

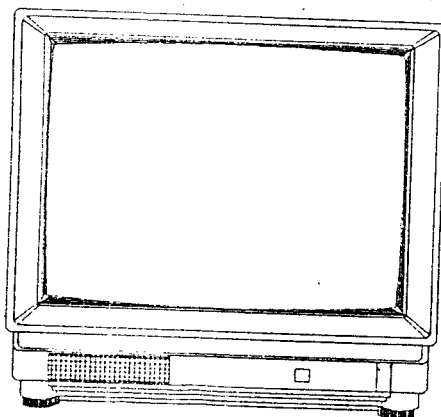
SERVICE MANUAL

SYNTRONIX

SAMSUNG
CB5027Z

MODEL: TC-2010/SYNX
CHASSIS: P-58SC & RM1

COLOUR TELEVISION RECEIVER



SPECIFICATION

Television System	PAL - B/G
Receiving Channel	VHF : 2 - 12 UHF : 21 - 69
Intermediate Frequency	Picture I-F Frequency : 38.9MHz Sound I-F Carrier Frequency : 33.4MHz Colour Sub-carrier Frequency : 34.47MHz
Picture Tube	51GGB91X
Power Requirements	220V , 50Hz
Power Consumption	77 WATT
Speaker	Impedance : 8 Ohm , 3W
Features	P58SC & RM109 REMOTE CONTROL SYSTEM

SAFETY CAUTION :

Before servicing this chassis, it is important that a service technician reads and follows the "Safety Precaution" and "Product Safety Notice" in this Service Manual.

- For continued X-radiation, replaced the picture tube with original type.
- Design and specifications are subject to change without prior notice.
- WARNING-SHOCK HAZARD - use an isolation transformer when servicing.

