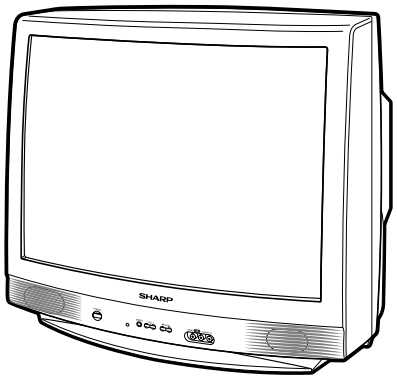
SHARP SERVICE MANUAL

S12F529MU70/



COLOR TELEVISION

Chassis No. C/D-BM

MODEL 29MU70

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 ..... 120 V AC 60 Hz
POWER RATING ..... 105 W
PICTURE SIZE ..... 2,187cm^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 ..... 1.5W + 1.5W (at 10% distortion and Dual CH Operate)
SPEAKER
  SIZE ..... 9x5cm (Oval)
  VOICE COIL IMPEDANCE ..... 32 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

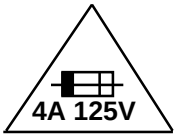
This document has been published to be used for after sales service only.
The contents are subject to change without notice.

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 and the horizontal output 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)

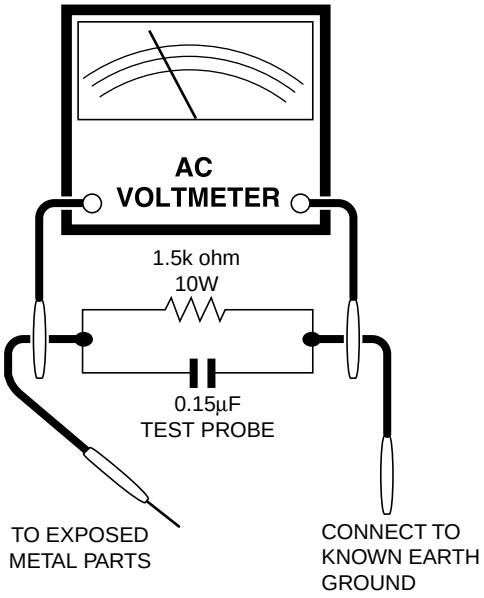
BEFORE RETURNING THE RECEIVER

(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 and 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 and 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.



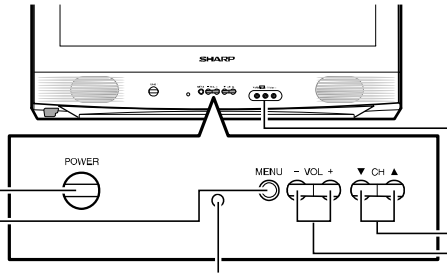
SAFETY NOTICE

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.

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

SENSOR AREA FOR REMOTE CONTROL

VIDEO IN 2 L-AUDIO-R
(VIDEO/AUDIO terminals are also provided on the rear.)

CHANNEL UP/DOWN – MENU
(▲) Selects next higher channel.
(▼) Selects next lower channel.
• Press both at the same time to access the MAIN MENU screen.

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

Basic Remote Control Functions

POWER
Press → On.
Press again → Off.

REMOTE KEYPAD
Accesses any channel from keypad.

FLASHBACK
Returns to previous channel.

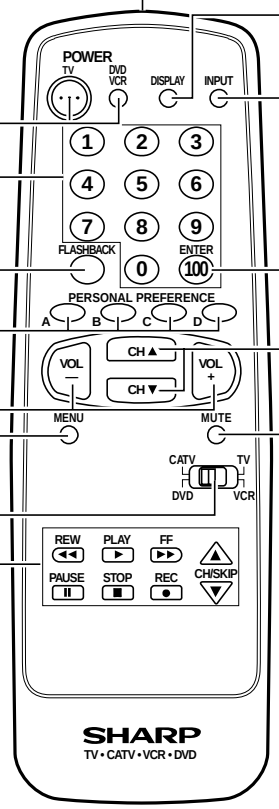
PERSONAL PREFERENCE
With the Personal Preference buttons, you can program your favorite programs by using the 4 categories A, B, C and D. The channels can be accessed quickly by using these buttons.

VOLUME UP/DOWN
(+) Increases sound.
(–) Decreases sound.
• In menu mode, changes or selects the TV adjustments.

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

CATV/DVD-TV/VCR MODE SELECT SWITCH
In TV/VCR position, sends power and channel select commands (Channel up/down and Random Access buttons) to the TV and VCR control.
In CATV/DVD position, sends power and channel select commands to a cable TV converter and DVD control.

DVD/VCR CONTROL



Infrared Transmitter Window

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

INPUT
Press → Switch to external video INPUT 1 mode.
Press 2 times → Switch to external video INPUT 2 mode.
Press 3 times → Switch to external COMPONENT mode.
Press 4 times → Switch 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 of the MENU screens.

MUTE
Press → Mutes sound.
Press again → Restores sound.
• CLOSED CAPTION appears when sound is muted.

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 TP653 and make sure that the voltmeter reads 21.9 ±1.4V.
5. Apply external 27.9V DC at TP653 by using an external DC supply, TV must be shut off.
6. To reset the protector, unplug the AC cord and make a short circuit between TP651 and TP652. 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 "S03" and Bus data "01" (Y-mute on).
4. The voltage should be approximately, 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 adjusment is required.

To enter the service mode and exit service mode.

While pressing the Vol-up and Ch-up buttons at the sametime, 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.

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 control are in their proper (reset) position.

2. Service number selection.

In the service mode, you will see the window screen as window ①. There are 4 adjustment categories ②DEF, ③SIGNAL, ④FEATURE, ⑤FIX VALUE as show in **Figure A**.

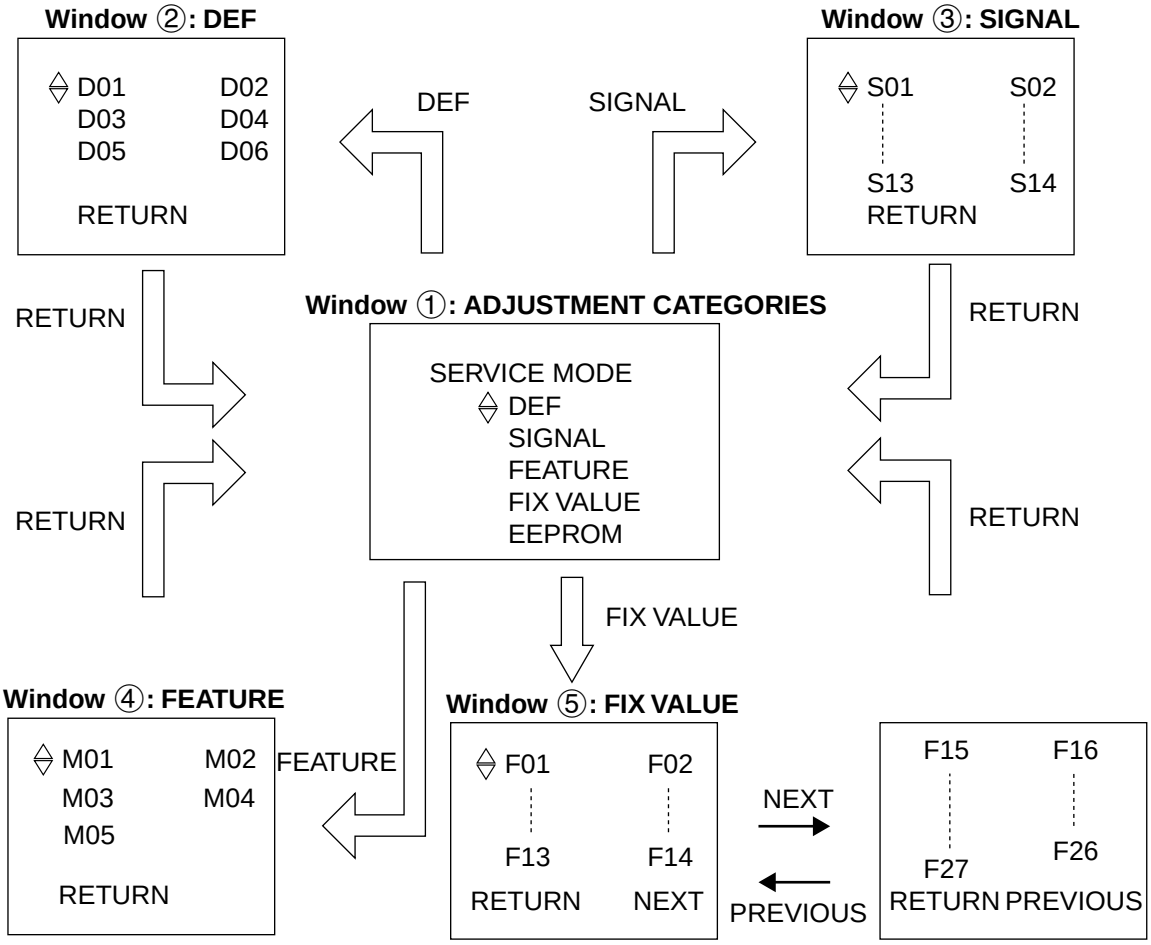


Figure A: ADJUSTMENT CATEGORIES

Press CH UP/DOWN button for selection and enter by VOL UP or VOL DOWN.
Press CH UP/DOWN button to select the adjustment item and VOL UP/DOWN to adjust the data number for each categories.
(OSD disturbance can be erased by R/C display key)
(Note: EEPROM - factory used only)

Below are the adjustments ranges and initial values for FIX VALUE category.

FIX VALUE

SERVICE POSITION	ADJUST ITEM	DATA		
		RANGE	INITIAL VALUE	(Hex)
F01	OPTION 1	00-FF	B1	B1
F02	OPTION 2	00-FF	07	27
F03	E-SAVE	00-3F	2A	2A
F04	TUNER SETUP	00, 01	00	00
F05	R-TONE RD	00-7F	03	03
F06	R-TONE BD	00-7F	7C	7C
F07	B-TONE RD	00-7F	00	00
F08	B-TONE BD	00-7F	04	04
F09	FM LEVEL	00-1F	16	16
F10	AFC GAIN	00, 01	00	00
F11	G DRIVE	00, 0F	0F	0F
F12	FBT BLK SW	00, 01	01	01
F13	V COMP	00-07	07	07
F14	OSD CONT	00-03	01	01
F15	SHARPNESS	00-3F	0D	*1
F16	FLT SYS	00-07	01	01
F17	KILLER OP	00-07	02	02
F18	PRE SHOOT	00-03	00	00
F19	CORING	00-03	04	04
F20	DC REST	00-03	02	02
F21	BS START	00-03	01	01
F22	BS GAIN	00-03	01	01
F23	ABL START	00-07	00	00
F24	R/B ANGLE	00-0F	08	08
F25	H BLK R	00-0F	03	03
F26	H BLK L	00-0F	00	00
F27	YC	00-07	05	04

*1: type of tuner

TUNER TYPE	CRT	
	A68QDN891X	A68ADT2506
VTUVTST5UF740	13	15

Table - A

Below are the ranges and initial values for each adjustment and in each categories.

DEF

SERVICE POSITION	ADJUST ITEM	DATA		ADJUSTMENT CONTENTS
		RANGE	INITIAL VALUE	
D01	H-PHASE	00-1F	0C	
D02	V-SIZE	00-7F	40	
D03	V-POSITION	00-3F	20	Must be "20"
D04	CC-POSITION	00-FF	1A	
D05	V-LINEARITY	00-1F	10	Must be "13"
D06	V-S-CORRECTION	00-1F	10	Must be "14"

Table - B

SIGNAL

SERVICE POSITION	ADJUST ITEM	DATA		ADJUSTMENT CONTENTS
		RANGE	INITIAL VALUE	
S01	RF AGC	00-3F	14	
S02	VIDEO LEVEL	00-07	03	Must be "4"
S03	Y-MUTE	00-03	00	"01": Y-MUTE, "02": V-STOP & Y-MUTE "03": Activate color killer circuit.
S04	SUB BIAS	00-FF	30	Must be "30"
S05	R-BIAS	00-FF	00	
S06	G-BIAS	00-FF	00	
S07	B-BIAS	00-7F	00	
S08	R-DRIVE	00-7F	53	
S09	B-DRIVE	00-7F	53	
S10	CONTRAST	00-7F	5A	
S11	TINT	00-7F	40	
S12	COLOR	00-7F	40	
S13	BRIGHTNESS	00-7F	40	
S14	BRIGHTNESS 2	00-7F	40	

Note: Refer to the SERVICE ADJUSTMENT for each corresponding values.

Table - C

FEATURE

SERVICE POSITION	ADJUST ITEM	DATA		ADJUSTMENT CONTENTS
		RANGE	INITIAL VALUE	
M01	MS LEVEL	00-0F	0A	
M02	MTS-VCO	00-3F	20	
M03	FILTER	00-3F	1C	
M04	LOW SEPARATION	00-3F	20	
M05	HIGH SEPARATION	00-3F	1B	

Note: Refer to the SERVICE ADJUSTMENT for each corresponding values.

