

TX-21/14K2T Service Manual

Safety

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Service Support

Service and repair of this product is supported by Panasonic's LUCI interface.

This interface provides a link between the TV and a standard PC to allow a number of diagnostic and control functions to be performed.

For more details contact your local Panasonic company.


BACK

EXIT

Audio/Video

Control

Power supply



BACK

E - PCB

Y - PCB



BACK

E - Schematics

Y - Schematics



BACK

Service Manual



Colour Television TX-21K2T TX-14K2T Z-7 Chassis

Specifications

(Information in brackets {} refer to TX-14K2T)

Power Consumption : 76,5W {47W}

Standby Power Consumption : 1W

Aerial Impedance : 75Ω unbalanced, Coaxial Type

Receiving System : PAL-BG, H, DK, PAL-525/60, SECAM BG, DK, NTSC (AV Only)

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)

Intermediate Frequency :
Video 38,9MHz
Sound 33,5MHz, 32,4MHz
Colour 34,47MHz (PAL)
34,5MHz (SECAM)
34,65MHz (SECAM)

Video / Audio Terminals :

| | | |
|---------|----------------|----------------|
| AV1 IN | Video (21 pin) | 1V p-p 75Ω |
| | Audio (21 pin) | 500mV rms 10kΩ |
| | RGB (21 pin) | |
| AV1 OUT | Video (21 pin) | 1V p-p 75Ω |
| | Audio (21 pin) | 500mV rms 1kΩ |

| | |
|--------|-----------------------|
| RCA IN | Video 1V p-p 75Ω |
| RCA IN | Audio 500mV rms, 10kΩ |

High Voltage : 27kV + 0,7kV / - 1kV
{23,5kV + 0,7kV / - 1kV}

Picture Tube : A51EAL135X13 51 cm
{A34EAC01 X13 34 cm}

Audio Output : 6W (Music Power)
Speaker 8Ω Impedance

Headphones 8Ω Impedance

Accessories supplied : Remote Control
2 x R6 (UM3) Batteries

Dimensions :
Height : 480mm {365mm}
Width : 520mm {388mm}
Depth : 485mm {380mm}

Net Weight : 20kg {10kg}

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

Panasonic

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SAFETY PRECAUTIONS

GENERAL GUIDE LINES

1. It is advisable to insert an isolation transformer in the AC 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 which 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 AC outlet.
 5. Potentials as high as 27,7kV 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 picture to the chassis before handling the tube.
 6. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.
4. Check each exposed Metallic part and check the voltage at each point.
 5. Reverse the AC plug at the outlet and repeat each of the above 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.

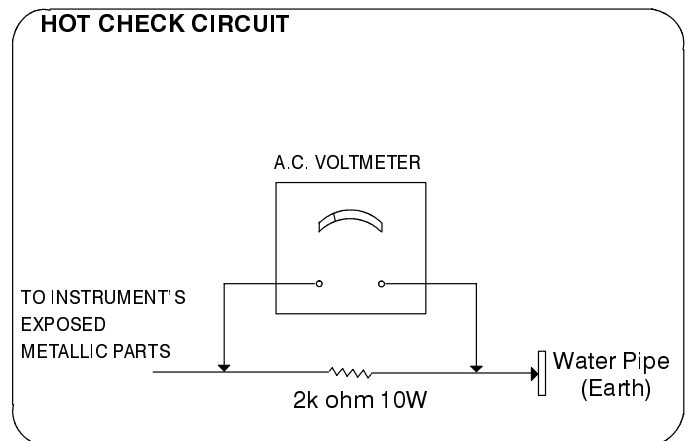


Fig.1

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC 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 AC 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 AC cord directly into the AC 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 AC voltmeter with high impedance to measure the potential across the resistor.

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 without causing X-Radiation.

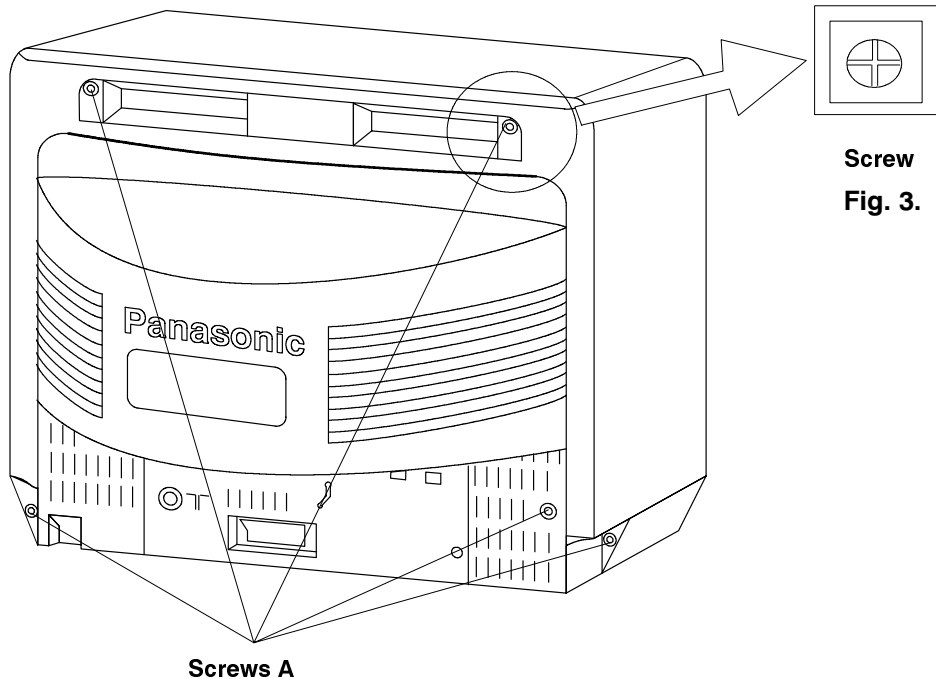
NOTE : It is important to use an accurate periodically calibrated high voltage meter

1. Set the brightness to minimum.
2. Measure the high voltage. The meter should indicate 27kV + 0,7kV / - 1 kV {23,5kV + 0,7kV / - 1 kV}. 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 (A) as shown in Fig.2./Fig.3.



Screws A

Fig. 2.

Screw
Fig. 3.

HOW TO MOVE THE CHASSIS INTO THE SERVICE POSITION

1. Hold and lift the rear of the E-PCB chassis and gently pull the chassis toward you.
2. Release the respective wiring clips and rotate the chassis clockwise, moving the EHT lead around the left side of the CRT neck.
3. Slide the lower edge of the chassis into the power cable holder case whilst sliding the upper edge of the board into the chassis holding block.
4. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.

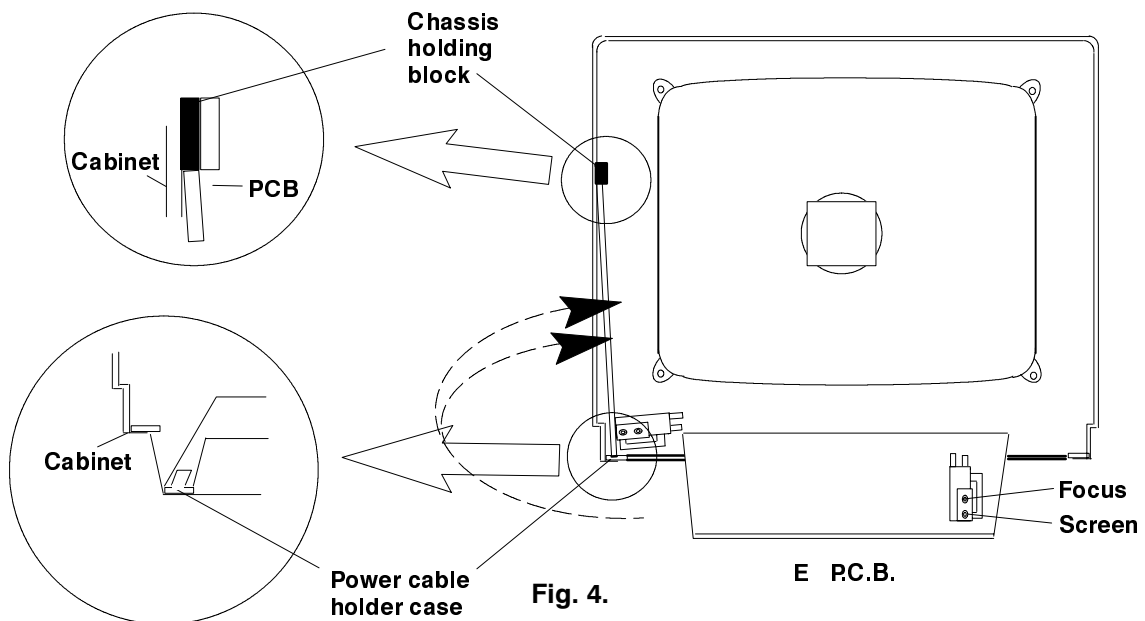


Fig. 4.

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 V (down) button on the customer controls at the front of the TV, this will place the TV into Service Mode.
3. Press the \wedge / \vee 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 Normalisation button.

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

| Alignment Function | | Settings / Special Features |
|-----------------------|--------------|-----------------------------|
| 1. Vertical amplitude | V-Amp 27 | Optimum setting. |
| 2. Vertical position | V-Pos 03 | Optimum setting. |
| 3. Horizontal centre | H-Ctr 07 | Optimum setting. |
| 4. Red cutoff | R-Cut 186 | Optimum setting. |
| 5. Green cutoff | G-Cut 220 | Optimum setting. |
| 6. Blue cutoff | B-Cut 213 | Optimum setting. |
| 7. Red drive | R-Drv 46 | Optimum setting. |
| 8. Blue drive | B-Drv 36 | Optimum setting. |
| 9. AGC | AGC 33 | Optimum setting. |
| 10. Sub contrast | S-Con 33 | Optimum setting. |
| 11. Sub colour | S-Col 39 | Optimum setting. |
| 12. Sub bright | S-Bri 40 | Optimum setting. |

ADJUSTMENTS

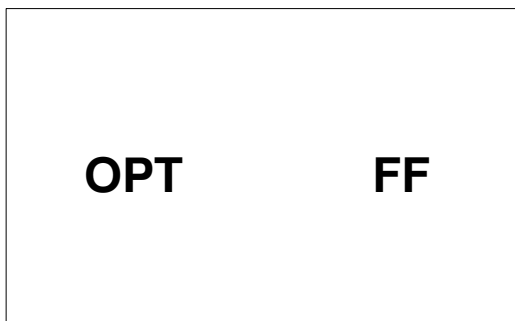
| ITEM/PREPARATION | ADJUSTMENT PROCEDURE |
|--|--|
| <p>B VOLTAGE</p> <p>1. Operate the TV set.</p> <p>2. Set controls :</p> <p>Bright minimum</p> <p>Sub Bright minimum</p> <p>Volume minimum</p> <p>Beam Current Zero</p> | <p>1. Confirm the indicated test points for the specified voltage.</p> <p>TPE 1: 10V ± 1V</p> <p>TPE 2: 5V ± 0,3V</p> <p>TPE 3: 12,5V ± 1V</p> <p>TPE 4: 22V ± 1,5V</p> <p>TPE 5: 5V ± 0,3V</p> <p>TPE 6: 9V ± 0,3V{1V}</p> <p>TPE 9: 30V ± 2,5V</p> <p>TPE 10: 185V{135V} ± 10V</p> <p>TPE 11: -13V ± 1V</p> <p>TPE 12: 12V ± 1,5V</p> <p>TPE 13: 125V{104V} ± 1,5V</p> <p>TPE 14: 8V ± 1V</p> <p>TPE 18: 8V ± 1V</p> <p>TPE 19: 31V ± 1,5V</p> |

SELF CHECK

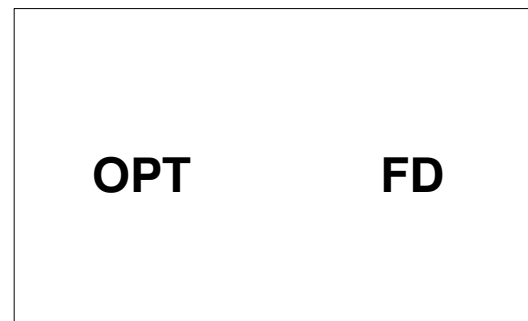
Self check is used to automatically check the Bus Lines Hexadecimal code of the TV set.

