

PROBLEM SOLVING FLWSHEET



Service Manual



Colour Television

TX-21JT1P

TC-21JR1P

TX-14JT1P

TC-14JR1P

Z7 Chassis

SPECIFICATION

(Information in brackets {} refer to TX-14JT1P, TC-14JR1P)

Power Source:	220-240V a.c., 50Hz	RCA IN	Video 1V p-p 75Ω
Power Consumption:	72W {47W}	RCA IN	Audio 500mV rms 10kΩ
Stand-by Power Consumption:	1,1W	High Voltage:	26,7kV ±1kV {22,7kV ±1kV}
Aerial Impedance:	75Ω unbalanced, Coaxial Type	Picture Tube:	A51EAL155X13 51cm {A34EAC01X13 34cm}
Receiving System:	PAL B/G, D/K, PAL-60 SECAM B/G, D/K	Audio Output:	6W (M.P.O.) 3W (R.M.S.) 8Ω Impedance
Receiving Channels:	VHF E2-E12 VHF H1-H2 (ITALY) VHF A-H (ITALY) UHF E21-E69 CATV (S01-S05) CATV S1-S10 (M1-M10) CATV S11-S20 (U1-U10) CATV S21-S41 (HYPERBAND) VHF R1-R2 VHF R3-R5 VHF R6-R12	Headphones:	8Ω Impedance
Intermediate Frequency:		Accessories supplied :	Remote Control 2 x R6 (UM3) Batteries
Video/Audio		Dimensions:	
Video	38,9 MHz	Height:	476mm {352mm}
Audio	33,4 MHz, 32,4 MHz	Width:	512mm {371mm}
Colour	34,47 MHz (PAL) 34,5 MHz (SECAM) 34,65 MHz (SECAM)	Depth:	470mm {371,5mm}
Terminals:		Net weight:	20,6kg {9,5kg}
AV1 IN	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mVrms 10kΩ RGB (21 pin)	Specifications are subject to change without notice. Weights and dimensions shown are approximate.	
AV1 OUT	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ		

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

NOTE: This Service Manual should be used in conjunction with the Z7 Technical guide.

Panasonic

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SAFETY PRECAUTIONS

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 27,7kV {23,7kV} 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 2k Ω 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 above measurements.
6. The potential at any point should not exceed 1,4Vrms. 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.

HOT CHECK CIRCUIT

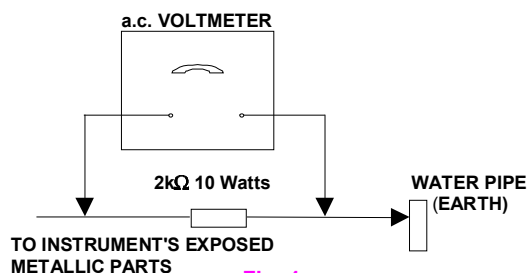


Fig. 1.

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 27,7kV {23,7kV} 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 26,7kV \pm 1kV {22,7kV \pm 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

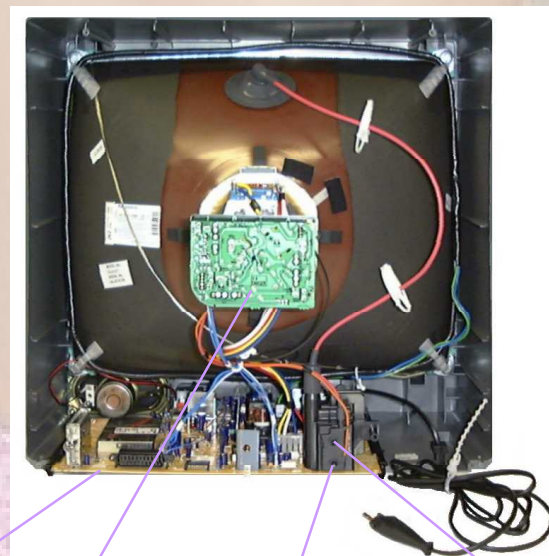
1. Remove the 5 screws as shown in **Fig.2.**



Screws

Fig.2.

LOCATION OF CONTROLS



E - Board

Y - Board

Screen


Focus

Fig.3.

ADJUSTMENT PROCEDURE

Item / Preparation	Adjustments																								
+B SET-UP 1. Operate the TV set, pattern crosshatch. 2. Set the controls :	Confirm the following voltages.																								
Brightness Minimum	<table> <tr> <td>TPE1 10 ± 1V</td><td>TPE11 -13,2 ± 1V</td></tr> <tr> <td>TPE2 5,2 ± 0,3V</td><td>{-13,8 ± 1V}</td></tr> <tr> <td>TPE3 13 ± 1V</td><td>TPE12 13,2 ± 1,5V</td></tr> <tr> <td>{13,5 ± 1V}</td><td>{12,8 ± 1,5V}</td></tr> <tr> <td>TPE4 21,5 ± 1,5V</td><td>TPE13 125 ± 1,5V</td></tr> <tr> <td>{20,5 ± 1,5V}</td><td>{104 ± 1,5V}</td></tr> <tr> <td>TPE5 5 ± 0,3V</td><td>TPE14 7,9 ± 1V</td></tr> <tr> <td>TPE6 9 ± 1V</td><td>TPE18 8,2 ± 1V</td></tr> <tr> <td>TPE9 30,4 ± 2,5V</td><td>{8,1 ± 1V}</td></tr> <tr> <td>{31 ± 2,5V}</td><td>TPE19 31 ± 1V</td></tr> <tr> <td>TPE10 191 ± 10V</td><td>{30,6 ± 1,5V}</td></tr> <tr> <td>{147 ± 10V}</td><td></td></tr> </table>	TPE1 10 ± 1V	TPE11 -13,2 ± 1V	TPE2 5,2 ± 0,3V	{-13,8 ± 1V}	TPE3 13 ± 1V	TPE12 13,2 ± 1,5V	{13,5 ± 1V}	{12,8 ± 1,5V}	TPE4 21,5 ± 1,5V	TPE13 125 ± 1,5V	{20,5 ± 1,5V}	{104 ± 1,5V}	TPE5 5 ± 0,3V	TPE14 7,9 ± 1V	TPE6 9 ± 1V	TPE18 8,2 ± 1V	TPE9 30,4 ± 2,5V	{8,1 ± 1V}	{31 ± 2,5V}	TPE19 31 ± 1V	TPE10 191 ± 10V	{30,6 ± 1,5V}	{147 ± 10V}	
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FACTORY SETTINGS

To return customer settings to factory settings and clear owner ID of all information input by the customer, enter Self-Check mode. Press the down (**-V**) button on the customer controls at the front of the TV set, at the same time pressing the **STATUS** button  on the remote control. To exit Self Check, switch off the TV set at the power button.

NOTE: Self Check should only be used when refurbishing the TV set and not during normal repair work.

OPTION F7

Service Aids

To aid in the service of our current chassis there are a number of Service Aids which have been made available.

- **LUCI** interface kit (**L**inked **U**tility **C**omputer **I**nterface)

Part number: TZS6EZ002

This contains interface and cables for connecting TV service connector and a PC as well as diagnostic software. As new models are introduced upgrade software will become available.

- **VICI** (**V**isual **I**nteractive **C**omputer **I**nformation)

These C.D.'s contain multimedia documentation providing quick access to service information.

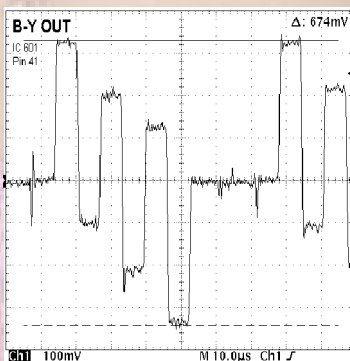
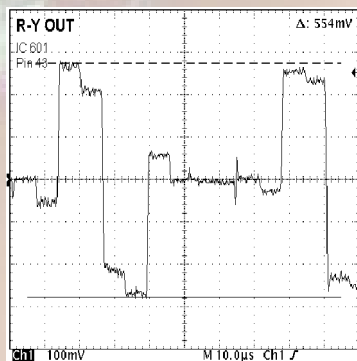
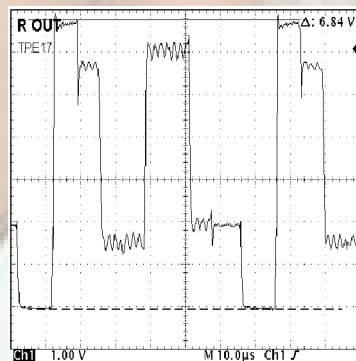
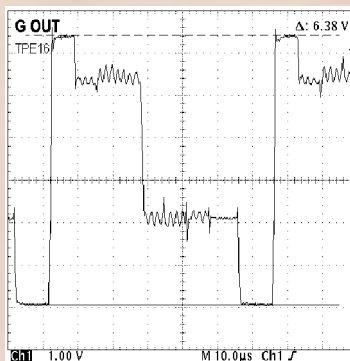
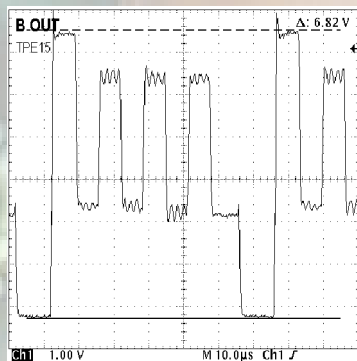
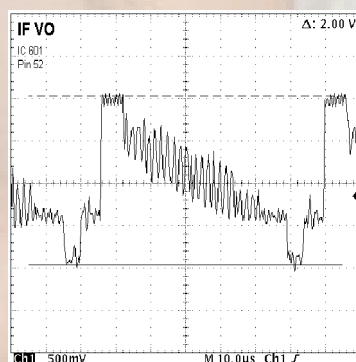
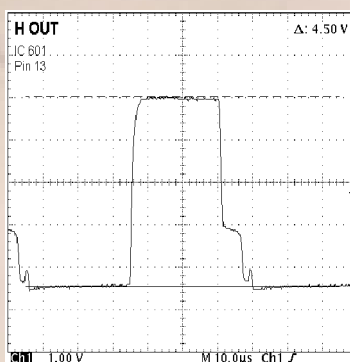
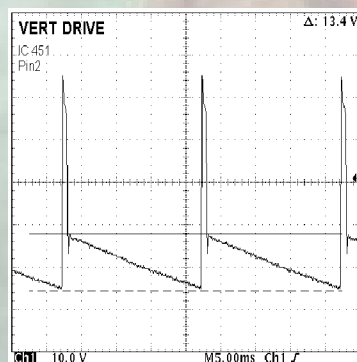
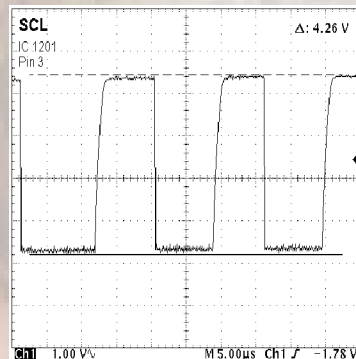
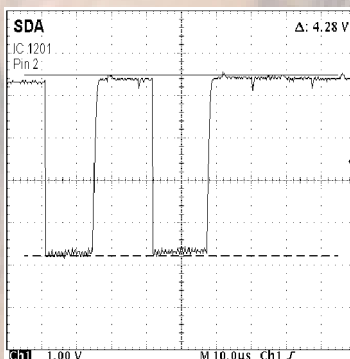
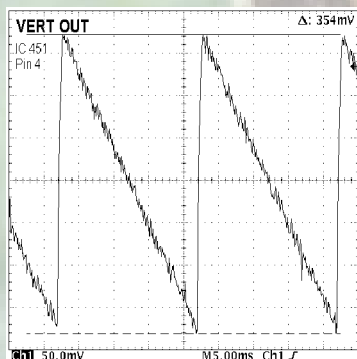
Part No. TZS7EZ006, TZS7EZ005, TZS8EZ001& TZS9EZ001

1. Service Manuals
2. Instruction Books
3. Technical Information

- **TASMIN** (**T**echnically **A**dvanced **S**ystem for **M**ultimedia **I**nteractive **N**otes)

As well as providing a first step towards more interactive training this product also achieves quick access to Technical Information.

