SM - 96004

Service Manual

Colour Television

TX-21AD2

EURO-2 Chassis

Specifications

Power Source :	220-240V AC 50Hz	
Power Consumption :	80W	
Aerial Impedance :	75W unbalanced, Coaxial Type	
Receiving System :	PAL I, PAL 60,	
Receiving Channels :	UHF E21 - E69	
Intermediate Frequency :		
Video	39.5 MHz	
Sound	33.5 MHz	
Colour	35.07 MHz	
Video / Audio Terminals :		
AUDIO MONITOR OUT	Audio(RCA x 2)	500mV rms,1kW
AV1 IN	Video (21 pin)	1V p-p 75W
	Audio (21 pin)	500mV rms,10kW
	RGB (21 pin)	
AV1 OUT	Video (21 pin)	1V p-p 75W
	Audio (21 pin)	500mV rms, 1kW
AV2 IN	Video (21 pin)	1V p-p 75W
	Audio (21 pin)	500mV rms,10 kW
	S-Video IN	Y : 1V p-p 75W
	(21 pin)	C : 0.3V p-p 75W
AV2 OUT	Video (21 pin)	1V p-p 75W
	Audio (21 pin)	500mV rms, 1kW
AV3 IN	Audio (RCA x 2)	500mV rms,10kW
	Video (RCA x 1)	1V p-p 75W
High Voltage :	27kV _1kV at zero beam current	
Picture Tube :	51 cmV measured diagonally.	
Audio Output :		
Internal Speaker	2 x 20W (Music Power)	
	8W Impedance	
Headphones	8 W Impedance	
Accessories supplied :	Remote Control	
	UM3 Battery	
	T.V. Stand	
Dimensions :	Height : 465mm	
	Width : 558mm	
	Depth : 495mm	
Net Weight	23kg	

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

NOTE : This service manual should be used in conjunction with the EURO 2 technical guide.

Panasonic

Panasonic CS (UK)
WILLOUGHBY ROAD,
BRACKNELL
BERKS,
RG12 8FT.

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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 28kV 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.

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 ohm 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.
4. Check each exposed Metallic part and check the voltage at each point.
5. Reverse the AC plug at the outlet andrepeat 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.

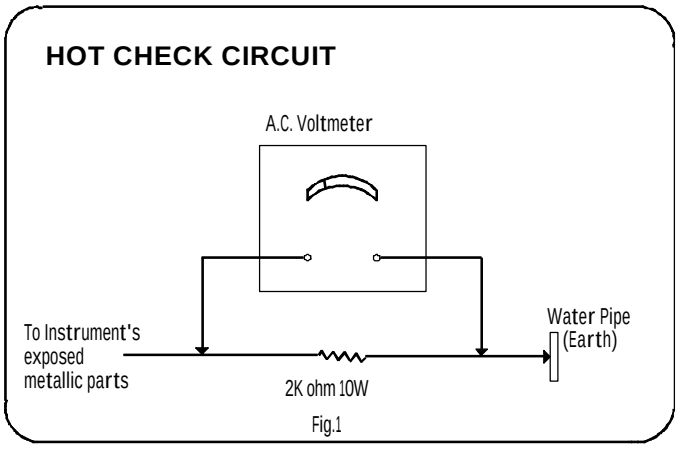

Fig.1

X-Radiation Warning

1. The potential sources of X-Radiation in TV sets are the high voltage section and the picture tube.
2. When using a picture tube test jig for service ensure that the jig is capable of handling 28kV without causing X-Radiation.

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

1. Set the brightness to minimum.
2. Measure the high voltage. The meter should indicate 27kV _1kV at zero beam current 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 an X-Radiation possibility, it is essential to use the specified tube.

Location Of Controls

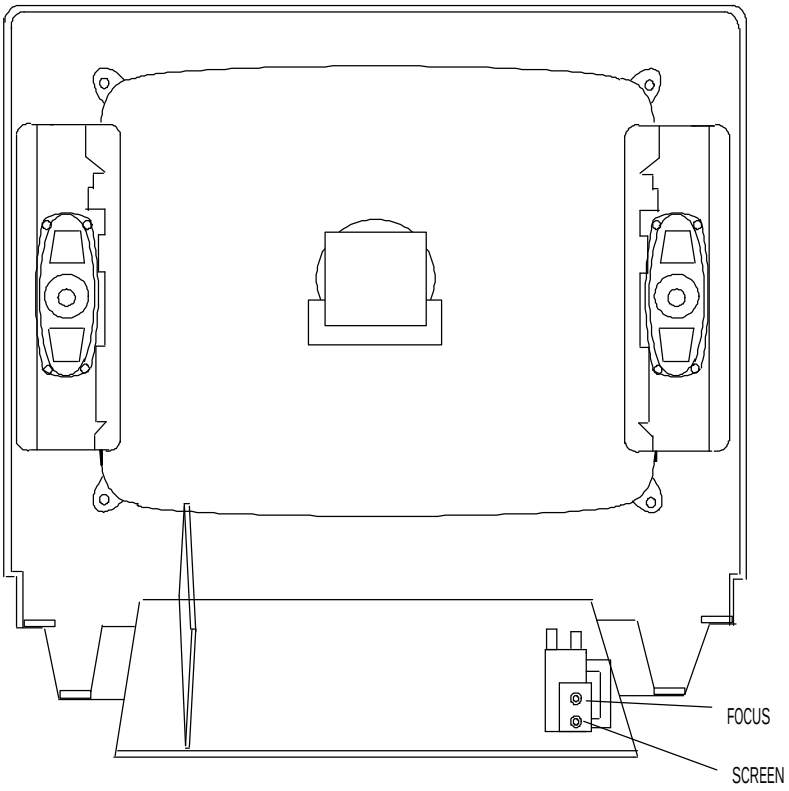

Fig.2

Service Hints

How to remove the rear cover

i. Remove the 5 fixing screws (A) as shown in Fig.3/Fig.4.

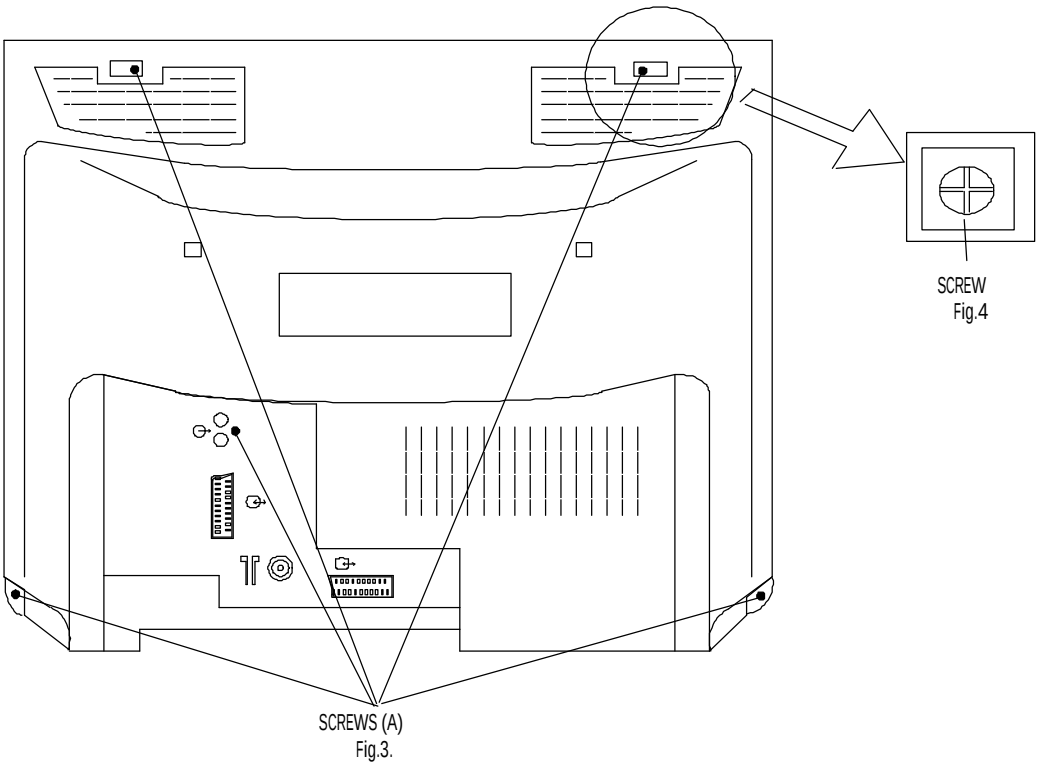

Fig.4

SCREWS (A)

Fig.3.

How to move the chassis into the Service position

NOTE: To place the chassis into the advised service position the T.V. must be on the T.V. stand provided with the set.

1. To place the chassis into service position hold and lift the rear of the E-PCB chassis and gently pull the chassis toward you as shown in Fig.5.

B-PCB service position.

i. Release the respective wiring clips and rotate the chassis horizontally through 180_ anti-clockwise, then lift the front of the chassis as shown in Fig.6.

ii. Insert the beadclamper located in the bottom left hand corner of the cabinet (Fig.8.) into the chassis frame shown in Fig.9.

iii. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.

E-PCB service position.

i. Release the respective wiring clips and rotate the chassis horizontally through 180_ anti-clockwise, the lift the FBT side of the chassis as shown in Fig.7.

ii. Insert the beadclamper located in the bottom left hand corner of the cabinet (Fig.8.) into the chassis frame shown in Fig.9

iii. After servicing ensure all wiring is returned to its original position before returning the receiver to the customer.

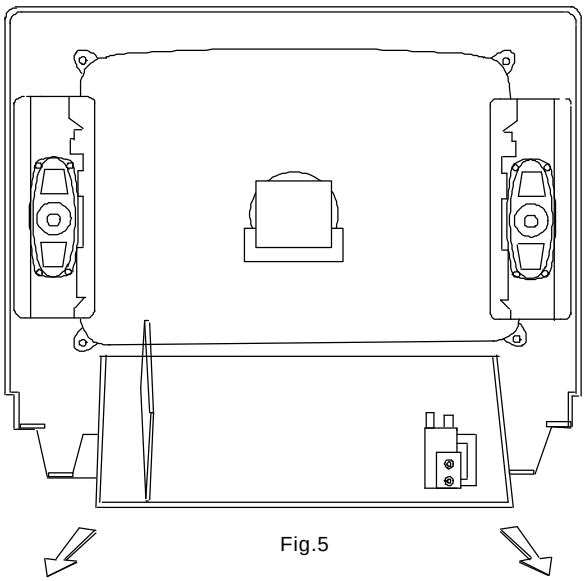

Fig.5

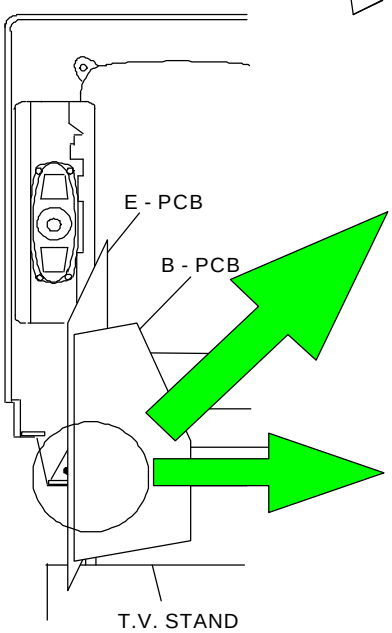

Fig.6.

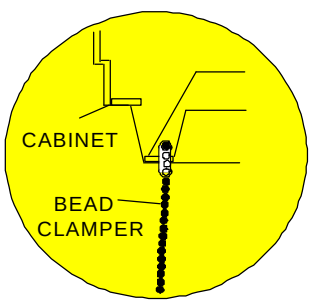

Fig.8.

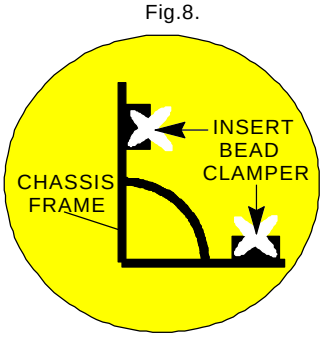

Fig.9.

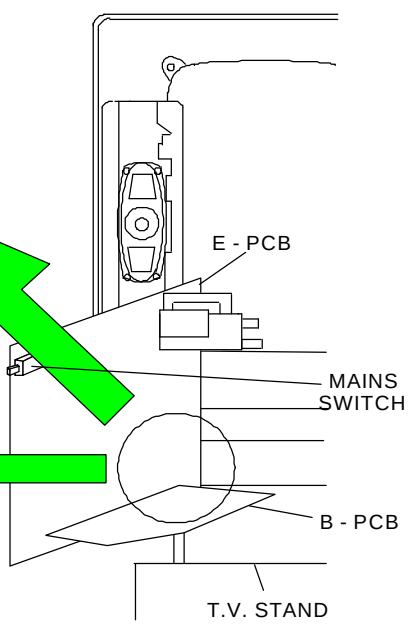

Fig.7.

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Service Mode

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 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 down / up through the functions.
3. Press the YELLOW / BLUE buttons to alter the function values.
4. Press the STORE button on the preset panel 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 and analogue levels into the Memory Pack and then upload them onto another EURO-2 TV set.

Using the Memory Pack

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!

Memory Pack to TV 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 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 switch off the TV.
7. The process has now been completed and the Memory Pack can now be removed.