RM109 REMOCON FEATURES

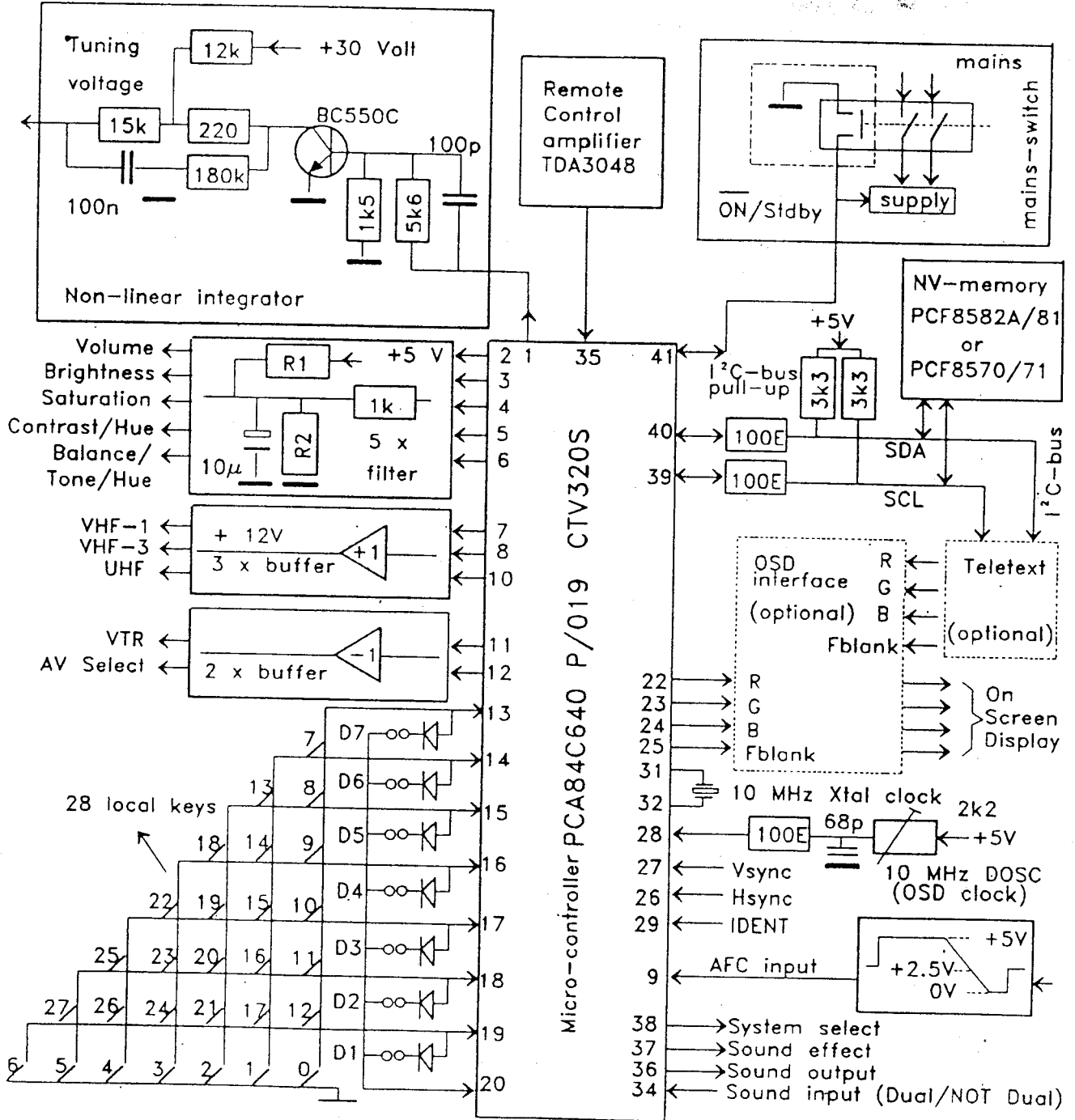
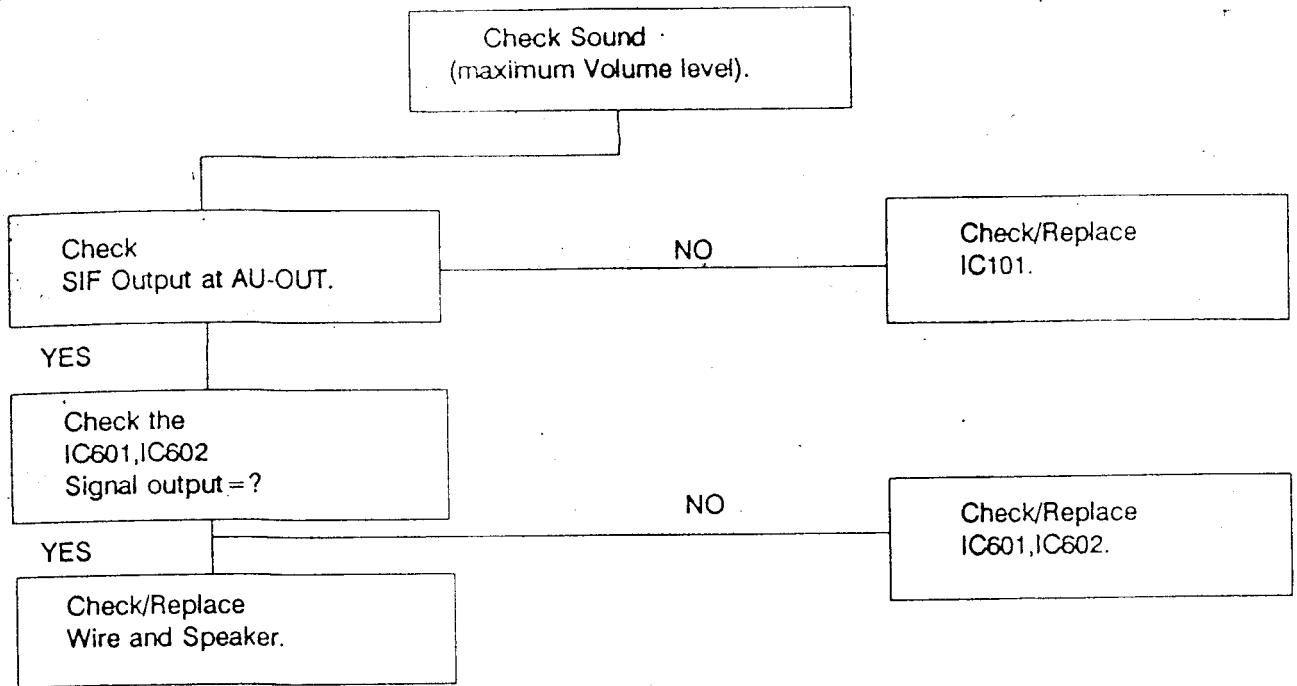
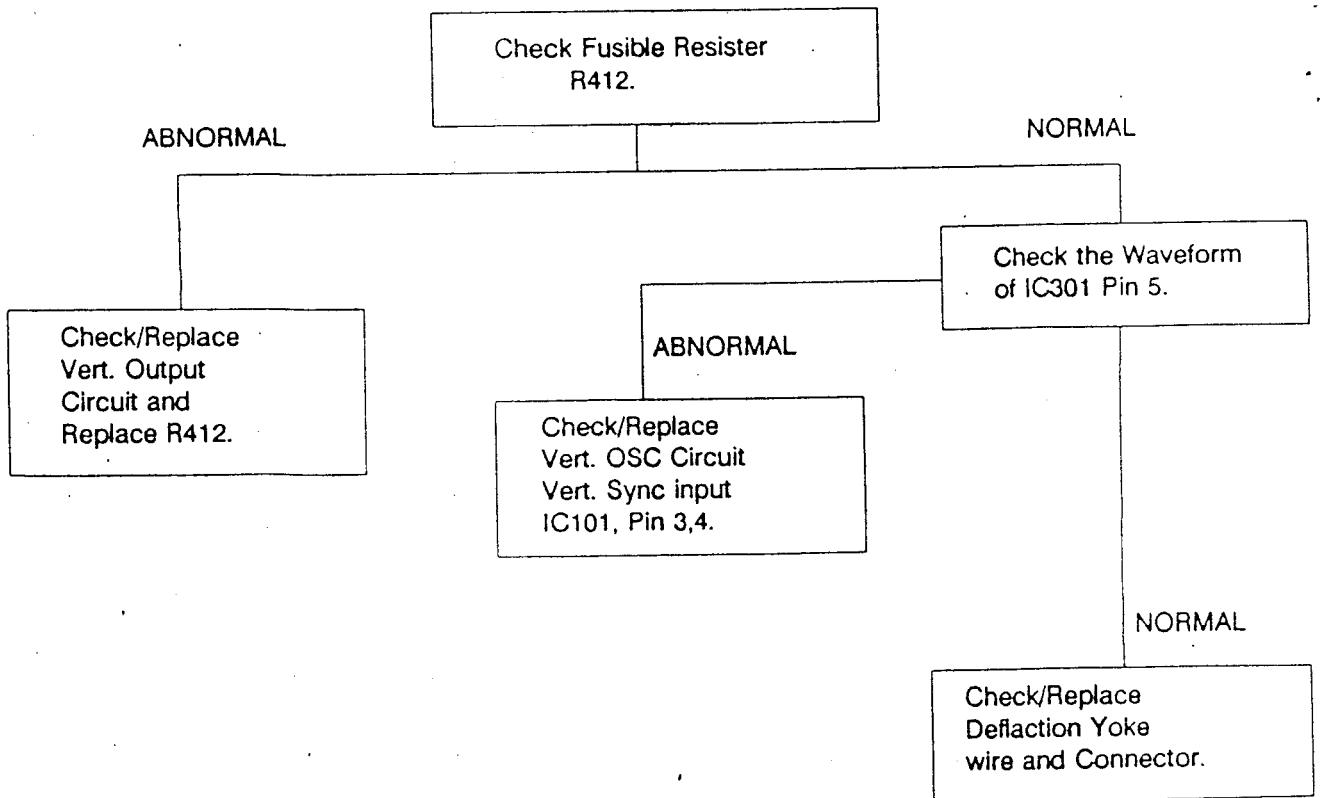