To get into the Self Check mode press the Status button on the Remote Control, followed by the V button on the customer controls at the front of the TV, and the screen will show:-

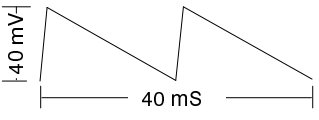
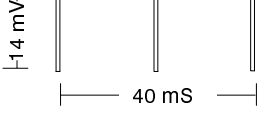
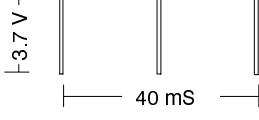
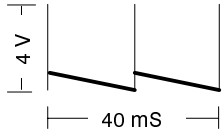
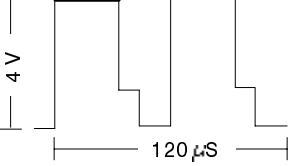
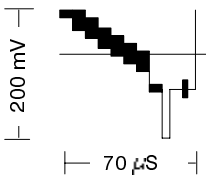
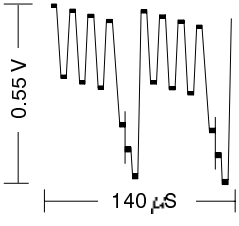
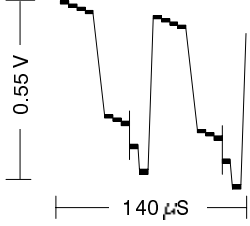
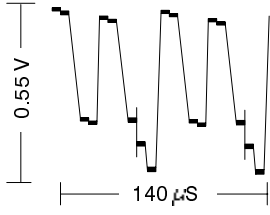
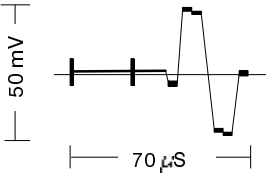
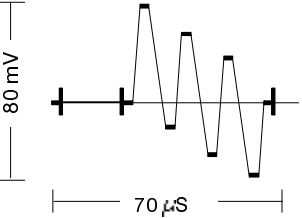
TX-21K2T



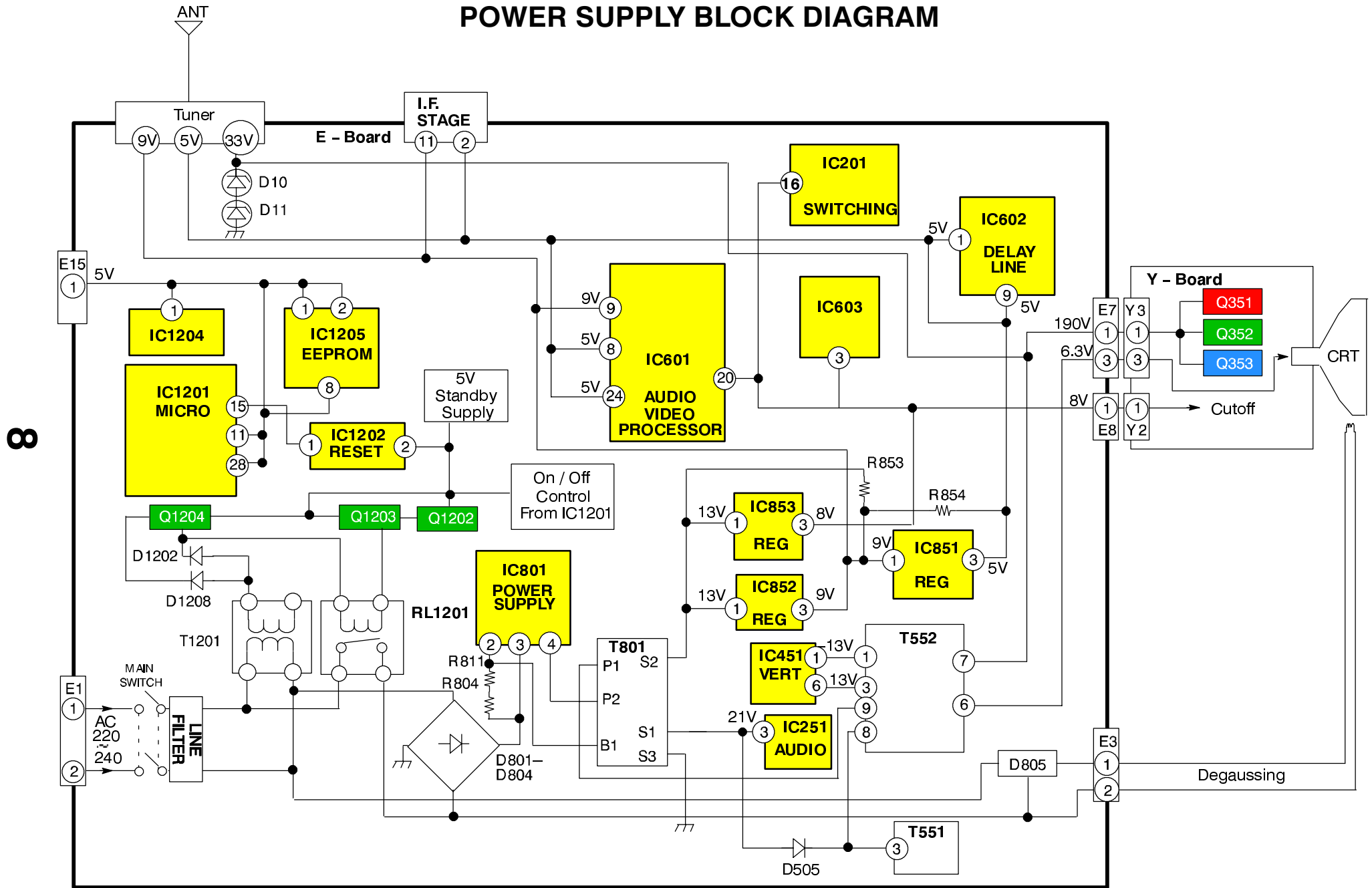
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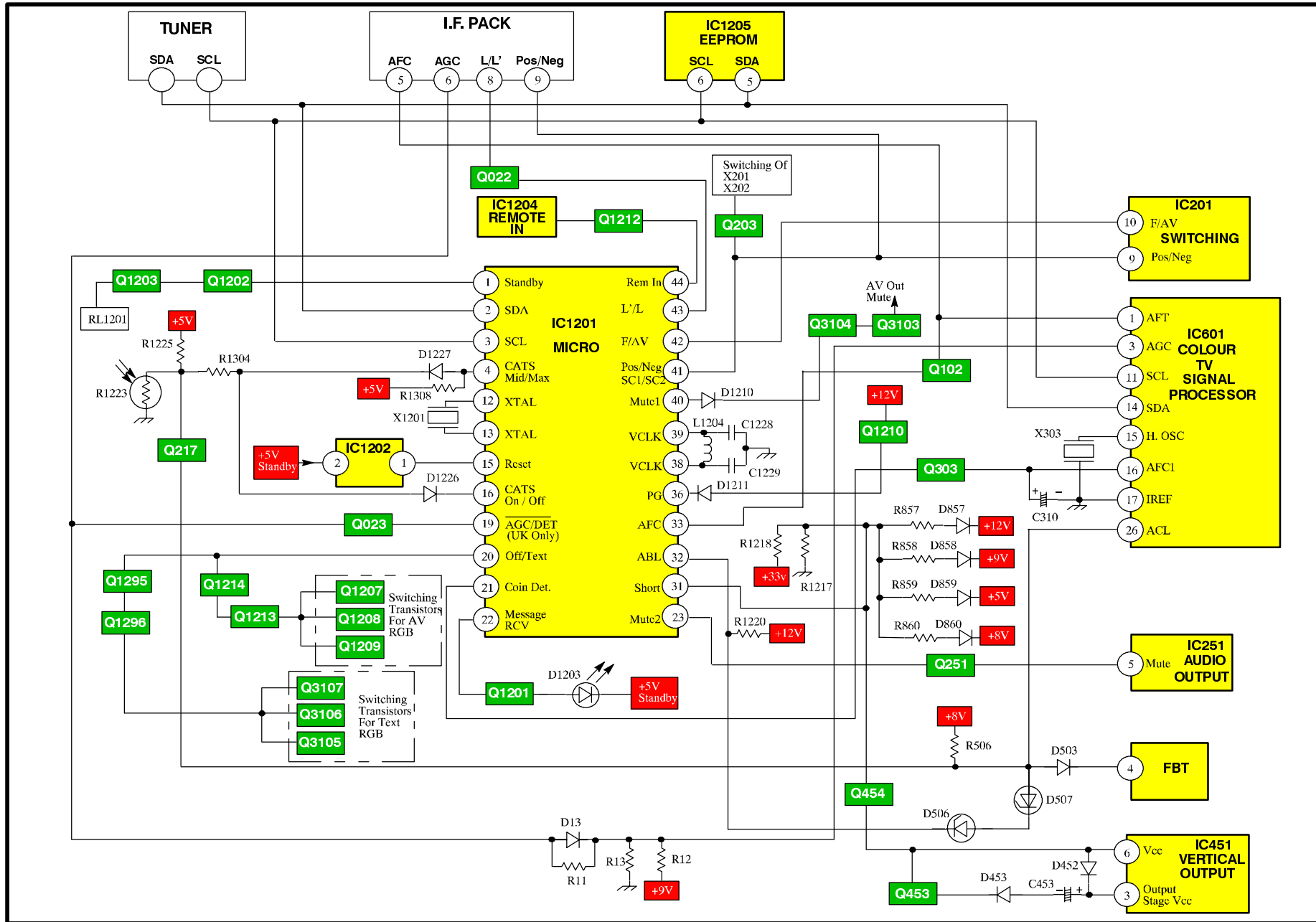
WAVEFORM PATTERN TABLE

| | | |
|--|--|--|
| <p>Vert Out IC IN IC451 pin 4 5 mS 20 mV</p>  | <p>SDA IC601 pin 14 5 mS 5 mV</p>  | <p>SCL IC1201 pin 3 5 mS 1 V</p>  |
| <p>Vert Drive IC451 pin 2 5 mS 1 V</p>  | <p>H. Out IC601 pin 13 20 μS 1 V</p>  | <p>IF VO IC601 pin 52 20 μS 50 mV</p>  |
| <p>B Out TPE15 20 μS 0.1 V</p>  | <p>G Out TPE16 20 μS 0.1 V</p>  | <p>R Out TPE17 20 μS 0.1 V</p>  |
| <p>'RY' Out IC601 pin 43 20 μS 20 mV</p>  | <p>'BY' Out IC601 pin 41 20 μS 20 mV</p>  | |

