YACHT BOY 208-209-210

PORTABLE RADIOS

SERVICE MANUAL

CHASSIS REMOVAL

1. Remove battery lid and take out batteries.
2. Pull off Tuning Knob.
3. Remove 2 screws underneath cabinet and lift in an upward direction.
4. Push telescopic aerial up from the inside.
5. Remove 4 bronze chassis fixing screws, (2 each side).
6. Carefully lift out chassis, unsolder loudspeaker leads.

D.C. ALIGNMENT

D.C. Adjustments to be carried out with a battery voltage of 7.5 V.

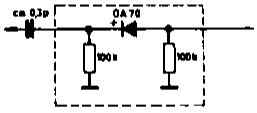
QUIESCENT CURRENT OF OUTPUT TRANSISTORS

Open link at point X and connect a milliampere meter in series. Adjust R 52 (500Ω) for 5.5 mA. Reconnect link.

SETTING – UP IF AMPLIFIERS

Connect a DC Valve Voltmeter in parallel with R 23 and adjust pre-set R 28 for 1.3 V.

FM–IF ALIGNMENT 10.7 MHz.

ALIGNMENT SEQUENCE	CONNECT WOBBULATOR TO.	CONNECTION OF OSCILLOSCOPE	ALIGNMENT POINTS
IF IV	IF III Point 6	Loose capacity coupling via crocodile clip and diode to IF IV Point 4. (Y.B. 210 Point 6)  To Oscilloscope	(b) fully detuned (a) max. and symmetrical.
IF III	IF II Point 10		(c) and (d) max. and symmetrical
IF II	IF I Point 5		(e) and (f) max. and symmetrical
IF I and IF circuit 9226–703	AM – Aerial		(g) and (h) max. and symmetrical
Discriminator and AM – Rejection	IF III Point 6	Via 50k Ω cable to AF output IF IV Point 8 (Y.B.210 Point 1/2)	(b) Max. linearity at ±75 kc/s deviation. Adjust R3 (R2 for 208/210) for best AM Rejection at 50 mV. Input signal to base of BF 241 T6 (BF 186 T6–Y.B.208) If necessary re-align coil (b)
	AM Aerial (AM–Modulation)		

AM – IF ALIGNMENT 460 kHz.

ALIGNMENT SEQUENCE	CONNECT WOBBULATOR TO.	CONNECTION OF OSCILLOSCOPE	ALIGNMENT POINTS
IF III	IF II Point 10	Loosely coupled to BF 240 (BF 185–Y.B.208) IF III Point 12)	(I) max. and symmetrical.
IF II	IF I Point 5		(II) and (III) max. and symm.
IF I	AM – AERIAL		(IV) and (V) max. and symmetrical

