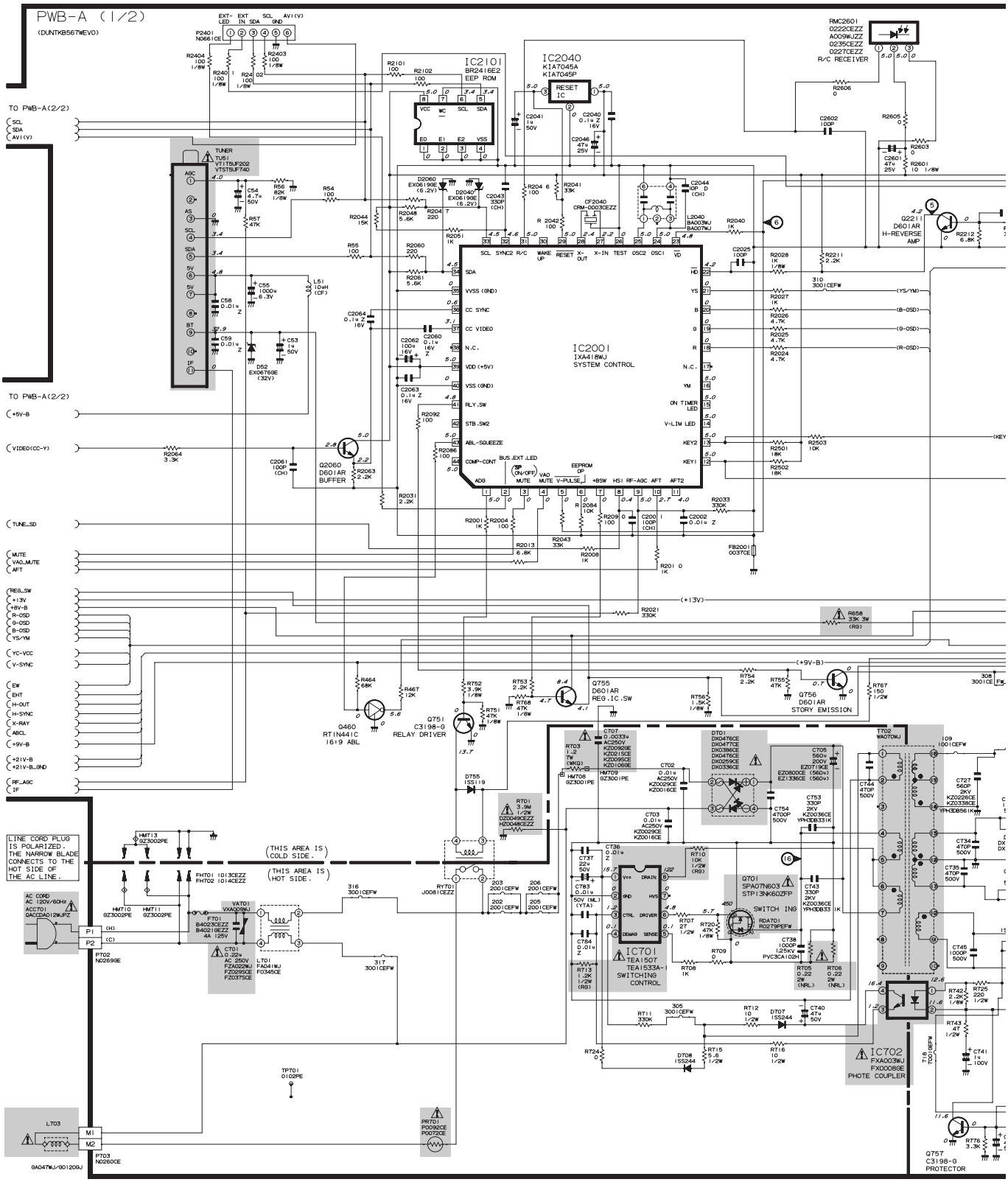

㉑ 125 Vpp

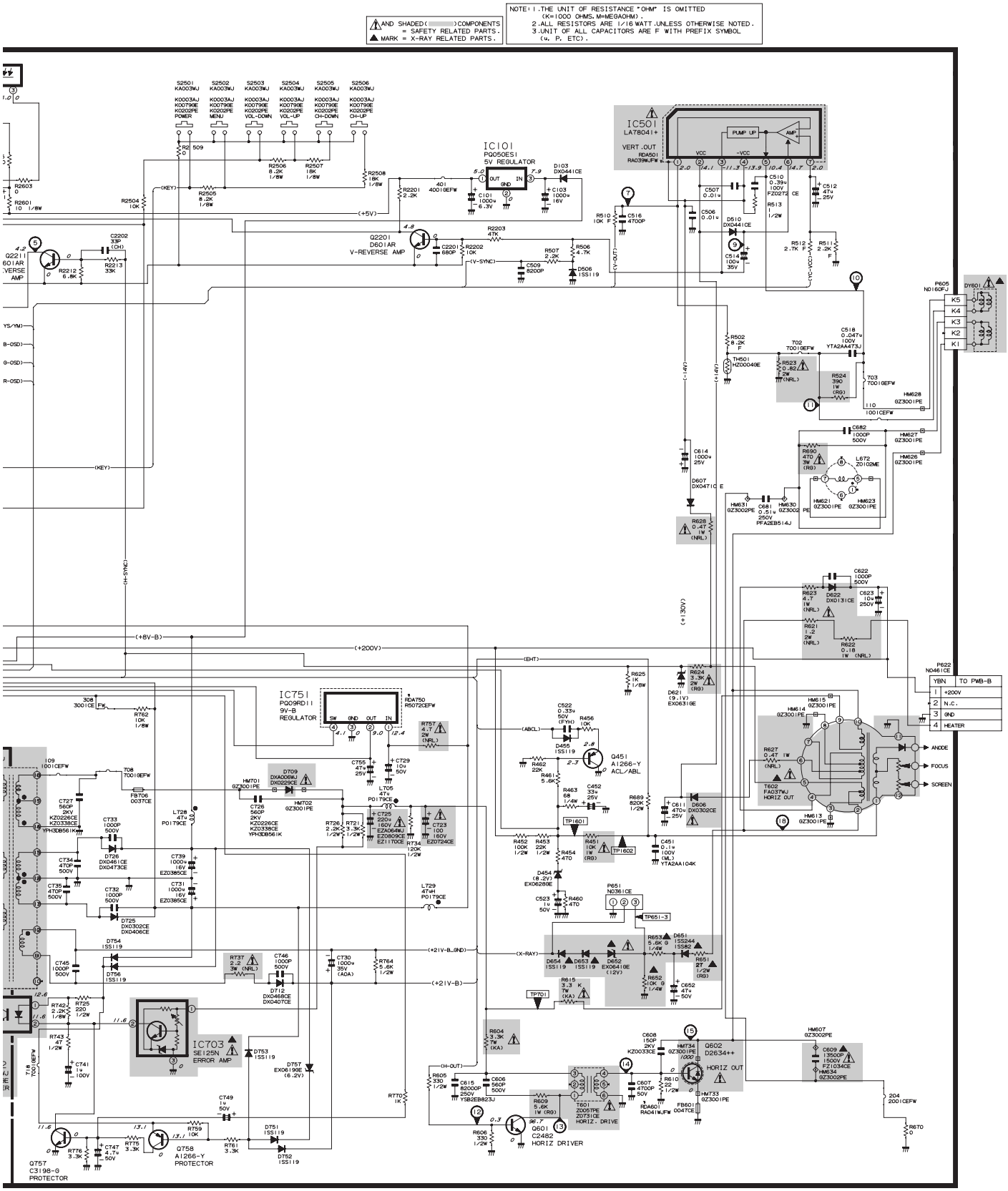

㉒ 130 Vpp

SCHEMATIC DIAGRAM: CRT Unit



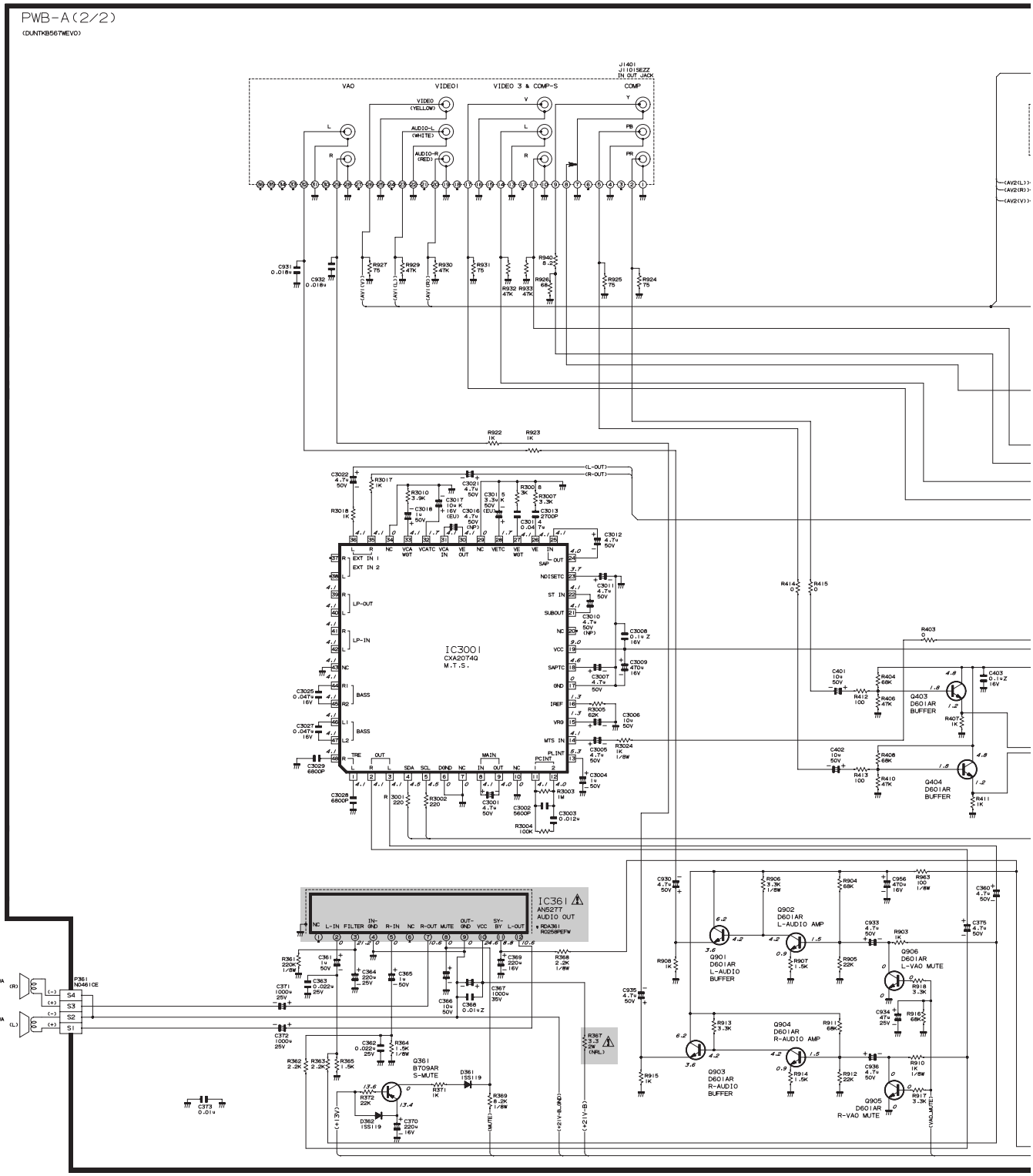
SCHEMATIC DIAGRAM: MAIN-1 Unit

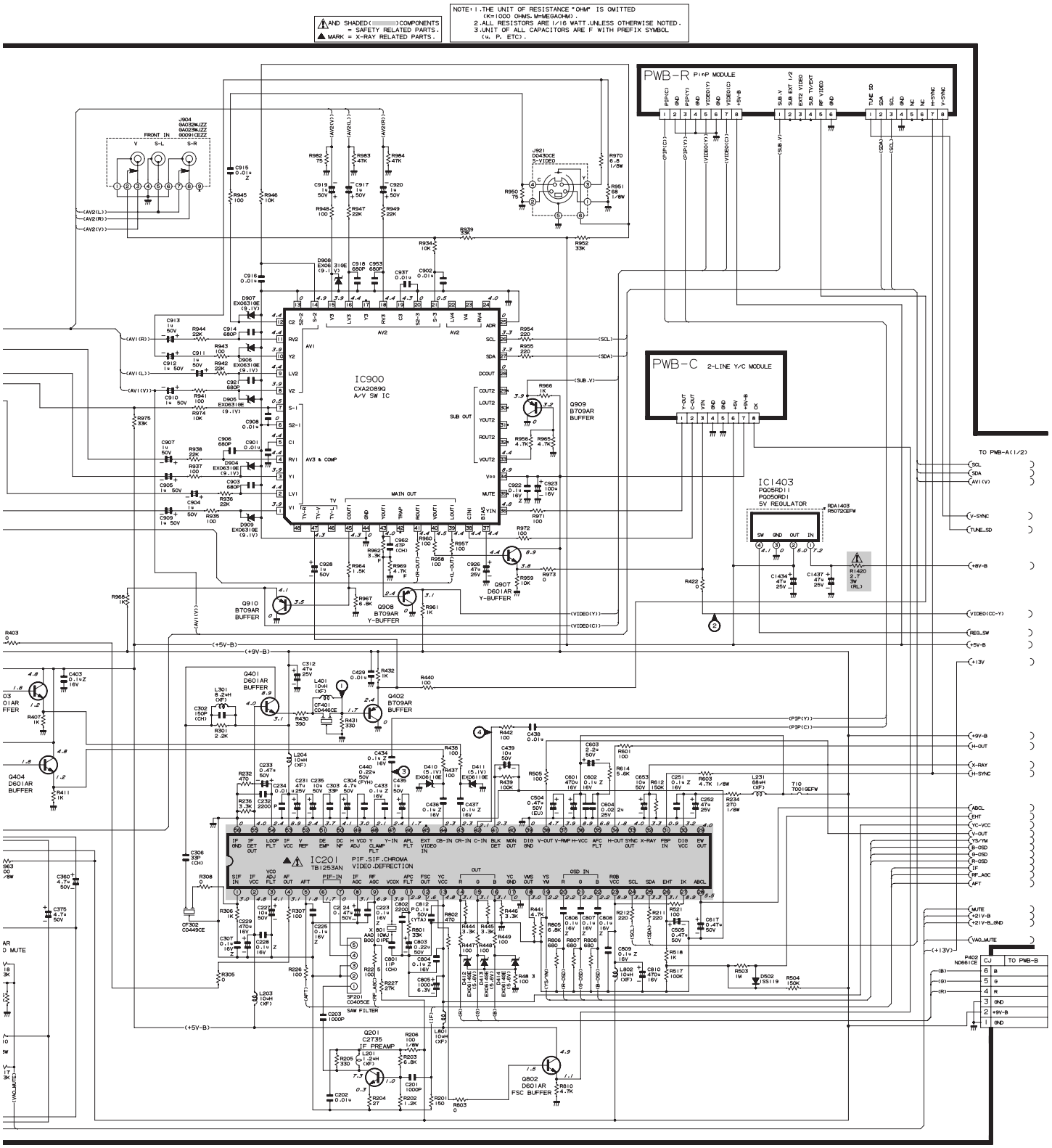




10	11	12	13	14	15	16	17	18	19

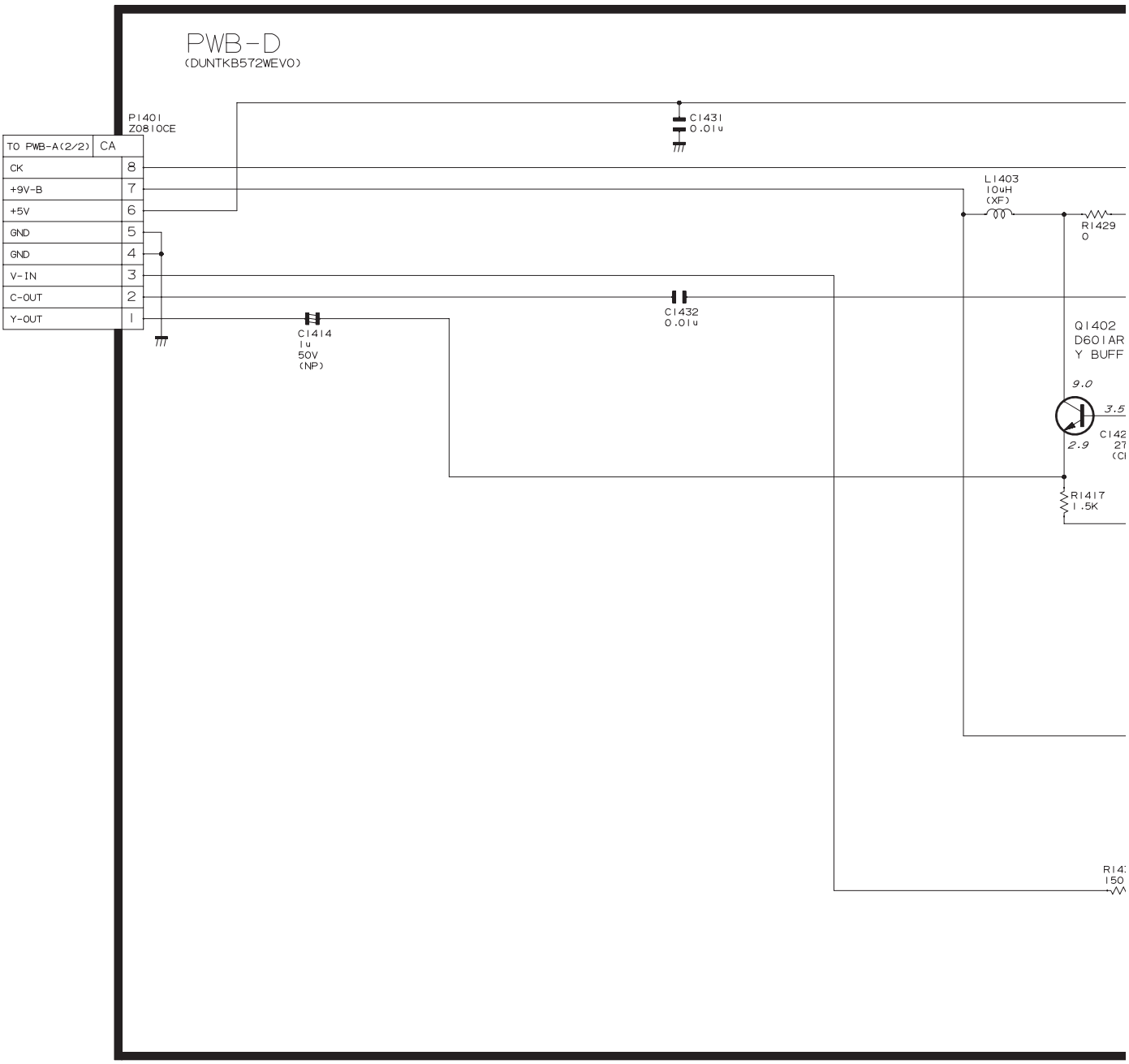
SCHEMATIC DIAGRAM: MAIN-2 Unit