POWER SUPPLY BLOCK DIAGRAM



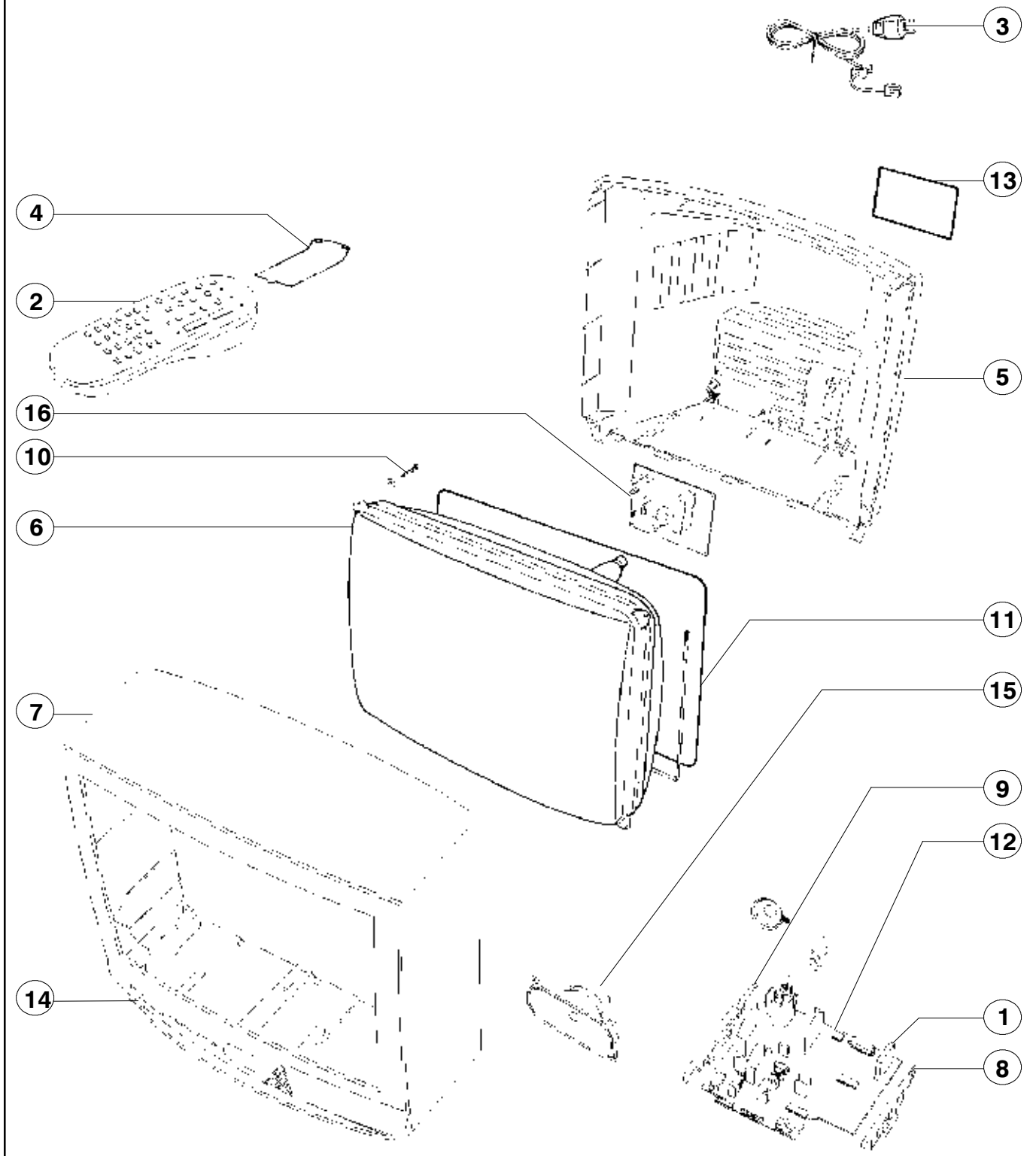
CONTROL BLOCK DIAGRAM



PARTS LOCATION


NOTE :





The numbers on the exploded view below refer to the mechanical 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 | | |
| MECHANICAL PARTS | | |
| 1 | ENV57D13G3 | TUNER  |
| 2 | EUR511300 | REMOTE CONTROL |
| 3 | TSX8E0023 | POWER CORD  |
| 4 | UR51EC904A | BATTERY COVER (REMOTE) |
| MISCELLANEOUS COMPONENTS | | |
| | UM-3DJ-2P | BATTERY PACK |
| MOE8 | 31221212478 | FIX CLIP |
| MOE4 | 31221212478 | FIX CLIP |
| MOE2 | 31221212478 | FIX CLIP |
| POE3 | TMW8E015-2 | LED HOLDER |
| RL1201 | TSE1885-1 | RELAY |
| INSTRUCTION BOOKS | | |
| | TQB8E2504 | RUSSIAN  |
| 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 |
| IC1201 | SDA5254V41 | MICRO PROCESSOR |
| IC1202 | MN1280R | RESET |
| IC1204 | RPM-637CBRS | RECEIVER |
| FUSES | | |
| F801 | 2153.15H | FUSE  |
| F8011 | EYF52BC | FUSE HOLDER |
| F8012 | 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 |

| Cct Ref | Parts Number | Description |
|---------|--------------|-------------|
| 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 |
| D551 | TVSRH2FV1 | DIODE |
| D552 | TVSRU2AMLFA5 | 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 |
| D1225 | MA165TA5 | DIODE |

| Cct Ref | Parts Number | Description |
|---------------------|--------------|-------------|
| D1228 | 1SS355TE-17 | DIODE |
| D1301 | MTZJT-775.1A | DIODE |
| D1311 | MA165TA5 | DIODE |
| D1312 | MA700TA5 | DIODE |
| D3101 | MA165TA5 | DIODE |
| TRANSISTORS | | |
| Q101 | BF370-126 | TRANSISTOR |
| 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 |
| Q1214 | BC857B | TRANSISTOR |
| Q1215 | BC857B | TRANSISTOR |
| Q1216 | BC847B | 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 |
| 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 |

| Cct Ref | Parts Number | Description |
|------------------|--------------|-------------------------|
| L451 | EXCELSA35T | COIL |
| L803 | EXCELSA35T | COIL |
| L804 | EXCELD35V | COIL |
| L851 | EXCELSA35T | COIL |
| L852 | EXCELSA35T | COIL |
| L1201 | EXCELSA35T | COIL |
| L1202 | TLTACT331K | COIL |
| L1203 | TLTACT100K | COIL |
| L1204 | ERJNA6R8GF | COIL |
| L1206 | EXCELSA35T | COIL |
| 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 | EFC56R5MS5 | FILTER |
| X202 | EFC55R5MS5 | FILTER |
| X302 | EFC56R5MW3 | FILTER |
| X303 | TAFCSB503F6 | 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 |
| JC11 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC31 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC23 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC7 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC9 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JEAKK | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC20 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JEANK | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC12 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC26 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC22 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JEZK | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC1 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JEXK | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JEPK | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JEJK | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC21 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0 Ω |
| JC28 | ERJ8GEY0R00 | S.M.CARB .125W 5% 0 Ω |
| JC25 | ERJ8GEY0R00 | S.M.CARB .125W 5% 0 Ω |
| JC24 | ERJ8GEY0R00 | S.M.CARB .125W 5% 0 Ω |
| JC14 | ERJ8GEY0R00 | S.M.CARB .125W 5% 0 Ω |
| JC8 | ERJ8GEY0R00 | S.M.CARB .125W 5% 0 Ω |
| JC35 | ERJ8GEY0R00 | S.M.CARB .125W 5% 0 Ω |
| R010 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15K Ω |
| R011 | ERJ6GEYJ271 | S.M.CARB 0.1W 5% 270 Ω |
| R013 | ERJ6GEYJ223 | S.M.CARB 0.1W 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 |

| Cct Ref | Parts Number | Description | | | | |
|---------|--------------|-------------|-------|----|------|-----|
| R109 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0 | ☐ |
| R110 | ERJ6GEYJ392 | S.M.CARB | 0.1W | 5% | 3K9 | ☐ |
| R112 | ERJ8GEY0R00 | S.M.CARB | .125W | 5% | 0 | ☐ |
| R113 | ERJ6GEYJ124 | S.M.CARB | 0.1W | 5% | 120K | ☐ |
| R114 | ERJ6GEYJ123 | S.M.CARB | 0.1W | 5% | 12K | ☐ |
| R115 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R116 | ERJ8GEYJ152 | S.M.CARB | .125W | 5% | 1K5 | ☐ |
| R117 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R202 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0 | ☐ |
| R203 | ERJ6GEYJ122 | S.M.CARB | 0.1W | 5% | 1K2 | ☐ |
| R205 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2 | ☐ |
| R206 | ERJ6GEYJ182 | S.M.CARB | 0.1W | 5% | 1K8 | ☐ |
| R207 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R208 | ERJ6GEYJ302 | S.M.CARB | 0.1W | 5% | 3K | ☐ |
| R209 | ERJ6GEYJ182 | S.M.CARB | 0.1W | 5% | 1K8 | ☐ |
| R210 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R211 | ERJ6GEYJ512 | S.M.CARB | 0.1W | 5% | 5K1 | ☐ |
| R212 | ERJ6GEYJ512 | S.M.CARB | 0.1W | 5% | 5K1 | ☐ |
| R213 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7 | ☐ |
| R221 | ERJ6GEYJ221 | S.M.CARB | 0.1W | 5% | 220 | ☐ |
| R226 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0 | ☐ |
| R227 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R251 | ERJ6GEYJ3R3 | S.M.CARB | 0.1W | 5% | 3R3 | ☐ |
| R256 | ERJ6GEYJ104 | S.M.CARB | 0.1W | 5% | 100K | ☐ |
| R257 | ERQ1CJP120 | FUSIBLE | 1W | 5% | 12 | ☐ ☐ |
| R259 | ERJ6GEYJ331 | S.M.CARB | 0.1W | 5% | 330 | ☐ |
| R260 | ERJ6GEYJ332 | S.M.CARB | 0.1W | 5% | 3K3 | ☐ |
| R261 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8 | ☐ |
| R301 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R302 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R303 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7 | ☐ |
| R304 | ERJ6ENF2201 | S.M.CARB | 0.1W | 1% | 2K2 | ☐ |
| R309 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R310 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0 | ☐ |
| R311 | ERJ6GEYJ181 | S.M.CARB | 0.1W | 5% | 180 | ☐ |
| R312 | ERJ6GEYJ151 | S.M.CARB | 0.1W | 5% | 150 | ☐ |
| R313 | ERQ14AJ470 | METAL | 0.25W | 5% | 47 | ☐ ☐ |
| R314 | ERJ6GEYJ561 | S.M.CARB | 0.1W | 5% | 560 | ☐ |
| R315 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470 | ☐ |
| R316 | ERQ14AJ470 | METAL | 0.25W | 5% | 47 | ☐ ☐ |
| R317 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R318 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R319 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R320 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |
| R323 | ERJ6GEYJ100 | S.M.CARB | 0.1W | 5% | 10 | ☐ |
| R372 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R373 | ERJ6GEYJ391 | S.M.CARB | 0.1W | 5% | 390 | ☐ |
| R374 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R401 | ERJ6ENF9100 | S.M.CARB | 0.1W | 1% | 910 | ☐ |
| R402 | ERJ6ENF8201 | S.M.CARB | 0.1W | 1% | 8K2 | ☐ |
| R403 | ERJ6ENF6801 | S.M.CARB | 0.1W | 1% | 6K8 | ☐ |
| R451 | ERDS1TJ331 | CARBON | 0.5W | 5% | 330 | ☐ |
| R452 | ERJ6GEYJ1R0 | S.M.CARB | 0.1W | 5% | 1 | ☐ |
| R454 | ERJ6GEYF153V | S.M.CARB | 0.1W | 5% | 15K | ☐ |
| R456 | ERO25CKF5601 | METAL | 0.25W | 1% | 6K1 | ☐ ☐ |
| R457 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R458 | ERD25TJ683 | CARBON | 0.25W | 5% | 68K | ☐ |
| R459 | ERJ6GEYJ332 | S.M.CARB | 0.1W | 5% | 3K3 | ☐ |
| R460 | ERJ6GEYJ473 | S.M.CARB | 0.1W | 5% | 47K | ☐ |
| R461 | ERJ6GEYJ473 | S.M.CARB | 0.1W | 5% | 47K | ☐ |
| R462 | ERJ6GEYJ473 | S.M.CARB | 0.1W | 5% | 47K | ☐ |
| R501 | ERJ6GEYJ391 | S.M.CARB | 0.1W | 5% | 390 | ☐ |
| R502 | ERJ6GEYJ681 | S.M.CARB | 0.1W | 5% | 680 | ☐ |
| R503 | ERG3SJS101 | METAL | 3W | 5% | 10 | ☐ ☐ |
| R504 | ERG2ANJ471 | METAL | 2W | 5% | 470 | ☐ ☐ |
| R505 | ERJ6GEYJ433 | S.M.CARB | 0.1W | 5% | 43K | ☐ |

