

EMPFÄNGER- SCHALTUNGEN

DER
RADIO-INDUSTRIE

BAND X

Czeija - Eumig - HEA - Horny

Ingelen - Kapsch

EMPFÄNGER-SCHALTUNGEN DER RADIO-INDUSTRIE
BAND X

BÜCHER FÜR DEN RUNDFUNKTECHNIKER

EMPFÄNGER-
SCHALTUNGEN
DER
RADIO-INDUSTRIE

BAND X

(Schaltungen österreichischer Geräte)

Zusammengestellt von Ing. Heinz Lange

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v

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VORWORT

Die Bände I bis IX der „Empfängerschaltungen“, in denen die Schaltbilder nahezu aller in Deutschland hergestellten Rundfunkgeräte enthalten sind, haben in weiten Kreisen des In- und Auslandes großes Interesse gefunden. Für unsere Rundfunktechniker und Konstrukteure wurde damit ein Standardwerk geschaffen, das ihnen bei der Arbeit große Hilfe leistet.

Einem dringenden Wunsch unserer Leser entsprechend, übergibt der Fachbuchverlag der Öffentlichkeit mit dem vorliegenden Band X der „Empfängerschaltungen“ eine Sammlung von Schaltbildern österreichischer Geräte, die mit dem Band XI abgeschlossen wird.

Wie in den vorhergehenden Bänden sind auch in diesen beiden alle bekannten Schaltungen enthalten. Ihre Darstellung fängt mit den einfachen Geräten aus dem Jahre 1924 an und schreitet bis zu den höchstentwickelten Spitzengeräten fort. Die Darstellung ist nach Herstellern und Typen geordnet.

Wir wollen mit dieser Schaltungssammlung dazu beitragen, die Instandsetzung von Rundfunkgeräten wesentlich zu erleichtern. Damit entsprechen wir einem dringenden Bedürfnis der Reparaturwerkstätten. — Das alles dient dem Ziel, für recht viele schaffende Menschen den Empfang unserer Rundfunksendungen zu vervollkommen. Darüber hinaus gibt diese Sammlung unserem Nachwuchs in der Werkstatt, den Studierenden der Elektrotechnik und den Entwicklungsingenieuren einen umfassenden Überblick über die Vielfalt und den Ideenreichtum der Schaltungstechnik.

Eine Bitte richten wir an alle, in deren Hände diese Sammlung gelangt:

Sollten Sie noch im Besitz von Schaltungsunterlagen sein, die in dieser Sammlung nicht enthalten sind, so überlassen Sie uns diese für eine kurze Zeit. Damit würden Sie zum Nutzen der gesamten Radiotechnik zur Vervollständigung der Sammlung beitragen.

Allen Industriebetrieben, durch deren Mitarbeit dieses Werk entstehen konnte, sprechen wir hiermit unseren Dank aus.

Fachbuchverlag Leipzig

Leipzig, im Herbst 1956

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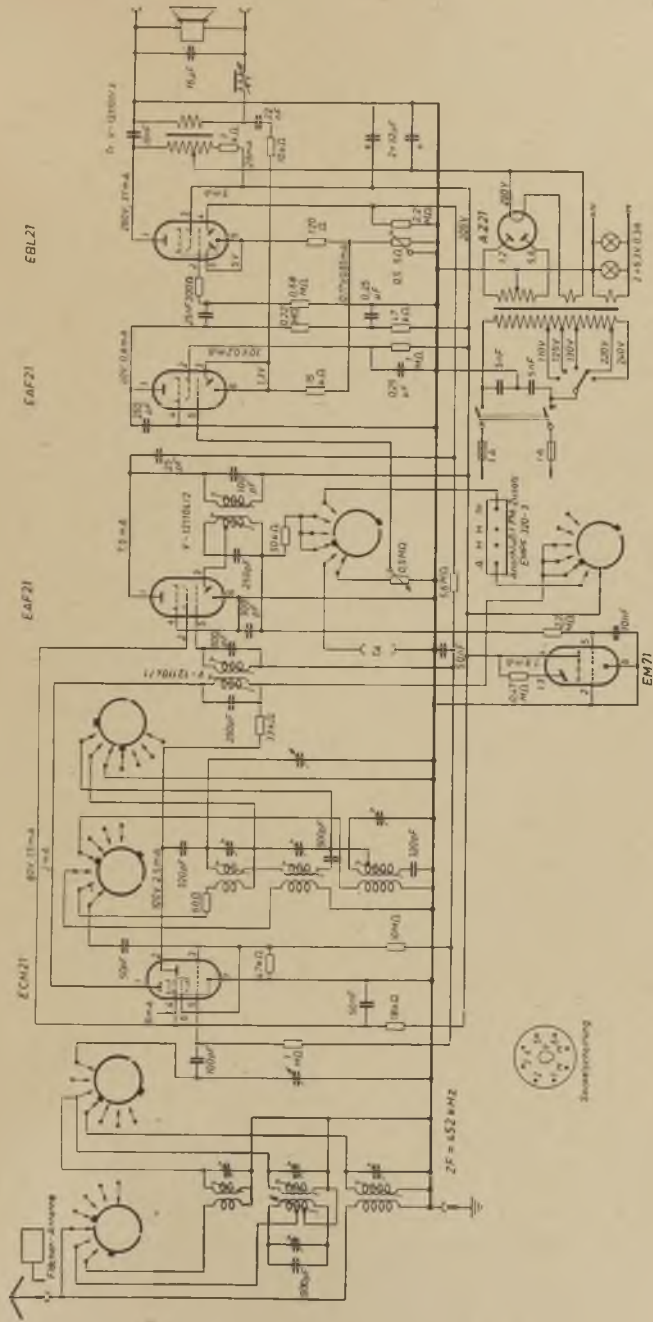
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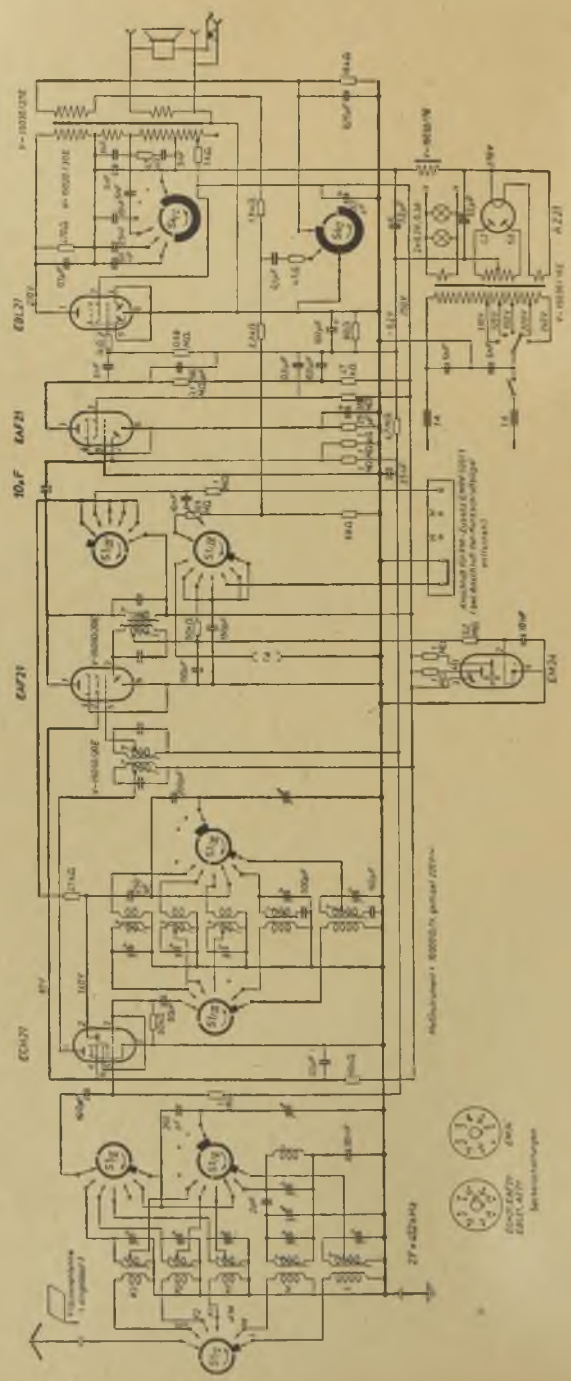
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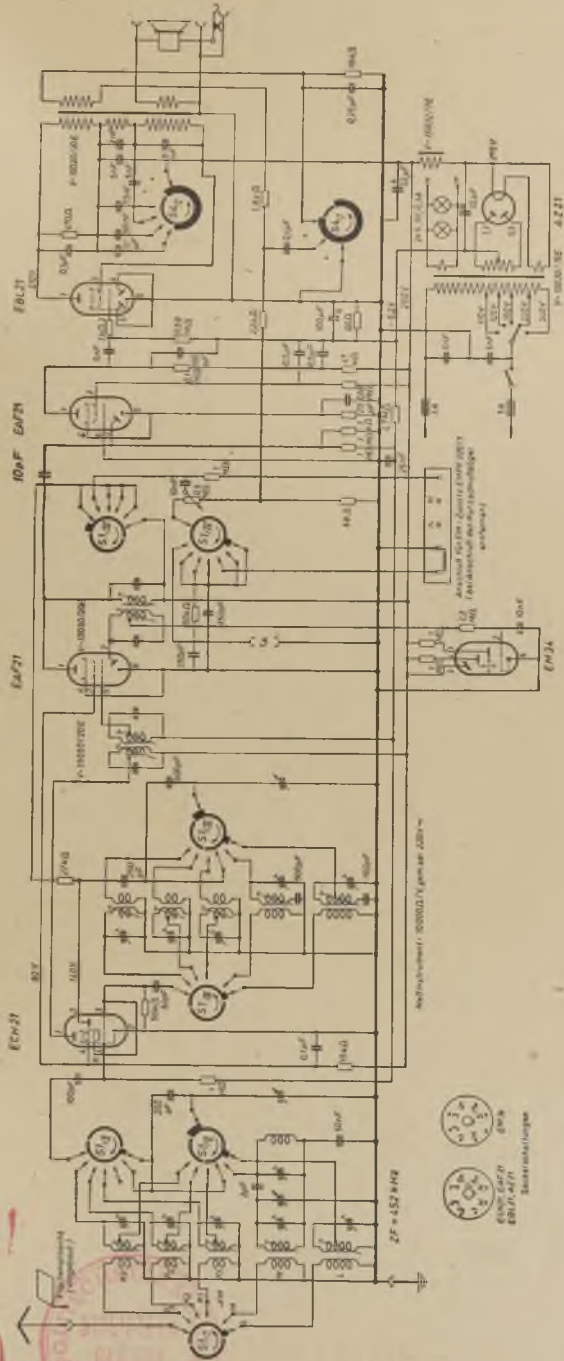
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Czeija, Nissl u. Co

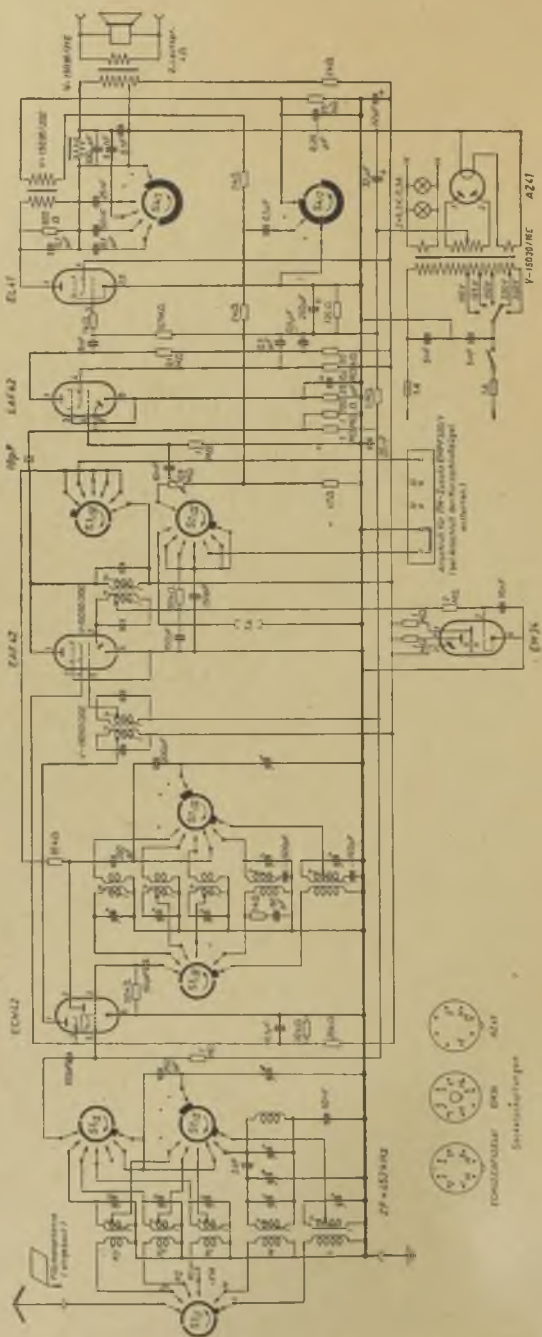
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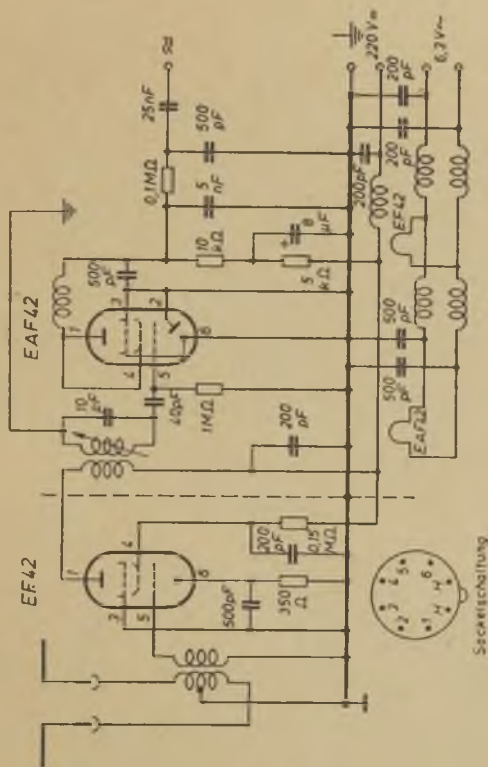


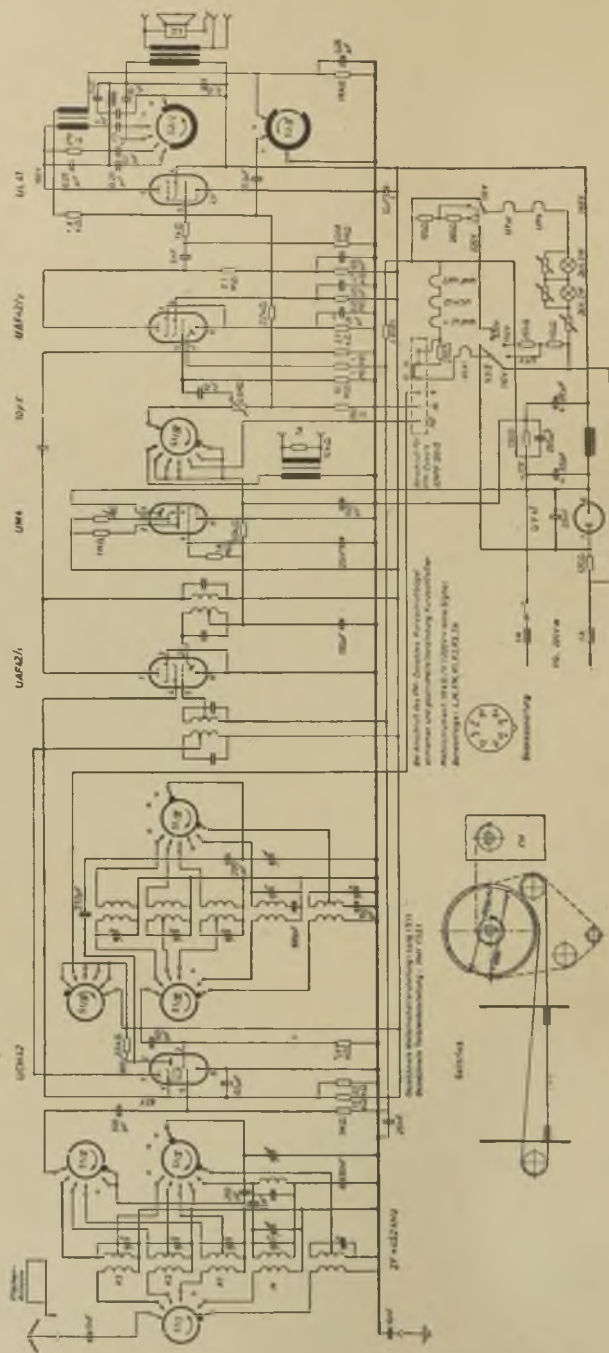


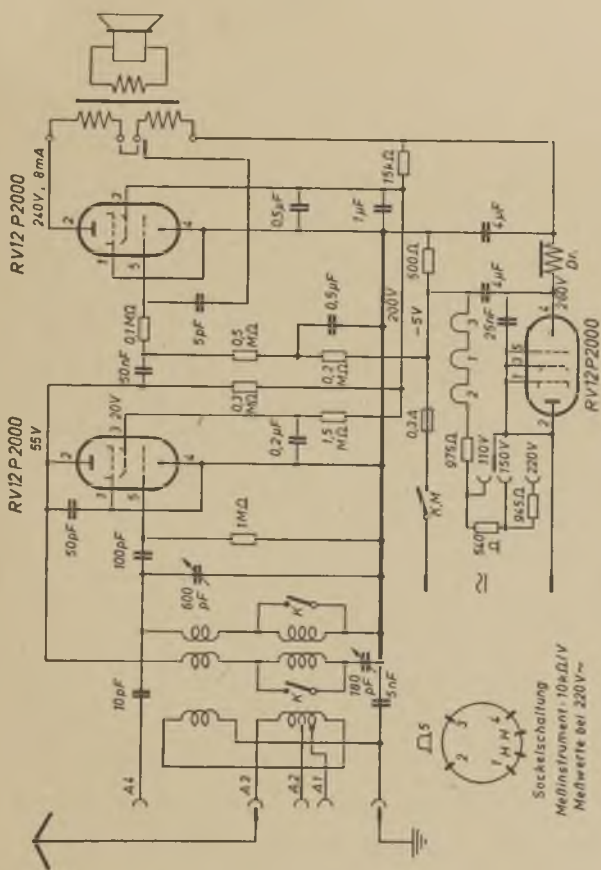


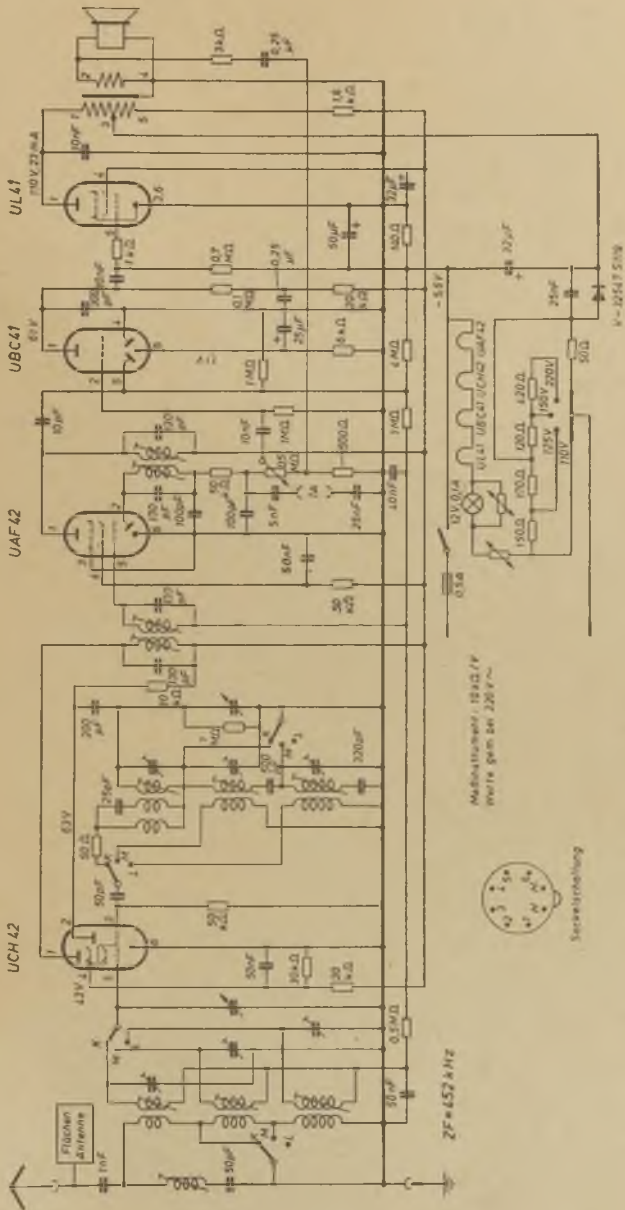
Czeija, Nissl u. Co Ferrando W 317/1 und 3

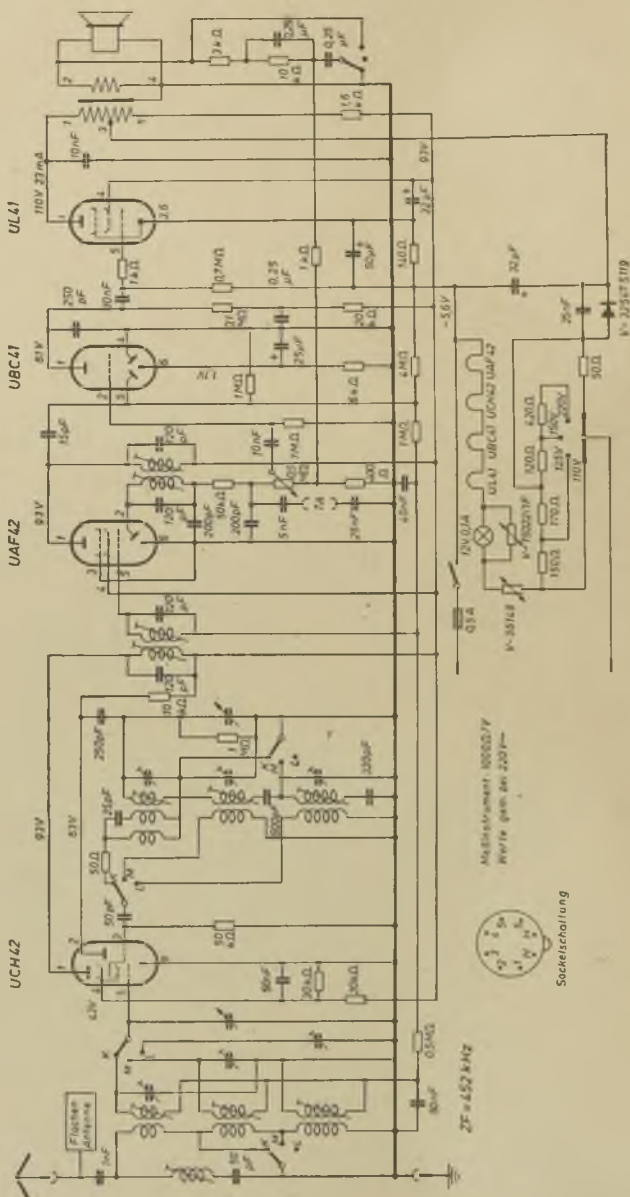


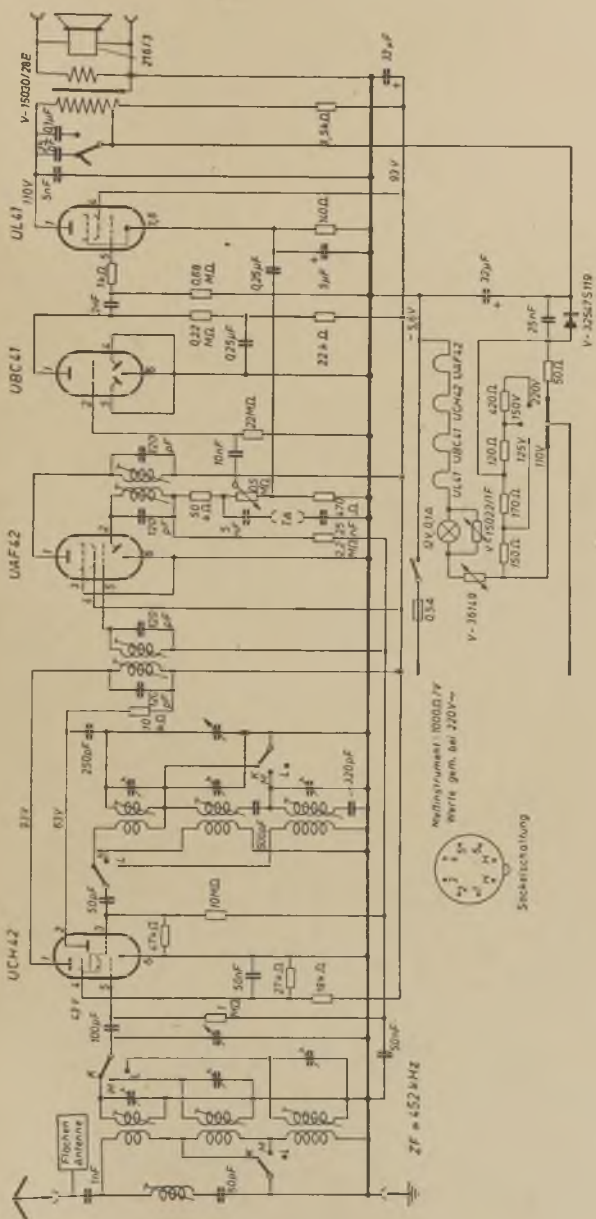


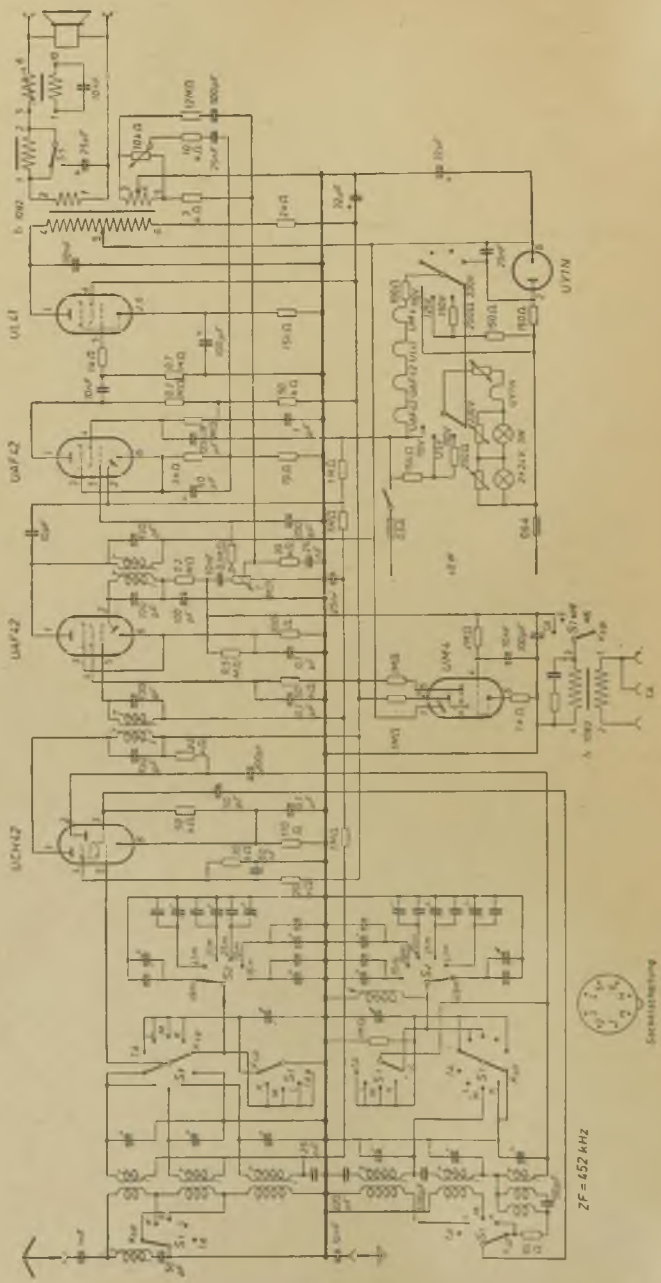


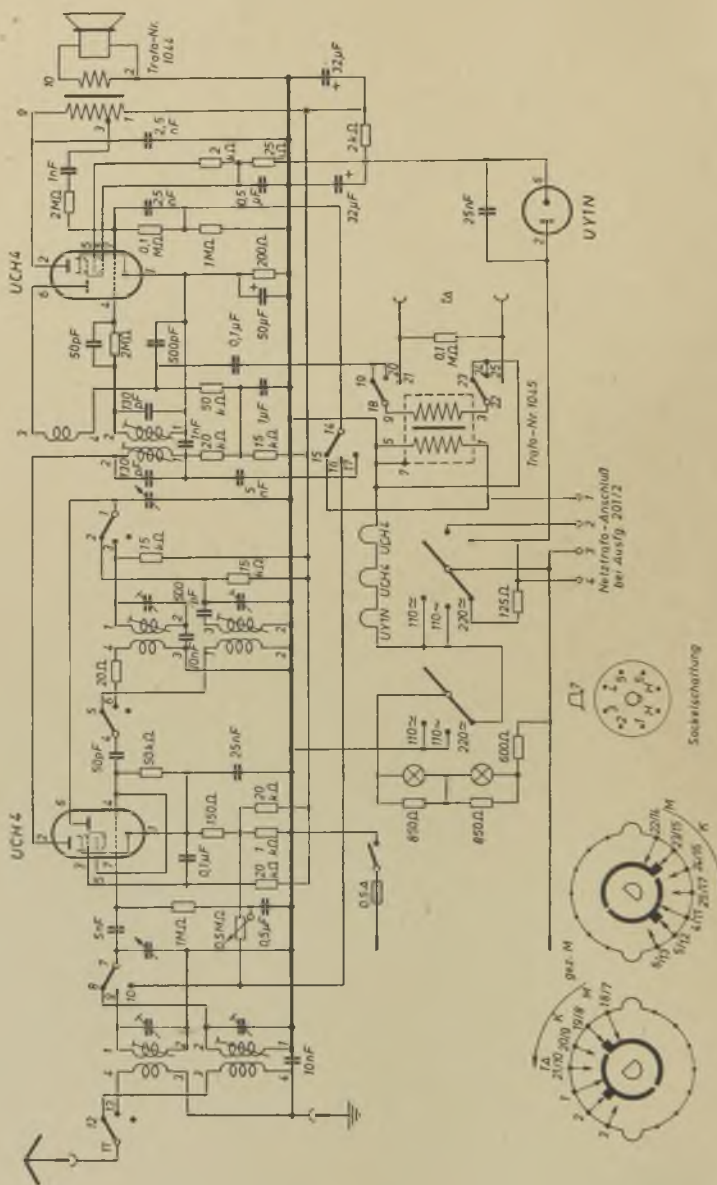


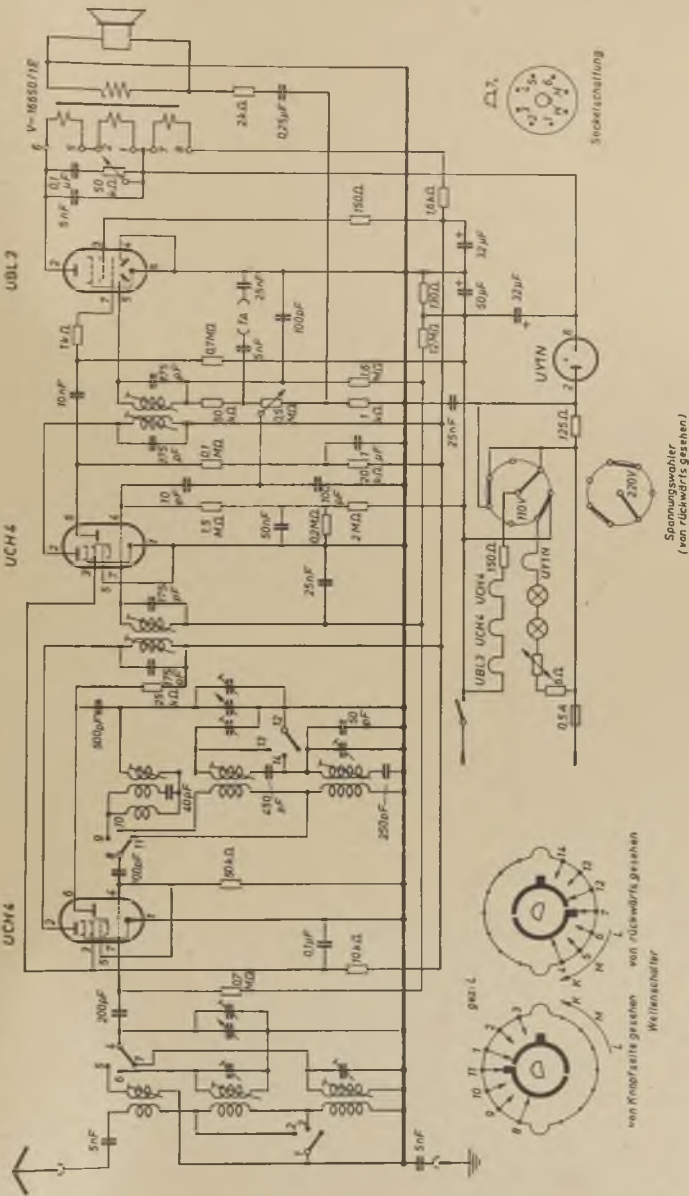


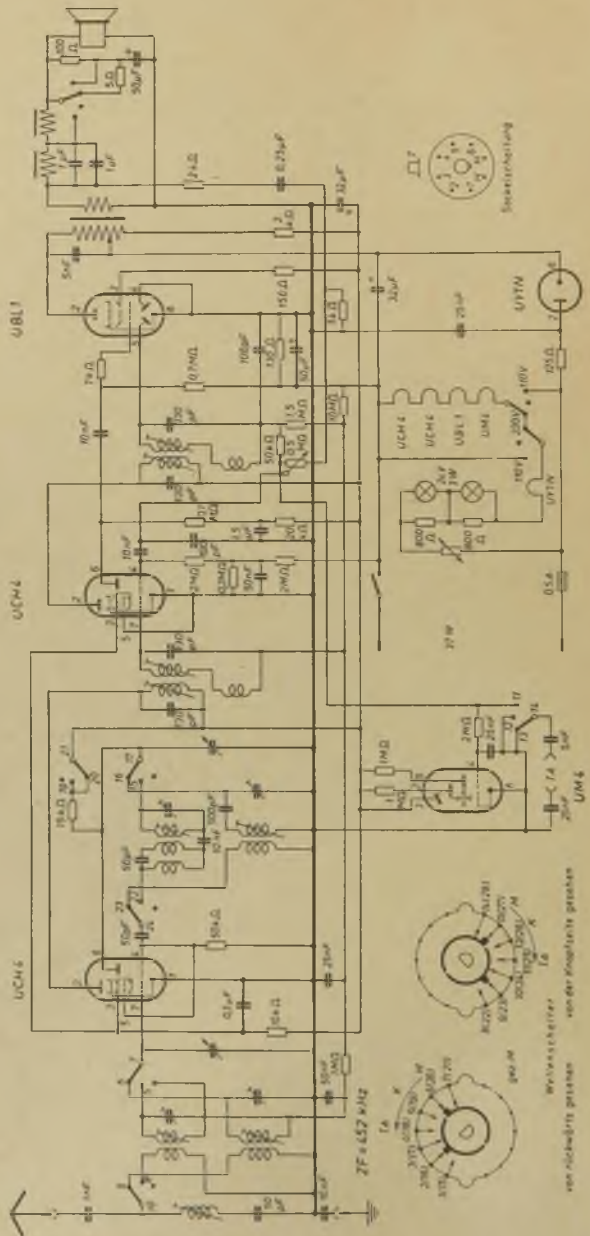


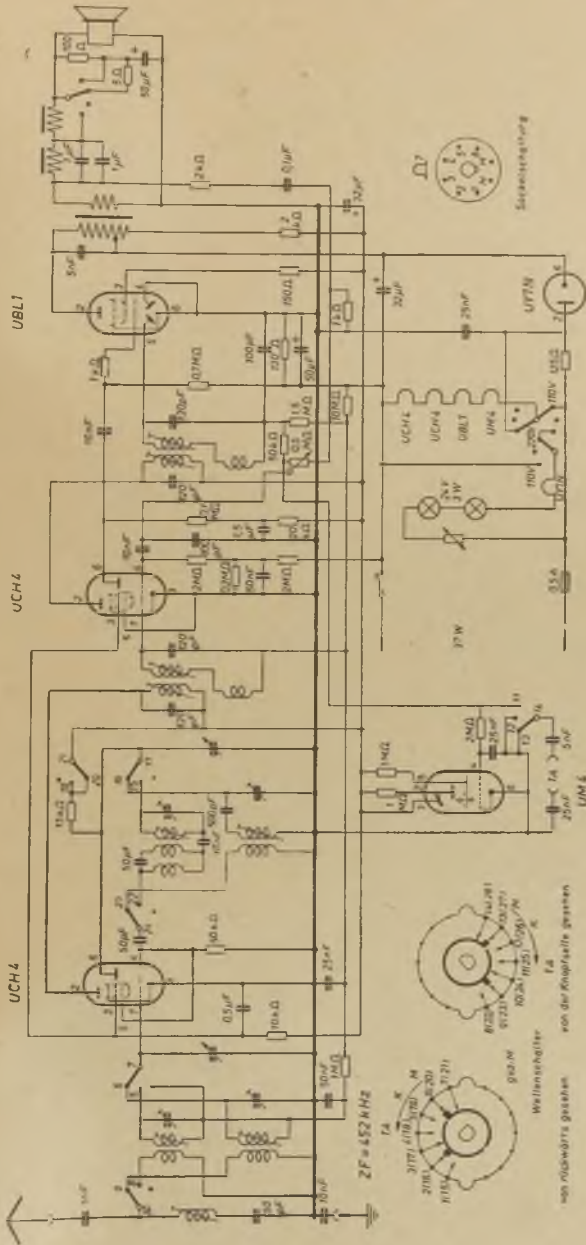




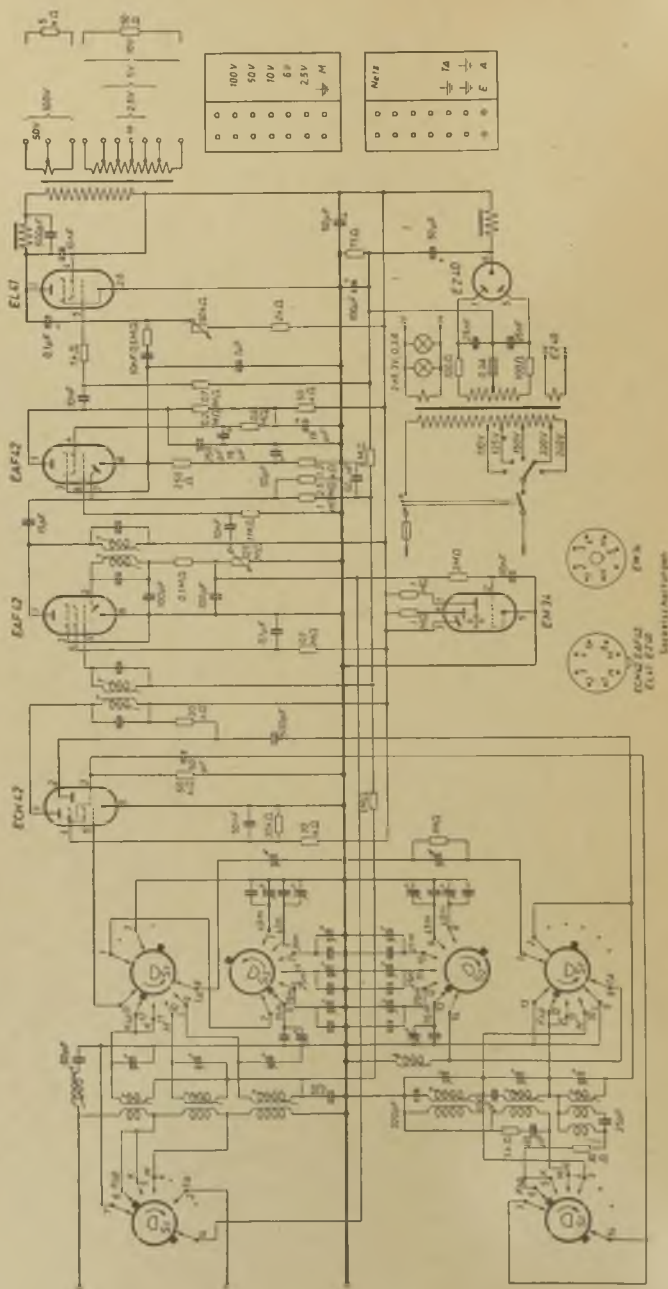






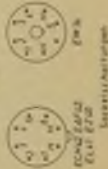


Czeija, Nissl u. Co Gestelleinbauempfänger 312/1

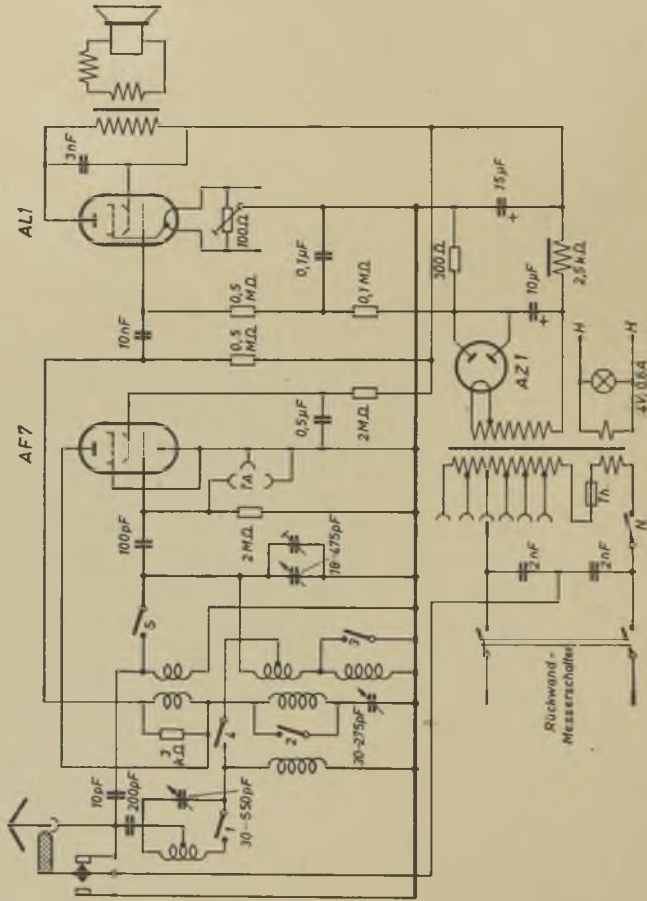


○	100 V
○	50 V
○	10 V
○	5 V
○	2.5 V
○	1 V
○	0.5 V
○	0.25 V
○	0.1 V

○	Net 1
○	Net 2
○	Net 3
○	Net 4
○	Net 5
○	Net 6
○	Net 7
○	Net 8
○	Net 9
○	Net 10
○	Net 11
○	Net 12

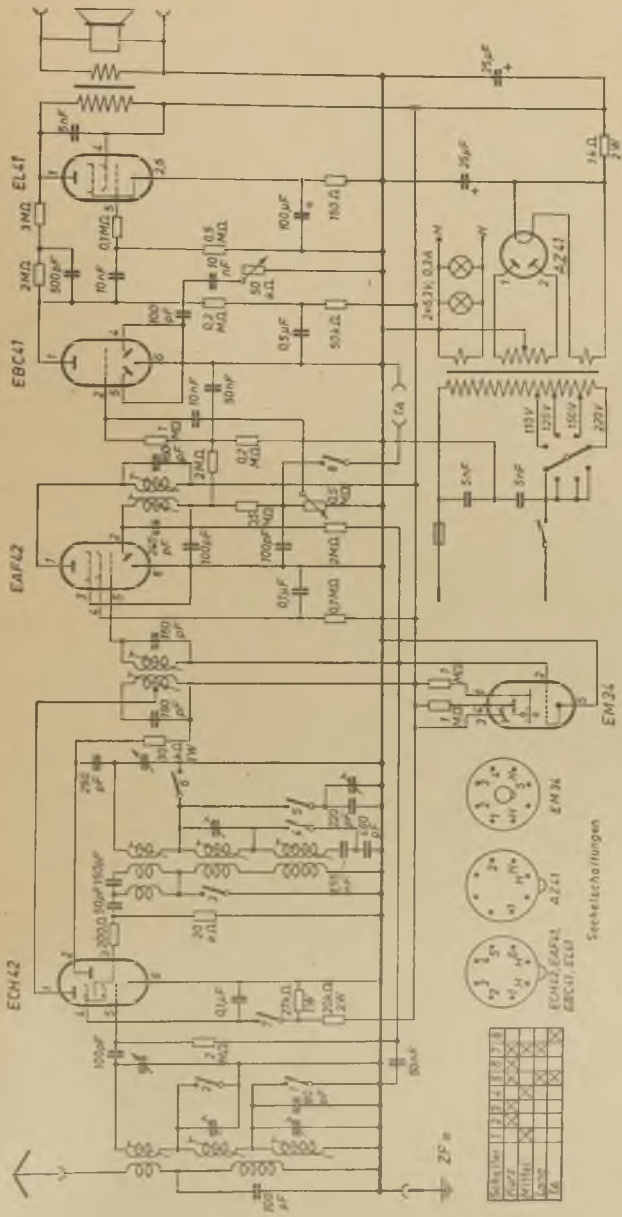


Czeija, Nissl u. Co
(Produktion vor 1945)



Eumig

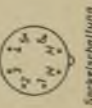
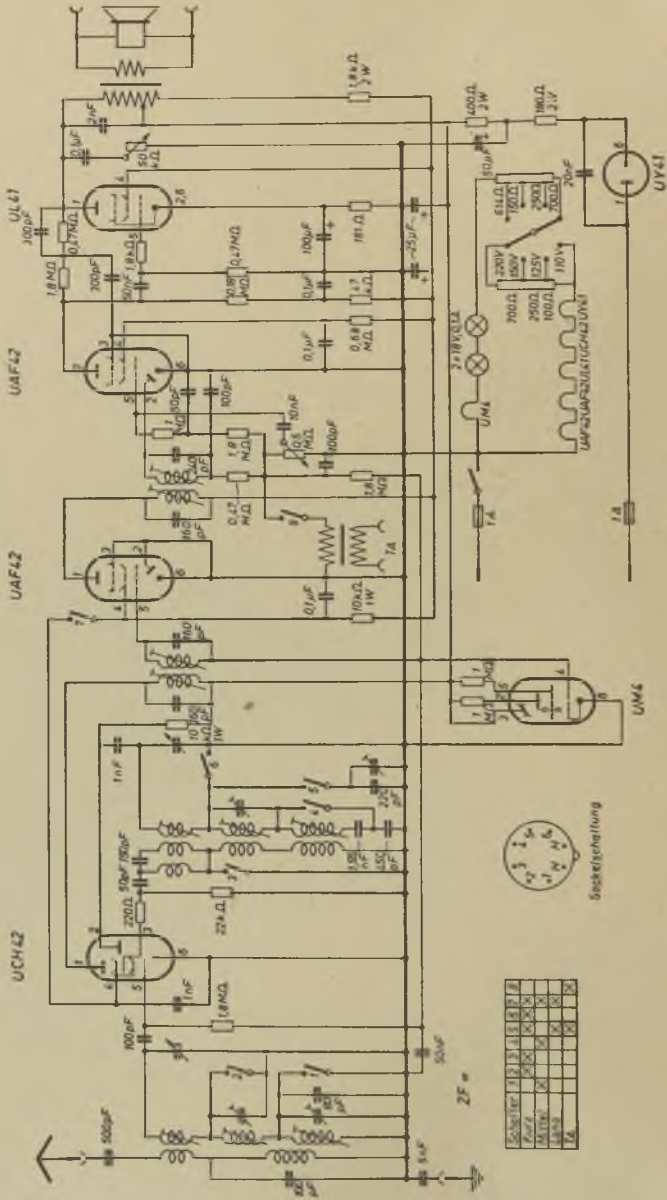
(Produktion nach 1945)



Schalt	1	2	3	4	5	6	7	8
Netz	1	2	3	4	5	6	7	8
Mittel	1	2	3	4	5	6	7	8
Wahl	1	2	3	4	5	6	7	8
W	1	2	3	4	5	6	7	8

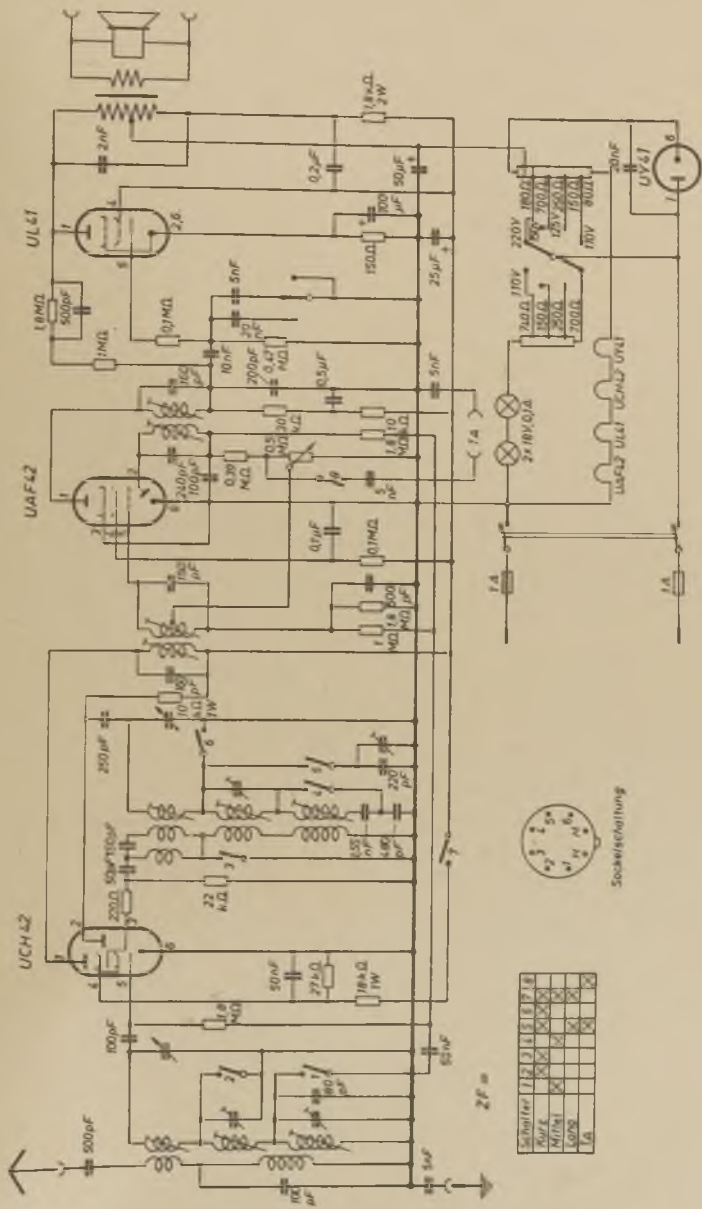
Seitenansichten



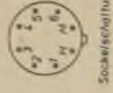


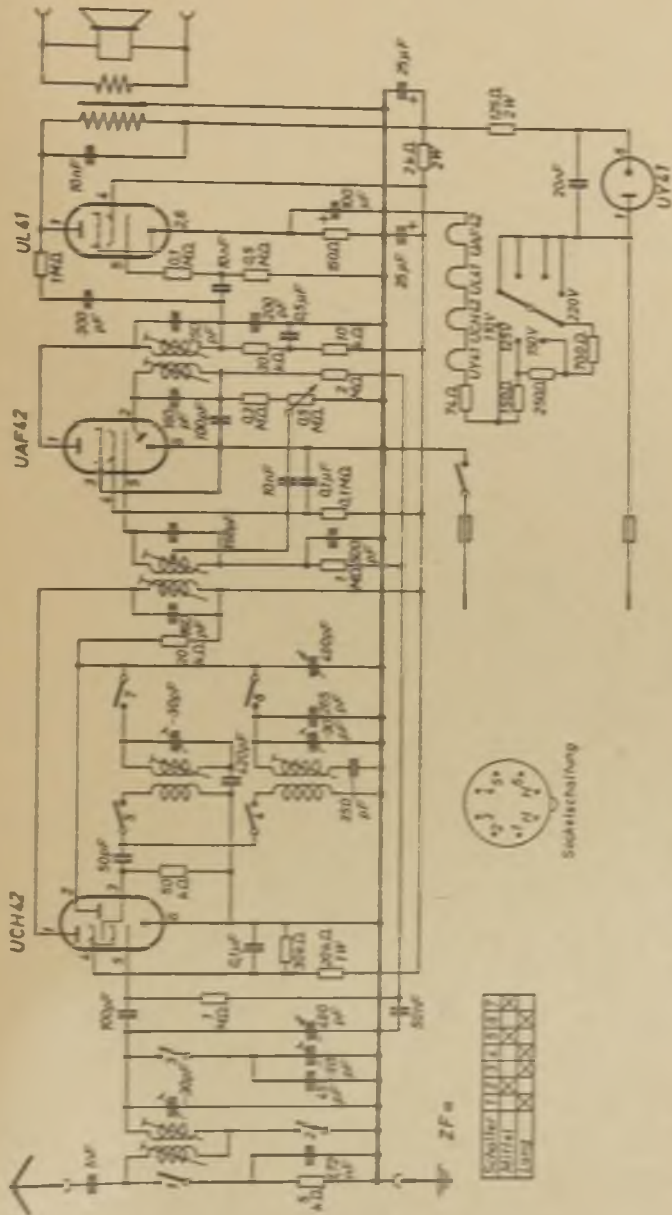
Stecktischführung

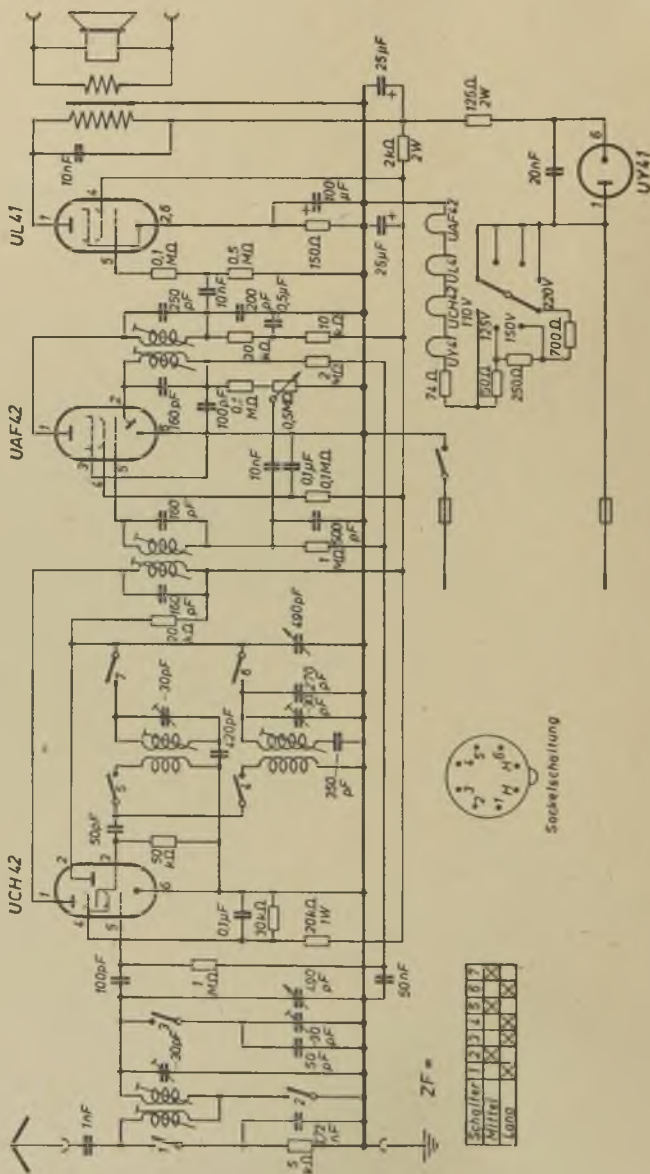
	1	2	3	4	5	6
Stecker	1	2	3	4	5	6
Filament	1	2	3	4	5	6
Stecker	1	2	3	4	5	6
Filament	1	2	3	4	5	6

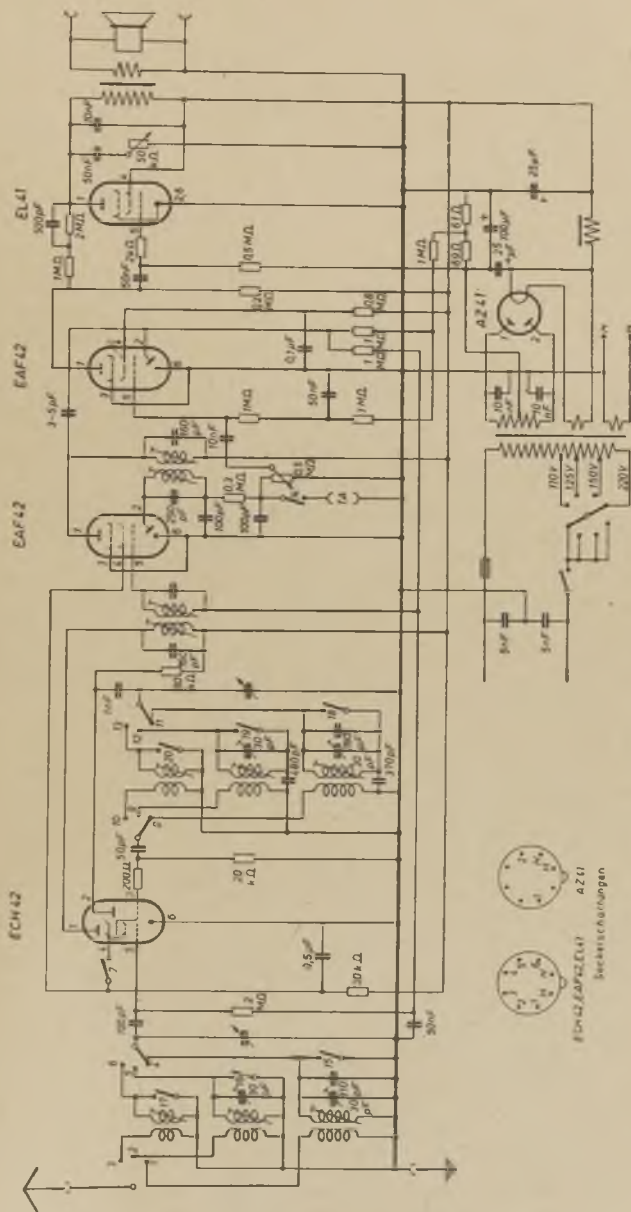


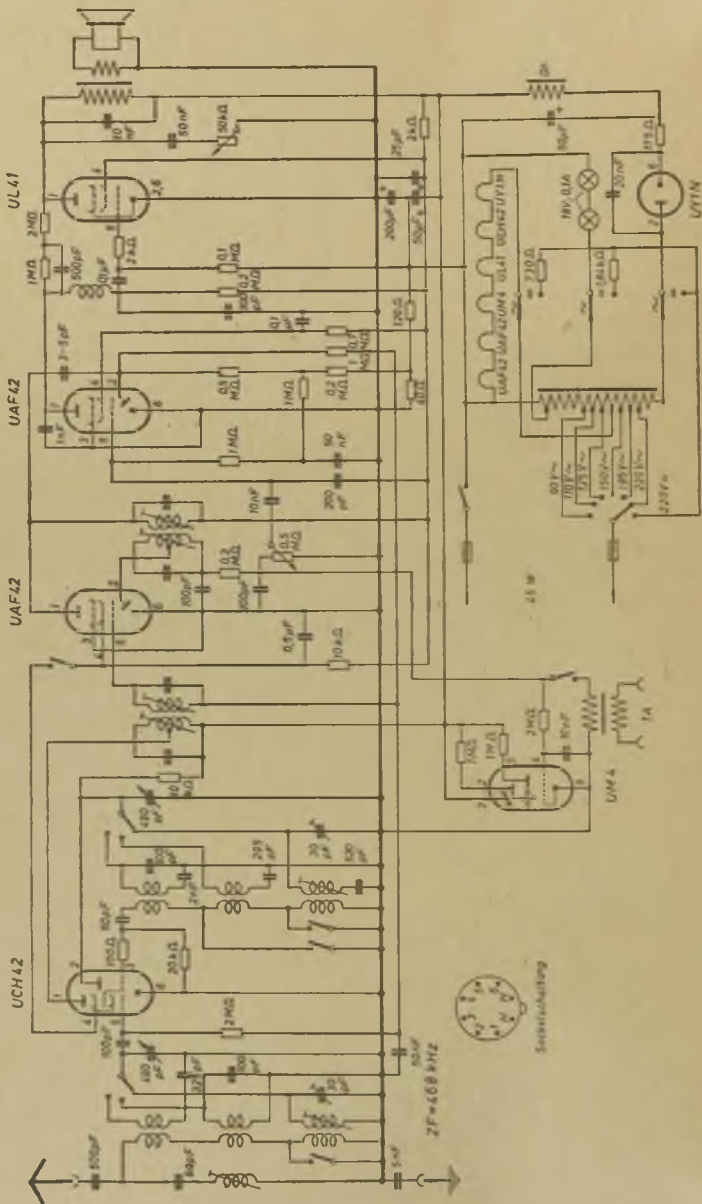
Schalter	1	2	3	4	5	6	7	8	9	10
50V A										
100V A										
150V A										
200V A										
250V A										
300V A										
350V A										
400V A										
450V A										
500V A										