Table - D

Holding down both the Vol-up/Ch-down buttons on the TV set at service mode for more than 2 seconds will automatically write the above initial values into IC2102.

PART REPLACED	ADJUSTMENT		NOTES
	NECESSARY	UNNECESSARY	
IC2001		X	Data is stored in IC2102.
IC201	X		The adjustment is needed to compensate for characteristics of parts including IC201.
IC2102	X		Holding down both the Vol-up/Ch-down buttons on the TV set in the service mode for more than 2 seconds will automatically write the above initial values into IC2102.
IC3001	X		Adjust items related MTS only.
CRT	X		Adjust items related to picture tube only.

Table - E

■ SERVICE ADJUSTMENT

Note: Before making the service adjustment, make the bus data settings.

+B Adjustment

(1) For the chassis with the +B adjustment control

1. Receive a good local channel.
2. Select VIDEO ADJUSTMENT RESET on the menu to get the video reset.
3. Connect a DC voltmeter between the +B line (at SW transformer) of R611 and the ground terminal.
4. Adjust R738 so that the voltmeter should read 128.5+0.5V/-0.25V.

(2) For the chassis without the +B adjustment control

1. Receive a good local channel.
2. Select VIDEO ADJUSTMENT RESET on the menu to get the video reset.
3. Connect a DC voltmeter between the +B line (at SW transformer) of R611 and the ground terminal.
4. Make sure that the voltmeter reads 128.5±1.5V.

Video Level (TV Det Video Level) Adjustment

1. Receive a good local channel.
2. Enter the service mode signal category and select the service adjustment "S02".
3. Set the data value to "02" first, then adjust the data to "04". (If out of spec, readjust the data in the range of "00" to "07" to obtain a normal contrast level.)

RF AGC Adjustment

1. Receive a good local channel.
2. Enter the service mode signal category and select the service adjustment "S01".
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: You have to exit the service mode first to select another channel.

Screen Adjustment

1. Connect to oscilloscope probe between TP854 and ground of the CRT unit.
2. Receive a good local channel.
3. Enter the service mode Signal category and set the service adjustment "S04" to step 30. Then select the service adjustment "S12" and set the data value to "00" to set the color level to the minimum level. (record the original data first). You may skip this step, if you selected a B/W picture or monoscope pattern. Set also the "S05/S06/S07" data to minimum level ("00").

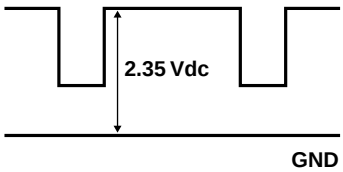


Figure B: WAVEFORM FOR SCREEN ADJUSTMENT

4. Select the service adjustment "S03" and set the data value to "01" to turn off the luminance signal (Y-mute).
5. Select the service adjustment "S14" and adjust the data value to obtain 2.35 volts as shown in **Figure B**.
6. Adjust the master screen control until the raster darkens to the point where raster is barely seen.
7. Adjust the service adjustment "S05" red, "S06" green, "S07" blue to obtain a good grey scale with normal white at low brightness level.
8. Select the service a adjustment "S03" and reset data to "00". Select the service adjustment "S12" and reset data to obtain normal color level.
9. Remove probe and reset the master screen control to obtain normal brightness range.

White Balance Adjustment

1. Receive a good local channel.
2. Select the service adjustment "S12" and set the data value to "00" to set the color level to the minimun. You may skip this step, if you selected a B/W picture or monoscope.
3. Alternately adjust the service adjustment data of "S08" and "S09" until a good grey scale with normal white is obtained.
4. Select the service adjustment "S12" and reset data to obtain normal color level.

Sub-Picture Adjustment

1. Receive a good local channel.
2. Make sure the customer picture control is set to maximum.
3. Enter the service mode and select the service adjustment "S10".
4. Adjust the data value to achieve normal contrast range.

Sub-Tint Adjustment

1. Receive a good local channel.
2. Set the customer tint control to the center of it's range.
3. Enter the service mode and select the service adjustment "S11".
4. Adjust "S11" data value to obtain normal fresh tones.

Sub-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 "S12".
4. Adjust "S12" data value to obtain normal color level.

Sub-Brightness Adjustment

1. Receive a good local channel.
2. Make sure the customer brightness control is set to center position.
3. Enter the service mode and select the service adjustment "S13".
4. Adjust "S13" data value to obtain normal brightness level.

Vertical-Size, V-Linearity and V-S Correction Adjustments

1. Receive a good local channel.
2. Enter the service mode DEF category and select the adjustment "D02" for Vertical Size, "D05" for V-Linearity and "D06" for V-S Correction Adjustment.
3. Set in order "D05" for V-Linearity, "D06" for V-S Correction and set the data to get the best linearity.
4. Then adjust "D02" data until it become a proper vertical size.

Horizontal Position Adjustment

1. Receive a good local channel.
2. Enter the service mode DEF category and select the adjustment "D01".
3. Adjust "D01" data value to center the picture.

Vertical-Phase Adjustment

1. Receive a good local channel.
2. Enter the service mode DEF category and select the adjustment "D03".
3. Adjust "D03" bus data to get the most acceptable vertical position.
   Note: The step range is 20 (32)+12 (3 steps)/ -20 (5 steps). (Push once move 4 steps.)

Caption Position Adjustment (Horizontal)

1. Receive a good local channel.
2. Enter the service mode DEF category and select the adjustment "D04".
3. A black text box will appear on the screen. (see **Figure C**. below)
4. Adjust "D04" data value to balance the text box position in the center. (A=B).

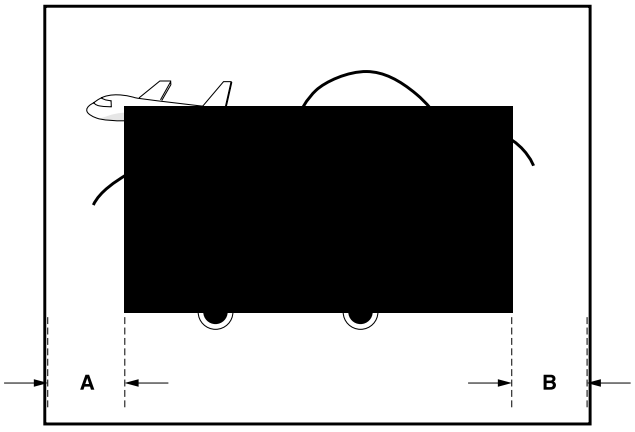


Figure C.

■ MTS ADJUSTMENT

MTS Level Adjustment

1. Feed the following monaural signal to pin (14) of IC3001.
   Monaural signal: 300Hz, 245mVrms
2. Connect the rms voltmeter to pin (39) of IC3001.
3. Enter the service mode and select the service adjustment "M01".
4. Adjust the data so that the rms voltmeter reads 490 ±10mVrms.

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.

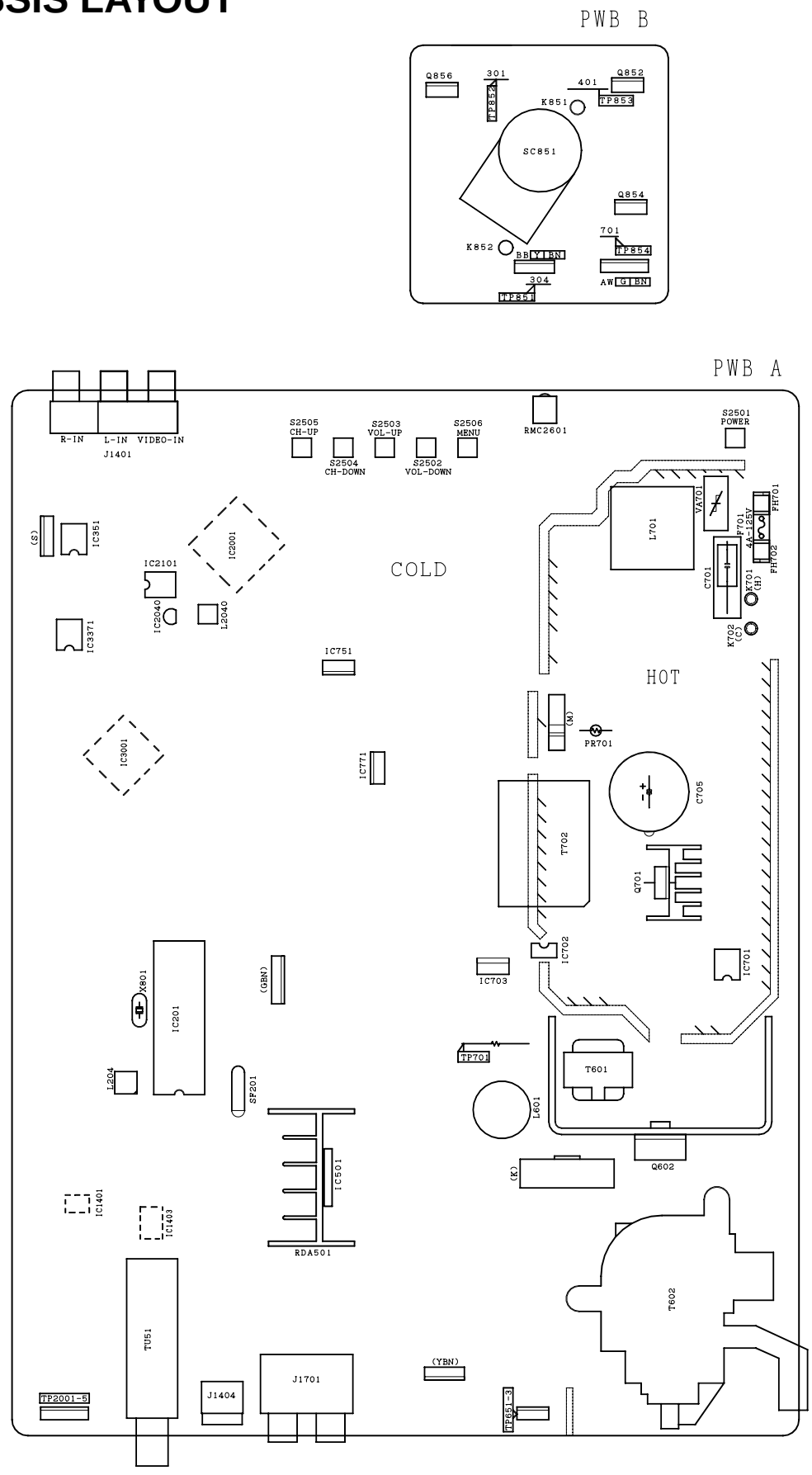
Filter Adjustment

1. Feed the following stereo pilot signal to pin (14) of IC3001 .
   Stereo pilot signal: 9.4kHz, 600mVrms.
2. Enter the service mode and select the service adjustment "M03".
3. Adjust the data at the point where "OK" appears on the screen. The "OK" represents the approximate center of the adjustable range of the data.

