



# service manual

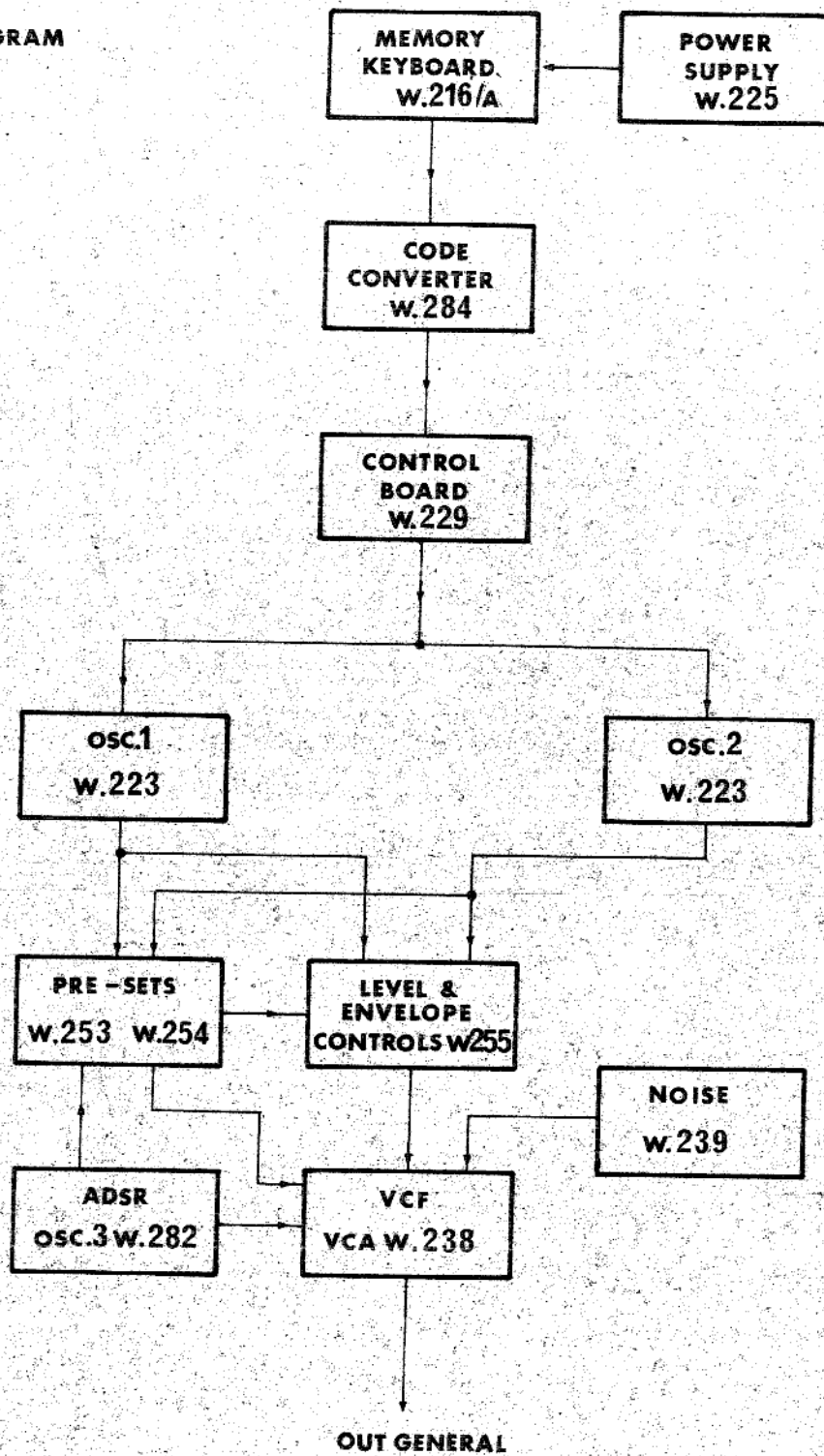
SYNTEX

**WELSON**

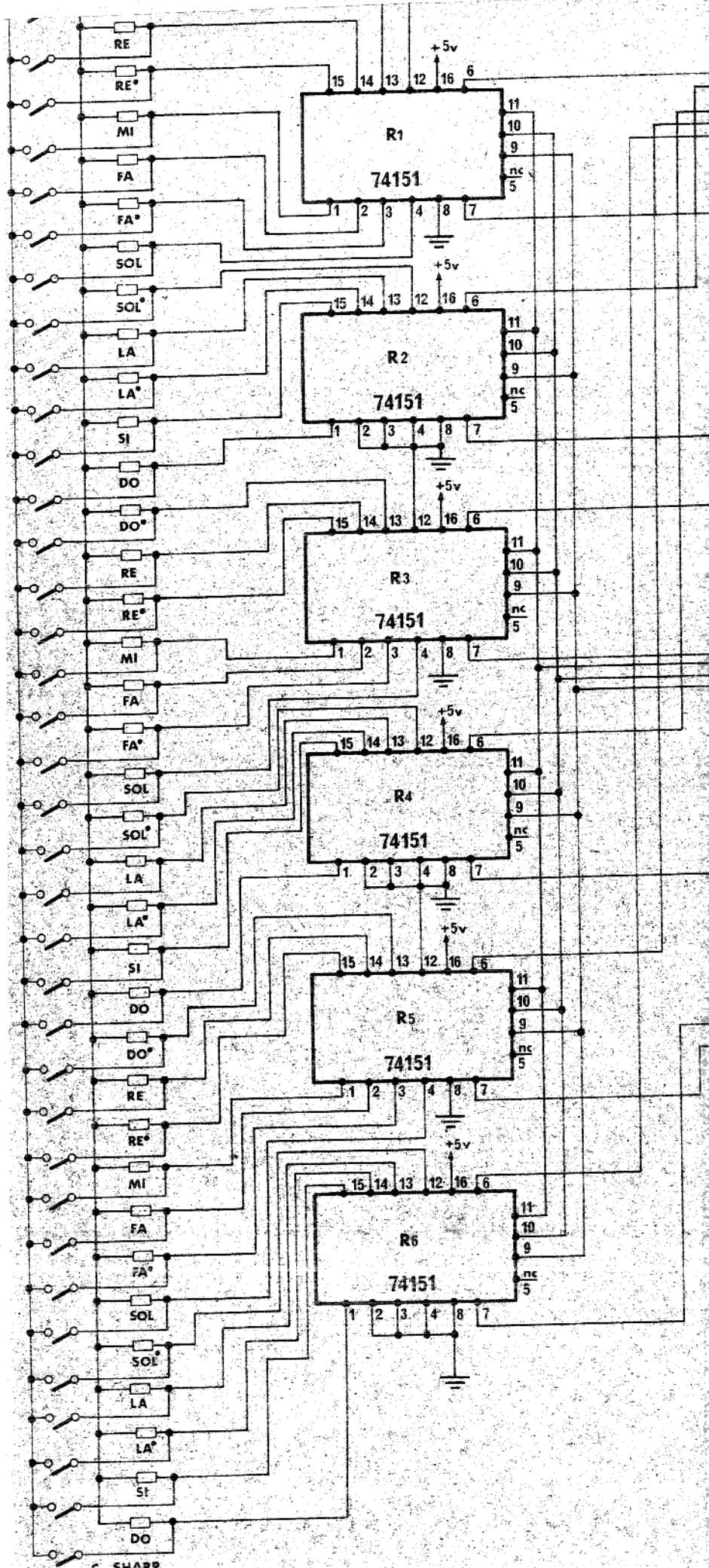
WEBO ELECTRONICS CO. S.p.A.