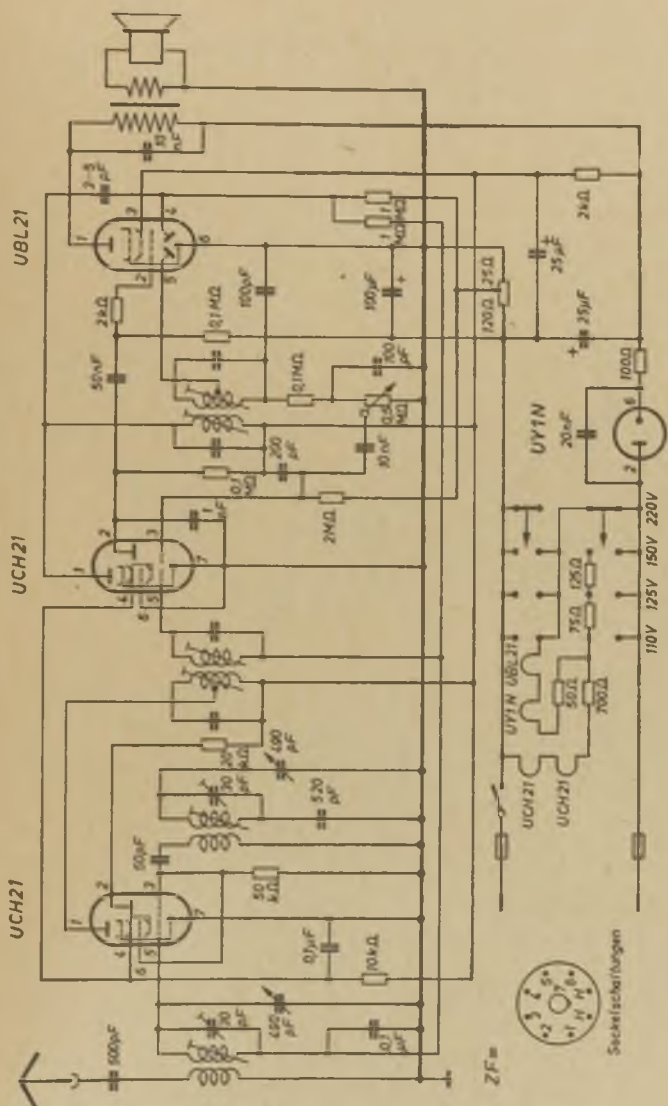


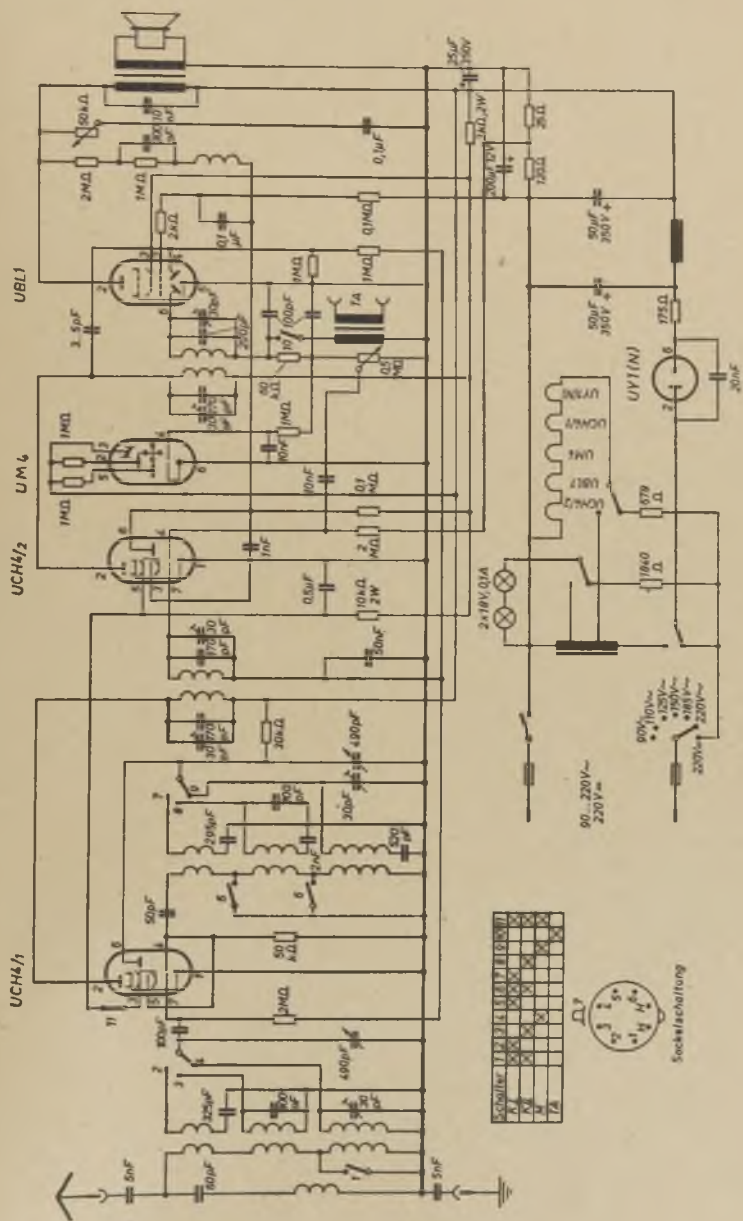












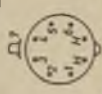
UCH_{4/1}

UCH_{4/2}

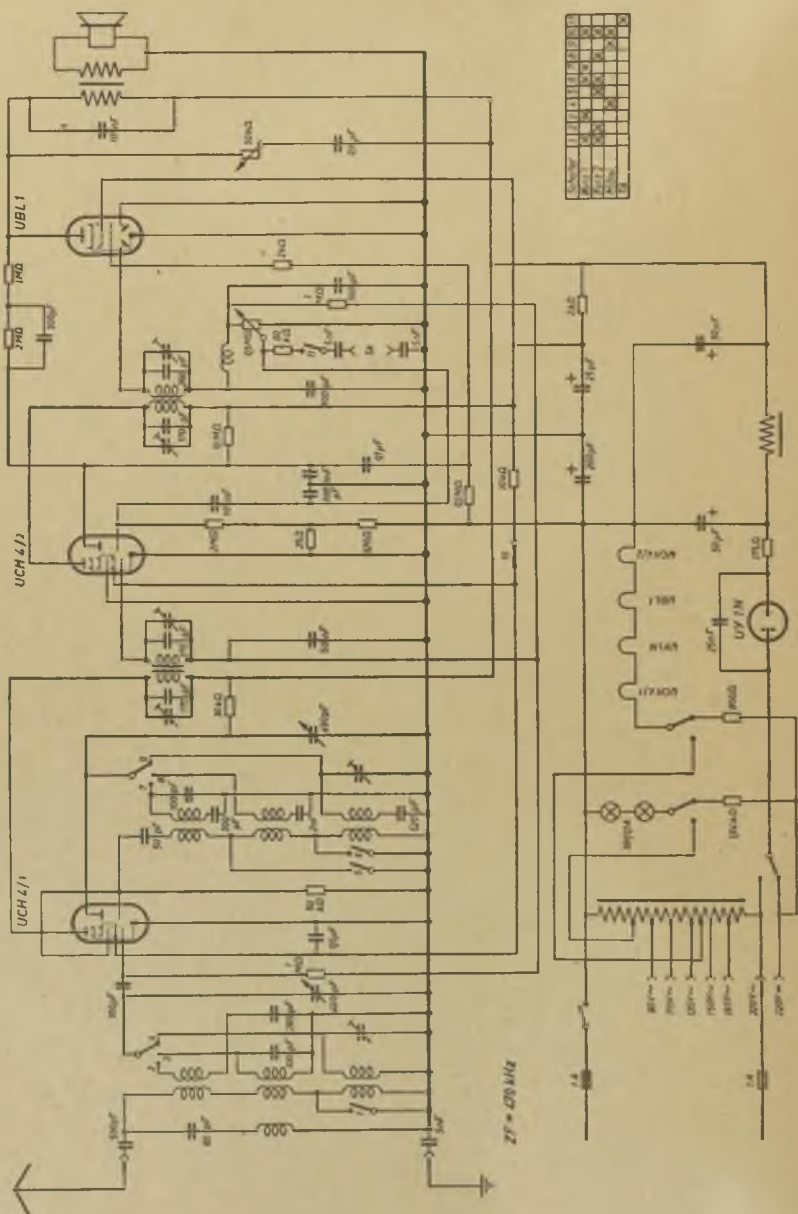
UM₆

UBL₁

6X4	1	1	1	1	1	1	1	1	1
6BE6									
1A									
6X4									



Steckschaltung

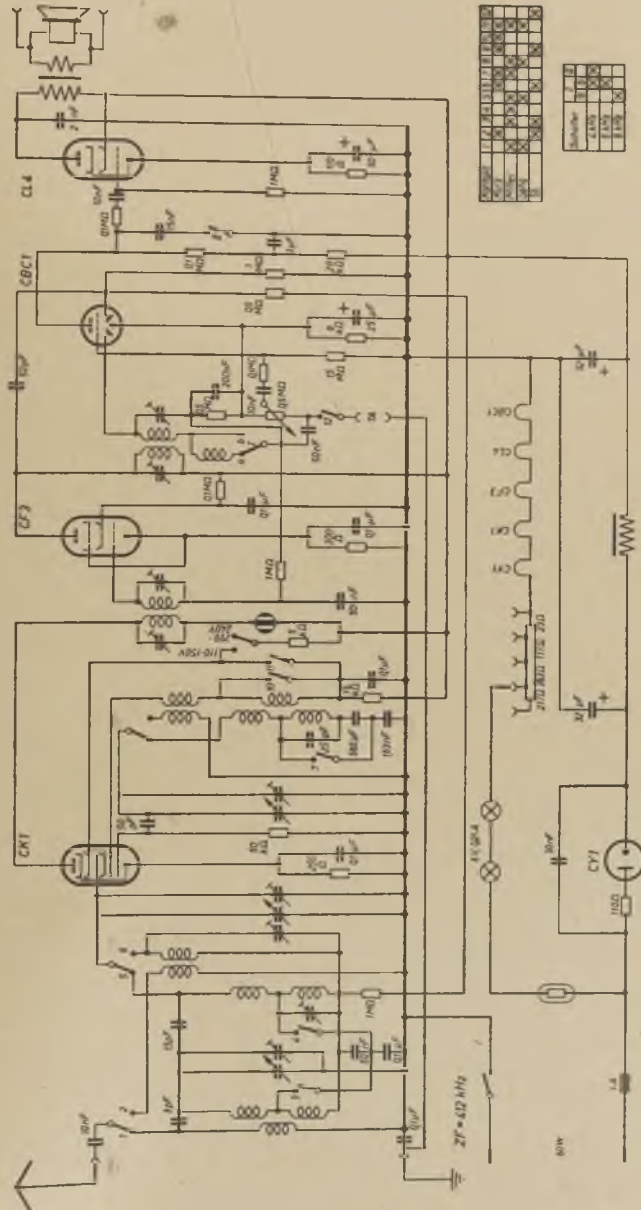


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

ZF = 470 kHz

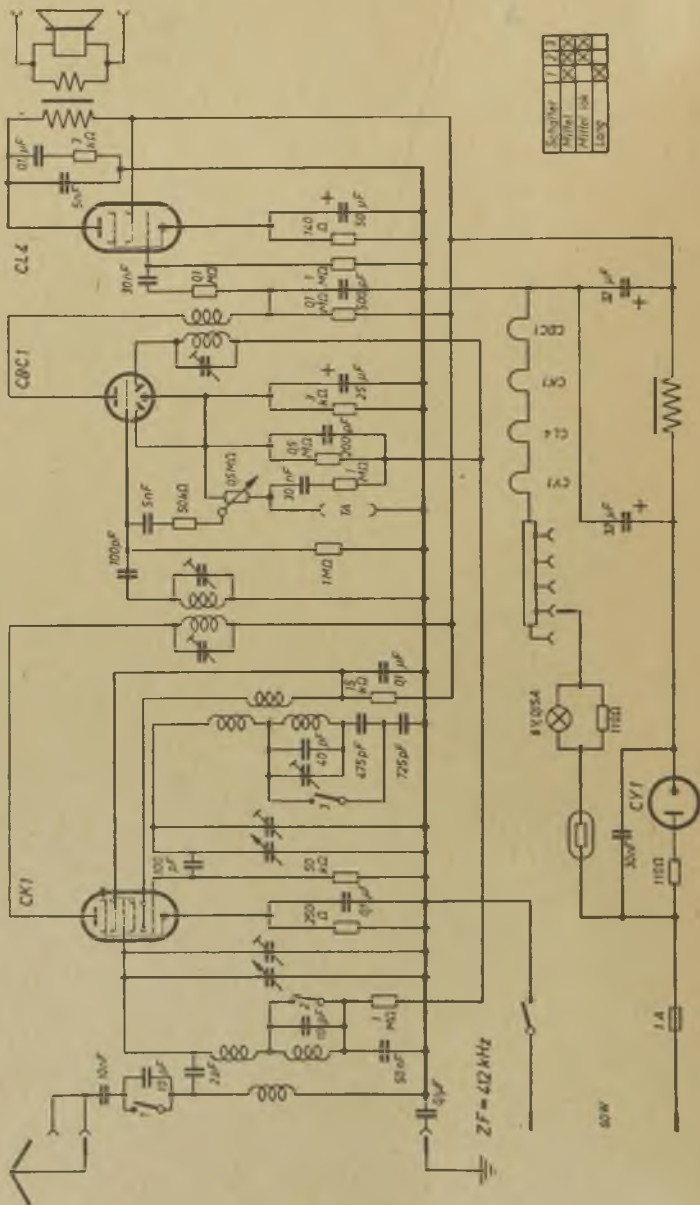
Eumig

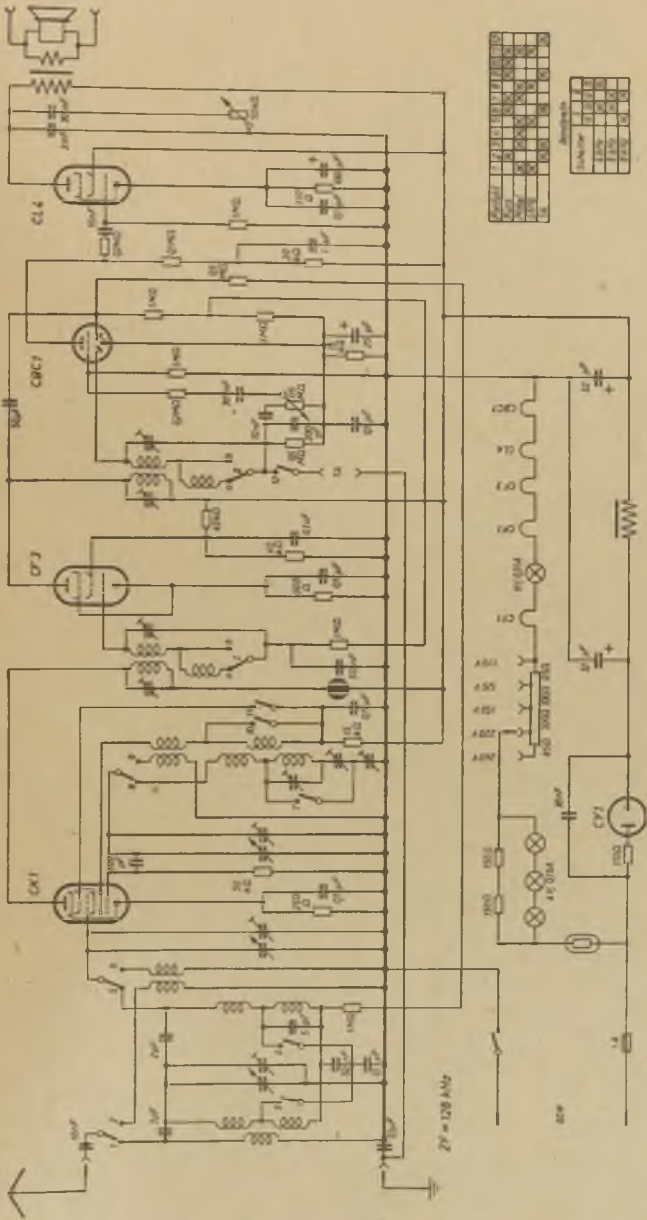
(Produktion vor 1945)



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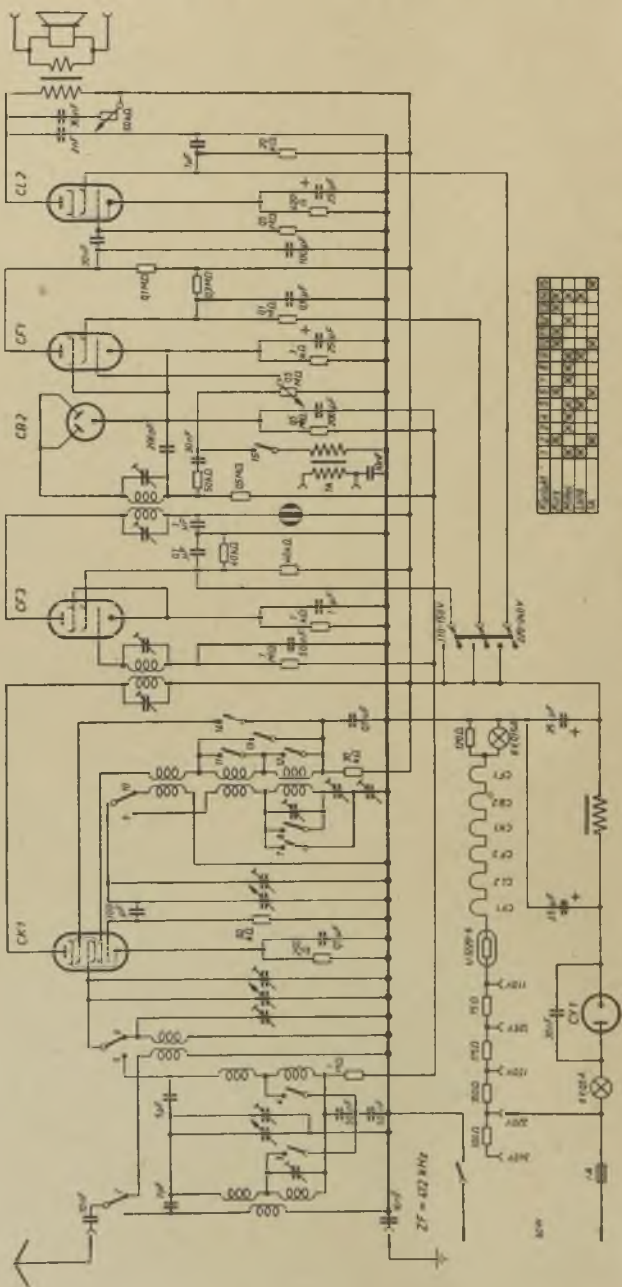
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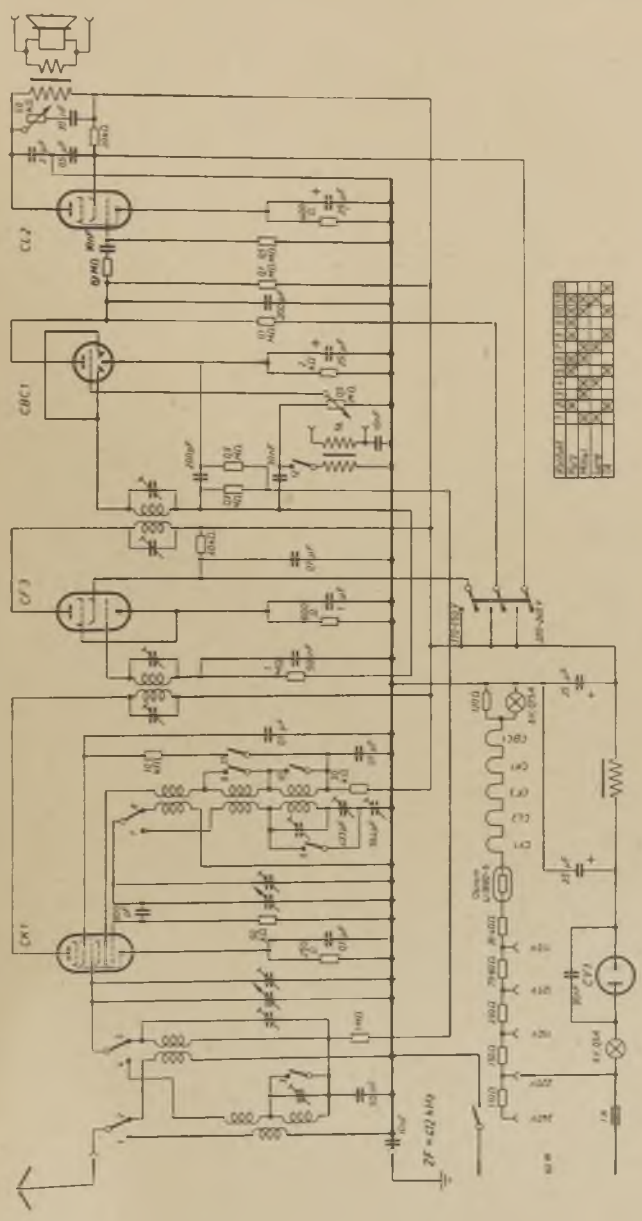


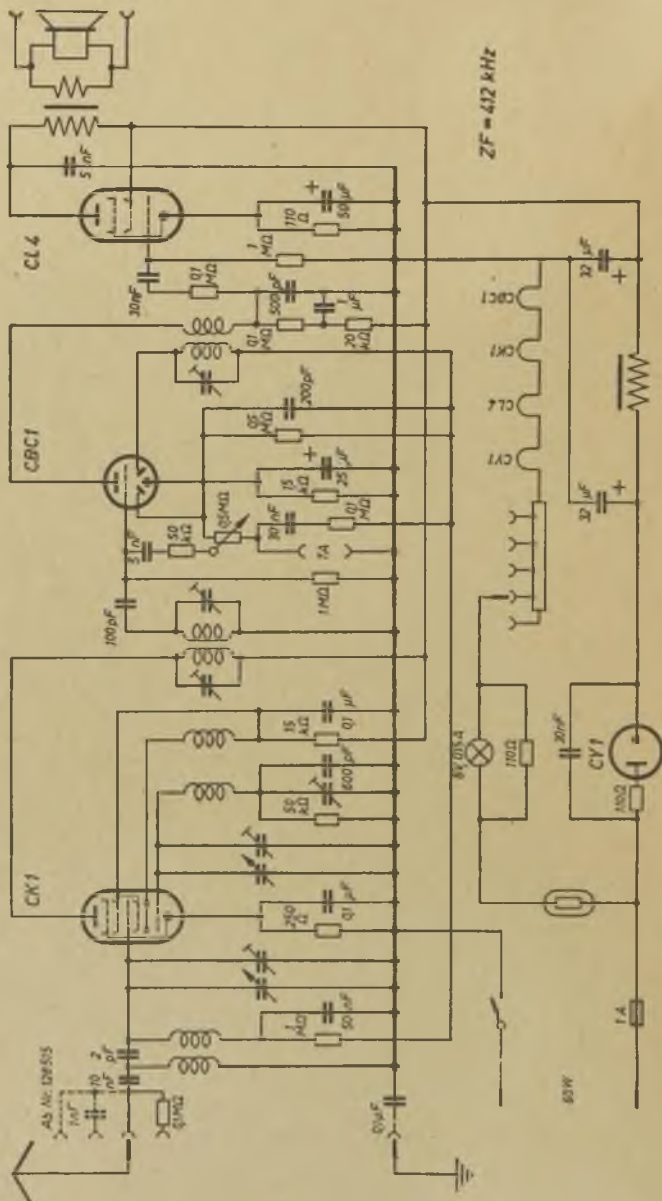


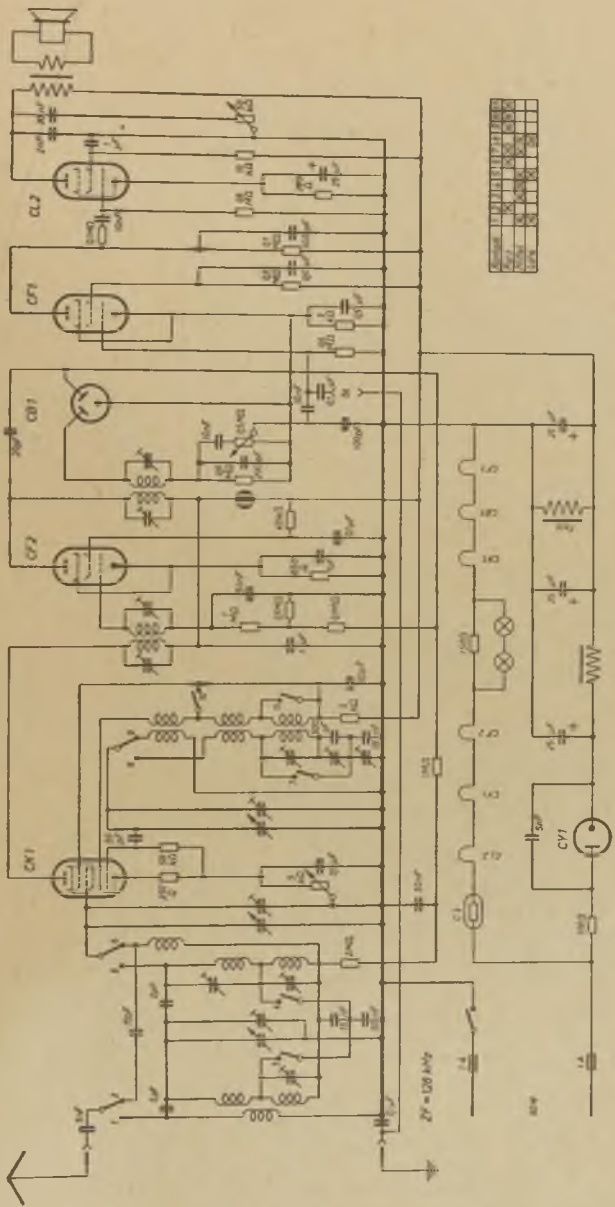
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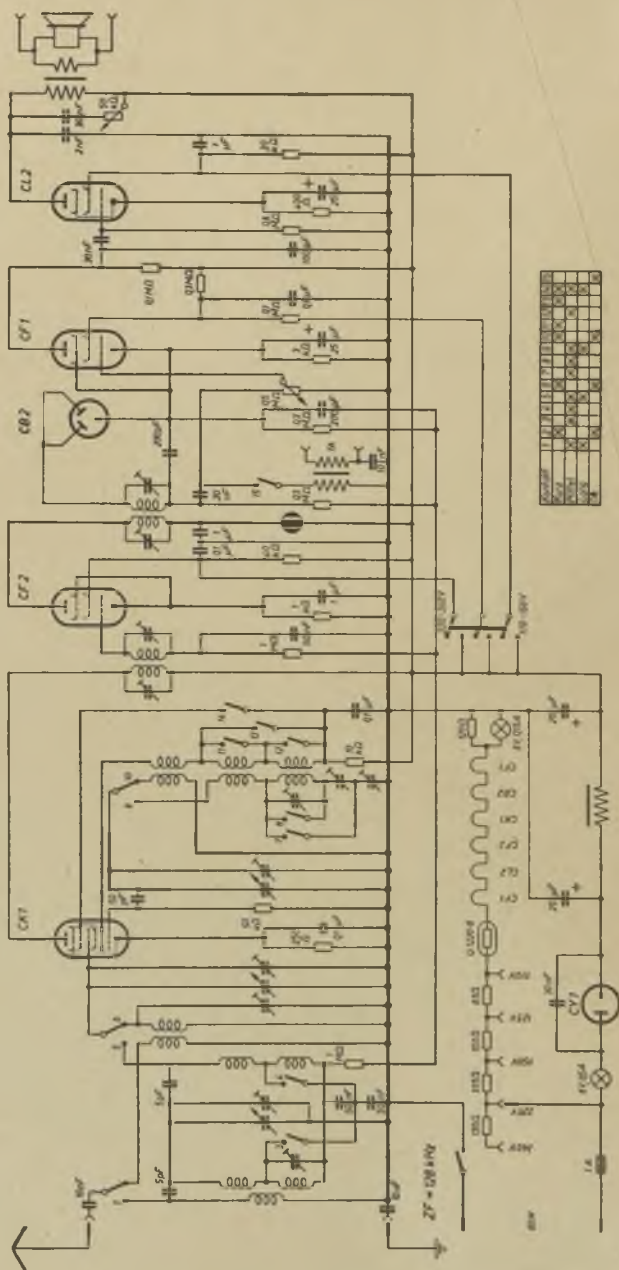


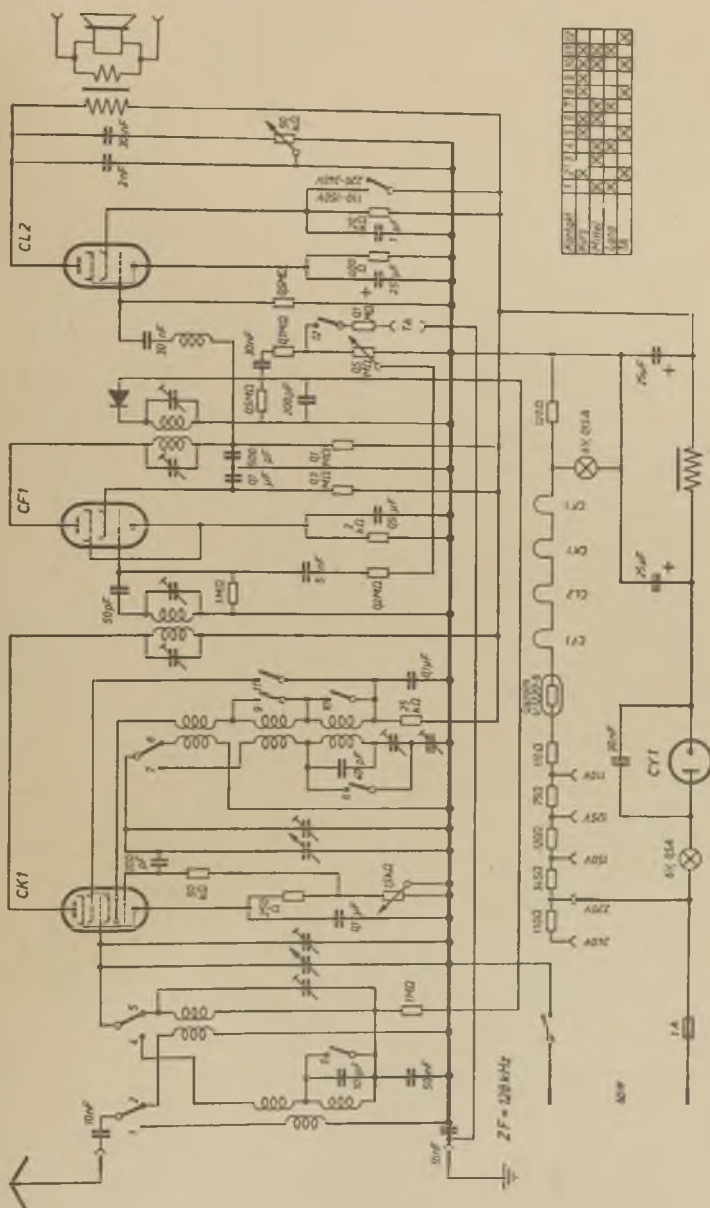




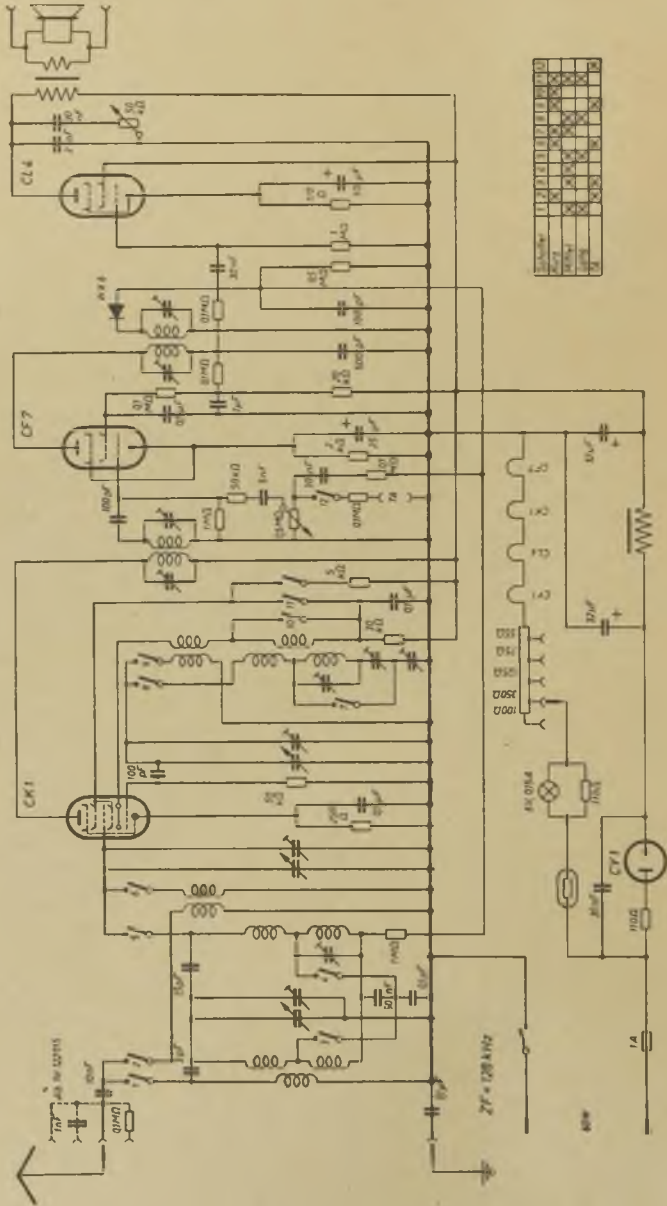


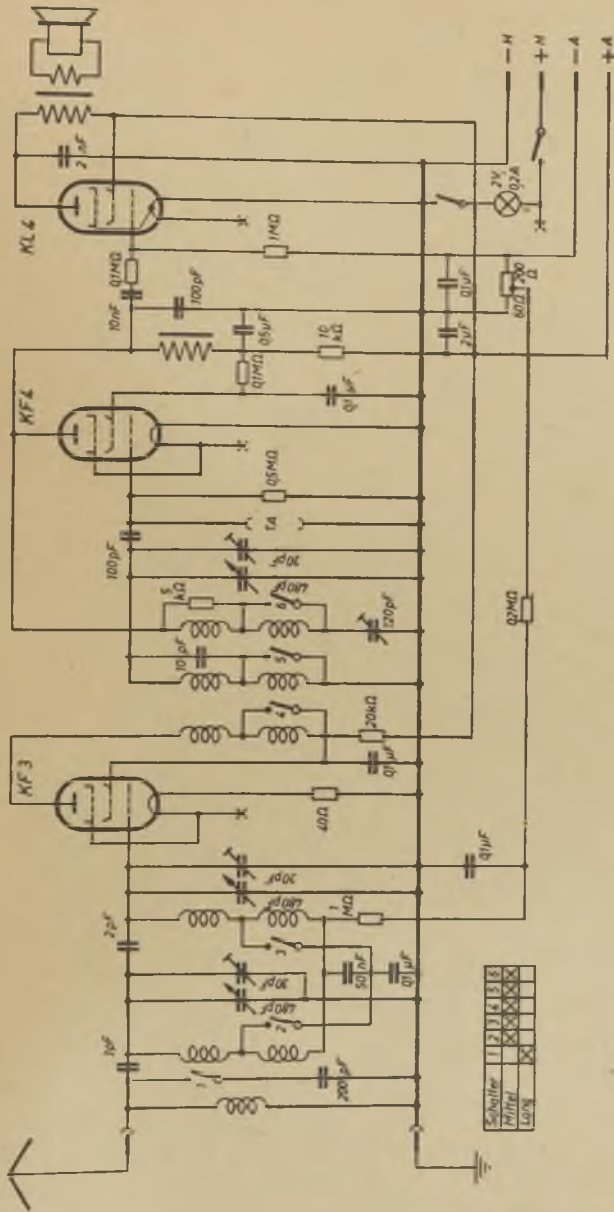
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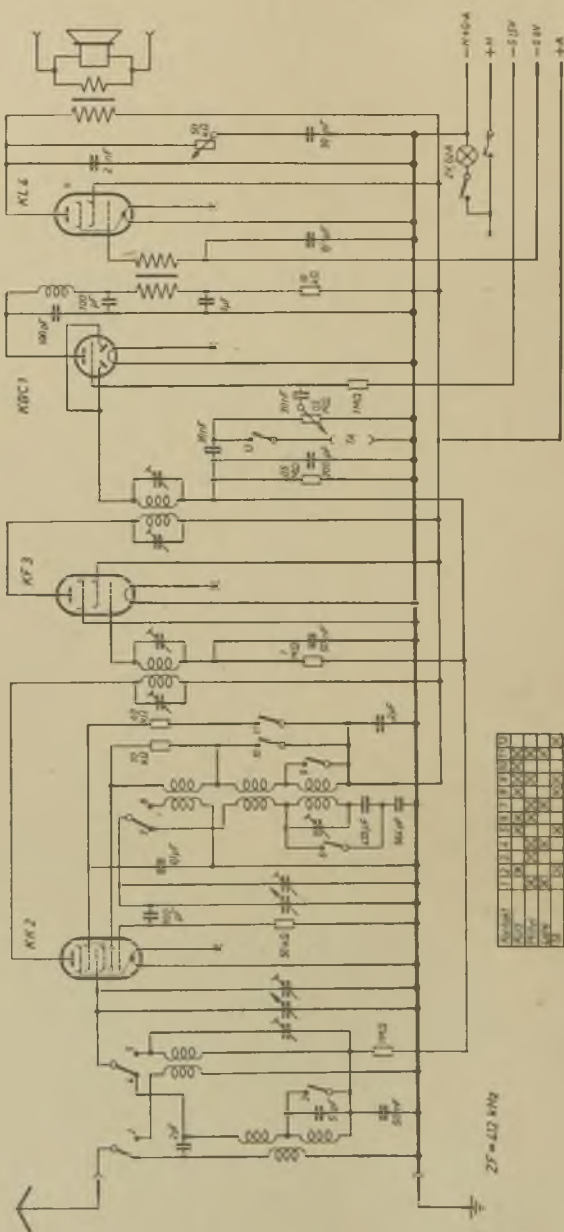


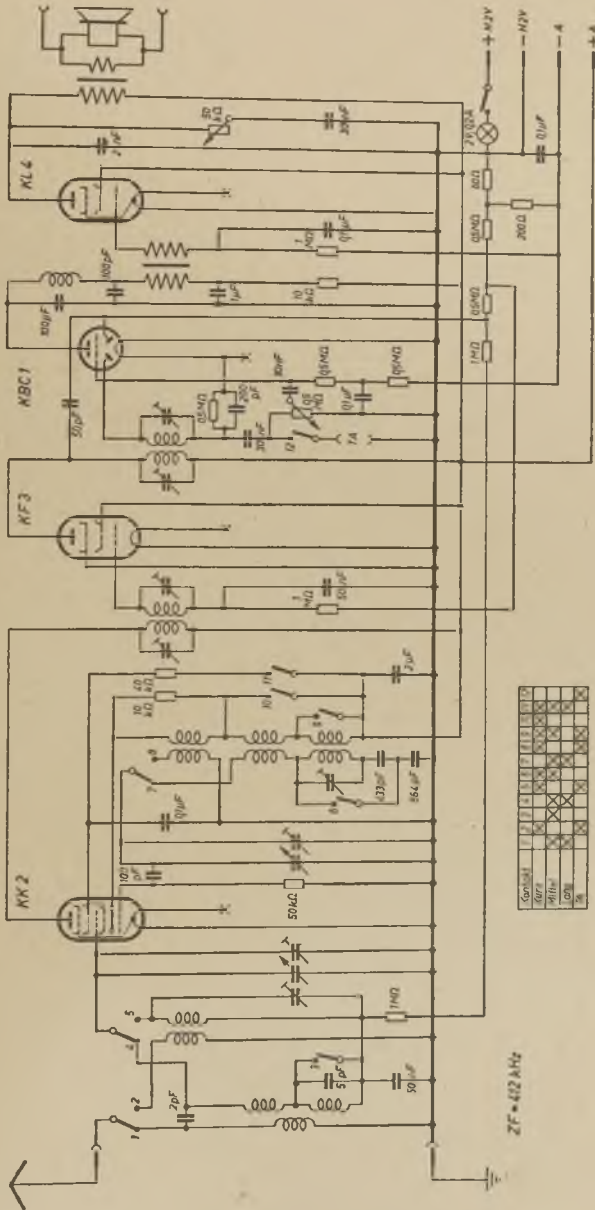


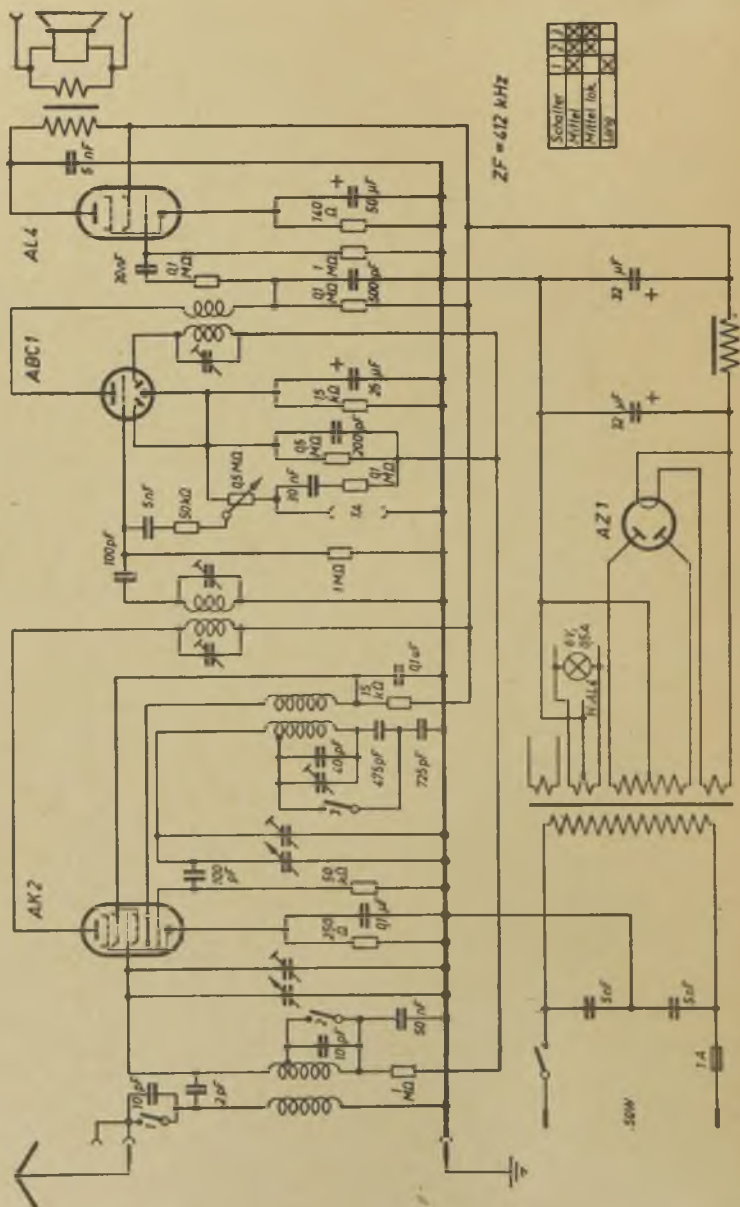
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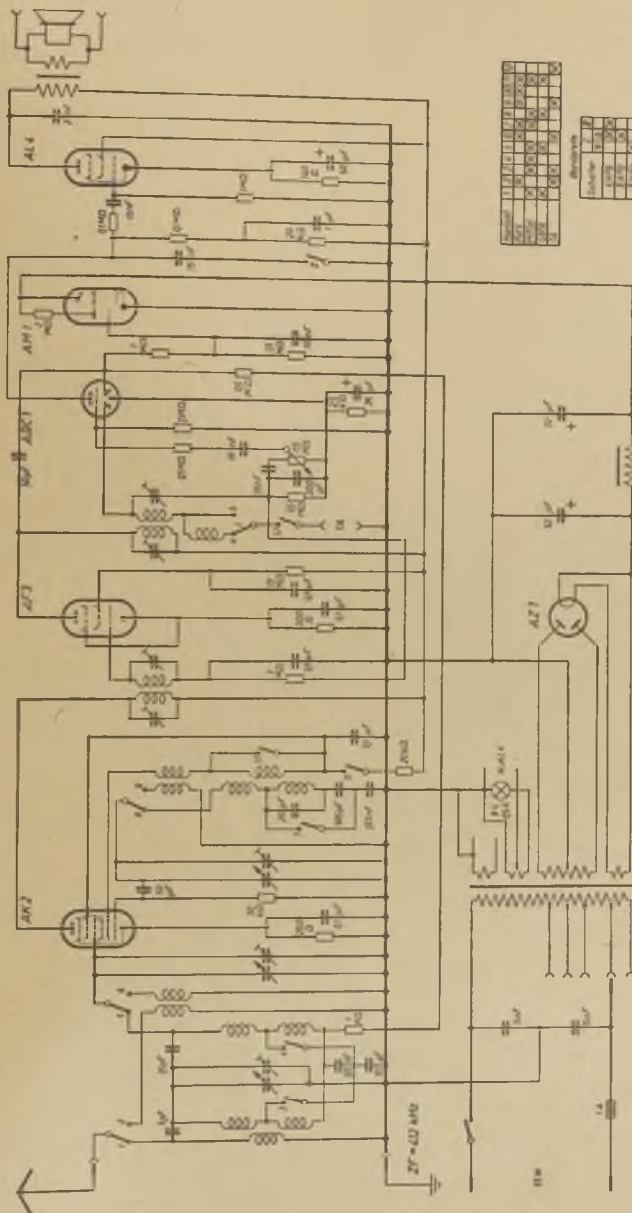








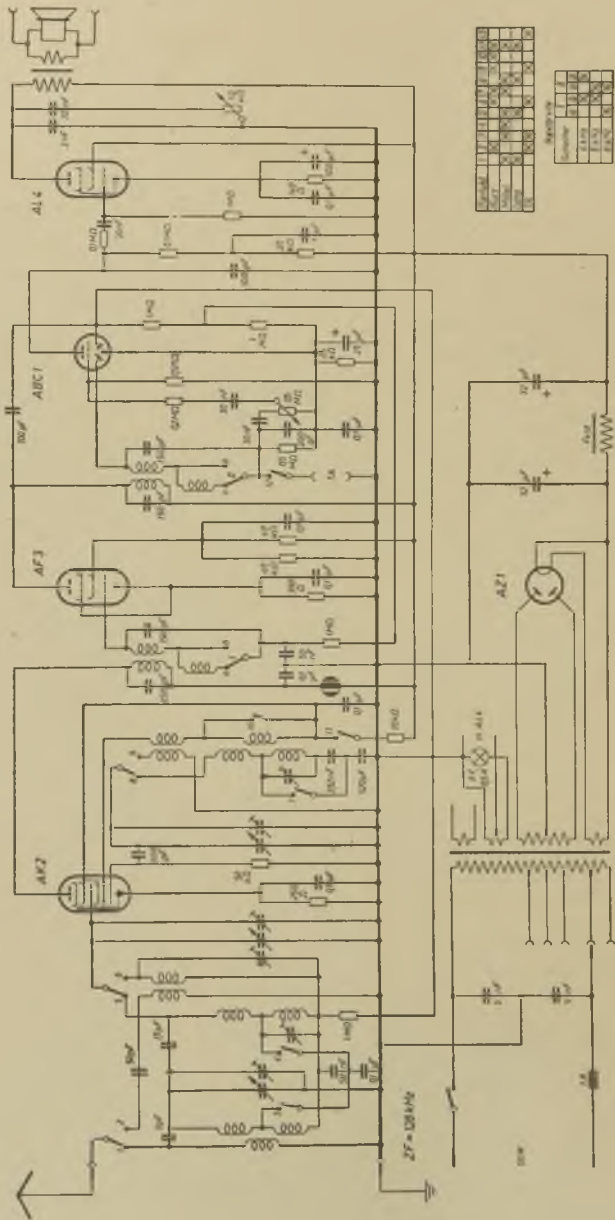




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100k	10k	1k	500	200	100	50	20	10	5	2	1	0.5	0.2	0.1	0.05	0.02	0.01	0.005	0.002	0.001

Abstände

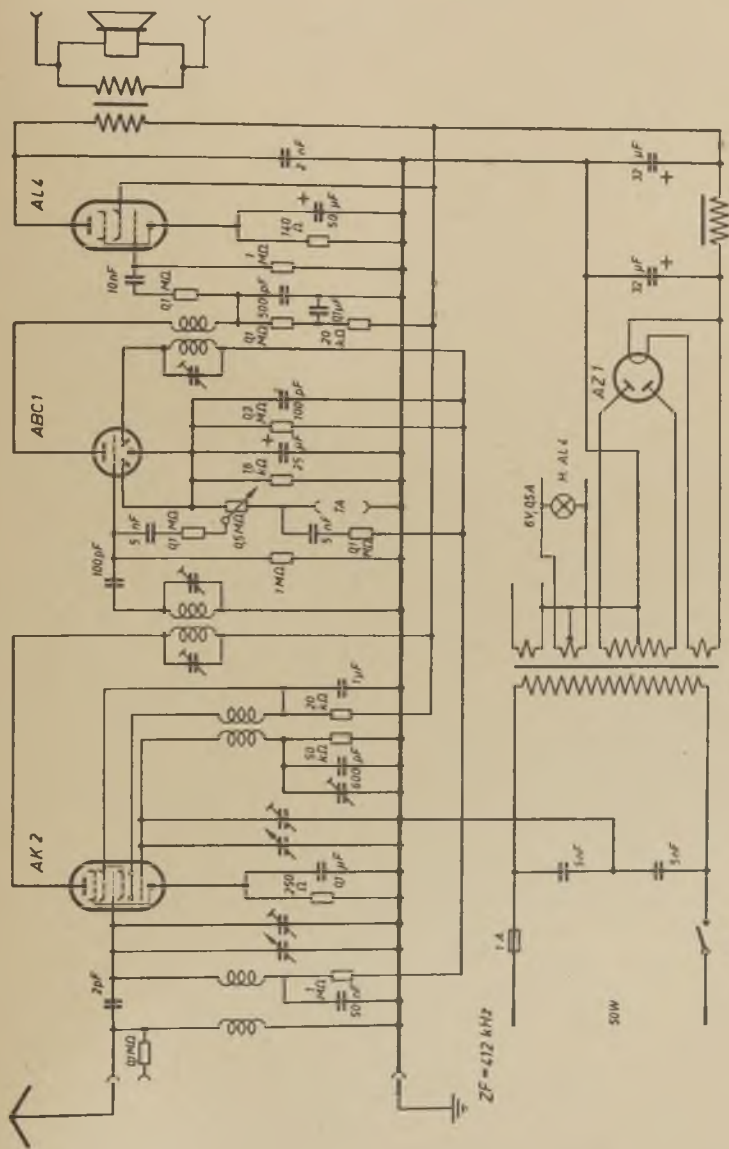
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100p	1000p	10n	100n	1000n	10000n	100000n	1000000n	10000000n	100000000n	1000000000n	10000000000n	100000000000n	1000000000000n	10000000000000n	100000000000000n	1000000000000000n	10000000000000000n	100000000000000000n

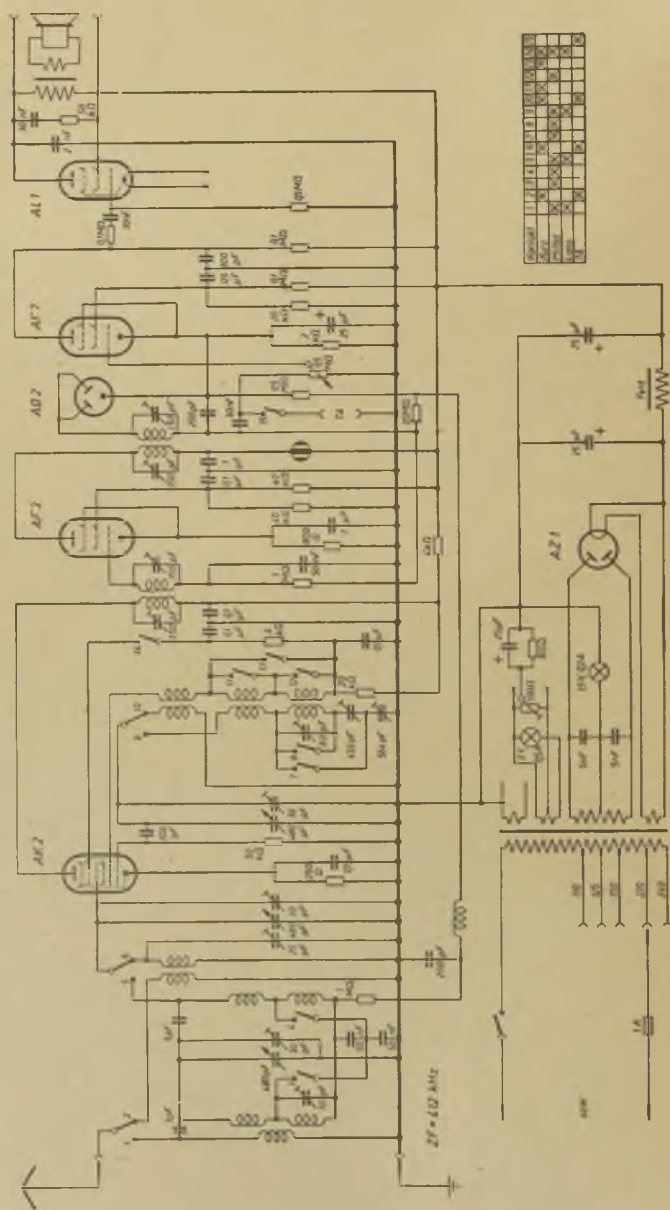


AK2	AK2	AK2	AK2	AK2	AK2
AF3	AF3	AF3	AF3	AF3	AF3
ABC1	ABC1	ABC1	ABC1	ABC1	ABC1
AL4	AL4	AL4	AL4	AL4	AL4

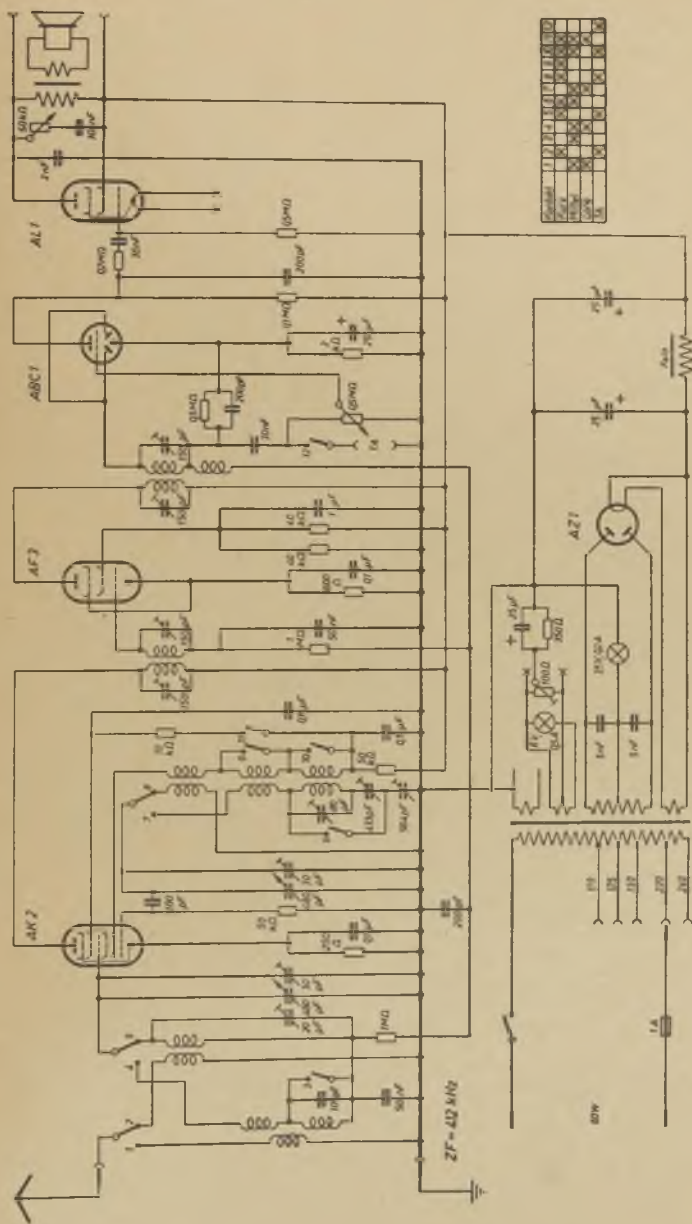
Resistor

AK2	AK2	AK2	AK2	AK2
AF3	AF3	AF3	AF3	AF3
ABC1	ABC1	ABC1	ABC1	ABC1
AL4	AL4	AL4	AL4	AL4

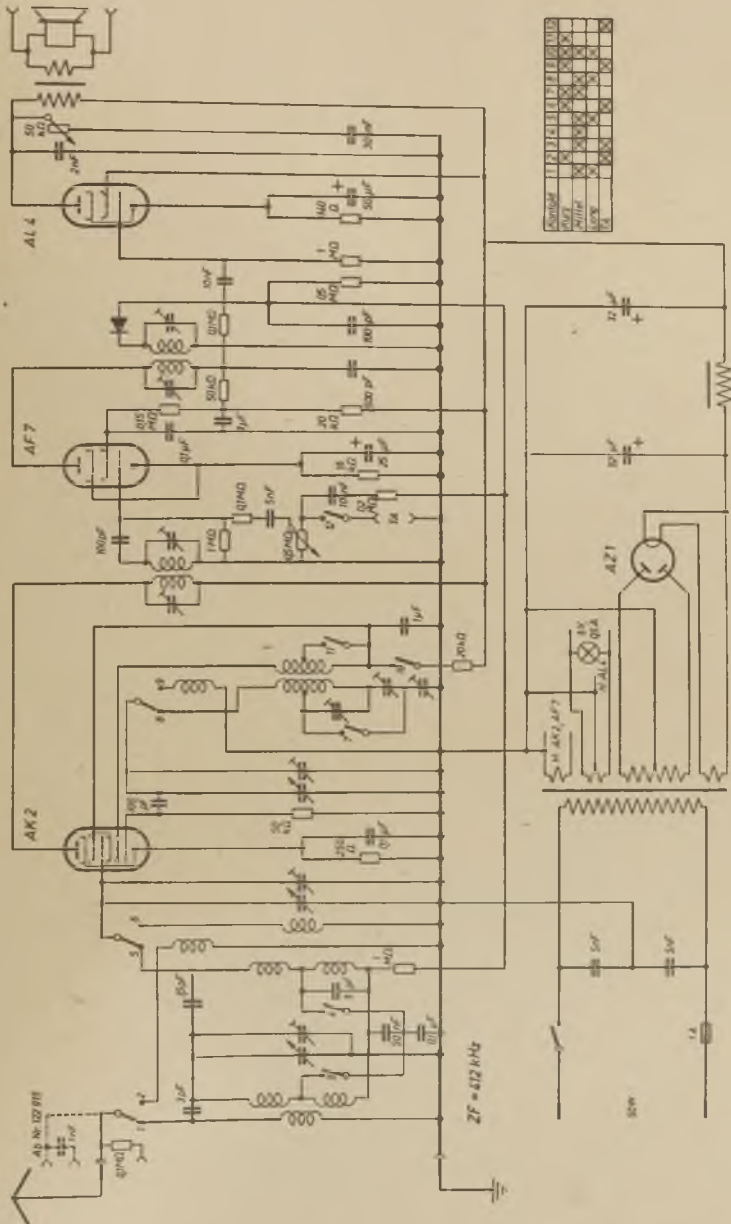


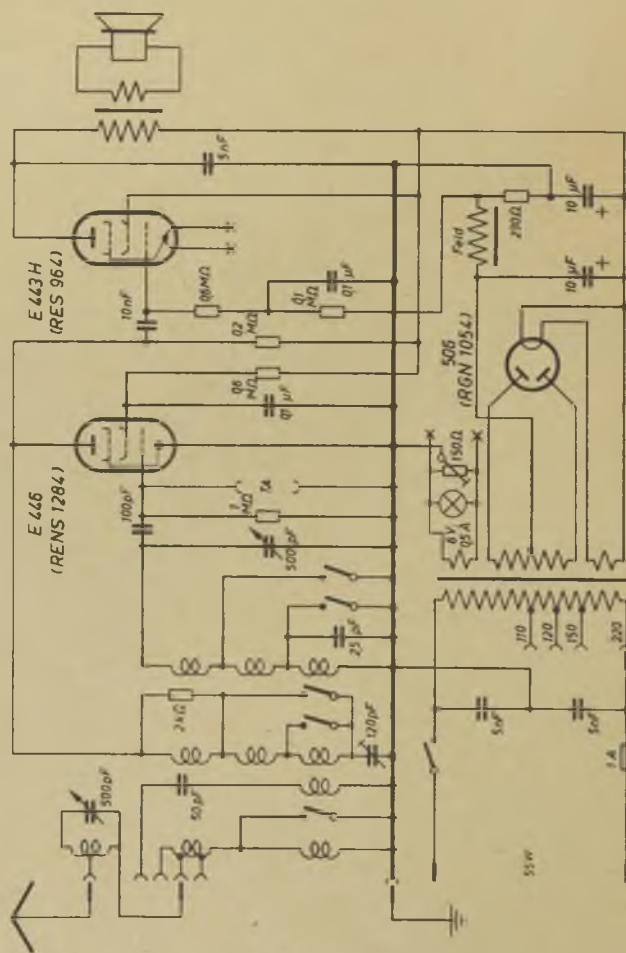


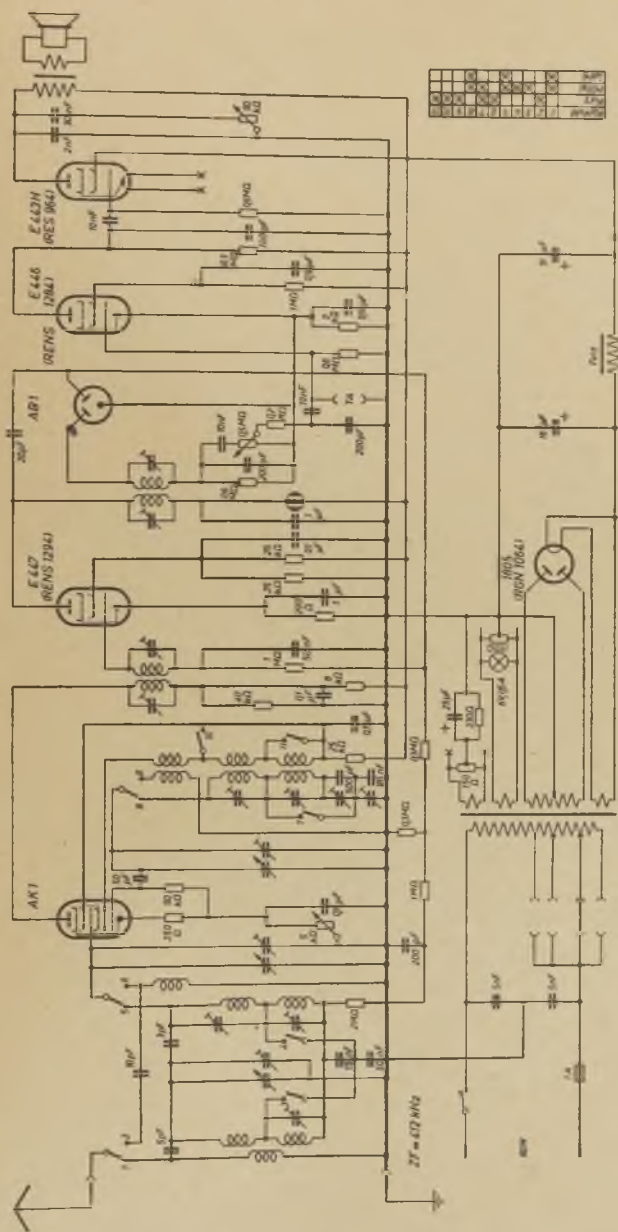
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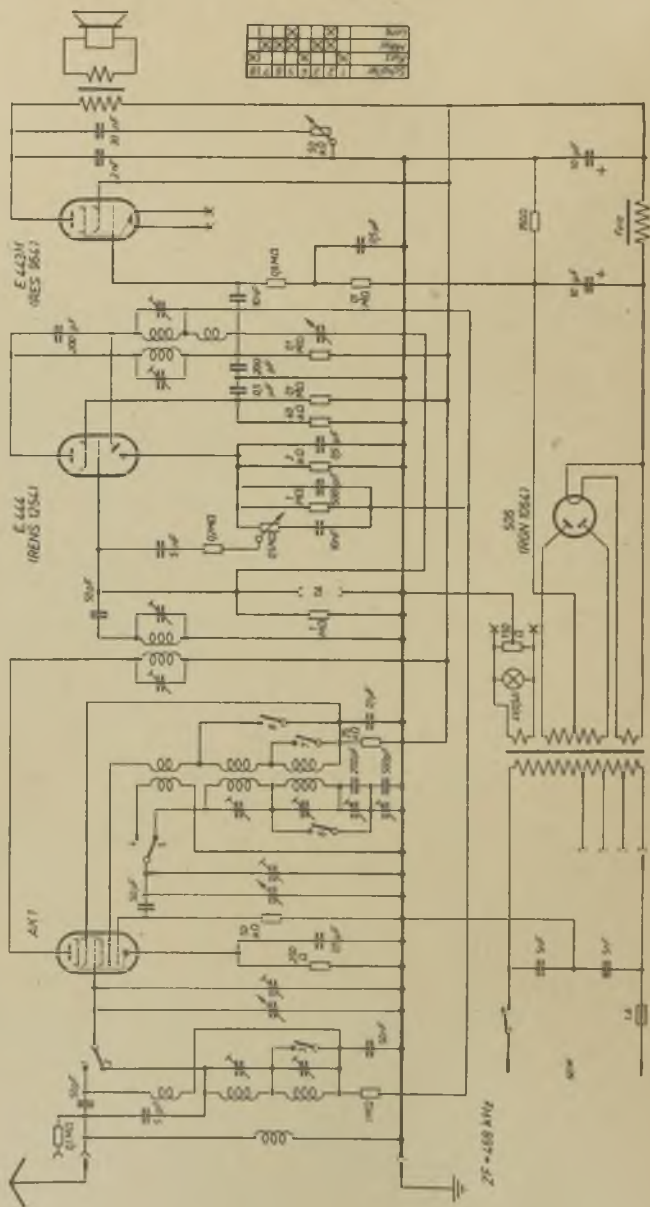
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6X4	6X5	6X6	6X4	6X5	6X6
6X4	6X5	6X6	6X4	6X5	6X6
6X4	6X5	6X6	6X4	6X5	6X6
6X4	6X5	6X6	6X4	6X5	6X6
6X4	6X5	6X6	6X4	6X5	6X6
6X4	6X5	6X6	6X4	6X5	6X6
6X4	6X5	6X6	6X4	6X5	6X6
6X4	6X5	6X6	6X4	6X5	6X6
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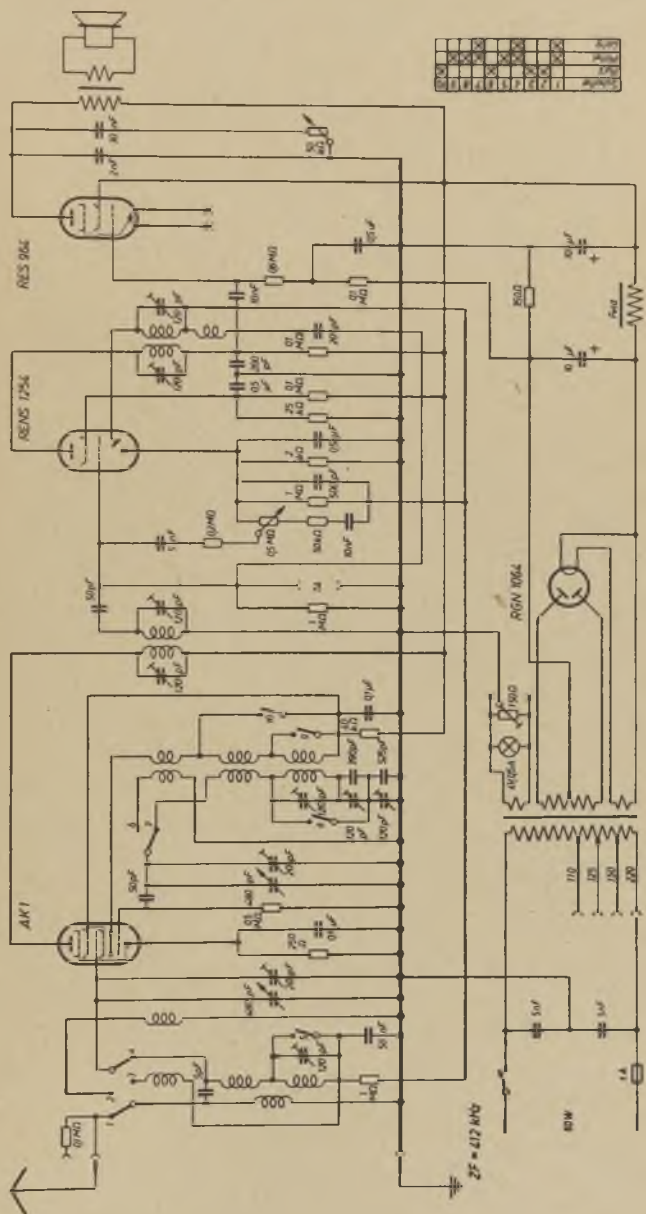


