

# PowerVu Receiver D9234 Power Supply Circuit Diagram

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The newest document is available  
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I have reconstructed the circuit diagram of the switching power supply "PW-042 REV.J" from "POWERWEL CO. LTD." that is used in the PowerVu receiver D9234.

May be it's useful for you if your power supply is damaged and you can't read the color code of an broken resistor.

Without guarantee for the correctness of the information provided in this document.

## **Important note:**

**Repairing the power supply is dangerous. You can die if you touch a loaded capacitor even when you have disconnected the input voltage!**

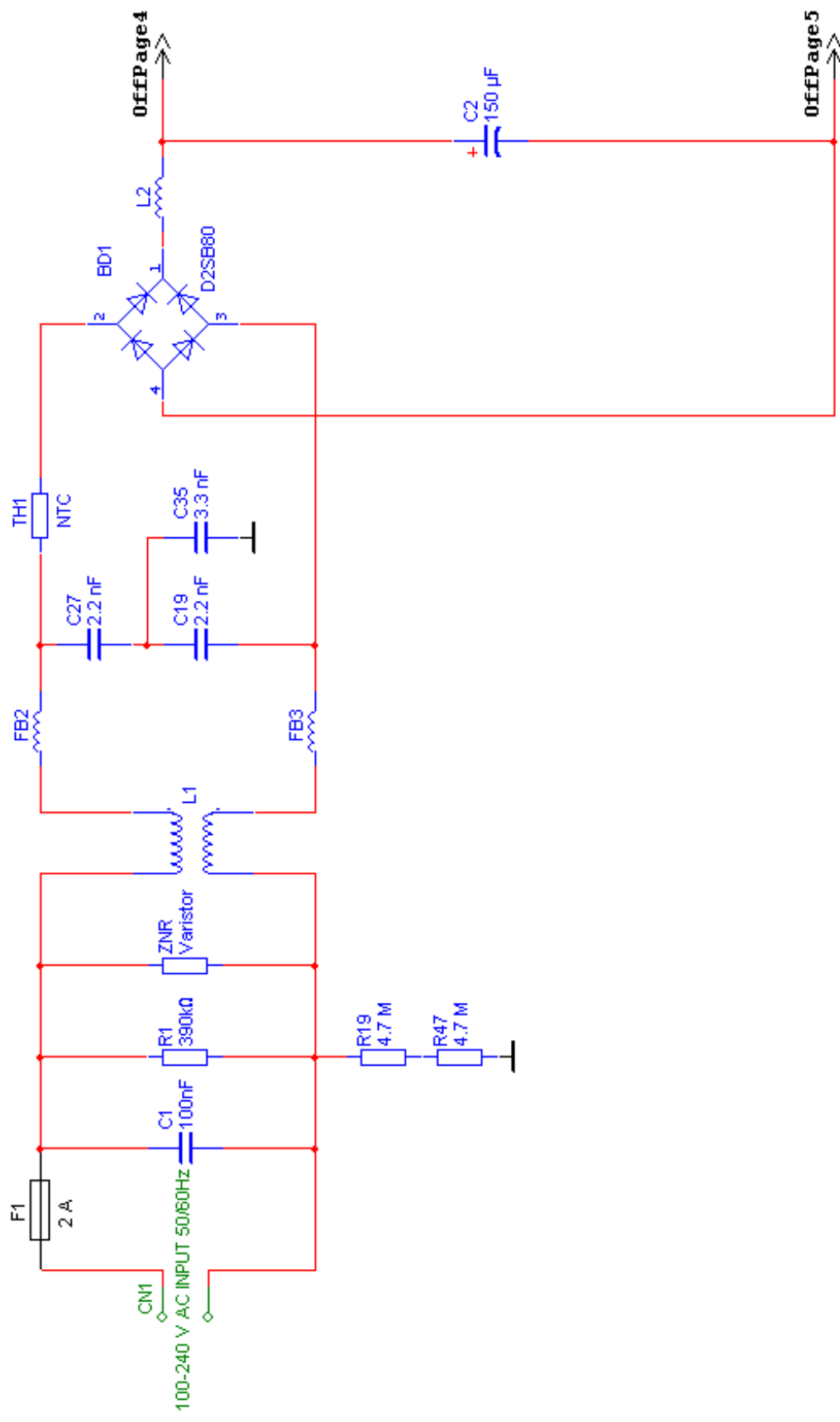
## **Power supply output:**

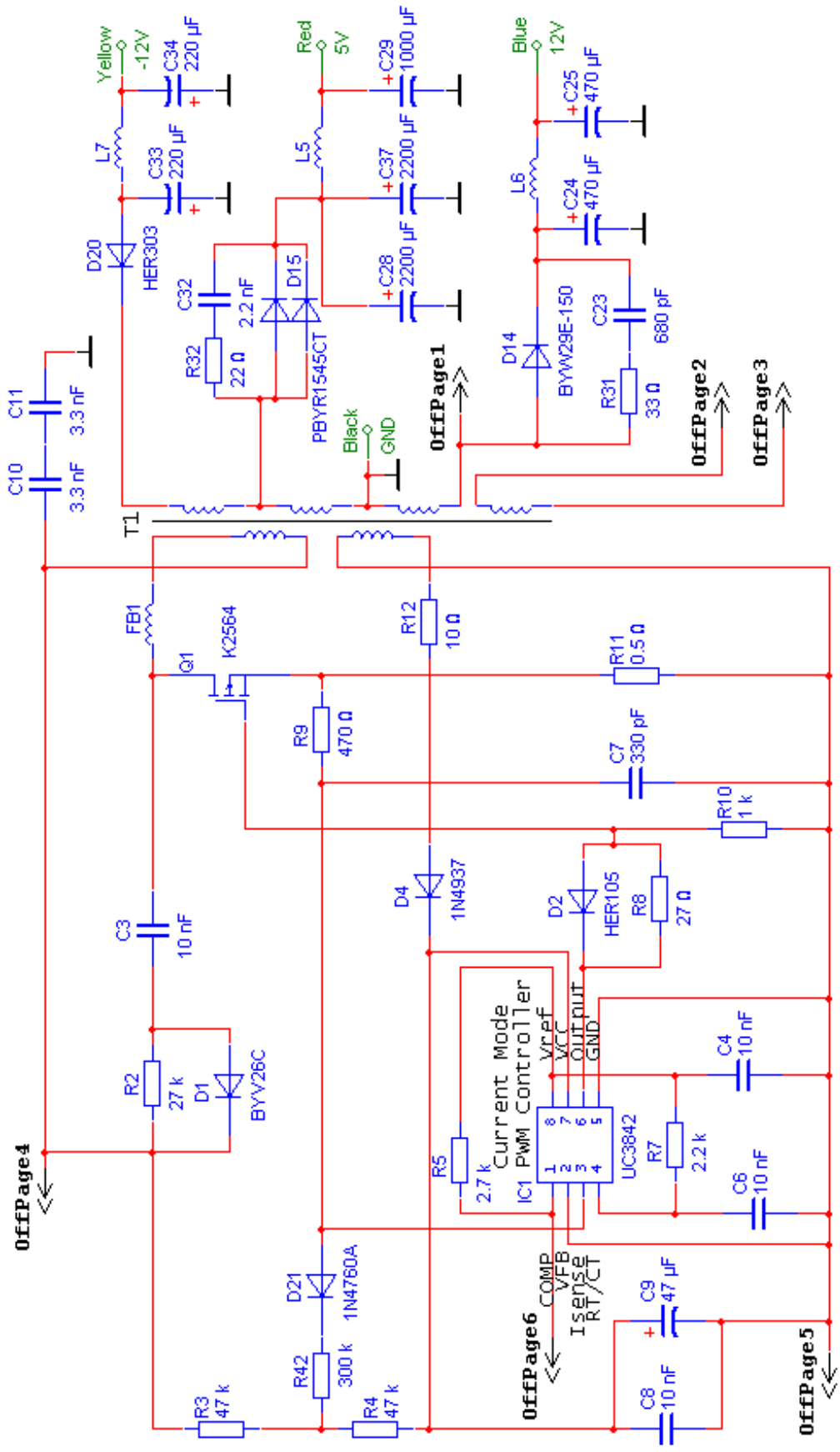
P15 connector:

