

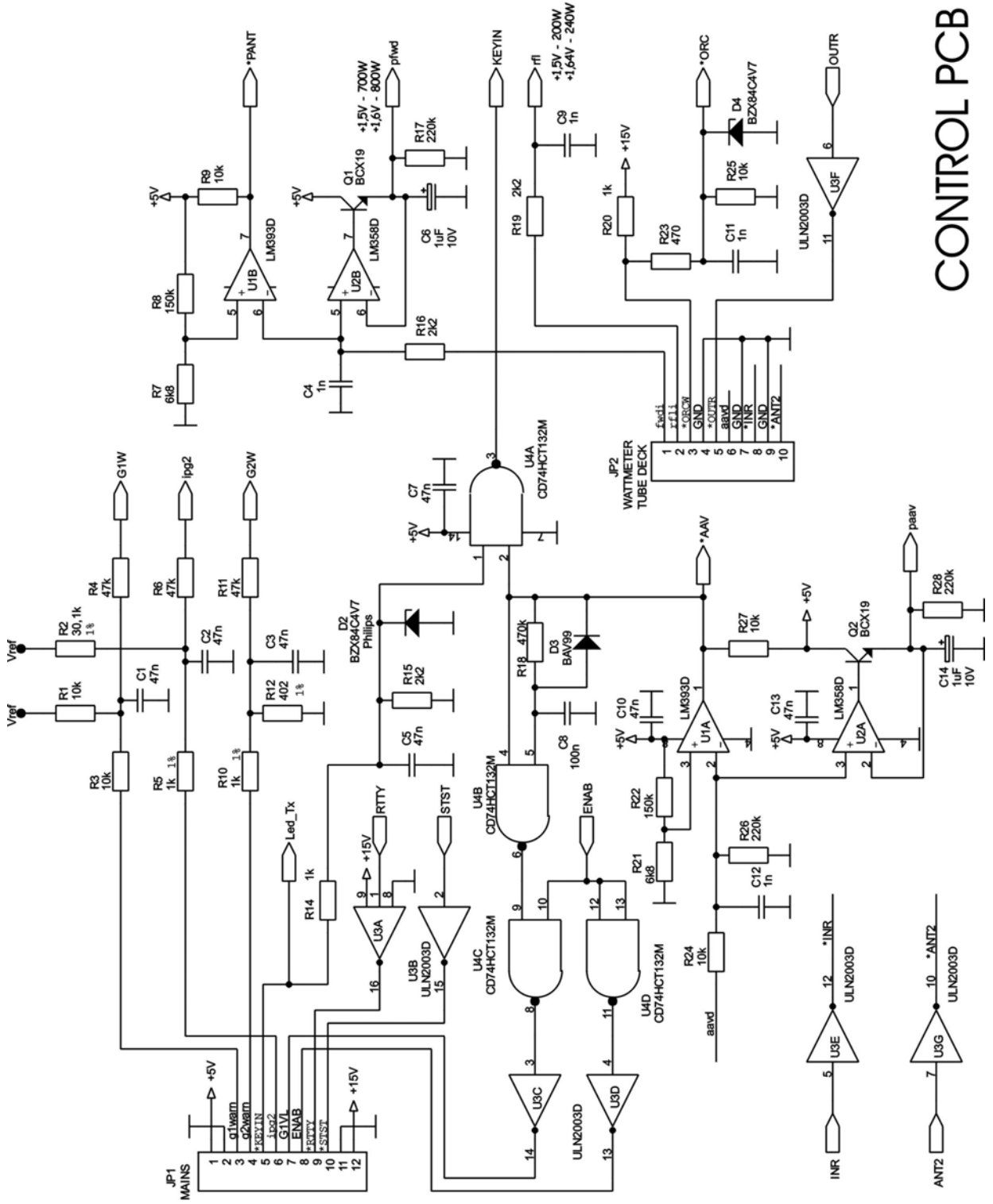


Exhibit 4: Schematics

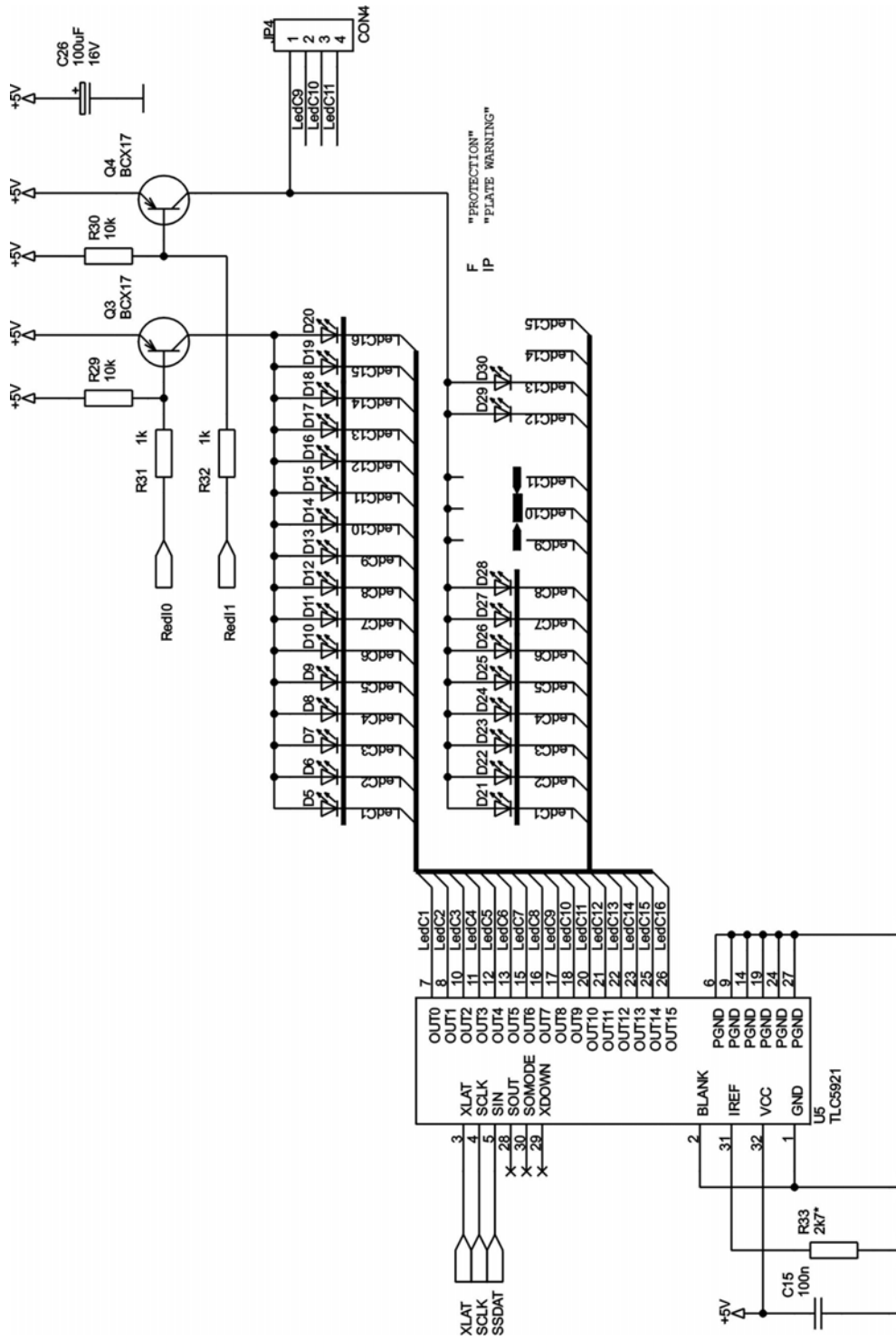
**External Radio Frequency
Power Amplifier ACOM 1010**

