

(DRAFT)

# TOSHIBA SERVICE MANUAL



## COLOR TELEVISION

## MODELS 21ARF45

In the interests of user-safety (Required by safety regulations in some countries ) the set should be restored to its original condition and only parts identical to those specified should be used.

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### ELECTRICAL SPECIFICATIONS

POWER INPUT .....	AC 120 V, 60 Hz
POWER RATING .....	90W
PICTURE SIZE .....	1,239 cm <sup>2</sup> (192sq inch)
CONVERGENCE .....	Magnetic
SWEEP DEFLECTION .....	Magnetic
FOCUS .....	Uni-Bi
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 .....	2.5 W(RMS) x 2pcs

SPEAKER	
SIZE .....	5 x 12 cm, 2pcs
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.)

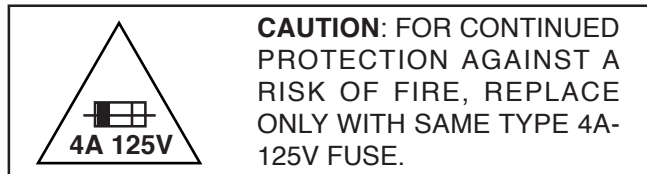
***Specifications are subject to change without prior notice.***

# 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.



## SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

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

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

## X-RADIATION AND HIGH VOLTAGE LIMITS

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

## IMPORTANT SERVICE SAFETY PRECAUTION

### (Continued)

#### BEFORE RETURNING THE RECEIVER

##### (Fire & Shock Hazard)

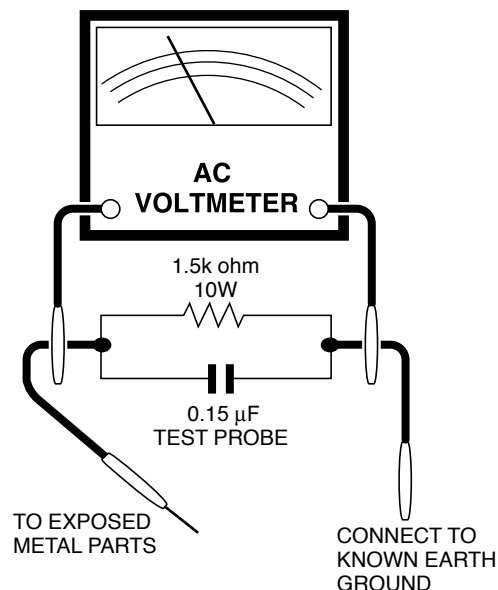
**Before returning the receiver to the user, perform the following safety checks.**

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, check for leakage current in the following manner.
  - Plug the AC cord directly into a 120 volt AC outlet, (Do not use an isolation transformer for this test).
  - Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15 $\mu$ F capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to earth ground.
  - Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity to measure the AC voltage drop across the resistor.

- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.

All checks must be repeated with the AC line cord plug connection reversed. (If necessary, a non-polarized adapter plug must be used only for the purpose of completing these check.)

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



#### SAFETY NOTICE

Many electrical and mechanical parts in television receivers have special safety-related characteristics. These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by " $\triangle$ " and shaded areas in the Replacement Parts Lists and Schematic Diagrams.

For continued protection, replacement parts must be identical to those used in the original circuit. The use of substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire, X-radiation or other hazards.

# 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 P603 Pin3 and make sure that the voltmeter reads  $18.9 \pm 1.1V$ .
5. Apply external 24.5V DC at P603 Pin3 by using an external DC supply, TV must be shut off.
6. To reset the protector, unplug the AC cord at least 4 second before plugging in again. 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:

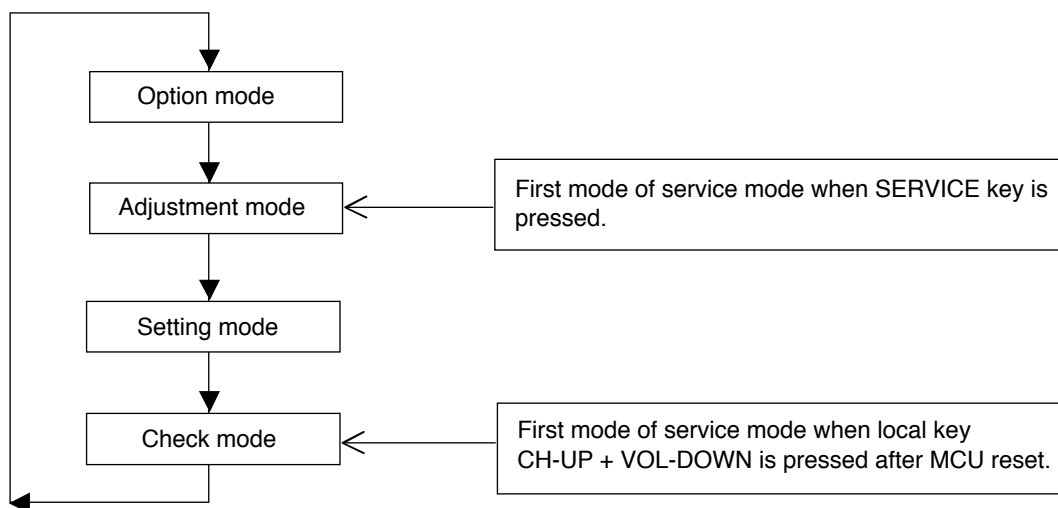
1. Connect an accurate high voltage meter between ground and anode of picture tube.
2. Operate receiver for at least 15 minutes at 120V AC line voltage, with a strong air signal or a properly tuned in test signal.
3. Enter the service mode and set Y-mute ON by using Service R/C.
4. The voltage should be approximately 28.6kV (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.

# SERVICE MODE

## Service Mode Overview

1. Service mode is entered by SERVICE key input or CH-UP +VOL-DOWN input during reset.
2. Service mode is cleared by entering SERVICE key or CH-UP +VOL-DOWN key command during service mode.
3. If key input port (SERVICE) input is LOW, then it is in service mode.
4. During key input port (SERVICE) input is LOW, clearing service mode by key input SERVICE or CH-UP + VOL-DOWN is disabled.
5. Service mode can be switched to 4 modes as follows by key input MENU;



6. AFT processing is disabled during service mode. PLL setting data is set to fo data.
7. All user data are set to default during service mode. FAO and SPEAKER user settings are off and on respectively in service mode. Energy Save is off.
8. Sleep timer, View timer and Off timer are inactivated in Service mode.
9. Sound is muting in service mode except at Adjustment Items V20, M01, M02, M03, M04, M05, and M06.

## Adjustment Mode Items

## ADJUSTMENT METHOD

**Caution: to get into the service mode, one of the ways is press direct key for service items. the other ways is short the main chassis JA309 and JA402**

There is three stage of Service Mode data

First stage data from V01 ~ M06

to go into second stage of service mode data, press MENU key

Second stage data from F01 ~ F51

to go into third stage of service mode data, press MENU key

Third stage data from 001 ~ 020

Below is the contents of these data

## First Stage

No.	Item Name	IC	Register	Range	Default
V01	SUB-PICTURE	1 Chip	CONTRAST	0~127	127
V02	SUB-TINT	1 Chip	TINT	0~127	64
V03	SUB-COLOR	1 Chip	COLOR	0~127	64
V04	SUB-BRIGHT	1 Chip	BRIGHT	0~255	128
V05	SUB-SHARP	1 Chip	VIDEO-TONE	0~63	32
V06	V-SHIFT	1 Chip	V-SHIFT	0~7	4
V07	H-SHIFT	1 Chip	H-PHASE	0~31	16
V08	RF-AGC	1 Chip	RF-Delay	0~127	127
V09	V-SIZE	1 Chip	V-SIZE	0~63	32
V10	PIF-VCO	1 Chip	VIF-VCO	0~63	32
V11	R-CUTOFF	1 Chip	R-CUTOFF	0~255	127
V12	G-CUTOFF	1 Chip	G-CUTOFF	0~255	127
V13	B-CUTOFF	1 Chip	B-CUTOFF	0~255	127
V14	R-DRIVE	1 Chip	R-DRIVE	0~127	64
V15	B-DRIVE	1 Chip	B-DRIVE	0~127	64
V16	SUB-COLOR(YUV)	1 Chip	COLOR	0~127	64
V17	SUB-TINT(YUV)	1 Chip	BASEBAND-TINT	0~127	64
V18	CC-POS	Micron		0~255	32
V19	(Vertical mode)	1 Chip	V-MUTE,SERVICE	0, 1, 2	0
V20	SUB-VOL	1 Chip	A-ATT	0~127	127
V21	H-VCO	1 Chip	H-VCO	0~7	4
M01	MTS-ATT	MTS	ATT	0~15	10
M02	MTS-VCO	MTS	VCO	0~63	32
M03	MTS-FILTER	MTS	FILTER	0~63	28
M04	MTS-WIDEBAND	MTS	WIDEBAND	0~63	27
M05	MTS-SPECTRAL	MTS	SPECTRAL	0~63	32
M06	SUB-VOL	MTS	VOL	0~63	63

## Auto Adjustment Item

1. H-VCO (Currently need manual adj)
2. RF-AGC
3. PIF-VCO
4. MTS-FILTER

## ■ SELF ADJUSTMENT

### H-VCO

1. When there is H-VCO self-adjustment key input for adjustment item H-VCO, self-adjustment is performed.
2. H-FREE(1chip) is set to 1.
3. H-OUT is set by intelligent monitor output.
4. IM input is set as TIM input.
5. H-VCO(1chip) data is changed so that the number of input pulse is 125 inside 8ms interval.
6. When adjustment completed, OSD display and H-VCO self-adjustment status data of EEPROM are updated.
7. H-FREE(1chip), intelligent monitor output and IM input mode are recovered.

### RF-AGC

1. When there is RF-AGC self-adjustment key input for adjustment item RF-AGC, self-adjustment is performed.
2. AGC-OUT is set by intelligent monitor output.
3. IM input is set as AD input.
4. By decreasing RF-AGC (1chip) data from current RF-AGC adjustment value to 0, AFT input voltage becomes the maximum setting value.
5. Increase RF-AGC(1chip) data, when AFT input voltage is at (max. 0.3V) point, adjustment is completed.
6. When adjustment completed, OSD display and RF-AGC self-adjustment status data of EEPROM are updated.
7. Intelligent monitor output and IM input mode are recovered.

### PIF-VCO

1. When there is PIF-VCO self-adjustment key input for adjustment item PIF-VCO, self-adjustment is performed.
2. VIF-DEF(1chip) is set to 1.
3. AFC is set by intelligent monitor output.
4. IM input is set as AD input.
5. VIF-VCO(1chip) data is changed so that input voltage becomes 2.5V.
6. When adjustment completed, OSD display and PIF-VCO self-adjustment status data of EEPROM are updated.
7. VIF-DEF(1chip), intelligent monitor output and IM input mode are recovered.

### MTS-FILTER

**Adjustment is performed in the center of the range when FILTER status is OK.**

1. If data is changed from 0 to 63, point where NG → OK is A and point where OK → NG is B.
2. If data is changed from 63 to 0, point where NG → OK is C and point where OK → NG is D.
3.  $(A+B+C+D)/4$  is the adjustment point.