WAVEFORM PATTERN TABLE



CONDITIONS:

Contrast: MAX
Brightness: MID
Colour: MID
CATS: OFF
Sharpness: MID

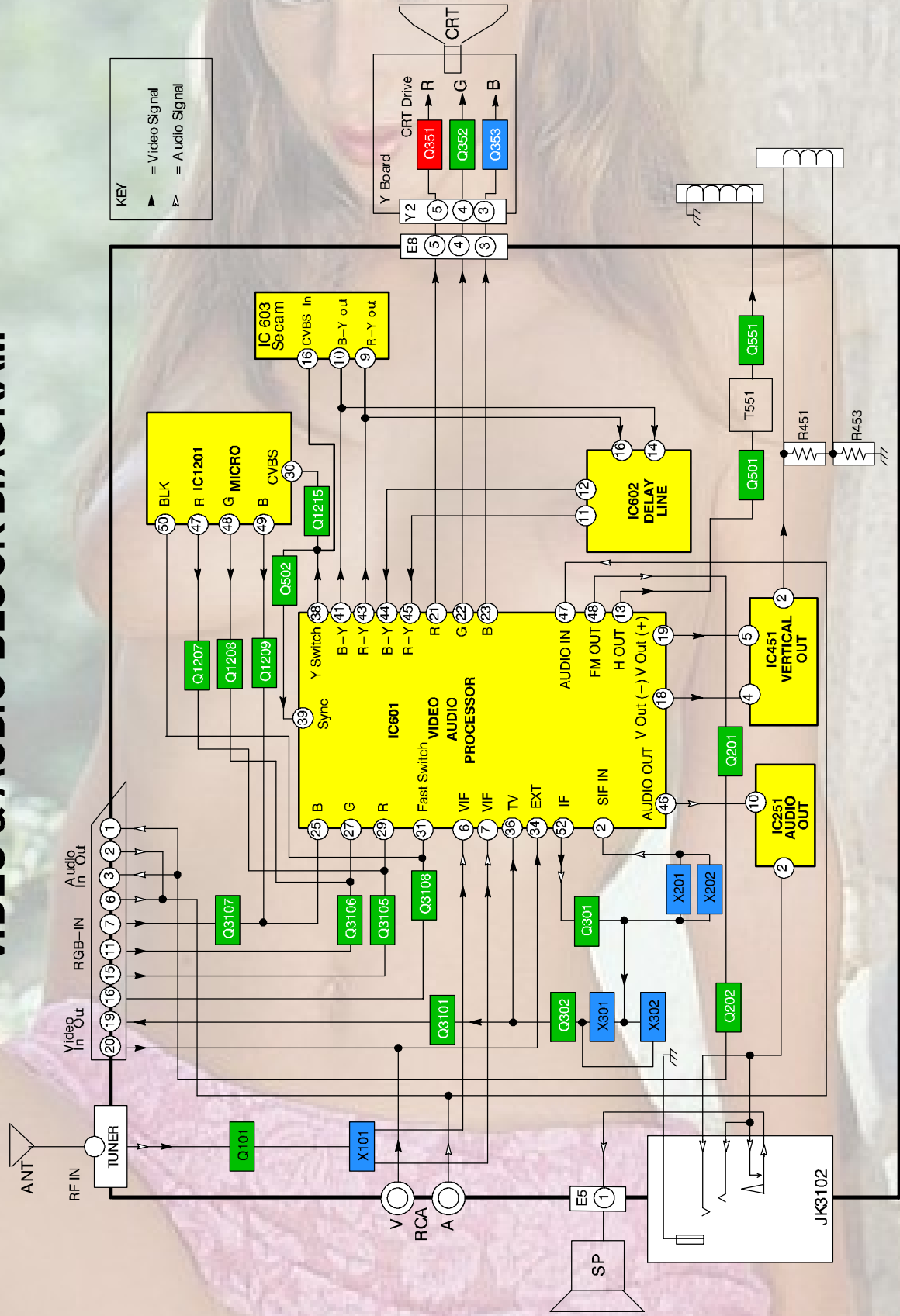
ALIGNMENT SETTINGS

1. Select program position 60 and set the sharpness to minimum.
2. Press the **Off Timer** button on the remote control and at the same time press the **▼** (down) button on the customer controls at the front of the TV, this will place the TV into Service Mode.
3. Press the **▲ / ▼** buttons to step up / down through the functions.
4. Press the **+** / **-** buttons to alter the function values.
5. Press the **STORE** button after each adjustment has been made to store the required values.
6. To exit Service Mode press the Normalization button.

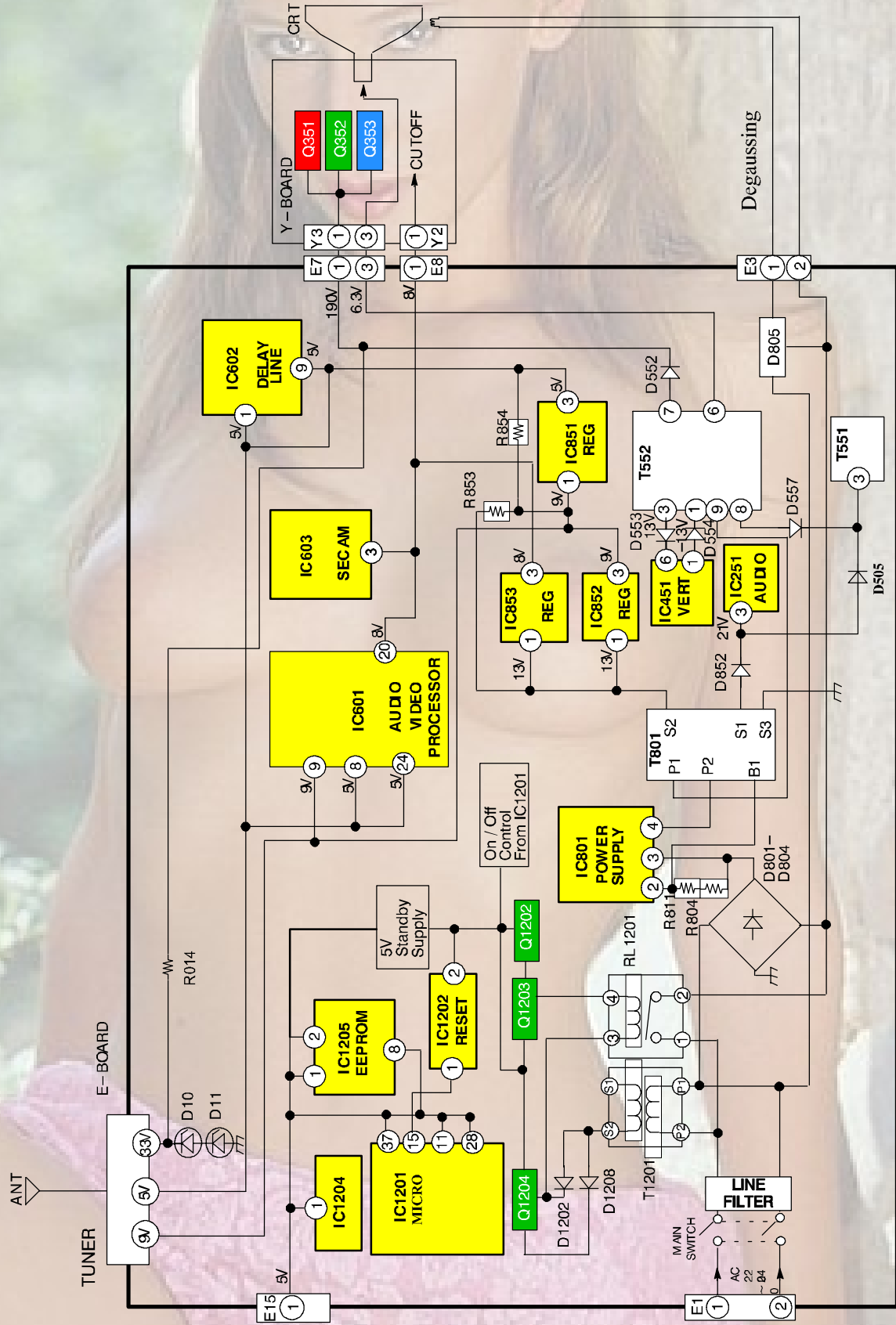
NOTE : The figures used below are nominal and used for representative purposes only.

Alignment Function	Setting indication Note: All setting values are approximate	Settings / Special features
1. Vertical amplitude	V-Amp 31	Optimum setting
2. Vertical position	V-Pos 22	Optimum setting
3. Horizontal centre	H-Ctr 07	Optimum setting.
4. Red cutoff	R-Cut 148	Optimum setting.
5. Green cutoff	G-Cut 146	Optimum setting.
6. Blue cutoff	B-Cut 163	Optimum setting.
7. Red drive	R-Drv 37	Optimum setting.
8. Blue drive	B-Drv 25	Optimum setting.
9. AGC	AGC 29	Optimum setting.
10. Sub contrast	S-Con 26	Optimum setting.
11. Sub colour	S-Col 49	Optimum setting.
12. Sub bright	S-Bri 43	Optimum setting.