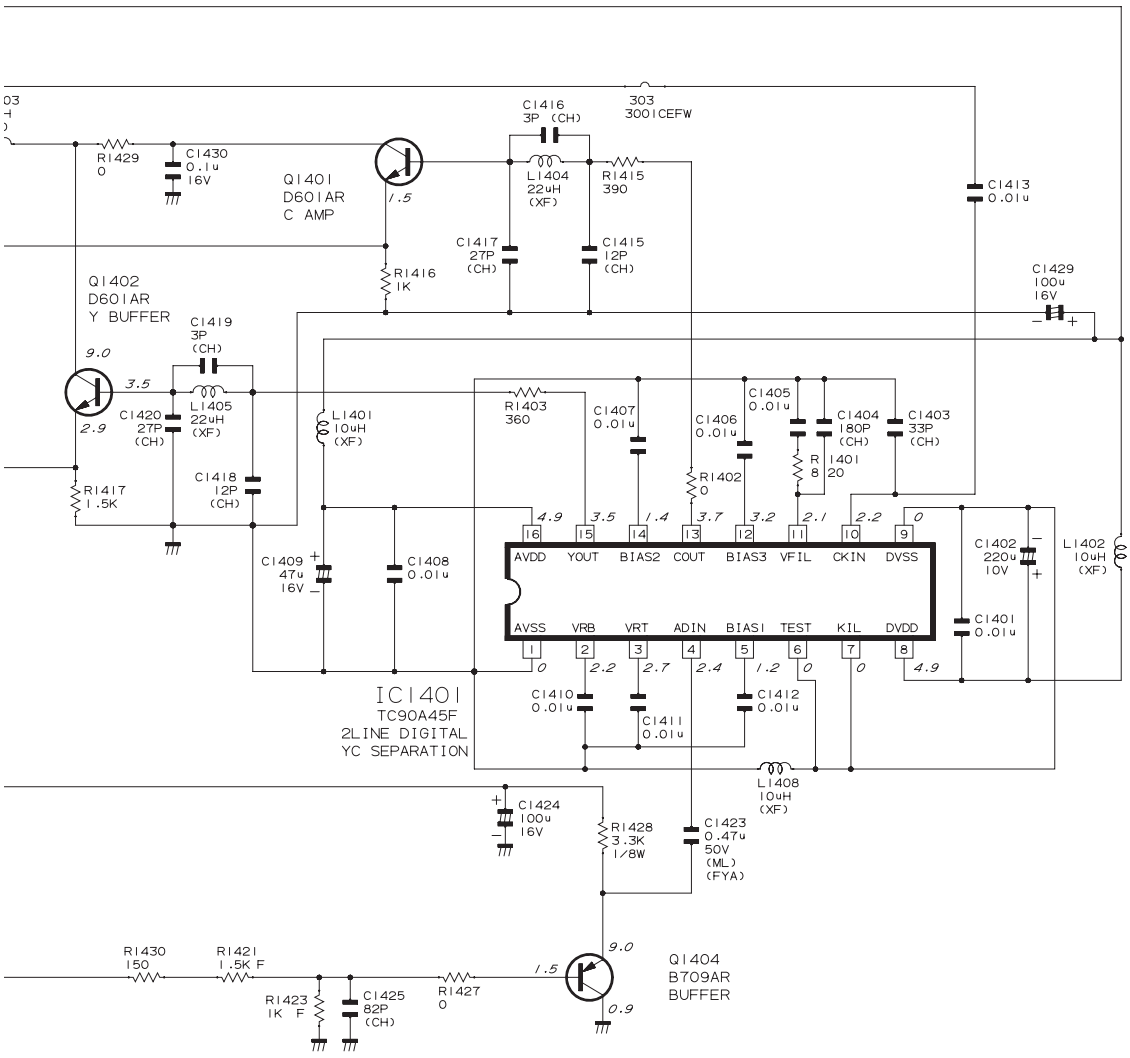


10	11	12	13	14	15	16	17	18	19

SCHEMATIC DIAGRAM: 2 LINE Y/C Unit

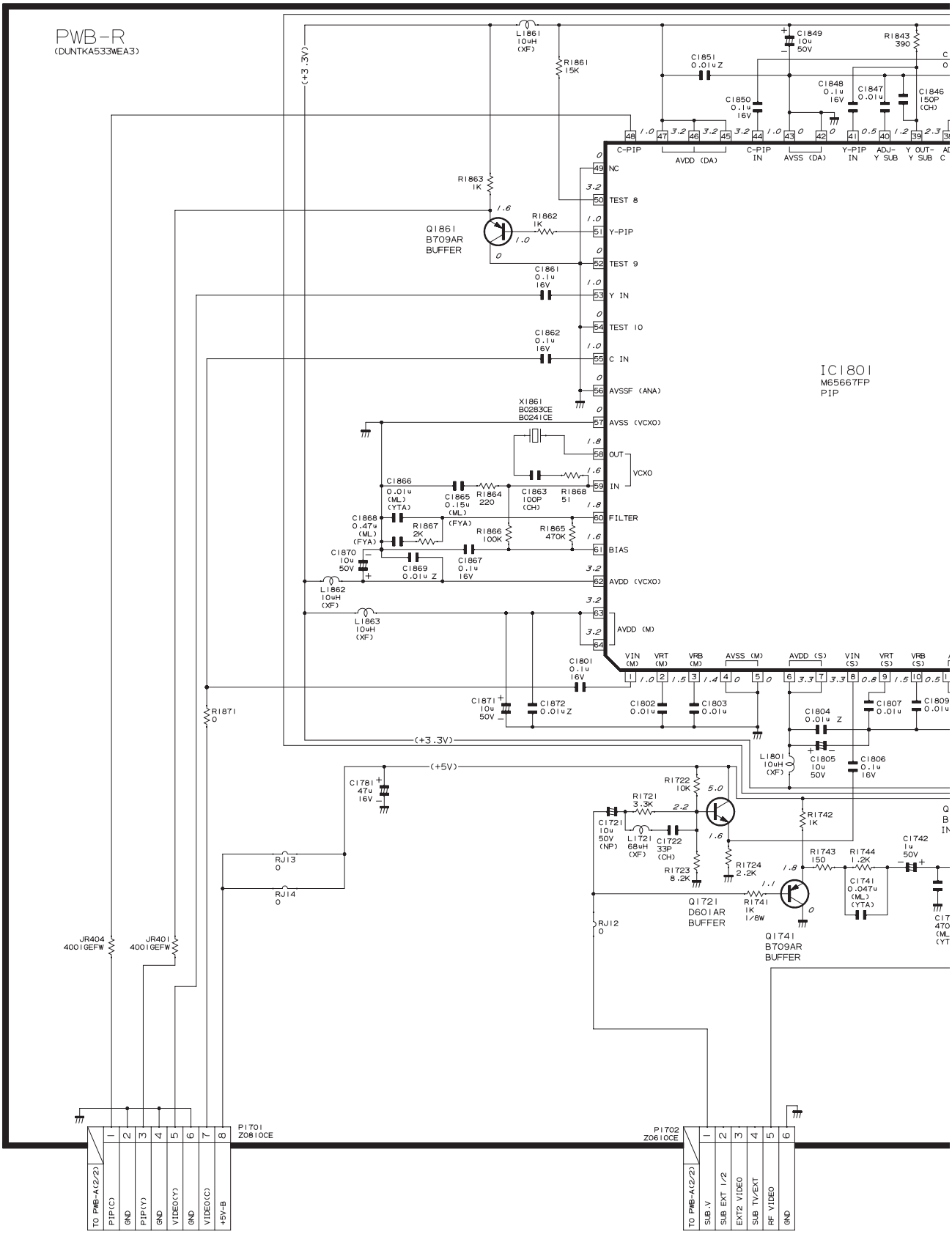


NOTE: 1.THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2.ALL RESISTORS ARE 1/16 WATT.UNLESS OTHERWISE NOTED.
3.UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u, P, ETC).