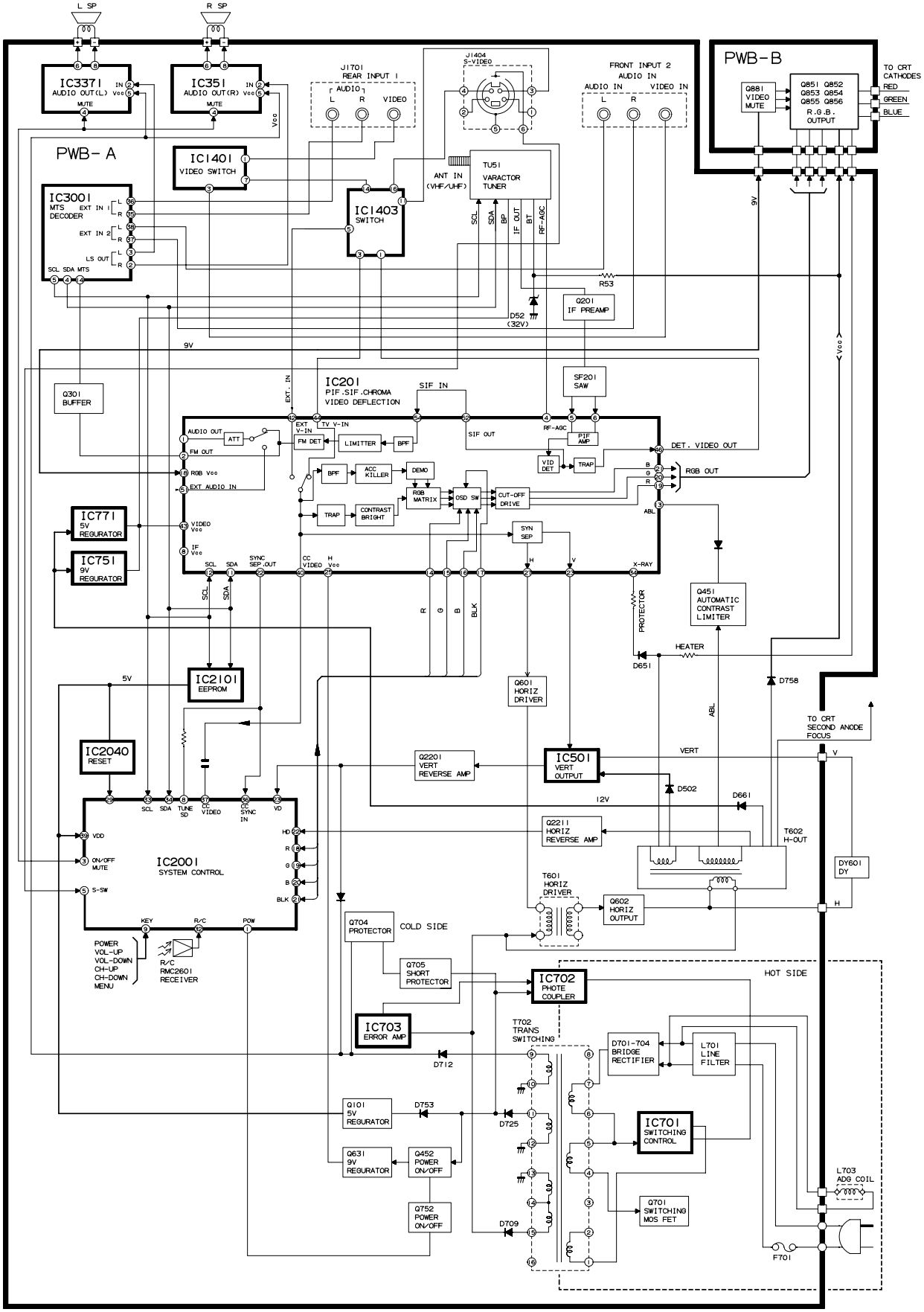
Separation Adjustment

1. Connect the rms voltmeter to pin (39) of IC3001.
2. Receive the following composite stereo signal 1.
   Composite stereo signal: 30% modulation, left channel only, noise reduction on, 300Hz
3. Enter the service mode and select the service adjustment "M04".
4. Adjust the data until the AC voltage reading of the rms voltmeter is minimum.
5. Receive the following composite stereo signal 2.
   Stereo signal: 30% modulation, left channel only, noise reduction on, 3kHz
6. Enter the service mode and select the service adjustment "M05".
7. Adjust the data until the AC voltage reading of the rms voltmeter is minimum.
8. Take the above steps 1 thru 7 again for fine adjustment.

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.*

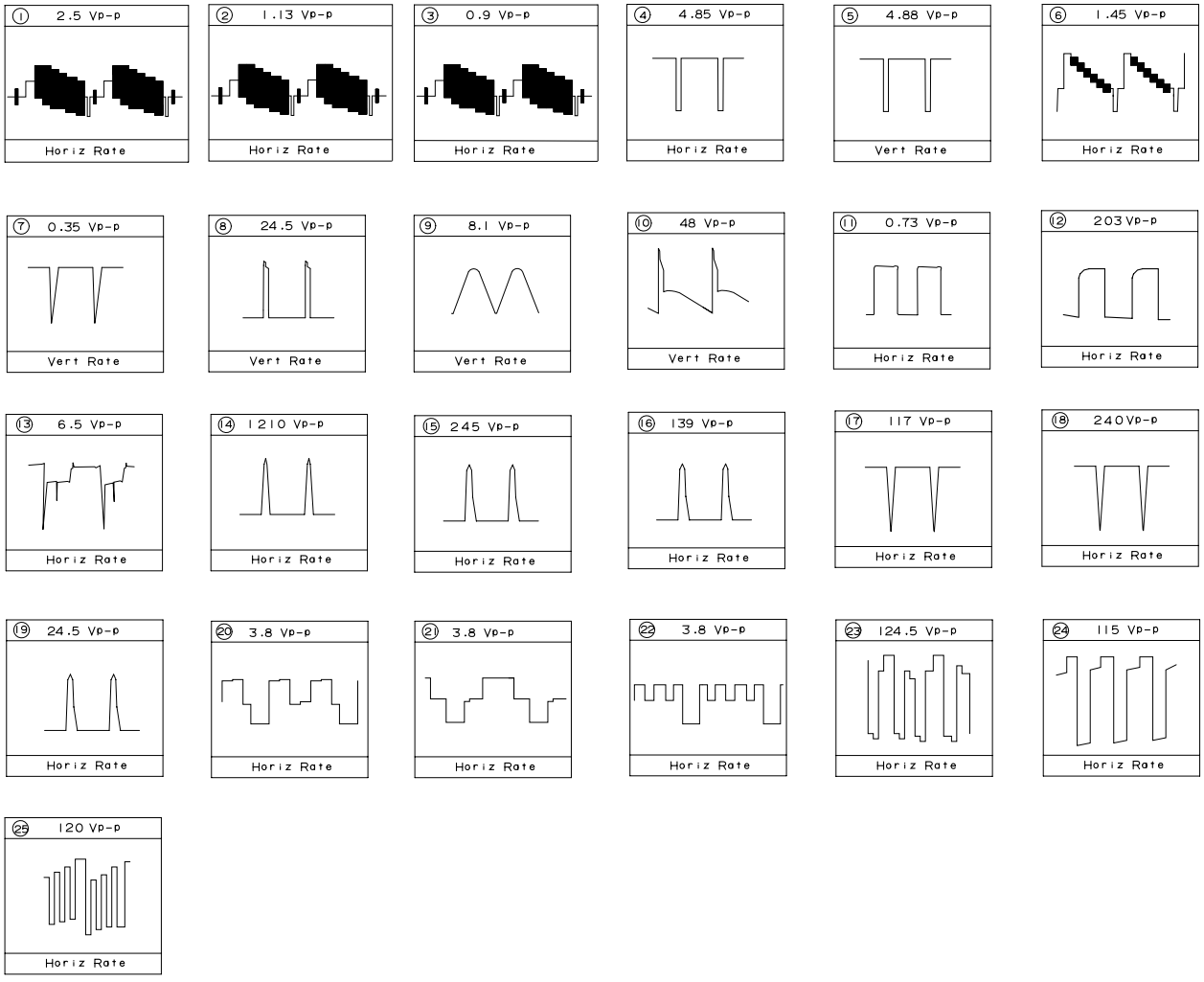
WAVEFORM MEASUREMENT CONDITIONS:

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.)*

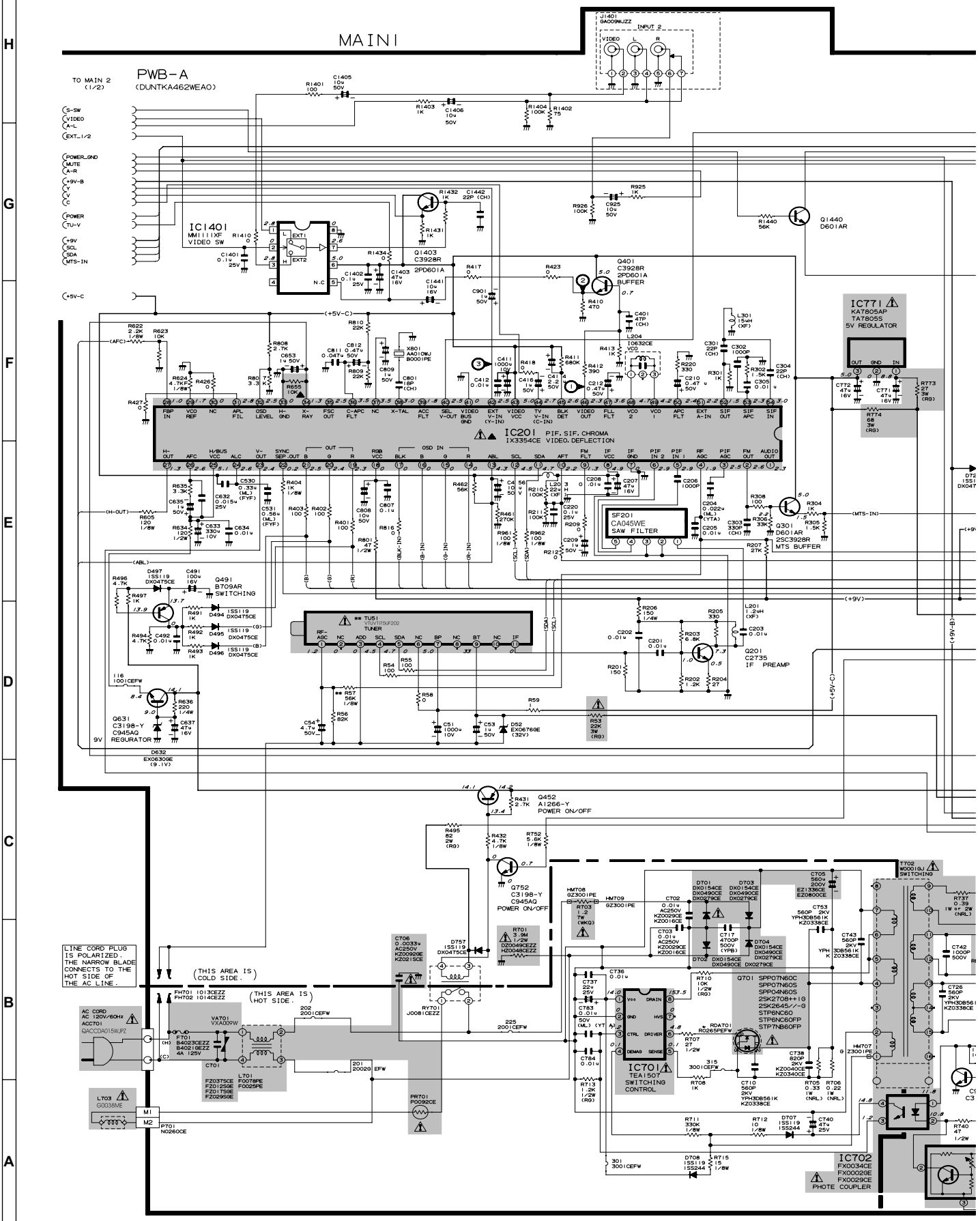
⚠ *AND SHADED ( ) COMPONENTS = SAFETY RELATED PARTS.*
▲ *MARK= X-RAY RELATED PARTS.*

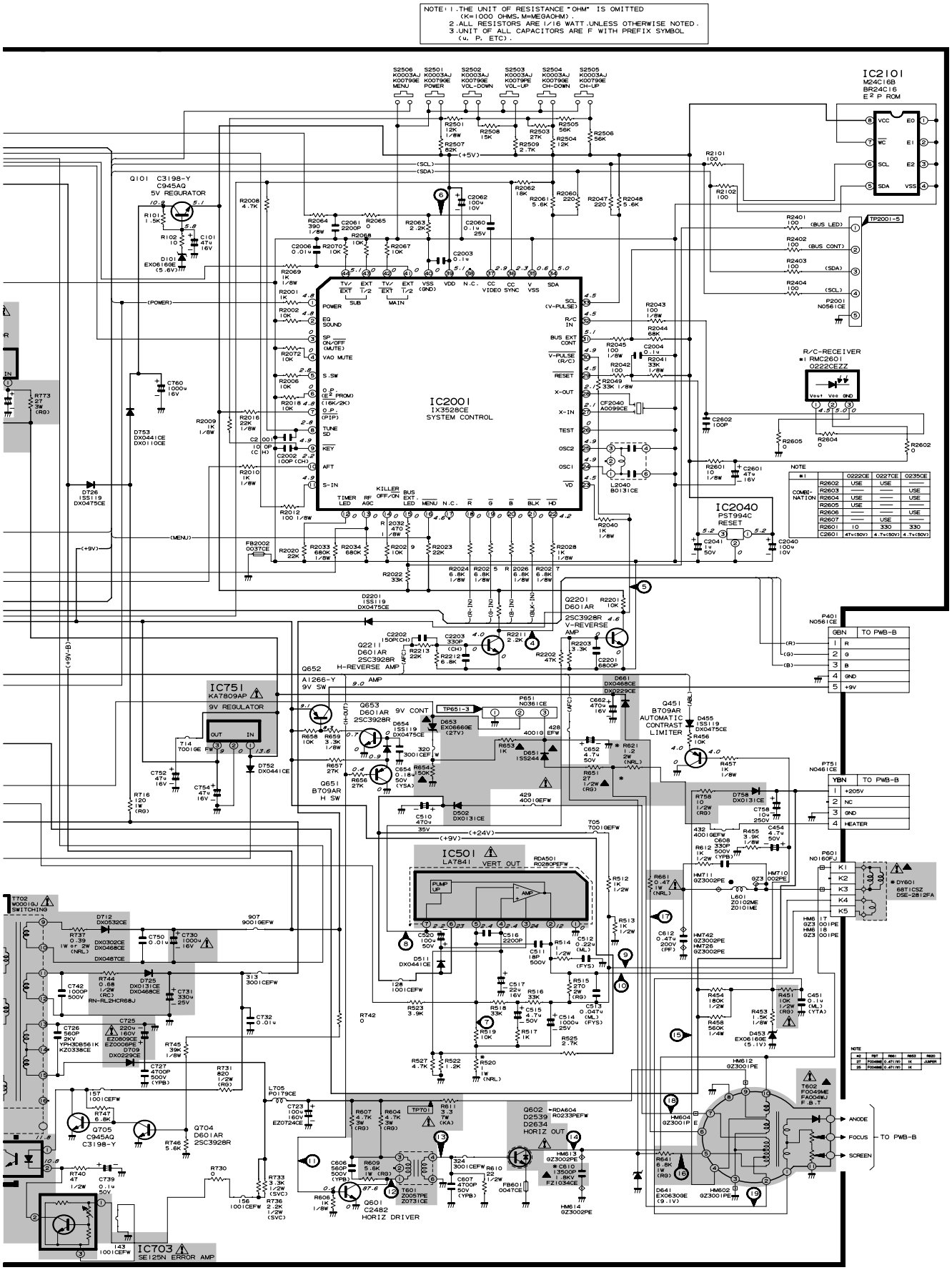
This circuit diagram is a standard one, printed circuits may be subject to change for product improvement without prior notice.