## Setting Mode Items

## Second Stage

No.	Item Name	IC	Register	Range	Default
F01	VideoTone-Gain (TV)	1chip	V-TONE	0 / 1	0
F02	VideoTone-Gain (AV)	1chip	V-TONE	0 / 1	0
F03	VideoTone-Gain(YUV)	1chip	V-TONE	0 / 1	0
F04	ABCL	1chip	ABCL	0 / 1	0
F05	BS	1chip	BS-OFF	0 / 1	0
F06	ABCL-G	1chip	ABCL-G	0 / 1	0
F07	SHP-AV	OFFSET	VIDEO-TONE(OFFSET)	-16~+16	0
F08	SHP-YUV	OFFSET	VIDEO-TONE(OFFSET)	-16~+16	0
F09	RGB-CLIP	1chip	ExtRGB-Clip	0 / 1	0
F10	E-SAVE	OFFSET	CONTRAST(OFFSET)	0~63	30
F11	FAO-VOL	1chip	A-ATT	0~127	120
F12	PIF-G	1chip	VIF-GAIN	0~7	4
F13	Y-DELAY(TV)	1chip	Y-Delay	0~7	0
F14	Y-DELAY(AV)	1chip	Y-Delay	0~7	0
F15	Y-DELAY(YUV)	1chip	Y-Delay	0~7	0
F16	TINT-AV	OFFSET	TINT(OFFSET)	-32~+32	0
F17	COL-AV	OFFSET	COLOR(OFFSET)	-32~+32	0
F18	R-DRI(R2)	OFFSET	R-DRI(OFFSET)	-32~+32	0
F19	R-DRI(R)	OFFSET	R-DRI(OFFSET)	-32~+32	0
F20	R-DRI(B)	OFFSET	R-DRI(OFFSET)	-32 ~+32	0
F21	B-DRI(R2)	OFFSET	B-DRI(OFFSET)	-32~+32	0
F22	B-DRI(R)	OFFSET	B-DRI(OFFSET)	-32~+32	0
F23	B-DRI(B)	OFFSET	B-DRI(OFFSET)	-32~+32	0
F24	V-FREE	1chip	V-FREE	0 / 1	0
F25	GAMMA	1chip	GAMMA	0~3	0
F26	TRAP(TV)	1chip	TRAP-FINE	0~3	2
F27	TRAP(AV)	1chip	TRAP-FINE	0~3	2
F28	H-FREE	1chip	H-FREE	0 / 1	0
F29	1W(TV)	1chip	V.Window	0 / 1	0
F30	1W(AV)	1chip	V.Window	0 / 1	0
F31	YLPF	1chip	YSW-LPF	0 / 1	1
F32	BS-D	1chip	BS-DISCHARGE	0~3	0
F33	BS-C	1chip	BS-CHARGE	0~3	0
F34	SL(TV)	1chip	S-SLICE DOWN	0~3	0
F35	SL(AV)	1chip	S-SLICE DOWN	0~3	0
F36	SL(YUV)	1chip	S-SLICE DOWN	0~3	0
F37	AFC2	1chip	AFC2-G	0 / 1	0
F38	VD(TV)	1chip	Vsync-Det	0 / 1	0
F39	VD(AV)	1chip	Vsync-Det	0 / 1	0
F40	AS(TV)	1chip	Auto-Slice	0 / 1	0
F41	AS(AV)	1chip	Auto-Slice	0 / 1	0
F42	AS(YUV)	1chip	Auto-Slice	0 / 1	0
F43	FBP(TV)	1chip	FBP Vth	0 / 1	0
F44	FBP(AV)	1chip	FBP Vth	0 / 1	0
F45	FBP(YUV)	1chip	FBP Vth	0 / 1	0
F46	C.Clip Level	1chip	C.Clip Level	0 / 1	0
F47	PSW	MTS	PSW	0 / 1	0
F48	FAO-VOL	MTS	VOL	0~63	60
F49	CP	PLL	CP	0 / 1	0
F50	CC LEVEL	MICRON			0
F51	OSD POS	MICRON			0
F52	OFFSET-ADJ-COL	1 chip	COLOR	-32~32	0
F53	OFFSET-ADJ-TINT	1 chip	TINT	-32~32	0
F54	OFFSET-ADJ-TINT-YUV	1 chip	BASEBAND-TINT	-32~32	0



## Option Mode Items

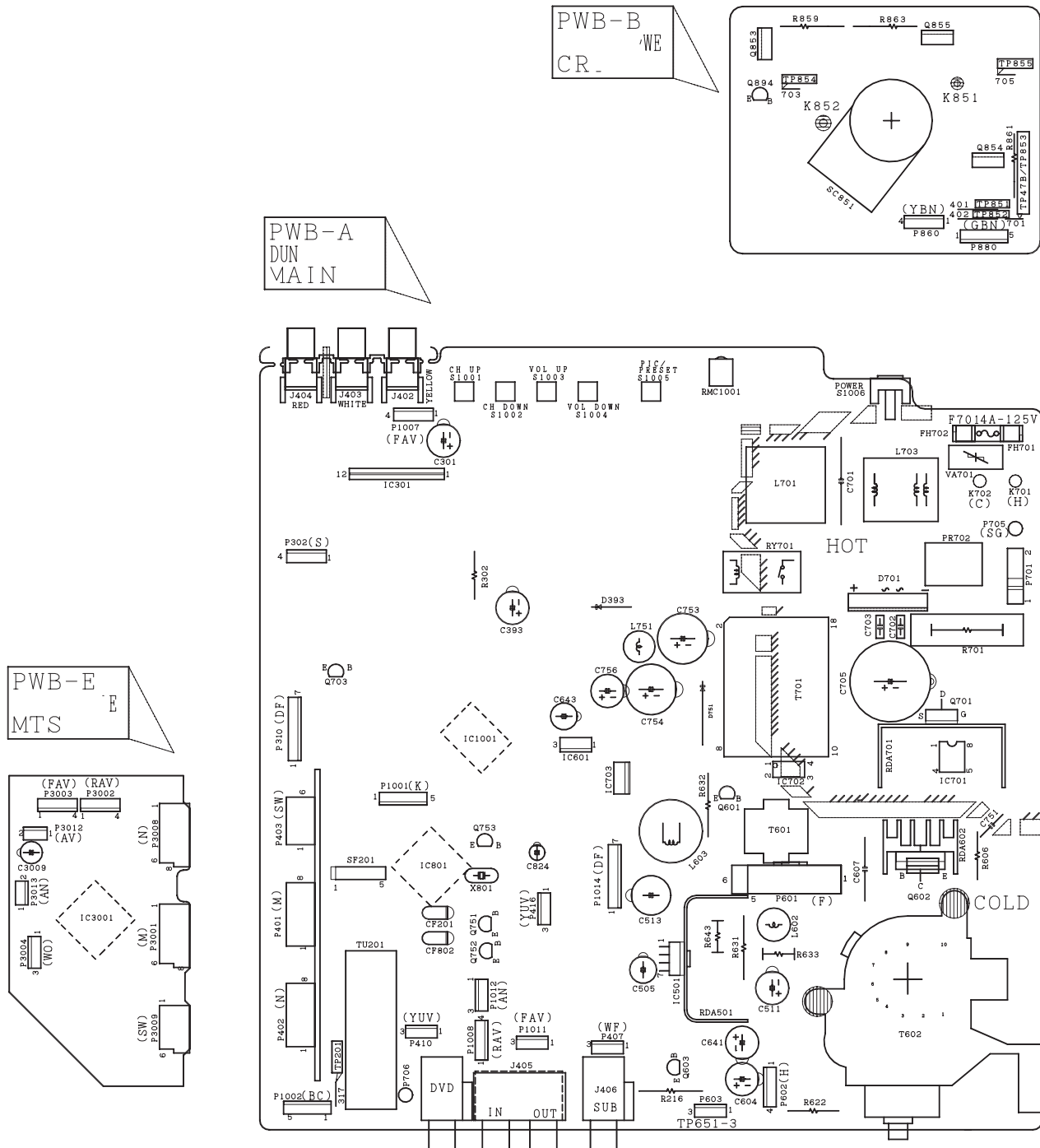
### Third Stage

No	ITEM	0	1	DEFAULT
O01	DEMO	Without DEMO	With DEMO	1
O02	DOWNLOAD	Without V-CHIP OP	With V-CHIP OP	1
O03	V-CHIP	Without V-CHIP	With V-CHIP	1
O04	SPEAKER	Without SPEAKER	With SPEAKER	1
O05	FAO	Without FAO	With FAO	1
O06	P.PREF	Without P.PREF	With P.PREF	1
O07	UNIV+	Without UNIV+	With INIV+	1
O08	VIEW TIMER	Without VIEW TIMER	With VIEW TIMER	1
O09	EZ-SETUP	EZ-SETUP	AUTO PRESET	1
O10	PON-CH	Without POWER-ON	With POWER-ON	1
O11	FAV-COL	FAV-COL	COL-TEMP	1
O12	COMPONENT	Without COMPONENT	With COMPONENT	1
O13	AV	Without AV	With AV	1
O14	AV2	AV1 system	AV2 system	1
O15	MTS	Without MTS	With MTS	1
O16	TONE-CTRL	Without S-ADJ	With S-ADJ	1
O17	AUTO-OFF	Without AUTO-OFF	With AUTO-OFF	1
O18	INIT-LANG	ENGLISH	SPANISH	1
O19	SETUP-FLAG	NO SETUP	AUTO SETUP	1
O20	FR.AV (Front, Rear AV)	3: Display "FRONT A/V INPUTS" and "REAR A/V INPUTS" in DEMO mode. 2: Display "FRONT A/V INPUTS" only in DEMO mode. 1: Display "REAR A/V INPUTS" only in DEMO mode. 0: No display of above lines in DEMO mode.		3