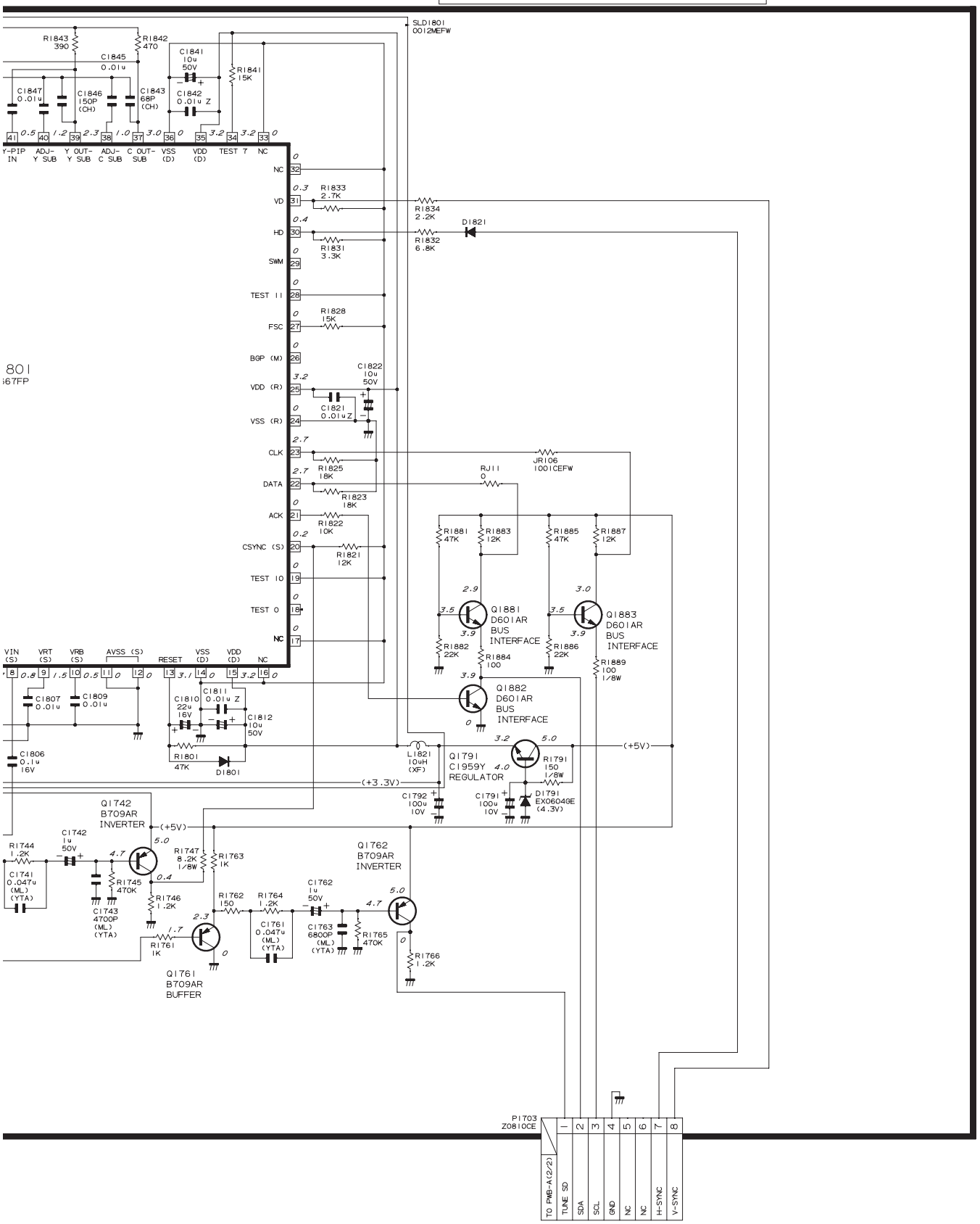
10	11	12	13	14	15	16	17	18	19

SCHEMATIC DIAGRAM: P-IN-P Unit



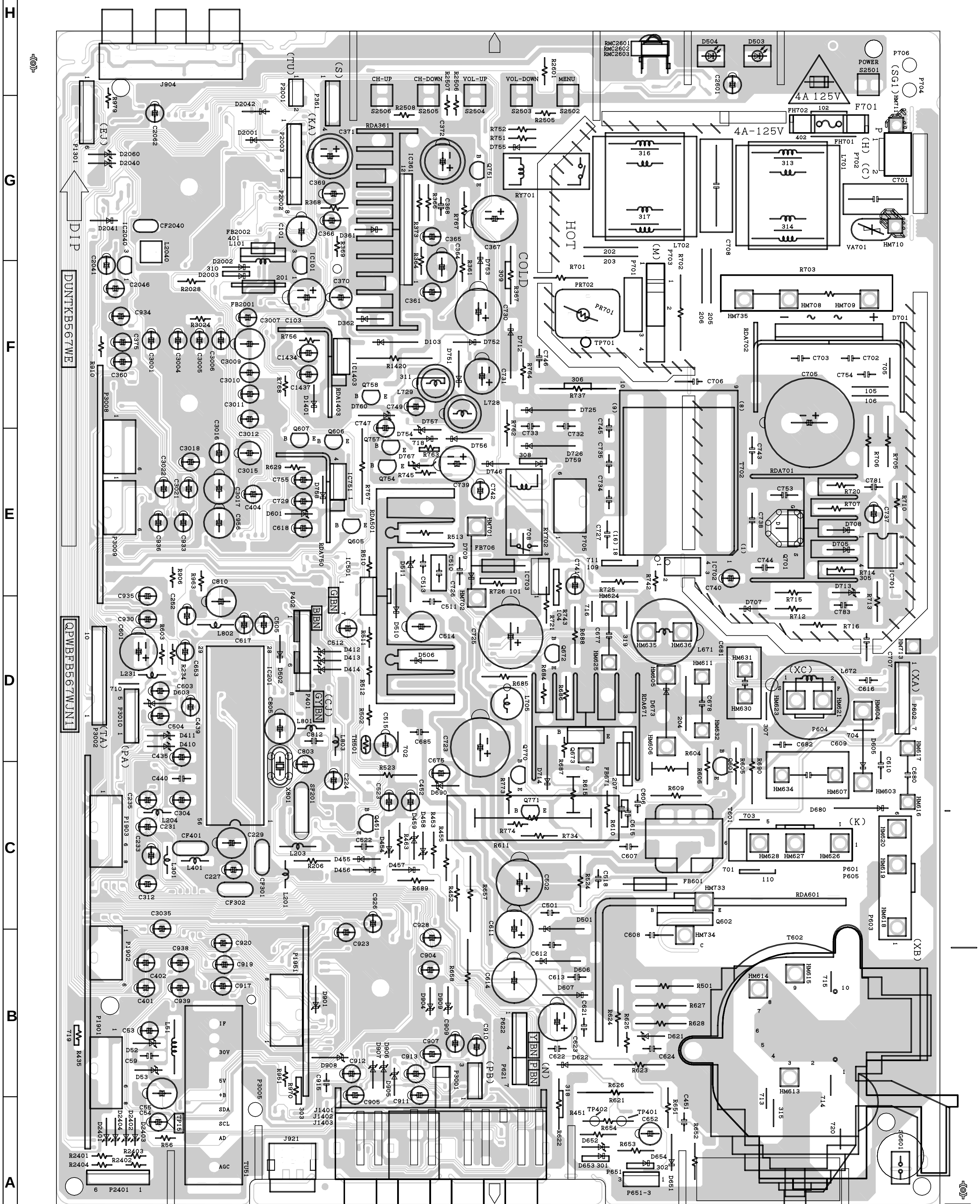
NOTE: 1.THE UNIT OF RESISTANCE "OHM" IS OMITTED
(K=1000 OHMS, M=MEGAOHM).
2.ALL RESISTORS ARE 1/16 WATT.UNLESS OTHERWISE NOTED.
3.UNIT OF ALL CAPACITORS ARE F WITH PREFIX SYMBOL
(u, P, ETC).

NOTE: ALL DIODES ARE "1SS119 / DX0475CE" UNLESS OTHERWISE SPECIFIED.
TRANSISTORS 2PD601AR CAN ALTERNATE WITH 2SD601AR.
TRANSISTORS 2PB709AR CAN ALTERNATE WITH 2SB709AR.



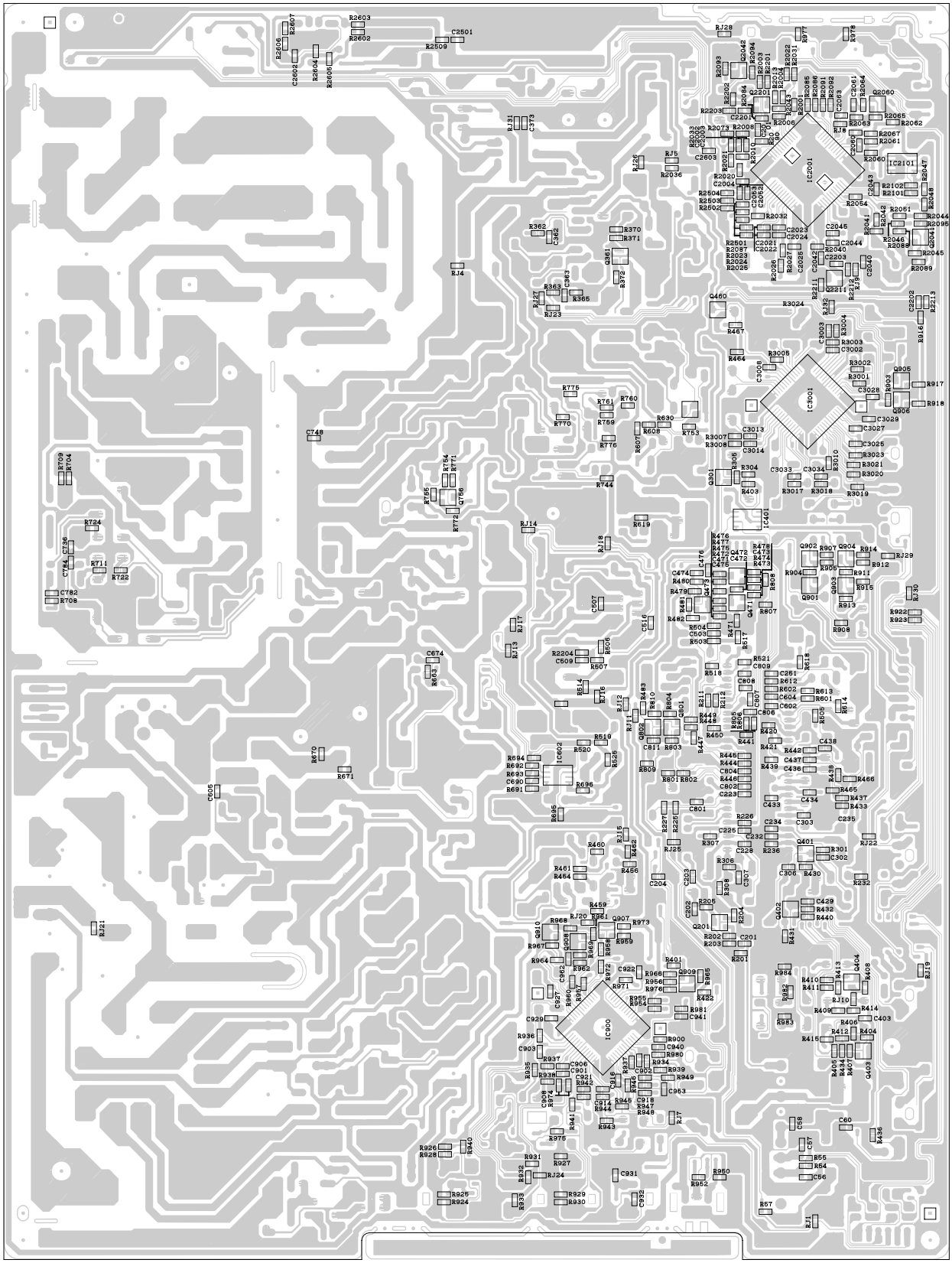
10	11	12	13	14	15	16	17	18	19

PRINTED WIRING BOARD ASSEMBLIES

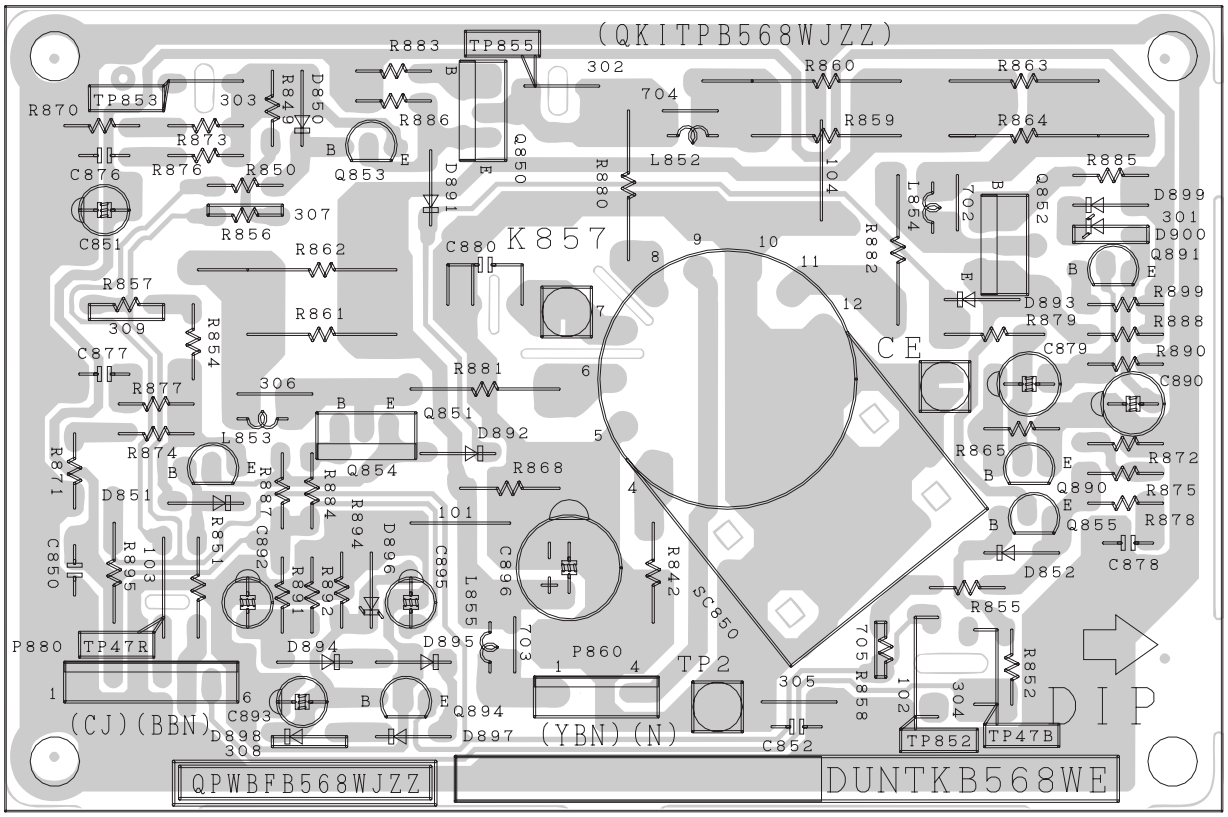


PWB-A: MAIN Unit (Components Side)