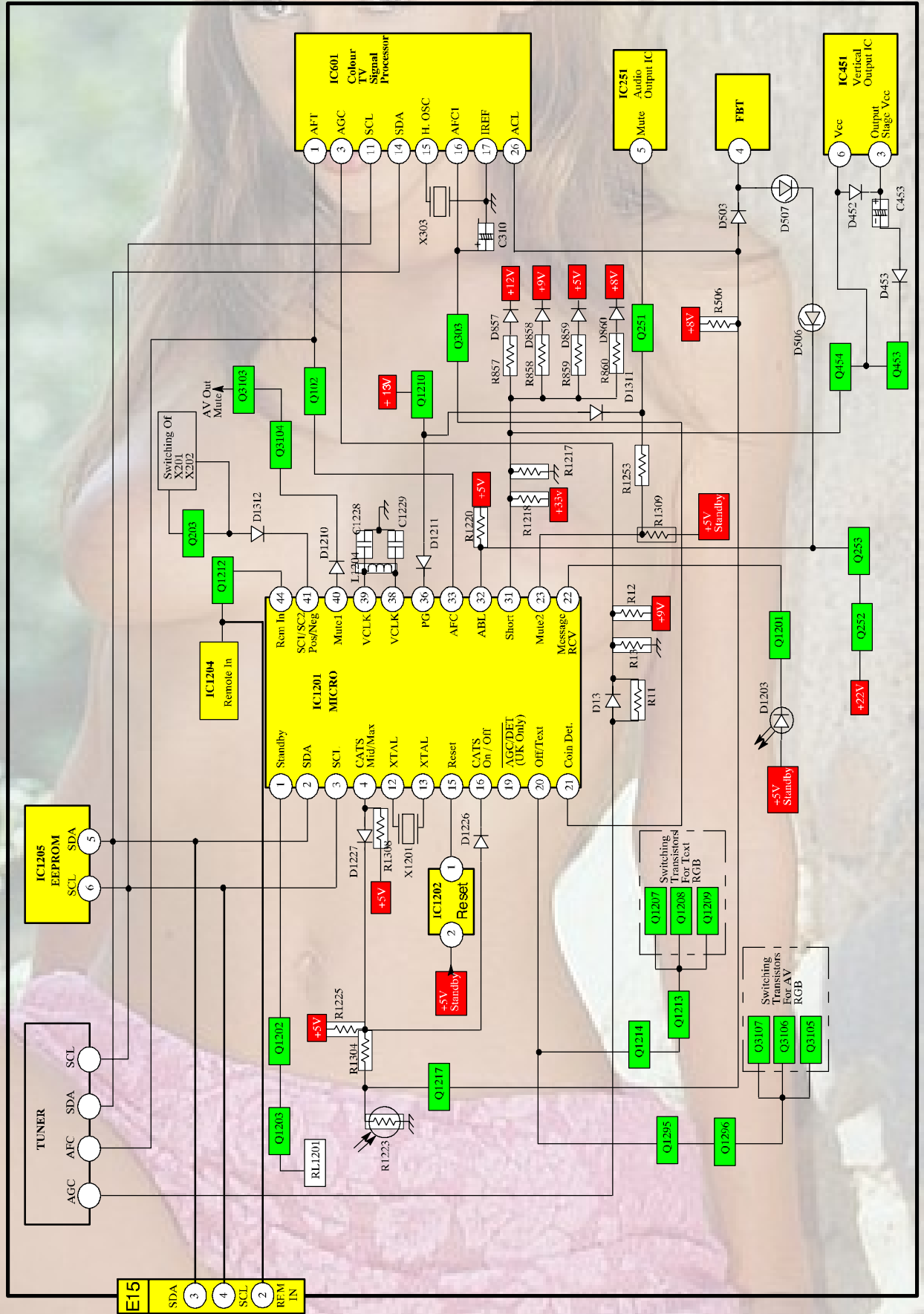
VIDEO & AUDIO BLOCK DIAGRAM



POWER SUPPLY BLOCK DIAGRAM



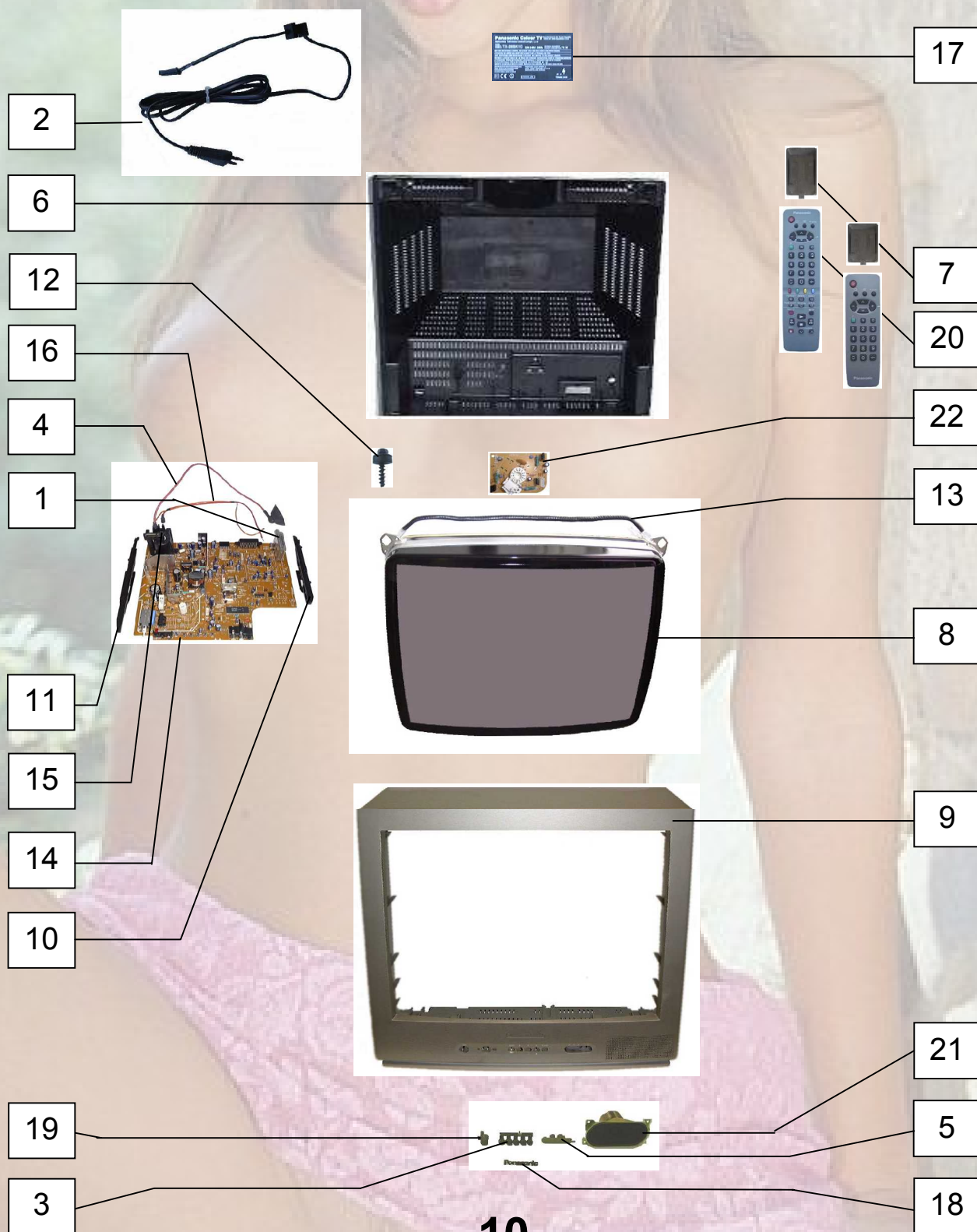
CONTROL BLOCK DIAGRAM



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	ENV57D13G3R	TUNER
2	TSX8E0043	POWER CORD 
MISCELLANEOUS COMPONENTS		
POE3	TMW8E015-2	LED HOLDER
R1223	P1201	SENSOR
I.C.s		
IC251	LA4265	AUDIO OUTPUT
IC451	LA7840	VERTICAL OUTPUT
IC601	M52778SP-A	AUDIO VIDEO PROCESSOR
IC602	U3666M-MDP	DELAY LINE
IC603	TDA8395PN2	SECAM DECODER
IC801	STR58041A	POWER SUPPLY
IC851	L78M05MRB	5V REGULATOR
IC852	L78M09MRB	9V REGULATOR
IC853	AN78M08LB	8V REGULATOR
IC1202	MN1280R	RESET
IC1204	RPM-6937	LED RECEIVER
FUSES		
F801	19181-3.15	FUSE 
F801-2	EYF52BC	FUSE HOLDER
F801-1	EYF52BC	FUSE HOLDER
DIODES		
D010	MA4150	DIODE
D011	MA4150	DIODE
D201	MA858TA5	DIODE
D202	MA858TA5	DIODE
D304	1SS355TE-17	DIODE
D306	MTZJT-774.7A	DIODE
D307	MTZJT-774.7A	DIODE
D351	MA165TA5	DIODE
D352	MA165TA5	DIODE
D353	MA165TA5	DIODE
D354	MA165TA5	DIODE
D452	ERA15-02V3	DIODE
D453	MA165TA5	DIODE
D454	MA165TA5	DIODE
D455	MA165TA5	DIODE
D503	MA165TA5	DIODE
D504	MA165TA5	DIODE
D505	1SR124-4AT82	DIODE
D506	MTZJ33B	DIODE
D541	MA165TA5	DIODE
D542	MA165TA5	DIODE

Cct Ref	Parts Number	Description
D551	TVSRH2FV1	DIODE
D552	RU2AMLFA1	DIODE
D553	1SR124-4AT82	DIODE
D554	1SR124-4AT82	DIODE
D555	ERA22-02V3	DIODE
D556	MA165TA5	DIODE
D557	1SR124-4AT82	DIODE
D801	EMO2BMV0	DIODE
D802	EMO2BMV0	DIODE
D803	EMO2BMV0	DIODE
D804	EMO2BMV0	DIODE
D808	1SR124-4AT82	DIODE
D809	1SR124-4AT82	DIODE
D810	RU3LFA1	DIODE
D811	1SR124-4AT82	DIODE
D812	R2KNLFA1	DIODE
D814	MA165TA5	DIODE
D815	1SR124-4AT82	DIODE
D816	1SR124-4AT82	DIODE
D851	TVSRU3AMLFA5	DIODE
D852	TVSRU2AMV1	DIODE
D857	MA165TA5	DIODE
D858	MA165TA5	DIODE
D859	MA165TA5	DIODE
D860	MA165TA5	DIODE
D861	MA165TA5	DIODE
D1202	1N4150T-77	DIODE
D1203	SLR56UR3FLF	LED
D1205	1N4150T-77	DIODE
D1207	MTZJT-778.2A	DIODE
D1208	1N4150T-77	DIODE
D1209	MTZJT-775.1C	DIODE
D1211	MA165TA5	DIODE
D1212	MA165TA5	DIODE
D1213	MA165TA5	DIODE
D1214	1N4150T-77	DIODE
D1217	MA165TA5	DIODE
D1218	MA165TA5	DIODE
D1219	MA165TA5	DIODE
D1220	MA165TA5	DIODE
D1221	MA165TA5	DIODE
D1222	MA165TA5	DIODE
D1224	MA165TA5	DIODE
D1226	MA700TA5	DIODE
D1227	MA700TA5	DIODE
D1228	1SS355TE-17	DIODE
D1301	MTZJT-775.1A	DIODE
D1311	MA165TA5	DIODE
D1312	MA700TA5	DIODE
D3101	MA165TA5	DIODE
TRANSISTORS		
Q101	BF370-126	TRANSISTOR

Cct Ref	Parts Number	Description
Q102	BC847B	TRANSISTOR
Q201	BC847B	TRANSISTOR
Q202	BC847B	TRANSISTOR
Q203	BC847B	TRANSISTOR
Q251	BC847B	TRANSISTOR
Q301	BC847B	TRANSISTOR
Q302	BC847B	TRANSISTOR
Q303	BC847B	TRANSISTOR
Q354	BC857B	TRANSISTOR
Q453	BC847B	TRANSISTOR
Q454	BC847B	TRANSISTOR
Q501	2SD2398-M2	TRANSISTOR
Q502	BC857B	TRANSISTOR
Q503	BC847B	TRANSISTOR
Q504	BC847B	TRANSISTOR
Q551	BU2506DFRB	TRANSISTOR
Q801	BC847B	TRANSISTOR
Q802	2SD965-R	TRANSISTOR
Q1201	BC847B	TRANSISTOR
Q1202	BC847B	TRANSISTOR
Q1203	BC847B	TRANSISTOR
Q1204	2SC1317-TA	TRANSISTOR
Q1205	BC847B	TRANSISTOR
Q1207	BC847B	TRANSISTOR
Q1208	BC847B	TRANSISTOR
Q1209	BC847B	TRANSISTOR
Q1210	BC857B	TRANSISTOR
Q1211	BC857B	TRANSISTOR
Q1212	BC847B	TRANSISTOR
Q1213	BC847B	TRANSISTOR
Q1217	2SD965-R	TRANSISTOR
Q1240	BC847B	TRANSISTOR
Q1295	BC857B	TRANSISTOR
Q1296	BC847B	TRANSISTOR
Q3101	2SC1318-S	TRANSISTOR
Q3103	2SD1328STX	TRANSISTOR
Q3104	BC857B	TRANSISTOR
Q3105	BC857B	TRANSISTOR
Q3106	BC857B	TRANSISTOR
Q3107	BC857B	TRANSISTOR
Q3108	BC857B	TRANSISTOR
TRANSFORMERS		
T551	ETH19Z169AZ	TRANSFORMER
T1201	ETP35KAN617U	TRANSFORMER
COILS		
J208	EXCELSA39V	COIL
JEY	EXCELDLR35V	COIL
L010	EXCELSA35T	COIL
L012	EXCELSA35T	COIL
L103	EQV7EN211Q	COIL
L105	ELESNR22KA	COIL
L106	TLTACT6R8K	COIL
L107	TLTACT6R8K	COIL
L201	TLTACT150K	COIL
L202	TLTACT4R7K	COIL
L301	TLTACT8R2K	COIL
L303	ELESN100JA	COIL
L451	EXCELSA35T	COIL
L803	EXCELSA35T	COIL
L804	EXCELDLR35V	COIL
L851	EXCELSA35T	COIL
L852	EXCELSA35T	COIL
L1201	EXCELSA35T	COIL
L1202	TLTACT331K	COIL
L1203	TLTACT100K	COIL
L1204	ERJNA6R8GF	COIL

Cct Ref	Parts Number	Description
L1207	TLTACT100K	COIL
L1208	TLTACT100K	COIL
L1209	EXCELSA35T	COIL
R016	ELJFC6R8KF	COIL
R017	ELJFC6R8KF	COIL
FILTERS		
L801	ELF15N005A	LINE FILTER
X101	K2955-M100	SAW FILTR
X104	EFCV3195T6	CERAMIC FILTER
X201	EFCS6R5MS5	FILTER
X202	EFCS5R5MS5	FILTER
X302	EFCS6R5MV3	FILTER
X303	TAFC5B503F6	FILTER
CRYSTALS		
X301	EFCWS2F11T	CRYSTAL
X601	LN-P-01S	CRYSTAL
X1201	CSA18.00MXZ	CRYSTAL
RESISTORS		
C016	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
C605	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC1	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC7	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC8	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JC9	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC11	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC12	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC13	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC14	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JC20	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC21	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC22	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC23	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC25	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JC26	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC28	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JC31	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JC35	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JEAK	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JEAN	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JEJ	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JEP	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JEX	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JEZ	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R010	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15K Ω
R011	ERJ6GEYJ271	S.M.CARB 0.1W 5% 270 Ω
R013	2-640463-3	METAL 2W 5% 22K Ω
R014	ERG2SJS273	METAL 2W 5% 27K Ω
R018	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R101	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100 Ω
R103	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7 Ω
R104	ERJ6GEYJ822	S.M.CARB 0.1W 5% 8K2 Ω
R105	ERJ6GEYJ220	S.M.CARB 0.1W 5% 22 Ω
R106	ERJ6GEYJ821	S.M.CARB 0.1W 5% 820 Ω
R107	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1K Ω
R108	ERJ6GEYJ124	S.M.CARB 0.1W 5% 120K Ω
R109	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R110	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9 Ω
R112	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
R113	ERJ6GEYJ124	S.M.CARB 0.1W 5% 120K Ω
R114	ERJ6GEYJ123	S.M.CARB 0.1W 5% 12K Ω
R115	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1K Ω
R116	ERJ8GEYJ152	S.M.CARB .125W 5% 1K5 Ω
R117	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6 Ω
R202	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R203	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2 Ω

Cct Ref	Parts Number	Description			
R205	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R206	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω
R207	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R208	ERJ6GEYJ302	S.M.CARB	0.1W	5%	3K Ω
R209	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω
R210	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R211	ERJ6GEYJ512	S.M.CARB	0.1W	5%	5K1 Ω
R212	ERJ6GEYJ512	S.M.CARB	0.1W	5%	5K1 Ω
R213	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R221	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R226	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R227	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R251	ERJ6GEYJ3R3	S.M.CARB	0.1W	5%	3R3 Ω
R256	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R257	ERQ1CJP120	FUSIBLE	1W	5%	12 Ω 
R259	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330 Ω
R260	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω
R261	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R301	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R302	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R303	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R304	ERJ6ENF2201	S.M.CARB	0.1W	1%	2K2 Ω
R309	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R310	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R311	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω
R312	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150 Ω
R313	ERQ14AJ470	METAL	0.25W	5%	47 Ω 
R314	ERJ6GEYJ561	S.M.CARB	0.1W	5%	560 Ω
R315	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R316	ERQ14AJ470	METAL	0.25W	5%	47 Ω 
R317	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R318	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R319	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R320	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R323	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10 Ω
R372	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R373	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R374	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R401	ERJ6ENF9100	S.M.CARB	0.1W	1%	910 Ω
R402	ERJ6ENF8201	S.M.CARB	0.1W	1%	8K2 Ω
R403	ERJ6ENF6801	S.M.CARB	0.1W	1%	6K8 Ω
R451	ERDS1TJ331	CARBON	0.5W	5%	330 Ω
R452	ERJ6GEYJ1R0	S.M.CARB	0.1W	5%	1 Ω
R454	ERJ6GEYF153V	S.M.CARB	0.1W	5%	15K Ω
R456	ERO25CKF5601	METAL	0.25W	1%	6K1 Ω 
R457	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R458	ERDS2TJ683T	CARBON	2W	5%	68K Ω
R459	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω
R460	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R461	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R462	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R501	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R502	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω
R503	ERG3SJS101	METAL	3W	5%	10 Ω 
R504	ERG2ANJP471H	METAL	2W	5%	470 Ω
R505	ERJ6GEYJ433	S.M.CARB	0.1W	5%	43K Ω
R510	ERJ6GEYJ561	S.M.CARB	0.1W	5%	560 Ω
R511	ERJ6GEYJ334	S.M.CARB	0.1W	5%	330K Ω
R512	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5 Ω
R513	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R514	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5 Ω
R515	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R516	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R518	ERJ6ENF1302	S.M.CARB	0.1W	1%	13K Ω
R520	ERJ6GEYJ334	S.M.CARB	0.1W	5%	330K Ω
R521	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω

Cct Ref	Parts Number	Description			
R541	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω
R601	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12K Ω
R602	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R603	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R604	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R605	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R606	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R607	ERJ6GEYJ475	S.M.CARB	0.1W	5%	4M5 Ω
R611	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R612	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R613	ERJ6GEYJ395	S.M.CARB	0.1W	5%	3M9 Ω
R614	2-640463-3	METAL	2W	5%	22K Ω
R801	ERF5ZK2R7	WOUND	5W	20%	2R7 Ω 
R804	ERDS1TJ224T	CARBON	0.5W	5%	220K Ω
R805	ERW2PKR33	WOUND	2W	20%	R33 Ω 
R806	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R808	ERG12SJ561P	METAL	0.5W	5%	650 Ω
R809	ERG2ANJP560H	METAL	2W	5%	56 Ω 
R810	ERQ12HJ100	FUSIBLE	0.5W	5%	10 Ω 
R811	ERDS1TJ224T	CARBON	0.5W	5%	220K Ω
R813	ERJ6GEYJ202	S.M.CARB	0.1W	5%	2K Ω
R814	ERD75TAJ825	CARBON	0.75W	5%	8M2 Ω 
R819	ERDS1TJ104	CARBON	0.5W	5%	100K Ω
R853	ERG2ANJP270H	METAL	2W	5%	27 Ω
R857	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R858	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R859	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R860	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R861	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1201	ERQ1CJP2R2	FUSIBLE	1W	10%	2R2 Ω 
R1202	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1203	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1204	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1205	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1206	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1208	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1211	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1212	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1214	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1219	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1220	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R1221	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R1222	ERJ6GEYJ330	S.M.CARB	0.1W	5%	33 Ω
R1224	ERJ6GEYJ683	S.M.CARB	0.1W	5%	68K Ω
R1225	ERJ6GEYJ433	S.M.CARB	0.1W	5%	43K Ω
R1226	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1227	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1228	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1229	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1231	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1232	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1233	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1234	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1235	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5 Ω
R1236	2-640463-3	METAL	2W	5%	22K Ω
R1237	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1238	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1239	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1240	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1243	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1244	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1246	ERD25TJ272F	CARBON	0.25W	5%	2K7 Ω
R1247	ERDS2TJ221T	CARBON	0.5W	5%	220 Ω
R1248	2-640463-3	METAL	2W	5%	22K Ω
R1249	ERDS1TJ121	CARBON	0.5W	5%	120 Ω
R1250	ERDS1TJ560	CARBON	0.5W	5%	56 Ω