Pin	Color	Remark
1	Black	Ground
2	Gray	Select input: LO=14 V output on the white cable HI=19 V output on the white cable
3	White	+14/19 V
4	Purple	+30 V
5	Orange	Power good output (LO=good HI=bad)

P18 connector:

Pin	Color	Remark
1	Black	Ground
2	Red	+5 V
3	Red	+5 V
4	Red	+5 V
5	Black	Ground
6	Black	Ground
7	Blue	+12 V
8	Blue	+12 V
9	Yellow	-12 V





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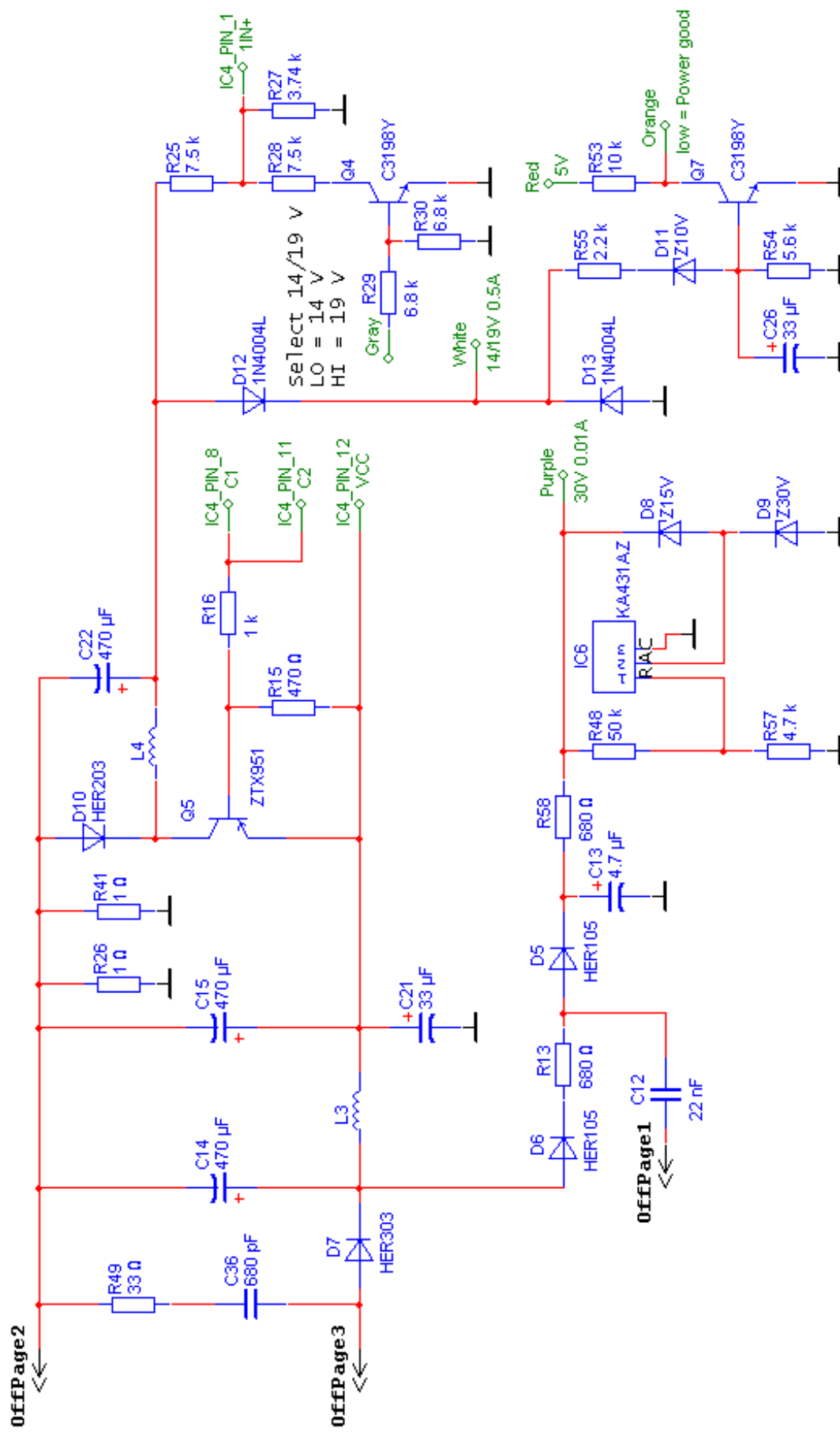
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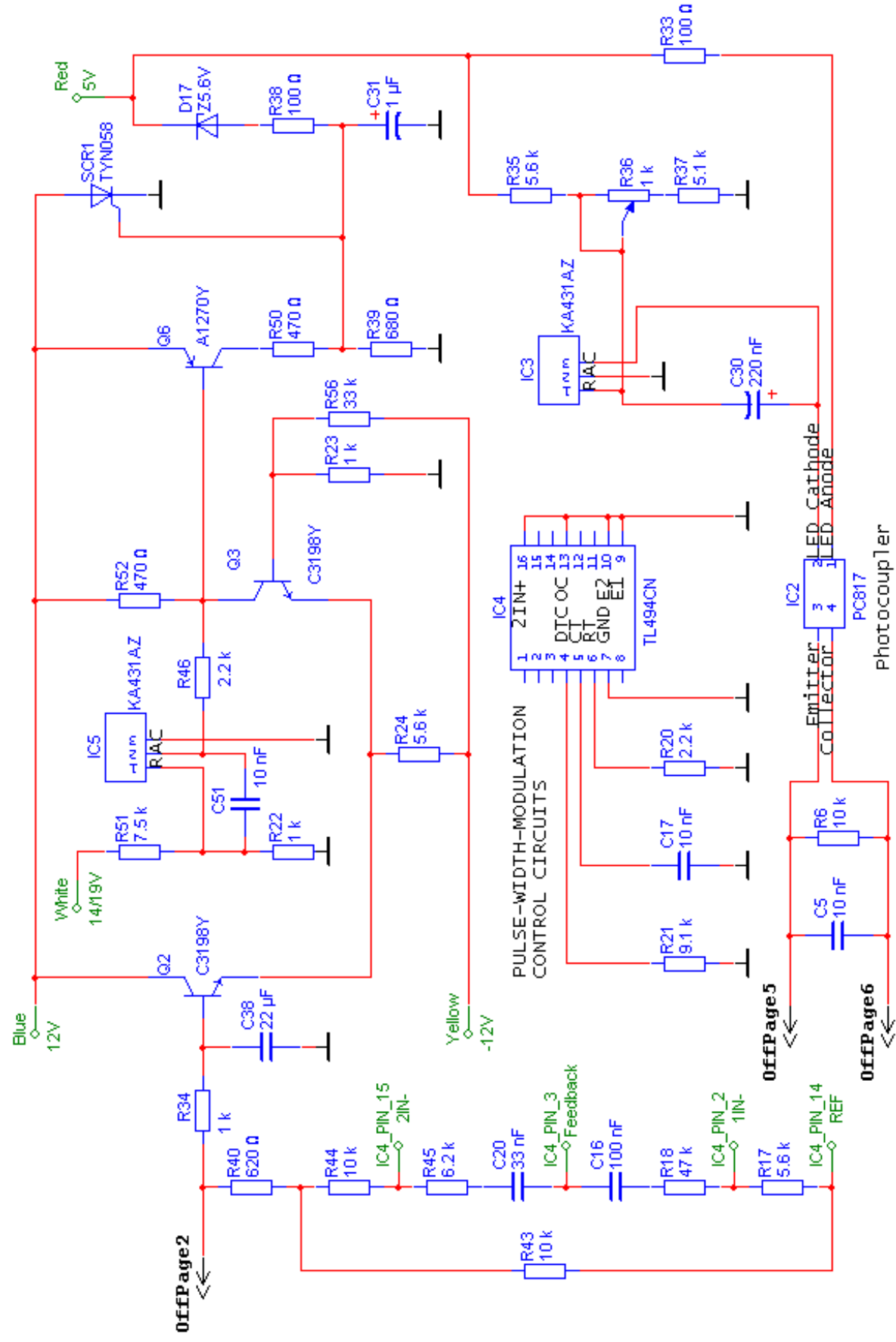