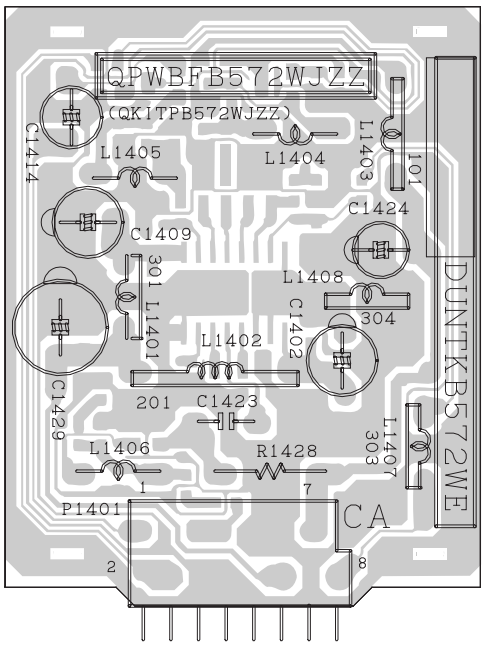
1	2	3	4	5	6



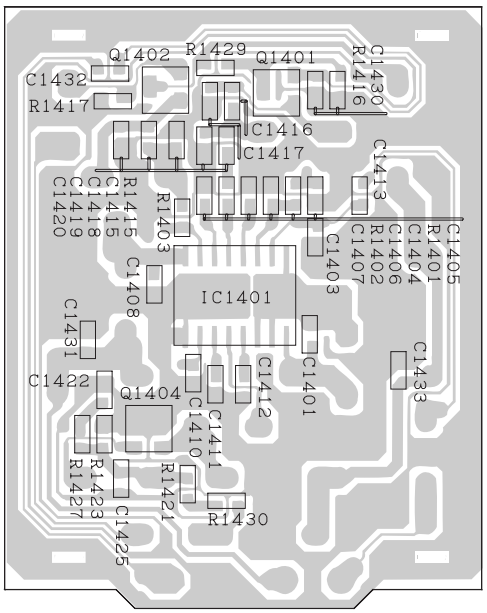
PWB-A: MAIN Unit (Chip Parts Side)



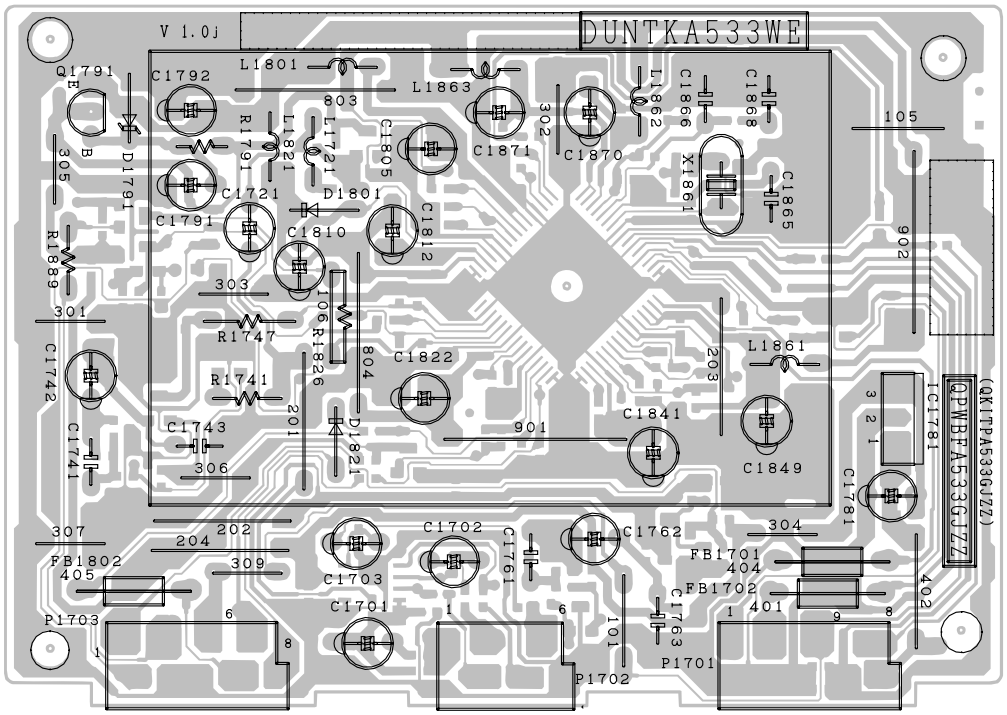
PWB-B: CRT Unit (Wiring Side)



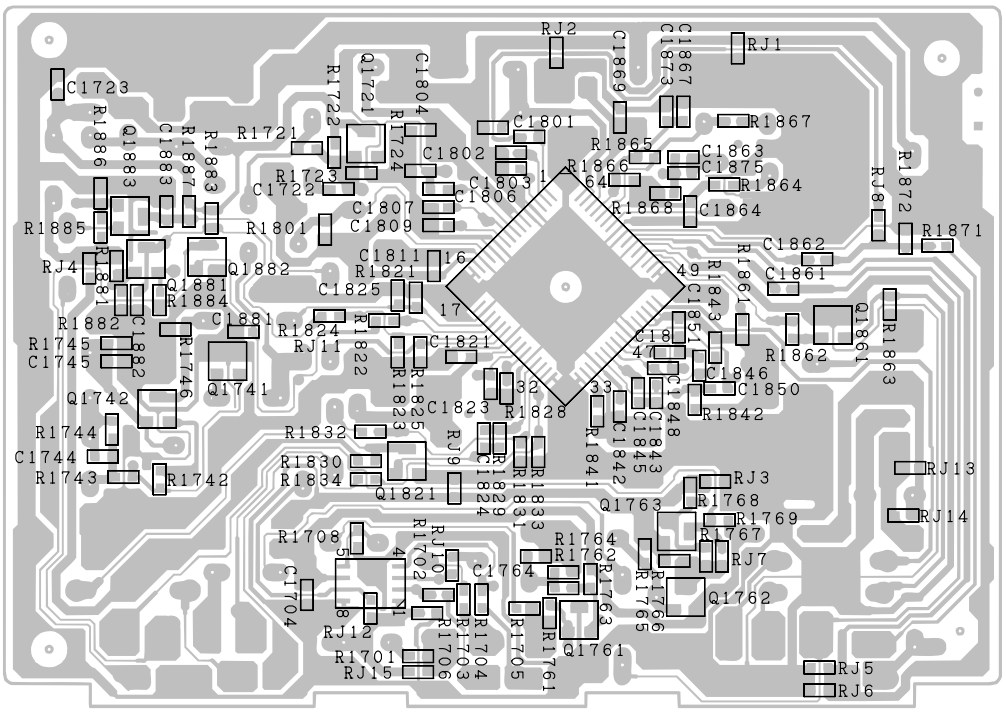
PWB-D: 2 LINE Y/C Unit (Wiring Side)



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



PWB-R: P-IN-P Unit (Wiring Side)



PWB-R: P-IN-P Unit (Chip Parts Side)

PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual ; electrical components having such features are identified by ⚠ 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

PICTURE TUBE

▲⚠	V101	VB68ADT2506*S	X	Picture Tube	CD
⚠	L703	RCiLG0120GJZZ	X	Degaussing Coil	AH
⚠		QEARC2702MEZZ	X	Grounding Strap	AC

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

PWB-A	DUNTKB567WEV0	– MAIN Unit	—
PWB-B	DUNTKB568WEV0	– CRT Unit	—
PWB-D	DUNTKB572WEV0	– 2 LINE Y/C Unit	—
PWB-R	DUNTKA533WEA3	– P-IN-P Unit	—

Ref. No.	Part No.	★	Description	Code

PWB-A: DUNTKB567WEV0
MAIN UNIT

TUNER

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

⚠	TU51	VTUVT1T5UF202	X	Tuner	AR

INTEGRATED CIRCUITS

	IC101	VHiPQ050ES1-1+	X	PQ050ES1MXP	AB
▲⚠	IC201	VHiTB1253AN-1	X	TB1253A	AP
⚠	IC361	VHiAN5277//-1	X	AN5277	AG
⚠	IC501	VHiLA78041+-1	X	LA78041	AF
⚠	IC701	VHiTEA1507/-1	X	TEA1507P/N1	AE
⚠	IC702	RH-FXA003WJZZ	X	PC123Y82	AB
▲⚠	IC703	VHiSE125N//-1	X	SE125N	AD
	IC751	VHiPQ09RD11-1	X	PQ09RD11	AD
	IC900	VHiCXA2089Q-2Y	X	CXA2089Q-6T	AK
	IC1403	VHiPQ05RD11-1	X	PQ05RD11	AD
	IC2001	RH-iXA418WJZZQ	X	TMP88CS38BFG	AN
	IC2040	VHiKiA7045A-1+	X	KIA7045AP	AB
	IC2101	VHiBR2416E2-1*	X	BR24C16F	AD
	IC3001	VHiCXA2074Q-1*	X	CXA2074Q	AP

TRANSISTORS

	Q201	VS2SC2735//1E*	X	2SC2735	AB
	Q361	VS2SB709AR/-1*	X	2SB709AR	AA
	Q401	VS2SD601AR/-1*	X	2SD601AR	AA
	Q402	VS2SB709AR/-1*	X	2SB709AR	AA
	Q403	VS2SD601AR/-1*	X	2SD601AR	AA
	Q404	VS2SD601AR/-1*	X	2SD601AR	AA
	Q451	VS2SA1266-Y-1+	X	2SA1266-Y	AB
	Q460	VSRT1N441C/-1*	X	RT1N441C	AA
	Q601	VS2SC2482//-1+	X	2SC2482	AB
⚠	Q602	VS2SD2634++-F	X	2SD2634++	AF
⚠	Q701	VSSPA07N603-1	X	SPA07N603	AG
	Q751	VS2SC3198-G-1+	X	2SC3198-G	AB
	Q755	VS2SD601AR/-1*	X	2SD601AR	AA
	Q756	VS2SD601AR/-1*	X	2SD601AR	AA
	Q757	VS2SC3198-G-1+	X	2SC3198-G	AB
	Q758	VS2SA1266-Y-1+	X	2SA1266-Y	AB
	Q802	VS2SD601AR/-1*	X	2SD601AR	AA
	Q901	VS2SD601AR/-1*	X	2SD601AR	AA
	Q902	VS2SD601AR/-1*	X	2SD601AR	AA
	Q903	VS2SD601AR/-1*	X	2SD601AR	AA
	Q904	VS2SD601AR/-1*	X	2SD601AR	AA
	Q905	VS2SD601AR/-1*	X	2SD601AR	AA
	Q906	VS2SD601AR/-1*	X	2SD601AR	AA
	Q907	VS2SD601AR/-1*	X	2SD601AR	AA
	Q908	VS2SB709AR/-1*	X	2SB709AR	AA
	Q909	VS2SB709AR/-1*	X	2SB709AR	AA
	Q910	VS2SB709AR/-1*	X	2SB709AR	AA
	Q2060	VS2SD601AR/-1*	X	2SD601AR	AA
	Q2201	VS2SD601AR/-1*	X	2SD601AR	AA
	Q2211	VS2SD601AR/-1*	X	2SD601AR	AA

DIODES

	D52	RH-EX0676GEZZ*	X	Zener Diode, 32V	AB
	D103	RH-DX0441CEZZ*	X	Diode	AA
	D361	VHD1SS119//-1*	X	1SS119	AA
	D362	VHD1SS119//-1*	X	1SS119	AA
	D410	RH-EX0611GEZZ*	X	Zener Diode, 5.1V	AB
	D411	RH-EX0611GEZZ*	X	Zener Diode, 5.1V	AB
	D412	RH-EX0614GEZZ*	X	Zener Diode, 5.6V	AB
	D413	RH-EX0614GEZZ*	X	Zener Diode, 5.6V	AB
	D414	RH-EX0614GEZZ*	X	Zener Diode, 5.6V	AB
	D454	RH-EX0628GEZZ*	X	Zener Diode, 8.2V	AB
	D455	VHD1SS119//-1*	X	1SS119	AA
	D502	VHD1SS119//-1*	X	1SS119	AA
	D506	VHD1SS119//-1*	X	1SS119	AA
	D510	RH-DX0441CEZZ*	X	Diode	AA
⚠	D606	RH-DX0302CEZZ*	X	Diode	AB
	D607	RH-DX0471CEZZ*	X	Diode	AB
	D621	RH-EX0631GEZZ*	X	Zener Diode, 9.1V	AB
⚠	D622	RH-DX0131CEZZ*	X	Diode	AB

PWB-A: DUNTKB567WEV0

MAIN UNIT(Continued)