Diagram of PCA84C640 P/019 in CTV320S.

NO SOUND (PICTURE OK)



NO VERT. SCAN (ONE HORIZ. LINE RASTER)



TDA4601 (IC801)

The integrated circuit TDA4601 or-D is designed for regulating controlling and protecting the switching transistor installed in the flyback converter power supplies. It also protects the complete SMPS by preventing an increase in the secondary voltage in case of errors. In addition to their use with TV receivers and video recorders, these ICs can be applied in power supplies of HI-FI sets and active speakers due to their wide operational ranges and superior voltage stability during high load change.

1. Features

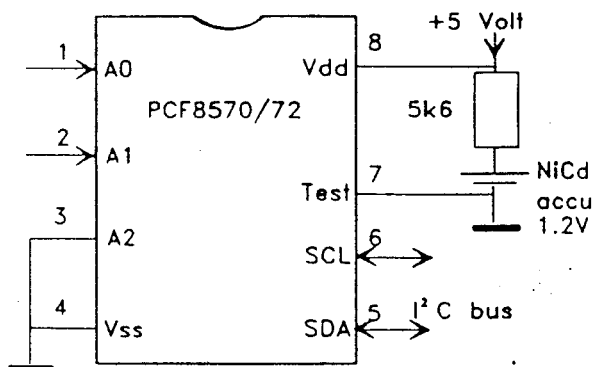
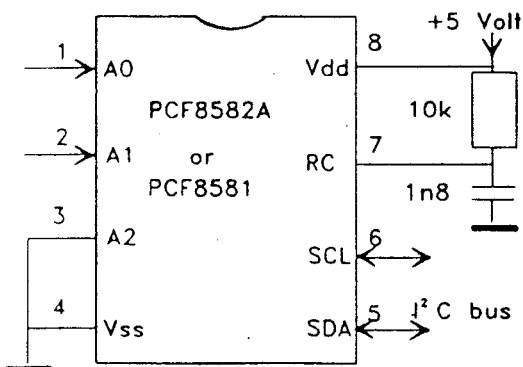
- Direct control of switching transistor
- Low start-up current
- Reversing linear overload characteristic
- Collector current proportional to base-current input
- Protective circuit in the event of errors.

2. Pin description

Pin No	Function
1	Vref output
2	Zero-passage identification
3	Input regulating amplifier, overload amplifier
4	Collector-current simulation
5	Possible connection for additional RLD0 protective circuit
6	Ground (rigidly connected to substrate RLD0 mounting plate)
7	DC voltage output for charging the RLD0 coupling capacitor
8	Pulse output, driving the switching RLD0 transistor
9	Power supply