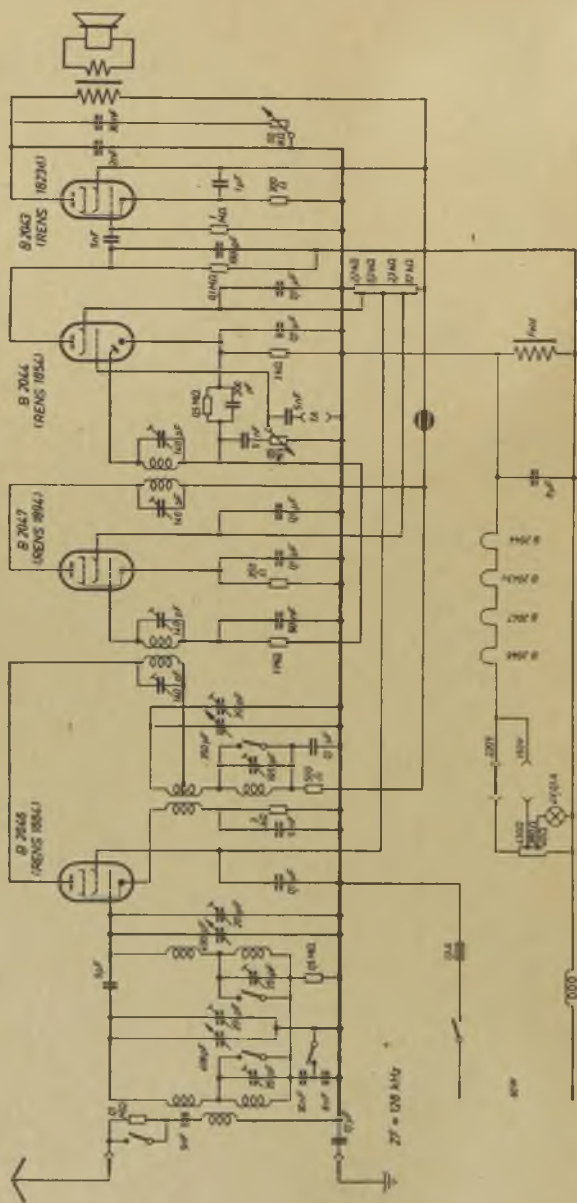


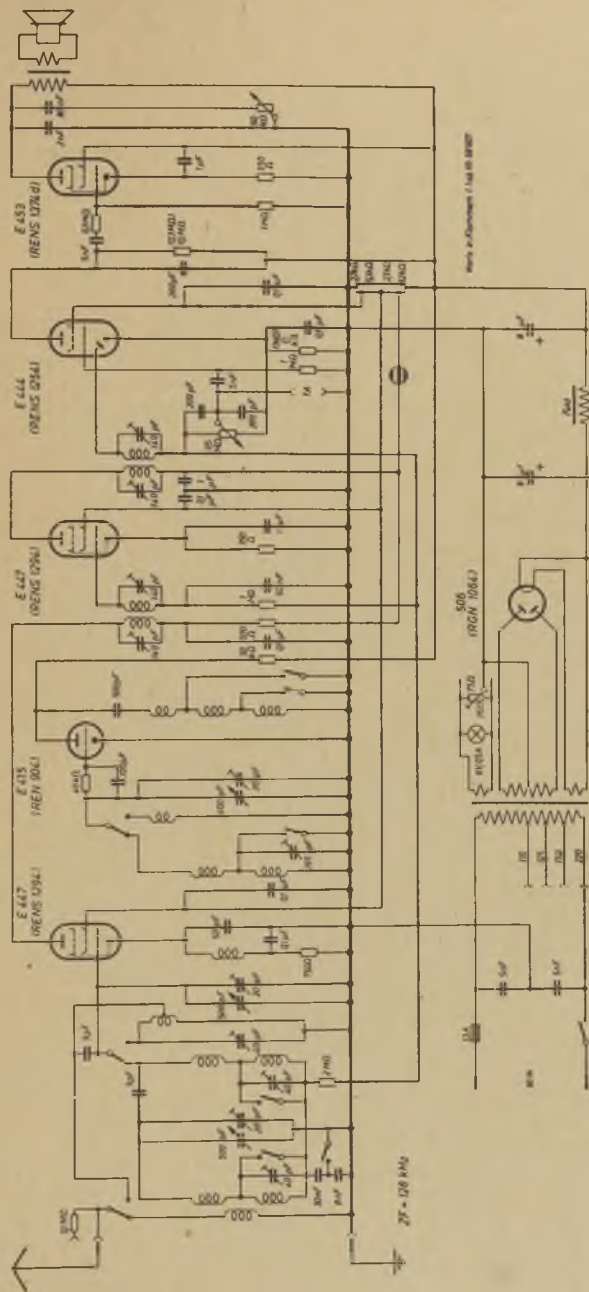
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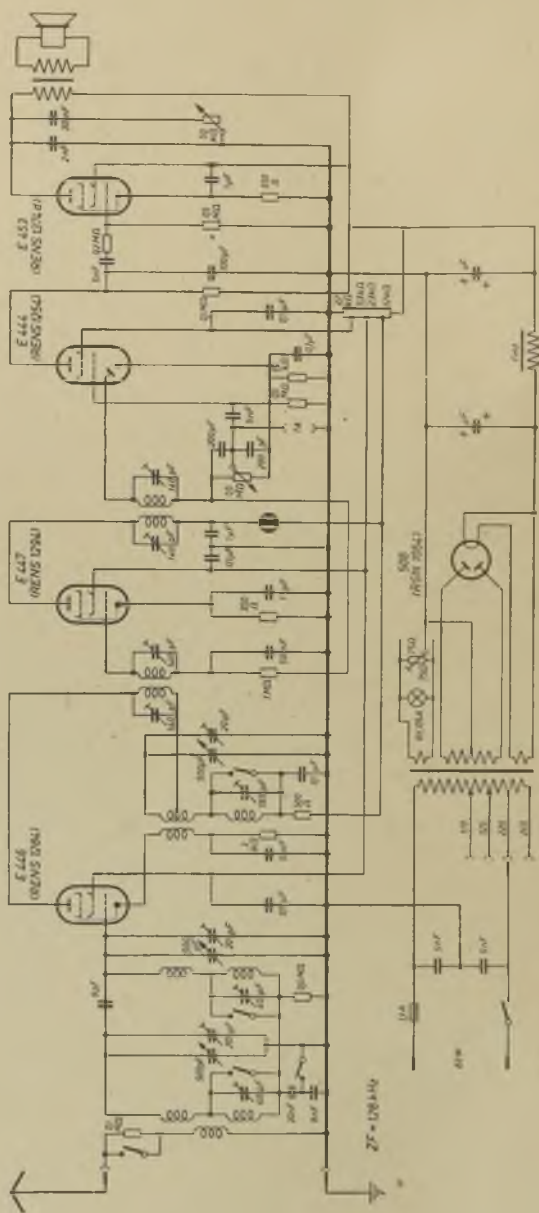
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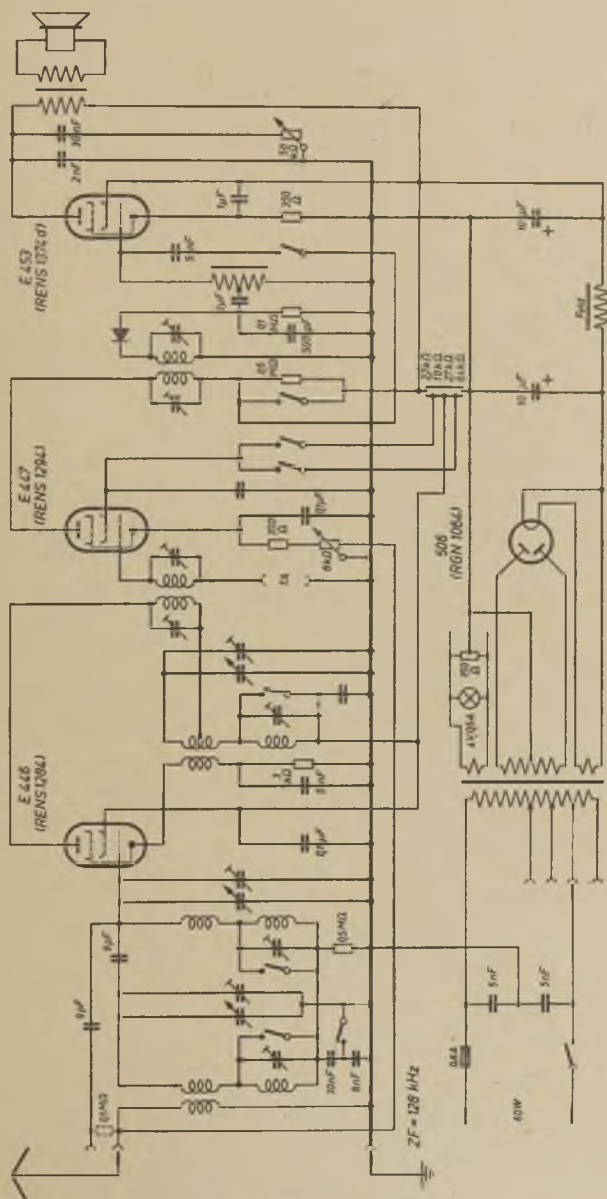




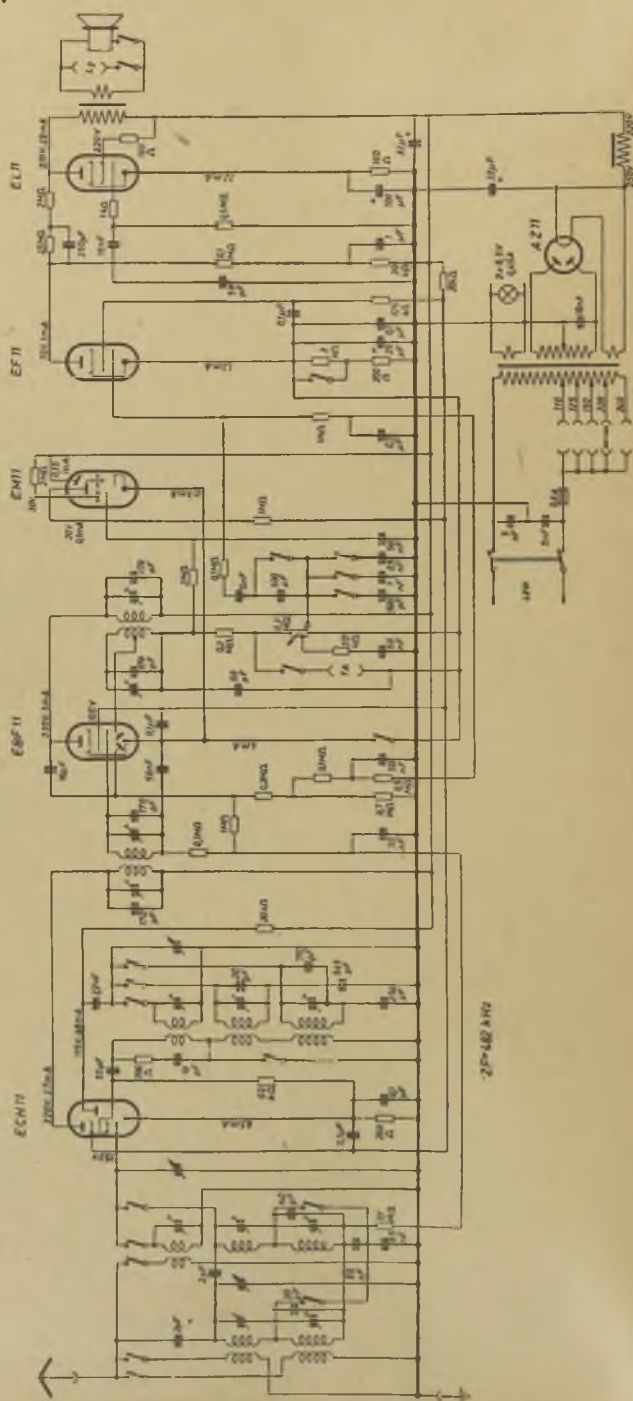


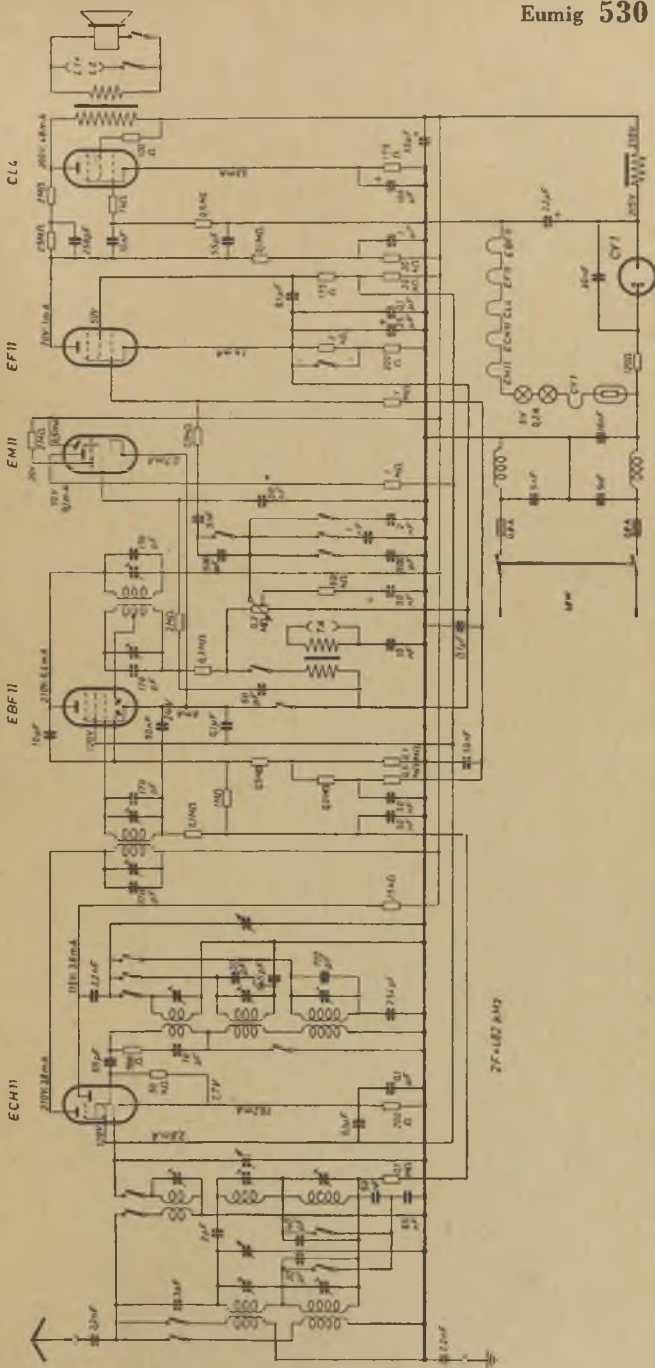
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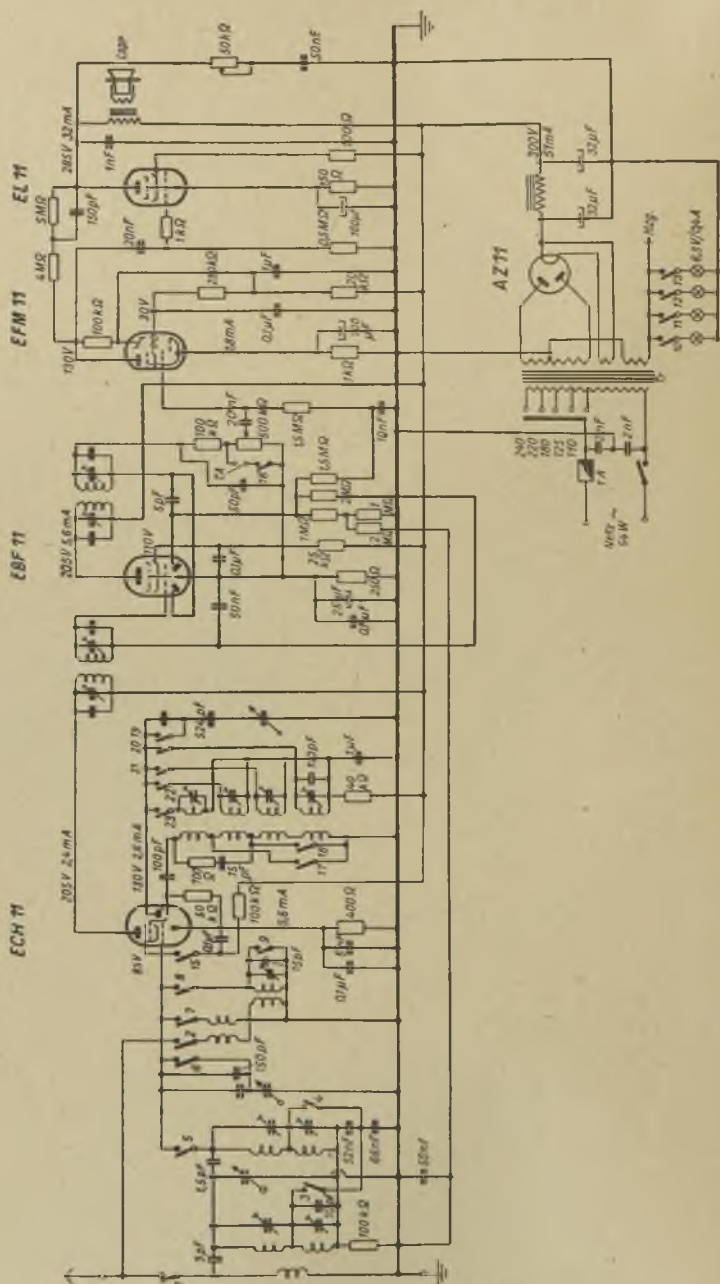


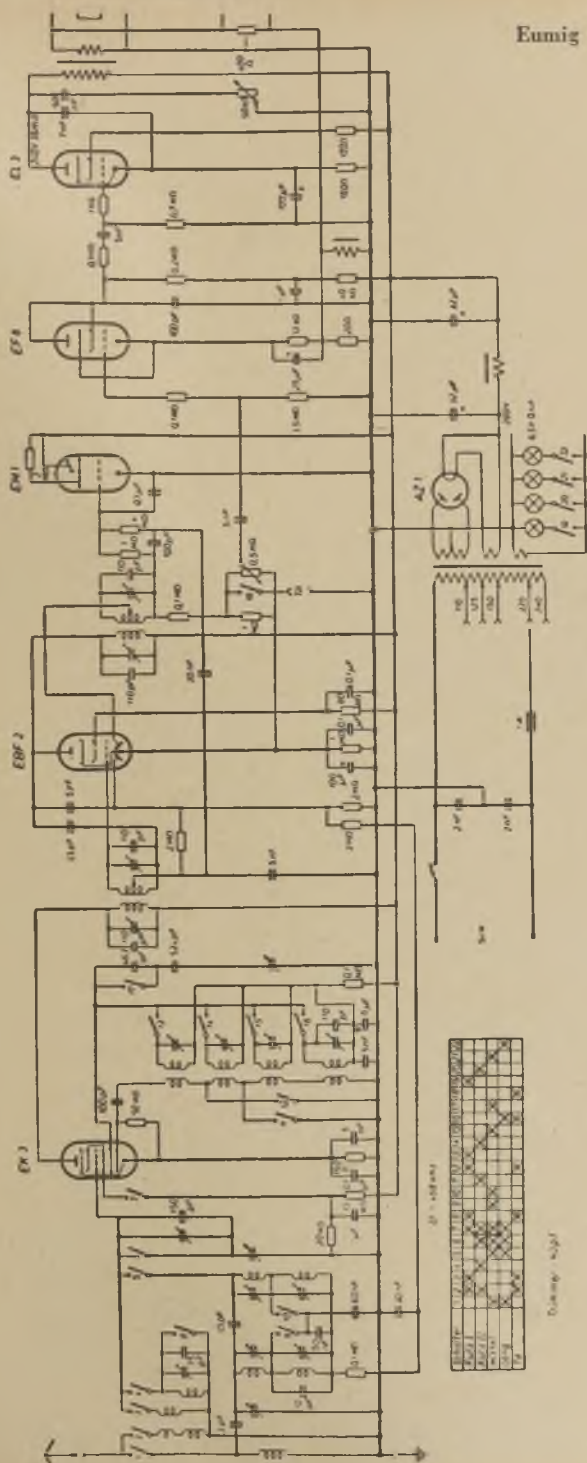


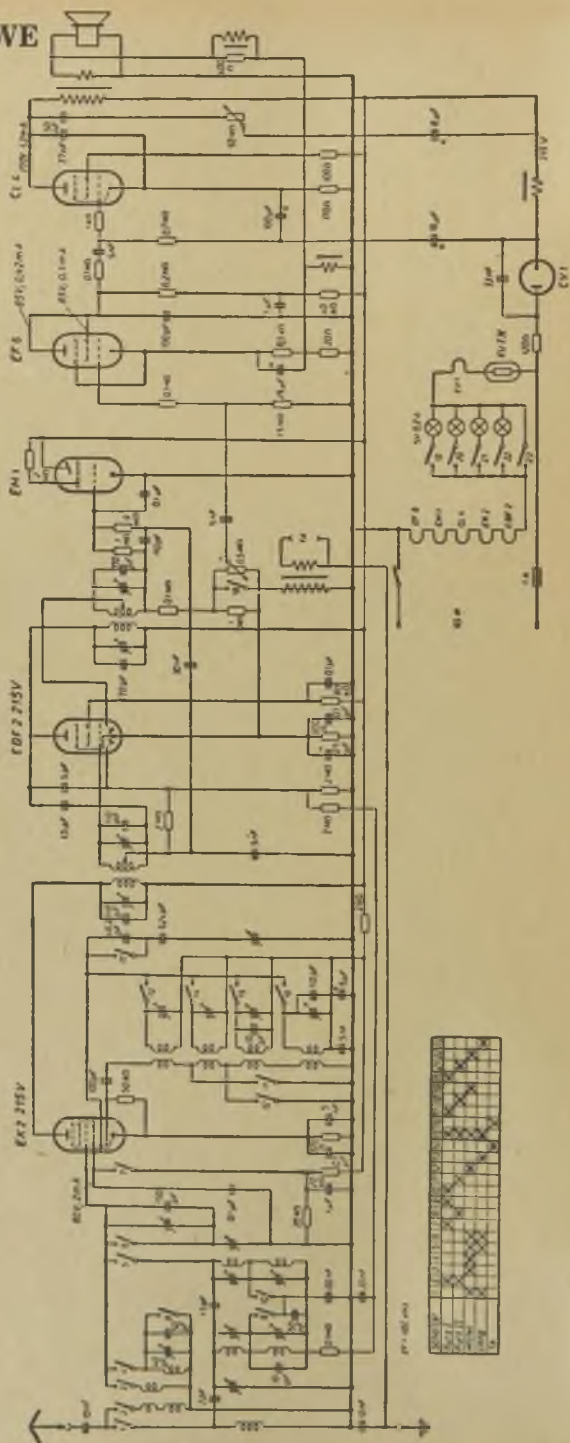
Eumig 530 W

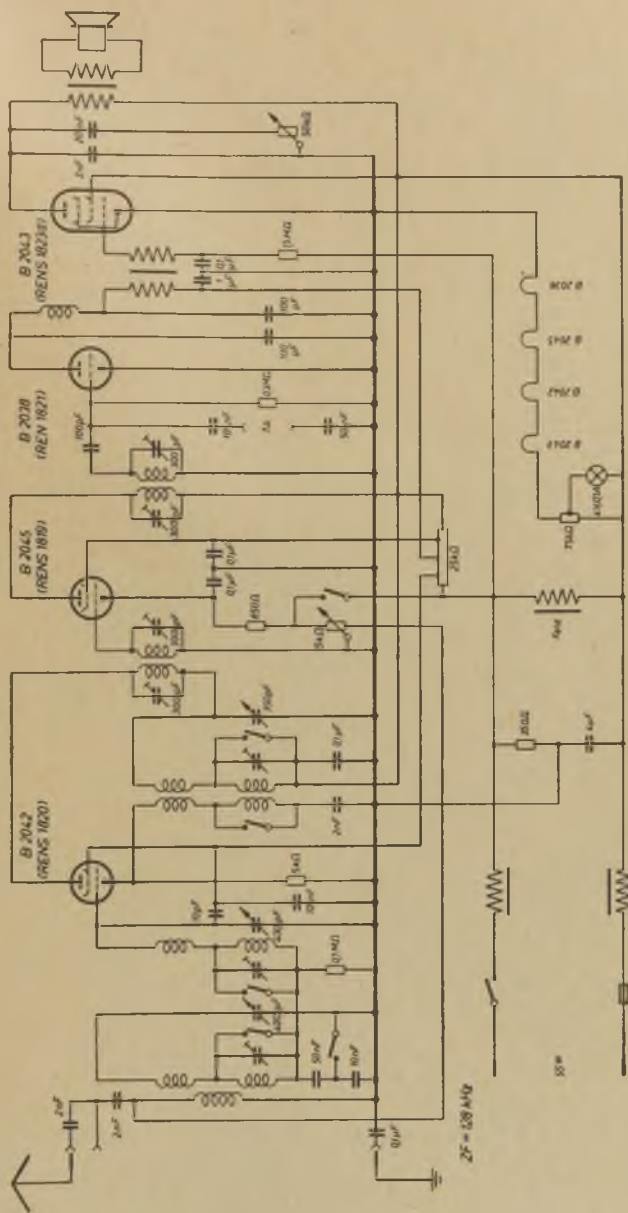


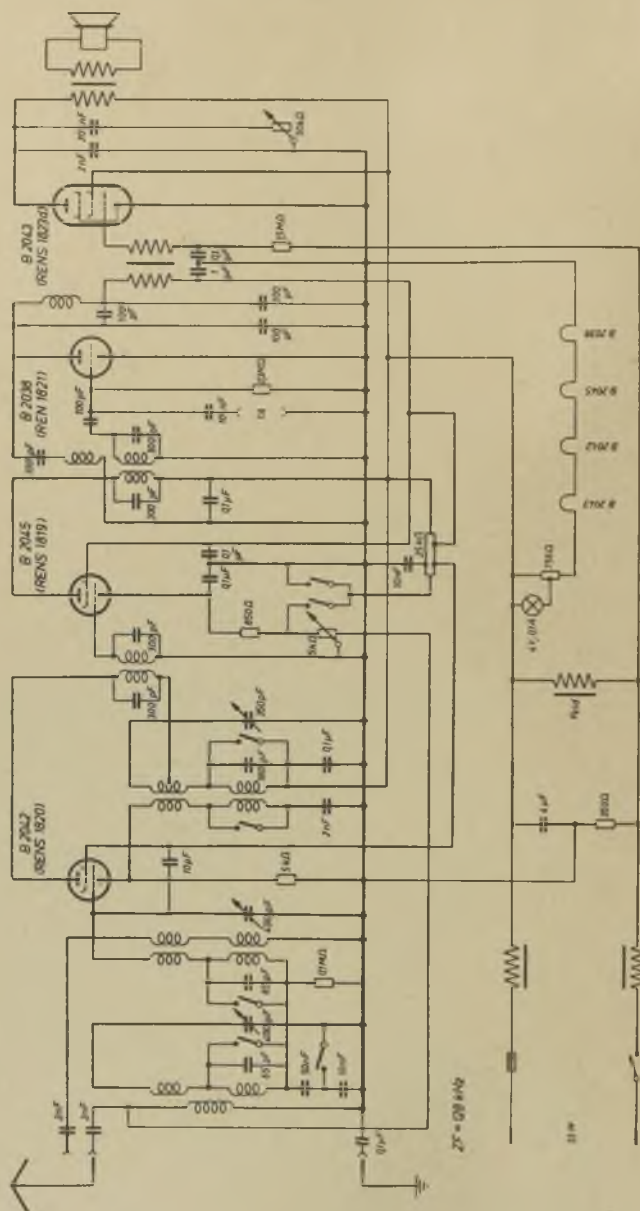


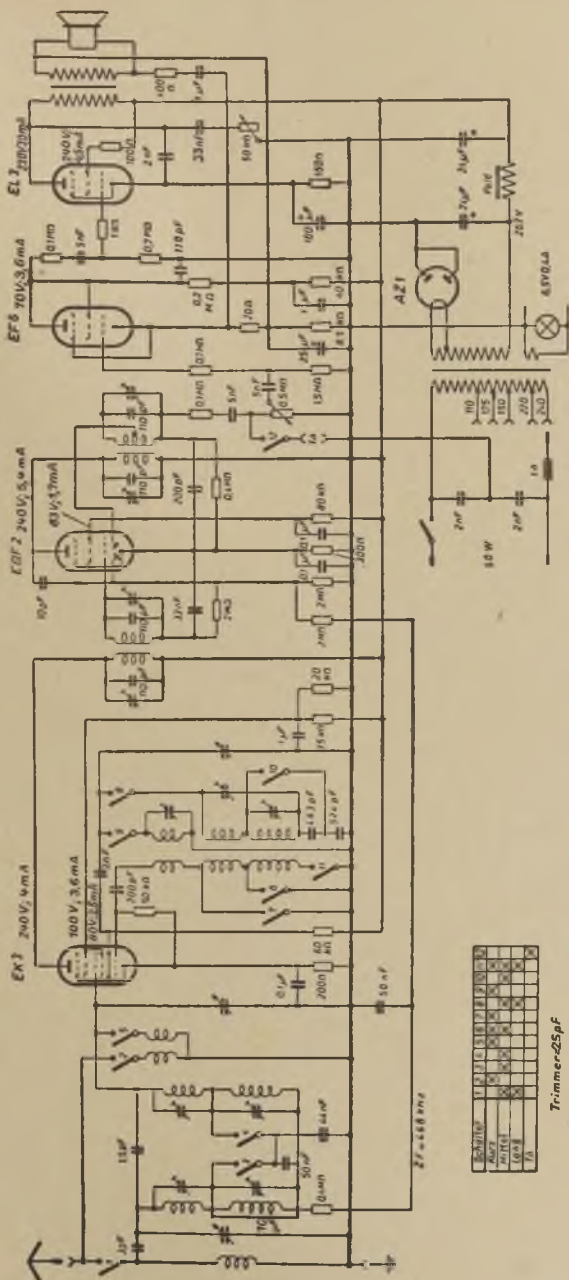


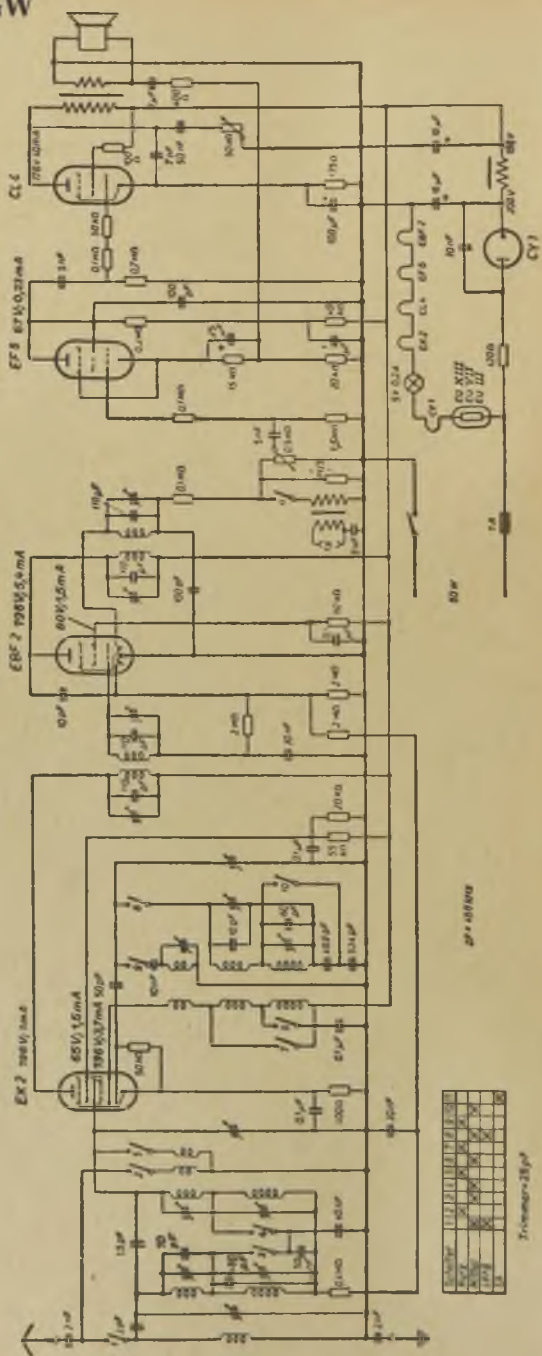


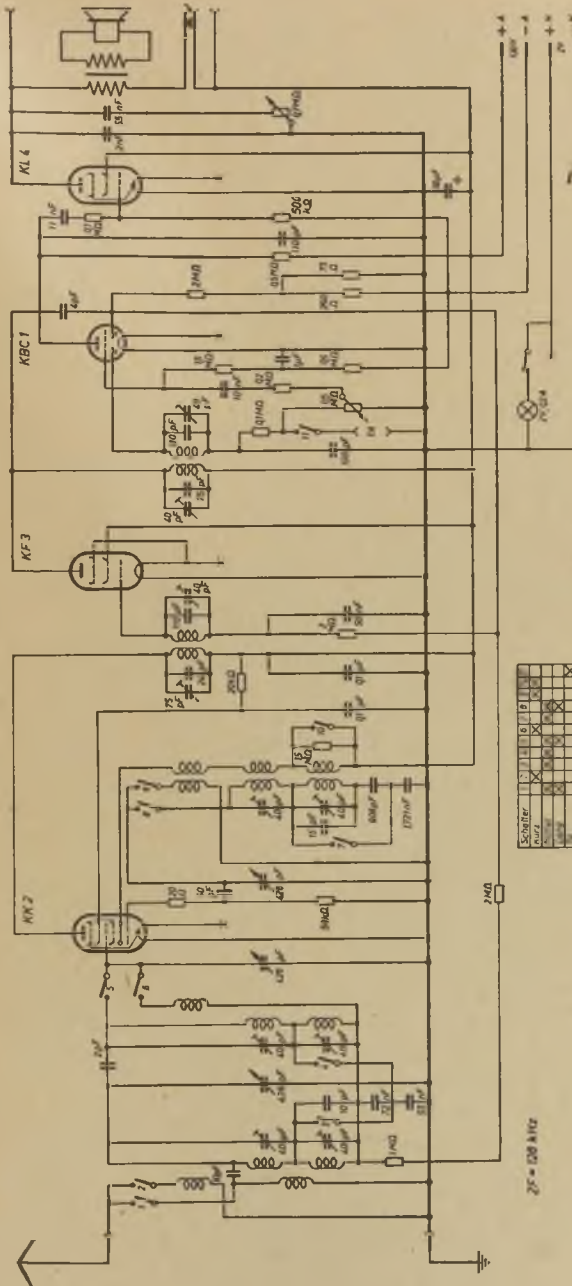


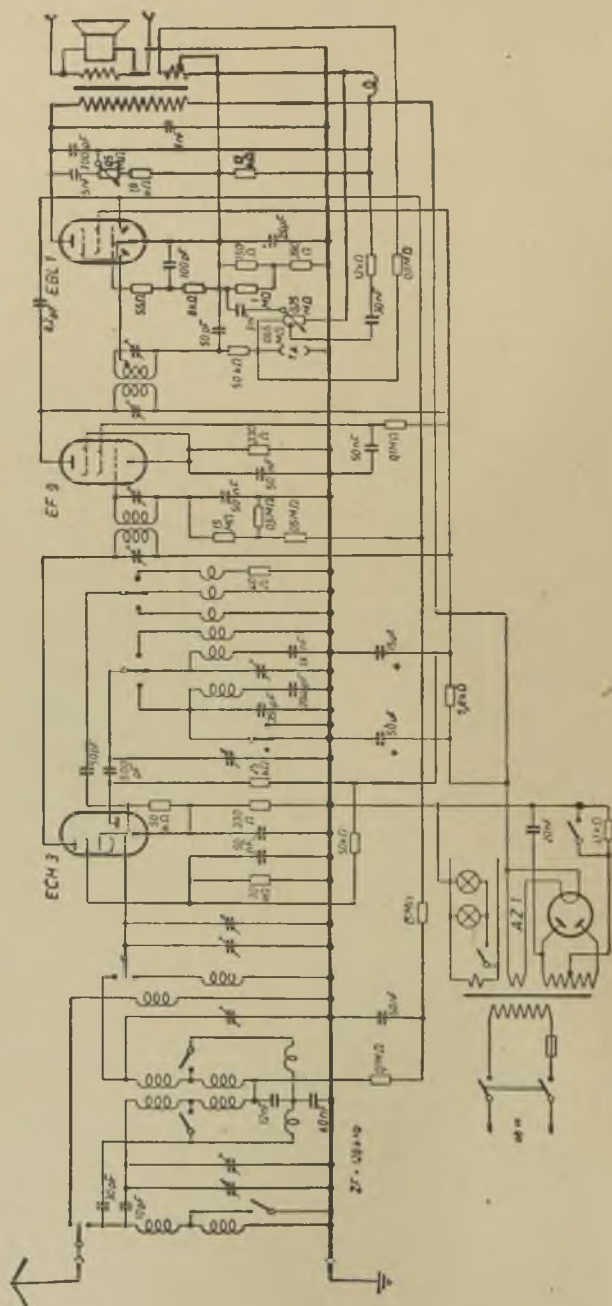


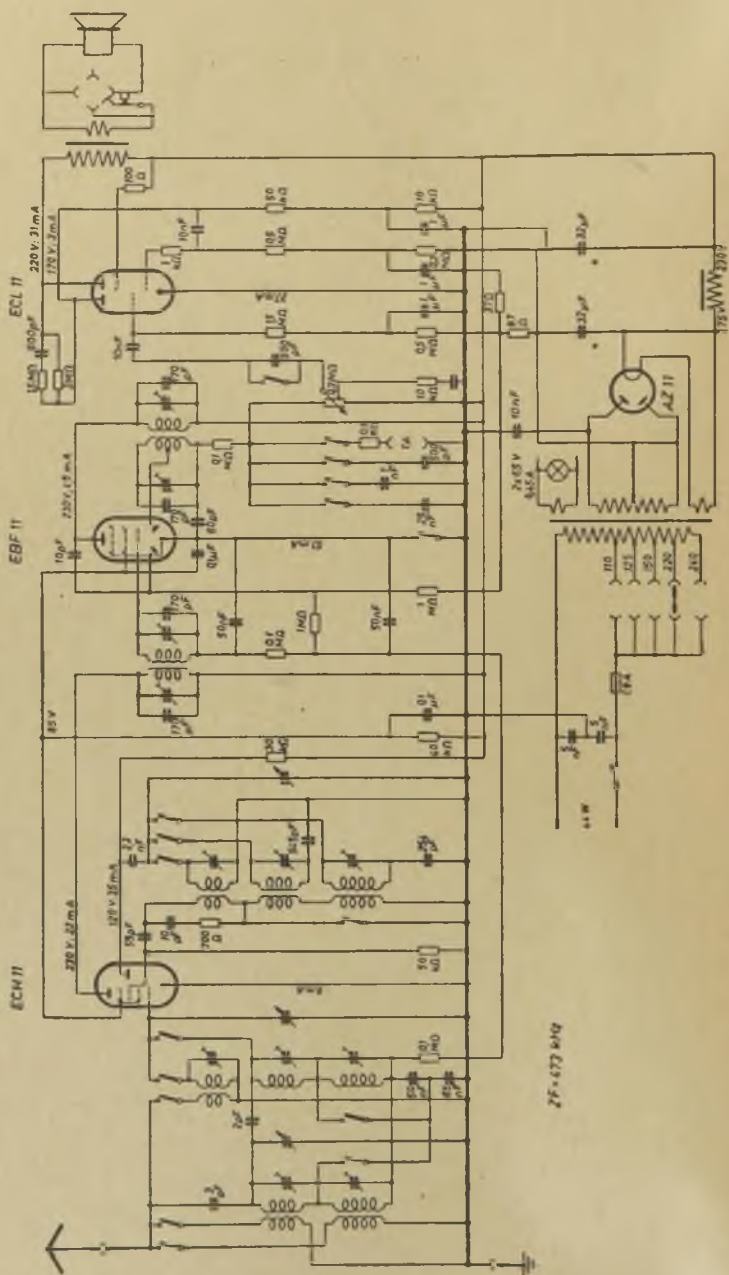


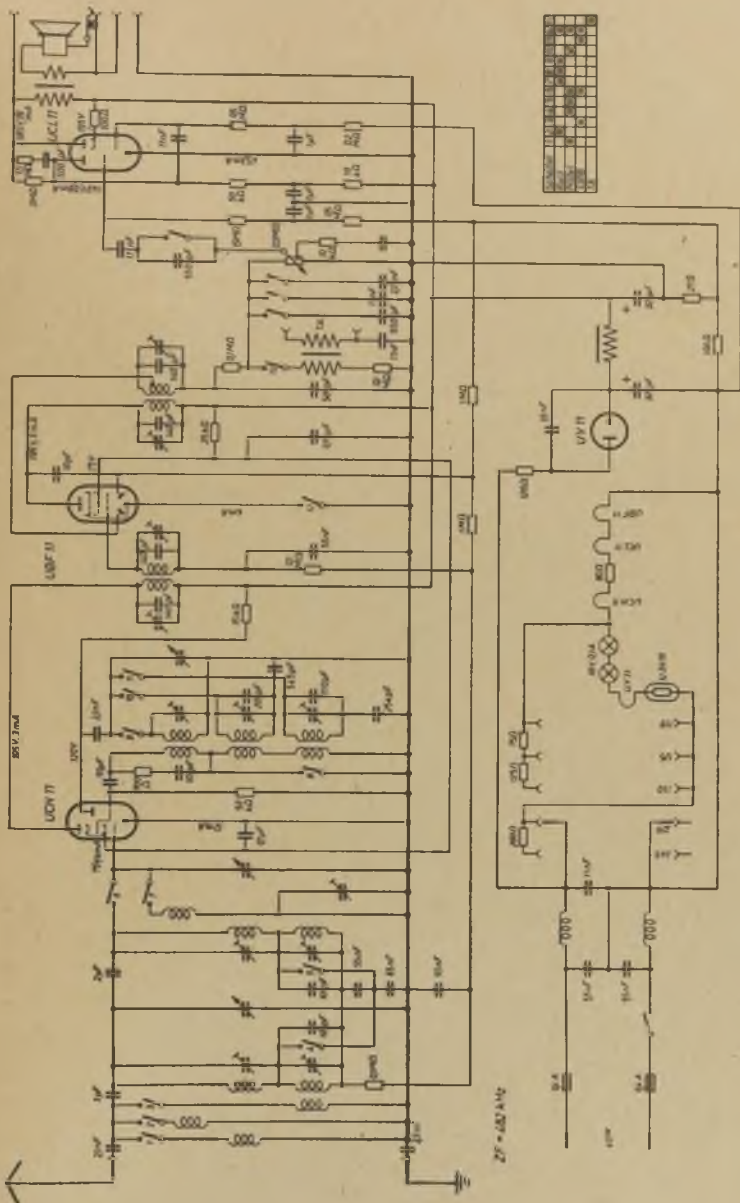






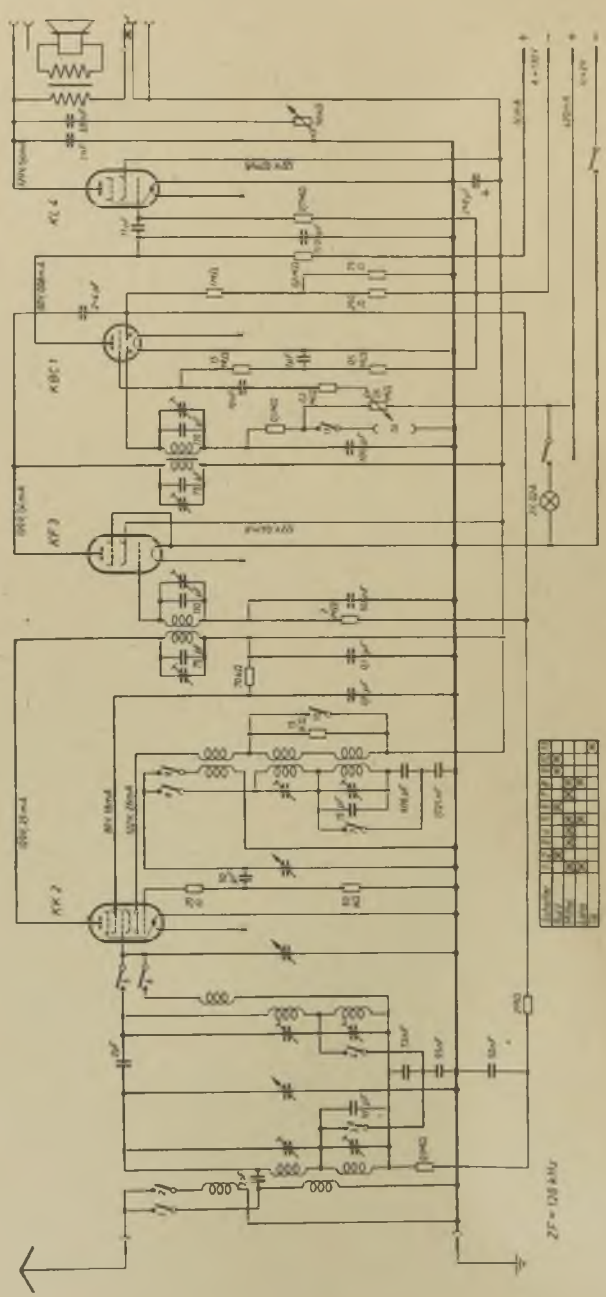


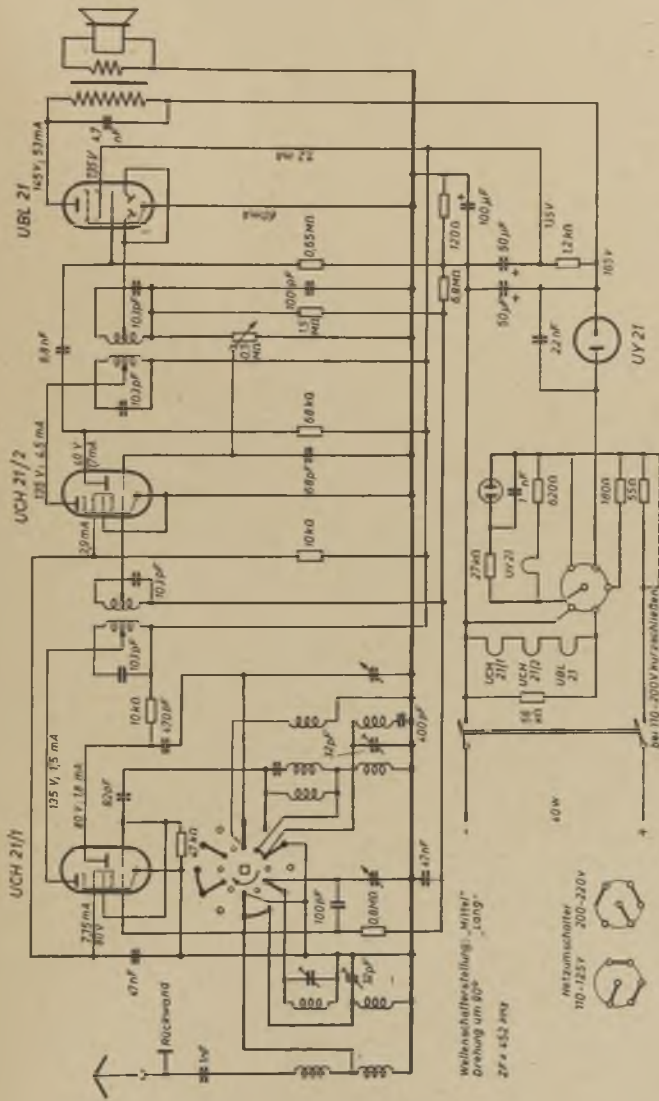


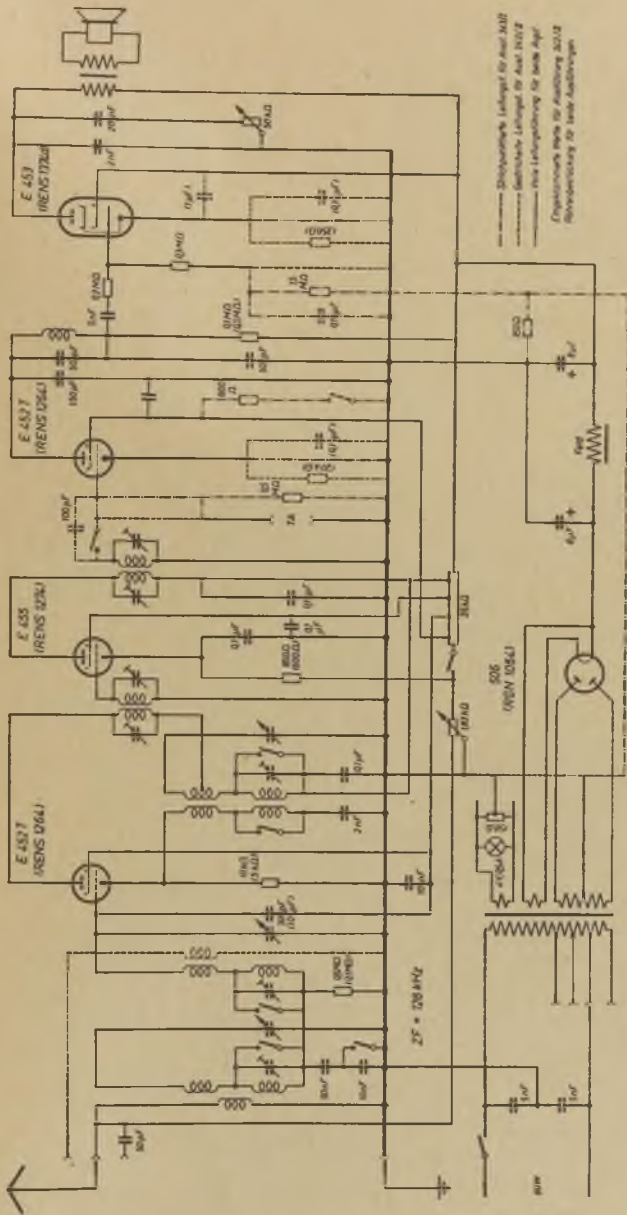


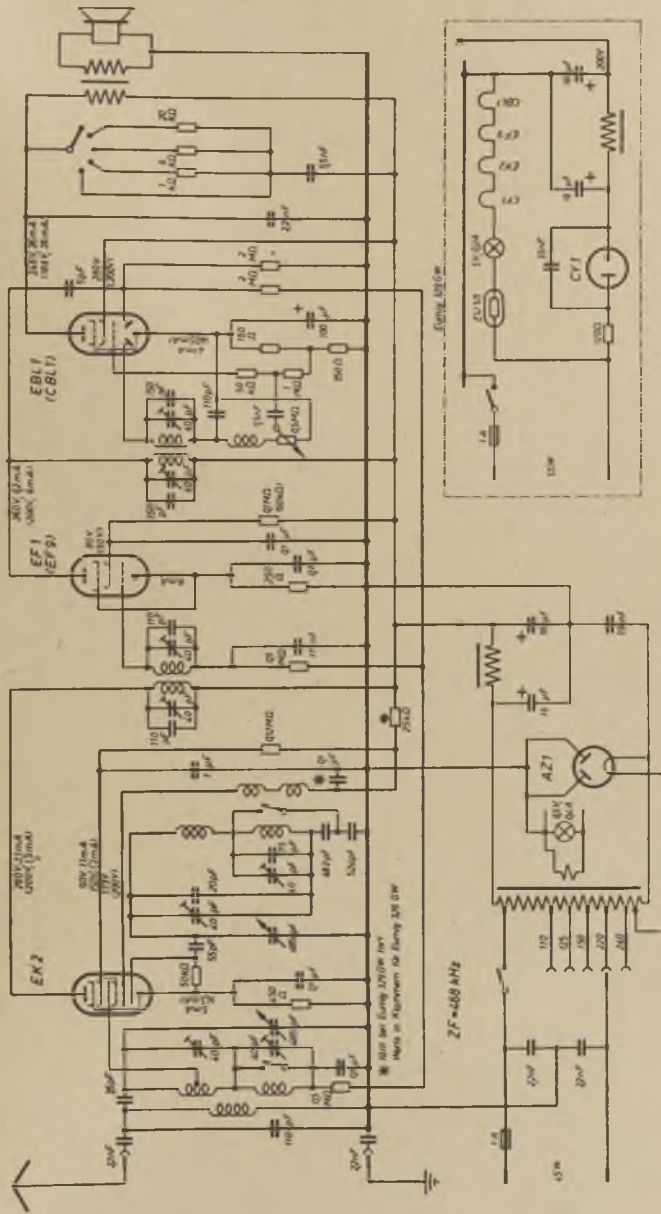
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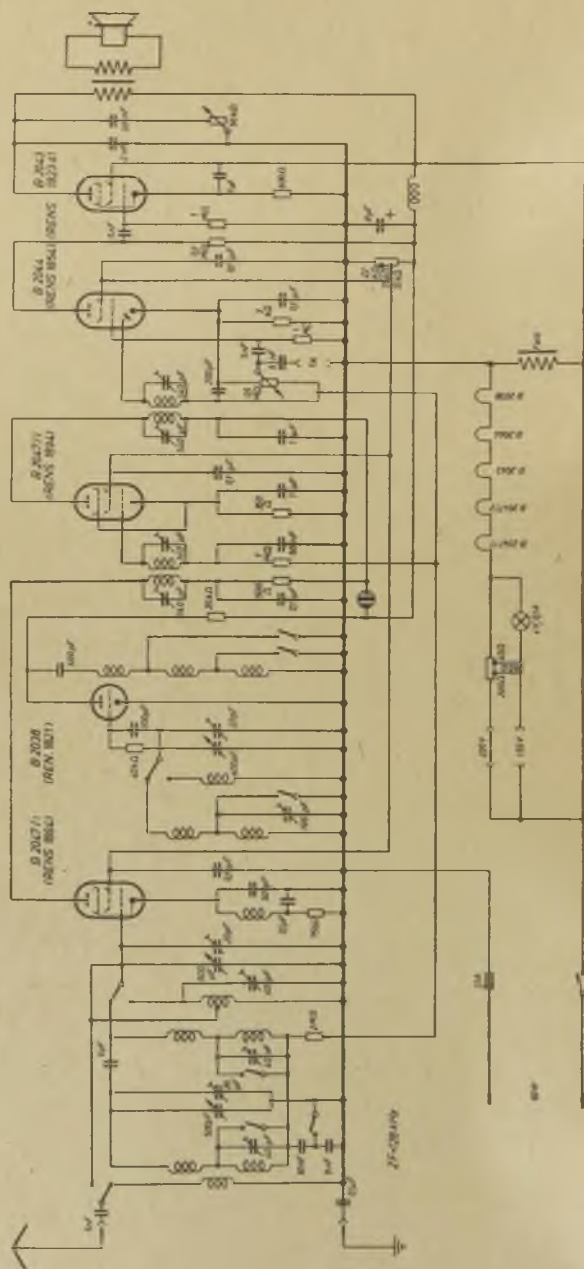
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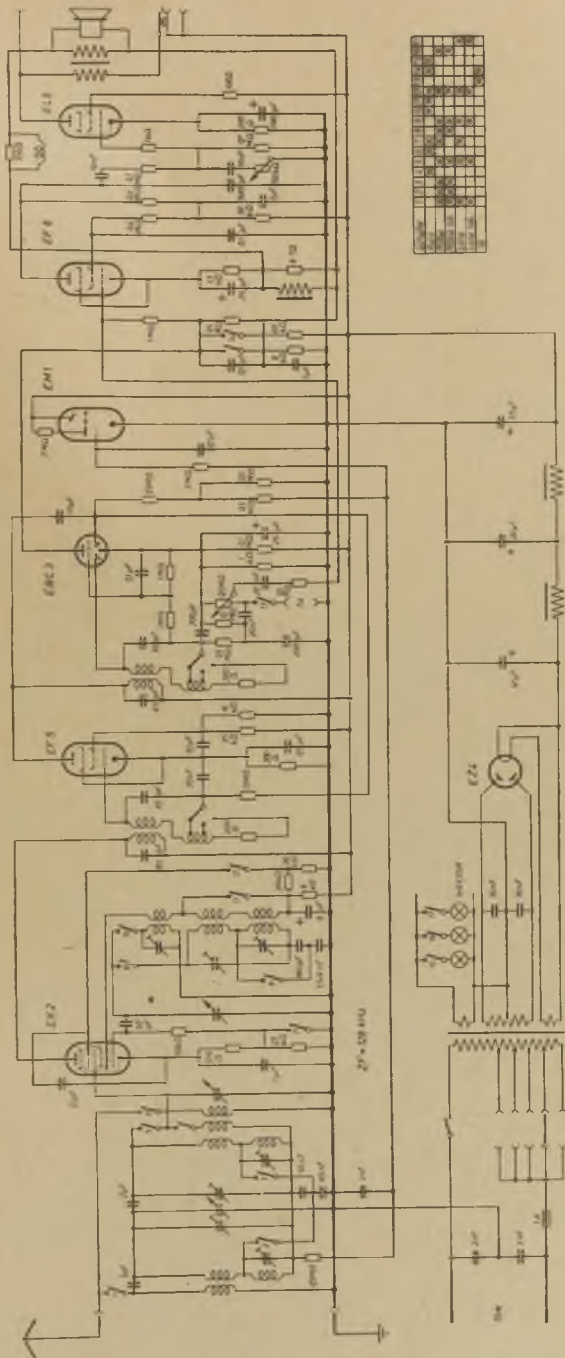




