ORDER No. PCZ0410022C2

Service Manual

Colour Television

TX-21PZ1
TX-21PZ1D
TX-21PZ1F
TX-21PZ1P
CP-521FS Chassis

SPECIFICATIONS

Power Source:	220-240V a.c., 50Hz
Power Consumption:	52W
Stand-by Power Consumption:	1,5W
Aerial Impedance:	75Ω unbalanced, Coaxial Type
Receiving System:	PAL-I, B/G, D/K, PAL-525/60 SECAM B/G, D/K, L/L' M.NTSC (AV only) NTSC (AV only)

Receiving Channels:

VHF E2-E12	VHF H1-H2 (ITALY)
VHF A-H (ITALY)	VHF R1-R2
VHF R3-R5	VHF R6-R12
UHF E21-E69	CATV (S01-S05)
CATV S1-S10 (M1-M10)	CATV S11-S20 (U1-U10)
CATV S21-S41 (HYPERBAND)	

Intermediate Frequency:

Video/ Audio	
Video	38,9MHz, 33,9MHz
Sound	33,4MHz (B/G), 33,16MHz (A2) 33,05MHz (NICAM B/G,D/K,L) 32,4MHz (D/K),32,66MHz (CZ STEREO) 40,4MHz (L'), 39,75MHz (L'NICAM)
Colour	34,47MHz (PAL) 34,5MHz, 34,65MHz (SECAM) 38,3MHz, 38,15MHz (SECAM L')

Terminals:

AV1 IN	Video (21 pin)	1V p-p 75Ω
	Audio (21 pin)	500mV rms 10kΩ
	RGB (21 pin)	0,7V p-p 75Ω
AV1 OUT	Video (21 pin)	1V p-p 75Ω
	Audio (21 pin)	500mV rms 1kΩ
AV2 IN	Video (21 pin)	1V p-p 75Ω
	Audio (21 pin)	500mV rms 10kΩ
	S-Video IN (21-pin)	Y: 1V p-p 75Ω C: 0.3V p-p 75Ω
AV2 OUT	Video (21 pin)	1V p-p 75Ω
	Audio (21 pin)	500mV rms 1kΩ
AV3 FRONT	Audio (RCAx2)	500mV rms 10kΩ
	Video (RCAx1)	1V p-p 75Ω

High Voltage:	28kV ± 1kV
Picture Tube:	A51QDX993X033 51cm
Audio Output:	2x5W RMS, 2x10W MPO, 8Ωimpedance
Headphones:	8Ω Impedance
Accessories supplied:	Remote Control 2 x R6 (UM3) Batteries

Dimensions:

Height:	489mm
Width:	600mm
Depth:	464mm
Net weight:	23,0kg

Specifications are subject to change without notice.
Weights and dimensions shown are approximate.

Panasonic

CONTENTS

SAFETY PRECAUTION

GENERAL GUIDE LINES

1. It is advisable to insert an isolation transformer in the a.c. supply before servicing a hot chassis.
2. When servicing, observe the original lead dress in the high voltage circuits. If a short circuit is found, replace all parts that have been overheated or damaged by the short circuit.
3. After servicing, see that all the protective devices such as insulation barriers, insulation papers, shields and isolation R-C combinations are correctly installed.
4. When the receiver is not being used for a long period of time, unplug the power cord from the a.c. outlet.
5. Potentials as high as 29 kV are 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 familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the tube.
6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazard.

LEAKAGE CURRENT COLD CHECK

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

LEAKAGE CURRENT HOT CHECK

1. Plug the a.c. cord directly into the a.c. outlet. Do not use an isolation transformer for this check.
2. Connect a 2kΩ 10W resistor in series with an exposed metallic part on the receiver and an earth, such as a water pipe.
3. Use an a.c. voltmeter with high impedance to measure the potential across the resistor.
4. Check each exposed metallic part and check the voltage at each point.
5. Reverse the a.c. plug at the outlet and repeat each of the previous measurements.
6. The potential at any point should not exceed 1,4 Vrms. In case a measurement is outside the 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.

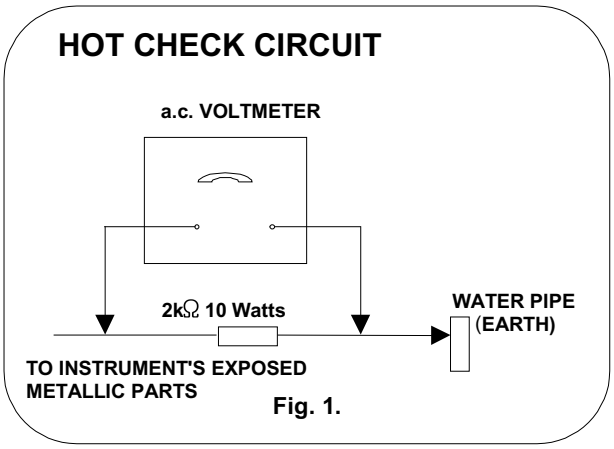


Fig. 1.

X-RADIATION WARNING

1. The potential sources of X-Radiation in TV sets are the high voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that the jig is capable of handling 29 kV without causing X-Radiation.

NOTE: It is important to use an accurate periodically calibrated high voltage meter.

1. Set the brightness to minimum.
2. Measure the high voltage. The meter should indicate: 28 kV ± 1kV.
   If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
3. To prevent any X-Radiation possibility, it is essential to use the specified tube.

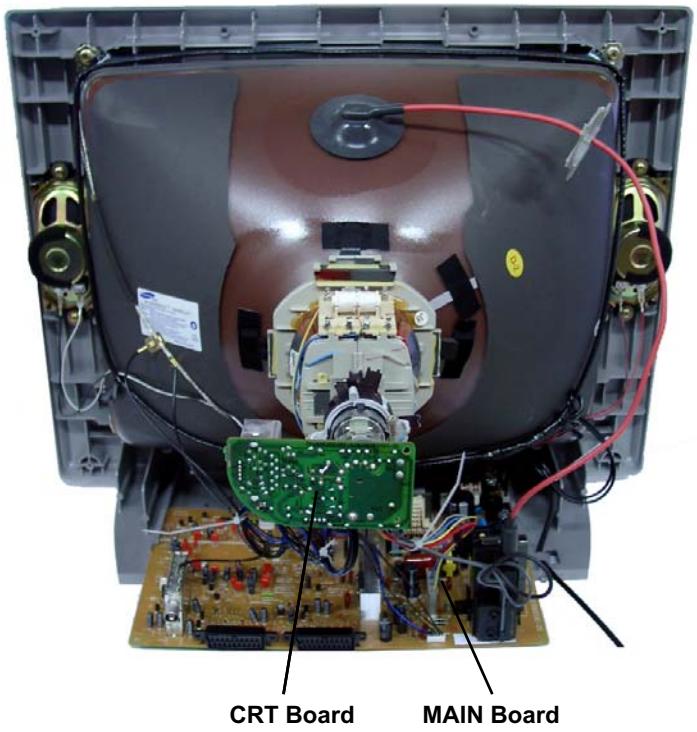
SERVICE HINTS

How to remove the rear cover

1. Remove the 5 screws as shown in Fig. 2

Fig. 2

LOCATION OF CONTROLS



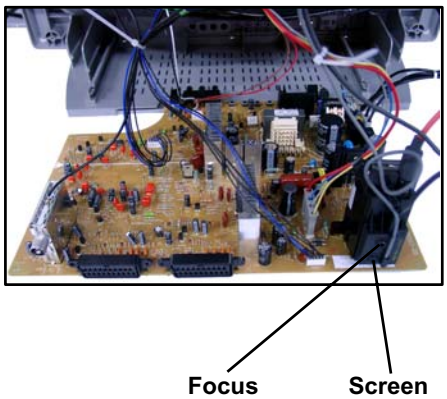


Fig. 3

VOLTAGE CHECK

SMT	2084.0125B*		
MAIN B+ Voltage [V]	123,9	±1V	
12V [V]	12,1	±0,5V	
STAND BY [V]	12,1	±0,5V	
SOUND B+ [V]	12,6	±0,5V	*Volume Min.
	12,1	±0,5V	*Volume Max.