Errors

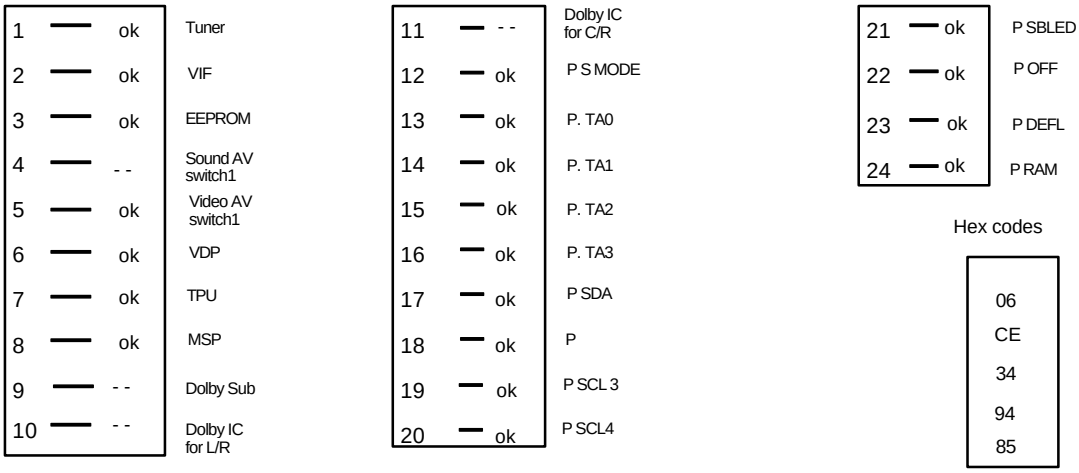
If an error occurs while using the Memory Pack the TV will detect this and the screen will show:-

Program Error!

If this happens then switch off the TV 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.

SELF CHECK

Self check is used to automatically check the Bus lines and Hexadecimal code of the TV set. To enter the Self Check mode press Function down button, on the Preset Panel, at the same time pressing the Status button, on the Remote Control, and the screen will show:-



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

Adjustment Procedure

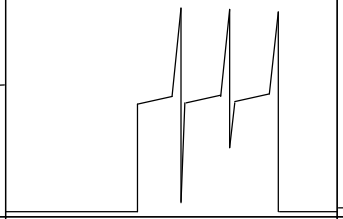
Item/Preparation	Adjustments
+B SET-UP 1. Receive a window pattern 2. Set the controls: Brightness minimum Contrast minimum Volume minimum	1. Set the +B voltage up as follows: Adjust **R811** so that **B2** shows 130V +/- 1V 2. Confirm the following voltages. **B1** 200 +/- 10V **B6** 12 +/- 0.5V **B3** 27 +/- 1V **B7** 5 + 0.1/-0.25V **B4** 41.0 +/- 1V **B8** 5 +/- 0.25V **B5** 15.5 +/- 1V **U33** 31 +/- 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 window 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 70 +/- 30 first.

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

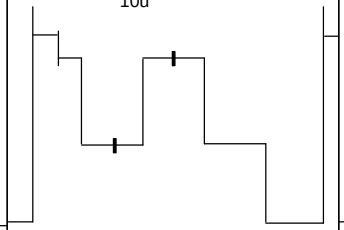
Alignment Function	TX-21AD2	Settings / Special features
1. Vertical amplitude	V-AMP 063	Optimum setting
2. Vertical symmetry	V-SYM 002	Optimum setting
3. Vertical linearity	V-LIN -020	Optimum setting
4. Vert. D.C.	Vert. D.C. 000	No Adjustment
5. V-Pos.	V. Pos 005	Optimum setting
6. Horizontal amplitude	H-AMP -044	Optimum setting
7. Horizontal position	H-POS 542	Optimum setting
8. Text Position	TEXT POSITION 049	Optimum setting
9. EW-amplitude	E-W AMP 1 -059	Optimum setting
10. EW-amplitude	E-W AMP 2 044	Optimum setting
11. Trapezium-comp	TRAPEZ 1 000	Optimum setting
12. Trapezium- comp	TRAPEZ 2 -009	Optimum setting
13. Colour VCO	Colour VCO 006	Press either Blue or Yellow buttons to effect automatic adjustment
14. Cut-off DC	Cut-off DC 050	No Adjustment
15. Ug2 Test	Ug 2 Test 094 044 020	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 70_30 first.
16. Cutoff	Cutoff 057 064 056	Press the GREEN button to step through the settings. Adjust for optimum.
17. White	White 200 255 246	Press the GREEN button to step through the settings. Adjust for optimum.

PIN 42
10u

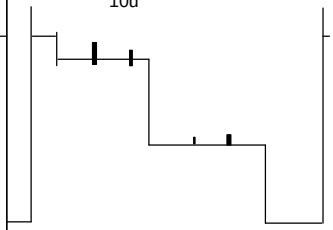
PIN 6 E8
50u sec/div



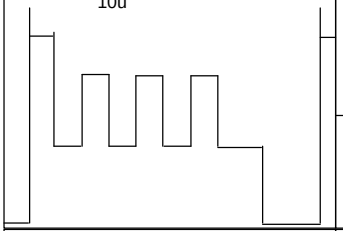
PIN 5 E8
10u



PIN 3 E8
10u

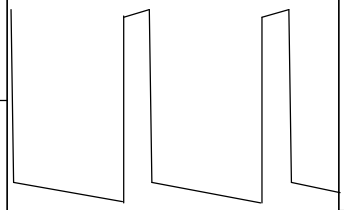


PIN 4 E8
10u

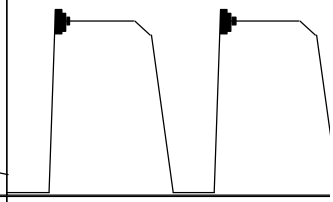


PIN 44
10u
(Chroma)

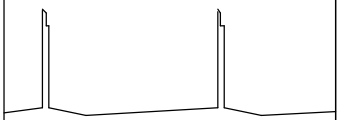
PIN 7
2u sec/div



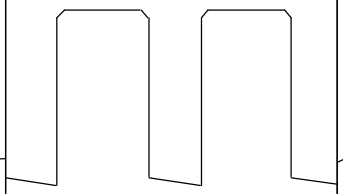
PIN 18
5u sec/div



PIN 6
5m sec/div



PIN 3
5u sec/div



PIN 6
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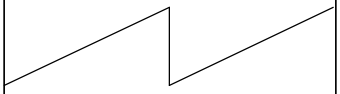
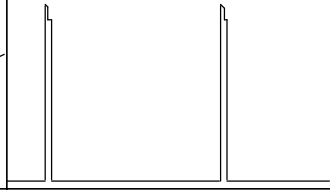
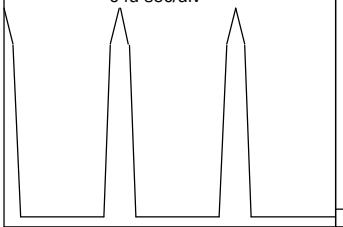