| Cct Ref | Parts Number | Description | | | | |
|---------|--------------|-------------|-------|-----|------|-----|
| R510 | ERJ6GEYJ561 | S.M.CARB | 0.1W | 5% | 560 | ☐ |
| R511 | ERJ6GEYJ334 | S.M.CARB | 0.1W | 5% | 330K | ☐ |
| R512 | ERJ6GEYJ152 | S.M.CARB | 0.1W | 5% | 1K5 | ☐ |
| R513 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470 | ☐ |
| R514 | ERJ6GEYJ152 | S.M.CARB | 0.1W | 5% | 1K5 | ☐ |
| R515 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R516 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R518 | ERJ6ENF1302 | S.M.CARB | 0.1W | 1% | 13K | ☐ |
| R520 | ERJ6GEYJ334 | S.M.CARB | 0.1W | 5% | 330K | ☐ |
| R521 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R541 | ERJ6GEYJ332 | S.M.CARB | 0.1W | 5% | 3K3 | ☐ |
| R601 | ERJ6GEYJ123 | S.M.CARB | 0.1W | 5% | 12K | ☐ |
| R602 | ERJ6GEYJ222 | S.M.CARB | 0.1W | 5% | 2K2 | ☐ |
| R603 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R604 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7 | ☐ |
| R605 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R606 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R607 | ERJ6GEYJ475 | S.M.CARB | 0.1W | 5% | 4M5 | ☐ |
| R611 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0 | ☐ |
| R612 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0 | ☐ |
| R613 | ERJ6GEYJ395 | S.M.CARB | 0.1W | 5% | 3M9 | ☐ |
| R614 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 22K | ☐ |
| R801 | ERF5ZK2R7 | WOUND | 5W | 20% | 2R7 | ☐ ☐ |
| R804 | ERDS1TJ224 | CARBON | 0.5W | 5% | 220K | ☐ |
| R805 | ERW2PKR33 | WOUND | 2W | 20% | R33 | ☐ ☐ |
| R806 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R807 | ERG2ANJ101 | METAL | 0.5W | 5% | 100 | ☐ ☐ |
| R808 | ERG12SJ561P | METAL | 0.5W | 5% | 650 | ☐ |
| R809 | ERG2ANJP560H | METAL | 2W | 5% | 56 | ☐ ☐ |
| R810 | ERQ12HJ100 | FUSIBLE | 0.5W | 5% | 10 | ☐ ☐ |
| R811 | ERDS1TJ224 | CARBON | 0.5W | 5% | 220K | ☐ |
| R813 | ERJ6GEYJ202 | S.M.CARB | 0.1W | 5% | 2K | ☐ |
| R814 | ERD75TAJ825 | CARBON | 0.75W | 5% | 8M2 | ☐ ☐ |
| R819 | ERDS1TJ104 | CARBON | 0.5W | 5% | 100K | ☐ |
| R853 | ERG2ANJ270 | METAL | 2W | 5% | 27 | ☐ ☐ |
| R857 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R858 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R859 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R860 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R861 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0 | ☐ |
| R1201 | ERQ1CJP2R2 | FUSIBLE | 1W | 10% | 2R2 | ☐ ☐ |
| R1202 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R1203 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R1204 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R1205 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R1206 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R1208 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |
| R1211 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |
| R1212 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |
| R1213 | ERJ6GEYJ122 | S.M.CARB | 0.1W | 5% | 1K2 | ☐ |
| R1214 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | ☐ |
| R1215 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8 | ☐ |
| R1216 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8 | ☐ |
| R1219 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R1220 | ERJ6GEYJ472 | S.M.CARB | 0.1W | 5% | 4K7 | ☐ |
| R1221 | ERJ6GEYJ271 | S.M.CARB | 0.1W | 5% | 270 | ☐ |
| R1222 | ERJ6GEYJ330 | S.M.CARB | 0.1W | 5% | 33 | ☐ |
| R1226 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | ☐ |
| R1227 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |
| R1228 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |
| R1229 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |
| R1230 | ERJ6GEYJ823 | S.M.CARB | 0.1W | 5% | 82K | ☐ |
| R1231 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |
| R1232 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R1233 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6 | ☐ |
| R1234 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | ☐ |

| Cct Ref | Parts Number | Description | | | | |
|---------|--------------|-------------|-------|----|------|---|
| R1235 | ERJ6GEYJ152 | S.M.CARB | 0.1W | 5% | 1K5 | Ω |
| R1236 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 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 |
| R1241 | ERJ6GEYJ822 | S.M.CARB | 0.1W | 5% | 8K2 | Ω |
| R1242 | ERJ6GEYJ434 | S.M.CARB | 0.1W | 5% | 43K | Ω |
| R1243 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | Ω |
| R1244 | ERJ6GEYJ101 | S.M.CARB | 0.1W | 5% | 100 | Ω |
| R1246 | ERD25TJ272 | CARBON | 0.25W | 5% | 2K7 | Ω |
| R1247 | ERD25TJ221 | CARBON | 0.25W | 5% | 220 | Ω |
| R1248 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 22K | Ω |
| R1249 | ERDS1TJ121 | CARBON | 0.5W | 5% | 120 | Ω |
| R1250 | ERDS1TJ560 | CARBON | 0.5W | 5% | 56 | Ω |
| R1253 | ERJ6GEYJ393 | S.M.CARB | 0.1W | 5% | 39K | Ω |
| R1255 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | Ω |
| R1256 | ERJ6GEYJ122 | S.M.CARB | 0.1W | 5% | 1K2 | 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 |
| R1275 | ERJ6GEYJ225 | S.M.CARB | 0.1W | 5% | 2M2 | Ω |
| R1276 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | Ω |
| R1277 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | Ω |
| R1278 | ERJ6GEYJ182 | S.M.CARB | 0.1W | 5% | 1K8 | 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 |
| R1290 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | Ω |
| R1292 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | Ω |
| R1293 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | Ω |
| R1294 | 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 |
| R1306 | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0 | Ω |
| R1307 | ERJ6GEYJ182 | S.M.CARB | 0.1W | 5% | 1K8 | 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 |














































| Cct Ref | Parts Number | Description | | | | |
|-------------------|--------------|-------------|------|----|-------|---|
| 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 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 22K | Ω |
| R3134 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | Ω |
| R3136 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | Ω |
| R3137 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 5% | 22K | Ω |
| R3138 | ERJ6GEYJ102 | S.M.CARB | 0.1W | 5% | 1K | Ω |
| R3140 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10K | Ω |
| R3141 | ERJ6GEYJ223 | S.M.CARB | 0.1W | 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 | ECUV1H103KBX | S.M. CAP | 50V | | 10nF | |
| C011 | ECA1CM100GB | ELECT | 16V | | 10μF | |
| C012 | ECUV1H103KBX | S.M. CAP | 50V | | 10nF | |
| C014 | ECUV1H080DCX | S.M. CAP | 50V | | 80pF | |
| C015 | ECA1HM330B | ELECT | 50V | | 33μF | |
| C019 | ECUV1H103KBX | S.M. CAP | 50V | | 10nF | |
| C020 | ECA1HM010GB | ELECT | 50V | | 1μF | |
| 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 | ECUV1H103KBX | S.M. CAP | 50V | | 10nF | |
| C105 | ECUV1H103KBX | S.M. CAP | 50V | | 10nF | |
| C107 | ECA1HMR22GB | ELECT | 50V | | 10nF | |
| C108 | ECUV1H103KBX | S.M. CAP | 50V | | 10nF | |
| C109 | ECA1HMR47GB | ELECT | 50V | | 10nF | |
| C110 | ECA1HM0R1B | ELECT | 50V | | 0R1μF | |
| C111 | ECUV1H103KBW | S.M. CAP | 50V | | 0R1μF | |
| C112 | ECA1HMR47GB | ELECT | 50V | | 0R1μF | |
| C113 | ECUV1H103KBX | S.M. CAP | 50V | | 10nF | |
| C114 | ECA1HM010GB | ELECT | 50V | | 1μF | |
| 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 | ECA1CM100GB | ELECT | 16V | | 10μF | |
| C216 | ECUV1H272KBX | S.M. CAP | 50V | | 10μF | |
| C251 | ECA1EM471GB | ELECT | 25V | | 470μF | |
| C252 | ECA1HM010GB | ELECT | 50V | | 1μF | |
| C253 | ECA1EHG470B | ELECT | 50V | | 1μF | |
| C254 | ECUV1H272JCX | S.M. CAP | 50V | | 2.7nF | |
| C256 | ECQM1H224J | FILM | 50V | | 220nF | |
| C257 | ECQM1H684J | FILM | 50V | | 220nF | |
| C258 | ECA1EHG101B | ELECT | 50V | | 220nF | |
| C260 | ECA1EM102GB | ELECT | 25V | | 100μF | |
| C261 | ECUV1H471JCX | S.M. CAP | 50V | | 470pF | |
| C301 | ECA1HM101GB | ELECT | 50V | | 100μF | |
| C302 | ECJ2VF1H104Z | ELECT | 350V | | 100nF | |
| C303 | ECA1CM471GB | ELECT | 16V | | 470μF | |
| C304 | ECJ2VF1H104Z | ELECT | 350V | | 100nF | |
| C305 | ECA1HM101GB | ELECT | 50V | | 100μF | |











| Cct Ref | Parts Number | Description | | | |
|---------|--------------|-------------|------|-------|---|
| C307 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C308 | ECUV1H104ZFW | S.M. CAP | 50V | 100nF | |
| C309 | ECUV1H103KBX | S.M. CAP | 50V | 10nF | |
| C310 | ECA1HM010GB | ELECT | 50V | 1µF | |
| C311 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C312 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C313 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C314 | ECEA1HNR47UB | ELECT | 50V | 100nF | |
| C315 | ECEA1HN2R2UB | ELECT | 50V | 2.2µF | |
| C316 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C317 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C318 | ECEA1HNR47UB | ELECT | 50V | 100µF | |
| 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 | |
| C371 | ECA1CM221GB | ELECT | 16V | 220µF | |
| C401 | ECUV1H223KBX | S.M. CAP | 50V | 22nF | |
| C402 | ECUV1H472KBX | S.M. CAP | 50V | 4.7nF | |
| C403 | ECA1HM010GB | ELECT | 50V | 1µF | |
| C404 | ECJ2VF1H103Z | ELECT | 350V | 10nF | |
| C452 | ECQM1H274J | FILM | 50V | 270nF | |
| C457 | ECQM1H394J | FILM | 50V | 390nF | |
| C461 | ECUV1H100CCX | S.M. CAP | 50V | 10pF | |
| C501 | ECA1HM010GB | ELECT | 50V | 1µF | |
| C502 | ECUV1H223KBX | S.M. CAP | 50V | 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 | ECA1HHG100B | ELECT | 50V | 10µF | |
| C541 | ECEA1EN4R7UB | ELECT | 25V | 4.7µF | |
| C550 | ECA1VM471GB | ELECT | 35V | 470µF | |
| C559 | ECKC2H471J | CERAMIC | 500V | 470pF | ⚠ |
| C560 | ECKC2H471J | CERAMIC | 500V | 470pF | ⚠ |
| C561 | ECEA2EU100 | ELECT | 250V | 10µF | |
| C562 | ECKC2H471J | CERAMIC | 500V | 470pF | ⚠ |
| C563 | ECA1VM471GB | ELECT | 35V | 470µF | |
| C564 | ECA1CM471GB | ELECT | 16V | 470µF | |
| C565 | ECA1VM471GB | ELECT | 35V | 470µF | |
| C566 | ECKC2H471J | CERAMIC | 500V | 470pF | ⚠ |
| C601 | ECJ2YB1H473K | ELECT | 350V | 47nF | |
| C602 | ECUV1H153KBX | S.M. CAP | 50V | 15nF | |
| C603 | ECA1HM010GB | ELECT | 50V | 1µF | |
| 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 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C611 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C612 | ECUV1H103KBX | S.M. CAP | 50V | 10nF | |
| C613 | ECUV1H103KBX | S.M. CAP | 50V | 10nF | |
| C614 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C615 | ECQM1H224J | FILM | 50V | 220nF | |
| C616 | 222236576104 | FILM | 760V | 100nF | |
| C617 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C618 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C619 | ECUV1H103KBX | S.M. CAP | 50V | 10nF | |
| C620 | ECUV1H103KBX | S.M. CAP | 50V | 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 | |

