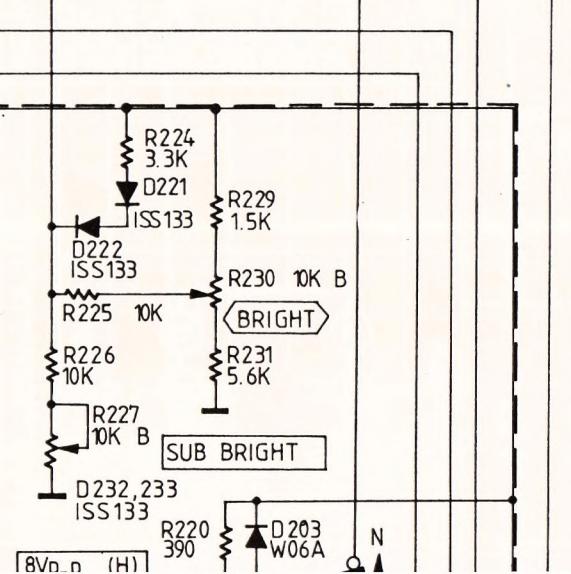
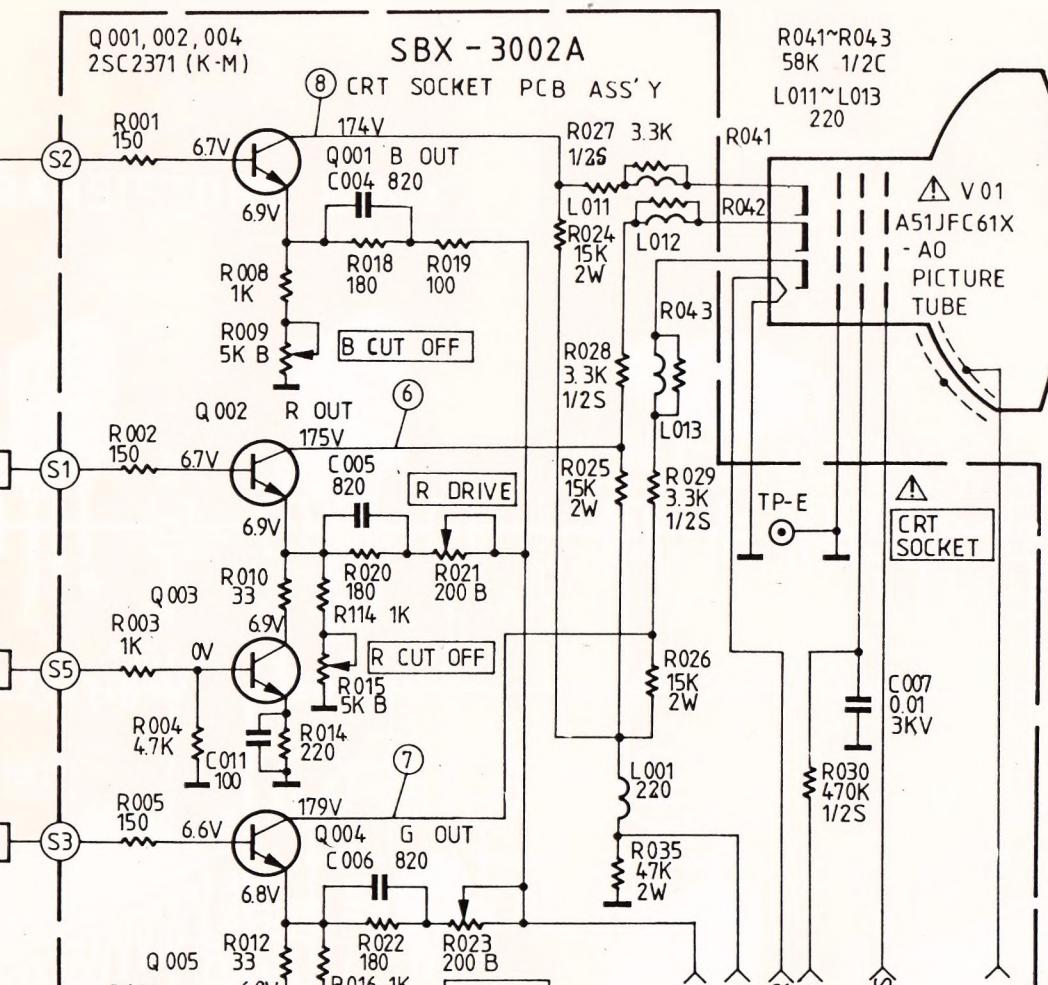
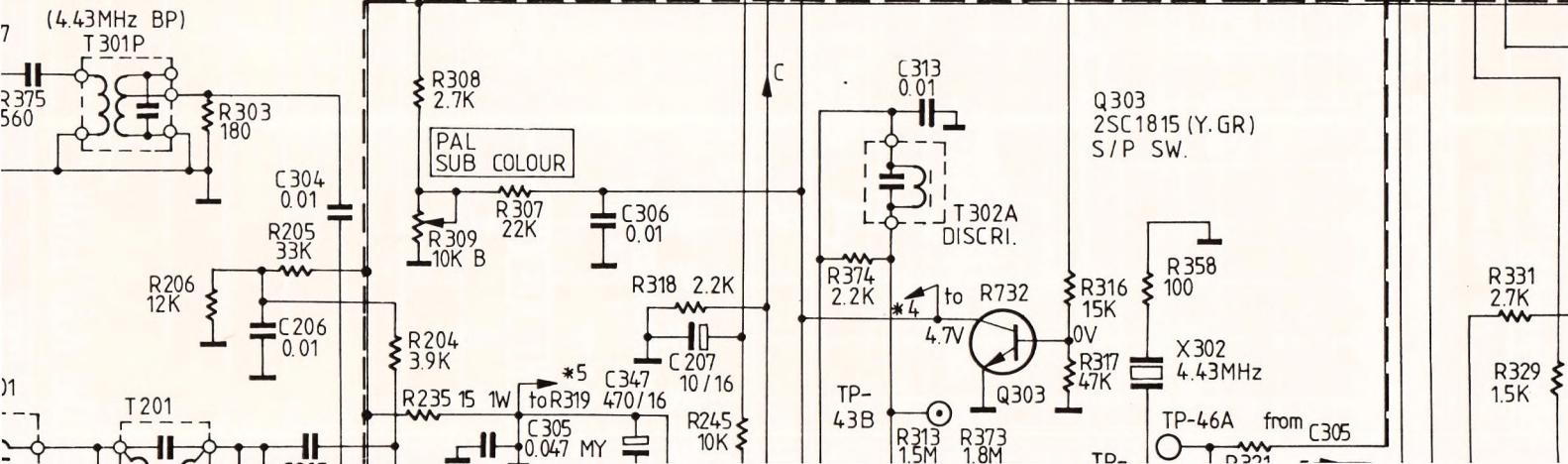