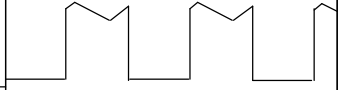
PIN 34
5m sec/div



COLLECTOR
64u sec/div

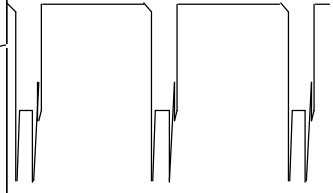


BASE Q503
20u sec/div

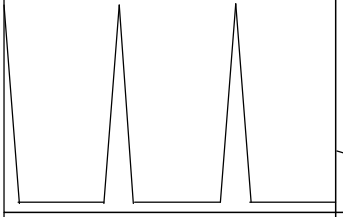


PIN 7
5m sec/div

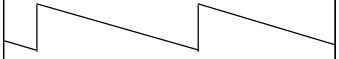
BASE
20u sec/div



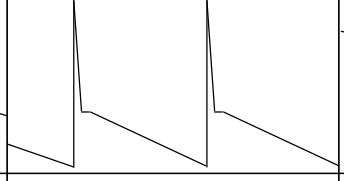
PIN 8
64u sec/div



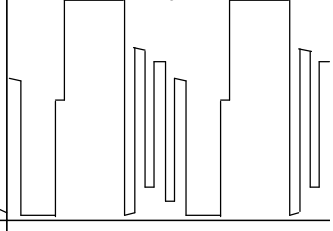
PIN 1
5m sec/div



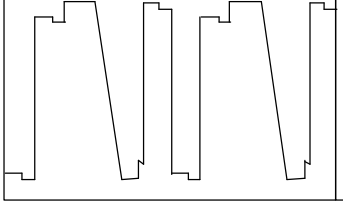
PIN 5
5m sec/div



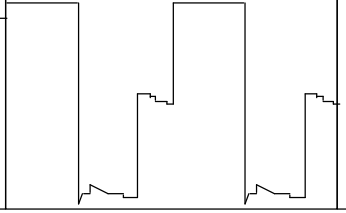
BLUE DRIVE
EMITTER Q353
120v

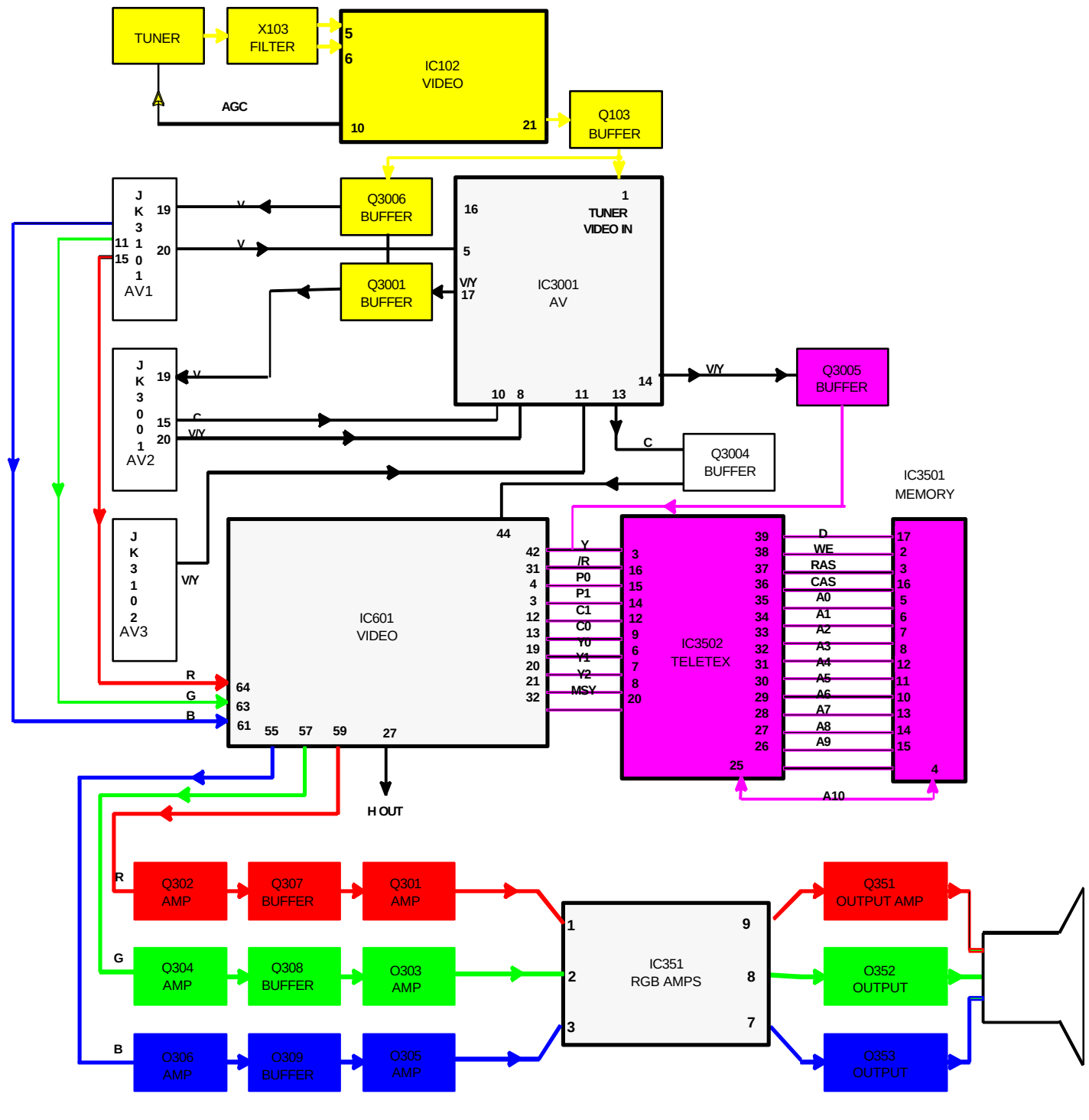


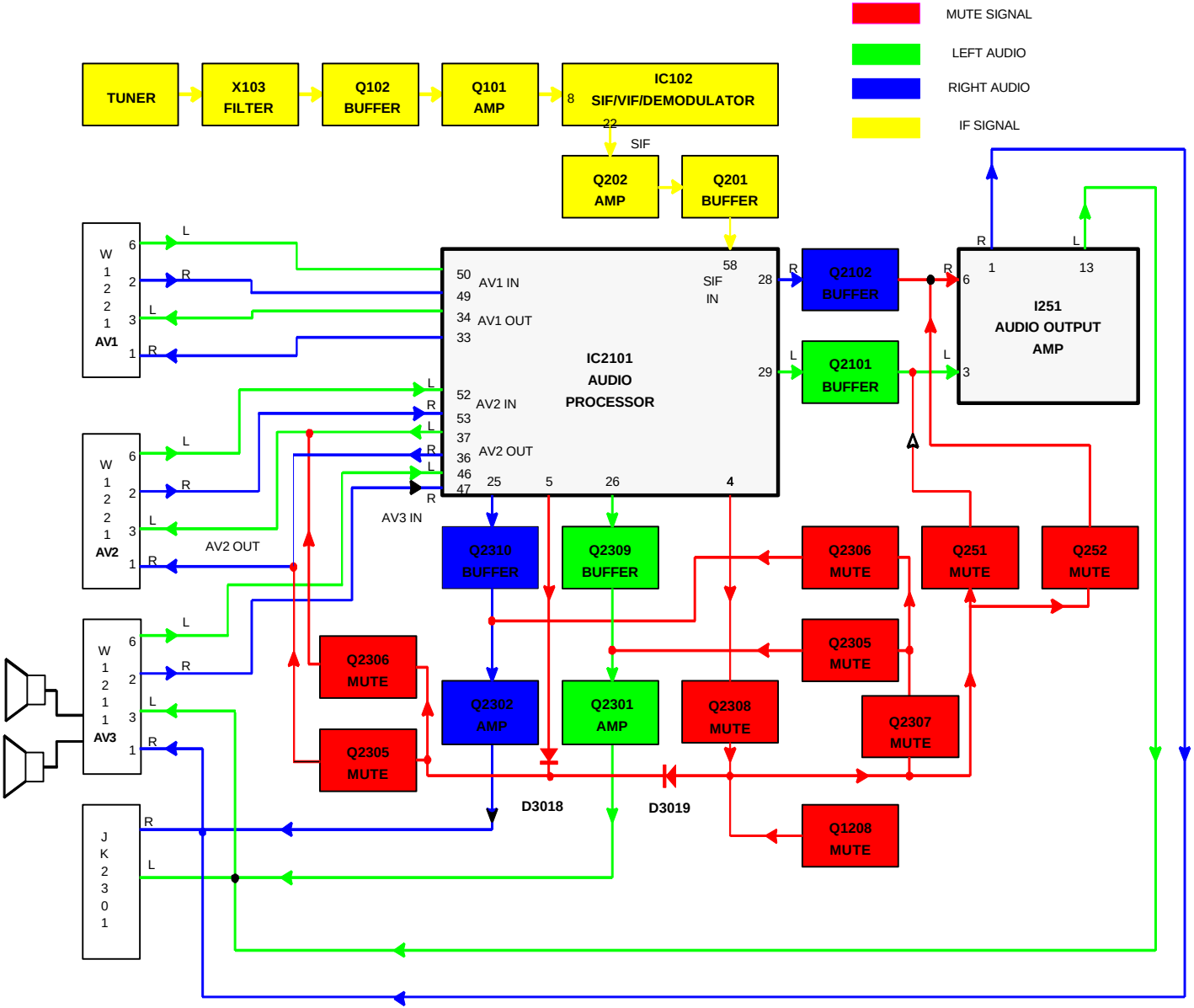
RED DRIVE
EMITTER
80v

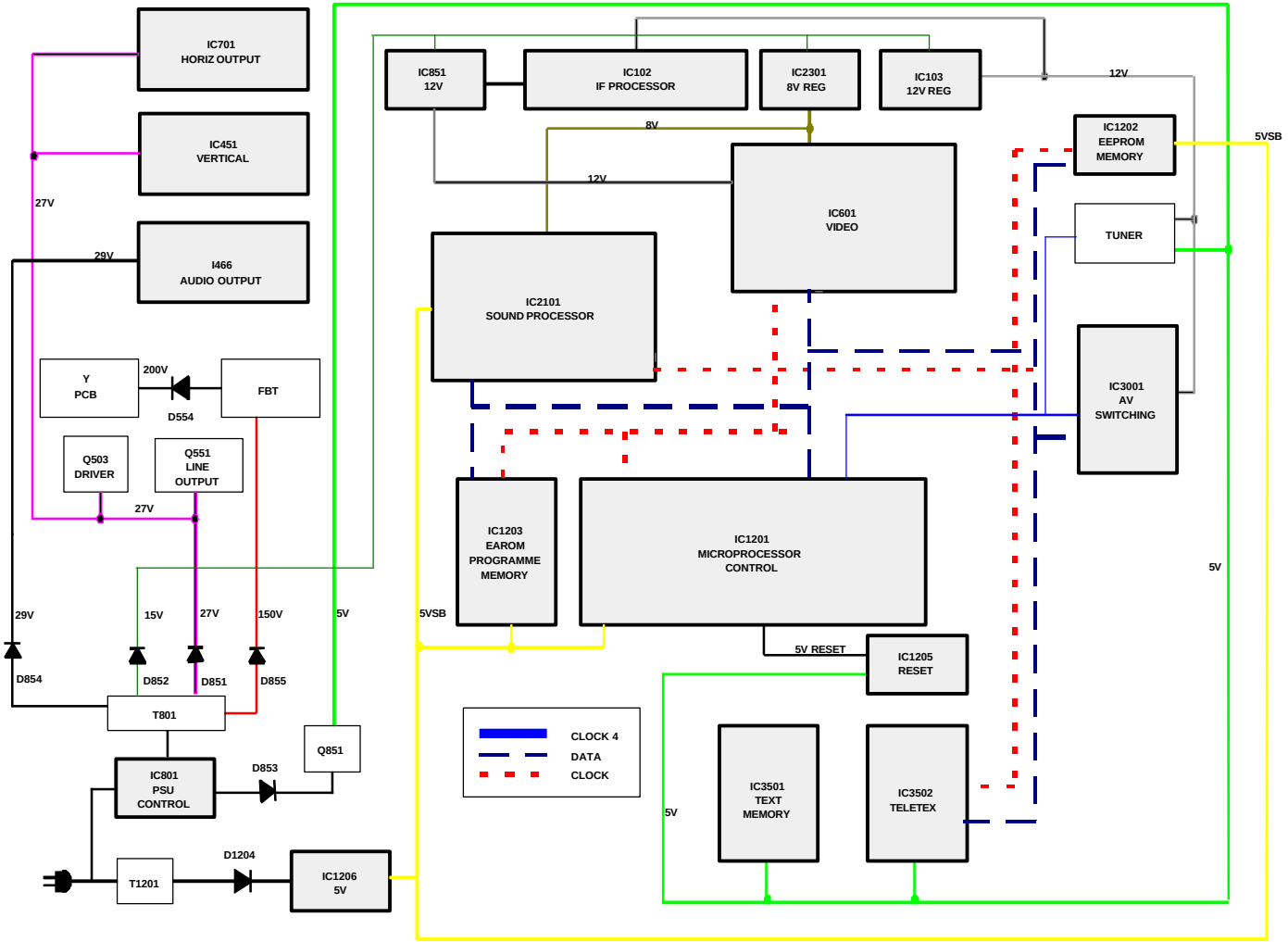


GREEN DRIVE
EMITTER Q352
100v



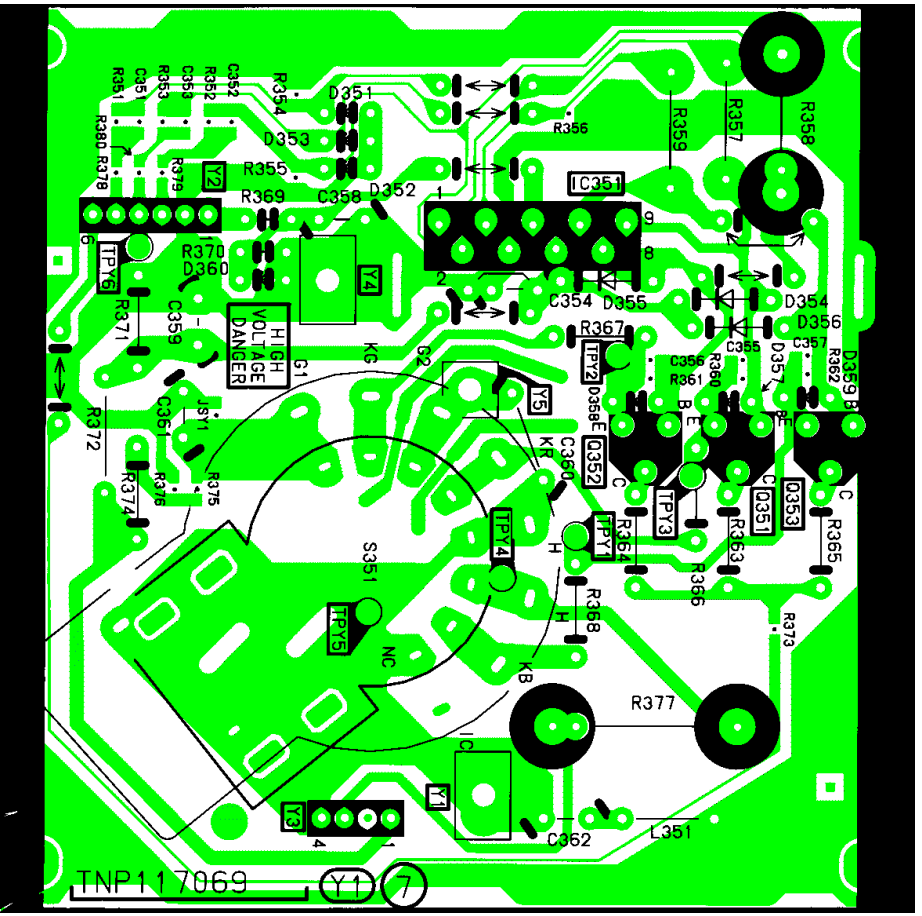

TUNER
X103
FILTER
IC102
VIDEO
AGC
Q103
BUFFER
Q3006
BUFFER
Q3001
BUFFER
IC3001
AV
TUNER
VIDEO IN
AV1
AV2
AV3
Q3005
BUFFER
Q3004
BUFFER
IC3501
MEMORY
IC601
VIDEO
IC3502
TELETEX
H OUT
Q302
AMP
Q307
BUFFER
Q301
AMP
Q304
AMP
Q308
BUFFER
Q303
AMP
Q306
AMP
Q309
BUFFER
Q305
AMP
IC351
RGB AMPS
Q351
OUTPUT AMP
Q352
OUTPUT
Q353
OUTPUT

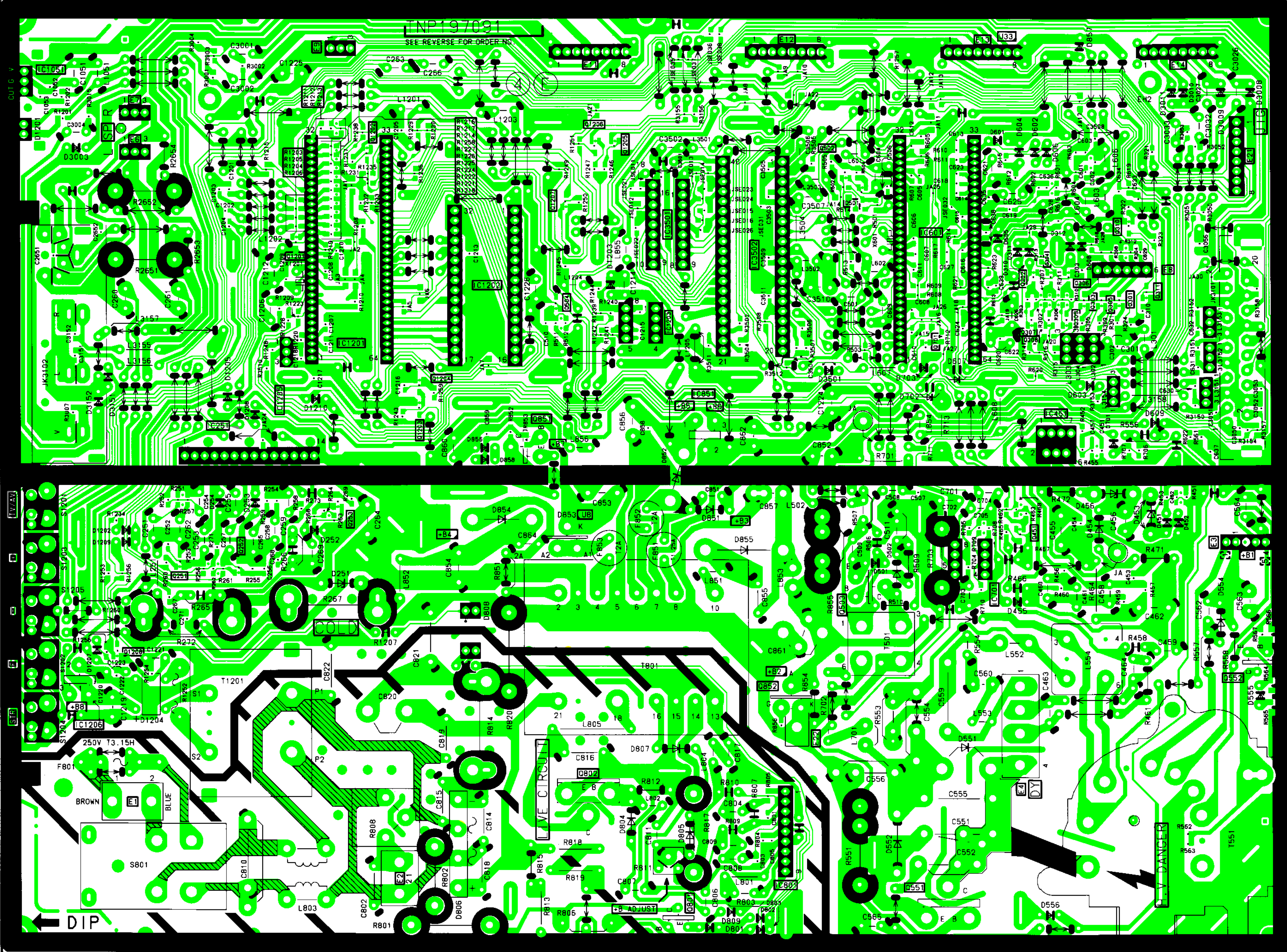

MUTE SIGNAL
LEFT AUDIO
RIGHT AUDIO
IF SIGNAL
TUNER
X103 FILTER
Q102 BUFFER
Q101 AMP
IC102 SIF/VIF/DEMODULATOR
8
22
SIF
Q202 AMP
Q201 BUFFER
W1221 AV1
W1221 AV2
W1211 AV3
JK2301
AV2 OUT
AV3 IN
IC2101 AUDIO PROCESSOR
50 AV1 IN
49
34 AV1 OUT
33
52 AV2 IN
53
37 AV2 OUT
36
46
47
58 SIF IN
25
5
26
4
28
29
Q2102 BUFFER
Q2101 BUFFER
I251 AUDIO OUTPUT AMP
Q2310 BUFFER
Q2309 BUFFER
Q2306 MUTE
Q251 MUTE
Q252 MUTE
Q2305 MUTE
Q2302 AMP
Q2301 AMP
Q2308 MUTE
Q2307 MUTE
Q1208 MUTE
D3018
D3019


