

Service Manual



Colour Television

TX-21AS1P

EURO-4 Chassis

SPECIFICATIONS

Power Source: 220-240V a.c., 50Hz

Power Consumption: 106W

Stand-by Power Consumption: 1,4W

Aerial Impedance: 75Ω unbalanced, Coaxial Type

Receiving System: PAL B/G, H, D/K, PAL-525/60
SECAM B/G, D/K
M.NTSC
NTSC (AV only)

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

Intermediate Frequency:

Video/Audio
Video 38,9MHz
Audio 33,16MHz, 33,4MHz
32,4MHz (A2 Stereo)
33,05MHz (NICAM)
32,66MHz, 32,4MHz (Czech Stereo)
Colour 34,47MHz (PAL)
34,5MHz, 34,65MHz (SECAM)

Terminals:

AUDIO MONITOR OUT Audio (RCAx2) 500mV rms 1kΩ
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

AV2 IN Video (21 pin) 1V p-p 75Ω
Audio (21 pin) 500mV rms 10kΩ
S-Video IN Y: 1V p-p 75Ω
(21-pin) C: 0,3V p-p 75Ω

AV2 OUT Video (21 pin) 1V p-p 75Ω
Audio (21 pin) 500mV rms 1kΩ
Selectable output (21 pin)

AV3 IN S-Video IN Y: 1V p-p 75Ω
(4-pin) C: 0,3V p-p 75Ω
Audio (RCAx2) 500mV rms 10kΩ
Video (RCAx1) 1V p-p 75Ω

High Voltage: 28kV ± 1kV

Picture Tube: A51LSK955X05 51cm

Audio Output: 2 x 15W (Music Power)
8Ω Impedance

Headphones: 8Ω Impedance
3,5mm

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

Dimensions:
Height: 470mm
Width: 550mm
Depth: 480mm

Net weight: 25kg

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

NOTE: This Service Manual should be used in conjunction with the EURO-4 Technical guide.

CONTENTS

SAFETY PRECAUTIONS.....	2
SERVICE HINTS.....	3
SERVICE POSITION.....	4
ADJUSTMENT PROCEDURE AND FACTORY SETTINGS.....	5
WAVEFORM PATTERN TABLE.....	6
ALIGNMENT SETTINGS.....	7
BLOCK DIAGRAMS.....	8
PARTS LOCATION.....	12
REPLACEMENT PARTS LIST.....	13
SCHEMATIC DIAGRAMS.....	21
CONDUCTOR VIEWS.....	26

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 29kV 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.

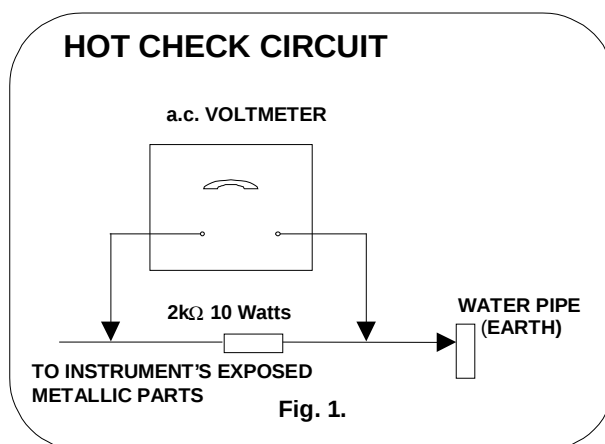
LEAKAGE CURRENT COLD CHECK

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.



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 29kV 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. 28kV $\pm$ 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 8 screws as shown in Fig.2.

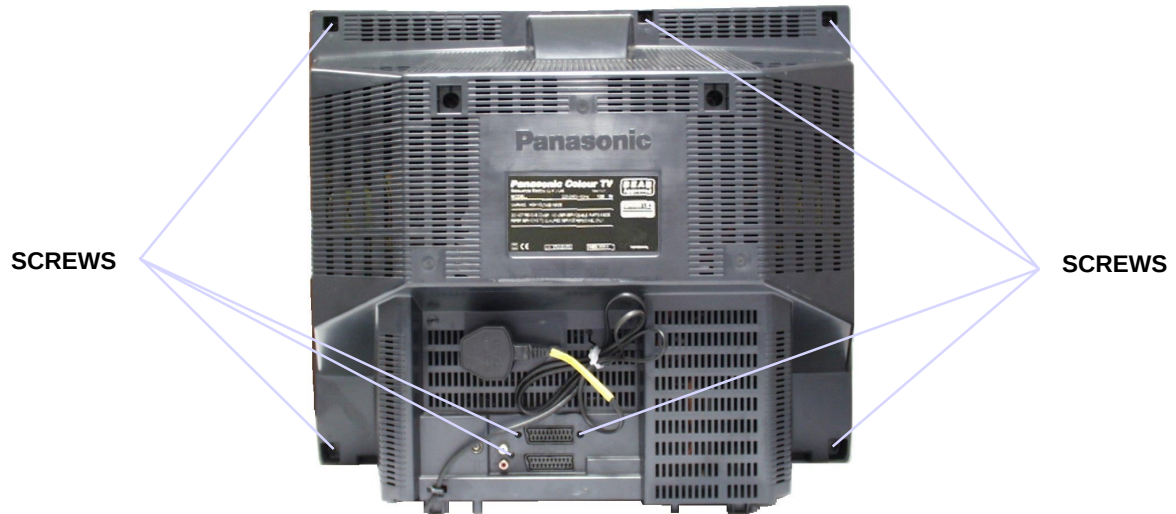


Fig.2.

LOCATION OF CONTROLS

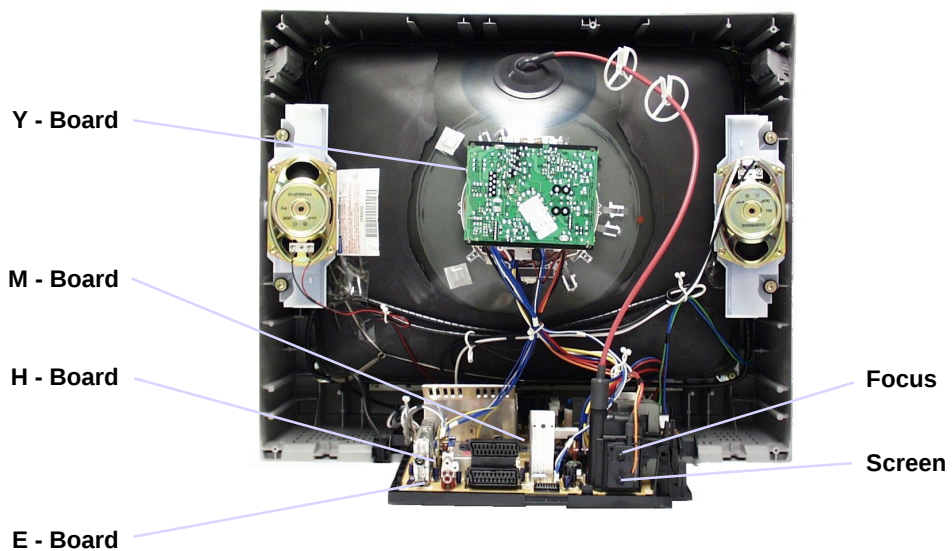


Fig.3.

HOW TO MOVE THE CHASSIS INTO SERVICE POSITION

1. Remove 2 screws **(A)**, as shown in **Fig.4.**, and remove speaker assembly.
2. Hold and lift the rear of the chassis and gently pull the chassis toward you, as shown in **Fig.5.**
3. Release the respective wiring clips and move the EHT lead around to the left side of the CRT neck.
4. Elevate the chassis as shown in **Fig .6.**
5. Using a speaker screw, screw the chassis frame into the top speaker fixing rib **(B)**, as shown in **Fig.6.**
6. After servicing replace the speaker, and ensure all wiring is returned to its original position before returning the receiver to the customer.

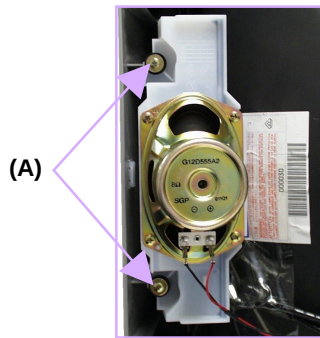


Fig .4.

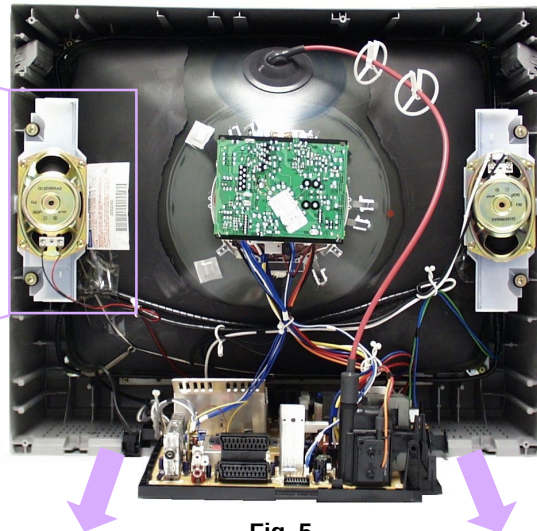


Fig .5.

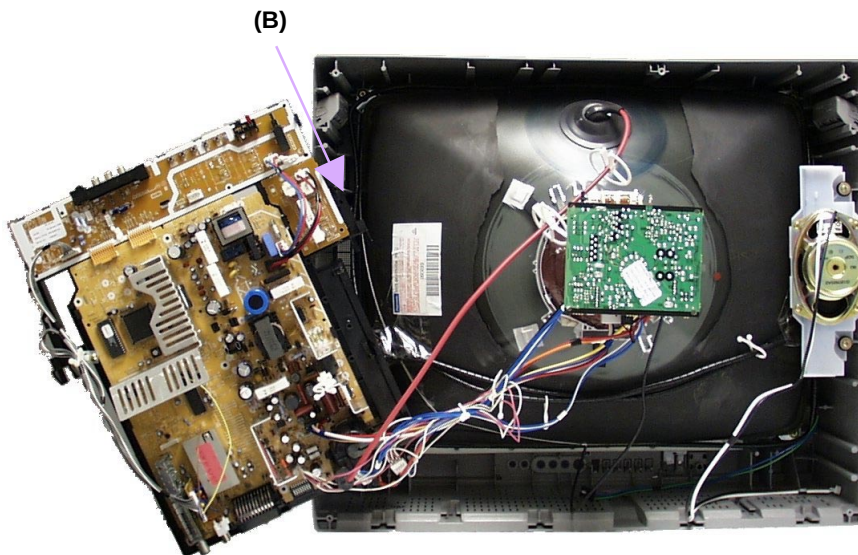


Fig .6.

ADJUSTMENT PROCEDURE

Item / Preparation	Adjustments
+B SET-UP 1. Receive a Greyscale signal. 2. Set the controls :- Brightness Minimum Contrast Minimum Volume Minimum	1. Set the +B voltage up as follows:- Adjust R811 so that B2 shows 148V±1V. 2. Confirm the following voltages. B9 5 ± 0,25V B10 5 ± 0,25V B5 12 ± 0,5V B11 33 ± 1,5V B4 16 ± 1V B7 8 ± 0,5V B12 26 ± 1V B8 5,5 ± 0,5V B3 35 ± 1V B13 15 ± 1V B1 200 ± 10V B14 -15 ± 1V
CUT OFF / Ug2 Test 1. Receive a Greyscale signal. 2. Degauss the tube externally. 3. Set the TV into Service Mode 1. 4. Select Cut off mode.	To adjust Cutoff connect an oscilloscope to the Blue cathode. Press " STR " and adjust "cutoff" value using the " Yellow " and " Blue " buttons until the black level is 160V ± 5V, press " STR " to store the value. Remove the oscilloscope. Select Ug2 adjustment and adjust the screen VR until the display shows "O.K."

FACTORY SETTINGS

Self-check is used to automatically check the bus lines and hexadecimal code of the TV set. To 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.