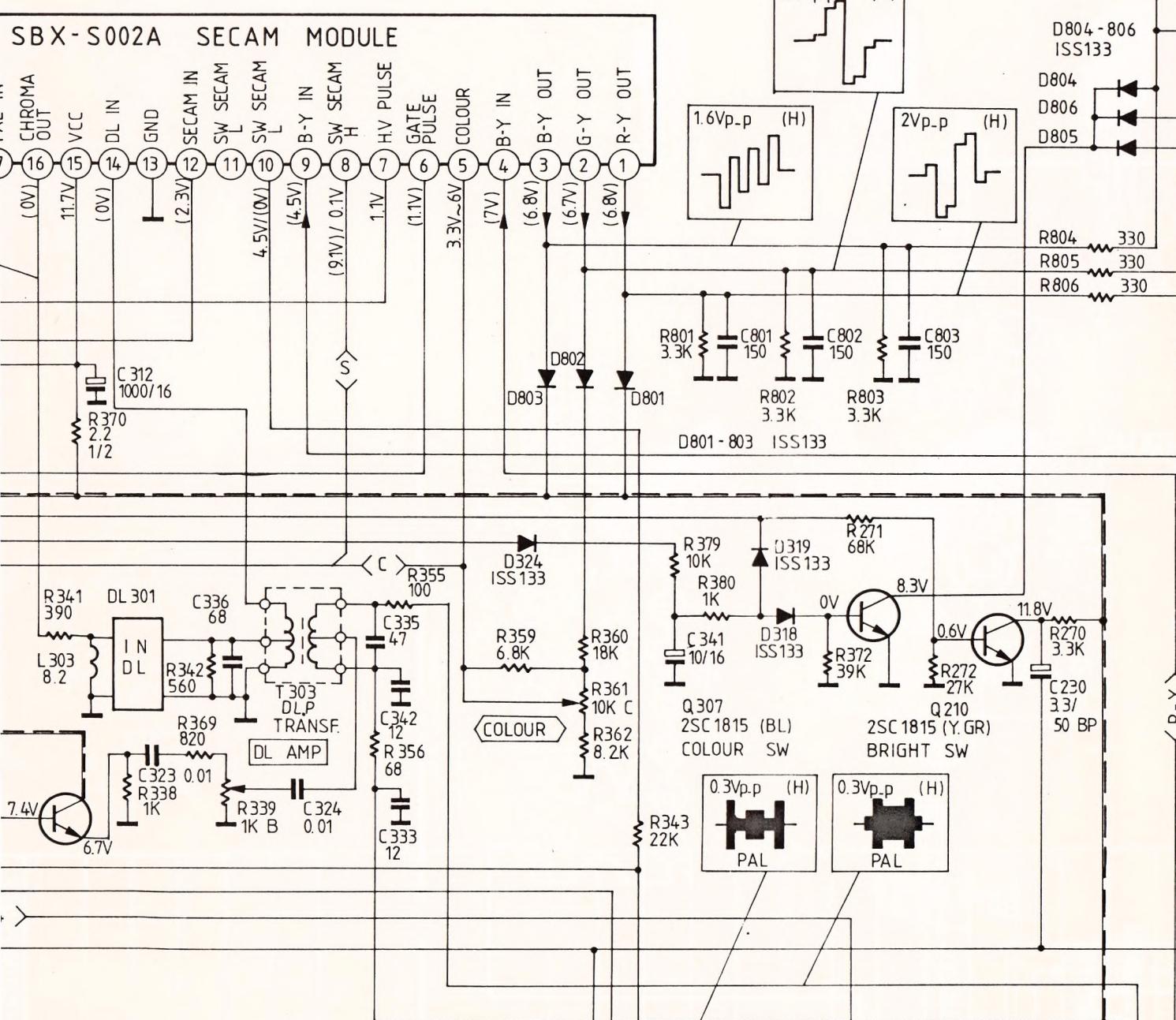
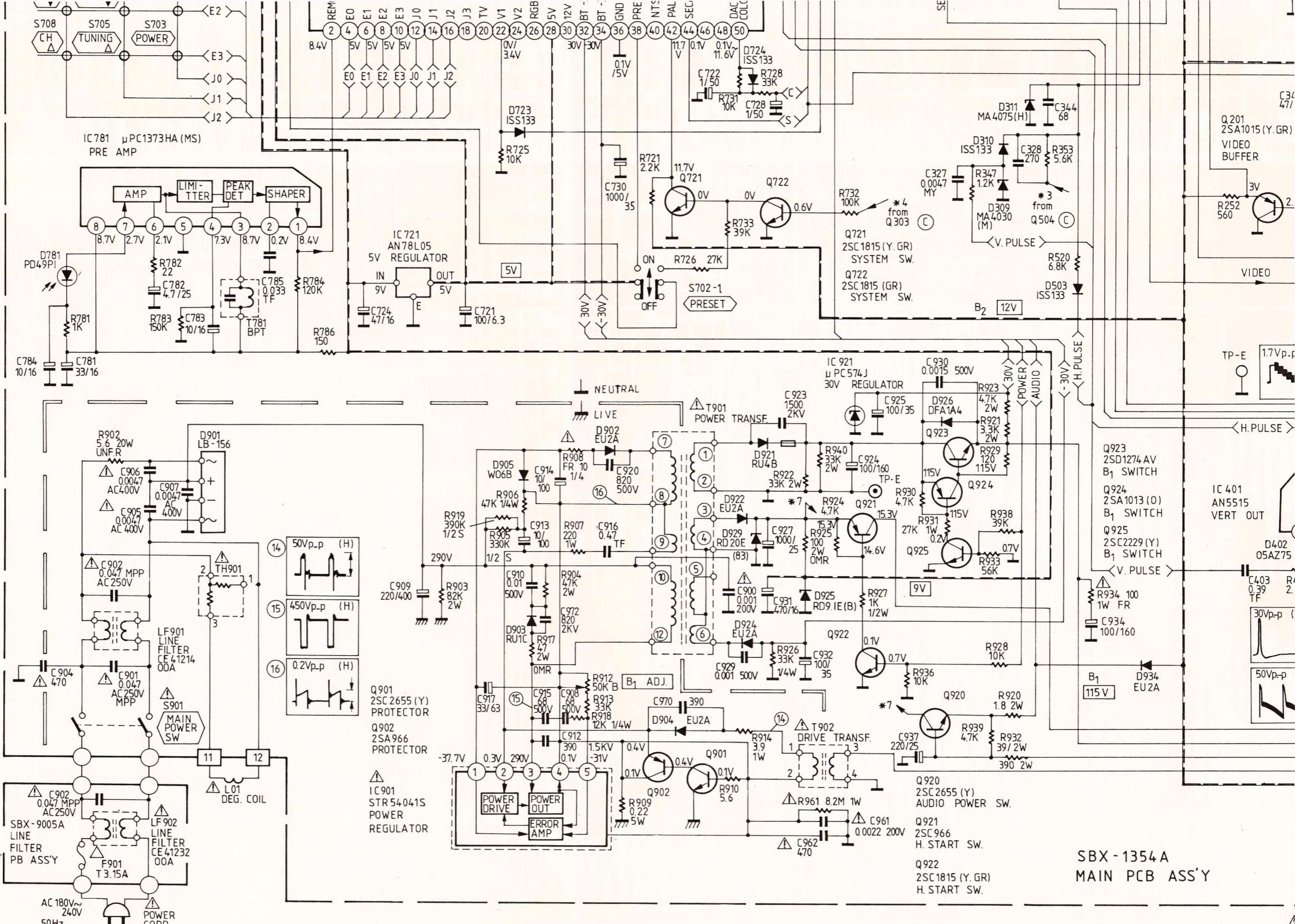