IC701
HORIZ OUTPUT
IC451
VERTICAL
I466
AUDIO OUTPUT
27V
29V
Y
PCB
200V
D554
FBT
Q503
DRIVER
Q551
LINE
OUTPUT
27V
29V
15V
27V
150V
5V
D854
D852
D851
D855
T801
Q851
IC801
PSU
CONTROL
D853
T1201
D1204
IC1206
5V
IC851
12V
IC102
IF PROCESSOR
IC2301
8V REG
IC103
12V REG
12V
8V
12V
IC601
VIDEO
IC2101
SOUND PROCESSOR
IC1202
EEPROM
MEMORY
5VSB
TUNER
IC3001
AV
SWITCHING
IC1203
EAROM
PROGRAMME
MEMORY
IC1201
MICROPROCESSOR
CONTROL
5V
5VSB
5V RESET
IC1205
RESET
CLOCK 4
DATA
CLOCK
IC3501
TEXT
MEMORY
IC3502
TELETEX
5V

TP'S		TRANS	
TPY1	C2	Q351	C2
TPY2	C3	Q352	C2
TPY3	C2	Q353	C2
TPY4	B2		
TPY5	B2	IC'S	
TPY6	A3	IC351	B3

Y BOARD TNP117069




TNP197091
SEE REVERSE FOR ORDER NO.
COLD
LIVE CIRCUIT
H.V. DANGER
+B ADJUST
250V T3.15H
BROWN
BLUE
DIP

SCHEMATIC DIAGRAM FOR MODELS
TX-21AD2
(EURO-2S 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

i. RESISTOR
All resistors are carbon ¼W resistor, unless marked.
Unit of resistance is OHM (Ω) (K=1,000, M=1,000,000).

ii. CAPACITOR
All capacitors are ceramic 50V capacitors, unless marked, the unit of capacitance is μF unless otherwise stated.

iii. COIL
Unit of inductance is mH, unless otherwise stated.

iv. TEST POINT

Test Point Position

v. EARTHSYMBOL

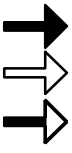
Chassis Earth (cold)

Line Earth (Hot)

vi. VOLTAGE MEASUREMENT
Voltage is measured by a DC voltmeter.
Measurement conditions are as follows:

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

v



Indicates the Video signal path

Indicates the Audio signal path

Indicates the Vertical/Horizontal signal path

viii. This schematic diagram is the latest at the time of printing and is subject to change without notice.

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.

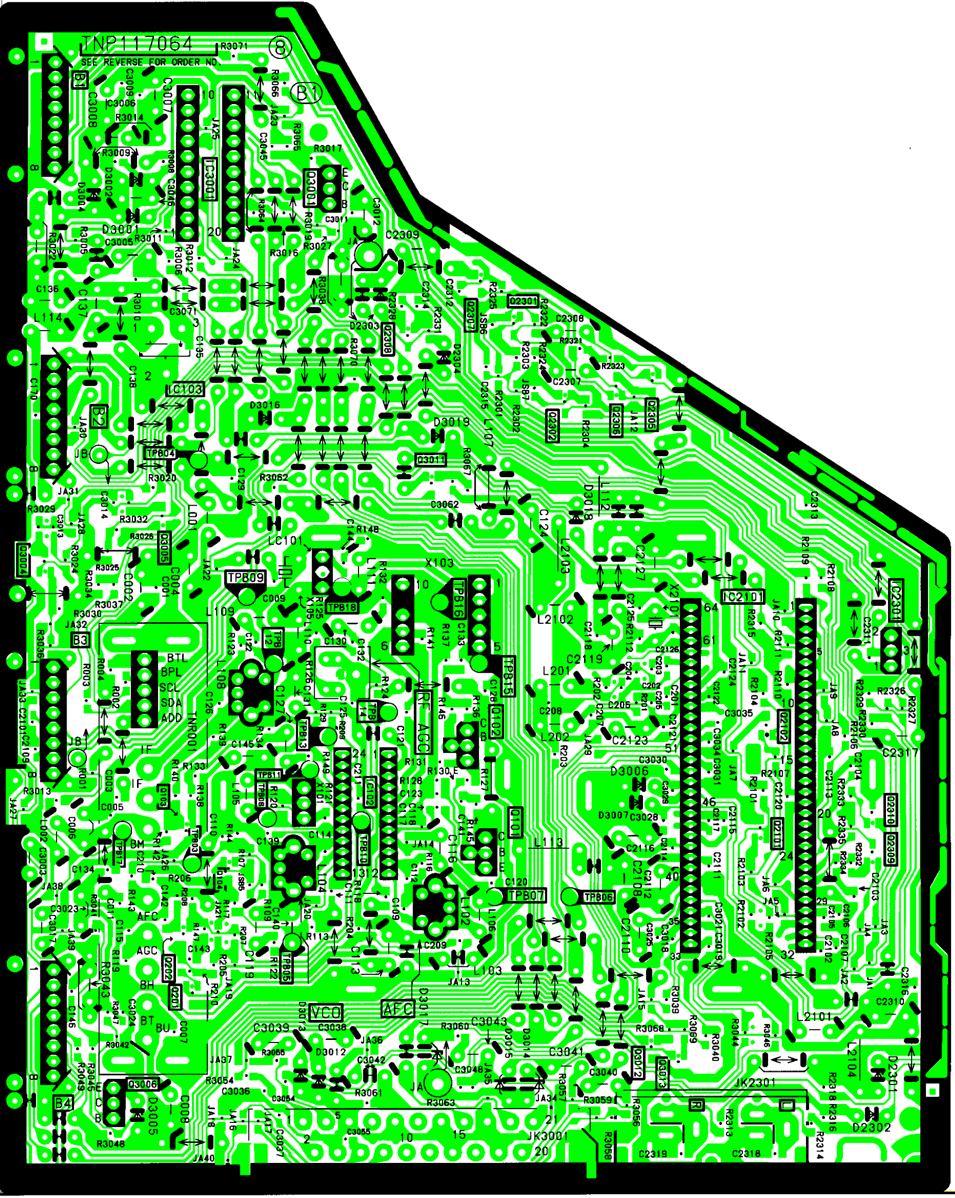
b. Do not short-circuit the hot and cold circuits as electrical components may be damaged.

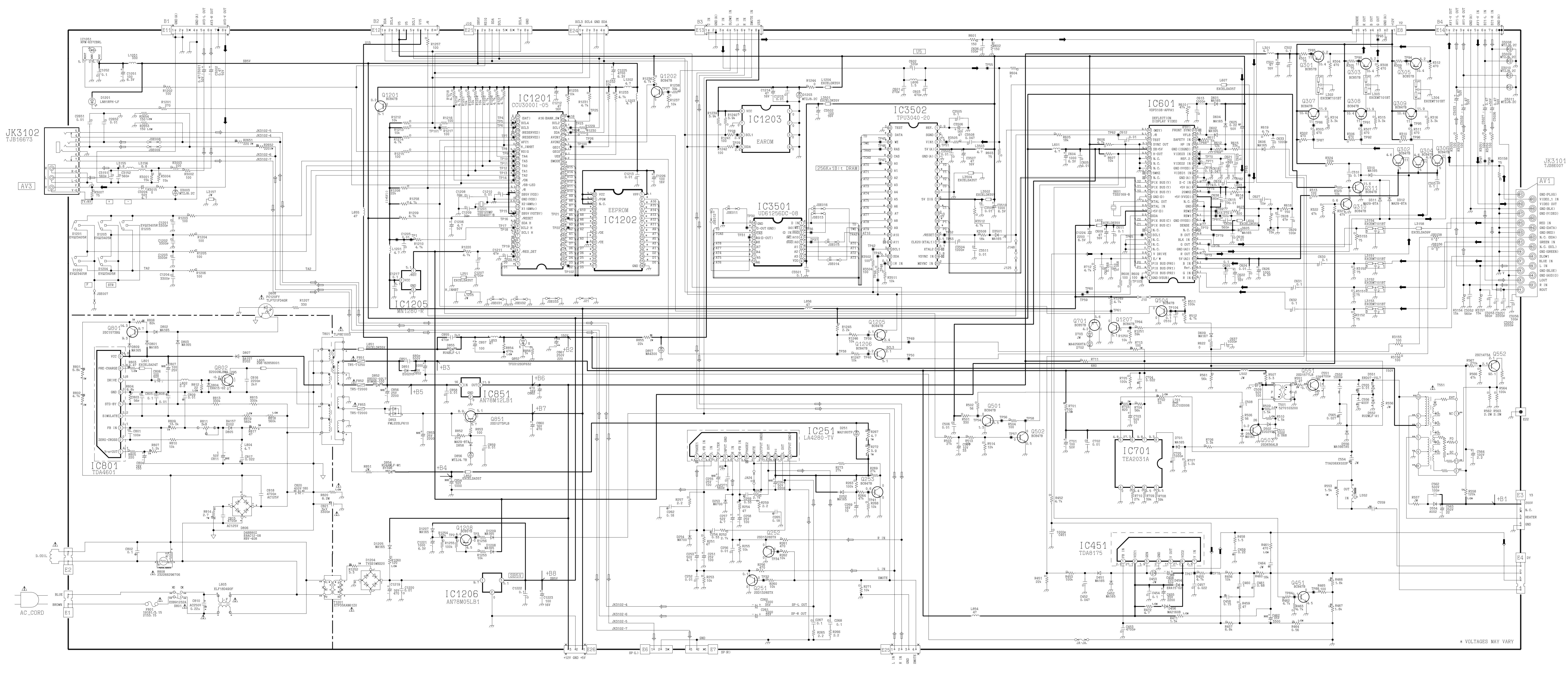
c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously, as this may ca use fuse failure. Connect the earth of the instruments to the earth connection of the circuit being measured.