Model 1010

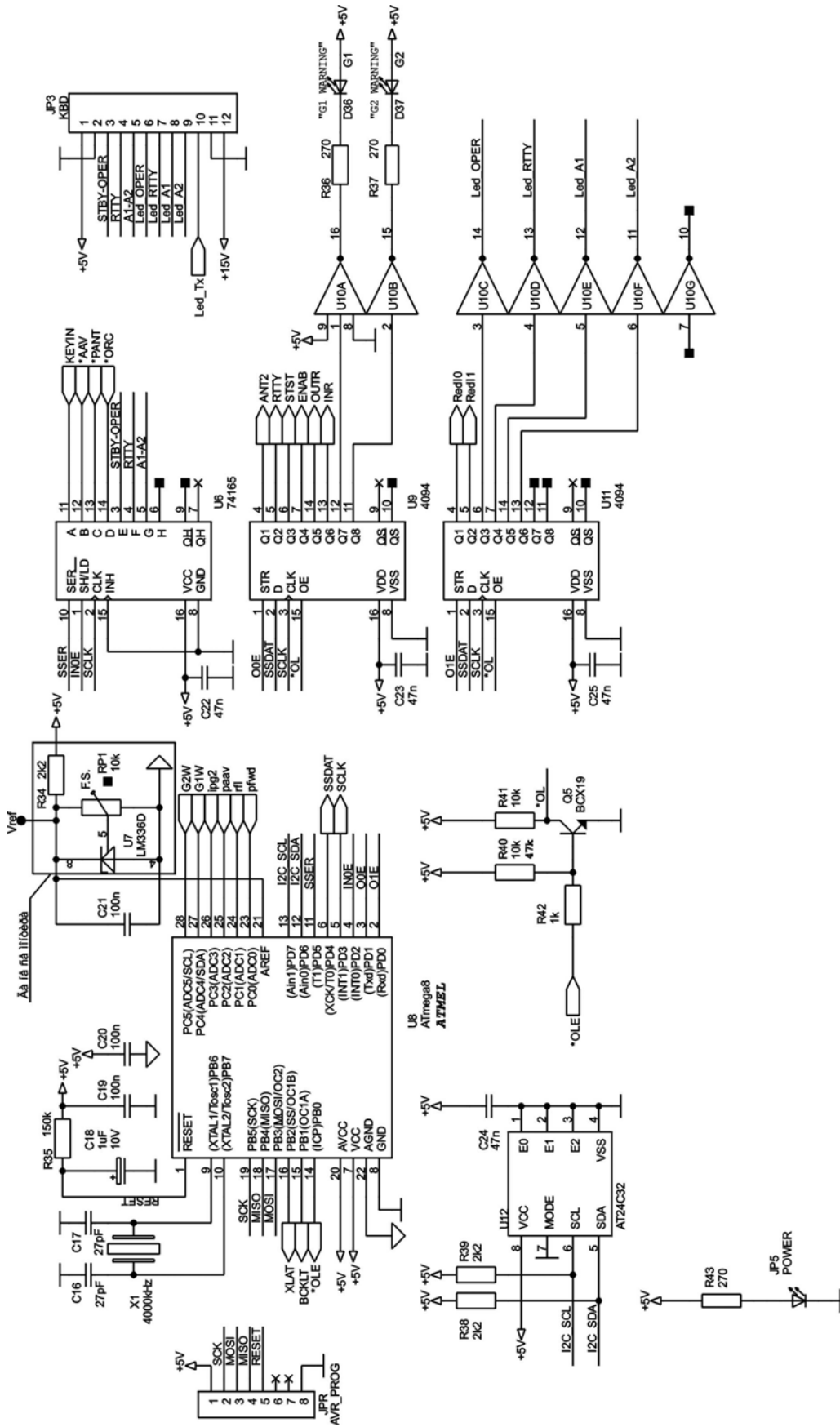
71 West street
Medfield, MA 02052
Tel: 508 359 5990
fax: 508 359 5989