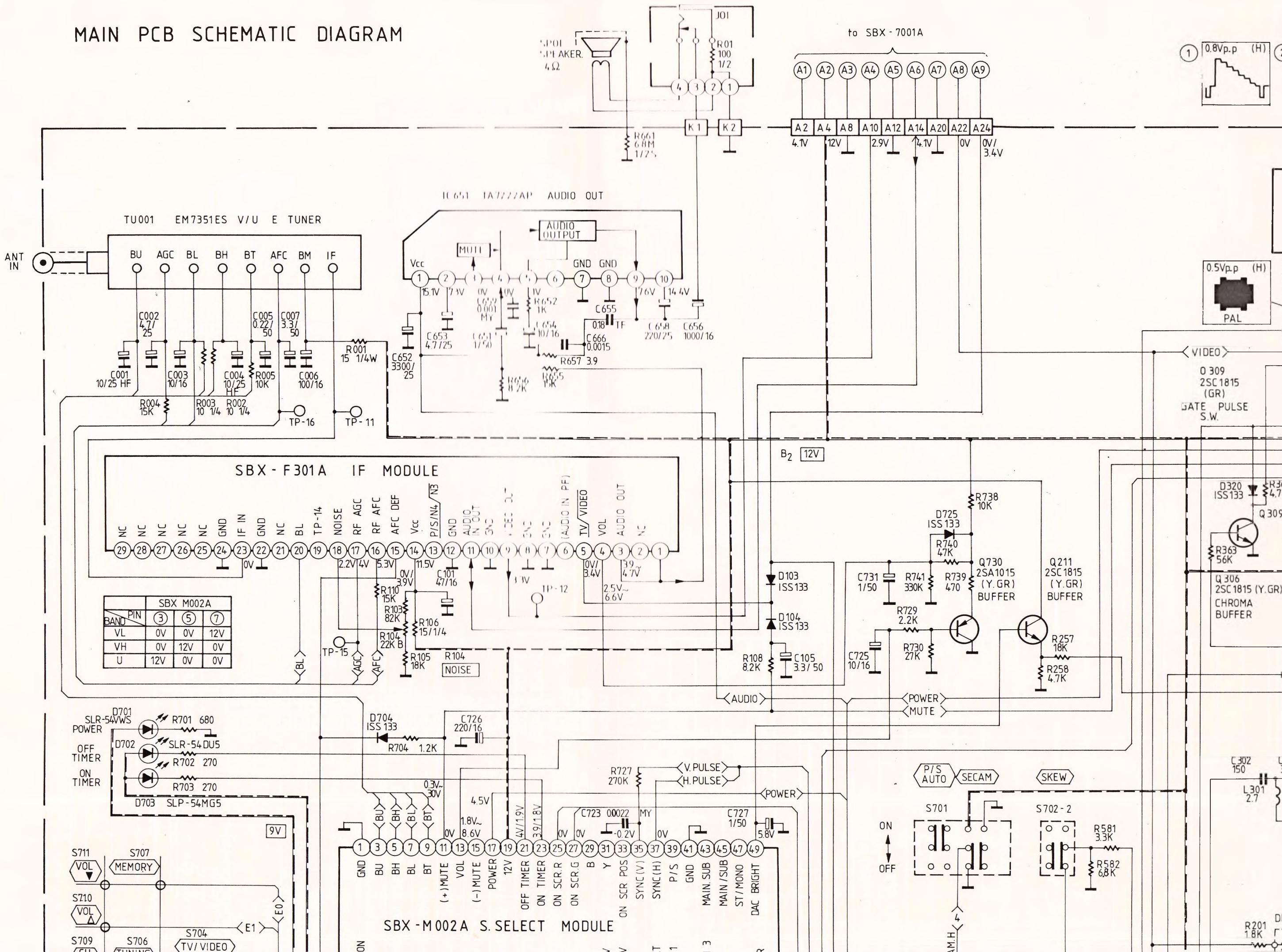
### SBX - S002A SECAM MODULE



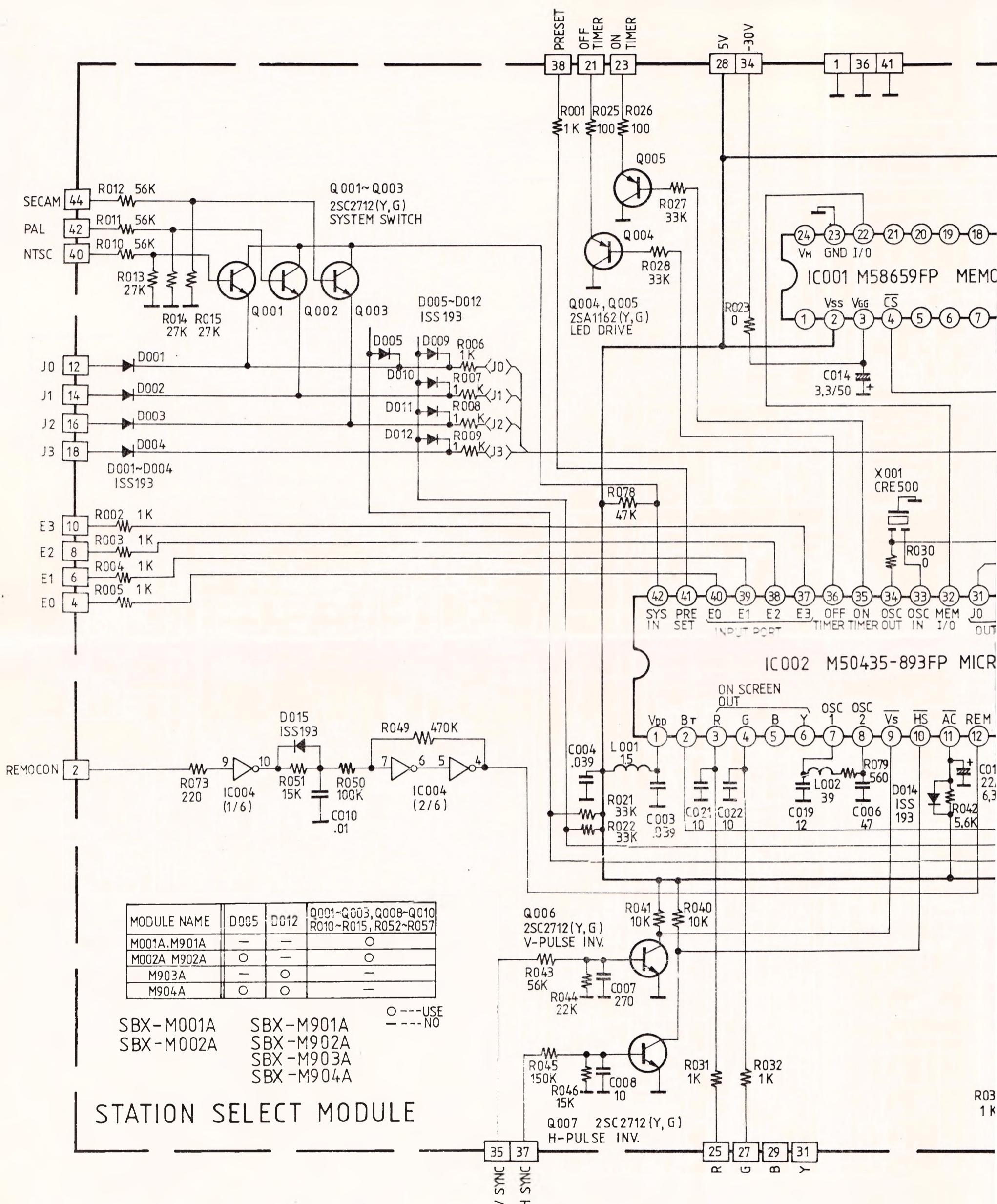


SBX - 1354 A  
MAIN PCB ASS'Y

# MAIN PCB SCHEMATIC DIAGRAM



# S. SELECT MODULE SCHEMATIC



## C-210EE SCHEMATIC DIAGRAM

### NOTICE

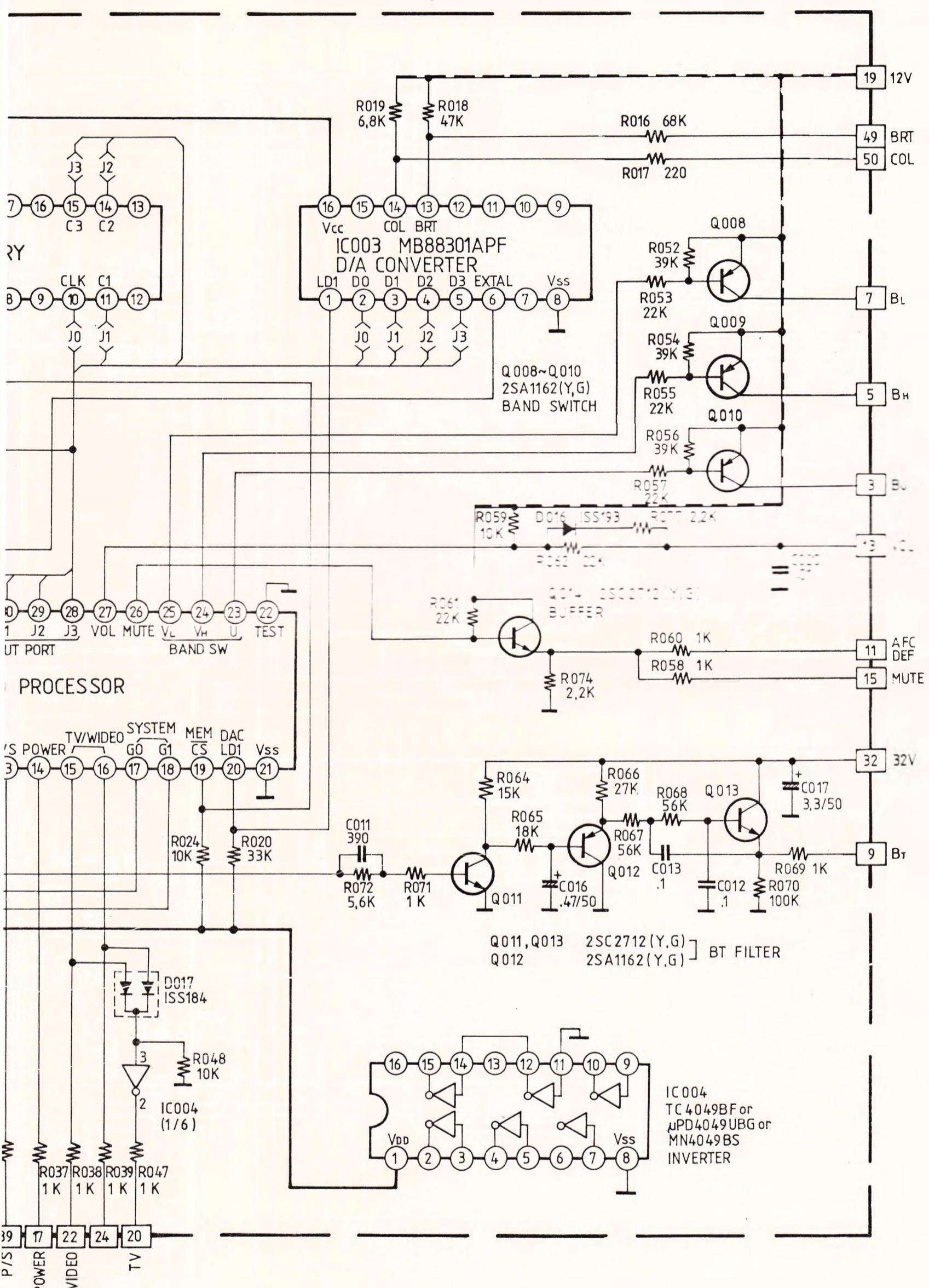
○ Voltage values and waveforms are measured by respectively receiving and displaying on the screen the

### Type

Without indication : Ceramic capacitor  
MY : Mylar capacitor

LIST OF DIOD

# GRAM (SBX M002A)



[Voltage value display method]  
The voltage values indicated within the circuits denote those obtained when PAL colour bar signals are received and displayed on the screen. However, as for those points where the voltage values are caused to vary by input signals (SECAM); discrimination is effected by indicating as per an example [Example: (4.2V)].

Multimeter used.

DC 20 kΩ/V

Given figures are all DC voltages.

Sweep speed of oscilloscope

H → 20 μS/div. V → 5mS/div.

Others → sweep speed specified

- Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

## ■ SAFETY

FR ( FR) denotes a fusible resistor which operates as a fuse. When replacing fusible resistors and parts indicated with black shading () in the circuit diagrams, be sure to ensure safety by using designated parts. As to other parts too, use designated parts to maintain safety and performance.

