



ROHDE & SCHWARZ
MÜNCHEN

Bilder
Figures

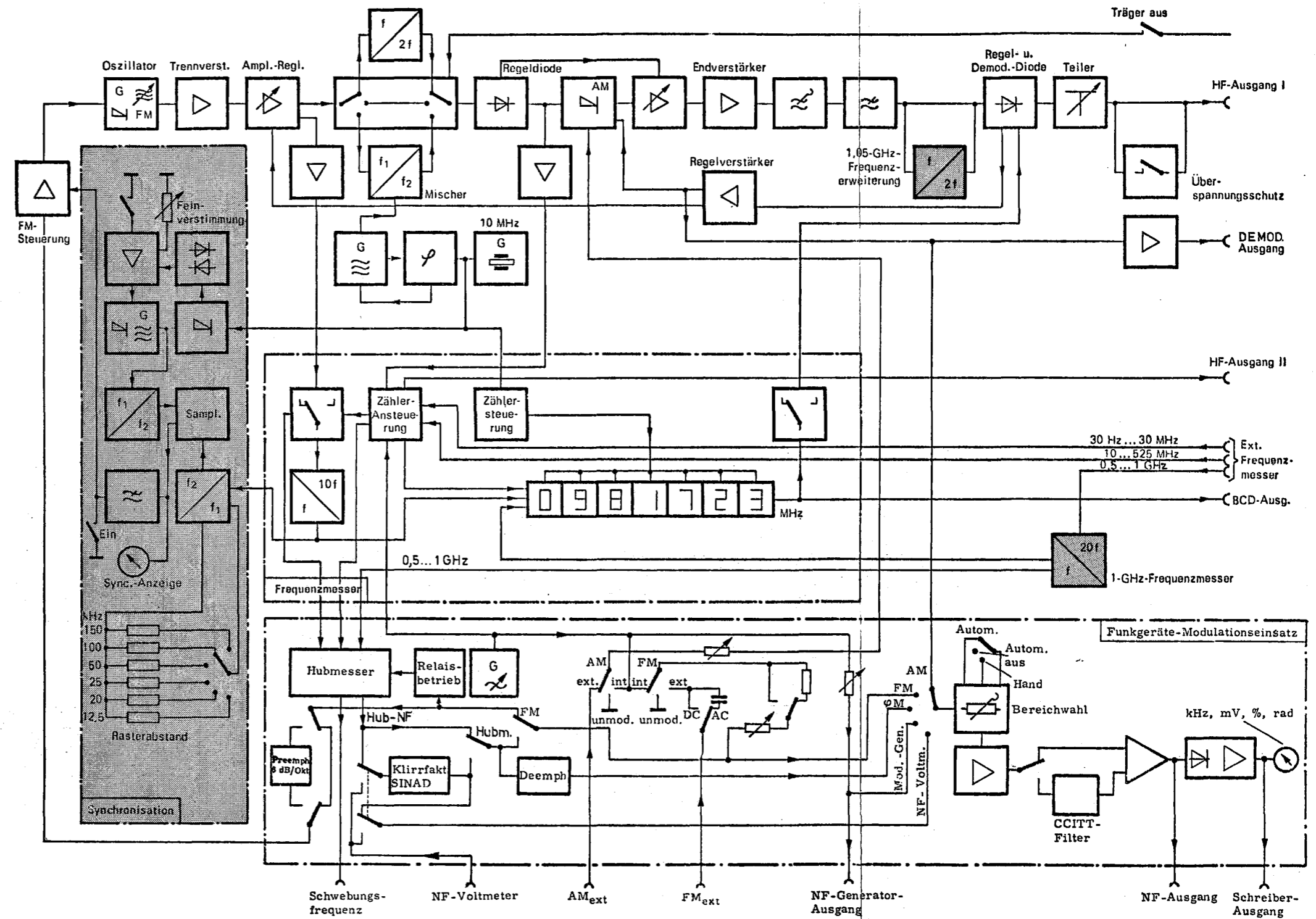
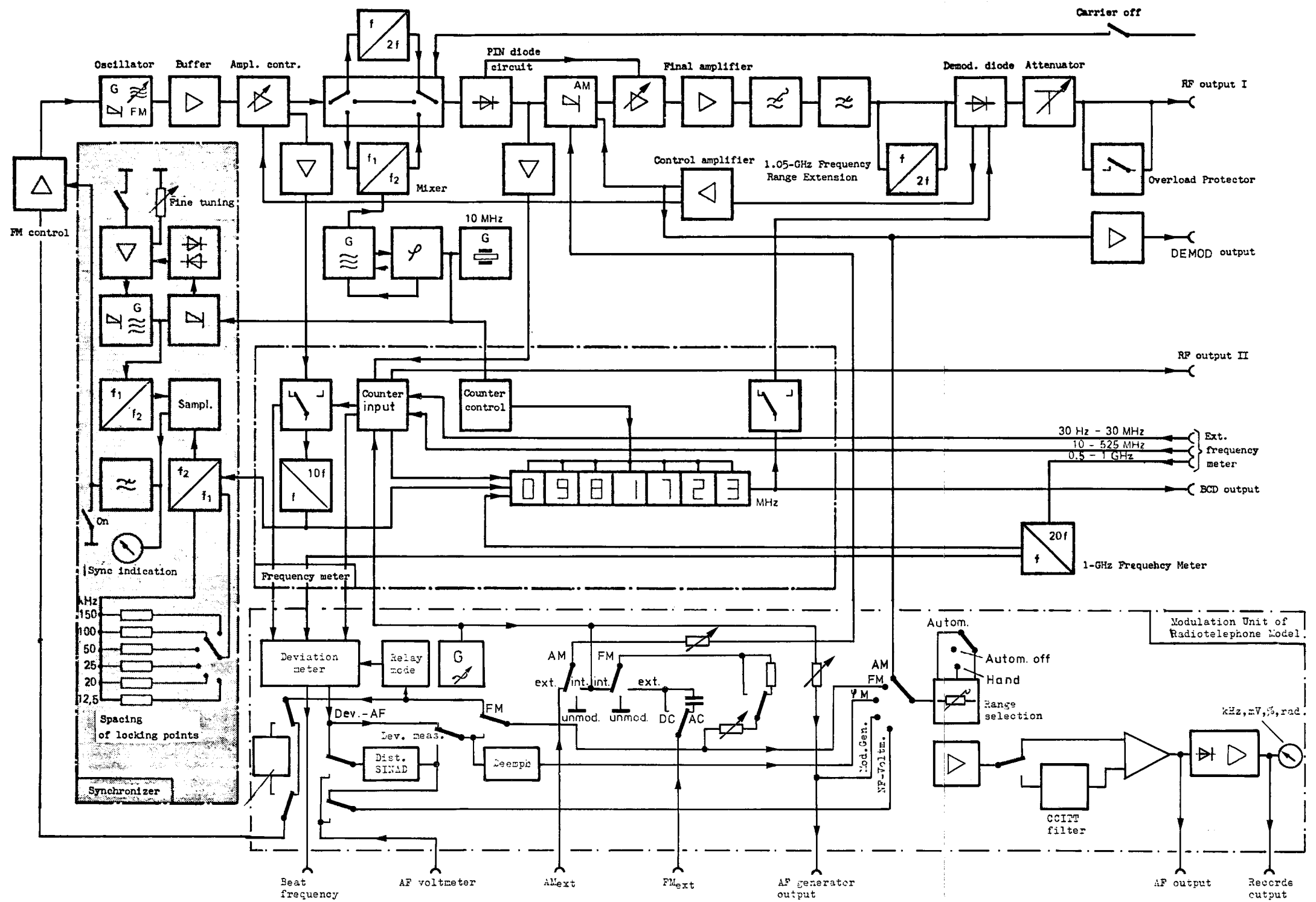


Bild 1-1 Blockschaltbild mit allen Erweiterungen



Block diagram including all options

Universal - Meßsender
SMDU 249.3011.06
(Funkgeräteausführung)
Signal Generator
SMDU 249.3011.06