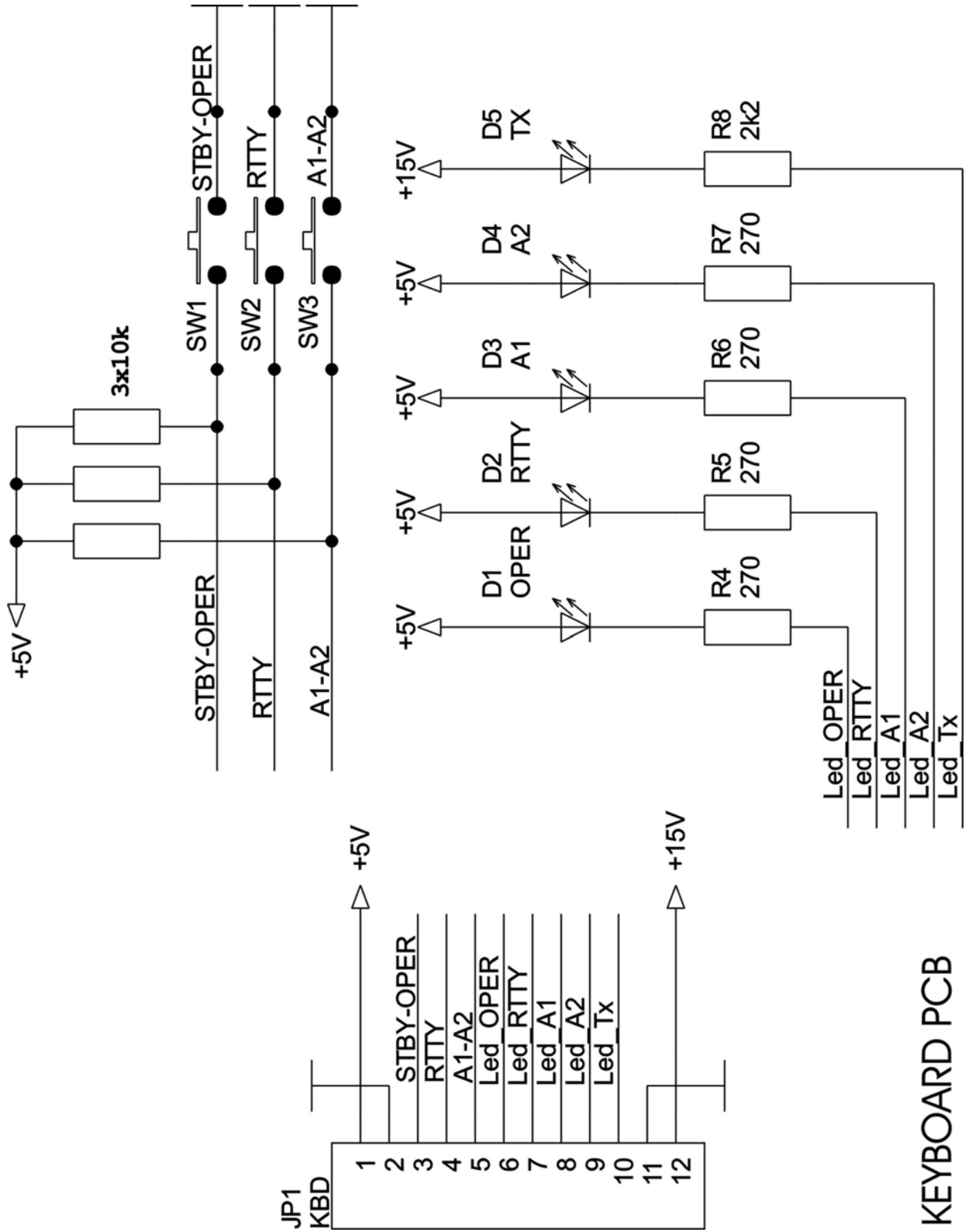
CONTROL PCB 1



CONTROL PCB 2

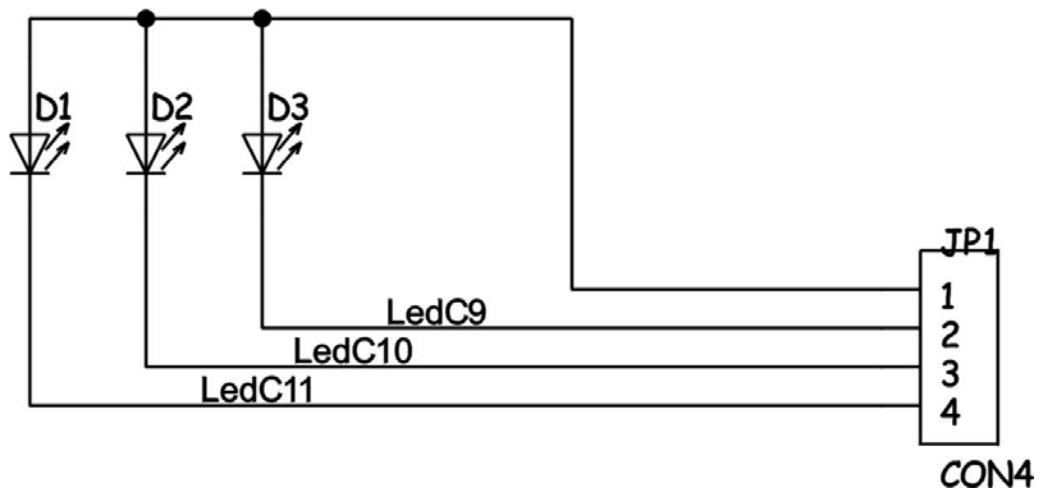