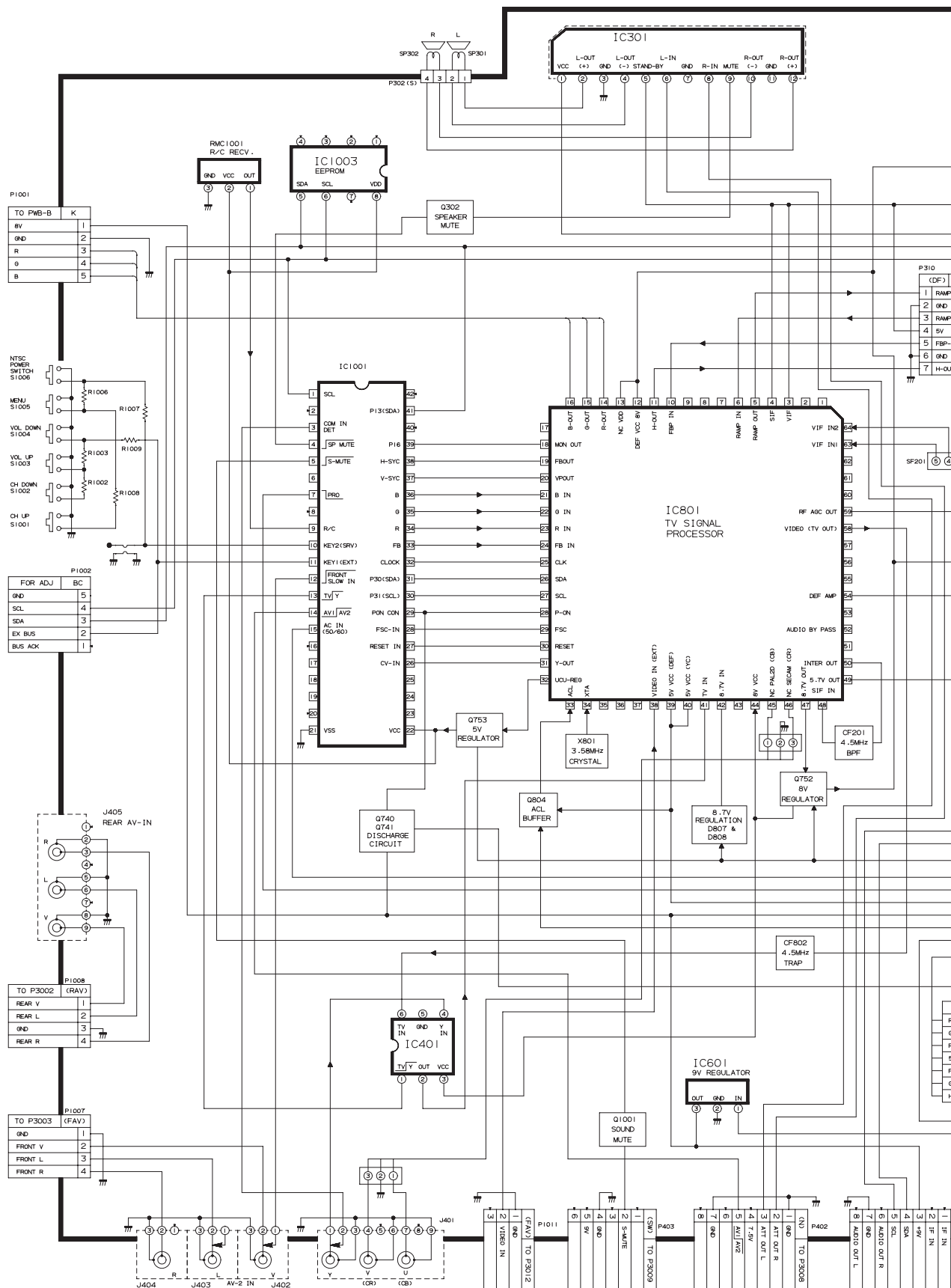
### Check Mode

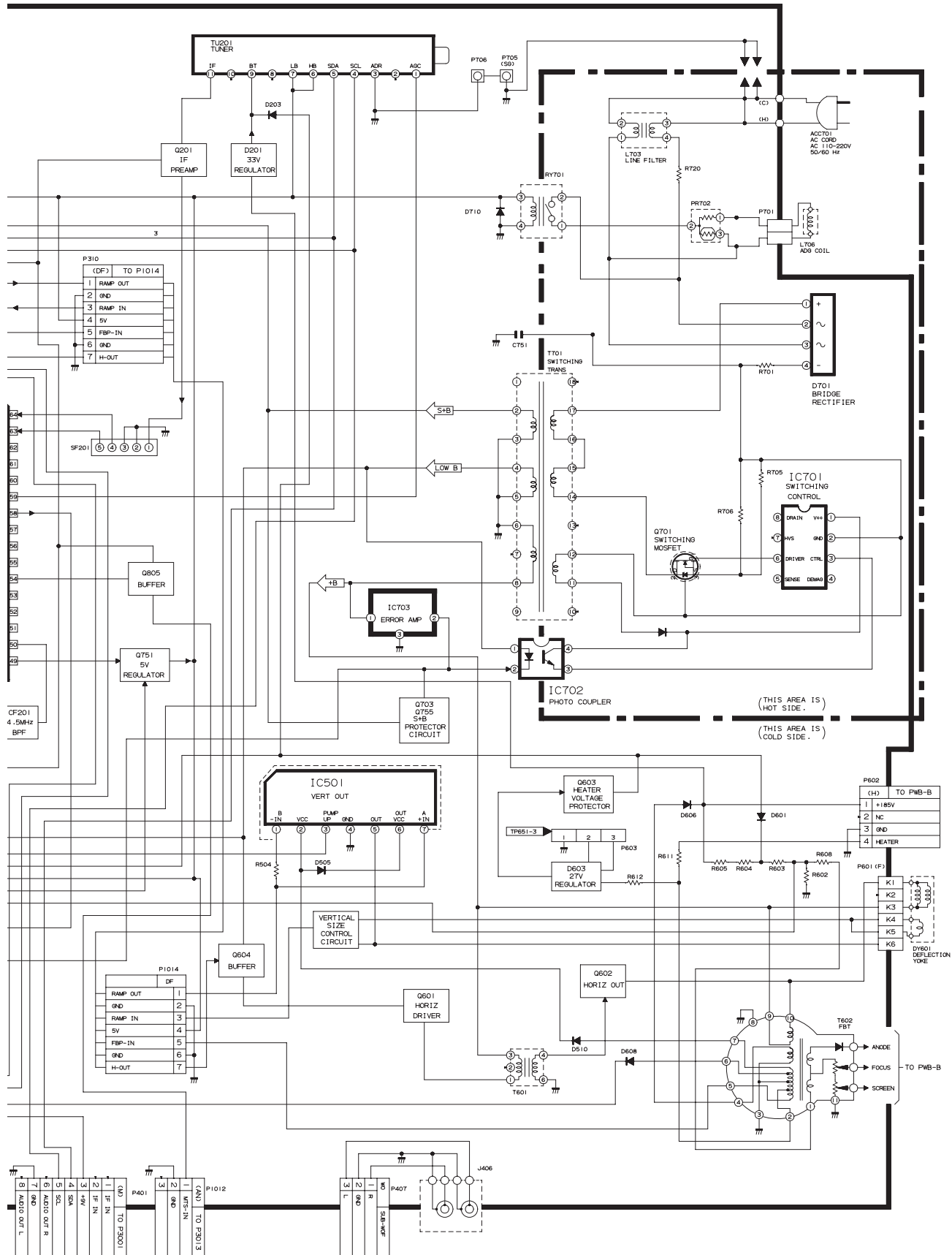
Micron mask version, software version and ROM correction function status are displayed in check mode.

## MODEL 21ARF45 CHASSIS LAYOUT

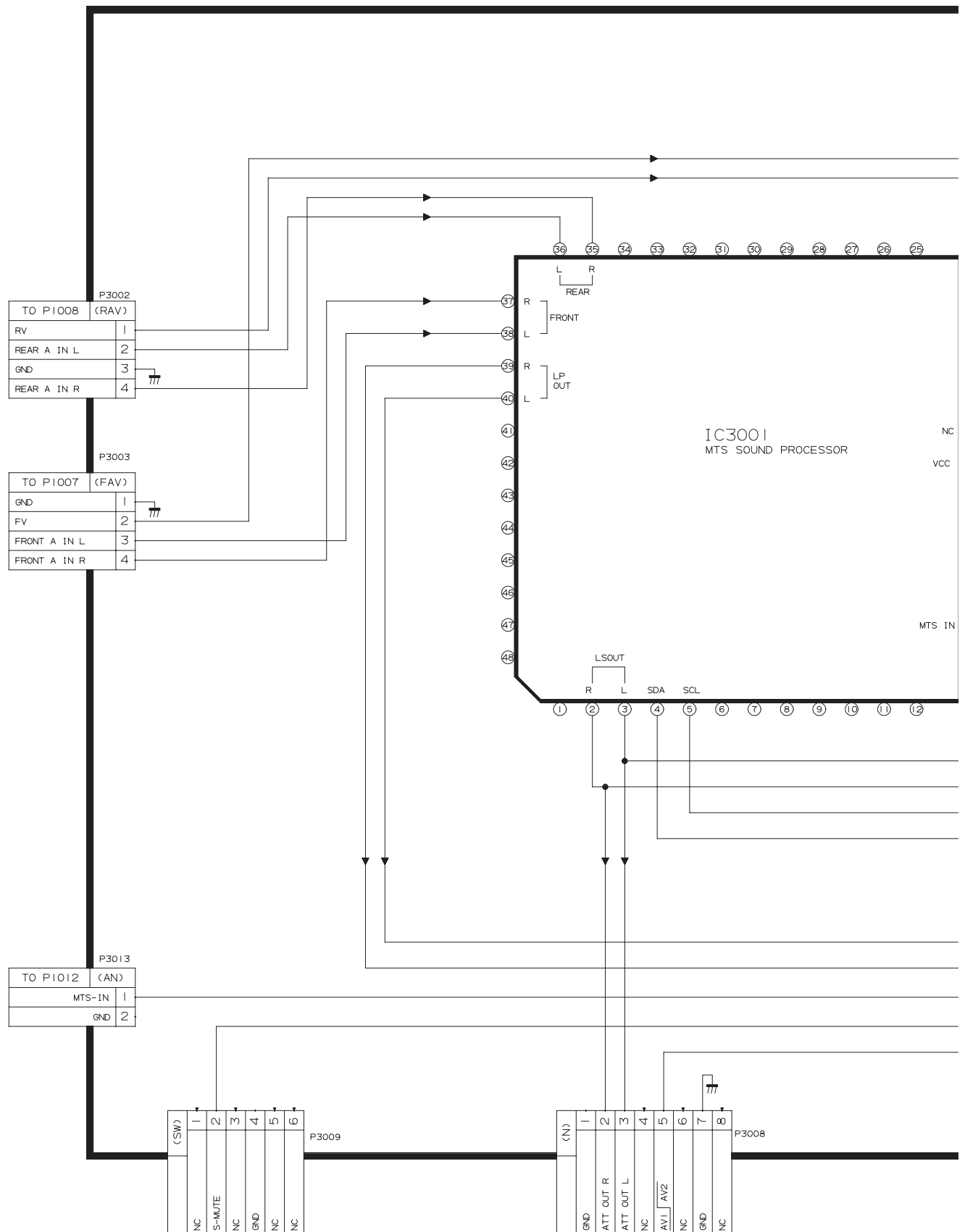


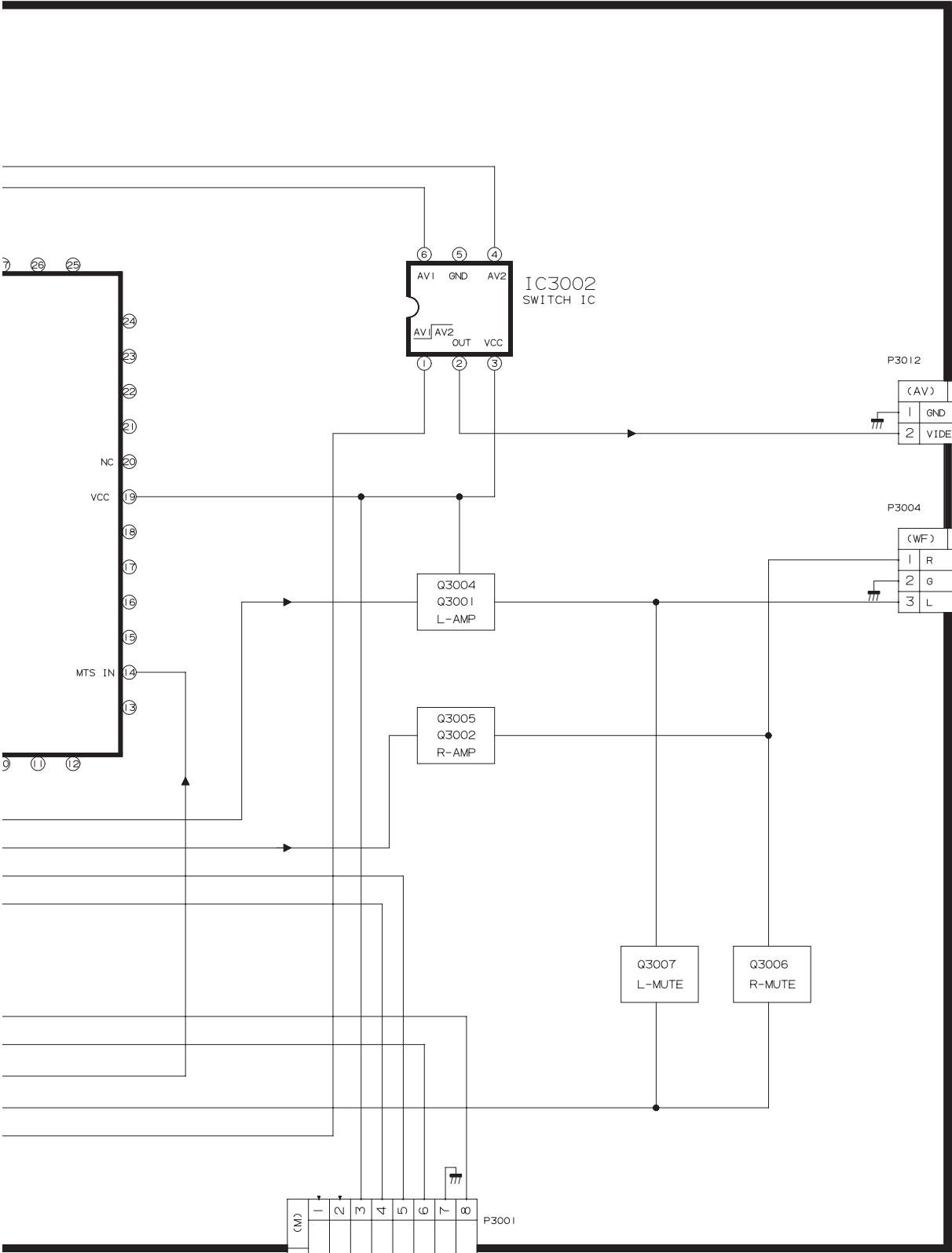
## MODEL 21ARF45 BLOCK DIAGRAM: MAIN Unit



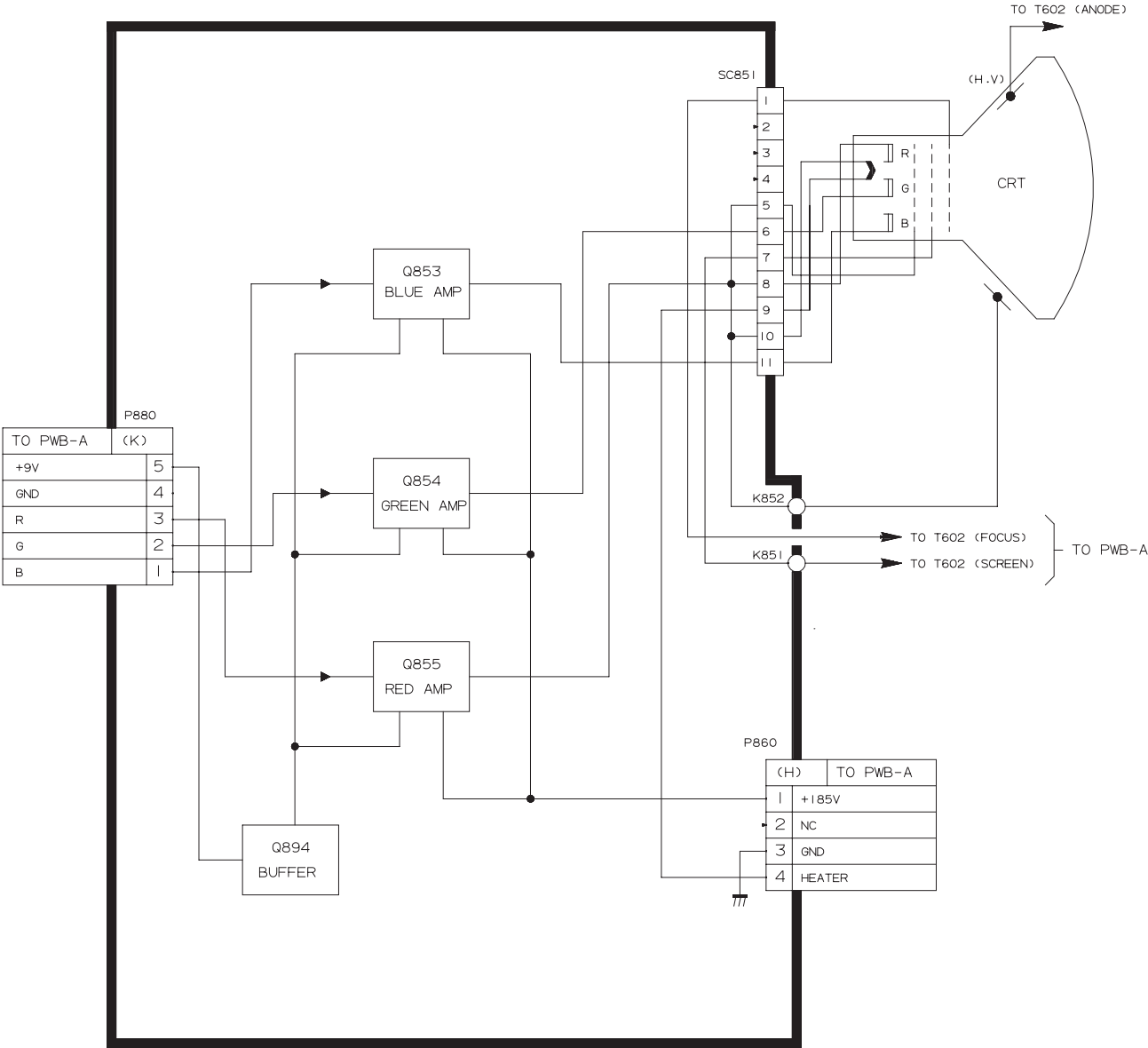


# MODEL 21ARF45 BLOCK DIAGRAM: MTS MODULE Unit





MODEL 21ARF45 BLOCK DIAGRAM: CRT Unit



## DESCRIPTION OF SCHEMATIC DIAGRAM

### NOTES:

1. The unit of resistance "ohm" is omitted.  
( $K=k\Omega=1000\Omega$ ,  $M=M\Omega$ )
2. All resistors are 1/16 watt, unless otherwise noted.
3. All capacitors are  $\mu F$ , unless otherwise noted.  
( $P=pF=\mu\mu F$ )
4. (G) indicates  $\pm 2\%$  tolerance may be used.
5.  $\overline{\text{---}}$  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 1000 $\mu$  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.  $\bigcirc \blacktriangleright$  indicates waveform check points (See chart, waveforms are measured from point indicated to chassis ground.)