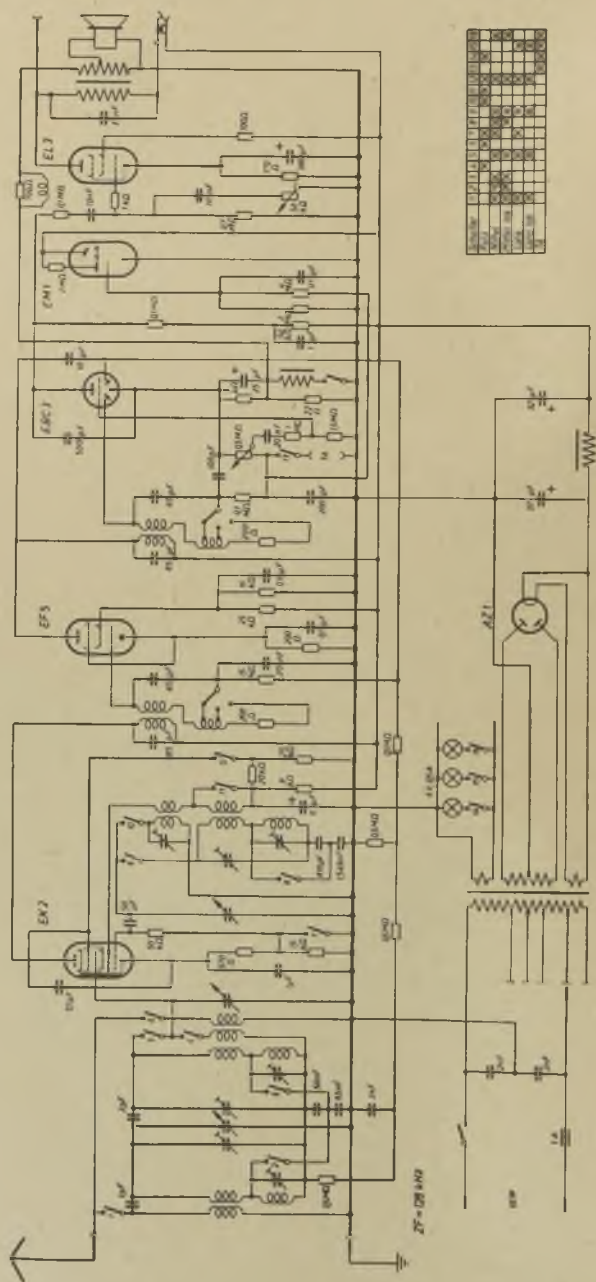




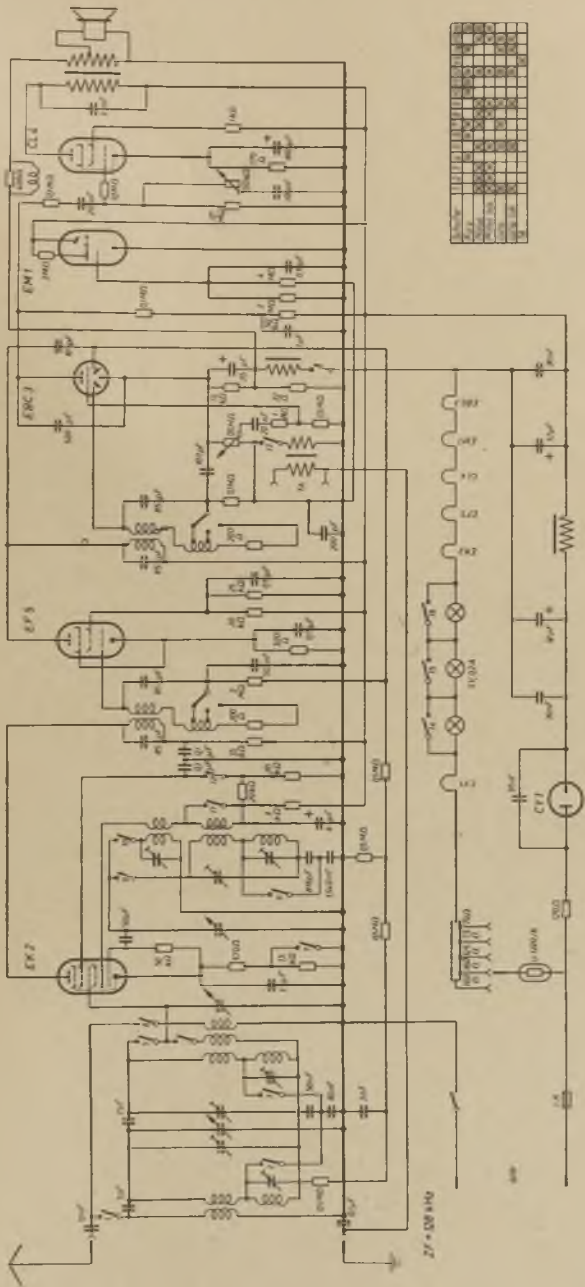




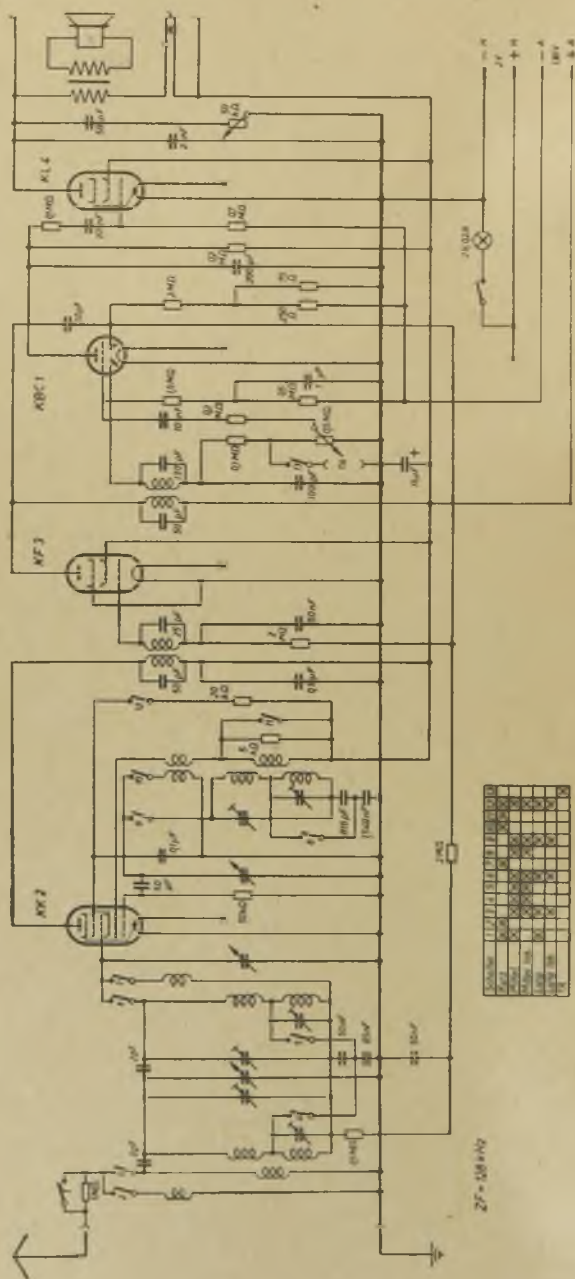
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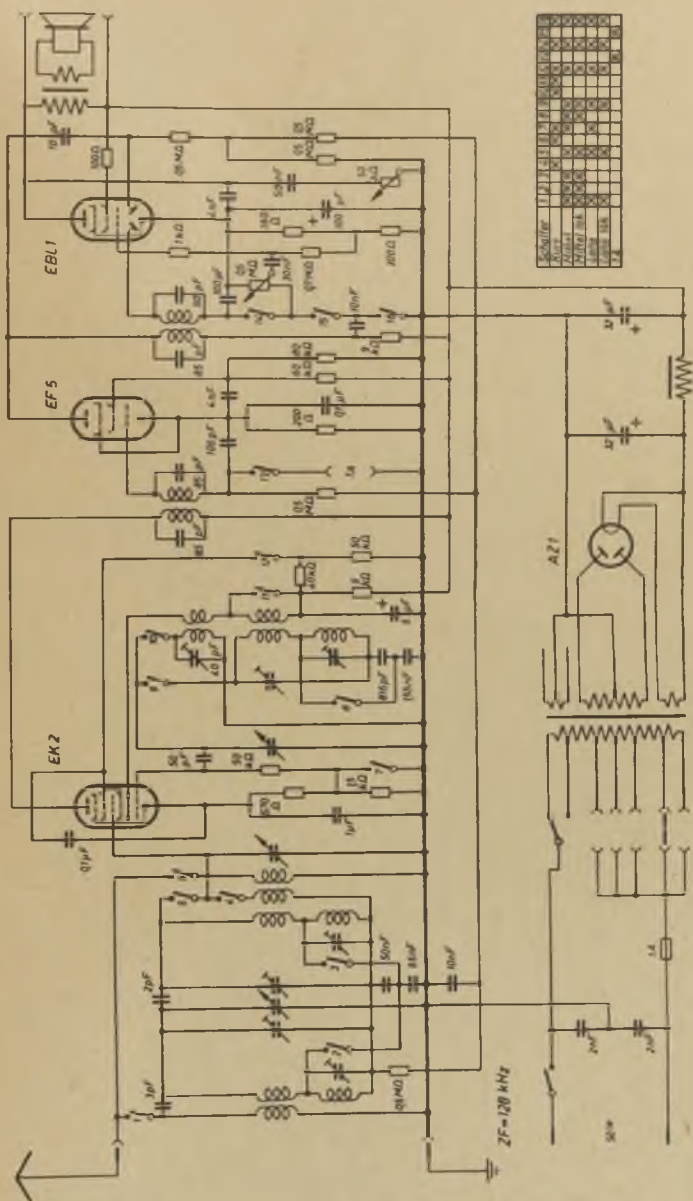


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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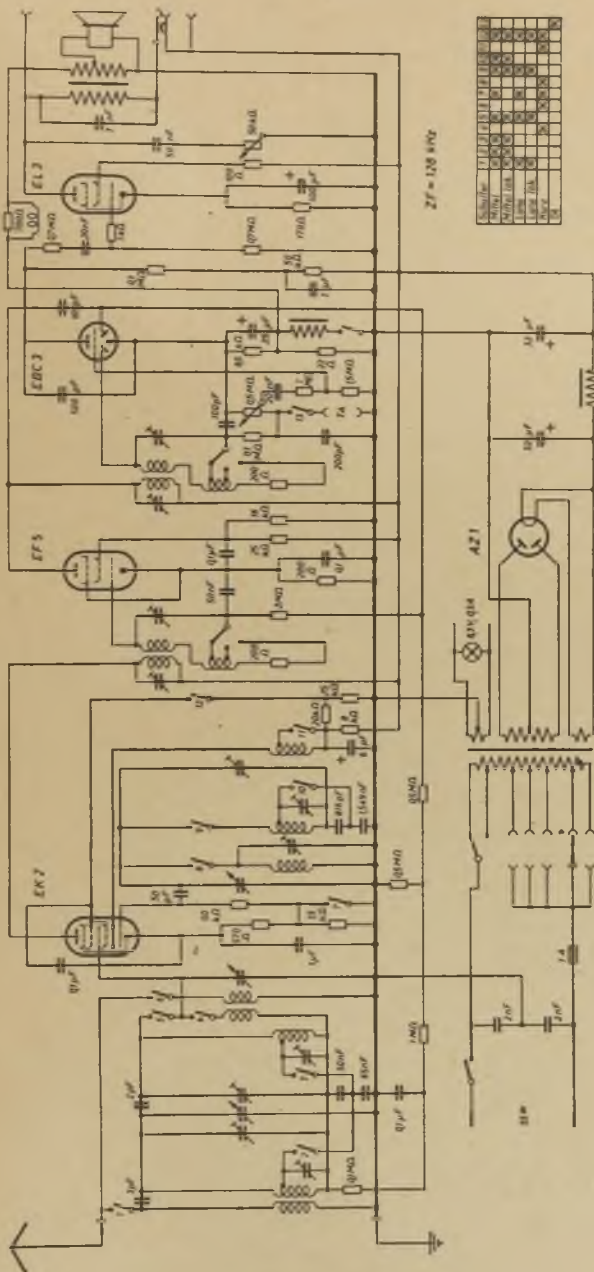


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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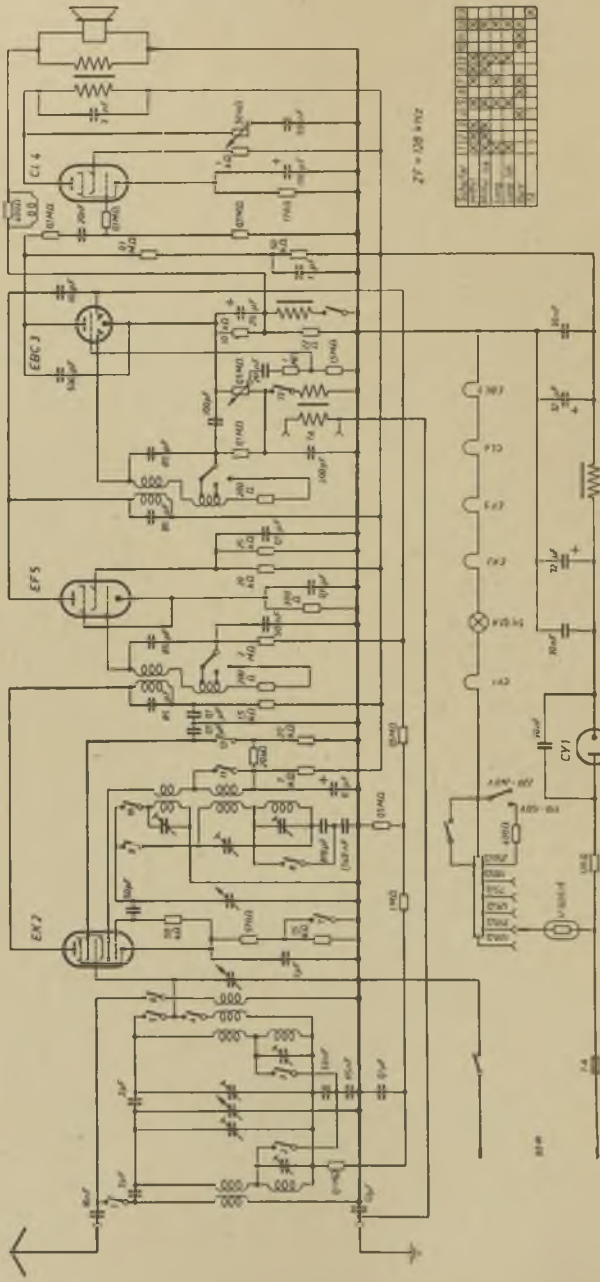


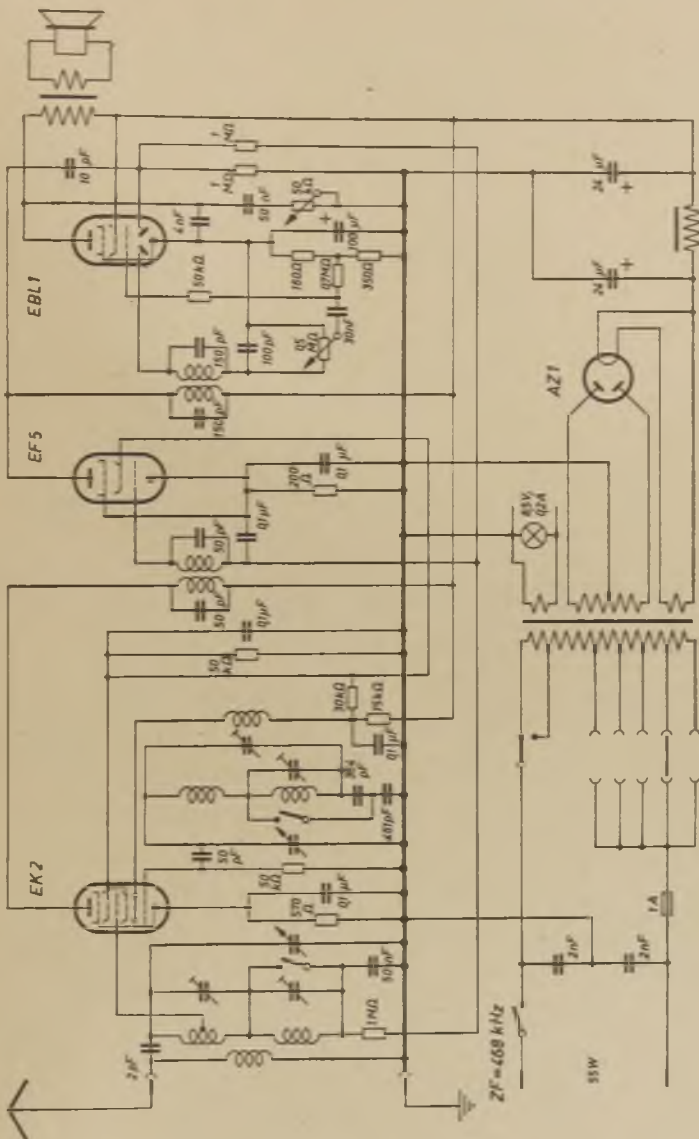


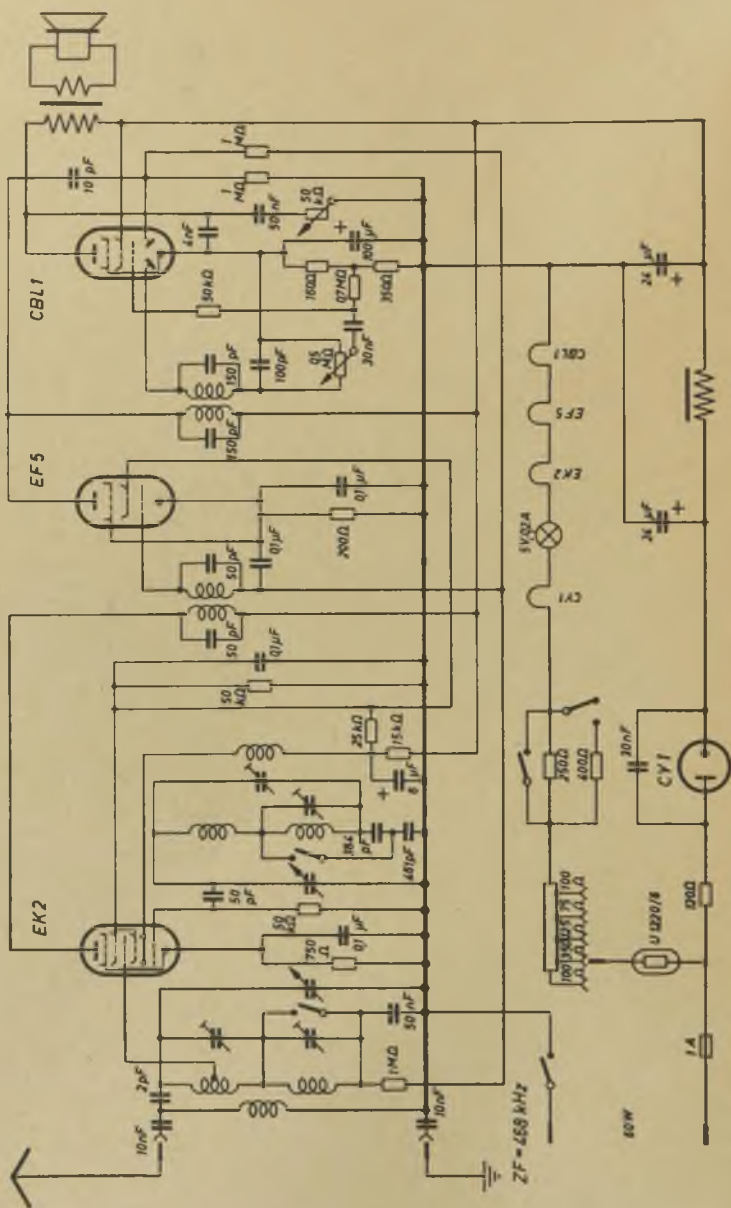
Schalter	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1																				
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3																				
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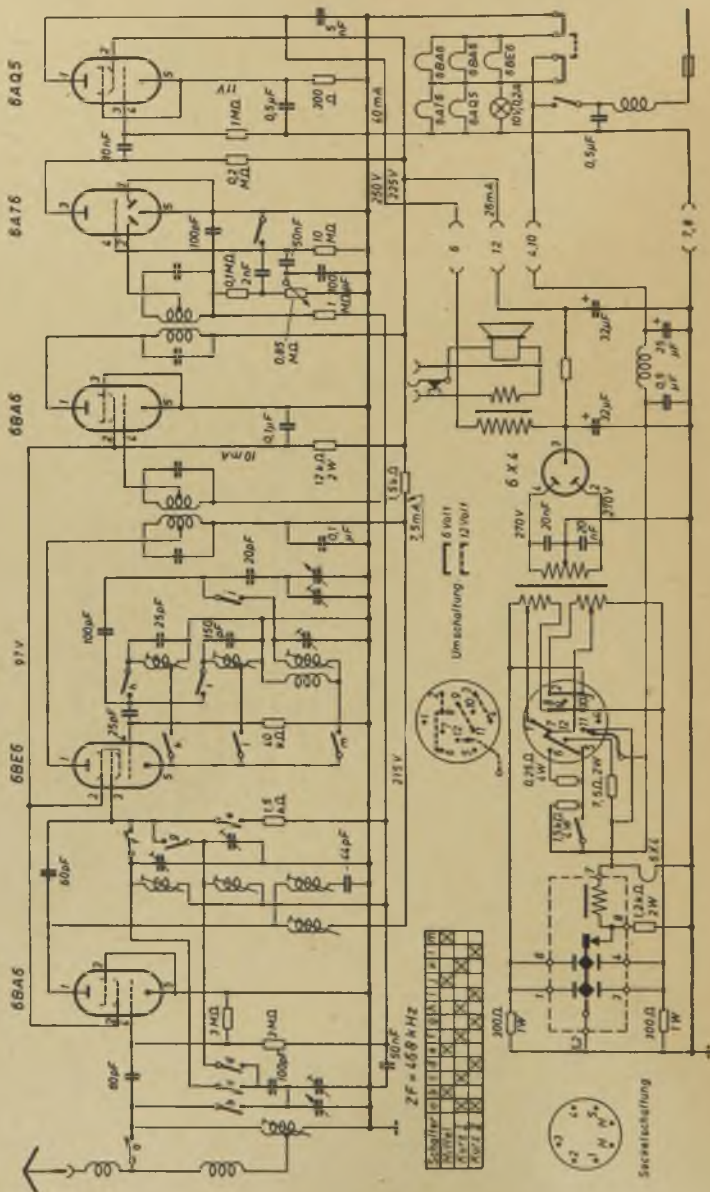
Stufe	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Widerst.	100k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k
Kondens.	100p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p
Widerst.	100k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k
Kondens.	100p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p
Widerst.	100k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k	10k
Kondens.	100p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p	10p

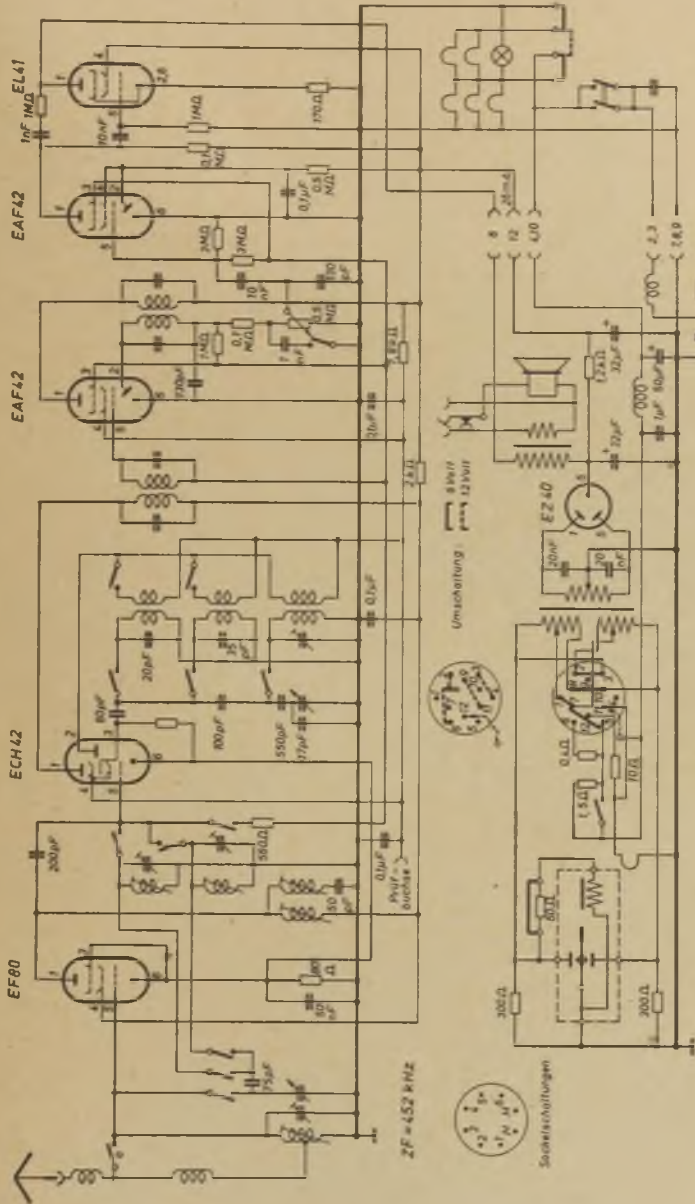


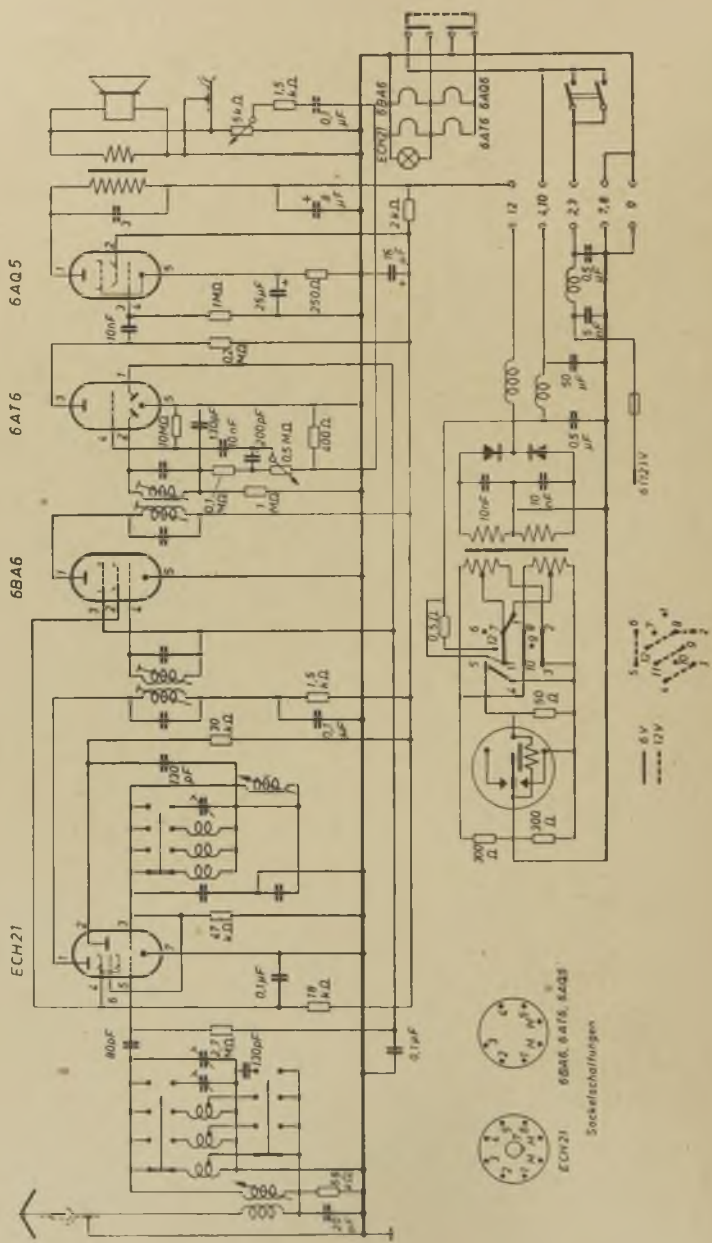


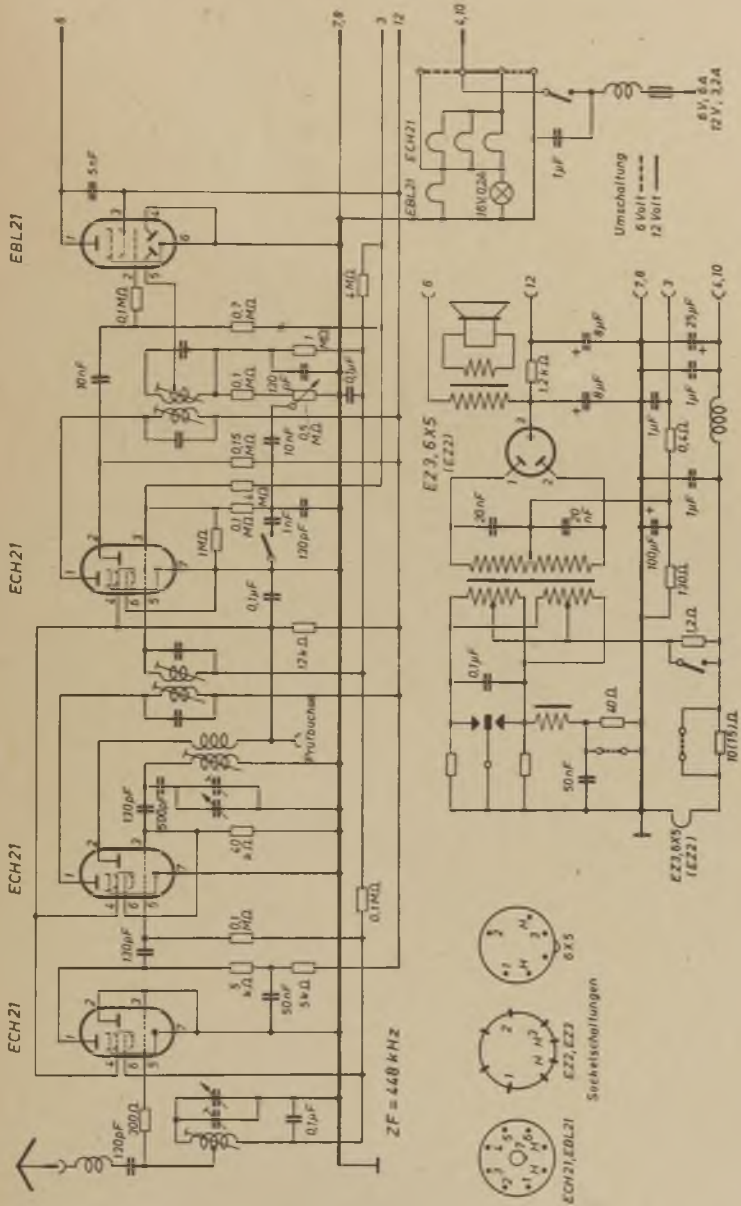


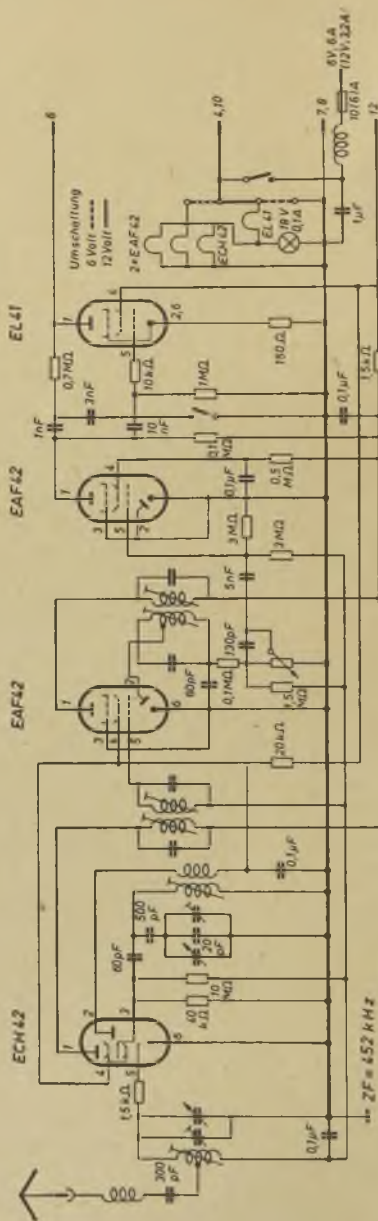
HEA







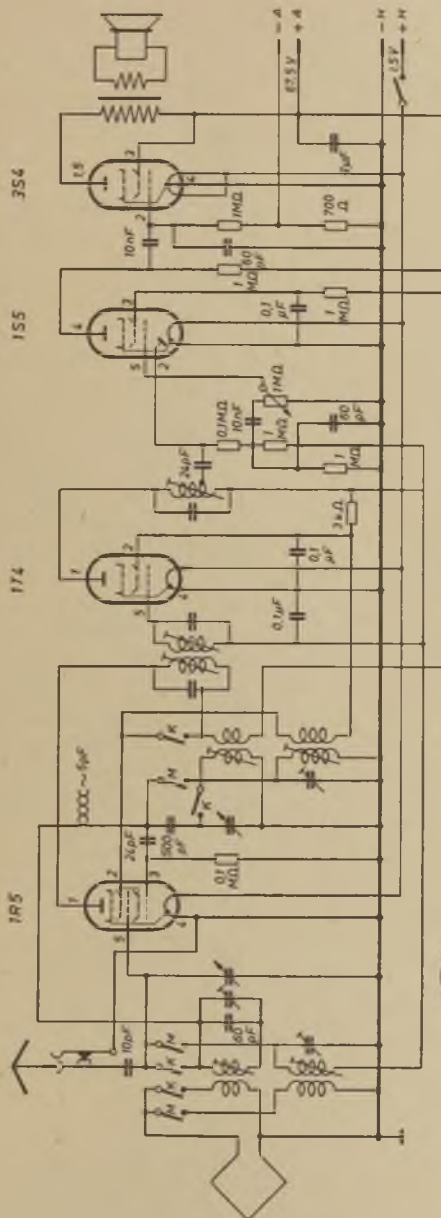


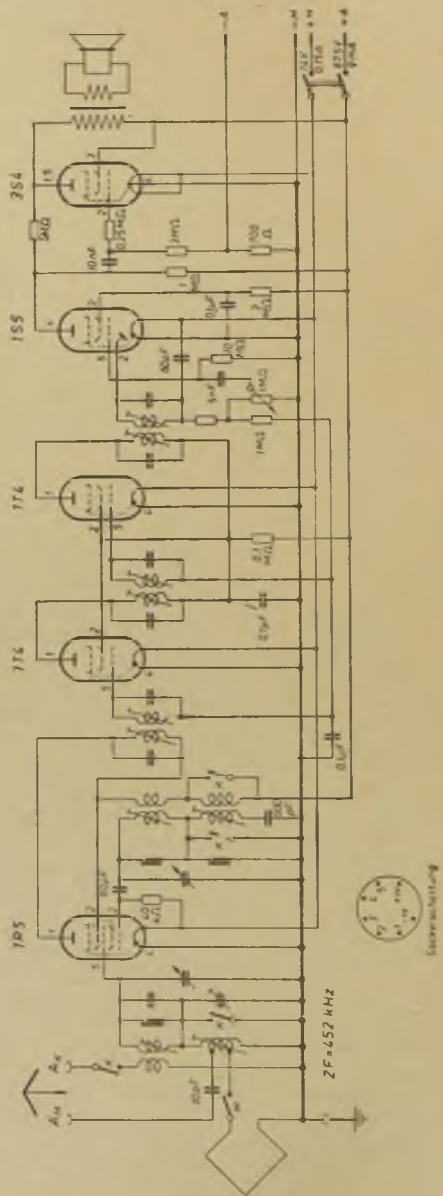


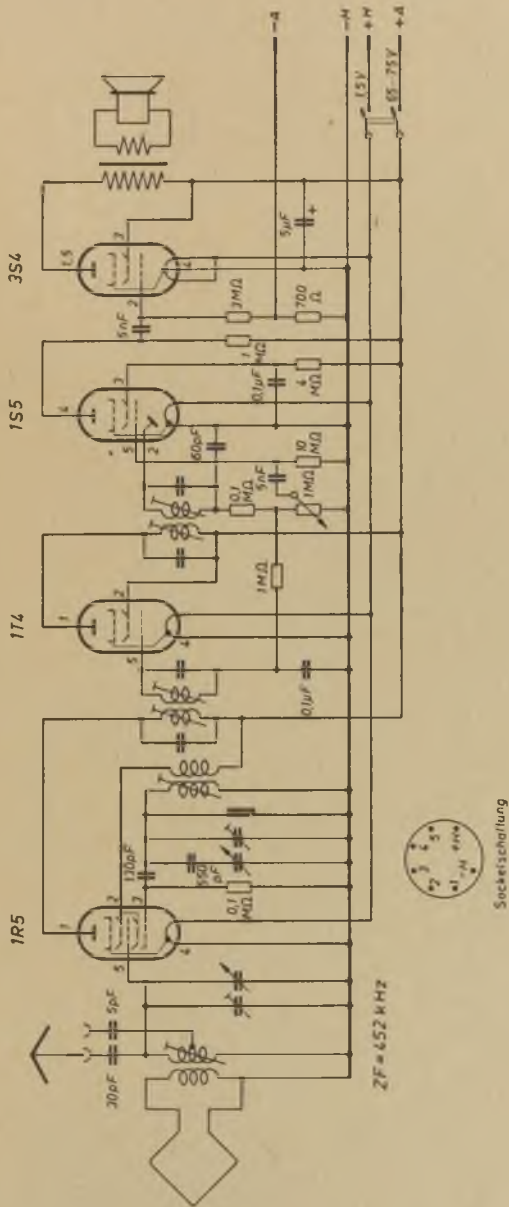
Bei ASM 50/Ford ohne Heizertumschaltung auf 6V



Sockenschaltung

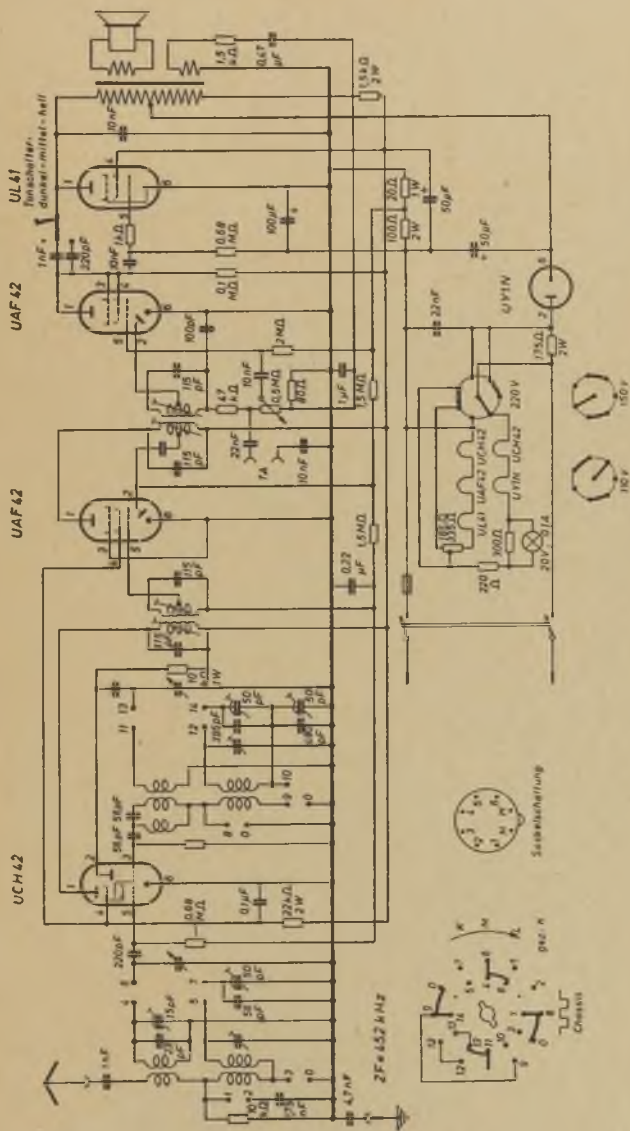


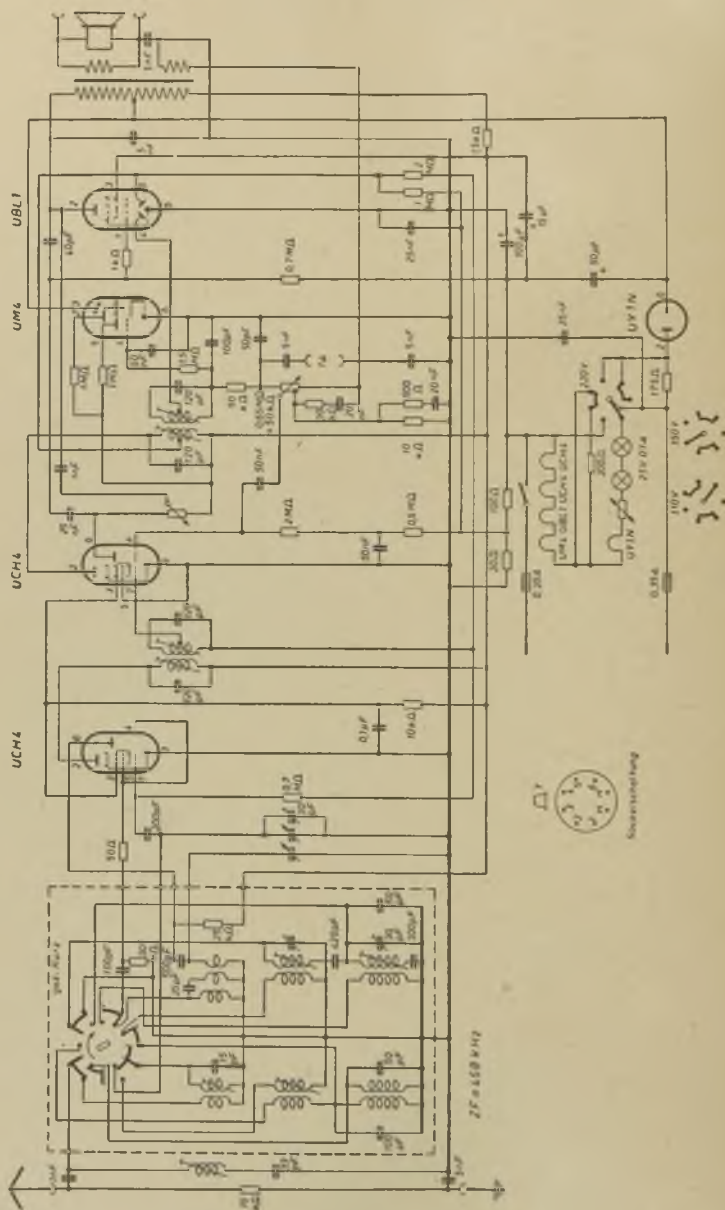




Horny

(Produktion nach 1945)

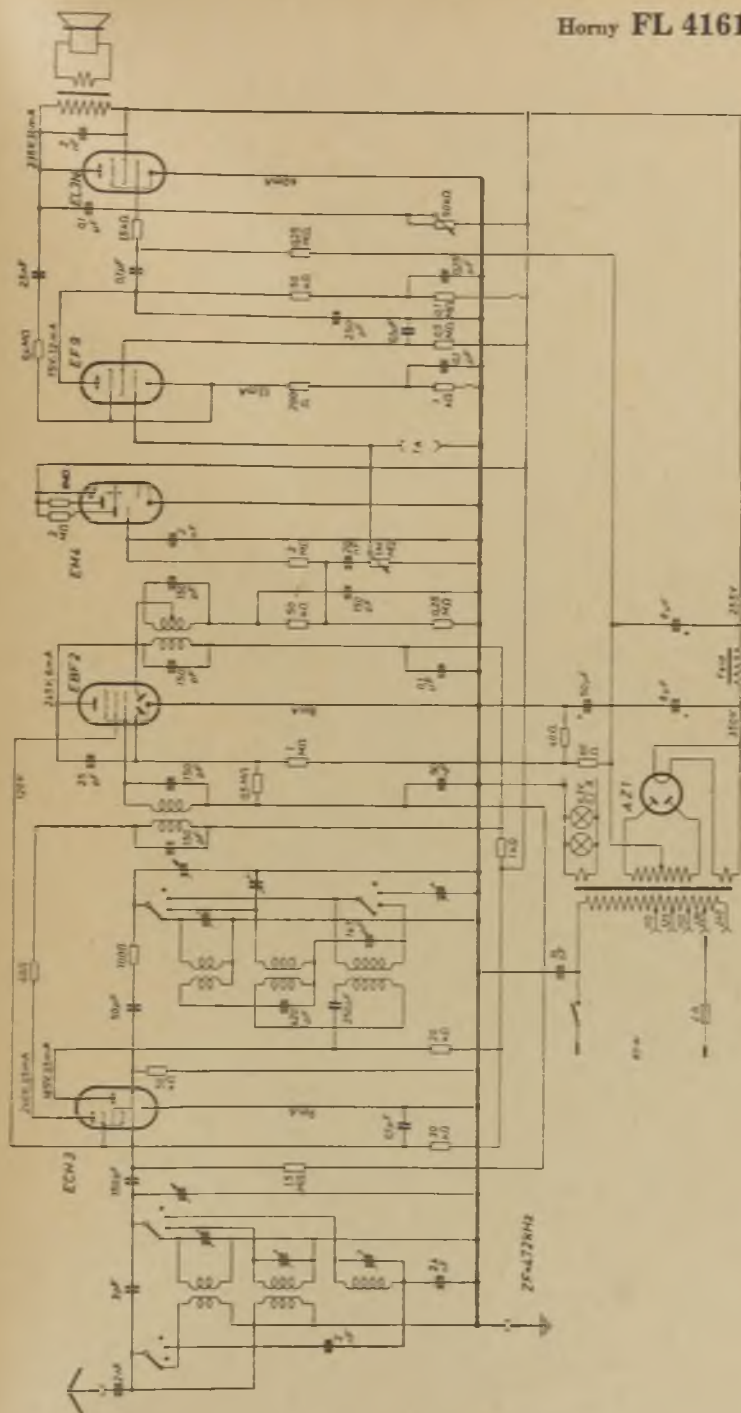




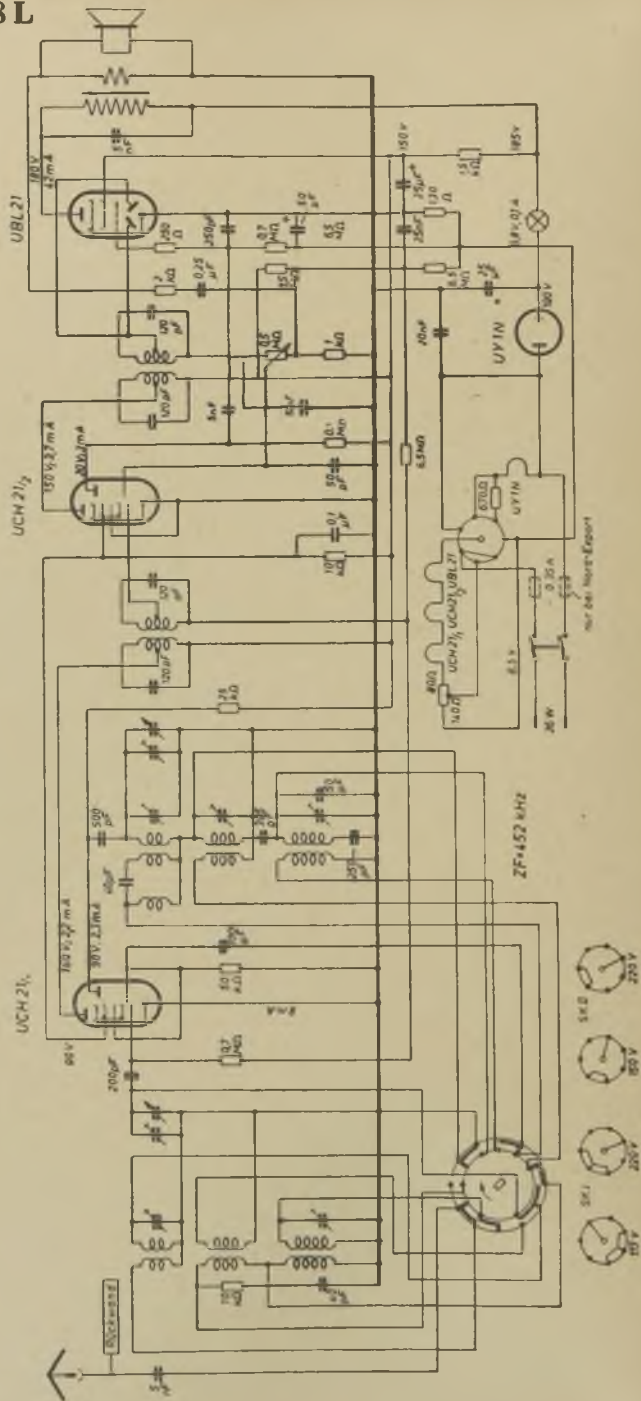
Horny

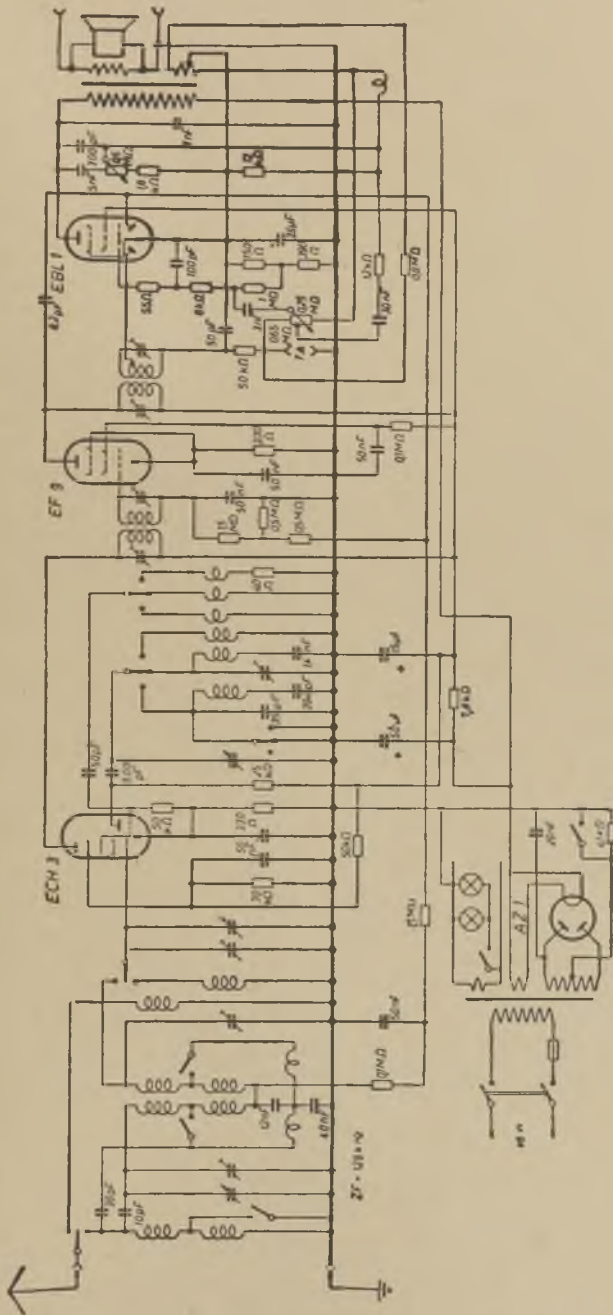
(Produktion vor 1945)



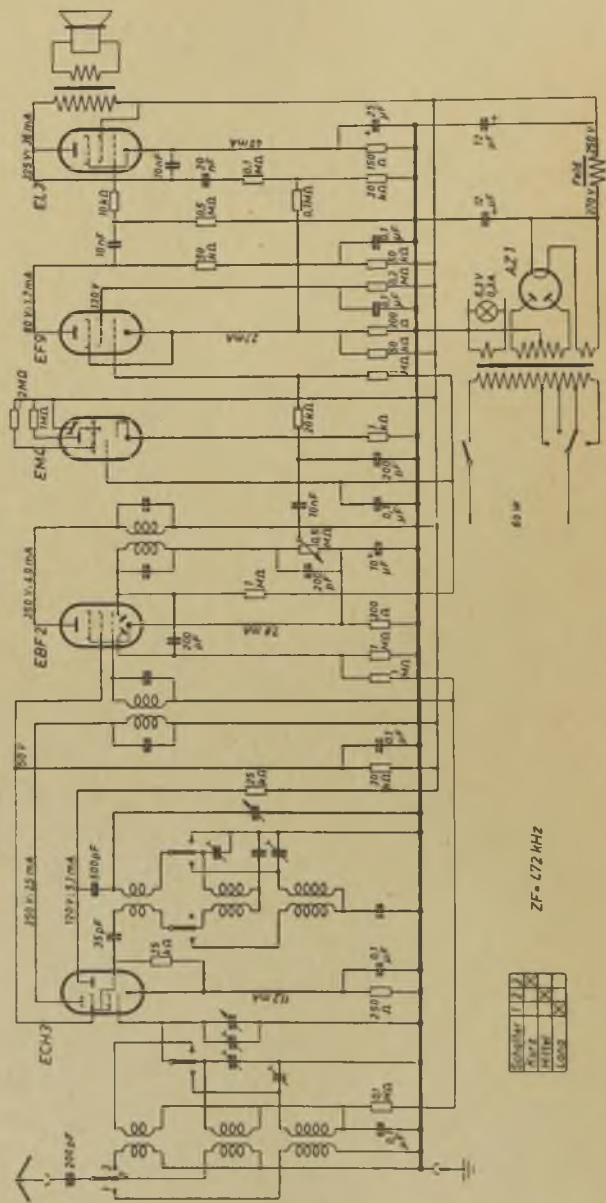


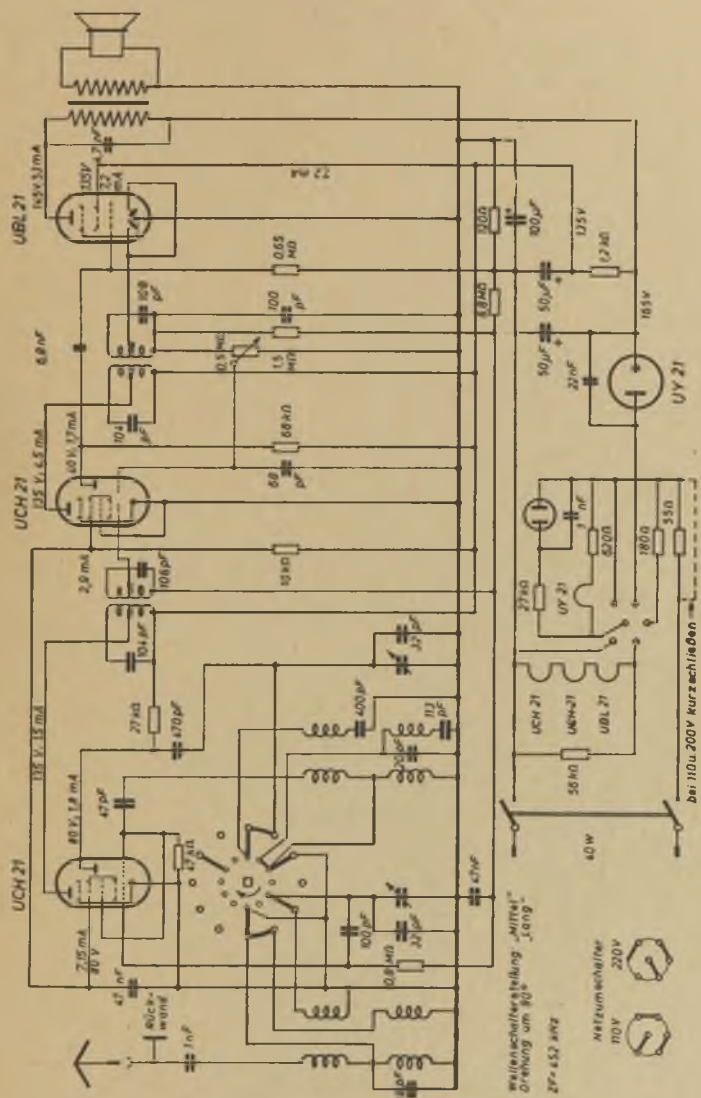
Horný 1038 L





Horny FS 642 A



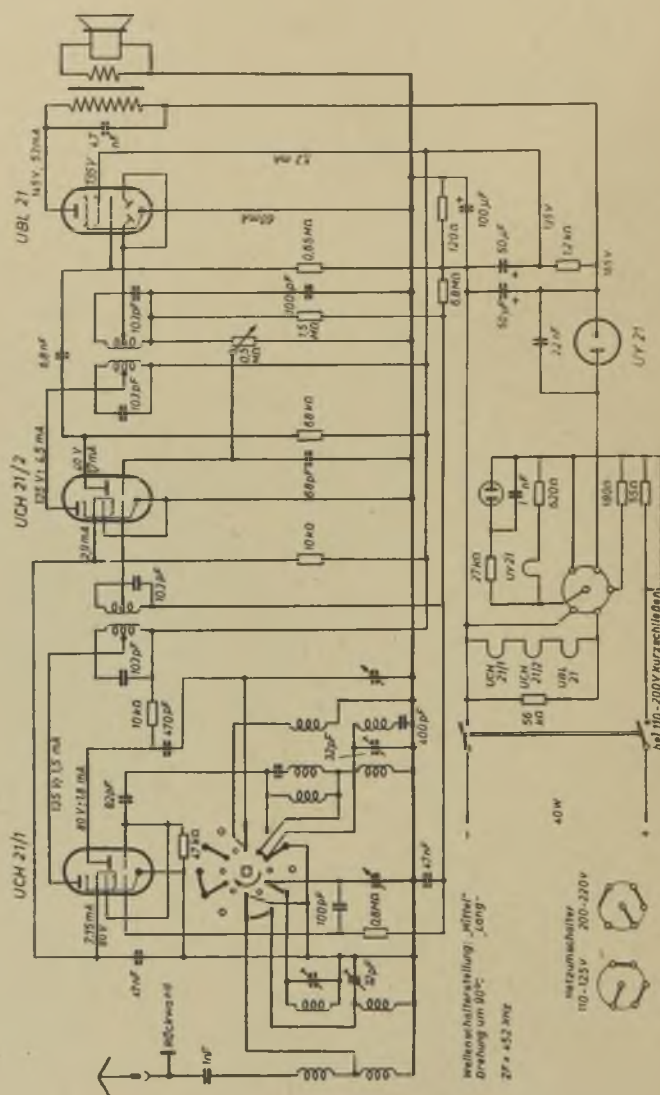


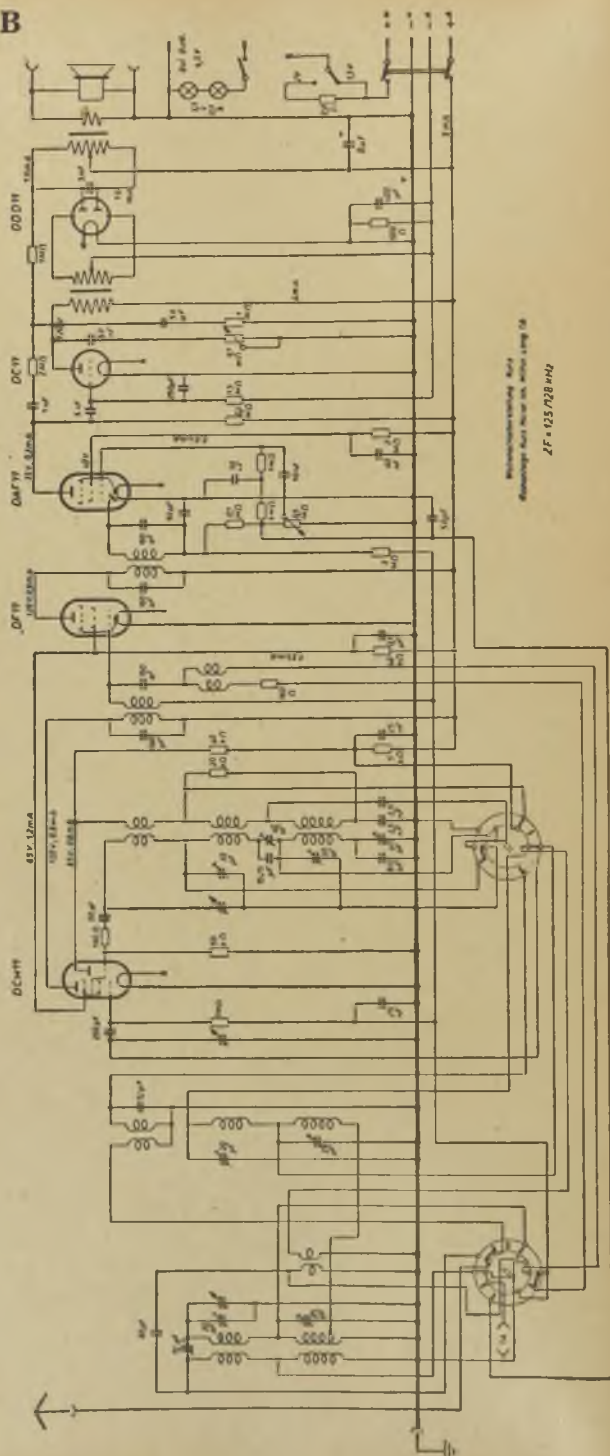
weilenschalterstellung „Mittel“
Drehung um 80°