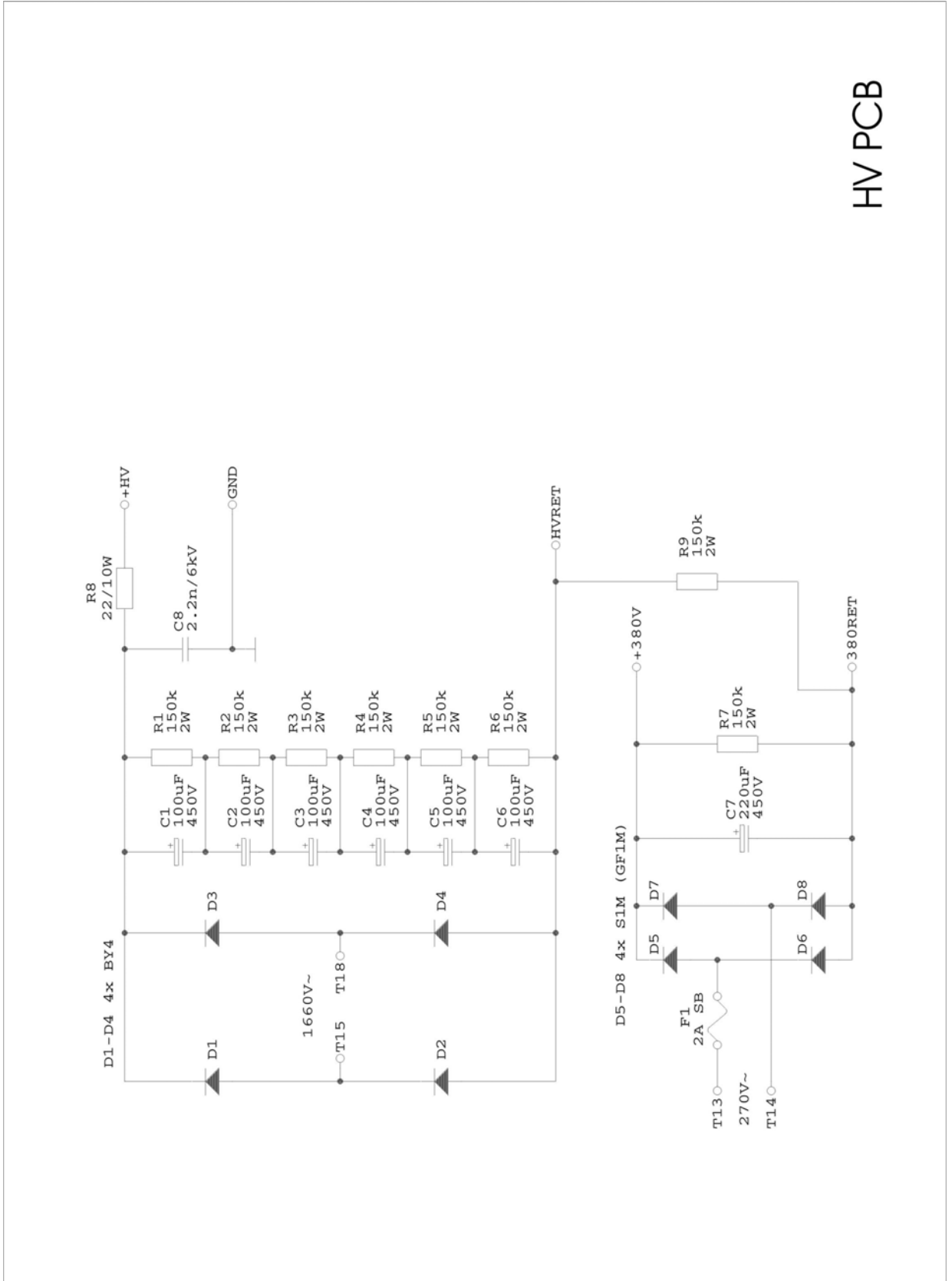
CONTROL PCB 3



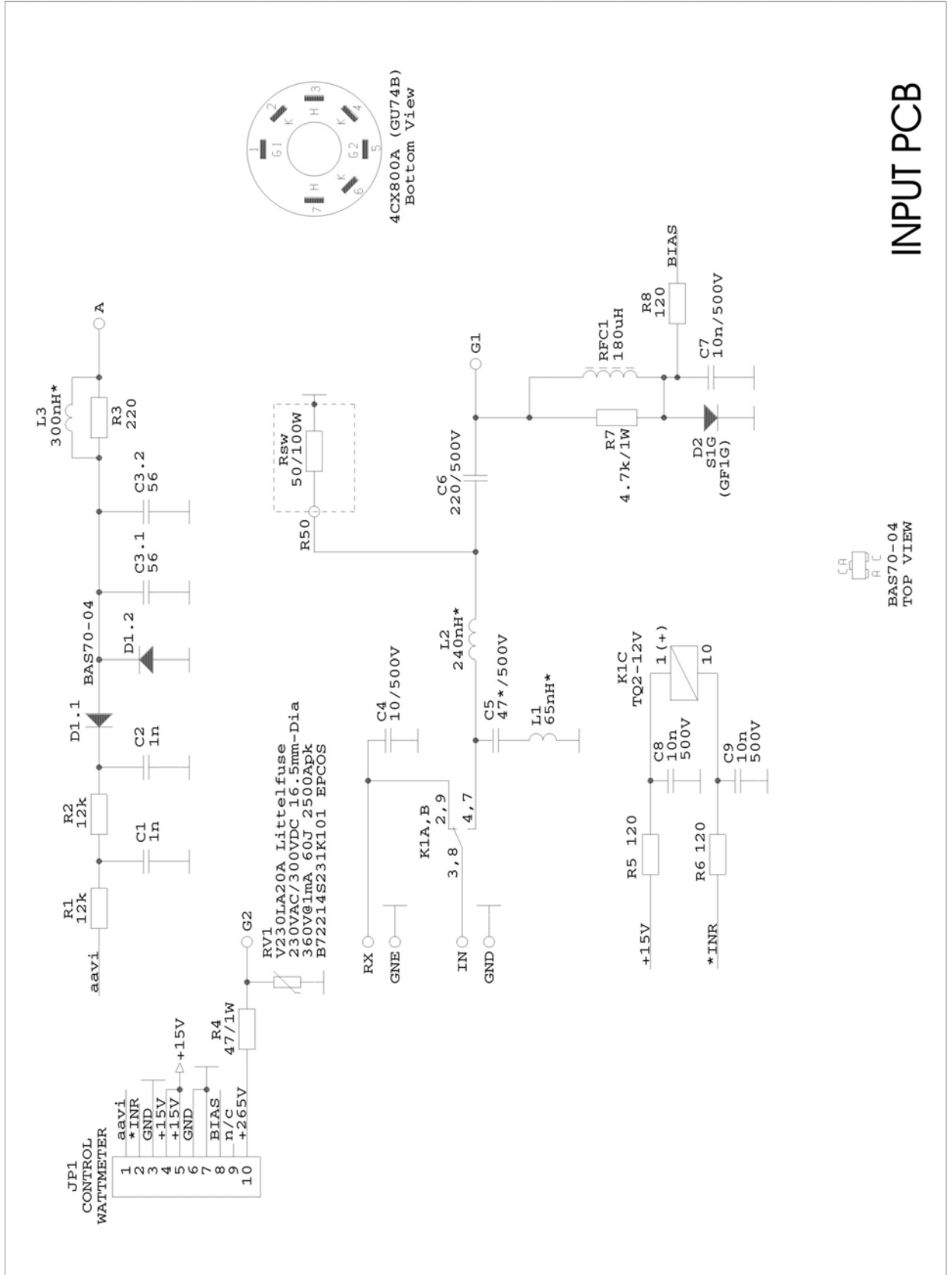