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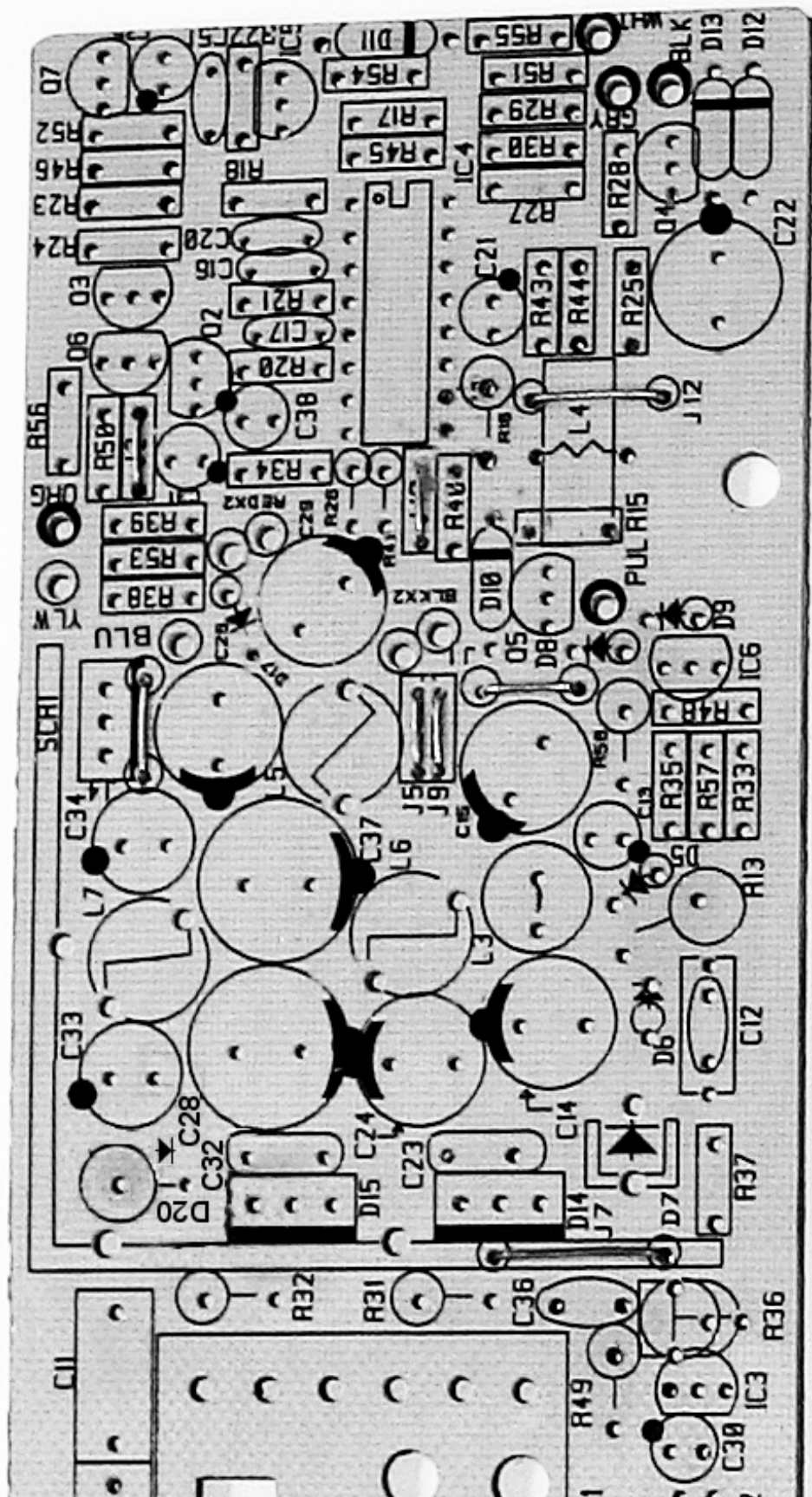
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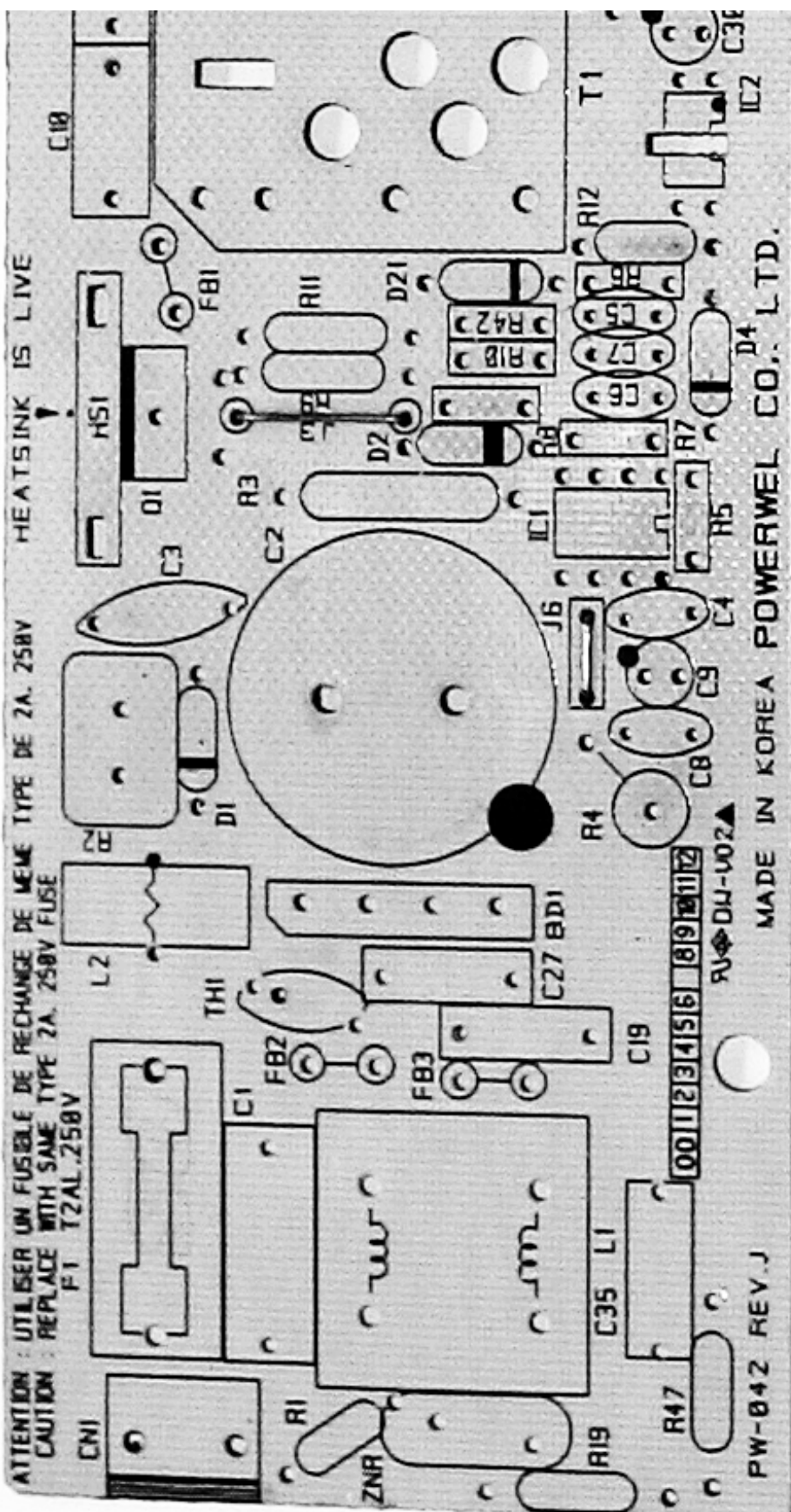