Amplitudenkontroller
AM Unit
SMDU-Z1

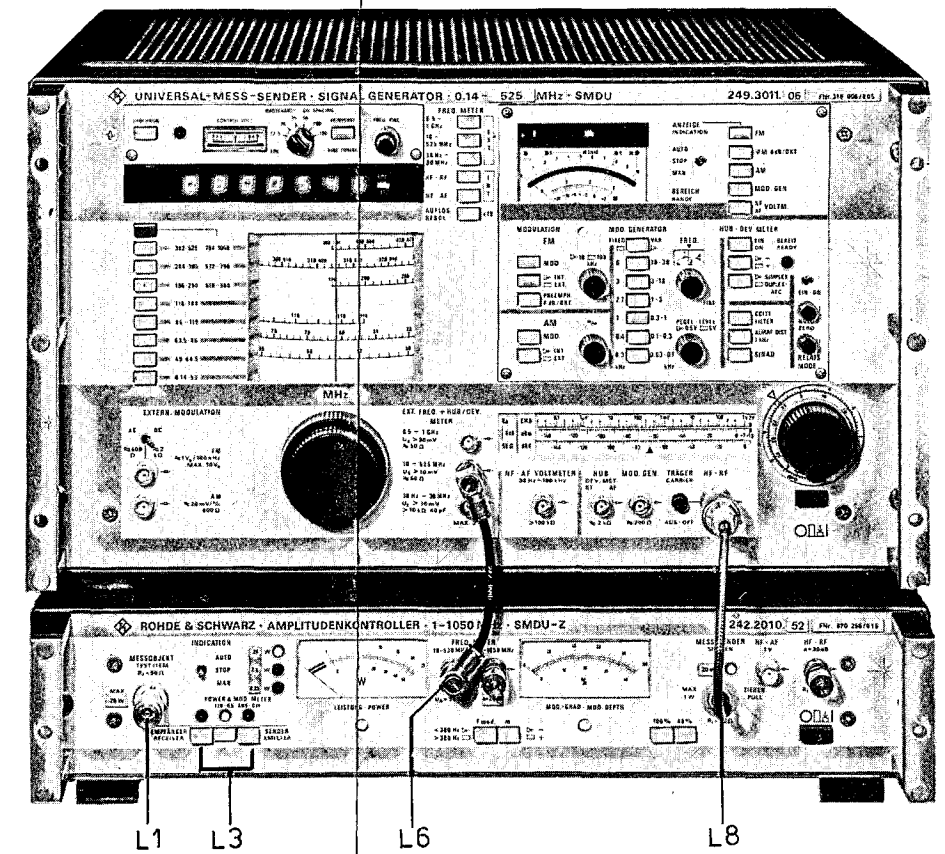
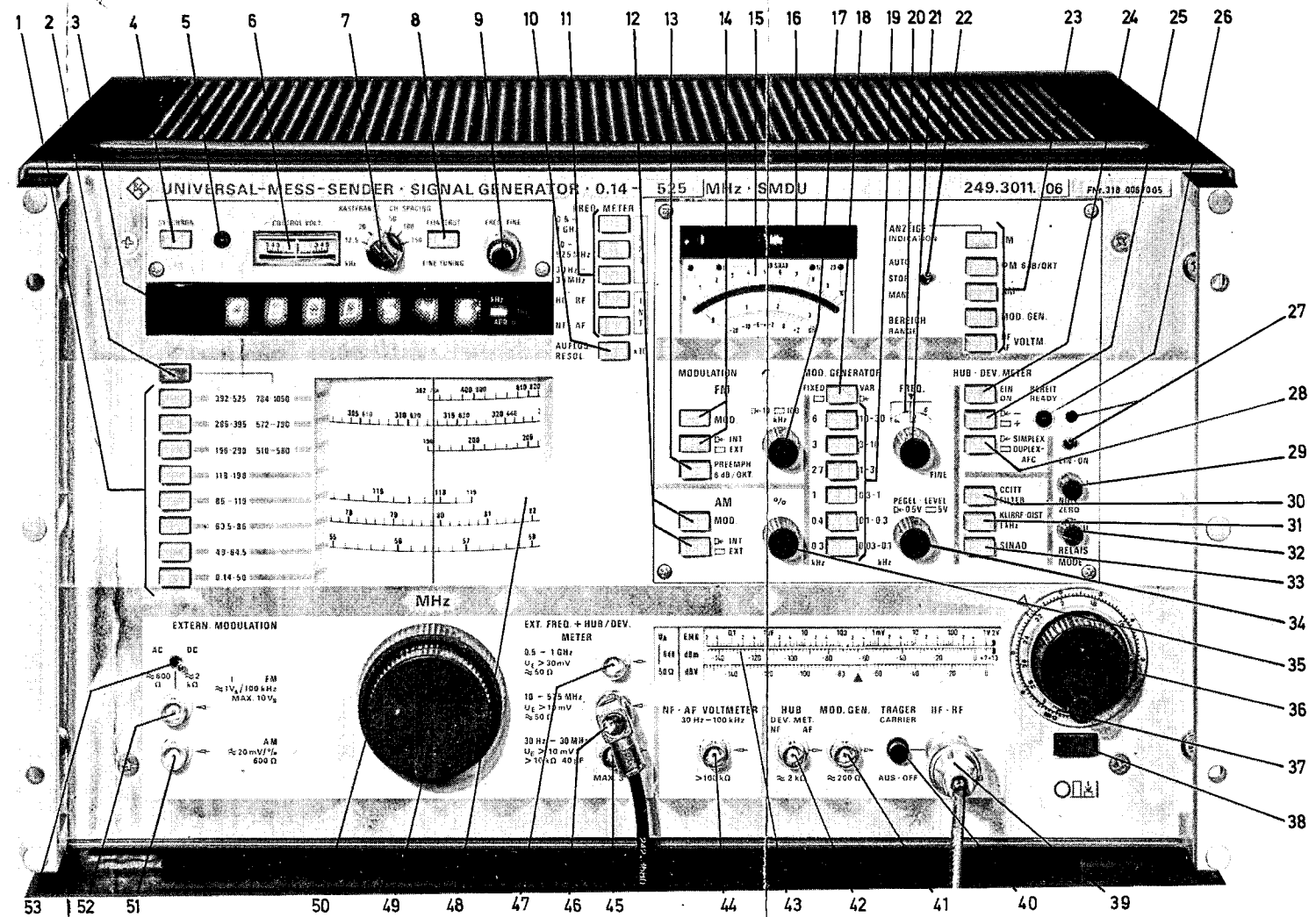
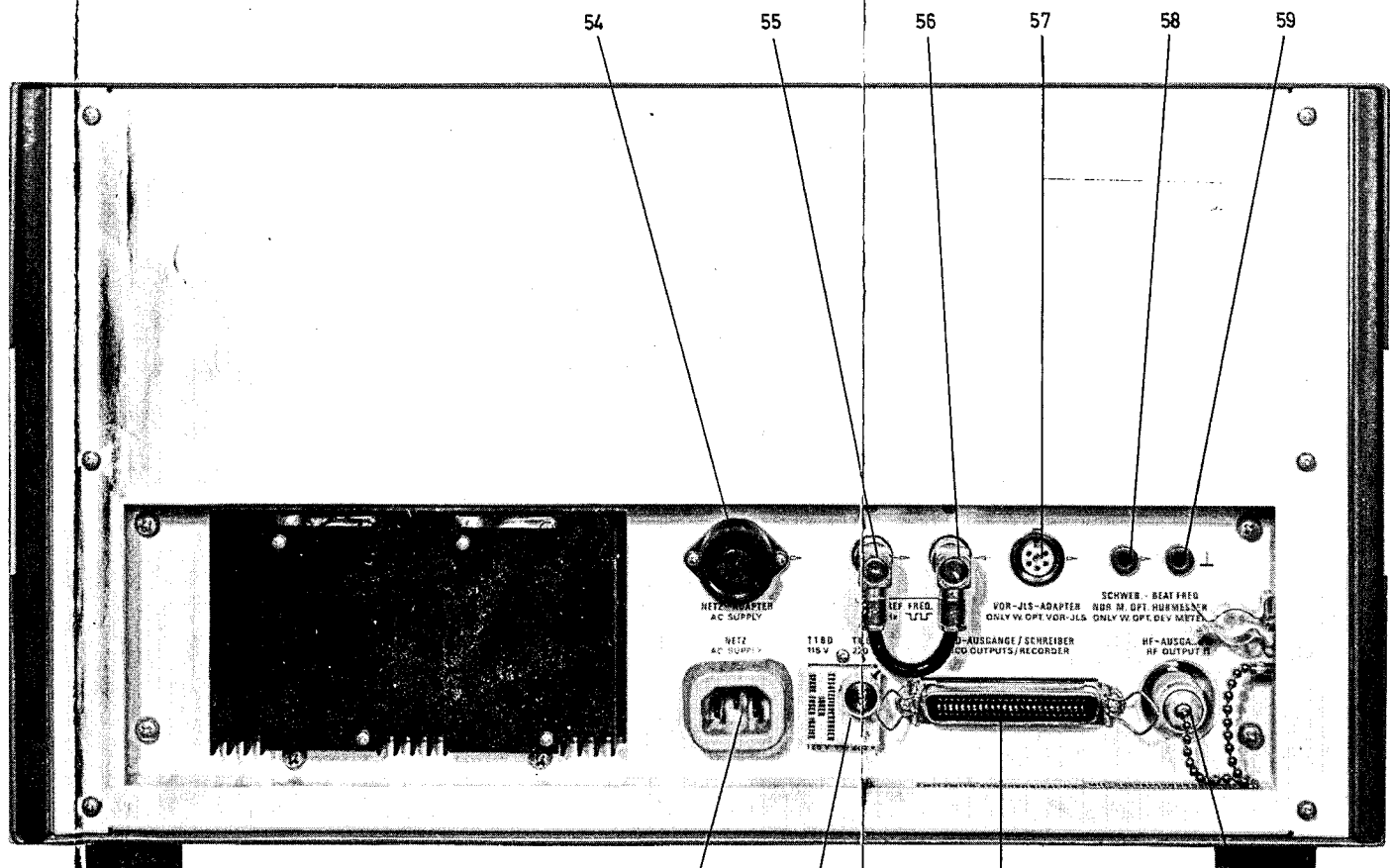


Bild 1-2 Sprechfunkmeßplatz
Fig. 1-2 Radiotelephone test assembly



Frontseite
Front panel



Rückseite
Rear panel

Bild 2-1 Bedienbild
Fig. 2-1 Controls

Anschlußpunkt Contact	Belegung	Occupation
1... 4	1. Dekade	1st decade
5... 8	2. Dekade	2nd decade
9...12	3. Dekade	3rd decade
13...16	4. Dekade	4th decade
17...20	5. Dekade	5th decade
21...24	6. Dekade	6th decade
25	⊥	⊥
26...29	7. Dekade	7th decade
30	2. Dekade	2nd decade
31	3. Dekade	3rd decade
32	4. Dekade	4th decade
33	5. Dekade	5th decade
34	6. Dekade	6th decade
35	Speicherübernahme-impuls	transfer pulse
36	Rückstellimpuls	reset pulse
37	frei	free
38	+15 V	+15 V
39	-15 V	-15 V
40	+5,2 V	+5,2 V
41...47	frei	free
48	Schreiberausgang	recorder output
49	Verbinden mit Masse: zehnfache Zählerauflösung	with chassis connection: counter resolution ten times higher
50	⊥	⊥