60020 PASSATEMPO - ITALY

BLOCK DIAGRAM



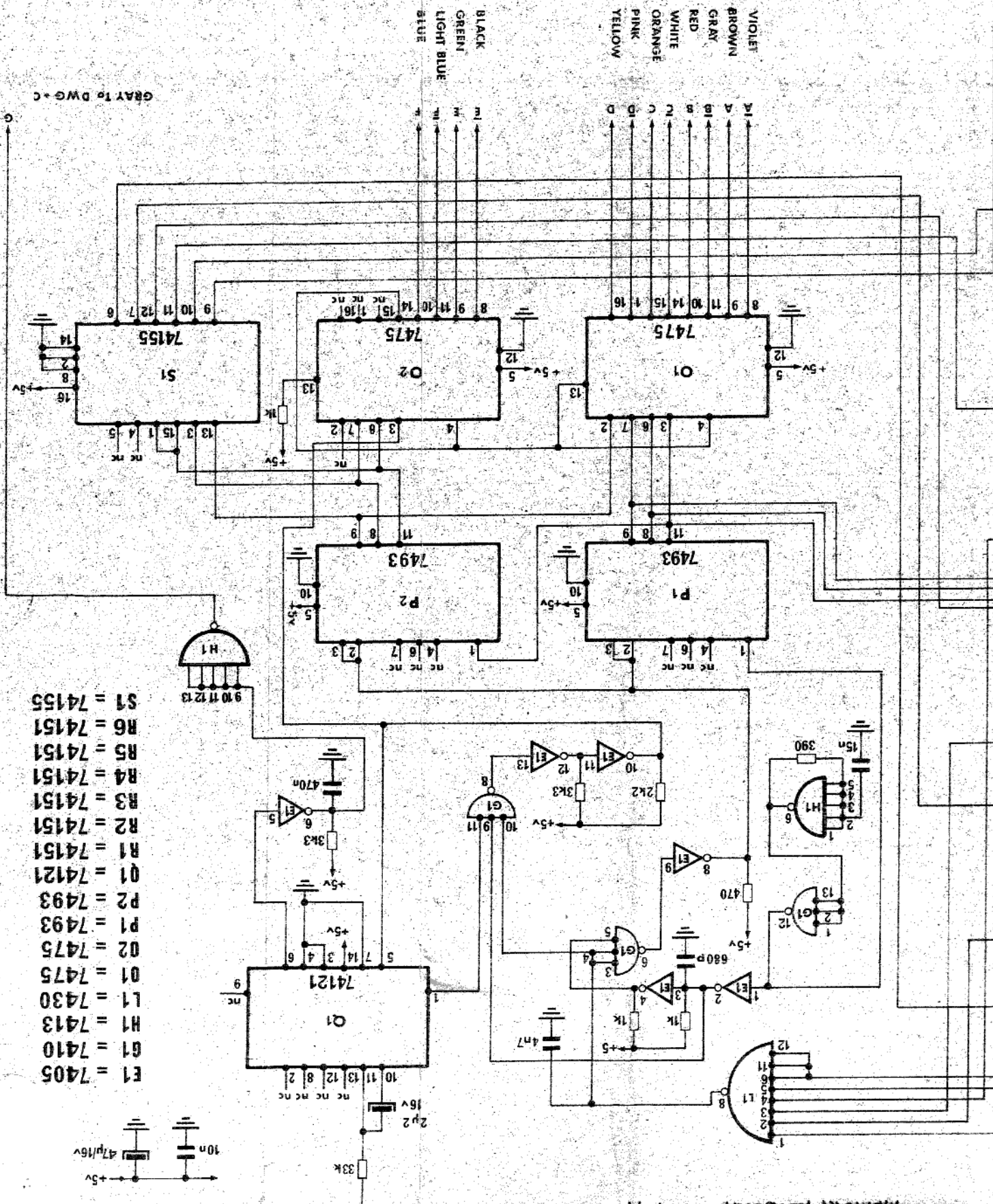
Mod. SINTEX		Serial No		
Wilson	Code	Drawn By <i>Downie M. PCT</i>	Revision	14 6 76
		Checked By <i>Silchoni</i>	Date	



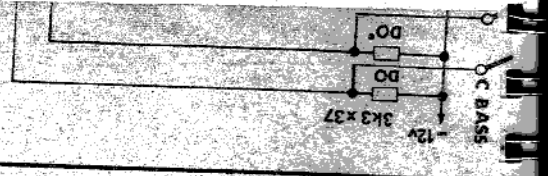
WELSON		Code	Checked By <i>Slacks</i>	Date
Mod. SINTEX				
Serial No.		Revision	By <i>Drawn M. R. G.</i>	Date
		14	6	16