Cct Ref	Parts Number	Description			
R1253	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39K Ω
R1255	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1257	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1258	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1259	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1261	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R1263	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R1265	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R1266	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1267	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1268	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1269	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1270	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1271	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1272	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1273	ERJ6GEYJ333	S.M.CARB	0.1W	5%	33K Ω
R1274	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R1276	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1279	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1280	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1282	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1283	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1284	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1285	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1286	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1287	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1288	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1289	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1293	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1294	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1295	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1296	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1298	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1303	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1308	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1309	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1311	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3101	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R3102	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R3103	ERJ6GEYJ564	S.M.CARB	0.1W	5%	560K Ω
R3104	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R3105	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3106	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3107	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3108	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3109	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R3110	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R3111	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3114	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3115	ERDS1TJ750	CARBON	0.5W	5%	75 Ω
R3120	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3121	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R3122	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω
R3123	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R3124	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R3125	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R3126	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R3127	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3128	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R3130	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3132	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3133	2-640463-3	METAL	2W	5%	22K Ω
R3134	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3136	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3137	2-640463-3	METAL	2W	5%	22K Ω
R3138	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω

Cct Ref	Parts Number	Description			
R3140	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3141	2-640463-3	METAL	2W	5%	22K Ω
R3142	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3143	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω
CAPACITORS					
C010	ECJ2VB1H103K	ELECT	350V		10nF
C011	ECEA1CU100	ELECT	16V		10μF
C012	ECJ2VB1H103K	ELECT	350V		10nF
C014	ECUV1H080DCX	S.M. CAP	50V		80pF
C015	ECA1HM330B	ELECT	50V		33μF
C019	ECJ2VB1H103K	ELECT	350V		10nF
C022	ECUV1H150JCX	S.M. CAP	50V		15pF
C023	ECUV1H150JCX	S.M. CAP	50V		15pF
C101	ECUV1H820JCX	S.M. CAP	50V		82pF
C102	ECUV1H101JCX	S.M. CAP	50V		100pF
C103	ECJ2VB1H103K	ELECT	350V		10nF
C105	ECJ2VB1H103K	ELECT	350V		10nF
C107	ECA1HMR22GB	ELECT	50V		0.22μF
C108	ECJ2VB1H103K	ELECT	350V		10nF
C110	ECA1HM0R1B	ELECT	50V		0R1μF
C111	ECUV1H103KBV	S.M. CAP	50V		10nF
C113	ECJ2VB1H103K	ELECT	350V		10nF
C116	ECJ2YB1H104K	ELECT	350V		100nF
C203	ECUV1H220JCX	S.M. CAP	50V		22pF
C204	ECUV1H220JCX	S.M. CAP	50V		22pF
C207	ECEA1CN100	ELECT	16V		10μF
C208	ECEA1CU100	ELECT	16V		10μF
C251	ECA1EM471GB	ELECT	25V		470μF
C253	ECA1EHG470B	ELECT	50V		47pF
C254	ECUV1H272JCX	S.M. CAP	50V		2.7nF
C258	ECA1EHG101B	ELECT	50V		100nF
C260	ECA1EM102GB	ELECT	25V		100μF
C261	ECUV1H471JCX	S.M. CAP	50V		470pF
C301	ECEA1HU101	ELECT	50V		100μF
C302	ECJ2VF1H104Z	ELECT	350V		100nF
C304	ECJ2VF1H104Z	ELECT	350V		100nF
C305	ECEA1HU101	ELECT	50V		100μF
C307	ECEA1HU101	ELECT	50V		100μF
C308	ECUV1H104ZFW	S.M. CAP	50V		100nF
C309	ECJ2VB1H103K	ELECT	350V		10nF
C311	ECJ2VF1H104Z	ELECT	350V		100nF
C312	ECJ2VF1H104Z	ELECT	350V		100nF
C313	ECJ2VF1H104Z	ELECT	350V		100nF
C314	ECEA1HNR47UB	ELECT	50V		0.47μF
C315	ECEA1HN2R2UB	ELECT	50V		2.2μF
C316	ECEA1HU101	ELECT	50V		100μF
C317	ECEA1HU101	ELECT	50V		100μF
C318	ECEA1HNR47UB	ELECT	50V		0.47μF
C319	ECJ2VF1H104Z	ELECT	350V		100nF
C323	ECUV1H680JCX	S.M. CAP	50V		68pF
C355	ECKC3D152J	CERAMIC	2KV		1.5nF
C357	ECKC2H152J	CERAMIC	500V		1.5nF
C362	ECUV1H102ZFX	S.M. CAP	50V		1nF
C368	ECEA2EU010	ELECT	250V		1μF
C370	ECA1CM220GB	ELECT	16V		22μF
C401	ECJ2VB1H223K	ELECT	350V		22nF
C402	ECJ2VB1H472K	ELECT	350V		4.7nF
C404	ECJ2VF1H103Z	ELECT	350V		10nF
C461	ECUV1H100CCX	S.M. CAP	50V		10pF
C502	ECJ2VB1H223K	ELECT	350V		22nF
C503	ECUV1H391JCX	S.M. CAP	50V		390pF
C504	ECEA1HN010UB	ELECT	50V		1μF
C505	ECUV1H331JCX	S.M. CAP	50V		330pF
C506	ECQM1273KZW	FILM	100V		27nF
C507	ECA1IHG100B	ELECT	50V		10μF
C541	ECEA1EN4R7UB	ELECT	25V		4.7μF

Cct Ref	Parts Number	Description			
C559	ECKC2H471J	CERAMIC	500V	470pF	⚠
C560	ECKC2H471J	CERAMIC	500V	470pF	⚠
C561	ECEA2EU100	ELECT	250V	10μF	
C562	ECKC2H471J	CERAMIC	500V	470pF	⚠
C566	ECKC2H471J	CERAMIC	500V	470pF	⚠
C601	ECJ2VB1H473K	ELECT	350V	47nF	
C602	ECJ2VB1H153K	ELECT	350V	15nF	
C606	ECJ2VF1H104Z	ELECT	350V	100nF	
C607	ECJ2VF1H104Z	ELECT	350V	100nF	
C608	ECUV1H470JCX	S.M. CAP	50V	47pF	
C609	ECUV1H470JCX	S.M. CAP	50V	47pF	
C610	ECEA1HU101	ELECT	50V	100μF	
C611	ECJ2VF1H104Z	ELECT	350V	100nF	
C612	ECJ2VB1H103K	ELECT	350V	10nF	
C613	ECJ2VB1H103K	ELECT	350V	10nF	
C614	ECJ2VF1H104Z	ELECT	350V	100nF	
C616	22236576104	FILM	760V	100nF	
C617	ECJ2VF1H104Z	ELECT	350V	100nF	
C618	ECEA1HU101	ELECT	50V	100μF	
C619	ECJ2VB1H103K	ELECT	350V	10nF	
C620	ECJ2VB1H103K	ELECT	350V	10nF	
C623	ECUV1H104ZFW	S.M. CAP	50V	100nF	
C624	ECUV1H560JCX	S.M. CAP	50V	56pF	
C625	ECUV1H560JCX	S.M. CAP	50V	56pF	
C626	ECUV1H560JCX	S.M. CAP	50V	56pF	
C627	ECUV1H560JCX	S.M. CAP	50V	56pF	
C628	ECUV1H390JCX	S.M. CAP	50V	39pF	
C630	ECUY1H103JCW	S.M. CAP	50V	10nF	
C803	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C804	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C805	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C806	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C807	ECOS2GA101BB	ELECT	400V	100μF	
C808	ECQB1H333J	FILM	50V	33nF	
C810	ECA1VM101GB	ELECT	35V	100μF	
C812	ECA2CHG221E	ELECT	160V	220μF	
C817	ECA1VM101GB	ELECT	35V	100μF	
C818	ECKWNA471MB	CERAMIC	250V	470pF	⚠
C820	ECKWNA332MEC	CERAMIC	250V	3.3nF	⚠
C854	ECA1HHG471E	ELECT	50V	470μF	
C855	ECJ2VF1H104Z	ELECT	350V	100nF	
C856	ECJ2VF1H104Z	ELECT	350V	100nF	
C857	ECEA1HU101	ELECT	50V	100μF	
C858	ECA1AM222B	ELECT	10V	2200μF	
C859	ECJ2VF1H104Z	ELECT	350V	100nF	
C860	ECEA1HU101	ELECT	50V	100μF	
C861	ECA1CM102B	ELECT	16V	1000μF	
C1201	ECA1EM102GB	ELECT	25V	100μF	
C1203	ECA1EM471GB	ELECT	25V	470μF	
C1204	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1205	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1206	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1207	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1208	ECUV1H471KBX	S.M. CAP	50V	470pF	
C1210	ECJ2VB1H473K	ELECT	350V	47nF	
C1219	ECJ2VF1H104Z	ELECT	350V	100nF	
C1221	ECUV1H331JCX	S.M. CAP	50V	330pF	
C1226	ECJ2VF1H104Z	ELECT	350V	100nF	
C1227	ECEA1HU101	ELECT	50V	100μF	
C1229	ECUV1H470GCC	S.M. CAP	50V	47pF	
C1232	ECJ2VF1H104Z	ELECT	350V	100nF	
C1234	ECJ2VF1H104Z	ELECT	350V	100nF	
C1241	ECEA1HU101	ELECT	50V	100μF	
C1244	ECEA1CU100	ELECT	16V	10μF	
C1249	ECJ2VF1H104Z	ELECT	350V	100nF	
C1256	ECJ2VB1H104K	ELECT	350V	100nF	

Cct Ref	Parts Number	Description		
C1257	ECUV1H561JCX	S.M. CAP	50V	560pF
C1258	ECEA1CU100	ELECT	16V	10μF
C1259	ECUV1H150JCX	S.M. CAP	50V	15pF
C1260	ECUV1H560JCX	S.M. CAP	50V	56pF
C1261	ECEA1HU101	ELECT	50V	100μF
C1262	ECUV1H390JCX	S.M. CAP	50V	39pF
C1263	ECUV1H390JCX	S.M. CAP	50V	39pF
C1264	ECUV1H390JCX	S.M. CAP	50V	39pF
C1265	ECUV1H560JCX	S.M. CAP	50V	56pF
C1266	ECEA1CU100	ELECT	16V	10μF
C1268	ECEA1HU101	ELECT	50V	100μF
C3101	ECUV1H101JCX	S.M. CAP	50V	100pF
C3102	ECUV1H561KBX	S.M. CAP	50V	560pF
C3104	ECJ2VB1H102K	ELECT	350V	1nF
C3105	ECUV1H101JCX	S.M. CAP	50V	100pF
C3109	ECUV1H561JCX	S.M. CAP	50V	560pF
C3110	22236516684	FILM	160V	680nF
C3113	ECJ2VB1H103K	ELECT	350V	10nF
C3115	ECEA1CN100	ELECT	16V	10μF
C3117	ECJ2VF1H104Z	ELECT	350V	100nF
C3118	ECEA1CN100	ELECT	16V	10μF
C3119	ECEA1CN100	ELECT	16V	10μF
TERMINALS AND LINKS				
JK3101	TJB8E011	SCART SOCKET		
JK3102	TJB16663	A.V. TERMINAL		
SWITCHES				
S801	ESB91232A	SWITCH		
S1201	EVQ21405R	SWITCH		
S1202	EVQ21405R	SWITCH		
S1203	EVQ21405R	SWITCH		
S1204	EVQ21405R	SWITCH		
S1205	EVQ21405R	SWITCH		
RELAYS				
RL1201	TSE1885-1	RELAY		
DIFFERENCES FOR MODEL TC--14JR1P				
EXPLODED VIEW				
3	TBX8E077	5-KEY BUTTON		
4	ZTUZAE350B	ANODE LEAD		
6	TKU8E00510	BACK COVER		
7	UR51CS946-2	BATTERY COVER (REMOTE)		
8	A34EAC01X13	C.R.T.		
9	TKY8E440	CABINET		
12	THE492-4	CRT FIXING SCREW		
13	TLK8E05134	DEGAUSS COIL		
14	TNP8EE007DM	E P.C.B.		
15	ZTFM23001A	F.B.T.		
16	TXFJTF01BTDG	FOCUS LEAD ASSY		
17	TBM8E2073	MODEL LABEL		
18	TBM8E1927	PANASONIC BADGE		
19	TBX8E076	POWER BUTTON		
20	EUR511380	REMOTE CONTROL		
21	EASG9D556A2	SPEAKER		
22	TNP8EY011AG	Y P.C.B.		
MISCELLANEOUS COMPONENTS				
	TKP8E1315	IR WINDOW		
	TPC8E4865	OUTER CARTON		
	TPD8E704	TOP CUSHION		
	TPD8E705	BOTTOM CUSHION		
	TSA120026	MONOPOLE ANTENNA		
	UM-3DJ-2P	BATTERY PACK		
D805	59122T80B110	THERMISTOR		
MOE2	31221212478	FIX CLIP		