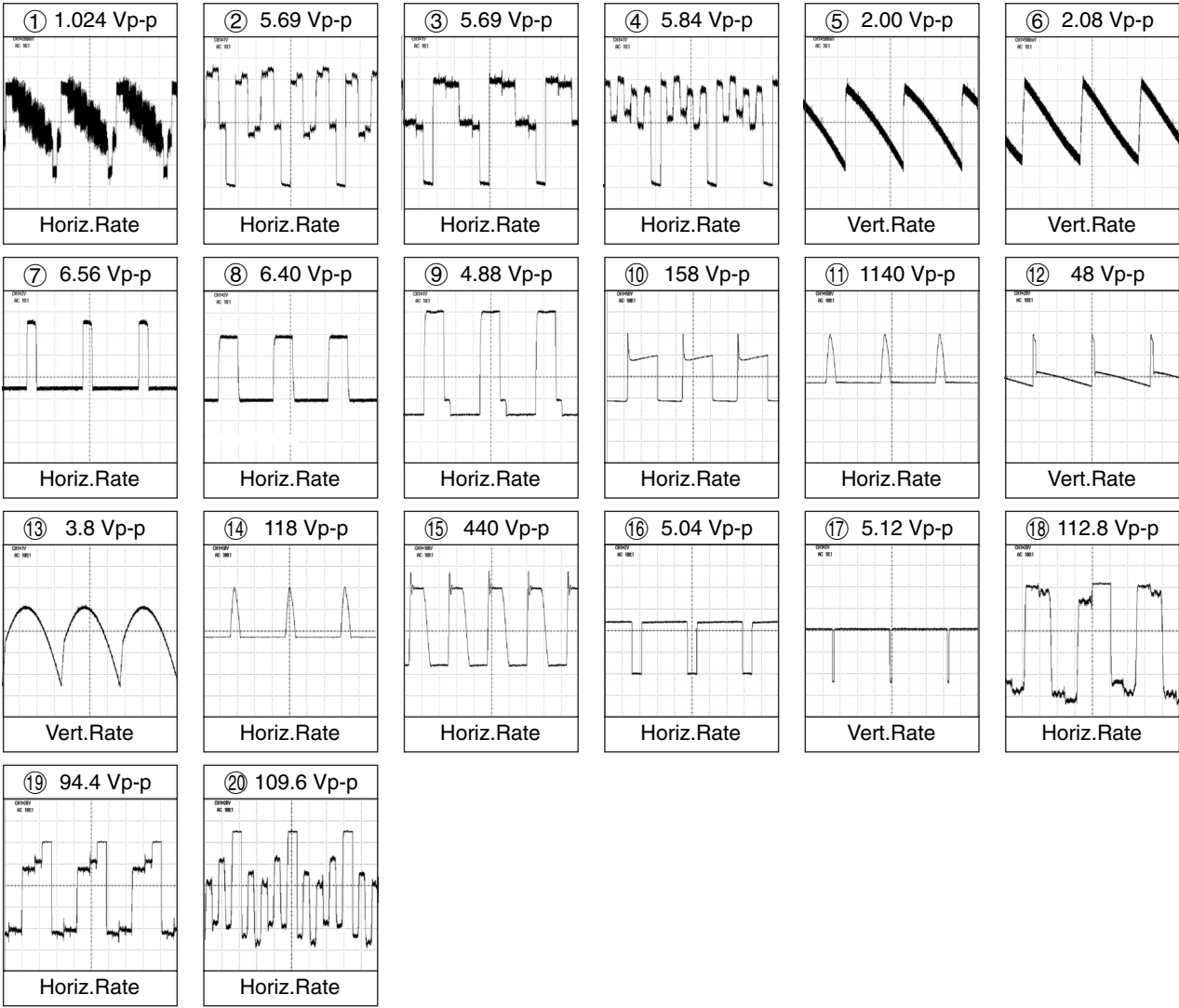
$\triangle$  AND SHADED (  ) COMPONENTS  
= SAFETY RELATED PARTS.  
 $\blacktriangle$  MARK= X-RAY RELATED PARTS.

DRGANNES MARQUES  $\triangle$  ET HACHRES (  ):  
PIECES RELATIVES A LA SECURITE.  
MARQUE  $\blacktriangle$  : PIECS RELATIVE AUX RAYONS X.

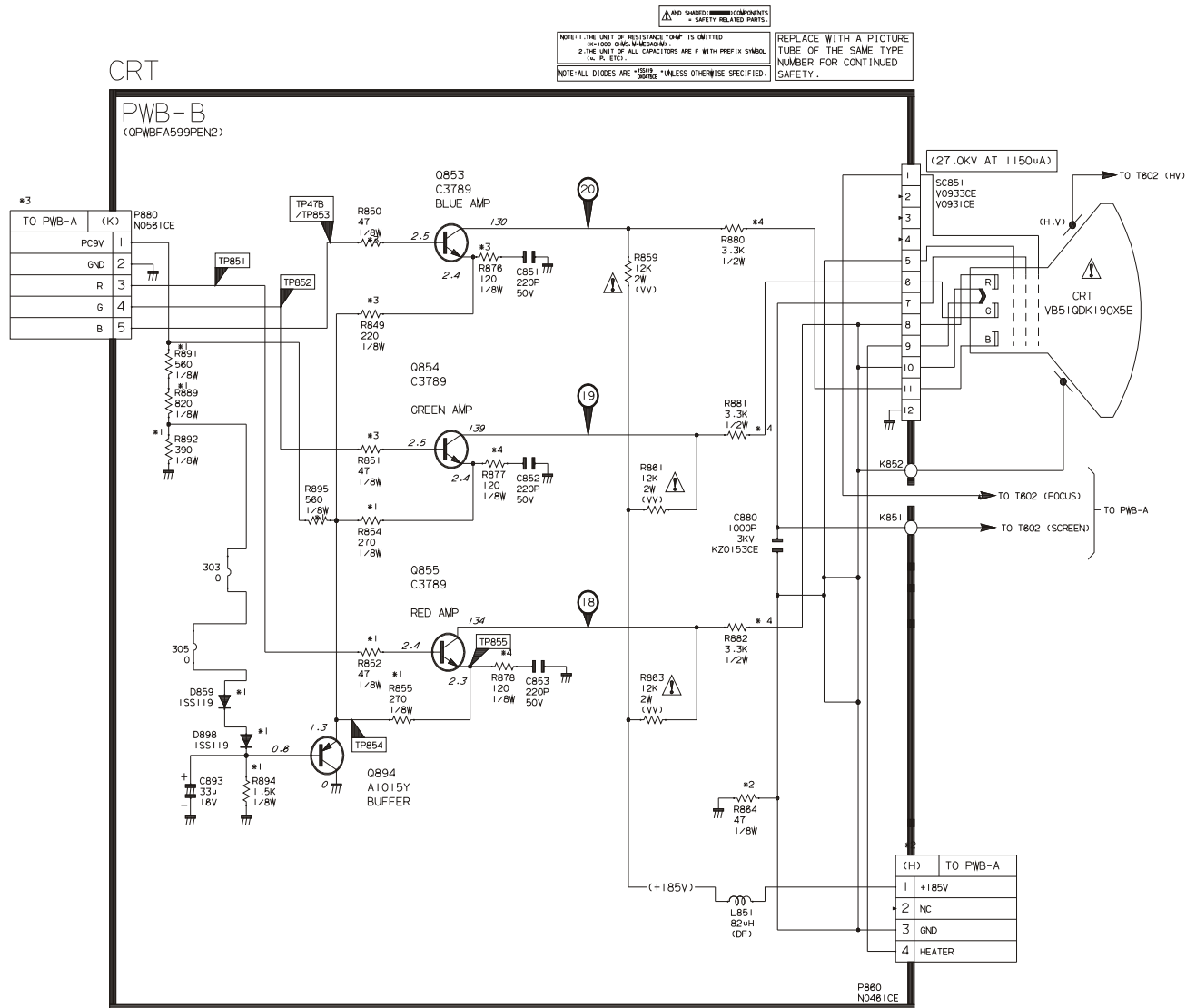
This circuit diagram is a standard one, printed circuits may be subject to change for product improvement without prior notice.



WAVEFORMS



## SCHEMATIC DIAGRAM: CRT Unit

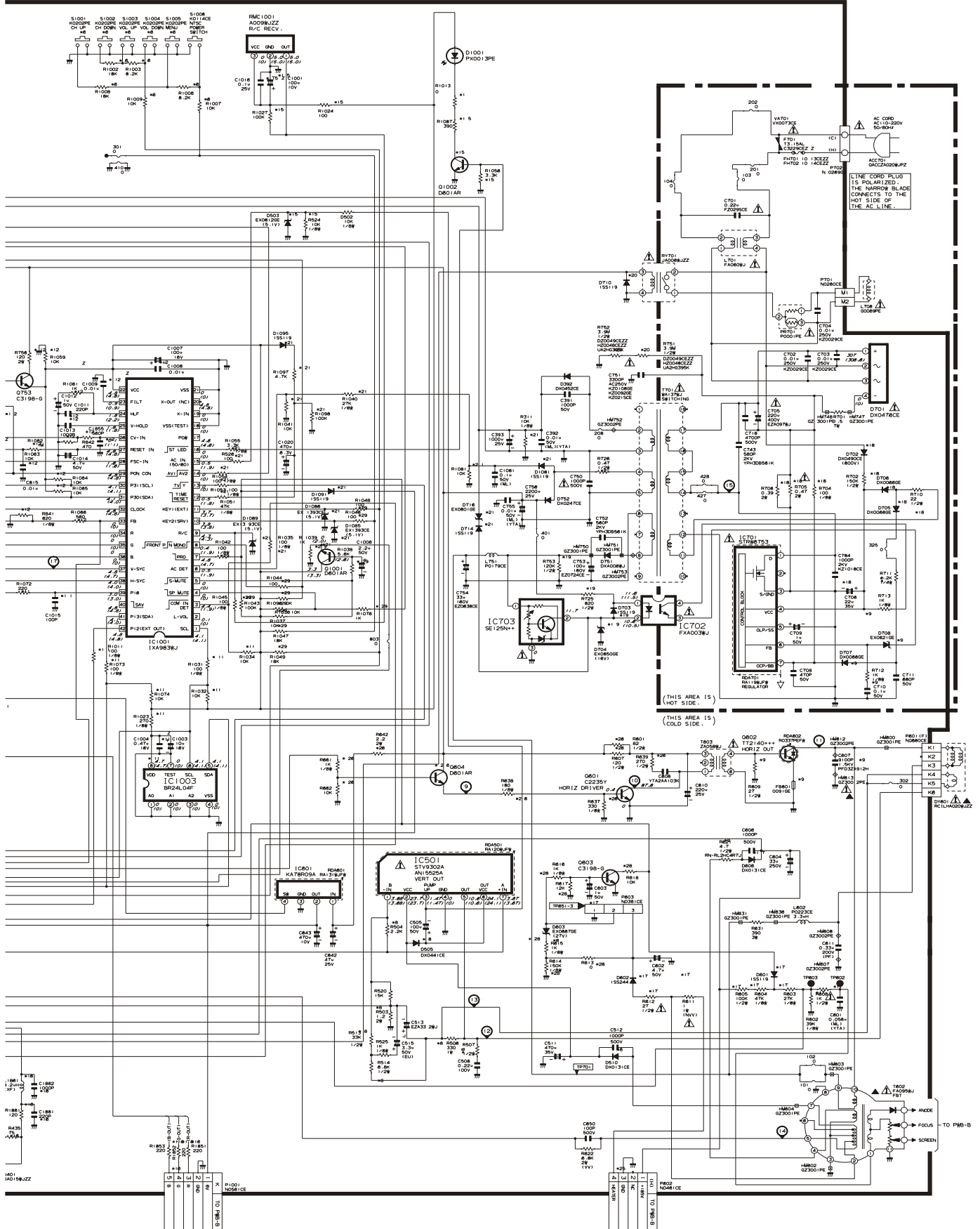




MAIN

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

NOTE 1: THE UNIT OF RESISTANCE \*OHM IS OMITTED.  
2: ALL RESISTORS ARE 1/8W RATIO UNLESS OTHERWISE NOTED.  
3: UNIT OF ALL CAPACITORS IS F WITH PREFIX SYMBOL  
(u, p, etc.).