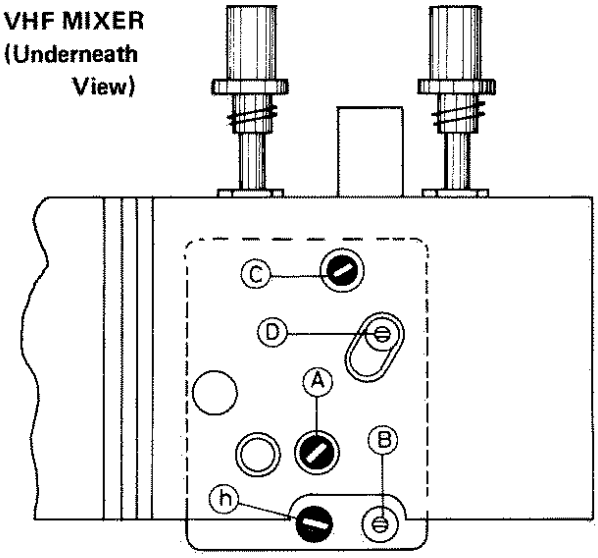
AM – OSCILLATOR AND AERIAL ALIGNMENT

POINTER & GENERATOR SETTING		OSCILLATOR		AERIAL		INPUTS SENSITIVITY		OSCILLATOR VOLTAGE T3 BF 184		REMARKS
		YB. 208	YB. 209/210	YB. 208	YB. 209/210	YB. 208	YB. 209/210	YB. 208	YB. 209/210	
MW	560 k Hz	(1) Max.		(3) Max.		8	28 µV	75–100 mV	40–60 mV	For S.W Connect generator via 18 pF capacitor and disconnect telescopic aerial. For M.W. connect generator to ferrite aerial by coupling coil.
	1450 k Hz	(2) Max.		(4) Max.		7	25 µV			
LW	160 k Hz	(5) Max.		(5)	(6) Max.	14	30 µV	90–100 mV	40–60 mV	
	240 k Hz			(6)	(7) Max.	12	25 µV			
SW	6,1 k Hz	(7)	(8) Max.	(8)	(9) Max.	4 µV		60–75 mV.		
	7,2 k Hz			(9)	(10) Max.					

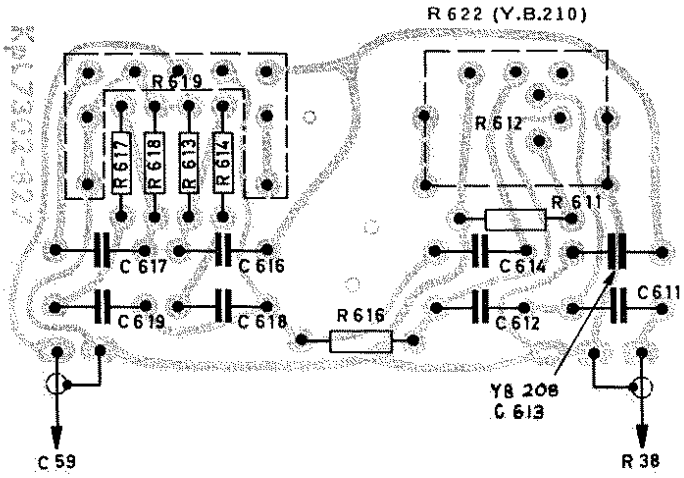
FM – OSCILLATOR AND AERIAL ALIGNMENT

POINTER & GENERATOR SETTING	OSCILLATOR	COUPLING CIRCUIT	OSCILLATOR VOLTAGE (EMITTER BF 184)	REMARKS
88MHz	(A) Max.	(C) Max.	75 mV	Connect generator via 60 Ω cable direct to mixer input.
106 MHz	(B) Max.	(D) Max.		

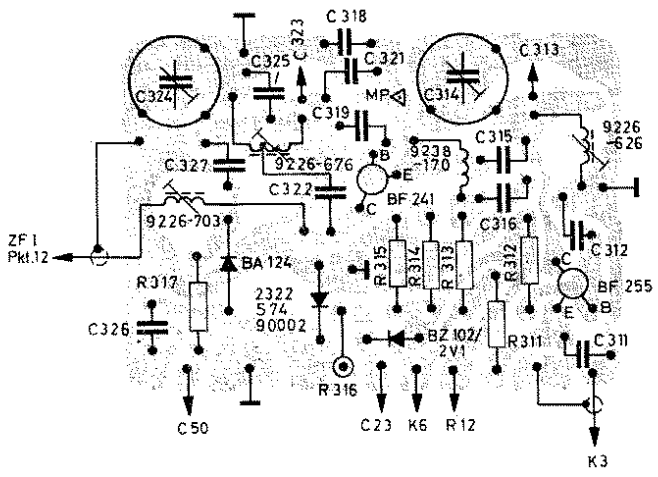
VHF MIXER (Underneath View)



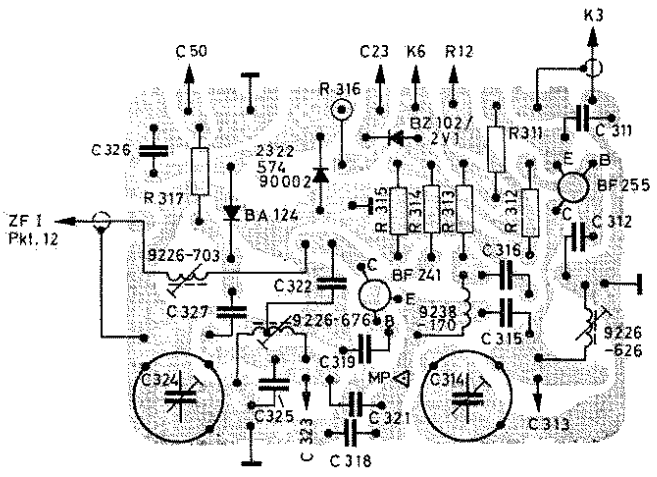
POTENTIOMETER PRINTED CIRCUIT (Solder Side View)