VDP	O.K.	PCB	O.K.
TUN	O.K.	Cab	O.K.
E2	O.K.	Sum	Factory use only
MSP	O.K.		
DPL	- -		
OPTION 1	3D		
OPTION 2	1E		
OPTION 3	0F		
OPTION 4	40		
OPTION 5	FD		
OPTION 6	E1		

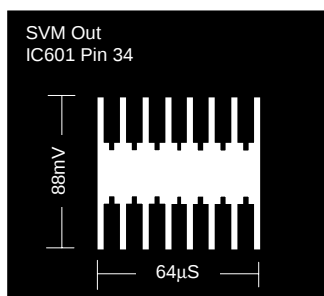
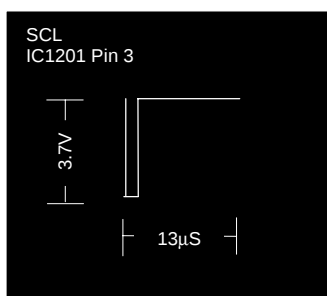
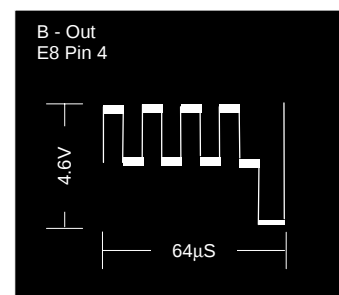
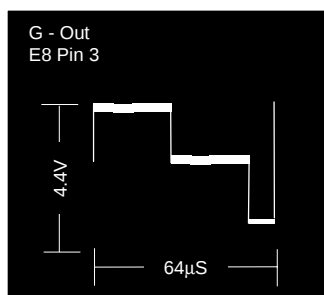
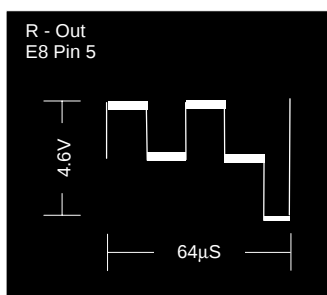
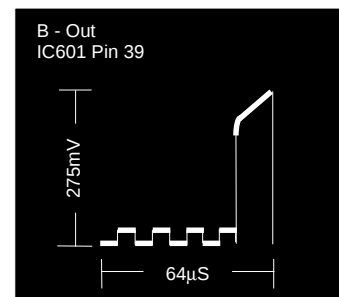
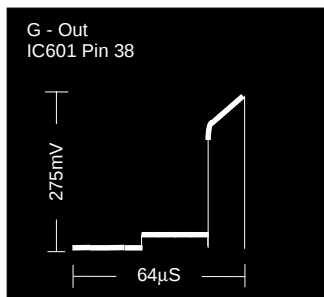
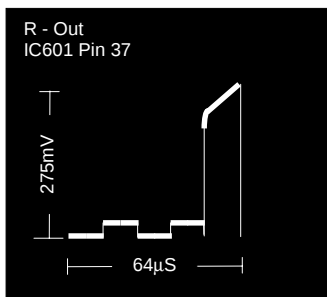
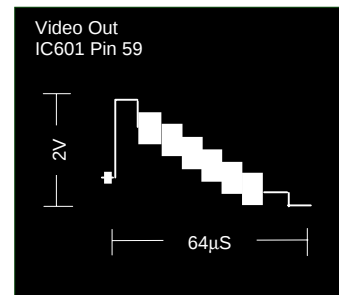
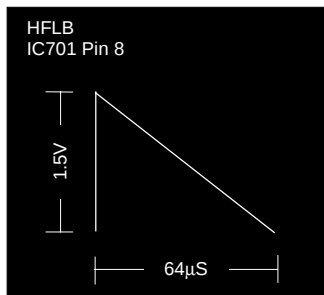
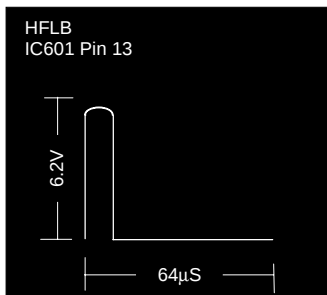
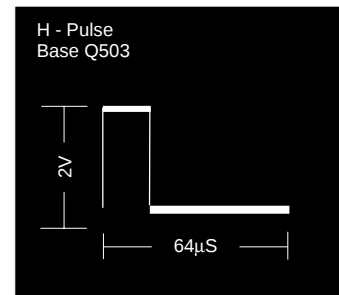
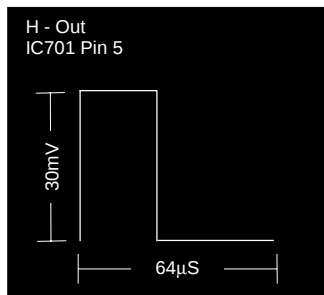
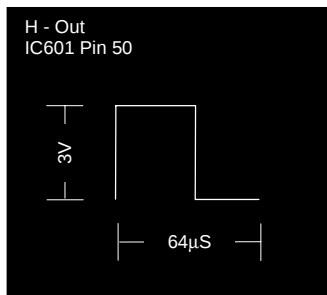
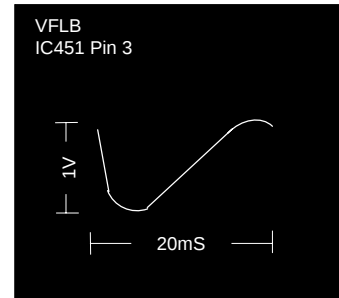
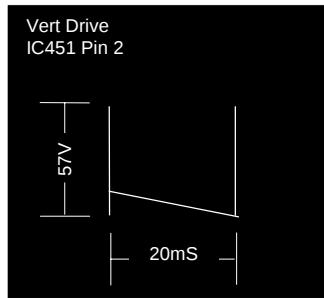
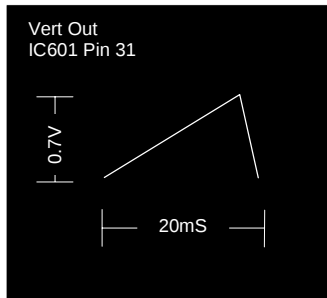
If the CCU ports have been checked and found to be incorrect or not located then " - - " will appear in place of "O.K.".

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 (Linked **U**tility **C**omputer Interface)
 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** (Visual Interactive Computer Information)
 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** (Technically **A**dvanced **S**ystem for **M**ultimedia Interactive **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

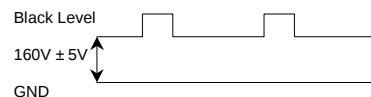


ALIGNMENT SETTINGS

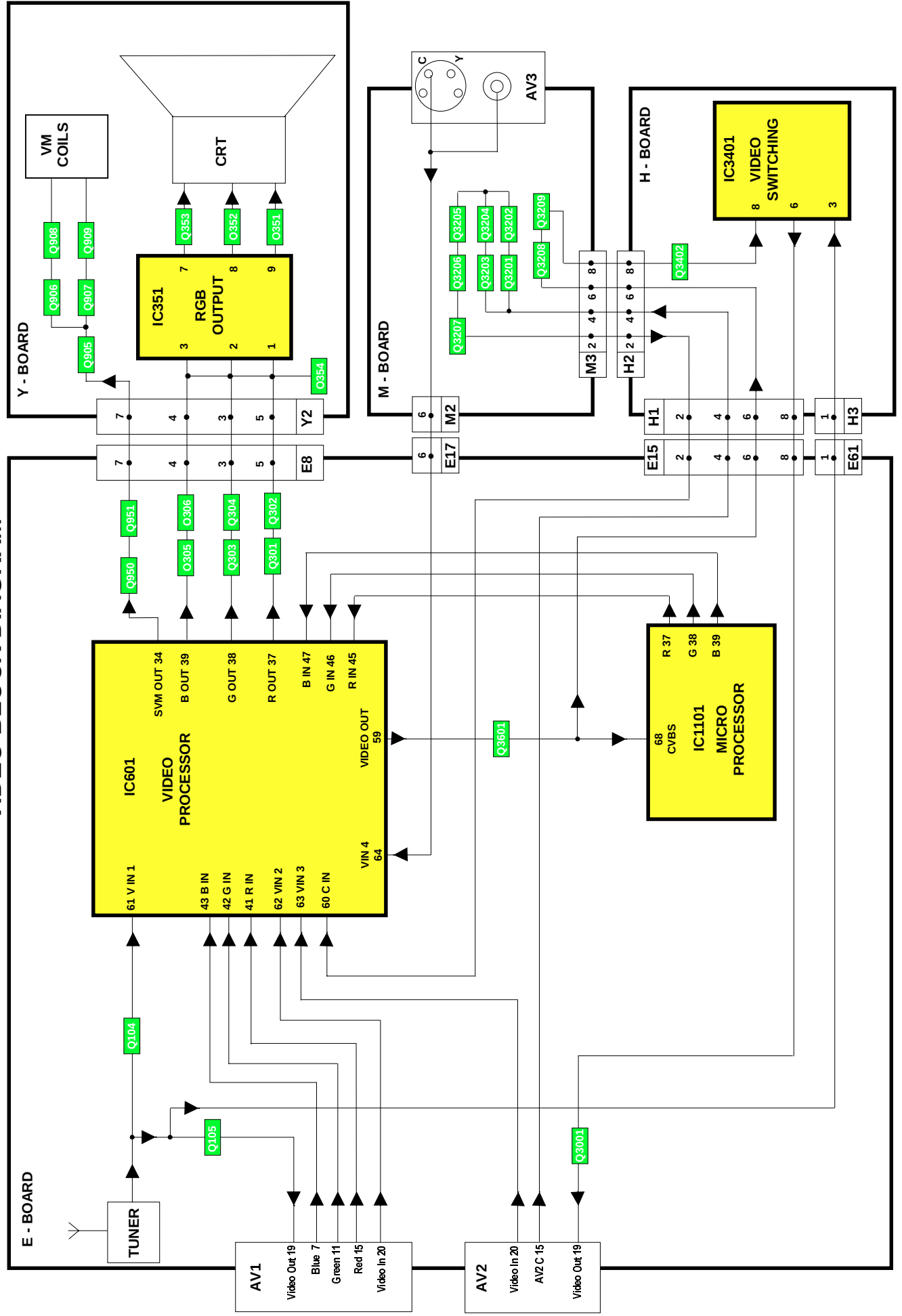
(The figures below are nominal and used for representative purposes only.)

1. Set the Bass to maximum position, set the Treble to minimum position, press the volume down button **(-V)** on the customer controls at the front of the TV and at the same time press the **INDEX** button on the remote control, this will place the TV into the Service Mode.
2. Press the **RED / GREEN** buttons to step up / down through the functions.
3. Press the **YELLOW / BLUE** buttons to alter the function values.
4. Press the **STR** button after each adjustment has been made to store the required values.
5. To exit the Service Mode, press the **"N"** button.

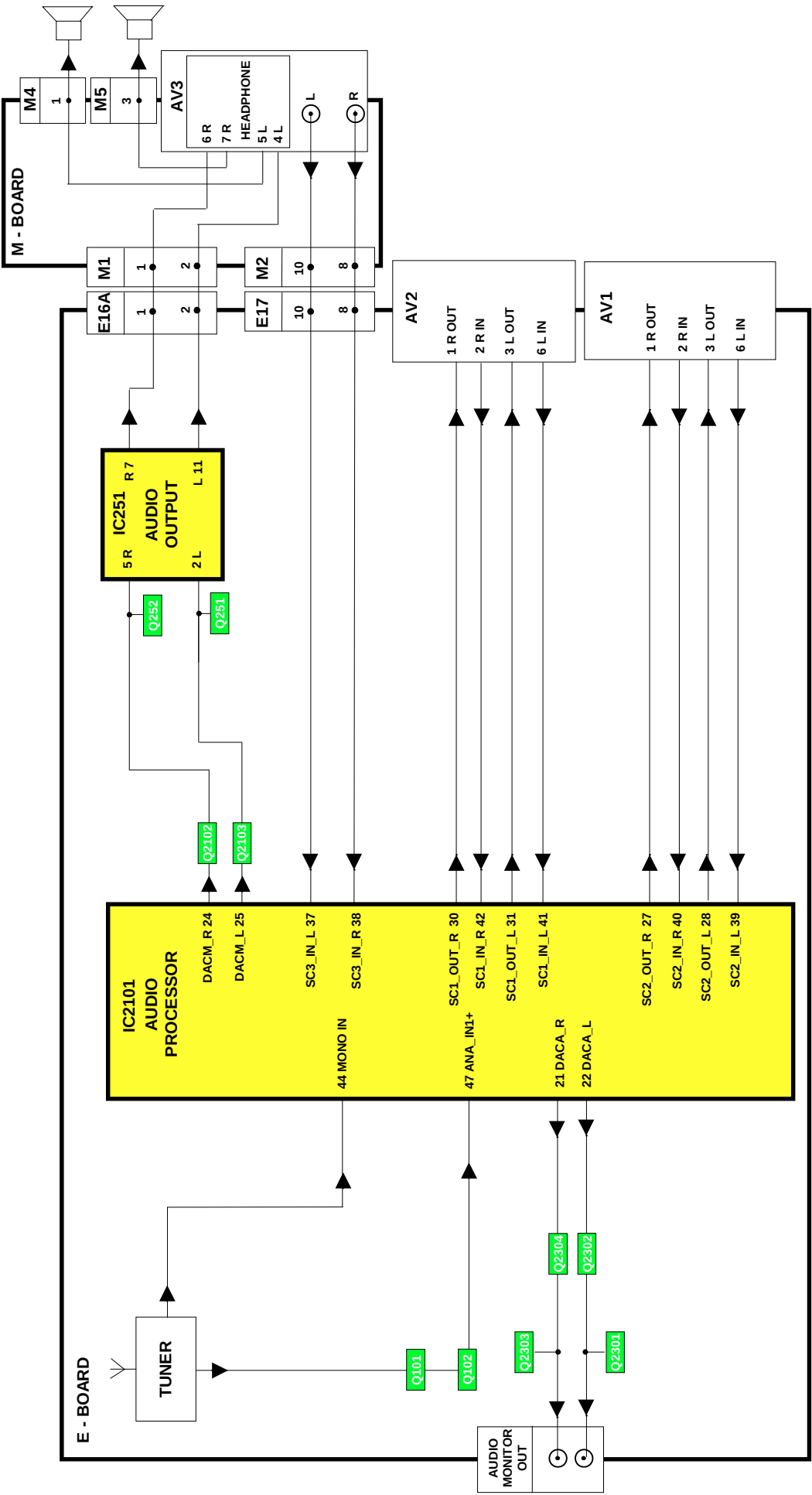
Alignment Function		Settings / Special features
Horizontal Position	H-Pos 061	Optimum setting.
Vertical Position	V-Pos 005	Optimum setting.
Horizontal Amplitude	H-Amp 055	Optimum setting.
Vert. Amplitude	V-Amp 054	Optimum setting.
EW-amplitude	E/W-Amp1 -128	Optimum setting.
EW-amplitude	E/W-Amp2 006	Optimum setting.
Trapezium-comp	Trapez-1 047	Optimum setting.
Trapezium-comp	Trapez-2 -128	Optimum setting.
Vertical Linearity	V-Lin 006	Optimum setting.
Vertical Symmetry	V-Sym 002	Optimum setting.
DVCO	DVCO -005	Receive a PAL Colour Bar Pattern. For DVCO alignment press "Blue" button, wait until the colours are changing slowly and press "STR" .
Cut-off DC	Cut-off 0171	To adjust Cutoff connect an oscilloscope to the blue cathode. Press "STR" and adjust "cutoff" value using the "Yellow" and "Blue" buttons until the black level is $160V \pm 5V$ press "STR" to store the value. Remove the oscilloscope. Select Ug2 adjustment and adjust the screen VR until the display shows "O.K."
Ug2 Test	Ug2 055 O.K.	
Highlight Lowlight	High 0902 0777 0864 Low 0117 0132 0112	Optimum setting.
Sub-Brightness	Sub-Brightness 255	Optimum setting.