Ref. No.	Part No.	★	Description	Code
▲⚠ D651	VHD1SS244//-1*	X	1SS244	AA
▲⚠ D652	RH-EX0641GEZZ*	X	Zener Diode, 12V	AB
▲⚠ D653	VHD1SS119//-1*	X	1SS119	AA
▲⚠ D654	VHD1SS119//-1*	X	1SS119	AA
⚠ D701	RH-DX0476CEZZ	X	Diode	AC
D707	VHD1SS244//-1*	X	1SS244	AA
D708	VHD1SS244//-1*	X	1SS244	AA
⚠ D709	RH-DXA006WJZZ	X	Diode	AB
D712	RH-DX0468CEZZ	X	Diode	AB
D725	RH-DX0302CEZZ*	X	Diode	AB
D726	RH-DX0461CEZZ	X	Diode	AB
D751	VHD1SS119//-1*	X	1SS119	AA
D752	VHD1SS119//-1*	X	1SS119	AA
D753	VHD1SS119//-1*	X	1SS119	AA
D754	VHD1SS119//-1*	X	1SS119	AA
D755	VHD1SS119//-1*	X	1SS119	AA
D756	VHD1SS119//-1*	X	1SS119	AA
D757	RH-EX0619GEZZ*	X	Zener Diode, 6.2V	AB
D904	RH-EX0631GEZZ*	X	Zener Diode, 9.1V	AB
D905	RH-EX0631GEZZ*	X	Zener Diode, 9.1V	AB
D906	RH-EX0631GEZZ*	X	Zener Diode, 9.1V	AB
D907	RH-EX0631GEZZ*	X	Zener Diode, 9.1V	AB
D908	RH-EX0631GEZZ*	X	Zener Diode, 9.1V	AB
D909	RH-EX0631GEZZ*	X	Zener Diode, 9.1V	AB
D2040	RH-EX0619GEZZ*	X	Zener Diode, 6.2V	AB
D2060	RH-EX0619GEZZ*	X	Zener Diode, 6.2V	AB

PACKAGED CIRCUITS

TH501	RH-HZ0004GEZZ+	X	Thermistor	AB
⚠ VA701	RH-VXA009WJZZ	X	Varistor	AB
⚠ PR701	RMPTP0092CEZZ	X	Packaged Circuit	AD
X801	RCRSAA010WJZZ	X	Crystal	AC

FILTERS AND COILS

CF302	RFiLC0449CEZZ+	X	Filter	AB
CF401	RFiLC0446CEZZ+	X	Filter	AB
L51	VP-CF100K0000*	X	Peaking, 10µH	AB
L201	VP-XF1R2K0000*	X	Peaking, 1.2µH	AA
L203	VP-XF100K0000*	X	Peaking, 10µH	AA
L204	VP-XF100K0000*	X	Peaking, 10µH	AA
L231	VP-XF680K0000*	X	Peaking, 68µH	AA
L301	VP-XF8R2K0000*	X	Peaking, 8.2µH	AA
L401	VP-XF100K0000*	X	Peaking, 10µH	AA
L672	RCiLZ0102MEZZ	X	Coil	AD
L701	RCiLFA041WJZZ	X	Coil	AD
L705	RCiLP0179CEZZ+	X	Coil	AB
L728	RCiLP0179CEZZ+	X	Coil	AB
L729	RCiLP0179CEZZ+	X	Coil	AB
L801	VP-XF100K0000*	X	Peaking, 10µH	AA
L802	VP-XF100K0000*	X	Peaking, 10µH	AA
L2040	RCiLBA003WJZZ	X	Oscillation Coil	AB
SF201	RFiLC0405CEZZ	X	Filter	AD

TRANSFORMERS

⚠ T601	RTRNZ0057PEZZ	X	Transformer	AD
▲⚠ T602	RTRNFA037WJZZ	X	H-Volt Transformer	AS
⚠ T702	RTRNWA070WJZZ	X	Transformer	AF

CAPACITORS

C53	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C54	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C55	VCEA0A0JW108M+	X	1000	6.3V	Electrolytic	AB
C58	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C59	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C101	VCEA0A0JW108M+	X	1000	6.3V	Electrolytic	AB
C103	VCEA0A1CW108M+	X	1000	16V	Electrolytic	AB
C201	VCKYCY1HB102K*	X	1000p	50V	Ceramic	AA
C202	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C203	VCKYCY1HB102K*	X	1000p	50V	Ceramic	AA
C223	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C224	VCEA0A1HW474M+	X	0.47	50V	Electrolytic	AA
C225	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C227	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C228	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C229	VCEA0A1CW477M+	X	470	16V	Electrolytic	AB
C231	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C232	VCKYCY1HB222K*	X	2200p	50V	Ceramic	AA
C233	VCEA0A1HW474M+	X	0.47	50V	Electrolytic	AA
C234	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C235	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C251	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C252	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C302	VCCCCY1HH151J*	X	150p	50V	Ceramic	AA
C303	VCCCCY1HH330J*	X	33p	50V	Ceramic	AA
C304	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C306	VCCCCY1HH330J*	X	33p	50V	Ceramic	AA
C307	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C312	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C360	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C361	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C362	VCKYCY1EB223K*	X	0.022	25V	Ceramic	AA
C363	VCKYCY1EB223K*	X	0.022	25V	Ceramic	AA
C364	VCEA0A1EW227M+	X	220	25V	Electrolytic	AB
C365	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C366	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C367	VCEA0A1VW108M+	X	1000	35V	Electrolytic	AB
C368	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C369	VCEA0A1CW227M+	X	220	16V	Electrolytic	AB
C370	VCEA0A1CW227M+	X	220	16V	Electrolytic	AB
C371	VCEA0A1EW108M+	X	1000	25V	Electrolytic	AB
C372	VCEA0A1EW108M+	X	1000	25V	Electrolytic	AB
C373	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C375	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C401	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C402	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C403	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C429	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C433	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C434	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C435	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C436	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C437	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C438	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C439	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C440	VCFYFA1HA224J+	X	0.22	50V	Mylar	AB
C451	VCQYTA2AA104K+	X	0.1	100V	Mylar	AB
C452	VCEA0A1EW336M+	X	33	25V	Electrolytic	AA
C504	VCEACA1HC474M+	X	0.47	50V	Electrolytic	AB
C505	VCEA0A1HW474M+	X	0.47	50V	Electrolytic	AA
C506	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C507	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C509	VCKYCY1HB822K*	X	8200p	50V	Ceramic	AA
C510	RC-FZ0272CEZZ+	X	0.39	100V	Mylar	AB
C512	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C514	VCEA0A1VW107M+	X	100	35V	Electrolytic	AB
C516	VCKYCY1HB472K*	X	4700p	50V	Ceramic	AA
C518	VCQYTA2AA473J+	X	0.047	100V	Mylar	AB
C522	VCFYFA1HA334J+	X	0.33	50V	Mylar	AB
C523	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C601	VCEA0A1CW477M+	X	470	16V	Electrolytic	AB
C602	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C603	VCEA0A1HW225M+	X	2.2	50V	Electrolytic	AA
C604	VCKYCY1EB223K*	X	0.022	25V	Ceramic	AA
C606	VCKYPA2HB561K+	X	560p	500V	Ceramic	AB
C607	VCKYPA1HB472K+	X	4700p	50V	Ceramic	AA
C608	RC-KZ0033CEZZ	X	150p	2kV	Ceramic	AB
▲⚠ C609	RC-FZ1034CEZZ	X	13500p	1500V	Mylar	AC
C611	VCEA0A1EW477M+	X	470	25V	Electrolytic	AB
C614	VCEA0A1EW108M+	X	1000	25V	Electrolytic	AB
C615	VCFYSB2EB823J	X	0.082	250V	Mylar	AB
C617	VCEA0A1HW474M+	X	0.47	50V	Electrolytic	AA
⚠ C622	VCKYPA2HB102K+	X	1000p	500V	Ceramic	AB
⚠ C623	VCEA4A2EN106M+	X	10	250V	Electrolytic	AB
C652	VCEA0A1HW476M+	X	47	50V	Electrolytic	AB
C653	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C681	VCFPFA2EB514J	X	0.51	250V	Mylar	AB
C682	VCKYPA2HB102K+	X	1000p	500V	Ceramic	AB

PWB-A: DUNTKB567WEV0

MAIN UNIT(Continued)

Ref. No.	Part No.	★	Description			Code
⚠ C701	RC-FZA022WJZZ	X	0.22	AC250V	Mylar	AB
C702	RC-KZ0029CEZZ+	X	0.01	AC250V	Ceramic	AB
C703	RC-KZ0029CEZZ+	X	0.01	AC250V	Ceramic	AB
⚠ C705	RC-EZ0719CEZZ	X	560	200V	Electrolytic	AP
⚠ C707	RC-KZ0092GEZZA	X	3300p	AC250V	Ceramic	AB
⚠ C723	RC-EZ0724CEZZ	X	100	160V	Electrolytic	AC
⚠ C725	RC-EZA064WJZZ	X	220	160V	Electrolytic	AD
C726	RC-KZ0226CEZZ+	X	560p	2kV	Ceramic	AB
C727	RC-KZ0226CEZZ+	X	560p	2kV	Ceramic	AB
C729	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C730	VCEA0A1VW108M+	X	1000	35V	Electrolytic	AB
C731	RC-EZ0385CEZZ+	X	1000	16V	Electrolytic	AB
C732	VCKYPA2HB102K+	X	1000p	500V	Ceramic	AB
C733	VCKYPA2HB102K+	X	1000p	500V	Ceramic	AB
C734	VCKYPA2HB471K+	X	470p	500V	Ceramic	AB
C735	VCKYPA2HB471K+	X	470p	500V	Ceramic	AB
C736	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C737	VCEA0A1HW226M+	X	22	50V	Electrolytic	AA
C738	VCFPVC3CA102H	X	1000p	1250V	M.Polypro	AB
C739	RC-EZ0385CEZZ+	X	1000	16V	Electrolytic	AB
C740	VCEA0A1HW476M+	X	47	50V	Electrolytic	AB
C741	VCEA4A2AN105M+	X	1	100V	Electrolytic	AB
C743	RC-KZ0036CEZZ+	X	330p	2kV	Ceramic	AB
C744	VCKYPA2HB471K+	X	470p	500V	Ceramic	AB
C745	VCKYPA2HB102K+	X	1000p	500V	Ceramic	AB
C746	VCKYPA2HB102K+	X	1000p	500V	Ceramic	AB
C747	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C749	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C753	RC-KZ0036CEZZ+	X	330p	2kV	Ceramic	AB
C754	VCKYPA2HB472K+	X	4700p	500V	Ceramic	AB
C755	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C783	VCQYTA1HM103J+	X	0.01	50V	Mylar	AA
C784	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C801	VCCCCY1HH110J*	X	11p	50V	Ceramic	AA
C802	VCKYCY1HB222K*	X	2200p	50V	Ceramic	AA
C803	VCEA0A1HW224M+	X	0.22	50V	Electrolytic	AA
C804	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C805	VCEA0A0JW108M+	X	1000	6.3V	Electrolytic	AB
C806	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C807	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C808	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C809	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C810	VCEA0A1CW477M+	X	470	16V	Electrolytic	AB
C812	VCQYTA1HM104J+	X	0.1	50V	Mylar	AB
C901	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C902	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C903	VCKYCY1HB681K*	X	680p	50V	Ceramic	AA
C904	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C905	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C906	VCKYCY1HB681K*	X	680p	50V	Ceramic	AA
C907	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C908	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C909	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C910	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C911	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C912	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C913	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C914	VCKYCY1HB681K*	X	680p	50V	Ceramic	AA
C915	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C916	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C917	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C918	VCKYCY1HB681K*	X	680p	50V	Ceramic	AA
C919	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C920	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C921	VCKYCY1HB681K*	X	680p	50V	Ceramic	AA
C922	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C923	VCEA0A1CW107M+	X	100	16V	Electrolytic	AA
C926	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C928	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C930	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C931	VCKYCY1HB183K*	X	0.018	50V	Ceramic	AA
C932	VCKYCY1HB183K*	X	0.018	50V	Ceramic	AA
C933	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C934	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C935	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C936	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C937	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C953	VCKYCY1HB681K*	X	680p	50V	Ceramic	AA
C956	VCEA0A1CW477M+	X	470	16V	Electrolytic	AB
C962	VCCCCY1HH470J*	X	47p	50V	Ceramic	AA
C1434	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C1437	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C2001	VCCCCY1HH101J*	X	100p	50V	Ceramic	AA
C2002	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C2025	VCCCCY1HH101J*	X	100p	50V	Ceramic	AA
C2040	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C2041	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C2043	VCCCCY1HH331J*	X	330p	50V	Ceramic	AA
C2044	VCCCCY1HH100D*	X	10p	50V	Ceramic	AA
C2046	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C2060	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C2061	VCCCCY1HH101J*	X	100p	50V	Ceramic	AA
C2062	VCEA0A1CW107M+	X	100	16V	Electrolytic	AA
C2063	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C2064	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C2201	VCKYCY1HB681K*	X	680p	50V	Ceramic	AA
C2202	VCCCCY1HH330J*	X	33p	50V	Ceramic	AA
C2601	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C2602	VCCCCY1HH101J*	X	100p	50V	Ceramic	AA
C3001	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C3002	VCKYCY1HB562K*	X	5600p	50V	Ceramic	AA
C3003	VCKYCY1EB123K*	X	0.012	25V	Ceramic	AA
C3004	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C3005	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C3006	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C3007	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C3008	VCKYCY1CF104Z*	X	0.1	16V	Ceramic	AA
C3009	VCEA0A1CW477M+	X	470	16V	Electrolytic	AB
C3010	VCE9GA1HW475M+	X	4.7	50V	Electrolytic(N.P)	AB
C3011	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C3012	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C3013	VCKYCY1HB272K*	X	2700p	50V	Ceramic	AA
C3014	VCKYCY1CB473K*	X	0.047	16V	Ceramic	AA
C3015	VCEACA1HC335K+	X	3.3	50V	Electrolytic	AB
C3016	VCE9GA1HW475M+	X	4.7	50V	Electrolytic(N.P)	AB
C3017	VCEACA1CC106K+	X	10	16V	Electrolytic	AB
C3018	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C3021	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C3022	VCEA0A1HW475M+	X	4.7	50V	Electrolytic	AA
C3025	VCKYCY1CB473K*	X	0.047	16V	Ceramic	AA
C3027	VCKYCY1CB473K*	X	0.047	16V	Ceramic	AA
C3028	VCKYCY1HB682K*	X	6800p	50V	Ceramic	AA
C3029	VCKYCY1HB682K*	X	6800p	50V	Ceramic	AA

RESISTORS

RJ1	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ2	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ4	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ6	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ7	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ7	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ8	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ8	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ9	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ9	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ10	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ11	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ11	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ12	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ12	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ13	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ14	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ15	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ15	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ16	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ19	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ20	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ22	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA

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MAIN UNIT(Continued)