WAVEFORMS



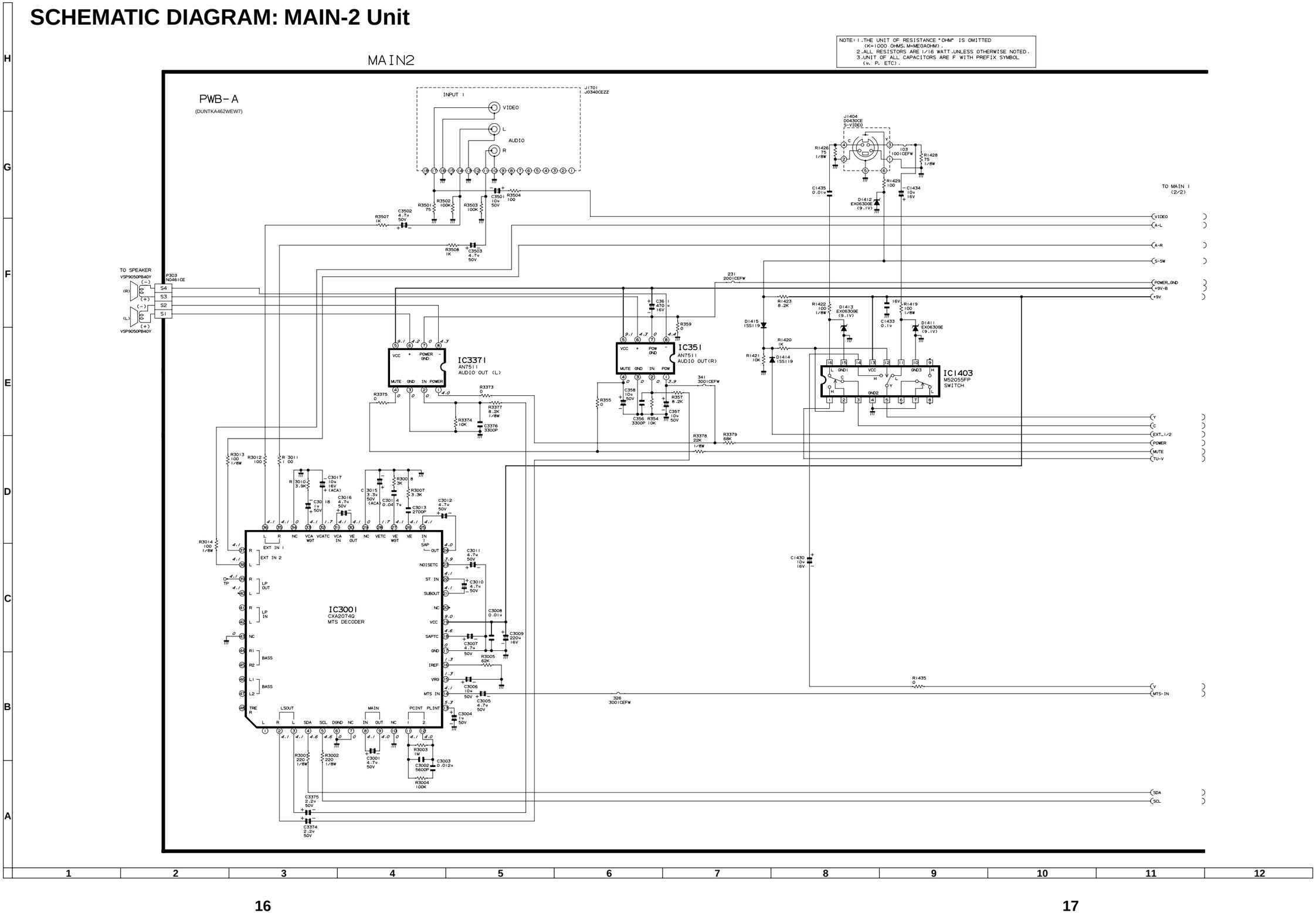
SCHEMATIC DIAGRAM: MAIN-1 Unit





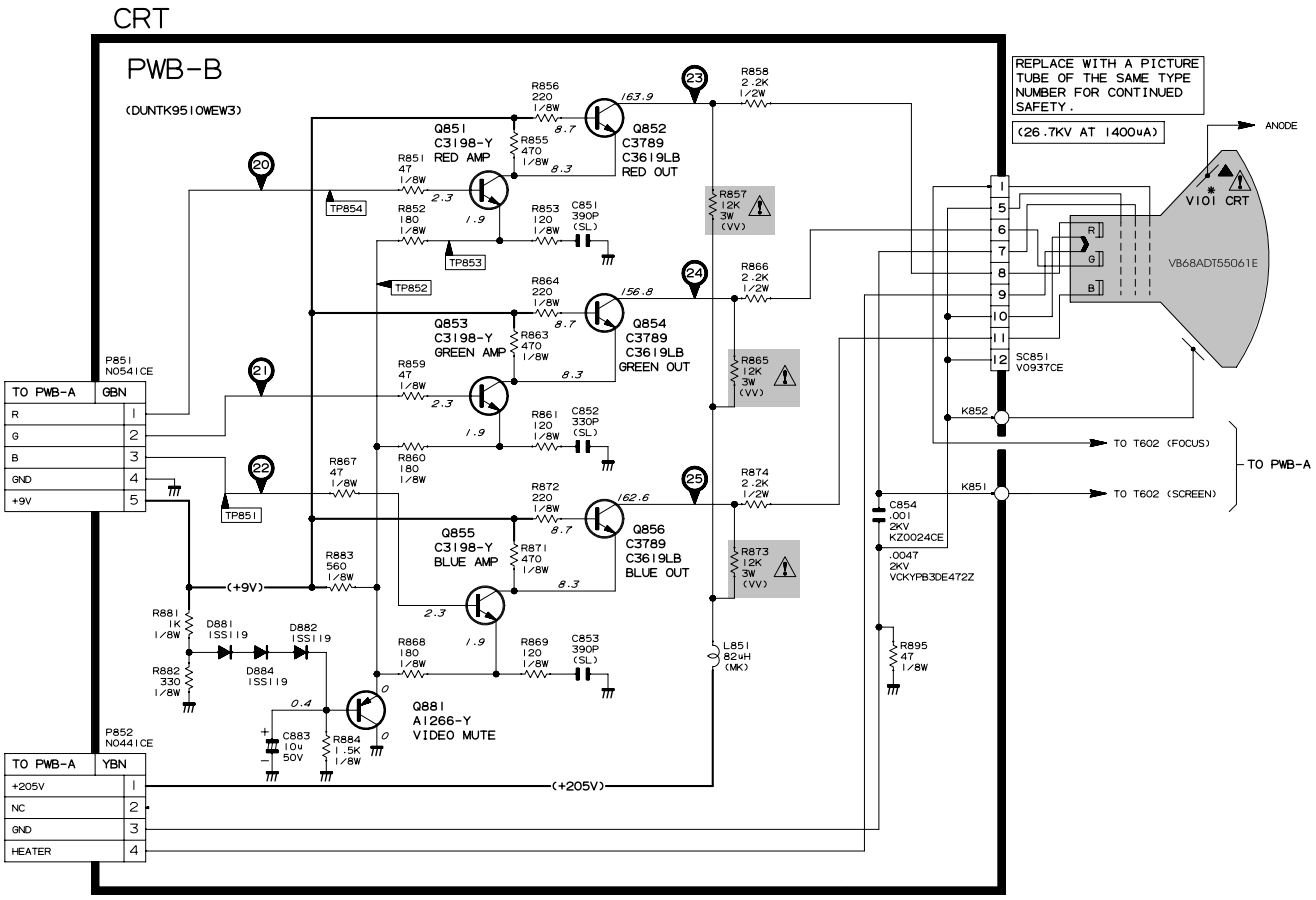
10	11	12	13	14	15	16	17	18	19

SCHEMATIC DIAGRAM: MAIN-2 Unit

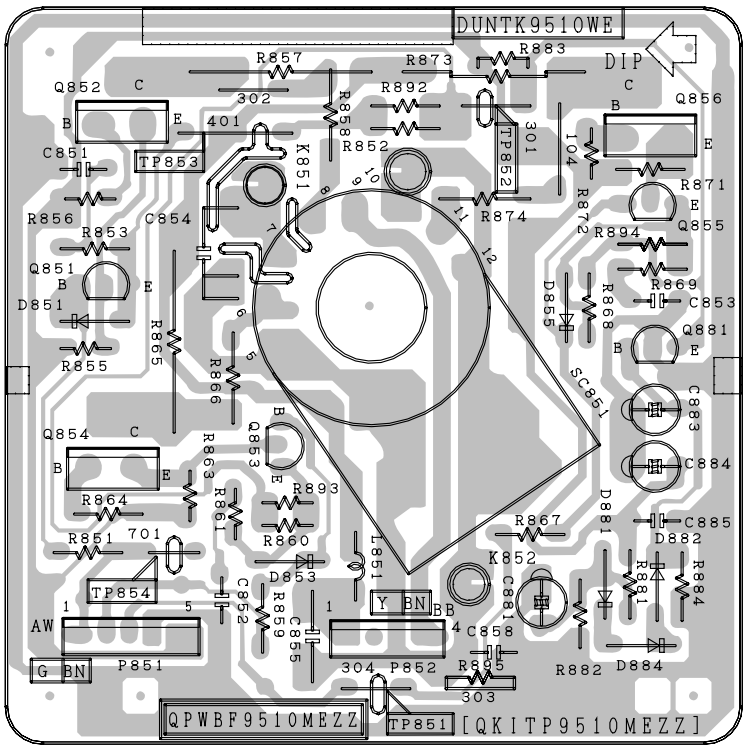


1	2	3	4	5	6	7	8	9	10	11	12

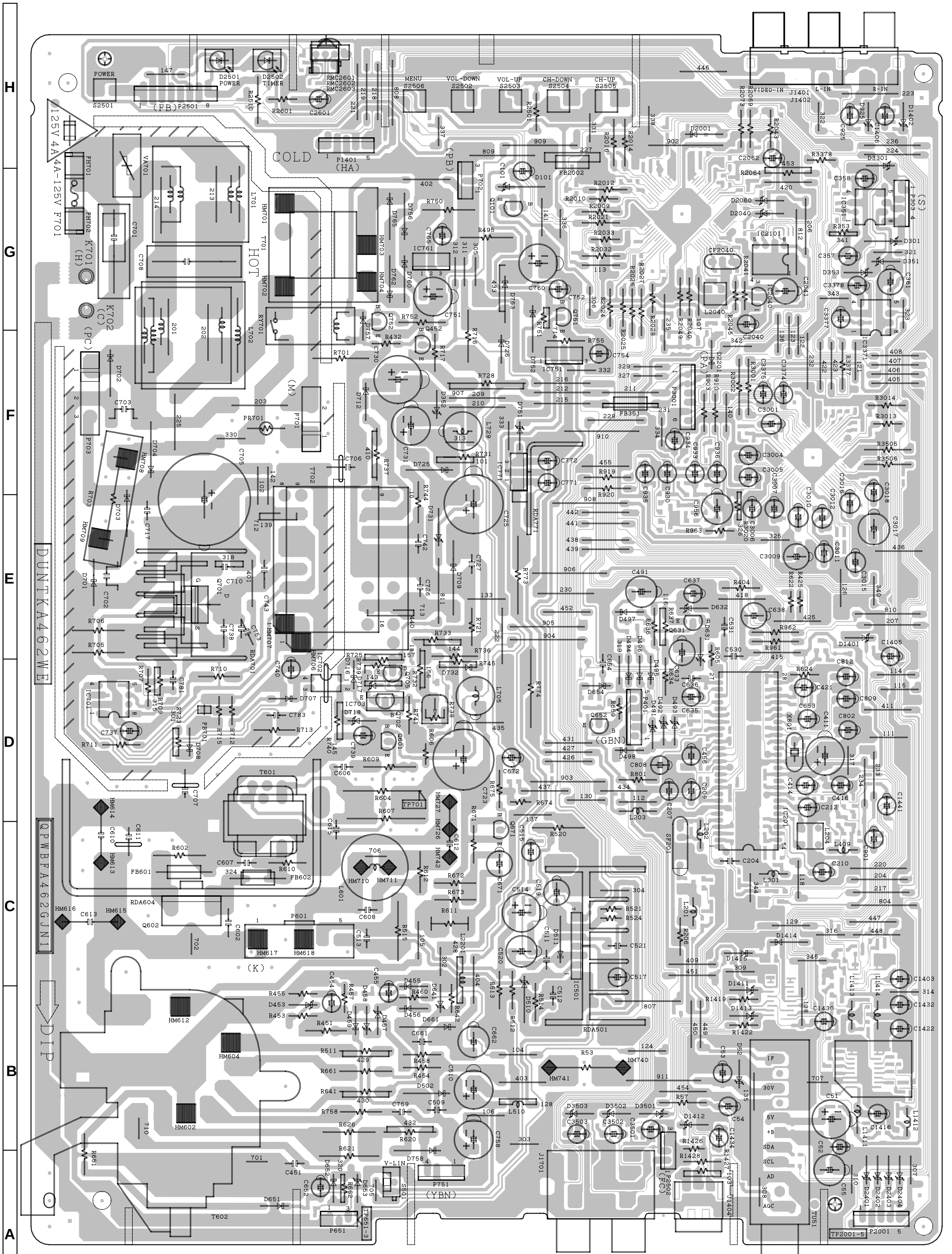
SCHEMATIC DIAGRAM: CRT Unit



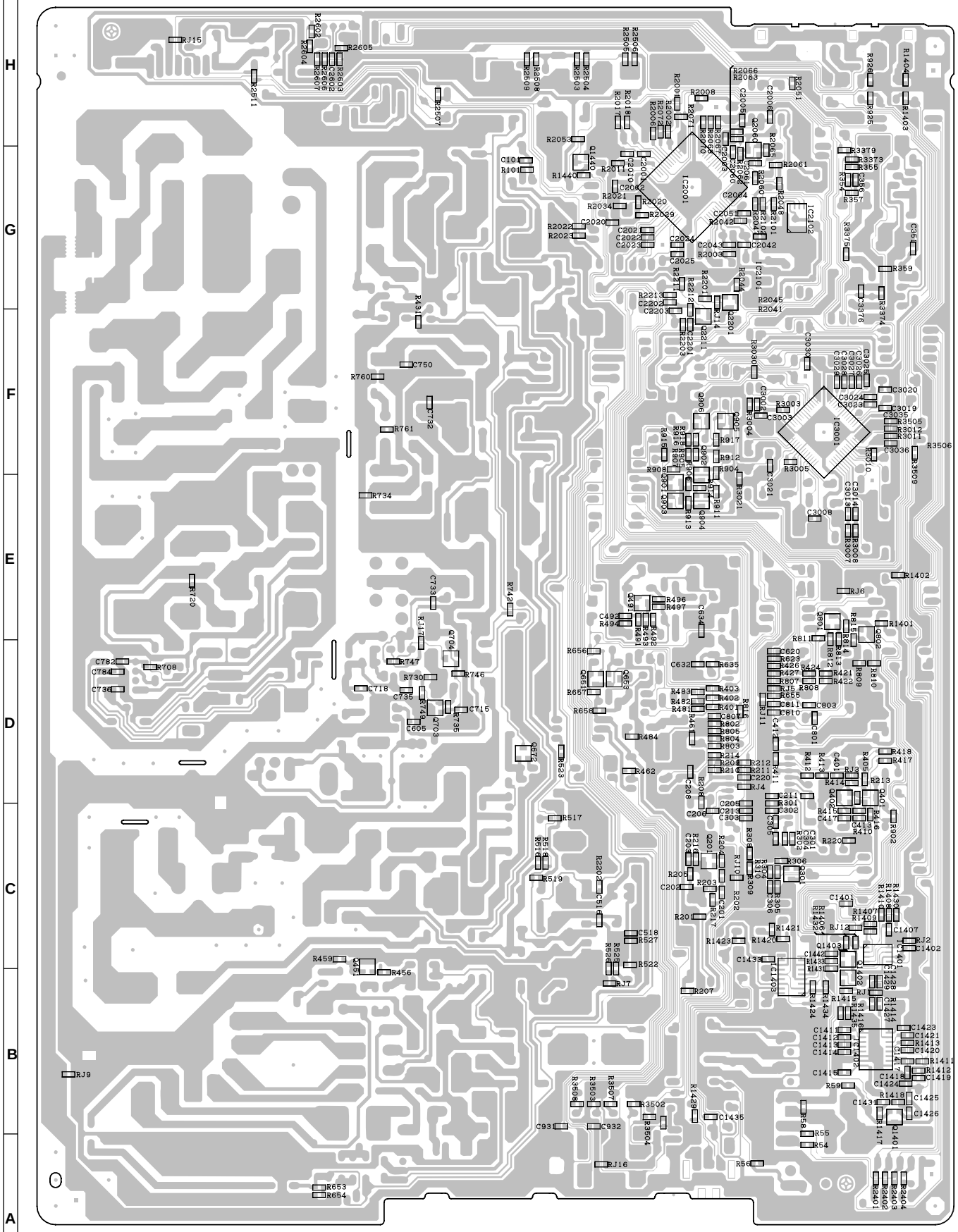
PRINTED WIRING BOARD ASSEMBLIES



PWB-B: CRT Unit (Wiring Side)



PWB-A: MAIN Unit (Wiring Side)



PWB-A: MAIN 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 dose 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

p **MARK: X-RAY RELATED PARTS**

	Ref. No.	Part No.	★	Description	Code
▲ ⚠	V101	VB68ADT55061E	X	Picture Tube	CD
⚠	L703	RCILG0038MEZZ	X	Degaussing Coil	AN
		QEARC2702MEZZ	X	Grounding Strap	AE

PICTURE TUBE

PRINTED WIRING BOARD ASSEMBLIES

(NOT REPLACEMENT ITEM)

PWB-A	DUNTKA462WEX5	X	MAIN Unit	—
PWB-B	DUNTK9510WEV1	X	CRT Unit	—

	Ref. No.	Part No.	★	Description	Code

PWB-A: DUNTKA462WEX5

MAIN UNIT

TUNER

NOTE:THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDETLY

⚠	TU51	VTUVT1T5UF202	X	Tuner	AS

INTEGRATED CIRCUITS

⚠	IC201	RH-IX3354CEN1	X	IX3354CE	AP
	IC351	VHIAN7511//-1	X	AN7511	AE
⚠	IC501	VHILA7841//-1	X	LA7841	AK
⚠	IC701	VHITEA1507/-1	X	TEA1507	AG
⚠	IC702	RH-FX0034CEZZ	X	FX0034CE	AC
⚠	IC703	VHISE125N++-F	X	SE125N	AF
⚠	IC751	VHIKA7809AP-1	X	KA7809AP	AD
⚠	IC771	VHIKA7805AP-1	X	KA7805AP	AD
	IC1401	VHIMM1111XF1EY	X	MM1111XFBE	AE
	IC1403	VHIM52055FP-1Y	X	M52055FP	AF
	IC2001	RH-IX3528CEZZQ	X	IX3528CE	AR
	IC2040	VHIPST994C/-1+	X	PST994C	AD
	IC2102	VHIBR24L16F-1Y	X	BR24L16F	AE
	IC3001	VHICXA2194Q-1Y	X	CXA2194Q	AS
	IC3371	VHIAN7511//-1	X	AN7511	AE