VIDEO BLOCK DIAGRAM



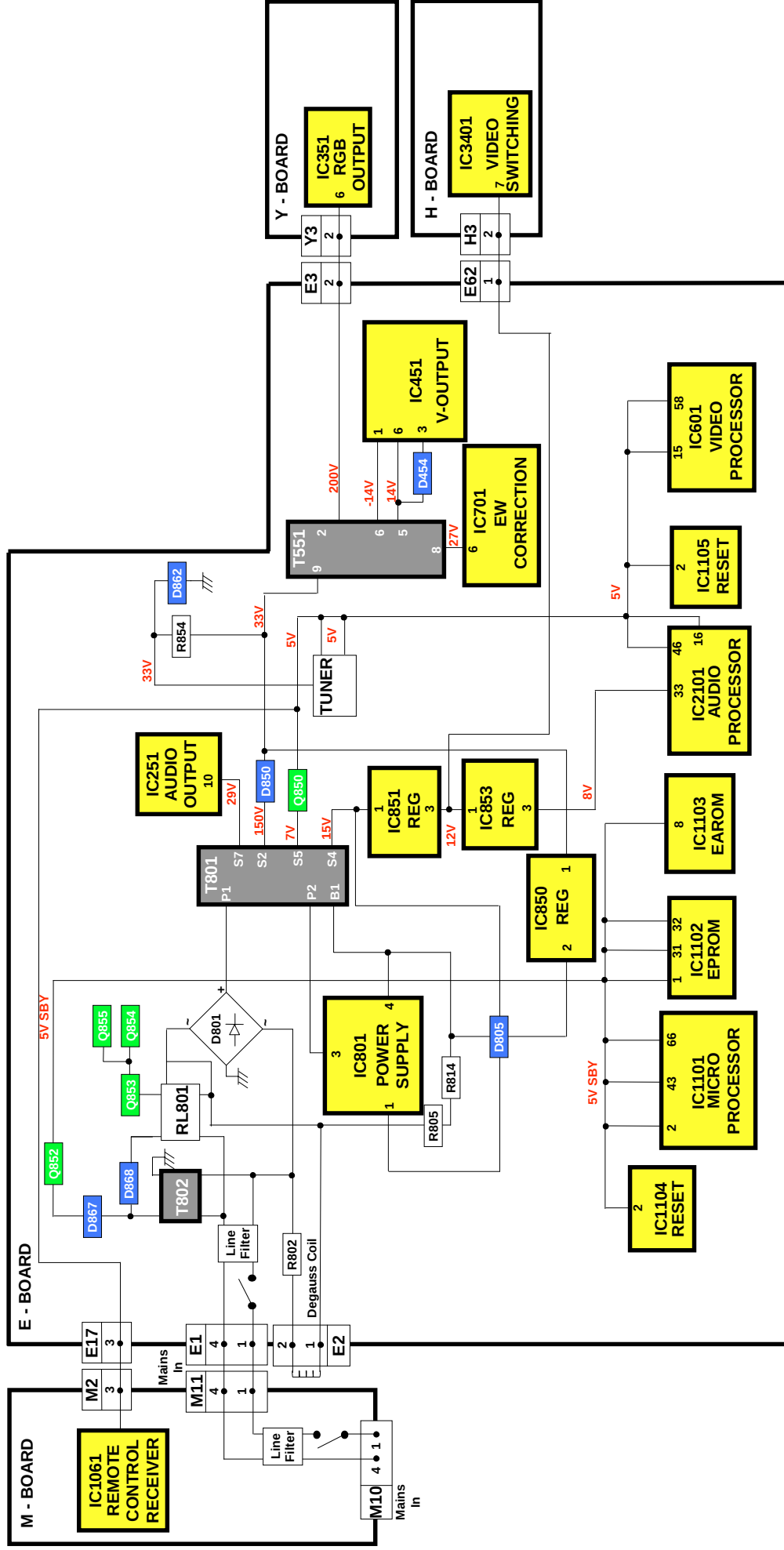
AUDIO BLOCK DIAGRAM



The diagram illustrates the electrical connections between three main boards: E-board, H-board, and M-board.

- E-board Components:**
 - IC1101 MICRO PROCESSOR:** Central processing unit with pins 48, 49, 50, 51, 55, 58, 59, 60, 71, 72, 73, 74, 75, 81.
 - IC2101 AUDIO PROCESSOR:** Pins 4, 7, 8.
 - IC601 VIDEO PROCESSOR:** Pins 3, 4.
 - TUNER:** SCL, SDA.
 - Connectors:** E18 (SDA 1, SCL 1, SDA 2, SCL 2), E63 (H3, M1, M2), E17 (LOCAL KEYS SWITCH MATRIX).
- H-board Component:**
 - IC3401 VIDEO SWITCHING:** Pin 5.
- M-board Components:**
 - IC1061 REMOTE CONTROL RECEIVER:** Pins 7, 8.
 - LOCAL KEYS SWITCH MATRIX:** Pins 5, 7.
- Interconnections:**
 - I2C Bus:** SCL 1, SCL 2, SDA 1, SDA 2.
 - Other Signals:** VPROT, KEYSKAN, ON/OFF, R.C., L.E.D., PROT 1.
 - AV Links:** AV1, AV2, SLOW 1, SLOW 2.

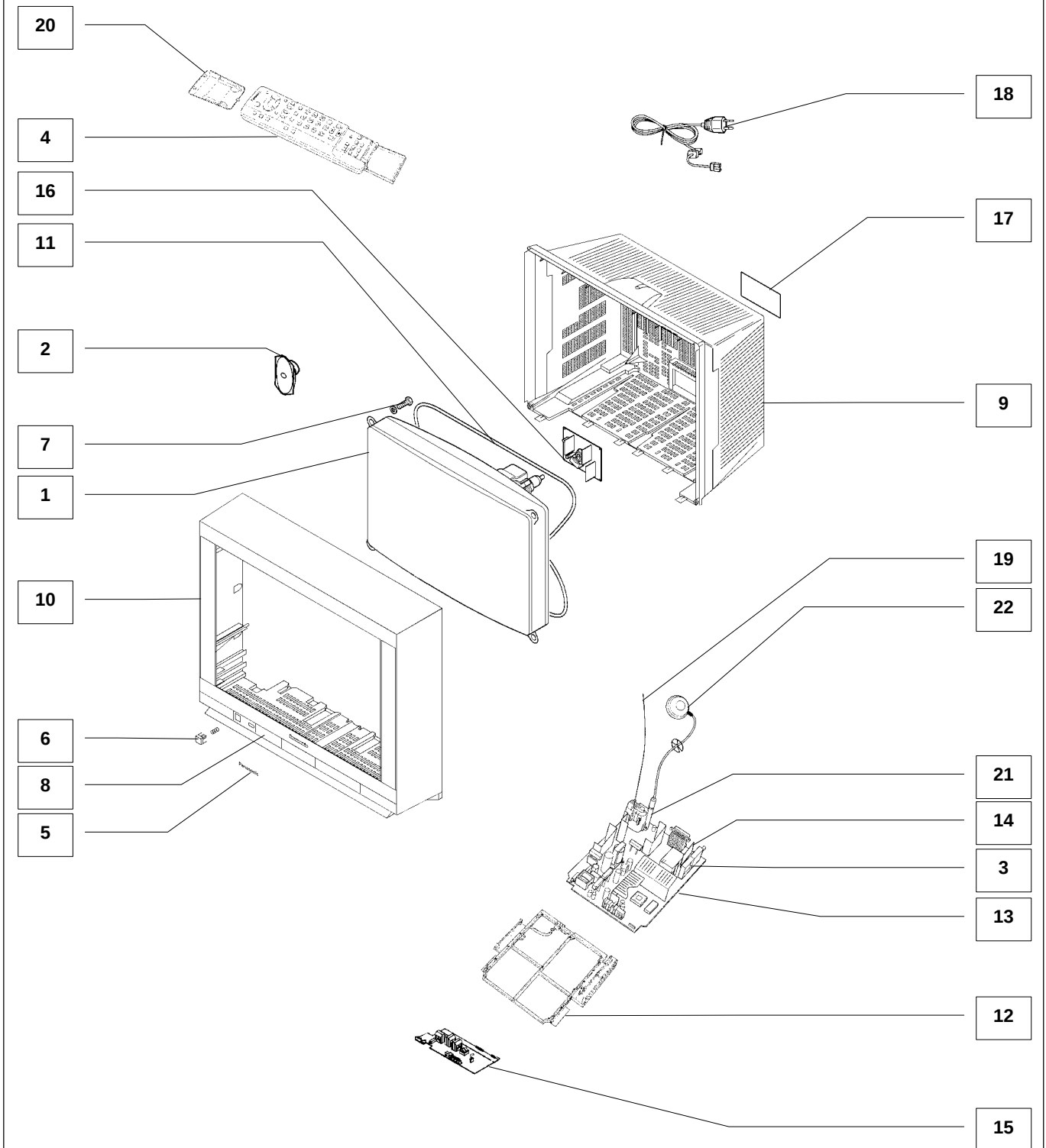
POWER SUPPLY BLOCK DIAGRAM



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	
MECHANICAL PARTS			
1	A51LSK955X05	C.R.T.	
2	EABG12147F2	SPEAKER	
3	ENG27507GR	TUNER	
4	EUR511200	REMOTE CONTROL	
5	TBM4G3008	PANASONIC BADGE	
6	TBX4G85700	POWER BUTTON	
7	THT1065R	CRT FIXING SCREW	
8	TKP4G11471	DOOR LID	
9	TKU8E00640	BACK COVER	
10	TKY4G7707	CABINET	
11	TLK8E05133	DEGAUSS COIL	
12	TMX8E046	CHASSIS FRAME	
13	TNP8EE009FZ	E P.C.B.	
14	TNP8EH002AB	H P.C.B.	
15	TNP8EM024AB	M P.C.B.	
16	TNP8EY013AB	Y P.C.B.	
17	TQF8E2999	MODEL LABEL	
18	TSX8E0027	POWER CORD	
19	TXFJT01CKVG	FOCUS LEAD ASSY	
20	UR51EC904A	BATTERY COVER (REMOTE)	
21	ZTFL94001A	F.B.T.	
22	ZTUZAE450A	ANODE LEAD	
MISCELLANEOUS COMPONENTS			
.	832AG11D-ESL	IC SOCKET	
.	F9-4-220	HEAT SENSOR COVER	
.	PCSZT-084A-1	IC SOCKET	
.	TBL8E007	SET FOOT	
.	TBM8E2044	LABEL	
.	TEK4G902	DOOR CATCHER	
.	TKK4G8533	LED COVER	
.	TKP4G11460	SMOKED PANEL	
.	TMW8E020-1	LED HOLDER	
.	TPC8E4845	CARTON	
.	TPD8E739	TOP CUSHION	
.	TPD8E740	BOTTOM CUSHION	
.	UM-3DJ-2P	BATTERY PACK	
R802	232266296706	THERMISTOR	
S351	330550049	CRT SOCKET	
INSTRUCTION BOOKS			
.	TQB8E2979LM	RUSSIAN/BULGARIAN	
.	TQB8E2979PQ	POLISH/HUNGARIAN	
.	TQB8E2979RU	CZECH/ENGLISH	
I.C.s			
IC251	LA4282	AUDIO OUTPUT	
IC351	TDA6103Q-N3	R.G.B. OUTPUT	
IC451	LA7845N	VERTICAL OUTPUT	
IC601	VDP3112BPPC2	VIDEO PROCESSOR	
IC701	TEA2031A	E/W CORRECTION	
IC801	STRF6654LF57	POWER SUPPLY	
IC850	SE130N	ERROR AMPLIFIER	

Cct Ref	Parts Number	Description	
IC851	AN78M12-LB	12V REGULATOR	
IC853	AN78L08TA	8V REGULATOR	
IC1061	RPM6937-V4	LED RECEIVER	
IC1101	SDA5450C70	MICRO PROCESSOR	
IC1102	27C2001-G18	EPROM *	
IC1103	XDG2-02ZP	EAROM *	
IC1104	MN1381-R(TA)	RESET	
IC1105	MN1381-T(TA)	RESET	
IC2101	MSP3410DPOC5	AUDIO PROCESSOR	
IC3401	TEA2114	VIDEO SWITCHING	
FUSES			
F802-1	EYF52BC	FUSE HOLDER	
F802-2	EYF52BC	FUSE HOLDER	
F802	XBA2C50TH15	FUSE	
DIODES			
D251	MA2180BLFS	DIODE	
D253	MA700TA5	DIODE	
D254	MA700TA5	DIODE	
D354	1SR124-4AT82	DIODE	
D355	1SR124-4AT82	DIODE	
D356	1SR124-4AT82	DIODE	
D357	MA165TA5	DIODE	
D358	MA165TA5	DIODE	
D359	MA165TA5	DIODE	
D360	MTZJT-7715A	DIODE	
D361	MA165TA5	DIODE	
D362	MA165TA5	DIODE	
D363	MA165TA5	DIODE	
D364	MA165TA5	DIODE	
D453	MA165TA5	DIODE	
D454	ERA15-02V3	DIODE	
D456	MTZJT-775.6C	DIODE	
D457	MA165TA5	DIODE	
D501	MA165TA5	DIODE	
D502	1SR124-4AT82	DIODE	
D511	MTZJ4.7C	DIODE	
D551	ERD07-15L7	DIODE	
D552	RU3LFA1	DIODE	
D553	1SR124-4AT82	DIODE	
D554	1SR124-4AT82	DIODE	
D556	MA165TA5	DIODE	
D557	EU02	DIODE	
D558	1SR124-4AT82	DIODE	
D601	DAN217T146	DIODE	
D603	DAN217T146	DIODE	
D605	DAN212KT146	DIODE	
D606	MA165TA5	DIODE	
D607	MA4051	DIODE	
D609	1SR124-4AT82	DIODE	
D615	STZ6.2NT146	DIODE	
D616	STZ6.2NT146	DIODE	
D701	MA165TA5	DIODE	