DWG-A

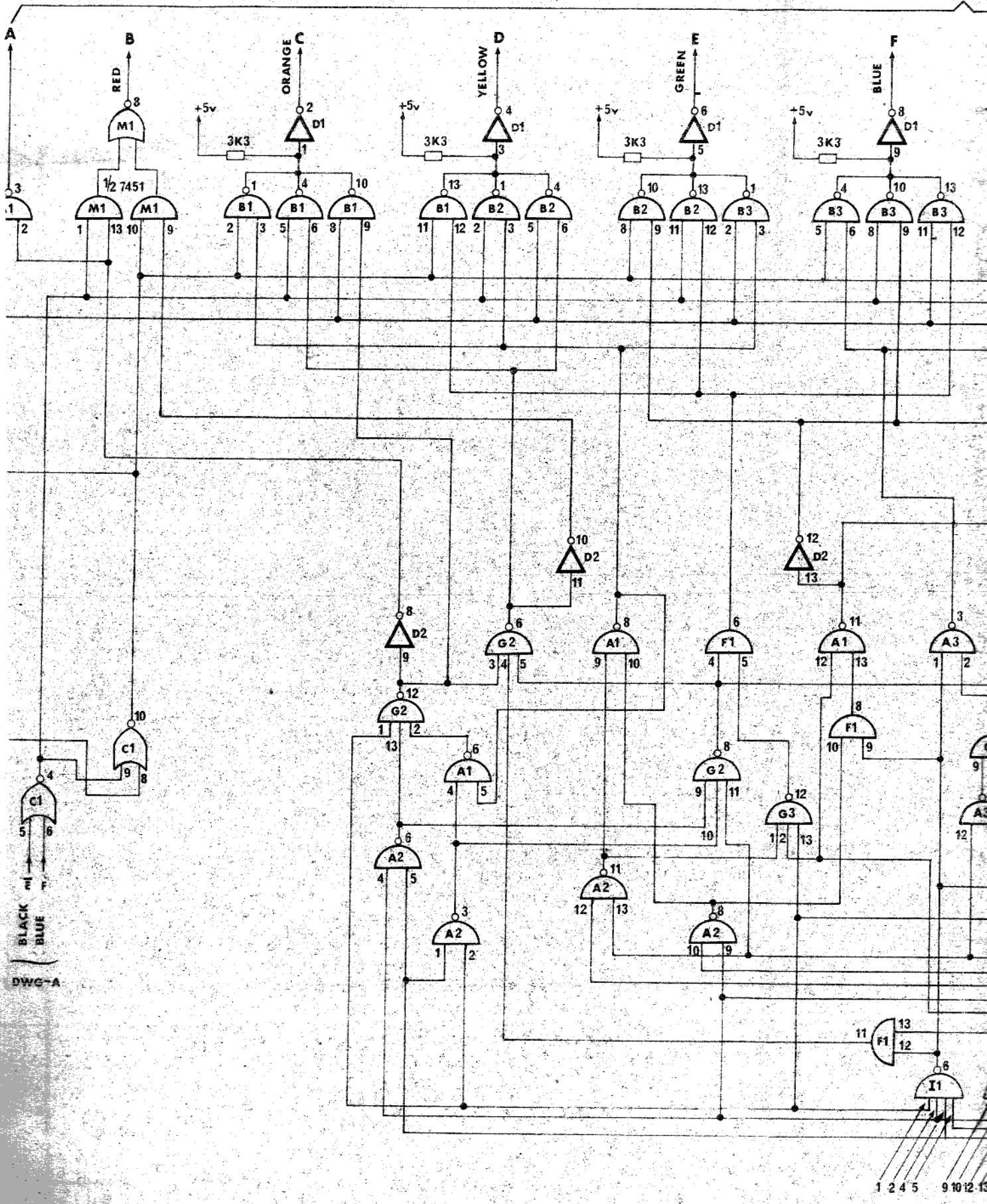
TO DWG-B



MEMORY KEYBOARD W. 216A

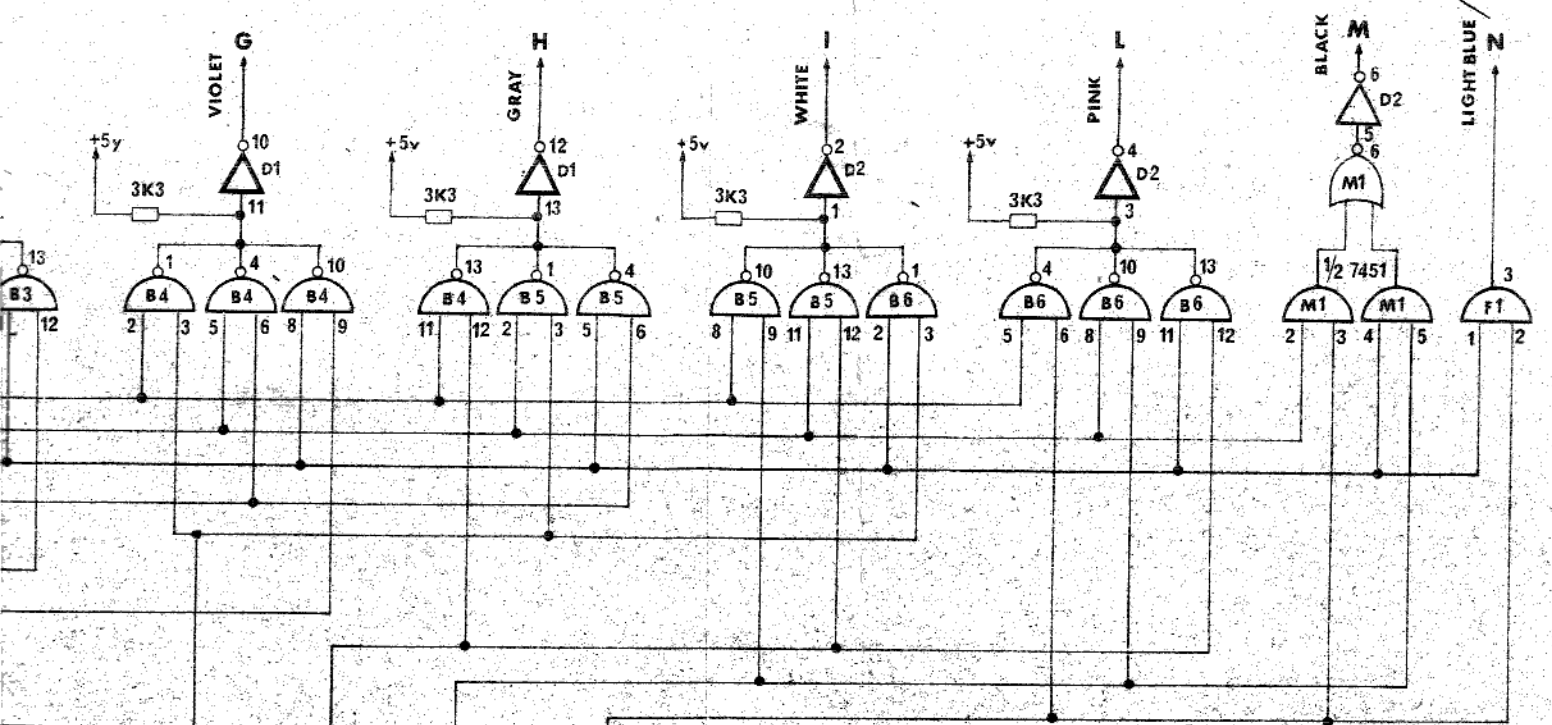






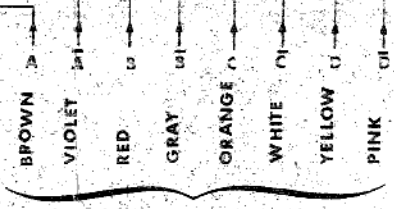
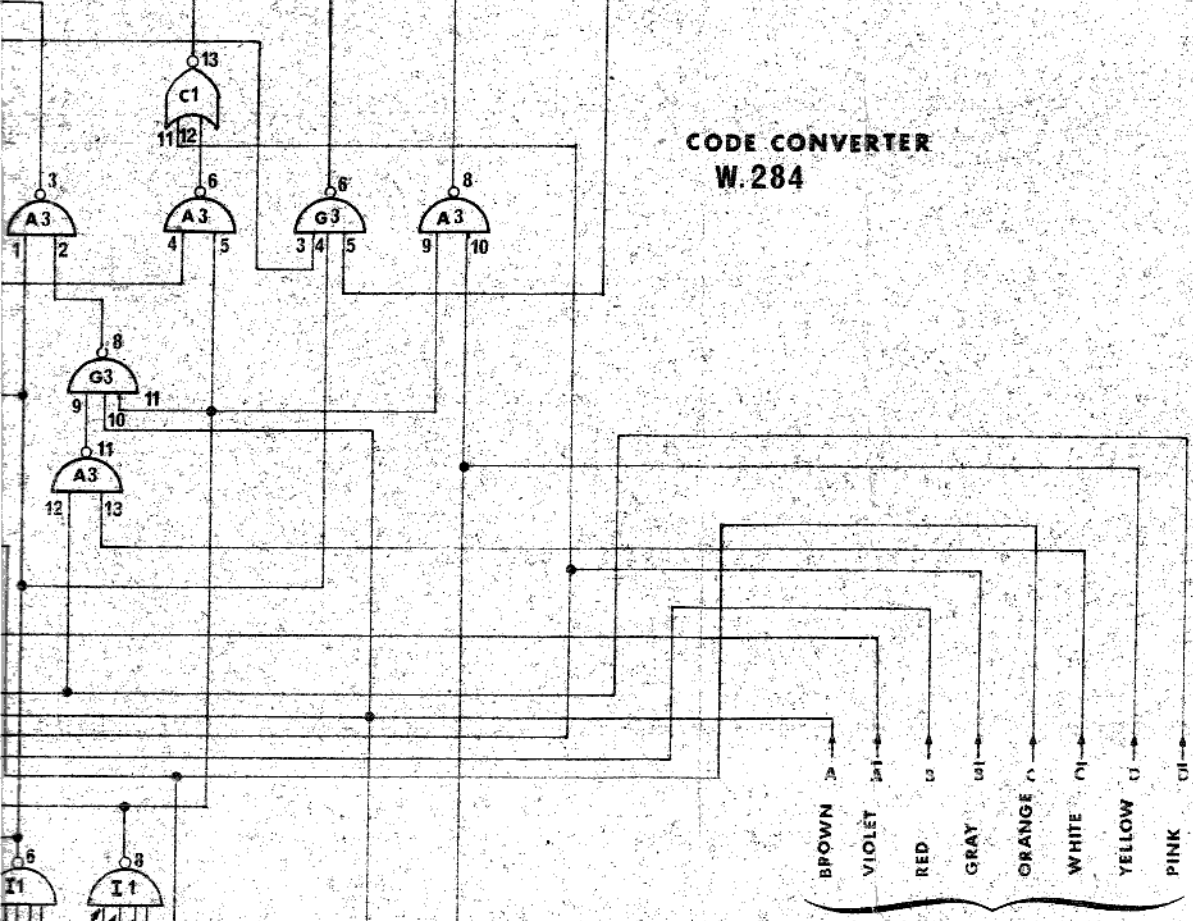
BLACK  
BLUE  
DWG-A

1 2 4 5 9 10 12 13



**CODE CONVERTER  
W.284**

- A1 = 7400
- A2 = 7400
- A3 = 7400
- B1 = 7401
- B2 = 7401
- B3 = 7401
- B4 = 7401
- B5 = 7401
- B6 = 7401
- C1 = 7402
- D1 = 7404
- D2 = 7404
- F1 = 7408
- G2 = 7410
- G3 = 7410
- I1 = 7420
- M1 = 7451

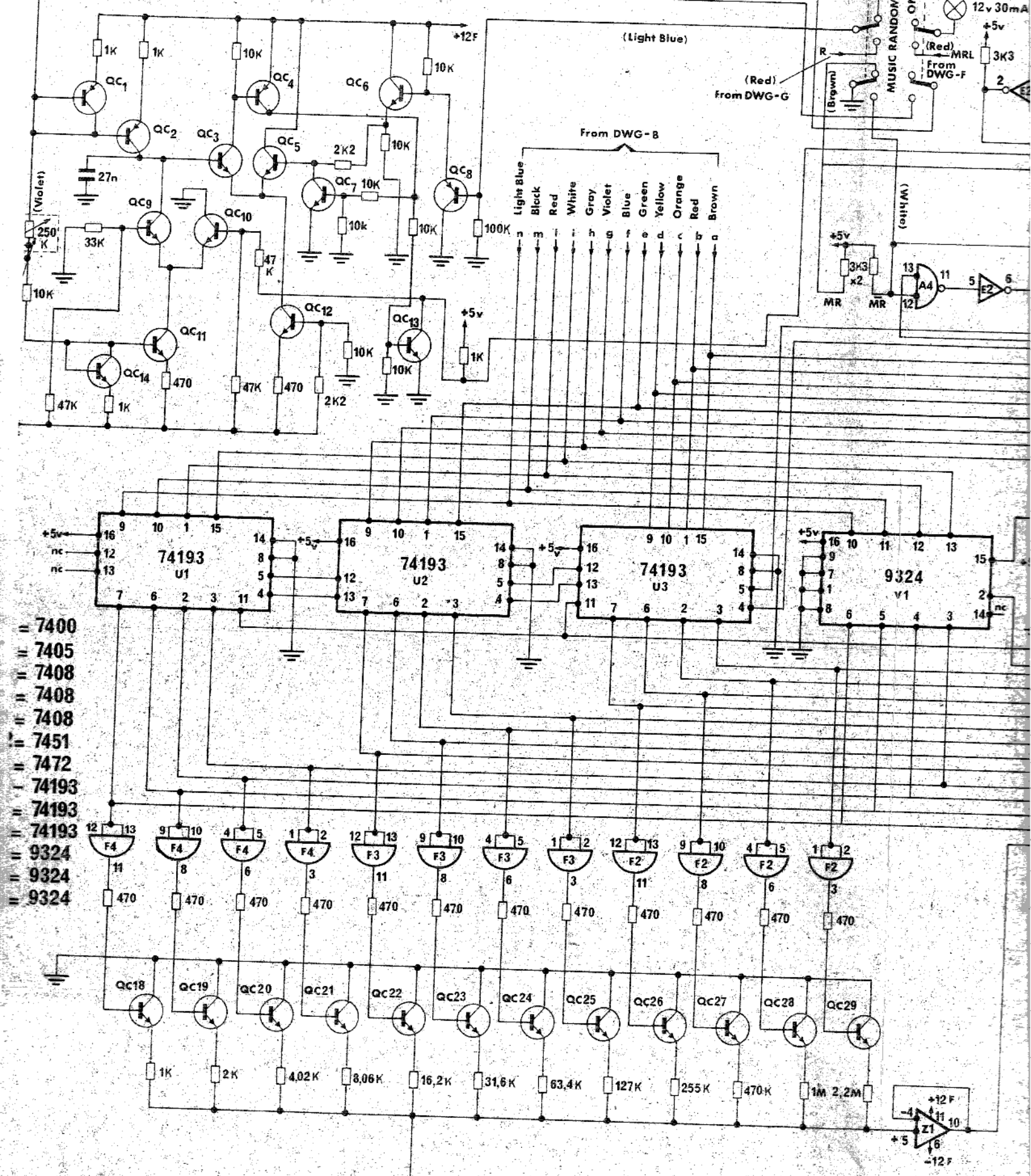


FROM DWG-A

9 10 12 13

➔ DWG-B

Mod. SINTEX		Serial No			
WELSON	Code	Drawn By <i>Dennis McR...</i>	Revision	14	6 76
		Checked By <i>Slut...</i>	Date		