TRANSISTORS

	Q101	VS2SC3198-G-1+	X	2SC3198-G	AA
	Q201	VS2SC2735//1EY	X	2SC2735	AB
	Q301	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q401	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q451	VS2SB709AR/-1Y	X	2SB709AR	AB
	Q452	VS2SA1266-Y-1+	X	2SA1266(Y)	AA
	Q491	VS2SB709AR/-1Y	X	2SB709AR	AB
	Q601	VS2SC2482//-1+	X	2SC2482	AC
	Q602	VS2SD2539//1E	X	2SD2539	AH
	Q631	VS2SC3198-G-1+	X	2SC3198-G	AA
	Q651	VS2SB709AR/-1Y	X	2SB709AR	AB
	Q652	VS2SA1266-Y-1+	X	2SA1266(Y)	AA
	Q653	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q701	VSSPA07N603-1	X	SPA07N60C3	AK
	Q704	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q705	VS2SC3198-G-1+	X	2SC3198-G	AA
	Q752	VS2SC3198-G-1+	X	2SC3198-G	AA
	Q1403	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q1440	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q2201	VS2SD601AR/-1Y	X	2SD601AR	AB
	Q2211	VS2SD601AR/-1Y	X	2SD601AR	AB

DIODES

	D52	RH-EX0676GEZZY	X	Zener Diode 32V	AB
	D101	RH-EX0616GEZZY	X	Zener Diode 5.6V	AB
	D453	RH-EX0616GEZZY	X	Zener Diode 5.6V	AB
	D455	VHD1SS119//-1Y	X	Diode	AA
	D494	VHD1SS119//-1Y	X	Diode	AA
	D495	VHD1SS119//-1Y	X	Diode	AA
	D496	VHD1SS119//-1Y	X	Diode	AA
	D497	VHD1SS119//-1Y	X	Diode	AA
⚠	D502	RH-DX0131CEZZY	X	Diode	AB
	D511	RH-DX0441CEZZY	X	Diode	AA
	D632	RH-EX0630GEZZY	X	Zener Diode 9.1V	AB
	D641	RH-EX0630GEZZY	X	Zener Diode 9.1V	AB
▲ ⚠	D651	VHD1SS244//-1Y	X	Diode	AB
▲ ⚠	D653	RH-EX0666GEZZY	X	Zener Diode, 27V	AB
	D654	VHD1SS119//-1Y	X	Diode	AA
⚠	D661	RH-DX0468CEZZ	X	Diode	AD
⚠	D701	RH-DX0154CEZZY	X	Diode	AC
⚠	D702	RH-DX0154CEZZY	X	Diode	AC
⚠	D703	RH-DX0154CEZZY	X	Diode	AC
⚠	D704	RH-DX0154CEZZY	X	Diode	AC
	D707	VHD1SS119//-1Y	X	Diode	AA
	D708	VHD1SS119//-1Y	X	Diode	AA