Cct Ref	Parts Number	Description
D702	MTZJT-775.6C	DIODE
D704	MA29TA5	DIODE
D705	MA4068HTA	DIODE
D706	1SS355TE-17	DIODE
D801	RBV4-08	DIODE
D803	1SR124-4AT82	DIODE
D804	1SR124-4AT82	DIODE
D805	TLP621GR-LF2	PHOTO COUPLER
D806	1SR124-4AT82	DIODE
D807	1SS376TE-17	DIODE
D850	RU4BLF-L1	DIODE
D853	MA2180BLFS	DIODE
D854	TVSRU2AMLFA5	DIODE
D855	FML22SLF610	DIODE
D856	RU4AMLF-M1	DIODE
D857	MTZJT-775.1B	DIODE
D858	MA165TA5	DIODE
D859	MA165TA5	DIODE
D861	MA165TA5	DIODE
D862	MTZJT-7736A	DIODE
D863	MA165TA5	DIODE
D865	MA165TA5	DIODE
D866	MA165TA5	DIODE
D867	EK06-V0	DIODE
D868	1N4150T-77	DIODE
D869	1N4150T-77	DIODE
D870	MA165TA5	DIODE
D871	1N4150T-77	DIODE
D873	MTZJT-775.6C	DIODE
D874	1SR124-4AT82	DIODE
D875	BZX79A75A26A	DIODE
D1061	SLR56UR3FLF	LED
D1101	MA165TA5	DIODE
D1102	MA165TA5	DIODE
D1104	MA165TA5	DIODE
D1105	MA165TA5	DIODE
D2101	MA723TA5	DIODE
D2102	MA723TA5	DIODE
D2103	MA723TA5	DIODE
D2104	MA723TA5	DIODE
D2105	MTZJT-778.2C	DIODE
D2303	MA723TA5	DIODE
D2304	MA723TA5	DIODE
D3201	MTZJT-778.2C	DIODE
D3202	MTZJT-778.2C	DIODE
TRANSISTORS		
Q101	BC847B	TRANSISTOR
Q102	BC847B	TRANSISTOR
Q104	BC847B	TRANSISTOR
Q105	BC847B	TRANSISTOR
Q251	2SD1328STX	TRANSISTOR
Q252	2SD1328STX	TRANSISTOR
Q253	BC847B	TRANSISTOR
Q254	BC847B	TRANSISTOR
Q301	BC847B	TRANSISTOR
Q302	FMY4T148	TRANSISTOR
Q303	BC847B	TRANSISTOR
Q304	FMY4T148	TRANSISTOR
Q305	BC847B	TRANSISTOR
Q306	FMY4T148	TRANSISTOR
Q351	2SA1767	TRANSISTOR
Q352	2SA1767	TRANSISTOR
Q353	2SA1767	TRANSISTOR
Q354	BC857B	TRANSISTOR
Q451	BC857B	TRANSISTOR
Q503	2SD2398-M2	TRANSISTOR

Cct Ref	Parts Number	Description
Q551	2SC5517000LB	TRANSISTOR
Q552	2SC1473ATA	TRANSISTOR
Q701	BC857B	TRANSISTOR
Q850	2SD2396K-M3	TRANSISTOR
Q851	BC857B	TRANSISTOR
Q852	2SD1858TV2	TRANSISTOR
Q853	BC847B	TRANSISTOR
Q854	BC847B	TRANSISTOR
Q855	BC847B	TRANSISTOR
Q856	BC847B	TRANSISTOR
Q857	2SA1018QTA	TRANSISTOR
Q950	BC847B	TRANSISTOR
Q951	FMY4T148	TRANSISTOR
Q1051	BC847B	TRANSISTOR
Q1052	BC847B	TRANSISTOR
Q1062	BC847B	TRANSISTOR
Q1101	BC847B	TRANSISTOR
Q1104	BC847B	TRANSISTOR
Q1105	BC847B	TRANSISTOR
Q1106	BC847B	TRANSISTOR
Q1107	BC847B	TRANSISTOR
Q1108	BC847B	TRANSISTOR
Q2101	BC857B	TRANSISTOR
Q2102	BC857B	TRANSISTOR
Q2103	BC857B	TRANSISTOR
Q2301	BC847B	TRANSISTOR
Q2302	BC857B	TRANSISTOR
Q2303	BC847B	TRANSISTOR
Q2304	BC857B	TRANSISTOR
Q3001	BC847B	TRANSISTOR
Q3006	BC847B	TRANSISTOR
Q3007	BC847B	TRANSISTOR
Q3201	BC847B	TRANSISTOR
Q3202	BC847B	TRANSISTOR
Q3203	BC857B	TRANSISTOR
Q3204	BC857B	TRANSISTOR
Q3205	BC847B	TRANSISTOR
Q3206	BC847B	TRANSISTOR
Q3207	BC847B	TRANSISTOR
Q3208	BC847B	TRANSISTOR
Q3209	BC847B	TRANSISTOR
Q3401	BC847B	TRANSISTOR
Q3402	BC847B	TRANSISTOR
Q3601	BC847B	TRANSISTOR
TRANSFORMERS		
T501	ETH19Y173AY	TRANSFORMER
T801	ETS39AG1K7AD	TRANSFORMER
T802	ETP35KAN619U	TRANSFORMER
COILS		
L104	EXCELSA35T	COIL
L106	TLTACT100K	COIL
L107	TLTACT6R8K	COIL
L301	TLTACT4R7K	COIL
L302	TLTACT4R7K	COIL
L451	EXCELSA35T	COIL
L501	EXCELSA35T	COIL
L552	ELH5L4119	COIL
L553	ELC08D682E	COIL
L554	ELC18B332L	COIL
L601	TLTACT4R7K	COIL
L602	TLTACT4R7K	COIL
L603	TLTACT4R7K	COIL
L604	TLTACT4R7K	COIL
L606	TLTACT4R7K	COIL
L607	ELJFC2R2KF	COIL
L701	ELC10D822E	COIL



Cct Ref	Parts Number	Description
L850	EXCELSA35T	COIL
L851	EXCELSA35T	COIL
L852	ELEIE470KA	COIL
L853	EXCELSA35T	COIL
L854	EXCELSA35T	COIL
L855	EXCELSA35T	COIL
L856	EXCELSA39V	COIL
L1061	TLT331K991R	COIL
L1103	TLTACT100K	COIL
L1104	EXCELSA35T	COIL
L1105	ELJFC2R2KF	COIL
L2101	TLTACT100K	COIL
L2103	EXCELSA35T	COIL
L2104	TLTACT4R7K	COIL
L3001	ELEMV1R5MA	COIL
L3002	ELEMV1R5MA	COIL
L3003	ELEMV1R5MA	COIL
L3004	ELEMV1R5MA	COIL
L3005	ELEBR2R2KA	COIL
L3006	ELEBR2R2KA	COIL
L3007	TLTACT2R2K	COIL
L3201	ELEBR6R8KA	COIL
L3202	ELEBR6R8KA	COIL
L3203	TLT390K991R	COIL
L3204	TLT331K991R	COIL
L3401	ELESN2R2KA	COIL
L3402	ELESN2R2KA	COIL
FILTERS		
L804	ELF19N008A	LINE FILTER
CRYSTALS		
X601	4730007267	CRYSTAL
X1101	TSSA121	CRYSTAL
X2101	4730007158	CRYSTAL
RESISTORS		
C101	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
J116	ERDS1TJ220	CARBON 0.5W 5% 22 Ω
JA1	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA1	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA2	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA5	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA8	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA9	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA10	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA11	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA12	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA13	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA14	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA15	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA16	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA17	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA18	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA21	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA22	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA23	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA25	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA26	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA27	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA28	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA29	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA30	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA31	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA32	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA33	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA34	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA35	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω

Cct Ref	Parts Number	Description
JA36	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA37	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA38	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA39	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA40	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA43	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA44	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA45	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA46	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA47	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA48	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA49	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA50	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA51	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA52	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA53	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA54	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA55	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA56	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA57	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA58	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA59	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JA60	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JA61	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JSE3	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE4	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE10	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE12	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE18	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE22	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE26	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE33	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE35	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE42	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE48	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSE49	ERJ8GEY0R00	S.M.CARB .125W 5% 0 Ω
JSM7	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSM8	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
JSM10	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R101	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R102	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10K Ω
R103	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2 Ω
R104	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3 Ω
R105	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100 Ω
R106	ERJ6GEYJ681	S.M.CARB 0.1W 5% 680 Ω
R107	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1K Ω
R111	ERJ6GEY0R00	S.M.CARB 0.1W 5% 0 Ω
R112	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100 Ω
R113	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22K Ω
R114	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330 Ω
R115	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330 Ω
R116	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6 Ω
R117	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2 Ω
R118	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1K Ω
R120	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3 Ω
R121	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470 Ω
R251	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180 Ω
R252	ERJ6GEYJ432	S.M.CARB 0.1W 5% 4K3 Ω
R253	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10K Ω
R254	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180 Ω
R255	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10K Ω
R256	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470 Ω
R257	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56 Ω
R258	ERJ6GEYJ432	S.M.CARB 0.1W 5% 4K3 Ω
R259	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56 Ω
R260	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10K Ω

Cct Ref	Parts Number	Description			
R261	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R262	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R263	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R264	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R265	ERD25TJ2R2	CARBON	0.25W	5%	2R2 Ω
R266	ERD25TJ2R2	CARBON	0.25W	5%	2R2 Ω
R267	ERF7ZK4R7	WOUND	7W	10%	4R7 Ω ▲
R268	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R269	ERQ14AJ101	METAL	0.25W	5%	100 Ω ▲
R271	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R272	ERF7ZK4R7	WOUND	7W	10%	4R7 Ω ▲
R301	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R302	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R303	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R304	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330 Ω
R305	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R306	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R307	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R308	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330 Ω
R309	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R310	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R311	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R312	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330 Ω
R351	ERJ6GEYJ302	S.M.CARB	0.1W	5%	3K Ω
R352	ERJ6GEYJ302	S.M.CARB	0.1W	5%	3K Ω
R353	ERJ6GEYJ302	S.M.CARB	0.1W	5%	3K Ω
R354	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R355	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R356	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R357	ERG12DJ104V	METAL	0.5W	5%	100K Ω
R358	ERG12DJ104V	METAL	0.5W	5%	100K Ω
R359	ERG12DJ104V	METAL	0.5W	5%	100K Ω
R363	ERDS1TJ103	CARBON	0.5W	5%	10K Ω
R364	ERDS1TJ103	CARBON	0.5W	5%	10K Ω
R365	ERDS1TJ103	CARBON	0.5W	5%	10K Ω
R366	ERDS1TJ152	CARBON	0.5W	5%	1K5 Ω
R367	ERDS1TJ152	CARBON	0.5W	5%	1K5 Ω
R368	ERDS1TJ152	CARBON	0.5W	5%	1K5 Ω
R369	ERD25TJ123	CARBON	0.25W	5%	12K Ω
R370	ERD25TJ272F	CARBON	0.25W	5%	2K7 Ω
R372	ERQ12AJ121	FUSIBLE	0.5W	5%	120 Ω ▲
R373	ERJ6GEYJ220	S.M.CARB	0.1W	5%	22 Ω
R374	ERD25TJ274	CARBON	0.25W	5%	270K Ω
R375	ERJ6GEYJ684	S.M.CARB	0.1W	5%	680K Ω
R376	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18K Ω
R377	ERQ1ABJP5R6S	METAL	0.5W	5%	5R6 Ω ▲
R378	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R379	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R380	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R381	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R451	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R452	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R453	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R454	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R455	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R456	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R457	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R458	ERD25TJ1R5	CARBON	0.25W	5%	1R5 Ω
R459	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R460	ERDS1TJ221	CARBON	0.5W	5%	220 Ω
R461	ERW2PK1R5	WOUND	2W	5%	1R5 Ω
R463	ERD25TJ102	CARBON	0.25W	5%	1K Ω
R464	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8 Ω
R465	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R502	ERJ6GEYJ511	S.M.CARB	0.1W	5%	510 Ω
R506	ERD25TJ560	CARBON	0.25W	5%	56 Ω

