

Service Manual

Colour Television EURO 2 Chassis

TX-28LD1P

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Colour Television TX-28LD1P EURO-2 Chassis

Specifications

Power Source :	220-240V AC, 50Hz	AV2 IN	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10 kΩ S-Video IN Y : 1V p-p 75Ω (21 pin) C : 0.3V p-p 75Ω
Power Consumption :	137W	AV2 OUT	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ Selectable output (21 pin)
Aerial Impedance :	75Ω unbalanced, Coaxial Type	AV3 IN	S-Video IN Y : 1V p-p 75Ω (4-pin) C : 0.3V p-p 75Ω Audio (RCA x 2) 500mV rms 10kΩ Video (RCA x 1) 1V p-p 75Ω
Receiving System :	PAL-B/G D/K, PAL-60 SECAM B/G D/K NTSC/M.NTSC	High Voltage :	28 kV $\pm$ 1kV at zero beam current
Receiving Channels :	VHF E2 - E12 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)	Picture Tube :	A66ECF40X12
Intermediate Frequency :	Video 38.9 MHz Sound 33.4MHz 33.16MHz 32.4MHz Colour 34.47 MHz (PAL) 34.5MHz 34.65MHz (SECAM)	Visible screen size:	70 cm Measured Diagonally
Video / Audio		Audio Output :	
Terminals :		Internal Speaker	2 x 15 W (Music Power) 8 Ω Impedance
AV1 IN	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 10kΩ RGB (21 pin)	Headphones	8 Ω Impedance
AV1 OUT	Video (21 pin) 1V p-p 75Ω Audio (21 pin) 500mV rms 1kΩ	Accessories supplied :	Remote Control R6 (UM3) Battery
		Dimensions :	Height : 582mm Width : 752mm Depth : 462mm
		Net Weight	32kg

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 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 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.

HOT CHECK CIRCUIT

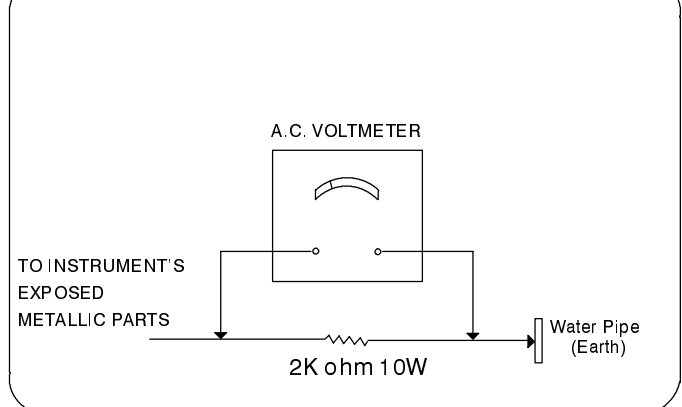


Fig.1

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 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 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 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.

LOCATION OF CONTROLS

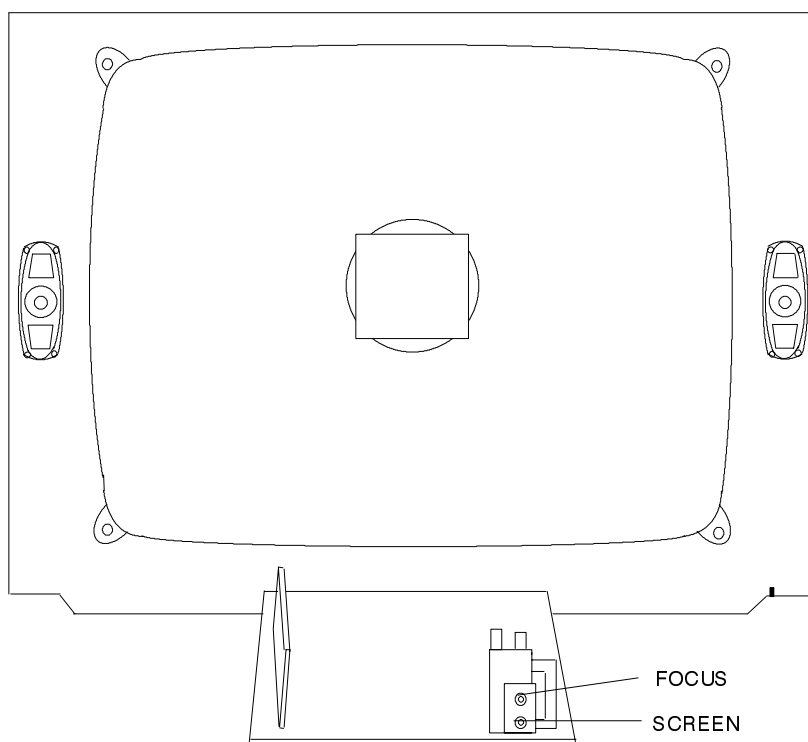


Fig.2

SERVICE HINTS

HOW TO REMOVE THE REAR COVER

1. Remove the 6 screws (A) as shown in Fig.3/Fig.4.

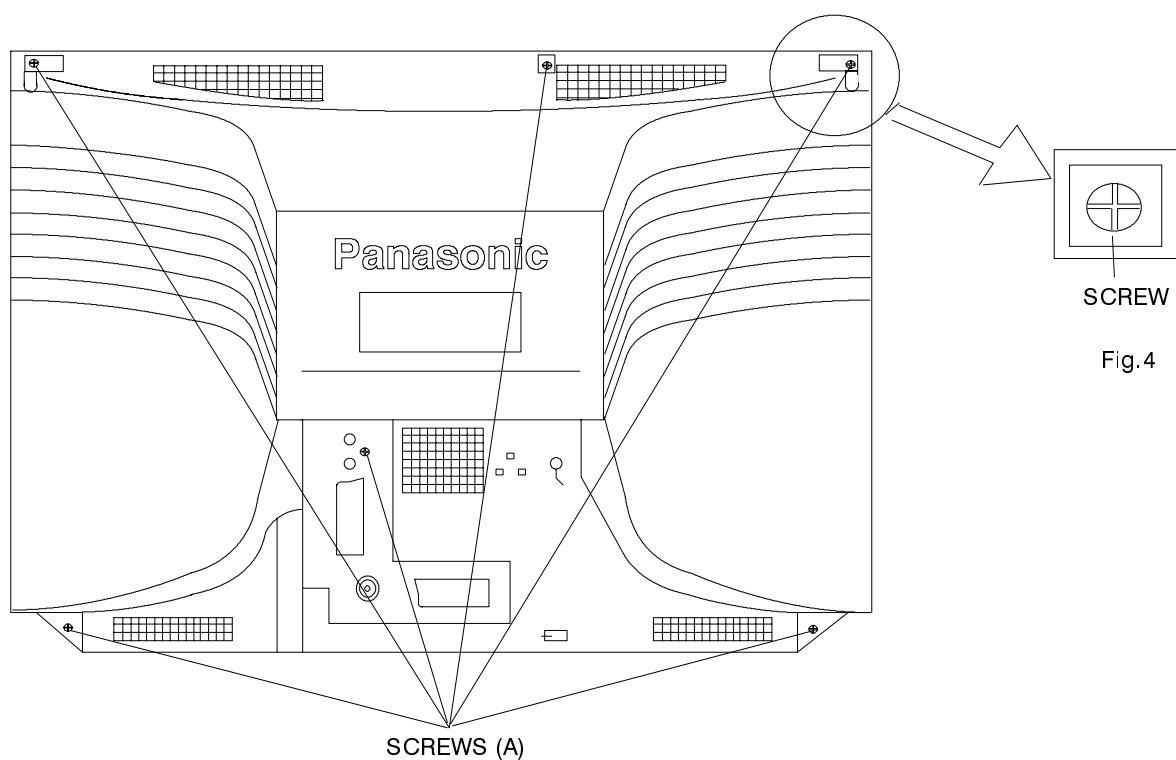


Fig.3.

Fig.4

ADJUSTMENT PROCEDURE

The remote control is used for entering and storing adjustments, with the exception of cut-off adjustments which must always be done prior to service adjustment. Perform adjustments in accordance with screen display. The display on the screen also specifies the CCU variants as well as the approx. setting values. The adjustment sequence for the service mode is indicated below.

1.

Set the Bass to maximum position, set the Treble to minimum position, press the F button followed by the volume down button on the customer controls at the front of the TV and at the same time press the Reveal 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 STORE button after each adjustment has been made to store the required values.
5.

To exit the Service Mode press the Normalisation button..

NOTE: This TV also has the option of using a Memory Pack which enables you to copy the preset TV channels into the Memory Pack and then download them onto this or any other EURO-2 TV set.

TV to Memory Pack process

1.

Plug the memory pack into the lower of the two 21 pin terminals at the back of the TV and switch the TV on. If the TV has only one 21 pin connector then this will be able to accept the memory pack.
2.

Go into the Service Mode as explained above. The screen will show: -

Program
External>>TV

3.

Press the blue button on the remote control. The screen will show: -

Program
TV>>External

4.

Press the STORE button on the TV. The screen will show: -

Storing

5.

All the tuning information stored inside the TV will now be transferred to the Memory Pack. This process will take 2-3 minutes to complete and when finished the screen will show: -

OK!

1.

Plug the memory pack into the lower of the two 21 pin terminals at the back of the TV and switch the TV on. If the TV has only one 21 pin connector then this will be able to accept the memory pack.
2.

Go into the Service Mode as explained above. The screen will show: -

Program
External>>TV

3.

Press the STORE button on the TV. The screen will show: -

Loading

4.

All the tuning information stored inside the Memory Pack will now be transferred to the TV. This process will take 2-3 minutes to complete and when finished the screen will show: -

OK!

5.

The tuning information from the Memory Pack has now been copied into the TV
6.

To exit from the Service Mode press the Normalisation button.
7.

The process has now been completed and the Memory Pack can now be removed.

Memory Pack to TV Process

Errors

If an error occurs while using the Memory Pack the TV will detect this and the screen will show: -

Program
Error!

If this happens then press the Normalisation button and repeat the process that was being used. If the errors continue to occur then check the connectors between the TV and the memory pack and check the 9V battery inside the memory pack.

ADJUSTMENT PROCEDURE

Item/Preparation	Adjustments
+B SET-UP 1. Recieve a window pattern 2. Set the controls: Brightness minimum Contrast minimum Volume minimum	1. Set the +B voltage up as follows: Adjust R811 so that B2 shows $147V \pm 1V$ 2. Confirm the following voltages. B1 203 $\pm$ 10V B6 12 $\pm$ 0.5V B3 27 $\pm$ 1V B7 5 $\pm$ 0.1/-0.25V B4 35.5 $\pm$ 1V B8 5 $\pm$ 0.25V B5 15.5 $\pm$ 1V U33 31 $\pm$ 1V
RF AGC 1. Receive a test pattern. 2. Connect an oscilloscope between the tuner RF AGC and ground. 3. Set the oscilloscope gain range to 1V/div.	1. Check that the noise becomes large when the RF AGC VR R126 is turned counterclockwise. After the check turn it clockwise 2. Gradually turn the RF AGC VR anti-clockwise, and set the RF AGC VR to the point where the RF AGC voltage is just falling to a point where this voltage drops by 0.2V from the maximum value.
CUT OFF 1. Receive a widow pattern. 2. Degauss the tube externally. 3. Set the TV into Service Mode 1. 4. Select Cutoff DC mode.	1. Confirm then value is 128 and select Ug2 mode noting colour with largest value 2. Turn the screen VR until a colour reaches 20~30. 3. Connect an oscilloscope to the cathode with the biggest value colour. 4. Select Cutoff DC mode and adjust Cutoff pulse to 159V +/- 5V. 5. Disconnect the oscilloscope and adjust the screen to whichever colour reaches 50 +/- 10 first.

SELF CHECK

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

To get into the Self Check mode press the F button followed by the volume down button on the customer controls at the front of the TV at the same time pressing the Status button, on the Remote Control, and the screen will show: —

1 — ok	Tuner	11 — — —	Dolby IC for C/R
2 — ok	VIF	12 — ok	P S MODE
3 — ok	EEPROM	13 — ok	P TA0
4 — — —	Sound AV switch 1	14 — ok	P TA1
5 — ok	Video AV switch 1	15 — ok	P TA2
6 — ok	VDP	16 — ok	P TA3
7 — ok	TPU	17 — ok	P SDA
8 — ok	MSP	18 — ok	P SCL1
9 — — —	Dolby Sub	19 — ok	P SCL3
10 — — —	Dolby IC for L/R	20 — ok	P SCL4

If the CCU ports have been checked and found to be incorrect then "—" will appear in place of "OK".