TEST CONDITIONS ;

Input voltage : 230VAC
TV set on ON mode (if othing specifed)
Picture : colour bar - Dynamic
Sound : 1khz - (mode : Music)

FBT	1412.7009*		
HIGH VOLTAGE [V]	27,0	±1kV	
	28,0	±1kV	
RETRACE TIME	10,3	±0,2us	
Vcp [V]	1094	±20V	
VIDEO VOLTGE [V]	191,5	±5%	
13V LINE [V]	13,0	±5%	
45V LINE [V]	45,4	±5%	
HEATER VOLTAGE [Vrms]	6,21	±5%	

TEST CONDITIONS ;

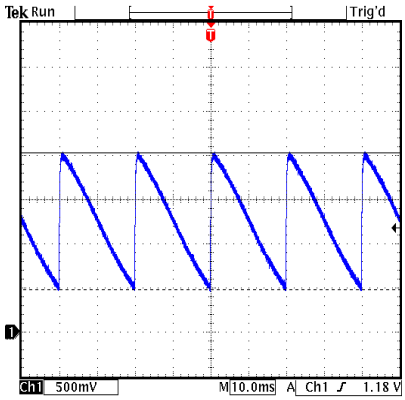
Input voltage : 230VAC
Ct = 6200 pF
Cs = 0,27 uF
L linearity : L-125
CRT : A51QDX993X033

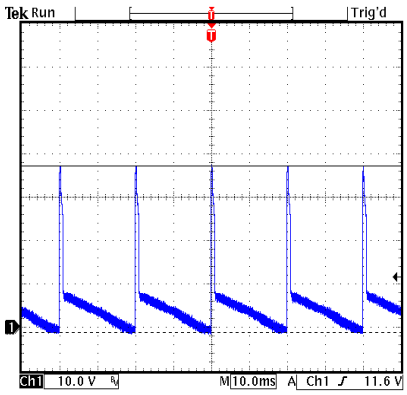
G2 SCREEN / CUTTOFF	
1. Receive a Colour bar pattern 2. Set the TV into Service mode 3. Select G2 SCREEN item	Adjust the screen VR will OSD is just change to GREEN square.

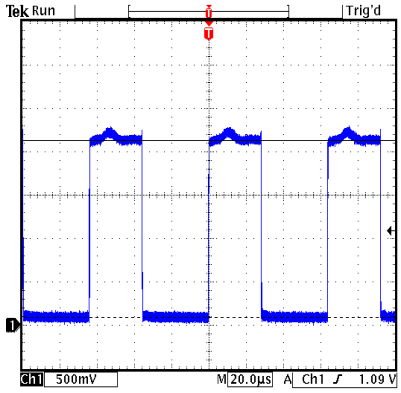
OPTION BYTES

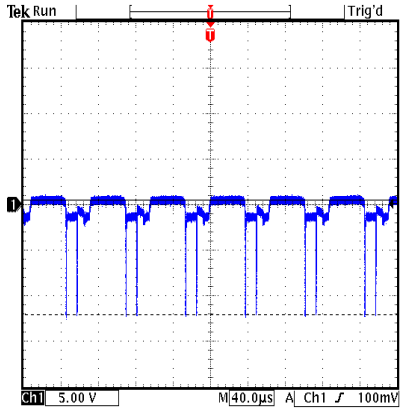
MODEL	OPTION BYTE 1		OPTION BYTE 2	
TX-21PZ1D	0 0 1 1 1 1 0 0	0 x 3C	0 1 0 0 1 1 1 1	0 x 4F
TX-21PZ1F	1 0 1 1 1 1 0 0	0 x BC	0 1 0 0 1 1 1 1	0 x 4F
TX-21PZ1P	1 0 1 1 1 1 0 0	0 x BC	0 1 1 0 1 1 1 1	0 x 6F
TX-21PZ1	0 0 1 1 1 1 0 0	0 x 3C	0 1 1 0 1 1 1 1	0 x 6F