PWB-A: DUNTKA462WEX5
MAIN UNIT

Ref. No.	Part No.	★	Description	Code
			DIODES	
⚠ D709	RH-DXA006WJZZ	X	Diode	AD
⚠ D712	RH-DX0532CEZZY	X	Diode	AC
⚠ D725	RH-DX0131CEZZY	X	Diode	AB
D726	VHD1SS119//-1Y	X	Diode	AA
D752	RH-DX0441CEZZY	X	Diode	AA
D753	RH-DX0441CEZZY	X	Diode	AA
D757	VHD1SS119//-1Y	X	Diode	AA
⚠ D758	RH-DX0131CEZZY	X	Diode	AB
D1411	RH-EX0630GEZZY	X	Zener Diode 9.1V	AB
D1412	RH-EX0630GEZZY	X	Zener Diode 9.1V	AB
D1413	RH-EX0630GEZZY	X	Zener Diode 9.1V	AB
D1414	VHD1SS119//-1Y	X	Diode	AA
D1415	VHD1SS119//-1Y	X	Diode	AA
D2201	VHD1SS119//-1Y	X	Diode	AA
⚠ VA701	RH-VXA009WJZZ	X	VARISTOR	AC
			PACKAGED CIRCUITS	
⚠ PR701	RMPTP0092CEZZ	X	Packaged Circuit	AF
X801	RCRSAA010WJZZ	X	Crystal	AD
			FILTERS AND COILS	
SF201	RFILCA045WJPZ	X	FILTER (SAW)	AF
L201	VP-XF1R2K0000Y	X	Peaking,1.2mH	AA
L203	VP-XF220K0000Y	X	Peaking,22mH	AA
L204	RCILI0632CEZZ	X	IF Coil	AD
L301	VP-XF150K0000Y	X	Peaking,15mH	AA
L601	RCILZ0102MEZZ	X	Coil	AE
⚠ L701	RCILF0078PEZZ	X	Coil Line Filter	AE
⚠ L705	RCILP0179CEZZ+	X	Coil	AB
L2040	RCILB0131CEZZ	X	Coil,(OSC)	AD
CF2040	RFILA0099CEZZ+	X	FILTER	AC
			TRANSFORMERS	
⚠ T601	RTRNZ0057PEZZ	X	Transformer	AF
⚠ T602	RTRNFA004WJZZ	X	H-Volt Transformer	AU
⚠ T702	RTRNW0001GJZZ	X	Transformer	AK
			CAPACITORS	
			[EL.··· Electrolytic, M-Poly.··· Metalized Polypro Film]	
C51	VCEA0A1AW108M+	X	1000 10V EL.	AB
C53	VCEA0A1HW105M+	X	1 50V EL.	AA
C54	VCEA0A1HW475M+	X	4.7 50V EL.	AA
C101	VCEA0A1CW476M+	X	47 16V EL.	AA
C201	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C202	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C203	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C204	VCQYTA1HM223J+	X	0.022 50V Mylar	AA
C205	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C206	VCKYCY1HB102KY	X	1000p 50V Ceramic	AA
C207	VCEA0A1CW476M+	X	47 16V EL.	AA
C208	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C209	VCEA0A1HW105M+	X	1 50V EL.	AA
C210	VCEA0A1HW474M+	X	0.47 50V EL.	AA
C212	VCEA0A1HW474M+	X	0.47 50V EL.	AA
C220	VCKYCY1EF104ZY	X	0.1 25V Ceramic	AA
C301	VCCCCY1HH220JY	X	22p 50V Ceramic	AA
C302	VCKYCY1HB102KY	X	1000p 50V Ceramic	AA
C303	VCCCCY1HH331JY	X	330p 50V Ceramic	AA
C304	VCCCCY1HH220JY	X	22p 50V Ceramic	AA
C305	VCKYCY1HB103KY	X	0.01 50V Ceramic	AA
C356	VCKYCY1HB332KY	X	3300p 50V Ceramic	AA
C357	VCEA0A1HW106M+	X	10 50V EL.	AA
C358	VCEA0A1HW106M+	X	10 50V EL.	AA
C361	VCEA0A1CW477M+	X	470 16V EL.	AB
C401	VCCCCY1HH470JY	X	47p 50V Ceramic	AA
C411	VCEA0A1AW108M+	X	1000 10V EL.	AB
C412	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C414	VCEA0A1HW225M+	X	2.2 50V EL.	AA
C416	VCEA0A1HW105M+	X	1 50V EL.	AA
C451	VCQYTA1HM104J+	X	0.1 50V Mylar	AB
C454	VCEA0A1HW475M+	X	4.7 50V EL.	AA
C456	VCEA0A1HW106M+	X	10 50V EL.	AA
C491	VCEA0A1CW107M+	X	100 16V EL.	AA
C492	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C510	VCEA0A1VW477M+	X	470 35V EL.	AC
C511	VCCSPA2HL180K+	X	18p 500V Ceramic	AB
C512	VCFYSA1JB224J+	X	0.22 63V Mylar	AC
C513	VCFYSA1JB473J+	X	0.047 63V Mylar	AB
C514	VCEA0A1EW108M+	X	1000 25V EL.	AC
C515	VCEA0A1HW475M+	X	4.7 50V EL.	AA
C516	VCKYCY1HB222KY	X	2200p 50V Ceramic	AA
C517	VCEA0A1CW226M+	X	22 16V EL.	AA
C520	VCEA0A1HW107M+	X	100 50V EL.	AB
C530	VCFYFA1HA334J+	X	0.33 50V Mylar	AB
C531	VCFYFA1HA564J+	X	0.56 50V Mylar	AC
C606	VCKYPA2HB561K+	X	560p 500V Ceramic	AB
C607	VCKYPA1HB472K+	X	4700p 50V Ceramic	AA
C608	VCKYPA2HB331K+	X	330p 500V Ceramic	AB
▲ ⚠ C610	RC-FZ1034CEZZ	X	13500p 1.8kV M.Poly.	AD
C612	VCFPFA2EB514J	X	0.51 250V M.Poly.	AC
C632	VCKYCY1EB153KY	X	0.015 25V Ceramic	AA
C633	VCEA0A1AW337M+	X	330 10V EL.	AB
C634	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C635	VCEA0A1HW105M+	X	1 50V EL.	AA
C637	VCEA0A1CW476M+	X	47 16V EL.	AA
C652	VCEA0A1HW475M+	X	4.7 50V EL.	AA
C653	VCEA0A1HW105M+	X	1 50V EL.	AA
C654	VCFYSA1HB184J+	X	0.18 50V EL.	AB
C662	VCEA0A1CW477M+	X	470 16V EL.	AB
⚠ C701	RC-FZ029SCEZZ	X	0.22 250V Ceramic	AC
C702	RC-KZ0029CEZZ+	X	0.01 AC250V Ceramic	AB
C703	RC-KZ0029CEZZ+	X	0.01 AC250V Ceramic	AB
⚠ C705	RC-EZ0800CEZZ	X	560 200V EL.	AK
⚠ C706	RC-KZ0092GEZZA	X	3300p AC250V Ceramic	AC
C717	VCKYPA2HB472K+	X	4700p 500V Ceramic	AB
C723	RC-EZ0724CEZZ	X	100 160V EL.	AE
⚠ C725	RC-EZA064WJZZ	X	220 160V EL.	AF
C726	VCKYPH3DB561K	X	560p 2kV Ceramic	AB
C727	VCKYPA2HB472K+	X	4700p 500V Ceramic	AB
⚠ C730	VCEA0A1CW108M+	X	1000 16V EL.	AC
⚠ C731	VCEA0A1EW337M+	X	330 25V EL.	AB
C732	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C736	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C737	VCEA0A1EW226M+	X	22 25V EL.	AA
C738	RC-KZ0040CEZZ	X	820p 2kV Ceramic	AC
C739	VCEA0A1HW104M+	X	0.1 50V EL.	AA
C740	VCEA0A1EW476M+	X	47 25V EL.	AA
C742	VCKYPA2HB102K+	X	1000p 500V Ceramic	AA
C743	VCKYPH3DB561K	X	560p 2kV Ceramic	AB
C750	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C752	VCEA0A1CW476M+	X	47 16V EL.	AA
C753	VCKYPH3DB561K	X	560p 2kV Ceramic	AB
C754	VCEA0A1CW476M+	X	47 16V EL.	AA
C758	VCEA0A2EW106M+	X	10 250V EL.	AC
C760	VCEA0A1CW108M+	X	1000 16V EL.	AC
C771	VCEA0A1CW476M+	X	47 16V EL.	AA
C772	VCEA0A1CW476M+	X	47 16V EL.	AA
C783	VCQYTA1HM103J+	X	0.01 50V Mylar	AA
C784	VCKYCY1HF103ZY	X	0.01 50V Ceramic	AA
C801	VCCCCY1HH180JY	X	18p 50V Ceramic	AA
C807	VCKYCY1EF104ZY	X	0.1 25V Ceramic	AA
C808	VCEA0A1HW106M+	X	10 50V EL.	AA
C809	VCEA0A1HW105M+	X	1 50V EL.	AA
C811	VCKYCY1CB473KY	X	0.047 16V Ceramic	AA
C812	VCEA0A1HW474M+	X	0.47 50V EL.	AA
C901	VCEA0A1HW105M+	X	1 50V EL.	AA
C925	VCEA0A1HW106M+	X	10 50V EL.	AA

PWB-A: DUNTKA462WEX5
MAIN UNIT

CAPACITORS
[EL.··· Electrolytic, M-Poly.··· Metalized Polypro Film]

Ref. No.	Part No.	★	Description			Code
C1401	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AA
C1402	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AA
C1403	VCEA0A1CW476M+	X	47	16V	EL.	AA
C1405	VCEA0A1HW106M+	X	10	50V	EL.	AA
C1406	VCEA0A1HW106M+	X	10	50V	EL.	AA
C1430	VCEA0A1CW106M+	X	10	16V	EL.	AA
C1433	VCKYCY1CF104ZY	X	0.1	16V	Ceramic	AA
C1434	VCEA0A1CW106M+	X	10	16V	EL.	AA
C1435	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C1441	VCEA0A1CW106M+	X	10	16V	EL.	AA
C1442	VCCCCY1HH220JY	X	22p	50V	Ceramic	AA
C2001	VCCCCY1HH101JY	X	100p	50V	Ceramic	AA
C2002	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C2003	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AA
C2004	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AA
C2006	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C2040	VCEA0A1AW107M+	X	100	10V	EL.	AA
C2041	VCEA0A1HW105M+	X	1	50V	EL.	AA
C2060	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AA
C2061	VCKYCY1HB222KY	X	2200p	50V	Ceramic	AA
C2062	VCEA0A1AW107M+	X	100	10V	EL.	AA
C2201	VCKYCY1HB682KY	X	6800p	50V	Ceramic	AA
C2202	VCCCCY1HH151JY	X	150p	50V	Ceramic	AA
C2203	VCCCCY1HH331JY	X	330p	50V	Ceramic	AA
C2601	VCEA0A1CW476M+	X	47	16V	EL.	AA
C2602	VCCCCY1HH101JY	X	100p	50V	Ceramic	AA
C3001	VCEA0A1HW475M+	X	4.7	50V	EL.	AA
C3002	VCKYCY1HB562KY	X	5600p	50V	Ceramic	AA
C3003	VCKYCY1EB123KY	X	0.012	25V	Ceramic	AA
C3004	VCEA0A1HW105M+	X	1	50V	EL.	AA
C3005	VCEA0A1HW475M+	X	4.7	50V	EL.	AA
C3006	VCEA0A1HW106M+	X	10	50V	EL.	AA
C3007	VCEA0A1HW475M+	X	4.7	50V	EL.	AA
C3008	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AA
C3009	VCEA0A1CW227M+	X	220	16V	EL.	AB
C3010	VCEA0A1HW475M+	X	4.7	50V	EL.	AA
C3011	VCEA0A1HW475M+	X	4.7	50V	EL.	AA
C3012	VCEA0A1HW475M+	X	4.7	50V	EL.	AA
C3013	VCKYCY1HB272KY	X	2700p	50V	Ceramic	AA
C3014	VCKYCY1CB473KY	X	0.047	16V	Ceramic	AA
C3015	VCEACA1HC335K+	X	3.3	50V	EL.	AC
C3016	VCEA0A1HW475M+	X	4.7	50V	EL.	AA
C3017	VCEACA1CC106K+	X	10	16V	EL.	AC
C3018	VCEA0A1HW105M+	X	1	50V	EL.	AA
C3374	VCEA0A1HW225M+	X	2.2	50V	EL.	AA
C3375	VCEA0A1HW225M+	X	2.2	50V	EL.	AA
C3376	VCKYCY1HB332KY	X	3300p	50V	Ceramic	AA
C3501	VCEA0A1HW106M+	X	10	50V	EL.	AA
C3502	VCEA0A1HW475M+	X	4.7	50V	EL.	AA
C3503	VCEA0A1HW475M+	X	4.7	50V	EL.	AA

RESISTORS
[M-Ox.··· Metal Oxide, M-Film ··· Metal Film]

Ref. No.	Part No.	★	Description			Code
RJ1	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ2	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ3	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ4	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ5	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ6	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ10	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ11	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ14	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ15	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ16	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
RJ17	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R101	VRS-CY1JF152JY	X	1.5k	1/16W	M-Ox.	AA
R102	VRS-CY1JF100JY	X	10	1/16W	M-Ox.	AA
⚠ R53	VRS-RG3LB223J+	X	22k	3W	M-Ox.	AB
R54	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R55	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R56	VRS-CY1JF823JY	X	82k	1/16W	M-Ox.	AA
R57	VRD-RA2BE473JY	X	47k	1/8W	Carbon	AA
R58	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R59	VRS-CY1JF1R0JY	X	1	1/16W	M-Ox.	AA
R201	VRS-CY1JF151JY	X	150	1/16W	M-Ox.	AA
R202	VRS-CY1JF122JY	X	1.2k	1/16W	M-Ox.	AA
R203	VRS-CY1JF682JY	X	6.8k	1/16W	M-Ox.	AA
R204	VRS-CY1JF270JY	X	27	1/16W	M-Ox.	AA
R205	VRS-CY1JF331JY	X	330	1/16W	M-Ox.	AA
R206	VRD-RA2EE151JY	X	150	1/4W	Carbon	AA
R207	VRS-CY1JF273JY	X	27k	1/16W	M-Ox.	AA
R209	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R210	VRS-CY1JF104JY	X	100k	1/16W	M-Ox.	AA
R211	VRS-CY1JF104JY	X	100k	1/16W	M-Ox.	AA
R212	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R220	VRS-CY1JF331JY	X	330	1/16W	M-Ox.	AA
R301	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R302	VRS-CY1JF152JY	X	1.5k	1/16W	M-Ox.	AA
R304	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R305	VRS-CY1JF152JY	X	1.5k	1/16W	M-Ox.	AA
R306	VRS-CY1JF333JY	X	33k	1/16W	M-Ox.	AA
R308	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R354	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R355	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R357	VRS-CY1JF822JY	X	8.2k	1/16W	M-Ox.	AA
R359	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R401	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R402	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R403	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R404	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
R410	VRS-CY1JF471JY	X	470	1/16W	M-Ox.	AA
R411	VRS-CY1JF684JY	X	680k	1/16W	M-Ox.	AA
R412	VRS-CY1JF391JY	X	390	1/16W	M-Ox.	AA
R413	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R417	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R418	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R423	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R426	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R427	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R431	VRS-CY1JF272JY	X	2.7k	1/16W	M-Ox.	AA
R432	VRD-RA2BE472JY	X	4.7k	1/8W	Carbon	AA
⚠ R451	VRS-RG2HC103J+	X	10k	1/2W	M-Ox.	AB
R453	VRD-RA2BE152JY	X	1.5k	1/8W	Carbon	AA
R454	VRD-RM2HD184JY	X	180k	1/2W	Carbon	AA
R455	VRD-RA2BE392JY	X	3.9k	1/8W	Carbon	AA
R456	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R457	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
R458	VRD-RA2EE564JY	X	560k	1/4W	Carbon	AA
R461	VRS-CY1JF274JY	X	270k	1/16W	M-Ox.	AA
R462	VRS-CY1JF563JY	X	56k	1/16W	M-Ox.	AA
R491	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R492	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R493	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R494	VRS-CY1JF472JY	X	4.7k	1/16W	M-Ox.	AA
R495	VRS-RG3DB820J+	X	180k	1/16W	M-Ox.	AB
R496	VRS-CY1JF472JY	X	4.7k	1/16W	M-Ox.	AA
R497	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R512	VRD-RM2HD102JY	X	1.0k	1/2W	Carbon	AA
R513	VRD-RM2HD102JY	X	1.0k	1/2W	Carbon	AA
R514	VRD-RM2HD1R0JY	X	1	1/2W	Carbon	AA
R515	VRS-RG3DB271J+	X	270	2W	M-Ox.	AB
R516	VRS-CY1JF333JY	X	33k	1/16W	M-Ox.	AA
R517	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA

PWB-A: DUNTKA462WEX5
MAIN UNIT

RESISTORS
[M-Ox.··· Metal Oxide, M-Film ··· Metal Film]

Ref. No.	Part No.	★	Description			Code
R518	VRS-CY1JF333JY	X	33k	1/16W	M-Ox.	AA
R519	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R520	VRN-RL3AB1R0J+	X	1.0	1W	M-Film	AB
R522	VRS-CY1JF122JY	X	1.2k	1/16W	M-Ox.	AA
R523	VRS-CY1JF392JY	X	3.9k	1/16W	M-Ox.	AA
R525	VRS-CY1JF272JY	X	2.7k	1/16W	M-Ox.	AA
R527	VRS-CY1JF472JY	X	4.7k	1/16W	M-Ox.	AA
⚠ R604	VRS-RG3LB472J+	X	4.7k	3W	M-Ox.	AB
R605	VRD-RA2BE121JY	X	120	1/8W	Carbon	AA
R606	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
⚠ R607	VRS-RG3LB472J+	X	4.7k	3W	M-Ox.	AB
⚠ R609	VRS-RG3AB562J+	X	5.6k	1W	M-Ox.	AB
R610	VRD-RM2HD220JY	X	22	1/2W	Carbon	AA
R611	VRS-KA3NG3R3K	X	3.3	7W	M-Ox.	AD
R612	VRS-RG2HC102J+	X	1k	1/2W	M-Ox.	AB
R620	VRN-RL3ABR47J+	X	0.47	1W	M-Film	AB
⚠ R621	VRN-RL3DB1R2J+	X	1.2	2W	M-Film	AB
R622	VRD-RA2BE222JY	X	2.2k	1/8W	Carbon	AA
R623	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R624	VRN-RA2BK472FY	X	4.7k	1/8W	M-Film	AB
R634	VRD-RM2HD121JY	X	120	1/2W	Carbon	AA
R635	VRS-CY1JF332JY	X	3.3k	1/16W	M-Ox.	AA
R636	VRD-RA2EE221JY	X	220	1/4W	Carbon	AA
⚠ R641	VRS-RG3AB682J+	X	6.8k	1W	M-Ox.	AB
▲ ⚠ R651	VRS-RG2HC270J+	X	27	1/2W	M-Ox.	AB
▲ ⚠ R653	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
▲ ⚠ R654	VRS-CY1JF154JY	X	150k	1/16W	M-Ox.	AA
▲ ⚠ R655	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R656	VRS-CY1JF273JY	X	27k	1/16W	M-Ox.	AA
R657	VRS-CY1JF273JY	X	27k	1/16W	M-Ox.	AA
R658	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R659	VRD-RA2BE332JY	X	3.3k	1/8W	Carbon	AA
⚠ R661	VRN-RL3AB2R2J+	X	2.2	1W	M-Film	AB
⚠ R701	RR-DZ0049CEZZY	X	3.9M	1/2W	Solid	AB
⚠ R703	VRW-KQ3NC1R2K	X	1.2	7W	Cement	AC
R705	VRN-RL3ABR33J+	X	.33	1W	M-Film	AB
R706	VRN-RL3ABR22J+	X	0.22	1W	M-Film	AB
R707	VRD-RM2HD270JY	X	27	1/2W	Carbon	AA
R708	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R710	VRS-RG2HC103J+	X	10k	1/2W	M-Ox.	AB
R711	VRD-RA2BE334JY	X	330k	1/8W	Carbon	AA
R712	VRD-RA2BE100JY	X	10	1/8W	Carbon	AA
R713	VRS-RG2HC122J+	X	1.2k	1/2W	M-Ox.	AB
R715	VRD-RA2BE150JY	X	15	1/8W	Carbon	AA
R716	VRS-RG3AB121J+	X	120	1W	M-Ox.	AB
R730	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R731	VRS-RG2HC821J+	X	820	1/2W	M-Ox.	AB
R733	VRS-SV2HC332J	X	3.3k	1/2W	M-Ox.	AA
R736	VRS-SV2HC222J	X	2.2k	1/2W	M-Ox.	AA
⚠ R737	VRN-RL3ABR39J+	X	0.39	1W	M-Ox.	AB
R740	VRD-RM2HD470JY	X	47	1/2W	Carbon	AA
R742	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
⚠ R744	VRN-RL2HCR68J+	X	0.68	1/2W	M-Film	AB
R745	VRD-RA2BE393JY	X	39k	1/8W	Carbon	AA
R746	VRS-CY1JF562JY	X	5.6k	1/16W	M-Ox.	AA
R747	VRS-CY1JF682JY	X	6.8k	1/16W	M-Ox.	AA
R752	VRD-RA2BE392JY	X	3.9k	1/8W	Carbon	AA
R758	VRS-RG2HC100J+	X	10	1/2W	M-Ox.	AB
R762	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
⚠ R773	VRS-RG3LB270J+	X	27	3W	M-Ox.	AB
⚠ R774	VRS-RG3LB680J+	X	68	3W	M-Ox.	AB
R801	VRD-RM2HD470JY	X	47	1/2W	Carbon	AA
R807	VRS-CY1JF332JY	X	3.3k	1/16W	M-Ox.	AA
R808	VRS-CY1JF272JY	X	2.7k	1/16W	M-Ox.	AA
R809	VRS-CY1JF223JY	X	22k	1/16W	M-Ox.	AA
R810	VRS-CY1JF223JY	X	22k	1/16W	M-Ox.	AA
R816	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R925	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R926	VRS-CY1JF104JY	X	100k	1/16W	M-Ox.	AA
R961	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R962	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R1401	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R1402	VRS-CY1JF750JY	X	75	1/16W	M-Ox.	AA
R1403	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R1404	VRS-CY1JF104JY	X	100k	1/16W	M-Ox.	AA
R1410	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R1419	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R1420	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R1421	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R1422	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R1423	VRS-CY1JF822JY	X	8.2k	1/16W	M-Ox.	AA
R1426	VRD-RA2BE750JY	X	75	1/8W	Carbon	AA
R1428	VRD-RA2BE750JY	X	75	1/8W	Carbon	AA
R1429	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R1431	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R1432	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R1434	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R1435	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R1440	VRS-CY1JF563JY	X	56k	1/16W	M-Ox.	AA
R2001	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R2002	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2006	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2008	VRS-CY1JF472JY	X	4.7k	1/16W	M-Ox.	AA
R2009	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
R2010	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
R2012	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R2016	VRD-RA2BE223JY	X	22k	1/8W	Carbon	AA
R2018	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2020	VRS-CY1JF223JY	X	22k	1/16W	M-Ox.	AA
R2022	VRS-CY1JF333JY	X	33k	1/16W	M-Ox.	AA
R2023	VRS-CY1JF223JY	X	22k	1/16W	M-Ox.	AA
R2024	VRD-RA2BE682JY	X	6.8k	1/8W	Carbon	AA
R2025	VRD-RA2BE682JY	X	6.8k	1/8W	Carbon	AA
R2026	VRD-RA2BE682JY	X	6.8k	1/8W	Carbon	AA
R2027	VRD-RA2BE682JY	X	6.8k	1/8W	Carbon	AA
R2028	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
R2029	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2032	VRD-RA2BE471JY	X	470	1/8W	Carbon	AA
R2033	VRD-RA2BE334JY	X	330k	1/8W	Carbon	AA
R2034	VRS-CY1JF334JY	X	330k	1/16W	M-Ox.	AA
R2040	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
R2041	VRD-RA2BE333JY	X	33k	1/8W	Carbon	AA
R2042	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R2043	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R2044	VRS-CY1JF683JY	X	68k	1/16W	M-Ox.	AA
R2045	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R2047	VRS-CY1JF221JY	X	220	1/16W	M-Ox.	AA
R2048	VRS-CY1JF562JY	X	5.6k	1/16W	M-Ox.	AA
R2049	VRD-RA2BE333JY	X	33k	1/8W	Carbon	AA
R2060	VRS-CY1JF221JY	X	220	1/16W	M-Ox.	AA
R2061	VRS-CY1JF562JY	X	5.6k	1/16W	M-Ox.	AA
R2062	VRS-CY1JF183JY	X	18k	1/16W	M-Ox.	AA
R2063	VRS-CY1JF222JY	X	2.2k	1/16W	M-Ox.	AA
R2064	VRD-RA2BE391JY	X	390	1/8W	Carbon	AA
R2065	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R2067	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2068	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2069	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
R2070	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2072	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2101	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R2102	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA

PWB-A: DUNTKA462WEX5
MAIN UNIT

Ref. No.	Part No.	★	Description			Code
RESISTORS						
[M-Ox.··· Metal Oxide, M-Film ··· Metal Film]						
R2201	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R2202	VRS-CY1JF473JY	X	47k	1/16W	M-Ox.	AA
R2203	VRS-CY1JF332JY	X	3.3k	1/16W	M-Ox.	AA
R2211	VRS-CY1JF222JY	X	2.2k	1/16W	M-Ox.	AA
R2212	VRS-CY1JF682JY	X	6.8k	1/16W	M-Ox.	AA
R2213	VRS-CY1JF223JY	X	22k	1/16W	M-Ox.	AA
R2401	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R2402	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R2403	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R2404	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R2501	VRD-RA2BE123JY	X	12k	1/8W	Carbon	AA
R2503	VRS-CY1JF273JY	X	27k	1/16W	M-Ox.	AA
R2504	VRS-CY1JF123JY	X	12k	1/16W	M-Ox.	AA
R2505	VRS-CY1JF563JY	X	56k	1/16W	M-Ox.	AA
R2506	VRS-CY1JF563JY	X	56k	1/16W	M-Ox.	AA
R2507	VRS-CY1JF823JY	X	82k	1/16W	M-Ox.	AA
R2508	VRS-CY1JF153JY	X	15k	1/16W	M-Ox.	AA
R2509	VRS-CY1JF272JY	X	2.7k	1/16W	M-Ox.	AA
R2601	VRD-RA2BE100JY	X	10	1/8W	Carbon	AA
R2602	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R2604	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R2605	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R3001	VRD-RA2BE221JY	X	220	1/8W	Carbon	AA
R3002	VRD-RA2BE221JY	X	220	1/8W	Carbon	AA
R3003	VRS-CY1JF105JY	X	1M	1/16W	M-Ox.	AA
R3004	VRS-CY1JF104JY	X	100k	1/16W	M-Ox.	AA
R3005	VRS-CY1JF623JY	X	62k	1/16W	M-Ox.	AA
R3007	VRS-CY1JF332JY	X	3.3k	1/16W	M-Ox.	AA
R3008	VRS-CY1JF302JY	X	3k	1/16W	M-Ox.	AA
R3010	VRS-CY1JF392JY	X	3.9k	1/16W	M-Ox.	AA
R3011	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R3012	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R3013	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R3014	VRD-RA2BE101JY	X	100	1/8W	Carbon	AA
R3373	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R3374	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AA
R3375	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AA
R3377	VRD-RA2BE822JY	X	8.2k	1/8W	Carbon	AA
R3378	VRD-RA2BE223JY	X	22k	1/8W	Carbon	AA
R3379	VRS-CY1JF683JY	X	68k	1/16W	M-Ox.	AA
R3501	VRS-CY1JF750JY	X	75	1/16W	M-Ox.	AA
R3502	VRS-CY1JF104JY	X	100k	1/16W	M-Ox.	AA
R3503	VRS-CY1JF104JY	X	100k	1/16W	M-Ox.	AA
R3504	VRS-CY1JF101JY	X	100	1/16W	M-Ox.	AA
R3507	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
R3508	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AA
SWITCHES						
S2501	QSW-K0202PEZZ+	X	Switch,			AB
S2502	QSW-K0202PEZZ+	X	Switch,			AB
S2503	QSW-K0202PEZZ+	X	Switch,			AB
S2504	QSW-K0202PEZZ+	X	Switch,			AB
S2505	QSW-K0202PEZZ+	X	Switch,			AB
S2506	QSW-K0202PEZZ+	X	Switch,			AB
MISCELLANEOUS PARTS						
RY701	RRLYJ0081CEZZ	X	Relay			AE
F701	QFS-B4023CEZZ	X	FUSE - 4A 125V			AC
FH701	QFSHD1013CEZZ+	X	FUSE CLIP			AA
FH702	QFSHD1014CEZZ+	X	FUSE CLIP			AA
FB601	RBLN-0047CEZZY	X	Ferrite Bead			AB
FB2002	RBLN-0037CEZZY	X	Ferrite Bead			AA
J1401	QJAKGA009WJZZ	X	Front A/V Jack			AE
J1404	QSOCD0430CEZZ	X	S-Video terminal			AE
J1701	QTANJ0340CEZZ	X	Rear A/V Terminal			AF
P303	QPLGN0461CEZZA	X	plug,4pin(S1-4)			AB
P401	QPLGN0561CEZZA	X	plug 5Pin(KA)			AB
P601	QPLGN0160FJZZ	X	plug 5pin(K1-5)			AC
P651	QPLGN0361CEZZA	X	plug,3pin (TP651-3)			AB
P701	QPLGN0260CEZZ	X	plug 2pin(M1-2)			AB
P751	QPLGN0461CEZZA	X	plug,4pin(S1-4)			AB
P2001	QPLGN0561CEZZA	X	plug 5Pin(KA)			AB
RDA501	PRDAR0280PEFW	X	Heat Sink			AE
RDA604	PRDAR0233PEFW	X	Heat Sink			AF
RDA701	PRDAR0265PEFW	X	Heat Sink			AD
RMC2601	RRMCUA022WJZZ	X	R/C Receiver			AE