## ■ INDICATION OF PARTS SYMBOL

Inside board (Example) SBX-1354 A : R1209 → R209

Outside board (Example) R0001 → R01

## ■ SCHEMATIC DIAGRAM INDICATION

### RESISTOR

- Resistance value  
Without unit: [Ω] K: [kΩ] M: [MΩ]

- Rated allowable power  
Without indication : 1/6 W, Others Indicated

- Type  
Without indication : Carbon resistor

OMR : Oxide metal film resistor

UNF R : Unflammable resistor

MF R : Metal film resistor

FR : Fusible resistor

Composition resistor 1/2 [W] is indicated as 1/2 S or Comp.

### CAPACITOR

- Capacitance  
Above 1 [pF] : Below 1 [μF]

- Withstand voltage

Without indication : DC 50 [V]

Others : DC withstand voltage [V]

AC indicated : AC withstand voltage [V]

- Indications for electrolytic capacitors are as follows.  
(Example)

47/50 → capacitance [μF] withstand voltage [V]

PP : Polypropylene capacitor  
MPP : Metallized polypropylene capacitor  
NP : Nonpolar electrolytic capacitor  
BP : Bipolar electrolytic capacitor  
TAN. : Tantalum capacitor

### COIL

Without unit : [μH]

### CONNECTION METHOD

: Connector      : Receptacle

: Wrapping or soldering

### POWER SUPPLY

: B<sub>1</sub>(115V)      : B<sub>2</sub>(12V)

: 9V      : 5V

### TEST POINT & GND. SYMBOL

: Test point by miniature GT pin

: Only test point display

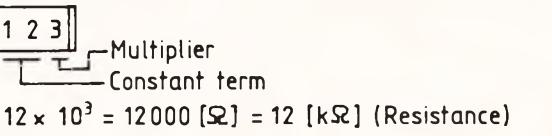
: Live (Primary) side ground

: Neutral (Secondary) side ground

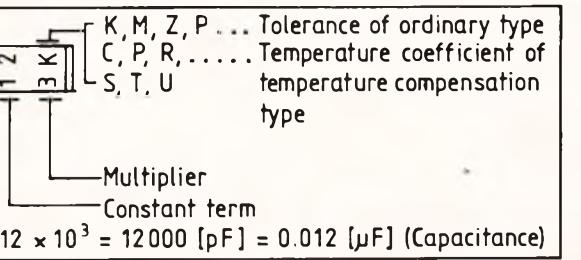
## ■ HOW TO READ CHIP COMPONENTS

(Chip parts are used each module)

### < CHIP METAL GLASE RESISTOR >



### < CHIP CERAMIC CAPACITOR >

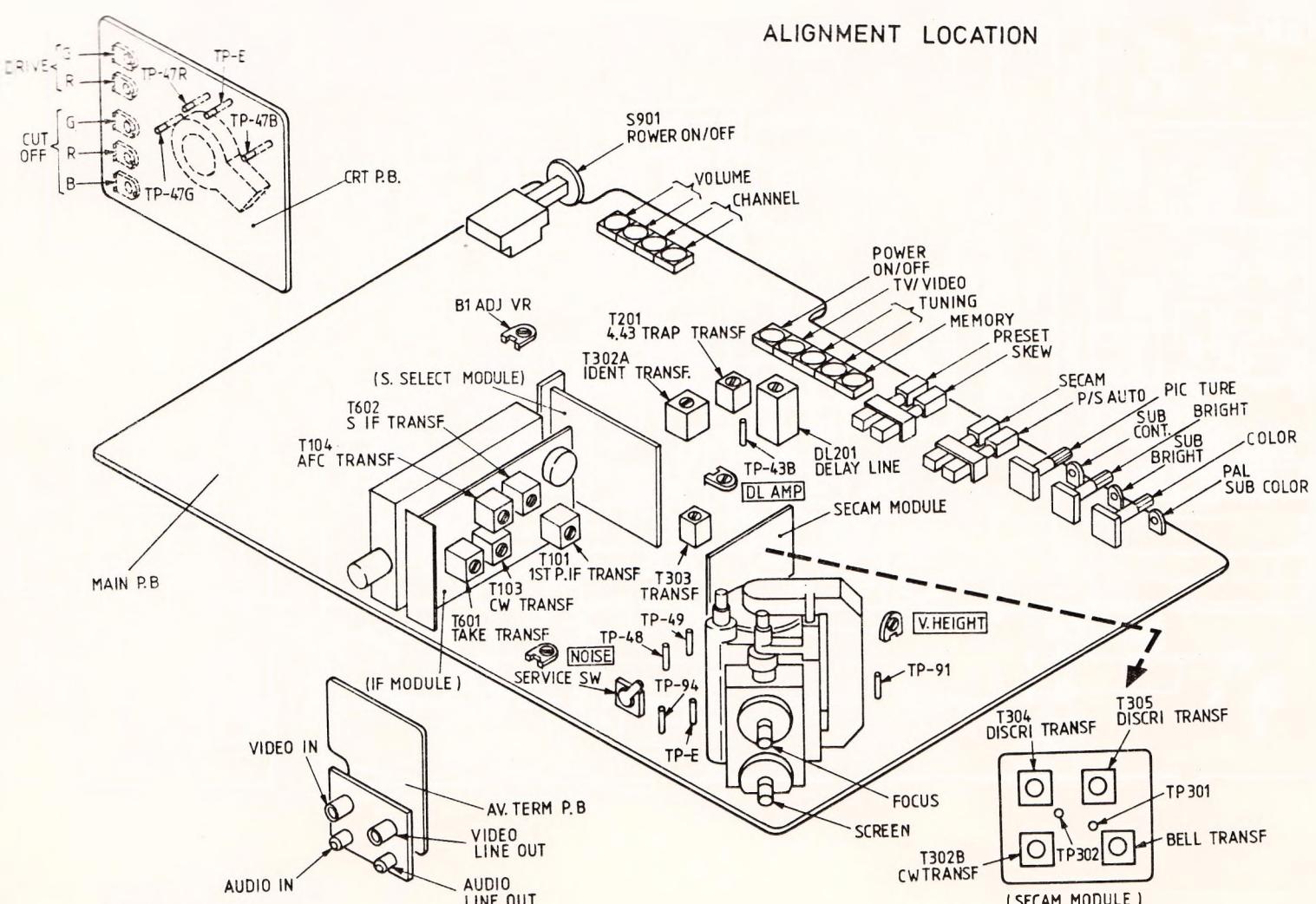


### < CHIP TRANSISTOR >

Part No.	Display method
2SC2778(B,C)	 denotes parts ranking: B
2SA1022(C)	