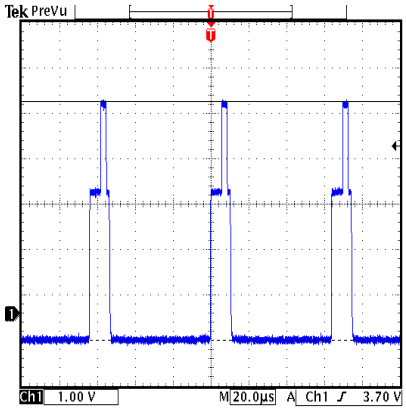
WAVEFORM PATTERN TABLE

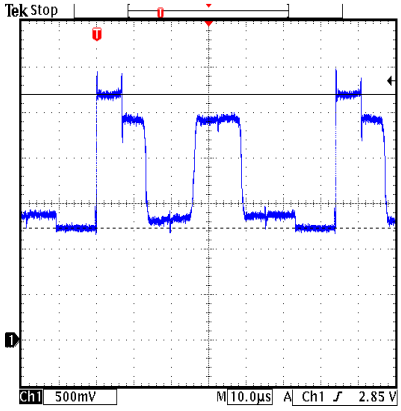


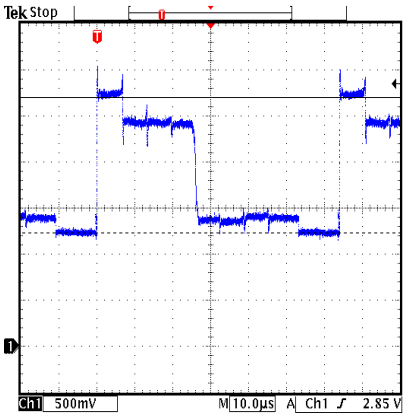


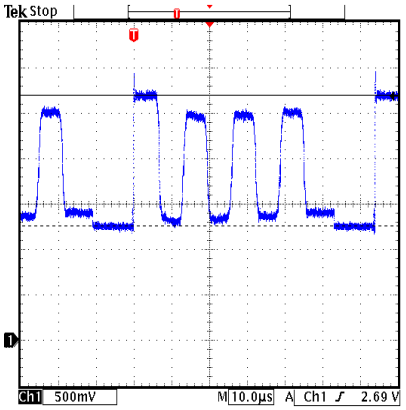


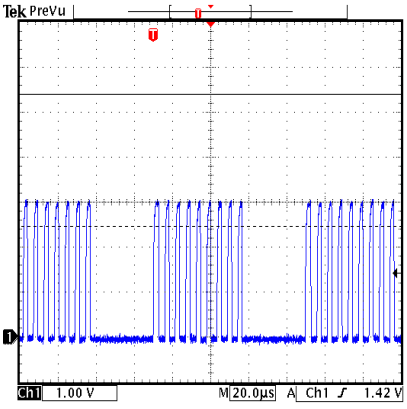


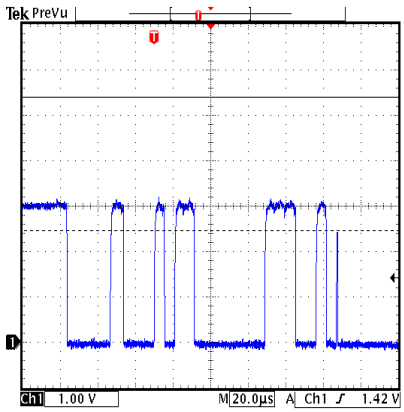


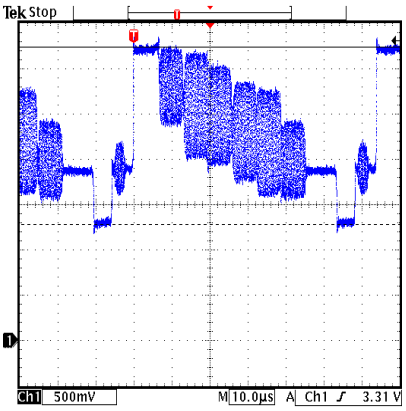










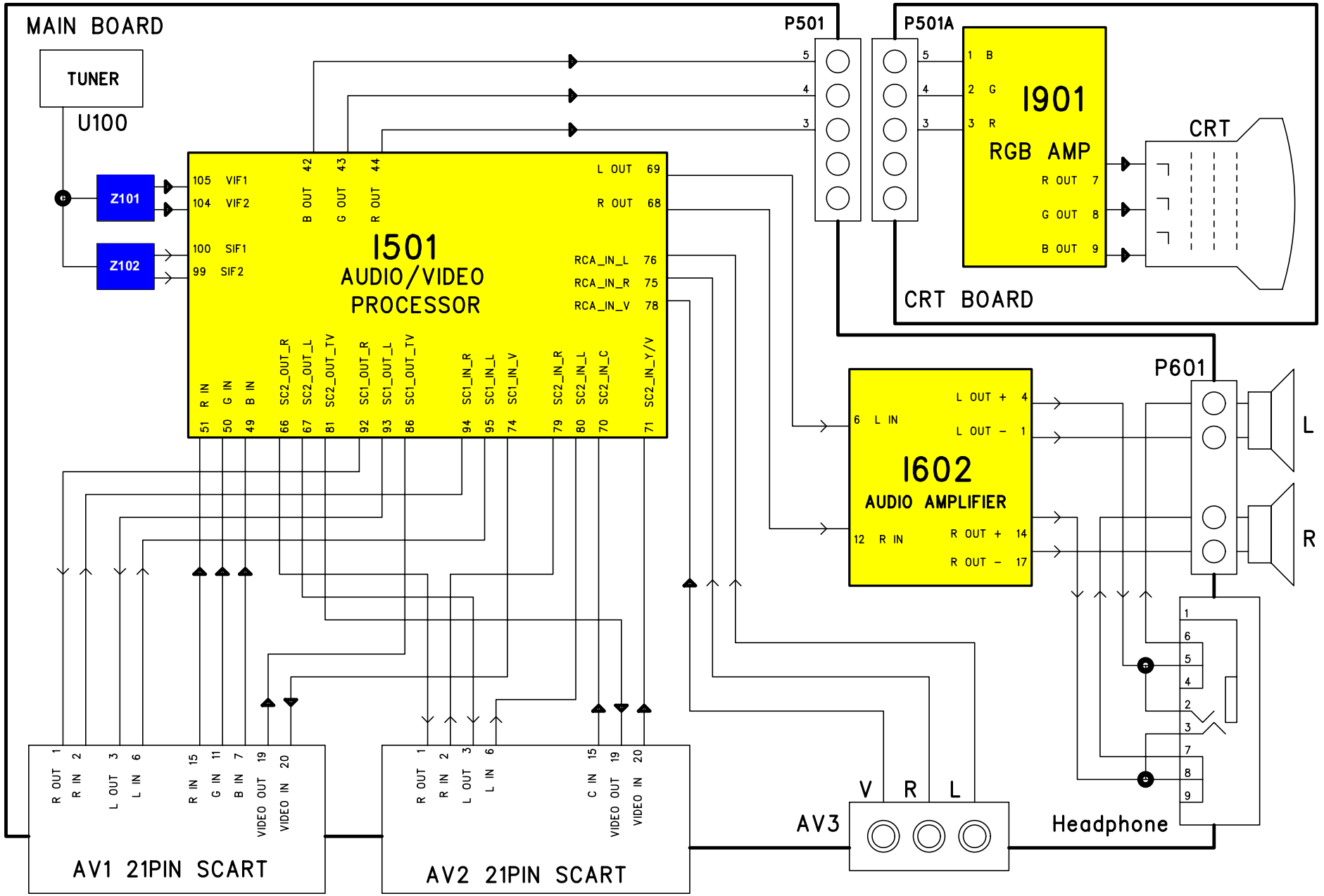


CONDITIONS: Contrast: MAX, Brightness: MID, Colour: MID, Sharpness: MID

ALIGNMENT SETTINGS

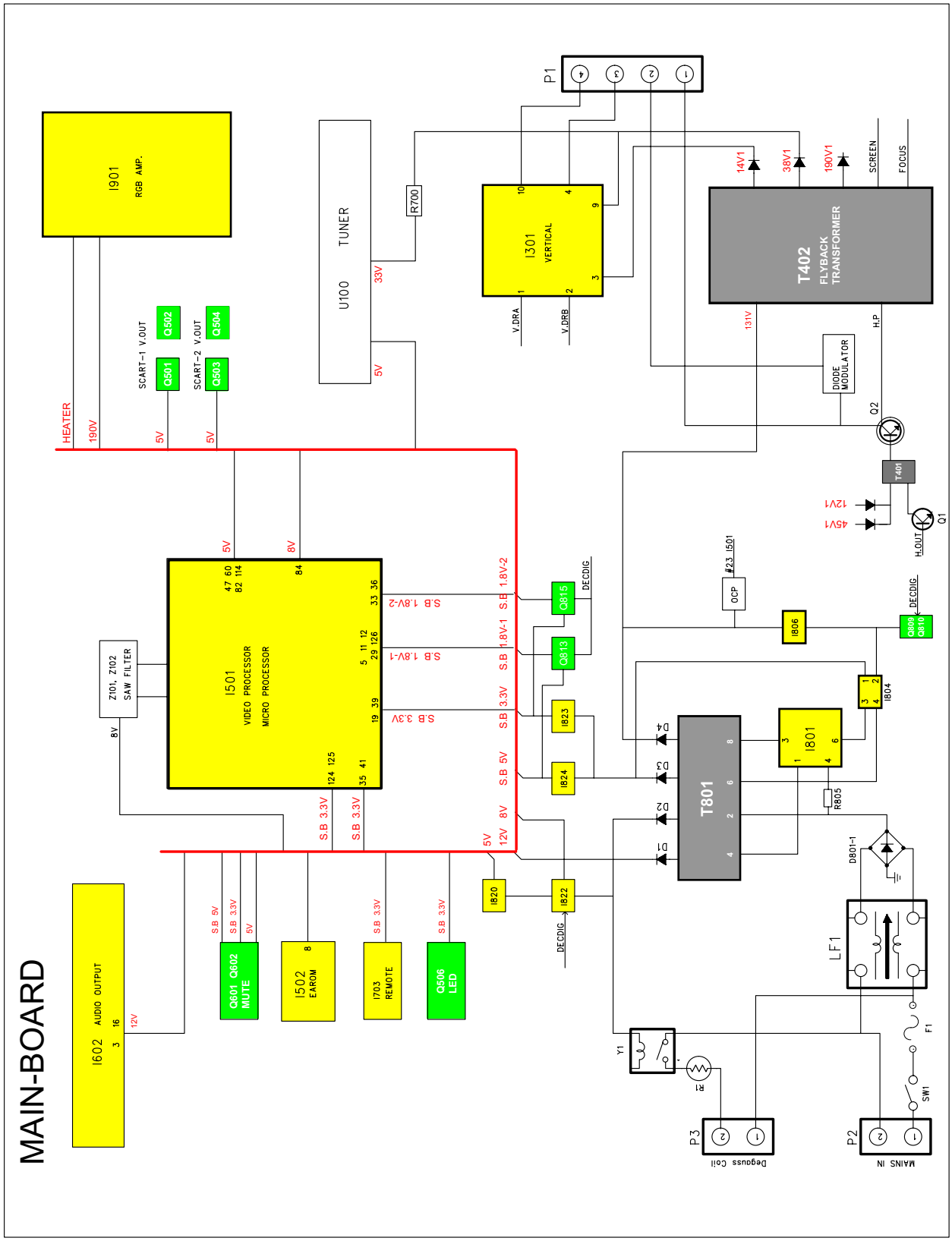
(The figures below are nominal and used for representative purposes only.)
To access Service Mode select program position 99 and set sharpness to minimum.
Press "**MUTE**" button on remote control and at the same time press the "**V**" button on the customer controls at the front of the TV, this will place the TV set into Service Mode.
Press **Λ / V** buttons to step up / down through the functions.
Press **+ / -** buttons to alter the function values.
To exit Service Mode press "MENU" button.

	Setting in indication Note: All settings are approximate	Settings / Special features
1.	HOR CEN	35
2.	SHIPPING	40 67
3.	VERT SIZE	12
4.	VERT CENT	45
5.	S CORRECT	25
6.	EW TRAPEZ	-
7.	V SLOPE	32
8.	V LINEAR	39
9.	HOR PARAL	35
10.	CORNER B	-
11.	CORNER T	-
12.	HOR WIDTH	-
13.	PARABOLA	-
14.	AVL	00
15.	OPTION2	Refer to the Option Bytes (page 4)
16.	OPTION1	
17.	G2 SCREEN	□■□
18.	AGC LEVEL	24
19.	GRN BIAS	32
20.	RED BIAS	32
21.	BLUE GAIN	32
22.	GRN GAIN	32
23.	RED GAIN	32


MAIN BOARD
TUNER
U100
Z101
Z102
105 VIF1
104 VIF2
100 SIF1
99 SIF2
I501
AUDIO/VIDEO
PROCESSOR
B OUT 42
G OUT 43
R OUT 44
L OUT 69
R OUT 68
RCA_IN_L 76
RCA_IN_R 75
RCA_IN_V 78
R IN 51
G IN 50
B IN 49
SC2_OUT_R 66
SC2_OUT_L 67
SC2_OUT_TV 81
SC1_OUT_R 92
SC1_OUT_L 93
SC1_OUT_TV 86
SC1_IN_R 94
SC1_IN_L 95
SC1_IN_V 74
SC2_IN_R 79
SC2_IN_L 80
SC2_IN_C 70
SC2_IN_Y/V 71
P501
P501A
I901
RGB AMP
1 B
2 G
3 R
R OUT 7
G OUT 8
B OUT 9
CRT
CRT BOARD
P601
I602
AUDIO AMPLIFIER
6 L IN
12 R IN
L OUT + 4
L OUT - 1
R OUT + 14
R OUT - 17
L
R
AV1 21PIN SCART
R OUT 1
R IN 2
L OUT 3
L IN 6
R IN 15
G IN 11
B IN 7
VIDEO OUT 19
VIDEO IN 20
AV2 21PIN SCART
C IN 15
AV3
V R L
Headphone