Cct Ref	Parts Number	Description	
MOE4	31221212478	FIX CLIP	
S351	330660069	CRT SOCKET	⚠
INSTRUCTION BOOKS			
	TQB8E3007MN	BULGARIAN, ROMANIAN	⚠
	TQB8E3007PQ	POLISH, HUNGARIAN	⚠
	TQB8E3007RU	CZECH, ENGLISH	⚠
I.C.s			
IC1201	SDA5222V51	MICRO PROCESSOR	
IC1205	X24CSH-1MPZ	EAROM	
TRANSISTORS			
Q351	TYMQ0003	TRANSISTOR	
Q352	TYMQ0003	TRANSISTOR	
Q353	TYMQ0003	TRANSISTOR	
TRANSFORMERS			
T801	ETS29AK237AC	TRANSFORMER	⚠
FILTERS			
L802	ELF15N005A	LINE FILTER	
RESISTORS			
C1230	ERJ6GEY0R00	S.M.CARB	0.1W 5% 0 Ω
C1245	ERJ6GEY0R00	S.M.CARB	0.1W 5% 0 Ω
JYA	ERJ6GEY0R00	S.M.CARB	0.1W 5% 0 Ω
R252	ERJ6GEYJ103	S.M.CARB	0.1W 5% 10K Ω
R254	ERJ6GEYJ560	S.M.CARB	0.1W 5% 56 Ω
R255	ERJ6GEYJ271	S.M.CARB	0.1W 5% 270 Ω
R305	ERJ6GEYJ471	S.M.CARB	0.1W 5% 470 Ω
R306	ERJ6GEYJ471	S.M.CARB	0.1W 5% 470 Ω
R307	ERJ6GEYJ471	S.M.CARB	0.1W 5% 470 Ω
R351	ERG1SJ123E	METAL	1W 5% 12K Ω
R352	ERG1SJ123E	METAL	1W 5% 12K Ω
R353	ERG1SJ123E	METAL	1W 5% 12K Ω
R366	ERJ6GEYJ681	S.M.CARB	0.1W 5% 680 Ω
R367	ERJ6GEYJ681	S.M.CARB	0.1W 5% 680 Ω
R368	ERJ6GEYJ681	S.M.CARB	0.1W 5% 680 Ω
R369	ERJ6GEYJ682	S.M.CARB	0.1W 5% 6K8 Ω
R370	ERJ6GEYJ682	S.M.CARB	0.1W 5% 6K8 Ω
R371	ERJ6GEYJ682	S.M.CARB	0.1W 5% 6K8 Ω
R375	ERDS1TJ182	CARBON	0.5W 10% 1K8 Ω
R386	ERDS1TJ182	CARBON	0.5W 10% 1K8 Ω
R387	ERDS1TJ182	CARBON	0.5W 10% 1K8 Ω
R453	ERDS1TJ1R5	CARBON	0.5W 5% 1R5 Ω
R506	ERJ6GEYJ753	S.M.CARB	0.1W 5% 75K Ω
R508	ERJ6GEYJ753	S.M.CARB	0.1W 5% 75K Ω
R519	ERJ6GEYJ754	S.M.CARB	0.1W 5% 750K Ω
R522	ERJ6GEYJ394	S.M.CARB	0.1W 5% 390K Ω
R542	ERJ6GEYJ242	S.M.CARB	0.1W 5% 2K4 Ω
R543	ERJ6GEYJ682	S.M.CARB	0.1W 5% 6K8 Ω
R551	ERDS1TJ1R5	CARBON	0.5W 5% 1R5 Ω
R552	ERDS1TJ1R5	CARBON	0.5W 5% 1R5 Ω
R555	ERQ1CJP1R0	FUSIBLE	1W 5% 1 Ω
R557	ERJ6GEYJ562	S.M.CARB	0.1W 5% 5K6 Ω
R560	ERDS1TJ304	CARBON	0.5W 5% 300K Ω
R807	ERG2ANJP101H	METAL	2W 5% 100 Ω
R1215	ERJ6GEY0R00	S.M.CARB	0.1W 5% 0 Ω
R1216	ERJ6GEY0R00	S.M.CARB	0.1W 5% 0 Ω
R1217	ERJ6ENF1202	S.M.CARB	0.1W 1% 1K2 Ω
R1218	ERO50PKF6203	METAL	0.5W 1% 620K Ω
R1230	ERJ6GEYJ103	S.M.CARB	0.1W 5% 10K Ω
R1242	ERJ6GEY0R00	S.M.CARB	0.1W 5% 0 Ω
R1251	ERJ6GEYJ513	S.M.CARB	0.1W 5% 51K Ω
R1252	ERJ6GEYJ562	S.M.CARB	0.1W 5% 5K6 Ω
R1275	ERJ6GEY0R00	S.M.CARB	0.1W 5% 0 Ω
R1291	ERJ6GEYJ432	S.M.CARB	0.1W 5% 4K3 Ω
R1304	ERJ6GEYJ154	S.M.CARB	0.1W 5% 150K Ω
R1305	ERJ6GEYJ393	S.M.CARB	0.1W 5% 39K Ω

Cct Ref	Parts Number	Description	
CAPACITORS			
C255	B32529-C224	FILM	50V 220nF
C351	ECUV1H151JCX	S.M. CAP	50V 150pF
C352	ECUV1H151JCX	S.M. CAP	50V 150pF
C353	ECUV1H181JCX	S.M. CAP	50V 180pF
C453	ECEA1HU101	ELECT	50V 100μF
C454	ECA1HM2R2B	ELECT	50V 2.2μF
C550	ECA1VM471GB	ELECT	35V 470μF
C551	ECWH12H822J	FILM	1250V 8.2nF
C552	ECQE6104K	FILM	600V 100nF
C554	ECKW3D471JBN	CERAMIC	2kV 470pF
C557	ECWF2H474J	FILM	500V 470nF
C558	ECEA2CG010	ELECT	160V 1μF
C563	ECA1VM471GB	ELECT	35V 470μF
C565	ECA1CM471B	ELECT	16V 470μF
C567	ECA1VM471GB	ELECT	35V 470μF
C802	ECQE2A474MWB	FILM	250V 470nF
C811	ECA1JM100GB	ELECT	63V 10μF
C813	ECQE2A224MWB	FILM	250V 220nF
C853	ECA1CM102B	ELECT	16V 1000μF
C1228	ECUV1H560GCG	S.M. CAP	50V 56pF
DIFFERENCES FOR MODEL TC--21JR1P			
EXPLODED VIEW			
3	TBX8E072	5-KEY BUTTON	
4	ZTUZAE450A	ANODE LEAD	⚠
5	TKK8E043	AV COVER	
6	TKU8E00490	BACK COVER	⚠
7	UR51CS946-2	BATTERY COVER (REMOTE)	
8	A51EAL155X13	C.R.T.	⚠
9	TKY8E420	CABINET	
10	TMZ8E002	CHASSIS RAIL LEFT	
11	TMZ8E001	CHASSIS RAIL RIGHT	
12	VP15005-35	CRT FIXING SCREW	
13	TLK8E05143	DEGAUSS COIL	⚠
14	TNP8EE007EA	E P.C.B.	⚠
15	ZTFM23002A	F.B.T.	⚠
16	TXAJTF01BZAG	FOCUS LEAD ASSY	⚠
17	TBM8E2062	MODEL LABEL	
18	TBM8E1928	PANASONIC BADGE	
19	TBX8E071	POWER BUTTON	
20	EUR511380	REMOTE CONTROL	
21	EASG12D552A2	SPEAKER	
22	TNP8EY011AH	Y P.C.B.	⚠
MISCELLANEOUS COMPONENTS			
	TKP8E1291	LIGHT TUBE	
	TKP8E1292	IR WINDOW	
	TPC8E4864	OUTER CARTON	
	TPD8E697	TOP CUSHION	
	TPD8E698	BOTTOM CUSHION	
	UM-3DJ-2P	BATTERY PACK	
D805	232266296706	THERMISTOR	⚠
S351	TJSC00300	CRT SOCKET	⚠
INSTRUCTION BOOKS			
	TQB8E3007MN	BULGARIAN, ROMANIAN	⚠
	TQB8E3007PQ	POLISH, HUNGARIAN	⚠
	TQB8E3007RU	CZECH, ENGLISH	⚠
I.C.s			
IC1201	SDA5222V51	MICRO PROCESSOR	
IC1205	X24CSH-1NPZ	EAROM	
TRANSISTORS			
Q351	2SC5147/D-M1	TRANSISTOR	
Q352	2SC5147/D-M1	TRANSISTOR	

Cct Ref	Parts Number	Description				
Q353	2SC5147/D-M1	TRANSISTOR				
Q507	BC847B	TRANSISTOR				
TRANSFORMERS						
T801	ETS29AK227AC	TRANSFORMER				
COILS						
L551	ELH5L4104	COIL				
L553	ELH16F713	COIL				
RESISTORS						
C1230	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
C1245	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R252	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω	
R254	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150 Ω	
R255	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω	
R305	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω	
R306	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω	
R307	ERJ6GEYJ181	S.M.CARB	0.1W	5%	180 Ω	
R351	ERG2ANJP103H	METAL	2W	5%	10K Ω	
R352	ERG2ANJP103H	METAL	2W	5%	10K Ω	
R353	ERG2ANJP103H	METAL	2W	5%	10K Ω	
R366	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω	
R367	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω	
R368	ERJ6GEYJ431	S.M.CARB	0.1W	5%	430 Ω	
R369	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R370	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R371	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
R375	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω	
R378	ERD25TJ274	CARBON	0.25W	5%	270K Ω	
R379	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18K Ω	
R380	ERJ6GEYJ684	S.M.CARB	0.1W	5%	680K Ω	
R386	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω	
R387	ERDS1TJ272	CARBON	0.5W	5%	2K7 Ω	
R453	ERDS1TJ1R0	CARBON	0.5W	5%	1 Ω	
R506	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω	
R508	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω	
R519	ERJ6GEYJ823	S.M.CARB	0.1W	5%	82K Ω	
R522	ERJ6GEYJ684	S.M.CARB	0.1W	5%	680K Ω	
R523	ERJ6GEYJ154	S.M.CARB	0.1W	5%	150K Ω	
R524	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R525	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R542	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω	
R543	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω	
R553	ERQ1CJP102	FUSIBLE	1W	5%	1K Ω	
R555	ERQ1CJP4R7	FUSIBLE	1W	5%	4R7 Ω	
R557	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R560	ERDS1TJ244T	CARBON	0.5W	5%	240K Ω	
R807	ERG3FJ101	METAL	3W	5%	100 Ω	
R1215	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1216	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1217	ERJ6ENF7501	S.M.CARB	0.1W	1%	7K5 Ω	
R1218	ERO50PKF5603	METAL	0.5W	1%	560K Ω	
R1230	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω	
R1242	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1251	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1252	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω	
R1275	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω	
R1291	ERJ6GEYJ432	S.M.CARB	0.1W	5%	4K3 Ω	
R1304	ERJ6GEYJ184	S.M.CARB	0.1W	5%	180K Ω	
R1305	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω	
CAPACITORS						
C255	ECQV1H104JL3	FILM	50V		0.1μF	
C351	ECUV1H221JCX	S.M. CAP	50V		220pF	
C352	ECUV1H271JCX	S.M. CAP	50V		270pF	
C353	ECUV1H221JCX	S.M. CAP	50V		220pF	
C369	ECA1HMR47B	ELECT	50V		470nF	
C453	ECA1HHG101B	ELECT	50V		100μF	

Cct Ref	Parts Number	Description		
C454	ECA1HHG2R2B	ELECT	50V	100μF
C508	ECUV1H102JCX	S.M. CAP	50V	1nF
C550	ECA1CM471B	ELECT	16V	470μF
C551	ECWH12H103JR	FILM	1250V	10nF
C552	ECQF4273JZH	FILM	400V	27nF
C555	ECKC3D152J	CERAMIC	2KV	1.5nF
C557	ECWF2H394JZ	FILM	500V	390nF
C558	ECA2CM4R7B	ELECT	160V	390nF
C563	ECA1CM471B	ELECT	16V	470μF
C565	ECA1VM471GB	ELECT	35V	470μF
C567	ECA1VHG471B	ELECT	35V	47μF
C802	222233591028	FILM	250V	28nF
C811	ECA1JHG100B	ELECT	6.3V	100μF
C853	ECA1EM102GB	ELECT	25V	100μF
C1228	ECUV1H470GCG	S.M. CAP	50V	47pF
DIFFERENCES FOR MODEL TX--14JT1P				
EXPLODED VIEW				
3	TBX8E077	5-KEY BUTTON		
4	ZTUZAE350B	ANODE LEAD		
6	TKU8E00510	BACK COVER		
7	UR51EC924	BATTERY COVER (REMOTE)		
8	A34EAC01X13	C.R.T.		
9	TKY8E440	CABINET		
12	THE492-4	CRT FIXING SCREW		
13	TLK8E05134	DEGAUSS COIL		
14	TNP8EE007DZ	E P.C.B.		
15	ZTFM23001A	F.B.T.		
16	TXFJTF01BTDG	FOCUS LEAD ASSY		
17	TBM8E2072	MODEL LABEL		
18	TBM8E1927	PANASONIC BADGE		
19	TBX8E076	POWER BUTTON		
20	EUR511300	REMOTE CONTROL		
21	EASG9D556A2	SPEAKER		
22	TNP8EY011AG	Y P.C.B.		
MISCELLANEOUS COMPONENTS				
0	TKP8E1315	IR WINDOW		
0	TPC8E4861	OUTER CARTON		
0	TPD8E704	TOP CUSHION		
0	TPD8E705	BOTTOM CUSHION		
0	TSA120026	MONOPOLE ANTENNA		
0	UM-3DJ-2P	BATTERY PACK		
D805	59122T80B110	THERMISTOR		
S351	0330660069	CRT SOCKET		
INSTRUCTION BOOKS				
0	TQB8E2997MN	BULGARIAN, ROMANIAN		
0	TQB8E2997PQ	POLISH, HUNGARIAN		
0	TQB8E2997RU	CZECH, ENGLISH		
I.C.s				
IC1201	SDA5254V41	MICRO PROCESSOR		
IC1205	X24CSI1-1MPZ	EAROM		
DIODES				
D1225	1SS133T-77	DIODE		
TRANSISTORS				
Q351	TYMQ0003	TRANSISTOR		
Q352	TYMQ0003	TRANSISTOR		
Q353	TYMQ0003	TRANSISTOR		
Q1214	BC857B	TRANSISTOR		
Q1215	BC857B	TRANSISTOR		
Q1216	BC847B	TRANSISTOR		
TRANSFORMERS				
T801	ETS29AK237AC	TRANSFORMER		