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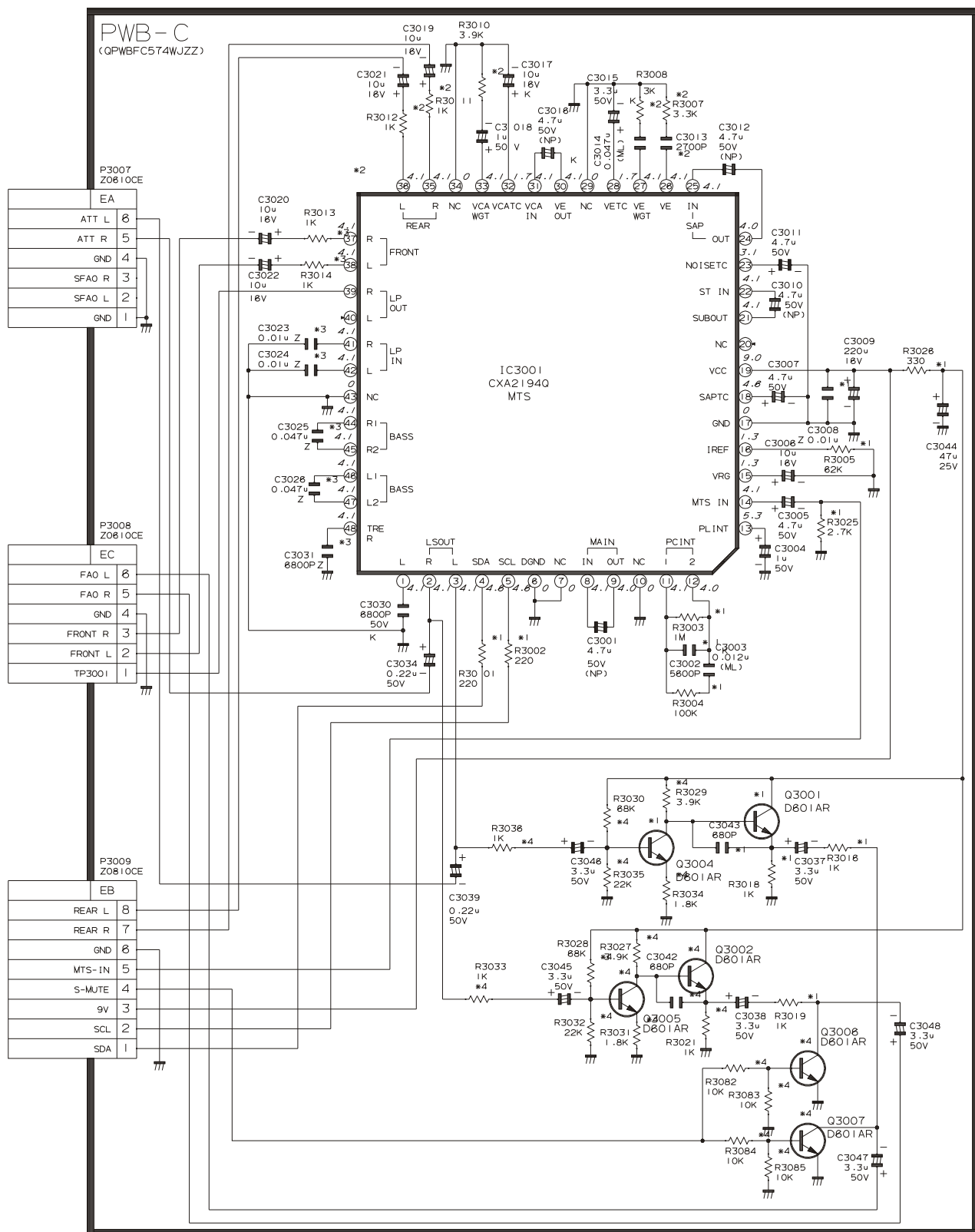
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## SCHEMATIC DIAGRAM: MTS Unit



# PARTS LIST

## PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual; electrical components having such features are identified by  $\Delta$  and shaded areas in the Replacement Parts Lists and Schematic Diagrams. The use of a substitute replacement part which does not 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
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## PICTURE TUBE

$\Delta$ V101	VB51QDK190X5E	X	Picture Tube	AD500527
$\Delta$ L706	RCILG0069PEZZ	X	Degaussing Coil	AD500496
	QEARCA012WJZZ	X	Grounding Strap	AD500478

## PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

PWB-A	DUNTKC522WEA5	X	MAIN Unit	—
PWB-B	DUNTKA599WED5	X	CRT Unit	—
PWB-E	DUNTKC574WEA0	X	MTS Unit	—

Ref. No.	Part No.	★	Description	Code
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## PWB-A: DUNTKC522WEA5 MAIN UNIT

### TUNER

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

$\Delta$ TU201	VTUVT1T5UF202	X	Tuner	AD500622
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### INTEGRATED CIRCUITS

IC301	VHIAN17820B-1	X	AN17820B	AD500574
IC401	VHIMM1501XN-1Y	X	MM1501XN	AD500328
IC402	VHIMM1501XN-1Y	X	MM1501XN	AD500328
$\Delta$ IC501	VHIAN15525A-1	X	AN15525A	AD500573
IC601	VHIKA78R09AP1	X	KIA78R09API	AD500577
$\Delta$ IC701	VHISTRW6753-1	X	STR-W6753	AD500580
$\Delta$ IC702	RH-FXA003WJZZ	X	PC123Y82	AD500512
$\Delta$ IC703	VHISE125N++-F	X	SE125N	AD500579
IC801	VHIM61251CF1EQ	X	M61251CP	AD500578
IC1001	RH-IXA983WJZZ	X	RU3AMLF-C4	AD500513
IC1003	VHIBR24L04F-1Y	X	BR24L04F-WE2	AD500575

### TRANSISTORS

Q201	VS2SC2735//1EY	X	2SC2735	AD500430
Q601	VS2SC2235Y/1E+	X	2SC2235-Y	AD500617
$\Delta$ Q602	VSTT2140+++F	X	TT2140LS	AD500621
Q603	VS2SC3198-G-1+	X	2SC3198-G	AD500431
Q604	VS2SD601AR/-1Y	X	2SD601AR	AD500434
Q751	VS2SD468-C/-1+	X	2SD468ACTZ	AD500619
Q752	VS2SD468-C/-1+	X	2SD468ACTZ	AD500619
Q753	VS2SC3198-G-1+	X	2SC3198-G	AD500431
Q754	VS2SD468-C/-1+	X	2SD468ACTZ	AD500619
Q801	VS2SD601AR/-1Y	X	2SD601AR	AD500434
Q804	VS2SB709AR/-1Y	X	2SB709AR	AD500429
Q805	VS2SD601AR/-1Y	X	2SD601AR	AD500434
Q1001	VS2SD601AR/-1Y	X	2SD601AR	AD500434
Q1002	VS2SD601AR/-1Y	X	2SD601AR	AD500434
Q1073	VS2SD601AR/-1Y	X	2SD601AR	AD500434

### DIODES

D201	RH-EX0676GEZZY	X	Zener Diode 32V	AD500221
D203	VHD1SS119//1Y	X	Diode	AD500318
D392	RH-DX0452CEZZ	X	Diode	AD500505
D502	VRD-RA2BE103JY	X	10k 1/8W Carbon	AD500338
D503	RH-EX0612GEZZY	X	EX0612GE	AD500508
D505	RH-DX0441CEZZY	X	Diode	AD500207
D510	RH-DX0131CEZZY	X	Diode	AD500204
D601	VHD1SS119//1Y	X	Diode	AD500318
D602	VHD1SS244//1Y	X	Diode	AD500319
D603	RH-EX0667GEZZY	X	Zener Diode 27V	AD500220
D606	RH-DX0131CEZZY	X	Diode	AD500204
$\Delta$ D701	RH-DX0476CEZZ	X	Diode	AD500210
D702	RH-DX0490CEZZY	X	Diode	AD500506
D703	VHD1SS119//1Y	X	Diode	AD500318
D704	RH-EX0650GEZZY	X	Zener Diode 16V	AD500510
D705	RH-DX0066GEZZY	X	Diode	AD500504
D706	RH-DX0066GEZZY	X	Diode	AD500504
D707	RH-DX0066GEZZY	X	Diode	AD500504
D708	RH-EX0621GEZZY	X	Zener	AD500509
D710	VHD1SS119//1Y	X	Diode	AD500318
D714	VHD1SS119//1Y	X	Diode	AD500318
D716	RH-EX0601GEZZY	X	Zener Diode, 3.7V	AD500507
D751	RH-DXA006WJZZ	X	Diode	AD500211
D752	RH-DX0247CEZZ	X	Diode	AD500205
D801	RH-EX1393CEZZY	X	EX1393CE	AD500511
D802	RH-EX0630GEZZY	X	Zener Diode 9.1V	AD100080
D803	VHD1SS119//1Y	X	Diode	AD500318
D806	VHD1SS119//1Y	X	Diode	AD500318
D810	RH-EX0263TAZZY	X	EX0263TA	AD500212
D811	RH-EX0263TAZZY	X	EX0263TA	AD500212
D812	RH-EX0263TAZZY	X	EX0263TA	AD500212



Ref. No.	Part No.	★ Description	Code
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## PWB-A: DUNTKC522WEA5

### MAIN UNIT

#### DIODES

D1001	RH-PX0013PEZZ	X LED, ON TIMER	AD500223
D1081	VHD1SS119//1Y	X Diode	AD500318
D1085	RH-EX1393CEZZY	X EX1393CE	AD500511
D1086	RH-EX1393CEZZY	X EX1393CE	AD500511
D1089	RH-EX1393CEZZY	X EX1393CE	AD500511
D1091	VHD1SS119//1Y	X Diode	AD500318
D1094	VHD1SS119//1Y	X Diode	AD500318
D1095	VHD1SS119//1Y	X Diode	AD500318
D1801	VHD1SS119//1Y	X Diode	AD500318
△ VA701	RH-VX0073CEZZ	X Varistor	AD500226

#### PACKAGED CIRCUITS

PR701	RMPTP0001PEZZ	X Packaged Circuit	AD500227
R751	RR-DZ0049CEZZY	X 3.9M 1/2W Solid	AD500229
R752	RR-DZ0049CEZZY	X 3.9M 1/2W Solid	AD500229
X801	RCRCAA009WJZZ	X Crystal,	AD500502

#### FILTERS

CF201	RFILC0447CEZZ	X Filter,FILC0447CE	AD500503
CF802	RFILC0446CEZZ	X Filter,FILC0446CE	AD500203
SF201	RFILC0405CEZZ	X Filter,(4.5MHZ)	AD500202

#### COILS

L202	QJUM-0001AJFWY	X Jumper Wire	AD500484
L203	VP-DF270K0000Y	X Peaking,27mH	AD500332
L204	VP-XF1R2K0000Y	X Peaking,1.2mH	AD500334
L602	RCILP0223CEZZ	X Coil,	AD500498
△ L701	RCILFA060WJZZ	X Coil Line Filter	AD500495
L751	RCILP0179CEZZ+	X Coil	AD500497
L801	VP-DF100K0000Y	X Peaking,10mH	AD500331
L802	VP-DF100K0000Y	X Peaking,10mH	AD500331
L803	VP-DF100K0000Y	X Peaking,10mH	AD500331
L804	VP-XF150K0000Y	X Peaking,15mH	AD500582
L806	VP-DF100K0000Y	X Peaking,10mH	AD500331
L807	VP-XF1R2K0000Y	X Peaking,1.2mH	AD500334
L1861	VP-XF8R2K0000Y	X Peaking,8.2mH	AD100197
L1862	VP-XF8R2K0000Y	X Peaking,8.2mH	AD100197

#### TRANSFORMERS

△ T602	RTRNFA095WJZZ	X H-Volt Transformer	AD500517
△ T603	RTRNZA058WJZZ	X Transformer	AD500519
△ T701	RTRNWA137WJZZ	X Transformer	AD500518