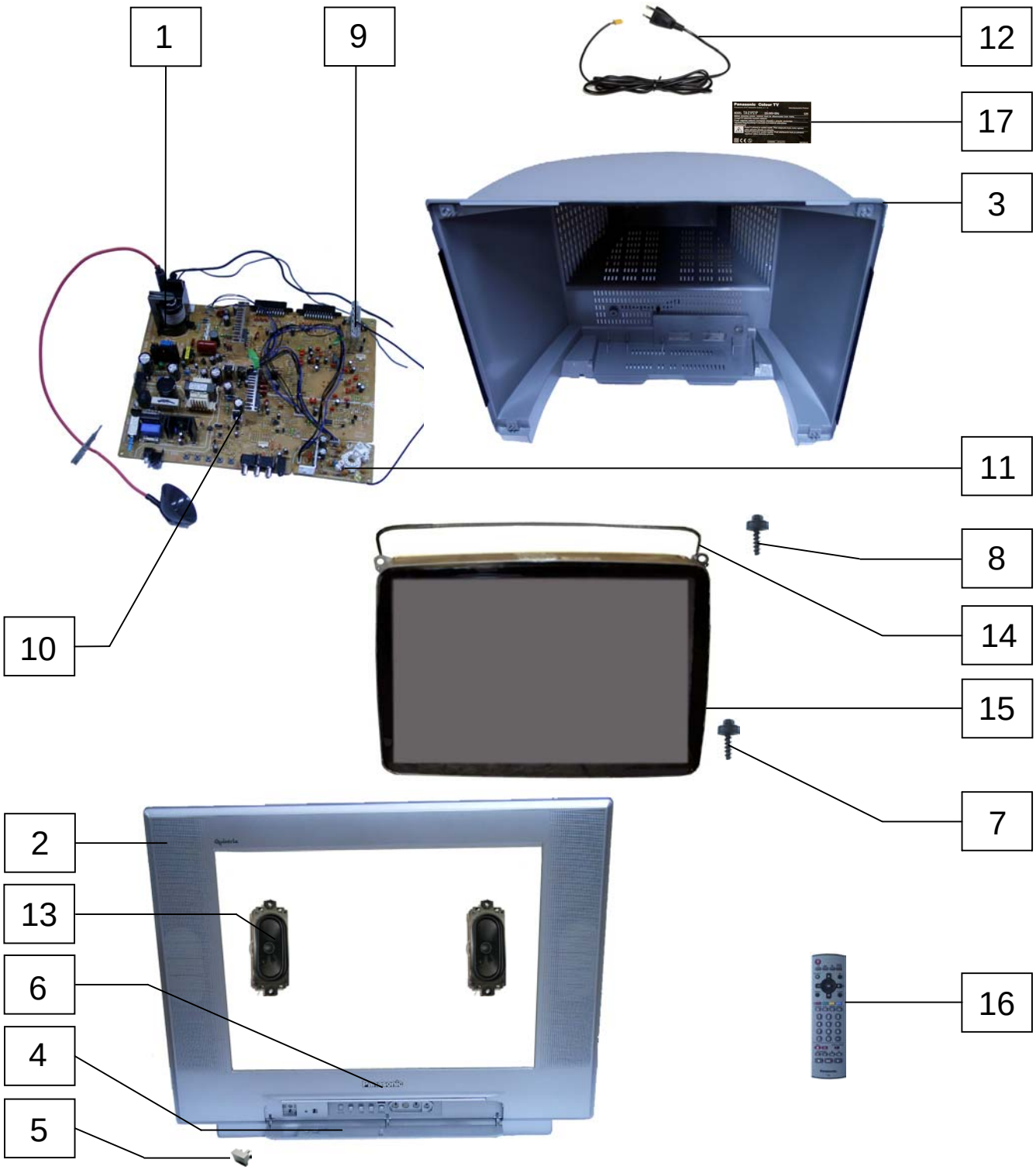
7

POWER SUPPLY BLOCK DIAGRAM



PARTS LOCATION

NOTE:
The numbers on the exploded view below refer to the exploded view section of the Replacement Parts List.



REPLACEMENT PARTS LIST

Important Safety Notice

Components Identified by ⚠ mark have special characteristics important for safety.
* When replacing any of these components, use only manufacturers specified parts.
In case of ordering these spare parts, please always add the complete Model-Type number to your order.

Cct Ref	Parts Number	Description	
COMMON PARTS			
EXPLODED VIEW			
1	1412.7009C	FBT	⚠
2	4852089414	MASK FRONT	
3	4852170314	COVER BACK	⚠
4	4852825311	DOOR	
5	4854868811	BUTTON POWER	
6	4855624800	MARK BRAND	
7	4856017303	SCREW CRT FIX	
8	4856017310	SCREW CRT FIX	
9	4859724930	TUNER VARACTOR	
10	4859810593	PCB MAIN	⚠
11	4859810593-C	PCB CRT	⚠
12	4859906210	POWER CORD	⚠
13	48A8309300	SPEAKER SYSTEM	
14	58G0000147	COIL DEGAUSSING	⚠
15	A51QDX993X03	CRT	⚠
16	EUR7628030	REMOTE CONTROL	
MISCELLANEOUS COMPONENTS			
M481A	4856716000	POWER BUTTON SPRING	
M501	485506172001	DECO CTRL	
M551	4855553600	DECO SENSOR	
M591	485594051101	DECO PLATE	
M791	LA701	DOOR LOCK	
I.C.s			
I301	TDA8358J	IC VERTICAL	
I602	TDA8946J	IC AUDIO	
I703	1TS0P1238W	IC PREAMP	
I801	STR-W6753	IC POWER	⚠
I804	KP1010C	PHOTO COUPLER	⚠
I806	DP125	IC ERROR	⚠
I820	L7805CV	IC REGULATOR	
I822	KIA78R08API	IC REGULATOR	
I823	LD1117V33	IC REGULATOR	
I824	L7805CV	IC REGULATOR	
I901	TDA6107AJ	IC VIDEO	
FUSES			
F801	5FSCB4022R	FUSE 4A250V	⚠
DIODES			
D101	DBAT85	DIODE	
D102	BA282	DIODE	
D313	1N4937G	DIODE	
D403	DBY228	DIODE	
D405	1N4937G	DIODE	

Cct Ref	Parts Number	Description
D407	RGP15J	DIODE
D408	RGP15J	DIODE
D410	1N4004S	DIODE
D411	1N4004S	DIODE
D414	1N4004S	DIODE
D450	1N4937G	DIODE
D501	DBAT85	DIODE
D503	DTZX3V9B	DIODE
D504	DTZX5V6B	DIODE
D520	1N4148	DIODE
D521	1N4148	DIODE
D522	DTZX3V9B	DIODE
D523	DTZX3V9B	DIODE
D601	1N4148	DIODE
D602	1N4148	DIODE
D710	DTZX5V6B	DIODE
D801	LT2A05G	DIODE
D802	LT2A05G	DIODE
D803	LT2A05G	DIODE
D804	LT2A05G	DIODE
D805	1N4937G	DIODE
D806	1N4937G	DIODE
D807	1N4937G	DIODE
D808	DUZ6R8BM	DIODE ZENER
D811	DTZX5V1B	DIODE
D820	DBYW76	DIODE
D824	DTZX5V1B	DIODE
D825	1N4148	DIODE
D830	1N4937G	DIODE
D831	1N4937G	DIODE
D860	RGP30J	DIODE
D904	DBAV21	DIODE
D905	DBAV21	DIODE
D906	DBAV21	DIODE
D997	LT2A05G	DIODE
DA01	1N4148	DIODE
DA02	DTZX5V6B	DIODE
DA03	1N4148	DIODE
DA04	DTZX5V6B	DIODE
DA06	DTZX5V6B	DIODE
DA08	DTZX5V6B	DIODE
DA09	DTZX5V6B	DIODE
DA10	DTZX5V6B	DIODE
DA11	DTZX5V6B	DIODE
DA13	DTZX5V6B	DIODE
DA14	DTZX5V6B	DIODE
DA15	DTZX5V6B	DIODE
DA20	DTZX5V6B	DIODE
DA21	DTZX5V6B	DIODE
DA22	DTZX5V6B	DIODE
I805	DTZX33B	DIODE ZENER