21 — ok	P SBLED
22 — ok	P OFF
23 — ok	P DEFL
24 — ok	P RAM

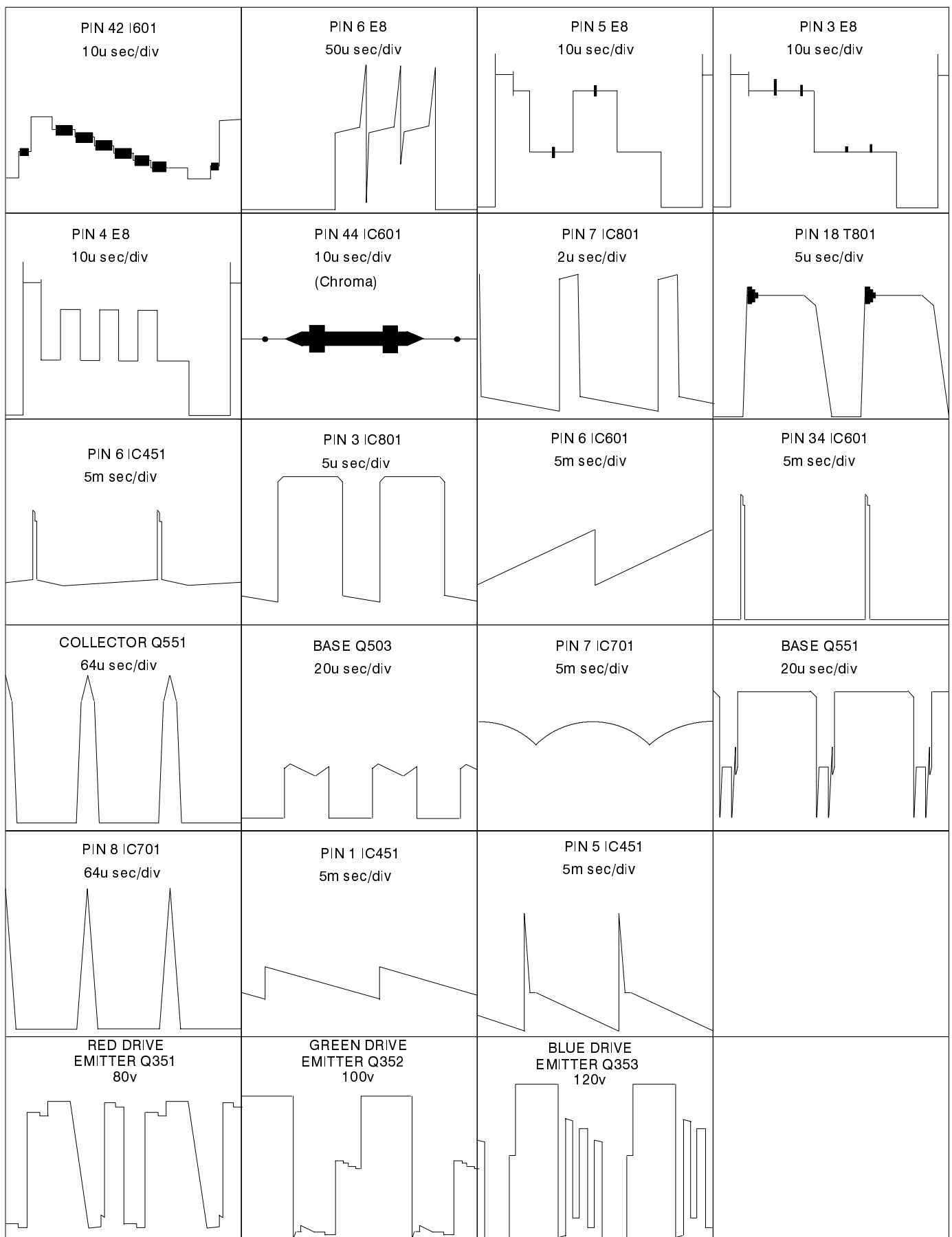
Hex codes

7A
22
22
54
85

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

Alignment Function		Settings / Special features						
1. Vertical amplitude	<table><tr><td colspan="3">V—AMP</td></tr><tr><td colspan="3">054</td></tr></table>	V—AMP			054			Optimum setting
V—AMP								
054								
2. Vertical symmetry	<table><tr><td colspan="3">V—SYM</td></tr><tr><td colspan="3">002</td></tr></table>	V—SYM			002			
V—SYM								
002								
3. Vertical linearity	<table><tr><td colspan="3">V—LIN</td></tr><tr><td colspan="3">006</td></tr></table>	V—LIN			006			
V—LIN								
006								
4. Vert. DC.	<table><tr><td colspan="3">Vert. D.C.</td></tr><tr><td colspan="3">000</td></tr></table>	Vert. D.C.			000			Not to be adjusted.
Vert. D.C.								
000								
5. V—Pos	<table><tr><td colspan="3">V. Pos.</td></tr><tr><td colspan="3">005</td></tr></table>	V. Pos.			005			Optimum setting
V. Pos.								
005								
6. Horizontal amplitude	<table><tr><td colspan="3">H—AMP</td></tr><tr><td colspan="3">055</td></tr></table>	H—AMP			055			Optimum setting
H—AMP								
055								
7. Horizontal position	<table><tr><td colspan="3">H—POS</td></tr><tr><td colspan="3">061</td></tr></table>	H—POS			061			
H—POS								
061								
8. Text Position	<table><tr><td colspan="3">TEXT POSITION</td></tr><tr><td colspan="3">048</td></tr></table>	TEXT POSITION			048			Optimum setting
TEXT POSITION								
048								
9. EW—amplitude	<table><tr><td colspan="3">E—W—AMP 1</td></tr><tr><td colspan="3">—128</td></tr></table>	E—W—AMP 1			—128			Optimum setting
E—W—AMP 1								
—128								
10. EW—amplitude	<table><tr><td colspan="3">E—W—AMP 2</td></tr><tr><td colspan="3">006</td></tr></table>	E—W—AMP 2			006			Optimum setting
E—W—AMP 2								
006								
11. Trapezium—comp	<table><tr><td colspan="3">TRAPEZ—1</td></tr><tr><td colspan="3">047</td></tr></table>	TRAPEZ—1			047			Optimum setting
TRAPEZ—1								
047								
12. Trapezium—comp	<table><tr><td colspan="3">TRAPEZ—2</td></tr><tr><td colspan="3">—128</td></tr></table>	TRAPEZ—2			—128			Optimum setting
TRAPEZ—2								
—128								
13. Colour VCO	<table><tr><td colspan="3">Colour VCO</td></tr><tr><td colspan="3">—005</td></tr></table>	Colour VCO			—005			Press either Blue or Yellow buttons to effect automatic adjustment
Colour VCO								
—005								
14. Cut—off DC	<table><tr><td colspan="3">Cut—off DC</td></tr><tr><td colspan="3">171</td></tr></table>	Cut—off DC			171			Not to be adjusted.
Cut—off DC								
171								
15. Ug2 Test	<table><tr><td colspan="3">Ug 2 Test</td></tr><tr><td>006</td><td>055</td><td>059</td></tr></table>	Ug 2 Test			006	055	059	Select Cutoff DC in Service Mode mode and confirm the value is 128. Select Ug 2 Test noting colour with largest value, adjust on FBT until a colour reaches 20 ~ 30. Connect an oscilloscope to the cathode of the biggest value colour, select Cutoff DC mode and adjust get Cutoff pulse voltage to 159±5V. Disconnect the oscilloscope and adjust the screen to whichever colour reaches 50±10 first.
Ug 2 Test								
006	055	059						
16. Cutoff	<table><tr><td colspan="3">Cutoff</td></tr><tr><td>034</td><td>052</td><td>056</td></tr></table>	Cutoff			034	052	056	Press the GREEN button to step through the settings. Adjust for optimum.
Cutoff								
034	052	056						
17. White	<table><tr><td colspan="3">White</td></tr><tr><td>216</td><td>255</td><td>216</td></tr></table>	White			216	255	216	Press the GREEN button to step through the settings. Adjust for optimum.
White								
216	255	216						

WAVEFORM PATTERN TABLE



SCHEMATIC DIAGRAM FOR MODELS TX-28LD1P (Euro-2 Chassis)

IMPORTANT SAFETY NOTICE

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

Notes

1. **RESISTOR**
All resistors are carbon 1/4W resistor, unless marked as follows:
Unit of resistance is OHM (Ω) (K=1,000, M=1,000,000).
2. **CAPACITORS**
All capacitors are ceramic 50V, unless marked as follows: Unit of capacitance is μ F, unless otherwise stated.
3. **COIL**
Unit of inductance is μ H, unless otherwise stated.
4. Components marked 'L' on the schematic diagram shows leadless parts.
5. **TEST POINT**
 : Test Point position
6. **EARTH SYMBOL**
 : Chassis Earth (Cold)
 : Line Earth (Hot)
7. **VOLTAGE MEASUREMENT**
Voltage is measured by a DC voltmeter. Measurement conditions are as follows:
Power source AC 220V-240V, 50Hz
Receiving Signal Colour Bar signal (RF)
All customer controls Maximum position
8.  : Indicates the Video signal path
 : Indicates the Audio signal path
 : Indicates the Vertical/Horizontal signal path
9. This schematic diagram is the latest at the time of printing and is subject to change without notice.