| Cct Ref | Parts Number | Description | | | |
|---------|--------------|-------------|------|-------|---|
| C627 | ECUV1H560JCX | S.M. CAP | 50V | 56pF | |
| C628 | ECUV1H390JCX | S.M. CAP | 50V | 39pF | |
| C630 | ECUY1H103JCW | S.M. CAP | 50V | 10nF | |
| C802 | ECQU2A823MNB | FILM | 200V | 82nF | |
| 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 | |
| C809 | ECKC3D471JB | CERAMIC | 2KV | 470pF | ⚠ |
| C810 | ECA1VM101GB | ELECT | 35V | 100µF | |
| C812 | ECA2CHG221E | ELECT | 160V | 220µF | |
| C817 | ECA1VM101GB | ELECT | 35V | 100µF | |
| C818 | ECKWNA471MBC | CERAMIC | 250V | 470pF | |
| C820 | ECKWNA332MEC | CERAMIC | 250V | 3.3nF | |
| C821 | ECKC3A101J | CERAMIC | 1KV | 100pF | ⚠ |
| C853 | ECA1EM102GB | ELECT | 25V | 100µF | |
| C854 | ECA1HHG471E | ELECT | 50V | 470µF | |
| C855 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C856 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C857 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C858 | ECA1AM222B | ELECT | 10V | 100µF | |
| C859 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C860 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C861 | ECA1CM102B | ELECT | 16V | 100µF | |
| C1201 | ECA1EM102GB | ELECT | 25V | 100µF | |
| C1202 | ECA1EM101GB | 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 | ECJ2YB1H473K | ELECT | 350V | 47nF | |
| C1218 | ECA1HM010GB | ELECT | 50V | 1µF | |
| C1219 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C1220 | ECA0JM101G | ELECT | 6.3V | 100µF | |
| C1221 | ECUV1H331JCX | S.M. CAP | 50V | 330pF | |
| C1226 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C1227 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C1229 | ECUV1H470GCG | S.M. CAP | 50V | 47pF | |
| C1230 | ECJ2VB1H333K | ELECT | 350V | 33nF | |
| C1231 | 222236516154 | FILM | 160V | 33nF | |
| C1232 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C1234 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C1241 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C1244 | ECA1CM100GB | ELECT | 16V | 10µF | |
| C1245 | ECJ2VB1H333K | ELECT | 350V | 33nF | |
| C1249 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C1251 | ECQM1H334J | FILM | 50V | 330nF | |
| C1255 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C1256 | ECJ2YB1H104K | ELECT | 350V | 100nF | |
| C1257 | ECUV1H561JCX | S.M. CAP | 50V | 560pF | |
| C1258 | ECA1CM100GB | ELECT | 16V | 10µF | |
| C1259 | ECUV1H150JCX | S.M. CAP | 50V | 15pF | |
| C1260 | ECUV1H560JCX | S.M. CAP | 50V | 56pF | |
| C1261 | ECA1HM101GB | 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 | |
| C1268 | ECA1HM101GB | ELECT | 50V | 100µF | |
| C1269 | ECUV1H151JCX | S.M. CAP | 50V | 150pF | |
| C3101 | ECUV1H101JCX | S.M. CAP | 50V | 100pF | |
| C3102 | ECUV1H561KBX | S.M. CAP | 50V | 560pF | |

| Cct Ref | Parts Number | Description | | | |
|---------------------------------------|--------------|------------------|------|-------|------|
| C3104 | ECUV1H102KBX | S.M. CAP | 50V | 1nF | |
| C3105 | ECUV1H101JCX | S.M. CAP | 50V | 100pF | |
| C3109 | ECUV1H561JCX | S.M. CAP | 50V | 560pF | |
| C3110 | 222236516684 | FILM | 160V | 100nF | |
| C3113 | ECUV1H103KBX | S.M. CAP | 50V | 10nF | |
| C3115 | ECEA1CN100 | ELECT | 16V | 10µF | |
| C3117 | ECJ2VF1H104Z | ELECT | 350V | 100nF | |
| C3118 | ECEA1CN100 | ELECT | 16V | 10µF | |
| C3119 | ECEA1CN100 | ELECT | 16V | 10µF | |
| C3120 | ECA1CM471GB | ELECT | 16V | 470µF | |
| C3121 | ECA1HM4R7GB | ELECT | 50V | 4.7µF | |
| TERMINALS AND LINKS | | | | | |
| JK3102 | TJB16663 | A.V. TERMINAL | | | |
| SWITCHES | | | | | |
| S801 | ESB91232A | SWITCH | | | |
| S1201 | EVQ23405R | SWITCH | | | |
| S1202 | EVQ23405R | SWITCH | | | |
| S1203 | EVQ23405R | SWITCH | | | |
| S1204 | EVQ23405R | SWITCH | | | |
| S1205 | EVQ23405R | SWITCH | | | |
| DIFFERENCES FOR MODEL TX-14K2T | | | | | |
| MECHANICAL PARTS | | | | | |
| 5 | TKU8E00340 | BACK COVER | | | |
| 6 | A34EAC01X13 | C.R.T. | | | |
| 7 | TKY8E220 | CABINET | | | |
| 10 | THE492-4 | CRT FIXING SCREW | | | |
| 11 | TLK8E05134 | DEGAUSS COIL | | | |
| 12 | TNP8EE007CA | E P.C.B. | | | |
| 13 | TBM8E1850 | MODEL LABEL | | | |
| 14 | TBX8E051 | POWER BUTTON | | | |
| 15 | EASG9D541B2 | SPEAKER | | | |
| 16 | TNP8EY011AG | Y P.C.B. | | | |
| MISCELLANEOUS COMPONENTS | | | | | |
| | TBM8E1727 | PANASONIC BADGE | | | |
| | TKP8E1226 | SMOKED PANEL | | | |
| | TPC8E4693 | OUTER CARTON | | | |
| | TPD8E665 | BOTTOM CUSHION | | | |
| | TPD8E666 | TOP CUSHION | | | |
| | TSA120026 | MONOPOLE ANTENNA | | | |
| D805 | 232266296319 | THERMISTOR | | | |
| PKN1 | TBX8E052 | KEY PAD | | | |
| S351 | 0330660069 | CRT SOCKET | | | |
| I.C.s | | | | | |
| IC1205 | XL24C02P-JP1 | EAROM * | | | |
| TRANSISTORS | | | | | |
| | 2SC1473-RN | TRANSISTOR | | | |
| Q351 | TYMQ0003 | TRANSISTOR | | | |
| Q352 | TYMQ0003 | TRANSISTOR | | | |
| Q353 | TYMQ0003 | TRANSISTOR | | | |
| TRANSFORMERS | | | | | |
| T552 | ZTFK33004A | F.B.T. | | | |
| T801 | ETS29AK237AC | TRANSFORMER | | | |
| RESISTORS | | | | | |
| JYAK | ERJ6GEY0R00 | S.M.CARB | 0.1W | 5% | 0Ω |
| R252 | ERJ6GEYJ103 | S.M.CARB | 0.1W | 5% | 10KΩ |
| R254 | ERJ6GEYJ560 | S.M.CARB | 0.1W | 5% | 56Ω |
| R255 | ERJ6GEYJ271 | S.M.CARB | 0.1W | 5% | 270Ω |
| R305 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω |
| R306 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω |
| R307 | ERJ6GEYJ471 | S.M.CARB | 0.1W | 5% | 470Ω |
| R351 | ERG1SJ123E | METAL | 1W | 5% | 12KΩ |

| Cct Ref | Parts Number | Description | | | |
|---------------------------------------|--------------|--------------------|-------|-----|-------|
| R352 | ERG1SJ123E | METAL | 1W | 5% | 12KΩ |
| R353 | ERG1SJ123E | METAL | 1W | 5% | 12KΩ |
| R366 | ERJ6GEYJ681 | S.M.CARB | 0.1W | 5% | 680Ω |
| R367 | ERJ6GEYJ681 | S.M.CARB | 0.1W | 5% | 680Ω |
| R368 | ERJ6GEYJ681 | S.M.CARB | 0.1W | 5% | 680Ω |
| R369 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω |
| R370 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω |
| R371 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω |
| R375 | ERDS1TJ182 | CARBON | 0.5W | 10% | 1K8Ω |
| R386 | ERDS1TJ182 | CARBON | 0.5W | 10% | 1K8Ω |
| R387 | ERDS1TJ182 | CARBON | 0.5W | 10% | 1K8Ω |
| R453 | ERDS1TJ1R5 | CARBON | 0.5W | 5% | 1R5Ω |
| R506 | ERJ6GEYJ753 | S.M.CARB | 0.1W | 5% | 75KΩ |
| R508 | ERJ6GEYJ753 | S.M.CARB | 0.1W | 5% | 75KΩ |
| R519 | ERJ6GEYJ754 | S.M.CARB | 0.1W | 5% | 750KΩ |
| R522 | ERJ6GEYJ394 | S.M.CARB | 0.1W | 5% | 390KΩ |
| R542 | ERJ6GEYJ242 | S.M.CARB | 0.1W | 5% | 2K4Ω |
| R543 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω |
| R551 | ERDS1TJ1R5 | CARBON | 0.5W | 5% | 1R5Ω |
| R552 | ERDS1TJ1R5 | CARBON | 0.5W | 5% | 1R5Ω |
| R555 | ERQ1CJP1R0 | FUSIBLE | 1W | 5% | 1Ω |
| R557 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6Ω |
| R560 | ERDS1TJ304 | CARBON | 0.5W | 5% | 300KΩ |
| R1217 | ERJ6ENF1202 | S.M.CARB | 0.1W | 1% | 1K2Ω |
| R1218 | ERO50PKF6203 | METAL | 0.5W | 1% | 620KΩ |
| R1252 | ERJ6GEYJ562 | S.M.CARB | 0.1W | 5% | 5K6Ω |
| R1291 | ERJ6GEYJ682 | S.M.CARB | 0.1W | 5% | 6K8Ω |
| 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 | ECA1HM2R2GB | ELECT | 50V | | 2.2µF |
| C551 | ECWH12H822J | FILM | 1250V | | 8.2nF |
| C552 | ECQE6104K | FILM | 600V | | 100nF |
| C554 | ECKC3D331J | CERAMIC | 2KV | | 330pF |
| C557 | ECWF2H474J | FILM | 500V | | 470nF |
| C558 | ECEA2CG010 | ELECT | 160V | | 1µF |
| C567 | ECA1VM471GB | ELECT | 35V | | 470µF |
| C811 | ECA1JM100GB | ELECT | 63V | | 10µF |
| C1228 | ECUV1H560GCG | S.M. CAP | 50V | | 56pF |
| DIFFERENCES FOR MODEL TX-21K2T | | | | | |
| MECHANICAL PARTS | | | | | |
| 5 | TKU8E00213 | BACK COVER | | | |
| 6 | A51EAL135X13 | C.R.T. | | | |
| 7 | TKY8E310 | CABINET | | | |
| 8 | TMZ8E002 | CHASSIS RAIL LEFT | | | |
| 9 | TMZ8E001 | CHASSIS RAIL RIGHT | | | |
| 10 | THT1009R | CRT FIXING SCREW | | | |
| 11 | TLK8E05133 | DEGAUSS COIL | | | |
| 12 | TNP8EE007DD | E P.C.B. | | | |
| 13 | TBM8E1905 | MODEL LABEL | | | |
| 14 | TBX8E038 | POWER BUTTON | | | |
| 15 | EASG12D546A2 | SPEAKER | | | |
| 16 | TNP8EY011AH | Y P.C.B. | | | |
| MISCELLANEOUS COMPONENTS | | | | | |
| | TBM8E1626 | PANASONIC BADGE | | | |
| | TKP8E1164-1 | DOOR LID | | | |
| | TPC8E4722 | OUTER CARTON | | | |
| | TPD8E627 | TOP CUSHION | | | |
| | TPD8E628 | BOTTOM CUSHION | | | |
| D805 | 232266296706 | THERMISTOR | | | |