Cct Ref	Parts Number	Description	
TRANSISTORS			
Q120	2SC5343Y	TRANSISTOR	
Q401	2SD2578	TRANSISTOR	⚠
Q402	2SD1207	TRANSISTOR	
Q501	2SC5343Y	TRANSISTOR	
Q502	2SA1980Y	TRANSISTOR	
Q503	2SC5343Y	TRANSISTOR	
Q504	2SA1980Y	TRANSISTOR	
Q506	2SC5343Y	TRANSISTOR	
Q508	2SC5343Y	TRANSISTOR	
Q513	2SA1980Y	TRANSISTOR	
Q515	H2N7000	TRANSISTOR	
Q601	2SC5343Y	TRANSISTOR	
Q602	2SA1980Y	TRANSISTOR	
Q807	KTA1659AY	TRANSISTOR	
Q809	2SC5343Y	TRANSISTOR	
Q810	2SC5343Y	TRANSISTOR	
Q812	KTC3203-Y	TRANSISTOR	
Q813	2SA1980Y	TRANSISTOR	
Q814	2SC5343Y	TRANSISTOR	
Q815	2SA1980Y	TRANSISTOR	
Q816	2SC5343Y	TRANSISTOR	
TRANSFORMERS			
T401	TD-19A1	TRANSFORMER DRIVE	
T801	2084.0125B	TRANSFORMER SMPS	⚠
COILS			
L101	5CPZ100K02	PEAKING COIL	
L350	5CPZ109K04	COIL PEAKING	
L351	5CPZ109K04	COIL PEAKING	
L401	58H0000018	COIL H-LINEARITY	
L505	PZ479K02	PEAKING COIL	
L506	PZ479K02	PEAKING COIL	
L507	PZ479K02	PEAKING COIL	
L508	PZ479K02	PEAKING COIL	
L509	PZ479K02	PEAKING COIL	
L510	PZ479K02	PEAKING COIL	
L512	PZ479K02	PEAKING COIL	
L513	PZ479K02	PEAKING COIL	
L514	5CPZ100K04	PEAKING COIL	
L515	5CPZ100K02	PEAKING COIL	
L516	PZ479K02	PEAKING COIL	
L517	5CPZ479K04	COIL PEAKING	
L518	5CPZ479K04	COIL PEAKING	
L519	5CPZ479K04	COIL PEAKING	
L523	PZ479K02	PEAKING COIL	
L650	5MC0000100	COIL BEAD	
L801	5MC0000100	COIL BEAD	
L802	58CX430599	COIL CHOKE	
L804	5MC0000100	COIL BEAD	
R713	5CPZ560K02	PEAKING COIL	
FILTERS			
LF801	5PLF24A3	FILTER LINE	⚠
Z101	K3953M	FILTER SAW	
Z102	5PK9650M--	FILTER SAW	
Z601	5PXF1B471M	FILTER	
Z602	5PXF1B471M	FILTER	
Z603	5PXF1B471M	FILTER	
Z604	5PXF1B471M	FILTER	
Z605	5PXF1B471M	FILTER	
Z606	5PXF1B471M	FILTER	
Z607	5PXF1B471M	FILTER	
Z608	5PXF1B471M	FILTER	
Z609	5PXF1B471M	FILTER	
Z610	5PXF1B471M	FILTER	
Z611	5PXF1B471M	FILTER	

Cct Ref	Parts Number	Description			
Z612	5PXF1B471M	FILTER			
CRYSTALS					
X501	5XJ24R576E	CRYSTAL QUARTZ			
RESISTORS					
D826	ERD25TJ103	CARBON	0.25W	5%	10K Ω
J7	ERD25TJ101	CARBON	0.25W	5%	100 Ω
J25	ERD25TJ101	CARBON	0.25W	5%	100 Ω
J26	ERD25TJ101	CARBON	0.25W	5%	100 Ω
J50	ERD25TJ101	CARBON	0.25W	5%	100 Ω
J76	ERD25TJ202	CARBON	0.25W	5%	2K Ω
J83	ERD25TJ101	CARBON	0.25W	5%	100 Ω
J84	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R103	ERD25TJ393	CARBON	0.25W	5%	39K Ω
R104	ERD25TJ683	CARBON	0.25W	5%	68K Ω
R105	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R106	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R107	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R114	ERD25TJ473	CARBON	0.25W	5%	47K Ω
R115	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R120	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R131	ERD25TJ472	CARBON	0.25W	5%	4K7 Ω
R310	ERD25TJ471	CARBON	0.25W	5%	470 Ω
R311	ERD25TJ471	CARBON	0.25W	5%	470 Ω
R331	ERDS1TJ201	CARBON	0.5W	5%	200 Ω
R340	ERD25TJ473	CARBON	0.25W	5%	47K Ω
R350	RN-AZ2201F	METAL	0.17W	-	2K2 Ω
R351	RN-AZ2201F	METAL	0.17W	-	2K2 Ω
R370	ERD25TJ159	CARBON	0.25W	5%	1.5 Ω
R394	ERD25TJ272	CARBON	0.25W	5%	2K7 Ω
R395	ERD25TJ304	CARBON	0.25W	5%	300K Ω
R396	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R398	RS02Y189JS	FILM	2W	-	1.8 Ω
R401	ERD25TJ272	CARBON	0.25W	5%	2K7 Ω
R402	ERD25TJ220	CARBON	0.25W	5%	22 Ω
R403	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R404	ERD25TJ109	CARBON	0.25W	5%	1 Ω
R405	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R406	RS02Y471JS	METAL	2W	-	470 Ω
R407	ERD25TJ182	CARBON	0.25W	5%	1K8 Ω
R415	RN02B112JS	METAL	2W	-	1K1 Ω
R420	ERDS1TJ103	CARBON	0.5W	5%	10K Ω
R422	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R423	ERD25TJ622	CARBON	0.25W	5%	6K2 Ω
R444	RS02Y478JS	METAL	2W	-	R47 Ω
R450	ERG2FJ223	METAL	2W	5%	22K Ω
R451	ERG2FJ223	METAL	2W	5%	22K Ω
R500	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R501	ERD25TJ332	CARBON	0.25W	5%	3K3 Ω
R502	ERD25TJ332	CARBON	0.25W	5%	3K3 Ω
R503	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R504	ERD25TJ152	CARBON	0.25W	5%	1K5 Ω
R505	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R506	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R507	ERD25TJ332	CARBON	0.25W	5%	3K3 Ω
R508	ERD25TJ332	CARBON	0.25W	5%	3K3 Ω
R510	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R511	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R512	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R513	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R514	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R515	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R516	ERD25TJ153	CARBON	0.25W	5%	15K Ω
R517	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R518	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R519	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R527	ERD25TJ101	CARBON	0.25W	5%	100 Ω

Cct Ref	Parts Number	Description			
R528	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R529	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R530	ERD25TJ221	CARBON	0.25W	5%	220 Ω
R532	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R534	ERD25TJ472	CARBON	0.25W	5%	4K7 Ω
R537	ERD25TJ123	CARBON	0.25W	5%	12K Ω
R538	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R539	ERD25TJ471	CARBON	0.25W	5%	470 Ω
R540	ERD25TJ471	CARBON	0.25W	5%	470 Ω
R541	RN-AZ3902F	METAL	0.17W	-	39K Ω
R542	ERD25TJ682	CARBON	0.25W	5%	6K8 Ω
R543	ERD25TJ222	CARBON	0.25W	5%	2K2 Ω
R544	ERD25TJ222	CARBON	0.25W	5%	2K2 Ω
R545	ERD25TJ473	CARBON	0.25W	5%	47K Ω
R546	ERD25TJ681	CARBON	0.25W	5%	680 Ω
R547	ERD25TJ563	CARBON	0.25W	5%	56K Ω
R551	ERD25TJ823	CARBON	0.25W	5%	82K Ω
R552	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R553	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R554	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R555	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R556	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R557	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R558	ERD25TJ391	CARBON	0.25W	5%	390 Ω
R559	ERD25TJ222	CARBON	0.25W	5%	2K2 Ω
R560	ERD25TJ222	CARBON	0.25W	5%	2K2 Ω
R561	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R562	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R563	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R564	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R565	ERD25TJ154	CARBON	0.25W	5%	150K Ω
R566	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R567	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R568	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R569	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R571	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R572	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R573	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R574	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R575	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R576	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R577	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R578	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R579	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R580	ERD25TJ183	CARBON	0.25W	5%	18K Ω
R581	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R582	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R583	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R584	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R585	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R586	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R587	ERD25TJ101	CARBON	0.25W	5%	100 Ω
R588	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R589	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R590	ERD25TJ334	CARBON	0.25W	5%	330K Ω
R598	ERD25TJ182	CARBON	0.25W	5%	1K8 Ω
R599	ERD25TJ224	CARBON	0.25W	5%	220K Ω
R601	ERD25TJ152	CARBON	0.25W	5%	1K5 Ω
R602	ERD25TJ104	CARBON	0.25W	5%	100K Ω
R608	ERDS1TJ151	CARBON	0.5W	5%	150 Ω
R609	ERDS1TJ151	CARBON	0.5W	5%	150 Ω
R610	ERD25TJ103	CARBON	0.25W	5%	10K Ω
R611	ERD25TJ563	CARBON	0.25W	5%	56K Ω
R612	ERD25TJ563	CARBON	0.25W	5%	56K Ω
R650	ERD25TJ473	CARBON	0.25W	5%	47K Ω
R660	ERD25TJ473	CARBON	0.25W	5%	47K Ω