### < CHIP DIODE >

Part No.	Display method
MA151WK	 denotes parts ranking: T



## ALIGNMENT LOCATION

EU2A	Si; 600V; 1A; 200
RH-1S	
DFA1A4	
MA4030	
MA4056	
MA4068	
MA4075	
MA4091	
RD 5.6ES	
RD 8.2E	RD 2.0E...120
RD 9.1E	Zener diode 2
RD20E	
RU4B	
RU1C	
05AZ75	Si; Zener diode
1SS82	Si; Fast switch
1SS133	Si; Fast switch
1SS184	
1SS193	
1SS146	
W06 A,B,C	Si; Di; Uni; 50...
1SR35-100	Si; Uni; Rect. 60
2SA673	Si; PNP; Uni; 35
2SA1013	Si; PNP; CTV-N
2SA1015	Si; PNP; Uni; 50
2SA966	Si; PNP; NF-Tr/
2SA1162	Si; PNP; Uni; 50
2SB709	Si; PNP; 25V; 0,1
2SB822	Si; PNP; Uni; 40V
2SC1360	Si; NPN; HF/ZF;
2SC1627	Si; NPN; Uni; 70
2SC1815	Si; NPN; Uni; 60
2SC1959	Si; NPN; Uni; 35
2SC2229	Si; NPN; NF-Tr;
2SC2371	Si; NPN; Vid-L;
2SC2655	Si; NPN; NF/S; I
2SC2712	Si; NPN; 60V; 0,1
2SC2715	Si; NPN; 35V; 0,
2SD601	Si; NPN; 30V; 0,1
2SD1030	Si; NPN; 50V; 0,
2SD1274	Si; NPN; NF/S-I
2SD1427	Si; NPN; Di/TV-
TYPE	SHORT DESCRIPT
GZA 5.1X	Zener diode 5,1
GZA 5.6Y	Zener diode 5,6

## Abbreviations:

Si - silicon; U -  
CTV - cable ar-  
frequency; VA -  
Tr - driver; E -  
ZF - intermedi-  
horizontal de-  
Di - damper d

## BASIC OF TRANSISTORS & ICs



2SC1815(Y)  
2SC1815(Y), GR  
2SC1015(Y, GR)  
2SC1627A



2SB1013(0)  
2SA966  
2SC2655(Y)



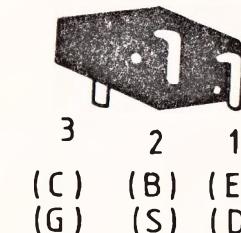
2SB1274A



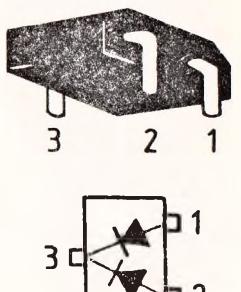
2SC2371(KM)



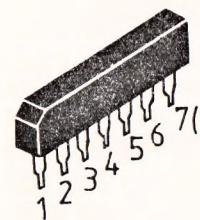
2SD1426



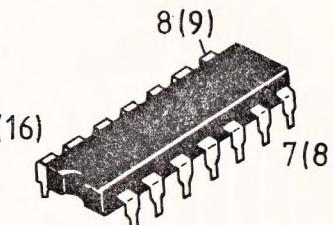
CHIP TRANSISTOR



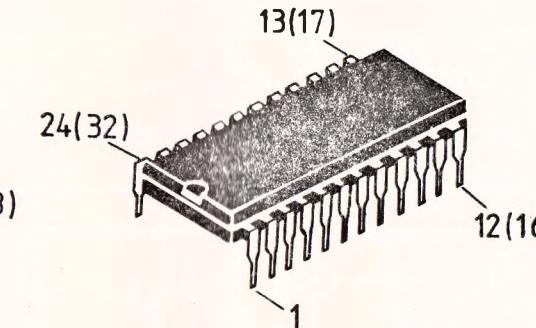
CHIP DIODE



IC  
 $\mu$ PC1373H



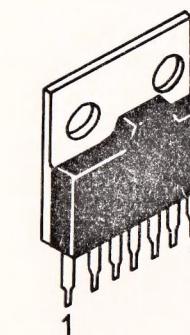
IC  
M51346AP



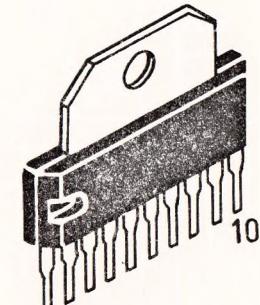
IC  
M51309SP



IC  
AN78L05



IC  
AN5515



IC  
TA7222AP



IC  
STR54041S

### EQUIVALENTS

PT10N; 5mA  
7,5V;  
Fast recovery; Gen. purp. rect.

[NEC]  
±120V; 0,4W

Det. 200V; 0,16A;  
diode; 100V(BRV); 0,2A

200V; 0,75A

V; 1A

TRANSISTORS

1N4007

BC640

(2SB861)

BC556

BD530

BCW69

BCW70

BCX71

BCW61

BD508; BD530

BD516; BD526

BF194

BF224

BC174

BC190

BC546

BC414

BC338

BC639

BF420A

BF298

BD529

BD517

BCW65

BCX19

BCW71-72

BCX70

BCW31-33

BCX70

BCW71-72

BCX70

A; 0,2W

150V; 5A; 40W

A; 1500V; 5A; 80W

S2055AF

-general purpose;  
enna TV; NF-audio  
vertical deflection;

output; HF-high frequency;

frequency; HA-TV-

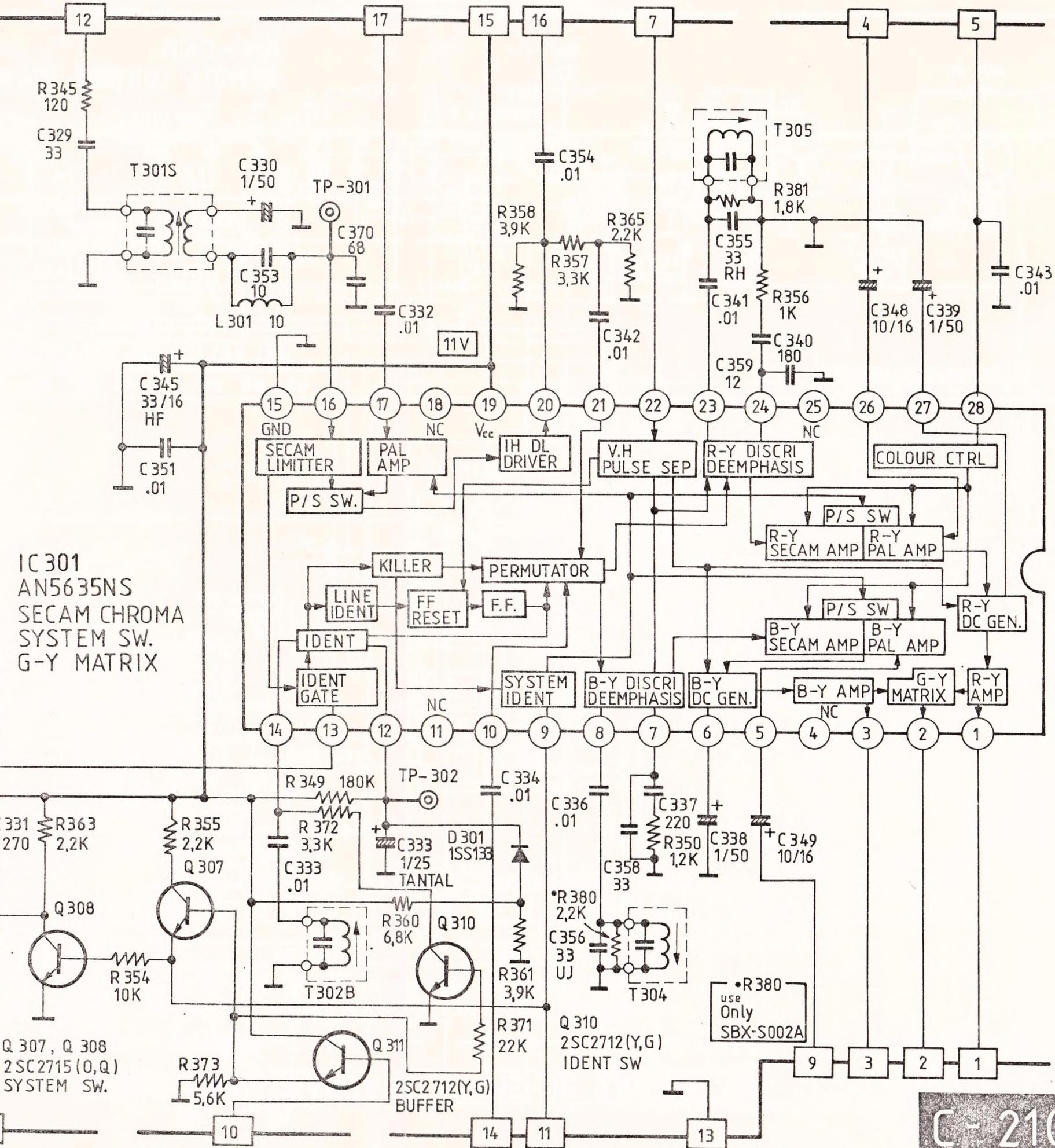
selection; S - switch;

