

Service Manual

Colour Television



TC-15PM10R

MX-7 Chassis

Specification

Power Source :	AC AUTO 110-240V, 50/60Hz	Colour	33.57 MHz (PAL)33.6 MHz (SECAM) 32.5 MHz (B,G)33.75 MHz (SECAM) 34.42 MHz (NTSC)
Power Consumption :	69W	Video / Audio Terminals :	
Aerial Impedance:	75Ω unbalanced Coaxial type	FAV In :	Video In 1 Vp-p 75Ω Video In Approx, 400mVrms
Receiving System :	17 System	Monitor Out :	Video Out1 Vp-p 75ΩAudio OutApprox, 400mVrms
Receiving Channels :		RAV In :	Video In 1 Vp-p 75Ω
VHF	2-12 (PAL/SECAM B,K1) 0-12 (PAL B AUST)1-9 (PAL B N.Z) 1-12 (PAL/SECAM D) 1-12 (NTSC M JAPAN) 2-13 (NTSC M U.S.A)	Audio in:	Approx. 400m Vrms
UHF	21-69 (PAL G,H,I/SECAM G,K,K1)28-69 (PAL B AUST) 13-57 (PAL D,K)13-62 (NTSC M JAPAN)14-69 (NTSC M U.S.A)	High Voltage :	27.5 kV (± 1.0)at zero beam current
CATV	S1-S41(OSCAR) 1-125 (U.S.A CATV) C13-C41(JAPAN) S21-S41 (HYPER)Z1-Z37 (CHINA)	Picture Tube :	A36LTN194x36cm (15 inches)Measured diagonally, 90° deflection
Intermediate Frequency :		Audio Output :	3.5W
Video	38.0 MHz	Dimensions :	Height : 373.5 mmWidth : 385.0 mmDepth : 379.8 mm
Sound	31.5 MHz (D,K) / 32.5MHz (B,G) 32.0 MHz (I) / 32.5MHz (M)	Mass :	12.5 kg
Specifications are subject to change without notice. Mass and dimensions shown are approximate.			

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

CONTENTS

	Page		Page
1 Safety Precautions	2	2.6. Pal Colour	5
1.1. General Guide Lines	2	2.7. Adjustment	6
1.2. Leakage Current Cold Check	2	3 L-BOARDTNP4G137AU(S'PORE)TNP4G137AD(M'EAST/CIS) --	9
1.3. Leakage Current Hot Check (Fig. 1)	2	4 Z1-BOARDTNP4G139AA	10
1.4. X-Radiation	3	5 A-BOARDTNP4G136AD(M'EAST)TNP4G136AU(S'PORE) -----	11
1.5. MX-7 Chassis Block Diagram	3	6 Schematic Diagram for models TC-15PM10R (MX-7 Chassis)	13
2 Service Hints	4	7 CRT	14
2.1. Service Position for E-Board	4	8 Speakers	15
2.2. Factory mode adjustment	4	9 Schematic Diagram	17
2.3. Adjustment for White Balance	4	10 Replacement Parts List	19
2.4. Adjustment for CRT CUT OFF	4		
2.5. Adjustment Procedure	5		

1 Safety Precautions

1.1. General Guide Lines

1. It is advisable to insert an isolation transformer in the AC supply before servicing this hot chassis.
2. When servicing, observe the original lead dress, especially the lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations, are properly installed.
4. When the receiver is not to be used for a long period of time, unplug the power cord from the AC cord outlet.
5. Potential, as high as **28.5kV**. is present when this receiver is in operation. Operation of the receiver without the rear cover involves the danger of a shock hazard from the receiver power supply. Servicing should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture tube to the receiver chassis before handling the tube. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.2. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Turn on the receiver's power switch.
Measure the resistance value, with an ohmmeter, between the jumper AC plug and each exposed metallic cabinet part on the receiver, such as screw heads, aerials, connectors, control shafts, ect. When the exposed metallic part has a return path to the chassis, the reading should be between 4 Mohm and 20 MΩ. When the exposed metal does not have a return path to the chassis, the reading must be infinite.

1.3. Leakage Current Hot Check (Fig. 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Check a 2 kΩ non-inductive resistor and an AC/DC current meter, in series with each exposed metallic part on the receiver in turn and an earth such as a water pipe. The current from any point should not exceed 0.7 mA peak AC or 2 mA DC. In the case of a measurement being outside of these limits specified, there is a possibility of a shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

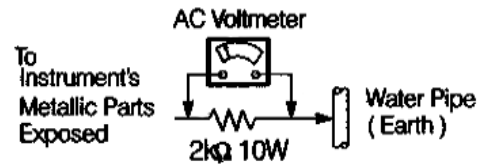
Hot – Check Circuit

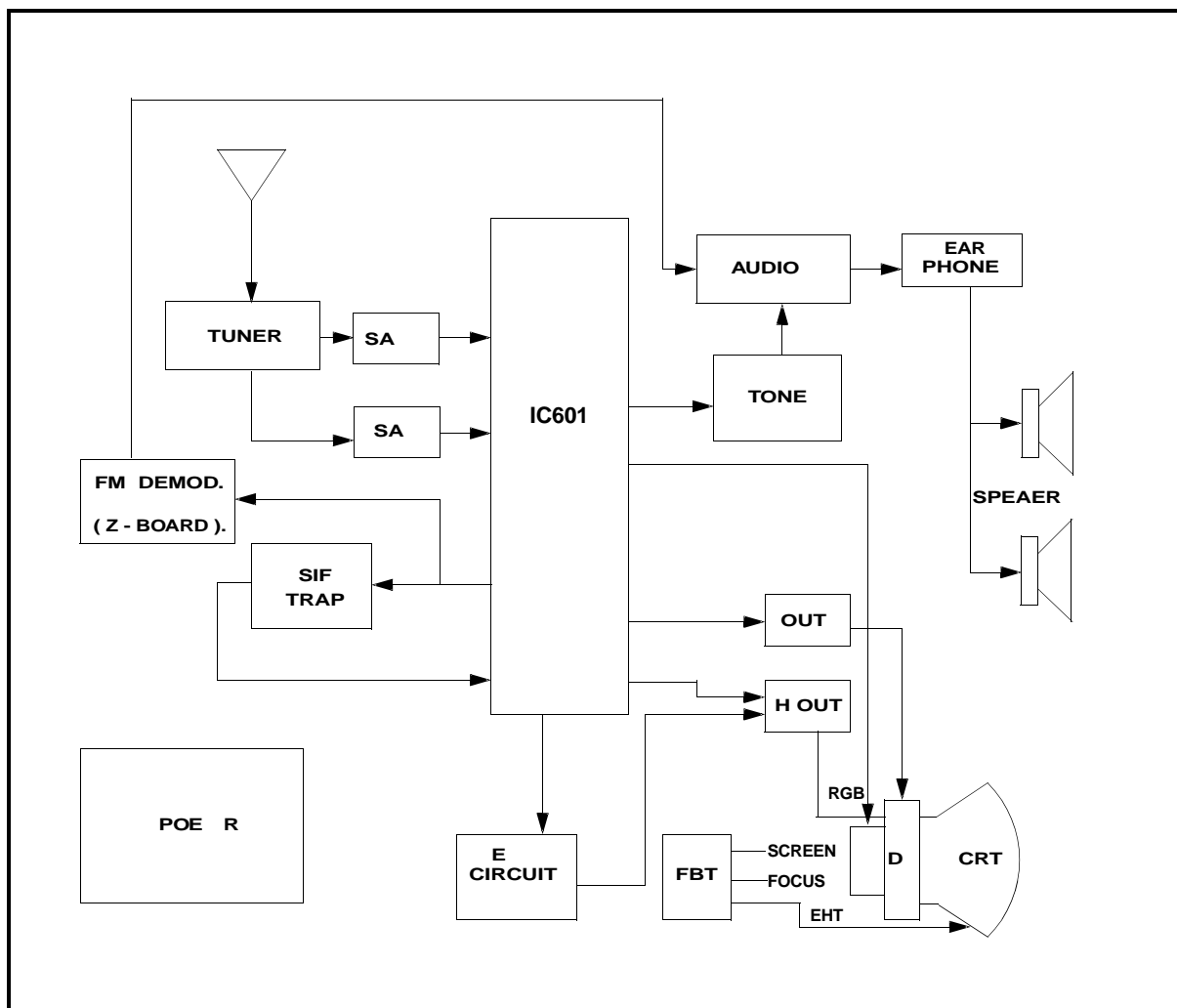
Fig. 1

1.4. X-Radiation

Warning :

The potential sources of X-Radiation in TV set are the EHT section and the picture tube. When using a picture tube test jig for service, ensure that jig is capable of handling 28.5kV without causing X-Radiation. Note: It is important to use an accurate periodically calibrated high voltage meter.

1. Set the brightness to minimum.
2. Use the remocon to get into Service Mode.
3. Measure the EHT. The meter reading should indicate 27.5(+1.0)kV. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
4. To prevent the possibility X-Radiation, it is essential to use the specifield picture tube, if service replacement becomes necessary.

1.5. MX-7 Chassis Block Diagram

2 Service Hints

2.1. Service Position for E-Board

1. Remove the back cover.
2. Stand the TV set as shown in fig. 7
3. Remove the A-Board from the TV set by pulling the main board out as shown in figure 7.

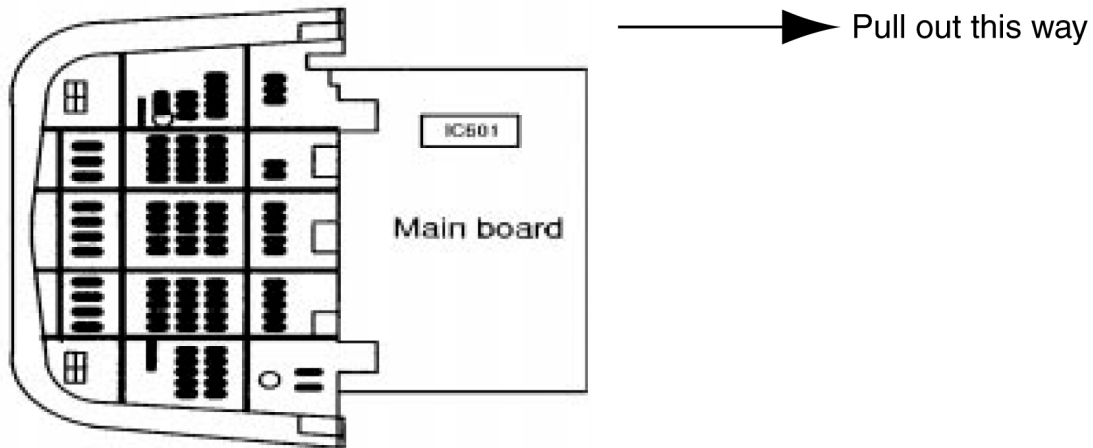


Fig. 7

2.2. Factory mode adjustment

How to set:

To set the Factory mode, press Volume 0 on the TV and Timer Setting 30 Min on the remote control and press Volume (-) Down button on the TV together press recall on the remote control.

To Set Self-Check:

Press the volume down button on TV then press the off timer button on remote control.

2.3. Adjustment for White Balance

Preparation:

1. Receive the white balance pattern and aging should have been performed over 30 minutes.
2. Set the picture menu to DYNAMIC NORMAL.
3. Degause the CRT face.
4. Fix the CRT colour analyzer receiver unit to CRT face.

Adjustment of Low Light.