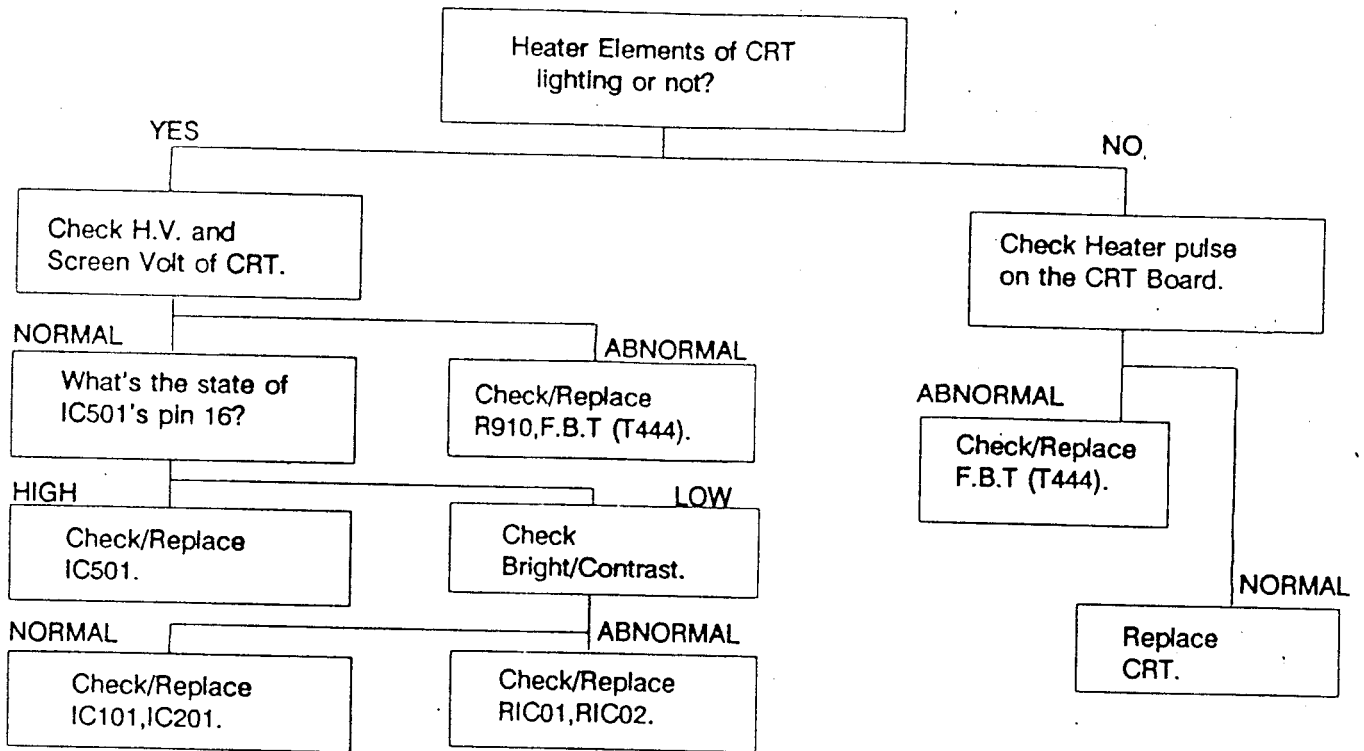
NON-VOLATILE MEMORY

The CTV320s tuning and sound system requires 128 bytes non-volatile memory (EEPROM PCF8581A or CMOS PCF2). With such a memory the system is able to store up 40 "pre-selected" programs, the video and sound control values (option 9a). The number of programs can be extended to 90 (option 9b) by using a 256 bytes memory (EEPROM PCF8582A or CMOS PCF8570).

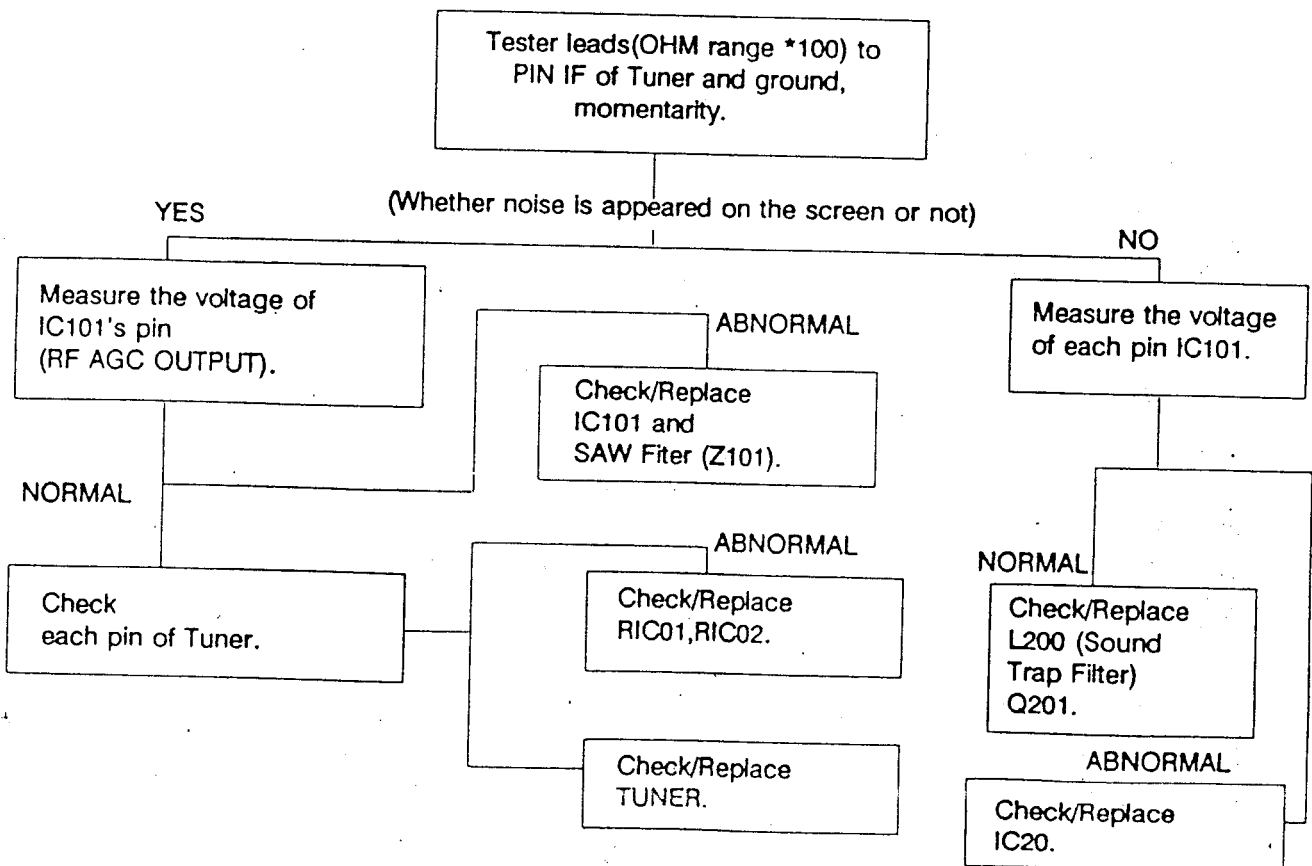


Application of CMOS and EEPROM non-volatile memory in CTV320S.