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

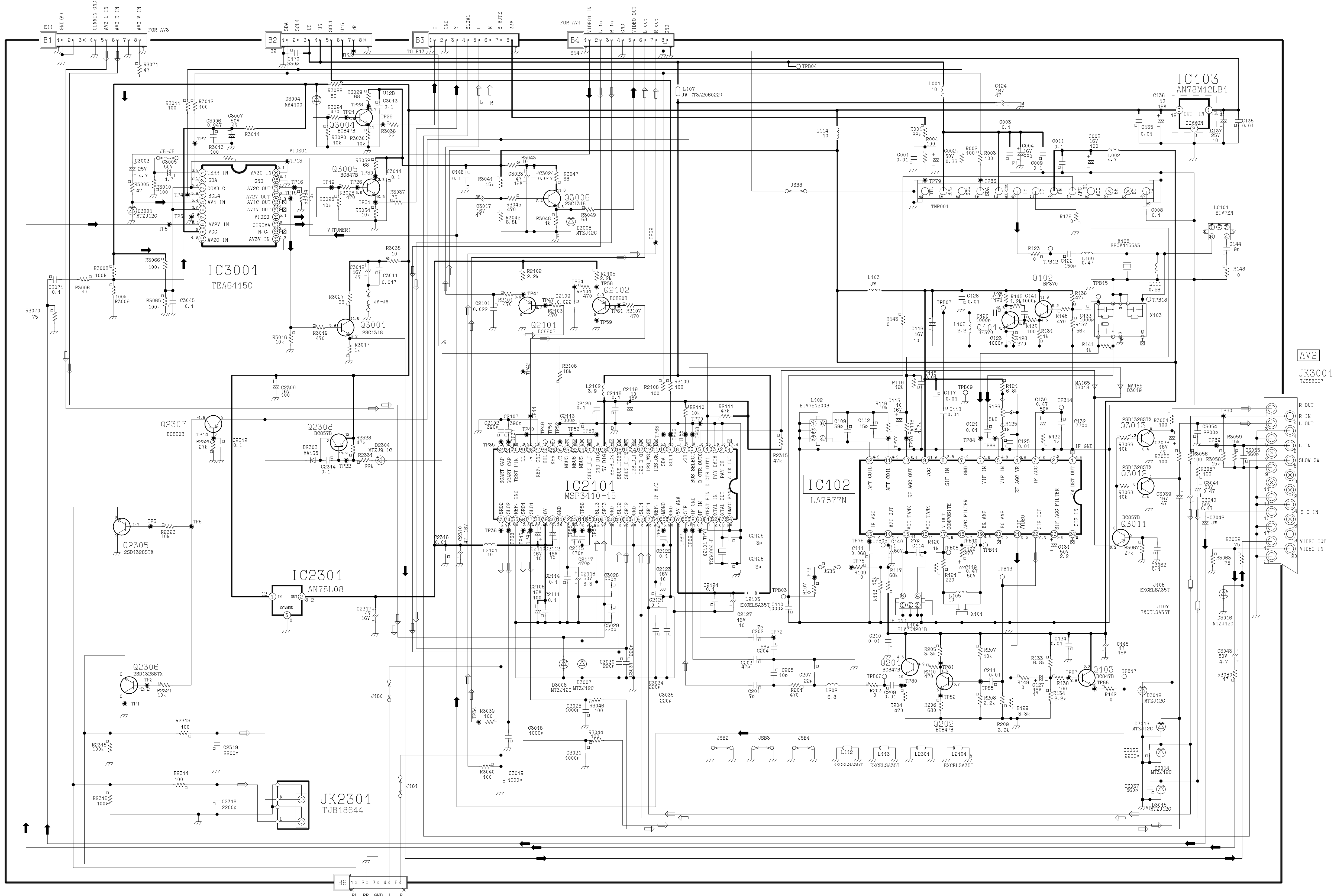
Remarks

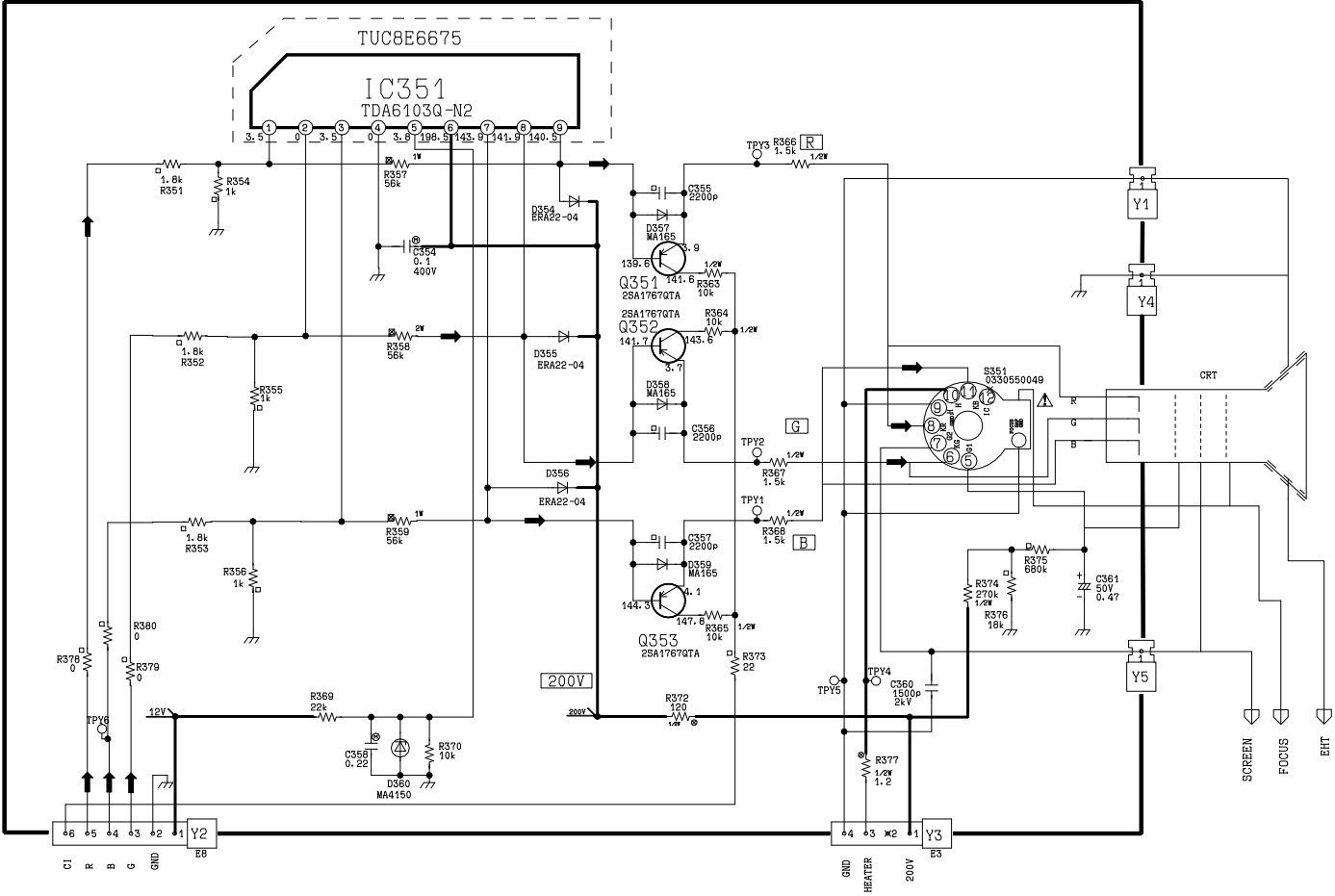
i. The Power Circuit contains a circuit area which uses a separate power supply to isolate the earth connection. The circuit is defined by HOT and COL indications in the schematic diagram. All circuits, except the Power Circuit, are COLD.


TNP117064
SEE REVERSE FOR ORDER NO.
B1
B2
B3
B4
IC3001
IC2101
IC2301
IC102
LC101
LC103
X103
X101
X2101
TNR001
BTL
BPL
SCL
SDA
ADD
RF AGC
VCO
AFC
JK3001
JK2301
TPB04
TPB09
TPB18
TPB16
TPB15
TPB07
TPB06
TPB05
L2101
L2102
L2103
L2104
L113
D3001
D3005
D3006
D3007
D3018
D3019
D2301
D2302

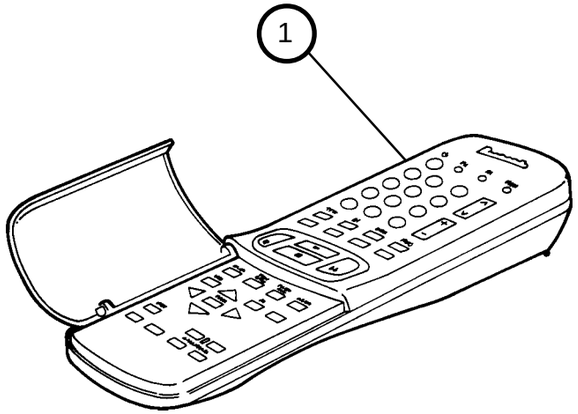


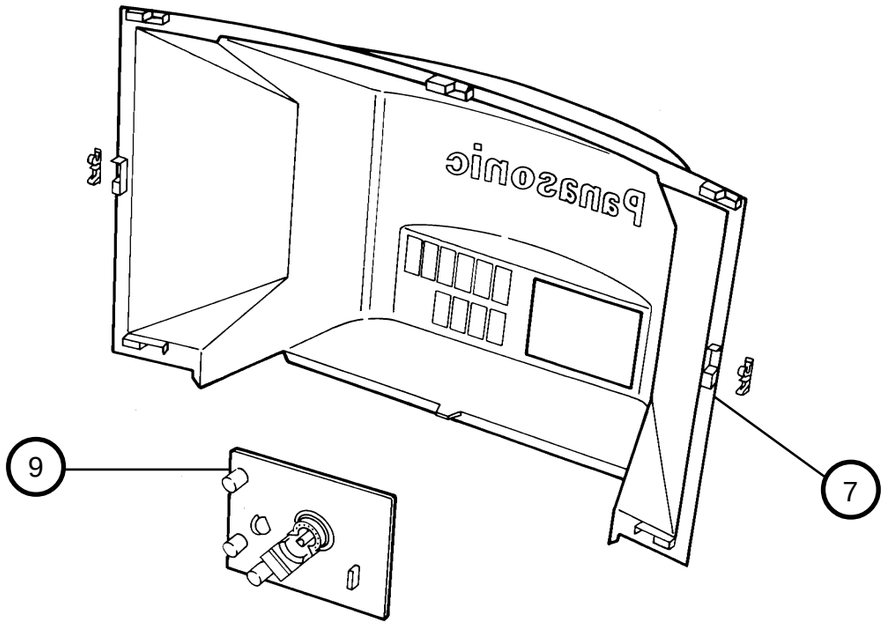
JK3102
TJB16673
AV3
IC1201
CCU3000I-05
IC1202
EEPROM
IC1203
EAROM
IC1205
MN1280-R
IC3501
UD61256DC-08
IC3502
TPU3040-20
256Kx1Bit DRAM
IC601
VDP3108-APPA1
DEFLECTION
DISPLAY VIDEO
JK3101
TJB8E007
AV1
IC801
TDA4601
IC851
AN78M12LB1
IC1206
AN78M05LB1
IC251
LA4280-TV
IC701
TEA2031A
IC451
TDA8175
D.COIL
AC_CORD
BLUE
BROWN
E1
E2
E3
E4
E11
E12
E13
E14
E21
E22
E24
E25
E26
E6
E7
E8
B1
B2
B3
B4
+B1
+B2
+B3
+B4
+B5
+B6
+B7
+B8
SB5V
* VOLTAGES MAY VARY

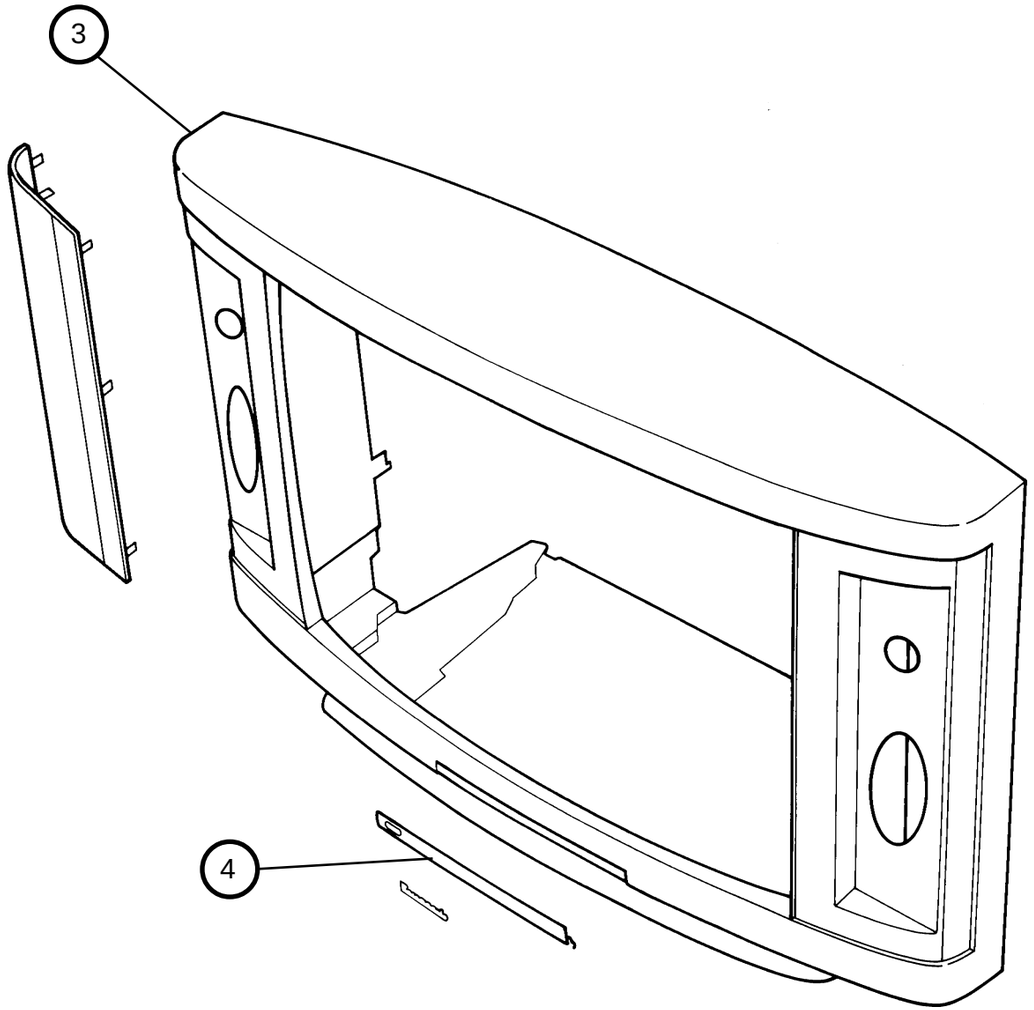

B1
FOR AV3
GND (A)
COMMON GND
AV3-L IN
AV3-R IN
AV3-V IN
B2
SDA
SCL4
U5
SCL1
U15
B3
GND
SLOW1
S MUTE
33V
B4
FOR AV1
VIDEO1 IN
L in
R in
VIDEO OUT
L out
R out
IC3001
TEA6415C
IC2101
MSP3410-15
IC2301
AN78L08
IC102
LA7577N
IC103
AN78M12LB1
JK2301
TJB18644
JK3001
TJS8E007
AV2
TNR001
X101
X103
X105
LC101
Q3001
2SC1318
Q3004
BC847B
Q3005
BC847B
Q3006
2SC1318
Q2101
BC860B
Q2102
BC860B
Q2305
2SD1326STX
Q2306
2SD1326STX
Q2307
BC860B
Q2308
BC857B
Q101
BF370
Q102
BF370
Q103
BC847B
Q201
BC847B
Q202
BC847B
Q3011
BC857B
Q3012
2SD1326STX
Q3013
2SD1326STX
R OUT
R IN
L OUT
L IN
SLOW SW
S-C IN
VIDEO OUT
VIDEO IN
B6
RL
RR
GND
L
R
JSB2
JSB3
JSB4
JSB5
JSB8
J180
J181
L112
L113
L2301
L2104
EXCELSA35T