1. Adjustment Sub Bright, so that $Y = 6.3 \pm 1.0$ unit
2. Adjustment R-CUT OFF, so that $Y = 0.235 \pm 0.01$ unit
3. Adjustment G-CUT OFF, so that $Y = 0.235 \pm 0.01$ unit

Adjustment of High Light

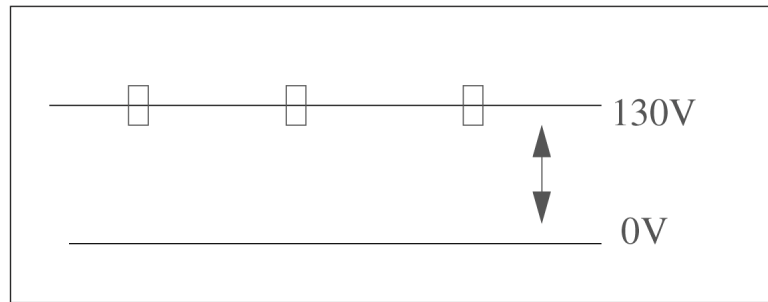
1. Adjustment Sub Bright, so that $Y = 390$ unit
2. Adjustment R-Drive, so that $Y = 0.259 \pm 0.01$ unit
3. Adjustment B-Drive, so that $Y = 0.259 \pm 0.01$ unit

2.4. Adjustment for CRT CUT OFF

Preparation:

1. Connect the oscilloscope probe to TPL7.
2. Screen VR min.

3. Set the data Sub Bright, Bright.
4. In service Mode at 'Bright' dac press [5] in factory mode to enter vertical line and adjust by volume down or up button.
5. Adjust "Screen VR" until I-H Line appears.



2.5. Adjustment Procedure

Item / Preparation	Adjustment Procedure
+B Voltage 1. Operate the TV set. 2. Set control as follows: Brightness.....minimum Contrast.....minimums	Confirm the DC voltage at the indicated test points, as follows: TPA 12 : $141.2 \pm 0.8V$ TPA 11 : $8 \pm 1V$ TPA 10 : $5 \pm 1V$ TPA 21 : $215 \pm 15V$
RF AGC 1. Receive a colour bar signal at an RF level of 75dBu with 75 Ω loaded. 2. Connect digital multimeter to RF AGC at Tuner.	1. Select "RF AGC" indication in CHK 2, on Screen by remote control at factory mode. 2. Set RF AGC by using remote control volume (+) or volume (-) button until voltage AGC at Tuner reaches $2.7 \pm 0.1V$. 3. Increase RF signal strength by 2dB, confirm AGC at Tuner voltage drop.
High Voltage 1. Receive the crosshatch pattern. 2. Set to 0 Beam. Screen VR.....minimum Contrast.....minimum	1. Connect a DC voltage meter to TPA 12 and confirm the +B voltage is $141.2 \pm 0.8V$. 2. Connect a high frequency voltmeter to heater and confirm that voltage reads 6.0 ± 0.24 (VRMS). 3. Normalize the brightness and contrast.
Item / Preparation	Adjustment Procedure
Connect a short jumper between TPA 10 and TPA 20. Press Main Menu and Set system to use AV-NTSC (3.58MHz) DYNAMIC.....Normals	1. Adjust Sub-Tint so that No. 2, 3 and 4 becomes level waveform is similar to Fig. 10. 2. Confirm phase at Tint is changes more than ± 30 by Tint control. 3. Confirm that colour level is maximum when colour DAC is adjusted to maximum position. Note: Use Remote control only when adjusting user mode to Sub-Tint. <div style="text-align: center;"> </div>

Fig. 10

2.6. Pal Colour

1. Receive the PAL B/G studio colour bar pattern, and adjust local frequency at the best tuned position.

2. Pic Menu: Dynamic Normal, Confirm Contrast - 63, Sub Contrast - 21.

3. Channel colour set ----- STD

4. Connect TPA 10 to TPA 20.

5. Set (A) to $2.3 \pm 0.2V$ by BRT (CHK2) Fig. 1.

2.7. Adjustment

1. Connect oscilloscope probe to TPA 31 (G OUT) with 10k series resistor and adjust Contrast so that (B) as in Fig. 1 is $2.8 \pm 0.1V$.

2. Adjust 'Sub Colour' so that waveform as in Fig. 1 (1) $2.5 \pm 0.1V$.

3. Connect oscilloscope probe to TPA 32 (R OUT) with 10k series resistor and confirm waveform as in Fig. 2 is (2) $2.7 \pm 0.4V$.

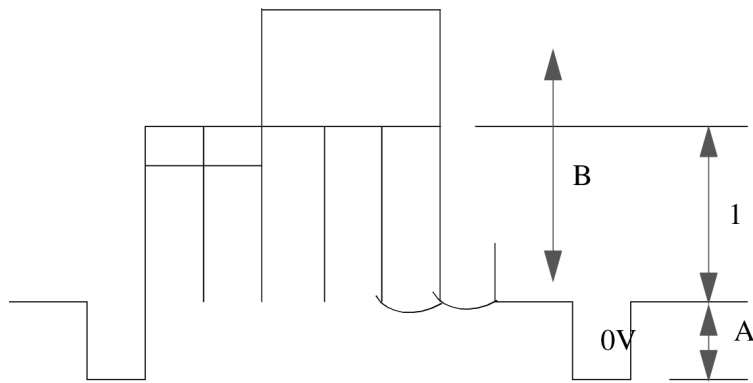


Fig. 1

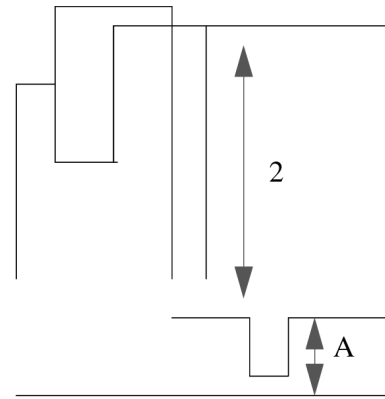


Fig. 2

Before Colour Purity, Convergence and White Balance adjustment are attempted, V. Height, H. Centre and Focus adjustments must be completed.

Colour Purity

1. Set the Brightness and Contrast controls to their maximum positions.
2. Operate the TV set for 30 minutes.
3. Fully degauss the picture tube by using an external degaussing coil.
4. Apply a crosshatch pattern signal and adjust the static convergence magnets to the approximately correct position.
5. Receive a black and white signal.
6. Set the control as follows:
Red.....minimum
Green.....minimum
Blue.....minimum
Press the Shipping button on the remote control twice to select CRT Adjustment Mode as per Fig. 16 to select low light.
7. Loosen the clamp screw for the deflection yoke A in Fig. 24 and move the deflection yoke as close to the purity magnet as possible.
8. Adjust the purity magnetic rings so that a vertical green field is obtained at the centre of the screen.

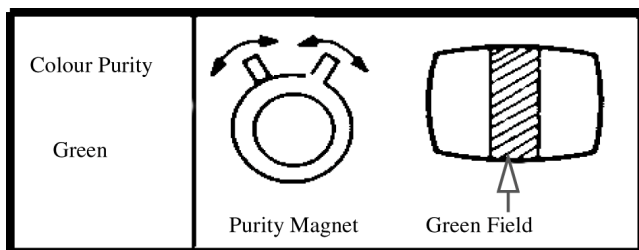


Fig. 20

9. Slowly push the deflection yoke and set it where a uniform green field is obtained.

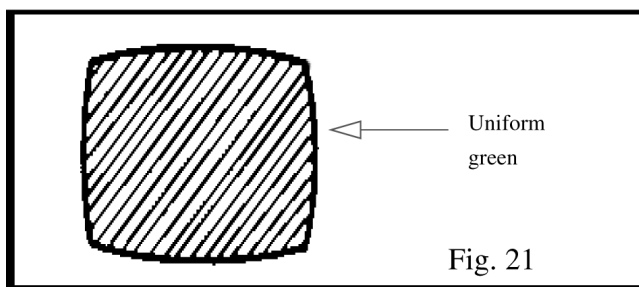


Fig. 21

10. Re-adjust the Low Light controls to their correct settings and make sure that a uniform white field is obtained.
11. Tighten the clamp screw A in Fig. 24.

Convergence

1. Apply a crosshatch pattern signal and Normalize Contrast control to the maximum positions.
2. Adjust Brightness until the grey position of the crosshatch pattern just becomes black.
3. Adjust the Red and Blue line at the centre of the screen by rotating the R-B static.

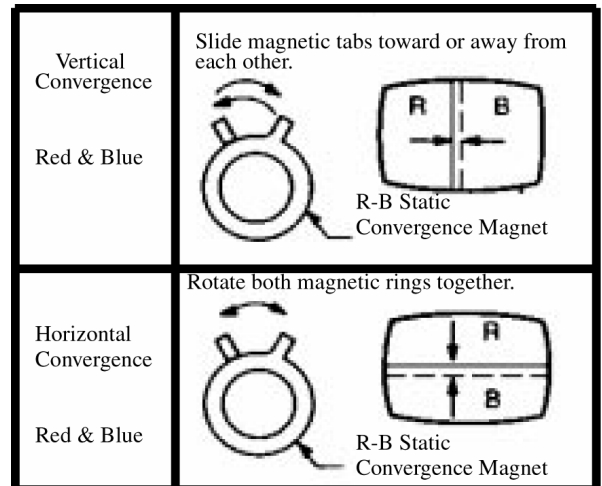


Fig. 22

4. Adjust Red and Blue with Green line at centre of the screen by rotating (RB) -G static convergence magnetic rings.
5. Lock convergence magnetic with silicone sealer.
6. Remove the DY wedges and slightly tilt the deflection yoke vertically and horizontally to obtain the good overall convergence.

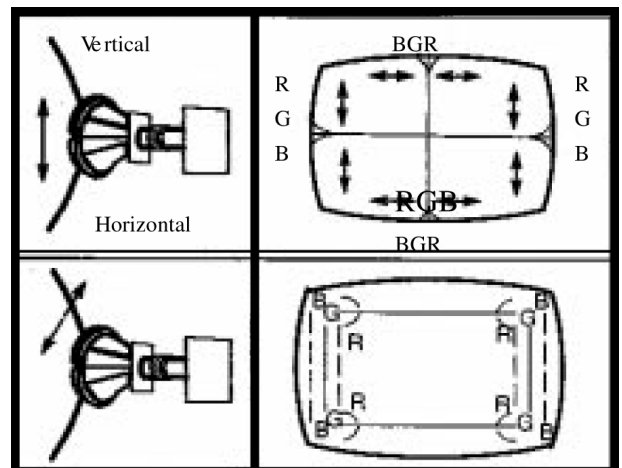


Fig. 23

7. Fix the deflection yoke by reinserting the DY wedges. Refer to Fig. 24.
8. If purity error is found, repeat "Colour Purity" adjustment.