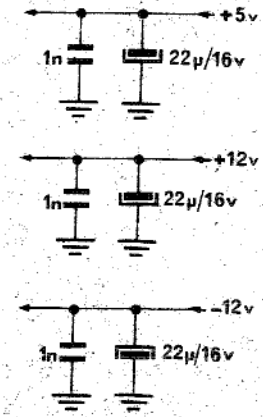
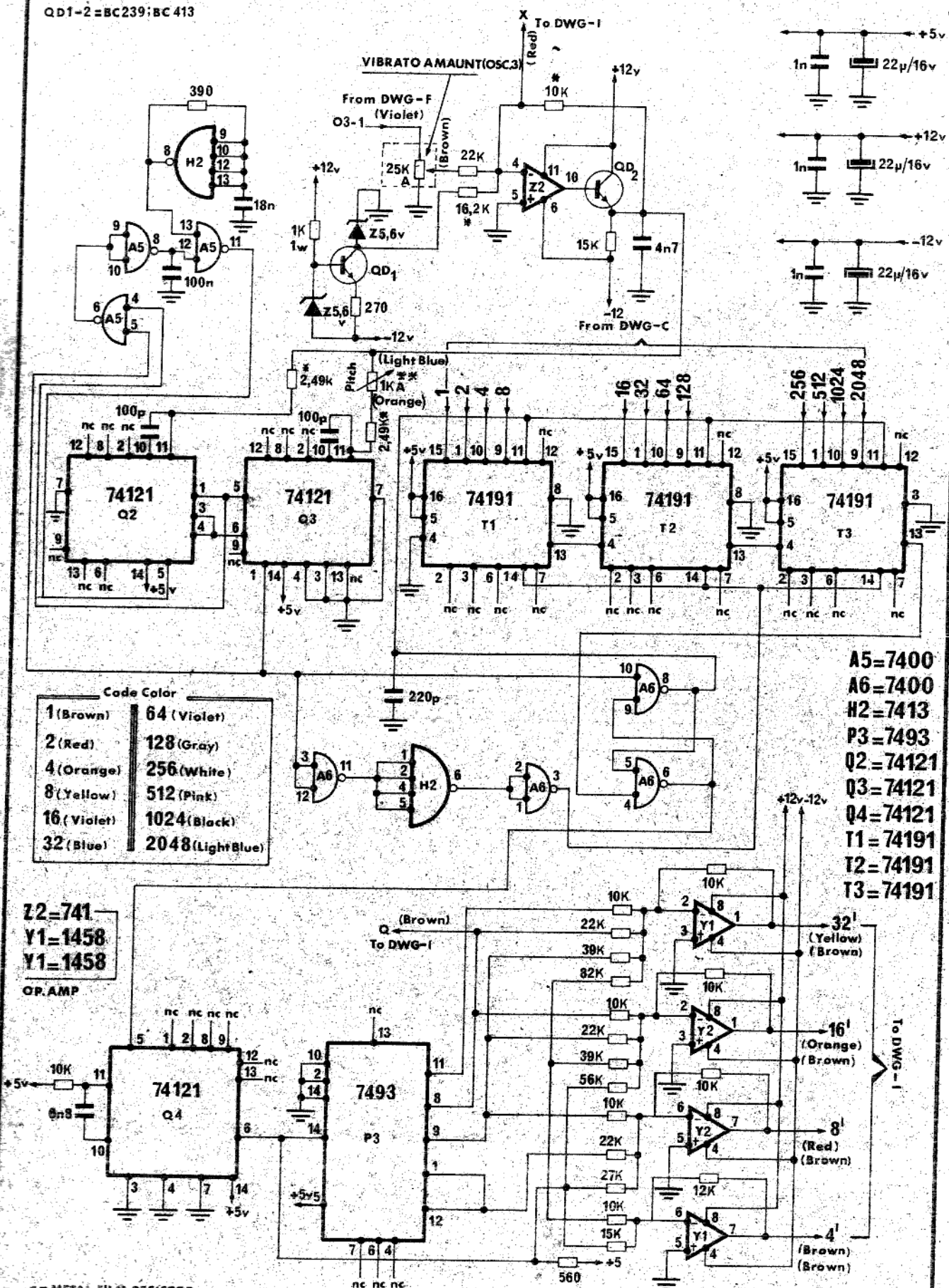
NPN TRANSISTOR ARE BC173 OR BC413  
 PNP    "            "    BC153 OR BC253

CONTROL BOARD W.229





VIBRATO AMOUNT (OSC.3)



Code Color

1 (Brown)	64 (Violet)
2 (Red)	128 (Gray)
4 (Orange)	256 (White)
8 (Yellow)	512 (Pink)
16 (Violet)	1024 (Black)
32 (Blue)	2048 (Light Blue)

- A5=7400
- A6=7400
- H2=7413
- P3=7493
- Q2=74121
- Q3=74121
- Q4=74121
- T1=74191
- T2=74191
- T3=74191

Z2=741  
 Y1=1458  
 Y1=1458  
 OP.AMP

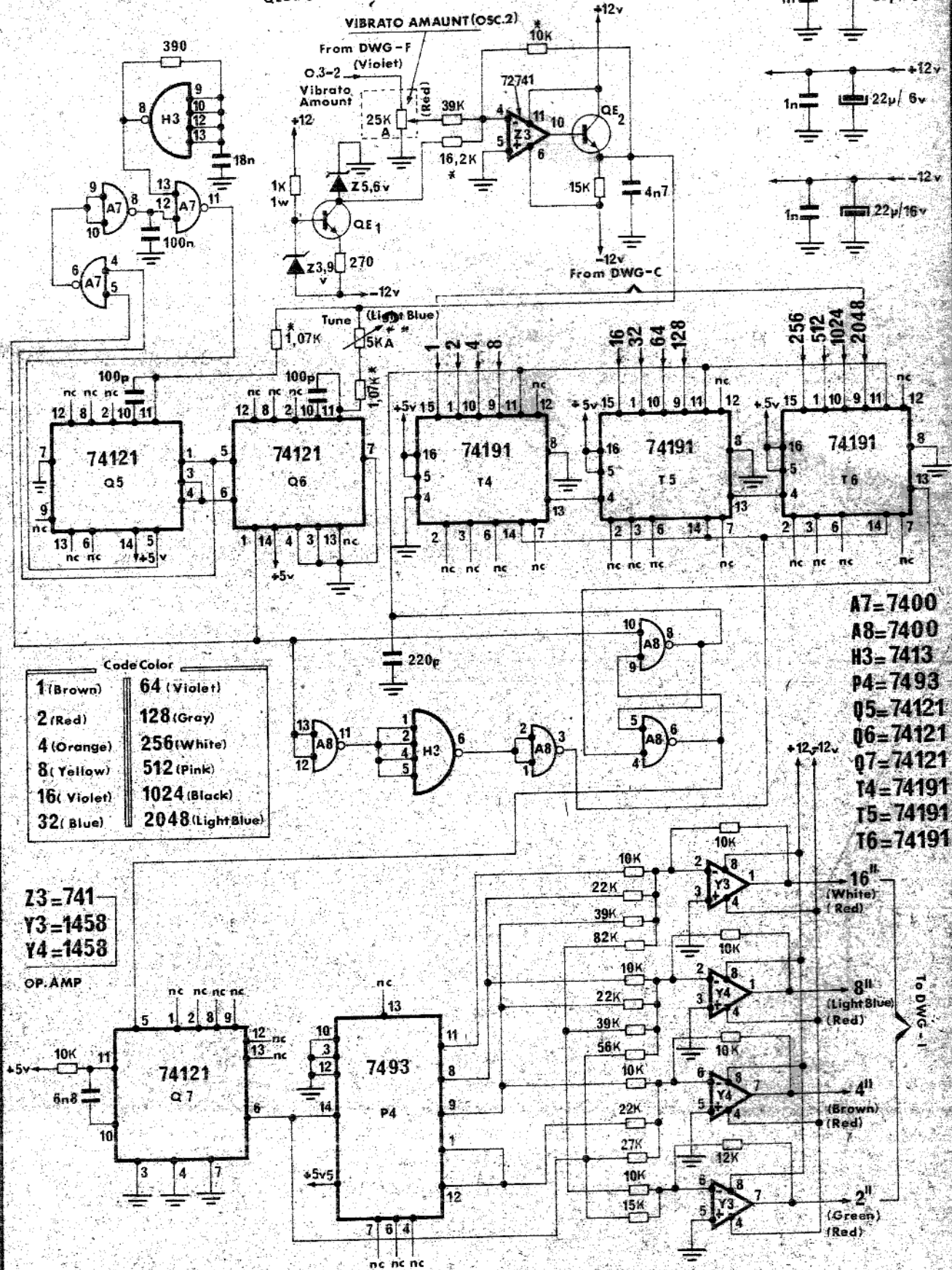
⊠ = METAL FILM RESISTOR  
 ⊠⊠ = WIRE WOUND POTENTIOMETER

Oscillator 1 W.223

➔ DWG - D

Mod. SINTEX		Serial No			
Walson	Code	Drawn By	Revision	14	6 76
		Checked By	Date		