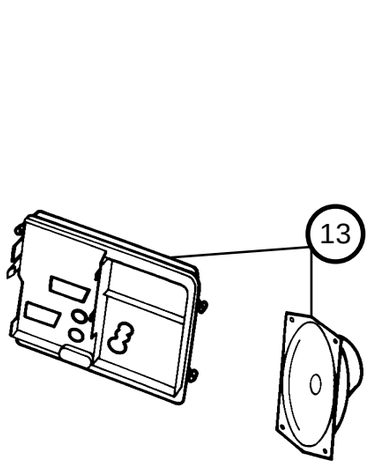

TUC8E6675
IC351
TDA6103Q-N2
1 2 3 4 5 6 7 8 9
3.5 0 3.5 0 3.8 198.5 143.9 141.9 140.5
R351 1.8k
R354 1k
R357 56k 1W
C354 0.1 400V
D354 ERA22-04
C355 2200p
D357 MA165
139.6 3.9 141.6
Q351 2SA1767QTA
R363 10k 1/2W
TPY3 R366 1.5k 1/2W R
Y1
R352 1.8k
R355 1k
R358 56k 2W
D355 ERA22-04
2SA1767QTA
Q352
141.7 143.6 3.7
R364 10k 1/2W
D358 MA165
C356 2200p
G
TPY2 R367 1.5k 1/2W
Y4
S351 0330550049
CRT
R
G
B
D356 ERA22-04
TPY1 R368 1.5k 1/2W B
R353 1.8k
R359 56k 1W
R356 1k
C357 2200p
D359 MA165
144.3 4.1 147.5
Q353 2SA1767QTA
R365 10k 1/2W
R373 22
R375 680k
R374 270k 1/2W
R376 18k
C361 50V 0.47
R380 0
R378 0
R379 0
200V
TPY5
TPY4
C360 1500p 2kV
Y5
R369 22k
12V
TPY6
R372 120 1/4W
200V
C358 0.22
R370 10k
D360 MA4150
R377 1/2W 1.2
SCREEN
FOCUS
EHT
CI R B G GND
Y2
E8
GND HEATER 200V
Y3
E3

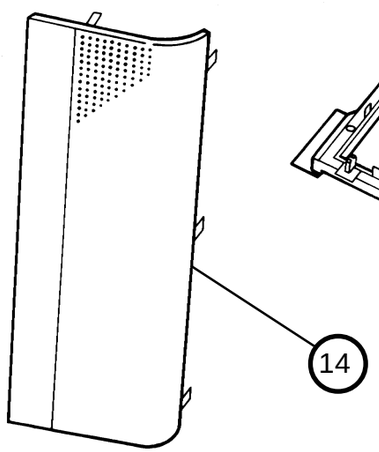
The numbers on the exploded view below refer to the miscellaneous section of the Replacement Parts List.

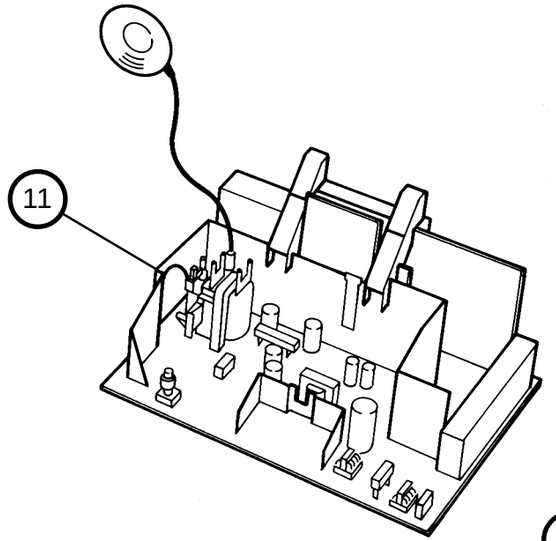


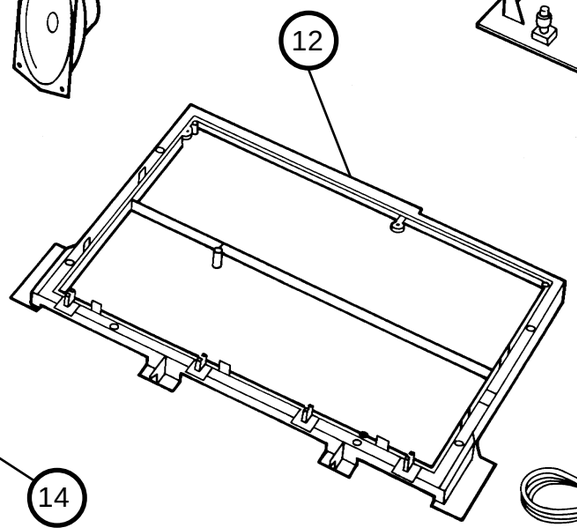


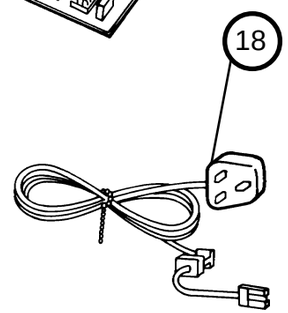


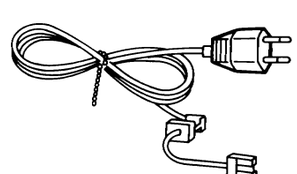












REPLACEMENT PARTS

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.

MISCELLANEOUS COMPONENTS

1)	EUR51920	REMOTE		CONTROL
2)	UR51EC780	BATTERY	COVER	(REMOTE)
3)	TKY8E090	CABINET		⚠
4)	A51EAL155X01	CRT		⚠
6)	TLK8E05117	DEGUASS COIL		
7)	TKU8E00240	BACK COVER		⚠
8)	TBM8E1506	PRESET LABEL		
9)	TNP117069AC	Y P.C.B.		⚠
10)	TNP117064AA	B P.C.B		⚠
11)	TNP197091AY	E P.C.B		⚠
12)	TMX8E013	CHASSIS		FRAME
13)	EAG1218A2	SPEAKER		
14)	TKP8E1139	SPEAKER		NET
15)	TBM153022	PANASONIC		BADGE
16)	TBX8E030	POWER		BUTTON
17)	TKP8E1138AD2	DOOR		LID
18)	TSX8E0017	POWER CORD		⚠
	TBM8E1535	PRESET		LABEL
	TEK6935	LID		SWITCH
	TKP8E1140	LED		TUBE
	TMW8E022	LED		HOLDER
	TPC8E4525	OUTER		CARTON
	TPD8E562	CUSHION		
	F9-4-220	RELAY		
	TQB8E2082	INST BOOK		⚠
	TS2800	TV		STAND
UM-3DEP-2P		BATTERY		
H1202	832AG11D-ESL	I.C.		SOCKET
MOE6	TES4537	SPRING		
MOE10	TES4537	SPRING		
TNR001	ENV87880G3	TUNER		⚠

CAPACITORS

C001	ECUV1H103ZFX	S.M. CAP	50V	10nF
C002	ECA1HMR33GB	ELECT	50V	0.33mF
C003	ECUV1H104ZFX	S.M. CAP	50V	100nF
C004	ECA1CM221GB	ELECT	16V	220pF
C006	ECA1CM101GB	ELECT	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	ECA1CM100GB	ELECT	16V	10pF
C114	ECUV1H270JPX	S.M. CAP	50V	27pF
C115	ECUV1H103ZFX	S.M. CAP	50V	10nF
C116	ECA1CM101GB	ELECT	16V	100pF
C117	ECUV1H103ZFX	S.M. CAP	50V	10nF
C118	ECUV1H103ZFX	S.M. CAP	50V	10nF
C119	ECA1HMR47GB	ELECT	50V	0.47mF
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	ECA1CM470GB	ELECT	16V	47mF
C125	ECUV1H103ZFX	S.M. CAP	50V	10nF
C127	ECA1CM470GB	ELECT	16V	47mF
C128	ECUV1H103ZFX	S.M. CAP	50V	10nF
C130	ECA1HMR47GB	ELECT	50V	0.47mF
C131	ECA1HM2R2GB	ELECT	50V	2.2mF
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	ECA1CM100GB	ELECT	16V	10pF
C137	ECA1EM101GB	ELECT	25V	1mF
C138	ECUV1H103ZFX	S.M. CAP	50V	10nF
C140	ECA1HM010GB	ELECT	50V	1pF
C141	ECUV1H102KBX	S.M. CAP	50V	1nF
C144	ECUV1H090DCX	S.M. CAP	50V	90pF
C145	ECA1CM470GB	ELECT	16V	47mF
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	100mF
C252	ECUV1H103KBX	S.M. CAP	50V	10nF
C253	ECEA1HU4R7	ELECT	50V	4.7mF
C254	ECQM1H334J	FILM	50V	330nF
C255	ECEA1EGE101	ELECT	25V	100mF
C256	ECUV1H103KBX	S.M. CAP	50V	10nF
C257	ECEA1HU4R7	ELECT	50V	4.7mF
C258	ECEA1EU101	ELECT	25V	100mF
C259	ECQM1H334J	FILM	50V	330nF
C260	ECEA1VU102	ELECT	35V	1000mF
C261	ECEA1VU102	ELECT	35V	1000mF
C262	222236516184	FILM	160V	180nF
C263	ECEA1HU010	ELECT	50V	1mF
C264	ECEA1HGE222	ELECT	50V	2200mF
C265	222236516184	FILM	160V	180nF
C266	ECEA1HU010	ELECT	50V	1mF
C267	ECUV1H104ZFX	S.M. CAP	50V	100nF
C268	ECUV1H104ZFX	S.M. CAP	50V	100nF
C269	ECEA1CU100	ELECT	16V	10mF
C271	ECUV1H561KBX	S.M. CAP	50V	560pF
C301	ECEA1CU470	ELECT	16V	47mF
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
C357	ECUV1H222JCX	S.M. CAP	50V	2.2nF
C358	ECQM1H224J	FILM	50V	220nF
C360	ECKC3D152J	CERAMIC	2KV	1.5nF ⚠
C361	ECEA1HUR47	ELECT	50V	0.47mF
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	ECEA1VU222	ELECT	35V	2200mF
C456	ECEA1HGE221	ELECT	50V	220mF
C457	ECUV1H103KBX	S.M. CAP	50V	10nF
C458	ECQM1H154J	FILM	50V	150nF
C459	ECQM1H154J	FILM	50V	150nF