Cct Ref	Parts Number	Description			
COILS					
L1206	EXCELSA35T	COIL			
FILTERS					
L802	ELF15N005A	LINE FILTER			
RESISTORS					
JC24	ERJ8GEY0R00	S.M.CARB	.125W	5%	0 Ω
JYA	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R252	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R254	ERJ6GEYJ560	S.M.CARB	0.1W	5%	56 Ω
R255	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R305	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R306	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R307	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R351	ERG1SJ123E	METAL	1W	5%	12K Ω
R352	ERG1SJ123E	METAL	1W	5%	12K Ω
R353	ERG1SJ123E	METAL	1W	5%	12K Ω
R366	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω
R367	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω
R368	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680 Ω
R369	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R370	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R371	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R375	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω
R386	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω
R387	ERDS1TJ182	CARBON	0.5W	10%	1K8 Ω
R453	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω
R506	ERJ6GEYJ753	S.M.CARB	0.1W	5%	75K Ω
R508	ERJ6GEYJ753	S.M.CARB	0.1W	5%	75K Ω
R519	ERJ6GEYJ754	S.M.CARB	0.1W	5%	750K Ω
R522	ERJ6GEYJ394	S.M.CARB	0.1W	5%	390K Ω
R542	ERJ6GEYJ242	S.M.CARB	0.1W	5%	2K4 Ω
R543	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R551	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω
R552	ERDS1TJ1R5	CARBON	0.5W	5%	1R5 Ω
R555	ERQ1CJP1R0	FUSIBLE	1W	5%	1 Ω
R557	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R560	ERDS1TJ304	CARBON	0.5W	5%	300K Ω
R807	ERG2ANJP101H	METAL	2W	5%	100 Ω
R1213	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R1215	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R1216	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R1217	ERJ6ENF1202	S.M.CARB	0.1W	1%	1K2 Ω
R1218	ERO50PKF6203	METAL	0.5W	1%	620K Ω
R1230	ERJ6GEYJ823	S.M.CARB	0.1W	5%	82K Ω
R1241	ERJ6GEYJ822	S.M.CARB	0.1W	5%	8K2 Ω
R1242	ERJ6GEYJ434	S.M.CARB	0.1W	5%	43K Ω
R1251	ERJ6GEYJ513	S.M.CARB	0.1W	5%	51K Ω
R1252	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R1256	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R1275	ERJ6GEYJ225	S.M.CARB	0.1W	5%	2M2 Ω
R1277	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1278	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω
R1290	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1291	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R1292	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1304	ERJ6GEYJ154	S.M.CARB	0.1W	5%	150K Ω
R1305	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39K Ω
R1306	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1307	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω
CAPACITORS					
C255	B32529-C224	FILM	50V		220nF
C351	ECUV1H151JCX	S.M. CAP	50V		150pF
C352	ECUV1H151JCX	S.M. CAP	50V		150pF
C353	ECUV1H181JCX	S.M. CAP	50V		180pF
C453	ECEA1HU101	ELECT	50V		100μF

Cct Ref	Parts Number	Description			
C454	ECA1HM2R2B	ELECT	50V		2.2μF
C550	ECA1VM471GB	ELECT	35V		470μF
C551	ECWH12H822J	FILM	1250V		8.2nF
C552	ECQE6104K	FILM	600V		100nF
C554	ECKW3D471JBN	CERAMIC	2kV		470pF
C557	ECWF2H474J	FILM	500V		470nF
C558	ECEA2CG010	ELECT	160V		1μF
C563	ECA1VM471GB	ELECT	35V		470μF
C565	ECA1CM471B	ELECT	16V		470μF
C567	ECA1VM471GB	ELECT	35V		470μF
C802	ECQE2A474MWB	FILM	250V		470nF
C811	ECA1JM100GB	ELECT	63V		10μF
C813	ECQE2A224MWB	FILM	250V		220nF
C853	ECA1CM102B	ELECT	16V		1000μF
C1228	ECUV1H560GCG	S.M. CAP	50V		56pF
C1230	ECJ2VB1H333K	ELECT	350V		33nF
C1231	222236516154	FILM	160V		150nF
C1245	ECJ2VB1H333K	ELECT	350V		33nF
C1251	ECQV1H334JL3	FILM	50V		330nF
C1269	ECUV1H151JCX	S.M. CAP	50V		150pF
DIFFERENCES FOR MODEL TX--21JT1P					
EXPLODED VIEW					
3	TBX8E072	5-KEY BUTTON			
4	ZTUZAE450A	ANODE LEAD			
5	TKK8E043	AV COVER			
6	TKU8E00490	BACK COVER			
7	UR51EC924	BATTERY COVER (REMOTE)			
8	A51EAL155X13	C.R.T.			
9	TKY8E420	CABINET			
10	TMZ8E002	CHASSIS RAIL LEFT			
11	TMZ8E001	CHASSIS RAIL RIGHT			
12	VP15005-35	CRT FIXING SCREW			
13	TLK8E05143	DEGAUSS COIL			
14	TNP8EE007DU	E P.C.B.			
15	ZTFM23002A	F.B.T.			
16	TXAJTF01BZAG	FOCUS LEAD ASSY			
17	TBM8E2063	MODEL LABEL			
18	TBM8E1928	PANASONIC BADGE			
19	TBX8E071	POWER BUTTON			
20	EUR511300	REMOTE CONTROL			
21	EASG12D552A2	SPEAKER			
22	TNP8EY011AH	Y P.C.B.			
MISCELLANEOUS COMPONENTS					
	TKP8E1291	LIGHT TUBE			
	TKP8E1292	IR WINDOW			
	TPC8E4860	OUTER CARTON			
	TPD8E697	TOP CUSHION			
	TPD8E698	BOTTOM CUSHION			
	UM-3DJ-2P	BATTERY PACK			
D805	232266296706	THERMISTOR			
S351	TJSC00300	CRT SOCKET			
INSTRUCTION BOOKS					
	TQB8E2997MN	BULGARIAN, ROMANIAN			
	TQB8E2997PQ	POLISH, HUNGARIAN			
	TQB8E2997RU	CZECH, ENGLISH			
I.C.s					
IC1201	SDA5254V41	MICRO PROCESSOR			
IC1205	X24CSH1-1NPZ	EAROM			
DIODES					
D1225	1SS133T-77	DIODE			
TRANSISTORS					
Q351	2SC5147/D-M1	TRANSISTOR			

Cct Ref	Parts Number	Description
Q352	2SC5147/D-M1	TRANSISTOR
Q353	2SC5147/D-M1	TRANSISTOR
Q507	BC847B	TRANSISTOR
Q1214	BC857B	TRANSISTOR
Q1215	BC857B	TRANSISTOR
Q1216	BC847B	TRANSISTOR
TRANSFORMERS		
T801	ETS29AK227AC	TRANSFORMER ⚠
COILS		
L551	ELH5L4104	COIL
L553	ELH16F713	COIL
L1206	EXCELSA35T	COIL
RESISTORS		
JC24	ERJ6GEY0R00	S.M.CARB .125W 5% 0 Ω
R252	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6 Ω
R254	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150 Ω
R255	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180 Ω
R305	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180 Ω
R306	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180 Ω
R307	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180 Ω
R351	ERG2ANJP103H	METAL 2W 5% 10K Ω
R352	ERG2ANJP103H	METAL 2W 5% 10K Ω
R353	ERG2ANJP103H	METAL 2W 5% 10K Ω
R366	ERJ6GEYJ431	S.M.CARB 0.1W 5% 430 Ω
R367	ERJ6GEYJ431	S.M.CARB 0.1W 5% 430 Ω
R368	ERJ6GEYJ431	S.M.CARB 0.1W 5% 430 Ω
R369	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7 Ω
R370	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7 Ω
R371	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7 Ω
R375	ERDS1TJ272	CARBON 0.5W 5% 2K7 Ω
R378	ERD25TJ274	CARBON 0.25W 5% 270K Ω
R379	ERJ6GEYJ183	S.M.CARB 0.1W 5% 18K Ω
R380	ERJ6GEYJ684	S.M.CARB 0.1W 5% 680K Ω
R386	ERDS1TJ272	CARBON 0.5W 5% 2K7 Ω
R387	ERDS1TJ272	CARBON 0.5W 5% 2K7 Ω
R453	ERDS1TJ1R0	CARBON 0.5W 5% 1 Ω
R506	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15K Ω
R508	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15K Ω
R519	ERJ6GEYJ823	S.M.CARB 0.1W 5% 82K Ω
R522	ERJ6GEYJ684	S.M.CARB 0.1W 5% 680K Ω
R523	ERJ6GEYJ154	S.M.CARB 0.1W 5% 150K Ω
R524	ERJ6GEYJ184	S.M.CARB 0.1W 5% 180K Ω
R525	ERJ6GEYJ184	S.M.CARB 0.1W 5% 180K Ω
R542	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3 Ω
R543	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2 Ω
R553	ERQ1CJP102	FUSIBLE 1W 5% 1K Ω ⚠
R555	ERQ1CJP4R7	FUSIBLE 1W 5% 4R7 Ω ⚠
R557	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10K Ω
R559	ERQ1CJP4R7	FUSIBLE 1W 5% 4R7 Ω ⚠
R560	ERDS1TJ244T	CARBON 0.5W 5% 240K Ω
R807	ERG3FJ101	METAL 3W 5% 100 Ω ⚠
R1213	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2 Ω
R1215	ERJ6GEYJ682	S.M.CARB 0.1W 5% 6K8 Ω
R1216	ERJ6GEYJ682	S.M.CARB 0.1W 5% 6K8 Ω
R1217	ERJ6ENF7501	S.M.CARB 0.1W 1% 7K5 Ω
R1218	ERO50PKF5603	METAL 0.5W 1% 560K Ω ⚠
R1230	ERJ6GEYJ823	S.M.CARB 0.1W 5% 82K Ω
R1241	ERJ6GEYJ822	S.M.CARB 0.1W 5% 8K2 Ω
R1242	ERJ6GEYJ434	S.M.CARB 0.1W 5% 43K Ω
R1251	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R1252	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100 Ω
R1256	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2 Ω
R1275	ERJ6GEYJ225	S.M.CARB 0.1W 5% 2M2 Ω
R1277	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10K Ω
R1278	ERJ6GEYJ182	S.M.CARB 0.1W 5% 1K8 Ω


Cct Ref	Parts Number	Description
R1290	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10K Ω
R1291	ERJ6GEYJ752	S.M.CARB 0.1W 5% 7K5 Ω
R1292	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10K Ω
R1304	ERJ6GEYJ184	S.M.CARB 0.1W 5% 180K Ω
R1305	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7 Ω
R1306	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R1307	ERJ6GEYJ182	S.M.CARB 0.1W 5% 1K8 Ω
CAPACITORS		
C255	ECQV1H104JL3	FILM 50V 0.1μF
C351	ECUV1H221JCX	S.M. CAP 50V 220pF
C352	ECUV1H271JCX	S.M. CAP 50V 270pF
C353	ECUV1H221JCX	S.M. CAP 50V 220pF
C369	ECA1HMR47B	ELECT 50V 470nF
C453	ECA1HHG101B	ELECT 50V 100μF
C454	ECA1HHG2R2B	ELECT 50V 100μF
C508	ECUV1H102JCX	S.M. CAP 50V 1nF
C550	ECA1CM471B	ELECT 16V 470μF
C551	ECWH12H103JR	FILM 1250V 10nF ⚠
C552	ECQF4273JZH	FILM 400V 27nF ⚠
C555	ECKC3D152J	CERAMIC 2KV 1.5nF ⚠
C557	ECWF2H394JZ	FILM 500V 390nF ⚠
C558	ECA2CM4R7B	ELECT 160V 390nF
C563	ECA1CM471B	ELECT 16V 470μF
C565	ECA1VM471GB	ELECT 35V 470μF
C567	ECA1VHG471B	ELECT 35V 47μF
C802	222233591028	FILM 250V 28nF ⚠
C811	ECA1JHG100B	ELECT 6.3V 100μF
C853	ECA1EM102GB	ELECT 25V 100μF
C1228	ECUV1H470GCC	S.M. CAP 50V 47pF
C1230	ECJ2VB1H333K	ELECT 350V 33nF
C1231	222236516154	FILM 160V 150nF
C1245	ECJ2VB1H333K	ELECT 350V 33nF
C1251	ECQV1H334JL3	FILM 50V 330nF
C1269	ECUV1H151JCX	S.M. CAP 50V 150pF

SCHEMATIC DIAGRAMS FOR MODEL

TX-21JT1P, TC-21JR1P, TX-14JT1P, TC-14JR1P


(Z7 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 $\frac{1}{4}W$ 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. TEST POINT
 Test Point Position