Cct Ref	Parts Number	Description				
R661	RN-AZ1202F	METAL	0.17W	1%	12K Ω	
R662	RN-AZ1202F	METAL	0.17W	1%	12K Ω	
R700	ERDS1TJ232	CARBON	0.5W	5%	2K3 Ω	
R720	ERD25TJ122	CARBON	0.25W	5%	1K2 Ω	
R721	ERD25TJ181J	CARBON	0.25W	5%	180 Ω	
R722	ERD25TJ221	CARBON	0.25W	5%	220 Ω	
R723	ERD25TJ331	CARBON	0.25W	5%	330 Ω	
R724	ERD25TJ471	CARBON	0.25W	5%	470 Ω	
R801	DDB7R0M290	POSISTOR	-	-	- Ω	⚠
R803	ERQ2CKPR33	FILM	2W	10%	0.33 Ω	
R804	ERD25TJ220	CARBON	0.25W	5%	22 Ω	
R805	ERDS1TJ104	CARBON	0.5W	5%	100K Ω	
R806	RS02Y278JS	METAL	2W	-	R27 Ω	
R807	ERD25TJ221	CARBON	0.25W	5%	220 Ω	
R808	ERD25TJ182	CARBON	0.25W	5%	1K8 Ω	
R809	ERD25TJ102	CARBON	0.25W	5%	1K Ω	
R810	ERD25TJ220	CARBON	0.25W	5%	22 Ω	
R811	ERDS1TJ825	CARBON	0.5W	5%	8M2 Ω	⚠
R812	ERD25TJ473	CARBON	0.25W	5%	47K Ω	
R813	ERD25TJ473	CARBON	0.25W	5%	47K Ω	
R814	ERD25TJ472	CARBON	0.25W	5%	4K7 Ω	
R815	ERD25TJ472	CARBON	0.25W	5%	4K7 Ω	
R817	ERD25TJ473	CARBON	0.25W	5%	47K Ω	
R818	ERD25TJ474	CARBON	0.25W	5%	470K Ω	
R819	RX07C339JF	SOLID	7W	-	3R3 Ω	
R820	ERD25TJ153	CARBON	0.25W	5%	15K Ω	
R821	ERD25TJ563	CARBON	0.25W	5%	56K Ω	
R822	RN02B510JS	METAL	2W	-	51 Ω	
R824	RN02B510JS	METAL	2W	-	51 Ω	
R827	ERD25TJ103	CARBON	0.25W	5%	10K Ω	
R828	ERD25TJ473	CARBON	0.25W	5%	47K Ω	
R829	ERD25TJ103	CARBON	0.25W	5%	10K Ω	
R830	ERD25TJ101	CARBON	0.25W	5%	100 Ω	
R831	ERD25TJ472	CARBON	0.25W	5%	4K7 Ω	
R832	ERD25TJ473	CARBON	0.25W	5%	47K Ω	
R833	ERDS1TJ105	CARBON	0.5W	5%	1M Ω	
R834	ERD25TJ470	CARBON	0.25W	5%	47 Ω	
R840	ERD25TJ472	CARBON	0.25W	5%	4K7 Ω	
R841	RS02Y479JS	METAL	2W	-	4R7 Ω	
R842	RS02Y240JS	METAL	2W	-	24 Ω	
R850	RS02Y479JS	METAL	2W	-	4R7 Ω	
R870	ERD25TJ102	CARBON	0.25W	5%	1K Ω	
R901	ERD25TJ561	CARBON	0.25W	5%	560 Ω	
R910	ERD25TJ101	CARBON	0.25W	5%	100 Ω	
R911	ERD25TJ101	CARBON	0.25W	5%	100 Ω	
R912	ERD25TJ101	CARBON	0.25W	5%	100 Ω	
R913	ERDS1TJ102	CARBON	0.5W	5%	1K Ω	
R914	ERDS1TJ102	CARBON	0.5W	5%	1K Ω	
R915	ERDS1TJ102	CARBON	0.5W	5%	1K Ω	
R920	RS01Y309J-	FILM	1W	-	3 Ω	
R921	ERD25TJ221	CARBON	0.25W	5%	220 Ω	
R922	ERD25TJ221	CARBON	0.25W	5%	220 Ω	
R923	ERD25TJ221	CARBON	0.25W	5%	220 Ω	
R996	ERDS1TJ105	CARBON	0.5W	5%	1M Ω	
R997	ERDS1TJ102	CARBON	0.5W	5%	1K Ω	
RA02	ERD25TJ101	CARBON	0.25W	5%	100 Ω	
RA03	ERD25TJ101	CARBON	0.25W	5%	100 Ω	
RA04	ERD25TJ101	CARBON	0.25W	5%	100 Ω	
RA05	ERD25TJ103	CARBON	0.25W	5%	10K Ω	
RA06	ERD25TJ750	CARBON	0.25W	5%	75 Ω	
RA07	ERD25TJ332	CARBON	0.25W	5%	3K3 Ω	
RA08	ERD25TJ750	CARBON	0.25W	5%	75 Ω	
RA09	ERD25TJ750	CARBON	0.25W	5%	75 Ω	
RA10	ERD25TJ680	CARBON	0.25W	5%	68 Ω	
RA11	ERD25TJ750	CARBON	0.25W	5%	75 Ω	
RA12	ERD25TJ102	CARBON	0.25W	5%	1K Ω	

Cct Ref	Parts Number	Description			
RA13	ERD25TJ222	CARBON	0.25W	5%	2K2 Ω
RA14	ERD25TJ220	CARBON	0.25W	5%	22 Ω
RA15	ERD25TJ750	CARBON	0.25W	5%	75 Ω
RA16	ERD25TJ750	CARBON	0.25W	5%	75 Ω
RA17	ERD25TJ103	CARBON	0.25W	5%	10K Ω
RA18	ERD25TJ332	CARBON	0.25W	5%	3K3 Ω
RA19	ERD25TJ750	CARBON	0.25W	5%	75 Ω
RA23	ERD25TJ220	CARBON	0.25W	5%	22 Ω
RA24	ERD25TJ222	CARBON	0.25W	5%	2K2 Ω
RA25	ERD25TJ102	CARBON	0.25W	5%	1K Ω
RA29	ERD25TJ101	CARBON	0.25W	5%	100 Ω
RA32	ERD25TJ680	CARBON	0.25W	5%	68 Ω
RA35	ERD25TJ750	CARBON	0.25W	5%	75 Ω
CAPACITORS					
C102	ECEA1ES470	ELECT	25V		47µF
C103	ECKC1H101J	CERAMIC	50V		100pF
C104	ECKC1H101J	CERAMIC	50V		100pF
C106	ECEA1H220	ELECT	50V		22µF
C107	ECKR1H470	CERAMIC	50V		47pF
C108	ECKR1H470	CERAMIC	50V		47pF
C120	ECKC1H101J	CERAMIC	50V		100pF
C121	ECEA1H100	ELECT	50V		10µF
C122	ECEA1H100	ELECT	50V		10µF
C123	ECKC1H103J	CERAMIC	50V		10nF
C305	ECEA1ES221	ELECT	25V		220µF
C313	CMXM2A104J	MYLAR	100V		100nF
C315	ECEA1V470	ELECT	35V		47µF
C320	CBXF1H104Z	CERAMIC	50V		0.1µF
C350	CMXM2A683J	FILM	100V		68nF
C351	CMXM2A473J	MYLAR	100V		47nF
C370	ECCR1H473J	CERAMIC	50V		47nF
C401	ECEA1H101	ELECT	50V		100µF
C402	CMYH3C622J	MYLAR	1K6V		6200pF
C408	CMYE2G274J	MYLAR	400V		270nF
C412	ECEA2CS339	ELECT	160V		3.3µF
C414	CMXM2A104J	MYLAR	100V		100nF
C415	ECA2EM4R7B	ELECT	250V		4.7µF
C418	ECCR1H102J	CERAMIC	50V		1nF
C420	ECCR2H222J	CERAMIC	500V		2.2nF
C421	ECCR1H473J	CERAMIC	50V		47nF
C430	CCYR3D681K	CERAMIC	2kV		680pF
C431	CMXB2G472J	FILM	400V		4.7nF
C501	ECEA1CS470	ELECT	16V		47µF
C502	ECEA1CS470	ELECT	16V		47µF
C503	ECKC1H101J	CERAMIC	50V		100pF
C504	ECKC1H101J	CERAMIC	50V		100pF
C505	CMXL1J224J	FILM	63V		0.22µF
C507	CMXL1J224J	FILM	63V		0.22µF
C508	ECEA1CS470	ELECT	16V		47µF
C509	CMXL1J224J	FILM	63V		0.22µF
C510	ECEA1ES101	ELECT	25V		100µF
C511	ECCR1H102J	CERAMIC	50V		1nF
C512	CBZF1H104Z	CERAMIC	50V		100nF
C513	CMXL1J224J	FILM	63V		0.22µF
C514	ECCR1H102J	CERAMIC	50V		1nF
C515	CMXL1J224J	FILM	63V		0.22µF
C516	CMXL1J224J	FILM	63V		0.22µF
C517	ECEA1CS101	ELECT	16V		100µF
C518	CBXF1H104Z	CERAMIC	50V		0.1µF
C519	CMXL1J224J	FILM	63V		0.22µF
C520	ECEA1H100	ELECT	50V		10µF
C521	ECCR1H222J	CERAMIC	50V		2.2nF
C522	CBXF1H104Z	CERAMIC	50V		0.1µF
C523	ECKC1H101J	CERAMIC	50V		100pF
C524	ECQB1682JFB	FILM	100V		6.8nF
C525	ECEA1H479	ELECT	50V		4.7µF