QE1 = BC 413  
QE2 = BC 286



Code Color

1 (Brown)	64 (Violet)
2 (Red)	128 (Gray)
4 (Orange)	256 (White)
8 (Yellow)	512 (Pink)
16 (Violet)	1024 (Black)
32 (Blue)	2048 (Light Blue)

Z3 = 741  
Y3 = 1458  
Y4 = 1458

OP. AMP

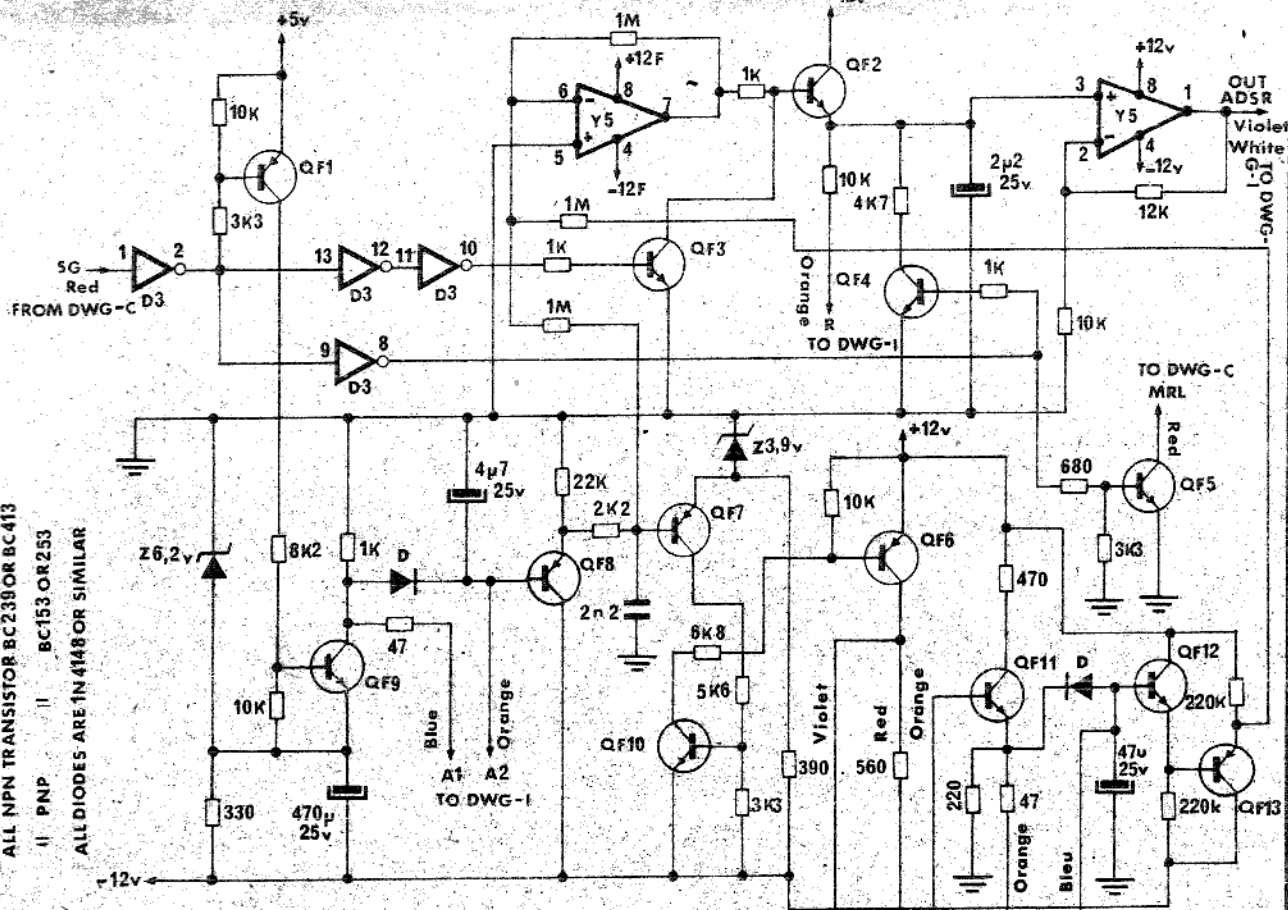
A7 = 7400  
A8 = 7400  
H3 = 7413  
P4 = 7493  
Q5 = 74121  
Q6 = 74121  
Q7 = 74121  
T4 = 74191  
T5 = 74191  
T6 = 74191

⊗ = METAL FILM RESISTOR  
\* = WIREWOUND POTENTIOMETER  
Oscillator 2 W. 223

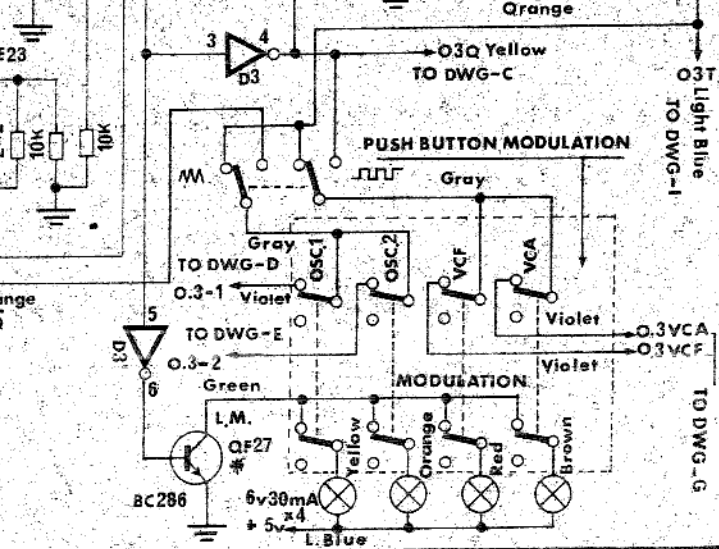
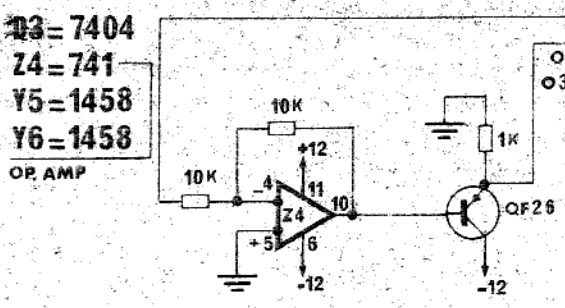
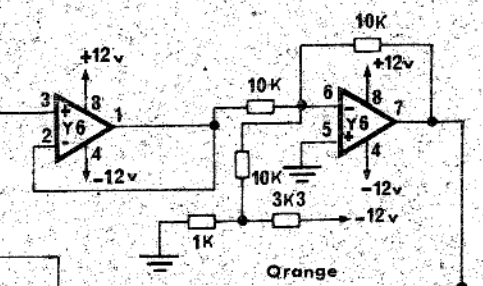
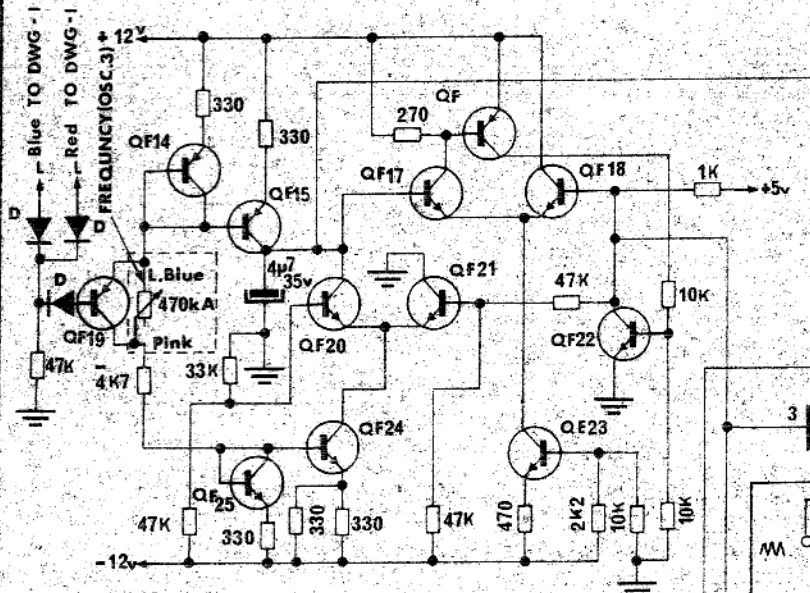
DWG-E

Mod: SINTEX		Serial No	
Wilson	Code	Drawn By <i>Dawin M. Rio</i>	Revision 14 6 76
		Checked By <i>S. S. S. S.</i>	Date