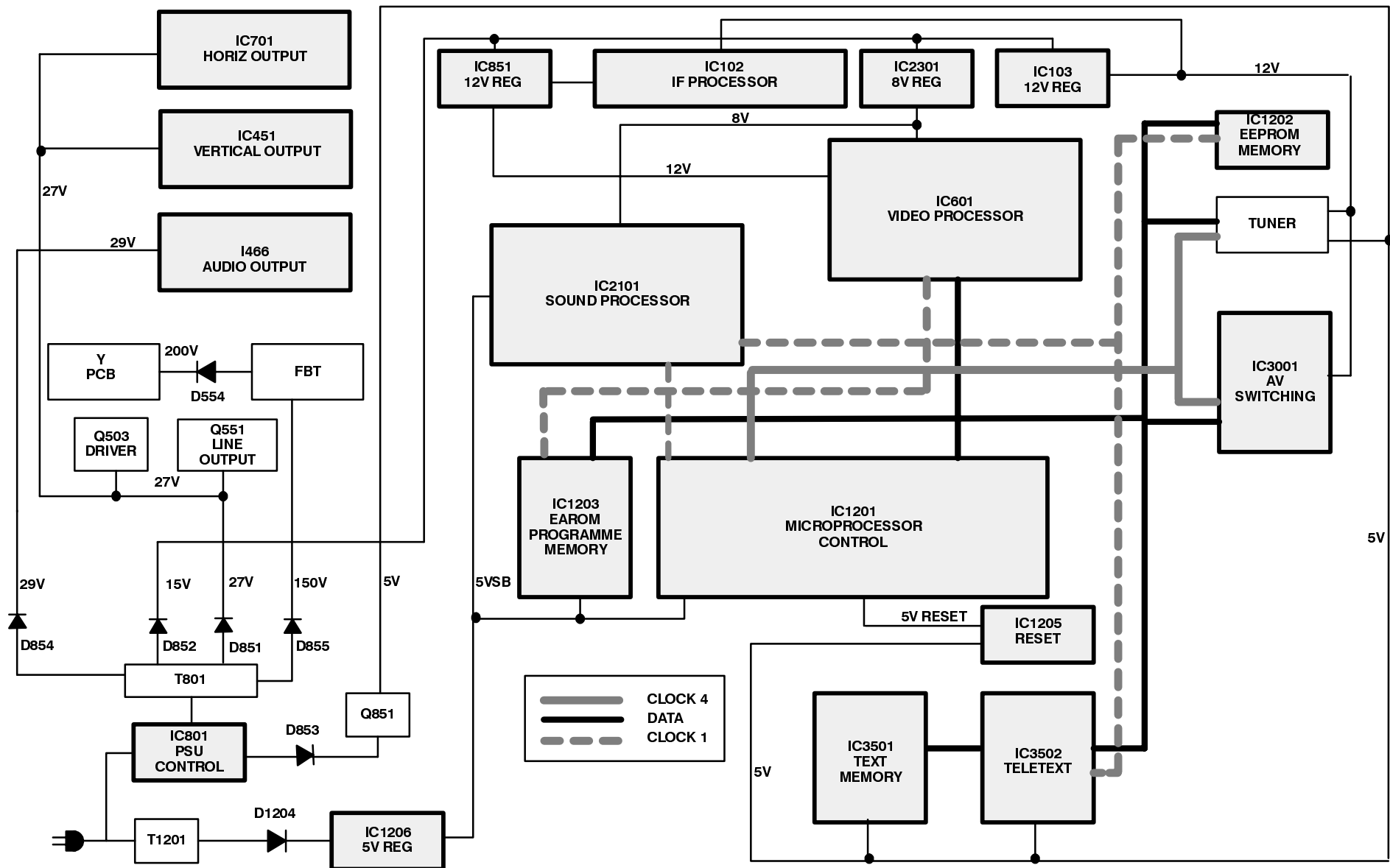
Remarks

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

Precautions

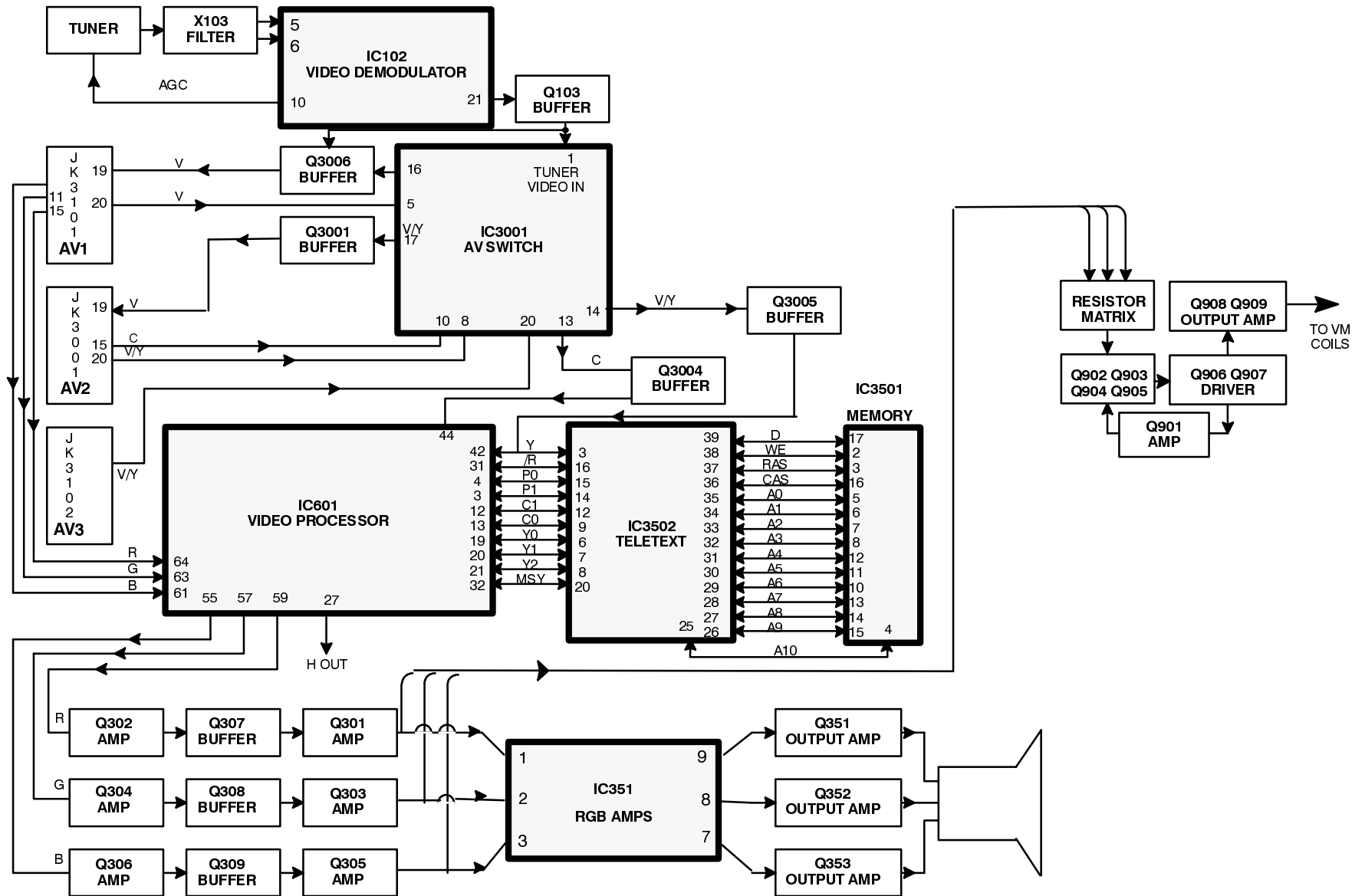
- a. Do not touch the hot part, or the hot and cold parts at the same time, as you are liable to a shock hazard.
- b. Do not short-circuit the hot and cold circuits as electrical components may be damaged.
- c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously,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

POWER SUPPLY AND CONTROL BLOCK DIAGRAM STROMVERSORGUNGS BLOCKSCHEMA

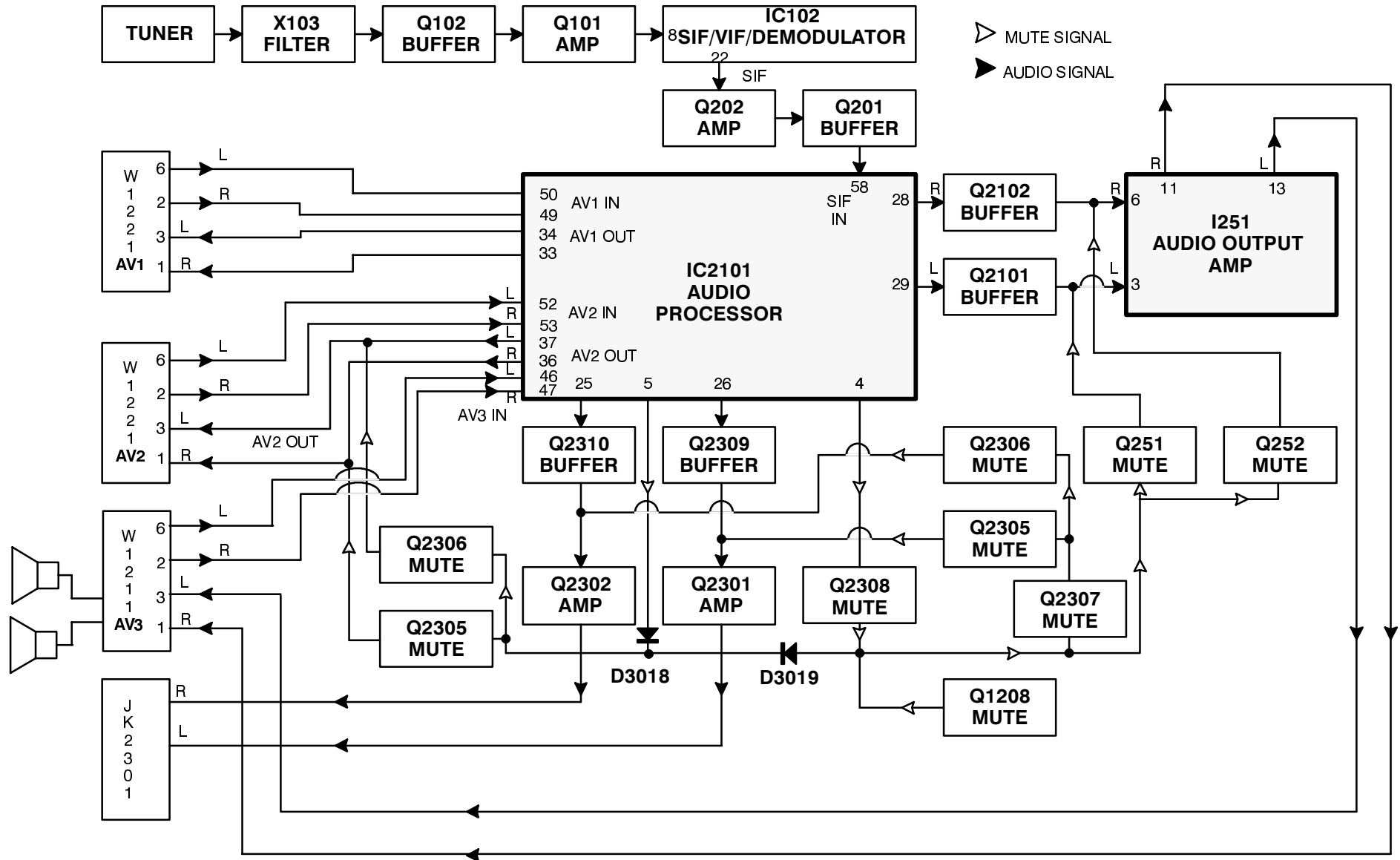


VIDEO BLOCK DIAGRAM

BILDSIGNAL BLOCKSCHEMA



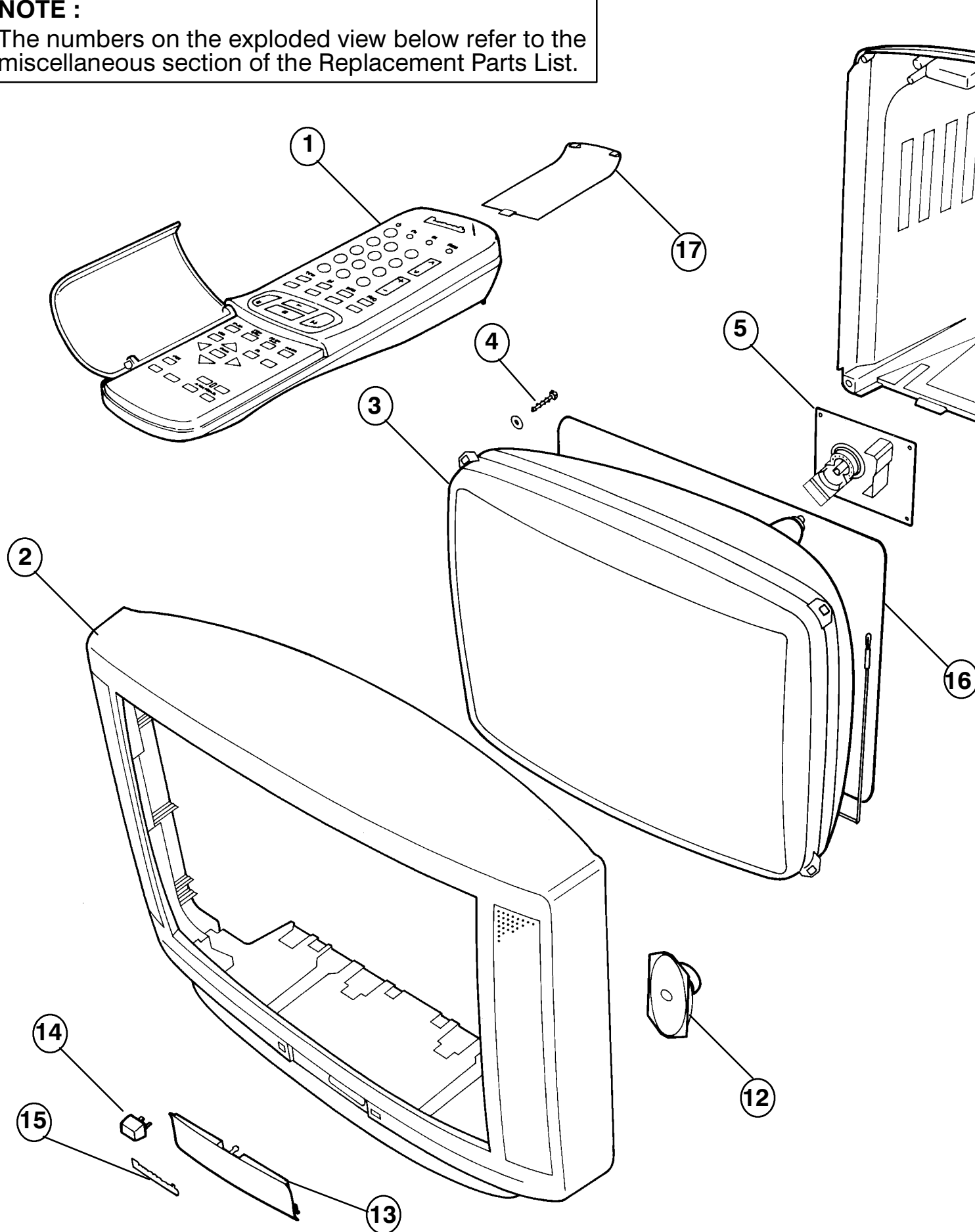
TONSIGNAL BLOCKSCHEMA



PARTS LOCATION

NOTE :