KEYBOARD PCB

TRI LED PCB

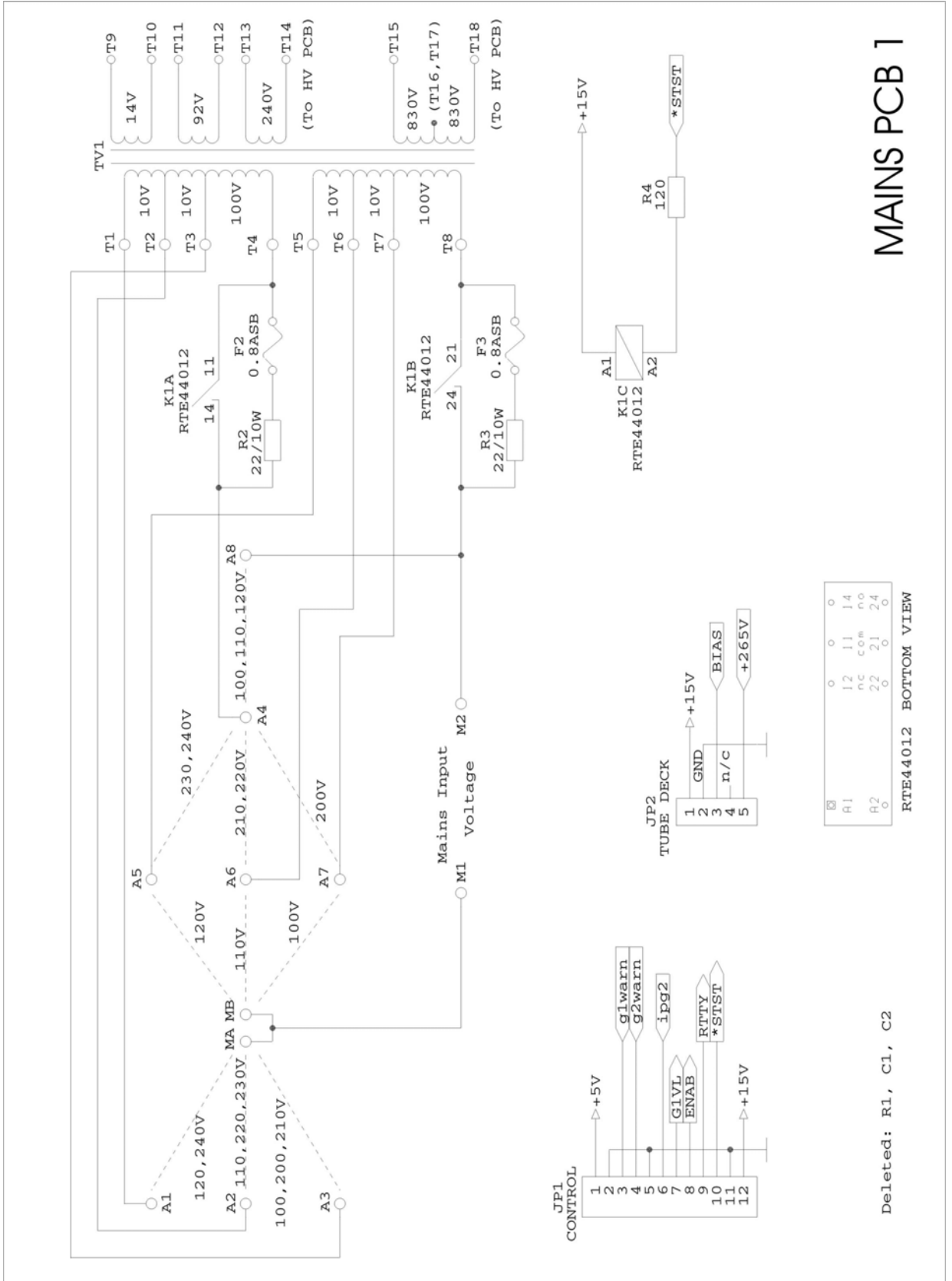




HV PCB