ZFR-653 kHz

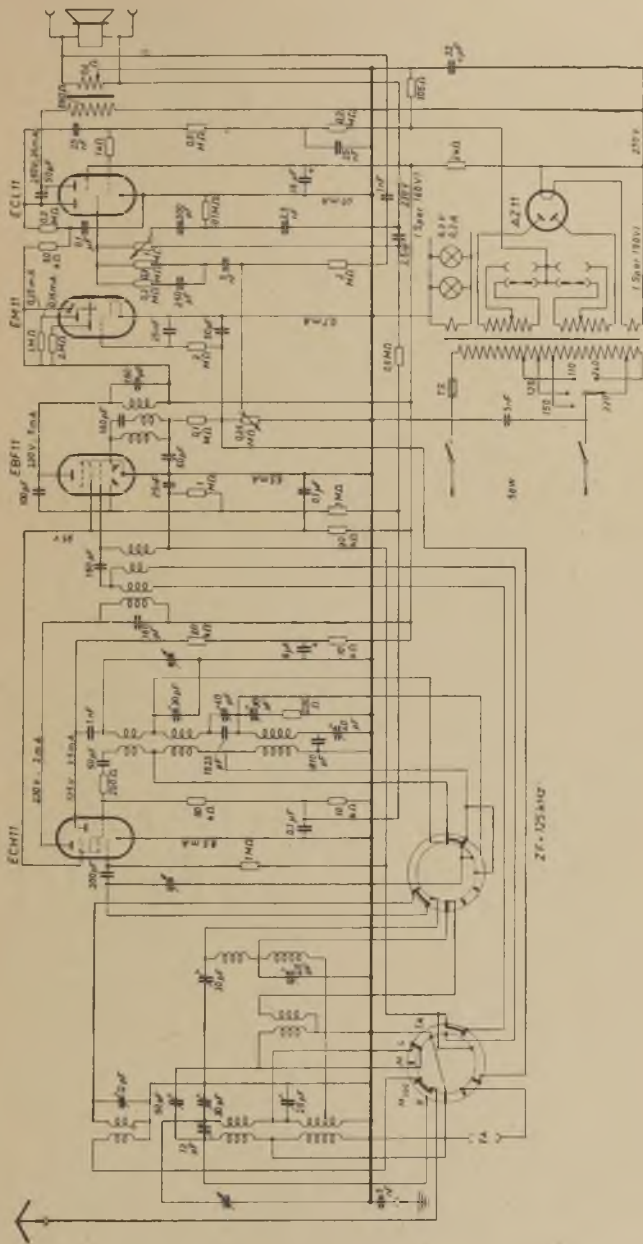
ANZEIGENLAMPPE
110V 20V

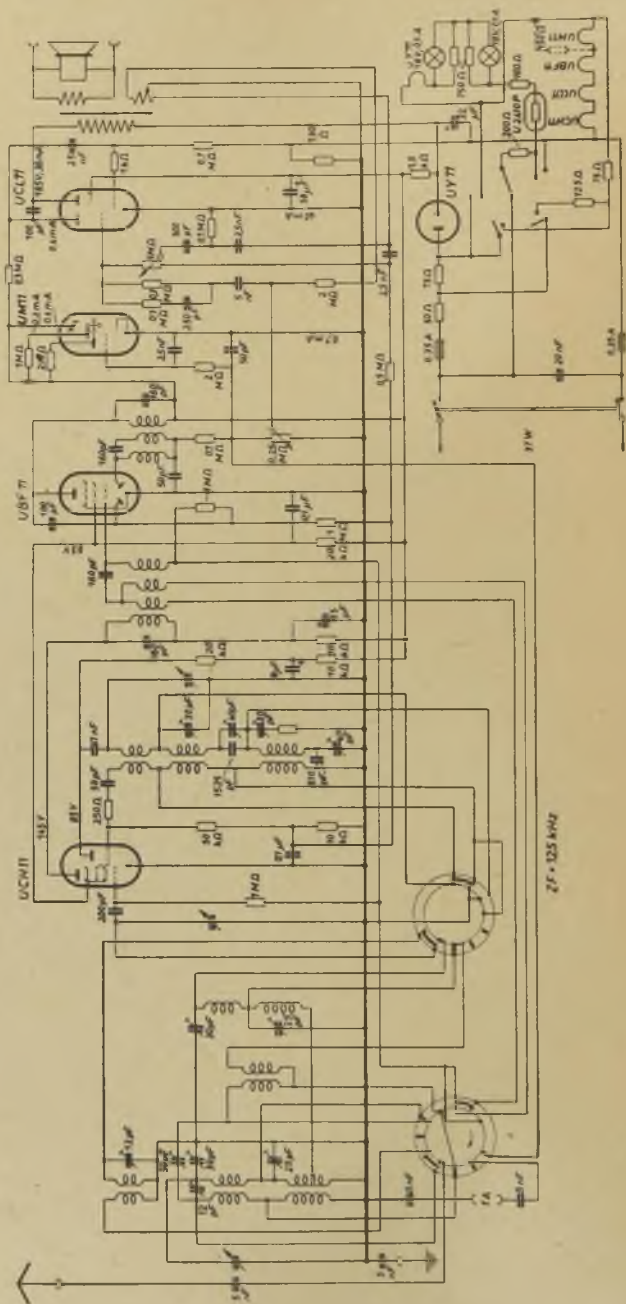
Bei 110-200V Kurzschließen

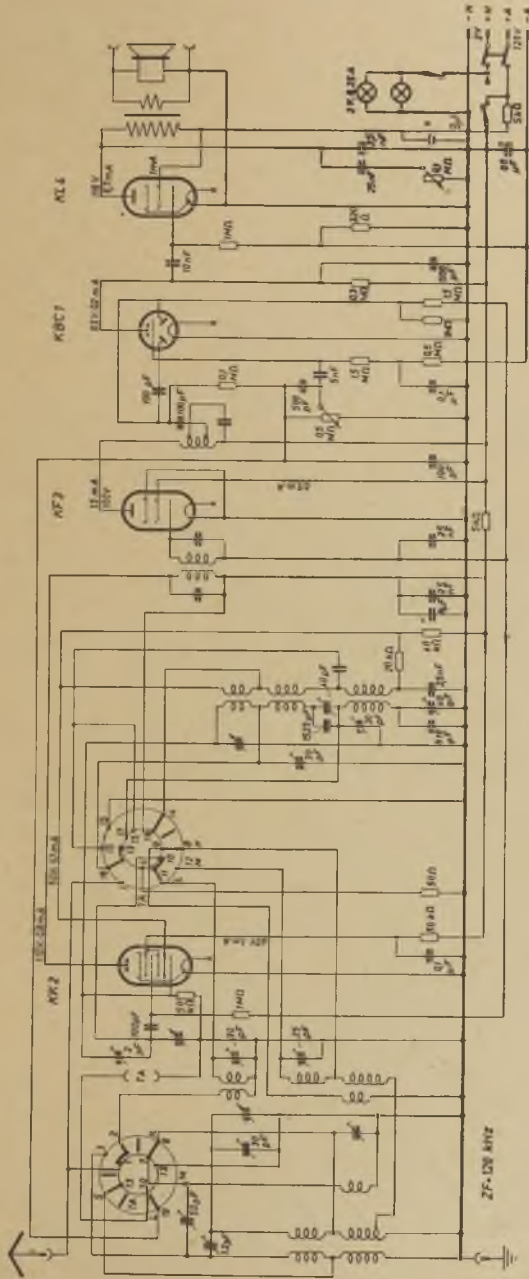


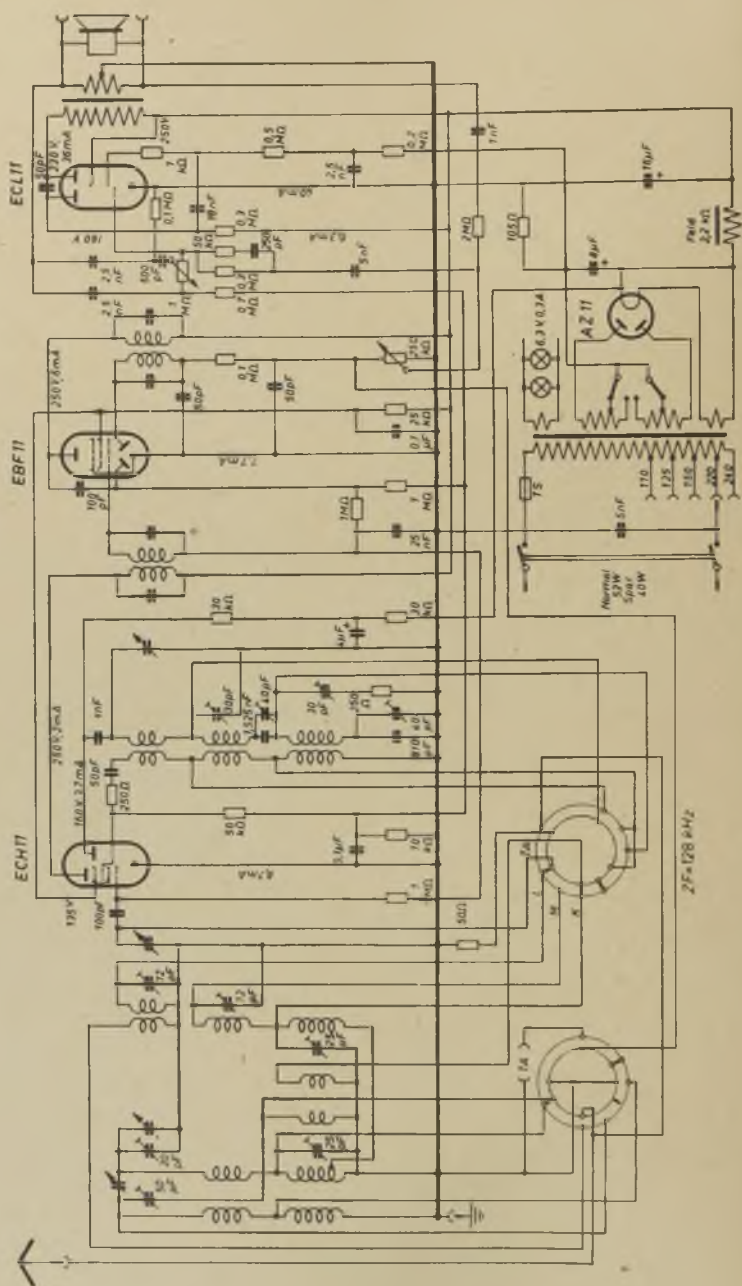


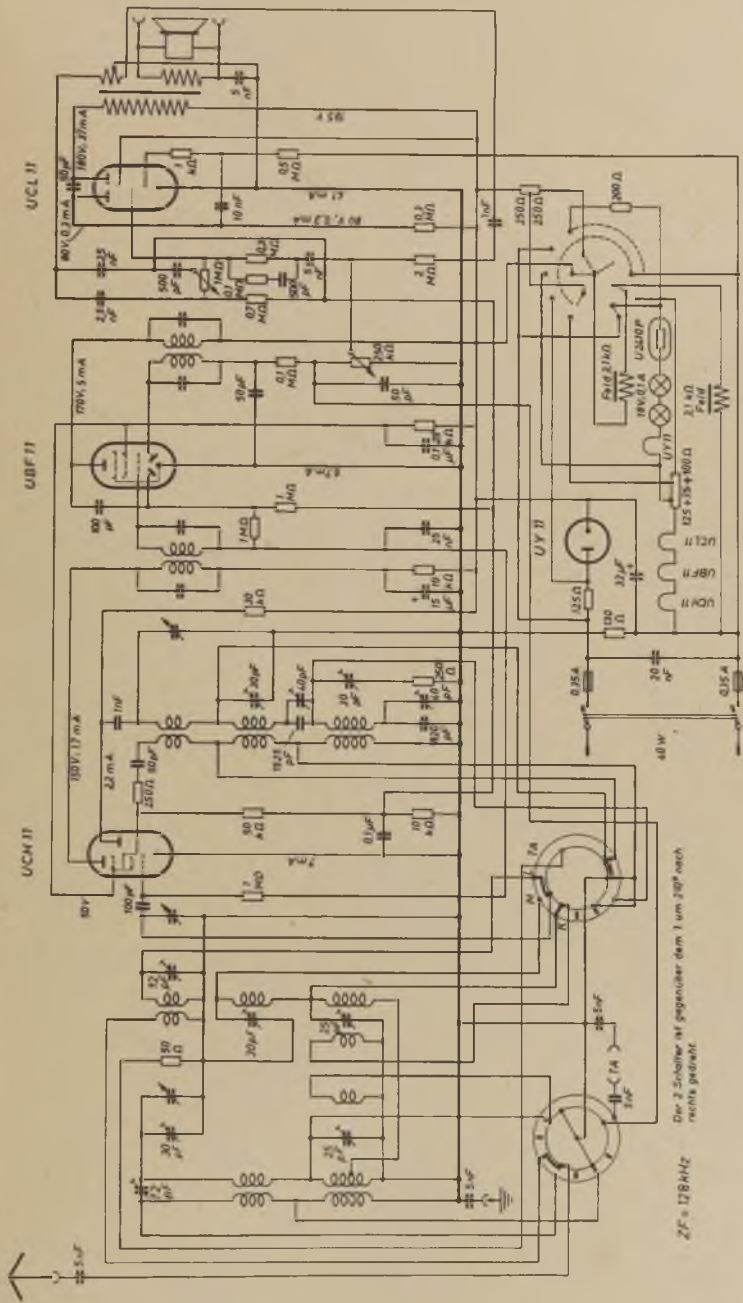
Microelectronics Dept.
 Massachusetts Inst. of Tech. Cambridge, MA
 ZF - 123,728 MHz





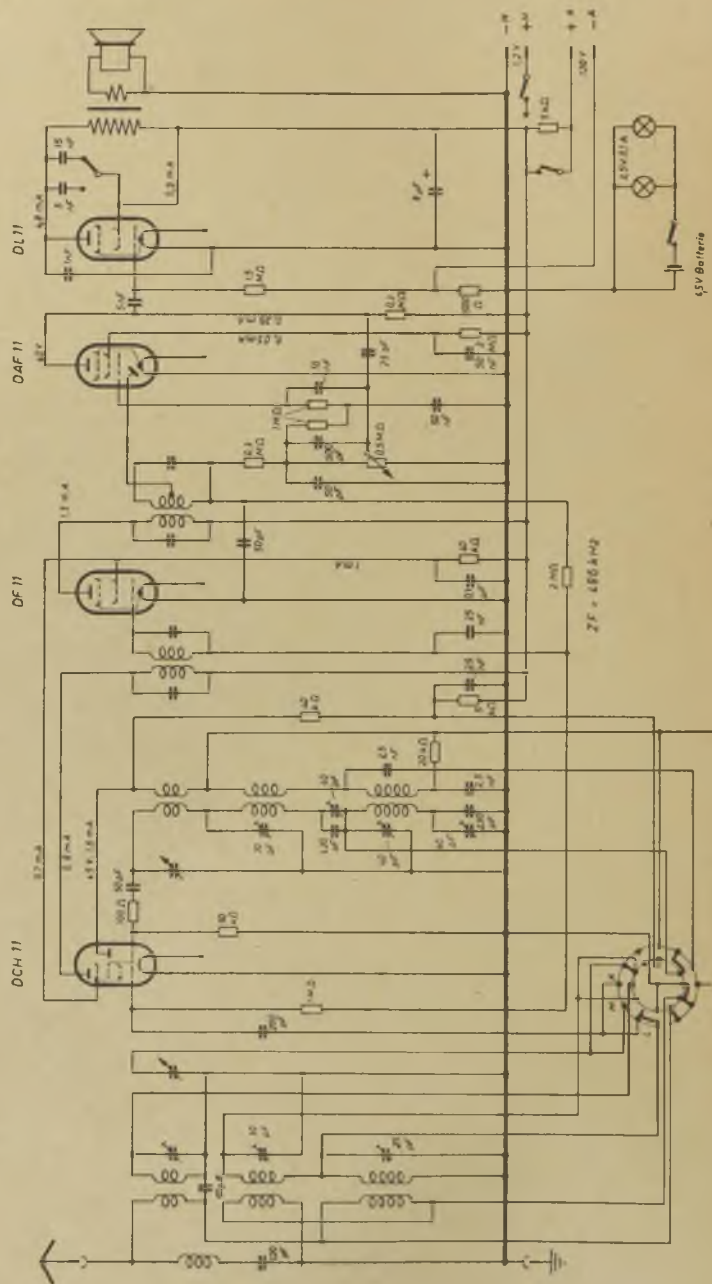


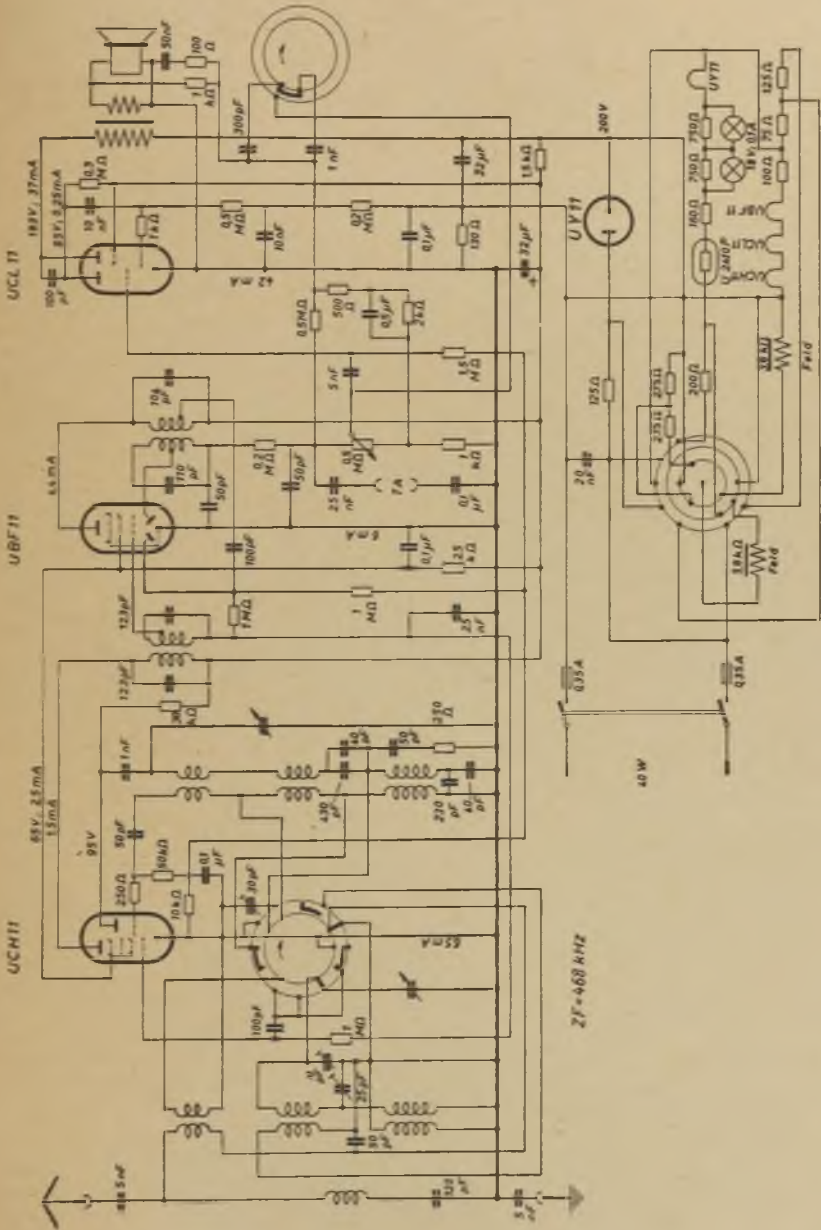




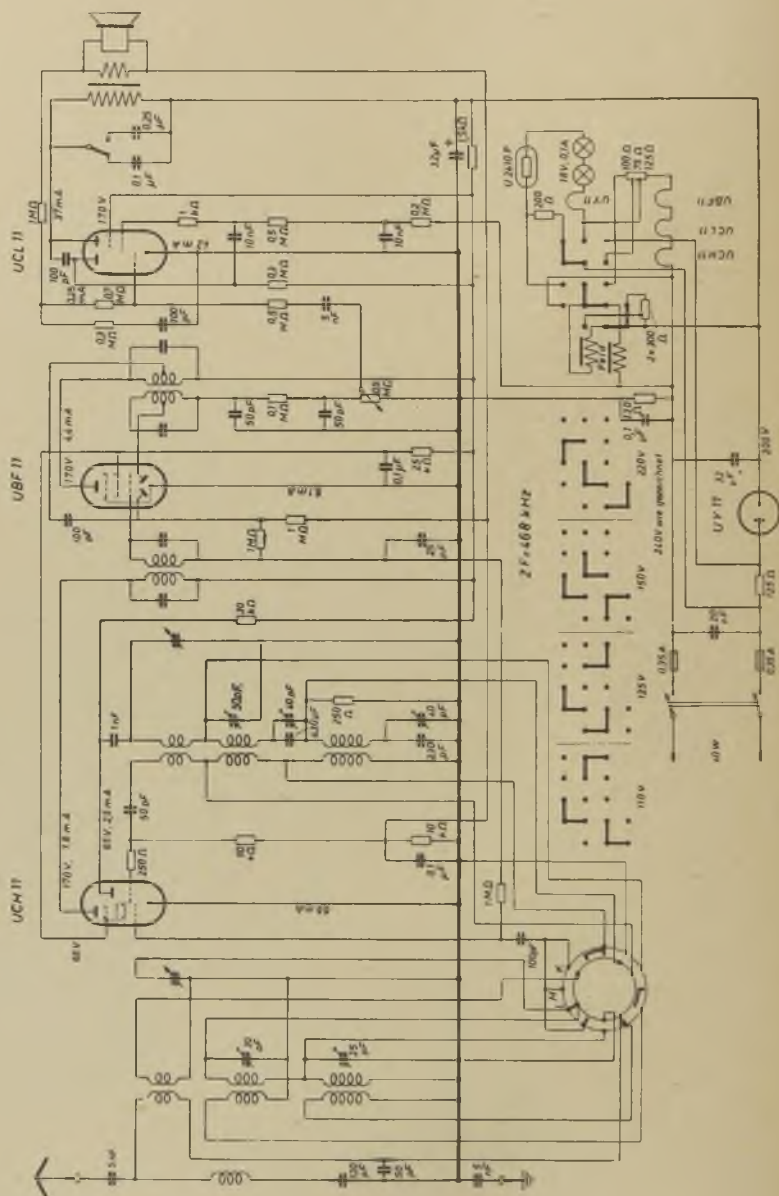
250V 12B kHz Die 2. Schiene ist gegenüber dem 1. um 30° nach rechts gedreht.

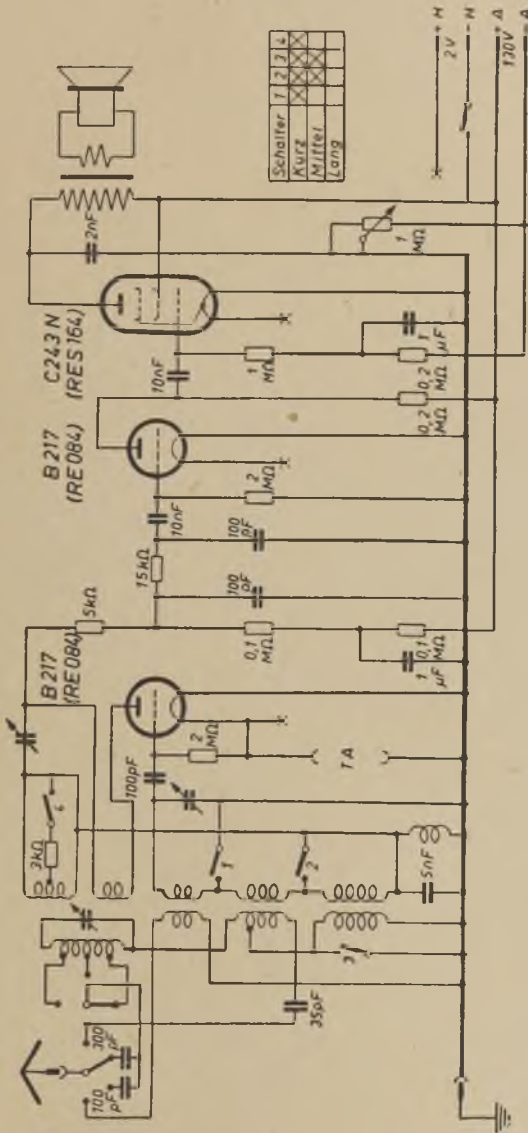
Horny K 46 B





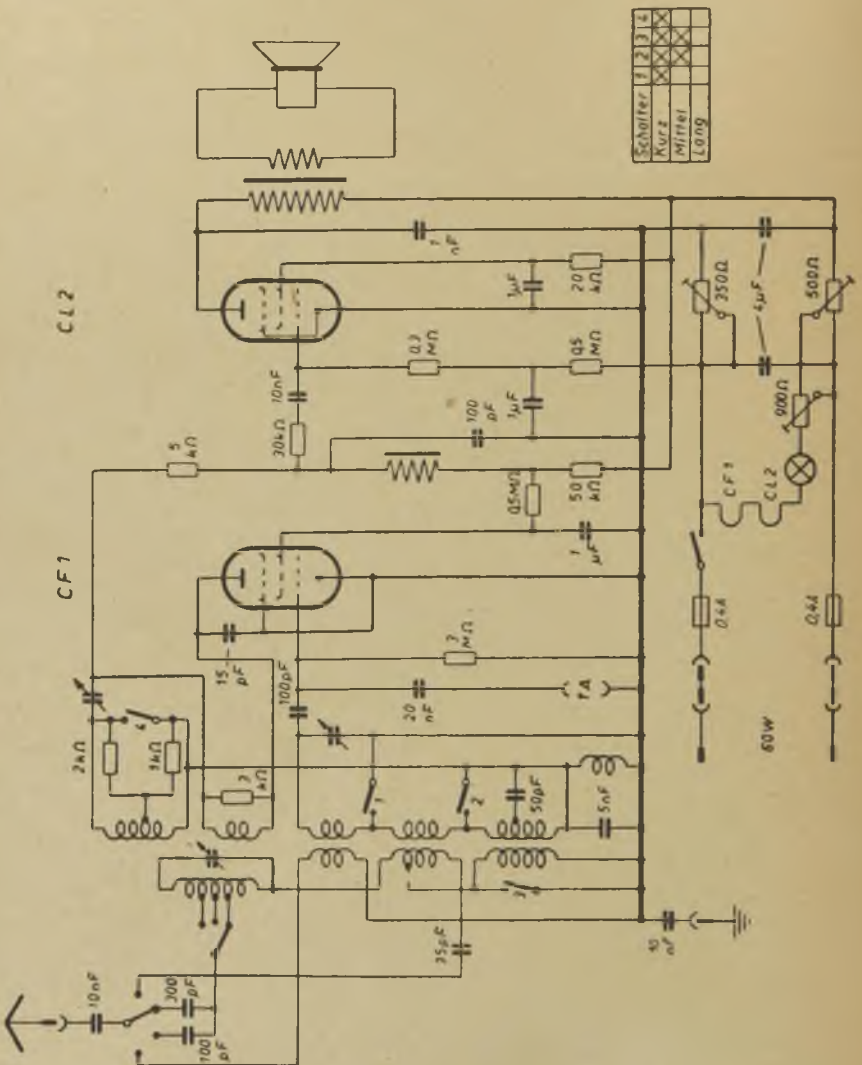
Horný K 36 L

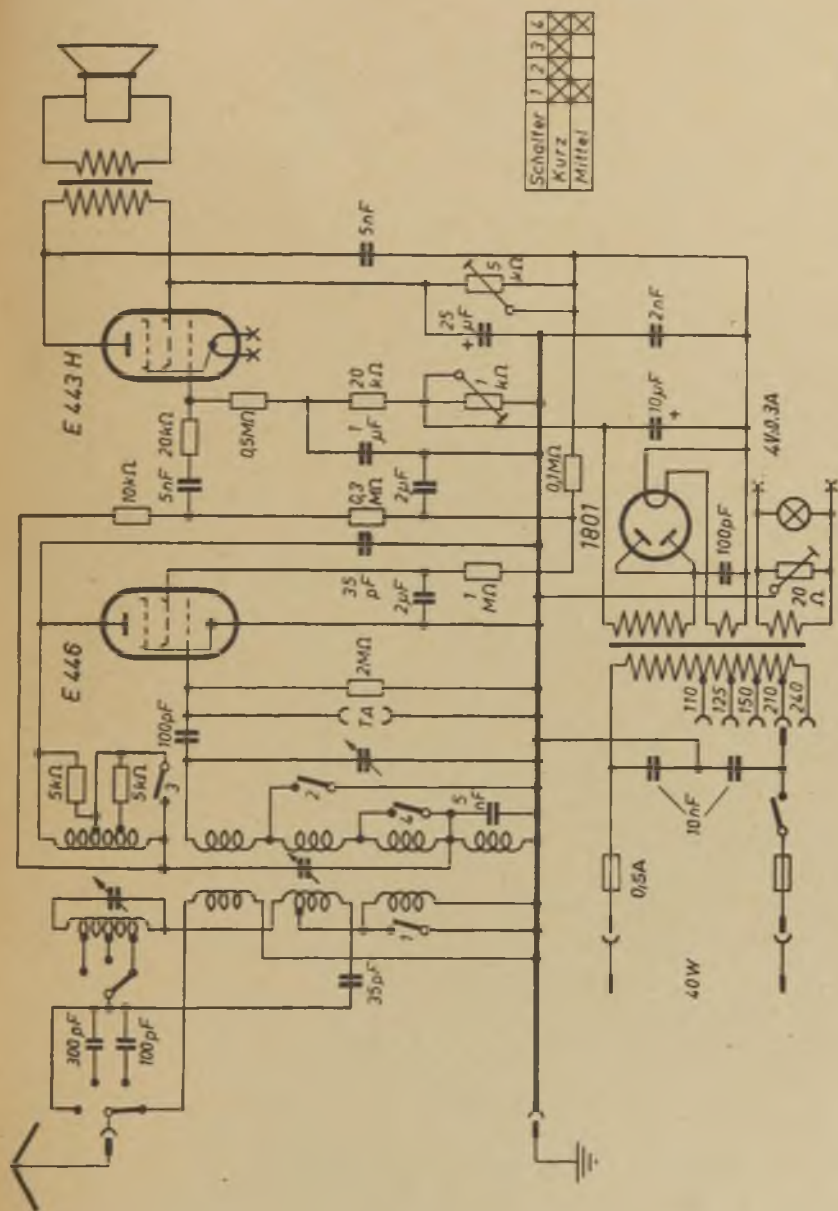




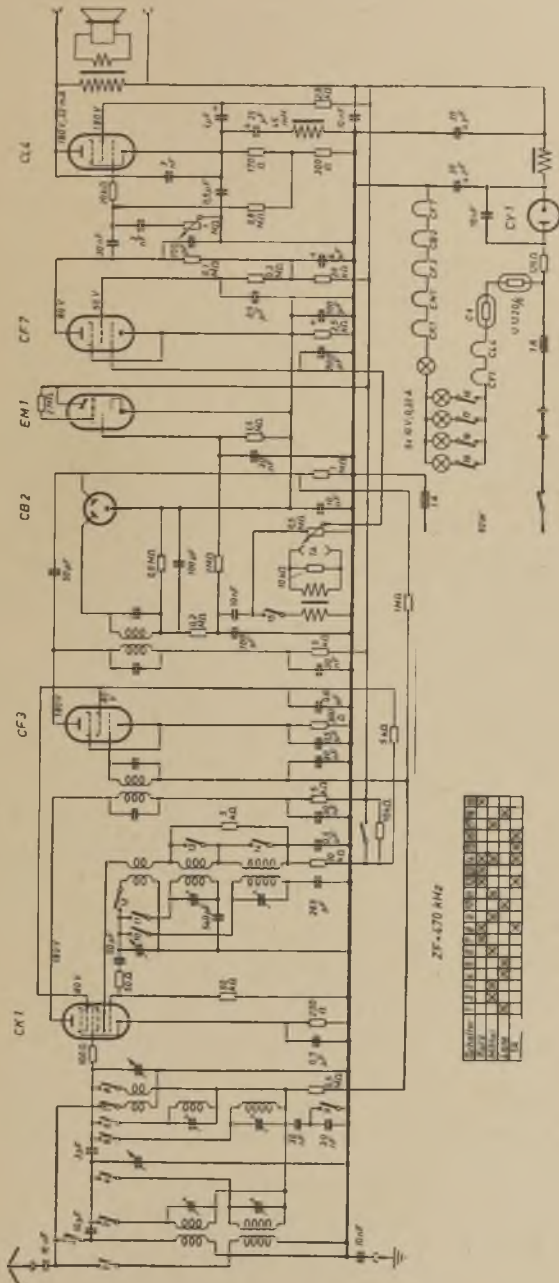
Schalter	1	2	3
Kurz	X	X	X
Mittel	X	X	X
Lang	X	X	X

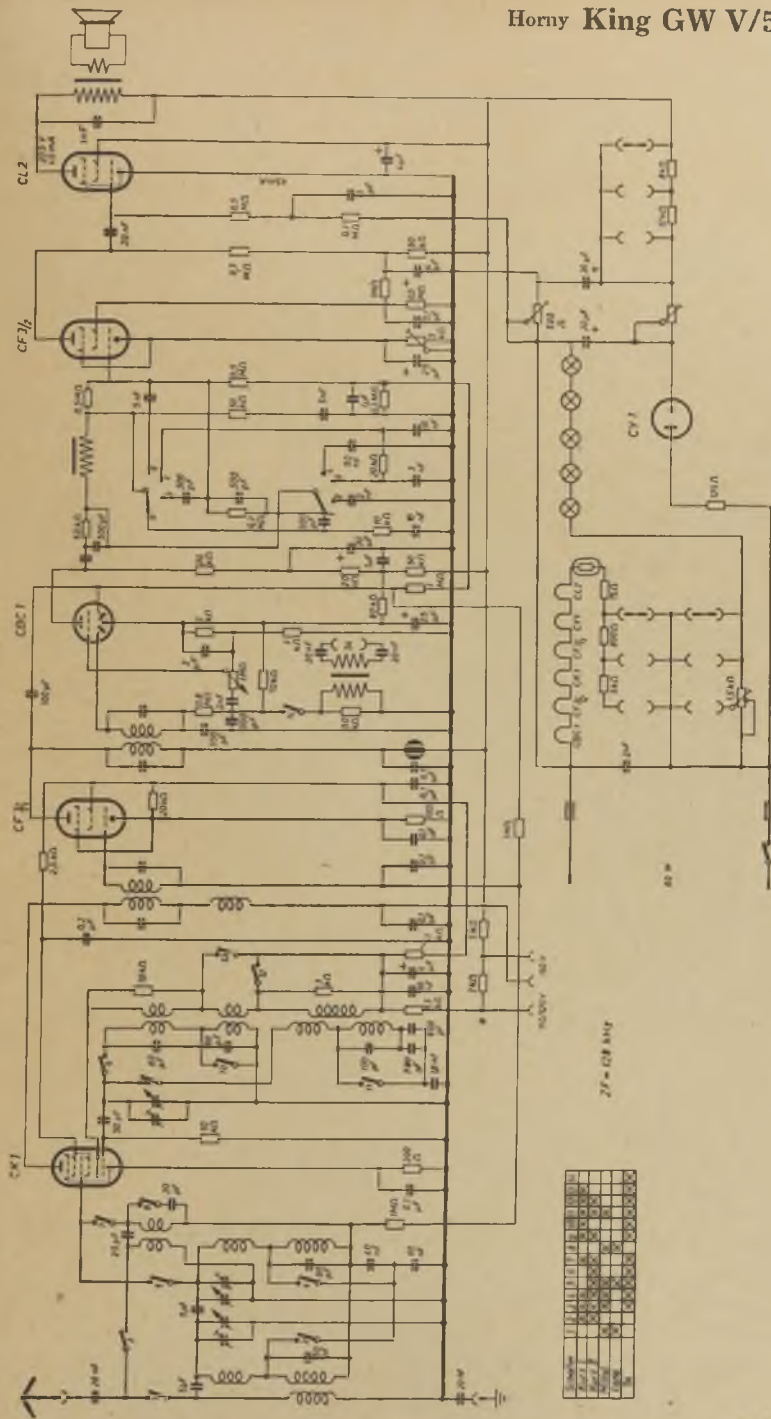
Horny Belcanto G





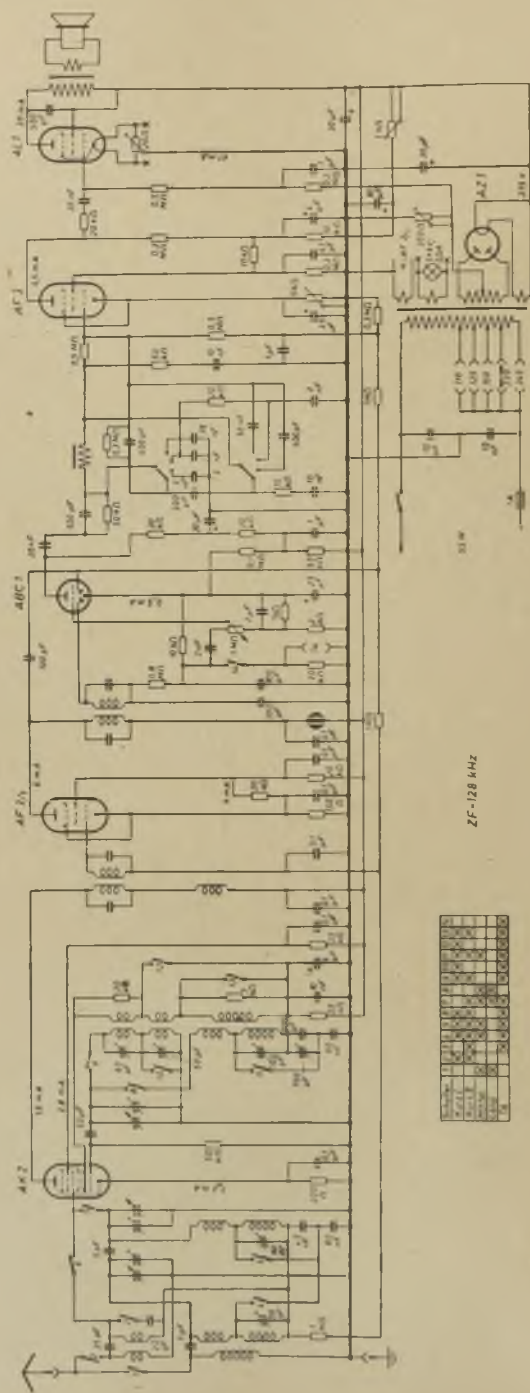
Schalter	1	2	3	4
Kurz	X	X	X	X
Mittel	X	X	X	X



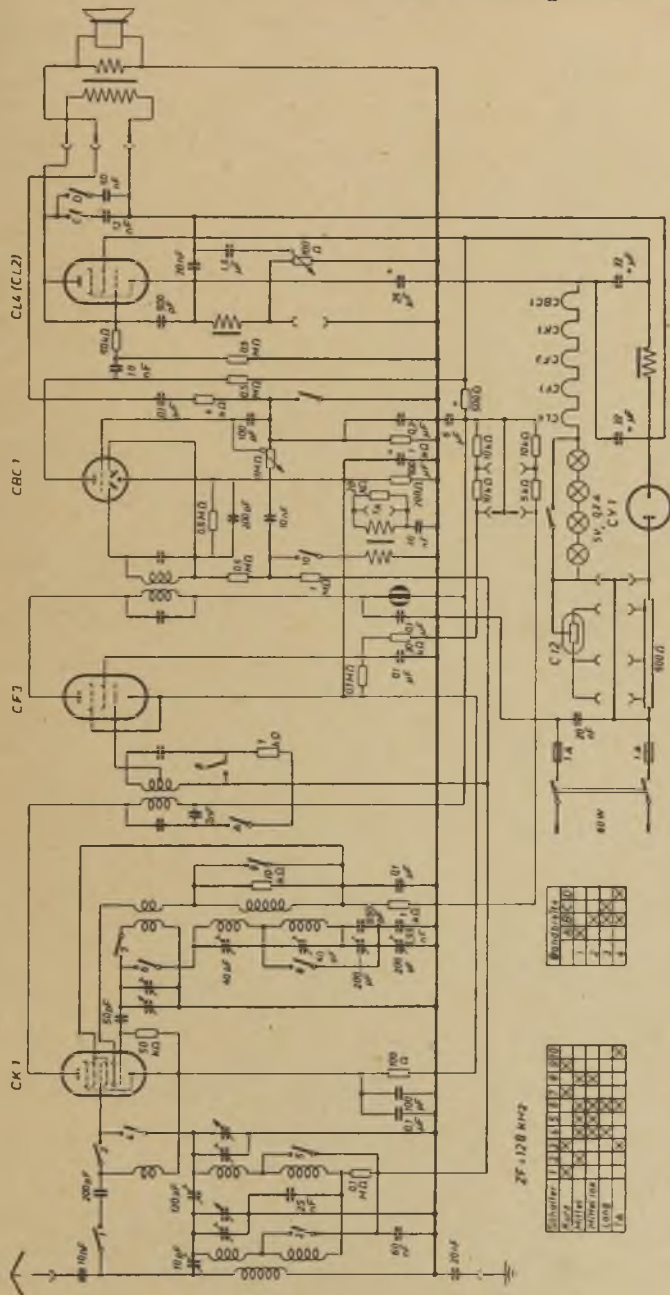


Switch	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Relay																				
Motor																				
Light																				
Other																				

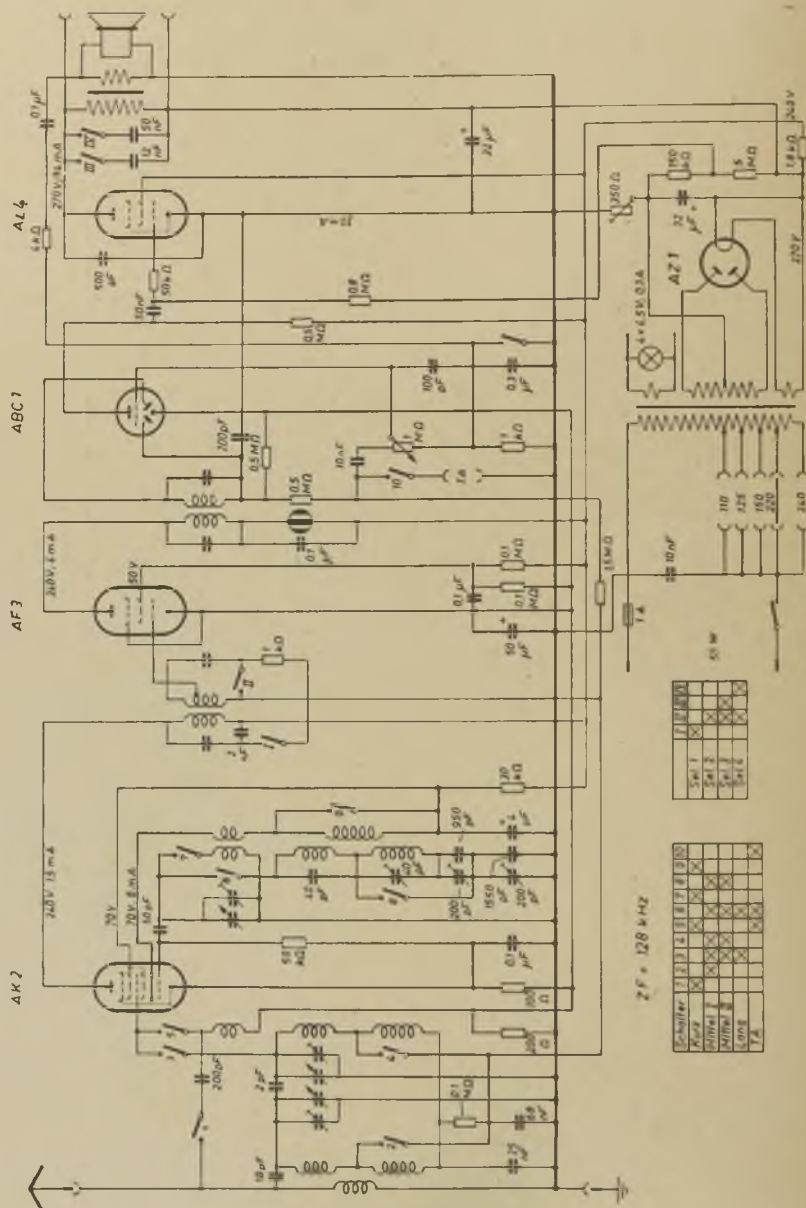
Horny King W II/7

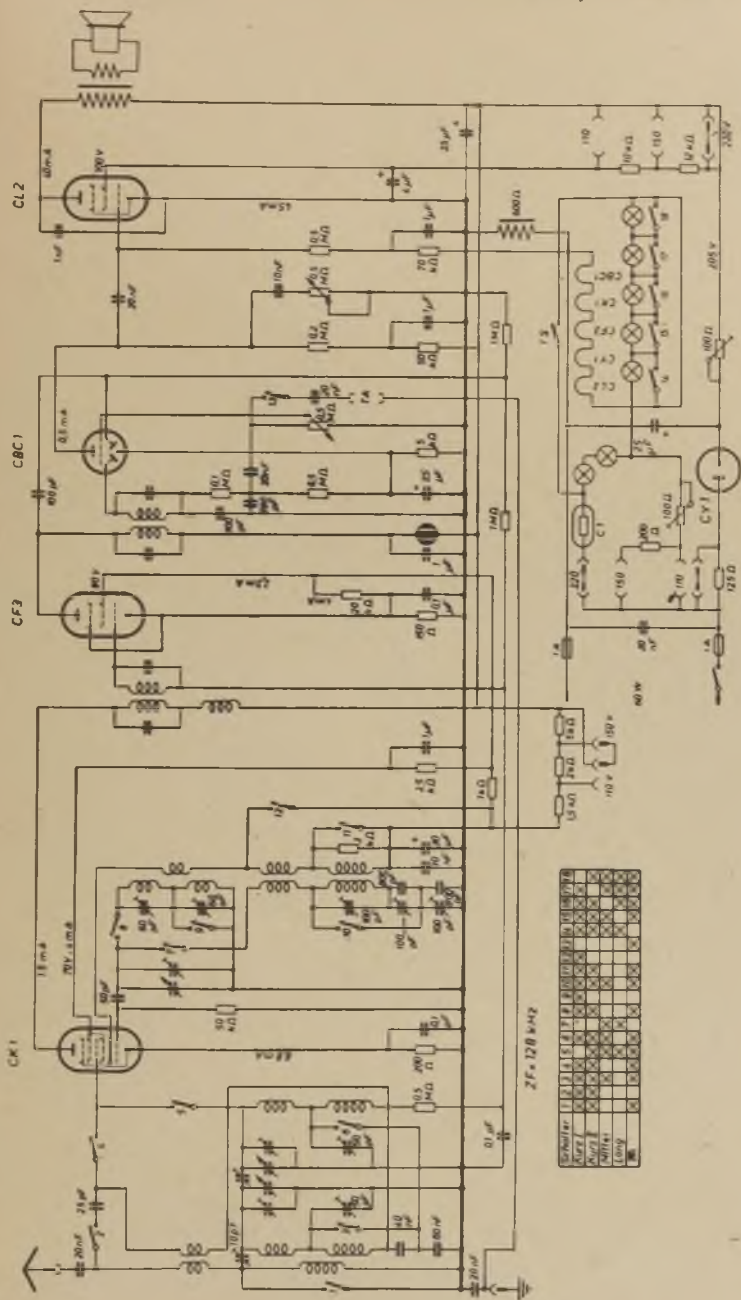


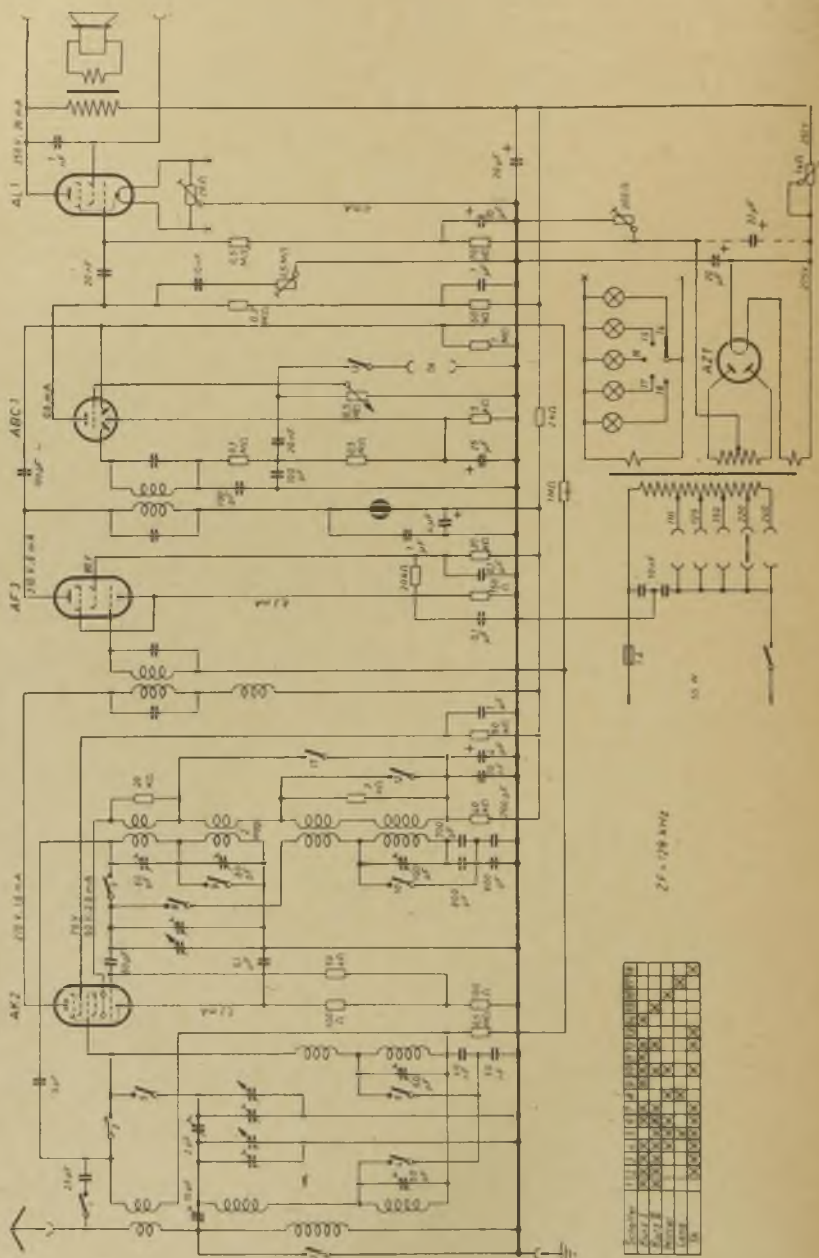
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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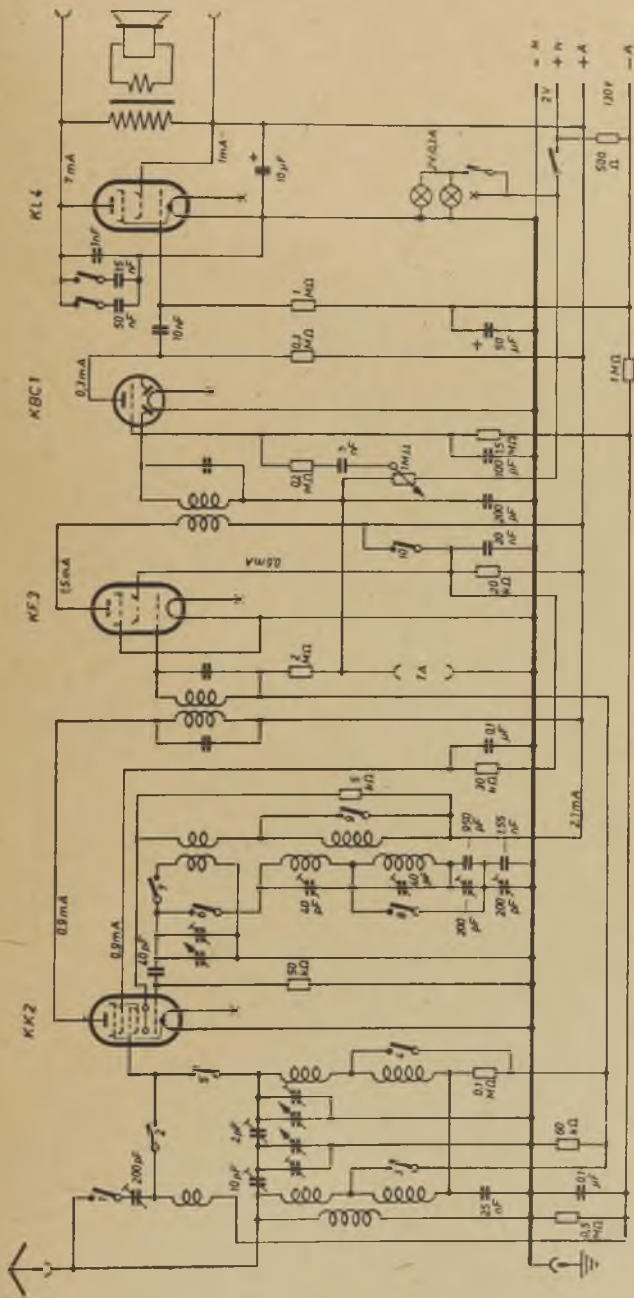


Horny Lord Super W E 142



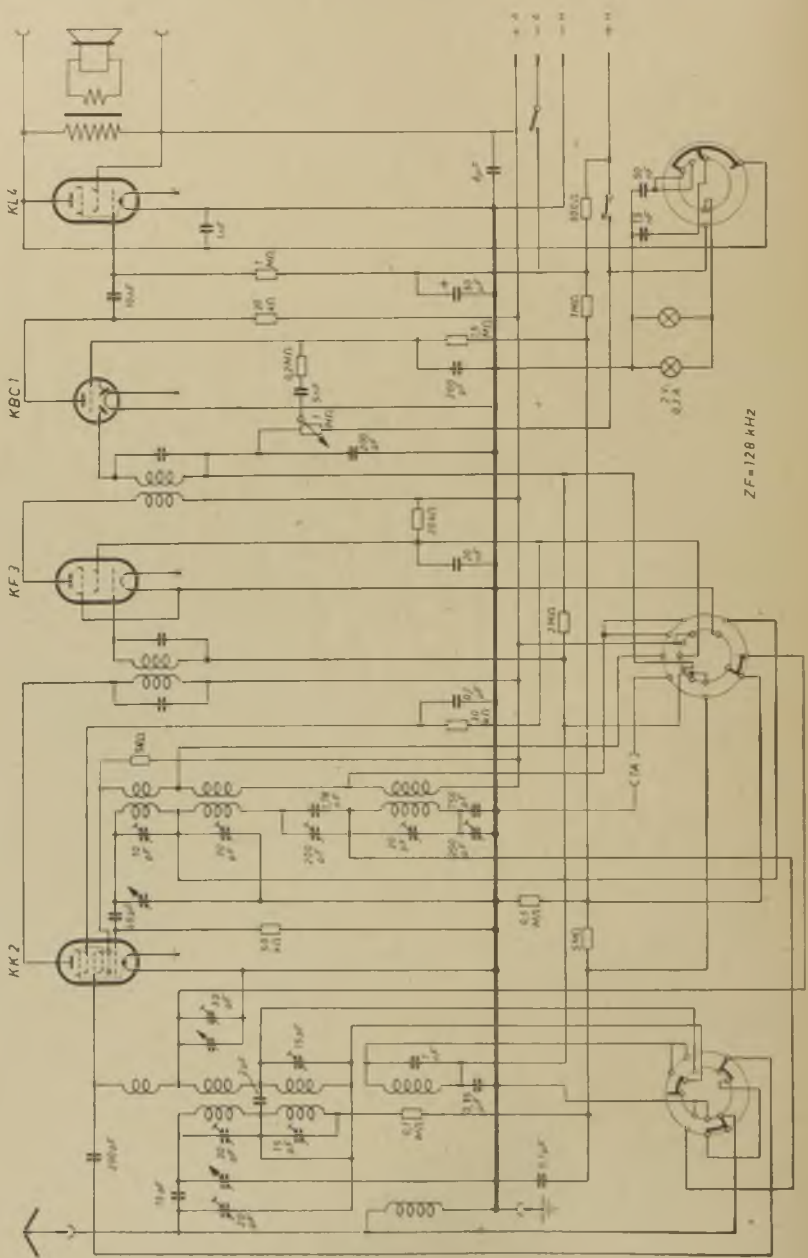




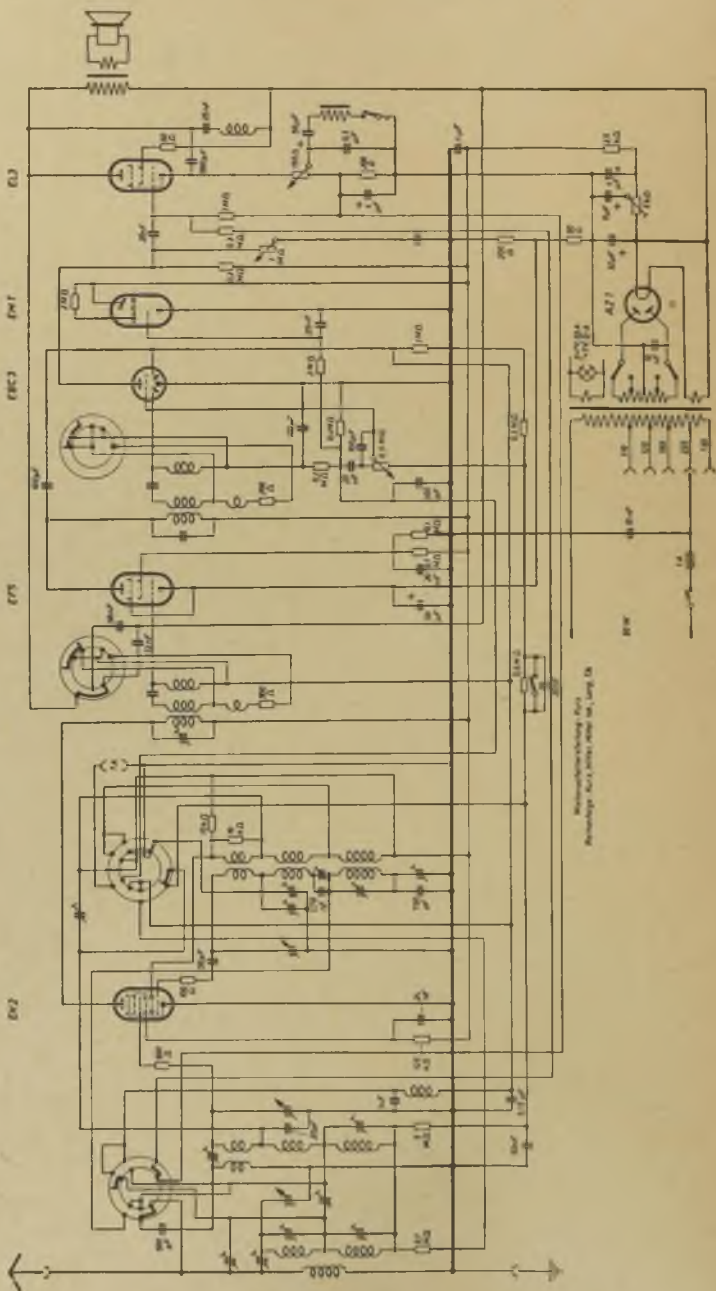


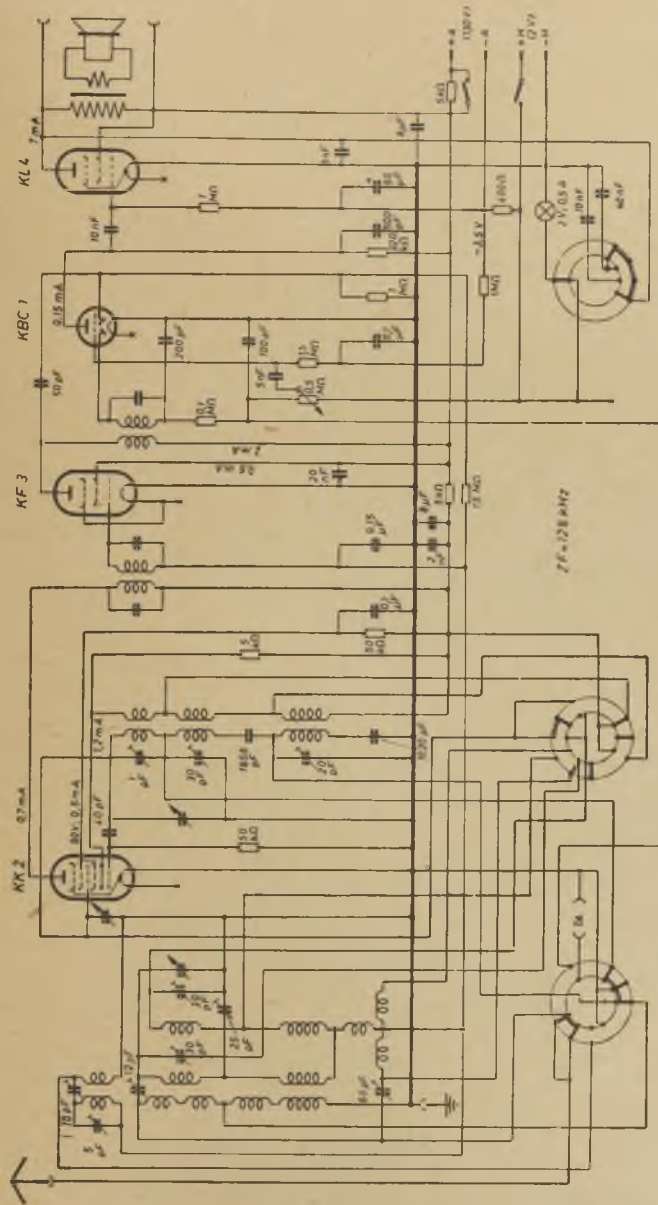
ZF = 128 kHz

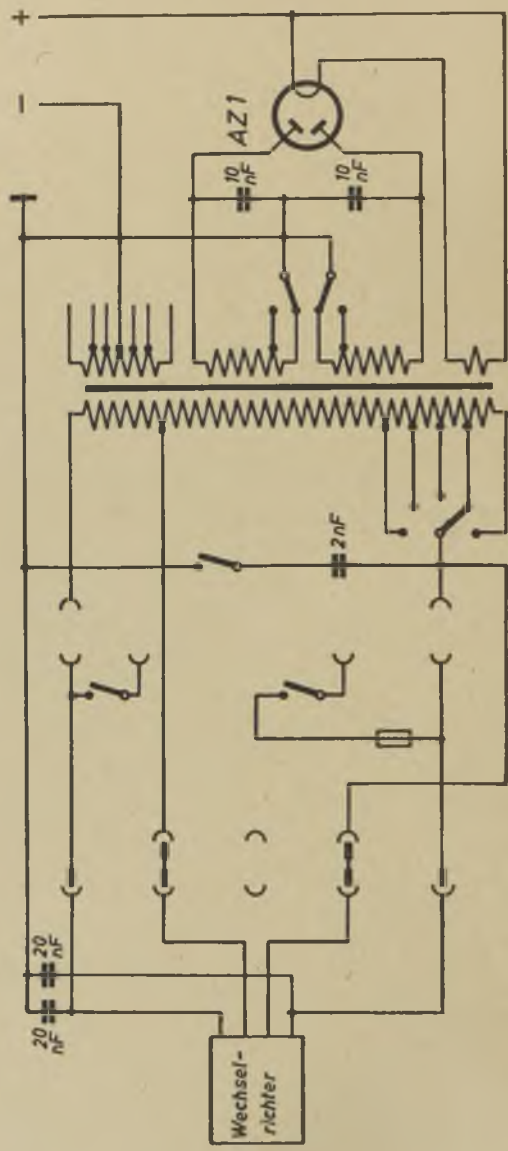
Schalter	1	2	3	4	5	6	7	8	9	10
AMP	X	X	X	X	X	X	X	X	X	X
DET	X	X	X	X	X	X	X	X	X	X
AMPLIF. 1st	X	X	X	X	X	X	X	X	X	X
AMPLIF. 2nd	X	X	X	X	X	X	X	X	X	X
Loud	X	X	X	X	X	X	X	X	X	X
TA	X	X	X	X	X	X	X	X	X	X