#### CAPACITORS

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

C201	VCEA0A1CW476M+	X 47 16V EL.	AD500266
C202	VCEA0A0JW108M+	X 1000 6.3V EL.	AD500536
C203	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C205	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C206	VCEA0A1HW106M+	X 10 50V EL.	AD500270
C207	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C208	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C209	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C210	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C213	VCKYCY1HB102KY	X 1000p 50V Ceramic	AD500293
C301	VCEA0A1CW477M+	X 470 16V EL.	AD500267
C304	VCEA0A1CW106M+	X 10 16V EL.	AD500261
C308	VCKYCY1HB822KY	X 8200p 50V Ceramic	AD500563
C310	VCEA0A1HW105M+	X 1 50V EL.	AD500269
C311	VCEA0A1HW105M+	X 1 50V EL.	AD500269
C312	VCEA0A1HW224M+	X 0.22 50V EL.	AD500272
C313	VCKYCY1HB822KY	X 8200p 50V Ceramic	AD500563
C317	VCE9GA1CW106M+	X 10 16V EL.	AD500533
C318	VCEA0A1CW107M+	X 100 16V EL.	AD500262
C321	VCEA0A1HW224M+	X 0.22 50V EL.	AD500272
C322	VCEA0A1HW105M+	X 1 50V EL.	AD500269
C391	VCKYPA1HB102K+	X 1000p 50V Ceramic	AD500307
C392	VCQYTA1HM103J+	X 0.01 50V Mylar	AD500311

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C393	VCEA0A1EW108M+	X 1000 25V EL.	AD500539
C434	VCE9GA1CW106M+	X 10 16V EL.	AD500533
C435	VCE9GA1CW106M+	X 10 16V EL.	AD500533
C436	VCKYCY1EF104ZY	X 0.1 25V Ceramic	AD500292
C437	VCE9GA1HW106M+	X 10 50V EL.	AD500535
C438	VCEA0A1CW106M+	X 10 16V EL.	AD500261
C439	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C452	VCE9GA1CW106M+	X 10 16V EL.	AD500533
C505	VCEA0A1HW107M+	X 100 50V EL.	AD500271
C508	VCFYAA2AA224J+	X 0.22 100V M-Poly.	AD500555
C511	VCEA0A1VW477M+	X 470 35V EL.	AD100136
C512	VCKYPA2HB102K+	X 1000p 500V Ceramic	AD500309
C513	RC-EZA332WJZZ+	X 1000 35V EL.	AD500493
C514	VCFYSA1JB273J+	X 0.027 63V M-Poly.	AD500559
C515	VCEACA1HC335J+	X 3.3 50V EL.	AD500552
C518	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C601	VCQYTA1HM563J+	X 0.056 50V Mylar	AD500317
C602	VCEA0A1HW475M+	X 4.7 50V EL.	AD500274
C603	VCEA0A1HW105M+	X 1 50V EL.	AD500269
C604	VCEA0A2EW336M+	X 33 250V EL.	AD500544
C606	VCKYPA2HB102K+	X 1000p 500V Ceramic	AD500309
C607	VCFPVC3ZA912H	X 9100p 1800 V M-Poly.	AD500554
C608	VCQYTA2AA103K+	X 10000p 100V Mylar	AD500572
C610	VCEA0A1EW227M+	X 220 25V EL.	AD500540
C611	VCFPVC2DB334J	X 0.33 250V M-Poly.	AD500553
C642	VCEA0A1EW476M+	X 47 25V EL.	AD500268
C643	VCEA0A1AW477M+	X 470 10V EL.	AD500538
C650	VCKYPA2HB101K+	X 100p 500V Ceramic	AD500569
△ C701	RC-FZ029SCEZZ	X 0.22 250V Ceramic	AD500494
C702	RC-KZ0029CEZZ+	X 0.01 AC250V Ceramic	AD500197
C703	RC-KZ0029CEZZ+	X 0.01 AC250V Ceramic	AD500197
△ C704	RC-KZ0029CEZZ+	X 0.01 AC250V Ceramic	AD500197
△ C705	RC-EZA097WJZZ	X 220 400V EL.	AD500492
C706	VCEA0A1VW226M+	X 22 35V EL.	AD500542
C708	VCKYPA1HB471K+	X 470p 50V Ceramic	AD500308
C709	VCEA9M1HW105M+	X 1 50V EL.	AD500549
C710	VCFYFA1HA104J+	X 0.1 50V M-Poly.	AD500556
C711	VCKYPA1HB681K+	X 680p 50V Ceramic	AD500568
C718	VCKYPA2HB472K+	X 4700p 500V Ceramic	AD100165
C743	VCKYPH3DB561K	X 560p 2kV Ceramic	AD500310
△ C750	VCKYPA2HB102K+	X 1000p 500V Ceramic	AD500309
△ C751	RC-KZ0106GEZZ	X 3300p AC250V Ceramic	AD500499
C752	VCKYPH3DB561K	X 560p 2kV Ceramic	AD500310
C753	RC-EZ0724CEZZ	X 100 160V EL.	AD500184
C754	RC-EZ0638CEZZ	X 33 160V EL.	AD500183
C755	VCQYTA1HM103J+	X 0.01 50V Mylar	AD500311
C756	VCEA0A1EW228M+	X 2200 25V EL.	AD500541
C757	VCKYCY1HB471KY	X 470p 50V Ceramic	AD500299
C784	RC-KZ0341CEZZ	X 1000p 2kV Ceramic	AD500501
C801	VCFYFA1HA105J+	X 1 50V M-Poly.	AD500557
C802	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C803	VCEA9M1CW476M+	X 47 16V EL.	AD500548
C804	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C805	VCEA0A1HW105M+	X 1 50V EL.	AD500269
C806	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C807	VCEA0A1CW337M+	X 330 16V EL.	AD500265
C808	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C809	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C810	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C811	VCEA9M1CW106M+	X 10 16V EL.	AD500545
C814	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C815	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C816	VCKYCY1EF104ZY	X 0.1 25V Ceramic	AD500292
C817	VCEA9M1CW107M+	X 100 16 V EL.	AD500546
C818	VCEA9M1HW475M+	X 4.7 50V EL.	AD500551
C819	VCCCCY1HH121JY	X 120p 50 V Ceramic	AD500529
C820	VCEA9M1HW474M+	X 0.47 50V EL.	AD500550
C821	VCKYCY1HF153ZY	X 0.015 50V Ceramic	AD500564
C822	VCE9GA1HW105M+	X 1 50V EL.	AD500534

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## PWB-A: DUNTKC522WEA5 MAIN UNIT

### CAPACITORS

[EL... Electrolytic, M-Poly... Metalized Polyprop Film]

C823	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AD500292
C824	VCEA0A1CW337M+	X	330	16V	EL.	AD500265
C825	VCE9GA1HW105M+	X	1	50V	EL.	AD500534
C826	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AD500304
C827	VCEA0A1CW476M+	X	47	16V	EL.	AD500266
C828	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AD500304
C829	VCEA9M1CW476M+	X	47	16V	EL.	AD500548
C831	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AD500292
C833	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AD500292
C834	VCEA0A1CW107M+	X	100	16V	EL.	AD500262
C835	VCEA0A1CW106M+	X	10	16V	EL.	AD500261
C836	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AD500304
C837	VCEA9M1HW105M+	X	1	50V	EL.	AD500549
C839	VCCCCY1HH680JY	X	68p	50V	Ceramic	AD500532
C840	VCIFYA1HA105J+	X	1	50V	M-Poly.	AD500557
C841	VCCCCY1HH101JY	X	100p	50V	Ceramic	AD100108
C842	VCEA9M1HW474M+	X	0.47	50V	EL.	AD500550
C843	VCEA0A1HW105M+	X	1	50V	EL.	AD500269
C845	VCKYCY1CF224ZY	X	0.22	16V	Ceramic	AD500560
C846	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AD500304
C847	VCCCCY1HH220JY	X	22p	50V	Ceramic	AD500530
C848	VCEA9M1HW105M+	X	1	50V	EL.	AD500549
C1001	VCEA0A1AW107M+	X	100	10V	EL.	AD100120
C1003	VCEA0A1CW106M+	X	10	16V	EL.	AD500261
C1004	VCKYCY1CF474ZY	X	0.47	16V	Ceramic	AD500291
C1006	VCEA0A1HW225M+	X	2.2	50V	EL.	AD500273
C1007	VCEA0A1CW107M+	X	100	16V	EL.	AD500262
C1008	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AD500304
C1009	VCKYCY1HF103ZY	X	0.01	50V	Ceramic	AD500304
C1011	VCKYCY1HB221KY	X	220p	50V	Ceramic	AD500295
C1012	VCEA0A1HW105M+	X	1	50V	EL.	AD500269
C1013	VCKYCY1HB102KY	X	1000p	50V	Ceramic	AD500293
C1014	VCE9GA1HW475M+	X	4.7	50V	EL.	AD500256
C1015	VCCCCY1HH101JY	X	100p	50V	Ceramic	AD100108
C1016	VCKYCY1EF104ZY	X	0.1	25V	Ceramic	AD500292
C1020	VCEA0A0JW477M+	X	470	6.3V	EL.	AD500259
C1081	VCQYTA1HM104J+	X	0.1	50V	Mylar	AD500312
C1849	VCIFYA1HA223J+	X	0.022	50V	Mylar	AD500558
C1855	VCKYCY1HB561KY	X	560p	50V	Ceramic	AD500561
C1856	VCKYCY1HB102KY	X	1000p	50V	Ceramic	AD500293
C1861	VCCCCY1HH221JY	X	220p	50V	Ceramic	AD500531
C1862	VCKYCY1HB102KY	X	1000p	50V	Ceramic	AD500293
C1863	VCCCCY1HH221JY	X	220p	50V	Ceramic	AD500531
C1864	VCKYCY1HB102KY	X	1000p	50V	Ceramic	AD500293
C1868	VCEA9M1CW336M+	X	33	16V	EL.	AD500547

### RESISTORS

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

RJ1	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ3	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ5	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ9	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ10	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ12	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ13	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ14	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ17	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ18	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ19	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ20	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ22	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ25	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552
RJ26	VRS-CY1JF000JY	X	00	1/16W	M-Ox.	AD100552

Ref. No. Part No.	★	Description	Code
RJ29	VRS-CY1JF000JY	X 00 1/16W M-Ox.	AD100552
RJ30	VRS-CY1JF000JY	X 00 1/16W M-Ox.	AD100552
RJ101	VRS-CY1JF000JY	X 00 1/16W M-Ox.	AD100552
R201	VRS-CY1JF101JY	X 100 1/16W M-Ox.	AD500383
R202	VRS-CY1JF101JY	X 100 1/16W M-Ox.	AD500383
R205	VRS-CY1JF680JY	X 68 1/16W M-Ox.	AD500411
R206	VRS-CY1JF122JY	X 1.2k 1/16W M-Ox.	AD500388
R207	VRS-CY1JF221JY	X 220 1/16W M-Ox.	AD500393
R208	VRS-CY1JF331JY	X 330 1/16W M-Ox.	AD100268
R209	VRS-CY1JF392JY	X 3.9k 1/16W M-Ox.	AD500404
R216	VRS-RG3LB333J+	X 33k 3.0W M-Ox.	AD500612
R220	VRS-CY1JF221JY	X 220 1/16W M-Ox.	AD500393
R301	VRS-CY1JF102JY	X 1k 1/16W M-Ox.	AD500384
R302	VRN-RL3DBR10J+	X 0.10 2W M-Film	AD500602
R303	VRS-CY1JF473JY	X 47k 1/16W M-Ox.	AD500406
R304	VRD-RA2BE683JY	X 68k 1/8W Carbon	AD500588
R305	VRS-CY1JF274JY	X 270k 1/16W M-Ox.	AD500398
R307	VRS-CY1JF222JY	X 2.2k 1/16W M-Ox.	AD100261
R308	VRS-CY1JF822JY	X 8.2k 1/16W M-Ox.	AD500414
R311	VRD-RA2BE103JY	X 10k 1/8W Carbon	AD500338
R314	VRS-CY1JF822JY	X 8.2k 1/16W M-Ox.	AD500414
R315	VRS-CY1JF222JY	X 2.2k 1/16W M-Ox.	AD100261
R362	VRS-CY1JF332JY	X 3.3k 1/16W M-Ox.	AD500400
R363	VRS-CY1JF564JY	X 560k 1/16W M-Ox.	AD500409
R365	VRS-CY1JF564JY	X 560k 1/16W M-Ox.	AD500409
R366	VRS-CY1JF332JY	X 3.3k 1/16W M-Ox.	AD500400
R381	VRS-CY1JF564JY	X 560k 1/16W M-Ox.	AD500409
R382	VRS-CY1JF332JY	X 3.3k 1/16W M-Ox.	AD500400
R383	VRS-CY1JF564JY	X 560k 1/16W M-Ox.	AD500409
R384	VRS-CY1JF332JY	X 3.3k 1/16W M-Ox.	AD500400
R431	VRS-CY1JF101JY	X 100 1/16W M-Ox.	AD500383
R432	VRS-CY1JF750JY	X 75 1/16W M-Ox.	AD500413
R433	VRS-CY1JF750JY	X 75 1/16W M-Ox.	AD500413
R434	VRS-CY1JF750JY	X 75 1/16W M-Ox.	AD500413
R435	VRS-CY1JF750JY	X 75 1/16W M-Ox.	AD500413
R436	VRD-RA2BE101JY	X 100 1/8W Carbon	AD500335
R437	VRS-CY1JF101JY	X 100 1/16W M-Ox.	AD500383
R438	VRS-CY1JF000JY	X 00 1/16W M-Ox.	AD100552
R461	VRS-CY1JF750JY	X 75 1/16W M-Ox.	AD500413
R462	VRS-CY1JF101JY	X 100 1/16W M-Ox.	AD500383
R502	VRS-RG3AB102J+	X 1k 1W M-Ox.	AD500610
R503	VRN-RL3DB1R2J+	X 1.2 2W M-Film	AD500601
R504	VRS-CY1JF222JY	X 2.2k 1/16W M-Ox.	AD100261
R506	VRS-RG3AB331J+	X 330 1W M-Ox.	AD500418
R507	VRD-RM2HD1R0JY	X 1 1/2W Carbon	AD100234
R513	VRD-RM2HD333JY	X 33k 1/2W Carbon	AD500595
R514	VRD-RM2HD682JY	X 6.8k 1/2W Carbon	AD500596
R520	VRS-CY1JF123JY	X 12k 1/16W M-Ox.	AD500389
R524	VRD-RA2BE103JY	X 10k 1/8W Carbon	AD500338
R525	VRD-RA2BE122JY	X 1.2k 1/8W Carbon	AD500584
R526	VRD-RA2BE101JY	X 100 1/8W Carbon	AD500335
R528	VRS-CY1JF683JY	X 68k 1/16W M-Ox.	AD500412
R601	VRD-RM2HD820JY	X 82 1/2W Carbon	AD500597
R602	VRD-RA2BE393JY	X 39k 1/8W Carbon	AD500352
R603	VRD-RA2BE273JY	X 27k 1/8W Carbon	AD500346
R604	VRD-RA2BE473JY	X 47k 1/8W Carbon	AD500354
R605	VRD-RM2HD104JY	X 100k 1/2W Carbon	AD500590
R607	VRD-RM2HD121JY	X 120 1/2W Carbon	AD500591
△ R608	VRD-RM2HD102JY	X 1.0k 1/2W Carbon	AD500360
R609	VRD-RM2HD270JY	X 27 1/2W Carbon	AD500363
△ R611	VRN-RL3AB1R0J+	X 1.0 1W M-Film	AD500369
R612	VRD-RM2HD270JY	X 27 1/2W Carbon	AD500363
R613	VRS-CY1JF000JY	X 00 1/16W M-Ox.	AD100552
R614	VRD-RA2BE154JY	X 150k 1/8W Carbon	AD500340
R615	VRD-RA2BE102JY	X 1k 1/8W Carbon	AD500337
R616	VRD-RA2BE102JY	X 1k 1/8W Carbon	AD500337
R617	VRS-CY1JF123JY	X 12k 1/16W M-Ox.	AD500389
R618	VRS-CY1JF103JY	X 10k 1/16W M-Ox.	AD500385
R621	VRN-RL2HC4R7J+	X 4.7 1/2W M-Film	AD500599