Tabelle 2-1

Table 2-1

Belegung der Buchse BCD-AUSGÄNGE/SCHREIBER

Contact occupation of socket.
BCD OUTPUTS/RECORDER

Tabelle 2-1

Table 2-1

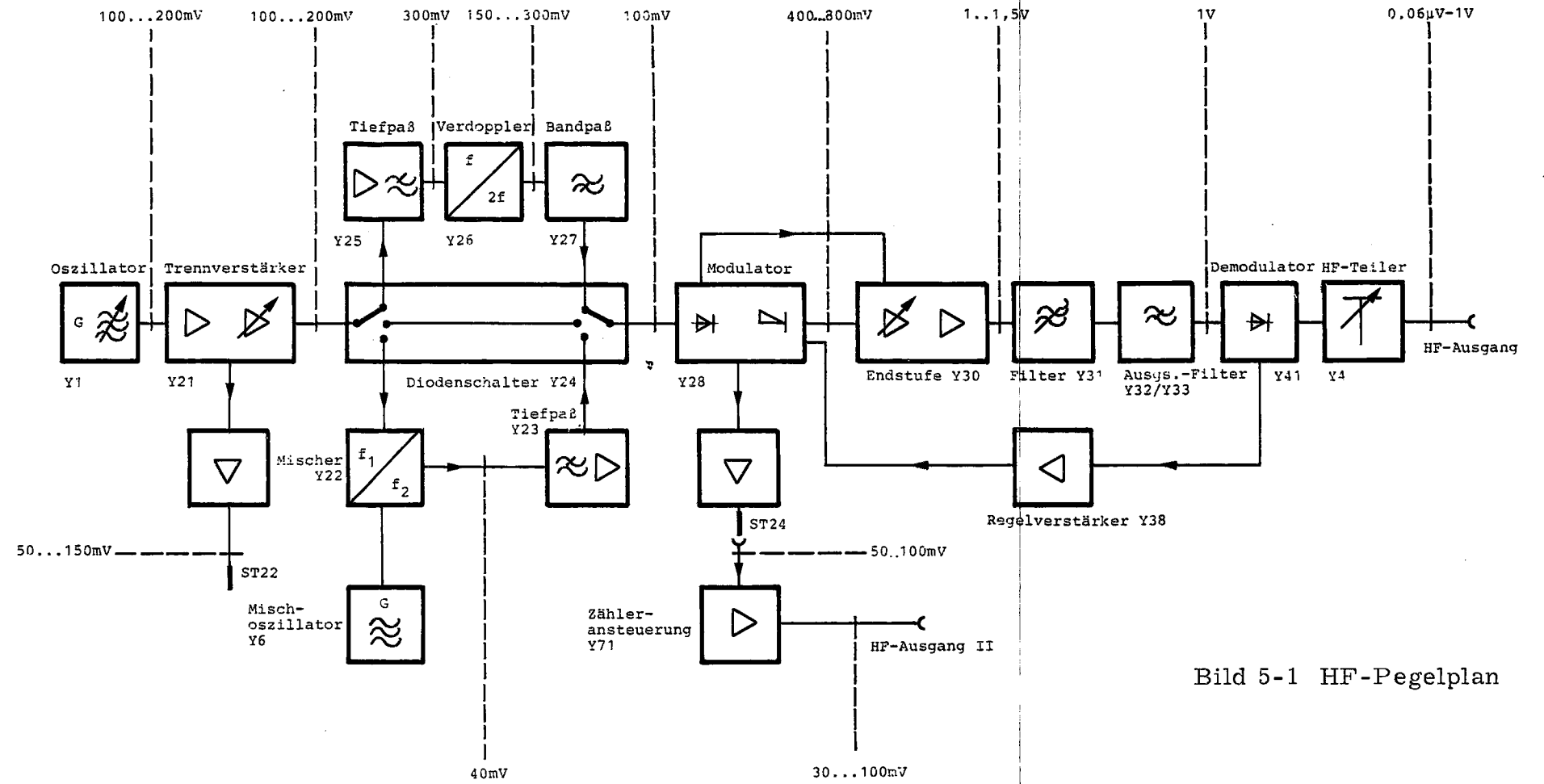


Bild 5-1 HF-Pegelplan

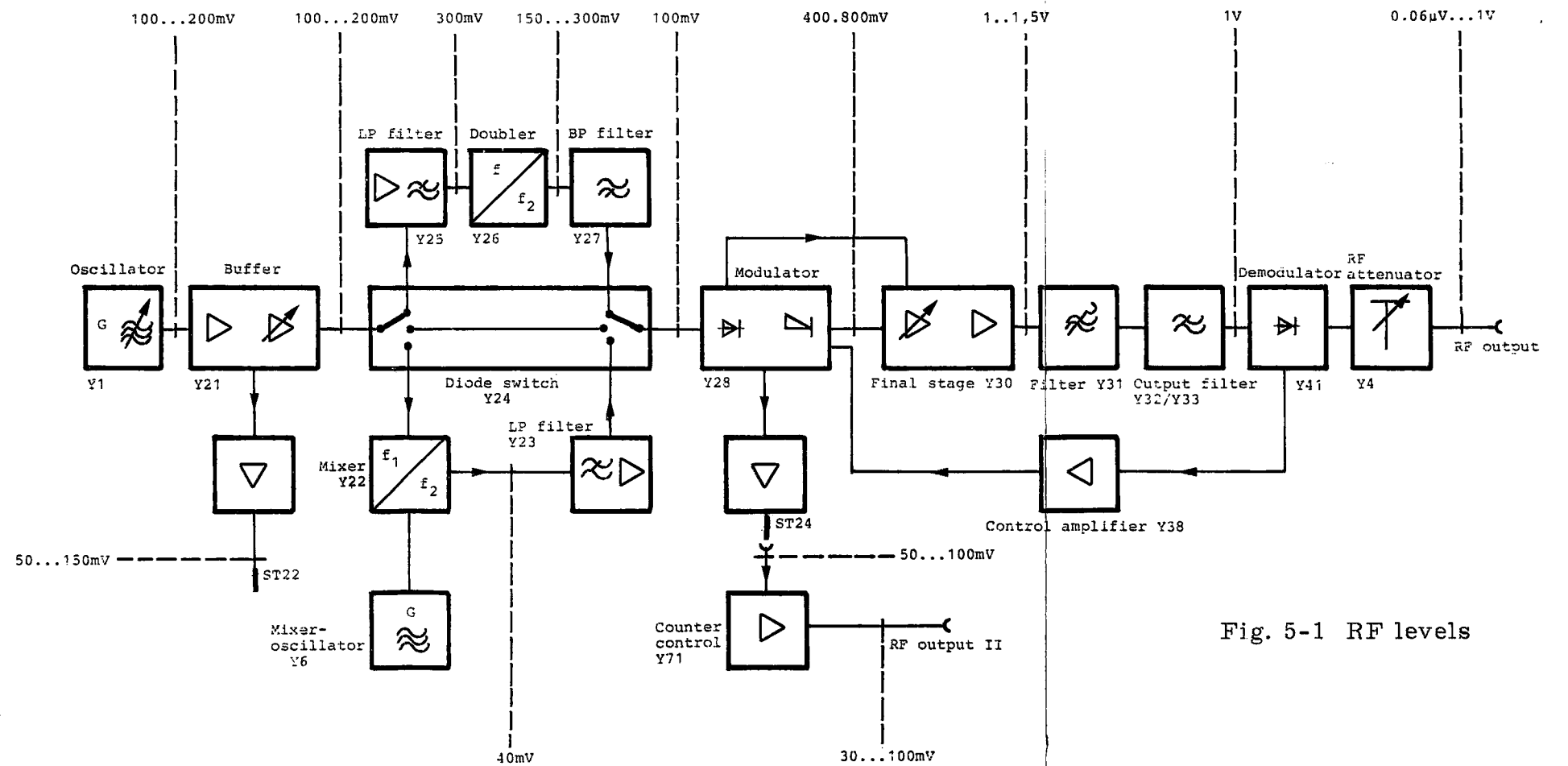


Fig. 5-1 RF levels

- 1
- 2 392 - 525
- 3 286 - 395
- 4 196 - 290
- 5 118 - 198
- 6 85 - 119
- 7 63,5 - 86
- 8 49 - 64,5
- 9 0,14-50

Taste von S101 Button of S101	ST111														ST113																																												
	.1	.2	.3	.4	.5	.6	.7	.8	.9	.10	.11	.12	.13	.14	.1	.2	.3	.4	.5	.6	.7	.8	.9	.10	.11	.12	.13	.14	.15	.16	.17	.18																											
1 + 2	-15	+15	+15		-14,3	Betriebsspannung +15V operating voltage				Betriebsspannung -18V operating voltage				Betriebsspannung -15V operating voltage				wie ST114.16 same as ST114.16 wie ST114.18 same as ST114.18 wie ST114.18 same as ST114.18														-15	-14	+14,3	-14	-15	0	0	0	+15	-15	-15	-15	+15 V anlegen +15V Apply				wie ST 114.18 same as ST 114.18				-15							
1 + 3	+15	-15	+15		-14,3																											+15	+15	+15	-15	-15	+14,3	+14,3	-14	-15	0	0	0									-15	-15	-15	-15	-15			
1 + 4	-15	+15	+15																													+15	+15	+15	-15	-15	+14,3	-14	-14	-15	0	0	0									-15	-15	-15	-15	-15			
2	-15	+15	+15		-14,3																											+15	+15	+15	-15	-15	-14	+14,3	-14	0	0	0	0									+15	-15	-15	-15	-15			
3	+15	-15	+15		-14,3																											+15	+15	+15	-15	-15	+14,3	+14,3	-14	0	0	0	0									-15	-15	-15	-15	-15			
4	-15	+15	+15																													+15	+15	+15	-15	-15	+14,3	-14	-14	0	0	0	0									-15	+15	-15	-15	-15			
5	+15	+15	+15																													-15	+15	+15	-15	-15	+14,3	-14	-14	0	0	0	0									-15	-15	+15	-15	-15			
6	+15	+15	-18	-17,3	+15																											+15	+15	-15	+15	+15	+15	-15	-15	+14,3	-14	-14	0									0	0	0	-15	-15	-15	+15	-15
7	+15	+15	+15																													+15	-15	+15	-15	-15	+14,3	-14	+14,3	0	0	0	0									-15	-15	-15	-15	-15			
8	+15	+15	+15			+15	+15	-15	-15	-15	+14,3	-14	+14,3	0	0	0	0	-15	-15	-15	-15	-15																																					
9	-15	+15	+15	-14,3	+15	+15	+15	+15	+15	-14	-14	+14,3	0	0	0	0	0	-15	-15	-15	-15	+15																																					
9 < 8 MHz									+15																																																		

bei +15 V an ST113.14 with +15V at ST113.14
 +5 V bei FM 1000 kHz +5V with FM 1000 kHz
 bei +15 V an ST113.14 with +15V at ST113.14
 -15 V bei Hubmesser „Simplex“ -15V with deviation meter Simplex

- 1
- 2 392 - 525
- 3 286 - 395
- 4 196 - 290
- 5 118 - 198
- 6 85 - 119
- 7 63,5 - 36
- 8 49 - 64,5
- 9 0,14 - 50

Taste von S101 Button of S101	ST114																														
	.1	.2	.3	.4	.5	.6	.7	.8	.9	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20											
1 + 2		L	L	H	H	L	L	L für EXT. 1 GHz L for EXT. 1 GHz H für HF INT. H for RF INT.								Synchronisationseingang Synchronization input				H	H	H	wie BU 303.20 (1,05-GHz-Frequenzerweiterung) same as BU 303.20(1.05 - GHz - Frequency Range Extension)				H	-15	L	L	
1 + 3		L	L	H	L	H	H					L								H	H	L					L	-15	L	H	
1 + 4		L	L	H	L	L	H					L								H	H	L					L	-15	L	H	
2		L	L	L	H	L	L					L								H	L	H					L	-15	L	H	
3		L	L	L	L	H	H					L								H	L	L					H	-15	L	H	
4		L	L	L	L	L	H					L								H	L	L					H	-15	L	H	
5		H	L	L	L	L	H					L								L	L	L					H	-15	L	H	
6		L	H	L	L	L	H					L								L	L	L					H	-15	L	H	
7		L	H	L	L	L	H					L								L	L	L					H	-15	L	H	
8		L	H	L	L	L	H	L				L	L	L	H	-15	L	H													
9		L	L	L	L	L	L	L				H	L	L	H	-15	H	H													
9 < 8 MHz																															

bei H an ST114.9 with H at ST114.9
 bei H an ST114.9 with H at ST114.9

Bild 5-2 Logikpegel im Bereichschalter Y10
 Fig 5-2 Logic levels in range switch Y10

Frequenz MHz	BU 3																BU 4															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6	7	8	9	13	14	15	16			
0,000000	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L			
1,111111	L	L	L	H	H	L	L	L	L	L	L	H	L	L	L	H	L	L	L	H	H	L	L	L	H	L	L	L	H			
2,222222	L	L	H	L	L	H	L	L	L	L	H	L	L	L	H	L	L	L	H	L	L	H	L	L	H	L	L	H	L			
3,333333	L	L	H	H	H	H	L	L	L	L	H	H	L	L	H	H	L	L	H	H	H	H	L	L	H	L	L	H	H			
4,444444	L	H	L	L	L	L	H	L	L	H	L	L	L	H	L	L	L	H	L	L	L	L	H	L	H	L	H	L	L			
5,555555	L	H	L	H	H	L	H	L	L	H	L	H	L	H	L	H	L	H	L	H	H	L	H	L	H	L	H	L	H			
6,666666	L	H	H	L	L	H	H	L	L	H	H	L	L	H	L	L	H	H	L	L	H	H	L	H	L	H	H	L				
7,777777	L	H	H	H	H	H	H	L	L	H	H	H	L	H	H	H	L	H	H	H	H	H	L	H	L	H	H	H				
8,888888	H	L	L	L	L	L	L	H	H	L	L	L	H	L	L	L	H	L	L	L	L	L	H	H	H	L	L	L				
9,999999	H	L	L	H	H	L	L	H	H	L	L	H	H	L	L	H	H	L	L	H	H	L	H	H	H	L	L	H				

Voreinstellungen: Taste AUFLÖS x10 drücken.
 Angegebene Frequenz mit Synthesizer (z. B. Dekadischer
 Meßsender SMDW) in den Eingang EXT. 15Hz - 30Mhz einspeisen;
 der SMDU muß diese Frequenz anzeigen

Presettings: Apply specified frequency from synthesizer
 (e.g. Decade Signal Generator SMDW) to
 input EXT. 15 Hz - 30 MHz; SMDU must
 indicate the applied frequency.