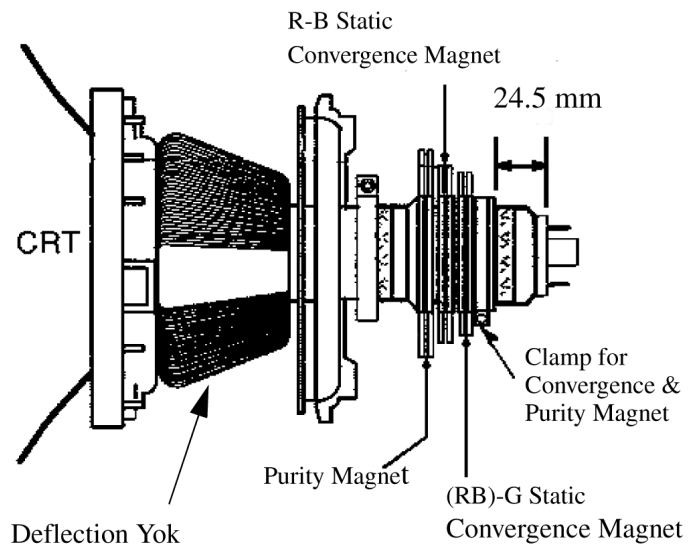


Fig. 24

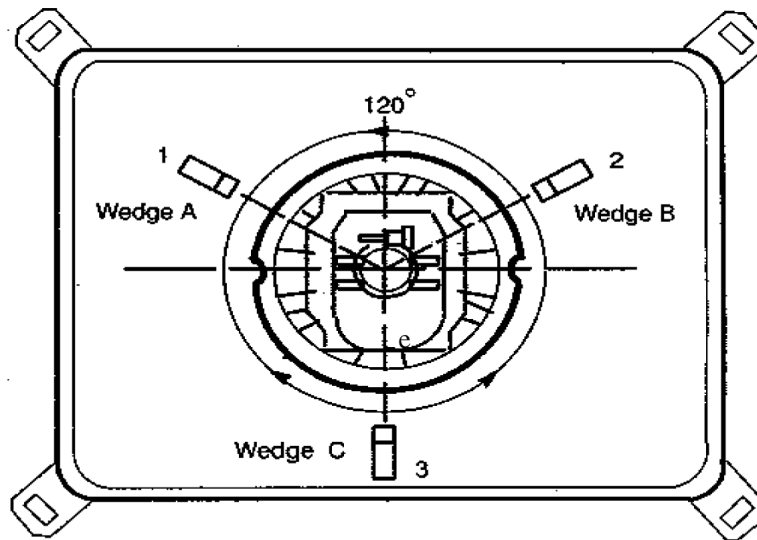
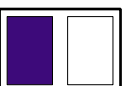
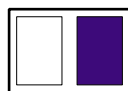
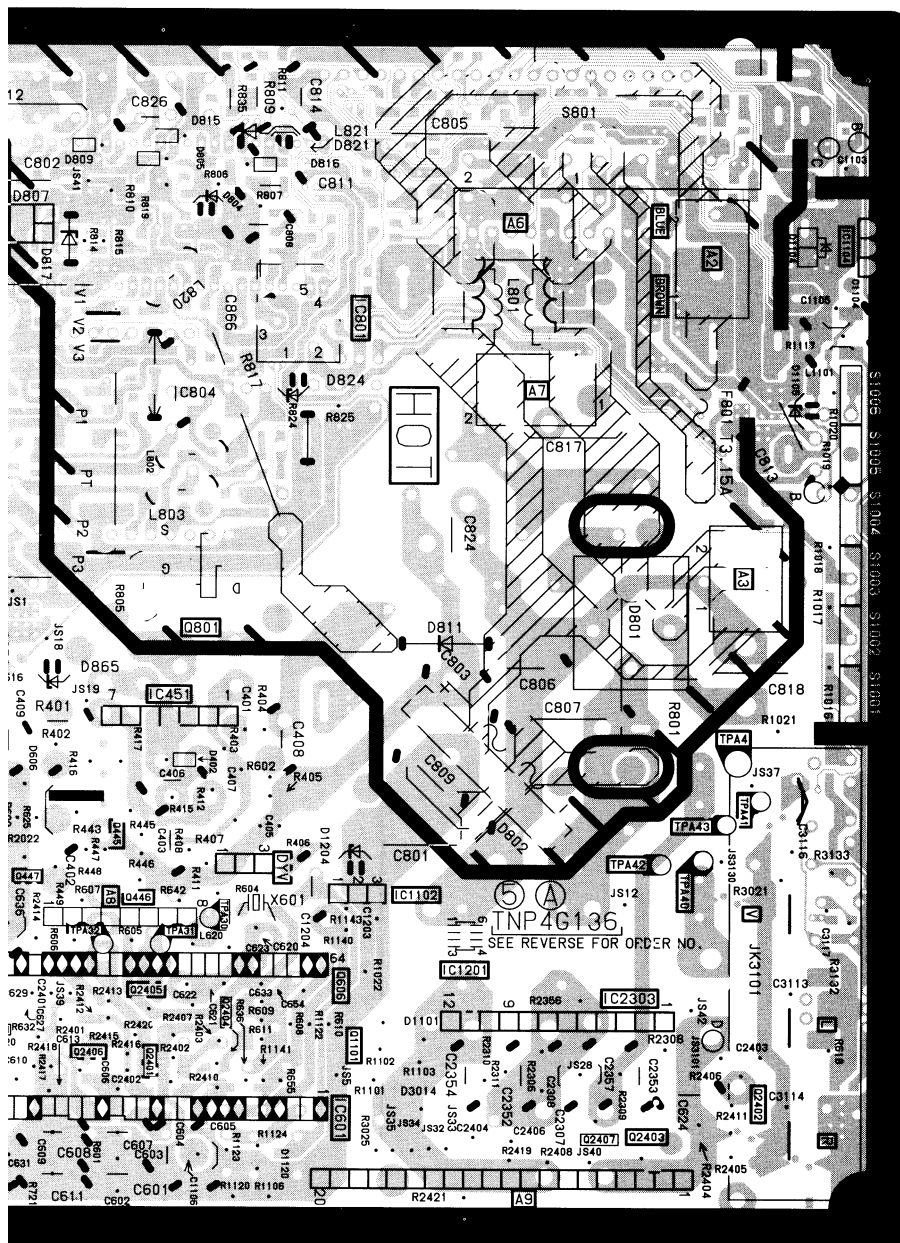


Fig. 25

Note:

1. Wedge A, B and C should be inserted following the following sequence of 1, 2 and 3 shown in Fig. 25.
2. The wedges should be set 120° apart from each other.
3. Be certain that four wedges are firmly fixed and the Deflection Yoke is tightly clamped in place. Otherwise the Deflection Yoke may shift its position and cause a loss of convergence and purity.





6 Schematic Diagram for models TC-15PM10R (MX-7 Chassis)







IMPORTANT SAFETY NOTICE Components identified by mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Notes:

1. Resistor

All resistors are carbon 1.4W resistors unless marked as follows:









Unit of resistance is OHM (Ω) (K=1 000 M=1 000 000)

	Nonflammable		Metal Oxide
	Solid		Metal Film
	Wire Wound		Fuse

2. Capacitor

All capacitors are ceramic 50V capacitors unless marked as follows:

Unit of capacitance is μF , unless otherwise noted.

	Temperature Compensation		Electrolytic
	Polyester		Bipolar
	Metalized Polyester		Dipped Tantalum
	Polypropylene		Z-Type

3. Coil



Unit of inductance is μH , unless otherwise noted.

Unit of resistance is OHM (Ω) (K=1 000 M=1 000 000)

4. Test Point

 : Test Point position

5. Earth Symbol

 : Chassis Earth (Cold)  : Line Earth (Hot)

6. Voltage Measurement

Voltage is measured using a DC voltmeter.

Conditions of the measurement are the following:

Power Source.....AC 220V, 50Hz

Receiving Signal.....Colour Bar signal (RF)

All customer's controls.....Maximum positions

7. Number in red circle indicates waveform number.

(See waveform pattern table)

8. When arrow mark () is found, connection is easily found from the direction of arrow.

9. : Indicates the major signal flow.

10. This schematic diagram is the latest at the time of printing and subject to change without notice.

Remarks:

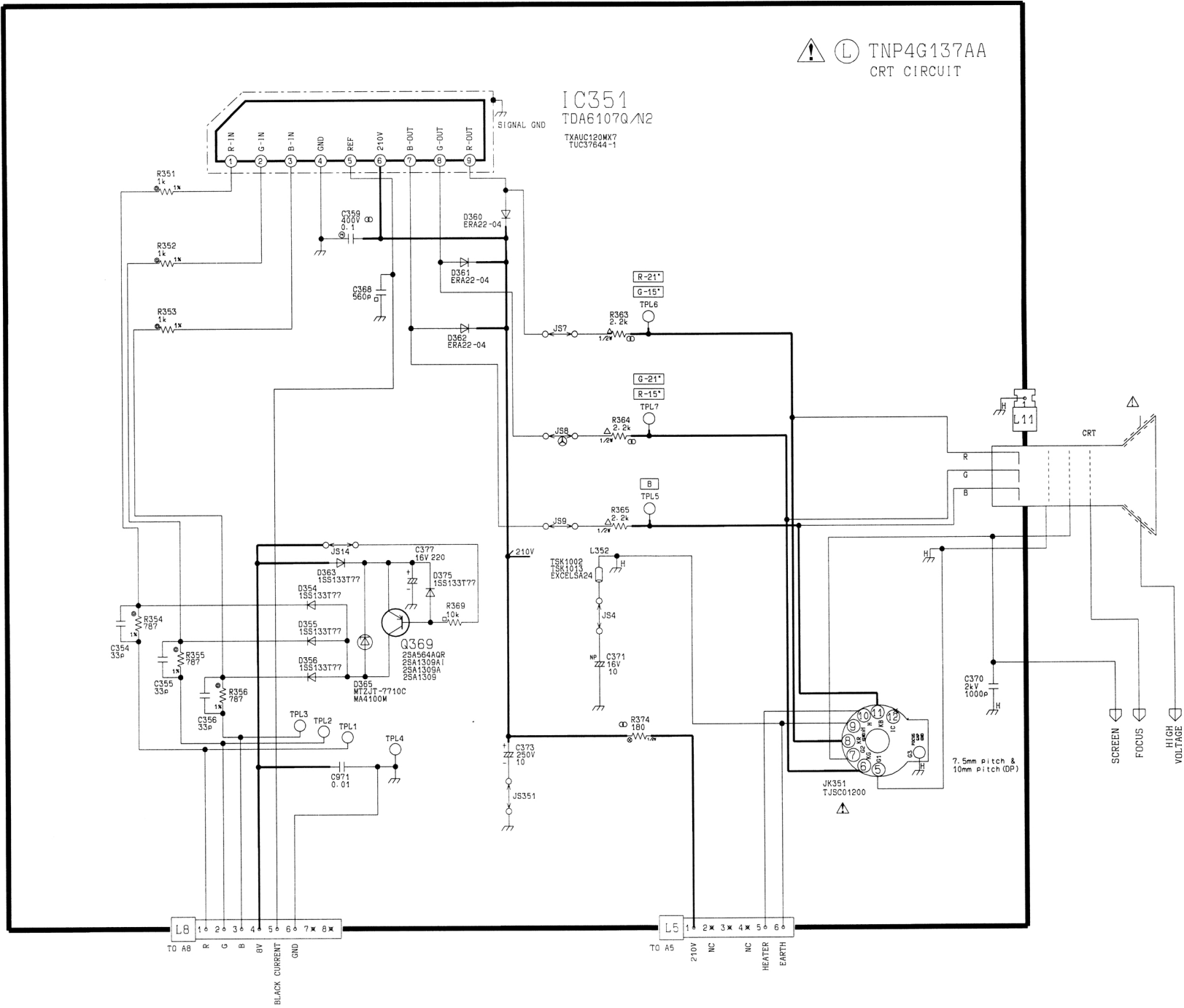
- The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the following precautions:

All circuits except the Power Circuit are cold.