Cct Ref	Parts Number	Description			
R507	ERG2FJ391H	METAL	2W	5%	390 Ω
R509	ERDS1TJ152	CARBON	0.5W	5%	1K5 Ω
R510	ERDS1FJ152	CARBON	0.5W	5%	1K5 Ω ▲
R553	ERG1SJ152	METAL	1W	5%	1K5 Ω
R554	ERG1SJ101	METAL	1W	5%	100 Ω
R555	ERQ12HKR33	METAL	0.5W	5%	R33 Ω ▲
R558	ERDS1TJ124	CARBON	0.5W	5%	120K Ω
R559	ERQ12HKR33	METAL	0.5W	5%	R33 Ω ▲
R560	ERJ6GEYJ274	S.M.CARB	0.1W	5%	270K Ω
R561	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R563	ERJ6GEYJ564	S.M.CARB	0.1W	5%	560K Ω
R564	ERJ6GEYJ753	S.M.CARB	0.1W	5%	75K Ω
R566	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56K Ω
R567	ERF7ZK4R7	WOUND	7W	10%	4R7 Ω ▲
R601	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R602	ERJ6GEYJ821	S.M.CARB	0.1W	5%	820 Ω
R603	ERJ8GEYJ103	S.M.CARB	.125W	5%	10K Ω
R604	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R605	ERD25TJ331	CARBON	0.25W	5%	330 Ω
R606	ERD25TJ331	CARBON	0.25W	5%	330 Ω
R607	ERJ6GEYJ821	S.M.CARB	0.1W	5%	820 Ω
R608	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R609	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R610	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R611	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R612	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R613	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5 Ω
R622	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R636	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R645	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R647	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R648	ERJ6GEYJ152	S.M.CARB	0.1W	5%	1K5 Ω
R650	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R651	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R652	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R654	ERJ6GEYJ622	S.M.CARB	0.1W	5%	6K2 Ω
R655	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R658	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R659	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R660	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R701	ERQ12AJ101	FUSIBLE	0.5W	5%	100 Ω ▲
R702	ERQ12HJ220	METAL	0.5W	5%	22 Ω ▲
R703	ERG2FJ821	METAL	2W	5%	820 Ω ▲
R704	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56K Ω
R705	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R706	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R707	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150 Ω
R708	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39K Ω
R709	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39K Ω
R710	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R711	ERG1SJ101	METAL	1W	5%	100 Ω
R712	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R805	ERD25TJ473	CARBON	0.25W	5%	47K Ω
R806	ERD25TJ100	CARBON	0.25W	5%	10 Ω
R807	ERD25TJ332	CARBON	0.25W	5%	3K3 Ω
R809	ERD25TJ681	CARBON	0.25W	5%	680 Ω
R810	ERW2PKR33	WOUND	2W	20%	R33 Ω ▲
R811	ERW2PKR33	WOUND	2W	20%	R33 Ω ▲
R812	ERD75TAJ825	CARBON	0.75W	5%	8M2 Ω ▲
R813	ERF7ZK2R7	WOUND	7W	20%	2R7 Ω ▲
R814	ERD25TJ473	CARBON	0.25W	5%	47K Ω
R815	ERD25TJ222	CARBON	0.25W	5%	2K2 Ω
R850	ERD25TJ122	CARBON	0.25W	5%	1K2 Ω
R852	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R853	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R854	ERG2FJ223	METAL	2W	5%	22K Ω ▲

Cct Ref	Parts Number	Description			
R855	ERJ6GEYJ752	S.M.CARB	0.1W	5%	7K5 Ω
R857	ERJ6GEYJ752	S.M.CARB	0.1W	5%	7K5 Ω
R858	ERJ6GEYJ752	S.M.CARB	0.1W	5%	7K5 Ω
R859	ERJ6GEYJ753	S.M.CARB	0.1W	5%	75K Ω
R860	ERQ1CJP2R2	FUSIBLE	1W	10%	2R2 Ω Δ
R861	ERDS2TJ221T	CARBON	0.5W	5%	220 Ω
R862	ERD25TJ272F	CARBON	0.25W	5%	2K7 Ω
R863	ERDS1TJ560	CARBON	0.5W	5%	56 Ω
R864	ERDS1TJ151	CARBON	0.5W	5%	150 Ω
R865	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R867	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R868	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R869	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R870	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7 Ω
R871	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R872	ERG1SJ183	METAL	1W	5%	18K Ω
R873	ERG1SJ223	METAL	1W	5%	22K Ω
R874	ERJ6GEYJ204	S.M.CARB	0.1W	5%	200K Ω
R876	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R877	ERW2PKR56	WOUND	2W	10%	R56 Ω Δ
R878	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R951	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R952	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R953	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R954	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R1051	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1062	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270 Ω
R1063	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1101	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1102	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1103	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330 Ω
R1104	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330 Ω
R1105	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1106	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R1107	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R1108	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R1109	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R1110	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R1111	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R1112	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R1113	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1115	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R1116	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1117	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1118	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R1119	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R1120	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1121	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1123	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1125	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R1126	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1127	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1128	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R1129	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8 Ω
R1130	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1131	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1132	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1133	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7 Ω
R1136	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R1137	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1138	ERJ6GEYJ105	S.M.CARB	0.1W	5%	1M Ω
R1139	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R1140	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R1141	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R1145	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1146	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω

Cct Ref	Parts Number	Description			
R1147	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1148	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1149	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R1151	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1152	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1156	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1157	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1158	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R1159	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1160	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R1161	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R1163	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1164	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1165	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1166	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1167	ERJ6GEYJ100	S.M.CARB	0.1W	5%	10 Ω
R1168	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47K Ω
R1169	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R1170	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R1171	ERJ6GEYJ224	S.M.CARB	0.1W	5%	220K Ω
R1172	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R1173	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R1174	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R1175	ERJ6GEYJ225	S.M.CARB	0.1W	5%	2M2 Ω
R1178	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R1251	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1252	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R1253	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3 Ω
R1254	ERJ6GEYJ512	S.M.CARB	0.1W	5%	5K1 Ω
R1255	ERJ6GEYJ912	S.M.CARB	0.1W	5%	9K1 Ω
R1912	ERC12ZGK335D	SOLID	0.5W	10%	3M3 Ω
R2101	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R2102	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R2103	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R2109	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18K Ω
R2110	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R2111	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220 Ω
R2112	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R2113	ERJ6GEYJ562	S.M.CARB	0.1W	5%	5K6 Ω
R2114	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R2115	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R2116	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R2117	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R2118	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R2119	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R2120	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2 Ω
R2302	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R2303	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R2304	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R2305	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R2306	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R2308	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R2309	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R2310	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R2311	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R2312	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3001	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3002	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R3003	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3004	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R3005	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3006	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R3007	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3008	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R3009	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3010	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω

Cct Ref	Parts Number	Description			
R3011	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3012	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3013	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3014	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R3015	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3016	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R3017	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3018	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470 Ω
R3019	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3020	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R3021	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3022	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3023	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12K Ω
R3024	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R3025	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3026	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3044	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3046	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3047	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3048	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3049	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3050	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3057	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3202	ERDS1TJ151	CARBON	0.5W	5%	150 Ω
R3203	ERDS1TJ151	CARBON	0.5W	5%	150 Ω
R3204	ERG2FJ221	METAL	2W	5%	220 Ω ⚠
R3205	ERG2FJ221	METAL	2W	5%	220 Ω ⚠
R3207	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3208	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R3209	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3210	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15K Ω
R3211	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R3212	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R3213	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3214	ERJ6GEYJ683	S.M.CARB	0.1W	5%	68K Ω
R3215	ERJ6GEYJ302	S.M.CARB	0.1W	5%	3K Ω
R3216	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3217	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R3218	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R3219	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3220	ERJ6GEYJ683	S.M.CARB	0.1W	5%	68K Ω
R3221	ERJ6GEYJ302	S.M.CARB	0.1W	5%	3K Ω
R3222	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R3223	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22K Ω
R3224	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3225	ERJ6GEYJ683	S.M.CARB	0.1W	5%	68K Ω
R3226	ERJ6GEYJ302	S.M.CARB	0.1W	5%	3K Ω
R3227	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3228	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27K Ω
R3229	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10K Ω
R3230	ERJ6GEYJ302	S.M.CARB	0.1W	5%	3K Ω
R3231	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2 Ω
R3232	ERJ6GEYJ242	S.M.CARB	0.1W	5%	2K4 Ω
R3233	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R3234	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3402	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3403	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3404	ERJ6GEYJ242	S.M.CARB	0.1W	5%	2K4 Ω
R3405	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100K Ω
R3406	ERJ6GEYJ301	S.M.CARB	0.1W	5%	300 Ω
R3407	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12K Ω
R3408	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R3409	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75 Ω
R3601	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3602	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3603	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω

Cct Ref	Parts Number	Description			
R3604	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3605	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3606	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100 Ω
R3607	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7 Ω
R3608	ERJ6GEYJ752	S.M.CARB	0.1W	5%	7K5 Ω
R3609	ERJ6GEY0R00	S.M.CARB	0.1W	5%	0 Ω
R3610	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1K Ω
R3613	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
R3614	ERJ6GEYJ391	S.M.CARB	0.1W	5%	390 Ω
CAPACITORS					
C102	ECJ2VF1H103Z	ELECT	350V		10nF
C103	ECJ2VF1H104Z	ELECT	350V		100nF
C106	ECUV1H560JCX	S.M. CAP	50V		56pF
C107	ECJ2VF1H104Z	ELECT	350V		100nF
C108	ECEA1CU100	ELECT	16V		10μF
C109	ECUV1H102JCX	S.M. CAP	50V		1nF
C110	ECUV1H103ZFX	S.M. CAP	50V		10nF
C117	ECUV1H103ZFX	S.M. CAP	50V		10nF
C118	ECJ2VF1H104Z	ELECT	350V		100nF
C121	ECUV1H561KBX	S.M. CAP	50V		560pF
C122	ECUV1H102KBX	S.M. CAP	50V		1nF
C123	ECUV1H102KBX	S.M. CAP	50V		1nF
C124	ECUV1H220JCX	S.M. CAP	50V		22pF
C125	ECUV1H100DCX	S.M. CAP	50V		10pF
C252	ECJ2VB1H223K	ELECT	350V		22nF
C256	ECJ2VB1H223K	ELECT	350V		22nF
C260	ECA1VM102GB	ELECT	35V		1nF
C261	ECA1VM102GB	ELECT	35V		1nF
C264	ECA1HHG222E	ELECT	50V		2200μF
C267	ECJ2VB1H104K	ELECT	350V		100nF
C268	ECJ2VB1H104K	ELECT	350V		100nF
C270	ECJ2VB1H104K	ELECT	350V		100nF
C301	ECJ2VB1C104K	ELECT	350V		100nF
C302	ECJ2VB1C104K	ELECT	350V		100nF
C303	ECJ2VB1C104K	ELECT	350V		100nF
C304	ECEA1CU100	ELECT	16V		10μF
C351	ECUV1H090DCN	S.M. CAP	50V		90pF
C352	ECUV1H090DCN	S.M. CAP	50V		90pF
C353	ECUV1H090DCN	S.M. CAP	50V		90pF
C354	ECQM2104KZ	FILM	250V		100nF
C355	ECUV1H222JCX	S.M. CAP	50V		2.2nF
C356	ECUV1H222JCX	S.M. CAP	50V		2.2nF
C357	ECUV1H222JCX	S.M. CAP	50V		2.2nF
C360	ECKC3D152J	CERAMIC	2KV		1.5nF ⚠
C363	ECA1VM471GB	ELECT	35V		470μF
C364	ECJ2VF1H103Z	ELECT	350V		10nF
C365	ECEA1CU100	ELECT	16V		10μF
C451	ECUV1H102JX	S.M. CAP	50V		1nF
C453	ECUV1H152KBX	S.M. CAP	50V		1.5pF
C454	ECUV1H223KBM	S.M. CAP	50V		22nF
C456	ECA1HHG221B	ELECT	50V		220μF
C458	ECQB1222JF3	FILM	100V		2.2nF
C459	222236516154	FILM	160V		150nF
C461	ECCR2H270J	CERAMIC	500V		27pF
C508	ECQV1H105JZ	FILM	50V		1μF
C509	ECA1VM470B	ELECT	35V		47μF
C510	ECUV1H104KBX	S.M. CAP	50V		100nF
C552	ECWH15H102JN	FILM	1500V		1nF
C554	ECWF2H684J	FILM	500V		680nF ⚠
C555	ECWH15H103JN	FILM	1500V		10nF
C556	ECQF4153JZH	FILM	400V		1.5nF ⚠
C557	ECKC2H471J	CERAMIC	500V		470pF ⚠
C558	ECA1HHG471E	ELECT	50V		470μF
C559	ECWF2824JBB	FILM	200V		820nF ⚠
C560	ECA2GHG2R2B	ELECT	400V		820nF
C561	ECA1EHG102B	ELECT	25V		1000μF