Bild 5-4 Logikpegel der BCD-Ausgänge auf der Platine Y74
 (Zähler mit Anzeige)

Fig. 5-4 Logic levels of BCD outputs on Y74
 (counter and indication)

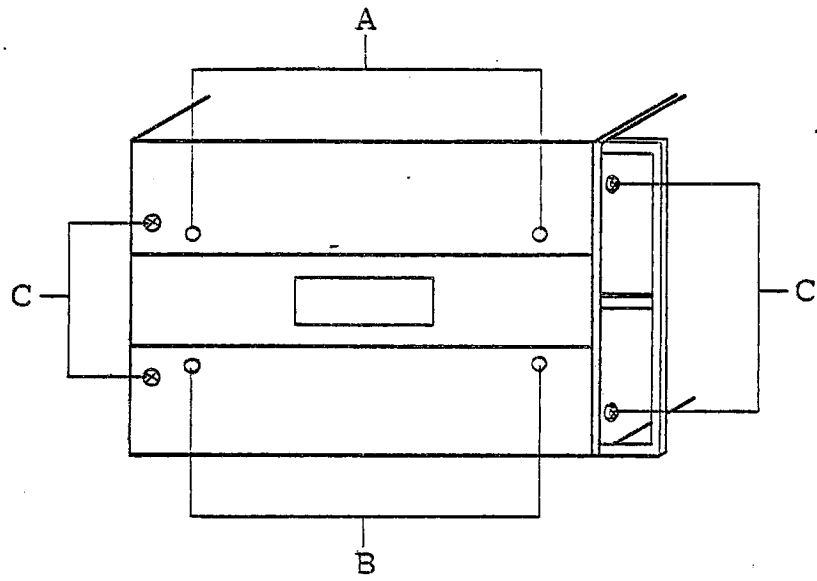


Bild 5-5.1 Ansicht von der linken Seite
 Fig. 5-5.1 View from left side

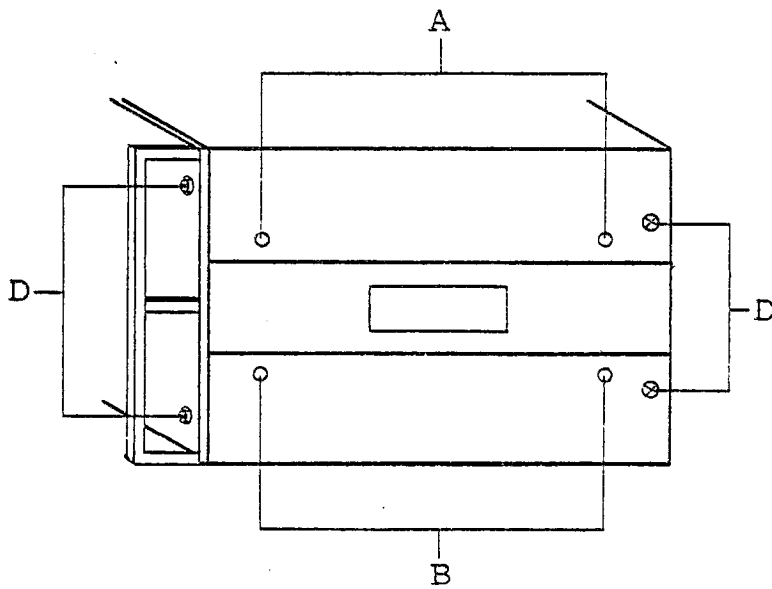


Bild 5-5.2 Ansicht von der rechten Seite
 Fig. 5-5.2 View from right side

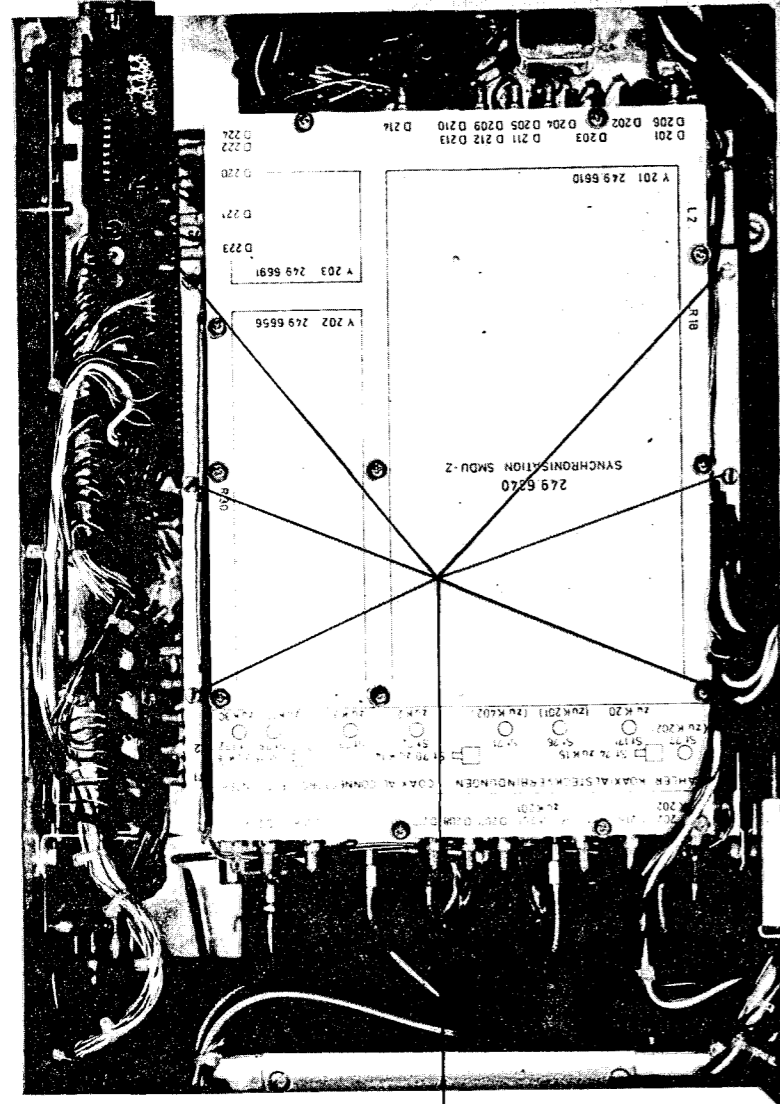


Bild 5-6.1 Teilansicht von oben bei eingebauter Synchronisation
 Fig. 5-6.1 Partial view from top; Synchronizer built in

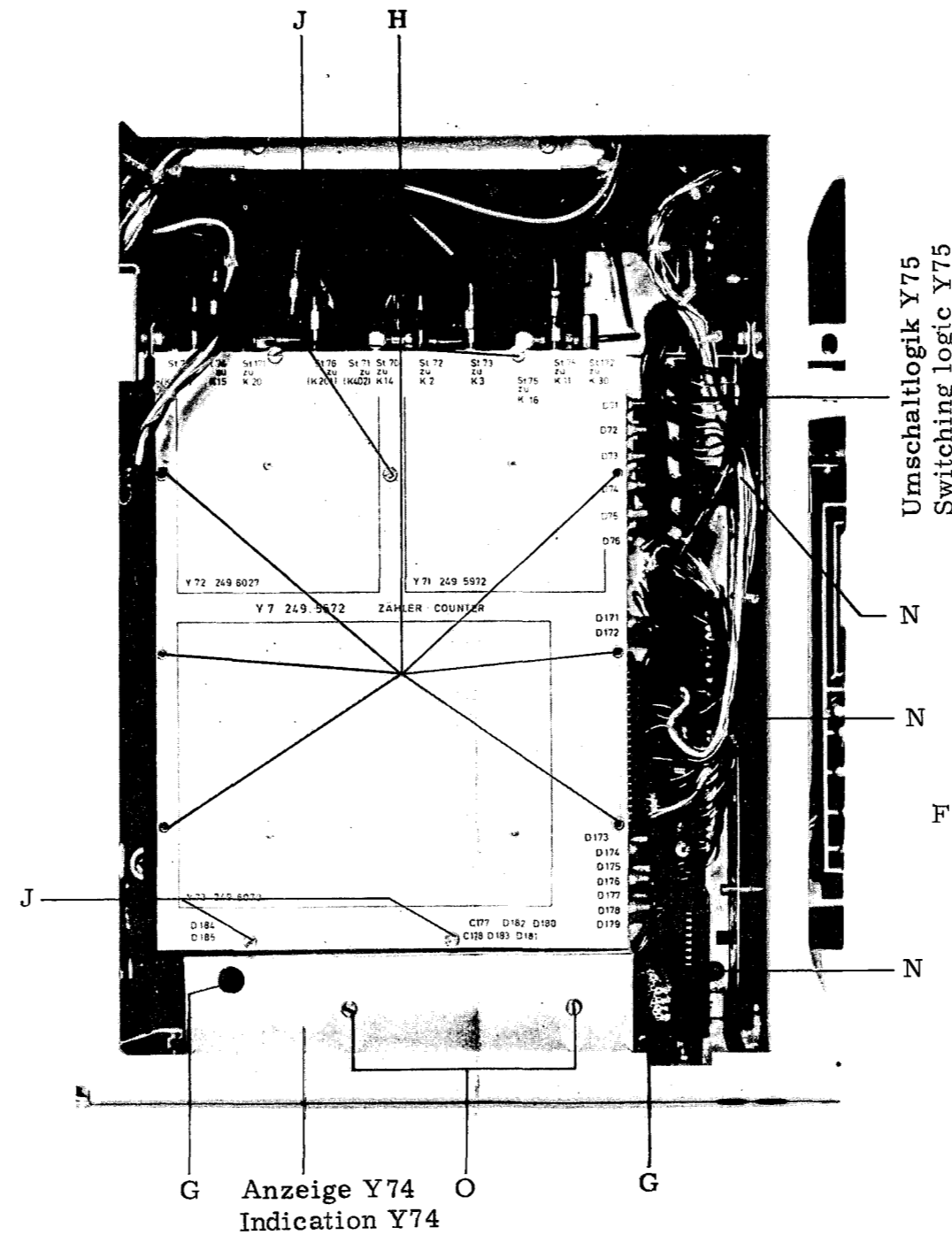


Bild 5-6.2 Teilansicht von oben, Synchronisation ausgebaut
 Fig. 5-6.2 Partial view from top; Synchronizer removed