INPUT PCB

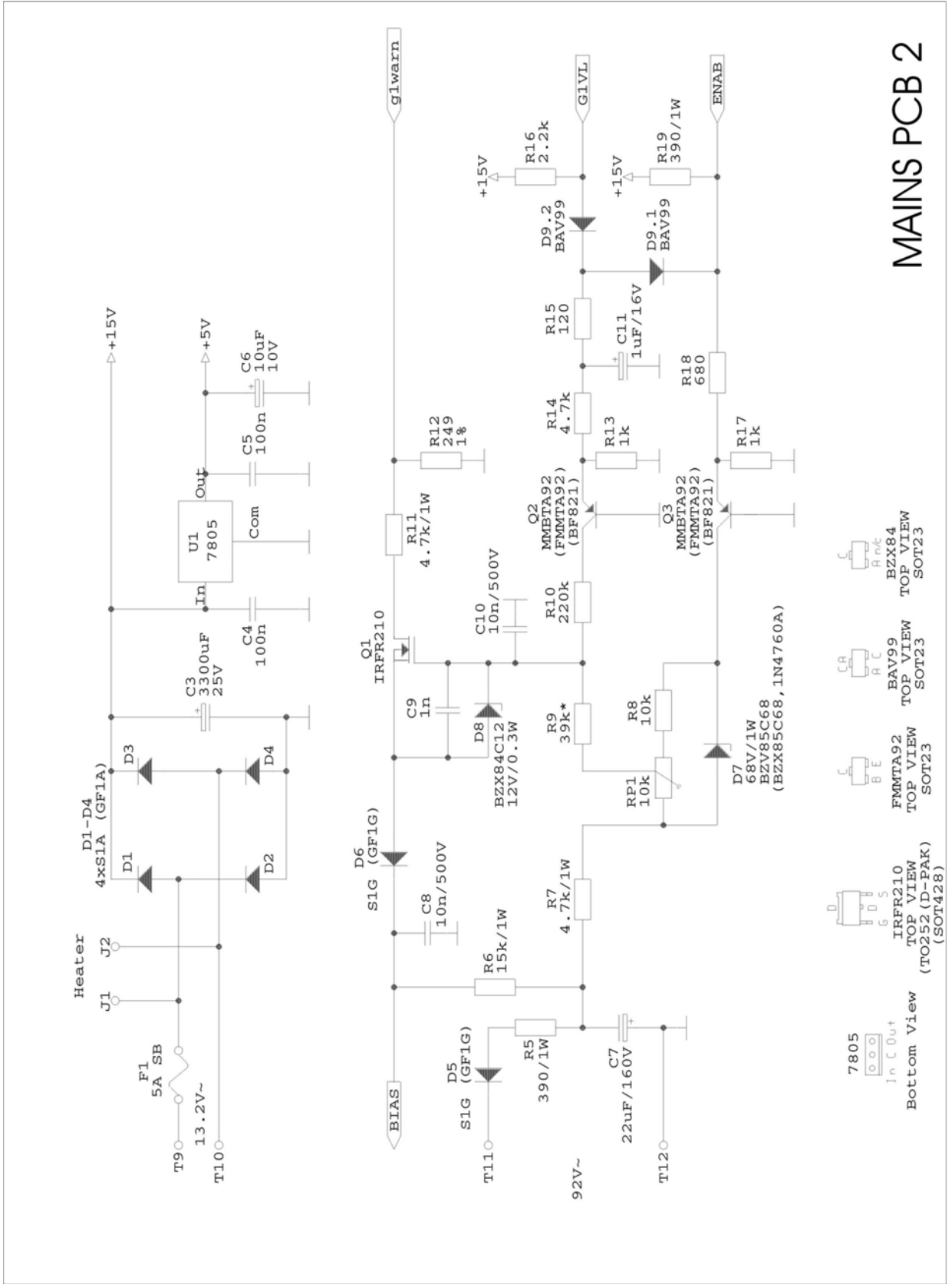


MAINS PCB 1

RTE44012 BOTTOM VIEW