Cct Ref	Parts Number	Description			
C562	ECKC2H101J	CERAMIC	500V	100pF	△
C563	ECA2EHG220B	ELECT	250V	20μF	
C564	ECEA2AN2R2SB	ELECT	100V	2.2μF	
C565	ECQP1H273J	FILM	100V	2700μF	
C566	ECKC2H471J	CERAMIC	500V	470pF	△
C567	ECA1EHG102B	ELECT	25V	1000μF	
C568	ECKC2H471J	CERAMIC	500V	470pF	△
C569	ECKC2H102J	CERAMIC	500V	1nF	△
C601	ECUV1H104KBX	S.M. CAP	50V	100nF	
C602	ECEA1HU101	ELECT	50V	100μF	
C603	ECUV1H102JCX	S.M. CAP	50V	1nF	
C604	ECJ2VF1H223Z	ELECT	350V	22nF	
C605	ECEA1HU101	ELECT	50V	100μF	
C607	ECJ2VF1H104Z	ELECT	350V	100nF	
C608	ECUV1H153KBX	S.M. CAP	50V	15nF	
C609	ECUV1H153KBX	S.M. CAP	50V	15nF	
C610	ECUV1H153KBX	S.M. CAP	50V	15nF	
C611	ECUV1H153KBX	S.M. CAP	50V	15nF	
C612	ECUV1H153KBX	S.M. CAP	50V	15nF	
C613	ECUV1H153KBX	S.M. CAP	50V	15nF	
C614	ECUV1H050CCX	S.M. CAP	50V	50pF	
C615	ECUV1H050CCX	S.M. CAP	50V	50pF	
C616	ECEA1HU101	ELECT	50V	100μF	
C617	ECUV1H223KBX	S.M. CAP	50V	22nF	
C619	ECJ2VB1H473K	ELECT	350V	47nF	
C620	ECEA1HU101	ELECT	50V	100μF	
C621	ECJ2VB1C104K	ELECT	350V	100nF	
C622	ECUV1H683KBX	S.M. CAP	50V	68nF	
C623	ECUV1H102JCX	S.M. CAP	50V	1nF	
C624	ECJ3VB1C474K	ELECT	3.5KV	470nF	
C625	ECJ3VB1C474K	ELECT	3.5KV	470nF	
C626	ECJ3VB1C474K	ELECT	3.5KV	470nF	
C627	ECJ3VB1C474K	ELECT	3.5KV	470nF	
C628	ECEA1CU100	ELECT	16V	10μF	
C629	ECUV1H104KBX	S.M. CAP	50V	100nF	
C630	ECUV1H100DCX	S.M. CAP	50V	10pF	
C631	ECUV1H683ZFX	S.M. CAP	50V	68nF	
C632	ECUV1H270JCX	S.M. CAP	50V	27pF	
C633	ECUV1H271JCX	S.M. CAP	50V	270pF	
C634	ECUV1H271JCX	S.M. CAP	50V	270pF	
C635	ECUV1H180JCX	S.M. CAP	50V	18pF	
C636	ECUV1H271JCX	S.M. CAP	50V	270pF	
C637	ECUV1H101JCX	S.M. CAP	50V	100pF	
C638	ECUV1H471JCX	S.M. CAP	50V	470pF	
C639	ECUV1H332KBM	S.M. CAP	50V	3.3nF	
C701	ECA1HHG101B	ELECT	50V	100μF	
C702	ECUV1H103KBX	S.M. CAP	50V	10nF	
C703	ECEA1HGE100	ELECT	50V	10μF	
C704	ECQB1H223K	FILM	50V	22nF	
C705	ECQB1H152K	FILM	50V	1.5nF	
C804	222233510224	FILM	250V	220nF	
C805	ECA0JHG102B	ELECT	6.3V	1nF	
C806	ECKWNA101MBC	CERAMIC	400V	100μF	
C807	ECKC2H472J	CERAMIC	500V	4.7nF	△
C808	ECKC2H472J	CERAMIC	500V	4.7nF	△
C809	ECKC2H472J	CERAMIC	500V	4.7nF	△
C810	ECKC2H472J	CERAMIC	500V	4.7nF	△
C811	43504A9157M0	ELECT	400V	150μF	
C814	ECKC3D102J	CERAMIC	2KV	1nF	△
C815	ECKC1H471J	CERAMIC	50V	470pF	
C817	ECQE6104K	FILM	600V	100nF	△
C818	ECKWNA332MEC	CERAMIC	250V	3.3nF	
C819	ECQB1H152K	FILM	50V	1.5nF	
C850	ECKC3D471JB	CERAMIC	2KV	470pF	△
C851	ECA2CM221E	ELECT	160V	220μF	
C852	ECA2CHG101E	ELECT	160V	100μF	

Cct Ref	Parts Number	Description			
C853	ECKC2H471J	CERAMIC	500V	470pF	△
C854	ECA1EM102GB	ELECT	25V	100μF	
C855	ECKC2H471J	CERAMIC	500V	470pF	△
C856	ECA1AHG222B	ELECT	10V	2200μF	△
C857	ECKC2H471J	CERAMIC	500V	470pF	△
C858	ECEA1HGE102	ELECT	50V	1000μF	
C859	ECJ2VF1H104Z	ELECT	350V	100nF	
C860	ECEA1HU101	ELECT	50V	100μF	
C862	ECJ2VF1H104Z	ELECT	350V	100nF	
C863	ECEA1HU101	ELECT	50V	100μF	
C866	ECJ2VF1H104Z	ELECT	350V	100nF	
C867	ECEA1CU100	ELECT	16V	10μF	
C868	ECEA1CU100	ELECT	16V	10μF	
C870	ECA1EM471GB	ELECT	25V	470μF	
C871	ECA1CM102B	ELECT	16V	1000μF	
C873	ECEA1CU100	ELECT	16V	10μF	
C875	ECA2CM220B	ELECT	160V	22μF	
C876	ECA1AHG471E	ELECT	10V	470pF	
C950	ECJ2VB1C104K	ELECT	350V	100nF	
C1061	ECUV1H103KBX	S.M. CAP	50V	10nF	
C1062	ECEA1HU101	ELECT	50V	100μF	
C1063	ECUV1H331JCX	S.M. CAP	50V	330pF	
C1101	ECJ2VF1H104Z	ELECT	350V	100nF	
C1103	ECUV1H220JCX	S.M. CAP	50V	22pF	
C1104	ECUV1H220JCX	S.M. CAP	50V	22pF	
C1105	ECUV1H101JCX	S.M. CAP	50V	100pF	
C1106	ECKC2H681J	CERAMIC	500V	680pF	△
C1108	ECJ2VB1H333K	ELECT	350V	33nF	
C1111	ECEA1CU100	ELECT	16V	10μF	
C1112	ECUV1H103KBX	S.M. CAP	50V	10nF	
C1115	ECJ3VB1C474K	ELECT	3.5KV	470nF	
C1116	ECUV1H472KBX	S.M. CAP	50V	4.7nF	
C1117	ECJ2VF1H104Z	ELECT	350V	100nF	
C1118	ECUV1H103KBX	S.M. CAP	50V	10nF	
C1119	ECUV1H221JCX	S.M. CAP	50V	220pF	
C1120	ECJ2VF1H104Z	ELECT	350V	100nF	
C1121	ECUV1H221JCX	S.M. CAP	50V	220pF	
C1123	ECUV1H471JCX	S.M. CAP	50V	470pF	
C1124	ECUV1H101JCX	S.M. CAP	50V	100pF	
C1125	ECUV1H101JCX	S.M. CAP	50V	100pF	
C1126	ECUV1H101JCX	S.M. CAP	50V	100pF	
C1127	ECUV1H221JCX	S.M. CAP	50V	220pF	
C1129	ECUV1H270JCX	S.M. CAP	50V	27pF	
C2101	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2102	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2103	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2104	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2105	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2106	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2107	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2108	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2109	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2110	ECUV1H102JCX	S.M. CAP	50V	1nF	
C2111	ECEA1CU100	ELECT	16V	10μF	
C2112	ECEA1CU100	ELECT	16V	10μF	
C2114	ECJ2VF1H104Z	ELECT	350V	100nF	
C2115	ECUV1H221JCX	S.M. CAP	50V	220pF	
C2116	ECUV1H221JCX	S.M. CAP	50V	220pF	
C2117	ECUV1H221JCX	S.M. CAP	50V	220pF	
C2118	ECUV1H221JCX	S.M. CAP	50V	220pF	
C2119	ECUV1H221JCX	S.M. CAP	50V	220pF	
C2120	ECUV1H221JCX	S.M. CAP	50V	220pF	
C2121	ECEA1CU100	ELECT	16V	10μF	
C2122	ECJ2VF1H104Z	ELECT	350V	100nF	
C2123	ECUV1H221JCX	S.M. CAP	50V	220pF	
C2124	ECUV1H070DTX	S.M. CAP	50V	70pF	

Cct Ref	Parts Number	Description		
C2125	ECUV1H470JCX	S.M. CAP	50V	47pF
C2126	ECUV1H070DTX	S.M. CAP	50V	70pF
C2127	ECUV1H010CCX	S.M. CAP	50V	1pF
C2128	ECUV1H010CCX	S.M. CAP	50V	1pF
C2129	ECA1CM102B	ELECT	16V	1000μF
C2130	ECA1CM331B	ELECT	16V	330μF
C2131	ECUV1H103ZFX	S.M. CAP	50V	10nF
C2132	ECUV1H103ZFX	S.M. CAP	50V	10nF
C2134	ECUV1H103ZFX	S.M. CAP	50V	10nF
C2135	ECEA1HU101	ELECT	50V	100μF
C2136	ECJ2VF1H104Z	ELECT	350V	100nF
C2137	ECEA1CU100	ELECT	16V	10μF
C2138	ECUV1H471KBX	S.M. CAP	50V	470pF
C2139	ECUV1H221JCX	S.M. CAP	50V	220pF
C2140	ECEA1HU101	ELECT	50V	100μF
C2141	ECUV1H152JCX	S.M. CAP	50V	1.5pF
C2301	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C2303	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3001	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3002	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3005	ECUV1H561JCX	S.M. CAP	50V	560pF
C3006	ECJ3VB1C474K	ELECT	3.5KV	470nF
C3007	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3008	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3009	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3012	ECUV1H561JCX	S.M. CAP	50V	560pF
C3013	ECJ3VB1C474K	ELECT	3.5KV	470nF
C3014	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3015	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3016	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3019	ECUV1H561JCX	S.M. CAP	50V	560pF
C3020	ECJ3VB1C474K	ELECT	3.5KV	470nF
C3021	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3022	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3023	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3026	ECUV1H561JCX	S.M. CAP	50V	560pF
C3027	ECJ3VB1C474K	ELECT	3.5KV	470nF
C3028	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C3029	ECEA1HU101	ELECT	50V	100μF
C3032	ECUV1H271JCX	S.M. CAP	50V	270pF
C3033	ECUV1H271JCX	S.M. CAP	50V	270pF
C3034	ECUV1H271JCX	S.M. CAP	50V	270pF
C3035	ECUV1H271JCX	S.M. CAP	50V	270pF
C3101	ECUV1H104KBX	S.M. CAP	50V	100nF
C3102	ECUV1E104KBX	S.M. CAP	25V	100nF
C3111	ECUV1H391JCX	S.M. CAP	50V	390pF
C3112	ECUV1H271JCX	S.M. CAP	50V	270pF
C3201	ECUV1H103KBX	S.M. CAP	50V	10nF
C3202	ECUV1H103KBX	S.M. CAP	50V	10nF
C3203	ECUV1H561JCX	S.M. CAP	50V	560pF
C3204	ECUV1H561JCX	S.M. CAP	50V	560pF
C3206	ECUV1H561JCX	S.M. CAP	50V	560pF
C3207	ECUV1H561JCX	S.M. CAP	50V	560pF
C3209	ECUV1H103KBX	S.M. CAP	50V	10nF
C3210	ECJ2VB1C104K	ELECT	350V	100nF
C3211	ECUV1H103KBX	S.M. CAP	50V	10nF
C3212	ECUV1H103KBX	S.M. CAP	50V	10nF
C3213	ECUV1H103KBX	S.M. CAP	50V	10nF
C3214	ECJ2VB1C104K	ELECT	350V	100nF
C3215	ECUV1H103KBX	S.M. CAP	50V	10nF
C3216	ECA1CM330GB	ELECT	16V	33pF
C3217	ECJ2VB1C104K	ELECT	350V	100nF
C3402	ECUV1H101JCX	S.M. CAP	50V	100pF
C3403	ECEA1HU101	ELECT	50V	100μF
C3405	ECUV1H180JCX	S.M. CAP	50V	18pF
C3406	ECUV1H271JCX	S.M. CAP	50V	270pF

Cct Ref	Parts Number	Description		
C3407	ECUV1H271JCX	S.M. CAP	50V	270pF
C3408	ECEA1HU101	ELECT	50V	100μF
C3601	ECEA1HU101	ELECT	50V	100μF
JSE28	ECUV1H104KBX	S.M. CAP	50V	100nF
TERMINALS AND LINKS				
JK2301	JPJ841101320	RCA SOCKET		
JK3001	350808500	SCART SOCKET		
JK3201	TJB8E029	AV TERMINAL		
SWITCHES				
S802	ESB92S11B	SWITCH		
S1251	EVQ21405R	SWITCH		
S1252	EVQ21405R	SWITCH		
S1253	EVQ21405R	SWITCH		
S1254	EVQ21405R	SWITCH		
S1255	EVQ21405R	SWITCH		
RELAYS				
RL801	TSE1885-1	RELAY		

SCHEMATIC DIAGRAMS FOR MODEL

TX-21AS1P

(EURO-4 CHASSIS)

IMPORTANT SAFETY NOTICE

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

NOTE

1. RESISTOR
All resistors are carbon ¼W resistor, unless marked otherwise.
Unit of resistance is OHM (Ω) (k=1,000, M=1,000,000)
2. CAPACITORS
All capacitors are ceramic 50V unless marked otherwise.
Unit of capacitance is μ F unless otherwise stated.
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 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