ALL NPN TRANSISTOR BC239 OR BC413  
 || PNP || BC153 OR 253  
 ALL DIODES ARE 1N4148 OR SIMILAR



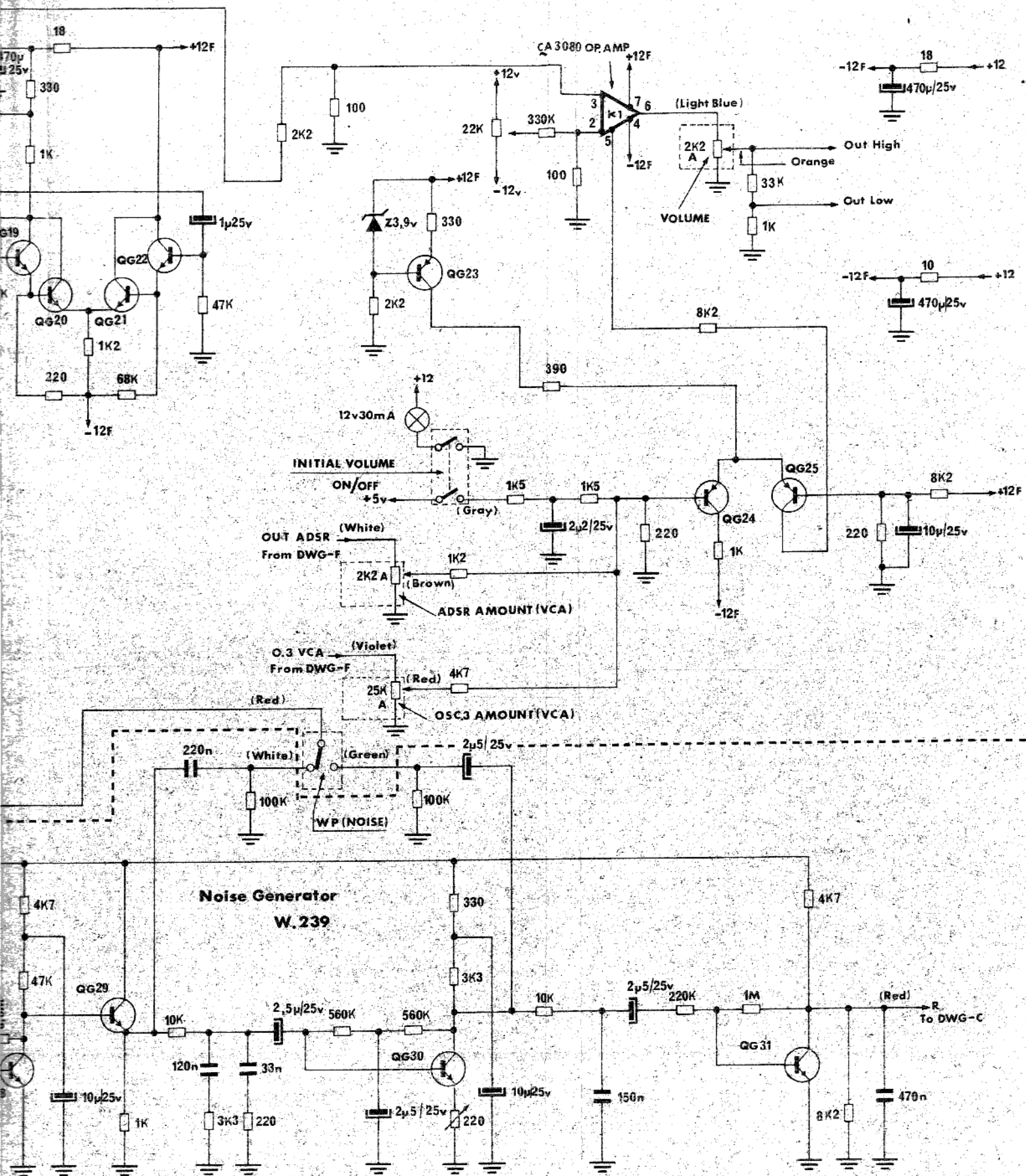
ADNR OSC.3  
 W.282

DWG - F

Mod. SINTEX		Serial No		
Wilson	Code	Drawn By	Revision	14 6 76
		Checked By	Date	

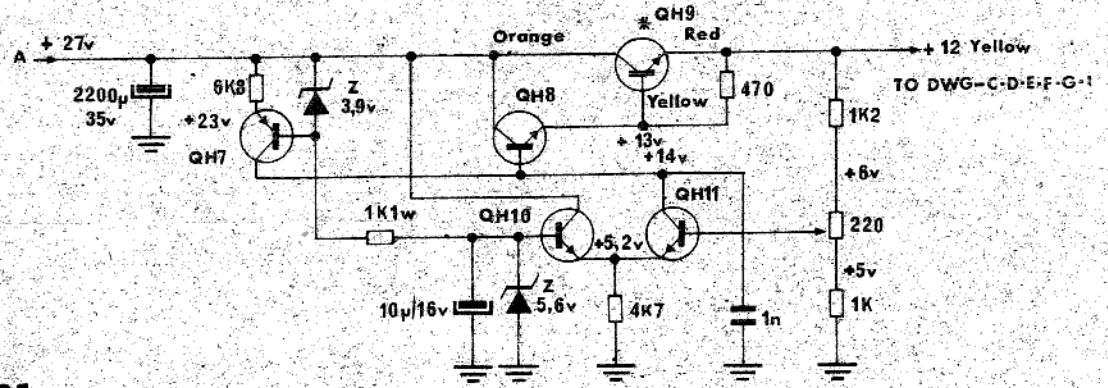
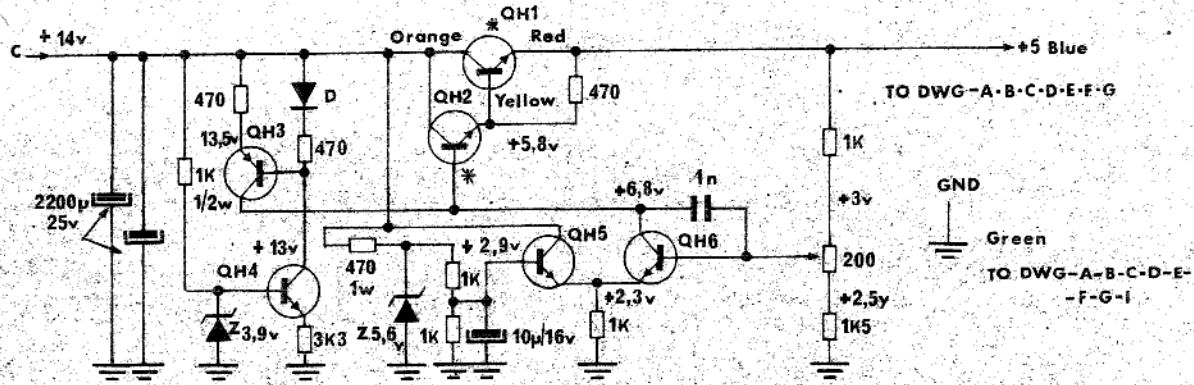
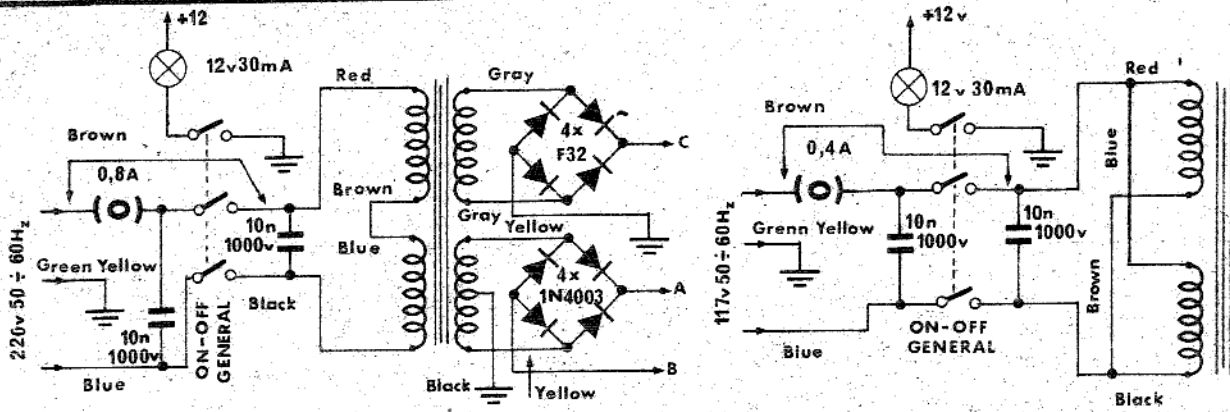