Cct Ref	Parts Number	Description		
C526	CMXL1J224J	FILM	63V	0.22µF
C527	ECEA1H100	ELECT	50V	10µF
C528	ECCR1H223J	CERAMIC	50V	22nF
C529	ECQV1J154JM3	FILM	63V	150nF
C530	ECKC1H101J	CERAMIC	50V	100pF
C531	ECKC1H103J	CERAMIC	50V	10nF
C532	ECKC1H101J	CERAMIC	50V	100pF
C533	ECKC1H101J	CERAMIC	50V	100pF
C534	ECEA1H229	ELECT	50V	2.2µF
C535	ECQV1J474JMW	FILM	63V	470nF
C536	ECQV1J474JMW	FILM	63V	470nF
C537	ECEA1H229	ELECT	50V	2.2µF
C538	ECEA1H229	ELECT	50V	2.2µF
C539	CMXM2A332J	FILM	100V	3.3nF
C540	CMXL1J104J	MYLAR	63V	100nF
C541	CBZF1H104Z	CERAMIC	50V	100nF
C542	ECEA1H100	ELECT	50V	10µF
C543	ECEA1H229	ELECT	50V	2.2µF
C544	CBZF1H104Z	CERAMIC	50V	100nF
C545	ECEA1H229	ELECT	50V	2.2µF
C546	CBZF1H104Z	CERAMIC	50V	100nF
C547	ECEA1H100	ELECT	50V	10µF
C548	ECEA1H100	ELECT	50V	10µF
C549	ECQV1J474JMW	FILM	63V	470nF
C550	ECKC1H103J	CERAMIC	50V	10nF
C551	CBZF1H104Z	CERAMIC	50V	100nF
C552	ECQV1J474JMW	FILM	63V	470nF
C553	ECQV1J474JMW	FILM	63V	470nF
C554	ECQV1J474JMW	FILM	63V	470nF
C555	ECKC1H101J	CERAMIC	50V	100pF
C556	ECCR1H102J	CERAMIC	50V	1nF
C557	CBZF1H104Z	CERAMIC	50V	100nF
C558	CBXF1H104Z	CERAMIC	50V	0.1µF
C560	ECEA1H229	ELECT	50V	2.2µF
C561	ECEA1H229	ELECT	50V	2.2µF
C563	ECEA1H100	ELECT	50V	10µF
C564	CBZF1H104Z	CERAMIC	50V	100nF
C565	CBZF1H104Z	CERAMIC	50V	100nF
C566	CBZF1H104Z	CERAMIC	50V	100nF
C567	ECEA1H100	ELECT	50V	10µF
C568	CBXF1H104Z	CERAMIC	50V	0.1µF
C569	ECEA1ES470	ELECT	25V	47µF
C574	CMXL1J224J	FILM	63V	0.22µF
C575	ECKC1H101J	CERAMIC	50V	100pF
C576	CMXL1J224J	FILM	63V	0.22µF
C577	ECEA1CS101	ELECT	16V	100µF
C578	CBZF1H104Z	CERAMIC	50V	100nF
C579	ECKC1H101J	CERAMIC	50V	100pF
C581	CMXL1J224J	FILM	63V	0.22µF
C582	ECEA1CS101	ELECT	16V	100µF
C587	ECCR1H102J	CERAMIC	50V	1nF
C589	ECKC1H472J	CERAMIC	50V	4.7nF
C590	CBZF1H104Z	CERAMIC	50V	100nF
C591	CMXL1J224J	FILM	63V	0.22µF
C592	ECKC1H103J	CERAMIC	50V	10nF
C602	ECEA1ES470	ELECT	25V	47µF
C603	ECEA1H228	ELECT	50V	0.22µF
C604	ECEA1ES102	ELECT	25V	1000µF
C608	ECCR1H222J	CERAMIC	50V	2.2nF
C609	ECCR1H222J	CERAMIC	50V	2.2nF
C625	ECEA1H479	ELECT	50V	4.7µF
C660	ECEA1H100	ELECT	50V	10µF
C661	CMXM2A224J	FILM	100V	0.22µF
C662	CMXM2A224J	FILM	100V	0.22µF
C665	ECCR1H472J	CERAMIC	50V	4.7nF
C666	CBXF1H104Z	CERAMIC	50V	0.1µF

Cct Ref	Parts Number	Description			
C667	ECCR1H472J	CERAMIC	50V	4.7nF	
C668	CMXM2A224J	FILM	100V	0.22µF	
C669	CMXM2A224J	FILM	100V	0.22µF	
C690	ECEA1H479	ELECT	50V	4.7µF	
C691	ECEA1H479	ELECT	50V	4.7µF	
C770	ECEA1CS101	ELECT	16V	100µF	
C801	CL1UC3474M	CERAMIC	250V	470nF	⚠
C803	ECCR3A472J	CERAMIC	1kV	4.7nF	
C804	ECCR3A472J	CERAMIC	1kV	4.7nF	
C805	ECA2GM181B	ELECT	400V	180µF	⚠
C806	CCXR3A102K	CERAMIC	1kV	1nF	
C807	ECEA1H109	ELECT	50V	1µF	
C809	ECKC1H101J	CERAMIC	50V	100pF	
C810	ECEA1H220	ELECT	50V	22µF	
C811	CMXM2A473J	MYLAR	100V	47nF	
C812	CH1BFE472M	CERAMIC	400V	4.7nF	⚠
C813	CEYF2E470V	ELECT	250V	47µF	
C814	ECA2EM101	ELECT	250V	100µF	
C820	CCYR3D221K	CERAMIC	2kV	220pF	
C823	ECEA1ES471	ELECT	25V	470µF	
C830	ECEA1H479	ELECT	50V	4.7µF	
C831	ECEA1H330	ELECT	50V	33µF	
C833	CCXB1H821K	CERAMIC	50V	820pF	
C834	ECCR1H103J	CERAMIC	50V	10nF	
C835	ECEA1ES470	ELECT	25V	47µF	
C840	ECEA1CS332	ELECT	16V	3300µF	
C844	ECEA1ES101	ELECT	25V	100µF	
C861	ECEA1ES102	ELECT	25V	1000µF	
C862	ECEA1ES101	ELECT	25V	100µF	
C863	ECEA1CS101	ELECT	16V	100µF	
C866	ECKC3A471J	CERAMIC	1KV	470pF	
C901	ECCR1H221J	CERAMIC	50V	220pF	
C905	ECA2EM4R7B	ELECT	250V	4.7µF	
C965	ECKC3D102J	CERAMIC	2KV	1nF	
C968	CMXL2E104K	MYLAR	250V	100nF	
C997	ECA2EM100B	ELECT	250V	10µF	
CA01	ECKC1H101J	CERAMIC	50V	100pF	
CA02	ECKC1H101J	CERAMIC	50V	100pF	
CA03	ECKC1H101J	CERAMIC	50V	100pF	
CA04	ECKC1H101J	CERAMIC	50V	100pF	
CA05	ECKC1H101J	CERAMIC	50V	100pF	
CA06	ECKC1H101J	CERAMIC	50V	100pF	
CA10	ECCR1H102J	CERAMIC	50V	1nF	
CA28	ECKC1H101J	CERAMIC	50V	100pF	
TERMINALS AND LINKS					
JP01	4859102130	HEADPHONE SOCKET			
JPA1	4859200401	AV TERMINAL			
JPA2	4859200401	AV TERMINAL			
JPA3	4859108450	JACK PIN BOARD			
SCT1	4859303530	SOCKET CRT			⚠
SWITCHES					
SW700	5S50101Z90	SWITCH			
SW701	5S50101Z90	SWITCH			
SW702	5S50101Z90	SWITCH			
SW703	5S50101Z90	SWITCH			
SW704	5S50101Z90	SWITCH			
SW801	5S40101143	SWITCH			⚠
RELAYS					
Y801	5SC0101003	RELAY			⚠

DIFFERENCES FOR MODEL TX--21PZ1

EXPLODED VIEW

17	DMP4502800	S/PLATE

Cct Ref	Parts Number	Description
INSTRUCTION BOOKS		
.	TQB0E0136-M	ENGLISH
I.C.s		
I501	TDA21HD01-UK	IC MICOM FLASH
I502	X24C21PZ1	IC MEMORY

DIFFERENCES FOR MODEL TX--21PZ1D

EXPLODED VIEW

17	DMP4502900	S/PLATE
INSTRUCTION BOOKS		
.	TQB0E0138A-M	GERMAN
.	TQB0E0138C-M	ITALIAN
.	TQB0E0138D-M	FRENCH
I.C.s		
I501	TDA21HD01-W	IC MICOM FLASH
I502	X24C21PZ1D	IC MEMORY