Ref. No.	Part No.	★	Description	Code
<b>PWB-A: DUNTKC522WEA5</b>				
<b>MAIN UNIT</b>				
<b>RESISTORS</b>				
<i>[M-Ox. ... Metal Oxide, M-Film ... Metal Film]</i>				
R622	VRS-VV3DB682J	X	6.8k 2W	M-Ox. AD500614
R631	VRS-KT3LB391J	X	390 3W	M-Ox. AD500609
R637	VRD-RA2BE331JY	X	330 1/8W	Carbon AD100216
R638	VRD-RA2BE181JY	X	180 1/8W	Carbon AD500585
R639	VRD-RM2HD271JY	X	270 1/2W	Carbon AD500594
R642	VRN-RL3DBR2J+	X	2.2 2W	M-Film AD500373
R661	VRD-RA2BE102JY	X	1k 1/8W	Carbon AD500337
R662	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R701	VRW-KQ3NC1R5K	X	1.5 7W	Cement AD500615
R702	VRD-RM2HD154JY	X	150k 1/2W	Carbon AD500592
R704	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R705	VRN-RL3DBR47J+	X	0.47 2W	M-Film AD500377
R706	VRN-RL3DBR39J+	X	0.39 2W	M-Film AD500376
R710	VRD-RM2HD220JY	X	22 1/2W	Carbon AD500593
R711	VRD-RA2EE122JY	X	1.2k 1/4W	Carbon AD500589
R712	VRD-RA2BE102JY	X	1k 1/8W	Carbon AD500337
R713	VRD-RA2BE102JY	X	1k 1/8W	Carbon AD500337
R725	VRD-RM2HD821JY	X	820 1/2W	Carbon AD500598
R726	VRN-RL2HCR47J+	X	0.47 1/2W	M-Film AD500368
R753	VRD-RM2HD124JY	X	120k 1/2W	Carbon AD500361
R754	VRN-RL3ABR2J+	X	8.2 1W	M-Film AD500600
R756	VRS-RG3DB121J+	X	120 2W	M-Ox. AD500611
R801	VRS-CY1JF561JY	X	560 1/16W	M-Ox. AD500608
R802	VRS-CY1JF682JY	X	6.8k 1/16W	M-Ox. AD100280
R803	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R804	VRS-CY1JF222JY	X	2.2k 1/16W	M-Ox. AD100261
R805	VRS-CY1JF222JY	X	2.2k 1/16W	M-Ox. AD100261
R806	VRS-CY1JF222JY	X	2.2k 1/16W	M-Ox. AD100261
R807	VRS-CY1JF222JY	X	2.2k 1/16W	M-Ox. AD100261
R808	VRD-RA2BE273JY	X	27k 1/8W	Carbon AD500346
R812	VRS-CY1JF101JY	X	100 1/16W	M-Ox. AD500383
R814	VRS-CY1JF473JY	X	47k 1/16W	M-Ox. AD500406
R815	VRS-CY1JF473JY	X	47k 1/16W	M-Ox. AD500406
R816	VRS-CY1JF223JY	X	22k 1/16W	M-Ox. AD500394
R817	VRS-CY1JF473JY	X	47k 1/16W	M-Ox. AD500406
R823	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R824	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R826	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R827	VRS-CY1JF102JY	X	1k 1/16W	M-Ox. AD500384
R828	VRS-CY1JF471JY	X	470 1/16W	M-Ox. AD500405
R829	VRD-RA2BE472JY	X	4.7k 1/8W	Carbon AD500587
R830	VRS-CY1JF393JY	X	39k 1/16W	M-Ox. AD500606
R831	VRS-CY1JF271JY	X	270 1/16W	M-Ox. AD100264
R832	VRS-CY1JF822JY	X	8.2k 1/16W	M-Ox. AD500414
R833	VRS-CY1JF221JY	X	220 1/16W	M-Ox. AD500393
R835	VRS-CY1JF332JY	X	3.3k 1/16W	M-Ox. AD500400
R836	VRD-RA2BE470JY	X	47 1/8W	Carbon AD100220
R838	VRD-RA2BE105JY	X	1 M 1/8W	Carbon AD500583
R839	VRS-CY1JF101JY	X	100 1/16W	M-Ox. AD500383
R840	VRS-CY1JF124JY	X	120k 1/16W	M-Ox. AD500604
R841	VRD-RA2BE821JY	X	820 1/8W	Carbon AD100229
R842	VRS-CY1JF471JY	X	470 1/16W	M-Ox. AD500405
R843	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R847	VRS-CY1JF475JY	X	4.7M 1/16W	M-Ox. AD500607
R1002	VRS-CY1JF183JY	X	18k 1/16W	M-Ox. AD500392
R1003	VRS-CY1JF822JY	X	8.2k 1/16W	M-Ox. AD500414
R1006	VRS-CY1JF822JY	X	8.2k 1/16W	M-Ox. AD500414
R1007	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1008	VRS-CY1JF183JY	X	18k 1/16W	M-Ox. AD500392
R1009	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1011	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1012	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1023	VRD-RA2BE271JY	X	270 1/8W	Carbon AD500586

Ref. No.	Part No.	★	Description	Code
R1024	VRS-CY1JF101JY	X	100 1/16W	M-Ox. AD500383
R1027	VRS-CY1JF104JY	X	100k 1/16W	M-Ox. AD500386
R1031	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1032	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1034	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1035	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1036	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1037	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1038	VRS-CY1JF562JY	X	5.6k 1/16W	M-Ox. AD500408
R1039	VRS-CY1JF102JY	X	1k 1/16W	M-Ox. AD500384
R1040	VRD-RA2BE273JY	X	27k 1/8W	Carbon AD500346
R1041	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1042	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1043	VRS-CY1JF104JY	X	100k 1/16W	M-Ox. AD500386
R1044	VRS-CY1JF101JY	X	100 1/16W	M-Ox. AD500383
R1045	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1046	VRS-CY1JF101JY	X	100 1/16W	M-Ox. AD500383
R1047	VRS-CY1JF183JY	X	18k 1/16W	M-Ox. AD500392
R1048	VRS-CY1JF101JY	X	100 1/16W	M-Ox. AD500383
R1049	VRS-CY1JF183JY	X	18k 1/16W	M-Ox. AD500392
R1051	VRD-RA2BE473JY	X	47k 1/8W	Carbon AD500354
R1053	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1054	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1055	VRS-CY1JF332JY	X	3.3k 1/16W	M-Ox. AD500400
R1056	VRS-CY1JF332JY	X	3.3k 1/16W	M-Ox. AD500400
R1059	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1061	VRS-CY1JF102JY	X	1k 1/16W	M-Ox. AD500384
R1062	VRS-CY1JF105JY	X	1M 1/16W	M-Ox. AD500387
R1063	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1064	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1065	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1066	VRS-CY1JF561JY	X	560 1/16W	M-Ox. AD500608
R1072	VRS-CY1JF221JY	X	220 1/16W	M-Ox. AD500393
R1073	VRD-RA2BE101JY	X	100 1/8W	Carbon AD500335
R1074	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1076	VRS-CY1JF102JY	X	1k 1/16W	M-Ox. AD500384
R1081	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1087	VRS-CY1JF391JY	X	390 1/16W	M-Ox. AD500402
R1096	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1097	VRS-CY1JF472JY	X	4.7k 1/16W	M-Ox. AD100574
R1098	VRS-CY1JF104JY	X	100k 1/16W	M-Ox. AD500386
R1801	VRD-RA2BE222JY	X	2.2k 1/8W	Carbon AD500342
R1802	VRS-CY1JF124JY	X	120k 1/16W	M-Ox. AD500604
R1849	VRS-CY1JF222JY	X	2.2k 1/16W	M-Ox. AD100261
R1850	VRS-CY1JF472JY	X	4.7k 1/16W	M-Ox. AD100574
R1851	VRS-CY1JF221JY	X	220 1/16W	M-Ox. AD500393
R1852	VRS-CY1JF221JY	X	220 1/16W	M-Ox. AD500393
R1853	VRS-CY1JF221JY	X	220 1/16W	M-Ox. AD500393
R1854	VRS-CY1JF103JY	X	10k 1/16W	M-Ox. AD500385
R1855	VRD-RA2BE102JY	X	1k 1/8W	Carbon AD500337
R1861	VRS-CY1JF121JY	X	120 1/16W	M-Ox. AD500603
R1862	VRS-CY1JF121JY	X	120 1/16W	M-Ox. AD500603
R1894	VRD-RA2BE103JY	X	10k 1/8W	Carbon AD500338
R1895	VRS-CY1JF473JY	X	47k 1/16W	M-Ox. AD500406
R1896	VRS-CY1JF473JY	X	47k 1/16W	M-Ox. AD500406
<b>SWITCHES</b>				
S1001	QSW-K0202PEZZ+	X	Switch,	AD500491
S1002	QSW-K0202PEZZ+	X	Switch,	AD500491
S1003	QSW-K0202PEZZ+	X	Switch,	AD500491
S1004	QSW-K0202PEZZ+	X	Switch,	AD500491
S1005	QSW-K0202PEZZ+	X	Switch,	AD500491
S1006	QSW-K0114CEZZ	X	Switch,	AD500180
<b>MISCELLANEOUS PARTS</b>				
F701	QFS-C3229CEZZ	X	Fuse,T3.14AL	AD500155
FB601	RBLN-0091GEZZY	X	Ferrite Bead	AD500182
FH701	QFSDH1013CEZZ+	X	FUSE CLIP	AD500156
FH702	QFSDH1014CEZZ+	X	FUSE CLIP	AD500157
J401	QJAKGA015WJZZ	X	Jack,9Pin	AD500483
J402	QJAKE0108CEZZ	X	Jack,3Pin	AD500479

Ref. No.	Part No.	★ Description	Code
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## PWB-A: DUNTKC522WEA5