Ref. No.	Part No.	★	Description			Code
RJ23	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
RJ25	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R54	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R55	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R56	VRD-RA2BE823J*	X	82k	1/8W	Carbon	AA
R57	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R201	VRS-CY1JF151J*	X	150	1/16W	Metal Oxide	AA
R202	VRS-CY1JF122J*	X	1.2k	1/16W	Metal Oxide	AA
R203	VRS-CY1JF682J*	X	6.8k	1/16W	Metal Oxide	AA
R204	VRS-CY1JF270J*	X	27	1/16W	Metal Oxide	AA
R205	VRS-CY1JF331J*	X	330	1/16W	Metal Oxide	AA
R206	VRD-RA2BE101J*	X	100	1/8W	Carbon	AA
R211	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R212	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R225	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R226	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R227	VRS-CY1JF273J*	X	27k	1/16W	Metal Oxide	AA
R232	VRS-CY1JF471J*	X	470	1/16W	Metal Oxide	AA
R234	VRD-RA2BE271J*	X	270	1/8W	Carbon	AA
R236	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R301	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R305	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R306	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R307	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R308	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R361	VRD-RA2BE224J*	X	220k	1/8W	Carbon	AA
R362	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R363	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R364	VRD-RA2BE152J*	X	1.5k	1/8W	Carbon	AA
R365	VRS-CY1JF152J*	X	1.5k	1/16W	Metal Oxide	AA
⚠ R367	VRN-RL3DB3R3J+	X	3.3	2W	Metal Film	AB
R368	VRD-RA2BE222J*	X	2.2k	1/8W	Carbon	AA
R369	VRD-RA2BE822J*	X	8.2k	1/8W	Carbon	AA
R371	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R372	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R403	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R404	VRS-CY1JF683J*	X	68k	1/16W	Metal Oxide	AA
R406	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R407	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R408	VRS-CY1JF683J*	X	68k	1/16W	Metal Oxide	AA
R410	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R411	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R412	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R413	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R414	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R415	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R422	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R430	VRS-CY1JF391J*	X	390	1/16W	Metal Oxide	AA
R431	VRS-CY1JF331J*	X	330	1/16W	Metal Oxide	AA
R432	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R437	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R438	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R439	VRS-CY1JF104J*	X	100k	1/16W	Metal Oxide	AA
R440	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R441	VRS-CY1JF472J*	X	4.7k	1/16W	Metal Oxide	AA
R442	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R444	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R445	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R446	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R447	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R448	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R449	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
⚠ R451	VRS-RG3AB103J+	X	10k	1W	Metal Oxide	AB
R452	VRD-RM2HD104J*	X	100k	1/2W	Carbon	AA
R453	VRD-RM2HD223J*	X	22k	1/2W	Carbon	AA
R454	VRS-CY1JF471J*	X	470	1/16W	Metal Oxide	AA
R456	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R460	VRS-CY1JF471J*	X	470	1/16W	Metal Oxide	AA
R461	VRS-CY1JF562J*	X	5.6k	1/16W	Metal Oxide	AA
R462	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R463	VRD-RA2EE680J*	X	68	1/4W	Carbon	AA
R464	VRS-CY1JF683J*	X	68k	1/16W	Metal Oxide	AA
R467	VRS-CY1JF123J*	X	12k	1/16W	Metal Oxide	AA
R483	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R502	VRN-RA2BK822F*	X	8.2k	1/8W	Metal Film	AA
R503	VRS-CY1JF105J*	X	1M	1/16W	Metal Oxide	AA
R504	VRS-CY1JF154J*	X	150k	1/16W	Metal Oxide	AA
R505	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R506	VRS-CY1JF472J*	X	4.7k	1/16W	Metal Oxide	AA
R507	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R510	VRN-RA2BK103F*	X	10k	1/8W	Metal Film	AA
R511	VRN-RA2BK222F*	X	2.2k	1/8W	Metal Film	AA
R512	VRN-RA2BK272F*	X	2.7k	1/8W	Metal Film	AA
R513	VRD-RM2HD1R0J*	X	1	1/2W	Carbon	AA
R517	VRS-CY1JF104J*	X	100k	1/16W	Metal Oxide	AA
R518	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R521	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
⚠ R523	VRN-RL3DBR82J+	X	0.82	2W	Metal Film	AB
⚠ R524	VRS-RG3AB391J+	X	390	1W	Metal Oxide	AB
R601	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R603	VRD-RA2BE472J*	X	4.7k	1/8W	Carbon	AA
⚠ R604	VRS-KA3NG332J	X	3.3k	7W	Metal Oxide	AB
R605	VRD-RM2HD331J*	X	330	1/2W	Carbon	AA
R606	VRD-RM2HD331J*	X	330	1/2W	Carbon	AA
⚠ R609	VRS-RG3AB562J+	X	5.6k	1W	Metal Oxide	AB
R610	VRD-RM2HD220J*	X	22	1/2W	Carbon	AA
R612	VRS-CY1JF154J*	X	150k	1/16W	Metal Oxide	AA
R614	VRS-CY1JF562J*	X	5.6k	1/16W	Metal Oxide	AA
⚠ R615	VRS-KA3NG3R3K	X	3.3	7W	Metal Oxide	AB
⚠ R621	VRN-RL3DB1R2J+	X	1.2	2W	Metal Film	AB
⚠ R622	VRN-RL3ABR18J+	X	0.18	1W	Metal Film	AB
⚠ R623	VRN-RL3AB4R7J+	X	4.7	1W	Metal Film	AB
⚠ R624	VRS-RG3DB332J+	X	3.3k	2W	Metal Oxide	AB
R625	VRD-RA2BE102J*	X	1k	1/8W	Carbon	AA
⚠ R627	VRN-RL3ABR47J+	X	0.47	1W	Metal Film	AB
⚠ R628	VRN-RL3ABR47J+	X	0.47	1W	Metal Film	AB
▲⚠ R651	VRS-RG2HC270J+	X	27	1/2W	Metal Oxide	AB
▲⚠ R652	VRD-RA2EE103G*	X	10k	1/4W	Carbon	AA
▲⚠ R653	VRD-RA2EE562G*	X	5.6k	1/4W	Carbon	AA
⚠ R658	VRS-RG3LB333J+	X	33k	3W	Metal Oxide	AB
R670	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R689	VRD-RM2HD824J*	X	820k	1/2W	Carbon	AA
⚠ R690	VRS-RG3LB471J+	X	470	3W	Metal Oxide	AB
⚠ R701	RR-DZ0049CEZZ*	X	3.9	1/2W	Solid	AB
⚠ R703	VRW-KQ3NC1R2K	X	1.2	7W	Cement	AB
⚠ R705	VRN-RL3DBR22J+	X	0.22	2W	Metal Film	AB
⚠ R706	VRN-RL3DBR22J+	X	0.22	2W	Metal Film	AB
R707	VRD-RM2HD270J*	X	27	1/2W	Carbon	AA
R708	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R709	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
⚠ R710	VRS-RG2HC103J+	X	10k	1/2W	Metal Oxide	AB
R711	VRS-CY1JF334J*	X	330k	1/16W	Metal Oxide	AA
R712	VRD-RM2HD100J*	X	10	1/2W	Carbon	AA
⚠ R713	VRS-RG2HC122J+	X	1.2k	1/2W	Metal Oxide	AB
R715	VRD-RM2HD5R6J*	X	5.6	1/2W	Carbon	AA
R716	VRD-RM2HD100J*	X	10	1/2W	Carbon	AA
R720	VRD-RA2BE473J*	X	47k	1/8W	Carbon	AA
R721	VRD-RM2HD332J*	X	3.3k	1/2W	Carbon	AA
R724	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R725	VRD-RM2HD221J*	X	220	1/2W	Carbon	AA
R726	VRD-RM2HD222J*	X	2.2k	1/2W	Carbon	AA
R734	VRD-RM2HD124J*	X	120k	1/2W	Carbon	AA
⚠ R737	VRN-RL3LB2R2J+	X	2.2	3W	Metal Film	AB
R742	VRD-RA2BE222J*	X	2.2k	1/8W	Carbon	AA
R743	VRD-RM2HD470J*	X	47	1/2W	Carbon	AA
R751	VRD-RA2BE473J*	X	47k	1/8W	Carbon	AA
R752	VRD-RA2BE392J*	X	3.9k	1/8W	Carbon	AA
R753	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R754	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R755	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R756	VRD-RA2BE152J*	X	1.5k	1/8W	Carbon	AA
⚠ R757	VRN-RL3DB4R7J+	X	4.7	2W	Metal Film	AB
R759	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R761	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R762	VRD-RA2BE103J*	X	10k	1/8W	Carbon	AA
R764	VRD-RM2HD562J*	X	5.6k	1/2W	Carbon	AA
R767	VRD-RM2HD151J*	X	150	1/2W	Carbon	AA
R768	VRD-RA2BE473J*	X	47k	1/8W	Carbon	AA

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MAIN UNIT(Continued)

Ref. No.	Part No.	★			Description	Code
R770	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R775	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R776	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R801	VRS-CY1JF333J*	X	33k	1/16W	Metal Oxide	AA
R802	VRS-CY1JF471J*	X	470	1/16W	Metal Oxide	AA
R803	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R805	VRS-CY1JF682J*	X	6.8k	1/16W	Metal Oxide	AA
R806	VRS-CY1JF681J*	X	680	1/16W	Metal Oxide	AA
R807	VRS-CY1JF681J*	X	680	1/16W	Metal Oxide	AA
R808	VRS-CY1JF681J*	X	680	1/16W	Metal Oxide	AA
R810	VRS-CY1JF472J*	X	4.7k	1/16W	Metal Oxide	AA
R903	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R904	VRS-CY1JF683J*	X	68k	1/16W	Metal Oxide	AA
R905	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R906	VRD-RA2BE332J*	X	3.3k	1/8W	Carbon	AA
R907	VRS-CY1JF152J*	X	1.5k	1/16W	Metal Oxide	AA
R908	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R910	VRD-RA2BE102J*	X	1k	1/8W	Carbon	AA
R911	VRS-CY1JF683J*	X	68k	1/16W	Metal Oxide	AA
R912	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R913	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R914	VRS-CY1JF152J*	X	1.5k	1/16W	Metal Oxide	AA
R915	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R916	VRS-CY1JF683J*	X	68k	1/16W	Metal Oxide	AA
R917	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R918	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R922	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R923	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R924	VRS-CY1JF750J*	X	75	1/16W	Metal Oxide	AA
R925	VRS-CY1JF750J*	X	75	1/16W	Metal Oxide	AA
R926	VRS-CY1JF680J*	X	68	1/16W	Metal Oxide	AA
R927	VRS-CY1JF750J*	X	75	1/16W	Metal Oxide	AA
R929	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R930	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R931	VRS-CY1JF750J*	X	75	1/16W	Metal Oxide	AA
R932	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R933	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R934	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R935	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R936	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R937	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R938	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R939	VRS-CY1JF333J*	X	33k	1/16W	Metal Oxide	AA
R940	VRS-CY1JF8R2J*	X	8.2	1/16W	Metal Oxide	AA
R941	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R942	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R943	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R944	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R945	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R946	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R947	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R948	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R949	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R950	VRS-CY1JF750J*	X	75	1/16W	Metal Oxide	AA
R951	VRD-RA2BE680J*	X	68	1/8W	Carbon	AA
R952	VRS-CY1JF333J*	X	33k	1/16W	Metal Oxide	AA
R954	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R955	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R956	VRS-CY1JF472J*	X	4.7k	1/16W	Metal Oxide	AA
R957	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R958	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R959	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R960	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R961	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R962	VRS-CY1JF332F*	X	3.3k	1/16W	Metal Oxide	AA
R963	VRD-RA2BE101J*	X	100	1/8W	Carbon	AA
R964	VRS-CY1JF152J*	X	1.5k	1/16W	Metal Oxide	AA
R965	VRS-CY1JF472J*	X	4.7k	1/16W	Metal Oxide	AA
R966	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R967	VRS-CY1JF682J*	X	6.8k	1/16W	Metal Oxide	AA
R968	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R969	VRS-CY1JF472F*	X	4.7k	1/16W	Metal Oxide	AA
R970	VRD-RA2BE6R8J*	X	6.8	1/8W	Carbon	AA
R971	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R972	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R973	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R974	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R975	VRS-CY1JF333J*	X	33k	1/16W	Metal Oxide	AA
R982	VRS-CY1JF750J*	X	75	1/16W	Metal Oxide	AA
R983	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R984	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
⚠ R1420	VRN-RL3LB2R7J+	X	2.7	3W	Metal Film	AB
R2001	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R2004	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R2008	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R2010	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R2013	VRS-CY1JF682J*	X	6.8k	1/16W	Metal Oxide	AA
R2021	VRS-CY1JF334J*	X	330k	1/16W	Metal Oxide	AA
R2024	VRS-CY1JF472J*	X	4.7k	1/16W	Metal Oxide	AA
R2025	VRS-CY1JF472J*	X	4.7k	1/16W	Metal Oxide	AA
R2026	VRS-CY1JF472J*	X	4.7k	1/16W	Metal Oxide	AA
R2027	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R2028	VRD-RA2BE102J*	X	1k	1/8W	Carbon	AA
R2031	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R2033	VRS-CY1JF334J*	X	330k	1/16W	Metal Oxide	AA
R2040	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R2041	VRS-CY1JF333J*	X	33k	1/16W	Metal Oxide	AA
R2042	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R2043	VRS-CY1JF333J*	X	33k	1/16W	Metal Oxide	AA
R2044	VRS-CY1JF153J*	X	15k	1/16W	Metal Oxide	AA
R2046	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R2047	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R2048	VRS-CY1JF562J*	X	5.6k	1/16W	Metal Oxide	AA
R2051	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R2060	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R2061	VRS-CY1JF562J*	X	5.6k	1/16W	Metal Oxide	AA
R2063	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R2064	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R2084	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R2086	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R2090	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R2092	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R2101	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R2102	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R2201	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R2202	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R2203	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R2211	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R2212	VRS-CY1JF682J*	X	6.8k	1/16W	Metal Oxide	AA
R2213	VRS-CY1JF333J*	X	33k	1/16W	Metal Oxide	AA
R2401	VRD-RA2BE101J*	X	100	1/8W	Carbon	AA
R2402	VRD-RA2BE101J*	X	100	1/8W	Carbon	AA
R2403	VRD-RA2BE101J*	X	100	1/8W	Carbon	AA
R2404	VRD-RA2BE101J*	X	100	1/8W	Carbon	AA
R2501	VRS-CY1JF183J*	X	18k	1/16W	Metal Oxide	AA
R2502	VRS-CY1JF183J*	X	18k	1/16W	Metal Oxide	AA
R2503	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R2504	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R2505	VRD-RA2BE822J*	X	8.2k	1/8W	Carbon	AA
R2506	VRD-RA2BE822J*	X	8.2k	1/8W	Carbon	AA
R2507	VRD-RA2BE183J*	X	18k	1/8W	Carbon	AA
R2508	VRD-RA2BE183J*	X	18k	1/8W	Carbon	AA
R2509	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R2601	VRD-RA2BE100J*	X	10	1/8W	Carbon	AA
R2603	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R2605	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R2606	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R3001	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R3002	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R3003	VRS-CY1JF105J*	X	1M	1/16W	Metal Oxide	AA
R3004	VRS-CY1JF104J*	X	100k	1/16W	Metal Oxide	AA
R3005	VRS-CY1JF623J*	X	62k	1/16W	Metal Oxide	AA
R3007	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R3008	VRS-CY1JF302J*	X	3k	1/16W	Metal Oxide	AA
R3010	VRS-CY1JF392J*	X	3.9k	1/16W	Metal Oxide	AA
R3017	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R3018	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R3019	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