| Cct Ref | Parts Number | Description |
|---------------------|--------------|---|
| PKN1 | TBX8E039 | KEY PAD |
| R1223 | P1201 | SENSOR |
| S351 | TJSC00300 | CRT SOCKET |
| I.C.s | | |
| IC1205 | XL24C02P-1KP | EAROM * |
| DIODES | | |
| D1226 | MA700TA5 | DIODE |
| D1227 | MA700TA5 | DIODE |
| TRANSISTORS | | |
| Q351 | 2SC4714RL2 | TRANSISTOR |
| Q352 | 2SC4714RL2 | TRANSISTOR |
| Q353 | 2SC4714RL2 | TRANSISTOR |
| Q507 | BC847B | TRANSISTOR |
| Q1217 | 2SD965-R | TRANSISTOR |
| TRANSFORMERS | | |
| T552 | ZTFK33005A | F.B.T.  |
| T801 | ETS29AK227AC | TRANSFORMER  |
| COILS | | |
| L551 | ELH5L4104 | COIL |
| L553 | ELH16F713 | COIL |
| RESISTORS | | |
| JC13 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0  |
| R252 | ERJ6GEYJ562 | S.M.CARB 0.1W 5% 5K6  |
| R254 | ERJ6GEYJ151 | S.M.CARB 0.1W 5% 150  |
| R255 | ERJ6GEYJ181 | S.M.CARB 0.1W 5% 180  |
| R305 | ERJ6GEYJ181 | S.M.CARB 0.1W 5% 180  |
| R306 | ERJ6GEYJ181 | S.M.CARB 0.1W 5% 180  |
| R307 | ERJ6GEYJ181 | S.M.CARB 0.1W 5% 180  |
| R351 | ERG2ANJ103 | METAL 2W 5% 10K  |
| R352 | ERG2ANJ103 | METAL 2W 5% 10K  |
| R353 | ERG2ANJ103 | METAL 2W 5% 10K  |
| R366 | ERJ6GEYJ431 | S.M.CARB 0.1W 5% 430  |
| R367 | ERJ6GEYJ431 | S.M.CARB 0.1W 5% 430  |
| R368 | ERJ6GEYJ431 | S.M.CARB 0.1W 5% 430  |
| R369 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7  |
| R370 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7  |
| R371 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7  |
| R375 | ERDS1TJ272 | CARBON 0.5W 5% 2K7  |
| R378 | ERD25TJ274 | CARBON 0.25W 5% 270K  |
| R379 | ERJ6GEYJ183 | S.M.CARB 0.1W 5% 18K  |
| R380 | ERJ6GEYJ684 | S.M.CARB 0.1W 5% 680K  |
| R386 | ERDS1TJ272 | CARBON 0.5W 5% 2K7  |
| R387 | ERDS1TJ272 | CARBON 0.5W 5% 2K7  |
| R453 | ERDS1TJ1R0 | CARBON 0.5W 5% 1  |
| R506 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15K  |
| R508 | ERJ6GEYJ153 | S.M.CARB 0.1W 5% 15K  |
| R519 | ERJ6GEYJ823 | S.M.CARB 0.1W 5% 82K  |
| R522 | ERJ6GEYJ684 | S.M.CARB 0.1W 5% 680K  |
| R523 | ERJ6GEYJ154 | S.M.CARB 0.1W 5% 150K  |
| R524 | ERJ6GEYJ184 | S.M.CARB 0.1W 5% 180K  |
| R525 | ERJ6GEYJ184 | S.M.CARB 0.1W 5% 180K  |
| R542 | ERJ6GEYJ332 | S.M.CARB 0.1W 5% 3K3  |
| R543 | ERJ6GEYJ222 | S.M.CARB 0.1W 5% 2K2  |
| R553 | ERQ1CJP102 | FUSIBLE 1W 5% 1K  |
| R555 | ERQ1CJP4R7 | FUSIBLE 1W 5% 4R7  |
| R557 | ERJ6GEYJ103 | S.M.CARB 0.1W 5% 10K  |
| R559 | ERQ1CJP4R7 | FUSIBLE 1W 5% 4R7  |
| R560 | ERDS1TJ204 | CARBON 0.5W 5% 200K  |
| R1217 | ERJ6ENF7501 | S.M.CARB 0.1W 1% 7K5  |
| R1218 | ERO50PKF5603 | METAL 0.5W 1% 560K  |
| R1224 | ERJ6GEYJ683 | S.M.CARB 0.1W 5% 68K  |
| R1225 | ERJ6GEYJ433 | S.M.CARB 0.1W 5% 43K  |
| R1251 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0  |
| R1252 | ERJ6GEYJ101 | S.M.CARB 0.1W 5% 100  |

| Cct Ref | Parts Number | Description |
|-------------------|--------------|---|
| R1279 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0  |
| R1280 | ERJ6GEY0R00 | S.M.CARB 0.1W 5% 0  |
| R1291 | ERJ6GEYJ752 | S.M.CARB 0.1W 5% 7K5  |
| R1304 | ERJ6GEYJ184 | S.M.CARB 0.1W 5% 180K  |
| R1305 | ERJ6GEYJ472 | S.M.CARB 0.1W 5% 4K7  |
| R1308 | ERJ6GEYJ562 | S.M.CARB 0.1W 5% 5K6  |
| CAPACITORS | | |
| C255 | ECQM1H104J | FILM 50V 100nF |
| C351 | ECUV1H221JCX | S.M. CAP 50V 220pF |
| C352 | ECUV1H221JCX | S.M. CAP 50V 270pF |
| C353 | ECUV1H221JCX | S.M. CAP 50V 220pF |
| C369 | ECA1HMR47GB | ELECT 50V 220pF |
| C453 | ECA1HHG101B | ELECT 50V 100pF |
| C454 | ECA1HHG2R2B | ELECT 50V 100pF |
| C508 | ECUV1H102JCX | S.M. CAP 50V 1nF |
| C551 | ECWH12H103JR | FILM 1250V 1nF  |
| C552 | ECQF4273JZH | FILM 400V 27nF  |
| C555 | ECKC3D152J | CERAMIC 2KV 1.5nF  |
| C557 | ECWF2H394JZ | FILM 500V 390nF  |
| C558 | ECEA2CU4R7 | ELECT 160V 4.7uF |
| C567 | ECA1VHG471B | ELECT 35V 47uF |
| C811 | ECA1JHG100B | ELECT 6.3V 100uF |
| C1228 | ECUV1H470GCG | S.M. CAP 50V 47pF |
| C1266 | ECA1CM100GB | ELECT 16V 10uF |

SCHEMATIC DIAGRAMS FOR MODELS TX-21K2T / TX-14K2T (Z-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.

1. RESISTOR

All resistors are carbon 1/4W resistor, unless marked. Unit of resistance is OHM (Ω) (k=1,000, M=1,000,000).

- | | |
|----------------|---------------|
| : Nonflammable | : Metal Oxide |
| : Metal Film | : Fuse |
| : Wire Wound | : Solid |

2. CAPACITOR

All capacitors are ceramic 50V capacitors, unless marked as follows: Unit of capacitance is μ F, unless otherwise stated.

- | | |
|----------------------------|-------------------|
| : Temperature Compensation | : Polyester |
| : Polypropylene | : Dipped Tantalum |
| : Electrolytic | NP : Bipolar |
| : Metallised Polyester | : Z-Type |

3. COIL

Unit of inductance is μ H, 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 DC voltmeter. Measurement conditions are as follows:

Power source AC 220 / 240V, 50Hz
 Receiving Signal Colour Bar signal (RF)
 All customer controls Maximum position

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

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

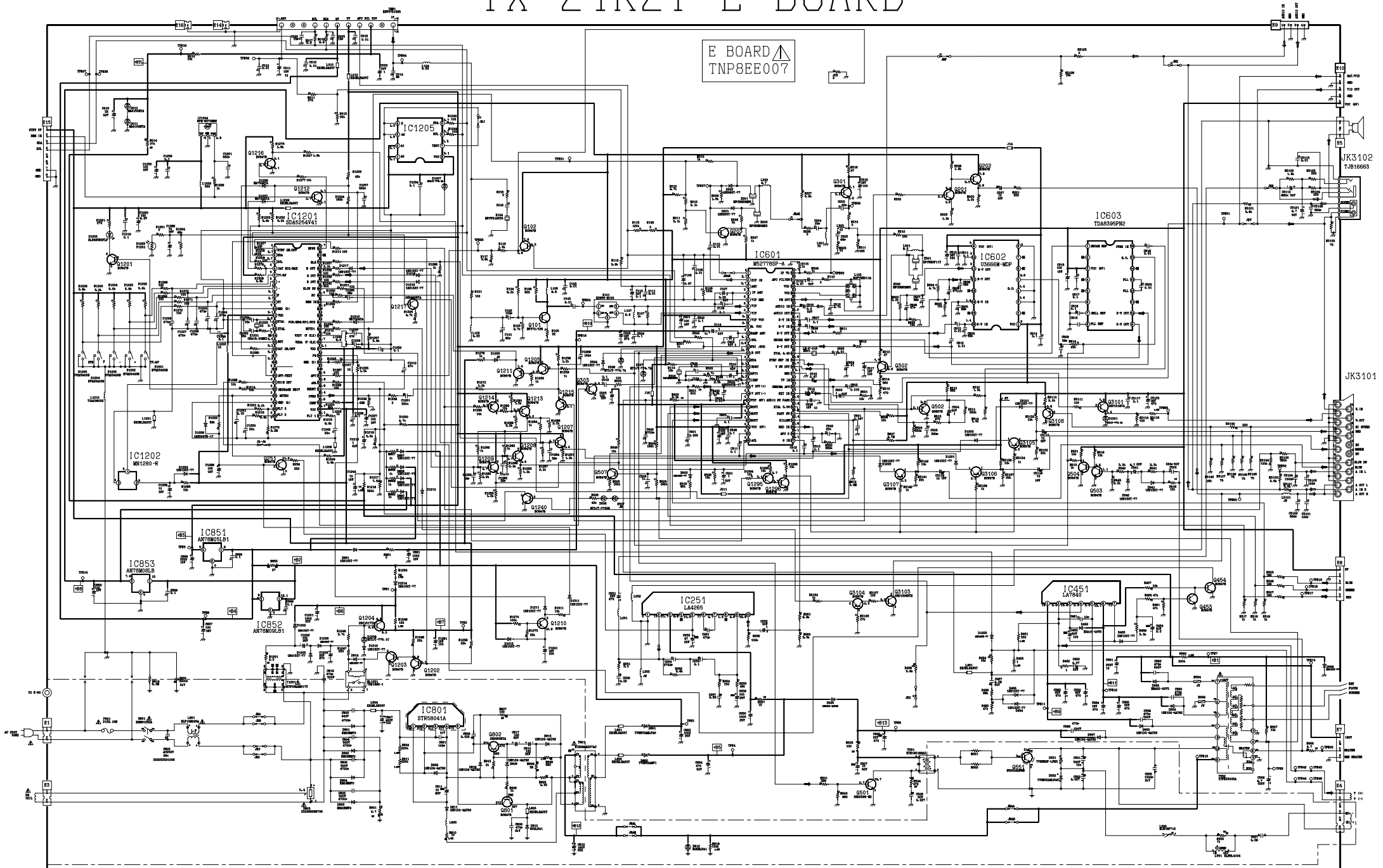
Remarks:

1. Care must be taken when servicing this receiver, as it uses a HOT chassis. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the following precautions. All circuits except the Audio, Video input circuits are HOT.