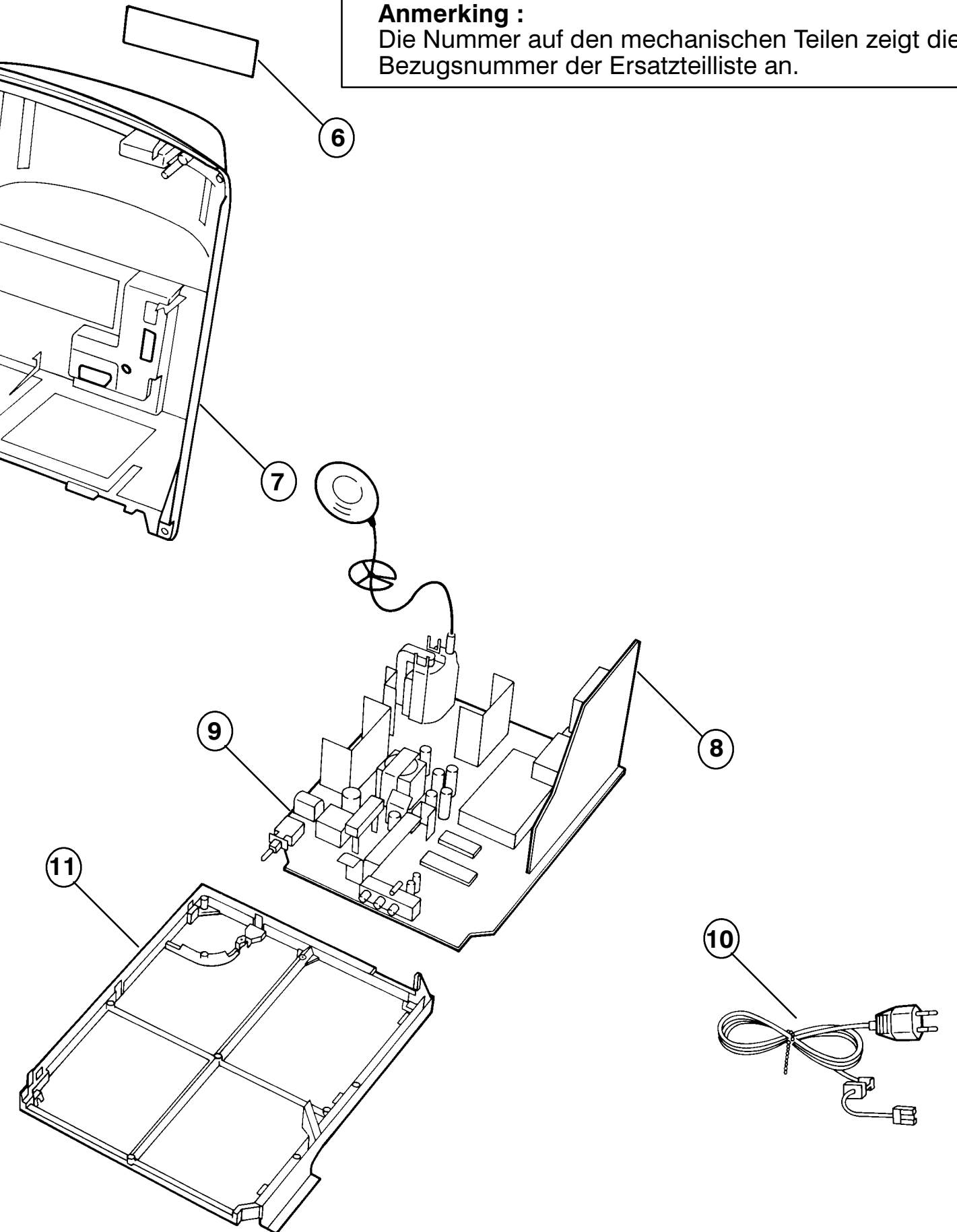
The numbers on the exploded view below refer to the miscellaneous section of the Replacement Parts List.



EXPLOSIONSZEICHNUNG

Anmerking :

Die Nummer auf den mechanischen Teilen zeigt die Bezugsnummer der Ersatzteilliste an.



REPLACEMENT PARTS LIST

Important Safety Notice

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

Ref No.	Part No.	Description	
MISCELLANEOUS COMPONENTS			
1)	EUR51920	REMOTE CONTROL	
2)	TKY8E041	CABINET	Δ
3)	A66ECF40X12	C.R.T.	Δ
4)	THE492-4	CRT FIXING SCREW	
5)	TNP117070AA	Y P.C.B.	Δ
6)	TBM8E1474	MODEL LABEL	
7)	TKU8E00200	REAR COVER	Δ
8)	TNP117064AD	B P.C.B.	Δ
9)	TNP197091AN	E P.C.B.	Δ
10)	TSX8E0011	MAINS LEAD	Δ
11)	TMX8E010	CHASSIS FRAME	
12)	EASG12D531F2	SPEAKER	
13)	TKP8E1129	LID	
14)	TBX8E027	POWER BUTTON	
15)	TBM173052	PANASONIC BADGE	
16)	TLK8E05116	DEGAUSS COIL	
17)	UR51EC780	BATTERY COVER (REMOTE)	
	ENV578F5G3	TUNER	Δ
	TNP8EP013AA	P P.C.B.	Δ
	F9-4-220	RELAY	
	SVM100	COIL	
	TBM8E1451-1	PRESET LABEL	
	TEK6935	LID SWITCH	
	TES8E012	EARTH SPRING	
	TKP8E1130	LED COVER	
	TMW8E020	LED HOLDER	
	TPC8E4499	OUTER CARTON	
	TPD8E562	CUSHION	
	TQB8E2019N	ROMANIAN INST BOOK	Δ
	TQB8E2019P	POLISH INST BOOK	Δ
	TQB8E2019Q	HUNGARIAN INST BOOK	Δ
	TQB8E2019R	CZECH INST BOOK	Δ
	TQB8E2019U	ENGLISH INST BOOK	Δ
	UM-3DEP-2P	BATTERY	
	TES4537	SPRING	
	TES8E011	CHASSIS SPRING	
	TES4537	SPRING	
	ECCF1H070DC5	CERAMIC 50V 0pF	
CAPACITORS			
C001	ECUV1H103ZFX S.M.CAP	50V 10nF	
C002	ECEA1HMR33GBELECT	50V 0.33 μ F	
C003	ECUV1H104ZFX S.M.CAP	50V 100nF	
C004	ECEA1CM221GBELECT	16V 220pF	
C006	ECEA1CM101GBELECT	16V 100pF	
C007	ECUV1H104ZFX S.M.CAP	50V 100nF	
C009	ECUV1H104ZFX S.M.CAP	50V 100nF	
C109	ECUV1H390JPX S.M.CAP	50V 39pF	
C110	ECUV1H102KBX S.M.CAP	50V 1nF	
C111	ECUV1H683ZFX S.M.CAP	50V 68nF	
C112	ECUV1H150JCX S.M.CAP	50V 15pF	
C113	ECEA1CM100GBELECT	16V 10pF	
C114	ECUV1H270JPX S.M.CAP	50V 27pF	
C115	ECUV1H103ZFX S.M.CAP	50V 10nF	
C116	ECEA1CM100GBELECT	16V 10pF	

Ref No.	Part No.	Description	
C117	ECUV1H103ZFX S.M.CAP	50V 10nF	
C118	ECUV1H103ZFX S.M.CAP	50V 10nF	
C119	ECEA1HMR47GBELECT	50V 0.47 μ F	
C120	ECUV1H102KBX S.M.CAP	50V 1nF	
C121	ECUV1H103ZFX S.M.CAP	50V 10nF	
C122	ECUV1H151JX S.M.CAP	50V 150pF	
C123	ECUV1H102KBX S.M.CAP	50V 1nF	
C124	ECEA1CM470GBELECT	16V 47 μ F	
C125	ECUV1H103ZFX S.M.CAP	50V 10nF	
C127	ECEA1CM470GBELECT	16V 47 μ F	
C128	ECUV1H103ZFX S.M.CAP	50V 10nF	
C130	ECEA1HMR47GBELECT	50V 0.47 μ F	
C131	ECEA1HM2R2GBELECT	50V 2.2 μ F	
C132	ECUV1H331KBX S.M.CAP	50V 330pF	
C133	ECUV1H102KBX S.M.CAP	50V 1nF	
C134	ECUV1H103ZFX S.M.CAP	50V 10nF	
C135	ECUV1H103ZFX S.M.CAP	50V 10nF	
C136	ECEA1CM100GBELECT	16V 10pF	
C137	ECEA1EM100GBELECT	25V 0.1 μ F	
C138	ECUV1H103ZFX S.M.CAP	50V 10nF	
C139	ECUV1H020CCX S.M.CAP	50V 2pF	
C140	ECEA1HM010GBELECT	50V 1pF	
C141	ECUV1H102KBX S.M.CAP	50V 1nF	
C142	ECUV1H102KBX S.M.CAP	50V 1nF	
C143	ECUV1H102KBX S.M.CAP	50V 1nF	
C145	ECEA1CM470GBELECT	16V 47 μ F	
C201	ECUV1H070DCX S.M.CAP	50V 7pF	
C202	ECUV1H070DCX S.M.CAP	50V 7pF	
C203	ECUV1H470JX S.M.CAP	50V 47pF	
C204	ECUV1H560JCX S.M.CAP	50V 56pF	
C205	ECUV1H100DCX S.M.CAP	50V 10pF	
C207	ECUV1H220JCX S.M.CAP	50V 22pF	
C209	ECUV1H103ZFX S.M.CAP	50V 10nF	
C210	ECUV1H103ZFX S.M.CAP	50V 10nF	
C211	ECUV1H103ZFX S.M.CAP	50V 10nF	
C251	ECEA1EU101 ELECT	25V 100 μ F	
C252	ECUV1H223KBX S.M.CAP	50V 22nF	
C253	ECEA1HU4R7 ELECT	50V 4.7 μ F	
C254	222236516684 FILM	160V 100nF	
C255	ECEA1EGE101 ELECT	25V 100 μ F	
C256	ECUV1H223KBX S.M.CAP	50V 22nF	
C257	ECEA1HU4R7 ELECT	50V 4.7 μ F	
C258	ECEA1EU101 ELECT	25V 100 μ F	
C259	222236516684 FILM	160V 100nF	
C260	ECEA1VU102 ELECT	35V 1000 μ F	
C261	ECEA1VU102 ELECT	35V 1000 μ F	
C262	ECQM1H474J FILM	50V 470nF	
C263	ECEA1HU010 ELECT	50V 1 μ F	
C264	ECEA1HGE222 ELECT	50V 2200 μ F	
C265	ECQM1H474J FILM	50V 470nF	
C266	ECEA1HU010 ELECT	50V 1 μ F	
C267	ECUV1H104ZFX S.M.CAP	50V 100nF	
C268	ECUV1H104ZFX S.M.CAP	50V 100nF	
C269	ECEA1CU100 ELECT	16V 10 μ F	
C271	ECUV1H561KBX S.M.CAP	50V 560pF	
C301	ECEA1CU470 ELECT	16V 47 μ F	
C302	ECUV1H104ZFX S.M.CAP	50V 100nF	
C303	ECUV1H104ZFX S.M.CAP	50V 100nF	
C310	ECUV1H104ZFX S.M.CAP	50V 100nF	
C354	ECQM2104KZ FILM	250V 100nF	
C355	ECUV1H222JCX S.M.CAP	50V 2.2nF	
C356	ECUV1H222JCX S.M.CAP	50V 2.2nF	

Ref No.	Part No.	Description	
C357	ECUV1H222JCX S.M.CAP	50V 2.2nF	
C358	ECQM1H224J FILM	50V 220nF	
C360	ECKC3D152J CERAMIC	2KV 1.5nF	△
C361	ECEA1HMR47GBELECT	50V 0.47μF	
C364	ECUV1H103ZFX S.M.CAP	50V 10nF	
C366	ECEA1CM100GBELECT	16V 10pF	
C451	ECUV1H102JX S.M.CAP	50V 1nF	
C452	ECUV1H473ZFX S.M.CAP	50V 47nF	
C453	ECUV1H472KBX S.M.CAP	50V 4.7nF	
C454	ECUV1H104ZFX S.M.CAP	50V 100nF	
C455	ECEA1VGE222 ELECT	35V 2200μF	
C456	ECEA1HGE221 ELECT	50V 220μF	
C457	ECUV1H223KBX S.M.CAP	50V 22nF	
C458	ECQM1H154J FILM	50V 150nF	
C459	ECQM1H224J FILM	50V 220nF	
C460	ECQV1H105JZ FILM	50V 1μF	
C461	ECQM1H684J FILM	50V 680nF	
C462	ECEA1VGE332 ELECT	35V 3300μF	
C501	ECEA1AU330 ELECT	10V 33μF	
C506	ECUV1H103ZFX S.M.CAP	50V 10nF	
C508	ECQV1H105JZ FILM	50V 1μF	
C509	ECEA1HGE101 ELECT	50V 100μF	
C510	ECUV1H104ZFX S.M.CAP	50V 100nF	
C511	ECQM2683JZ FILM	250V 68nF	
C551	ECWH15H472J FILM	1500V 4700μF	
C552	ECWH15H102J FILM	1500V 1nF	
C554	ECWF2H514J FILM	500V 510nF	△
C555	ECWH12H103J FILM	1250V 10nF	△
C556	ECQM4333JC FILM	400V 33nF	
C559	ECWF2H684J FILM	500V 680nF	△
C560	ECEA2GGE2R2 ELECT	400V 2.2μF	
C562	ECKC2H101J CERAMIC	500V 100pF	△
C563	ECEA2EU220 ELECT	250V 22μF	
C564	ECEA2AU2R2 ELECT	100V 2.2μF	
C565	ECQP1H273J FILM	100V 2700μF	
C601	ECUV1H271JCX S.M.CAP	50V 270pF	
C602	ECUV1H121JCX S.M.CAP	50V 120pF	
C603	ECUV1H471JCX S.M.CAP	50V 470pF	
C604	ECEA0JU102 ELECT	6.3V 1000μF	
C605	ECUV1H103ZFX S.M.CAP	50V 10nF	
C608	ECUV1H683ZFX S.M.CAP	50V 68nF	
C609	ECEA1CU470 ELECT	16V 47μF	
C610	ECUV1H683ZFX S.M.CAP	50V 68nF	
C611	ECUV1H104ZFX S.M.CAP	50V 100nF	
C612	ECUV1H103ZFX S.M.CAP	50V 10nF	
C613	ECUV1H102JCX S.M.CAP	50V 1nF	
C614	ECUV1H104ZFX S.M.CAP	50V 100nF	
C615	ECUV1H103ZFX S.M.CAP	50V 10nF	
C616	ECUV1H103ZFX S.M.CAP	50V 10nF	
C618	ECUV1H473ZFX S.M.CAP	50V 47nF	
C619	ECUV1H104ZFX S.M.CAP	50V 100nF	
C620	ECUV1H104ZFX S.M.CAP	50V 100nF	
C621	ECEA1CU100 ELECT	16V 10μF	
C622	ECEA1CU100 ELECT	16V 10μF	
C623	ECUV1H104ZFX S.M.CAP	50V 100nF	
C624	ECUV1H103ZFX S.M.CAP	50V 10nF	
C625	ECEA1HNR22 ELECT	50V 0.22μF	
C626	ECEA0JU102 ELECT	6.3V 1000μF	
C627	ECUV1H100DCX S.M.CAP	50V 10pF	
C628	ECUV1H470JCX S.M.CAP	50V 47pF	
C629	ECUV1H101JCX S.M.CAP	50V 100pF	
C630	ECUV1H104ZFX S.M.CAP	50V 100nF	
C631	ECUV1H104ZFX S.M.CAP	50V 100nF	
C632	ECUV1H104ZFX S.M.CAP	50V 100nF	
C633	ECUV1H102JCX S.M.CAP	50V 1nF	
C636	ECUV1H101JCX S.M.CAP	50V 100pF	
C637	ECUV1H102KBX S.M.CAP	50V 1nF	
C638	ECUV1H181JCX S.M.CAP	50V 180pF	
C639	ECUV1H561KBX S.M.CAP	50V 560pF	
C701	ECEA1HGE101 ELECT	50V 100μF	