### MAIN UNIT

#### MISCELLANEOUS PARTS

J403	QJAKE0183CEZZ	X Jack,3Pin	AD500480
J404	QJAKE0184CEZZ	X Jack,3Pin	AD500481
J405	QJAKG0093CEZZ	X Rear A/V Terminal Jack	AD500164
J406	QJAKFA008WJZZ	X Jack	AD500482
P302	QPLGN0461CEZZA	X plug,4pin(S1-4)	AD500487
P601	QPLGN0660CEZZ	X plug (6 pins)	AD500174
P602	QPLGN0461CEZZA	X plug,4pin(S1-4)	AD500487
P603	QPLGN0361CEZZA	X plug,3pin (TP651-3)	AD500171
P701	QPLGN0260CEZZ	X plug 2pin(M1-2)	AD500169
P702	QPLGN0269GEZZ	X plug 2pin(P1-2)	AD500170
P1001	QPLGN0561CEZZA	X plug 5Pin(KA)	AD500488
P1002	QPLGN0561CEZZ	X plug (5 pins)	AD500173
RDA301	PRDARA121WJFW	X Heat Sink	AD500468
RDA501	PRDARA120WJFW	X Heat Sink	AD500467
RDA601	PRDARA131WJFW	X Heat Sink	AD500469
RDA602	PRDAR0337PEFW	X Heat Sink	AD500465
RDA701	PRDARA119WJFW	X Heat Sink	AD500466
RY701	RRLYJA006WJZZ	X Relay	AD500514
RMC1001	RRMCUA009WJZZ	X R/C Receiver	AD500516

## PWB-B: DUNTKA599WED5

### CRT UNIT

#### DIODES

D859	VHD1SS119/-1Y	X Diode	AD500318
D898	VHD1SS119/-1Y	X Diode	AD500318

#### TRANSISTORS

Q853	VS2SC3789//2E	X 2SC3789	AD500618
Q854	VS2SC3789//2E	X 2SC3789	AD500618
Q855	VS2SC3789//2E	X 2SC3789	AD500618
Q894	VS2SA1015Y/1E+	X 2SA1015Y	AD500616

#### COILS

L851	VP-MK820K0000+	X Peaking,82mH	AD500581
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#### CAPACITORS

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

C851	VCKYPA1HB221K+	X 220p 50V Ceramic	AD500567
C852	VCKYPA1HB221K+	X 220p 50V Ceramic	AD500567
C853	VCKYPA1HB221K+	X 220p 50V Ceramic	AD500567
C880	RC-KZ0153CEZZ	X 1000p 3kV Ceramic	AD500500
C893	VCEA0A1CW336M+	X 33 16V EL.	AD100124

#### RESISTORS

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

R849	VRD-RA2BE221JY	X 220 1/8W Carbon	AD500341
R850	VRD-RA2BE470JY	X 47 1/8W Carbon	AD100220
R851	VRD-RA2BE470JY	X 47 1/8W Carbon	AD100220
R852	VRD-RA2BE470JY	X 47 1/8W Carbon	AD100220
R854	VRD-RA2BE271JY	X 270 1/8W Carbon	AD500586
R855	VRD-RA2BE271JY	X 270 1/8W Carbon	AD500586
R859	VRS-VV3DB123J	X 12k 2W M-Ox.	AD500613
R861	VRS-VV3DB123J	X 12k 2W M-Ox.	AD500613
R863	VRS-VV3DB123J	X 12k 2W M-Ox.	AD500613
R864	VRD-RA2BE470JY	X 47 1/8W Carbon	AD100220
R876	VRD-RA2BE121JY	X 120 1/8W Carbon	AD100204
R877	VRD-RA2BE121JY	X 120 1/8W Carbon	AD100204
R878	VRD-RA2BE121JY	X 120 1/8W Carbon	AD100204
R880	VRD-RM2HD332JY	X 3.3k 1/2W Carbon	AD100238
R881	VRD-RM2HD332JY	X 3.3k 1/2W Carbon	AD100238
R882	VRD-RM2HD332JY	X 3.3k 1/2W Carbon	AD100238
R889	VRD-RA2BE821JY	X 820 1/8W Carbon	AD100229
R891	VRD-RA2BE561JY	X 560 1/8W Carbon	AD100225
R892	VRD-RA2BE391JY	X 390 1/8W Carbon	AD500350
R894	VRD-RA2BE152JY	X 1.5k 1/8W Carbon	AD500339
R895	VRD-RA2BE561JY	X 560 1/8W Carbon	AD100225

Ref. No.	Part No.	★ Description	Code
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#### MISCELLANEOUS PARTS

P860	QPLGN0461CEZZ	X plug (4 PINS)	AD500172
P880	QPLGN0561CEZZ	X plug (5 pins)	AD500173
SC851	QSOCV0933CEZZ	X Socket (CRT)	AD500490

## PWB-E: DUNTKC574WEA0

### MTS UNIT

#### DIODES

IC3001	VHICXA2194Q-1Y	X CXA2194Q	AD500576
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#### TRANSISTORS

Q3001	VS2SD601AR/-1Y	X 2SD601AR	AD500434
Q3002	VS2SD601AR/-1Y	X 2SD601AR	AD500434
Q3004	VS2SD601AR/-1Y	X 2SD601AR	AD500434
Q3005	VS2SD601AR/-1Y	X 2SD601AR	AD500434
Q3006	VS2SD601AR/-1Y	X 2SD601AR	AD500434
Q3007	VS2SD601AR/-1Y	X 2SD601AR	AD500434

#### CAPACITORS

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

C3001	VCE9GA1HW475M+	X 4.7 50V EL.	AD500256
C3002	VCKYCY1HB562KY	X 5600p 50V Ceramic	AD500301
C3003	VCQYTA1HM123J+	X 0.012 50V Mylar	AD500313
C3004	VCEA0A1HW105M+	X 1 50V EL.	AD500269
C3005	VCEA0A1HW475M+	X 4.7 50V EL.	AD500274
C3006	VCEA0A1CW106M+	X 10 16V EL.	AD500261
C3007	VCEA0A1HW475M+	X 4.7 50V EL.	AD500274
C3008	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C3009	VCEA0A1CW227M+	X 220 16V EL.	AD500264
C3010	VCE9GA1HW475M+	X 4.7 50V EL.	AD500256
C3011	VCEA0A1HW475M+	X 4.7 50V EL.	AD500274
C3012	VCE9GA1HW475M+	X 4.7 50V EL.	AD500256
C3013	VCKYCY1HB272KY	X 2700p 50V Ceramic	AD500297
C3014	VCQYTA1HM473J+	X 0.047 50V Mylar	AD500316
C3015	VCEACA1HC335K+	X 3.3 50V EL.	AD500279
C3016	VCE9GA1HW475M+	X 4.7 50V EL.	AD500256
C3017	VCEACA1CC106K+	X 10 16V EL.	AD500278
C3018	VCEA0A1HW105M+	X 1 50V EL.	AD500269
C3019	VCEA0A1CW106M+	X 10 16V EL.	AD500261
C3020	VCEA0A1CW106M+	X 10 16V EL.	AD500261
C3021	VCEA0A1CW106M+	X 10 16V EL.	AD500261
C3022	VCEA0A1CW106M+	X 10 16V EL.	AD500261
C3023	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C3024	VCKYCY1HF103ZY	X 0.01 50V Ceramic	AD500304
C3025	VCKYCY1HF473ZY	X 0.047 50V Ceramic	AD500565
C3026	VCKYCY1HF473ZY	X 0.047 50V Ceramic	AD500565
C3030	VCQYTA1HM682J+	X 6800P 50V Mylar	AD500571
C3031	VCKYCY1HF682ZY	X 6800p 50V Ceramic	AD500566
C3034	VCEA0A1HW224M+	X 0.22 50V EL.	AD500272
C3037	VCEA0A1HW335M+	X 3.3 50V EL.	AD100133
C3038	VCEA0A1HW335M+	X 3.3 50V EL.	AD100133
C3039	VCEA0A1HW224M+	X 0.22 50V EL.	AD500272
C3042	VCKYCY1HB681KY	X 680p 50V Ceramic	AD500562
C3043	VCKYCY1HB681KY	X 680p 50V Ceramic	AD500562
C3044	VCEA0A1EW476M+	X 47 25V EL.	AD500268
C3045	VCEA0A1HW335M+	X 3.3 50V EL.	AD100133
C3046	VCEA0A1HW335M+	X 3.3 50V EL.	AD100133
C3047	VCEA0A1HW335M+	X 3.3 50V EL.	AD100133
C3048	VCEA0A1HW335M+	X 3.3 50V EL.	AD100133

#### RESISTORS

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

R3001	VRS-CY1JF221JY	X 220 1/16W M-Ox.	AD500393
R3002	VRS-CY1JF221JY	X 220 1/16W M-Ox.	AD500393
R3003	VRS-CY1JF105JY	X 1M 1/16W M-Ox.	AD500387
R3004	VRS-CY1JF104JY	X 100k 1/16W M-Ox.	AD500386
R3005	VRS-CY1JF623JY	X 62k 1/16W M-Ox.	AD500410
R3006	VRS-CY1JF101JY	X 100 1/16W M-Ox.	AD500383
R3007	VRS-CY1JF332JY	X 3.3k 1/16W M-Ox.	AD500400
R3008	VRS-CY1JF302JY	X 3k 1/16W M-Ox.	AD500399
R3009	VRS-CY1JF101JY	X 100 1/16W M-Ox.	AD500383
R3010	VRS-CY1JF392JY	X 3.9k 1/16W M-Ox.	AD500404

Ref. No.	Part No.	★ Description	Code
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## PWB-E: DUNTKC574WEA0 MTS UNIT

### RESISTORS

*[M-Ox. ... Metal Oxide, M-Film ... Metal Film]*

R3011	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3012	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3013	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3014	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3016	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3018	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3019	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3021	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3025	VRS-CY1JF272JY	X	2.7k	1/16W	M-Ox.	AD500396
R3026	VRS-CY1JF331JY	X	330	1/16W	M-Ox.	AD100268
R3027	VRS-CY1JF392JY	X	3.9k	1/16W	M-Ox.	AD500404
R3028	VRS-CY1JF683JY	X	68k	1/16W	M-Ox.	AD500412
R3029	VRS-CY1JF392JY	X	3.9k	1/16W	M-Ox.	AD500404
R3030	VRS-CY1JF683JY	X	68k	1/16W	M-Ox.	AD500412
R3031	VRS-CY1JF182JY	X	1.8k	1/16W	M-Ox.	AD500605
R3032	VRS-CY1JF223JY	X	22k	1/16W	M-Ox.	AD500394
R3033	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3034	VRS-CY1JF182JY	X	1.8k	1/16W	M-Ox.	AD500605
R3035	VRS-CY1JF223JY	X	22k	1/16W	M-Ox.	AD500394
R3036	VRS-CY1JF102JY	X	1k	1/16W	M-Ox.	AD500384
R3082	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AD500385
R3083	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AD500385
R3084	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AD500385
R3085	VRS-CY1JF103JY	X	10k	1/16W	M-Ox.	AD500385

### MISCELLANEOUS PARTS

P3007	QPLGZ0610CEZZ	X	plug 6Pin	AD500489
P3008	QPLGZ0610CEZZ	X	plug 6Pin	AD500489
P3009	QPLGZ0810CEZZ	X	plug 32"	AD500175

## MISCELLANEOUS PARTS

△ ACC701	QACCZA020WJPZ	X	AC Cord	AD500146
	VSP1205PB09WA	X	speaker	AD500620
	LHLDK0014PEZZ	X	AC Cord holder	AD500450
	LHLDZA096WJZZ	X	BONDING RIB	AD500455
	LHLDZA107WJZZ	X	BONDING BOSS	AD500456
	TCAUH3045GJZZ	X	caution card	AD500523
	QCNW-A871WJZZ	X	Wire (H) 5 pin	AD500475
	QCNW-A872WJZZ	X	Wire (K) 4 pin	AD500476
	QCNW-A873WJZZ	X	Wire (speaker)	AD500477
	QPLGA0017CEZZ	X	PLUG AC ADAPTOR	AD500167

## SUPPLIED ACCESSORIES

RRMCG1589CESA	X	R/C GUN (TOSHIBA)	AD500230
TINS-B801WJZZ	X	OPERATION MANUAL	AD500524

Ref. No.	Part No.	★ Description	Code
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## PACKING PARTS

SPAKCB938WJZZ	X	Packing Case	AD500520
SPAKPA055WJZZ	X	Lamifoam	AD500521
SPAKXA753WJZZ	X	Packing Foam	AD500522
SSAKA0101GJZZ	X	Plastic bag	AD500242
TLABM0109GJZZ	X	MODEL LABEL	AD500248

## CABINET PARTS

1- CCABAA809WEH0	X	CAB-A ASSY	AD500443
1-2 HBDGEA017WJSA	X	BADGE	AD500447
1-3 GCOVAB137WJSA	X	COVER (LED & R/C)	AD500446
1-4 JBTA-A415WJSA	X	BUTTON (POWER)	AD500448
1-5 MSPRCA059WJFW	X	SPRING	AD500464
1-5 JBTA-A416WJSA	X	BUTTON (CONTROL)	AD500449
1-6 MSPRCA059WJFW	X	SPRING	AD500464
2 GCABBA088WJKA	X	REAR CABINET	AD500445

## CABINET PARTS LOCATION