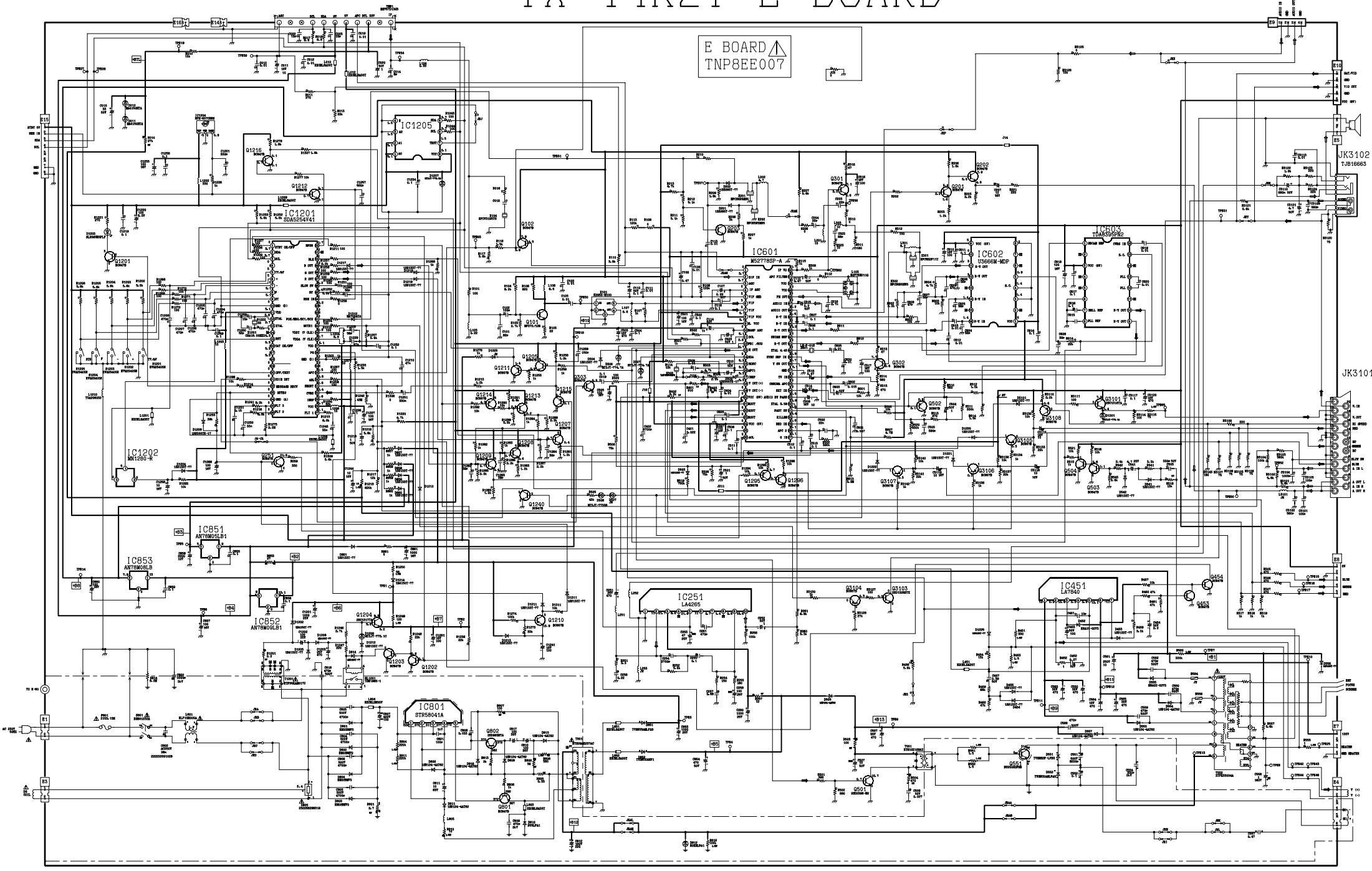
2. Precautions

- a. Do not touch the HOT part, or the HOT and COLD parts of the chassis, 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.