PWB-A: DUNTKB567WEV0
MAIN UNIT(Continued)

R3024	VRD-RA2BE102J*	X	1k	1/8W	Carbon	AA

SWITCHES

S2501	QSW-KA003WJZZ+	X	Switch, POWER	AB
S2502	QSW-KA003WJZZ+	X	Switch, MENU	AB
S2503	QSW-KA003WJZZ+	X	Switch, VOL.-DOWN	AB
S2504	QSW-KA003WJZZ+	X	Switch, VOL.-UP	AB
S2505	QSW-KA003WJZZ+	X	Switch, CH-DOWN	AB
S2506	QSW-KA003WJZZ+	X	Switch, CH-UP	AB

MISCELLANEOUS PARTS

⚠ ACC701	QACCDA012WJPZ	X	AC Cord		AE
CF2040	RCRM-0003CEZZ+	X	Ceramic Vibrator		AC
FB601	RBLN-0047CEZZ*	X	Balun		AB
FB706	RBLN-0037CEZZ*	X	Balun		AA
FB2001	RBLN-0037CEZZ*	X	Balun		AA
⚠ F701	QFS-B4023CEZZ	X	Fuse, 4A/125V		AB
FH701	QFSHD1013CEZZ+	X	Fuse Holder		AA
FH702	QFSHD1014CEZZ+	X	Fuse Holder		AA
J904	QJAKGA032WJZZ	X	Front AV In Jack		AC
J921	QSOCD0430CEZZ	X	S-Video terminal		AC
J1401	QTANJ1101SEZZ	X	AV In/Out Terminal		AF
P361	QPLGN0461CEZZA	X	Plug, 4Pin(S1-4)		AB
P402	QPLGN0661CEZZA	X	Plug, 6Pin		AB
P605	QPLGN0160FJZZ	X	Plug, 5Pin(K1-5)		AB
P622	QPLGN0461CEZZA	X	Plug, 4Pin		AB
P651	QPLGN0361CEZZA	X	Plug, 3Pin(TP651-3)		AB
P702	QPLGN0269GEZZ	X	Plug, 2Pin(P1-2)		AB
P703	QPLGN0260CEZZ	X	Plug, 2Pin(M1-2)		AB
P2401	QPLGN0661CEZZA	X	Plug, 6Pin		AB
RMC2601	RRMCU0222CEZZ	X	Remote Receiver		AD
RY701	RRLYJ0081CEZZ	X	Relay		AD
TP701	QLUGP0102PEZZ	X	Lug		AA
RDA361	PRDAR0258PEFW	X	Heat Sink for IC361		AC
RDA501	PRDARA039WJFW	X	Heat Sink for IC501		AD
RDA601	PRDARA041WJFW	X	Heat Sink for Q602		AD
RDA701	PRDAR0279PEFW	X	Heat Sink for Q601		AB
RDA750	PRDAR5072CEFW	X	Heat Sink for IC751		AB
RDA1403	PRDAR5072CEFW	X	Heat Sink for IC1403		AB

PWB-B: DUNTKB568WEV0
CRT UNIT

TRANSISTORS

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

DIODES

D891	VHD1SS119//-1*	X	1SS119	AA
D892	VHD1SS119//-1*	X	1SS119	AA
D893	VHD1SS119//-1*	X	1SS119	AA
D894	VHD1SS119//-1*	X	1SS119	AA
D895	VHD1SS119//-1*	X	1SS119	AA
D897	VHD1SS119//-1*	X	1SS119	AA
D899	VHD1SS119//-1*	X	1SS119	AA

COILS

L852	VP-MK820K0000+	X	Peaking, 82µH	AB
L853	VP-MK820K0000+	X	Peaking, 82µH	AB
L854	VP-MK820K0000+	X	Peaking, 82µH	AB

CAPACITORS

C850	VCKYPA1HF103Z+	X	0.01	50V	Ceramic	AA
C851	VCEA0A1CW107M+	X	100	16V	Electrolytic	AA
C852	VCKYPA1HB102K+	X	1000p	50V	Ceramic	AA
C876	VCCSPA1HL391J+	X	390p	50V	Ceramic	AA
C877	VCCSPA1HL331J+	X	330p	50V	Ceramic	AA
C878	VCCSPA1HL391J+	X	390p	50V	Ceramic	AA
C879	VCEA0A1EW476M+	X	47	25V	Electrolytic	AA
C880	RC-KZ018JCEZZ	X	0.01	3KV	Ceramic	AB
C890	VCEA0A1CW227M+	X	220	16V	Electrolytic	AB
C893	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C896	VCEA0A2EW106M+	X	10	250V	Electrolytic	AB

RESISTORS

R849	VRD-RA2BE271J*	X	270	1/8W	Carbon	AA
R850	VRD-RA2BE470J*	X	47	1/8W	Carbon	AA
R851	VRD-RA2BE470J*	X	47	1/8W	Carbon	AA
R852	VRD-RA2BE470J*	X	47	1/8W	Carbon	AA
R854	VRD-RA2BE271J*	X	270	1/8W	Carbon	AA
R855	VRD-RA2BE271J*	X	270	1/8W	Carbon	AA
R856	VRD-RA2BE121J*	X	120	1/8W	Carbon	AA
R857	VRD-RA2BE121J*	X	120	1/8W	Carbon	AA
R858	VRD-RA2BE121J*	X	120	1/8W	Carbon	AA
⚠ R860	VRS-VV3LB123J	X	12k	3W	Metal Oxide	AB
⚠ R862	VRS-VV3LB123J	X	12k	3W	Metal Oxide	AB
⚠ R864	VRS-VV3LB123J	X	12k	3W	Metal Oxide	AB
R865	VRD-RA2BE103J*	X	10k	1/8W	Carbon	AA
R868	VRD-RM2HD224J*	X	220k	1/2W	Carbon	AA
R870	VRD-RA2BE471J*	X	470	1/8W	Carbon	AA
R871	VRD-RA2BE471J*	X	470	1/8W	Carbon	AA
R872	VRD-RA2BE471J*	X	470	1/8W	Carbon	AA
R873	VRD-RA2BE681J*	X	680	1/8W	Carbon	AA
R874	VRD-RA2BE681J*	X	680	1/8W	Carbon	AA
R875	VRD-RA2BE681J*	X	680	1/8W	Carbon	AA
R876	VRD-RA2BE121J*	X	120	1/8W	Carbon	AA
R877	VRD-RA2BE121J*	X	120	1/8W	Carbon	AA
R878	VRD-RA2BE121J*	X	120	1/8W	Carbon	AA
R879	VRD-RM2HD100J*	X	10	1/2W	Carbon	AA
R880	VRC-MA2HG332K*	X	3.3k	1/2W	Solid	AB
R881	VRC-MA2HG332K*	X	3.3k	1/2W	Solid	AB
R882	VRC-MA2HG332K*	X	3.3k	1/2W	Solid	AB
R883	VRD-RA2BE221J*	X	220	1/8W	Carbon	AA
R884	VRD-RA2BE221J*	X	220	1/8W	Carbon	AA
R885	VRD-RA2BE221J*	X	220	1/8W	Carbon	AA
R886	VRD-RA2BE471J*	X	470	1/8W	Carbon	AA
R887	VRD-RA2BE471J*	X	470	1/8W	Carbon	AA
R888	VRD-RA2BE471J*	X	470	1/8W	Carbon	AA
R890	VRD-RA2BE562J*	X	5.6k	1/8W	Carbon	AA
R891	VRD-RA2BE102G*	X	1k	1/8W	Carbon	AA
R892	VRD-RA2BE331G*	X	330	1/8W	Carbon	AA
R894	VRD-RA2BE152J*	X	1.5k	1/8W	Carbon	AA
R895	VRD-RA2EE561J*	X	560	1/4W	Carbon	AA
R899	VRD-RA2BE222J*	X	2.2k	1/8W	Carbon	AA

MISCELLANEOUS PART

P860	QPLGN0441CEZZ	X	Plug, 4Pin	AA
P880	QPLGN0641CEZZ	X	Plug, 6Pin(CJ)	AB
SC850	QSOCV0937CEZZ	X	Socket	AC

PWB-D: DUNTKB572WEV0
2 LINE Y/C UNIT

INTEGRATED CIRCUIT

IC1401	VHiTC90A45F-1*	X	TC90A45F	AH

TRANSISTORS

Q1401	VS2SD601AR/-1*	X	2SD601AR	AA
Q1402	VS2SD601AR/-1*	X	2SD601AR	AA
Q1404	VS2SB709AR/-1*	X	2SB709AR	AA

Ref. No.	Part No.	★	Description			Code

PWB-D: DUNTKB572WEV0
2 LINE Y/C UNIT(Continued)

COILS

L1401	VP-XF100K0000*	X	Peaking, 10µH			AA
L1402	VP-XF100K0000*	X	Peaking, 10µH			AA
L1403	VP-XF100K0000*	X	Peaking, 10µH			AA
L1404	VP-XF220K0000*	X	Peaking, 22µH			AA
L1405	VP-XF220K0000*	X	Peaking, 22µH			AA
L1408	VP-XF100K0000*	X	Peaking, 10µH			AA

CAPCITORS

C1401	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1402	VCEA0A1AW227M+	X	220	10V	Electrolytic	AB
C1403	VCCCCY1HH330J*	X	33p	50V	Ceramic	AA
C1404	VCCCCY1HH181J*	X	180p	50V	Ceramic	AA
C1405	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1406	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1407	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1408	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1409	VCEA0A1CW476M+	X	47	16V	Electrolytic	AA
C1410	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1411	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1412	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1413	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1414	VCE9GA1HW105M+	X	1	50V	Electrolytic(N.P)	AB
C1415	VCCCCY1HH120J*	X	12p	50V	Ceramic	AA
C1416	VCCCCY1HH3R0C*	X	3p	50V	Ceramic	AA
C1417	VCCCCY1HH270J*	X	27p	50V	Ceramic	AA
C1418	VCCCCY1HH120J*	X	12p	50V	Ceramic	AA
C1419	VCCCCY1HH3R0C*	X	3p	50V	Ceramic	AA
C1420	VCCCCY1HH270J*	X	27p	50V	Ceramic	AA
C1423	VCFYFA1HA474J+	X	0.47	50V	Mylar	AB
C1424	VCEA0A1CW107M+	X	100	16V	Electrolytic	AA
C1425	VCCCCY1HH820J*	X	82p	50V	Ceramic	AA
C1429	VCEA0A1CW107M+	X	100	16V	Electrolytic	AA
C1430	VCKYCY1CB104K*	X	0.1	16V	Ceramic	AA
C1431	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1432	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA

RESISTORS

R1401	VRS-CY1JF821J*	X	820	1/16W	Metal Oxide	AA
R1402	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R1403	VRS-CY1JF361J*	X	360	1/16W	Metal Oxide	AA
R1415	VRS-CY1JF391J*	X	390	1/16W	Metal Oxide	AA
R1416	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R1417	VRS-CY1JF152J*	X	1.5k	1/16W	Metal Oxide	AA
R1421	VRS-CY1JF152F*	X	1.5k	1/16W	Metal Oxide	AA
R1423	VRS-CY1JF102F*	X	1k	1/16W	Metal Oxide	AA
R1427	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R1428	VRD-RA2BE332J*	X	3.3k	1/8W	Carbon	AA
R1429	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R1430	VRS-CY1JF151J*	X	150	1/16W	Metal Oxide	AA

MISCELLANEOUS PART

P1401	QPLGZ0810CEZZ	X	Plug, 8Pin(CA)	AB

PWB-R: DUNTKA533WEA3
P-IN-P UNIT

INTEGRATED CIRCUIT

IC1801	VHiM65667FP-2	X	M65667FP	AV

TRANSISTORS

Q1721	VS2SD601AR/-1*	X	2SD601AR	AA
Q1741	VS2SB709AR/-1*	X	2SB709AR	AA
Q1742	VS2SB709AR/-1*	X	2SB709AR	AA
Q1761	VS2SB709AR/-1*	X	2SB709AR	AA
Q1762	VS2SB709AR/-1*	X	2SB709AR	AA
Q1791	VS2SC1959Y/1E+	X	2SC1959Y	AB
Q1861	VS2SB709AR/-1*	X	2SB709AR	AA
Q1881	VS2SD601AR/-1*	X	2SD601AR	AA
Q1882	VS2SD601AR/-1*	X	2SD601AR	AA
Q1883	VS2SD601AR/-1*	X	2SD601AR	AA