NO RASTER (SOUND OK)



NO PICTURE (RASTER ON) AND NO SOUND

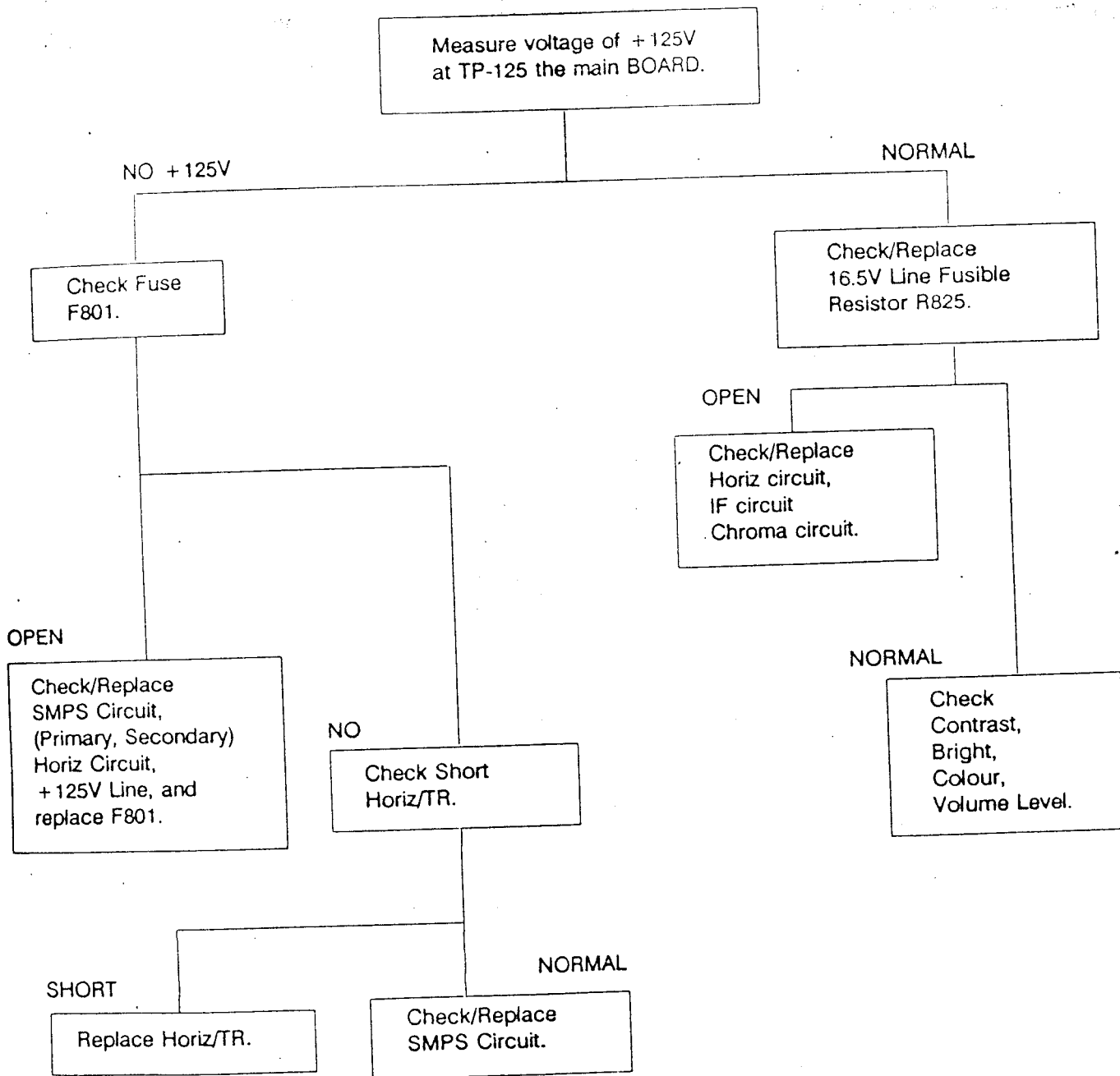


TROUBLE-SHOOTING CHARTS

The following charts are devoted to the trouble-shooting which, if followed carefully, will assist you in tracking down a fault to the correct stage. In order to utilize the charts (fault trees), first establish the complains, i.e.-No Raster, No Sound.

Locate the chart applicable and then, progress through the various alternatives until a final block indicates the defective components or stages.