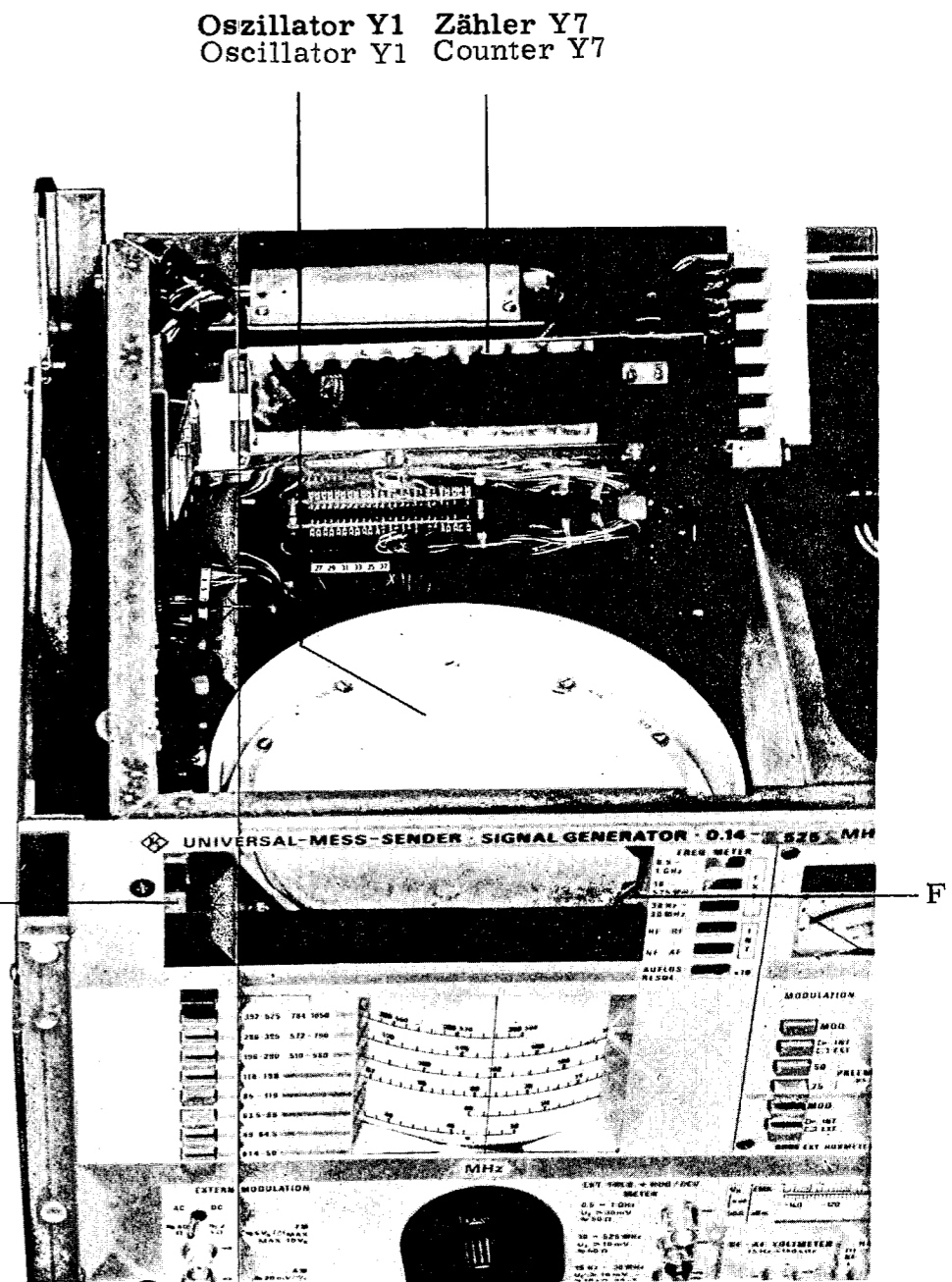


Bild 5-6.3 Teilansicht von schräg oben, Zähler Y7 hochgeklappt
 Fig. 5-6.3 Partial view, oblique from top; counter Y7 swung up

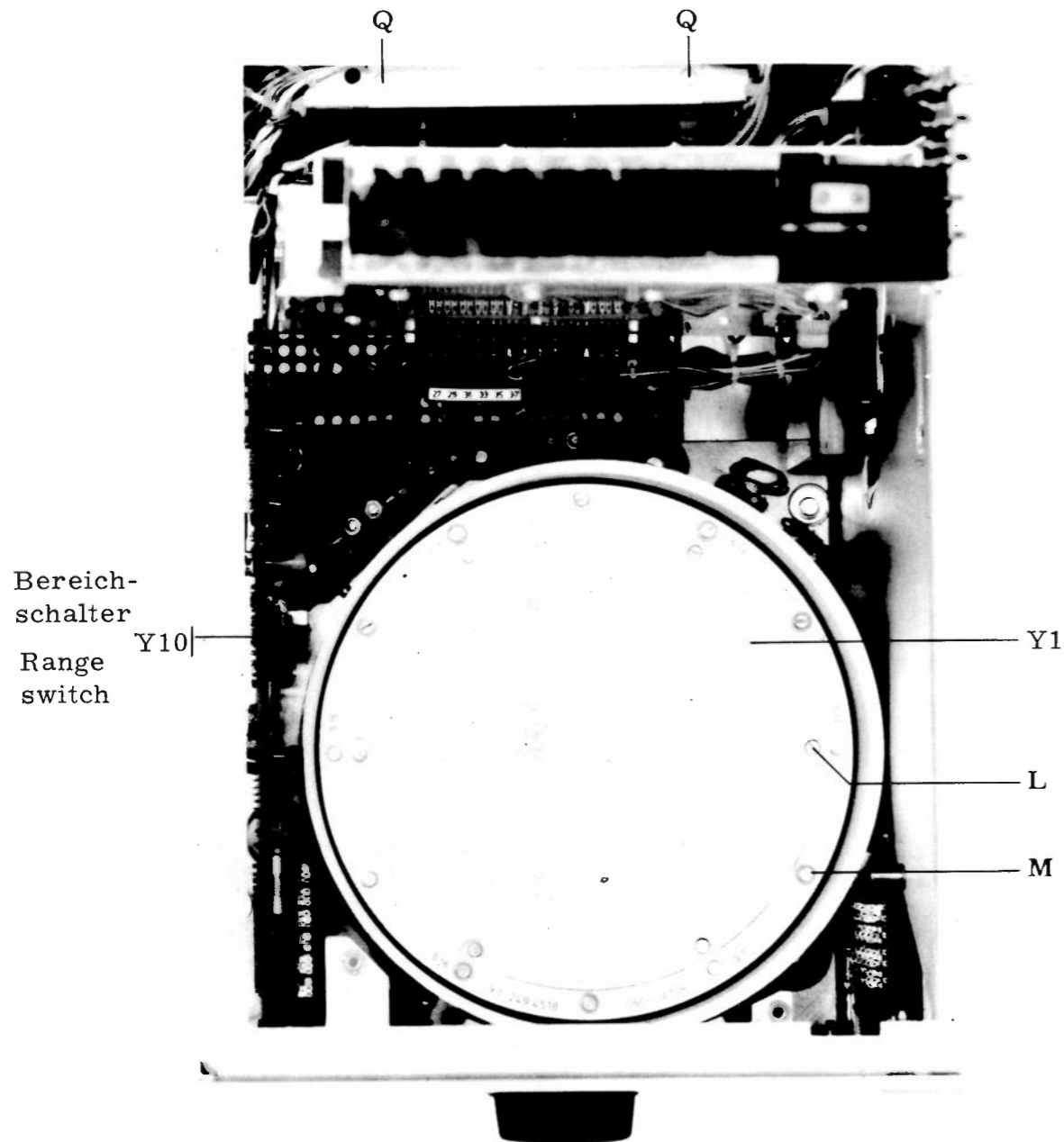


Bild 5-7.1 Teilansicht von oben bei hochgeklapptem Zähler Y7
Fig. 5-7.1 Partial view from top; counter Y7 swung up

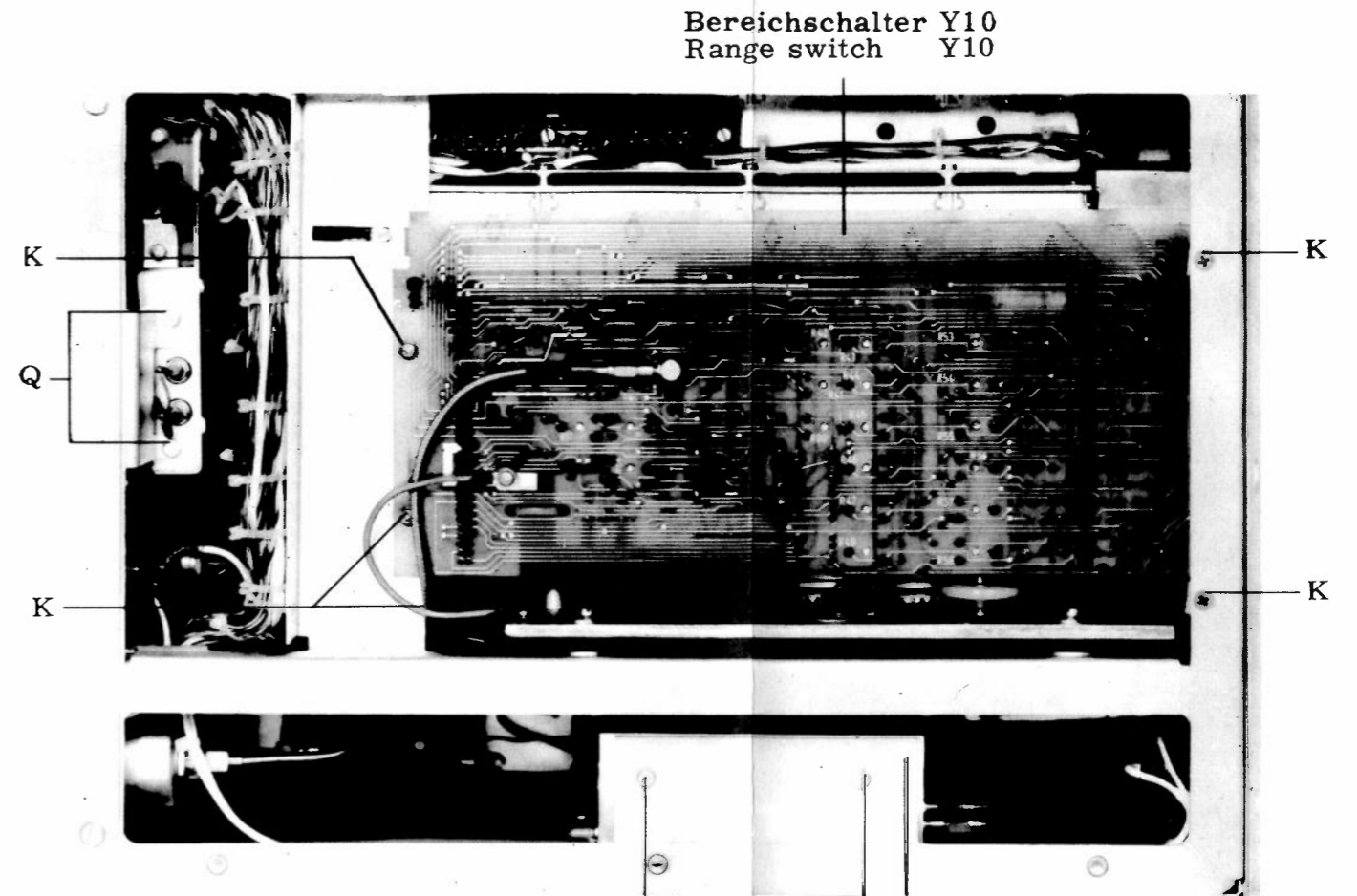


Bild 5-7.2 Ansicht von links, Abdeckbleche und Seitenteil entfernt
Fig. 5-7.2 View from left side; cover plates and side panel removed