5. EARTH SYMBOL
 Chassis Earth (Cold)
 Line Earth (Hot)

6. 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

7.
 Indicates the Video signal path
 Indicates the Audio signal path

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

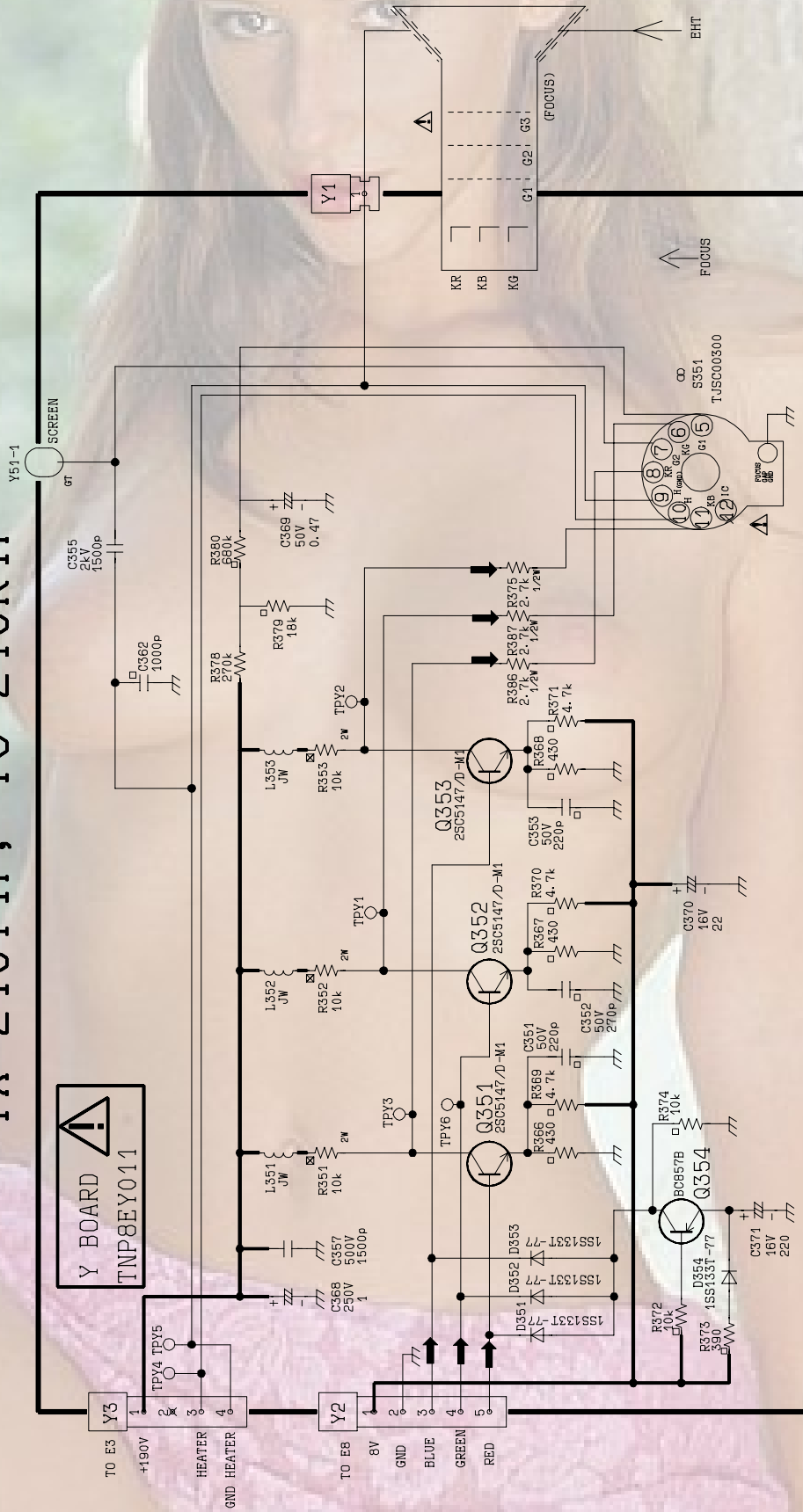
REMARKS

- 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.

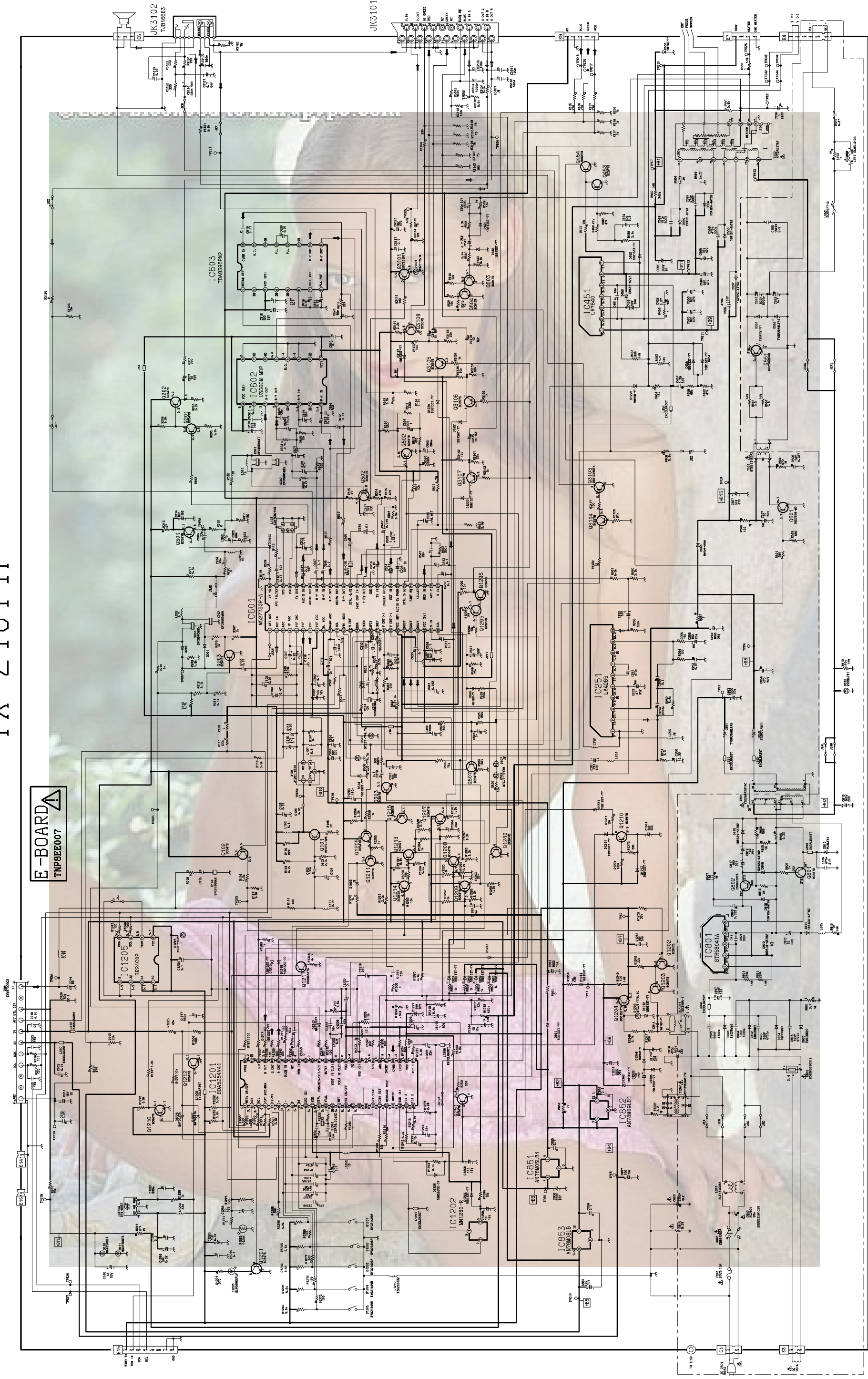
NOTE

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.