Ref No.	Part No.	Description	
C702	ECUV1H103KBX S.M.CAP	50V 10nF	
C703	ECEA1HGE100 ELECT	50V 10μF	
C704	ECQB1H223K FILM	50V 22nF	
C705	ECQB1H102J FILM	50V 1nF	
C801	ECUV1H101JCX S.M.CAP	50V 100pF	
C802	ECQE6104K FILM	600V 100nF	△
C803	ECUV1H560JX S.M.CAP	50V 56pF	
C804	ECEA1CU101 ELECT	16V 100μF	
C805	ECUV1H104ZFX S.M.CAP	50V 100nF	
C806	ECEA1HU101 ELECT	50V 100μF	
C807	ECEA1EGE101 ELECT	25V 100μF	
C808	ECQB1H103J FILM	50V 10nF	
C809	ECQB1H103J FILM	50V 10nF	
C810	ECQU2A224MN FILM	250V 220nF	
C811	ECEA1HN010 ELECT	50V 1μF	
C815	ECKC2H472J CERAMIC	500V 4.7nF	△
C816	ECKC3D222JB CERAMIC	2KV 2200pF	△
C817	ECQB1H223K FILM	50V 22nF	
C818	ECKC2H472J CERAMIC	500V 4.7nF	△
C820	ECOS2GG181NGELECT	400V 180μF	△
C821	ECKCNS332J CERAMIC	1.2KV 3.3nF	△
C841	ECQU2A154MN FILM	250V 150nF	
C851	ECKC2H681J CERAMIC	500V 680pF	△
C852	ECEA1HU102 ELECT	50V 1000μF	
C853	ECEA1EGE222 ELECT	25V 2200μF	
C854	ECEA1HGE102 ELECT	50V 1000μF	
C855	ECKC3D471JB CERAMIC	2KV 470pF	△
C856	ECEA1EGE222 ELECT	25V 2200μF	
C857	ECEA2EU101 ELECT	250V 100μF	
C858	ECUV1H103ZFX S.M.CAP	50V 10nF	
C859	ECUV1H103ZFX S.M.CAP	50V 10nF	
C860	ECEA1CU471 ELECT	16V 470μF	
C861	ECOS2EA221AB ELECT	400V 220μF	
C862	ECEA1CU471 ELECT	16V 470μF	
C901	ECUV1H030CCX S.M.CAP	50V 30pF	
C902	ECEA1VU101 ELECT	35V 100μF	
C903	ECEA1CM470GBELECT	16V 47μF	
C904	ECUV1H103ZFX S.M.CAP	50V 10nF	
C905	ECEA1HM4R7GBELECT	50V 4.7μF	
C906	ECUV1H471KBX S.M.CAP	50V 470pF	
C907	ECUV1H271JCX S.M.CAP	50V 270pF	
C908	ECUV1H151JCX S.M.CAP	50V 150pF	
C909	ECKC2H472J CERAMIC	500V 4.7nF	△
C910	ECKC2H472J CERAMIC	500V 4.7nF	△
C911	ECUV1H151JCX S.M.CAP	50V 150pF	
C912	ECEA2CU100 ELECT	160V 10μF	
C913	ECEA1CM101GBELECT	16V 100pF	
C914	ECEA1CM101GBELECT	16V 100pF	
C915	ECEA1CM471GBELECT	16V 470pF	
C916	ECEA2CU100 ELECT	160V 10μF	
C1051	ECEA0JU101 ELECT	6.3V 100μF	
C1052	ECUV1H104ZFX S.M.CAP	50V 100nF	
C1201	ECUV1H332KBX S.M.CAP	50V 3.3nF	
C1202	ECUV1H332KBX S.M.CAP	50V 3.3nF	
C1203	ECUV1H332KBX S.M.CAP	50V 3.3nF	
C1204	ECUV1H332KBX S.M.CAP	50V 3.3nF	
C1205	ECUV1H103ZFX S.M.CAP	50V 10nF	
C1206	ECEA1HU4R7 ELECT	50V 4.7μF	
C1207	ECUV1H472KBX S.M.CAP	50V 4.7nF	
C1208	ECUV1H390JCX S.M.CAP	50V 39pF	
C1209	ECUV1H390JCX S.M.CAP	50V 39pF	
C1210	ECUV1H103ZFX S.M.CAP	50V 10nF	
C1211	ECUV1H470JCX S.M.CAP	50V 47pF	
C1212	ECEA1CU470 ELECT	16V 47μF	
C1213	ECUV1H103ZFX S.M.CAP	50V 10nF	
C1214	ECEA1CU470 ELECT	16V 47μF	
C1215	ECUV1H103ZFX S.M.CAP	50V 10nF	
C1217	ECUV1H104ZFX S.M.CAP	50V 100nF	
C1219	ECEA1CU471 ELECT	16V 470μF	

Ref No.	Part No.	Description
C1220	ECUV1H103ZFX S.M.CAP	50V 10nF
C1221	ECEA0JU102 ELECT	6.3V 1000µF
C1222	ECUV1H104ZFX S.M.CAP	50V 100nF
C1223	ECEA1CU101 ELECT	16V 100µF
C1224	ECEA0JU222 ELECT	6.3V 2200µF
C1225	ECEA0JM472GE ELECT	6.3V 4.7nF
C1226	ECEA1CU101 ELECT	16V 100µF
C2101	ECUV1H223KBX S.M.CAP	50V 22nF
C2102	ECUV1H391KBX S.M.CAP	50V 390pF
C2103	ECUV1H102KBX S.M.CAP	50V 1nF
C2104	ECUV1H102KBX S.M.CAP	50V 1nF
C2107	ECUV1H391KBX S.M.CAP	50V 390pF
C2108	ECEA1CM101GBELECT	16V 100pF
C2109	ECUV1H223KBX S.M.CAP	50V 22nF
C2110	ECEA1CM100GBELECT	16V 10pF
C2111	ECUV1H104ZFX S.M.CAP	50V 100nF
C2112	ECEA1CM100GBELECT	16V 10pF
C2113	ECUV1H102KBX S.M.CAP	50V 1nF
C2114	ECUV1H104ZFX S.M.CAP	50V 100nF
C2115	ECUV1H471KBX S.M.CAP	50V 470pF
C2116	ECEA1HM3R3GBELECT	50V 3.3µF
C2117	ECUV1H471KBX S.M.CAP	50V 470pF
C2118	ECUV1H104ZFX S.M.CAP	50V 100nF
C2119	ECEA1CM100GBELECT	16V 10pF
C2120	ECUV1H104ZFX S.M.CAP	50V 100nF
C2121	ECUV1H104ZFX S.M.CAP	50V 100nF
C2122	ECUV1H104ZFX S.M.CAP	50V 100nF
C2123	ECEA1CM100GBELECT	16V 10pF
C2124	ECUV1H104ZFX S.M.CAP	50V 100nF
C2125	ECUV1H030CCX S.M.CAP	50V 30pF
C2126	ECUV1H030CCX S.M.CAP	50V 30pF
C2127	ECEA1CM100GBELECT	16V 10pF
C2307	ECEA1CM470GBELECT	16V 47µF
C2308	ECEA1CM470GBELECT	16V 47µF
C2309	ECEA1CM101GBELECT	16V 100pF
C2310	ECEA1CM470GBELECT	16V 47µF
C2312	ECUV1H104ZFX S.M.CAP	50V 100nF
C2313	ECUV1H103KBX S.M.CAP	50V 10nF
C2314	ECUV1H104ZFX S.M.CAP	50V 100nF
C2315	ECUV1H103KBX S.M.CAP	50V 10nF
C2316	ECUV1H103ZFX S.M.CAP	50V 10nF
C2317	ECEA1CM470GBELECT	16V 47µF
C2318	ECUV1H222KBX S.M.CAP	50V 2.2nF
C2319	ECUV1H222KBX S.M.CAP	50V 2.2nF
C2651	ECUV1H103KBX S.M.CAP	50V 10nF
C2652	ECUV1H103KBX S.M.CAP	50V 10nF
C3001	ECEA1HUR47 ELECT	50V 0.47µF
C3002	ECEA1HUR47 ELECT	50V 0.47µF
C3003	ECEA1EM4R7GBELECT	25V 4.7µF
C3004	ECEA1HU4R7 ELECT	50V 4.7µF
C3005	ECEA1HM4R7GBELECT	50V 4.7µF
C3006	ECUV1H473ZFX S.M.CAP	50V 47nF
C3007	ECEA1HM470GBELECT	50V 47µF
C3011	ECUV1H473ZFX S.M.CAP	50V 47nF
C3012	ECEA1CM470GBELECT	16V 47µF
C3013	ECUV1H104ZFX S.M.CAP	50V 100nF
C3014	ECUV1H104ZFX S.M.CAP	50V 100nF
C3017	ECEA1CN470 ELECT	16V 47µF
C3018	ECUV1H102KBX S.M.CAP	50V 1nF
C3019	ECUV1H102KBX S.M.CAP	50V 1nF
C3021	ECUV1H102KBX S.M.CAP	50V 1nF
C3023	ECEA1CM470GBELECT	16V 47µF
C3024	ECUV1H473ZFX S.M.CAP	50V 47nF
C3025	ECUV1H102KBX S.M.CAP	50V 1nF
C3026	ECEA1HUR47 ELECT	50V 0.47µF
C3027	ECEA1HUR47 ELECT	50V 0.47µF
C3028	ECUV1H221JX S.M.CAP	50V 220pF
C3029	ECUV1H221JX S.M.CAP	50V 220pF
C3030	ECUV1H221JX S.M.CAP	50V 220pF
C3031	ECUV1H221JX S.M.CAP	50V 220pF
C3032	ECEA1HUR47 ELECT	50V 0.47µF