NO RASTER AND NO SOUND

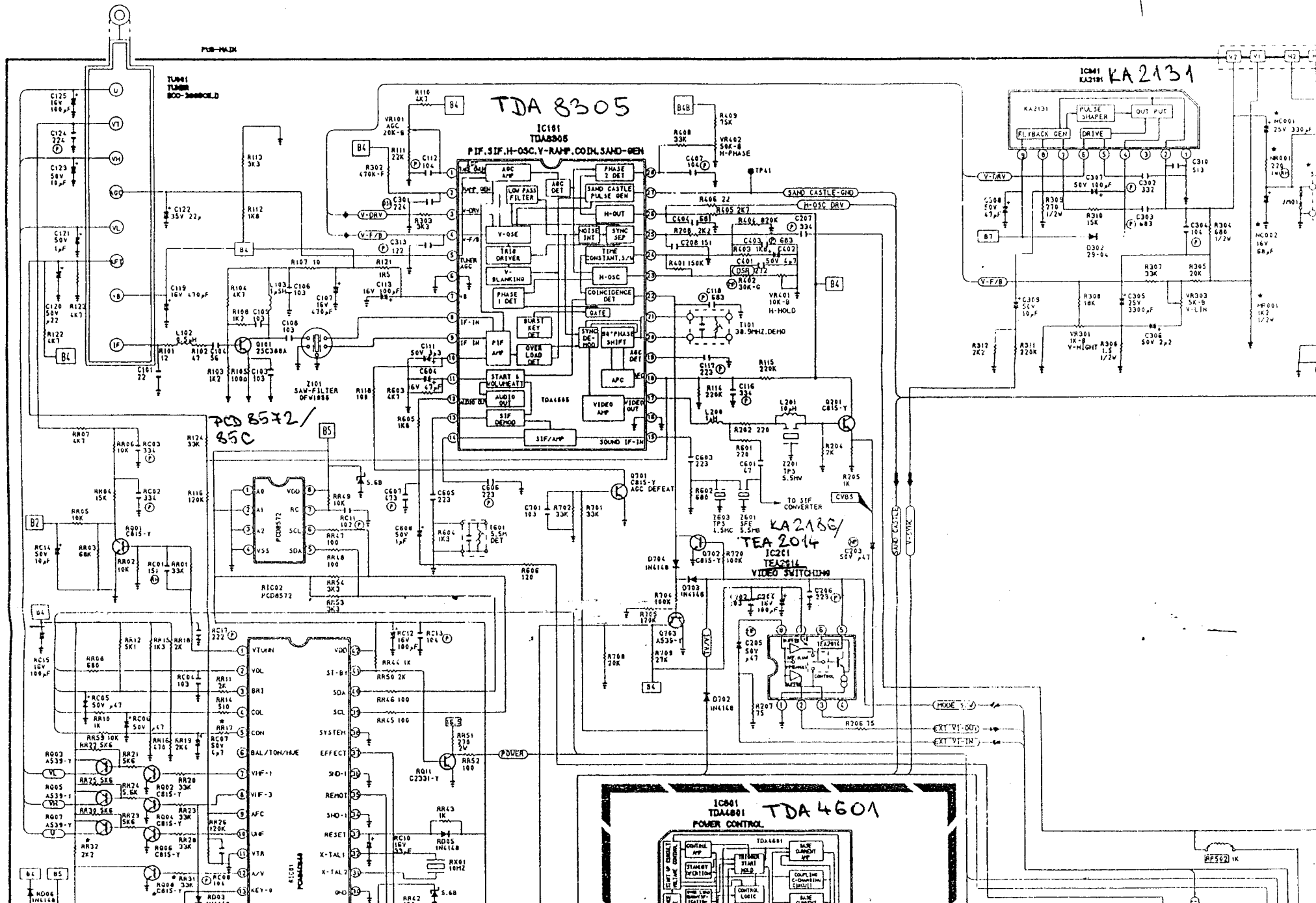


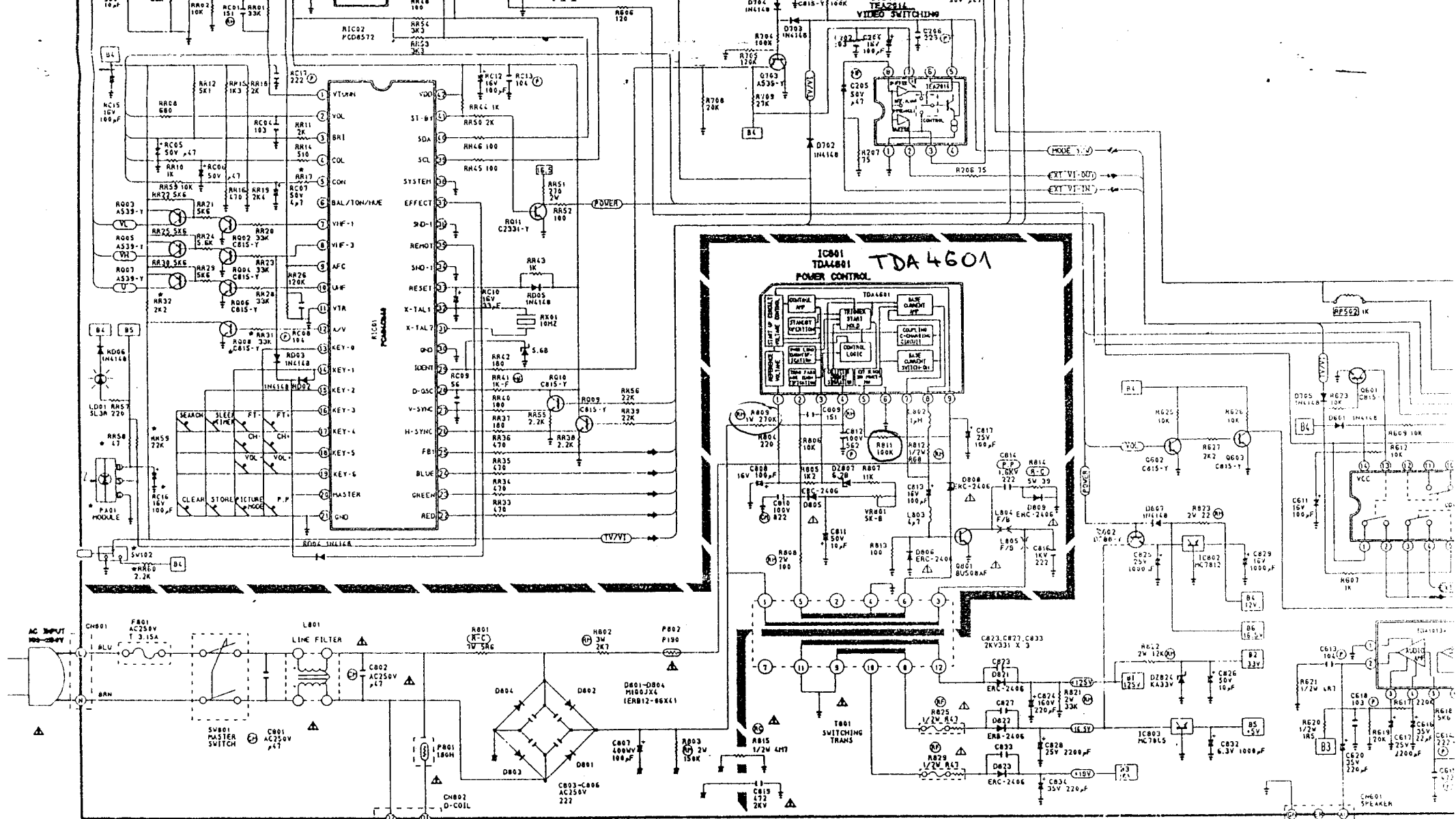
SCHEMATIC DIAGRAM

P58SC(C4)