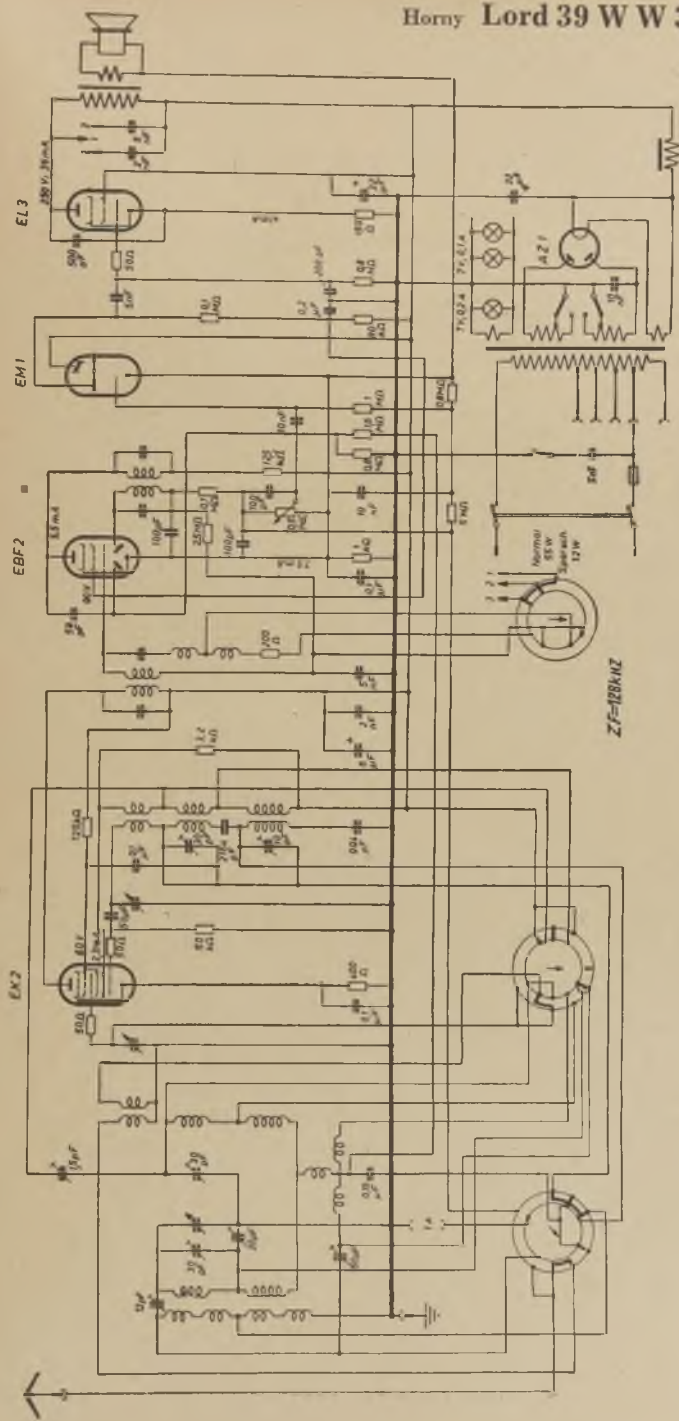


Horny Lord 38 WE 143

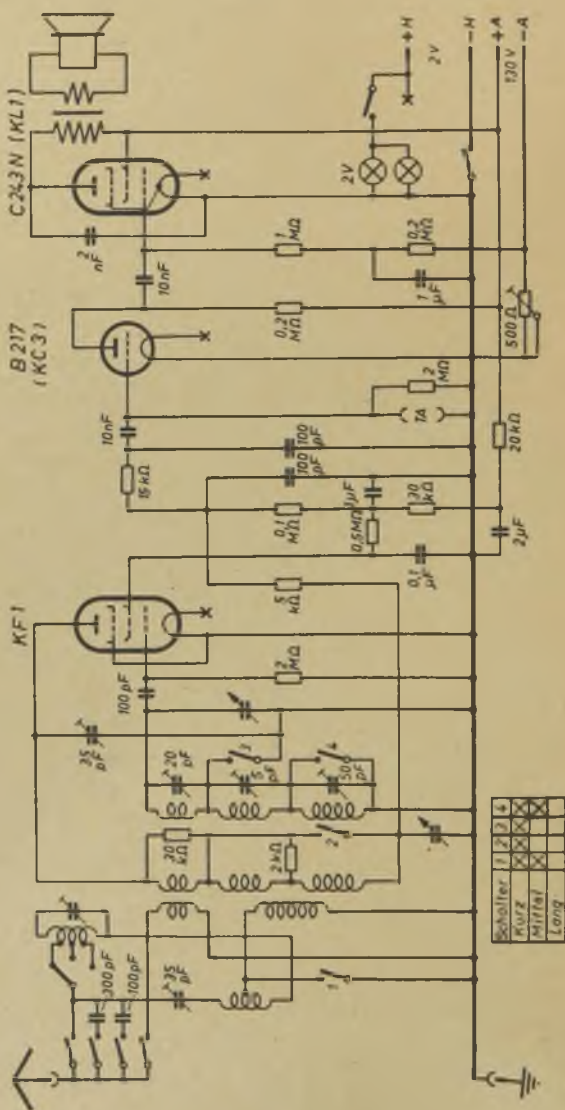




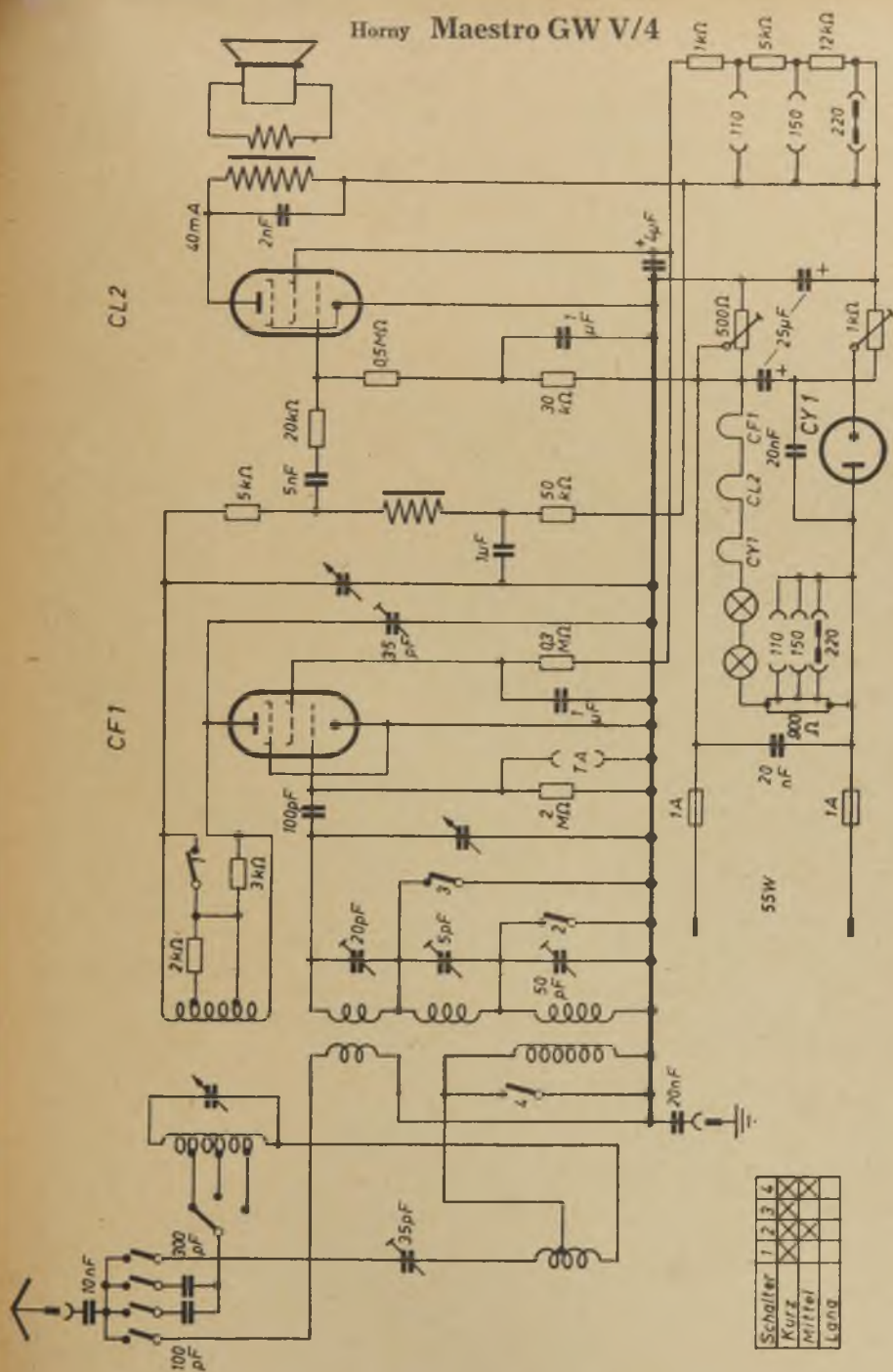




Horny Maestro B VI/1

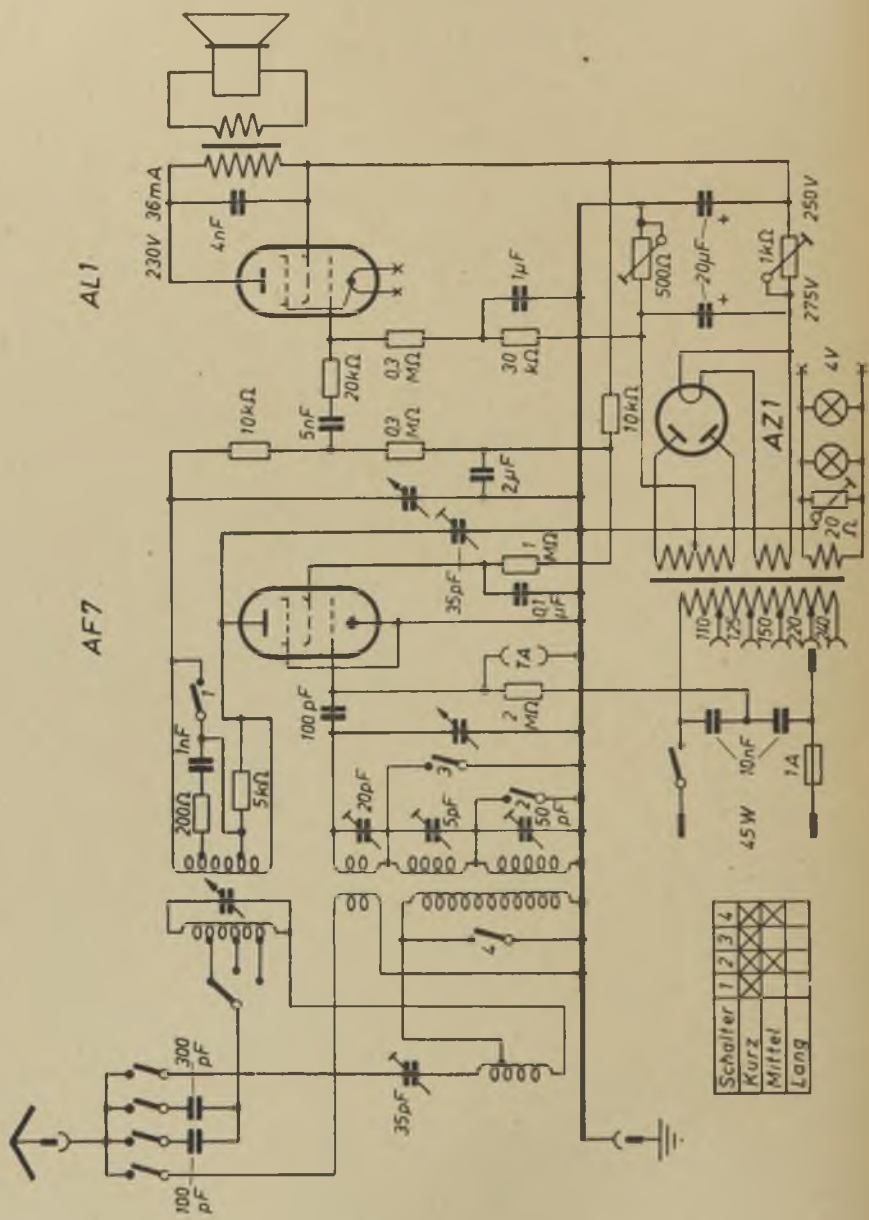


Horry Maestro GW V/4



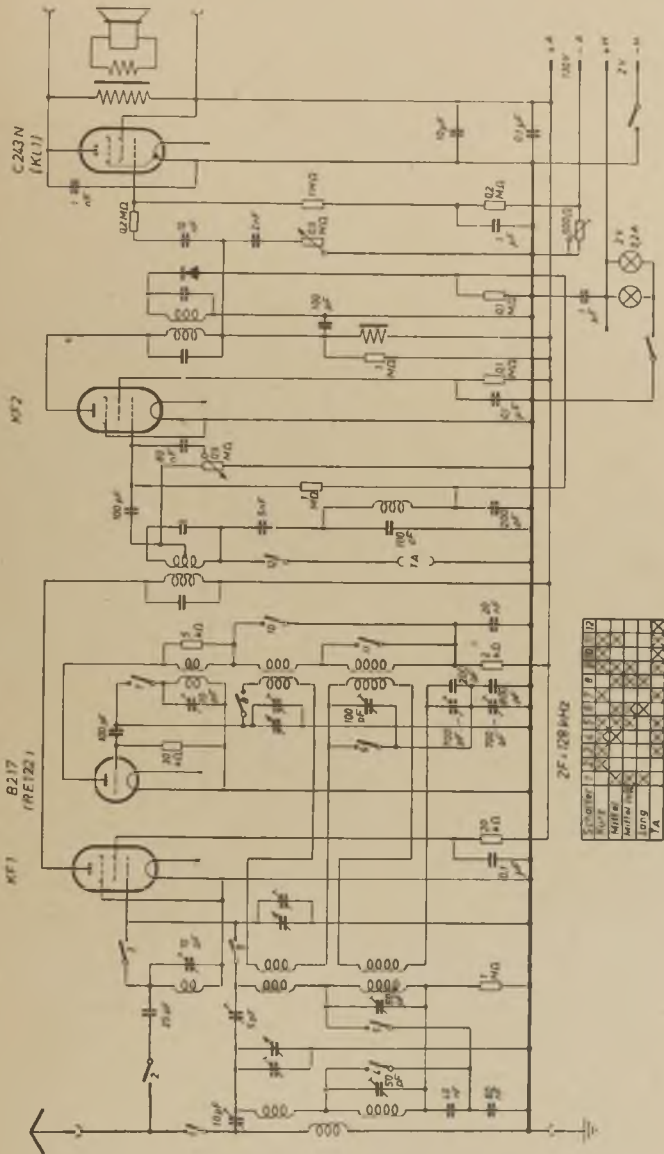
Schalter	1	2	3	4
Kurz	×	×	×	×
Mittel	×	×	×	×
Lang	×	×	×	×

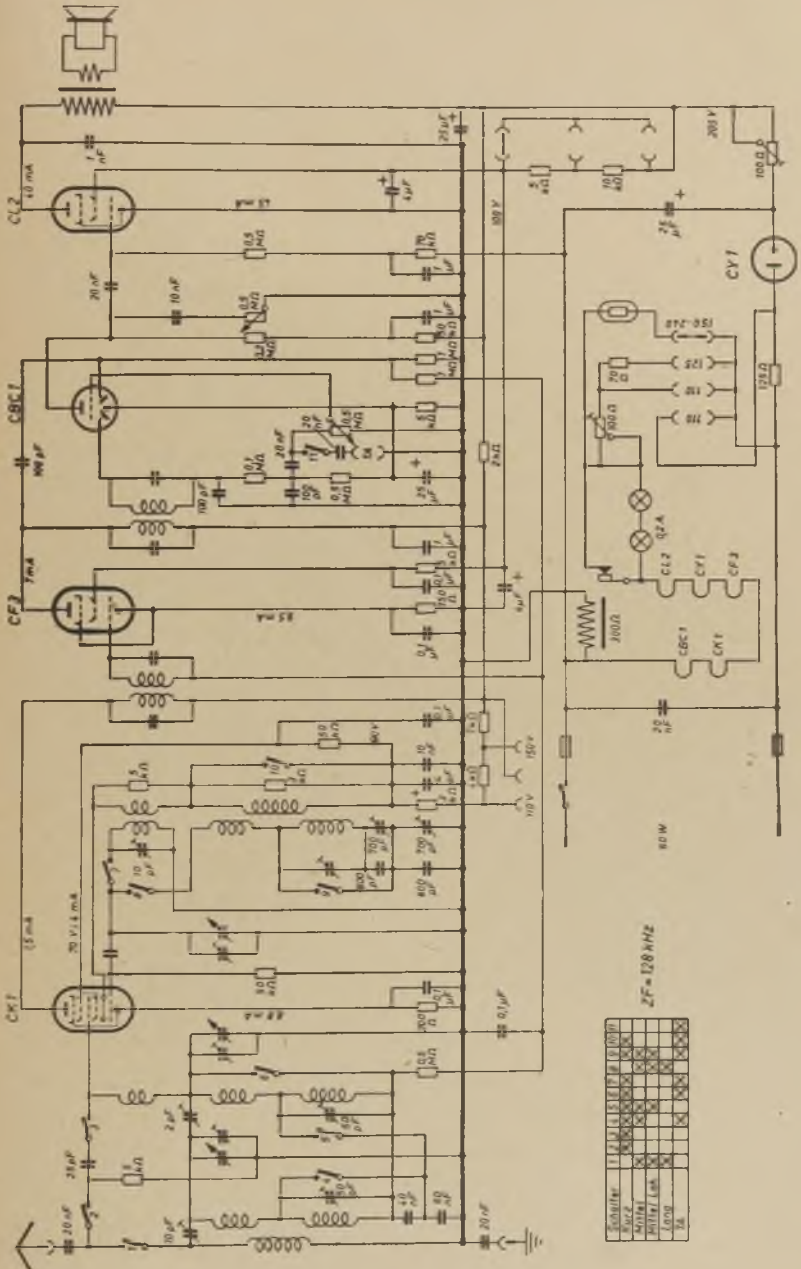
Horný Maestro W II/9

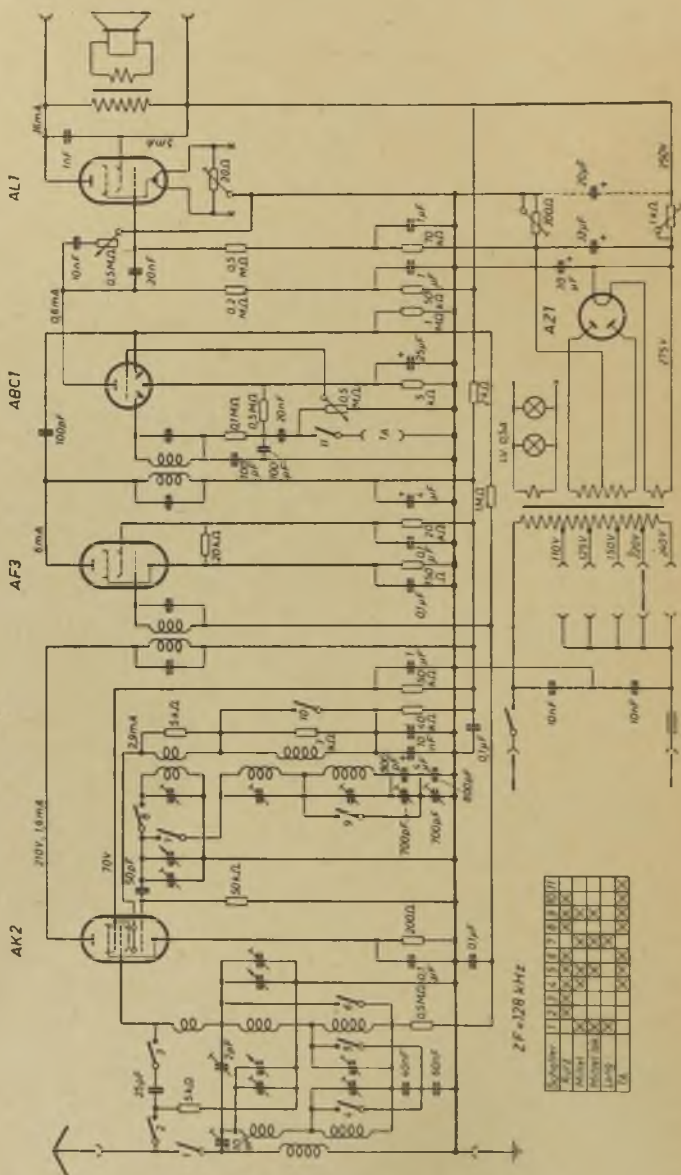


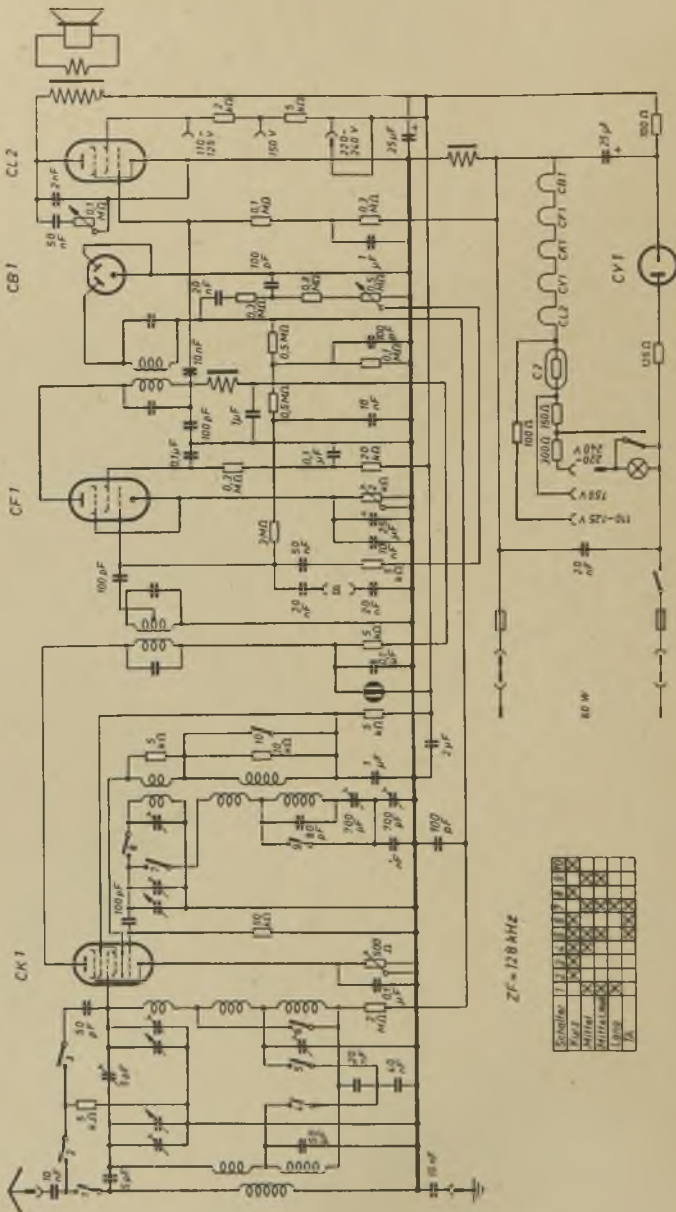
Schalter	1	2	3	4
Kurz		X	X	X
Mittel			X	X
Lang				X

Hornby Marquis B VI/2

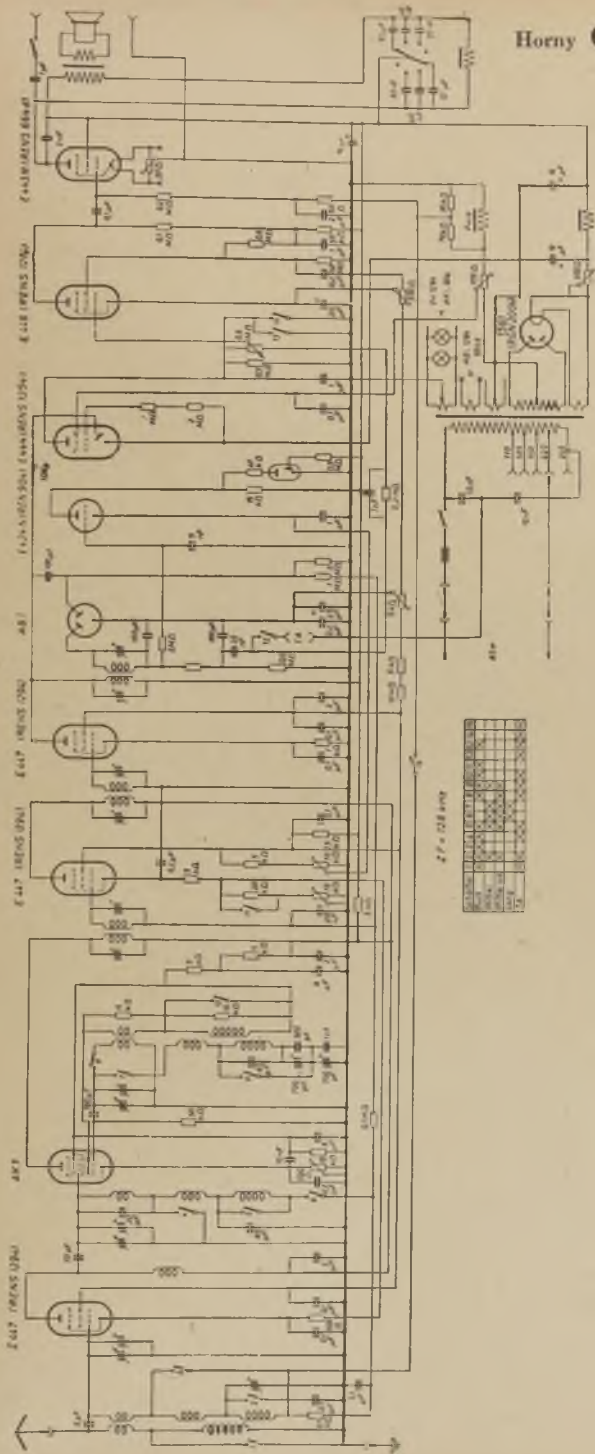




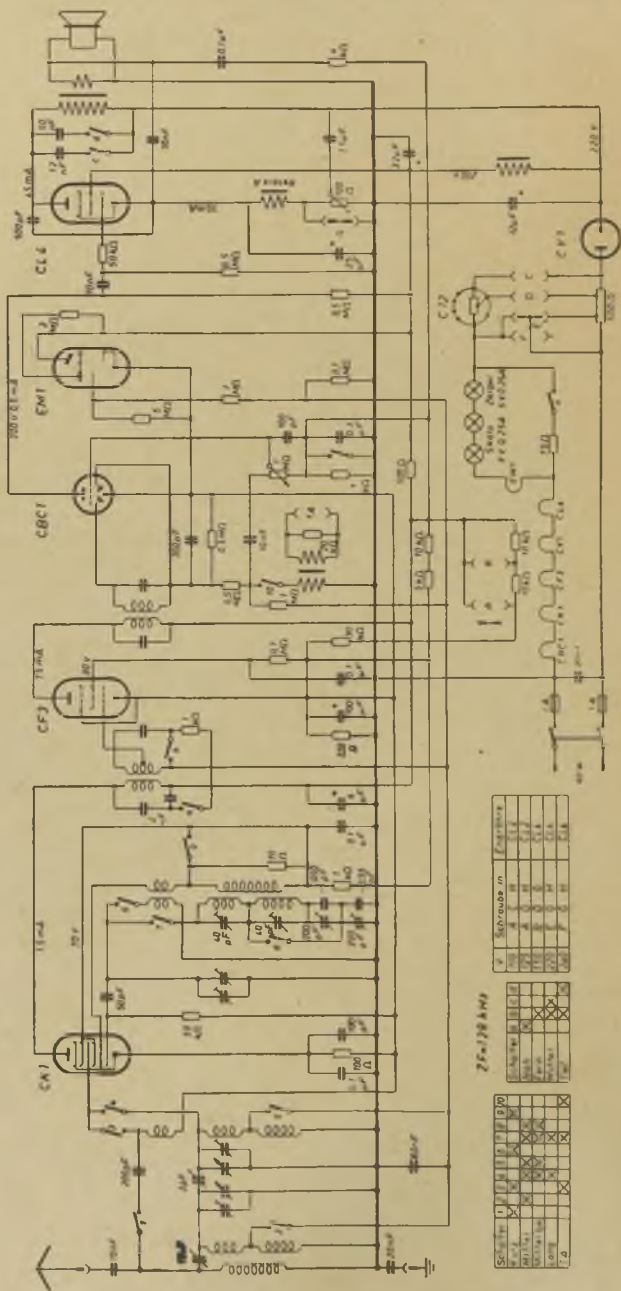




Horný Olympic 35 W



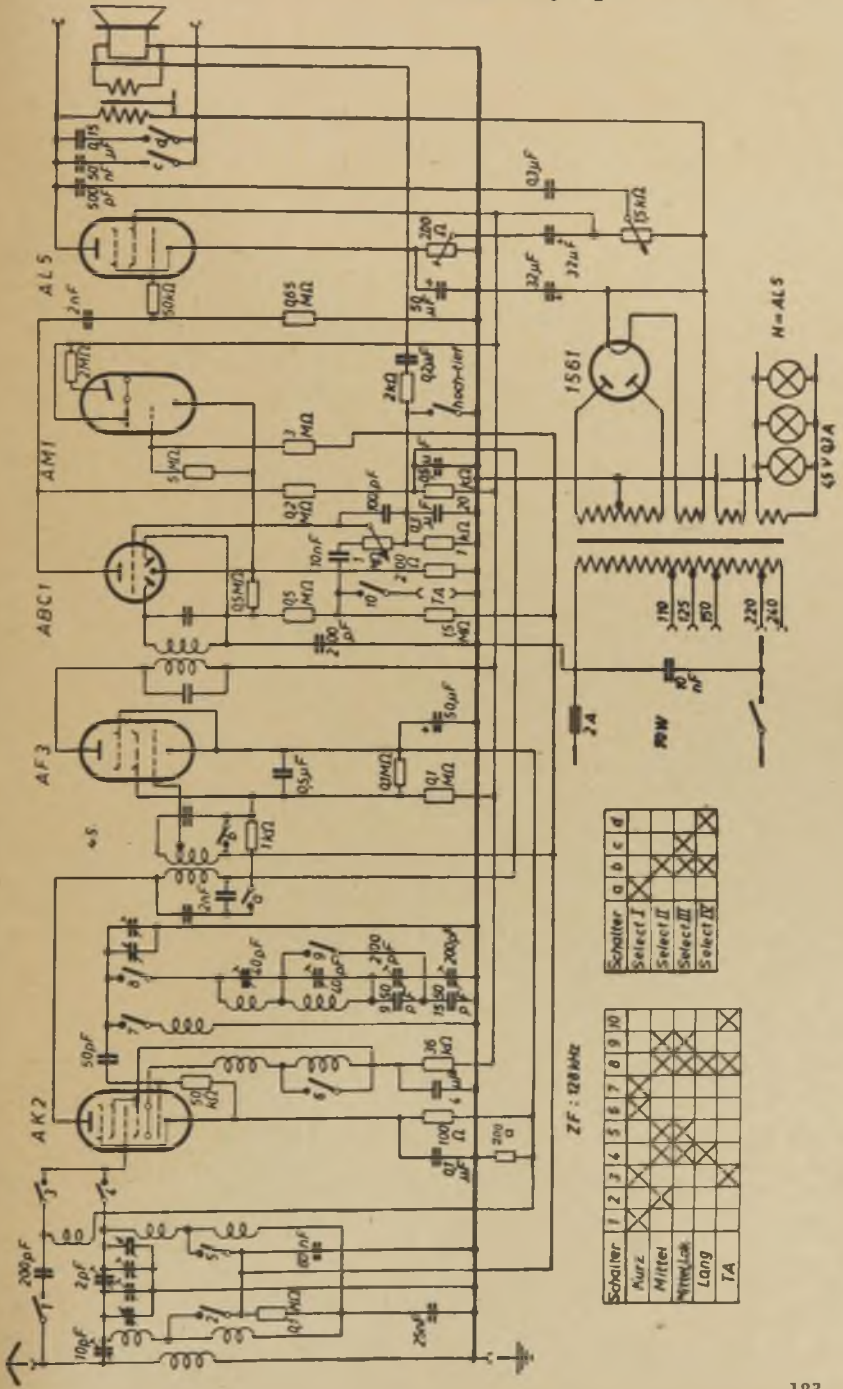
Horny Olympic 37 GW E 442/1



250-250 kVA

Symbol	Value	Symbol	Value
⊖	0	⊖	0
⊖	1	⊖	1
⊖	2	⊖	2
⊖	3	⊖	3
⊖	4	⊖	4
⊖	5	⊖	5
⊖	6	⊖	6
⊖	7	⊖	7
⊖	8	⊖	8
⊖	9	⊖	9
⊖	10	⊖	10
⊖	11	⊖	11
⊖	12	⊖	12
⊖	13	⊖	13
⊖	14	⊖	14
⊖	15	⊖	15
⊖	16	⊖	16
⊖	17	⊖	17
⊖	18	⊖	18
⊖	19	⊖	19
⊖	20	⊖	20
⊖	21	⊖	21
⊖	22	⊖	22
⊖	23	⊖	23
⊖	24	⊖	24
⊖	25	⊖	25
⊖	26	⊖	26
⊖	27	⊖	27
⊖	28	⊖	28
⊖	29	⊖	29
⊖	30	⊖	30
⊖	31	⊖	31
⊖	32	⊖	32
⊖	33	⊖	33
⊖	34	⊖	34
⊖	35	⊖	35
⊖	36	⊖	36
⊖	37	⊖	37
⊖	38	⊖	38
⊖	39	⊖	39
⊖	40	⊖	40
⊖	41	⊖	41
⊖	42	⊖	42
⊖	43	⊖	43
⊖	44	⊖	44
⊖	45	⊖	45
⊖	46	⊖	46
⊖	47	⊖	47
⊖	48	⊖	48
⊖	49	⊖	49
⊖	50	⊖	50

⊖

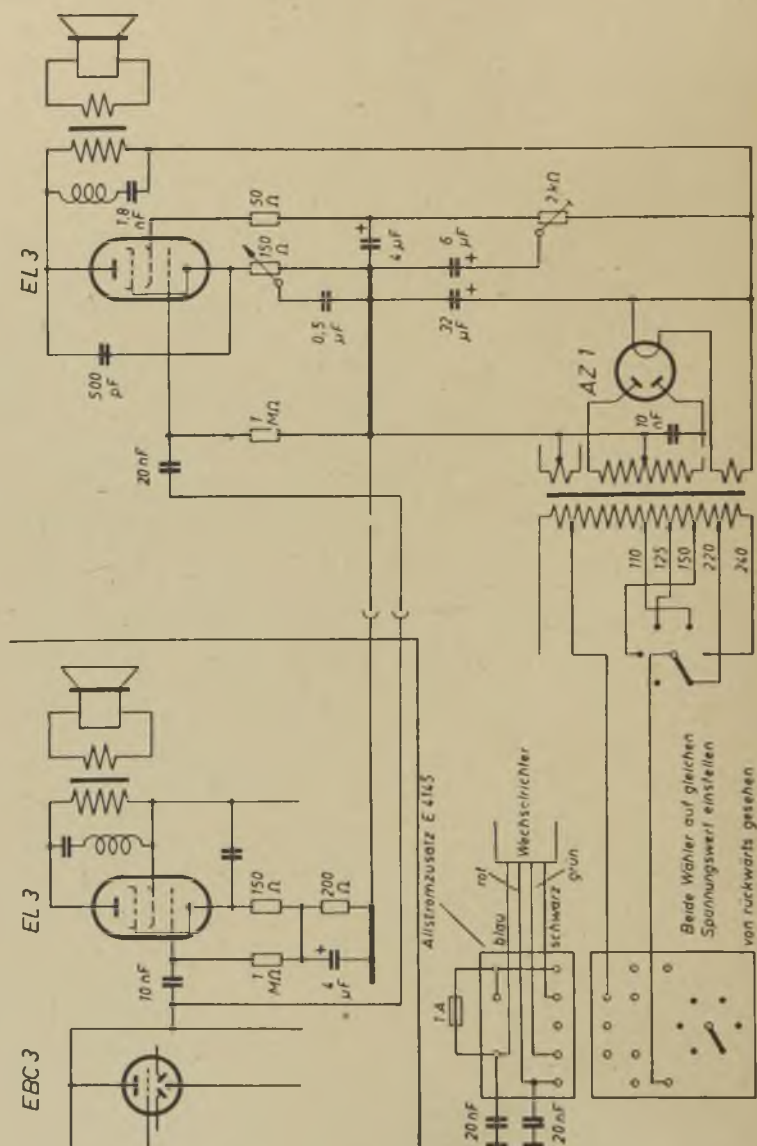


	a	b	c	d
Schalter I				
Select II				
Select III				
Select IV				

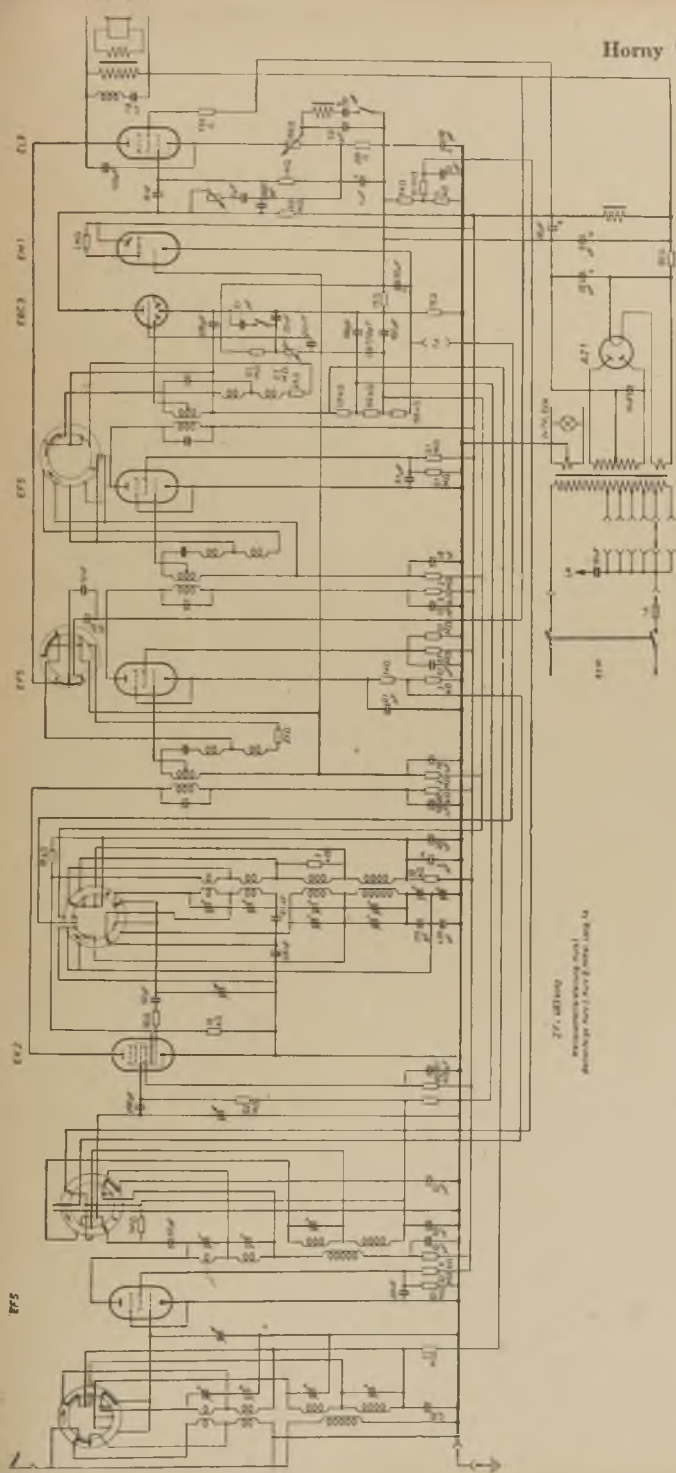
ZF: 12.8 MHz

	1	2	3	4	5	6	7	8	9	10
Schalter										
Nurz										
Mittel										
Normal										
Lang										
TA										

Horny Olympic 38 Endstufe E 173

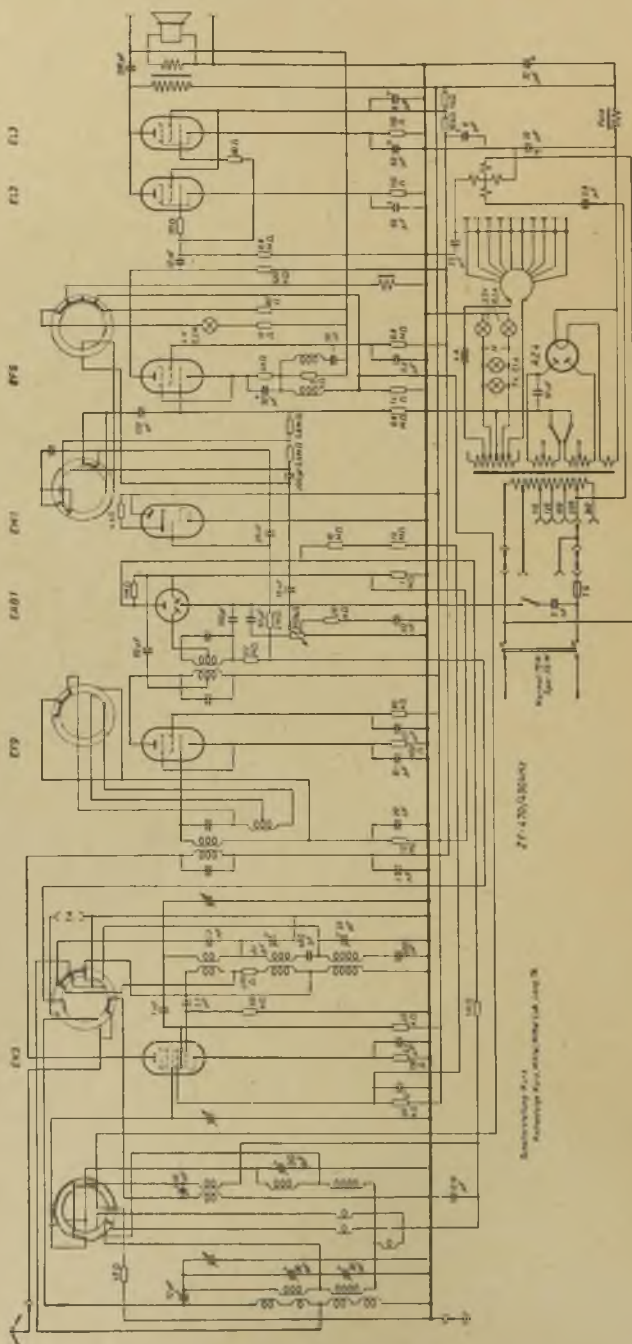


Hornby Olympic 38
 W E 163
 und Super
 9/38

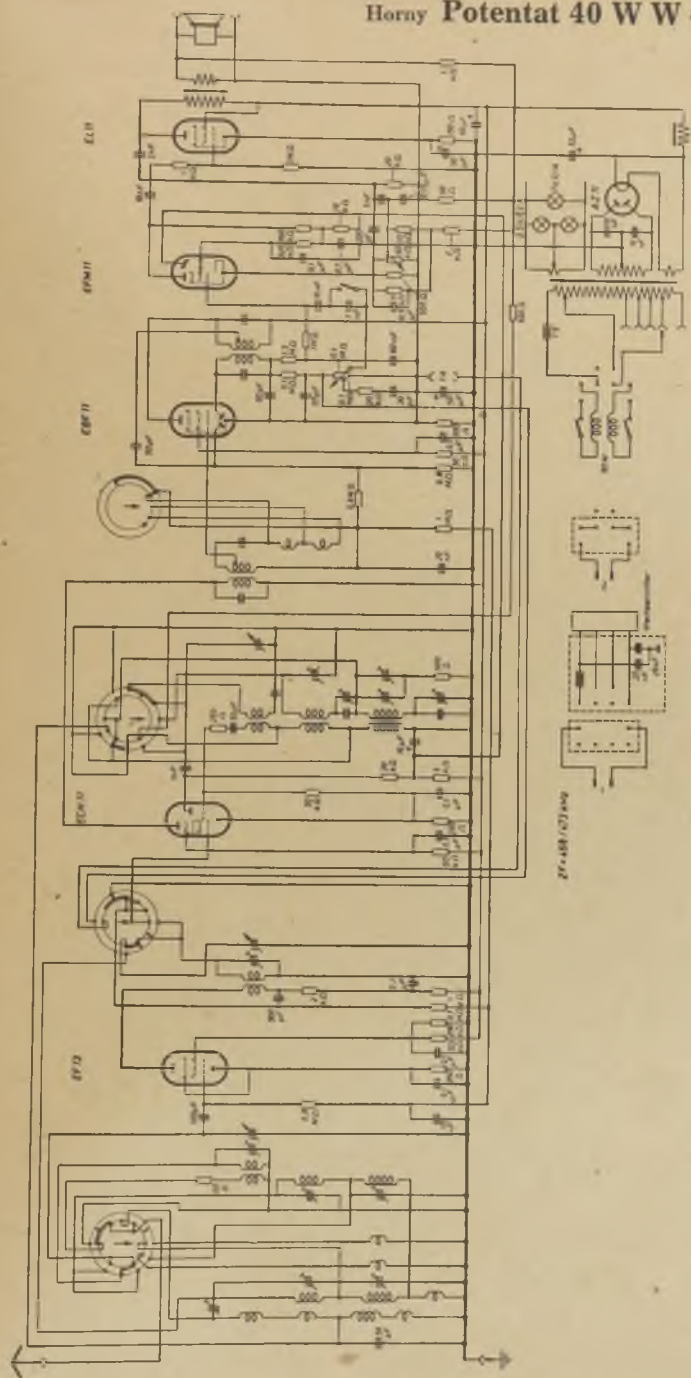


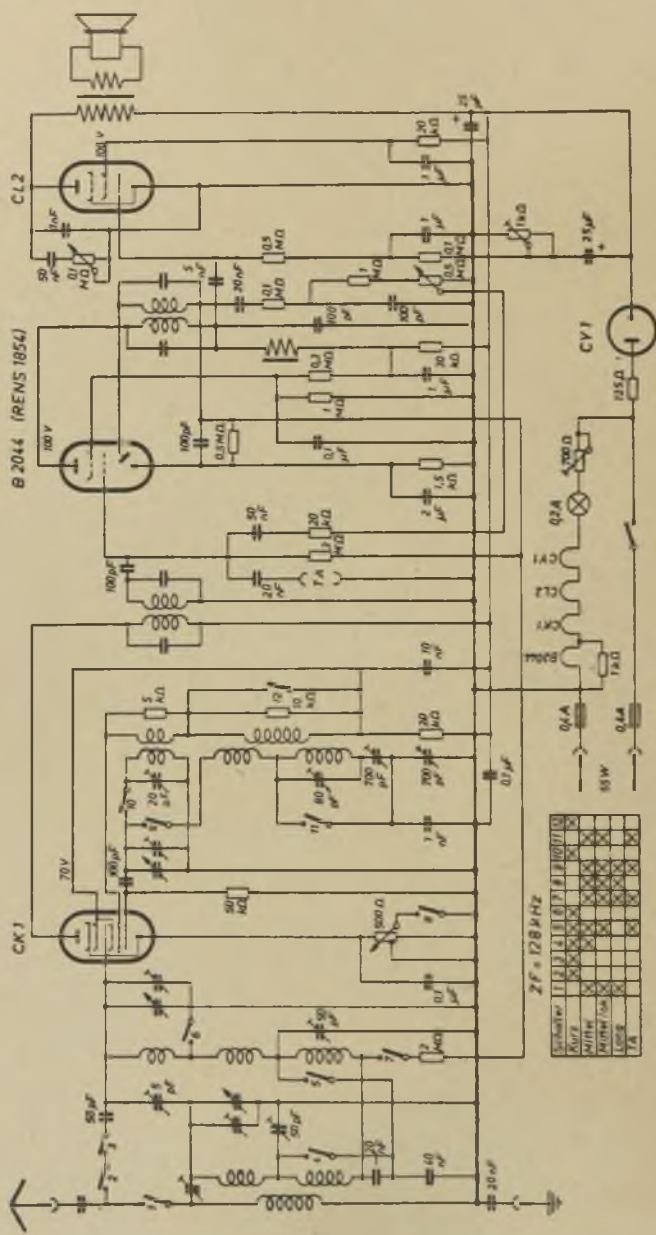
27. 08/1960
 Hornby Olympische 38
 Bauanleitung Seite 2, 3 und 4

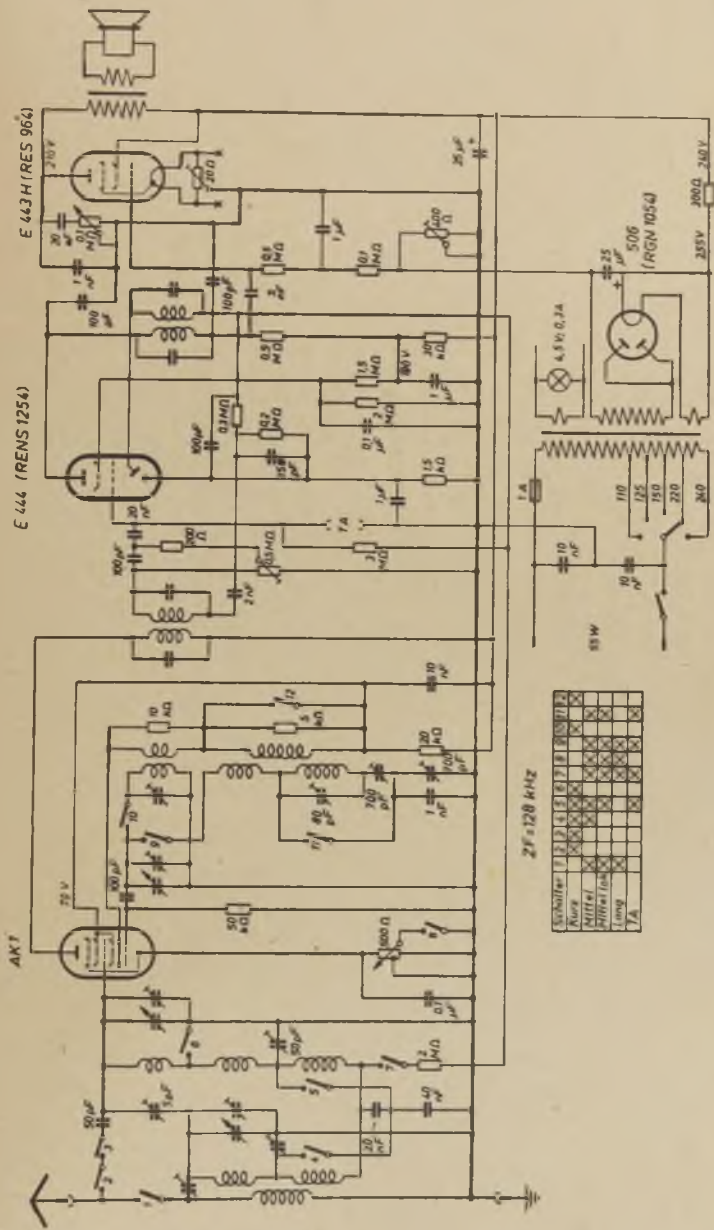
Horný Olympic 39 W W 564 A



Horný Potentat 40 W W 455 X



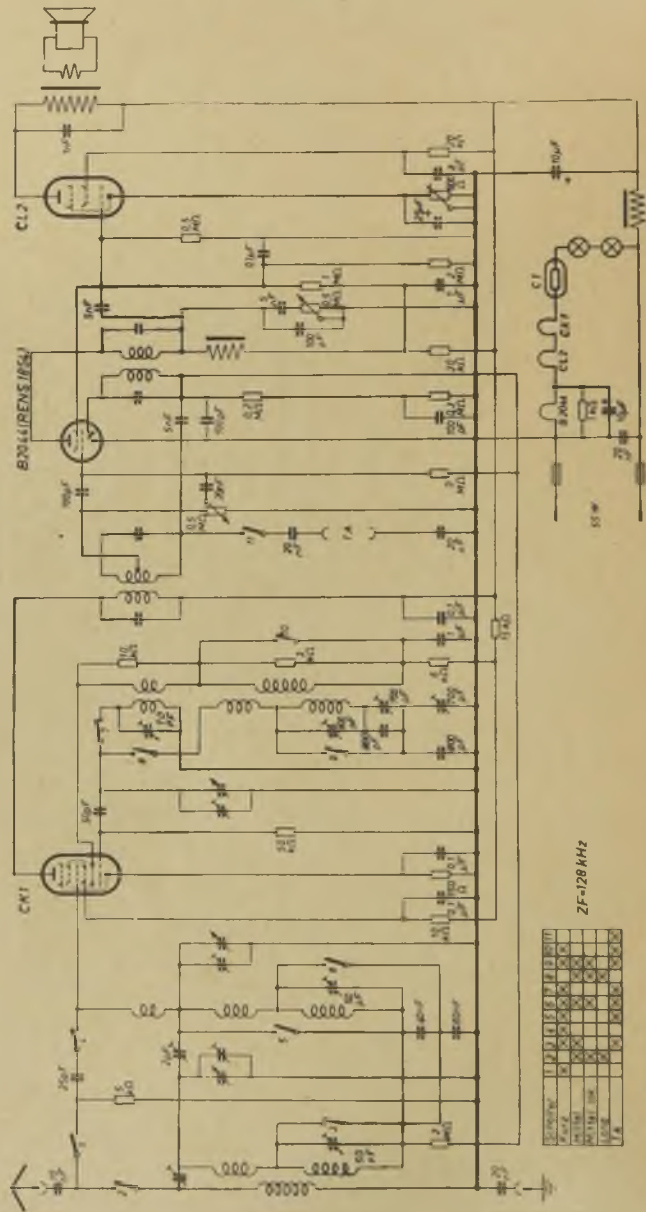




ZF ±120 kHz

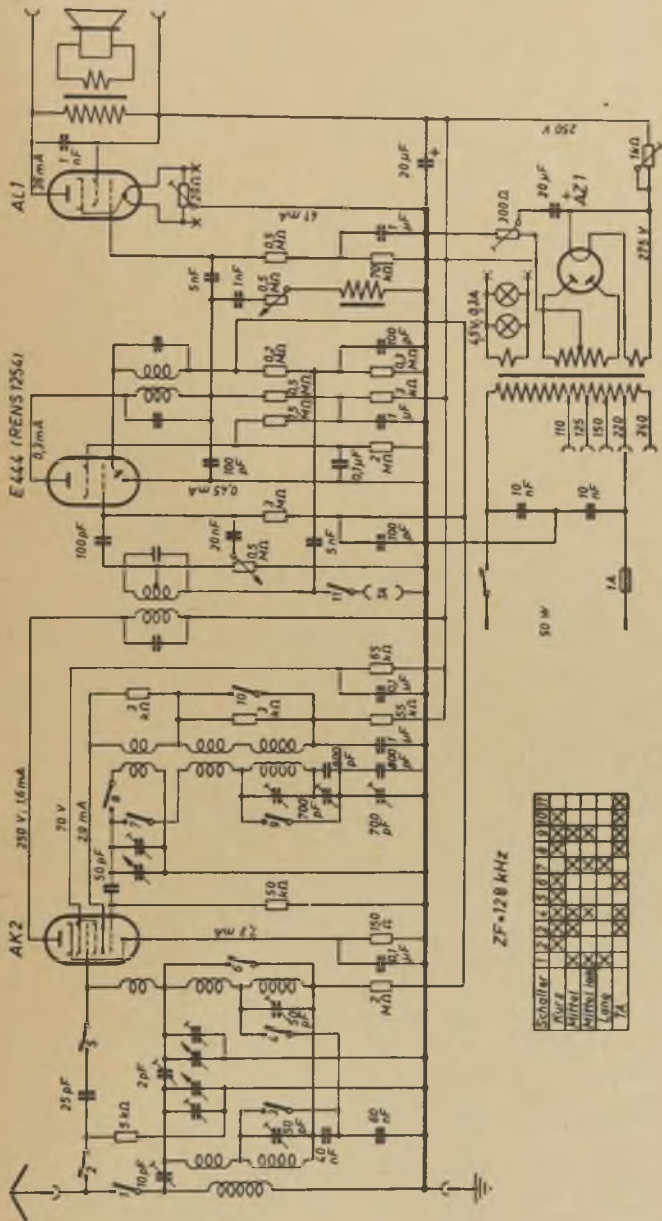
Schalter	1	2	3	4	5	6	7	8	9	10	11	12
Reihe	X	X	X	X	X	X	X	X	X	X	X	X
Mittel	X	X	X	X	X	X	X	X	X	X	X	X
Lang	X	X	X	X	X	X	X	X	X	X	X	X
7A	X	X	X	X	X	X	X	X	X	X	X	X

Horný Prinz 36 G E 331

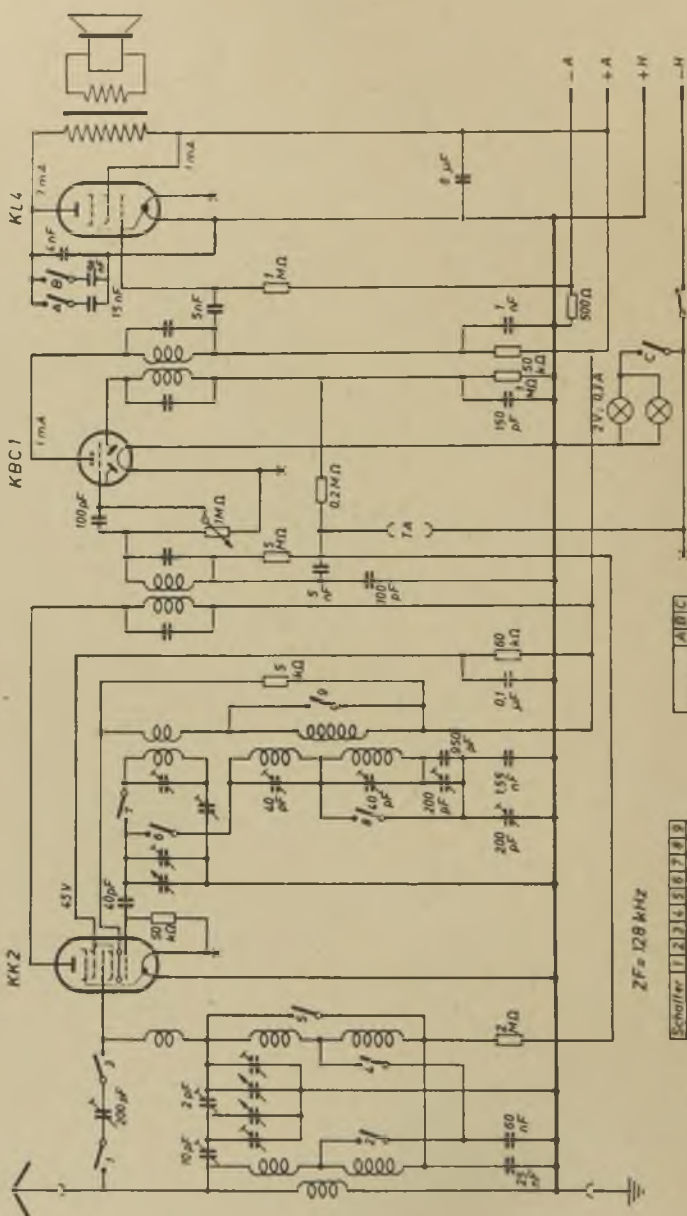


ZF=128 kHz

CK20902	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
CK10901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CK10902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CK10903	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CK10904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CK10905	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CK10906	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