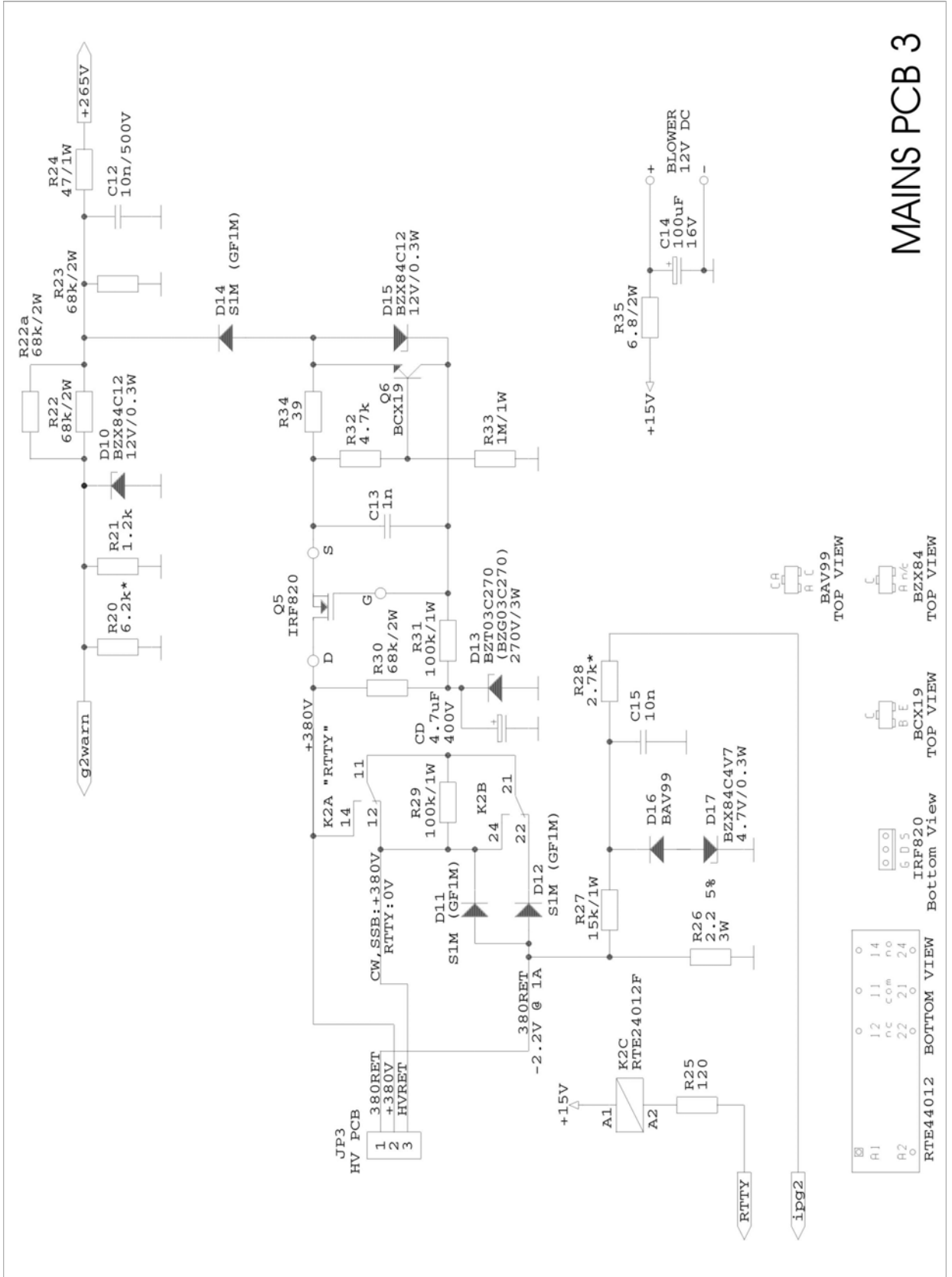
1	0	0	0	0	0
2	12	11	14		
3	nc	com	cc		
4	22	21	24		
5	0	0	0	0	0