TX-21K2T E-BOARD



TX-14K2T E-BOARD

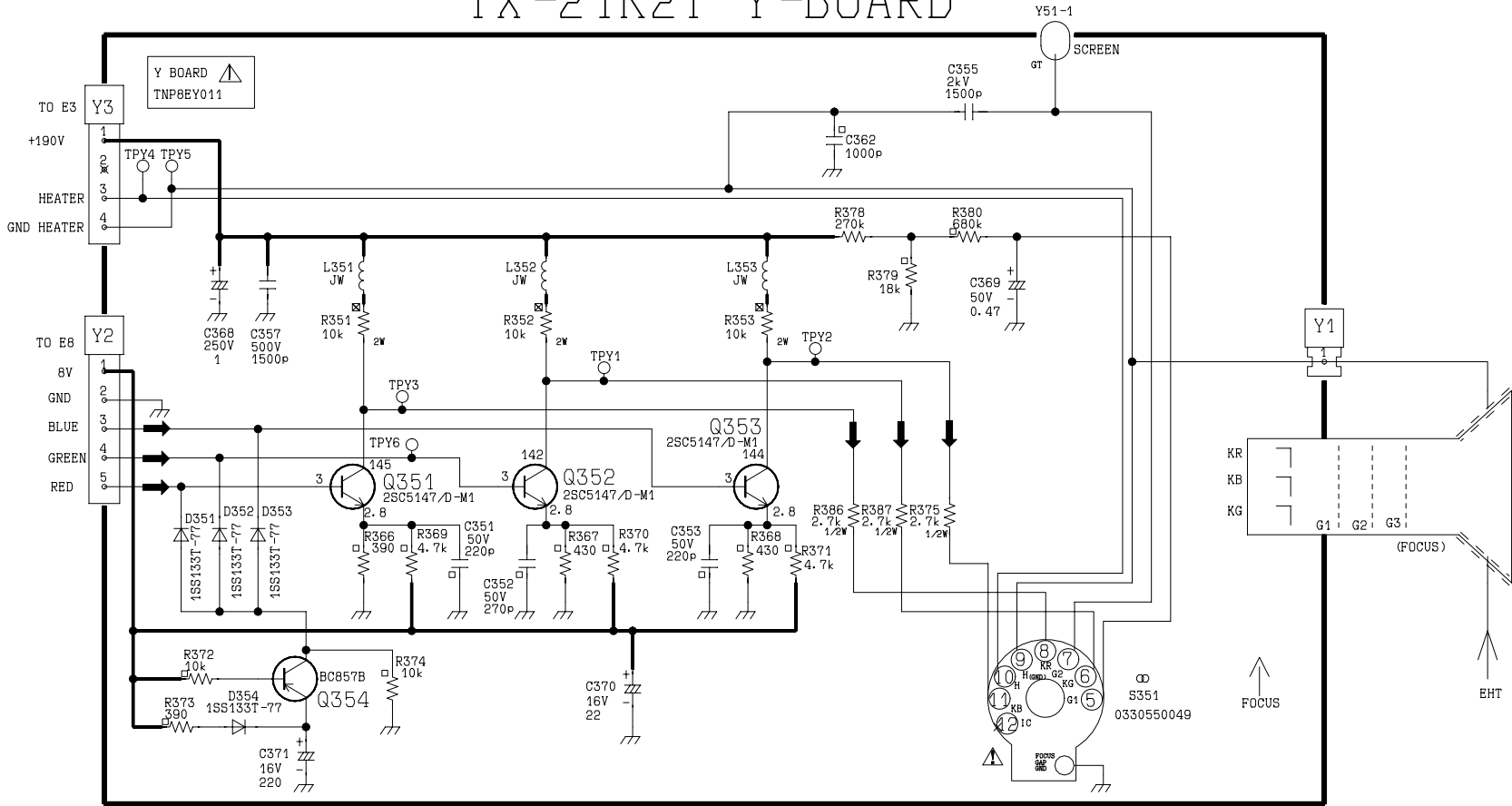


E BOARD
TNP8EE007

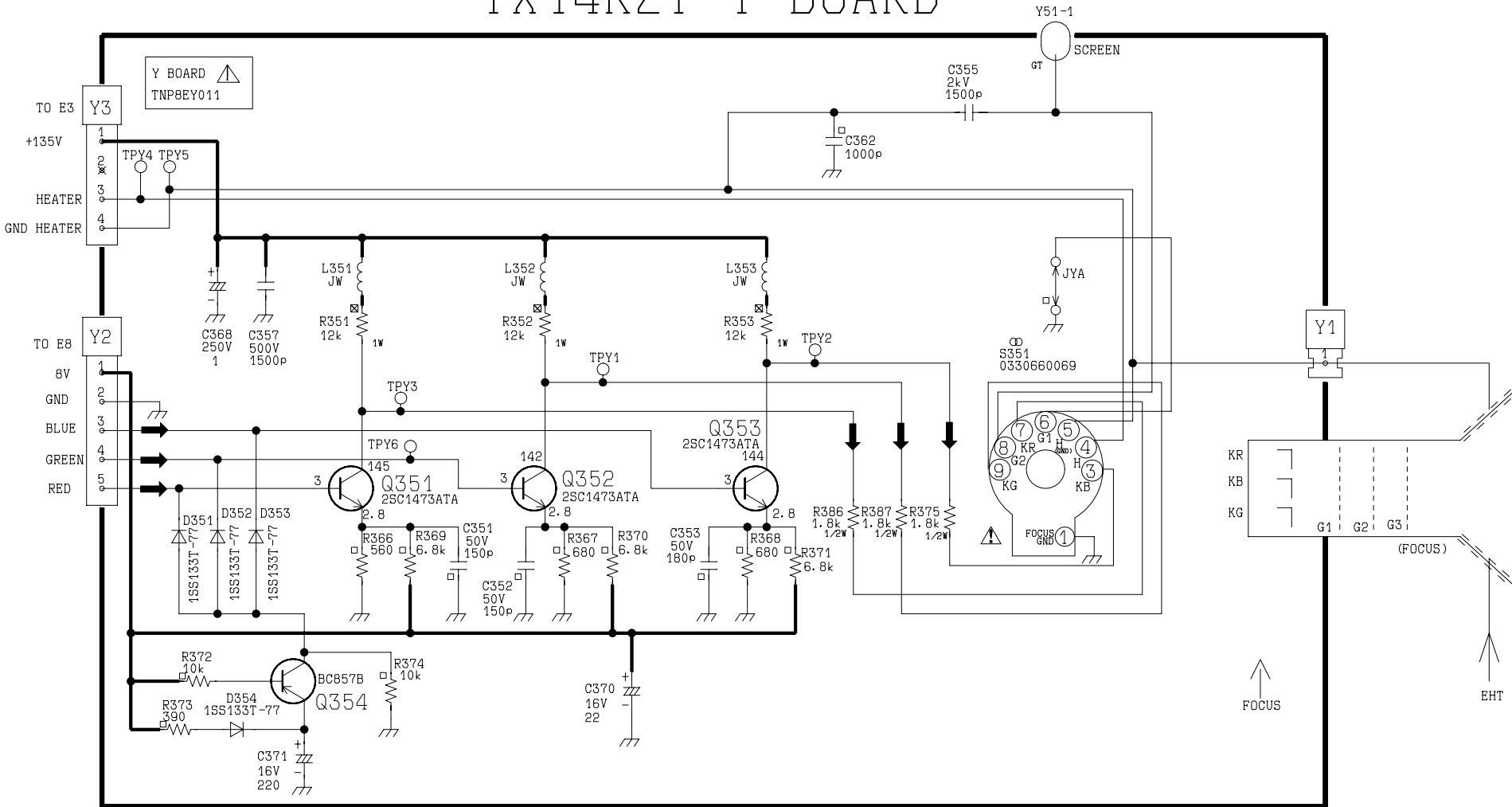
JK3102
TJB18663

JK3101

TX-21K2T Y-BOARD



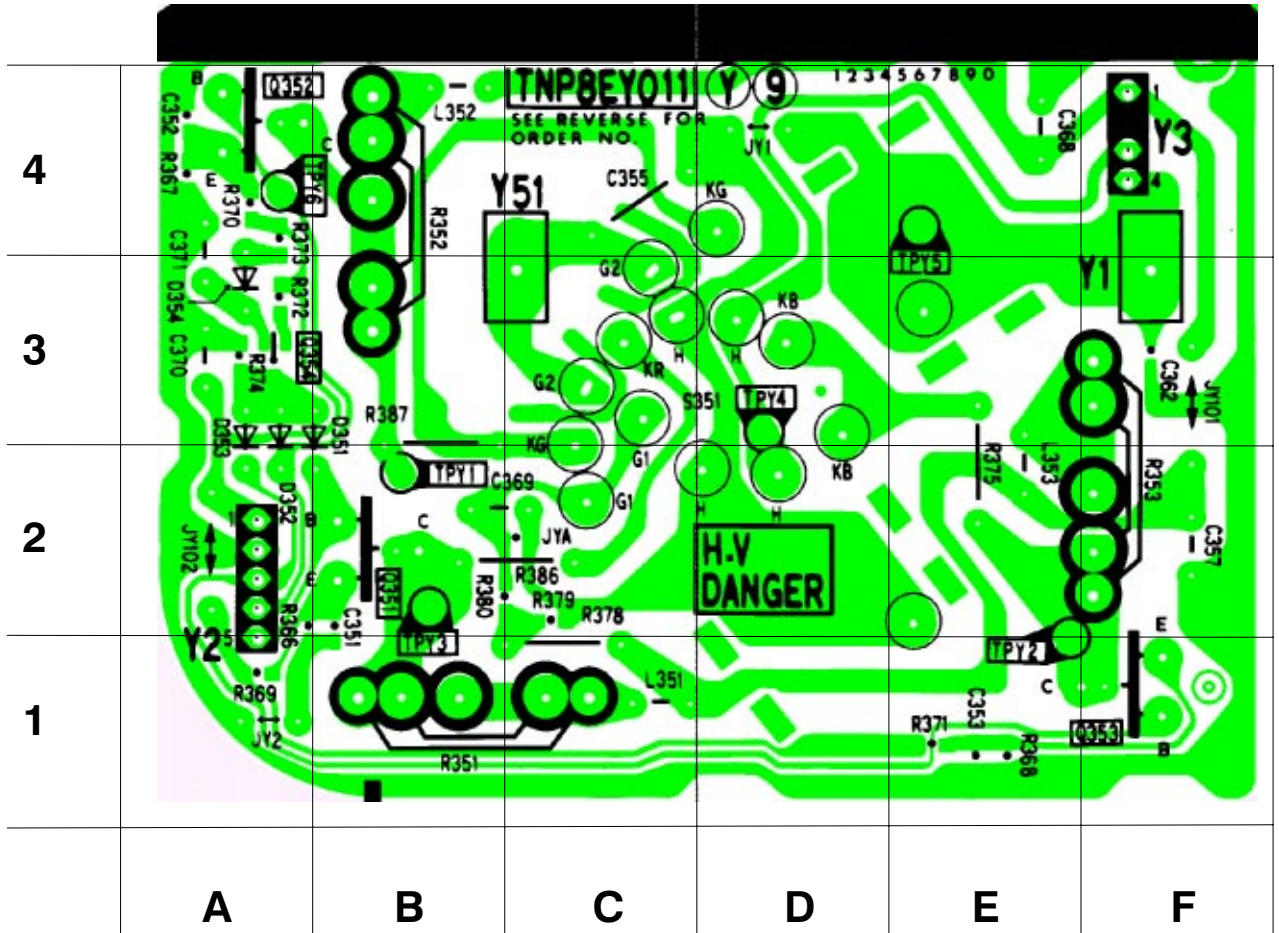
TX14K2T Y-BOARD



CONDUCTOR VIEWS

Y - BOARD TNP8EY011

| TEST POINT | DIODE | | TRANS | |
|------------|-------|------|-------|---------|
| TPY1 | B2 | D351 | B3 | Q351 B2 |
| TPY2 | E1 | D352 | A3 | Q352 A4 |
| TPY3 | B2 | D353 | A3 | Q353 F1 |
| TPY4 | D3 | D354 | A3 | |
| TPY5 | E4 | | | |
| TPY6 | A4 | | | |



8

7

6

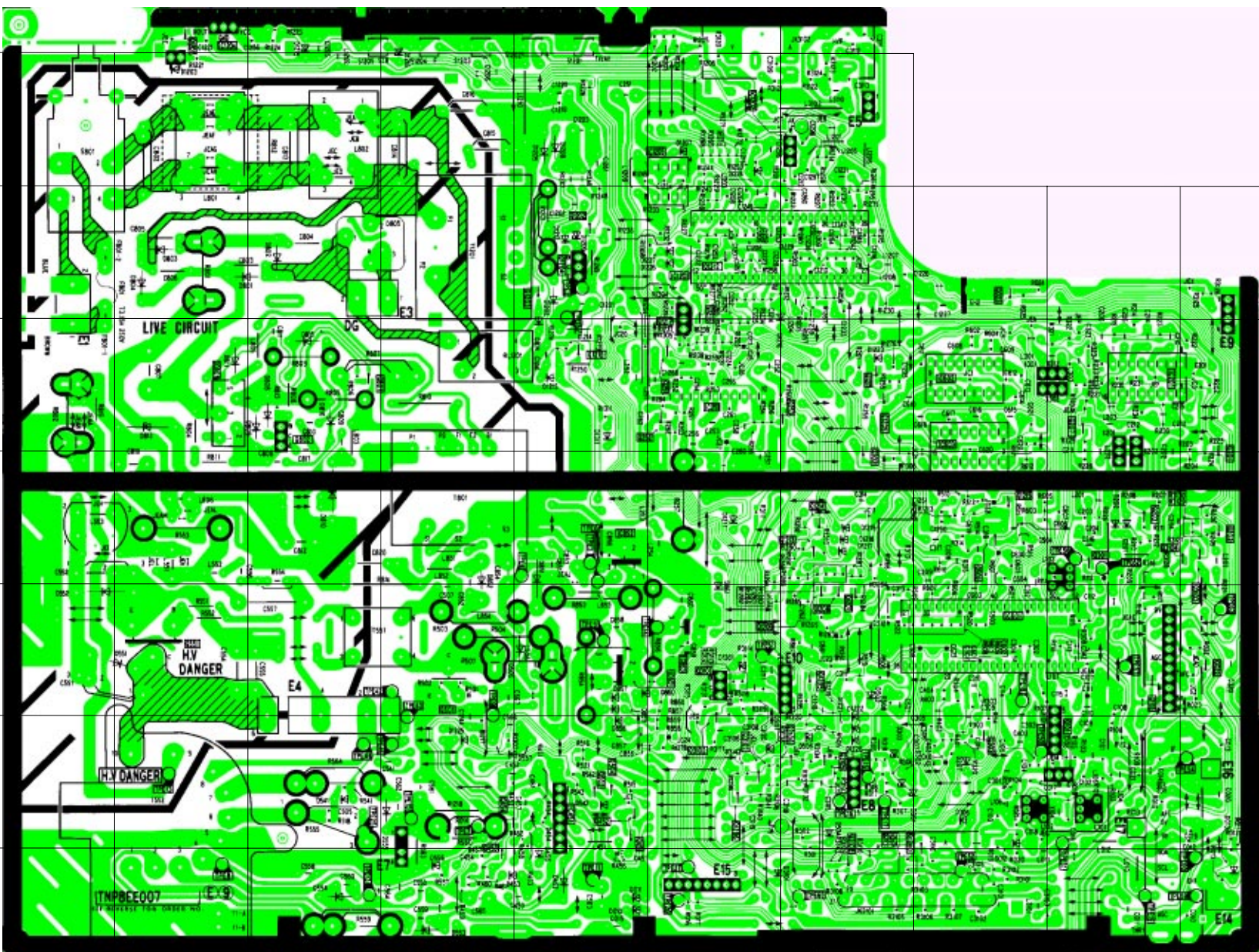
5

4

3

2

1



A

B

C

D

E

F

G

H

I

J

E - BOARD TNP8EE007

E - BOARD TNP8EE007

| DIODES | | | | TRANS | | | | TEST POINT | |
|--------|----|-------|----|-------|----|--------|----|------------|----|
| D010 | E1 | D814 | E5 | Q022 | J3 | Q1216 | F6 | TPE1 | E6 |
| D011 | E1 | D815 | C5 | Q023 | H6 | Q1217 | F5 | TPE2 | E6 |
| D012 | H2 | D816 | C5 | Q101 | I2 | Q1240 | G2 | TPE3 | E4 |
| D013 | J1 | D851 | E4 | Q102 | I3 | Q1295 | G3 | TPE4 | E4 |
| D201 | J4 | D852 | D4 | Q201 | J4 | Q1296 | F2 | TPE5 | E3 |
| D202 | J4 | D857 | E3 | Q202 | J4 | Q3101 | F3 | TPE6 | E4 |
| D301 | G2 | D858 | E2 | Q203 | I4 | Q3102 | F2 | TPE7 | D2 |
| D302 | G2 | D859 | E3 | Q207 | I5 | Q3103 | J3 | TPE8 | B1 |
| D303 | G2 | D860 | E3 | Q251 | F5 | Q3105 | G2 | TPE9 | D3 |
| D306 | H2 | D861 | F3 | Q252 | F5 | Q3106 | G2 | TPE10 | D2 |
| D307 | H2 | D1201 | E6 | Q252 | G5 | Q3107 | F2 | TPE11 | E1 |
| D452 | E1 | D1203 | B7 | Q301 | I4 | Q3108 | G2 | TPE12 | C1 |
| D453 | D1 | D1205 | E7 | Q302 | G4 | | | TPE13 | B2 |
| D454 | E2 | D1207 | F7 | Q303 | H2 | I.C. | | TPE14 | F3 |
| D455 | E1 | D1208 | E7 | Q451 | E2 | IC201 | I5 | TPE16 | G2 |
| D503 | G3 | D1209 | E6 | Q452 | E2 | IC251 | F5 | TPE17 | G2 |
| D504 | G2 | D1210 | G6 | Q453 | D1 | IC451 | E2 | TPE18 | H3 |
| D505 | E3 | D1211 | F4 | Q454 | D2 | IC601 | H3 | TPE19 | I1 |
| D506 | G2 | D1212 | E6 | Q501 | D3 | IC602 | H5 | TPE25 | C2 |
| D507 | F2 | D1213 | E5 | Q502 | H4 | IC603 | H5 | TPE26 | F1 |
| D541 | C2 | D1214 | E5 | Q503 | E2 | IC801 | B5 | TPE27 | F1 |
| D542 | F2 | D1215 | C8 | Q504 | E2 | IC851 | E3 | TPE31 | I2 |
| D551 | B3 | D1216 | D7 | Q551 | B3 | IC852 | E4 | TPE42 | D3 |
| D552 | A3 | D1217 | G4 | Q801 | C5 | IC853 | F3 | TPE43 | D3 |
| D553 | D1 | D1218 | G4 | Q802 | C5 | IC1201 | F6 | TPE44 | C2 |
| D554 | C1 | D1219 | G4 | Q1201 | B8 | IC1202 | G7 | TPE46 | D2 |
| D555 | D2 | D1220 | G2 | Q1202 | F6 | IC1204 | B8 | TPE50 | H2 |
| D556 | D1 | D1221 | G2 | Q1203 | F6 | IC1205 | F7 | TPE51 | F3 |
| D557 | F2 | D1223 | G5 | Q1204 | F6 | | | TPE52 | H1 |
| D801 | B6 | D1224 | F7 | Q1205 | G5 | | | TPE54 | J2 |
| D802 | C6 | D1225 | D2 | Q1207 | G3 | | | TPE56 | I4 |
| D803 | B6 | D1226 | F6 | Q1208 | G3 | | | TPE57 | I3 |
| D804 | B6 | D1227 | F6 | Q1209 | G3 | | | TPE59 | J1 |
| D805 | D6 | D1301 | F3 | Q1210 | E5 | | | TPE60 | J1 |
| D808 | C5 | D1311 | E5 | Q1211 | G5 | | | TPE62 | I4 |
| D809 | C5 | D3101 | F1 | Q1212 | F6 | | | TPE63 | J3 |
| D810 | C4 | | | Q1213 | G4 | | | TPE65 | G1 |
| D811 | B5 | | | Q1214 | G4 | | | | |
| D812 | B5 | | | Q1215 | H4 | | | | |