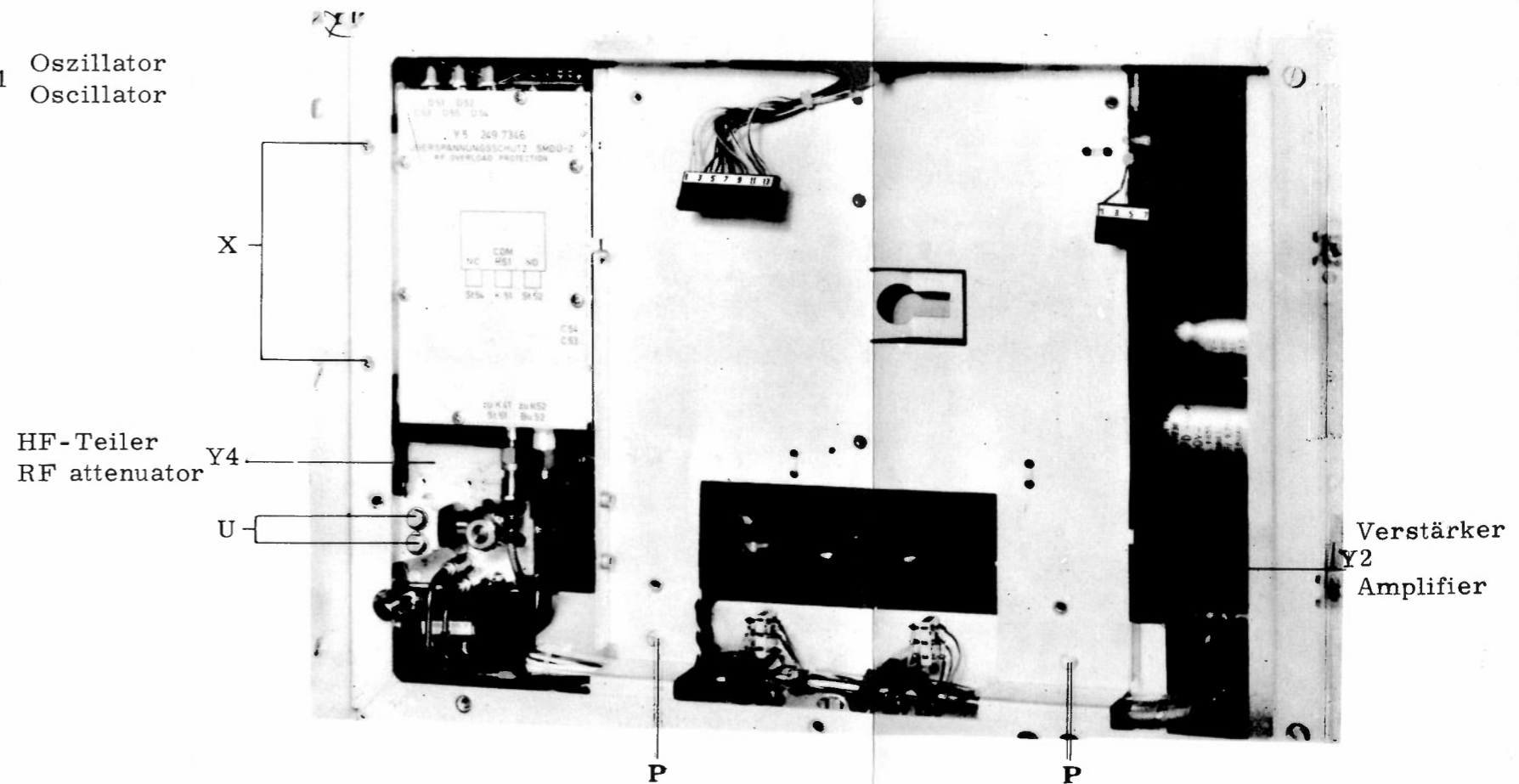


Bild 5-7.3 Ansicht von rechts, Abdeckbleche und Seitenteil entfernt
Fig. 5-7.3 View from right side; cover plates and side panel removed