Precautions:

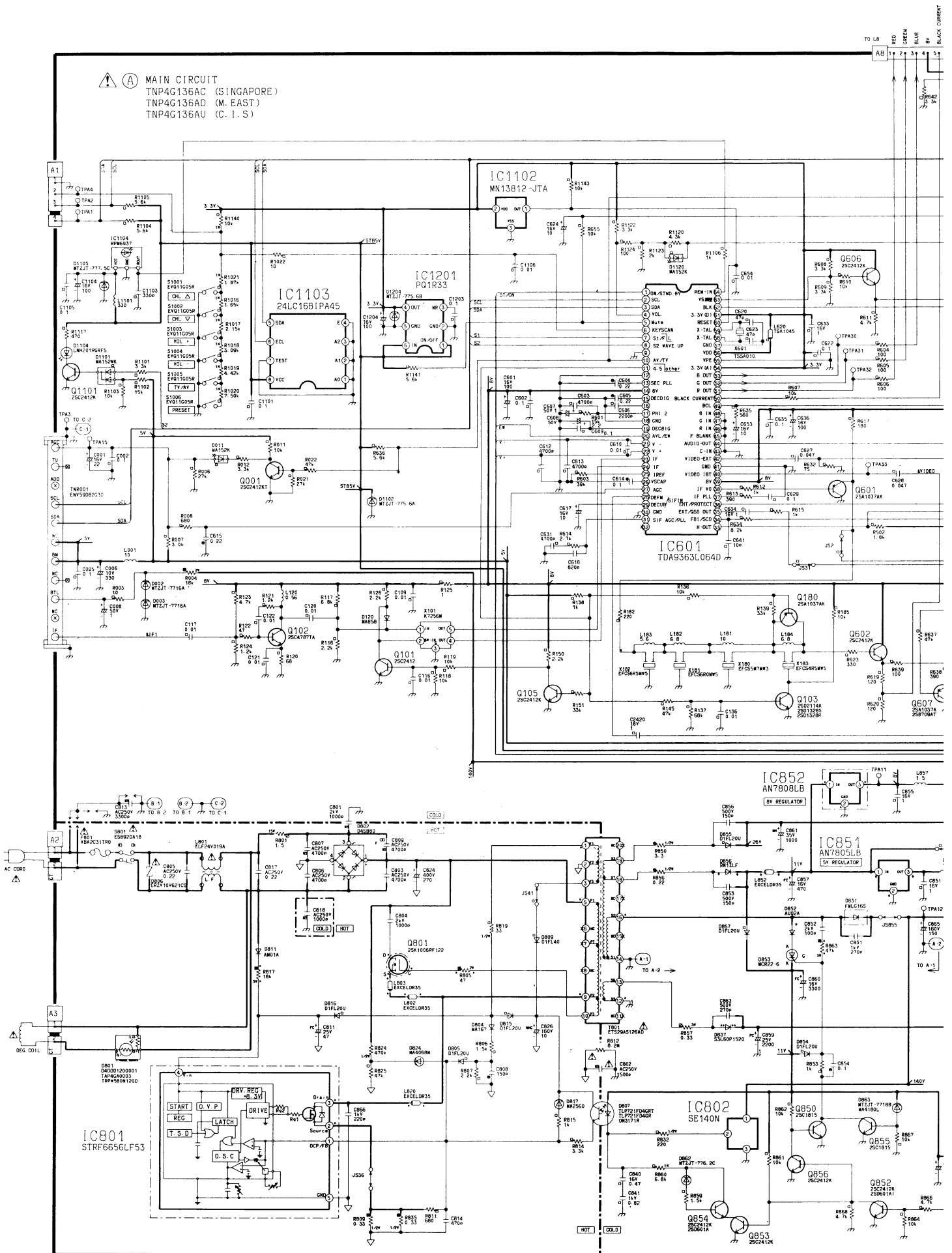
- Do not touch the hot part or the hot and cold parts at the same time or you may be shocked
- Do not short-circuit the hot and cold circuits or a fuse may blow and parts may break
- Do not connect an instrument such as an oscilloscope to the hot and cold circuits simultaneously or a fuse may blow. Connect the earth of instruments to the earth connection of the circuit being measured.
- Make sure to disconnect the power plug before removing the chassis.

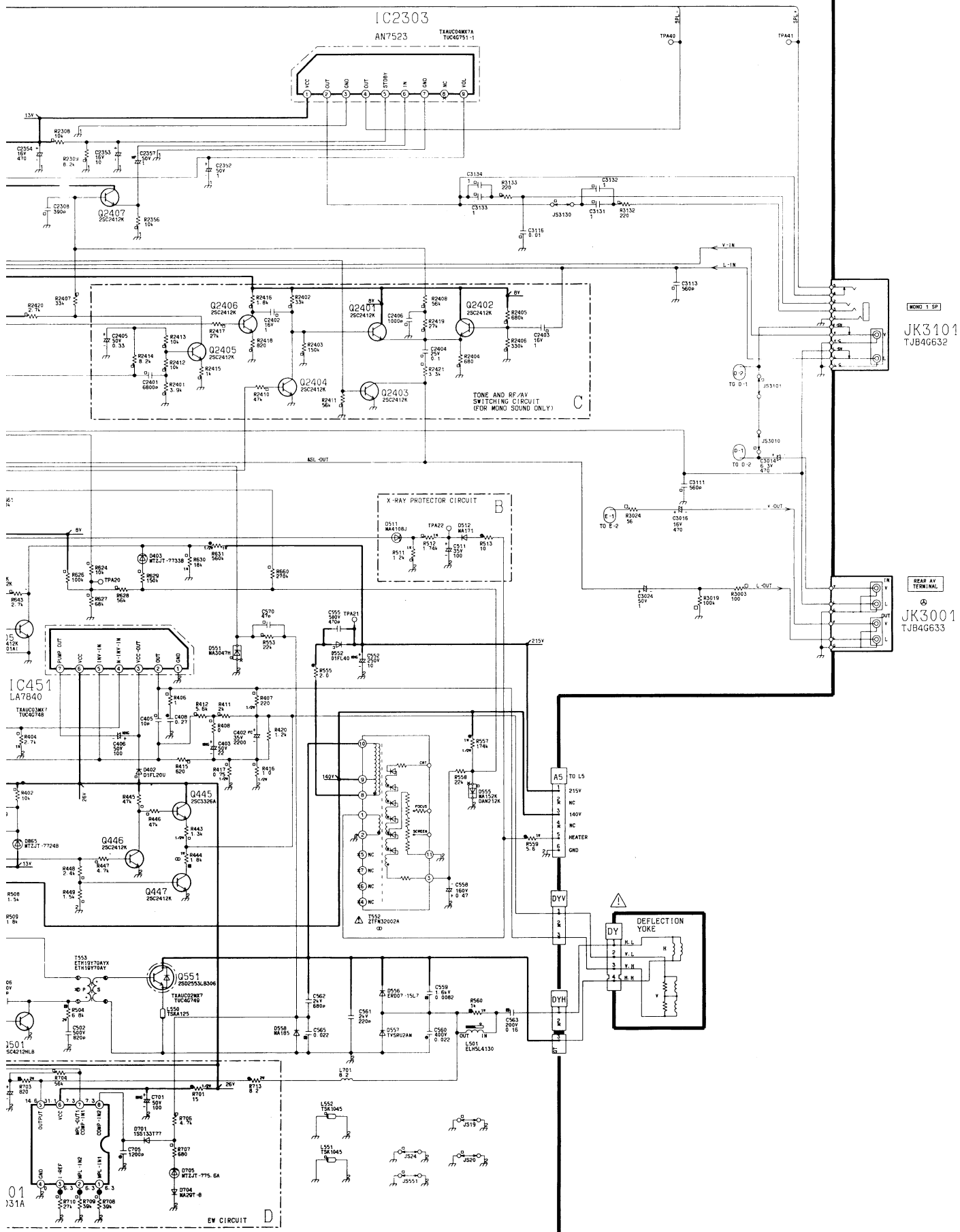
7 CRT

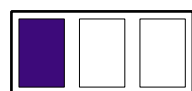
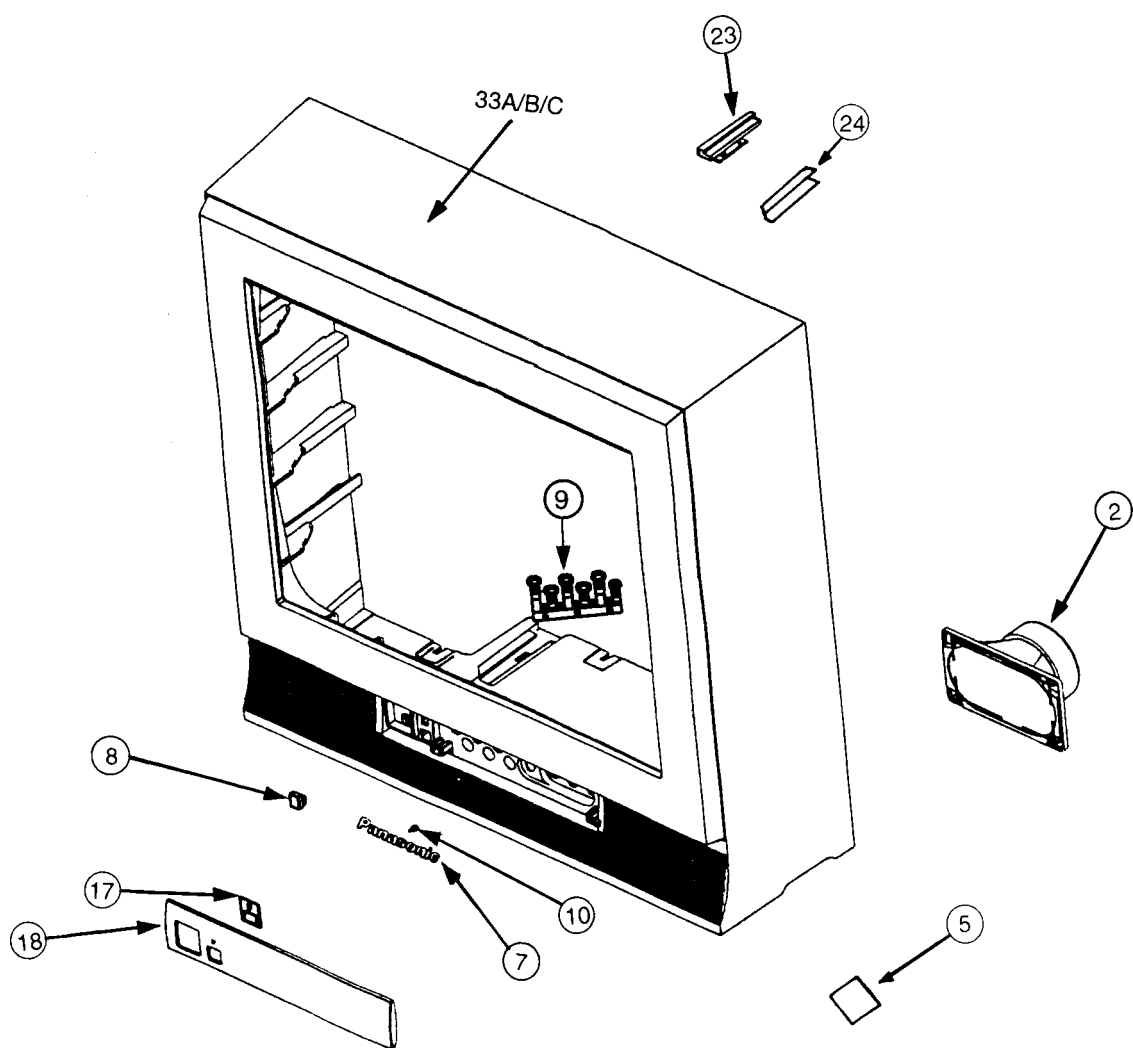




⚠ (A) MAIN CIRCUIT
 TNP4G136AC (SINGAPORE)
 TNP4G136AD (M. EAST)
 TNP4G136AU (C. I. S)