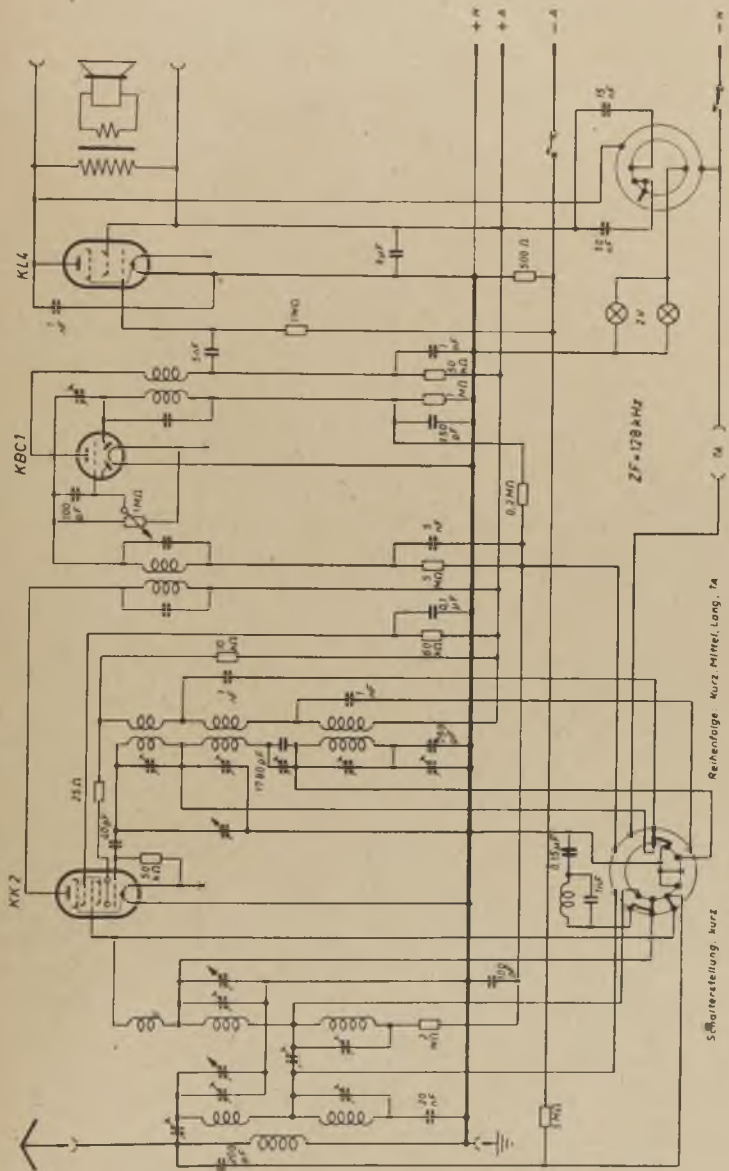
Horny Prinz 37 B E 632

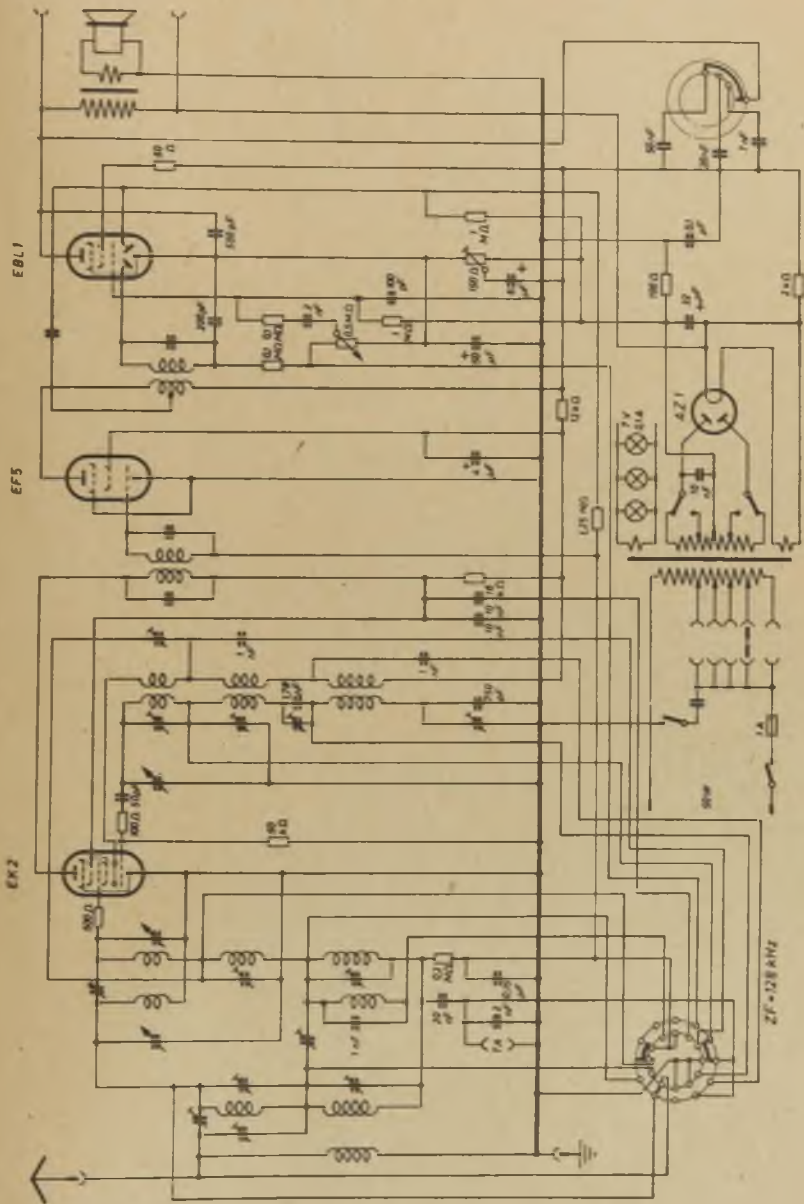


ZF = 128 kHz

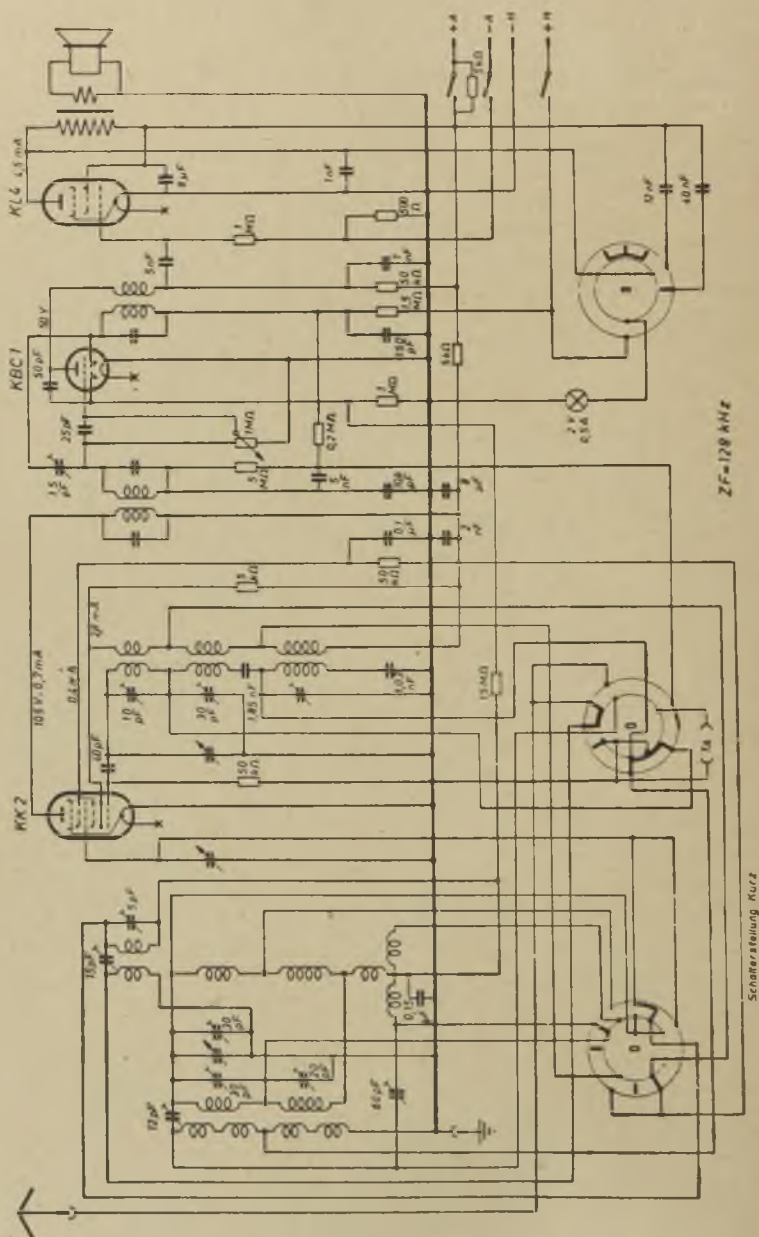
	A	B	C
Hoch			
Mittel	X	X	X
Quadrat	X	X	X
Fest	X	X	X

Schalter	1	2	3	4	5	6	7	8	9
Kurz	X	X	X	X	X	X	X	X	X
Mittel	X	X	X	X	X	X	X	X	X
Mittel/Long	X	X	X	X	X	X	X	X	X
Long	X	X	X	X	X	X	X	X	X
TA	X	X	X	X	X	X	X	X	X



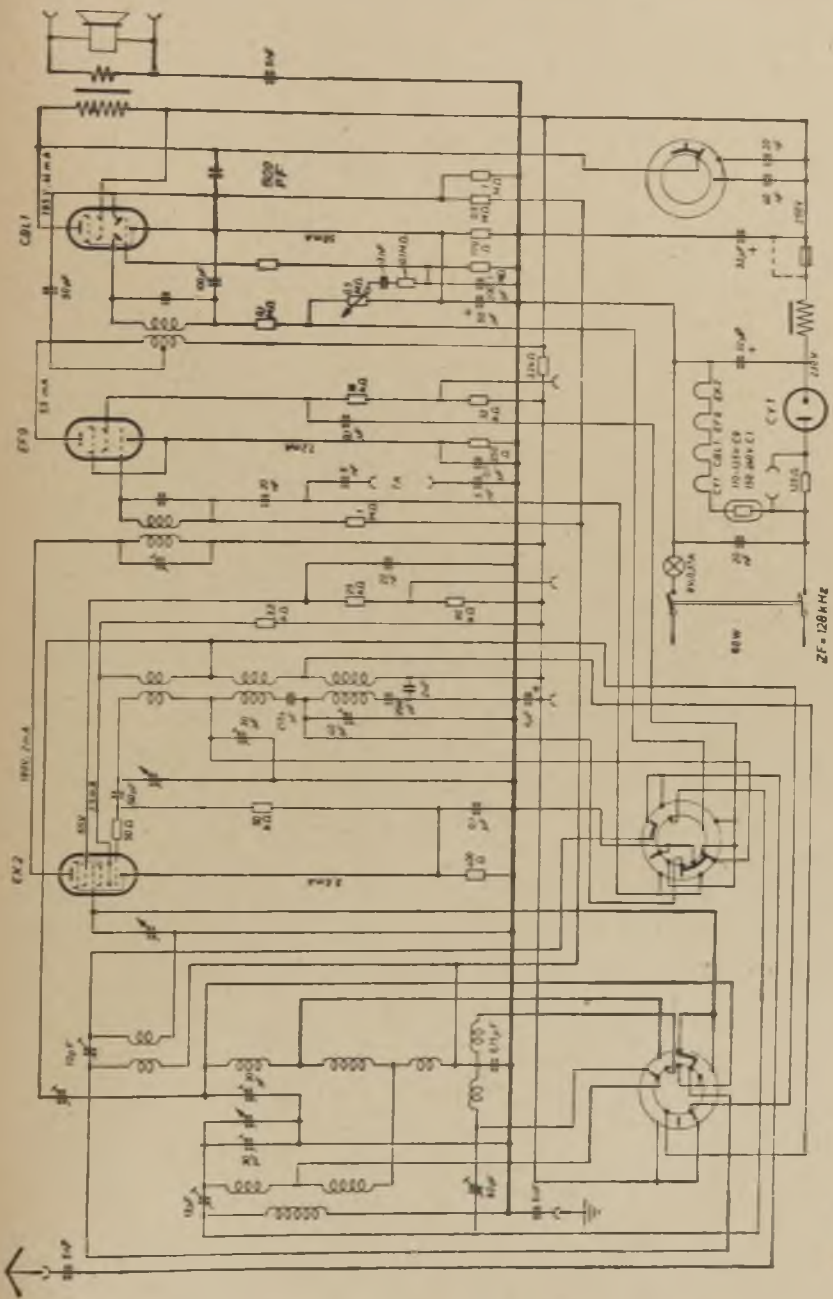


Horny Prinz 39 R W 134 B

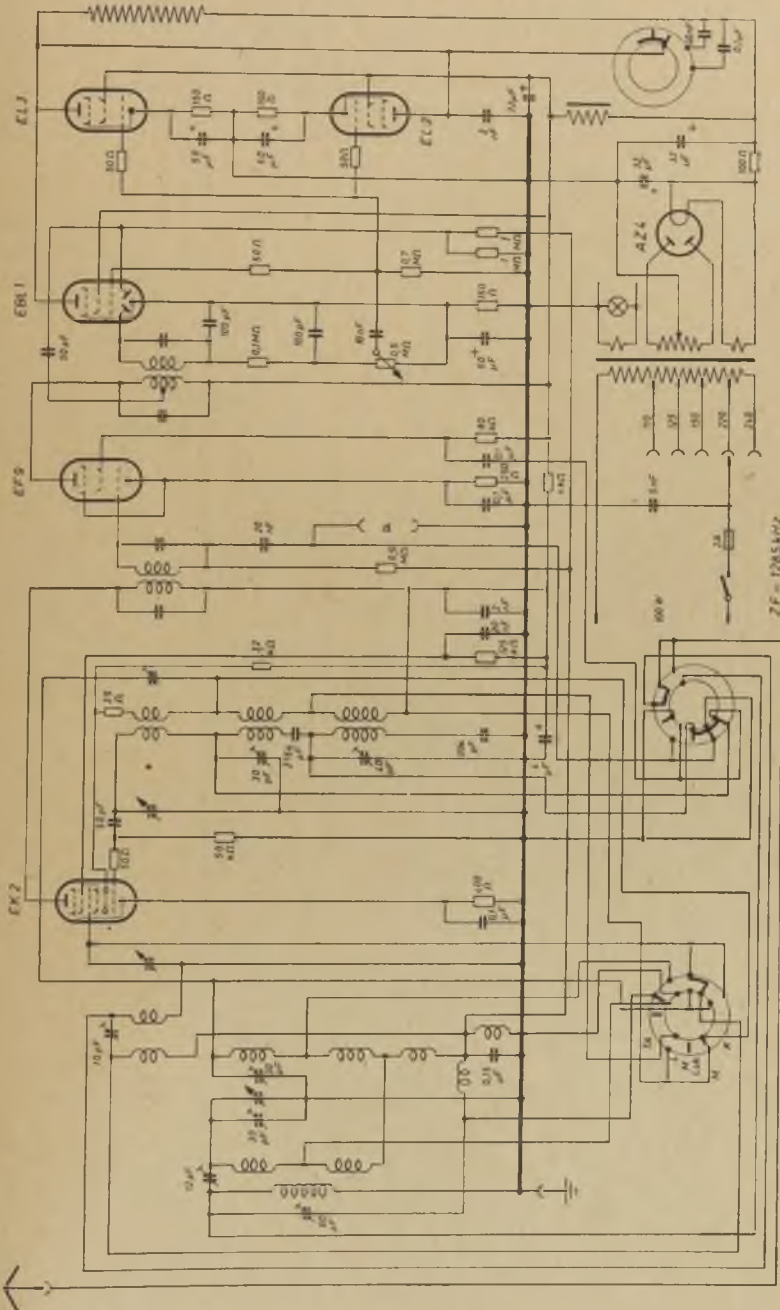
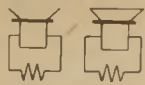


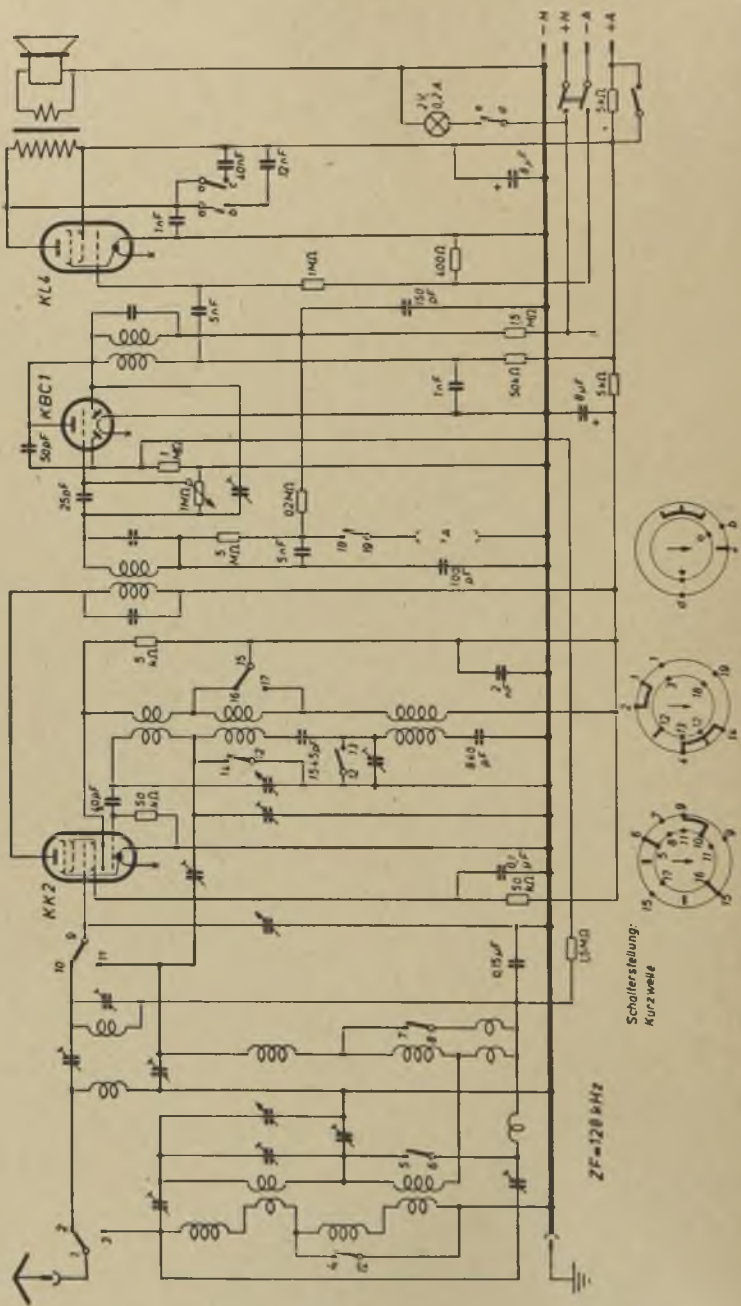
Schemastellung kurz

Horný Prinz 39 GW W 134 U

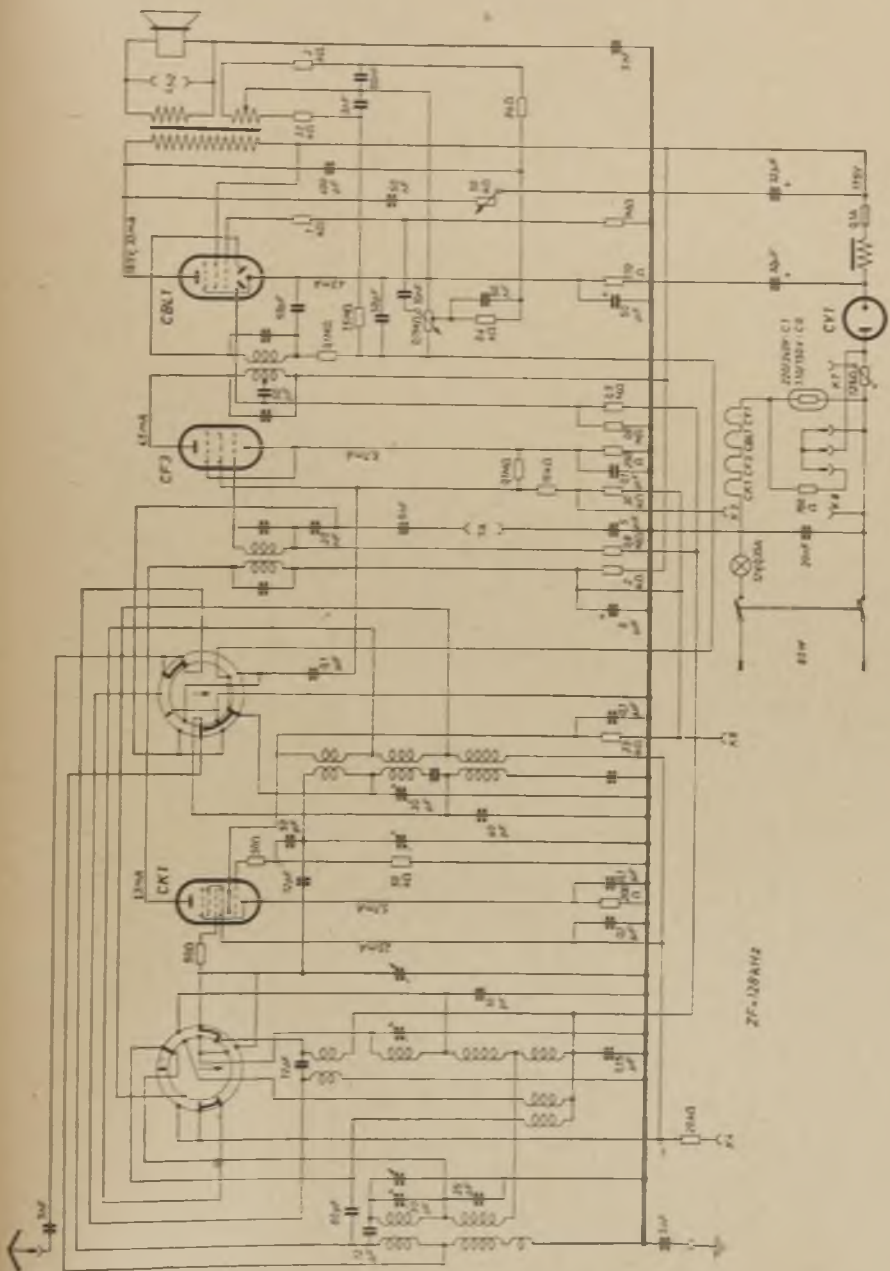


Horny Prinz 39 Kraftverstärker

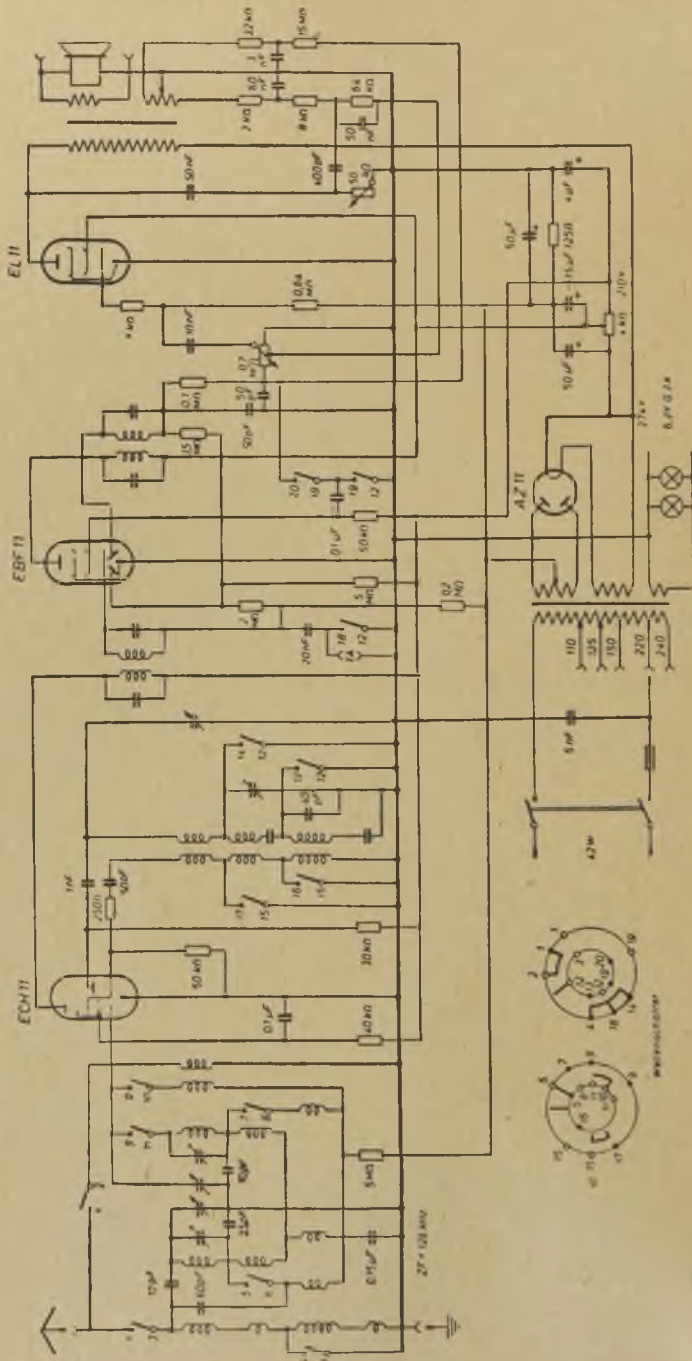




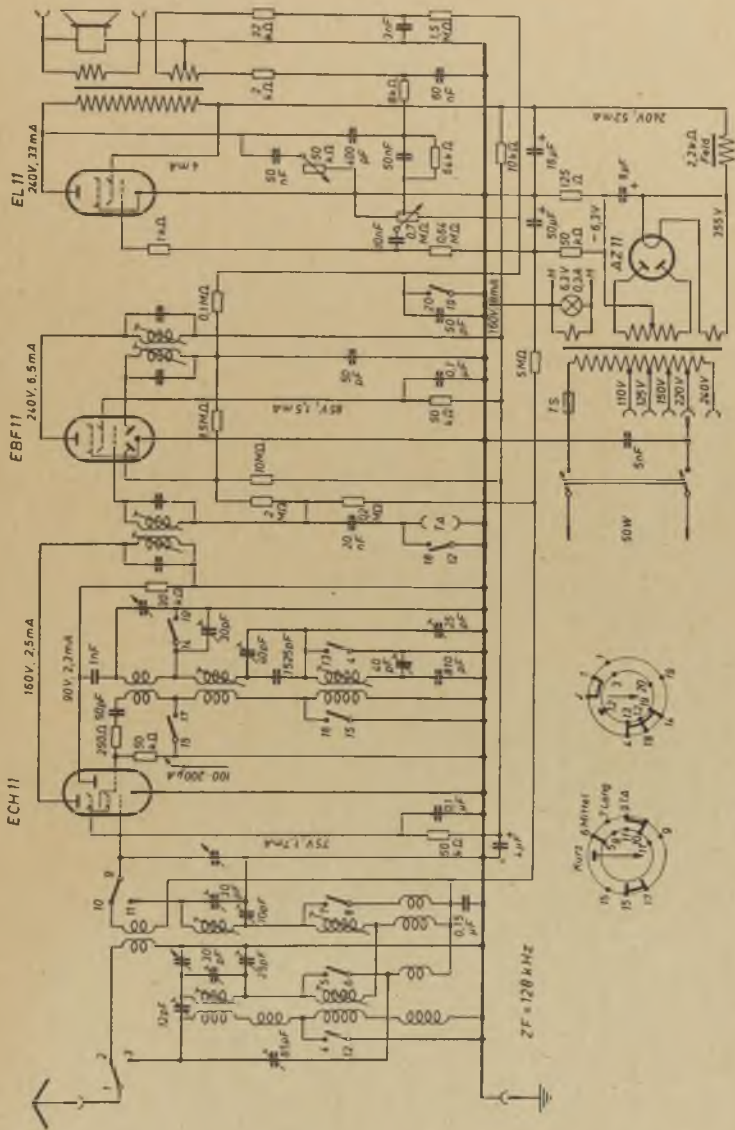
Schallerstellung:
Kurzwebe



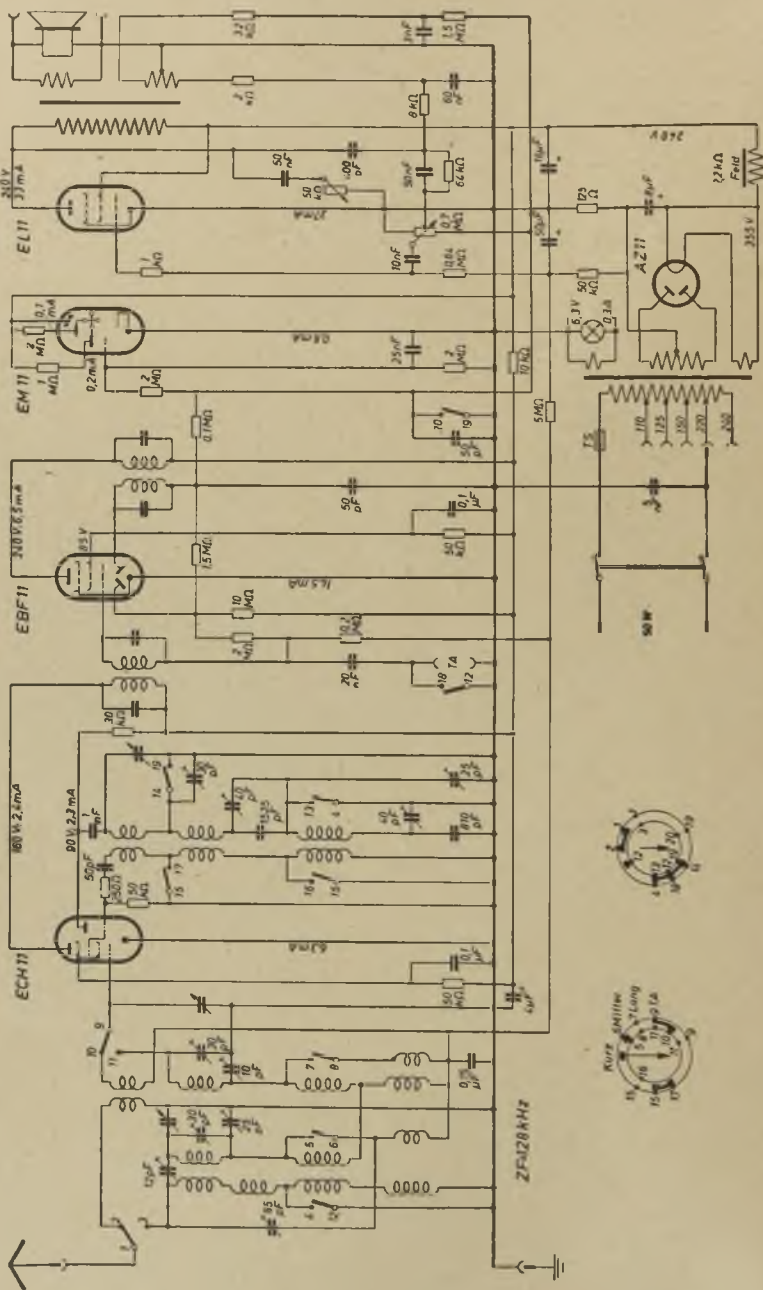
Horny Prinz 40 W W 135 A

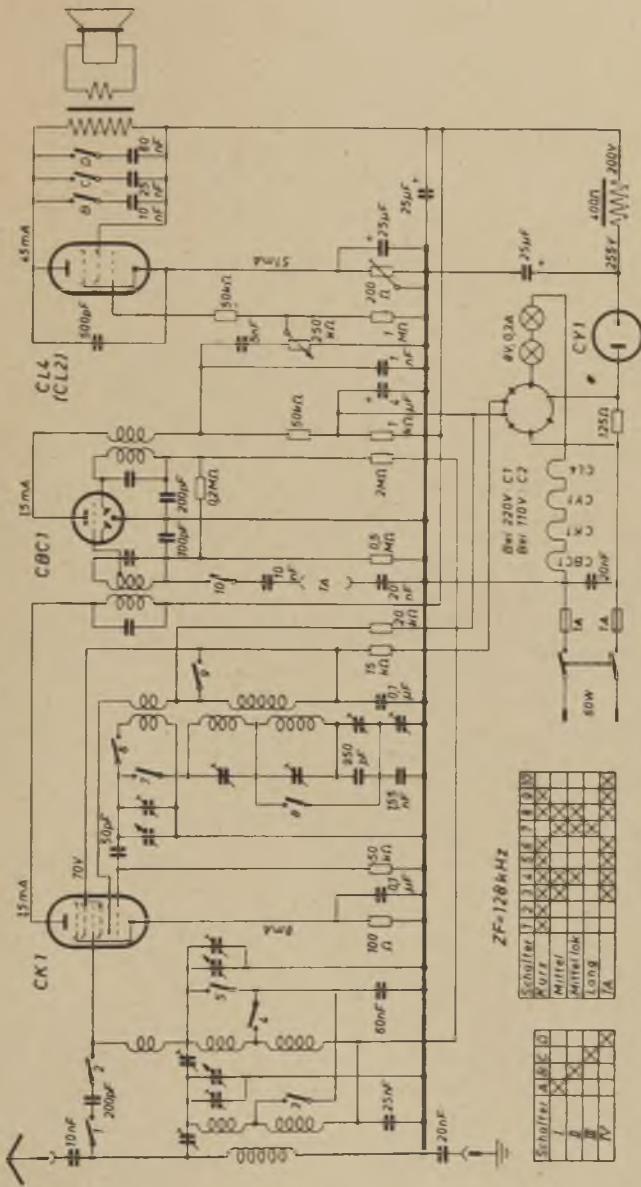


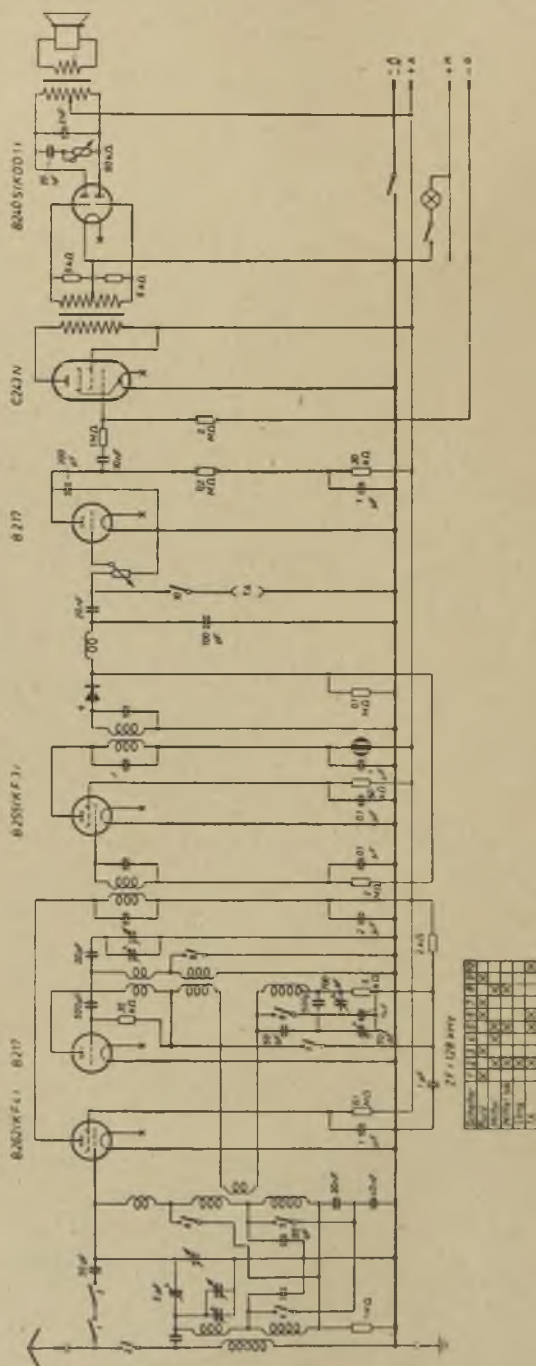
Horný Prinz 40 W/II W 135 A/II

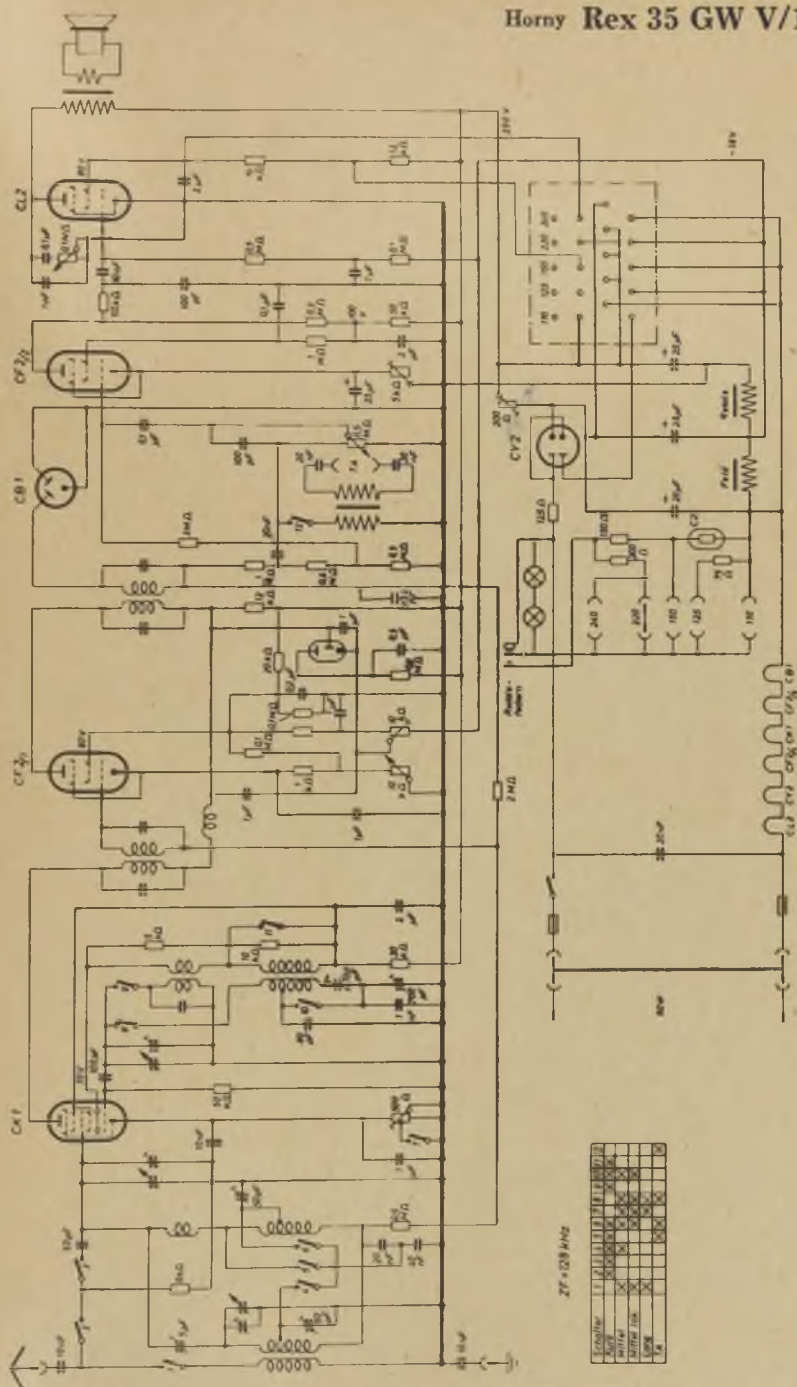


Horny Prinz 41 W W 236 A





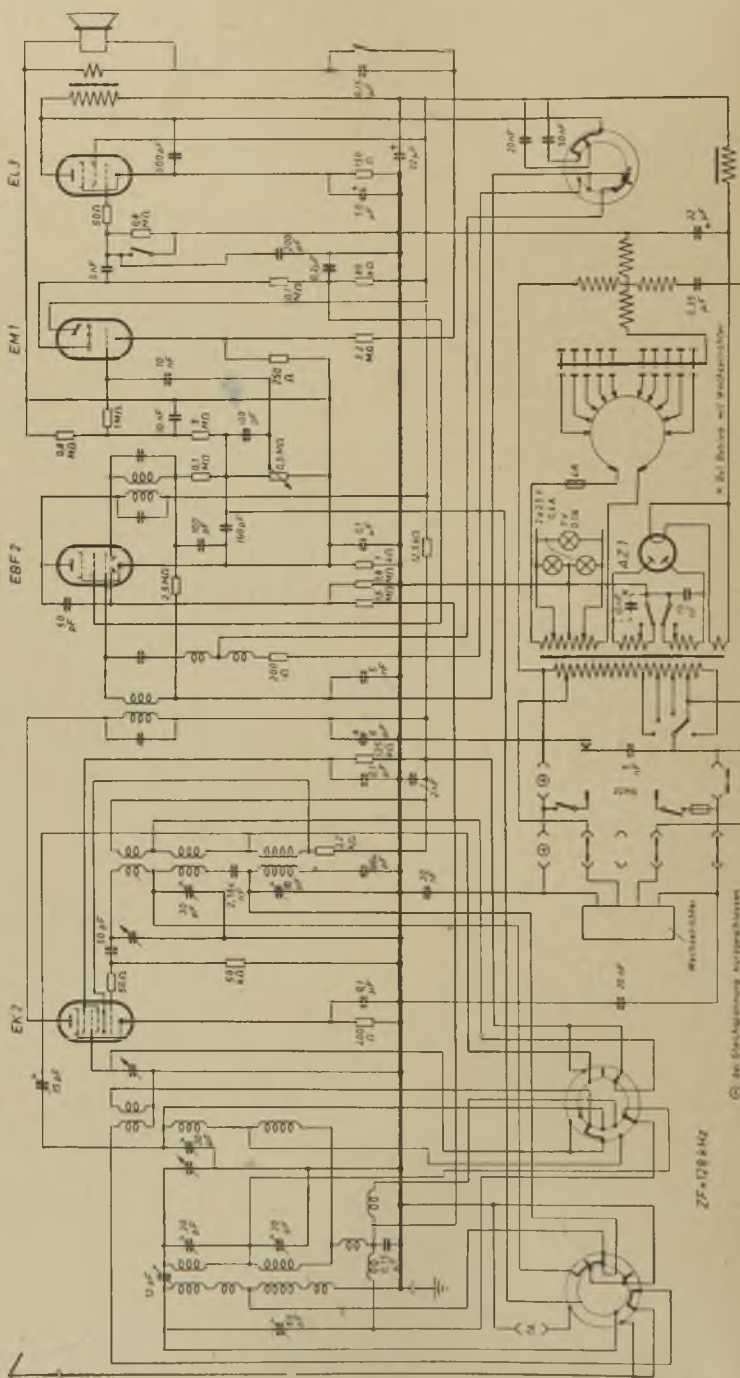




ZF = 238 kHz

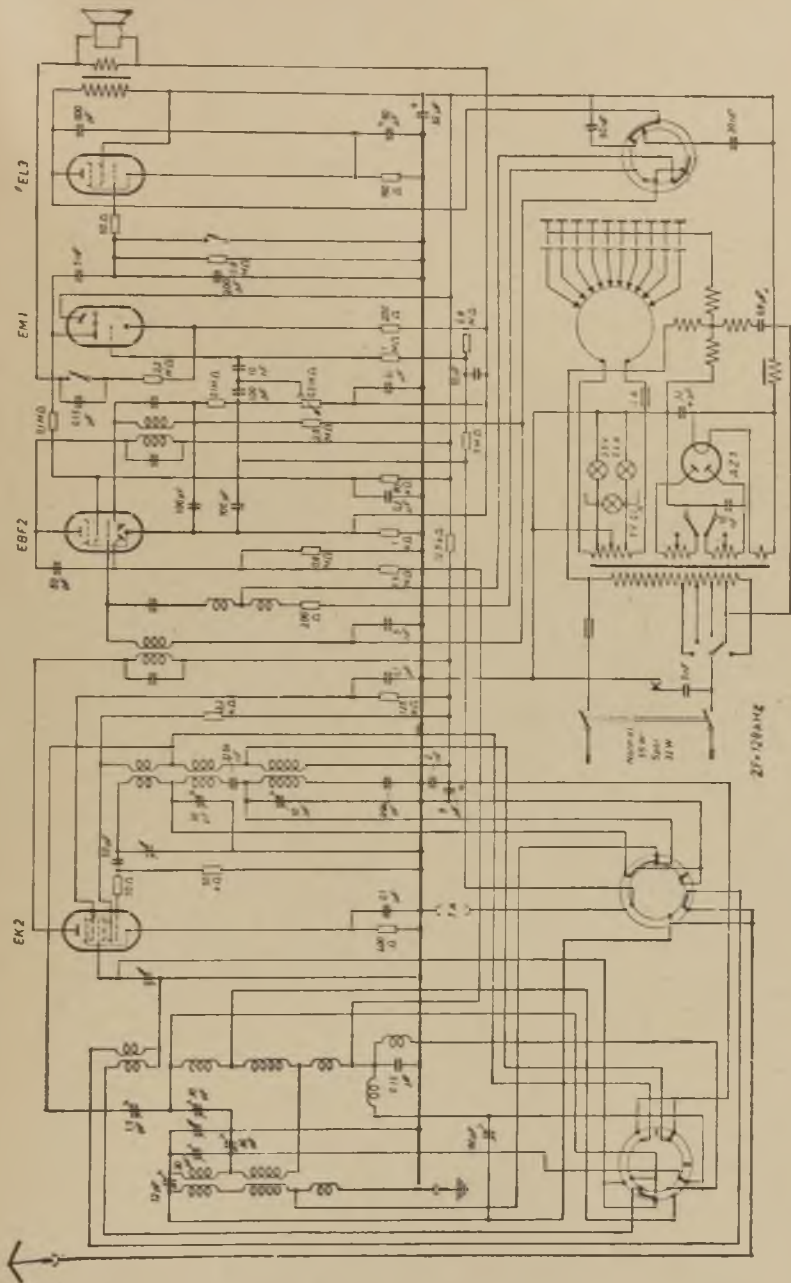
Condensator	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Widerstand	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Leiterlötl.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Wärme	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

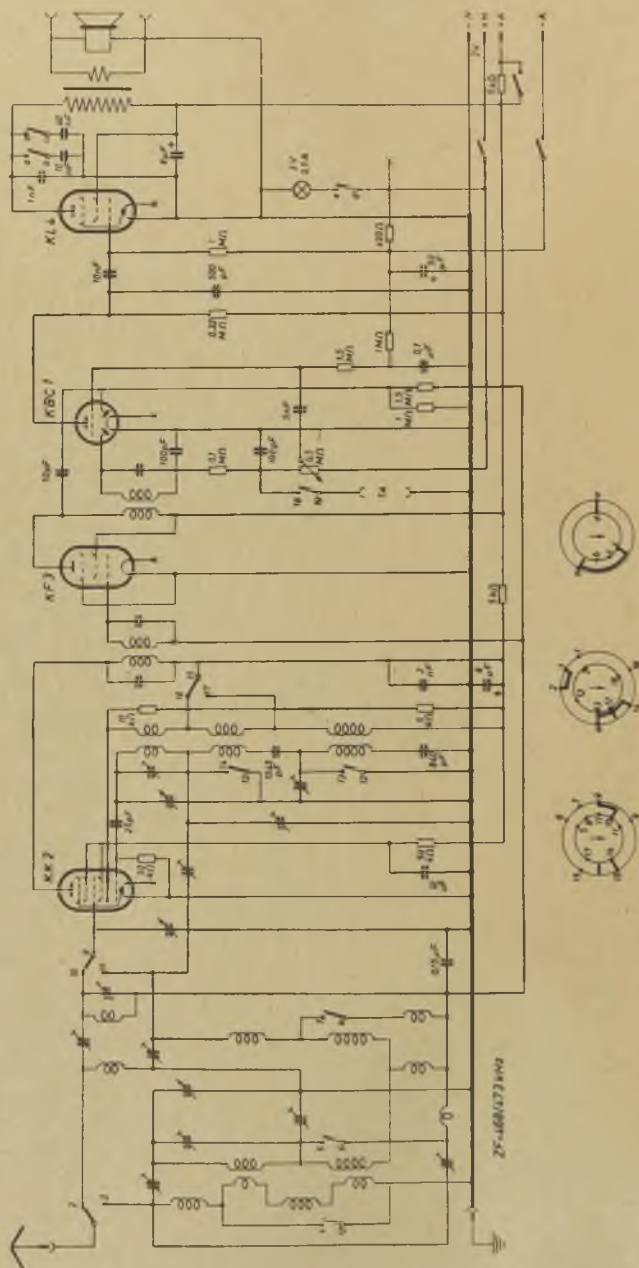
Horny Rex 39 GW W 544 U

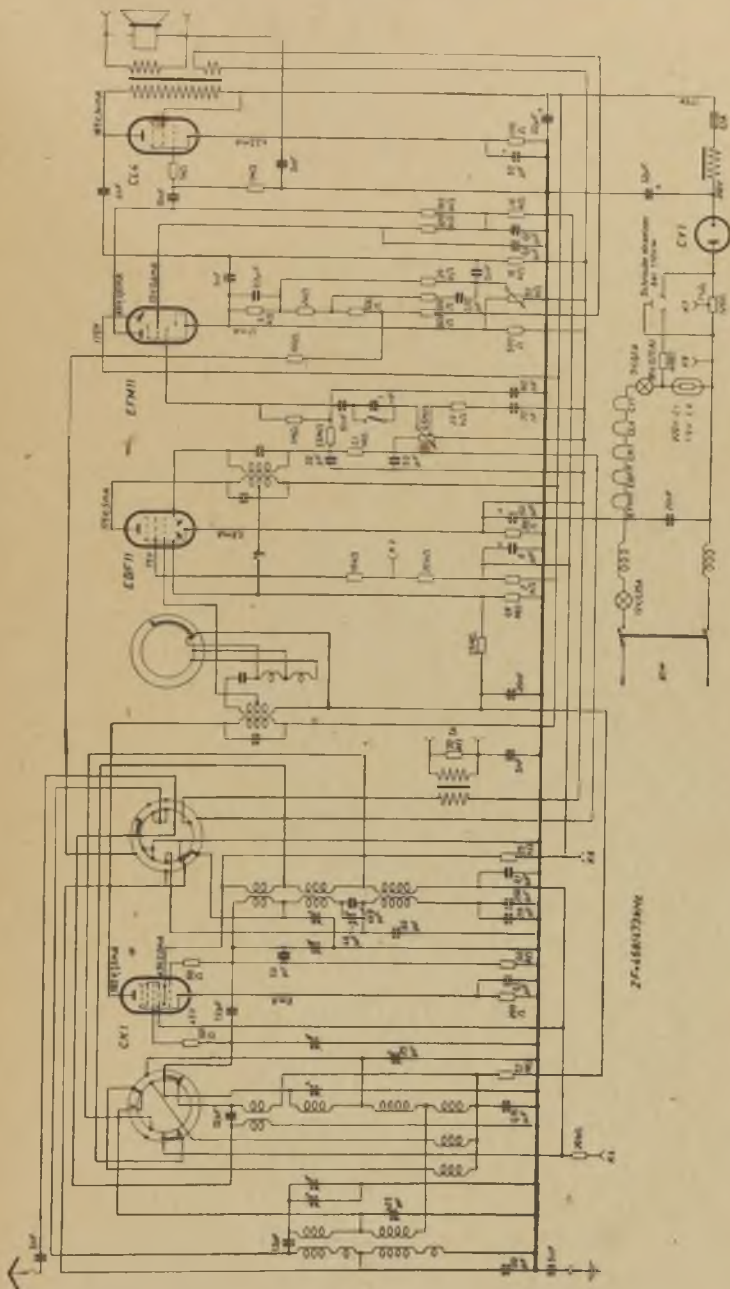


© der Erfindung angehängt

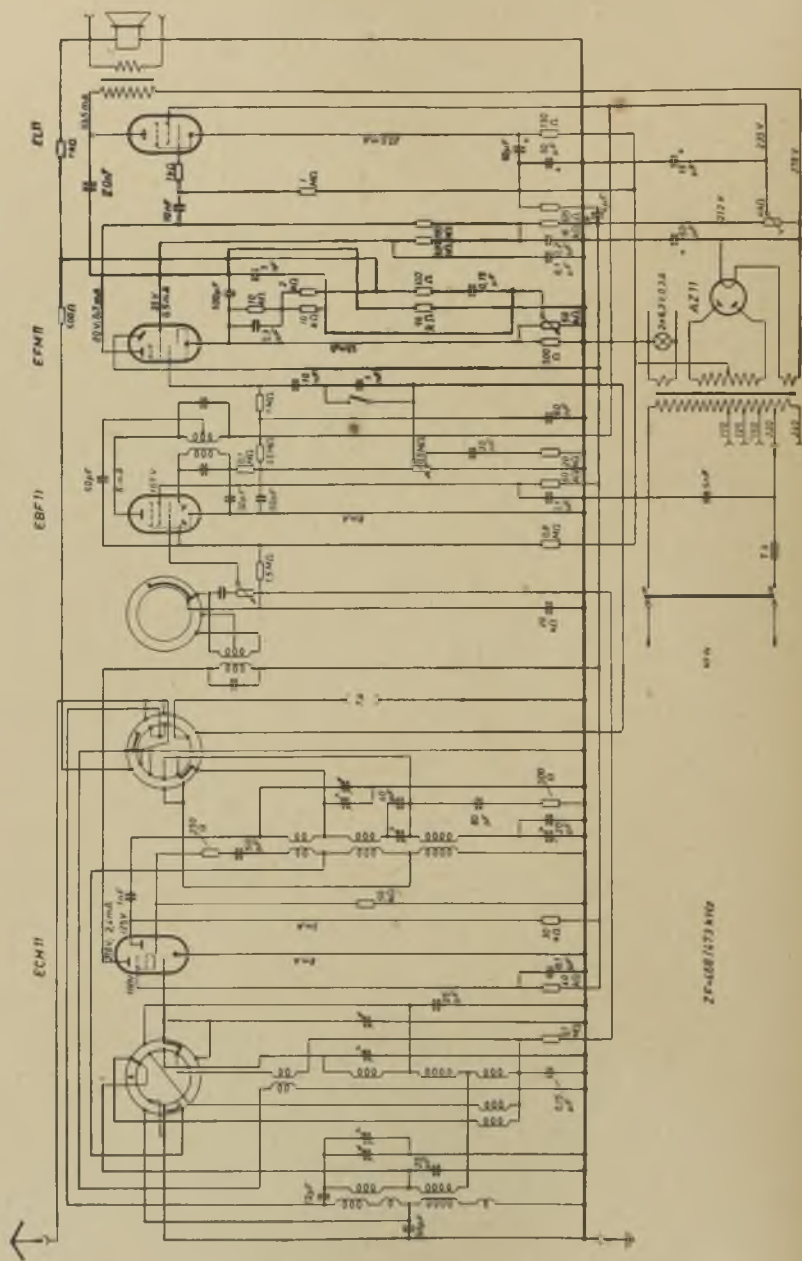
ZF-128-MQ

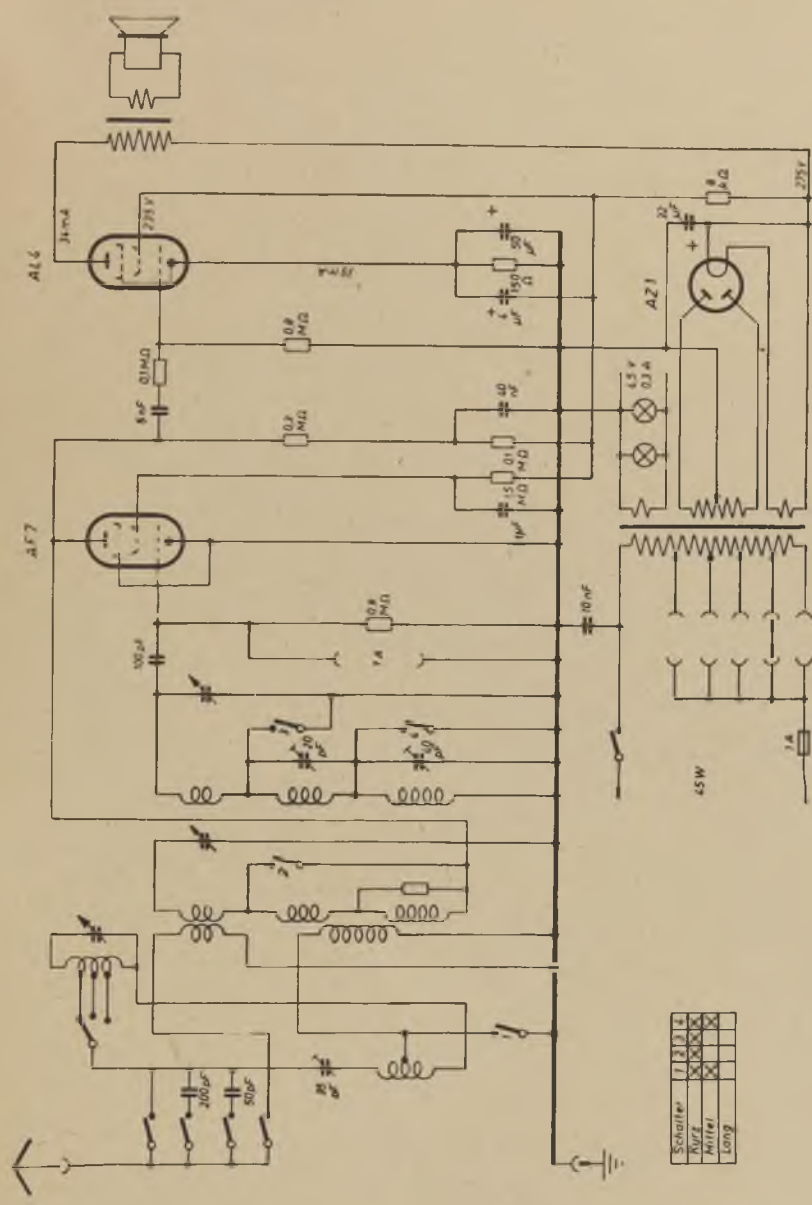






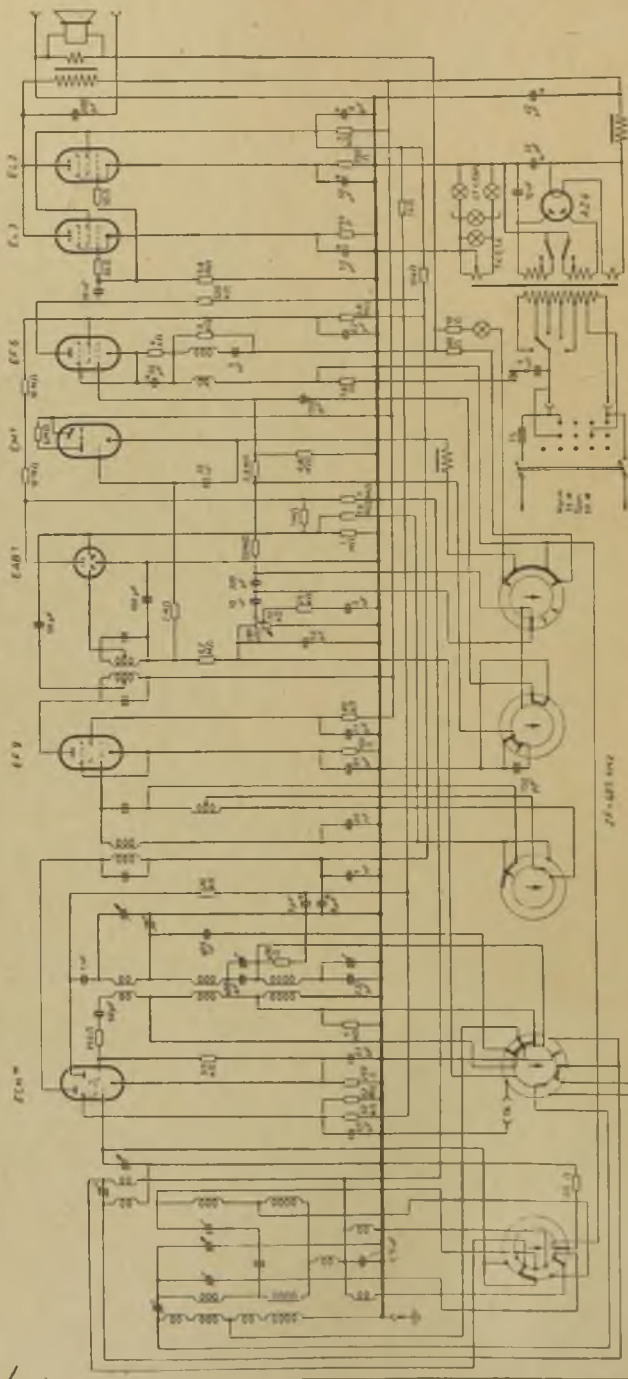
Horny Rex 40 W W 345 A

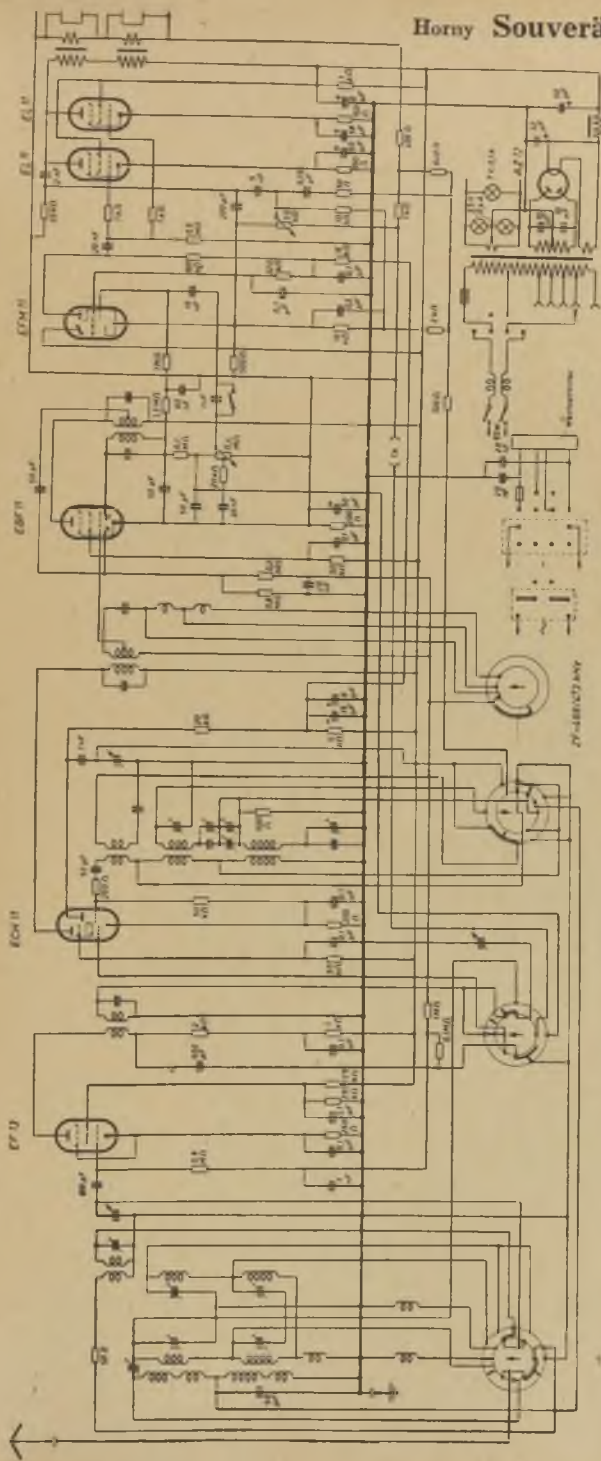




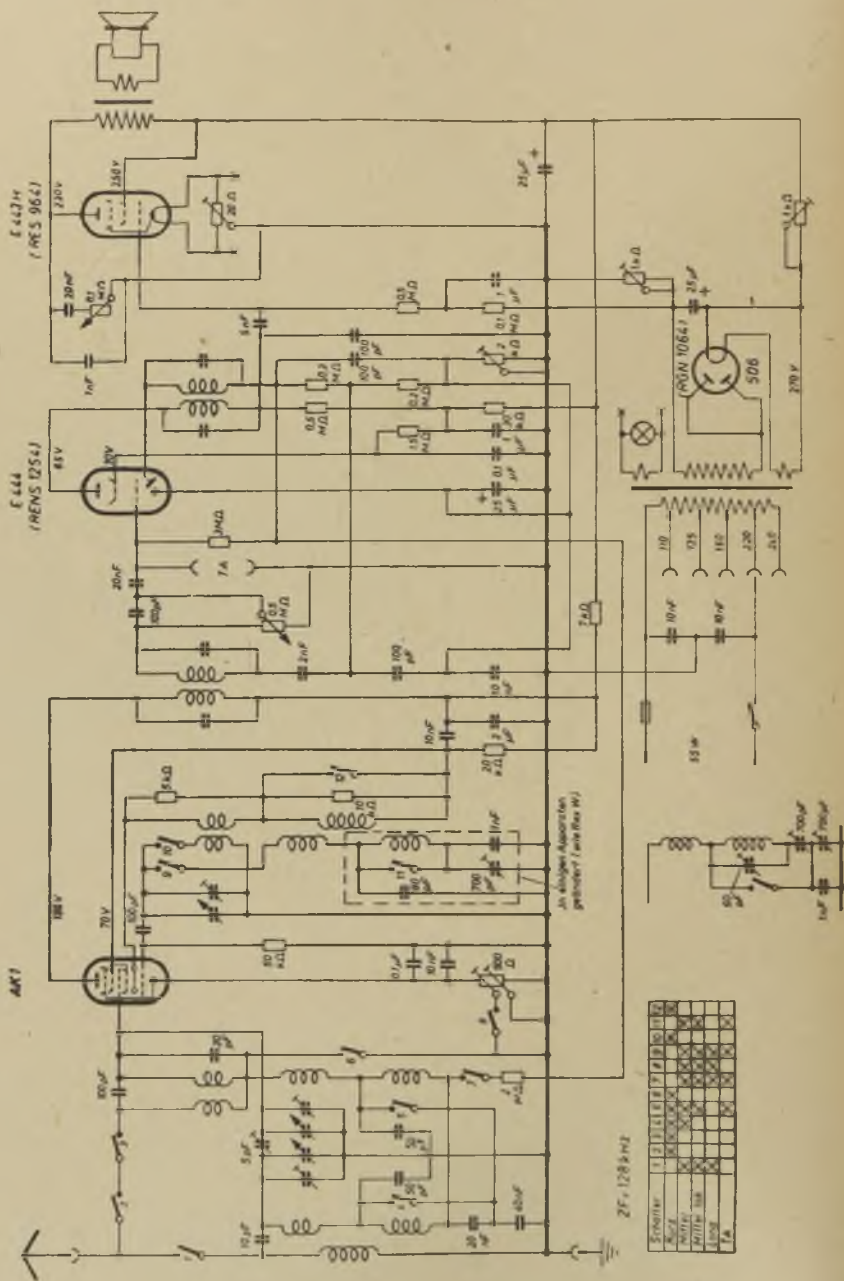
Schalter	1	2	3	4
NICE	X	X	X	X
Mittel	X	X	X	X
Long	X	X	X	X