Ref No.	Part No.	Description
C3033	ECEA1HUR47 ELECT	50V 0.47µF
C3034	ECUV1H221JX S.M.CAP	50V 220pF
C3035	ECUV1H221JX S.M.CAP	50V 220pF
C3036	ECUV1H222KBX S.M.CAP	50V 2.2nF
C3037	ECUV1H561JCX S.M.CAP	50V 560pF
C3038	ECEA1CM470GBELECT	16V 47µF
C3039	ECEA1CM470GBELECT	16V 47µF
C3040	ECEA1HMR47GBELECT	50V 0.47µF
C3041	ECEA1HMR47GBELECT	50V 0.47µF
C3043	ECEA1HM4R7GBELECT	50V 4.7µF
C3045	ECUV1H104ZFX S.M.CAP	50V 100nF
C3050	ECUV1H222KBX S.M.CAP	50V 2.2nF
C3051	ECUV1H222KBX S.M.CAP	50V 2.2nF
C3052	ECUV1H561JCX S.M.CAP	50V 560pF
C3053	ECUV1H561JCX S.M.CAP	50V 560pF
C3054	ECUV1H222KBX S.M.CAP	50V 2.2nF
C3055	ECUV1H561JCX S.M.CAP	50V 560pF
C3056	ECCR1H101J CERAMIC	50V 100pF
C3062	ECUV1H104ZFX S.M.CAP	50V 100nF
C3071	ECUV1H104ZFX S.M.CAP	50V 100nF
C3151	ECUV1H561JCX S.M.CAP	50V 560pF
C3152	ECUV1H561JCX S.M.CAP	50V 560pF
C3501	ECUV1H104ZFX S.M.CAP	50V 100nF
C3502	ECEA1CU101 ELECT	16V 100µF
C3503	ECUV1H103ZFX S.M.CAP	50V 10nF
C3504	ECUV1H102JCX S.M.CAP	50V 1nF
C3505	ECUV1H104ZFX S.M.CAP	50V 100nF
C3506	ECEA1CU470 ELECT	16V 47µF
C3507	ECEA1CU470 ELECT	16V 47µF
C3508	ECUV1H473ZFX S.M.CAP	50V 47nF
C3509	ECUV1H103ZFX S.M.CAP	50V 10nF
C3510	ECEA0JU102 ELECT	6.3V 1000µF
C3511	ECUV1H103ZFX S.M.CAP	50V 10nF

DIODES

D251	MA2180TP	DIODE
D252	MA165TA5	DIODE
D253	MA700TA5	DIODE
D254	MA700TA5	DIODE
D310	MA165TA5	DIODE
D311	MA29TA5	DIODE
D312	MA29TA5	DIODE
D354	ERA22-04V1	DIODE
D355	ERA22-04V1	DIODE
D356	ERA22-04V1	DIODE
D357	MA165TA5	DIODE
D358	MA165TA5	DIODE
D359	MA165TA5	DIODE
D360	MA4150	DIODE
D451	MA165TA5	DIODE
D452	MA165TA5	DIODE
D454	ERA15-02V3	DIODE
D456	MA2160BLFS	DIODE
D501	MA165TA5	DIODE
D502	EU02	DIODE
D551	ERD07-15L7	DIODE
D552	TVSRU2AM	DIODE
D554	AU02V0	DIODE
D556	MA166TA5	DIODE
D601	MA165TA5	DIODE
D602	MA165TA5	DIODE
D604	MA165TA5	DIODE
D605	MA165TA5	DIODE
D606	MA165TA5	DIODE
D609	MA167TA5	DIODE
D701	MA165TA5	DIODE
D702	MA4056	DIODE
D801	MA165TA5	DIODE
D802	MA165TA5	DIODE

Ref No.	Part No.	Description	
D803	MA165TA5	DIODE	
D804	ERA15-02V3	DIODE	
D805	EU02	DIODE	
D806	RBV4-08	DIODE	
D807	EU02	DIODE	
D808	PC120FY	DIODE	
D809	MA165TA5	DIODE	
D851	EU02	DIODE	
D852	ERD32-02L7	DIODE	
D853	FML22SLF610	DIODE	
D854	RU4AMLF-M1	DIODE	
D855	RU4BLF-L1	DIODE	
D856	MA4047	DIODE	
D857	MA4300	DIODE	
D858	MA29TA5	DIODE	
D901	MA165TA5	DIODE	
D902	MA165TA5	DIODE	
D1201	LN81RPHL	DIODE	
D1203	MA4082	DIODE	
D1204	TVSS1WBS10	DIODE	
D1205	MA165TA5	DIODE	
D1207	MA165TA5	DIODE	
D1208	MA165TA5	DIODE	
D1209	MA165TA5	DIODE	
D2303	MA165TA5	DIODE	
D2304	MA4091	DIODE	
D3001	MA4120	DIODE	
D3003	MA4082	DIODE	
D3004	MA4100	DIODE	
D3005	MA4120	DIODE	
D3006	MA4120	DIODE	
D3007	MA4120	DIODE	
D3008	MA4082	DIODE	
D3009	MA4082	DIODE	
D3010	MA4082	DIODE	
D3011	MA4082	DIODE	
D3012	MA4120	DIODE	
D3013	MA4120	DIODE	
D3014	MA4120	DIODE	
D3015	MA4120	DIODE	
D3016	MA4120	DIODE	
D3018	MA165TA5	DIODE	
D3019	MA165TA5	DIODE	
D3501	MA165TA5	DIODE	
FUSES			
F813	2153.15H	FUSE	▲
F851	TR5-T1250	FUSE	▲
F852	TR5-T2000	FUSE	▲
F853	TR5-T2000	FUSE	▲
F8131	EYF52BC	FUSE HOLDER	
F8132	EYF52BC	FUSE HOLDER	
SOCKETS			
H1202	832AG11D-ESL	I.C.SOCKET	
INTEGRATED CIRCUITS			
IC102	LA7577N	V.I.F.	
IC103	L78M12MRB	12V REGULATOR	
IC251	LA4280-TV	AUDIO OUTPUT	
IC351	TDA6103Q	R.G.B.AMPLIFIER	
IC451	TDA8175-3	VERTICAL OUTPUT	
IC601	VDP3108-29	VIDEO PROCESSOR	
IC701	TEA2031A	HORIZONTAL OUTPUT	

Ref No.	Part No.	Description
IC801	TDA4601	POWER SUPPLY
IC851	L78M12MRB	12V REGULATOR
IC1051	RPM-637CBRL	LED RECEIVER
IC1201	CCU3000I-05	CENTRAL CONTROL UNIT
IC1202	27C010-08ALP	EPROM
IC1203	X24C16P-J1PL	EAROM
IC1205	MN1280R	RESET
IC1206	L78M05MRB	5V REGULATOR
IC2101	MSP3400	AUDIO PROCESSOR
IC2301	AN78L08TA	8V REGULATOR
IC3001	TEA6415C	VIDEO SWITCH
IC3501	UD61256DC-08	DYNAMIC RAM
IC3502	TPU3040-20	TEXT PROCESSOR
TERMINALS AND LINKS		
JA.1	ERJ8GEY0R00	WIRE LINK
JA.10	ERJ6GEY0R00	WIRE LINK
JA.11	ERJ8GEY0R00	WIRE LINK
JA.12	ERJ8GEY0R00	WIRE LINK
JA.13	ERJ6GEY0R00	WIRE LINK
JA.14	ERJ8GEY0R00	WIRE LINK
JA.15	ERJ8GEY0R00	WIRE LINK
JA.16	ERJ8GEY0R00	WIRE LINK
JA.17	ERJ8GEY0R00	WIRE LINK
JA.18	ERJ6GEY0R00	WIRE LINK
JA.19	ERJ6GEY0R00	WIRE LINK
JA.2	ERJ6GEY0R00	WIRE LINK
JA.2	ERJ8GEY0R00	WIRE LINK
JA.20	ERJ6GEY0R00	WIRE LINK
JA.21	ERJ6GEY0R00	WIRE LINK
JA.22	ERJ8GEY0R00	WIRE LINK
JA.24	ERJ6GEY0R00	WIRE LINK
JA.25	ERJ8GEY0R00	WIRE LINK
JA.26	ERJ6GEY0R00	WIRE LINK
JA.27	ERJ6GEY0R00	WIRE LINK
JA.28	ERJ6GEY0R00	WIRE LINK
JA.29	ERJ6GEY0R00	WIRE LINK
JA.3	ERJ8GEY0R00	WIRE LINK
JA.30	ERJ6GEY0R00	WIRE LINK
JA.34	ERJ6GEY0R00	WIRE LINK
JA.35	ERJ6GEY0R00	WIRE LINK
JA.36	ERJ6GEY0R00	WIRE LINK
JA.37	ERJ6GEY0R00	WIRE LINK
JA.38	ERJ6GEY0R00	WIRE LINK
JA.4	ERJ8GEY0R00	WIRE LINK
JA.5	ERJ6GEY0R00	WIRE LINK
JA.6	ERJ8GEY0R00	WIRE LINK
JA.7	ERJ8GEY0R00	WIRE LINK
JA.8	ERJ6GEY0R00	WIRE LINK
JA.9	ERJ6GEY0R00	WIRE LINK
JA1	ERJ6GEY0R00	WIRE LINK
JA10	ERJ6GEY0R00	WIRE LINK
JA11	ERJ6GEY0R00	WIRE LINK
JA12	ERJ6GEY0R00	WIRE LINK
JA13	ERJ6GEY0R00	WIRE LINK
JA14	ERJ6GEY0R00	WIRE LINK
JA15	ERJ6GEY0R00	WIRE LINK
JA16	ERJ6GEY0R00	WIRE LINK
JA17	ERJ6GEY0R00	WIRE LINK
JA18	ERJ6GEY0R00	WIRE LINK
JA19	ERJ6GEY0R00	WIRE LINK
JA2	ERJ6GEY0R00	WIRE LINK
JA20	ERJ6GEY0R00	WIRE LINK
JA21	ERJ6GEY0R00	WIRE LINK
JA22	ERJ6GEY0R00	WIRE LINK
JA23	ERJ6GEY0R00	WIRE LINK
JA24	ERJ6GEY0R00	WIRE LINK
JA25	ERJ6GEY0R00	WIRE LINK
JA26	ERJ6GEY0R00	WIRE LINK

Ref No.	Part No.	Description
JA28	ERJ6GEY0R00	WIRE LINK
JA29	ERJ6GEY0R00	WIRE LINK
JA3	ERJ6GEY0R00	WIRE LINK
JA30	ERJ6GEY0R00	WIRE LINK
JA31	ERJ6GEY0R00	WIRE LINK
JA32	ERJ6GEY0R00	WIRE LINK
JA33	ERJ6GEY0R00	WIRE LINK
JA4	ERJ6GEY0R00	WIRE LINK
JA5	ERJ6GEY0R00	WIRE LINK
JA6	ERJ6GEY0R00	WIRE LINK
JA7	ERJ6GEY0R00	WIRE LINK
JA8	ERJ6GEY0R00	WIRE LINK
JA9	ERJ6GEY0R00	WIRE LINK
JK2301	TJB18644	AV TERMINAL
JK3001	TJS8E007	21PIN TERMINAL
JK3101	TJS8E007	21PIN TERMINAL
JSB.5	ERJ6GEY0R00	WIRE LINK
JSE.31	ERJ6GEY0R00	WIRE LINK
JSE011	ERJ6GEY0R00	WIRE LINK
JSE012	ERJ6GEY0R00	WIRE LINK
JSE013	ERJ6GEY0R00	WIRE LINK
JSE014	ERJ6GEY0R00	WIRE LINK
JSE015	ERJ6GEY0R00	WIRE LINK
JSE016	ERJ6GEY0R00	WIRE LINK
JSE032	ERJ6GEY0R00	WIRE LINK

COILS

L001	TLT100K991R	COIL
L002	TLT047K991R	COIL
L102	EIV7EN200B	COIL
L103	TLT100K991R	COIL
L104	EIV7EN201B	COIL
L105	TLT100K991R	COIL
L106	TLT022K991R	COIL
L109	TLTR47K991R	COIL
L111	ELESNR82MA	COIL
L112	EXCELSA35T	COIL
L113	EXCELSA35T	COIL
L202	TLT068K991R	COIL
L251	EXCELSA35T	COIL
L301	TLT047K991R	COIL
L302	EXCEMT101BT	COIL
L303	EXCEMT101BT	COIL
L304	EXCEMT101BT	COIL
L352	SDL-4101	COIL
L353	SDL-4101	COIL
L354	SDL-4101	COIL
L552	ELH5L421	COIL
L553	ELC08D055	COIL
L554	297-23293	COIL
L601	TLT047K991R	COIL
L602	EXCELD35V	COIL
L603	TLT047K991R	COIL
L604	EXCELD35V	COIL
L606	TLT015K991R	COIL
L607	EXCELSA35T	COIL
L701	ELC10D006	COIL
L801	298-19711	COIL
L802	TLT022K991R	COIL
L803	ELF18D490F	COIL
L804	ELESN4R7KA	COIL
L805	298-82858001	COIL
L841	ELF18D650L	COIL
L851	EXCELD35V	COIL
L852	EXCELSA35T	COIL
L853	ELEIE470KA	COIL
L854	ELEIN470KA	COIL
L855	ELEIN470KA	COIL
L856	ELEIN470KA	COIL