PAL-B/G RM109 REMOTE SYSTEM

(138104-182-810)





DIFFERENT PARTS FOR 20 INCH AND 11 INCHES

LOCATION	11 INCH		
	NORMAL	MINI-NECK	20 INCH
MR02	1/2W 1K5		1/2W 1K5
MC001	25V 330µF		25V 330µF
MC002	16V 68µF		16V 68µF
RG14	3K3	3K3	4K3
R216	133K-F11/2W1	133K-F11/2W1	120K-G11/2W1
C419	200V 364		200V 434
L401		200µH/180µH	
L404	DS48-157µH	K10/195µH	DS48-157µH
T402	K-20-14		K-20-14
Q402	2301656	2301656	2301651
T444	FCH1415AL	FCH-1GAB04	FCH-2015AL
V399	3720672	A34EAC00X	510GH91X
RS06	8.2K	8.2K	10K
RR17	3K	3K	1K

DIFFERENT PART FOR SOFT-TOUCH AND REPHON MODEL

LOCATION	DIFFERENT PART	
	SOFT-TOUCH	REPHON
SV102	KSA-2272	
RR00	2.2K	
PA01		GP1U7210
RC16		16V 100µF
RR58		1/8W 47K
RR59		1/8W 22K
RR32		2.2K
RR31		1/8W 33K
RR08		CB15-Y

DIFFERENT PARTS FOR PAL-B/G AND SECAM-B/G/D/K

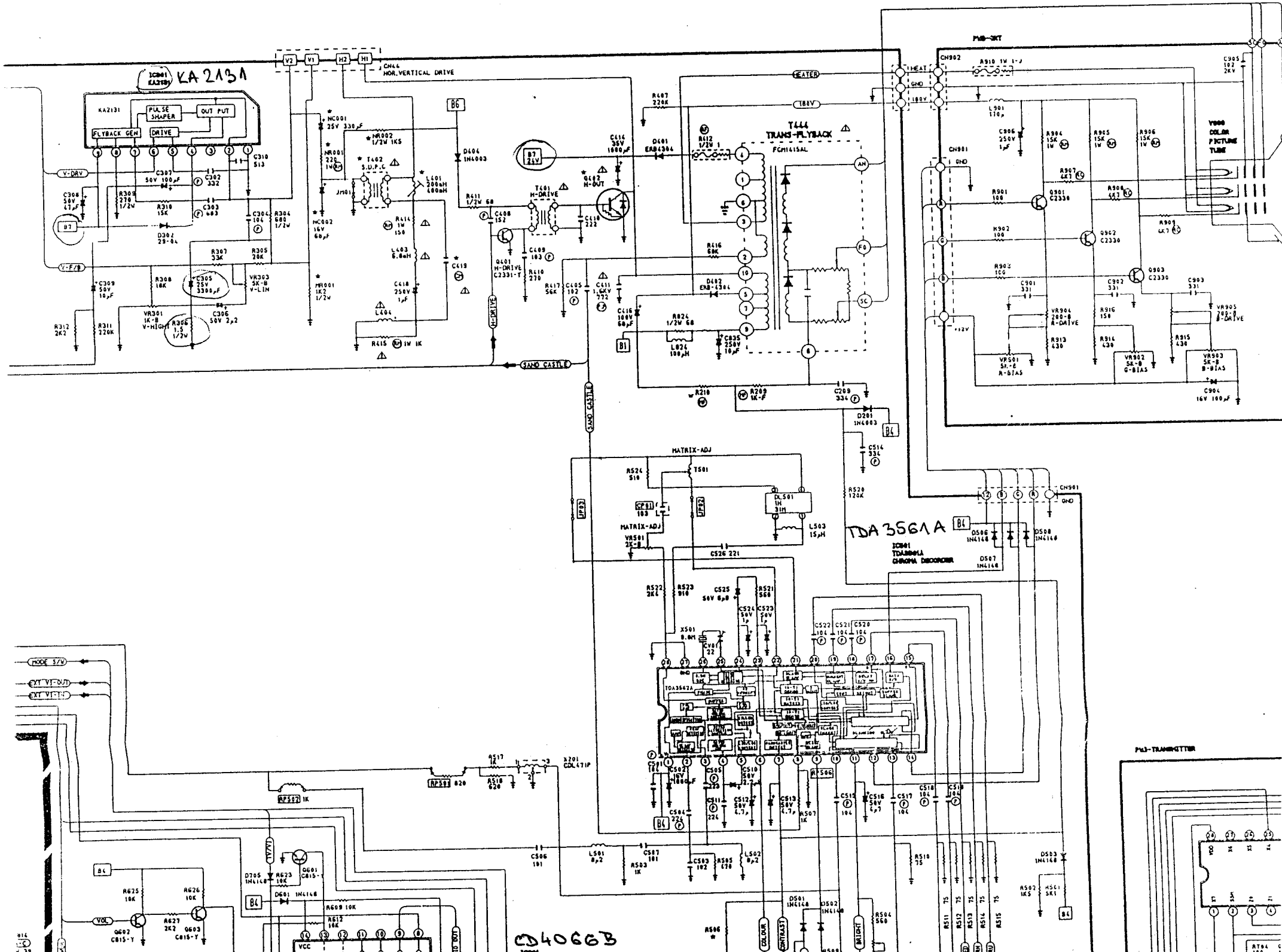
LOCATION	DIFFERENT PARTS FOR		
	PAL-B/G	SECAM-B/G	PAL-B/G SECAM-B/G/D/K
RS17	1K	820	820
RS18	820	110	110
RS01	820		
RS02	1K		
CP01	103		