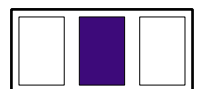
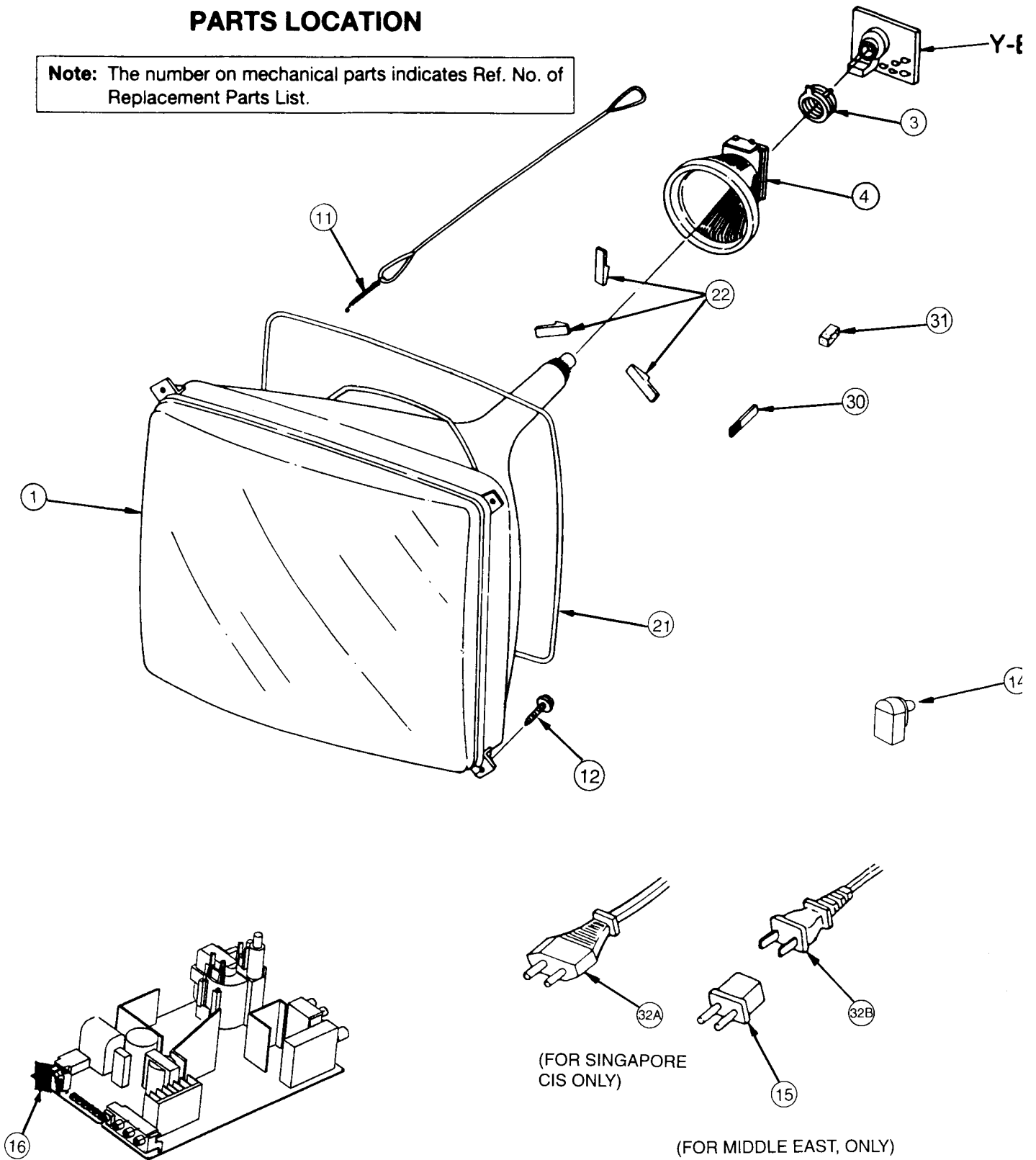


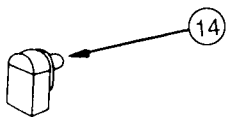
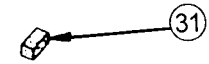
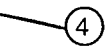
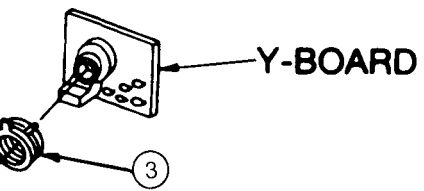




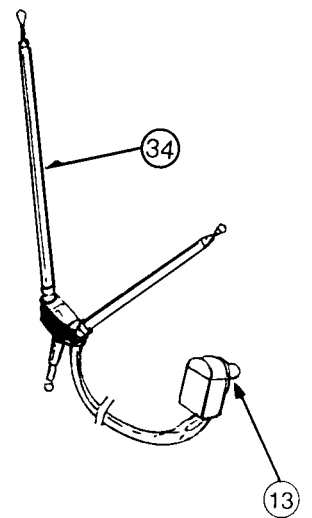
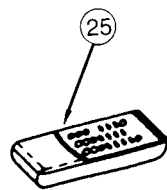
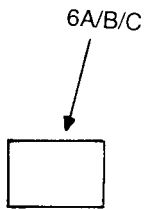
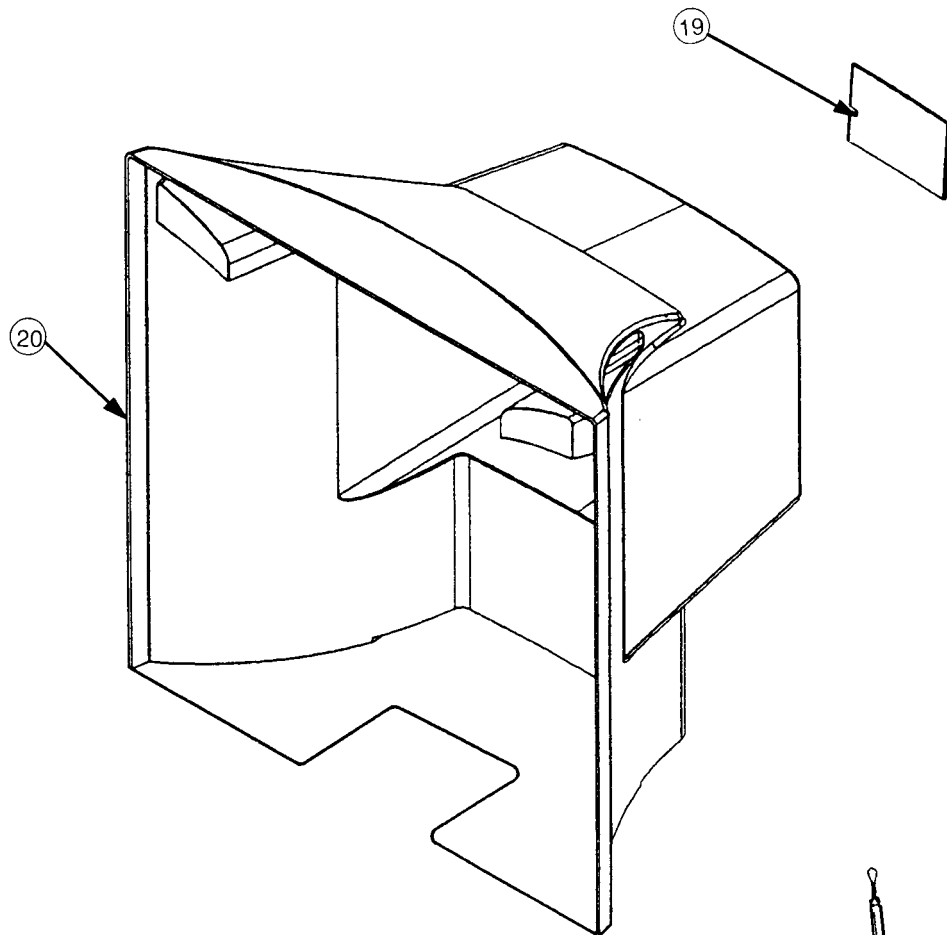
PARTS LOCATION

Note: The number on mechanical parts indicates Ref. No. of Replacement Parts List.





(EAST, ONLY)



10 Replacement Parts List

Important Safety Notice

Components identified by ▲ mark have special characteristics important for safety. When replacing any of these components, use manufacturer's specified parts.

Note: Printed circuit board assembly with "NLA" is no longer available after production discontinuation of the complete set.
Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100K Ω , J, 1/4W

Type Allowance

Type	Allowance
C: Carbon	F: $\pm 1\%$
F: Fuse	G: $\pm 2\%$
M: Metal Oxide Metal Film	J: $\pm 5\%$ K: $\pm 10\%$
S: Solid	M: $\pm 20\%$
W: Wire Wound	

2. Capacitor

Example:

ECKF1H103ZF C 0.01UF, Z, 50V

Type Allowance

Type	Allowance
C: Carbon	C: $\pm 0.25\text{pF}$
E: Electrolytic	D: $\pm 0.5\text{pF}$
P: Polyester Polypropylene	F: $\pm 1\text{pF}$ G: $\pm 3\%$
T: Tantalum	J: $\pm 5\%$ K: $\pm 10\%$ L: $\pm 15\%$ M: $\pm 20\%$ P: $+100\% -0\%$ Z: $+80\% -20\%$

Ref. No.	Part No.	Part Name & Description	Remarks
	MECHANICAL PARTS		
1	A36LTN194X	PICTURE TUBE	
2	ETC29C6NA	CONVERGENCE YOKE	
3	KDY3HWC03F	DEFLECTION YOKE	
4	TASA0003	SPEAKER	
5A	TBM4G0618	MODEL NAME PLATE (M'EAST ONLY)	
5B	TBM4G0617	MODEL NAME PLATE (S'PORE ONLY)	
5C	TBM4G0658	MODEL NAME PLATE (CIS ONLY)	
6	TBM4G3008	PANASONIC BADGE	
7	TBX4G86500A	6 KEY BUTTON	
8A	TBX4G87500	POWER BUTTON (M'EAST ONLY)	
8B	TBX4G86910	POWER BUTTON (S'PORE,CIS ONLY)	
9	TEK4G902	DOOR CATCHER	
10	TES4G206	COIL SPRING	
11	THT4G1003R	CRT SCREW	
12	THT4G1010R	SCREW (SPEAKER)	
13	TJB1725100	75-300OHM ADAPTOR	
14	TJB2A8420	AC PLUG ADAPTOR (M'EAST ONLY)	
15	TKK4G8538	LED PANEL	
16	TKK4G8540	POWER SWITCH SHAFT	
17	TKP4G11910	AC CORD BRACKET	
18A	TKP4G12261-1	DOOR (M'EAST ONLY)	
18B	TKP4G12015-1	DOOR (S'PORE,CIS ONLY)	
19	TKU4G8700-1	BACK COVER	
20	TLK4G9038A	DEGAUSSING COIL	
21	TMM4G503	RUBBER WEDGE	
22	TMZ4G9808	CHASSIS RAIL (L)	
23	TMZ4G9809	CHASSIS RAIL (R)	
NLA	TNP4G136AK	A BOARD (M'EAST ONLY)	
NLA	TNP4G136AJ	A BOARD (S'PORE ONLY)	
NLA	TNP4G136BB	A BOARD (CIS ONLY)	
NLA	TNP4G137AB	L BOARD	
NLA	TNP4G139AA	Z1 BOARD	
24	TNQ4G0401	REMOTE CONTROL	
	TPC4G45402	CARTON (M'EAST ONLY)	
	TPC4G45401	CARTON (S'PORE ONLY)	
	TPC4G45407	CARTON (CIS ONLY)	
	TPE4G14007	SET COVER	
	TPE4G14036	SET COVER (M'EAST ONLY)	
	TPE4G14026	SET COVER (S'PORE,CIS ONLY)	
	TQB4G1820	FAN BAG (S'PORE ONLY)	
	TQB4G1822	FAN BAG (M'EAST ONLY)	
	TQB4G1876	FAN BAG (CIS ONLY)	
R408	ERJ6GEY0R00	M 00HM,J,1/10W	
R409	ERJ6GEYJ823	M 82KOHM,J,1/10W	
R411	ERJ6GEYJ202	M 2KOHM,J,1/10W	
R412	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	
R415	ERJ6GEYJ621	M 620OHM,J,1/10W	
R416	ERJ12YJ1R0U	M 10HM,J, 1/2W	
R417	ERJ12YJ1R0U	M 10HM,J, 1/2W	
R420	ERDS2TJ122	C 1.2KOHM,J, 1/4W	
R443	ERJ12YJ132U	M 1.3KOHM,J, 1/2W	
R444	ERG1SJ182E	M 1.8KOHM,J, 1W	