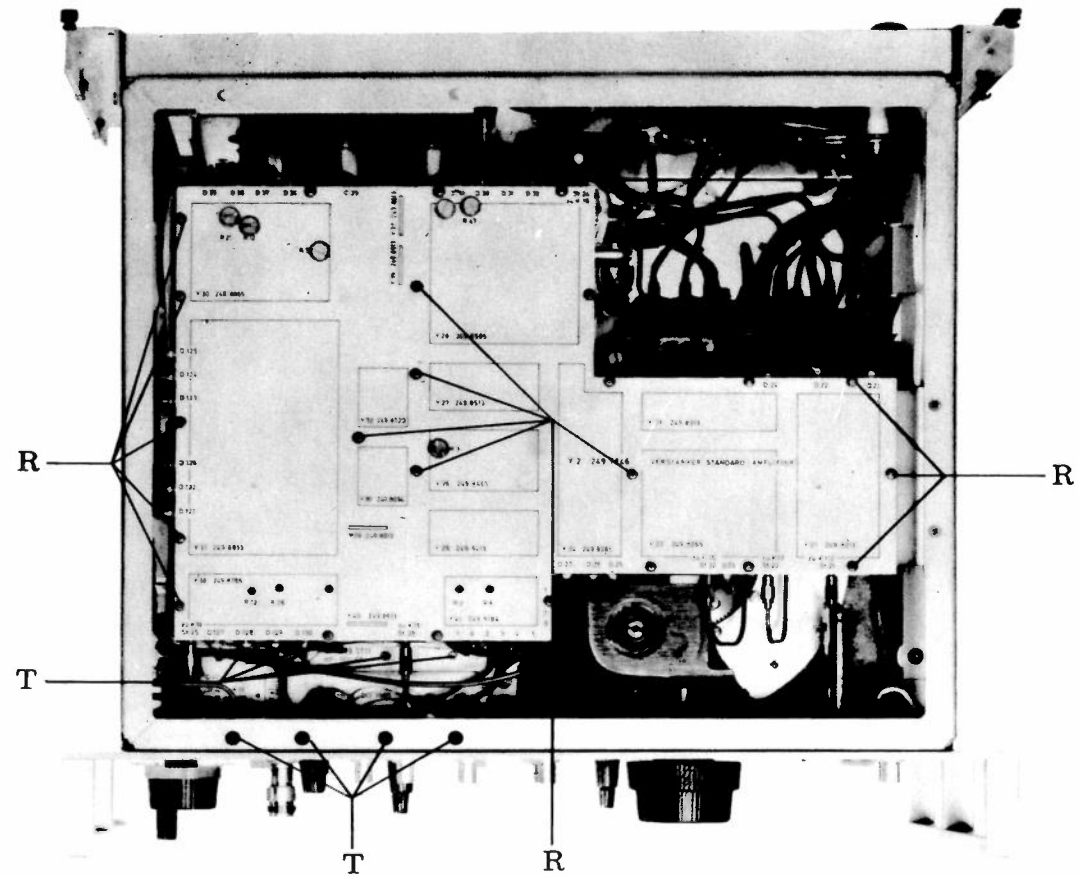


Bild 5-8.1 Gesamtansicht von unten
Fig. 5-8.1 Total view from bottom

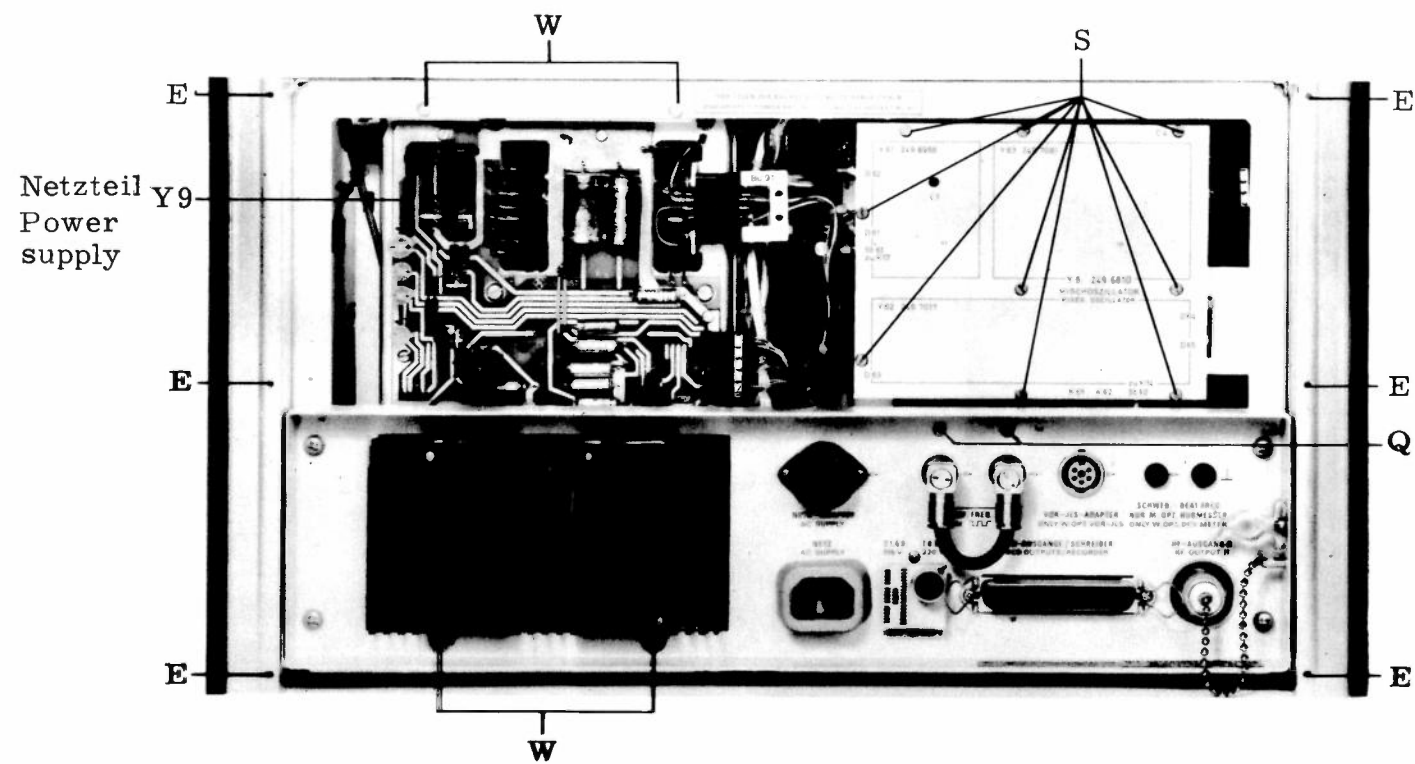


Bild 5-8.2 Rückansicht
Fig. 5-8.2 Rear view

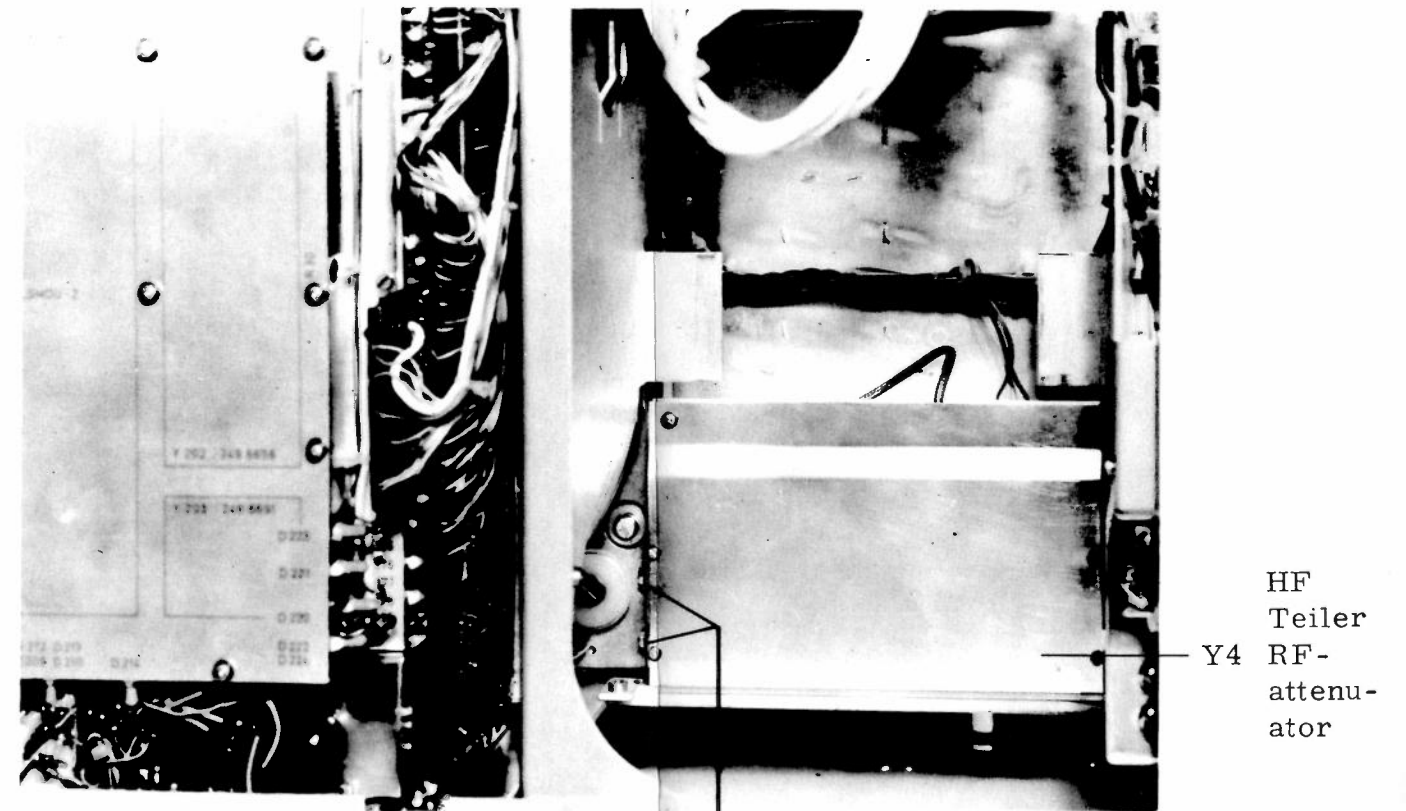


Bild 5-8.3 Teilansicht von oben mit HF-Teiler Y4;
Modulationseinheit Y8 ausgebaut
Fig. 5-8.3 Partial view from top with RF attenuator Y4;
Modulation Unit Y8 removed

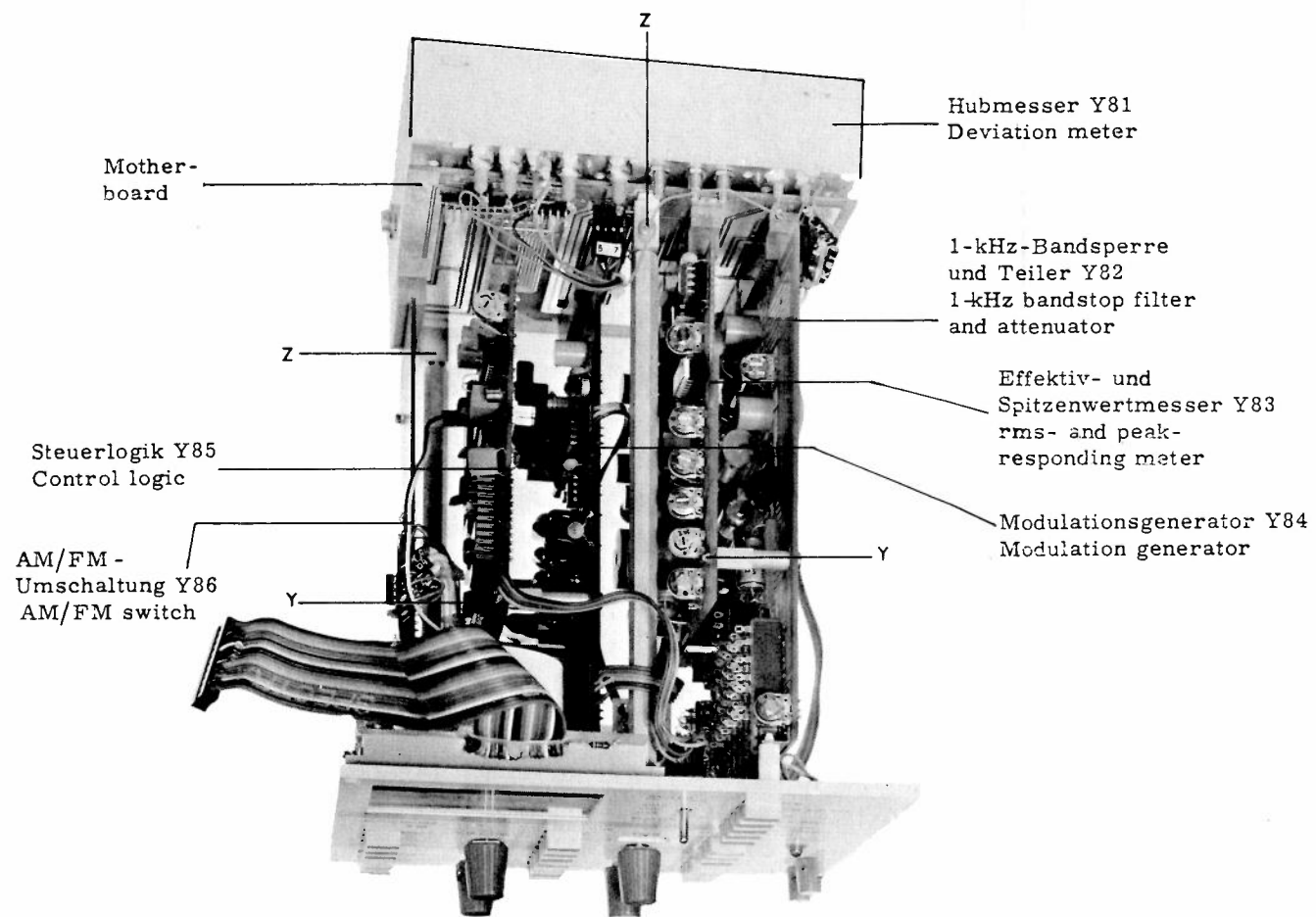


Bild 5-9.1 Modulationseinsatz, Ansicht von oben
Fig. 5-9.1 Modulation unit, top view

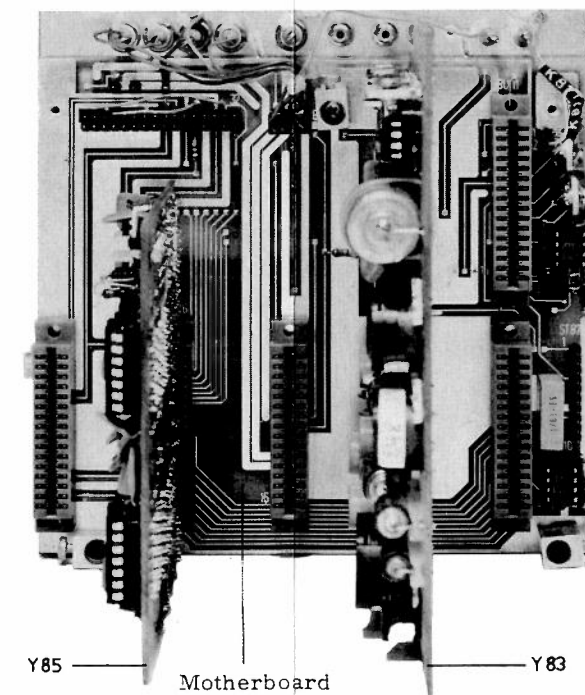


Bild 5-9.3 Motherboard des Modulationseinsatzes
Fig. 5-9.3 Motherboard of modulation unit