ATTENTION : UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE DE 2A. 250V  
CAUTION : REPLACE WITH SAME TYPE 2A. 250V FUSE

FI T2AL.250V



**Bill of materials:**

R1	390 k
R2	27 k / 5 W
R3	47 k
R4	47 k
R5	2.7 k
R6	10 k
R7	2.2 k
R8	27 Ohm
R9	470 Ohm
R10	1 k
R11	0.5 Ohm
R12	10 Ohm
R13	680 Ohm
R15	470 Ohm
R16	1 k
R17	5.6 k
R18	47 k
R19	4.7 M
R20	2.2 k
R21	9.1 k
R22	1 k
R23	1 k
R24	5.6 k
R25	7.5 k
R26	1 Ohm
R27	3.74 k
R28	7.5 k
R29	6.8 k
R30	6.8 k
R31	33 Ohm
R32	22 Ohm
R33	100 Ohm
R34	1 k
R35	5.6 k
R36	1 k (trimmer)
R37	5.1 k
R38	100 Ohm
R39	680 Ohm
R40	620 Ohm
R41	1 Ohm
R42	300 k
R43	10 k
R44	10 k
R45	6.2 k
R46	2.2 k
R47	4.7 M
R48	50 k
R49	33 Ohm
R50	470 Ohm
R51	7.5 k
R52	470 Ohm



R53 10 k  
R54 5.6 k  
R55 2.2 k  
R56 33 k  
R57 4.7 k  
R58 680 Ohm

C1 100 nF / 275 VAC  
C2 150  $\mu$ F  
C3 10 nF / 1 kV  
C4 10 nF / 100 V  
C5 10 nF / 100 V  
C6 10 nF  
C7 330 pF  
C8 10 nF / 100 V  
C9 47  $\mu$ F / 25 V  
C10 3.3 nF  
C11 3.3 nF  
C12 22 nF / 250 V  
C13 4.7  $\mu$ F / 100 V  
C14 470  $\mu$ F / 35 V  
C15 470  $\mu$ F / 35 V  
C16 100 nF  
C17 10 nF / 100 V  
C19 2.2 nF  
C20 33 nF  
C21 33  $\mu$ F / 35 V  
C22 470  $\mu$ F / 35 V  
C23 680 pF / 1 kV  
C24 470  $\mu$ F / 35 V  
C25 470  $\mu$ F / 35 V  
C26 33  $\mu$ F / 35 V  
C27 2.2 nF  
C28 2200  $\mu$ F / 10 V  
C29 1000  $\mu$ F / 10 V  
C30 0.22  $\mu$ F / 50 V  
C31 1  $\mu$ F / 50 V  
C32 2.2 nF / 1 kV  
C33 220  $\mu$ F / 25 V  
C34 220  $\mu$ F / 25 V  
C35 3.3 nF  
C36 680 pF / 1 kV  
C37 2200  $\mu$ F / 10 V  
C38 22  $\mu$ F / 25 V  
C51 10 nF / 100 V

Q1 K2564  
Q2 C3198Y  
Q3 C3198Y  
Q4 C3198Y  
Q5 ZTX951  
Q6 A1270Y

Q7 C3198Y

SCR1 TYN058 Thyristors

IC1 UC3842 Current Mode PWM Controller

IC2 PC817 Photocoupler

IC3 KA431AZ Programmable Shunt Regulator

IC4 TL494CN PULSE-WIDTH-MODULATION CONTROL CIRCUITS

IC5 KA431AZ Programmable Shunt Regulator

IC6 KA431AZ Programmable Shunt Regulator

D1 BYV26C

D2 HER105

D4 1N4937

D5 HER105

D6 HER105

D7 HER303

D8 Z15V

D9 Z30V

D10 HER203

D11 Z10V

D12 1N4004L

D13 1N4004L

D14 BYW29E-150

D15 PBYR1545CT

D17 Z5.6V

D20 HER303

D21 1N4760A

BD1 D2SB80

TH1 NTC 10D-9

ZNR INR 14D471 VARISTOR

T1 PW-042 DA0025

F1 T2AL.250V