DIFFERENCES FOR MODEL TX--21PZ1F

EXPLODED VIEW

17	DMP4503000	S/PLATE
INSTRUCTION BOOKS		
.	TQB0E0137A-M	GERMAN
.	TQB0E0137B-M	DUTCH
.	TQB0E0137D-M	FRENCH
.	TQB0E0137E-M	SPANISH
.	TQB0E0137F-M	SWEDISH
.	TQB0E0137G-M	NORWEGIAN
.	TQB0E0137H-M	FINNISH
.	TQB0E0137J-M	PORTUGUESE
.	TQB0E0137K-M	DANISH
I.C.s		
I501	TDA21HD01-W	IC MICOM FLASH
I502	X24C21PZ1F	IC MEMORY

DIFFERENCES FOR MODEL TX--21PZ1P

EXPLODED VIEW

17	DMP4503100	S/PLATE
INSTRUCTION BOOKS		
.	TQB0E0139M-M	BULGARIAN
.	TQB0E0139N-M	ROMANIAN
.	TQB0E0139P-M	POLISH
.	TQB0E0139Q-M	HUNGARIAN
.	TQB0E0139R-M	CZECH
.	TQB0E0139U-M	ENGLISH
.	TQB0E0139W-M	SLOVAKIAN
I.C.s		
I501	TDA21HD01-E	IC MICOM FLASH
I502	X24C21PZ1P	IC MEMORY

SCHEMATIC DIAGRAMS FOR MODELS TX-21PZ1, TX-21PZ1D, TX-21PZ1F, TX-21PZ1P (CP-521FS CHASSIS)

IMPORTANT SAFETY NOTICE

Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturers' specified parts.

NOTE

1. RESISTOR
   All resistors are carbon ¼W resistor, unless marked otherwise.
   Unit of resistance is OHM (Ω) (k=1,000, M=1,000,000)
2. CAPACITORS
   All capacitors are ceramic 50V unless marked otherwise.
   Unit of capacitance is μF unless otherwise stated.
3. COIL
   Unit of inductance is μH, unless otherwise stated.
4. EARTH SYMBOL

    Chassis Earth (Cold)

    Line Earth (Hot)

5. VOLTAGE MEASUREMENT
   Voltage is measured by a d.c. voltmeter.
   Measurement conditions are as follows:

Power source	a.c. 220V-240V, 50Hz
Receiving Signal	Colour Bar signal (RF)
All customer controls	Maximum position

These schematic diagrams are the latest at time of printing and are subject to change without notice.

REMARKS

a. Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard.

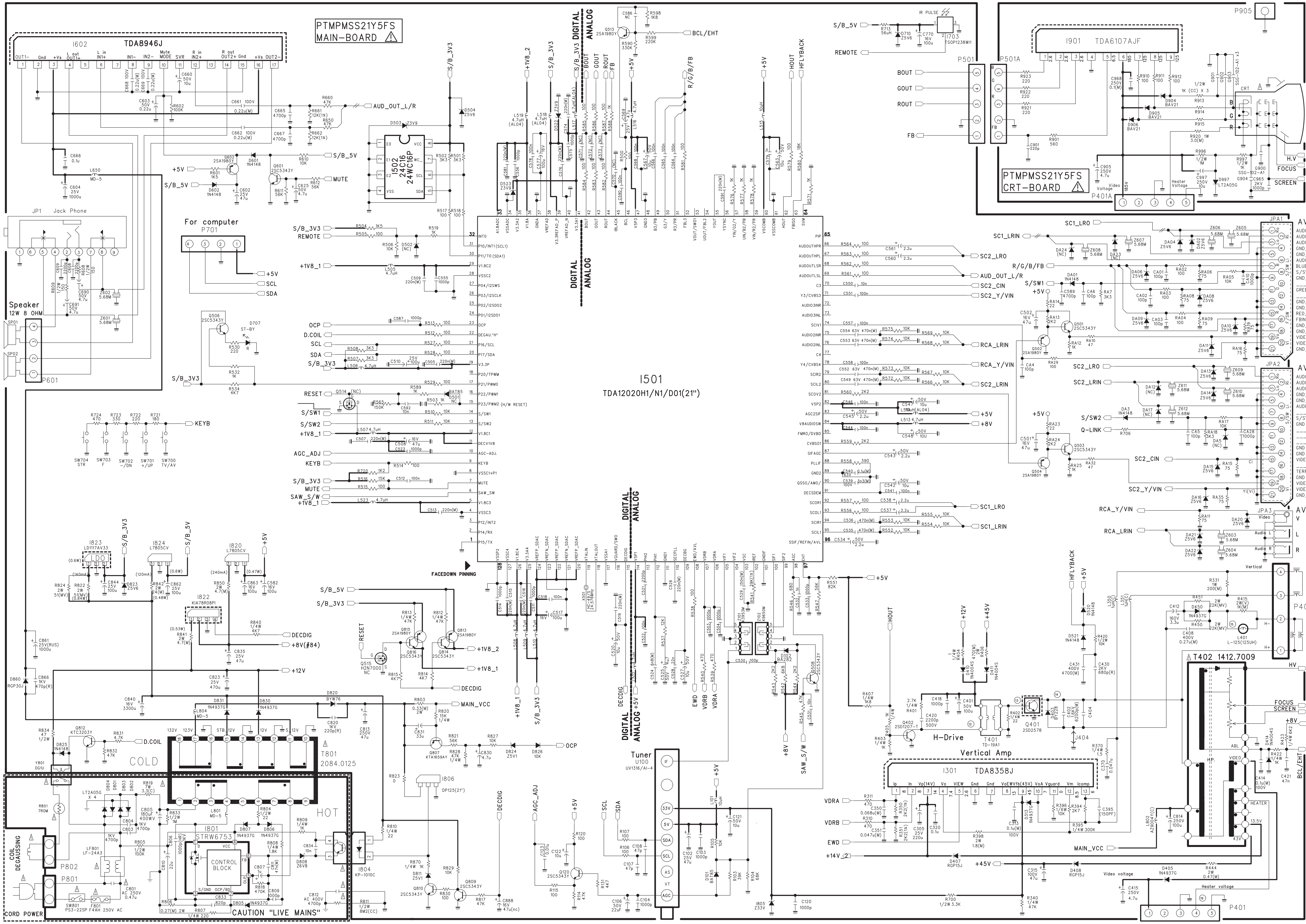
b. Do not short circuit the hot and cold circuits as electrical components may be damaged.

c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously as this may cause fuse failure. Connect the earth of the instruments to the earth connection of the circuit being measured.

d. Make sure to disconnect the power plug before removing the chassis.

NOTE

1. The Power Supply 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. All circuits, except the Power Circuit, are COLD.



PTMPMSS21Y5FS
MAIN-BOARD
PTMPMSS21Y5FS
CRT-BOARD
I602 TDA8946J
I901 TDA6107AJF
I501
TDA12020H1/N1/D01(21")
I502 24C16
For computer
P701
Speaker
12W 8 OHM
JP1 Jack Phone
I301 TDA8358J
Vertical Amp
H-Drive
T402 1412.7009
T801 2084.0125
I801 STRW6753
CONTROL BLOCK
CAUTION "LIVE MAINS"
COLD
HOT
CORD POWER
DEGAUSSING COIL
Tuner
U100
AV1
AV2
AV3
P905
P402
P401
FACEDOWN PINNING
DIGITAL
ANALOG

CONDUCTOR VIEWS FOR MODELS
TX-21PZ1, TX-21PZ1D, TX-21PZ1F, TX-21PZ1P
MAIN-BOARD PTMPMSS21Y5FM

TRAN'S		D410	C4	D906	E2
Q120	A1	D411	C4	D997	E1
Q401	B5	D414	A5	DA01	B3
Q402	B4	D450	B4	DA02	A2
Q501	A1	D501	C1	DA03	A3
Q502	A1	D503	D2	DA04	A2
Q503	A3	D504	D2	DA06	A2
Q504	A4	D520	C3	DA08	A2
Q506	E4	D521	B3	DA09	A2
Q508	B2	D522	D2	DA10	A2
Q513	B3	D523	C2	DA11	A2
Q514	D1	D601	D3	DA13	A3
Q515	D1	D602	D3	DA14	A3
Q601	D3	D707	E5	DA15	A3
Q602	C3	D710	E4	DA20	E3
Q807	C5	D801	D5	DA21	E3
Q809	D4	D802	D5	DA22	E3
Q810	E4	D803	D5		
Q812	C6	D804	D5	IC'S	
Q813	D2	D805	E4	I301	B4
Q814	D3	D806	D4	I501	C2
Q815	D1	D807	D5	I502	D1
Q816	D1	D808	D4	I602	D3
		D811	E4	I703	E5
DIODES		D820	C5	I801	E5
D101	A1	D824	C4	I804	D4
D102	B2	D825	C6	I805	B3
D313	A4	D826	C3	I806	D4
D403	B5	D830	C4	I820	C3
D404	B5	D831	C4	I822	C4
D405	A5	D860	C4	I823	C4
D407	A5	D904	E2	I824	D4
D408	A5	D905	E2	I901	E2