C460	ECQV1H105JZ	FILM	50V	1mF	
C462	ECEA1VGE332	ELECT	35V	3300mF	
C463	ECQB1H222J	FILM	50V	2200pF	
C501	ECEA1AU330	ELECT	10V	33mF	
C506	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C508	ECQV1H105JZ	FILM	50V	1mF	
C509	ECEA1HGE101	ELECT	50V	100mF	
C510	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C511	ECQM2683JZ	FILM	250V	68nF	
C551	ECWH12H272J	CERAMIC	500V	2.7nF	⚠
C552	ECWH12H102J	CERAMIC	500V	1nF	⚠
C555	ECWH12H103J	FILM	1250V	10nF	⚠
C556	ECQF4273JZH	FILM	400V	0.027mF	
C559	ECWF2H474J	FILM	500V	470nF	⚠
C562	ECKC2H101J	CERAMIC	500V	100pF	⚠
C563	ECEA2EU220	ELECT	250V	22mF	
C564	ECEA2AU2R2	ELECT	100V	2.2mF	
C565	ECQP1H273J	FILM	100V	2700mF	
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	1000mF	
C605	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C608	ECUV1H683ZFX	S.M. CAP	50V	68nF	
C609	ECEA1CU470	ELECT	16V	47mF	
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	10mF	
C622	ECEA1CU100	ELECT	16V	10mF	
C623	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C624	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C625	ECEA1HNR22	ELECT	50V	0.22mF	
C626	ECEA0JU102	ELECT	6.3V	1000mF	
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	ECEA1HU101	ELECT	50V	100mF	
C702	ECUV1H103KBX	S.M. CAP	50V	10nF	
C703	ECEA1HU100	ELECT	50V	10mF	
C704	ECQB1H223K	FILM	50V	22nF	
C705	ECQB1H152K	FILM	50V	1.5nF	
C801	ECUV1H101JCX	S.M. CAP	50V	100pF	
C802	ECQE6104K	FILM	600V	100nF	⚠
C803	ECUV1H560JX	S.M. CAP	50V	56pF	
C804	ECEA1CU101	ELECT	16V	100mF	
C805	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C806	ECEA1HU101	ELECT	50V	100mF	
C807	ECEA1EGE101	ELECT	25V	100mF	
C808	ECQB1H103J	FILM	50V	10nF	
C809	ECQB1H103J	FILM	50V	10nF	
C810	ECQU2A224MN	FILM	250V	220nF	
C811	ECEA1HN010	ELECT	50V	1mF	
C815	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C816	ECKC3D222JB	CERAMIC	2KV	2200pF	⚠
C817	ECQB1H223K	FILM	50V	22nF	
C818	ECKC2H472J	CERAMIC	500V	4.7nF	⚠
C820	ECOS2GA151CB	ELECT		150mF	
C821	ECKCNS332J	CERAMIC	1.2KV	3.3nF	⚠
C851	ECKC2H681J	CERAMIC	500V	680pF	⚠
C852	ECEA1HU102	ELECT	50V	1000mF	
C853	ECEA1EGE222	ELECT	25V	2200mF	
C854	ECEA1HGE102	ELECT	50V	1000mF	
C855	ECKC3D471JB	CERAMIC	2KV	470pF	⚠
C856	ECEA1EGE222	ELECT	25V	2200mF	
C857	ECA2CM101E	ELECT	160V	100mF	
C858	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C859	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C860	ECEA1CU471	ELECT	16V	470mF	
C861	ECA2CGE221	ELECT	160V	220mF	
C862	ECEA1CU471	ELECT	16V	470mF	
C1051	ECEA0JU101	ELECT	6.3V	100mF	
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	4.7mF	
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	47mF	
C1213	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C1214	ECEA1CU470	ELECT	16V	47mF	
C1215	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C1217	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C1219	ECEA1CU471	ELECT	16V	470mF	
C1220	ECUV1H103ZFX	S.M. CAP	50V	10nF	
C1221	ECEA0JU102	ELECT	6.3V	1000mF	
C1222	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C1223	ECEA1CU101	ELECT	16V	100mF	
C1224	ECEA0JU222	ELECT	6.3V	2200mF	
C1225	ECA0JM472GE	ELECT	6.3V	4.7nF	
C1226	ECEA1CU101	ELECT	16V	100mF	
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	ECA1CM101GB	ELECT	16V	100pF	
C2109	ECUV1H223KBX	S.M. CAP	50V	22nF	
C2110	ECA1CM100GB	ELECT	16V	10pF	
C2111	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C2112	ECA1CM100GB	ELECT	16V	10pF	
C2113	ECUV1H102KBX	S.M. CAP	50V	1nF	
C2114	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C2115	ECUV1H471KBX	S.M. CAP	50V	470pF	
C2116	ECA1HM3R3GB	ELECT	50V	3.3mF	
C2117	ECUV1H471KBX	S.M. CAP	50V	470pF	
C2118	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C2119	ECA1CM100GB	ELECT	16V	10pF	
C2120	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C2121	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C2122	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C2123	ECA1CM100GB	ELECT	16V	10pF	
C2124	ECUV1H104ZFX	S.M. CAP	50V	100nF	
C2125	ECUV1H030CCX	S.M. CAP	50V	30pF	
C2126	ECUV1H030CCX	S.M. CAP	50V	30pF	
C2127	ECA1CM100GB	ELECT	16V	10pF	
C2307	ECA1CM470GB	ELECT	16V	47mF	
C2308	ECA1CM470GB	ELECT	16V	47mF	
C2309	ECA1CM101GB	ELECT	16V	100pF	
C2310	ECA1CM470GB	ELECT	16V	47mF	
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	ECA1CM470GB	ELECT	16V	47mF
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	0.47mF
C3002	ECEA1HUR47	ELECT	50V	0.47mF
C3003	ECA1EM4R7GB	ELECT	25V	4.7mF
C3004	ECEA1HU4R7	ELECT	50V	4.7mF
C3005	ECA1HM4R7GB	ELECT	50V	4.7mF
C3006	ECUV1H473ZFX	S.M. CAP	50V	47nF
C3007	ECA1HM470GB	ELECT	50V	47mF
C3011	ECUV1H473ZFX	S.M. CAP	50V	47nF
C3012	ECA1CM470GB	ELECT	16V	47mF
C3013	ECUV1H104ZFX	S.M. CAP	50V	100nF
C3014	ECUV1H104ZFX	S.M. CAP	50V	100nF
C3017	ECEA1CN470	ELECT	16V	47mF
C3018	ECUV1H102KBX	S.M. CAP	50V	1nF
C3019	ECUV1H102KBX	S.M. CAP	50V	1nF
C3021	ECUV1H102KBX	S.M. CAP	50V	1nF
C3023	ECA1CM470GB	ELECT	16V	47mF
C3024	ECUV1H473ZFX	S.M. CAP	50V	47nF
C3025	ECUV1H102KBX	S.M. CAP	50V	1nF
C3026	ECEA1HUR47	ELECT	50V	0.47mF
C3027	ECEA1HUR47	ELECT	50V	0.47mF
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	0.47mF
C3033	ECEA1HUR47	ELECT	50V	0.47mF
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	ECA1CM470GB	ELECT	16V	47mF
C3039	ECA1CM470GB	ELECT	16V	47mF
C3040	ECA1HMR47GB	ELECT	50V	0.47mF
C3041	ECA1HMR47GB	ELECT	50V	0.47mF
C3043	ECA1HM4R7GB	ELECT	50V	4.7mF
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	ECUV1H101JCX	S.M. CAP	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	100mF
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	47mF
C3507	ECEA1CU470	ELECT	16V	47mF
C3508	ECUV1H473ZFX	S.M. CAP	50V	47nF
C3509	ECUV1H103ZFX	S.M. CAP	50V	10nF
C3510	ECEA0JU102	ELECT	6.3V	1000mF
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
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	MA4056	DIODE
D857	MA4300	DIODE
D858	MA29TA5	DIODE
D1201	LN81RPHL	DIODE
D1203	MA4082	DIODE
D1204	TVSS1WBS20	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

F801	19181-3.15	FUSE	⚠
F851	TR5-T1250	FUSE	⚠
F852	TR5-T2000	FUSE	⚠
F853	TR5-T2000	FUSE	⚠
F8011	EYF52BC	FUSE	HOLDER
F8012	EYF52BC	FUSE HOLDER	

INTEGRATED CIRCUITS

IC102	LA7577N	V.I.F.	
IC103	L78M12MRB	12V	REGULATOR
IC251	LA4280-TV	AUDIO	OUTPUT
IC351	TDA6103Q-N2	R.G.B.	AMPLIFIER
IC451	TDA8175-3	VERTICAL	OUTPUT
IC601	VDP3108-29	VIDEO	PROCESSOR
IC701	TEA2031A	HORIZONTAL	OUTPUT
IC801	TDA4601	POWER	SUPPLY
IC851	L78M12MRB	12V	REGULATOR
IC1051	RPM-637CBRL	LED	RECEIVER
IC1201	CCU3000I-05	CENTRAL CONTROL	UNIT
IC1202	27C01A21-AD2	EPROM	
IC1203	X24C0801AF	EAROM	
IC1205	MN1280R	RESET	
IC1206	L78M05MRB	5V	REGULATOR
IC2101	MSP3410-15	AUDIO	PROCESSOR
IC2301	AN78L08TA	8V	REGULATOR
IC3001	TEA6415C	VIDEO	SWITCH
IC3501	UD61256DC-08	DYNAMIC	RAM
IC3502	TPU3040-20	TEXT PROCESSOR	

SOCKETS/TERMINALS/LINK WIRES

JA1	ERJ6GEY0R00	WIRE	LINK
JA1	ERJ8GEY0R00	WIRE	LINK
JA2	ERJ6GEY0R00	WIRE	LINK
JA2	ERJ8GEY0R00	WIRE	LINK
JA3	ERJ6GEY0R00	WIRE	LINK
JA3	ERJ8GEY0R00	WIRE	LINK
JA4	ERJ6GEY0R00	WIRE	LINK
JA4	ERJ8GEY0R00	WIRE	LINK
JA5	ERJ6GEY0R00	WIRE	LINK
JA6	ERJ6GEY0R00	WIRE	LINK
JA6	ERJ8GEY0R00	WIRE	LINK
JA7	ERJ6GEY0R00	WIRE	LINK
JA7	ERJ8GEY0R00	WIRE	LINK
JA8	ERJ6GEY0R00	WIRE	LINK
JA9	ERJ6GEY0R00	WIRE	LINK
JA10	ERJ6GEY0R00	WIRE	LINK
JA11	ERJ6GEY0R00	WIRE	LINK
JA11	ERJ8GEY0R00	WIRE	LINK
JA12	ERJ6GEY0R00	WIRE	LINK
JA12	ERJ8GEY0R00	WIRE	LINK
JA13	ERJ6GEY0R00	WIRE	LINK
JA14	ERJ6GEY0R00	WIRE	LINK
JA14	ERJ8GEY0R00	WIRE	LINK
JA15	ERJ6GEY0R00	WIRE	LINK
JA15	ERJ8GEY0R00	WIRE	LINK
JA16	ERJ6GEY0R00	WIRE	LINK
JA16	ERJ8GEY0R00	WIRE	LINK
JA17	ERJ6GEY0R00	WIRE	LINK
JA17	ERJ8GEY0R00	WIRE	LINK
JA18	ERJ6GEY0R00	WIRE	LINK
JA19	ERJ6GEY0R00	WIRE	LINK
JA20	ERJ6GEY0R00	WIRE	LINK
JA21	ERJ6GEY0R00	WIRE	LINK
JA22	ERJ6GEY0R00	WIRE	LINK
JA22	ERJ8GEY0R00	WIRE	LINK
JA23	ERJ6GEY0R00	WIRE	LINK
JA24	ERJ6GEY0R00	WIRE	LINK
JA25	ERJ6GEY0R00	WIRE	LINK
JA25	ERJ8GEY0R00	WIRE	LINK
JA26	ERJ6GEY0R00	WIRE	LINK
JA27	ERJ6GEY0R00	WIRE	LINK
JA28	ERJ6GEY0R00	WIRE	LINK
JA29	ERJ6GEY0R00	WIRE	LINK
JA30	ERJ6GEY0R00	WIRE	LINK
JA31	ERJ6GEY0R00	WIRE	LINK
JA32	ERJ6GEY0R00	WIRE	LINK
JA33	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
JK2301	TJB18644	AV	TERMINAL
JK3001	TJS8E007	21PIN	TERMINAL
JK3101	TJS8E007	21PIN	TERMINAL
JK3102	TJB16673	AV	TERMINAL
JSB.5	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
JSE031	ERJ6GEY0R00	WIRE	LINK
JSE032	ERJ6GEY0R00	WIRE	LINK
JSE036	ERJ6GEY0R00	WIRE	LINK
JSE038	ERJ6GEY0R00	WIRE LINK	

COILS

L001	TLT100K991R	COIL
L002	TLT047K991R	COIL
L102	EIV7EN200B	COIL
L104	EIV7EN201B	COIL
L105	TLT100K991R	COIL
L106	TLT022K991R	COIL
L109	TLTR47K991R	COIL
L111	TLTR56K991R	COIL
L112	EXCELSA35T	COIL
L113	EXCELSA35T	COIL
L114	TLT100K991R	COIL
L202	TLT068K991R	COIL
L251	EXCELSA35T	COIL
L301	TLT047K991R	COIL
L302	EXCEMT101BT	COIL
L303	EXCEMT101BT	COIL
L304	EXCEMT101BT	COIL
L552	ELH5L429	COIL
L601	TLT047K991R	COIL
L602	EXCELDR35V	COIL
L603	TLT047K991R	COIL
L604	EXCELDR35V	COIL
L606	TLT015K991R	COIL
L607	EXCELSA35T	COIL
L701	ELC10D006	COIL
L801	EXCELSA24T	COIL
L802	TLT022K991R	COIL
L803	ELF18D490F	COIL
L804	TLT047K991R	COIL
L805	298-82858001	COIL
L851	EXCELDR35V	COIL
L852	EXCELSA35T	COIL
L853	ELEIE470KA	COIL
L854	ELEIN470KA	COIL
L855	ELEIN470KA	COIL
L856	ELEIN470KA	COIL
L1051	TLT331K991R	COIL

L1201	TLT047K991R	COIL
L1202	TLT047K991R	COIL
L1203	TLT047K991R	COIL
L1204	EXCELDR35V	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	EXCELDR35V	COIL
L3502	EXCELDR35V	COIL
L3503	TLT047K991R	COIL
L3504	EXCELSA35T	COIL
LC101	ELB5A077	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	BU2506DXLB	TRANSISTOR
Q552	2SC1473-RN	TRANSISTOR
Q701	BC857B	TRANSISTOR
Q801	2SC1573	TRANSISTOR
Q802	S2000NLBMA	TRANSISTOR
Q851	2SD1273PLB	TRANSISTOR
Q852	TFD312SOF632	DIODE
Q1201	BC847B	TRANSISTOR
Q1202	BC847B	TRANSISTOR
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

RESISTORS

R001	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22KW
R002	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R003	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R004	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R107	ERJ6GEY0R00	WIRE LINK			
R109	ERJ6GEY0R00	WIRE LINK			
R113	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW
R116	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R117	ERJ6GEYJ683	S.M.CARB	0.1W	5%	68KW
R118	ERJ6ENF4701	S.M.CARB	0.1W	1%	4K7W
R119	ERJ6ENF1202	S.M.CARB	0.1W	1%	1K2W
R120	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW
R121	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220W
R122	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270W
R123	ERJ6GEY0R00	WIRE LINK			
R124	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8W
R125	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW
R126	EVNDXAA03B53	CONTROL			5KW
R127	ERDS1TJ121	CARBON	0.5W	5%	120W
R128	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270W
R129	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3W
R130	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R131	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW
R132	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW
R133	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8W
R134	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W
R136	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW
R137	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56KW
R138	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R139	ERJ6GEY0R00	WIRE LINK			
R141	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW
R142	ERJ6GEY0R00	WIRE LINK			
R143	ERJ6GEY0R00	WIRE LINK			
R145	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2W
R146	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W
R148	ERJ6GEY0R00	WIRE LINK			
R149	ERJ6GEY0R00	WIRE LINK			
R201	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W
R203	ERJ6GEY0R00	WIRE LINK			
R204	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W
R205	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3W
R206	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680W
R207	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R208	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W
R209	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3W
R210	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W
R251	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47W
R252	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7W
R253	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R254	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47W
R255	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R256	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W
R257	ERJ6GEYJ2R2	S.M.CARB	0.1W	5%	2R2W
R258	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7W
R259	ERJ6GEYJ2R2	S.M.CARB	0.1W	5%	2R2W
R260	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R261	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W
R262	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R263	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW
R264	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW
R265	ERD25TJ2R2	CARBON	0.25W	5%	2R2W