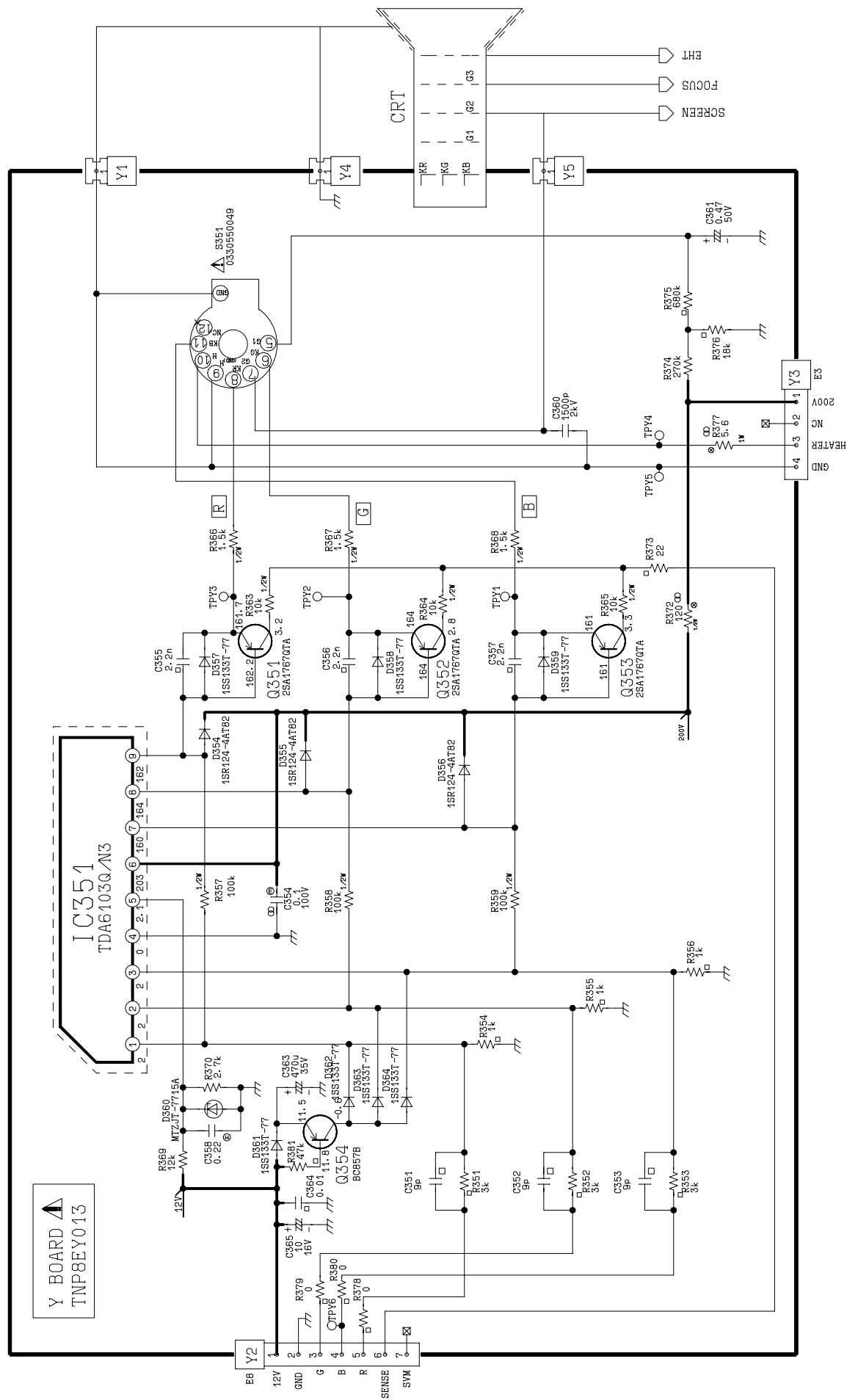
These schematic diagrams are the latest at time of printing and are subject to change without notice.

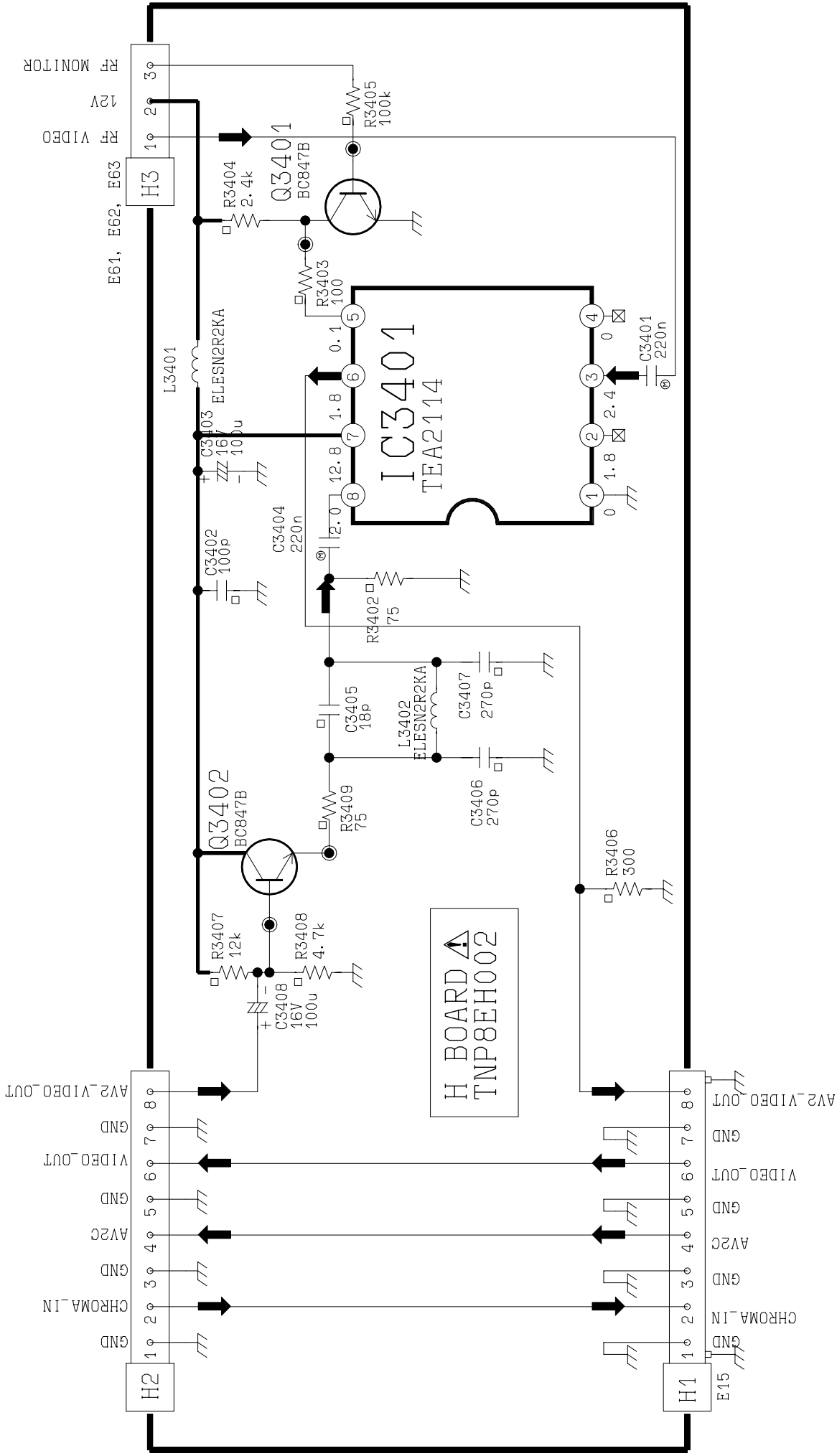
REMARKS

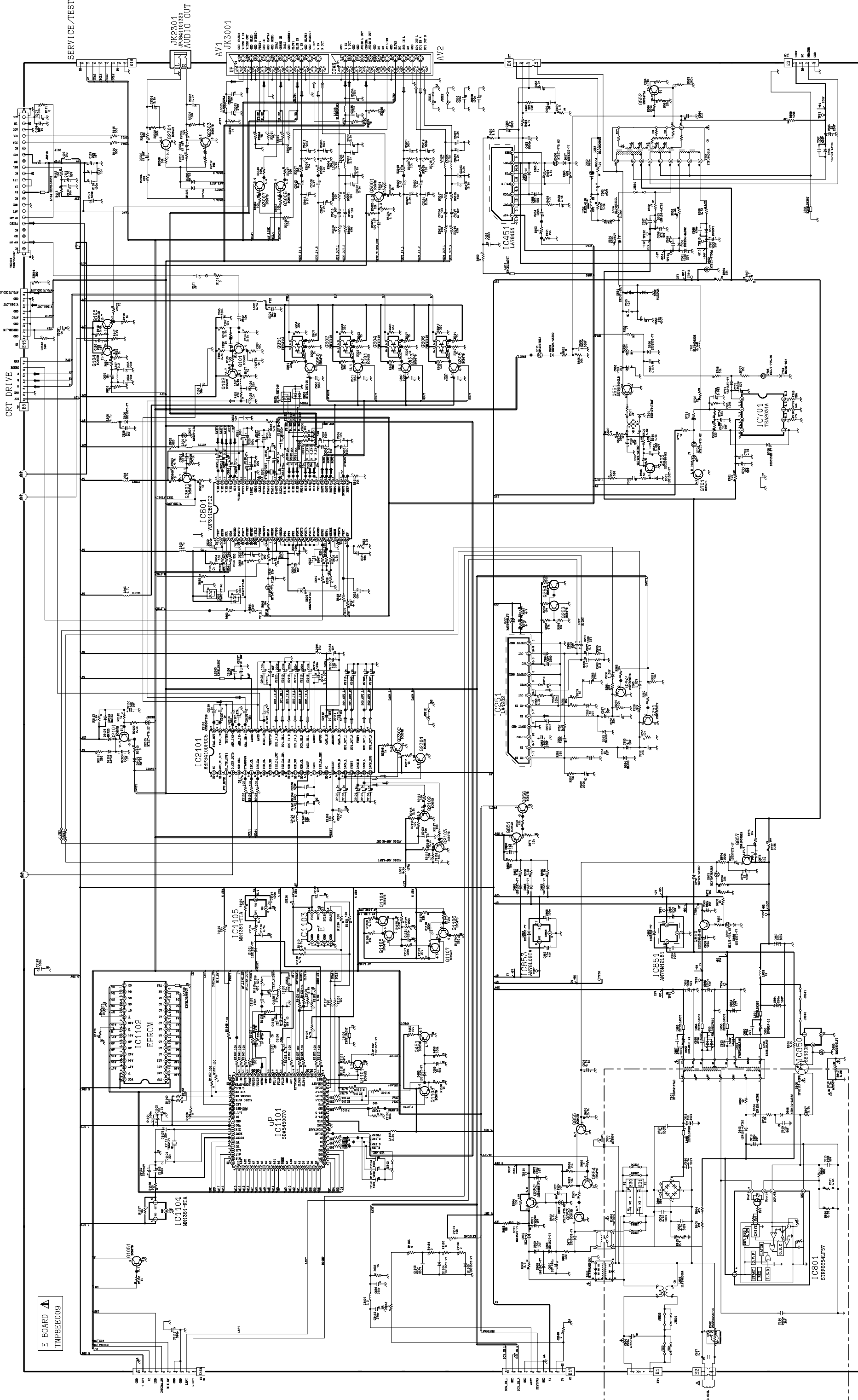
- a. Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard.
- b. Do not short circuit the hot and cold circuits as electrical components may be damaged.
- c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously 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.