TX-21JT1P, TC-21JR1P

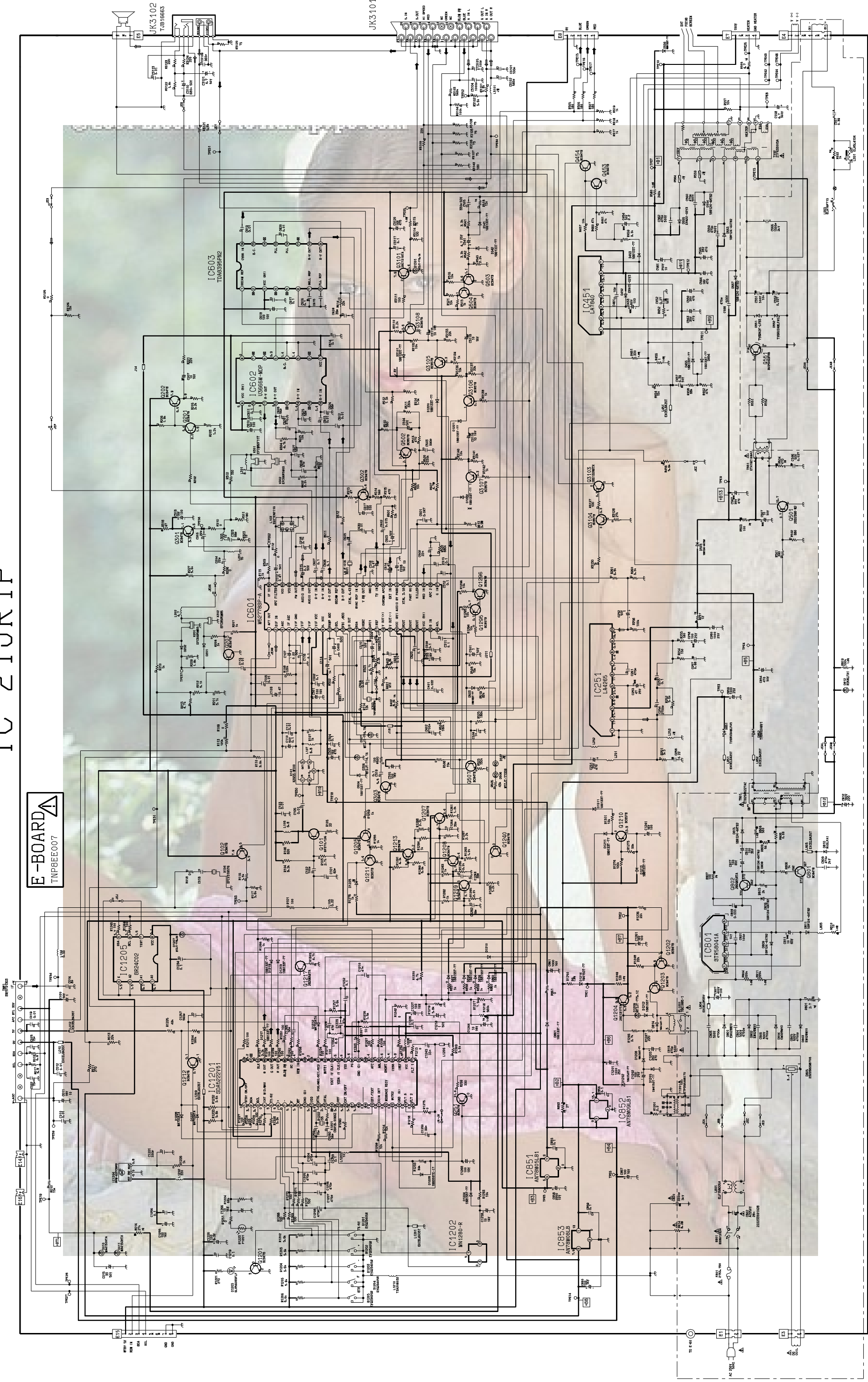


TX-21JT1P

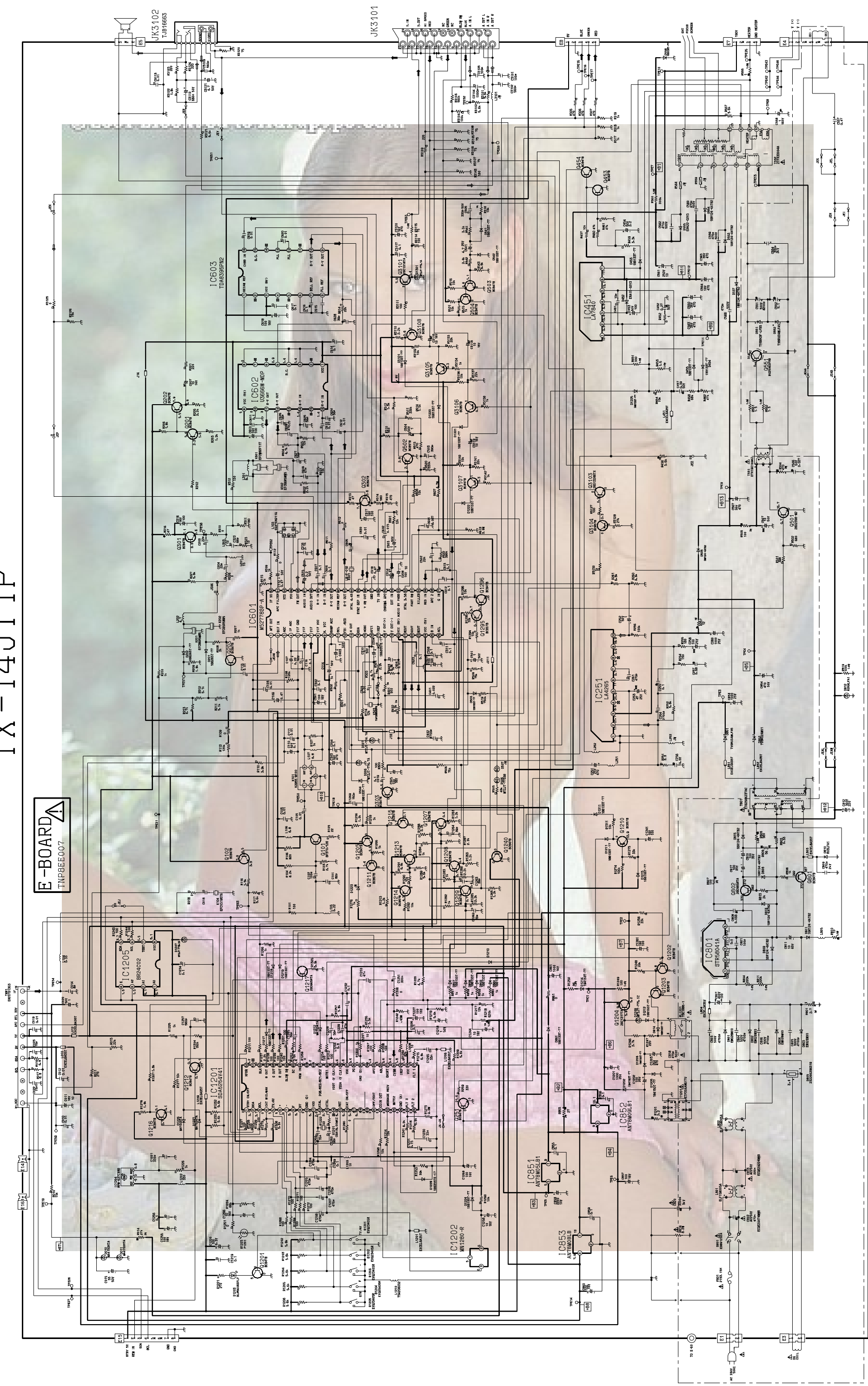


TC-21JR1P

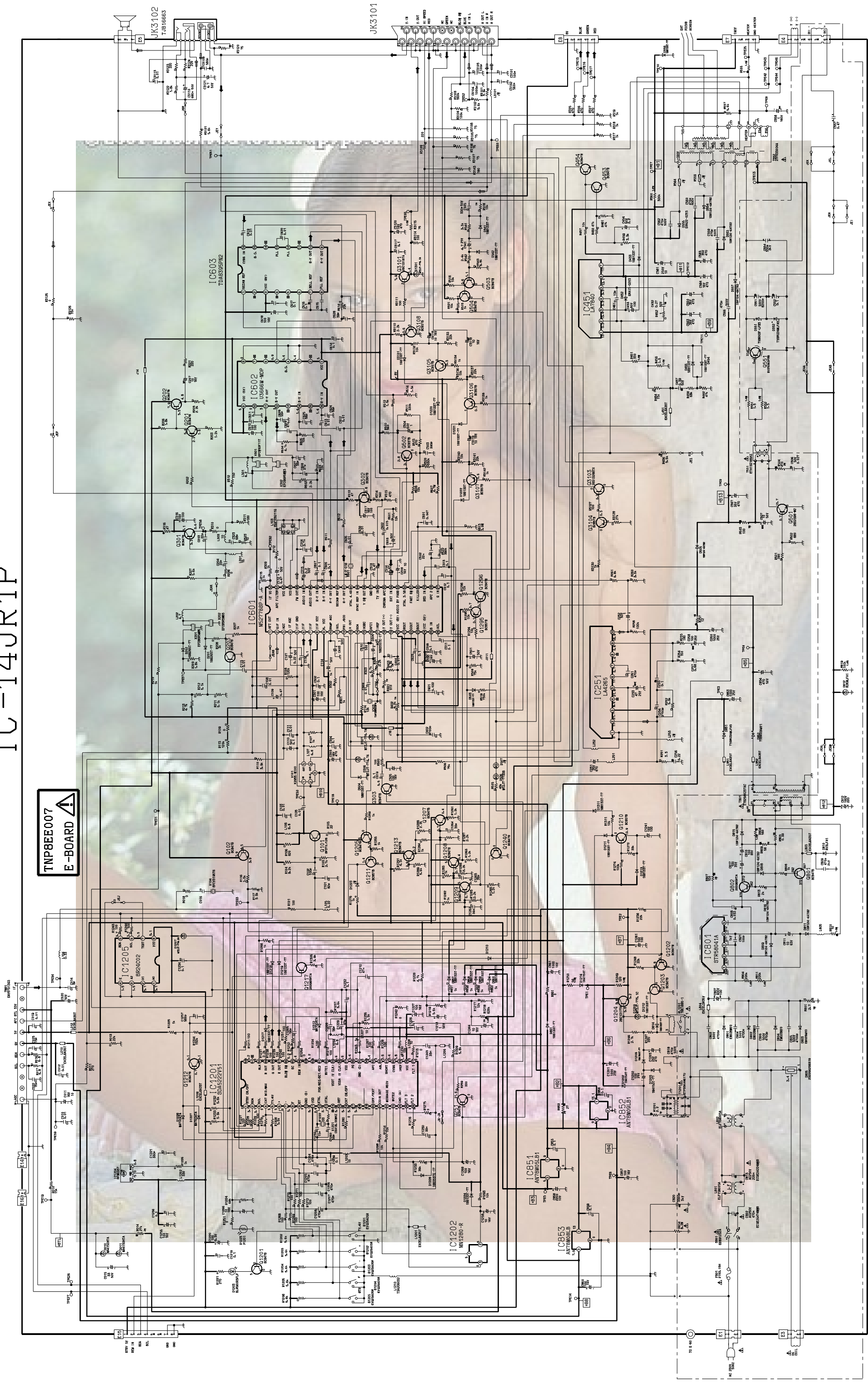
E-BOARD
TNP8EE007



TX-14JT1P



TC-14JR1P

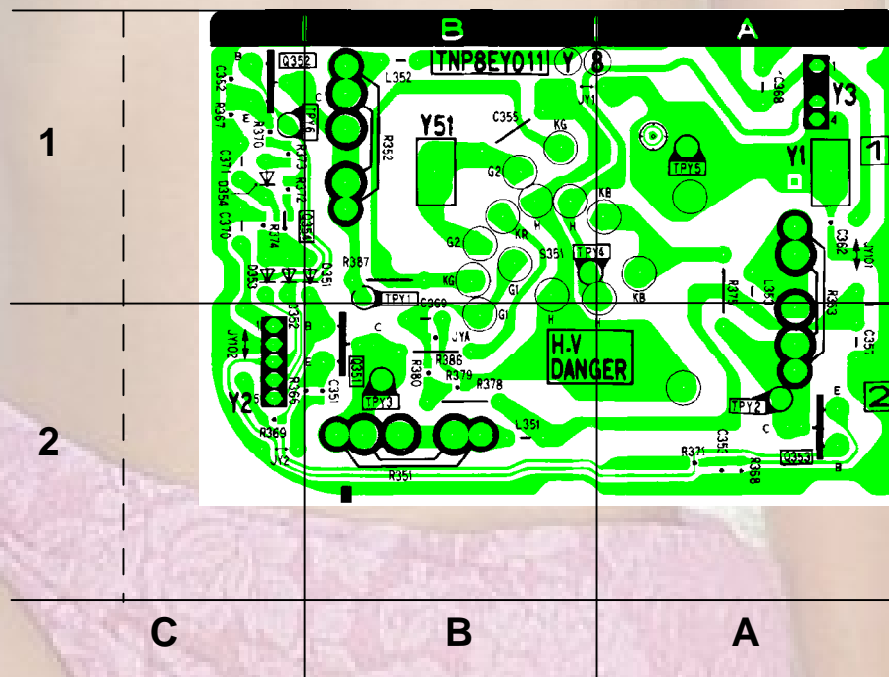


CONDUCTOR VIEWS FOR MODELS

TX-21JT1P, TC-21JR1P, TX-14JT1P, TC-14JR1P

Y-BOARD TNP8EY011

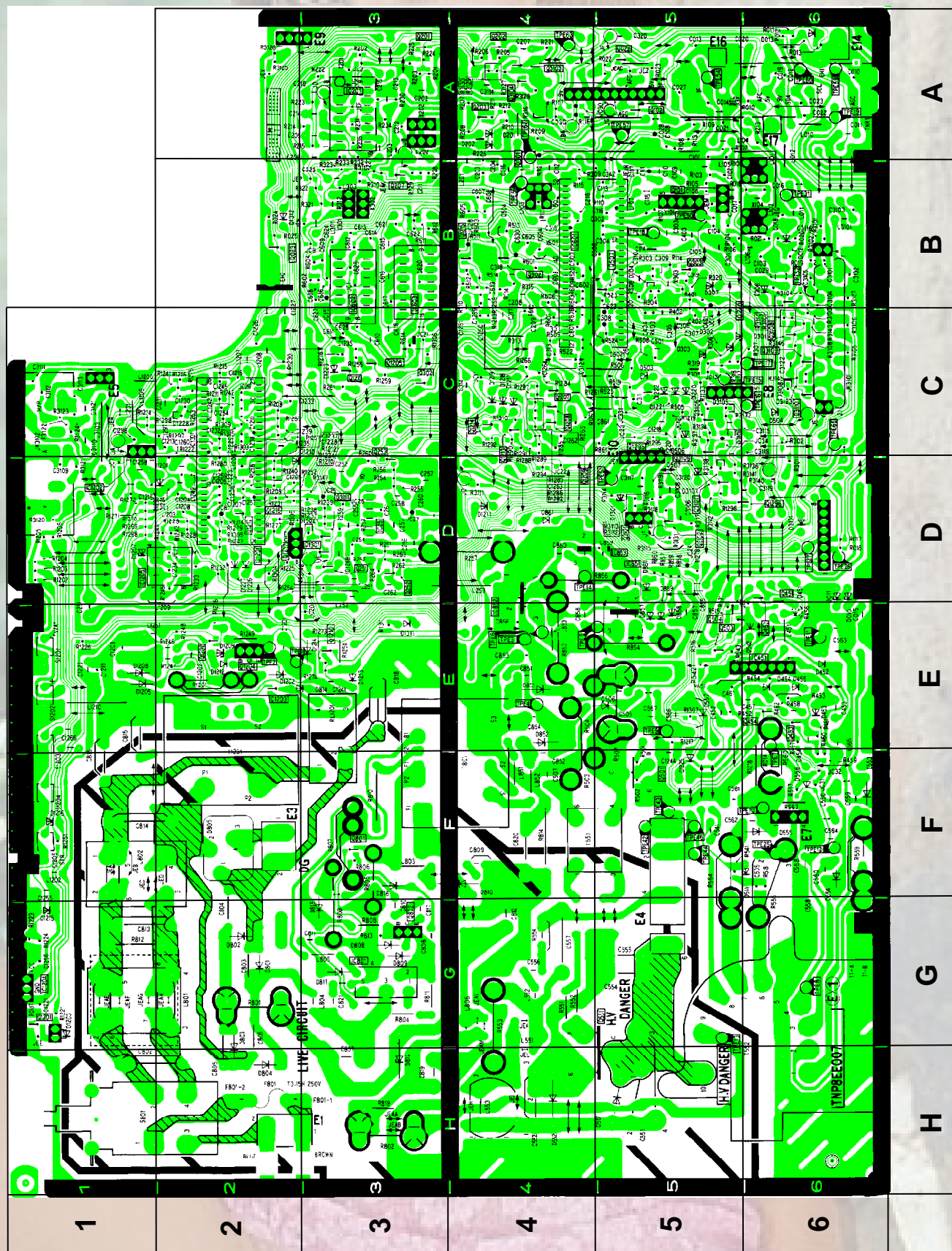
TRAN'S	
Q351	B2
Q352	C1
Q353	A2
Q354	C1
DIODES	
D351	C1
D352	C1
D353	C1
D354	C1
T.P.'S	
TPY4	B2
TPY5	B1



E-BOARD TNP8EE007

		TX-21JT1P	TC-21JR1P	TX-14JT1P	TC-14JR1P			TX-21JT1P	TC-21JR1P	TX-14JT1P	TC-14JR1P			TX-21JT1P	TC-21JR1P	TX-14JT1P	TC-14JR1P
TRAN'S						D202	A4					D1213	E3				
Q101	B5					D304	B5					D1214	E3				
Q201	A3					D306	B6					D1217	C4				
Q202	A4					D307	B5					D1218	C4				
Q203	A4					D452	E6					D1219	C4				
Q251	D3					D453	E6					D1220	C5				
Q301	B4					D454	E6					D1221	C5				
Q302	C3					D455	E6					D1222	C5				
Q303	B5					D503	C5					D1223	C3				
Q453	E6					D504	C6					D1224	D2				
Q454	E6					D505	E5					D1225	F5	NO		NO	
Q501	F5					D506	C5					D1226	D2				
Q502	B4					D507	D5					D1227	D2				
Q503	E5					D541	F6					D1228	C2				
Q504	E5					D542	E6					D1301	D5				
Q507	B5		NO	NO		D551	H5					D1311	E3				
Q551	H4					D552	H4					D1312	B2				
Q801	F3					D553	F6					D3101	D6				
Q802	G3					D554	G6					D3108	C6		NO	NO	
Q1201	G1					D555	F6										
Q1202	E2					D556	F6					I.C.'S					
Q1203	E2					D557	E5					IC251	D3				
Q1204	E2					D801	G2					IC451	E6				
Q1205	C3					D802	G2					IC601	B4				
Q1207	C4					D803	H2					IC602	B3				
Q1208	C4					D804	H2					IC603	B3				
Q1209	C4					D805	F2					IC801	G3				
Q1210	E3					D808	G3					IC851	E5				
Q1211	C3					D809	G3					IC852	E4				
Q1212	D2					D810	G4					IC853	D5				
Q1213	C4					D811	G3					IC1201	D2				
Q1214	C4	NO		NO		D812	G3					IC1202	D1				
Q1215	B4	NO		NO		D814	E2					IC1204	G1				
Q1216	D2	NO		NO		D815	G3					IC1205	D2				
Q1217	D2					D816	G3										
Q1240	C6					D851	E4					T.P.'S					
Q1295	C5					D852	F4					TPE1	E2				
Q1296	D6					D857	E5					TPE2	E2				
Q3101	D5					D858	E5					TPE3	E4				
Q3103	A4					D859	E5					TPE4	E4				
Q3104	A4					D860	D5					TPE5	E5				
Q3105	C5					D861	D4					TPE6	E4				
Q3106	D5					D1202	E2					TPE9	E5				
Q3107	D5					D1205	E1					TPE10	F6				
Q3108	C6					D1207	D1					TPE11	E6				
						D1208	E1					TPE12	F6				
DIODES						D1209	E2					TPE13	G5				
D010	E6					D1210	D2					TPE14	D4				
D011	E6					D1211	D4					TPE18	B5				
D201	A4					D1212	E2					TPE19	A6				

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