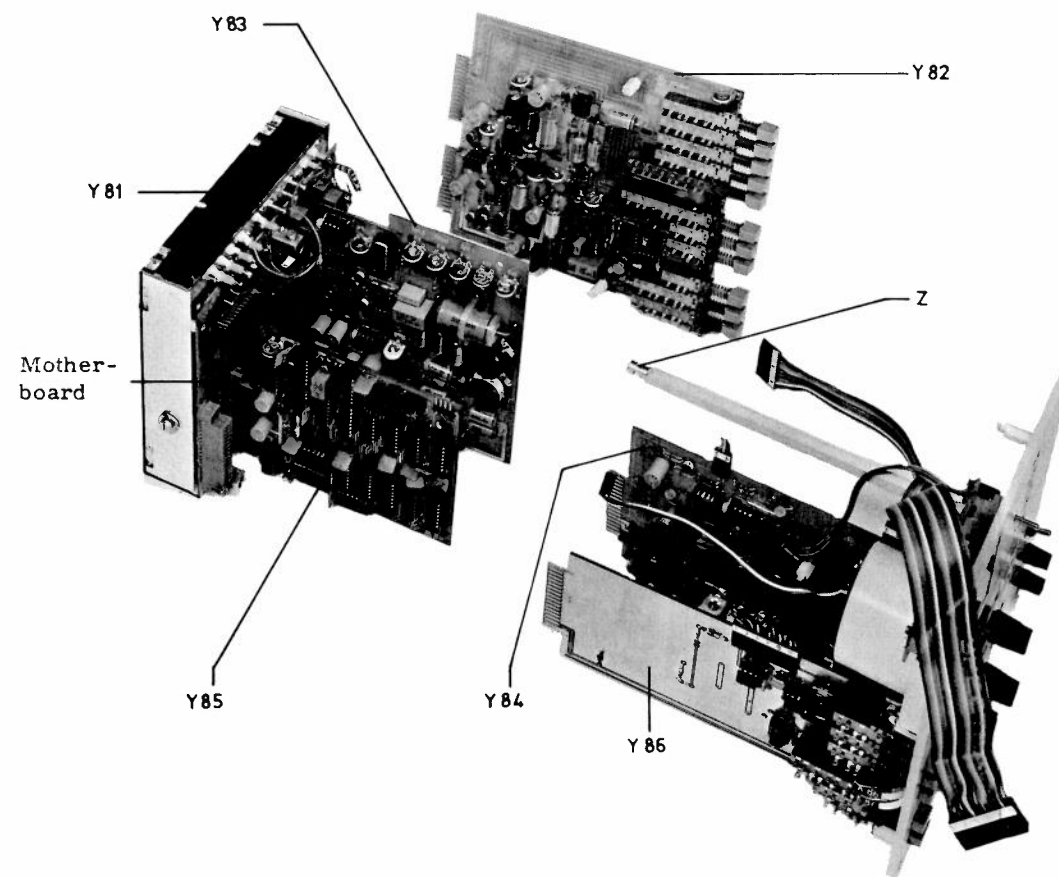


Bild 5-9.2 Modulationseinsatz, zerlegt
Fig. 5-9.2 Modulation unit, dismantled

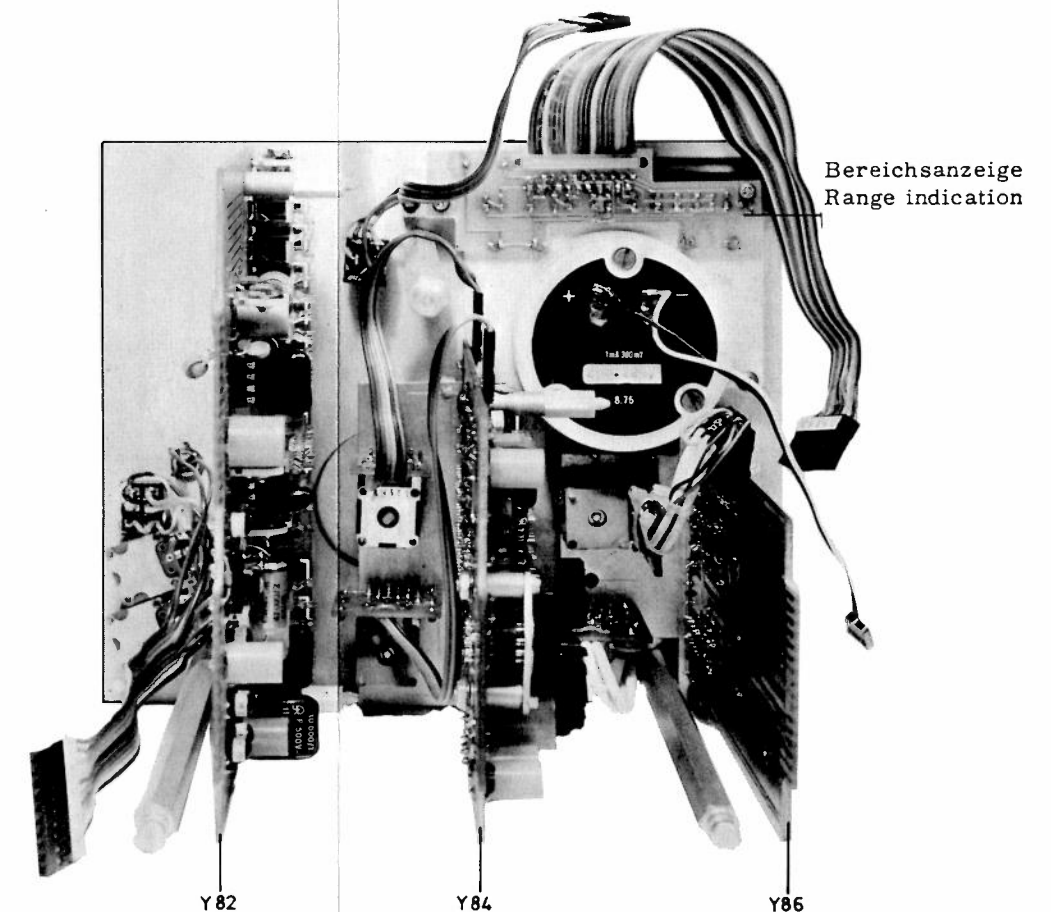
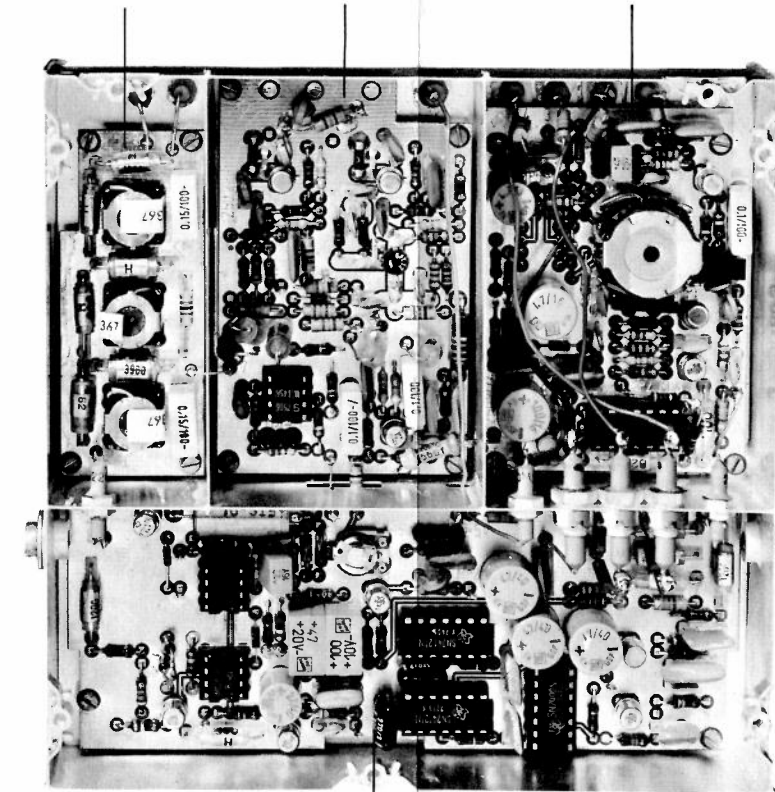


Bild 5-9.4 Rückansicht des Modulationseinsatzes,
Motherboard entfernt
Fig. 5-9.4 Rear view of modulation unit,
motherboard removed

NF-Filter
AF filter

HF-Verstärker
RF amplifier

Oszillator und Mischer
Oscillator and mixer



Diskriminator und Regelung
Discriminator and control circuit

Bild 5-10 Hubmesser Y81, Innenansicht
Fig. 5-10 Deviation meter, interior view

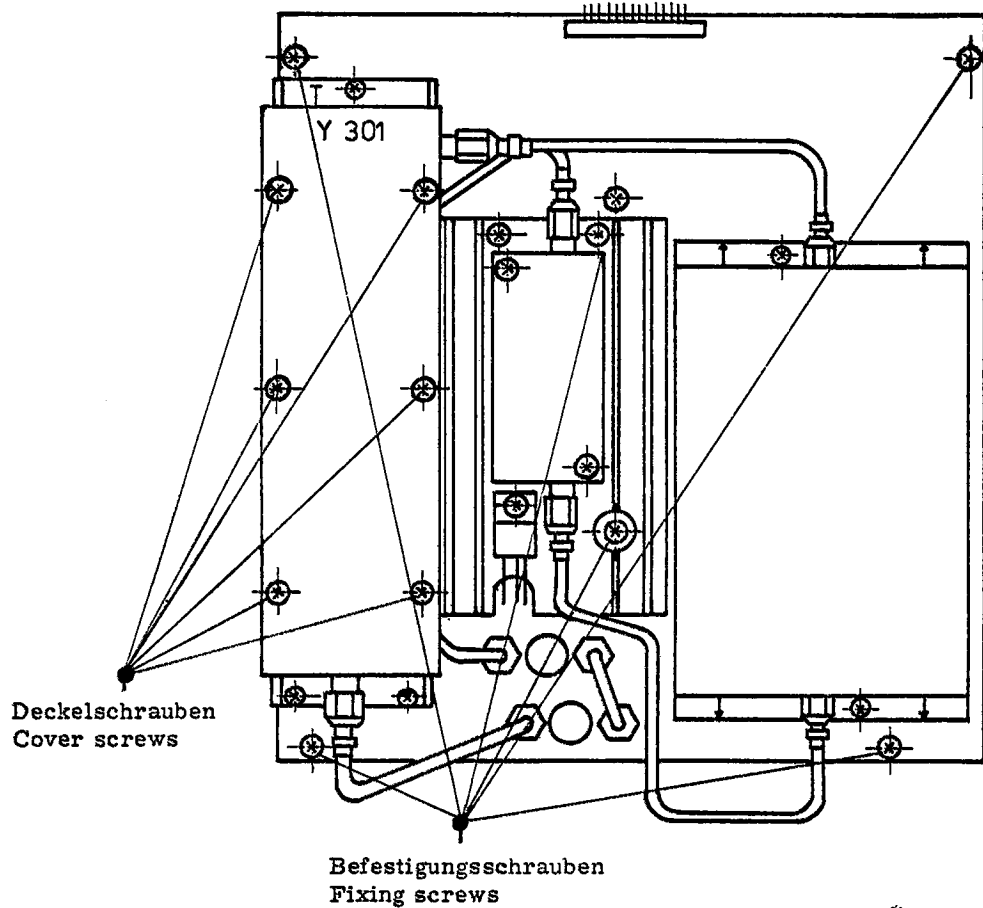


Bild 5-11 Ausbau der 1,05-GHz-Frequenzerweiterung SMDU-B3 und
 des 1,05-GHz-Frequenzverdopplers SMDU-B5
 Fig. 5-11 Removing 1.05-GHz Frequency Range Extension SMDU-B3
 or 1.05-GHz Frequency Doubler SMDU-B5