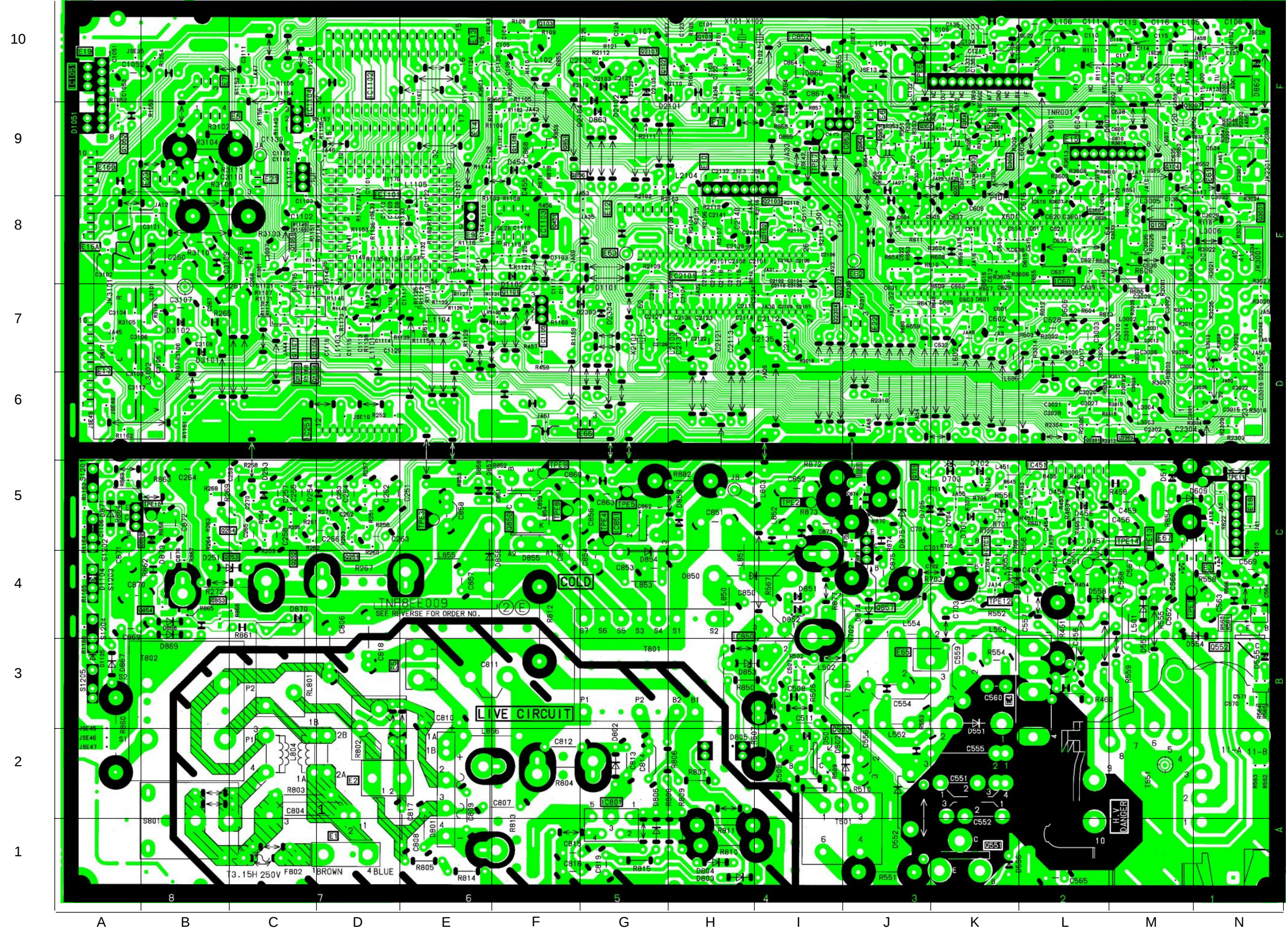




CONDUCTOR VIEW

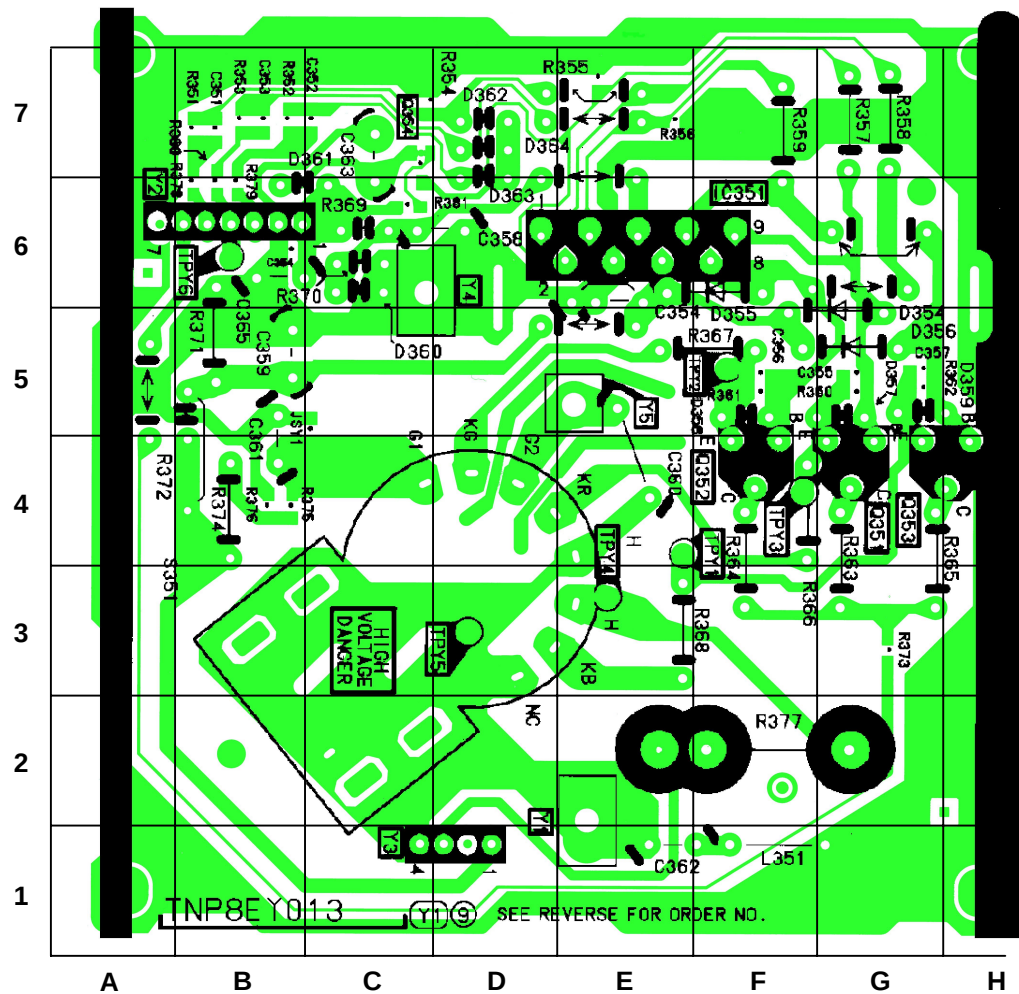
E-BOARD TNP8EE009

TRAN'S	DIODES	D558 L4
Q3601 L8	D3102 B7	D557 M3
Q3007 M9	D3101 B7	D556 K1
Q3006 N10	D2304 G7	D555 N3
Q3001 N8	D2303 G7	D554 N4
Q2304 I7	D2161 G9	D553 K4
Q2303 M6	D2105 G10	D552 J1
Q2302 I7	D2104 F9	D551 K3
Q2301 L6	D2103 G10	D511 M5
Q2103 I8	D2102 G9	D502 I2
Q2102 I8	D1103 F8	D501 I2
Q2101 G10	D1102 F7	D457 L5
Q1108 F9	D1101 G7	D456 L5
Q1107 C7	D1051 A9	D454 L5
Q1106 C7	D875 J5	D453 F9
Q1105 C7	D874 J4	D254 B5
Q1104 C7	D873 B5	D253 C4
Q1101 F7	D871 A5	D252 C4
Q1052 A9	D870 C4	D251 D4
Q1051 C8	D869 B4	
Q951 J9	D868 B4	IC'S
Q950 J9	D867 A3	IC2101 H8
Q857 J4	D866 I9	IC1105 F7
Q856 F9	D865 I9	IC1104 C9
Q855 J5	D864 I10	IC1103 F8
Q854 B4	D863 G9	IC1102 D10
Q853 B4	D862 N10	IC1101 D8
Q852 B5	D861 J9	IC1051 A10
Q850 F5	D860 I10	IC853 J9
Q701 J5	D859 H5	IC852 I10
Q552 N3	D858 E5	IC851 G5
Q551 K1	D857 E5	IC850 H4
Q503 I2	D856 F4	IC801 G2
Q451 F8	D855 F4	IC701 K5
Q305 K9	D854 G4	IC601 L7
Q304 K9	D853 H3	IC451 L5
Q303 K9	D852 I4	IC251 D6
Q302 J9	D851 I4	TP'S
Q301 K9	D850 H4	
Q253 C4	D806 G2	TPE14 M5
Q252 C4	D805 H2	TPE13 M4
Q251 D4	D804 H1	TPE12 K4
Q105 M8	D803 H1	TPE11 N5
Q104 M9	D802 G2	TPE10 B5
Q103 F10	D801 E1	TPE9 F5
Q102 G10	D705 J5	TPE8 F5
Q101 H10	D704 K5	TPE7 I9
	D703 K5	TPE6 J10
	D702 K5	TPE5 G5
	D701 K5	TPE4 G5
	D609 N5	TPE3 E5
	D607 L9	TPE2 I5
		TPE1 M4



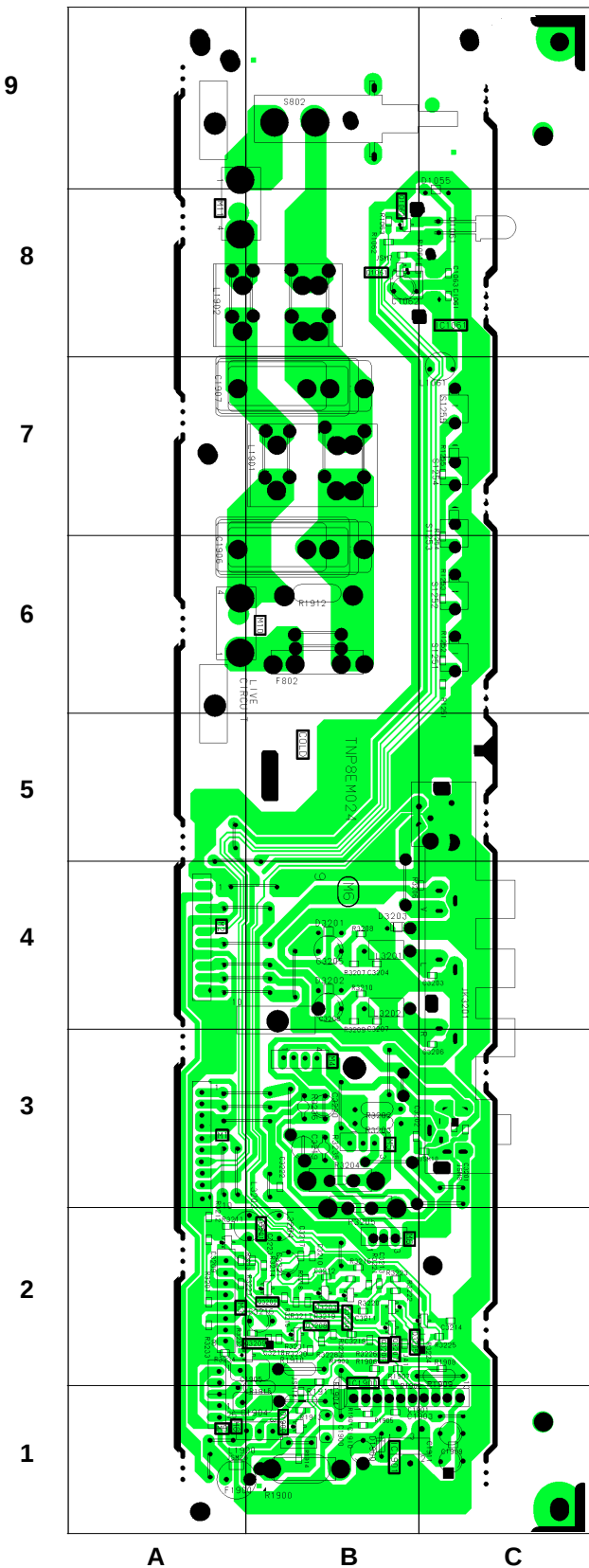
Y - BOARD TNP8EY013

DIODES	
D354	G5
D355	F6
D356	G5
D357	G5
D358	F5
D359	G5
D360	C6
D361	B6
D362	D7
D363	D7
D364	D7
TEST POINTS	
TPY1	E4
TPY2	F5
TPY3	F4
TPY4	E3
TPY5	D3
TPY6	B6
TRANSISTORS	
Q351	G4
Q352	F4
Q353	G4
Q354	C7
I.C.'S	
IC351	E6



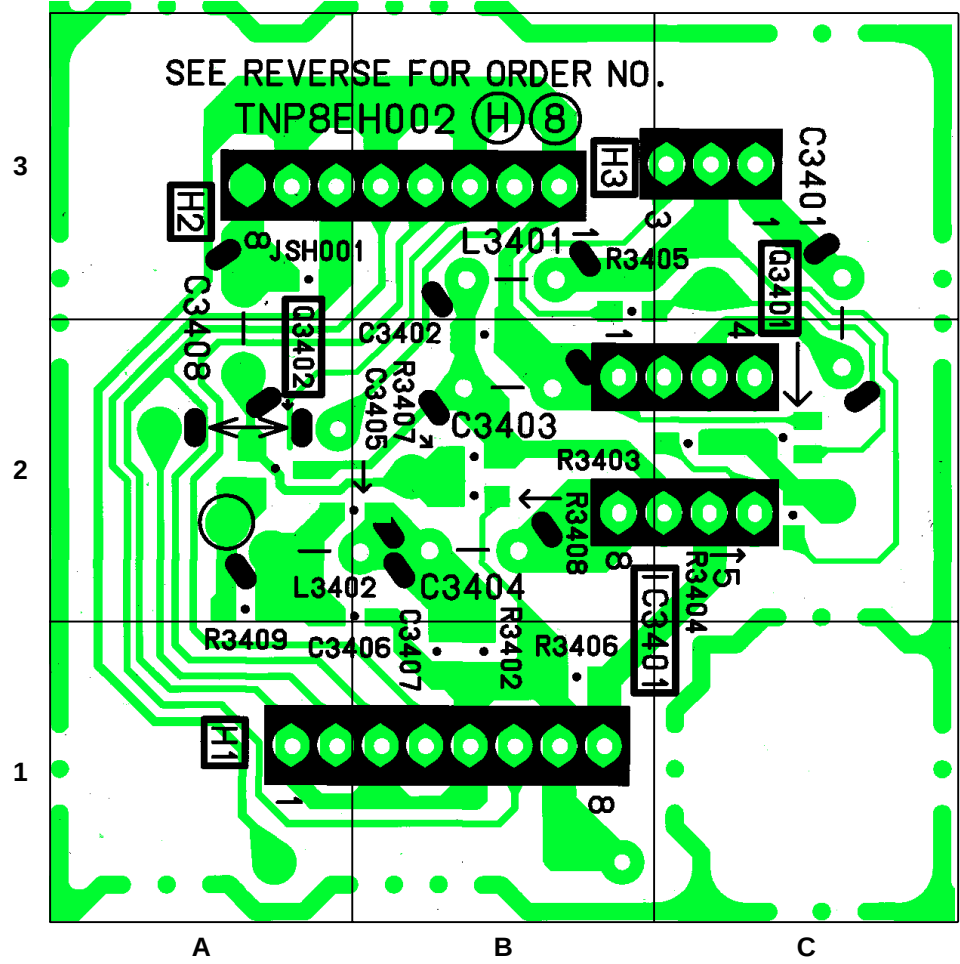
M - BOARD TNP8EM024

TRANSISTORS	
Q1061	B8
Q1062	B8
Q1900	B1
Q1901	B1
Q3201	B2
Q3202	B2
Q3203	B2
Q3204	B2
Q3205	B2
Q3206	B2
Q3207	B2
Q3208	B2
Q3209	B2
DIODES	
D1055	C8
D1061	C8
D1900	C1
D3201	B4
D3202	B4
D3203	B4
IC'S	
IC1061	C8
IC1900	B1
IC1901	B1



H - BOARD TNP8EH002

TRANSISTORS	
Q3401	C3
Q3402	A2
I.C.'S	
IC3401	C2



This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

This image shows a full page of blank handwriting practice paper. It features a solid vertical line on the left side, creating a margin. The rest of the page is filled with evenly spaced, horizontal dotted lines for writing. There are no other markings, text, or illustrations on the page.

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