Ref. No.	Part No.	Part Name & Description	Remarks
R445	ERJ6GEYJ473	M 47KOHM,J,1/10W	
R446	ERJ6GEYJ473	M 47KOHM,J,1/10W	
R447	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	
R448	ERJ6GEYJ242	M 2.4KOHM,J,1/10W	
R449	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	
R502	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	
R503	ERJ6GEY0R00	M 00HM,J,1/10W	
R504	ERG2SJ682E	M 6.8KOHM,J, 2W	
R507	ERJ6GEYJ101	M 100OHM,J,1/10W	
R508	ERG3FJ152H	M 1.5KOHM,J, 3W	
R509	ERG3FJ182H	M 1.8KOHM,J, 3W	
R511	ERJ6ENF1201	M 1.2KOHM, 1/10W	
R512	ERJ6ENF1741	M1.74KOHM, 1/10W	
R513	ERQ14AJ100P	F 10OHM,J, 1/4W	
R520	ERX12SJ3R3E	M 3.3OHM,J, 1/2W	
R521	ERX12SJ3R3E	M 3.3OHM,J, 1/2W	
R522	ERJ6GEYJ123	M 12KOHM,J,1/10W	
R523	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R524	ERJ6GEYJ104	M 100KOHM,J,1/10W	
R525	ERJ6GEYJ392	M 3.9KOHM,J,1/10W	
R553	ERJ6GEYJ223	M 22KOHM,J,1/10W	
R555	ERQ14AJ2R0E	F 2.0OHM,J, 1/4W	
R557	ER050CKF1743	M 174KOHM,F, 1/2W	
R558	ERDS2TJ223	C 22KOHM,J, 1/4W	
R559	ERQ1CJP5R6S	F 5.6OHM,J, 1W	
R560	ERG1SJ102E	M 1KOHM,J, 1W	
R601	ERJ6GEYJ153	M 15KOHM,J,1/10W	
R602	ERJ6ENF3001	M 3KOHM, 1/10W	
R603	ERJ6GEYJ393	M 39KOHM,J,1/10W	
R604	ERJ6GEYJ101	M 100OHM,J,1/10W	
R605	ERJ6GEYJ101	M 100OHM,J,1/10W	
R606	ERJ6GEYJ101	M 100OHM,J,1/10W	
R607	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R608	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R609	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R610	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R611	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	
R612	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R613	ERJ6GEYJ391	M 390OHM,J,1/10W	
R614	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	
R615	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R616	ERJ6GEYJ392	M 3.9KOHM,J,1/10W	
R617	ERJ6GEYJ181	M 180OHM,J,1/10W	
R618	ERJ6GEYJ184	M 180KOHM,J,1/10W	
R619	ERJ6GEYJ121	M 120OHM,J,1/10W	
R620	ERJ6GEYJ121	M 120OHM,J,1/10W	
R621	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R622	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R623	ERJ6GEYJ331	M 330OHM,J,1/10W	
R624	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R625	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	
R626	ERJ6GEYJ104	M 100KOHM,J,1/10W	
R868	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	
R1016	ERJ6ENF1651	M1.65KOHM, 1/10W	
R1017	ERJ6ENF2151	M2.15KOHM, 1/10W	
R1018	ERJ6ENF3091	M3.09KOHM, 1/10W	
R1019	ERJ6ENF4421	M4.42KOHM, 1/10W	
R1020	ERJ6ENF7501	M 7.5KOHM, 1/10W	
R1021	ERJ6ENF1871	M1.87KOHM, 1/10W	
R1022	ERJ6GEYJ100	M 10OHM,J,1/10W	
R1101	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R1102	ERJ6GEYJ153	M 15KOHM,J,1/10W	
R1103	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R1104	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	
R1105	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	
R1106	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R1117	ERJ6GEYJ471	M 470OHM,J,1/10W	
R1120	ERJ6GEYJ432	M 4.3KOHM,J,1/10W	
R1122	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R1123	ERJ6GEYJ202	M 2KOHM,J,1/10W	
R1124	ERJ6GEYJ101	M 100OHM,J,1/10W	
R1140	ERJ6ENF1002	M 10KOHM, 1/10W	
R1141	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1143	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R2022	ERJ6GEYJ104	M 100KOHM,J,1/10W	
R2211	ERJ6GEYJ471	M 470OHM,J,1/10W	
R2212	ERJ6GEYJ471	M 470OHM,J,1/10W	
R2213	ERJ6GEYJ471	M 470OHM,J,1/10W	
R2214	ERJ6GEYJ471	M 470OHM,J,1/10W	
R2215	ERJ6GEYJ153	M 15KOHM,J,1/10W	
R2216	ERJ6GEYJ273	M 27KOHM,J,1/10W	
R2217	ERJ6GEY0R00	M 0OHM,J,1/10W	
R2218	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	
R2308	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R2309	ERJ6GEYJ822	M 8.2KOHM,J,1/10W	
R2356	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R2380	ERJ6GEYJ151	M 150OHM,J,1/10W	
R2381	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R2382	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R2401	ERJ6GEYJ392	M 3.9KOHM,J,1/10W	
R2402	ERJ6GEYJ333	M 33KOHM,J,1/10W	
R2403	ERJ6GEYJ154	M 150KOHM,J,1/10W	
R2404	ERJ6GEYJ681	M 680OHM,J,1/10W	
R2405	ERJ6GEYJ684	M 680KOHM,J,1/10W	
R2406	ERJ6GEYJ334	M 330KOHM,J,1/10W	
R2407	ERJ6GEYJ333	M 33KOHM,J,1/10W	
R2408	ERJ6GEYJ563	M 56KOHM,J,1/10W	
R2410	ERJ6GEYJ473	M 47KOHM,J,1/10W	
R2411	ERJ6GEYJ563	M 56KOHM,J,1/10W	
R2412	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R2413	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R2414	ERJ6GEYJ822	M 8.2KOHM,J,1/10W	
R2415	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R2416	ERJ6GEYJ182	M 1.8KOHM,J,1/10W	
R2417	ERJ6GEYJ273	M 27KOHM,J,1/10W	
R2418	ERJ6GEYJ821	M 820OHM,J,1/10W	
R2419	ERJ6GEYJ273	M 27KOHM,J,1/10W	
R2420	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	
R2421	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R3003	ERJ6GEYJ101	M 100OHM,J,1/10W	
R3014	ERD25V0R00T	C 0OHM, 1/4W	
R3019	ERJ6GEYJ104	M 100KOHM,J,1/10W	
R3024	ERJ6GEYJ560	M 56OHM,J,1/10W	
R3025	ERJ6GEYJ103	M 10KOHM,J,1/10W	
C620	ECUX1H470JCK	C 47PF, J, 50V	
C622	ECJ2VF1H104Z	C 0.1UF, Z, 50V	
C623	ECUX1H470JCK	C 47PF, J, 50V	
C624	ECEA1CKA100	E 10UF, 16V	
C627	ECJ2YB1H473K	C 0.047UF, K, 50V	
C628	ECJ2YB1H473K	C 0.047UF, K, 50V	
C629	ECUX1H104KBX	C 0.1UF, K, 50V	
C631	ECJ2VB1H472K	C 4700PF, K, 50V	
C633	ECJ2ZF1C105Z	C 1UF, Z, 16V	
C634	ECJ2ZF1C105Z	C 1UF, Z, 16V	
C635	ECJ2VF1H104Z	C 0.1UF, Z, 50V	
C636	ECEA1CKA101	E 100UF, 16V	
C639	ECA1HM220B	E 22UF, 50V	
C641	ECJ2VC1H100C	C 10PF, C, 50V	
C653	ECEA1CKA100	E 10UF, 16V	
C654	ECJ2VB1H103J	C 0.01UF, 50V	
C660	ECQV1H105JM	P 1UF, J, 50V	
C701	ECA1HHG101	E 100UF, 50V	
C703	ECEA1HGE100	E 10UF, 50V	
C704	ECQB1H223JM	P 0.022UF, J, 50V	
C705	ECQB1H122KM	P 1200PF, K, 50V	
C801	ECKCNA102MB7	C 1000PF, M,	
C802	ECKCNA101MB7	C 100PF, M,	
C803	ECKWAE472ZE	C 4700PF, Z,	
C804	ECKW3D102JBP	C 1000PF, J, 2KV	
C805	B81130C1224M	P 0.22UF, 275V	
C806	ECKWAE472ZE	C 4700PF, Z,	
C807	ECKCNA472ME7	C 4700PF, M,	
C808	ECQB1H151KM	P 150PF, K, 50V	
C809	ECKCNA472ME7	C 4700PF, M,	
C811	EEUFC1E470B	E 47UF, 25V	
C813	ECKCNA332MEB	C 3300PF, M,	