PWB-B: DUNTK9510WEV1
CRT UNIT

Ref. No.	Part No.	★	Description			Code
TRANSISTORS						
Q851	VS2SC3198-G-1+	X	2SC3198-G			AA
Q852	VS2SC3789//2E	X	2SC3789			AD
Q853	VS2SC3198-G-1+	X	2SC3198-G			AA
Q854	VS2SC3789//2E	X	2SC3789			AD
Q855	VS2SC3198-G-1+	X	2SC3198-G			AA
Q856	VS2SC3789//2E	X	2SC3789			AD
Q881	VS2SA1266-Y-1+	X	2SA1266(Y)			AA
DIODES						
D881	VHD1SS119//-1Y	X	Diode			AA
D882	VHD1SS119//-1Y	X	Diode			AA
D884	VHD1SS119//-1Y	X	Diode			AA
COIL						
L851	VP-MK820K0000+	X	Peaking,82mH			AB
CAPACITORS						
[EL.··· Electrolytic, M-Poly.··· Metalized Polypro Film]						
C851	VCCSPA1HL391J+	X	390p	50V	Ceramic	AA
C852	VCCSPA1HL331J+	X	330p	50V	Ceramic	AA
C853	VCCSPA1HL391J+	X	390p	50V	Ceramic	AA
C854	RC-KZ0024CEZZ	X	1000p	2kV	M.Poly.	AC
C883	VCEA0A1HW106M+	X	10	50V	EL.	AA
RESISTORS						
[M-Ox.··· Metal Oxide, M-Film ··· Metal Film]						
R851	VRD-RA2BE470JY	X	47	1/8W	Carbon	AA
R852	VRD-RA2BE181JY	X	180	1/8W	Carbon	AA
R853	VRD-RA2BE121JY	X	120	1/8W	Carbon	AA
R855	VRD-RA2BE471JY	X	470	1/8W	Carbon	AA
R856	VRD-RA2BE221JY	X	220	1/8W	Carbon	AA
R857	VRS-VV3LB123J	X	12k	3W	M-Ox.	AB
R858	VRD-RM2HD222JY	X	2.2k	1/2W	Carbon	AA
R859	VRD-RA2BE470JY	X	47	1/8W	Carbon	AA
R860	VRD-RA2BE181JY	X	180	1/8W	Carbon	AA
R861	VRD-RA2BE121JY	X	120	1/8W	Carbon	AA
R863	VRD-RA2BE471JY	X	470	1/8W	Carbon	AA
R864	VRD-RA2BE221JY	X	220	1/8W	Carbon	AA
R865	VRS-VV3LB123J	X	12k	3W	M-Ox.	AB
R866	VRD-RM2HD222JY	X	2.2k	1/2W	Carbon	AA
R867	VRD-RA2BE470JY	X	47	1/8W	Carbon	AA
R868	VRD-RA2BE181JY	X	180	1/8W	Carbon	AA
R869	VRD-RA2BE121JY	X	120	1/8W	Carbon	AA
R871	VRD-RA2BE471JY	X	470	1/8W	Carbon	AA
R872	VRD-RA2BE221JY	X	220	1/8W	Carbon	AA
R873	VRS-VV3LB123J	X	12k	3W	M-Ox.	AB
R874	VRD-RM2HD222JY	X	2.2k	1/2W	Carbon	AA
R881	VRD-RA2BE102JY	X	1k	1/8W	Carbon	AA
R882	VRD-RA2BE331JY	X	330	1/8W	Carbon	AA
R883	VRD-RA2BE561JY	X	560	1/8W	Carbon	AA
R884	VRD-RA2BE152JY	X	1.5k	1/8W	Carbon	AA
R895	VRD-RA2BE470JY	X	47	1/8W	Carbon	AA
MISCELLANEOUS PARTS						
P851	QPLGN0541CEZZ	X	plug 5-pin(GBN)			AB
P852	QPLGN0441CEZZ	X	Plug 4Pin(RAV)			AB
SC851	QSOCV0937CEZZ	X	CRT Socket			AE

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
SP1	VSP9050PB40YA	X	Speaker (L)	AH
SP2	VSP9050PB40YA	X	Speaker (R)	AH
ACC701	QACCDA015WJPZ	X	AC Cord	AH
	LHLDK0014PEZZ	X	AC Cord holder	AB
	QCNW-0134MEZZ	X	Wire (speaker)	AD
	LHLDW0102GJKZ	X	Wire tie	AB
	LHLDW1009PEZZ	X	Purse lock	AA
	LHLDW1033PEZZ	X	Wire tie	AA
	LHLDW1060CEZZ	X	Purse lock	AB
	LHLDW1003PEZZ	X	Purse lock	AA
	LX-WZ0112GJF7	X	CRT Washer, x4	AA
	QCNW-0166MEZZ	X	Wire (GBN)	AD
	QCNW-0167MEZZ	X	Wire (YBN)	AC
	QCNW-0239MEZZ	X	Connecting Cord(K)	AL
	TCAUH3045GJZZ	X	caution card	AB
	TLABM0003GJZZ	X	Model Label	AC
	LX-TZ0104GJFD	X	Screw (CRT)	AC
	LX-TZ3004CEFD	X	Screw	AA
	XTASD30P12000	X	Screw(BTN)	AA
	XTASD40P20000	X	Screw (Cab)	AA

SUPPLIED ACCESSORIES

	RRMCG1639CESA	X	Infrared R-C Unit	AV
	TINS-A297WJZZ	X	Operational Manual	AG

Ref. No.	Part No.	★	Description	Code

PACKING PARTS

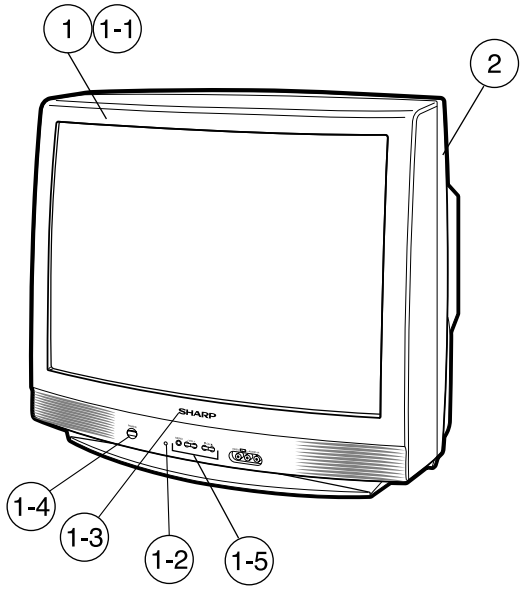
(NOT REPLACEMENT ITEM)

	SPAKCA226WJZZ	X	Packing case	AX
	SPAKP0109GJZZ	X	Lamifoam	AF
	SPAKX0134GJZZ	X	Packing Foam	AS
	SSAKA0101GJZZ	X	Plastic bag	AC

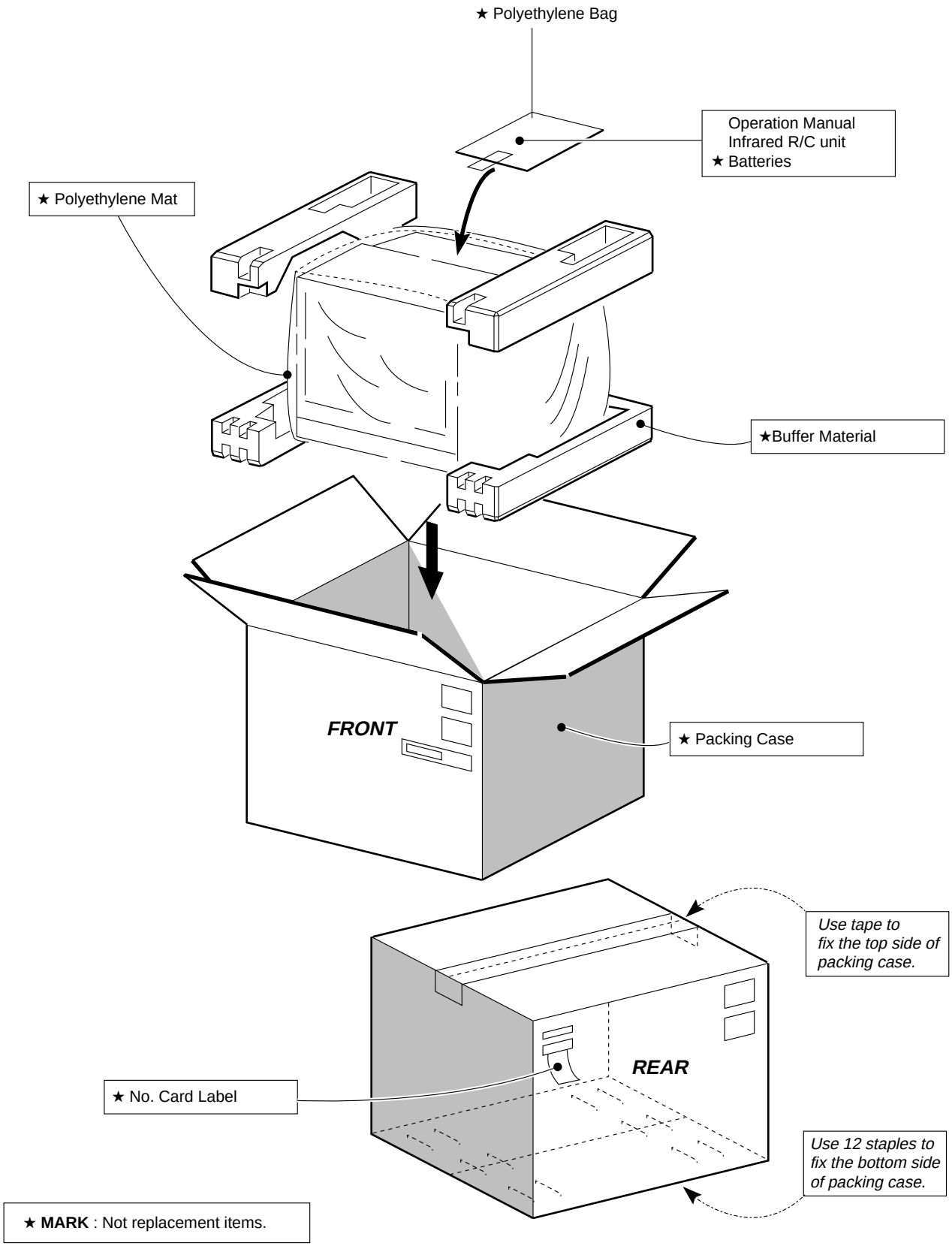
CABINET PARTS

1	CCABA0177WEH6	X	Front Cabinet Ass'y	BH
1-1	*Not Available*	—	*Front Cabinet*	—
1-2	GCOVA0121GJSA	X	R/C COVER	AE
1-3	HBDGB1009MESB	X	Badge, "SHARP"	AD
1-4	JBTN-0138GJKC	X	Button, Power	AH
1-5	JBTN-0139GJSC	X	Button, Vol-up/down, CH-up/down, Menu	AK
2	GCABB0153GJKA		Rear Cabinet	BD

CABINET PARTS LOCATION



PACKING OF THE SET



★ **MARK** : Not replacement items.

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