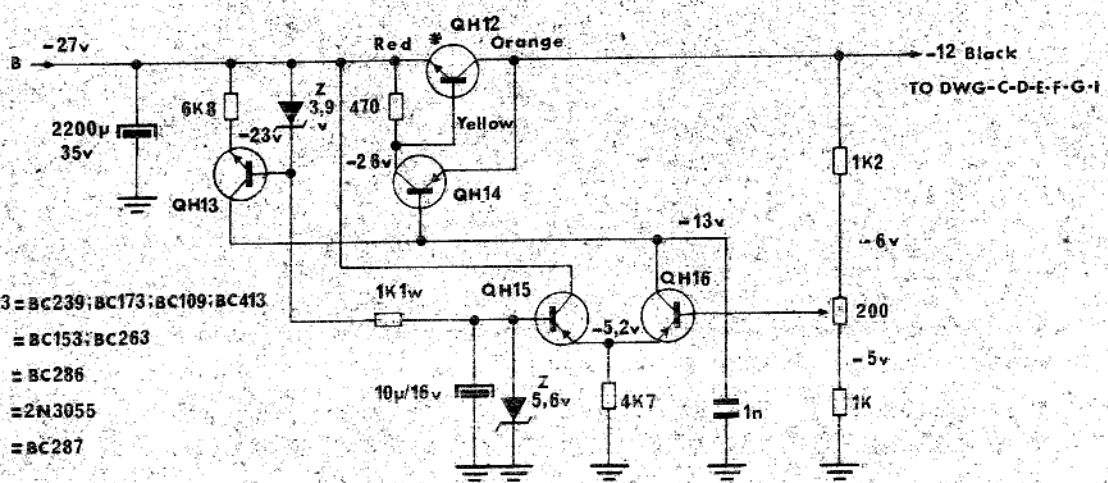


➔ DWG-G

Mod. SINTEX		Serial No			
WELSON	Code	Drawn By <i>Adams M. Ah</i>	Revision	14	6
		Checked By <i>S. Wilson</i>	Date		76



W. 225



- QH 4-5-6-10-11-13 = BC239; BC173; BC109; BC413
- QH 3-7-15-16 = BC153; BC263
- QH 2-8 = BC286
- QH 1-9-12 = 2N3055
- QH 14 = BC287

\* TRANSISTOR ON METAL HEAT SINK

POWER SUPPLY

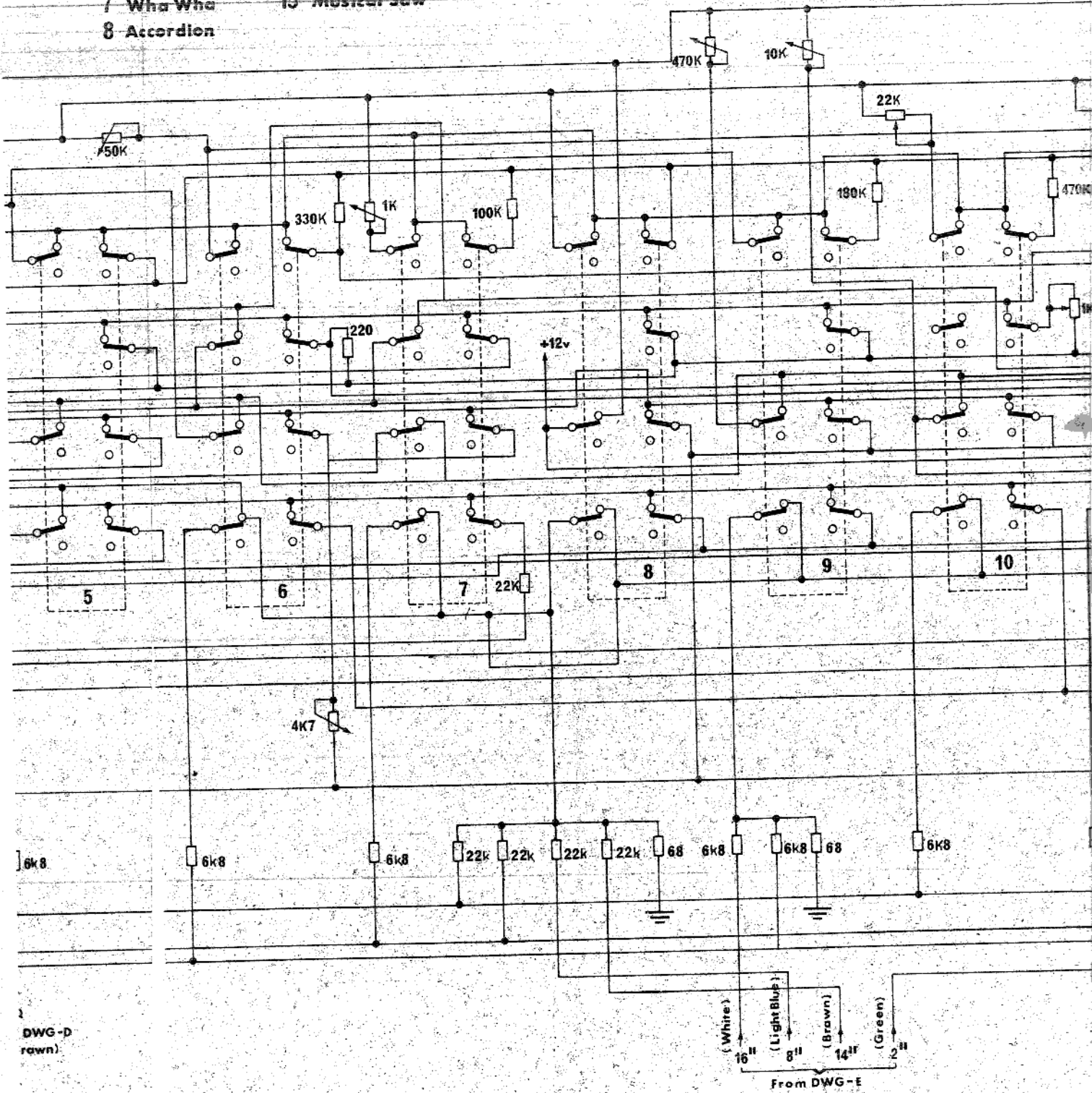
DWG - H

Mod. SINTEX		Serial No				
Welson	Code	Drawn By	Revision	14	6	76
		Checked By	Date			

- |                 |                |
|-----------------|----------------|
| 1 Flute         | 9 Strings      |
| 2 Trombone      | 10 Xylophone   |
| 3 Horn          | 11 Bass Guitar |
| 4 Oboe          | 12 Spinet      |
| 5 Bass Clarinet | 13 Space       |
| 6 Jan Harp      | 14 Fuzz        |
| 7 Wha Wha       | 15 Musical Saw |
| 8 Accordion     |                |

w.253

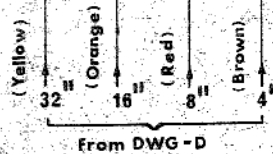
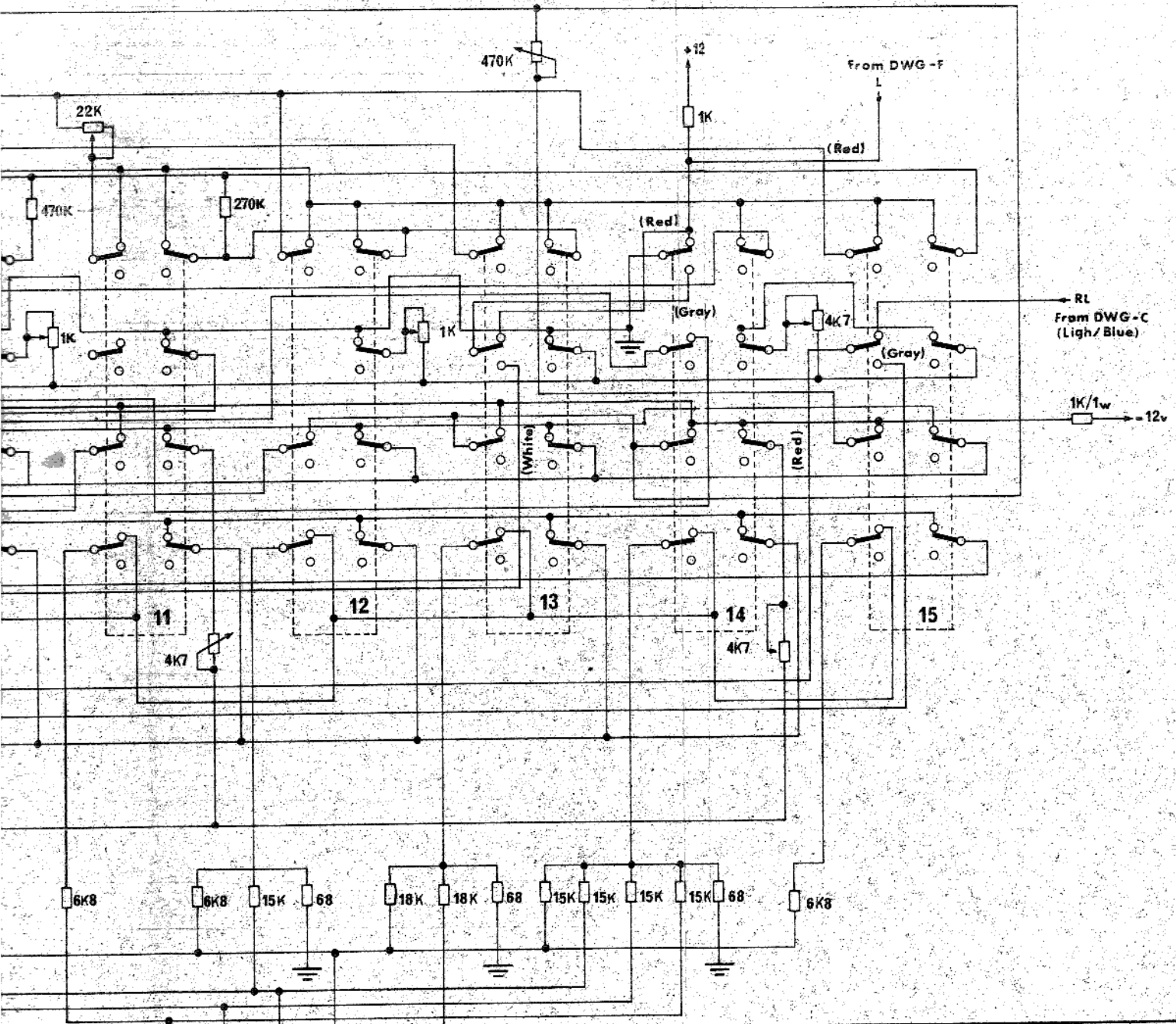
w.2