A

Ref No.	Part No.	Description
L901	EXCELSA24T	COIL
L902	EXCELSA24T	COIL
L1051	TLT331K991R	COIL
L1201	TLT047K991R	COIL
L1202	TLT047K991R	COIL
L1203	TLT047K991R	COIL
L1204	EXCELD35V	COIL
L2101	TLT100K991R	COIL
L2102	TLT3R9K991R	COIL
L2103	EXCELSA35T	COIL
L2104	EXCELSA35T	COIL
L3151	EXCEMT101BT	COIL
L3152	EXCEMT101BT	COIL
L3153	EXCEMT101BT	COIL
L3154	EXCEMT101BT	COIL
L3155	ELEBT6R8KA	COIL
L3156	ELEBT6R8KA	COIL
L3158	EXCELSA39V	COIL
L3501	EXCELD35V	COIL
L3502	EXCELD35V	COIL
L3503	ELESN4R7KA	COIL
L3504	EXCELSA35T	COIL

TRANSISTORS

Q101	BF370-126	TRANSISTOR
Q102	BF370-126	TRANSISTOR
Q103	BC847B	TRANSISTOR
Q201	BC847B	TRANSISTOR
Q202	BC847B	TRANSISTOR
Q251	2SD1328STX	TRANSISTOR
Q252	2SD1328STX	TRANSISTOR
Q253	BC847B	TRANSISTOR
Q301	BC857B	TRANSISTOR
Q302	BC847B	TRANSISTOR
Q303	BC857B	TRANSISTOR
Q304	BC847B	TRANSISTOR
Q305	BC857B	TRANSISTOR
Q306	BC847B	TRANSISTOR
Q307	BC847B	TRANSISTOR
Q308	BC847B	TRANSISTOR
Q309	BC847B	TRANSISTOR
Q310	BC847B	TRANSISTOR
Q311	BC847B	TRANSISTOR
Q351	2SA1767	TRANSISTOR
Q352	2SA1767	TRANSISTOR
Q353	2SA1767	TRANSISTOR
Q451	BC847B	TRANSISTOR
Q501	BC847B	TRANSISTOR
Q502	BC847B	TRANSISTOR
Q503	2SD836-AL	TRANSISTOR
Q504	BC847B	TRANSISTOR
Q551	2SD1577LB	TRANSISTOR
Q552	2SC1473-RN	TRANSISTOR
Q701	BC857B	TRANSISTOR
Q801	2SC1573	TRANSISTOR
Q802	S2000NLBMA	TRANSISTOR
Q851	2SD1273PLB	TRANSISTOR
Q852	TFD312SOF632	DIODE
Q901	BC847B	TRANSISTOR
Q902	BC847B	TRANSISTOR
Q903	BC847B	TRANSISTOR
Q904	BC857B	TRANSISTOR
Q905	BC847B	TRANSISTOR
Q906	BC847B	TRANSISTOR
Q907	BC857B	TRANSISTOR
Q908	2SA1535ARLB	TRANSISTOR
Q909	2SC3944ARLB	TRANSISTOR
Q1201	BC847B	TRANSISTOR
Q1202	BC847B	TRANSISTOR

Ref No.	Part No.	Description
Q1205	BC847B	TRANSISTOR
Q1206	BC847B	TRANSISTOR
Q1207	BC847B	TRANSISTOR
Q1208	BC857B	TRANSISTOR
Q2101	BC860B	TRANSISTOR
Q2102	BC860B	TRANSISTOR
Q2301	BC857B	TRANSISTOR
Q2302	BC857B	TRANSISTOR
Q2305	2SD1328STX	TRANSISTOR
Q2306	2SD1328STX	TRANSISTOR
Q2307	BC860B	TRANSISTOR
Q2308	BC857B	TRANSISTOR
Q2309	BC860B	TRANSISTOR
Q2310	BC860B	TRANSISTOR
Q3001	2SC1318-S	TRANSISTOR
Q3004	BC847B	TRANSISTOR
Q3005	BC847B	TRANSISTOR
Q3006	2SC1318-S	TRANSISTOR
Q3011	BC857B	TRANSISTOR
Q3012	2SD1328STX	TRANSISTOR
Q3013	2SD1328STX	TRANSISTOR

RESISTOR

R.604	ERJ6GEY0R00	WIRE LINK
R.622	ERJ6GEY0R00	WIRE LINK
R001	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R002	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R003	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R004	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R107	ERJ6GEY0R00	WIRE LINK
R109	ERJ6GEY0R00	WIRE LINK
R113	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R116	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R117	ERJ6GEYJ683	S.M.CARB 0.1W 5% 68KΩ
R118	ERJ6ENF4701	S.M.CARB 0.1W 1% 4K7Ω
R119	ERJ6ENF1202	S.M.CARB 0.1W 1% 1K2Ω
R120	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R121	ERJ6GEYJ201	S.M.CARB 0.1W 5% 200Ω
R122	ERJ6GEYJ470	S.M.CARB 0.1W 5% 47Ω
R123	ERJ6GEY0R00	WIRE LINK
R124	ERJ6GEYJ682	S.M.CARB 0.1W 5% 6K8Ω
R125	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R126	EVNDXAA03B53	CONTROL 5KΩ
R127	ERDS1TJ121	CARBON 0.5W 5% 120Ω
R128	ERJ6GEYJ271	S.M.CARB 0.1W 5% 270Ω
R129	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R130	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R131	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R132	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R133	ERJ6GEYJ682	S.M.CARB 0.1W 5% 6K8Ω
R134	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R136	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R137	ERJ6GEYJ563	S.M.CARB 0.1W 5% 56KΩ
R138	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R139	ERJ6GEY0R00	WIRE LINK
R141	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R142	ERJ6GEY0R00	WIRE LINK
R143	ERJ6GEY0R00	WIRE LINK
R145	ERJ6GEYJ152	S.M.CARB 0.1W 5% 1K5Ω
R146	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R147	ERJ6GEYJ821	S.M.CARB 0.1W 5% 820Ω
R149	ERJ6GEYJ181	S.M.CARB 0.1W 5% 180Ω
R201	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R203	ERJ6GEY0R00	WIRE LINK
R204	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R205	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R206	ERJ6GEYJ681	S.M.CARB 0.1W 5% 680Ω
R207	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R208	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω

Ref No.	Part No.	Description
R209	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R210	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R251	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R252	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7Ω
R253	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R254	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R255	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R256	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R257	ERJ6GEYJ330	S.M.CARB 0.1W 5% 33Ω
R258	ERJ6GEYJ272	S.M.CARB 0.1W 5% 2K7Ω
R259	ERJ6GEYJ330	S.M.CARB 0.1W 5% 33Ω
R260	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R261	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R262	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R263	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R264	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R265	ERD25TJ2R2	CARBON 0.25W 5% 2R2Ω
R266	ERD25TJ2R2	CARBON 0.25W 5% 2R2Ω
R267	ERF7ZK4R7	WOUND 7W 10% 4R7Ω ▲
R268	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R269	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R271	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R272	ERF7ZK5R6	WOUND 7W 10% 5R6Ω ▲
R273	ERD25TJ273	CARBON 0.25W 5% 27KΩ
R301	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R302	ERJ6GEYJ391	S.M.CARB 0.1W 5% 390Ω
R303	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R304	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R305	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R306	ERJ6GEYJ391	S.M.CARB 0.1W 5% 390Ω
R307	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R308	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R309	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R310	ERJ6GEYJ391	S.M.CARB 0.1W 5% 390Ω
R311	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R312	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R313	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R314	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R315	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R316	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R321	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R322	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R323	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R324	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R351	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R352	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R353	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R354	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R355	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R356	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R357	ERG1SJ683	METAL 1W 5% 680Ω
R358	ERG1SJ683	METAL 1W 5% 680Ω
R359	ERG1SJ683	METAL 1W 5% 680Ω
R363	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R364	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R365	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R366	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω
R367	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω
R368	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω
R369	ERD25TJ203	CARBON 0.25W 5% 20KΩ
R370	ERJ6GEYJ822	S.M.CARB 0.1W 5% 8K2Ω
R372	ERQ12AJ121	FUSIBLE 0.5W 5% 120Ω ▲
R373	ERJ6GEYJ220	S.M.CARB 0.1W 5% 22Ω
R374	ERD25TJ274	CARBON 0.25W 5% 270KΩ
R375	ERJ6GEYJ684	S.M.CARB 0.1W 5% 680KΩ
R376	ERJ6GEYJ183	S.M.CARB 0.1W 5% 18KΩ
R377	ERQ12HKR82	FUSIBLE 0.5W 10% R82Ω ▲
R381	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R382	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R383	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ

Ref No.	Part No.	Description
R451	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R452	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R453	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R455	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R456	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R457	ERJ6GEYJ682	S.M.CARB 0.1W 5% 6K8Ω
R458	ERD25TJ1R5	CARBON 0.25W 5% 1R5Ω
R459	ERJ6GEYJ470	S.M.CARB 0.1W 5% 47Ω
R460	ERJ6GEYJ183	S.M.CARB 0.1W 5% 18KΩ
R461	ERDS1TJ471	CARBON 0.5W 5% 470Ω
R462	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R463	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R464	ERW12PKR68	WIREWOUND0.5W 10% R68Ω ▲
R465	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R466	ERO25CKF1801	METAL 0.25W 1% 1K8Ω ▲
R467	ERO25CKF1801	METAL 0.25W 1% 1K8Ω ▲
R471	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω
R472	ERDS1TJ4R7	CARBON 0.5W 5% 4R7Ω
R501	ERJ6GEYJ331	S.M.CARB 0.1W 5% 330Ω
R502	ERJ6GEYJ560	S.M.CARB 0.1W 5% 56Ω
R503	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R504	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R506	ERD25TJ560	CARBON 0.25W 5% 56Ω
R507	ERQ14AJ3R3	METAL 0.25W 5% 3R3Ω ▲
R509	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω
R510	ERDS1TJ152	CARBON 0.5W 5% 1K5Ω
R511	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R512	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R513	ERJ6GEYJ123	S.M.CARB 0.1W 5% 12KΩ
R514	ERJ6GEYJ123	S.M.CARB 0.1W 5% 12KΩ
R551	ERW2PKR47	WIREWOUND2W 10%0R47Ω ▲
R553	ERG1SJ152	METAL 1W 5% 1K5Ω
R554	ERQ14AJW101	METAL 0.25W 5% 100Ω ▲
R558	ERDS1TJ124	CARBON 0.5W 5% 120KΩ
R561	ERJ6GEYJ563	S.M.CARB 0.1W 5% 56KΩ
R562	ERJ6GEYJ155	S.M.CARB 0.1W 5% 1M5Ω
R563	ERJ6GEYJ155	S.M.CARB 0.1W 5% 1M5Ω
R564	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R566	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R567	ERJ6GEYJ274	S.M.CARB 0.1W 5% 270KΩ
R601	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R602	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R603	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R605	ERJ6GEYJ183	S.M.CARB 0.1W 5% 18KΩ
R606	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R607	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R608	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R609	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R610	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R611	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R612	ERJ6GEYJ123	S.M.CARB 0.1W 5% 12KΩ
R613	ERJ6GEYJ271	S.M.CARB 0.1W 5% 270Ω
R614	ERJ6GEYJ470	S.M.CARB 0.1W 5% 47Ω
R615	ERJ6GEYJ333	S.M.CARB 0.1W 5% 33KΩ
R616	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R618	ERJ6GEYJ151	S.M.CARB 0.1W 5% 150Ω
R619	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R623	ERJ6GEYJ821	S.M.CARB 0.1W 5% 820Ω
R701	ERQ12AJ101	FUSIBLE 0.5W 5% 100Ω ▲
R702	ERQ12HJ220	METAL 0.5W 5% 22Ω ▲
R703	ERG2FJ821	METAL 2W 5% 820Ω ▲
R704	ERJ6GEYJ563	S.M.CARB 0.1W 5% 56KΩ
R705	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R706	ERJ6GEYJ332	S.M.CARB 0.1W 5% 3K3Ω
R707	ERJ6GEYJ122	S.M.CARB 0.1W 5% 1K2Ω
R708	ERJ6GEYJ393	S.M.CARB 0.1W 5% 39KΩ
R709	ERJ6GEYJ393	S.M.CARB 0.1W 5% 39KΩ
R710	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R711	ERJ6GEYJ681	S.M.CARB 0.1W 5% 680Ω
R712	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω

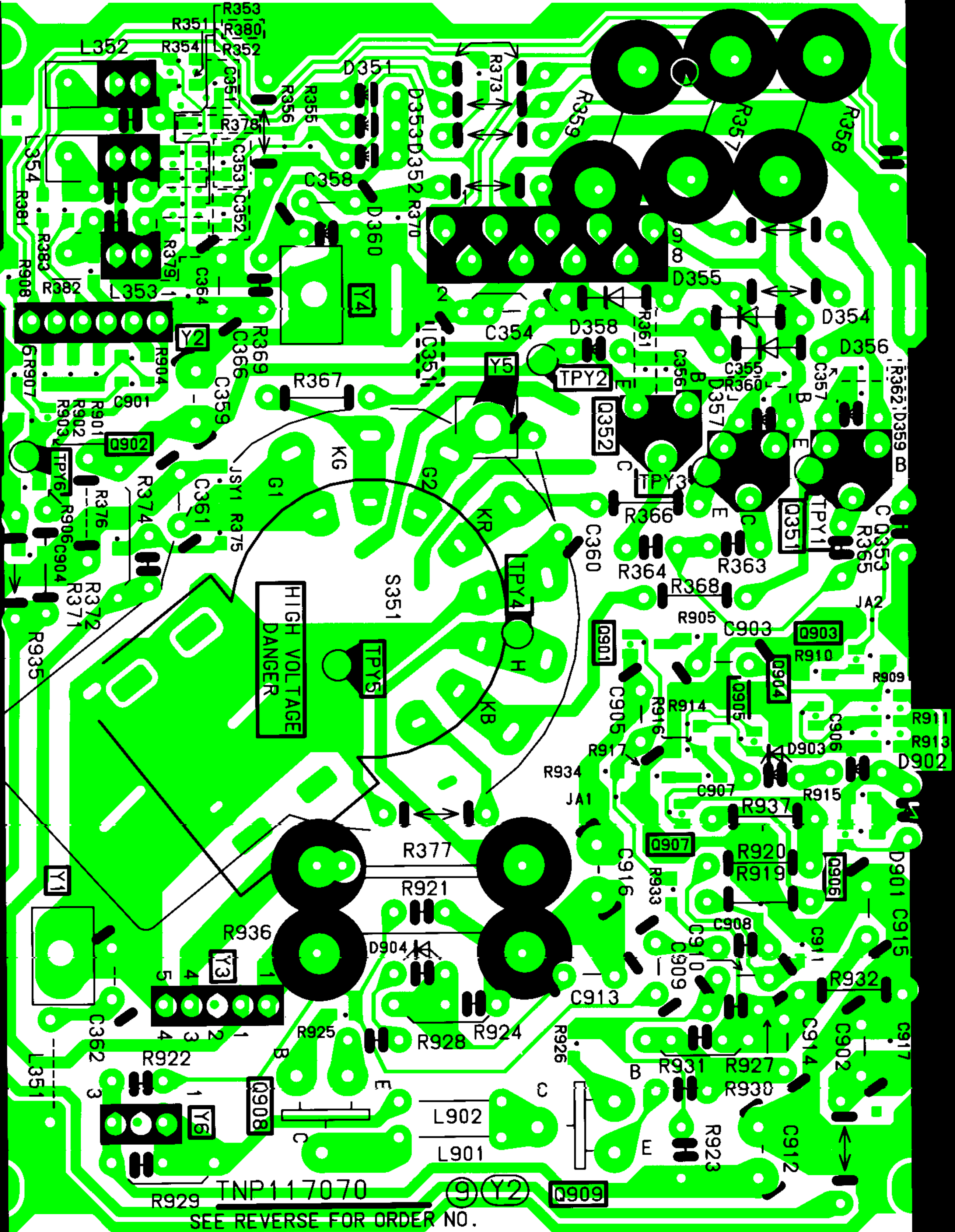
Ref No.	Part No.	Description
R713	ERG1SJ101	METAL 1W 5% 100Ω
R801	ERG3FJ682H	METAL 3W 5% 6K8Ω ▲
R802	ERG2FJ472	METAL 2W 5% 4K7Ω ▲
R803	ERX12SJWR47	METAL 12W 5% R47
R804	ERJ6GEYJ682	S.M.CARB 0.1W 5% 6K8Ω
R805	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R806	ERG1SJ823	METAL 1W 5% 820Ω
R807	ERO25CKF1201	METAL 0.25W 1% 1K2Ω ▲
R808	232266296706	THERMISTOR
R809	ERO25CKF1332	METAL 0.25W 1% 13KΩ ▲
R810	ERD25TJ103	CARBON 0.25W 5% 10KΩ
R811	EVMEASA00B33	CONTROL 3KΩ
R812	ERDS1TJ220	CARBON 0.5W 5% 22Ω
R813	ERD50FJ334	CARBON 0.5W 5% 330KΩ ▲
R814	ERF7ZK2R7	WOUND 7W 20% 2R7Ω ▲
R817	ERG3FJ470	METAL 3W 5% 47Ω ▲
R818	ERD50FJ564	CARBON 0.5W 5% 1KΩ ▲
R819	ERD50FJ564	CARBON 0.5W 5% 1KΩ ▲
R820	ERD75TAJ825	CARBON 0.75W 5% 8M2Ω ▲
R841	ERC12ZGK335D	SOLID 0.5W 10% 3M3Ω
R852	ERJ6GEYJ271	S.M.CARB 0.1W 5% 270Ω
R853	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R854	ERDS1TJ474	CARBON 0.5W 5% 470KΩ
R855	ERG2FJ223	METAL 2W 5% 22KΩ ▲
R856	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R901	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R902	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R903	ERJ6GEYJ562	S.M.CARB 0.1W 5% 5K6Ω
R904	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R905	ERJ6GEYJ681	S.M.CARB 0.1W 5% 680Ω
R906	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R907	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R908	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R909	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R910	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R911	ERJ6GEYJ152	S.M.CARB 0.1W 5% 1K5Ω
R913	ERJ6GEYJ183	S.M.CARB 0.1W 5% 18KΩ
R914	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R915	ERJ6GEYJ182	S.M.CARB 0.1W 5% 1K8Ω
R916	ERJ6GEYJ221	S.M.CARB 0.1W 5% 220Ω
R917	ERJ6GEYJ121	S.M.CARB 0.1W 5% 120Ω
R919	ERQ14AJ390	FUSIBLE 0.25W 5% 39Ω ▲
R920	ERQ14AJ390	FUSIBLE 0.25W 5% 39Ω ▲
R921	ERD25TJ471	CARBON 0.25W 5% 470Ω
R922	ERD25TJ393	CARBON 0.25W 5% 39KΩ
R923	ERD25TJ393	CARBON 0.25W 5% 39KΩ
R924	ERDS1FJ390	CARBON 0.5W 5% 39Ω ▲
R925	ERJ6GEYOR00	WIRE LINK
R926	ERJ6GEYOR00	WIRE LINK
R927	ERD25TJ471	CARBON 0.25W 5% 470Ω
R928	ERD25TJ2R7	CARBON 0.25W 5% 2R7Ω
R929	ERDS1FJ471	CARBON 0.5W 5% 470Ω ▲
R930	ERD25TJ2R7	CARBON 0.25W 5% 2R7Ω
R931	ERDS1FJ390	CARBON 0.5W 5% 39Ω ▲
R932	ERDS1FJ101	CARBON 0.5W 5% 100Ω ▲
R933	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R934	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R935	ERQ14AJ3R9	FUSIBLE 0.25W 5% 3R9Ω ▲
R936	ERQ1CJP331	METAL 1W 5% 330Ω ▲
R937	ERQ14AJ100	METAL 0.25W 5% 10Ω ▲
R1201	ERJ6GEYJ271	S.M.CARB 0.1W 5% 270Ω
R1202	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1203	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1204	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1205	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1206	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1207	ERD25TJ331	CARBON 0.25W 5% 330Ω
R1208	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R1209	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω

Ref No.	Part No.	Description
R1210	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1212	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1213	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1214	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1215	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1216	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1217	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1218	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1219	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1220	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1221	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1222	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1224	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1225	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1226	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1227	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1229	ERJ6GEY0R00	WIRE LINK
R1230	ERJ6GEY0R00	WIRE LINK
R1231	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1232	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1233	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1235	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1236	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1237	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1238	ERJ6GEYJ393	S.M.CARB 0.1W 5% 39KΩ
R1239	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R1240	ERJ6GEYJ392	S.M.CARB 0.1W 5% 3K9Ω
R1241	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1242	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1244	ERJ6GEY0R00	WIRE LINK
R1245	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R1246	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1247	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1249	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1250	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1251	ERJ6GEYJ393	S.M.CARB 0.1W 5% 39KΩ
R1252	ERX1SJ3R3	METAL 1W 5% 3R3Ω
R1253	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R1254	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R1255	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R1256	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R1257	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R1258	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R1260	ERDS1FJ121	CARBON 0.5W 5% 120Ω ▲
R2101	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2102	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R2103	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2104	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2105	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R2106	ERJ6GEYJ183	S.M.CARB 0.1W 5% 18KΩ
R2107	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2108	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2109	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2110	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2111	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R2301	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R2302	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R2303	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2304	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2313	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2314	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R2315	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R2316	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R2318	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R2321	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2322	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2323	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R2324	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2325	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R2326	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2327	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω

Ref No.	Part No.	Description
R2328	ERJ6GEYJ473	S.M.CARB 0.1W 5% 47KΩ
R2329	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R2330	ERJ6GEYJ222	S.M.CARB 0.1W 5% 2K2Ω
R2331	ERJ6GEYJ223	S.M.CARB 0.1W 5% 22KΩ
R2332	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2333	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R2334	ERJ6GEY0R00	WIRE LINK
R2335	ERJ6GEY0R00	WIRE LINK
R2651	ERG2FJ221	METAL 2W 5% 220Ω ▲
R2652	ERG2FJ221	METAL 2W 5% 220Ω ▲
R2653	ERDS1TJ151	CARBON 0.5W 5% 150Ω
R2654	ERDS1TJ151	CARBON 0.5W 5% 150Ω
R3001	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R3002	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3003	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3004	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R3005	ERJ6GEYJ470	S.M.CARB 0.1W 5% 47Ω
R3006	ERJ6GEYJ470	S.M.CARB 0.1W 5% 47Ω
R3007	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R3008	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R3009	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R3010	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3011	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3012	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3013	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3015	ERJ6GEY0R00	WIRE LINK
R3016	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3017	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3019	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R3020	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3022	ERD2FCG560	CARBON 2W 2% 56Ω
R3024	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R3025	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3026	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R3027	ERJ6GEYJ680	S.M.CARB 0.1W 5% 68Ω
R3029	ERJ6GEYJ680	S.M.CARB 0.1W 5% 68Ω
R3030	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3032	ERJ6GEYJ680	S.M.CARB 0.1W 5% 68Ω
R3034	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3036	ERJ6GEYJ220	S.M.CARB 0.1W 5% 22Ω
R3037	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R3038	ERD2FCG100	CARBON 2W 2% 10Ω
R3039	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3040	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3041	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R3042	ERJ6GEYJ472	S.M.CARB 0.1W 5% 4K7Ω
R3043	ERD2FCG100	CARBON 2W 2% 10Ω
R3044	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3045	ERJ6GEYJ471	S.M.CARB 0.1W 5% 470Ω
R3046	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3047	ERJ6GEYJ680	S.M.CARB 0.1W 5% 68Ω
R3048	ERJ6GEYJ102	S.M.CARB 0.1W 5% 1KΩ
R3049	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R3050	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3051	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3052	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3053	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3054	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3055	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3056	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3057	ERJ6GEYJ101	S.M.CARB 0.1W 5% 100Ω
R3058	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R3059	ERJ6GEYJ153	S.M.CARB 0.1W 5% 15KΩ
R3060	ERJ6GEYJ470	S.M.CARB 0.1W 5% 47Ω
R3062	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R3063	ERJ6GEYJ750	S.M.CARB 0.1W 5% 75Ω
R3064	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ
R3065	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R3066	ERJ6GEYJ104	S.M.CARB 0.1W 5% 100KΩ
R3067	ERJ6GEYJ273	S.M.CARB 0.1W 5% 27KΩ
R3068	ERJ6GEYJ103	S.M.CARB 0.1W 5% 10KΩ

Ref No.	Part No.	Description			
R3069	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R3070	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R3071	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47Ω
R3150	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R3151	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R3152	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R3153	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R3154	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R3155	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R3156	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R3157	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KΩ
R3158	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75Ω
R3502	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R3504	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100Ω
R3505	ERJ6GEY0R00	WIRE LINK			
R3508	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18KΩ
R3511	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KΩ
R3512	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7Ω

Ref No.	Part No.	Description	
SWITCHES			
S801	ESB91232A	SWITCH	⚠
S1201	EVQ23405R	SWITCH	
S1202	EVQ23405R	SWITCH	
S1203	EVQ23405R	SWITCH	
S1204	EVQ23405R	SWITCH	
S1205	EVQ23405R	SWITCH	
TRANSFORMERS			
T501	5270103200	TRANSFORMER	
T551	ZTFH65008A	TRANSFORMER	⚠
T801	TLP8E1002	TRANSFORMER	⚠
T1201	ETP35KAN61ZU	TRANSFORMER	
FILTERS			
X101	EFCS5M7MW3	CERAMIC FILTER	
X103	G3355K	SAW FILTER	
X105	EFCV3095A6	CHIP FILTER	
X601	TSS2169-B	CRYSTAL	
X1201	TSS120M2	CRYSTAL	
X2101	TSS4004-B	CRYSTAL	



JK3102
TUB16673

AV3

AC CORD
TSX8E0017 (UK)

JK3101
TUB88007

AV1

E3

E4

* VOLTAGES MAY VARY