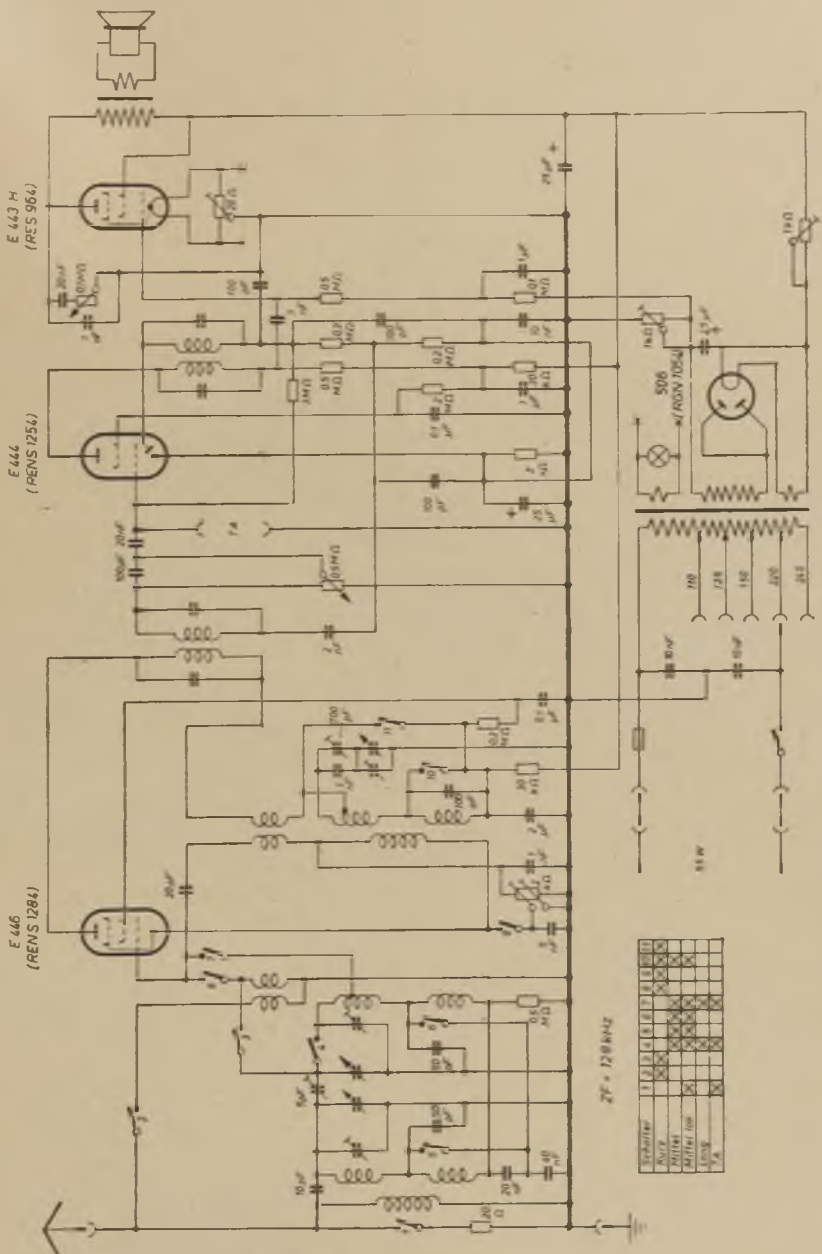
Horný Sondertyp 40 W W 464 A





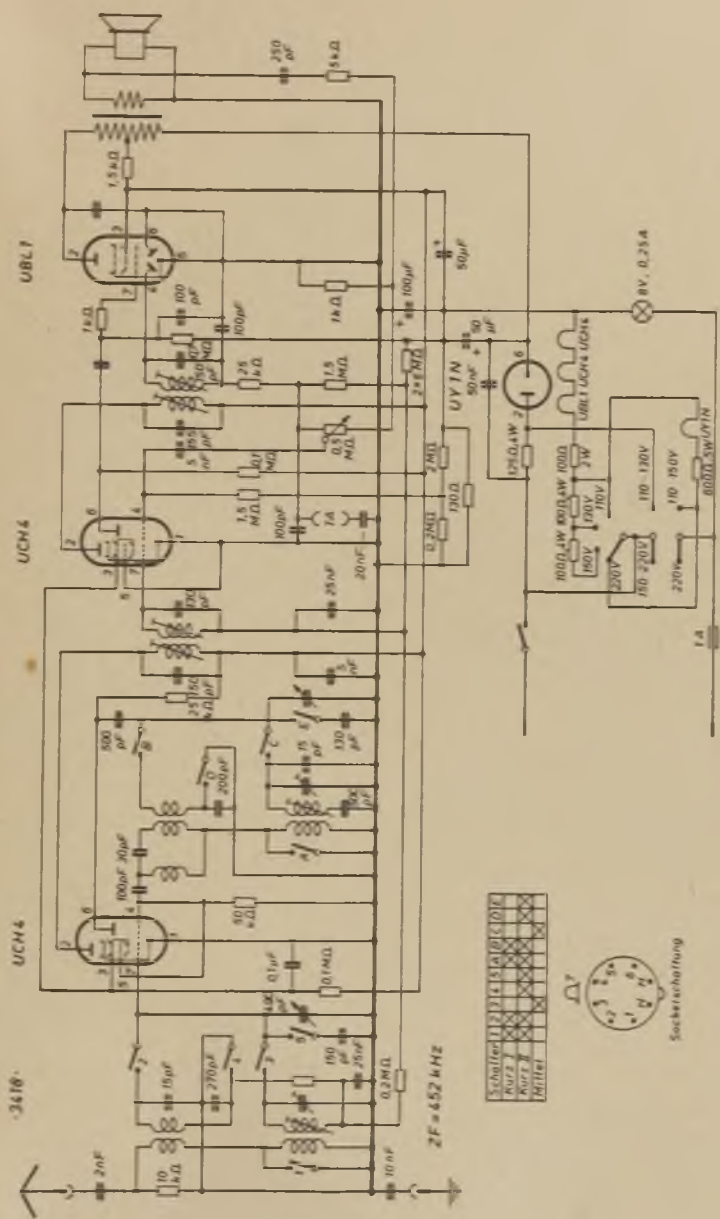
Horný Trix Oktode W

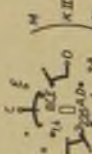
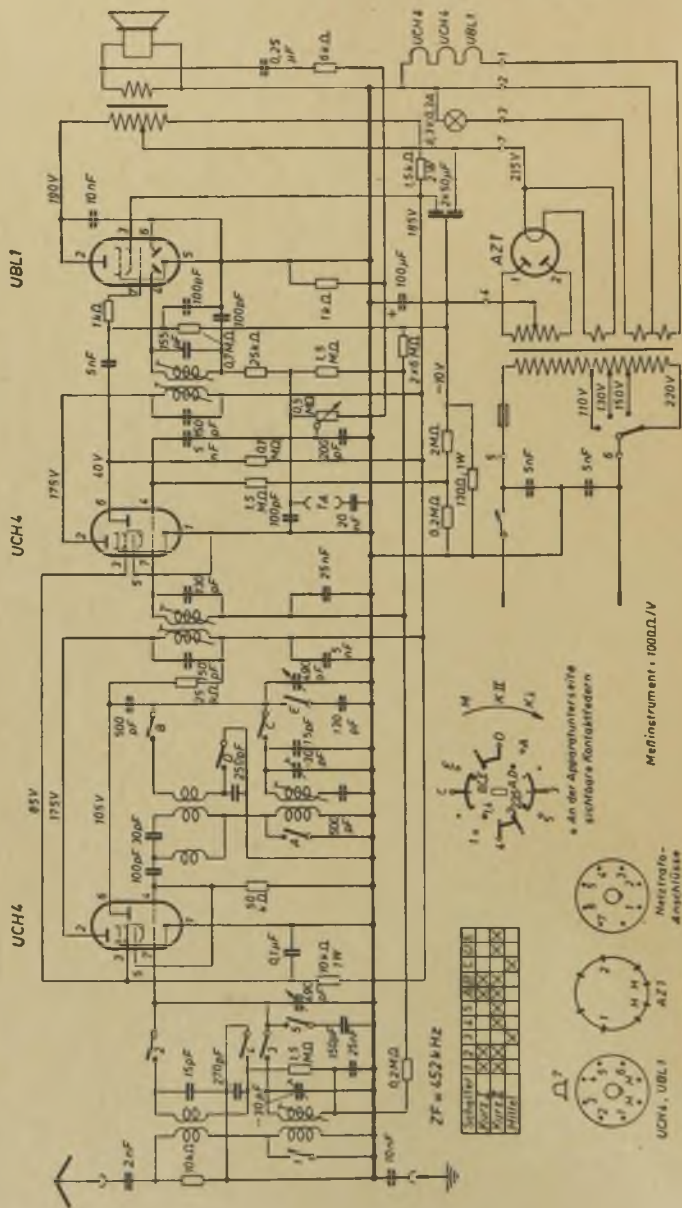




Ingelen

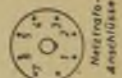
(Produktion nach 1945)



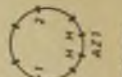


* An der Apparaturseite
steuerbare Kontaktfedern

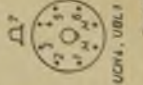
Meßinstrument : 1000Ω/V



Neutrodin-
Anschlüsse



AZ 7



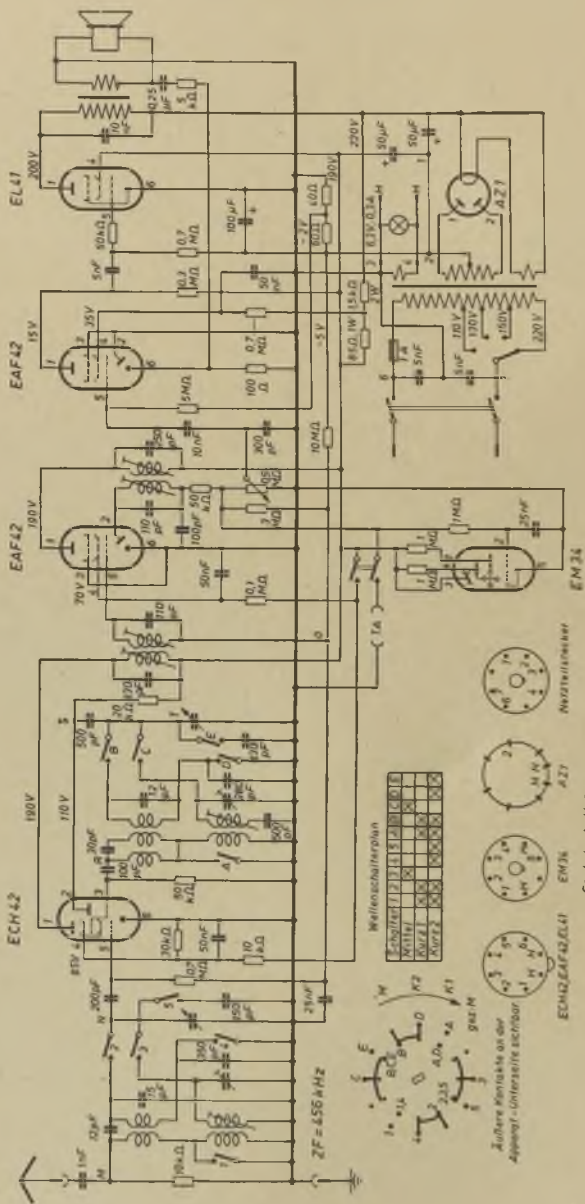
UCH4, UBL1

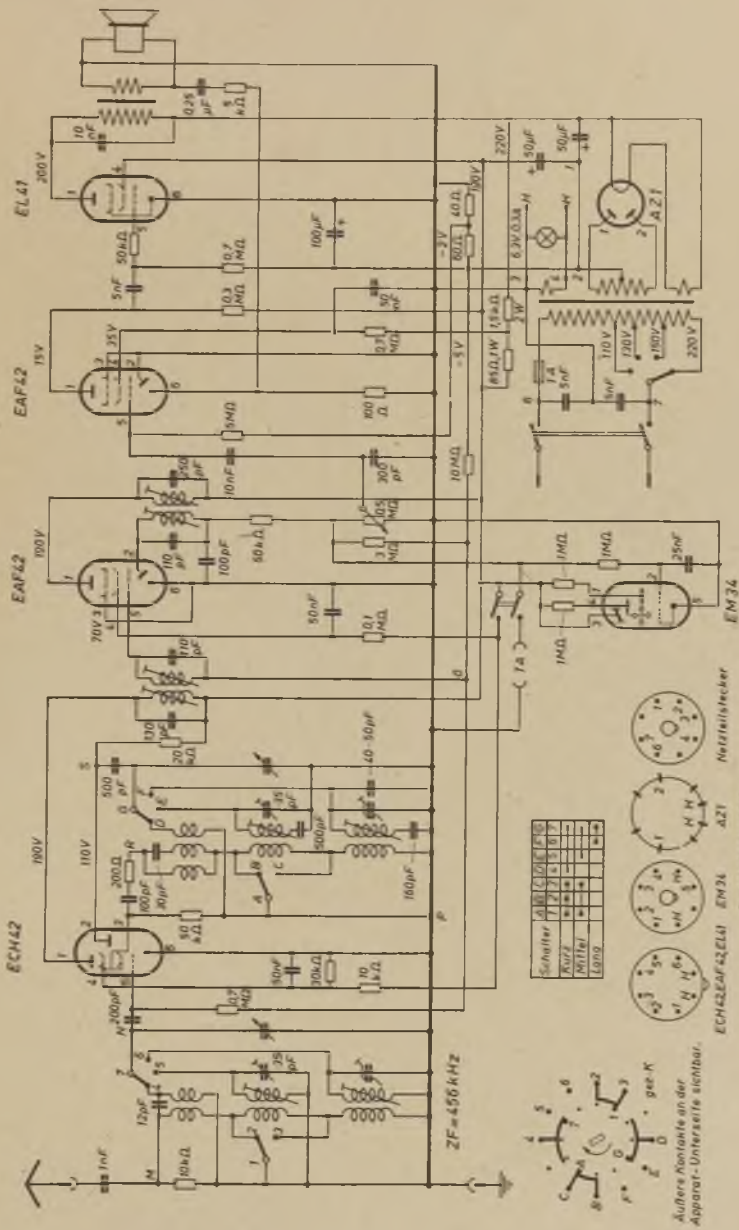
Socketanschlüsse

SCHW	1	2	3	4	5	6	7	8	9	10	11	12
100k	10k	1k	100Ω	10Ω	1Ω	100pF	10nF	100nF	1μF	10μF	100μF	1mF
100k	10k	1k	100Ω	10Ω	1Ω	100pF	10nF	100nF	1μF	10μF	100μF	1mF
100k	10k	1k	100Ω	10Ω	1Ω	100pF	10nF	100nF	1μF	10μF	100μF	1mF

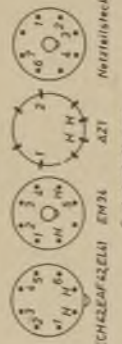
ZF = 452 kHz

Ingelen Columbus 50 W

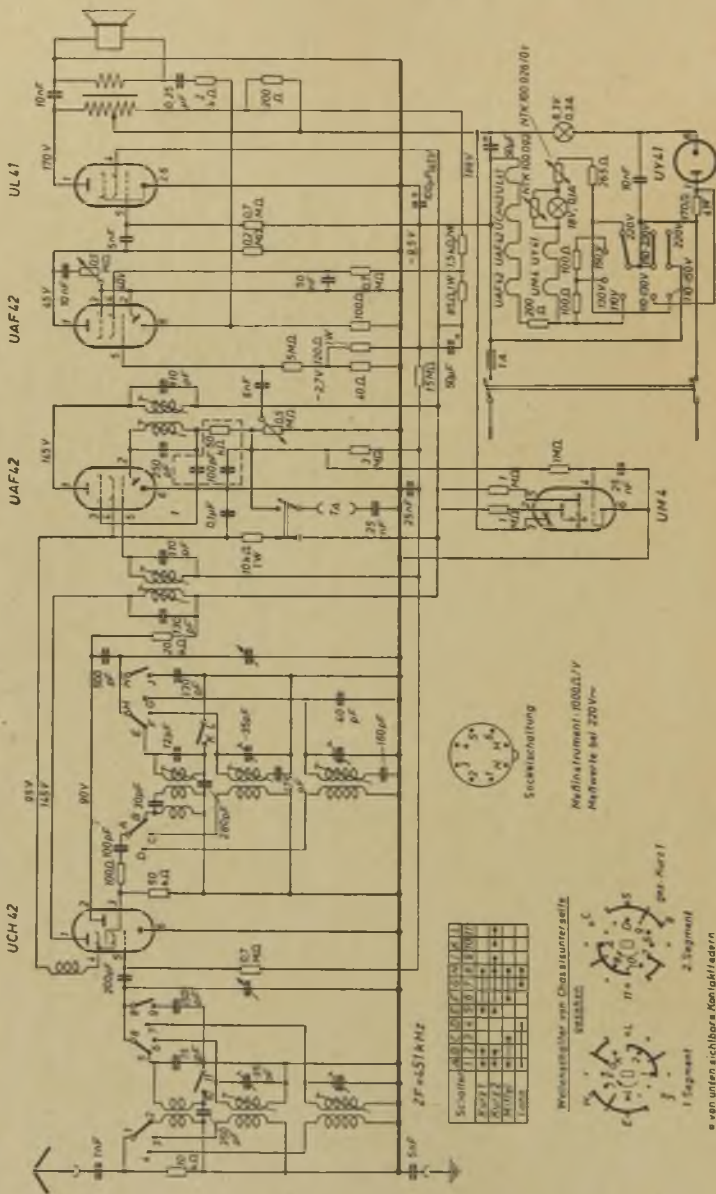




Stromwert	A	B	C	D	E	F	G	H	K
100V	1	2	3	4	5	6	7	8	9
250V	1	2	3	4	5	6	7	8	9
500V	1	2	3	4	5	6	7	8	9
1000V	1	2	3	4	5	6	7	8	9



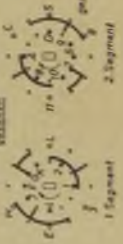
Außere Kontakte an der Apparat-Unterseite sichtbar.



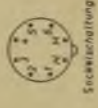
Schaltplan

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

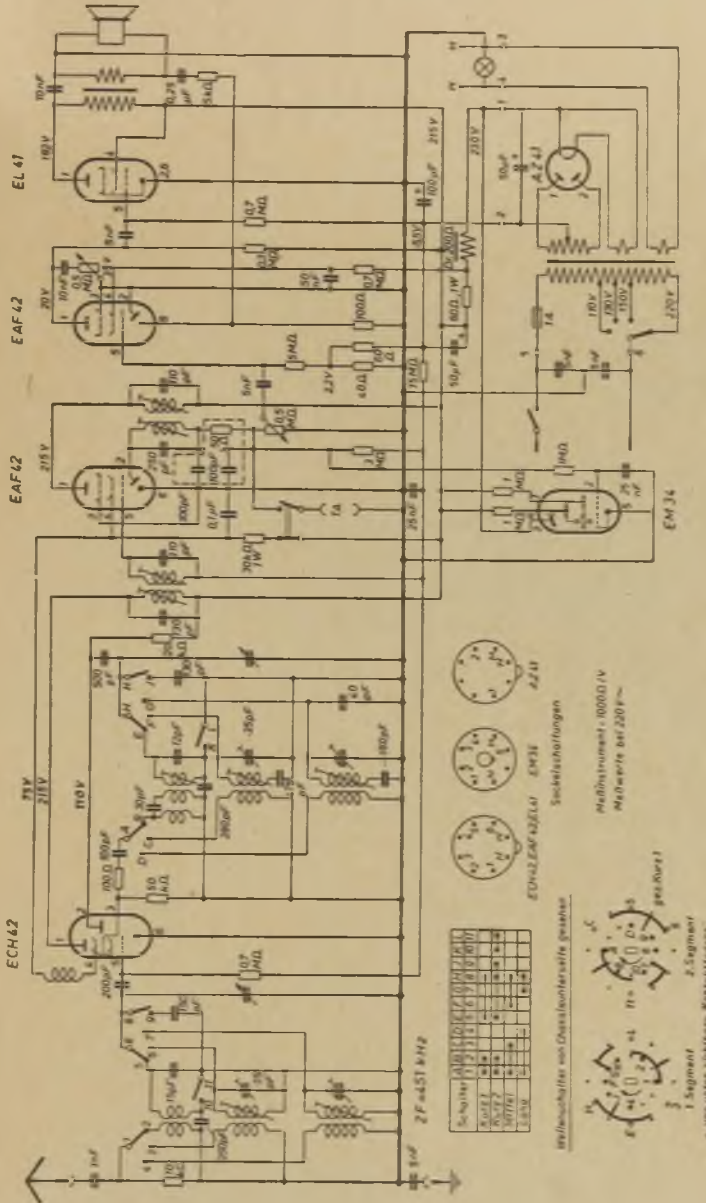
Werteangaben sind in Ohm angegeben

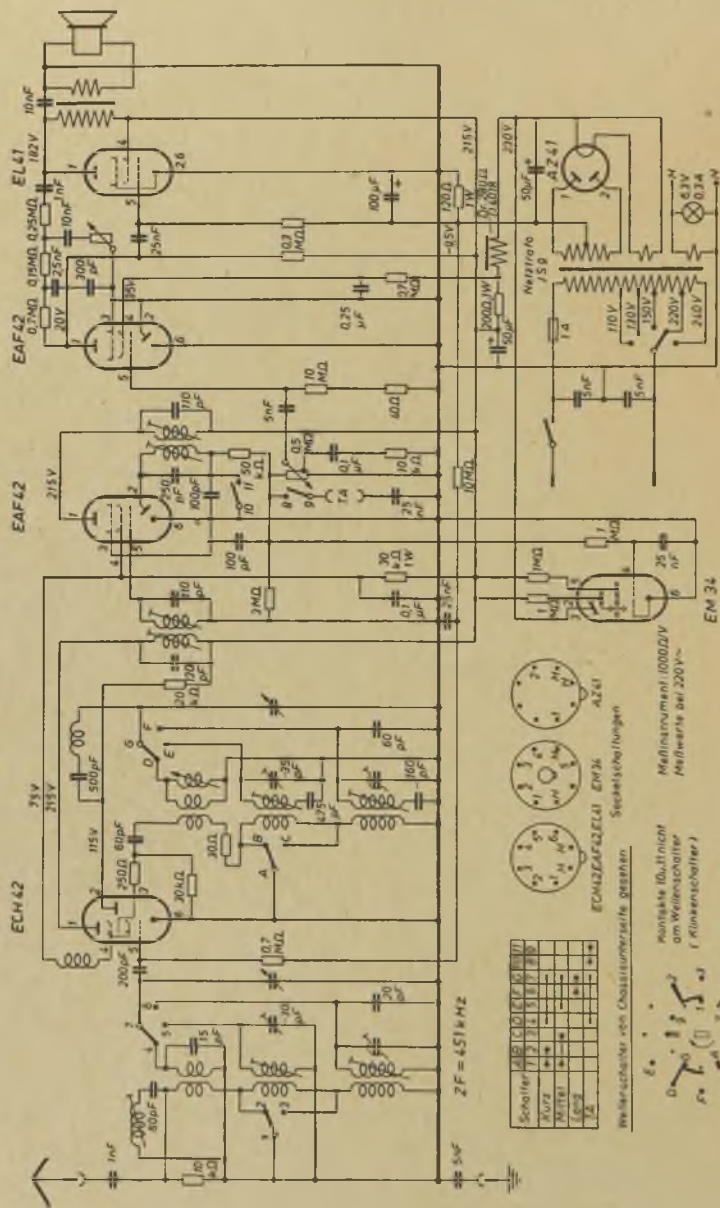


• von unten sichtbare Kontakt/einst.

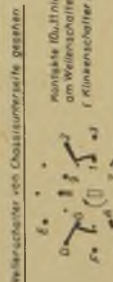


Meßinstrument: 1000Ω/V
Meßwerte bei 250V=

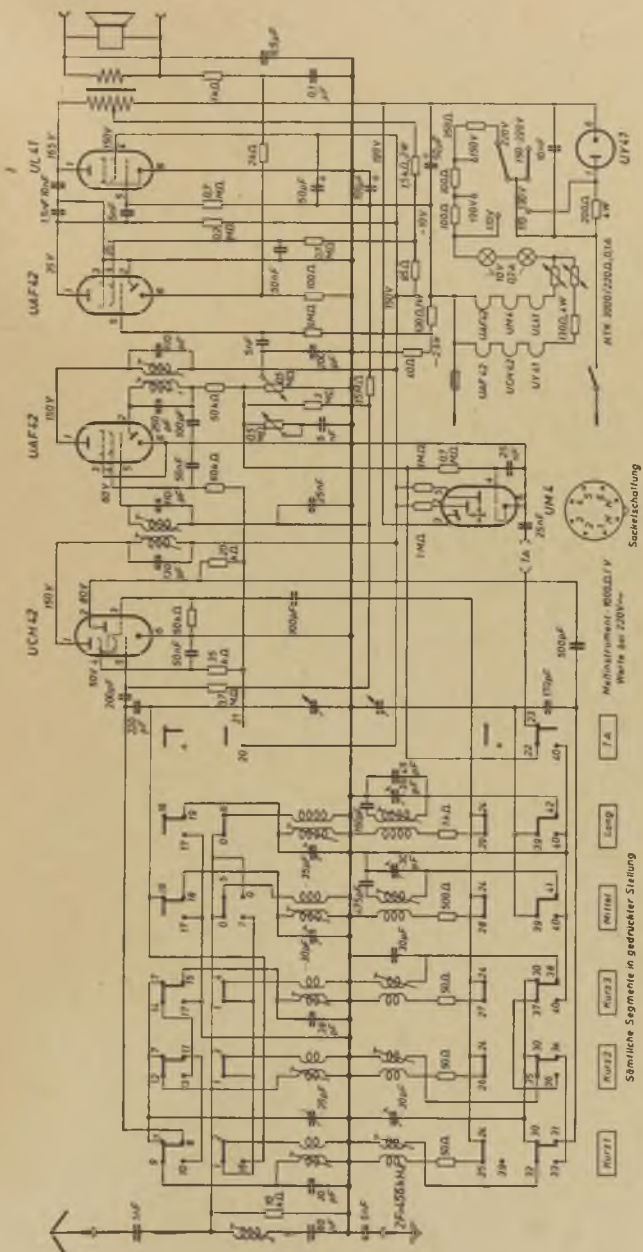


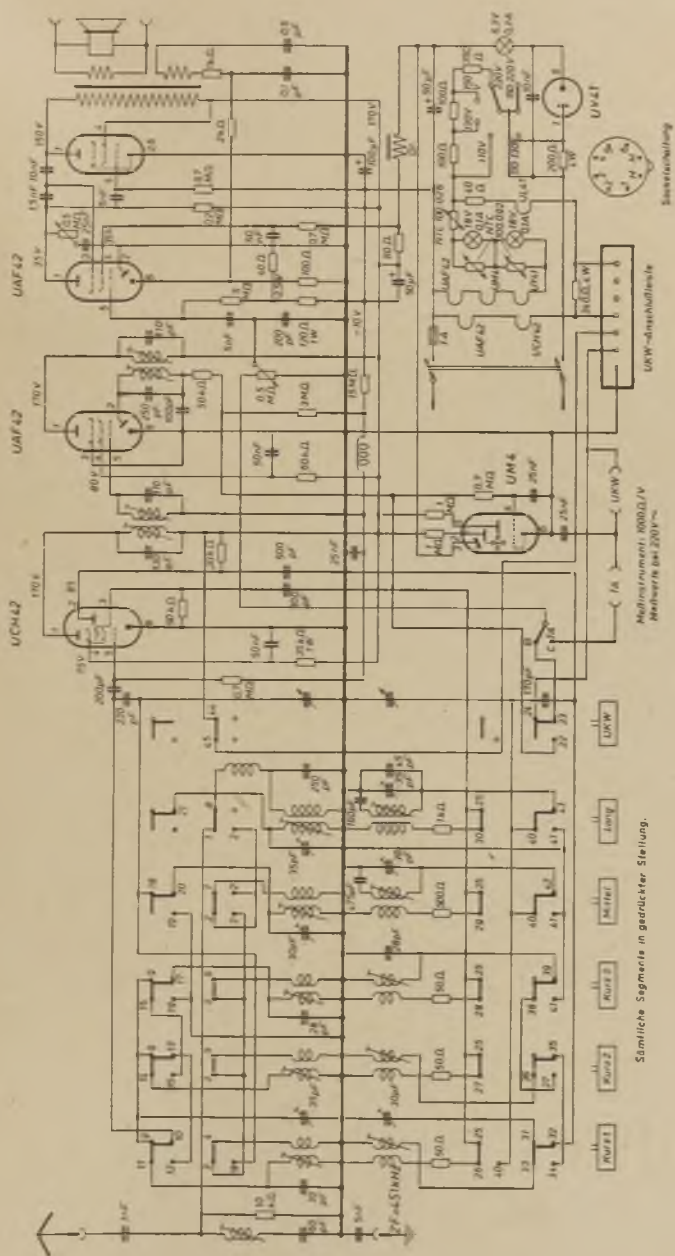


Schalter	A	B	C	D	E	F	G	H	I	J
kurz										
betrie										
100%										

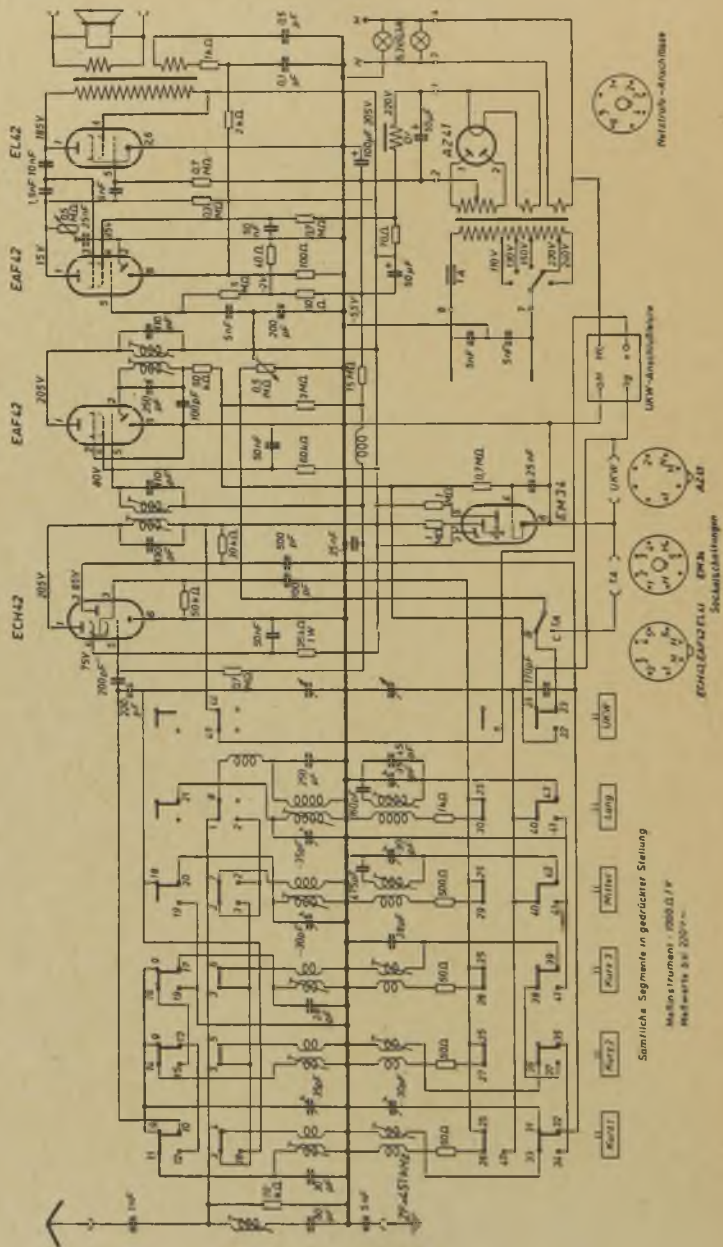


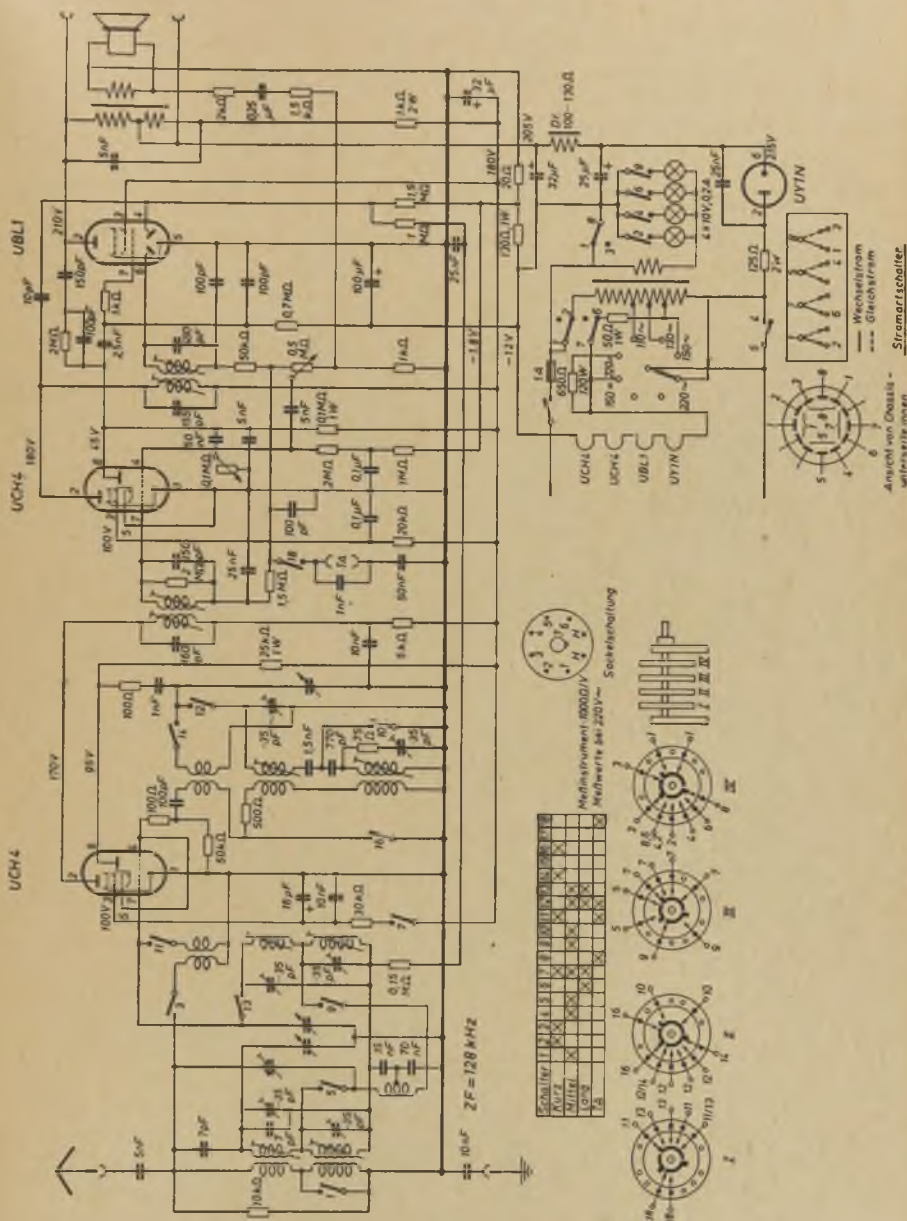
äußere Kontakte an der Apparatur sichtbar

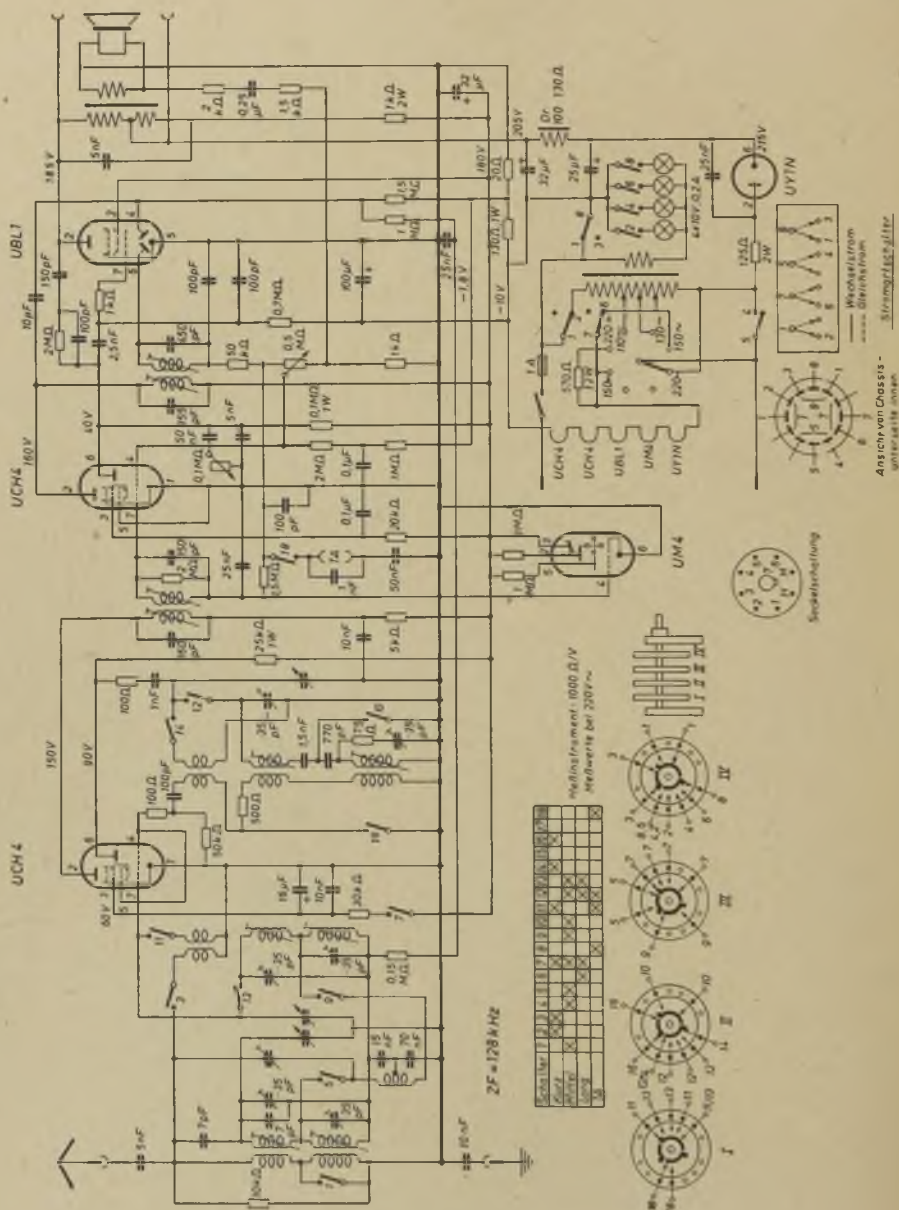


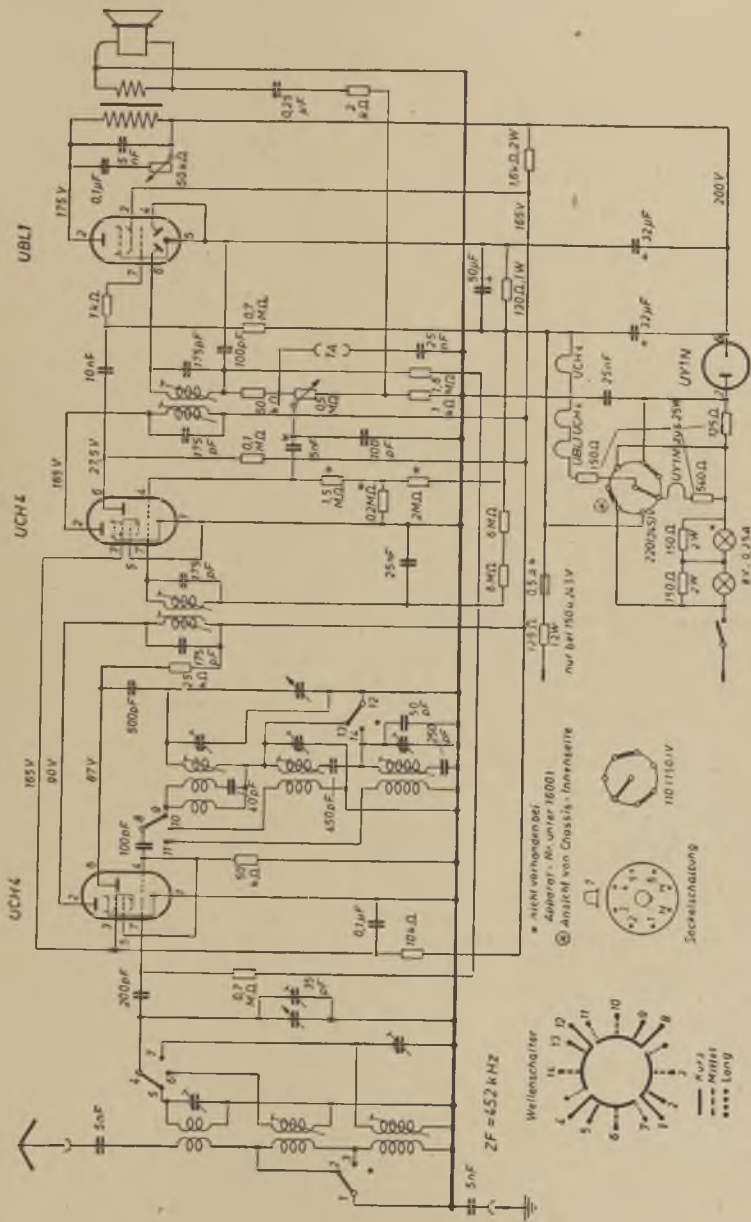


Stämliche Sgmerie in gedruckter Stellung.



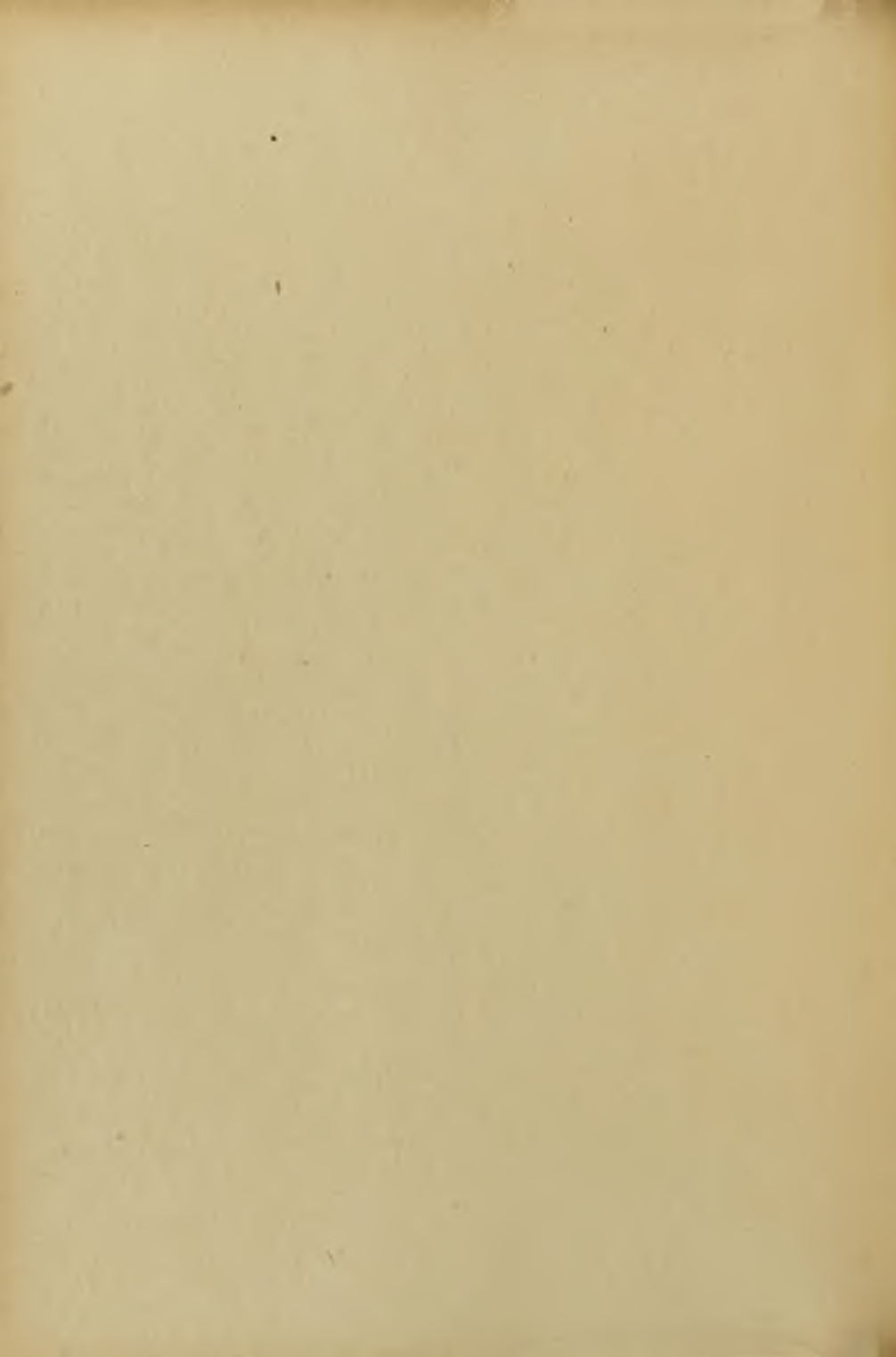






- * nicht vorhanden bei Zubehör ab unter 16000
- ⊙ Ansicht von Crossin-Mannette
- Seitenansicht

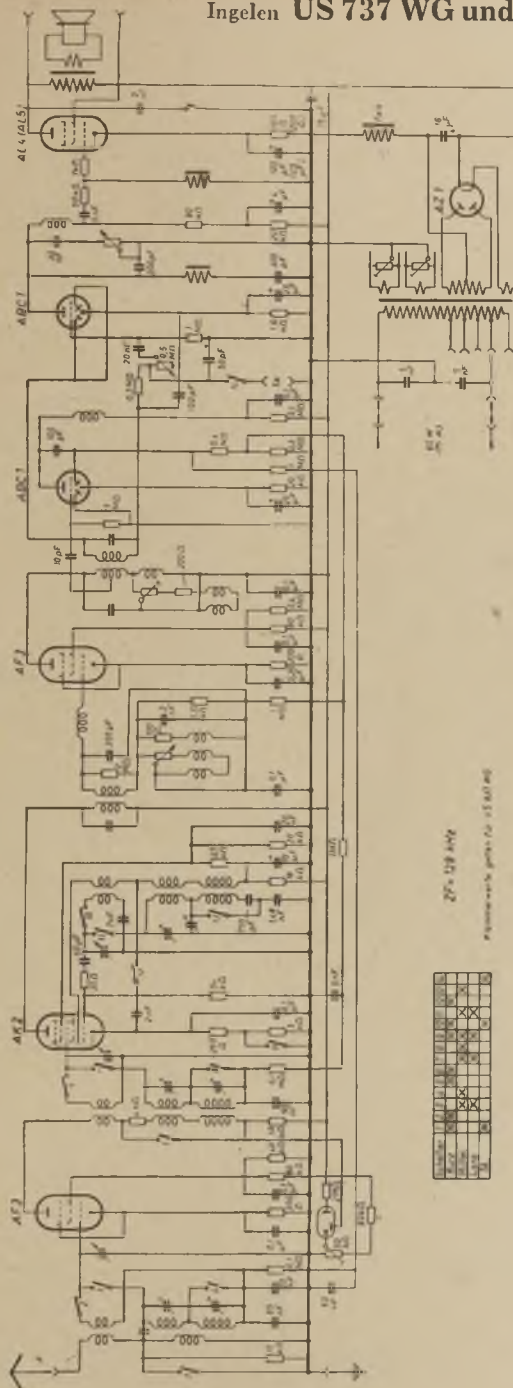




Ingelen

(Produktion vor 1945)

Englen US 737 WG und US 837 WG

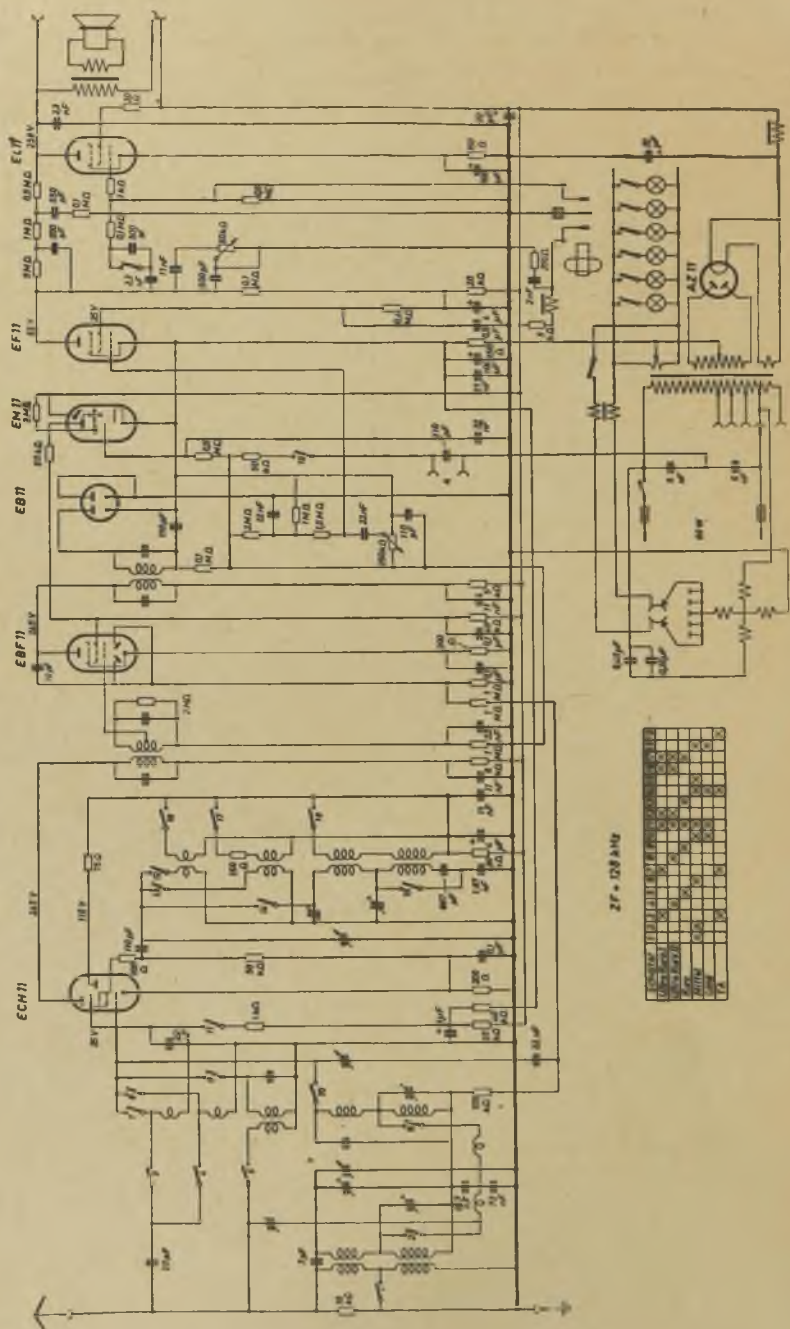


27 x 128 V~

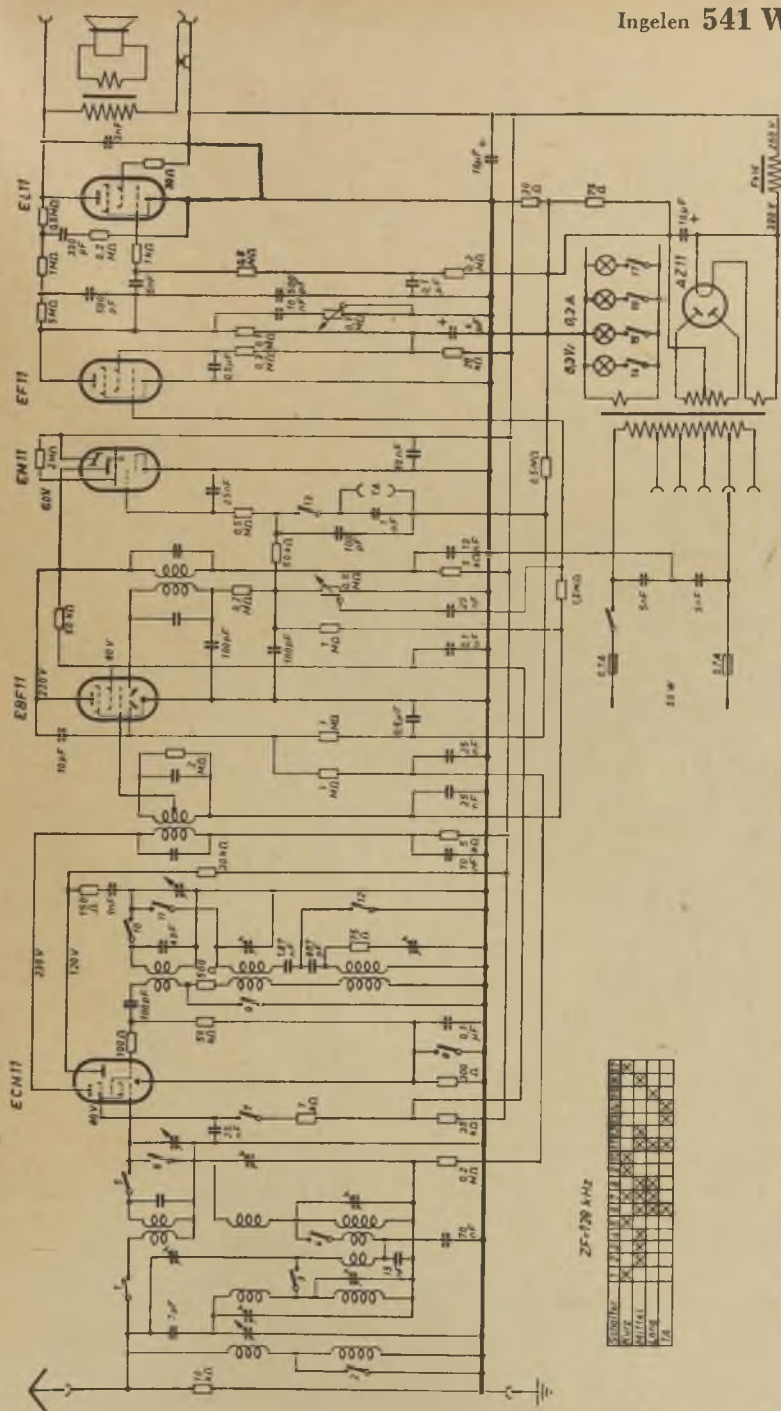
Einbauelemente gehen für 1:1 Maßstab

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30								
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62						
63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Ingelen 640 W

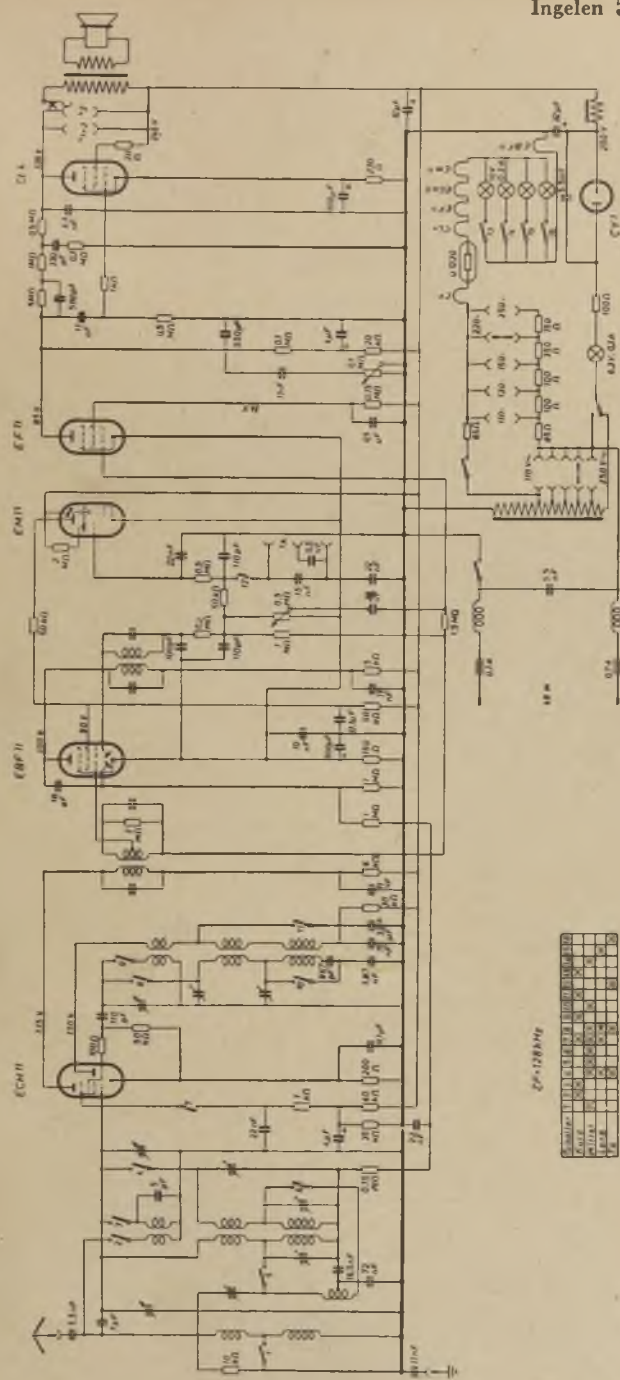


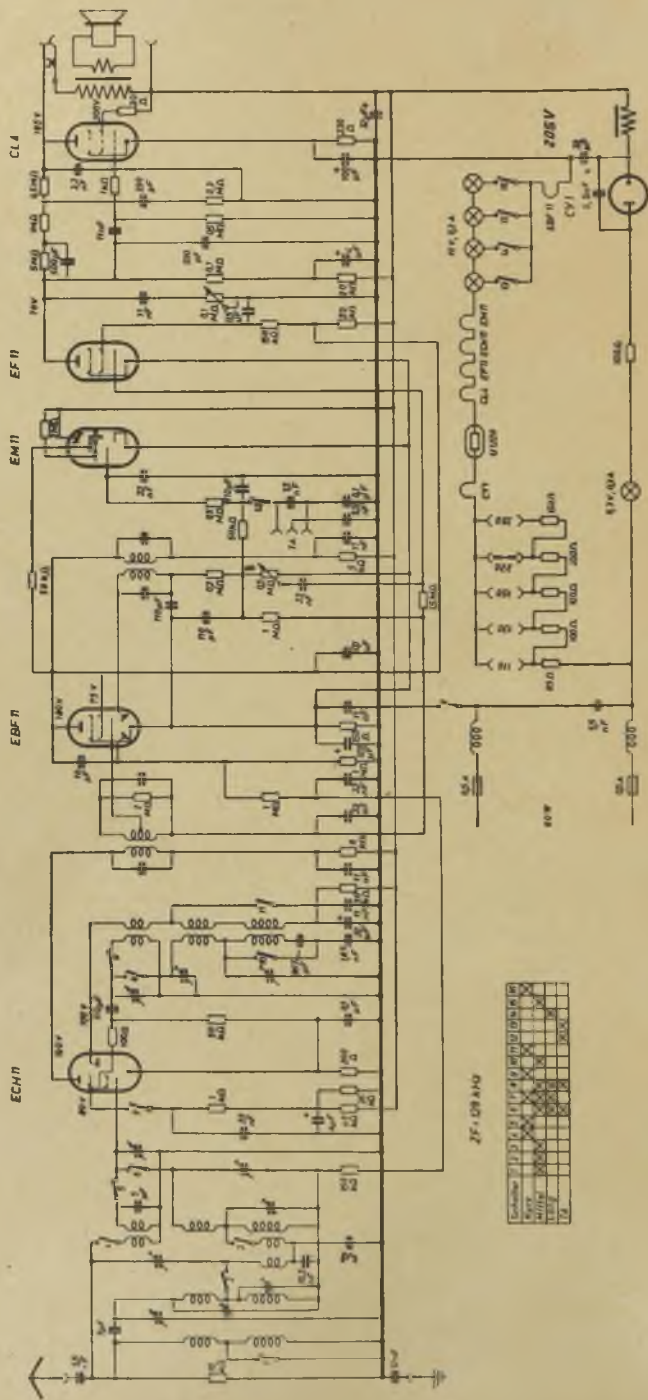
Pin	1	2	3	4	5	6	7	8
ECC83								
EBF7								
EBT								
ENU								
EF7								
EC83								
Filament								
Ground								



ZC-178 A/AZ

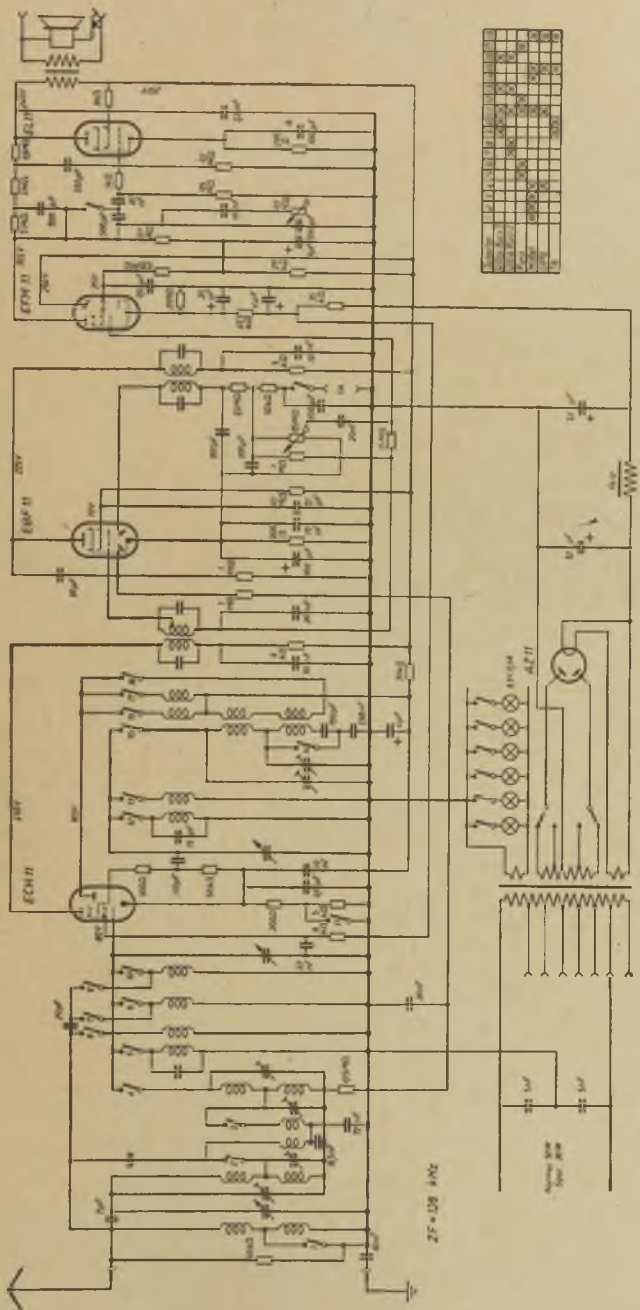
RESISTOR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CAPACITOR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
TUBE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
WIRE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
OTHER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20





2F. 09 110

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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