L - power

OPTION ; DATA	EQUIVALENTS
; 0,5W	
; 0,5W	

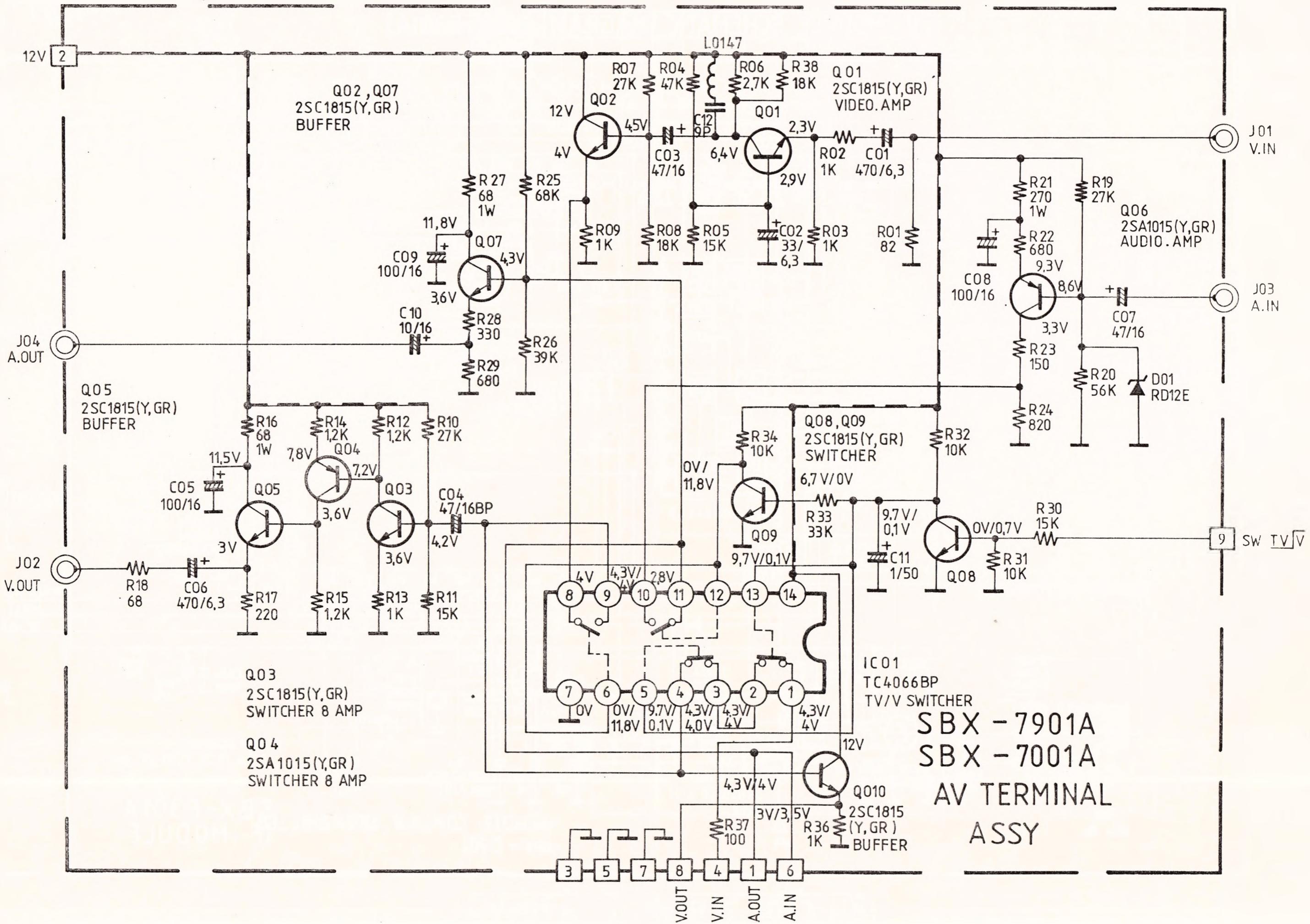
# SECAM MODULE SCHEMATIC DIAGRAM (SBX-S002A)