DIODES

D1791	RH-EX0604GEZZ*	X	Zener Diode, 4.3V	AB
D1801	VHD1SS119//-1*	X	1SS119	AA
D1821	VHD1SS119//-1*	X	1SS119	AA

CRYSTAL

X1861	RCRSB0283CEZZ	X	Crystal	AD

COILS

L1721	VP-XF680K0000*	X	Peaking, 68µH	AA
L1801	VP-XF100K0000*	X	Peaking, 10µH	AA
L1821	VP-XF100K0000*	X	Peaking, 10µH	AA
L1861	VP-XF100K0000*	X	Peaking, 10µH	AA
L1862	VP-XF100K0000*	X	Peaking, 10µH	AA
L1863	VP-XF100K0000*	X	Peaking, 10µH	AA

CAPCITORS

C1721	VCE9GA1HW106M+	X	10	50V	Electrolytic(N.P)	AB
C1722	VCCCCY1HH330J*	X	33p	50V	Ceramic	AA
C1741	VCQYTA1HM473J+	X	0.047	50V	Mylar	AA
C1742	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C1743	VCQYTA1HM472J+	X	4700p	50V	Mylar	AA
C1761	VCQYTA1HM473J+	X	0.047	50V	Mylar	AA
C1762	VCEA0A1HW105M+	X	1	50V	Electrolytic	AA
C1763	VCQYTA1HM682J+	X	6800p	50V	Mylar	AA
C1781	VCEA0A1CW476M+	X	47	16V	Electrolytic	AA
C1791	VCEA0A1AW107M+	X	100	10V	Electrolytic	AA
C1792	VCEA0A1AW107M+	X	100	10V	Electrolytic	AA
C1801	VCKYCY1CB104K*	X	0.1	16V	Ceramic	AA
C1802	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1803	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1804	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C1805	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C1806	VCKYCY1CB104K*	X	0.1	16V	Ceramic	AA
C1807	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1809	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1810	VCEA0A1CW226M+	X	22	16V	Electrolytic	AA
C1811	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C1812	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C1821	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C1822	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C1841	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C1842	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C1843	VCCCCY1HH680J*	X	68p	50V	Ceramic	AA
C1845	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1846	VCCCCY1HH151J*	X	150p	50V	Ceramic	AA
C1847	VCKYCY1HB103K*	X	0.01	50V	Ceramic	AA
C1848	VCKYCY1CB104K*	X	0.1	16V	Ceramic	AA
C1849	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C1850	VCKYCY1CB104K*	X	0.1	16V	Ceramic	AA
C1851	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C1861	VCKYCY1CB104K*	X	0.1	16V	Ceramic	AA
C1862	VCKYCY1CB104K*	X	0.1	16V	Ceramic	AA
C1863	VCCCCY1HH101J*	X	100p	50V	Ceramic	AA
C1865	VCFYFA1HA154J+	X	0.15	50V	Mylar	AB
C1866	VCQYTA1HM103J+	X	0.01	50V	Mylar	AA
C1867	VCKYCY1CB104K*	X	0.1	16V	Ceramic	AA
C1868	VCFYFA1HA474J+	X	0.47	50V	Mylar0	AB
C1869	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA
C1870	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C1871	VCEA0A1HW106M+	X	10	50V	Electrolytic	AA
C1872	VCKYCY1HF103Z*	X	0.01	50V	Ceramic	AA

RESISTORS

R1721	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R1722	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R1723	VRS-CY1JF822J*	X	8.2k	1/16W	Metal Oxide	AA
R1724	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R1741	VRD-RA2BE102J*	X	1k	1/8W	Carbon	AA
R1742	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description			Code

PWB-R: DUNTKA533WEA3
P-IN-P UNIT(Continued)

R1743	VRS-CY1JF151J*	X	150	1/16W	Metal Oxide	AA
R1744	VRS-CY1JF122J*	X	1.2k	1/16W	Metal Oxide	AA
R1745	VRS-CY1JF474J*	X	470k	1/16W	Metal Oxide	AA
R1746	VRS-CY1JF122J*	X	1.2k	1/16W	Metal Oxide	AA
R1747	VRD-RA2BE822J*	X	8.2k	1/8W	Carbon	AA
R1761	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R1762	VRS-CY1JF151J*	X	150	1/16W	Metal Oxide	AA
R1763	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R1764	VRS-CY1JF122J*	X	1.2k	1/16W	Metal Oxide	AA
R1765	VRS-CY1JF474J*	X	470k	1/16W	Metal Oxide	AA
R1766	VRS-CY1JF122J*	X	1.2k	1/16W	Metal Oxide	AA
R1791	VRD-RA2BE151J*	X	150	1/8W	Carbon	AA
R1801	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R1821	VRS-CY1JF123J*	X	12k	1/16W	Metal Oxide	AA
R1822	VRS-CY1JF103J*	X	10k	1/16W	Metal Oxide	AA
R1823	VRS-CY1JF183J*	X	18k	1/16W	Metal Oxide	AA
R1825	VRS-CY1JF183J*	X	18k	1/16W	Metal Oxide	AA
R1828	VRS-CY1JF153J*	X	15k	1/16W	Metal Oxide	AA
R1831	VRS-CY1JF332J*	X	3.3k	1/16W	Metal Oxide	AA
R1832	VRS-CY1JF682J*	X	6.8k	1/16W	Metal Oxide	AA
R1833	VRS-CY1JF272J*	X	2.7k	1/16W	Metal Oxide	AA
R1834	VRS-CY1JF222J*	X	2.2k	1/16W	Metal Oxide	AA
R1841	VRS-CY1JF153J*	X	15k	1/16W	Metal Oxide	AA
R1842	VRS-CY1JF471J*	X	470	1/16W	Metal Oxide	AA
R1843	VRS-CY1JF391J*	X	390	1/16W	Metal Oxide	AA
R1861	VRS-CY1JF153J*	X	15k	1/16W	Metal Oxide	AA
R1862	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R1863	VRS-CY1JF102J*	X	1k	1/16W	Metal Oxide	AA
R1864	VRS-CY1JF221J*	X	220	1/16W	Metal Oxide	AA
R1865	VRS-CY1JF474J*	X	470k	1/16W	Metal Oxide	AA
R1866	VRS-CY1JF104J*	X	100k	1/16W	Metal Oxide	AA
R1867	VRS-CY1JF202J*	X	2k	1/16W	Metal Oxide	AA
R1868	VRS-CY1JF510J*	X	51	1/16W	Metal Oxide	AA
R1871	VRS-CY1JF000J*	X	0	1/16W	Metal Oxide	AA
R1881	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R1882	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R1883	VRS-CY1JF123J*	X	12k	1/16W	Metal Oxide	AA
R1884	VRS-CY1JF101J*	X	100	1/16W	Metal Oxide	AA
R1885	VRS-CY1JF473J*	X	47k	1/16W	Metal Oxide	AA
R1886	VRS-CY1JF223J*	X	22k	1/16W	Metal Oxide	AA
R1887	VRS-CY1JF123J*	X	12k	1/16W	Metal Oxide	AA
R1889	VRD-RA2BE101J*	X	100	1/8W	Carbon	AA

MISCELLANEOUS PARTS

P1701	QPLGZ0810CEZZ	X	Plug, 8Pin	AB
P1702	QPLGZ0610CEZZ	X	Plug, 6Pin	AB
P1703	QPLGZ0810CEZZ	X	Plug, 8Pin	AB
SLD1801	PSLDM0012MEFW	X	Shield	AB

Ref. No.	Part No.	★	Description	Code

MISCELLANEOUS PARTS

SP1	VSP9050PB35WA	X	Speaker (L)	AE
SP2	VSP9050PB35WA	X	Speaker (R)	AE
	QCNW-0134MEZZ	X	Connecting Cord	AB
	QCNW-0239MEZZ	X	Connecting Cord	AG
	QCNW-B017WJZZ	X	Connecting Cord	AC
	QCNW-B018WJZZ	X	Connecting Cord	AB

SUPPLIED ACCESSORIES

RRMCGA036WJSB	X	Infrared R-C Unit	AR
TiNS-A434WJZZ	X	Operation Manual (Including Warranty)	AE
TCAUH3045GJZZ	X	Caution Card	AB
TGAN-0001GJZZ	X	Regist Card	AB

PACKING PARTS
(NOT REPLACEMENT ITEM)

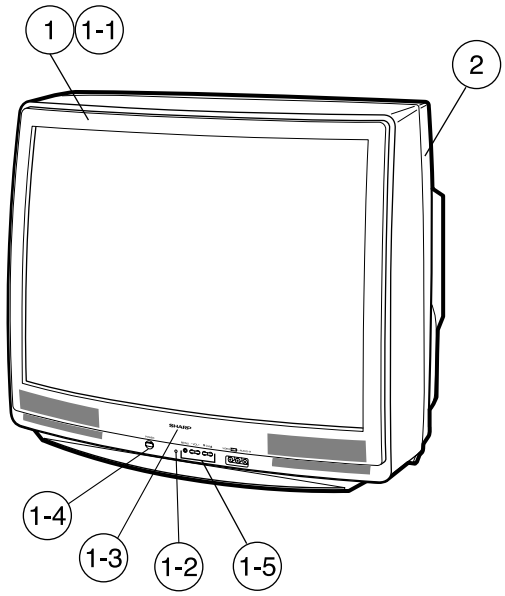
SPAKCA436WJZZ	–	Packing Case	—
SPAKP0109GJZZ	–	Wrapping Paper	—
SPAKX0134GJZZ	–	Packing Add.	—
SSAKA0101GJZZ	–	Polyethylene Bag	—

Ref. No.	Part No.	★	Description	Code

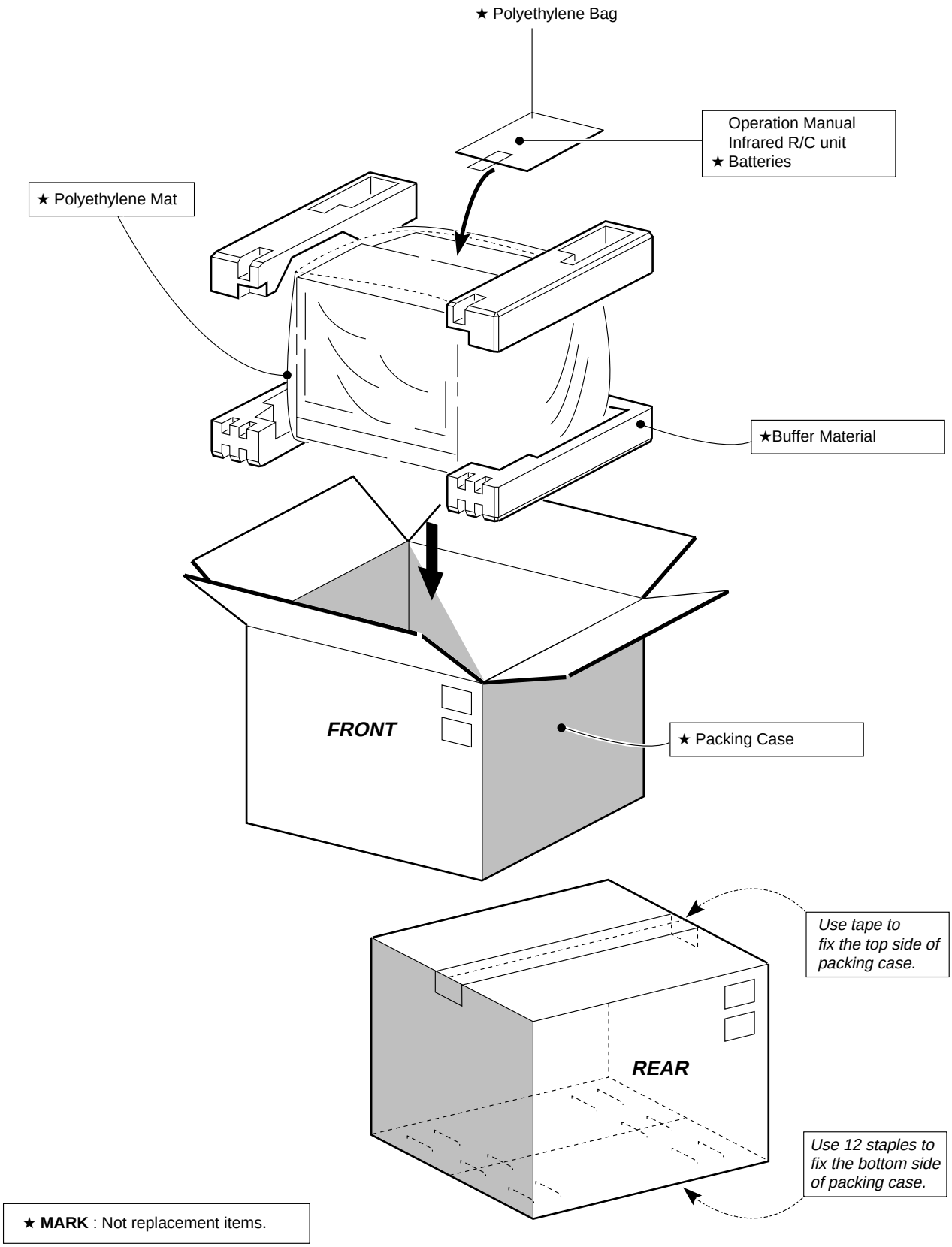
CABINET PARTS

1	CCABAA267WEH0	X	Front Cabinet Ass'y	BC
1-1	*Not Available*	–	Front Cabinet	—
1-2	GCOVA0121GJSA	X	RC/LED Cover	AC
1-3	HBDGB1009MESB	X	"SHARP" Badge	AC
1-4	JBTN-0138GJKA	X	Button, Power	AC
1-5	JBTN-0139GJSA	X	Button, Menu, CH-Up/Down, VOL-Up/Down	AE
2	GCABB0154GJKA	X	Rear Cabinet	AY

CABINET PARTS LOCATION



PACKING OF THE SET



★ **MARK** : Not replacement items.

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