Ref. No.	Part No.	Part Name & Description	Remarks
C814	ECKR1H471KB5	C 470PF, K, 50V	
C817	B81130C1224M	P 0.22UF, 275V	
C818	ECKCNA102MB7	C 1000PF, M,	
C824	EETED2G271J	E 270UF, 400V	
C826	ECA2CHG100	E 10UF, 160V	
C831	ECKR3A271KBP	C 270PF, K, 1KV	
C840	ECJ2YB1C474K	C 0.47UF, K, 16V	
C841	ECJ2YB1A824K	C 0.82UF, K,	
C851	ECJ2ZF1C105Z	C 1UF, Z, 16V	
C852	ECKW3D101KBP	C 100PF, K, 2KV	
C853	ECKR2H151KB5	C 150PF, K,500V	
C854	ECQB1H104JM	P 0.1UF, 50V	
C855	ECJ2ZF1C105Z	C 1UF, Z, 16V	
C856	ECKR2H151KB5	C 150PF, K,500V	
C857	EEUFC1C471LB	E 470UF, 16V	
C859	EEUFC1E222E	E 2200UF, 25V	
C860	EEUFC1C332E	E 3300UF, 16V	
C861	ECA1VMH102	E 1000UF, 35V	
C862	ECEA1CKA100	E 10UF, 16V	
C863	ECKR2H271KB5	C 270PF, K,500V	
C865	EEUEB2C151SE	E 150UF, 160V	
C866	ECKR3A221JBP	C 220PF, J, 1KV	
C971	ECKF1H103ZF	C 0.01UF, Z, 50V	
C1101	ECJ2VF1H104Z	C 0.1UF, Z, 50V	
C1103	ECJ2VC1H331J	C 330PF, J, 50V	
C1104	ECA1CM101B	E 100UF, 16V	
C1105	ECJ2VF1H104Z	C 0.1UF, Z, 50V	
C1106	ECJ2VF1H103Z	C 0.01UF, Z, 50V	
C1203	ECJ2VF1H104Z	C 0.1UF, Z, 50V	
C1204	ECEA1CKA101	E 100UF, 16V	
D355	1SS133T77	DIODE	
D356	1SS133T77	DIODE	
D360	ERA22-04	DIODE	
D361	ERA22-04	DIODE	
D362	ERA22-04	DIODE	
D363	1SS133T77	DIODE	
D365	MTZJ10C	ZENER DIODE	
D375	1SS133T77	DIODE	
D402	D1FL20UF4063	DIODE	
D403	MTZJ33B	ZENER DIODE	
D511	MA4108J	DIODE	
D512	MA171	DIODE	
D520	MA152KTX	DIODE	
D551	MA3047HTX	DIODE	
D552	D1FL40F4063	DIODE	
D555	MA152KTX	DIODE	
D556	ERD07-15	DIODE	
D557	TVSRU2AM	DIODE	
D558	MA185	DIODE	
D603	MA152KTX	DIODE	
D606	MA152KTX	DIODE	
D660	MA152WKTX	DIODE	
D701	1SS133T77	DIODE	
D702	MTZJ3.6A	ZENER DIODE	
D704	MA29T-B	DIODE	
D705	MTZJ5.6A	ZENER DIODE	
D801	TRPW5B0N120D	POSISTOR	
D802	D4SB80	DIODE	
D804	MA167	DIODE	
D805	D1FL20UF4063	DIODE	
D806	ERZV10V621CS	VARISTOR	
D807	TLP721FD4GR	PHOTO COUPLER	
D809	D1FL40F4063	DIODE	
D811	AM01A	DIODE	
D815	D1FL20UF4063	DIODE	
D816	D1FL20UF4063	DIODE	
D817	MA2560	DIODE	
D824	MA4068M	DIODE	
D831	FMLG16S	DIODE	
D837	S3L60P1520	DIODE	
D852	AU02A	DIODE	
D853	MCR22-6	THYRISTOR	
D854	D1FL20UF4063	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
D855	D1FL20UF4063	DIODE	
D856	RN1ZLF-A1	DIODE	
D857	D1FL20UF4063	DIODE	
D862	MTZJ6.2C	ZENER DIODE	
D863	MTZJ18B	ZENER DIODE	
D865	MTZJ24B	ZENER DIODE	
D1101	MA152WKT	DIODE	
D1102	MTZJ5.6A	ZENER DIODE	
D1104	LNH201RGRF5	LED	
D1105	MTZJ7.5C	ZENER DIODE	
D1120	MA152KTX	DIODE	
D1204	MTZJ5.6B	ZENER DIODE	
D2380	MA152KTX	DIODE	
D2381	MA152KTX	DIODE	
	INTEDGRATED CIRCUITS		
IC351	TDA6107Q/N2	LINEAR IC	
IC451	LA7840	LINEAR IC	
IC601	TDA9353S064E	IC	
IC701	TEA2031A	IC	
JA3	ERJ6GEY0R00	M 00HM,J,1/10W	
JK351	TJS4GA5010	CRT SOCKET	
JK3001	TJB4G633	REAR AV TERMINAL	
JK3101	TJB4G632	FRONT AV TERMINAL	
JS1	ERJ6GEY0R00	M 00HM,J,1/10W	
JS2	ERJ6GEY0R00	M 00HM,J,1/10W	
JS12	ERJ6GEY0R00	M 00HM,J,1/10W	
JS19	ERJ6GEY0R00	M 00HM,J,1/10W	
JS20	ERJ6GEY0R00	M 00HM,J,1/10W	
JS24	ERJ6GEY0R00	M 00HM,J,1/10W	
JS31	ERJ6GEY0R00	M 00HM,J,1/10W	
JS34	ERJ6GEY0R00	M 00HM,J,1/10W	
JS35	ERJ6GEY0R00	M 00HM,J,1/10W	
JS37	ERJ6GEY0R00	M 00HM,J,1/10W	
JS41	ERJ6GEY0R00	M 00HM,J,1/10W	
JS42	ERJ6GEY0R00	M 00HM,J,1/10W	
JS551	ERJ6GEY0R00	M 00HM,J,1/10W	
JS2201	ERJ6GEY0R00	M 00HM,J,1/10W	
JS2202	ERJ6GEY0R00	M 00HM,J,1/10W	
JS2205	ERJ6GEY0R00	M 00HM,J,1/10W	
JS3010	ERJ6GEY0R00	M 00HM,J,1/10W	
JS3101	ERJ6GEY0R00	M 00HM,J,1/10W	
JS3130	ERJ6GEY0R00	M 00HM,J,1/10W	
L5	TJS3A9670	6P CONNECTOR	
L8	TJS3A9880	8P CONNECTOR	
S801	ESB92DA1B	SWITCH	
S1001	EVQ11G05R	SWITCH	
S1002	EVQ11G05R	SWITCH	
S1003	EVQ11G05R	SWITCH	
S1004	EVQ11G05R	SWITCH	
S1005	EVQ11G05R	SWITCH	
S1006	EVQ11G05R	SWITCH	
TNR001	ENV59D82G3D	TUNER	
X101	K7256M	SAW FILTER	
X180	EFCS5M7MW3	CERAMIC FILTER	
X181	EFCS6R0MW5	CERAMIC FILTER	
X182	EFCS6R5MW5	CERAMIC FILTER	
X183	EFCS4R5MW5	CERAMIC FILTER	
X601	TSSA010	CRYSTAL OSC	
X2201	SFSH6ROMDB	CERAMIC FILTER	
X2202	EFCS5R5MS5	CERAMIC FILTER	
X2203	EFCS6R5MS5	CERAMIC FILTER	
X2204	EFCS4R5MS5	FILTER	
Z9	TJS4G8080	20P CONNECTOR	
Z22	TJS1A8100	PHONO PIN	
25	TSM10032-3	MAGNET	
26	TSN63115-4	PURITY MAGNET	
27	TSX4G111H	AC POWER CORD	
		(S'PORE,CIS ONLY)	
28	TSX4G112F	AC POWER CORD	
		(CIS ONLY)	

Ref. No.	Part No.	Part Name & Description	Remarks
29A	TXFKY01QH2S	CABINET ASSY	
		(S'PORE,CIS ONLY)	
29B	TXFKY01QH2P	CABINET ASSY	
		(M'EAST ONLY)	
	TXFPD01QH2S	CUSHION (TOP)	
	TXFPD02QH2S	CUSHION (BOTTOM)	
30	TXFSA01AA2S	DIPOLE ANTENNA	
	RESISTORS		
R003	ERJ6GEYJ100	M 100HM,J,1/10W	
R004	ERG2S5J183E	M 18KOHM,J, 2W	
R006	ERJ6GEYJ273	M 27KOHM,J,1/10W	
R007	ERJ6GEYJ302	M 3KOHM,J,1/10W	
R008	ERJ6GEYJ681	M 680OHM,J,1/10W	
R011	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R012	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R021	ERJ6GEYJ273	M 27KOHM,J,1/10W	
R022	ERJ6GEYJ473	M 47KOHM,J,1/10W	
R116	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	
R117	ERJ6GEYJ682	M 6.8KOHM,J,1/10W	
R118	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R119	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R120	ERJ6GEYJ680	M 680HM,J,1/10W	
R121	ERJ6GEYJ122	M 1.2KOHM,J,1/10W	
R122	ERJ6GEYJ470	M 47OHM,J,1/10W	
R123	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	
R124	ERJ6GEYJ122	M 1.2KOHM,J,1/10W	
R125	ERJ6GEYJ1R0	M 1OHM,J,1/10W	
R126	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	
R136	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R137	ERJ6GEYJ683	M 68KOHM,J,1/10W	
R138	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R139	ERJ6GEYJ333	M 33KOHM,J,1/10W	
R145	ERJ6GEYJ473	M 47KOHM,J,1/10W	
R150	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	
R151	ERJ6GEYJ333	M 33KOHM,J,1/10W	
R182	ERJ6GEYJ221	M 220OHM,J,1/10W	
R185	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R351	ER0S2CKF1001	M 1KOHM,F, 1/4W	
R352	ER0S2CKF1001	M 1KOHM,F, 1/4W	
R353	ER0S2CKF1001	M 1KOHM,F, 1/4W	
R354	ER0S2CKF7870	M 787OHM,F, 1/4W	
R355	ER0S2CKF7870	M 787OHM,F, 1/4W	
R356	ER0S2CKF7870	M 787OHM,F, 1/4W	
R363	ERC12GK222	S 2.2KOHM,K, 1/2W	
R364	ERC12GK222	S 2.2KOHM,K, 1/2W	
R365	ERC12GK222	S 2.2KOHM,K, 1/2W	
R369	ERDS2TJ103	C 10KOHM,J, 1/4W	
R374	ERQ12AJ181P	F 180OHM,J, 1/2W	
R401	ERDS2TJ1R8	C 1.8OHM,J, 1/4W	
R402	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R403	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R404	ERJ6ENF2701	M 2.7KOHM, 1/10W	
R405	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	
R406	ERJ6GEYJ1R0	M 1OHM,J,1/10W	
R407	ERJ12YJ221U	M 220OHM,J, 1/2W	
R627	ERJ6GEYJ683	M 68KOHM,J,1/10W	
R628	ERJ6GEYJ563	M 56KOHM,J,1/10W	
R629	ERJ6GEYJ154	M 150KOHM,J,1/10W	
R630	ERJ6ENF1802	M 18KOHM, 1/10W	
R631	ER050CKF5603	M 560KOHM,F, 1/2W	
R632	ERJ6GEYJ750	M 75OHM, 1/10W	
R634	ERJ6GEYJ822	M 8.2KOHM,J,1/10W	
R635	ERJ6GEYJ561	M 560OHM,J,1/10W	
R636	ERJ6GEYJ562	M 5.6KOHM,J,1/10W	
R637	ERJ6GEYJ473	M 47KOHM,J,1/10W	
R638	ERJ6GEYJ391	M 390OHM,J,1/10W	
R639	ERJ6GEYJ101	M 100OHM,J,1/10W	
R640	ERJ6GEYJ181	M 180OHM,J,1/10W	
R641	ERJ6GEY0R00	M 00HM,J,1/10W	
R642	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R643	ERJ6GEYJ272	M 2.7KOHM,J,1/10W	
R647	ERJ6GEYJ101	M 100OHM,J,1/10W	
R654	ERJ6GEYJ473	M 47KOHM,J,1/10W	