R266	ERD25TJ2R2	CARBON	0.25W	5%	2R2W	
R267	ERF7ZK4R7	WOUND	7W	10%	4R7W	⚠
R268	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R269	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27KW	
R271	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R272	ERF7ZK3R9	WOUND	7W	10%	3R9W	⚠
R273	ERD25TJ273	CARBON	0.25W	5%	27KW	
R301	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W	
R302	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R303	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R304	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R305	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W	
R306	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R307	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R308	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R309	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W	
R310	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R311	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R312	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R313	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R314	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3W	
R315	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3W	
R316	ERJ6GEYJ332	S.M.CARB	0.1W	5%	3K3W	
R321	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW	
R322	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW	
R323	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R324	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R351	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8W	
R352	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8W	
R353	ERJ6GEYJ182	S.M.CARB	0.1W	5%	1K8W	
R354	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW	
R355	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW	
R356	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW	
R357	ERG1FJ563	METAL	1W	5%	56KW	⚠
R358	ERG2FJ563	METAL	2W	5%	56KW	⚠
R359	ERG1FJ563	METAL	1W	5%	56KW	⚠
R363	ERDS1TJ103	CARBON	0.5W	5%	1KW	
R364	ERDS1TJ103	CARBON	0.5W	5%	1KW	
R365	ERDS1TJ103	CARBON	0.5W	5%	1KW	
R366	ERDS1TJ152	CARBON	0.5W	5%	1K5W	
R367	ERDS1TJ152	CARBON	0.5W	5%	1K5W	
R368	ERDS1TJ152	CARBON	0.5W	5%	1K5W	
R369	ERD25TJ223	CARBON	0.25W	5%	22KW	
R370	ERD25TJ103	CARBON	0.25W	5%	10KW	
R372	ERQ12AJ121	FUSABLE	0.5W	5%	120W	⚠
R373	ERJ6GEYJ220	S.M.CARB	0.1W	5%	22W	
R374	ERDS1TJ274	CARBON	0.5W	5%	270KW	
R375	ERJ6GEYJ684	S.M.CARB	0.1W	5%	680KW	
R376	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18KW	
R377	ERQ12HJ1R2	METAL	0.5W	5%	1R2W	⚠
R378	ERJ6GEY0R00	WIRE LINK				
R379	ERJ6GEY0R00	WIRE LINK				
R380	ERJ6GEY0R00	WIRE LINK				
R451	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22KW	
R452	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R453	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R455	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R456	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R457	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8W	
R458	ERD25TJ1R5	CARBON	0.25W	5%	1R5W	
R459	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47W	
R460	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18KW	
R461	ERDS1TJ471	CARBON	0.5W	5%	470W	
R462	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R463	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R464	ERW12PK1R5	WIRE	0.5W	10%	1R5W	⚠
R465	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R466	ERO25CKF1801	METAL	0.25W	1%	1K8W	⚠
R467	ERO25CKF1201	METAL	0,25W	1%	1K2W	⚠
R471	ERDS1TJ102	CARBON	0.5W	5%	1KW	
R472	ERDS1TJ4R7	CARBON	0.5W	5%	4R7W	

R501	ERJ6GEYJ331	S.M.CARB	0.1W	5%	330W	
R502	ERJ6GEYJ560	S.M.CARB	0.1W	5%	56W	
R503	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27KW	
R504	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R506	ERD25TJ560	CARBON	0.25W	5%	56W	
R507	ERQ14AJ3R3	METAL	0.25W	5%	3R3W	⚠
R509	ERDS1TJ152	CARBON	0.5W	5%	1K5W	
R510	ERDS1TJ152	CARBON	0.5W	5%	1K5W	
R511	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R512	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R513	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12KW	
R514	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12KW	
R551	ERW2PKR47	WIREWOUND	2W	10%	0R47W	⚠
R553	ERG1SJ152	METAL	1W	5%	1K5W	
R558	ERDS1TJ124	CARBON	0.5W	5%	120KW	
R561	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56KW	
R562	ERJ6GEYJ225	S.M.CARB	0.1W	5%	2.2MW	
R563	ERJ6GEYJ225	S.M.CARB	0.1W	5%	2.2MW	
R564	ERJ6GEYJ623	S.M.CARB	0.1W	5%	62KW	
R566	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW	
R567	ERJ6GEYJ274	S.M.CARB	0.1W	5%	270KW	
R601	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150W	
R602	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150W	
R603	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W	
R604	ERJ6GEY0R00	WIRE LINK				
R605	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18KW	
R606	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R607	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R608	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R609	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R610	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW	
R611	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW	
R612	ERJ6GEYJ123	S.M.CARB	0.1W	5%	12KW	
R613	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270W	
R614	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47W	
R615	ERJ6GEYJ333	S.M.CARB	0.1W	5%	33KW	
R616	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW	
R618	ERJ6GEYJ151	S.M.CARB	0.1W	5%	150W	
R619	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R622	ERJ6GEY0R00	WIRE LINK				
R623	ERJ6GEYJ821	S.M.CARB	0.1W	5%	820W	
R701	ERQ12AJ101	FUSABLE	0.5W	5%	100W	⚠
R702	ERQ12HJ330	METAL	0.5W	5%	33W	⚠
R703	ERG2FJ821	METAL	2W	5%	820W	⚠
R704	ERJ6GEYJ563	S.M.CARB	0.1W	5%	56KW	
R705	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R706	ERJ6GEYJ272	S.M.CARB	0.1W	5%	2K7W	
R707	ERJ6GEYJ122	S.M.CARB	0.1W	5%	1K2W	
R708	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39KW	
R709	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39KW	
R710	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27KW	
R711	ERJ6GEYJ681	S.M.CARB	0.1W	5%	680W	
R712	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R713	ERG1SJ101	METAL	1W	5%	100W	
R801	ERG3FJ682H	METAL	3W	5%	6K8W	⚠
R802	ERG2FJ472	METAL	2W	5%	4K7W	⚠
R803	ERX12SJWR47	METAL	12W	5%	R47W	
R804	ERJ6GEYJ682	S.M.CARB	0.1W	5%	6K8W	
R805	ERJ6GEYJ221	S.M.CARB	0.1W	5%	220W	
R806	ERG1SJ823	METAL	1W	5%	820W	
R807	ERO25CKF1201	METAL	0,25W	1%	1K2W	⚠
R808	232266296319	THERMISTOR				
R809	ERO25CKF1302	METAL	0.25W	1%	13KW	⚠
R810	ERD25TJ103	CARBON	0.25W	5%	10KW	
R811	EVMEASA00B33	CONTROL			3KW	
R812	ERDS1TJ220	CARBON	0.5W	5%	22W	
R813	ERD50FJ334	CARBON	0.5W	5%	330KW	⚠
R814	ERF7ZK2R7	WOUND	7W	20%	2R7W	⚠
R817	ERG3FJ470	METAL	3W	5%	47W	⚠
R818	ERD50FJ564	CARBON	0.5W	5%	1KW	⚠
R819	ERD50FJ564	CARBON	0.5W	5%	1KW	⚠

R820	ERD75TAJ825	CARBON	0.75W	5%	8M2W	⚠
R852	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270W	
R853	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R854	ERDS1TJ474	CARBON	0.5W	5%	470KW	
R855	ERG2FJ223	METAL	2W	5%	22KW	⚠
R856	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW	
R1201	ERJ6GEYJ271	S.M.CARB	0.1W	5%	270W	
R1202	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1203	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1204	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1205	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1206	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1207	ERD25TJ331	CARBON	0.25W	5%	330W	
R1208	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22KW	
R1209	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1210	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1212	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1213	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1214	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1215	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1216	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1217	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1218	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1219	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1220	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1221	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1222	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1224	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1225	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1226	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1227	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1229	ERJ6GEY0R00	WIRE LINK				
R1230	ERJ6GEY0R00	WIRE LINK				
R1231	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1232	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1233	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1235	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1236	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1237	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1238	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39KW	
R1239	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9W	
R1240	ERJ6GEYJ392	S.M.CARB	0.1W	5%	3K9W	
R1241	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1242	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1244	ERJ6GEY0R00	WIRE LINK				
R1245	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W	
R1246	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1247	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1249	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1250	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1251	ERJ6GEYJ393	S.M.CARB	0.1W	5%	39KW	
R1252	ERX1SJ3R3	METAL	1W	5%	3R3W	
R1253	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R1254	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R1255	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R1256	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW	
R1257	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R1258	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R1260	ERDS1FJ121	CARBON	0.5W	5%	120W	⚠
R2101	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2102	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W	
R2103	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2104	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2105	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W	
R2106	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18KW	
R2107	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2108	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R2109	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R2110	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R2111	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW	
R2301	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W	
R2302	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W	
R2303	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2304	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2313	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R2314	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R2315	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW	
R2316	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R2318	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R2321	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R2322	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2323	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R2324	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2325	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27KW	
R2326	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2327	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2328	ERJ6GEYJ473	S.M.CARB	0.1W	5%	47KW	
R2329	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W	
R2330	ERJ6GEYJ222	S.M.CARB	0.1W	5%	2K2W	
R2331	ERJ6GEYJ223	S.M.CARB	0.1W	5%	22KW	
R2332	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2333	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R2334	ERJ6GEY0R00	WIRE LINK				
R2335	ERJ6GEY0R00	WIRE LINK				
R2651	ERG2FJ221	METAL	2W	5%	220W	⚠
R2652	ERG2FJ221	METAL	2W	5%	220W	⚠
R2653	ERDS1TJ151	CARBON	0.5W	5%	150W	
R2654	ERDS1TJ151	CARBON	0.5W	5%	150W	
R3001	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW	
R3002	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3003	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3004	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW	
R3005	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47W	
R3006	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47W	
R3007	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W	
R3008	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R3009	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW	
R3010	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3011	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3012	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3013	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3015	ERJ6GEY0R00	WIRE LINK				
R3016	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R3017	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW	
R3019	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R3020	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R3022	ERD2FCG560	CARBON	2W	2%	56W	
R3024	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R3025	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R3026	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R3027	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68W	
R3029	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68W	
R3030	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R3032	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68W	
R3034	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW	
R3036	ERJ6GEYJ220	S.M.CARB	0.1W	5%	22W	
R3037	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W	
R3038	ERD2FCG100	CARB	2W	2%	10W	
R3039	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3040	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3041	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW	
R3042	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W	
R3043	ERD2FCG100	CARB	2W	2%	10W	
R3044	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3045	ERJ6GEYJ471	S.M.CARB	0.1W	5%	470W	
R3046	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3047	ERJ6GEYJ680	S.M.CARB	0.1W	5%	68W	
R3048	ERJ6GEYJ102	S.M.CARB	0.1W	5%	1KW	
R3049	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W	
R3050	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3051	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	
R3052	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W	

R3053	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3054	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3055	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3056	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3057	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3058	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW
R3059	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW
R3060	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47W
R3062	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W
R3063	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W
R3064	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R3065	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW
R3066	ERJ6GEYJ104	S.M.CARB	0.1W	5%	100KW
R3067	ERJ6GEYJ273	S.M.CARB	0.1W	5%	27KW
R3068	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R3069	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R3070	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W
R3071	ERJ6GEYJ470	S.M.CARB	0.1W	5%	47W
R3150	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W
R3151	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W
R3152	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W
R3153	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W
R3154	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW
R3155	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3156	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3157	ERJ6GEYJ153	S.M.CARB	0.1W	5%	15KW
R3158	ERJ6GEYJ750	S.M.CARB	0.1W	5%	75W
R3502	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3504	ERJ6GEYJ101	S.M.CARB	0.1W	5%	100W
R3505	ERJ6GEY0R00	WIRE LINK			
R3508	ERJ6GEYJ183	S.M.CARB	0.1W	5%	18KW
R3511	ERJ6GEYJ103	S.M.CARB	0.1W	5%	10KW
R3512	ERJ6GEYJ472	S.M.CARB	0.1W	5%	4K7W

SWITCHES

S351	0330550049	CRT		SOCKET
S801	ESB91232A	SWITCH	⚠	
S1201	EVQ23405R	SWITCH		
S1202	EVQ23405R	SWITCH		
S1203	EVQ23405R	SWITCH		
S1204	EVQ23405R	SWITCH		
S1205	EVQ23405R	SWITCH		

TRANSFORMERS

T501	5270103200	TRANSFORMER	
T551	ZTFH44007A	F.B.T.	
T801	TLP8E1003	CHOPPER	TRANSFORMER
T1201	ETP35KAN61ZU	TRANSFORMER	

FILTERS

X101	EFCS6R0MW5	FILTER	
X103	J3352K	SAW	FILTER
X105	EFCV4155A3	CERAMIC	FILTER
X601	TSS2169-B	CRYSTAL	
X1201	TSS120M2	CRYSTAL	
X2101	TSS4004-B	CRYSTAL	