SBX-S 901A  
SBX-S 002A  
SECAM MODULE



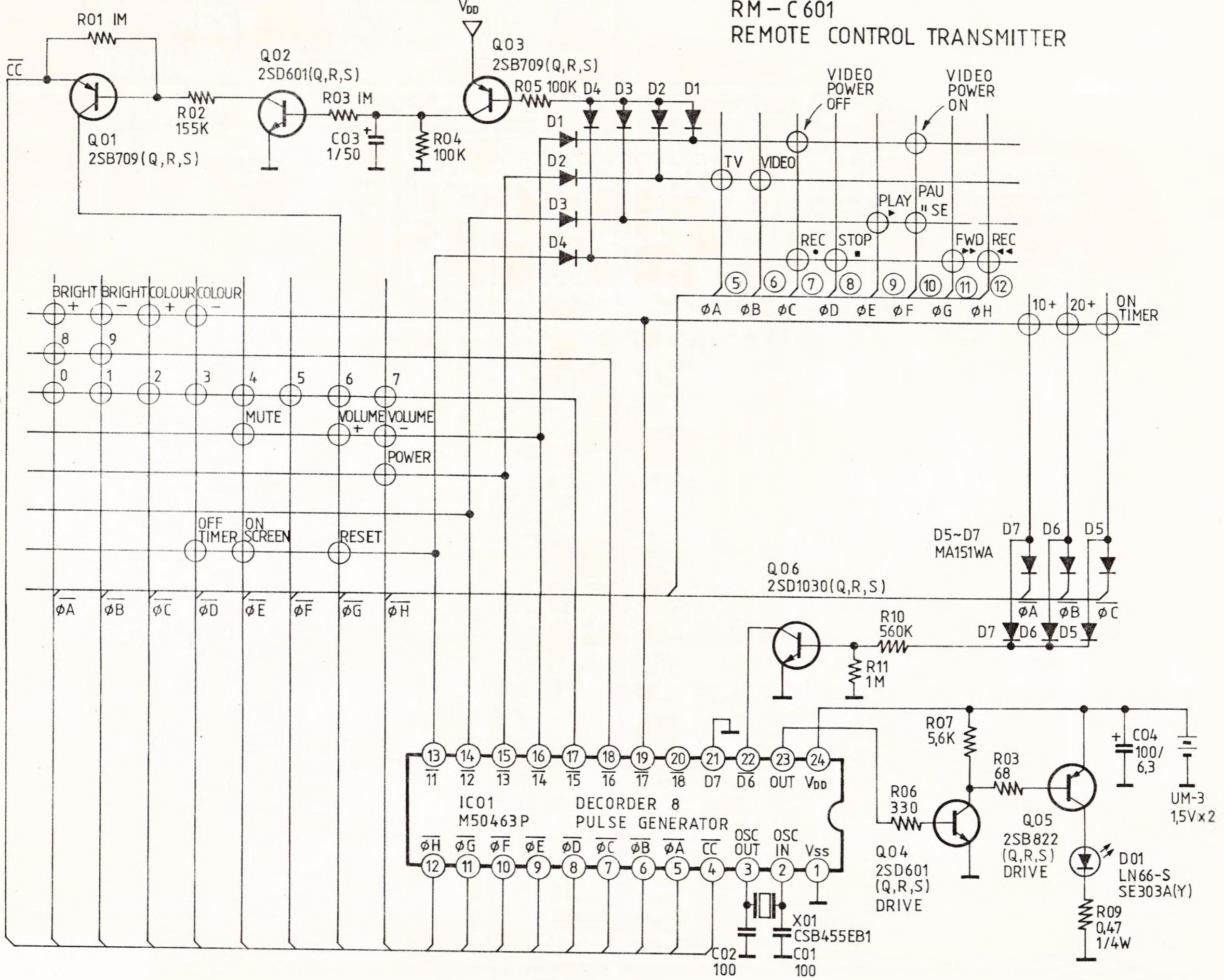
C-210 E E

# AV TERMINAL (SBX 7001A)

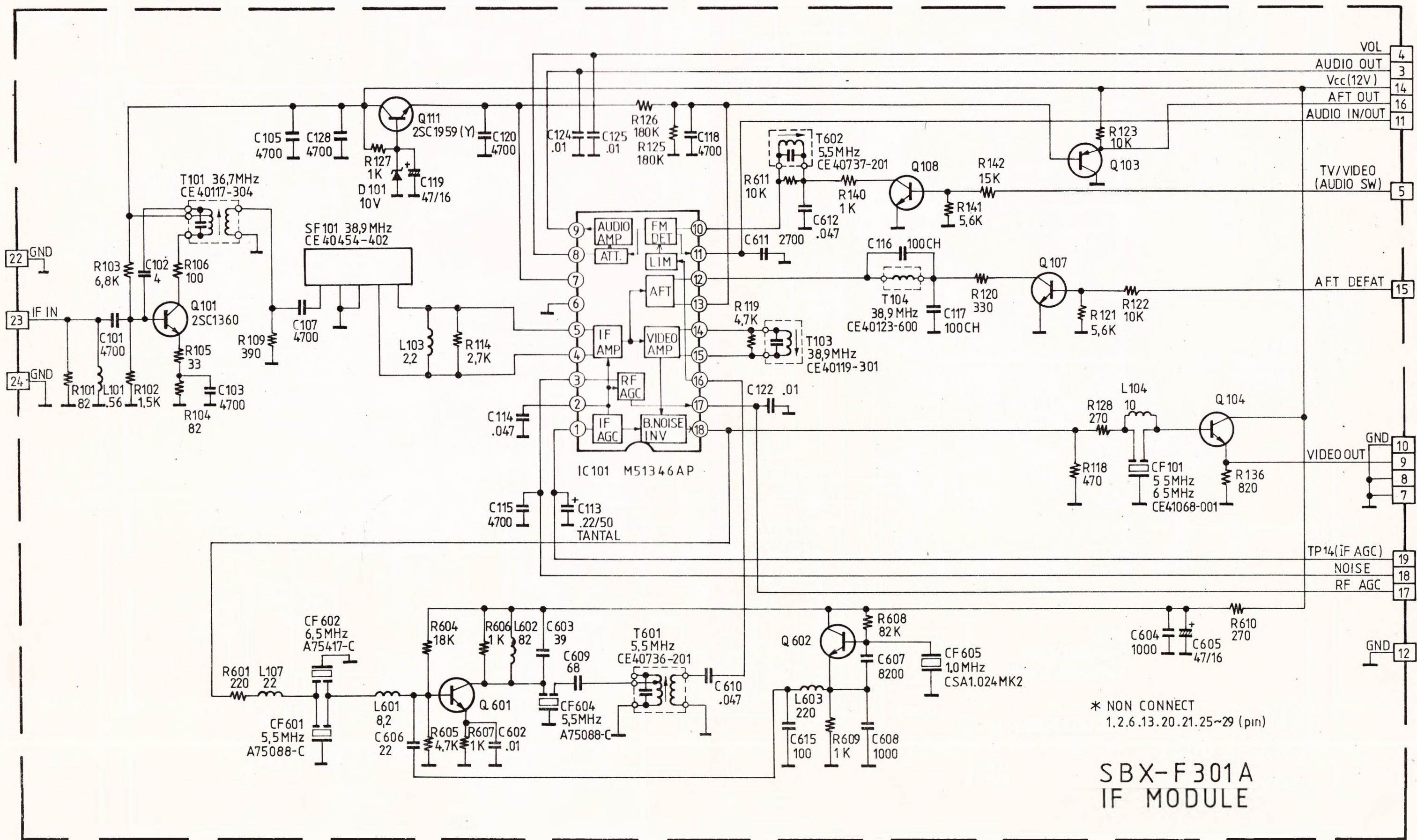


# RM-C601 SCHEMATIC DIAGRAM

RM-C601  
REMOTE CONTROL TRANSMITTER



# IF MODULE SCHEMATIC DIAGRAM (SBX F301A)



**SBX-F301A  
IF MODULE**