Ref. No.	Part No.	Part Name & Description	Remarks
R655	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R660	ERJ6GEYJ274	M 270KOHM,J,1/10W	
R661	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R662	ERJ6GEYJ333	M 33KOHM,J,1/10W	
R701	ERQ12AJ150E	F 150HM,J, 1/2W	
R703	ERG2SJ821E	M 820OHM,J, 2W	
R704	ERJ6GEYJ563	M 56KOHM,J,1/10W	
R705	ERJ6GEYJ104	M 100KOHM,J,1/10W	
R706	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	
R707	ERJ6GEYJ681	M 680OHM,J,1/10W	
R708	ERJ6GEYJ393	M 39KOHM,J,1/10W	
R709	ERJ6GEYJ393	M 39KOHM,J,1/10W	
R710	ERJ6GEYJ273	M 27KOHM,J,1/10W	
R711	ERG1SJ101E	M 100OHM,J, 1W	
R712	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R713	ERQ2CJP8R2S	F 8.2OHM,J, 2W	
R721	ERJ6GEYJ752	M 7.5KOHM,J,1/10W	
R801	ERF15ZK1R5	M 1.5OHM, 15W	
R805	ERG2SJ470E	M 470HM,J, 2W	
R806	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	
R807	ERJ6GEYJ222	M 2.2KOHM,J,1/10W	
R809	ERX12SJR33E	M 0.33OHM,J, 1/2W	
R811	ERJ6GEYJ681	M 680OHM,J,1/10W	
R812	ERD75TAJ825	C 8.2MOHM,J, 3/4W	
R814	ERJ6GEYJ332	M 3.3KOHM,J,1/10W	
R815	ERJ6GEYJ102	M 1KOHM,J,1/10W	
R817	ERG5FJ183H	M 18KOHM,J, 5W	
R819	ERJ12YJ330U	M 33OHM,J, 1/2W	
R824	ERDS1TJ474	C 4.7KOHM,J, 1/2W	
R825	ERJ6GEYJ473	M 47KOHM,J,1/10W	
R832	ERJ12YJ221U	M 220OHM,J, 1/2W	
R835	ERX12SJR33E	M 0.33OHM,J, 1/2W	
R850	ERQ12AJ3R3E	F 3.3OHM,J, 1/2W	
R853	ERJ14YJ102U	M 1KOHM,J, 1/4W	
R856	ERQ12HJR22P	F 0.22OHM,K, 1/2W	
R857	ERF3EXKR33V	W 0.33OHM,K, 3W	
R859	ERJ6GEYJ152	M 1.5KOHM,J,1/10W	
R860	ERJ6ENF6801	M 6.8KOHM, 1/10W	
R861	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R862	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R863	ERG3FJ473H	M 47KOHM,J, 3W	
R864	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R866	ERJ6GEYJ472	M 4.7KOHM,J,1/10W	
R867	ERJ6GEYJ103	M 10KOHM,J,1/10W	
R3132	ERJ6GEYJ221	M 220OHM,J,1/10W	
R3133	ERJ6GEYJ221	M 220OHM,J,1/10W	
	CAPACITORS		
C001	ECEA1CKA220	E 22UF, 16V	
C002	ECJ2VF1H104Z	C 0.1UF, Z, 50V	
C005	ECJ2VF1H104Z	C 0.1UF, Z, 50V	
C006	ECA1AM331B	E 330UF, 10V	
C008	ECEA1HKA010	E 1UF, 50V	
C109	ECJ2VF1H103Z	C 0.01UF, Z, 50V	
C116	ECJ2VF1H103Z	C 0.01UF, Z, 50V	
C117	ECJ2VB1H103J	C 0.01UF, 50V	
C120	ECJ2VF1H103Z	C 0.01UF, Z, 50V	
C121	ECJ2VF1H103Z	C 0.01UF, Z, 50V	
C122	ECJ2VF1H103Z	C 0.01UF, Z, 50V	
C136	ECJ2VF1H103Z	C 0.01UF, Z, 50V	
C180	ECJ2VG1H151J	C 150PF, J, 50V	
C354	ECCF1H330JC	C 33PF, J, 50V	
C355	ECCF1H330JC	C 33PF, J, 50V	
C356	ECCF1H330JC	C 33PF, J, 50V	
C357	ECA160V33UE	E 33UF, 160V	
C359	ECQM4104KZ	P 0.1UF, K,400V	
C368	ECCF1H561J	C 560PF, J, 50V	
C370	ECKW3D102KBP	C 1000PF, K, 2KV	
C371	ECEA1CN100U	E 10UF, 16V	
C373	ECA2EM100B	E 10UF, 250V	
C377	ECA1CM221B	E 220UF, 16V	
C402	EEUFCLV222E	E 2200UF, 35V	
C403	ECA1HHG220	E 22UF, 50V	
C406	ECA1HHG101	E 100UF, 50V	

Ref. No.	Part No.	Part Name & Description	Remarks
C408	ECQV1H274JL	P 0.27UF, J, 50V	
C409	EEUFCLH330B	E 33UF, 50V	
C502	ECKR2H821KB5	C 820PF, K,500V	
C504	ECJ2VB1H681K	C 680PF, K, 50V	
C506	L5SL4B100D	C 10PF, 500V	
C511	ECA1VM101B	E 100UF, 35V	
C520	ECA0JM221B	E 220UF, 6.3V	
C552	ECA2EHG100	E 10UF, 250V	
C555	ECKR2H471KB5	C 470PF, K,500V	
C558	ECA2CMR47B	E 0.47UF, 160V	
C559	ECWH16822JVB	P 8200PF,J,1.6KV	
C560	ECQM4223JZ	P 0.022UF, J,400V	
C561	ECKW3D221JBP	C 220PF, J, 2KV	
C562	ECKD3D681JBP	C 680PF, J, 2KV	
C563	TACDX2E164J	E 0.16UF,J, 250V	
C565	ECQP1H223JZ	P 0.022UF, J, 50V	
C570	ECUX1H470JCX	C 47PF, J, 50V	
C601	ECEA1CKA101	E 100UF, 16V	
C602	ECUX1H104KBX	C 0.1UF, K, 50V	
C603	ECJ2VB1H472K	C 4700PF, K, 50V	
C604	ECQV1H224JL	P 0.22UF, J, 50V	
C605	ECQV1H224JL	P 0.22UF, J, 50V	
C606	ECJ2VC1H222J	C 2200PF, J, 50V	
C607	ECEA1HKA010	E 1UF, 50V	
C608	ECEA1HKA2R2	E 2.2UF, 50V	
C609	ECUX1H104KBX	C 0.1UF, K, 50V	
C610	ECJ2VB1H103J	C 0.01UF, 50V	
C612	ECJ2VB1H472K	C 4700PF, K, 50V	
C613	ECJ2VB1H472K	C 4700PF, K, 50V	
C614	ECQV1H104JL	P 0.1UF, J, 50V	
C615	ECQV1H224JL	P 0.22UF, J, 50V	
C617	ECEA1CKA100	E 10UF, 16V	
C618	ECKR1H821KB5	C 820PF, K, 50V	
C1205	ECA1CM101B	E 100UF, 16V	
C2210	ECJ2VF1H223Z	C 0.022UF, Z, 50V	
C2211	ECJ2VF1H103Z	C 0.01UF, Z, 50V	
C2212	ECA1HM100B	E 10UF, 50V	
C2213	ECA1HM2R2B	E 2.2UF, 50V	
C2214	ECA1HM2R2B	E 2.2UF, 50V	
C2215	ECA1HM2R2B	E 2.2UF, 50V	
C2308	ECJ2VC1H391J	C 390PF, J, 50V	
C2352	ECA1HM010B	E 1UF, 50V	
C2353	ECA1CM100B	E 10UF, 16V	
C2354	ECA1CM471B	E 470UF, 16V	
C2357	ECEA1HKN010	E 1UF, 50V	
C2380	ECA1CM101B	E 100UF, 16V	
C2401	ECJ2VB1H682K	C 6800PF, K, 50V	
C2402	ECJ2ZF1C105Z	C 1UF, Z, 16V	
C2403	ECJ2ZF1C105Z	C 1UF, Z, 16V	
C2404	ECJ2VB1E104K	C 0.1UF, K, 25V	
C2405	ECEA1HKA33	E 0.33UF, 50V	
C2406	ECJ2VB1H102J	C 1000PF, 50V	
C2420	ECJ2ZF1C105Z	C 1UF, Z, 16V	
C3016	ECA1CM471B	E 470UF, 16V	
C3024	ECA1HM010B	E 1UF, 50V	
C3111	ECJ2VC1H561K	C 560PF, K, 50V	
C3113	ECJ2VC1H561K	C 560PF, K, 50V	
C3116	ECJ2VB1H103J	C 0.01UF, 50V	
C3131	ECJ2YB1A105K	C 1UF, K,	
C3132	ECJ2YB1A105K	C 1UF, K,	
C3133	ECJ2YB1A105K	C 1UF, K,	
C3134	ECJ2YB1A105K	C 1UF, K,	
	COILS		
L001	TLTACT100K	PEAKING COIL 10U	
L120	TLTACTR56K	PEAKING COIL	
L181	TLTACT100K	PEAKING COIL 10U	
L182	TALV35VB6R8K	PEAKING COIL	
L183	TALV35VB5R6K	PEAKING COIL	
L184	TALV35VB6R8K	PEAKING COIL	
L352	EXCELSA24T	BEAD CORE	
L501	ELH5L4130	LINEARITY COIL	
L550	EXCELDNR25V	CORE	
L551	TSK1045	BEAD CORE	

Ref. No.	Part No.	Part Name & Description	Remarks
L552	TSK1045	BEAD CORE	
L620	TSK1045	BEAD CORE	
L701	ELC10D472E	CHOKE COIL	
L801	ELF24V019A	LINE FILTER	
L802	EXCELDR35C	BEAD CORE	
L803	EXCELDR35C	BEAD CORE	
L820	EXCELDR35C	BEAD CORE	
L852	EXCELDR35C	BEAD CORE	
L856	TLTACT1R5K	PEAKING COIL	
L857	TLTACT1R5K	PEAKING COIL	
L1101	TALV35VB331K	PEAKING COIL	
L2211	TLTACT100K	PEAKING COIL 10U	
	TRANSFORMERS		
T552	ZTFN32002A	FLYBACK TRANS	
T553	ETH19Y70AY	H DRIVE TRANS	
T801	ETS29AS126AD	SWITCHING TRANS	
	DIODES		
D002	MTZJ16A	ZENER DIODE	
D003	MTZJ16A	ZENER DIODE	
D011	MA152KTX	DIODE	
D120	MA858	DIODE	
D354	1SS133T77	DIODE	
IC801	STRF6656LF53	LINEAR IC	
IC802	SE140N	LINEAR IC	
IC851	AN7805	LINEAR IC	
IC852	AN7808	LINEAR IC	
IC1102	MN13812-JTA	MOS IC	
IC1103	TVR4GAS058	IC (EEPROM)	
IC1104	RPM6937	REMOTE CONTROL R	
IC1201	PQ1R33	LINEAR IC	
IC1202	AN78L05	LINEAR IC	
IC2201	TDA9820T/V1	IC	
IC2303	AN7523	IC	
	TRANSISTORS		
Q001	2SC2412KT	TRANSISTOR	
Q101	2SC2412KT	TRANSISTOR	
Q102	2SC4787	TRANSISTOR	
Q103	2SD2114KT	TRANSISTOR	
Q105	2SC2412KT	TRANSISTOR	
Q180	2SA1037AKT	TRANSISTOR	
Q369	2SA564AQR	TRANSISTOR	
Q401	2SA1037AKT	TRANSISTOR	
Q445	2SC3326ATX	TRANSISTOR	
Q446	2SC2412KT	TRANSISTOR	
Q447	2SC2412KT	TRANSISTOR	
Q501	2SC4212H	TRANSISTOR	
Q520	2SB792ATX	TRANSISTOR	
Q551	2SD2553	TRANSISTOR	
Q601	2SA1037AKT	TRANSISTOR	
Q602	2SC2412KT	TRANSISTOR	
Q603	2SA1037AKT	TRANSISTOR	
Q605	2SC2412KT	TRANSISTOR	
Q606	2SC2412KT	TRANSISTOR	
Q607	2SA1037AKT	TRANSISTOR	
Q608	2SC2412KT	TRANSISTOR	
Q701	2SA1037AKT	TRANSISTOR	
Q801	2SK1006RF122	TRANSISTOR	
Q850	2SC1815	TRANSISTOR	
Q852	2SC2412KT	TRANSISTOR	
Q853	2SC2412KT	TRANSISTOR	
Q854	2SC2412KT	TRANSISTOR	
Q855	2SC1815	TRANSISTOR	
Q856	2SC2412KT	TRANSISTOR	
Q1101	2SC2412KT	TRANSISTOR	
Q2380	DTD113ZKT	TRANSISTOR	
Q2381	2SA1037AKT	TRANSISTOR	
Q2401	2SC2412KT	TRANSISTOR	
Q2402	2SC2412KT	TRANSISTOR	
Q2403	2SC2412KT	TRANSISTOR	
Q2404	2SC2412KT	TRANSISTOR	
Q2405	2SC2412KT	TRANSISTOR	
Q2406	2SC2412KT	TRANSISTOR	
Q2407	2SC2412KT	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
	OTHERS		
A1	TJS4G9010	CONNECTOR	
A2	K1KA02A00236	CONNECTOR	
A3	K1KA02A00235	CONNECTOR	
A5	TJS3A9670	6P CONNECTOR	
A8	TJS3A9880	8P CONNECTOR	
A9	TJS4G8090	20P CONNECTOR	
DYH	K1KA03A00216	CONNECTOR	
DYV	TJS3A9640	3P CONNECTOR	
F801	XBA2C31TR0	FUSE 250V 3.15A	
JA1	ERJ6GEY0R00	M 0OHM,J,1/10W	