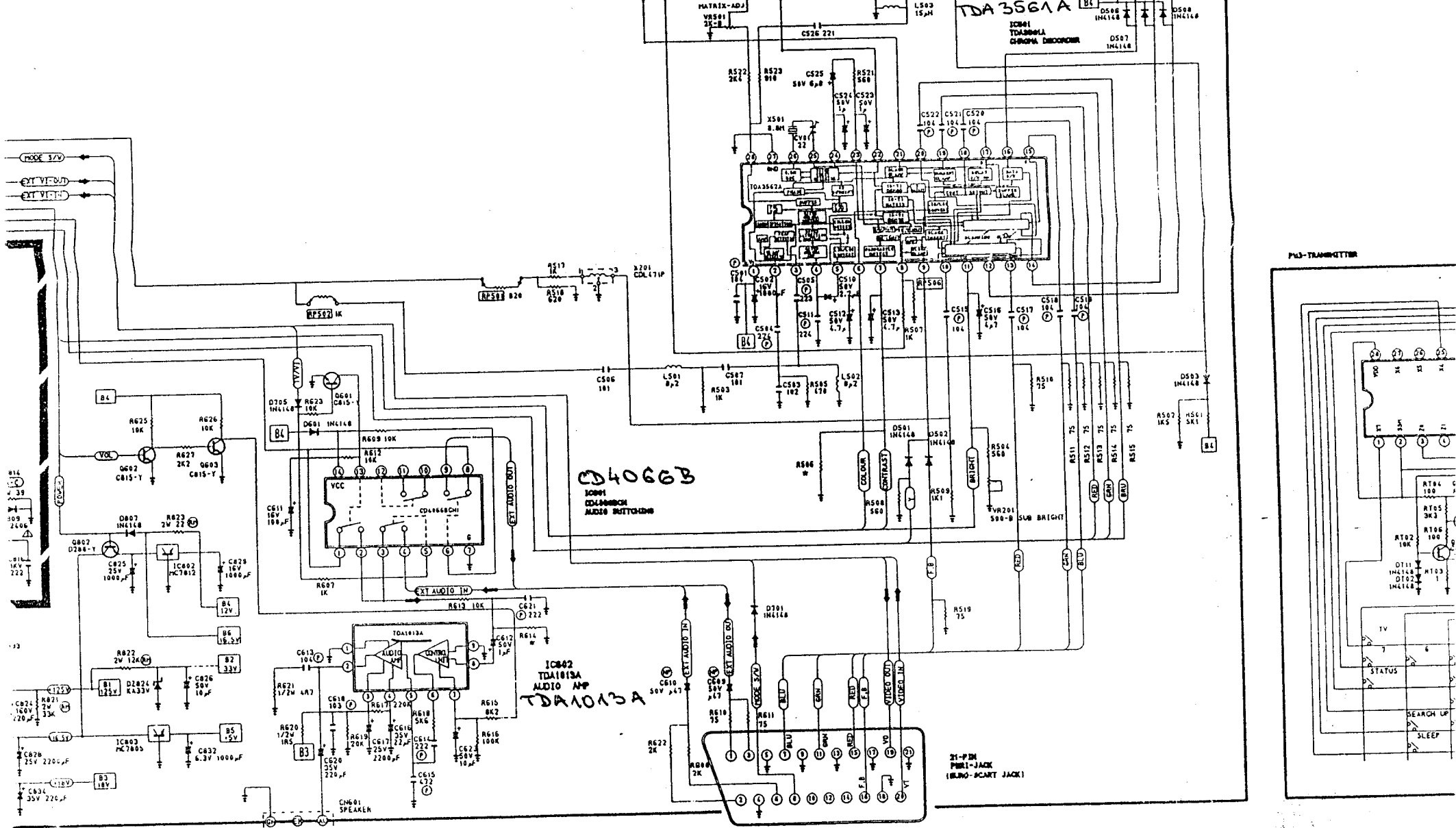
CAPACITOR

TYPE	MARK
Ceramic	No Mark
Polystyler	P
Tantalum	T
Metal Polyester	MP
Polypropylene	P.P
Polyester Polypro	DSR
Chemical Electrolytic	—aa—
Chemical Non-Polar	—aa—

RESISTOR

RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RM
Cermet	R-C
Variable Resistor	—aa—
Positive Resistor	—aa—





CAPACITOR	
TYPE	MARK
Ceramic	No Mark
Polyester	P
Tantalum	T
Metal Polyester	MP
Polypropylene	P.P
Polyester Polypyr	DSR
Chemical Electrolytic	
Chemical Non-Polar	

RESISTOR	
TYPE	MARK
Carbon Composition	C
Oxide Metal Film	M
Metal Film	RH
Constant	A-C
Variable Resistor	
Positive Resistor	

EXPRESSION

- 1 Resistance is shown ohm K-1,000 M-1,000,000.
- 2 Unless otherwise noted in schematic all capacitor values then 1 are expressed in microfarads.
- 3 Unless otherwise noted in schematic all inductor values are expressed in microhenries and the values less than 1 in millihenries.

NOTE
The circuits are subject to change without notice to improve the picture quality.