DWG-p  
rawn)

PRE-SETS CIRCUIT

w.254

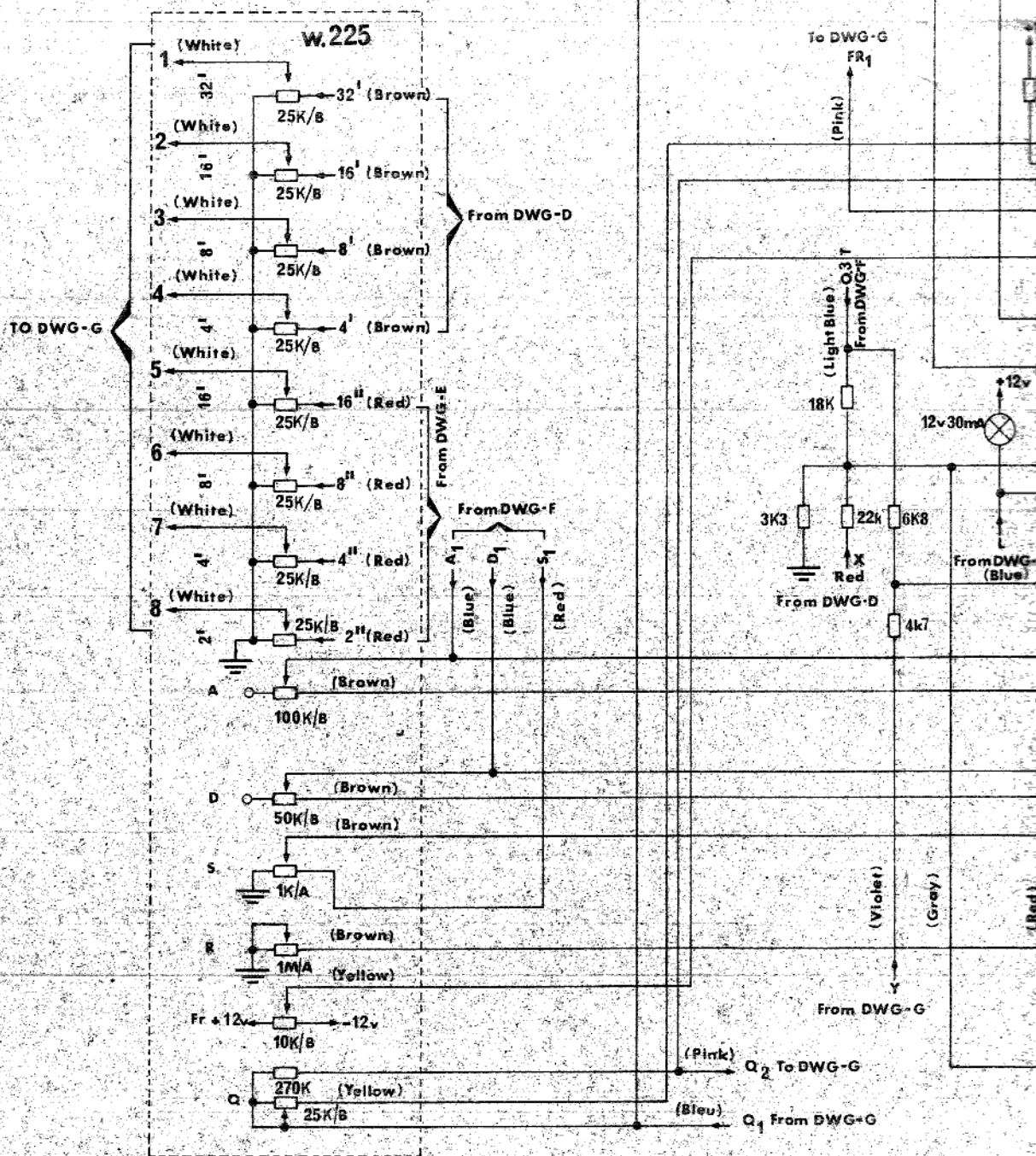


DWG-I

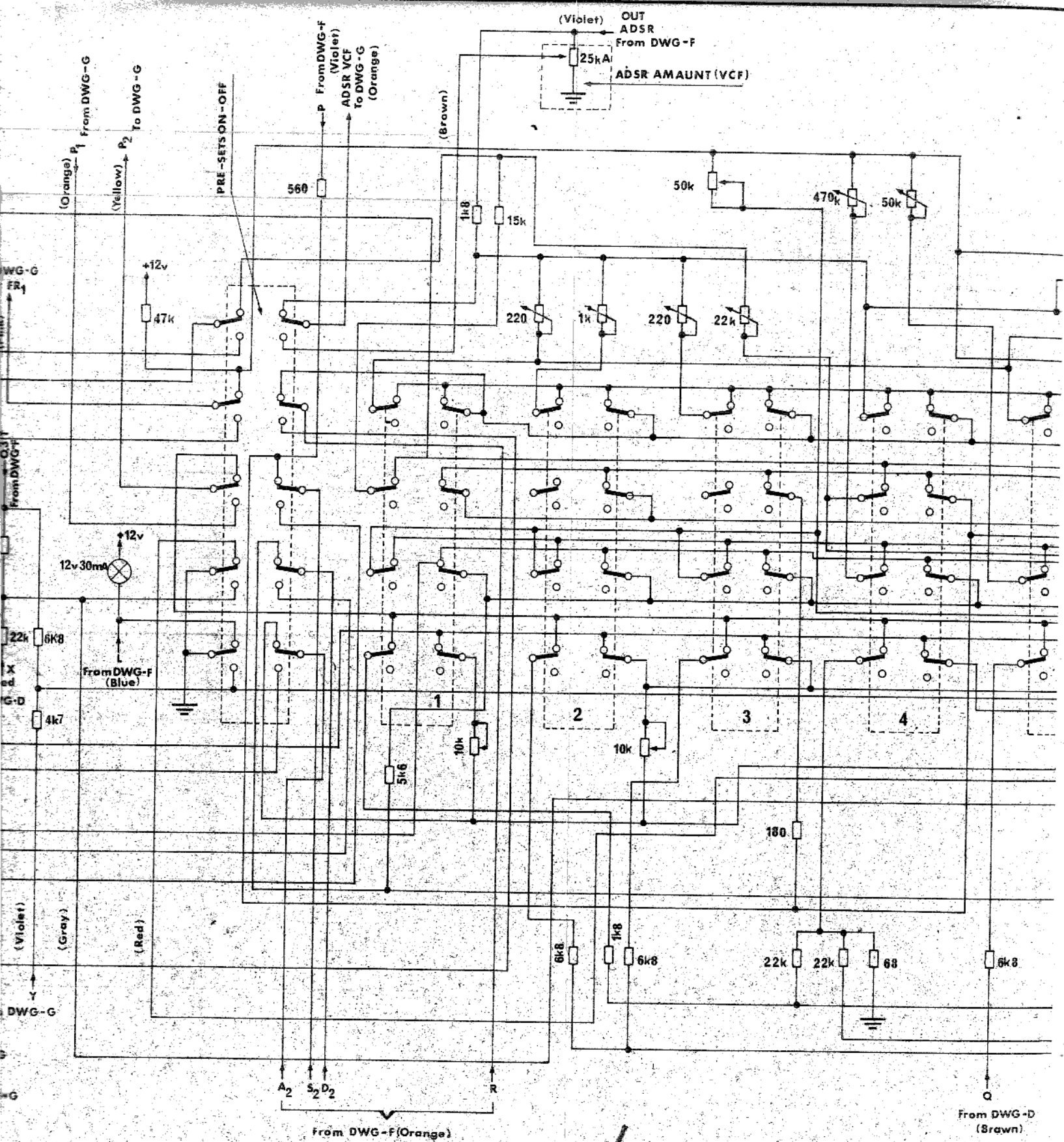
Mod. SINTEX		Serial No		
WELSON	Code	Drawn By <i>Down W. R. R.</i>	Revision	14 6 76
		Checked By <i>Subow</i>	Date	



### SLIDER POTENTIOMETER BOARD







PRE-SETS ON - OFF

OUT ADSR From DWG-F  
25kA  
ADSR AMAUNT (VCF)

From DWG-F (Orange)

From DWG-D (Brown)