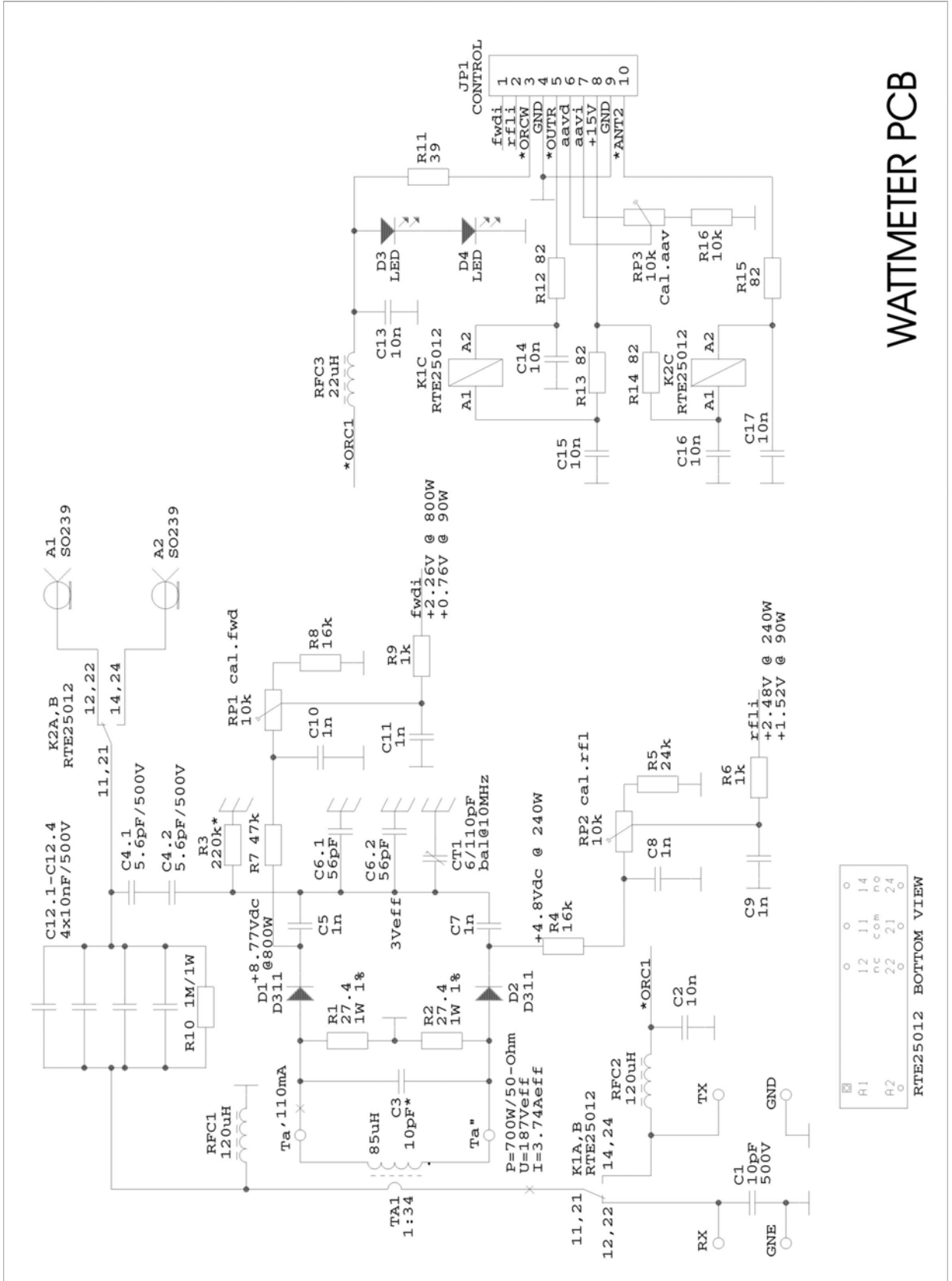
Deleted: R1, C1, C2



MAINS PCB 2

- 7805
Bottom View
- IRFR210
TOP VIEW (SOT428)
- FMMTA92
TOP VIEW (SOT23)
- BAV99
TOP VIEW (SOT23)
- BZX84
TOP VIEW (SOT23)





WATTMETER PCB

Cable Harness Connections:

CONTROL JP1	Signal name	To:
1	+5V	MAINS JP1:1
2	GND	MAINS JP1:2
3	g1warn	MAINS JP1:3
4	g2warn	MAINS JP1:4
5	*KEYIN	Rear panel - KEYIN
6	ipg2	MAINS JP1:6
7	G1VL	MAINS JP1:7
8	ENAB	MAINS JP1:8
9	RTTY	MAINS JP1:9
10	*STST	MAINS JP1:10
11	GND	Rear panel - KEYIN
12	+15V	MAINS JP1:12
CONTROL JP2	Signal name	To:
1	fwdi	WATTMETER JP1:1
2	rflr	WATTMETER JP1:2
3	*ORCW	WATTMETER JP1:3
4	GND	WATTMETER JP1:4
5	*OUTR	WATTMETER JP1:5
6	aavd	WATTMETER JP1:6
7	GND	INPUT JP1:6
8	*INR	INPUT JP1:2
9	GND	-
10	*ANT2	WATTMETER JP1:10
MAINS JP1	Signal name	To:
1	+5V	CONTROL JP1:1
2	GND	CONTROL JP1:2
3	g1warn	CONTROL JP1:3
4	g2warn	CONTROL JP1:4
5	GND	-
6	ipg2	CONTROL JP1:6
7	G1VL	CONTROL JP1:7
8	ENAB	CONTROL JP1:8
9	RTTY	CONTROL JP1:9
10	*STST	CONTROL JP1:10
11	GND	-
12	+15V	CONTROL JP1:12
MAINS JP2	Signal name	To:
1	+15V	INPUT JP1:5
2	GND	INPUT JP1:3
3	BIAS	INPUT JP1:8
4	n/c	-
5	+265V	INPUT JP1:10
INPUT JP1	Signal name	To:
1	aavi	WATTMETER JP1:7
2	*INR	(CONTROL JP2:8)
3	GND	(MAINS JP2:2)

Cable Harness Connections (continued):		
4	+15V	WATTMETER JP1:8
5	+15V	(MAINS JP2:1)
6	GND	(CONTROL JP2:7)
7	GND	WATTMETER JP1:9
8	BIAS	(MAINS JP2:3)
9	n/c	-
10	+265V	(MAINS JP2:5)
WATTM. JP1	Signal name	To:
1	fwdi	(CONTROL JP2:1)
2	rflj	(CONTROL JP2:2)
3	*ORCW	(CONTROL JP2:3)
4	GND	(CONTROL JP2:4)
5	*OUTR	(CONTROL JP2:5)
6	aavd	(CONTROL JP2:6)
7	aavi	(INPUT JP1:1)
8	+15V	(INPUT JP1:4)
9	GND	(INPUT JP1:7)
10	*ANT2	(CONTROL JP2:10)

End