VHF MIXER (Solder Side View)

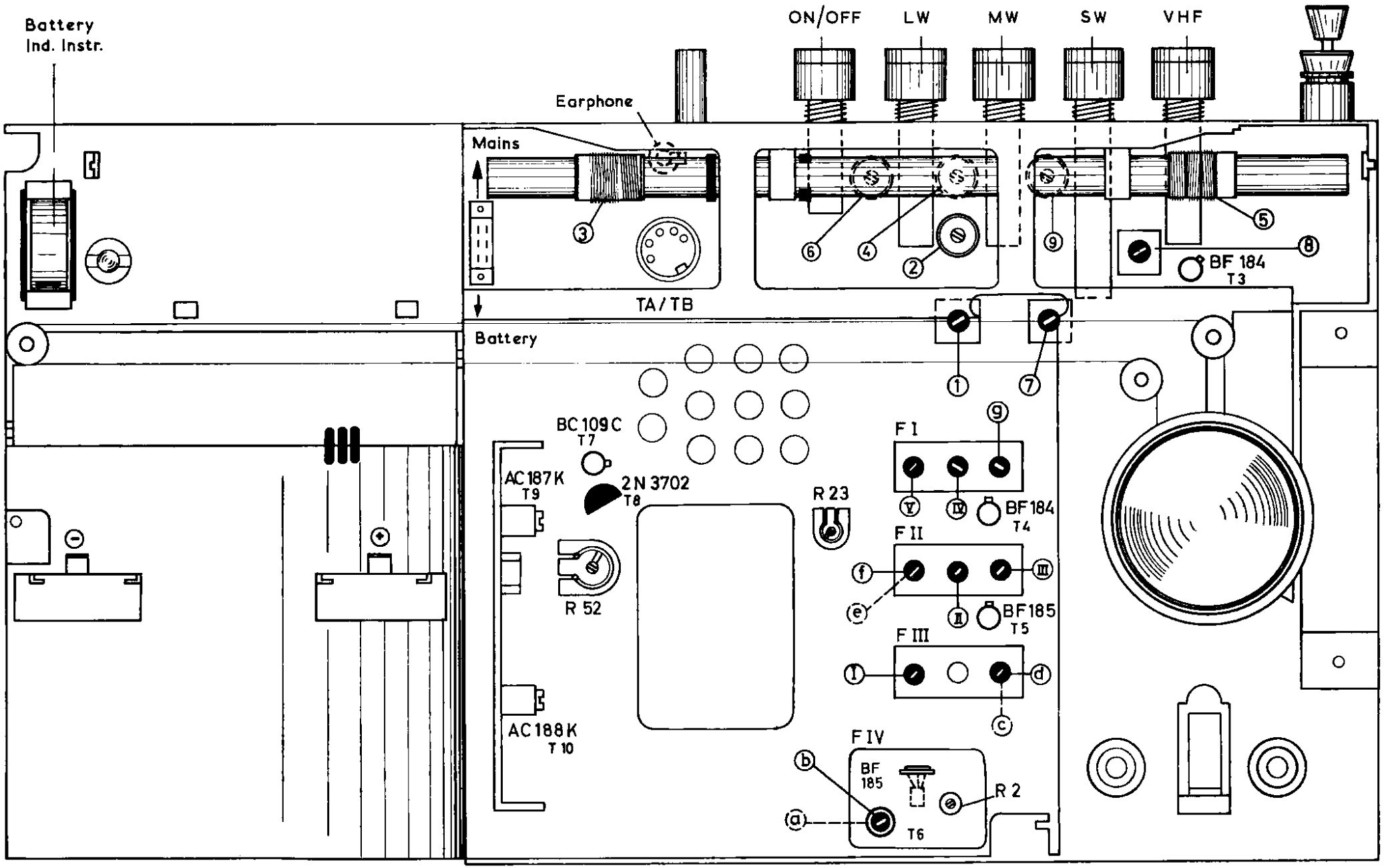


VHF MIXER (Component Side)



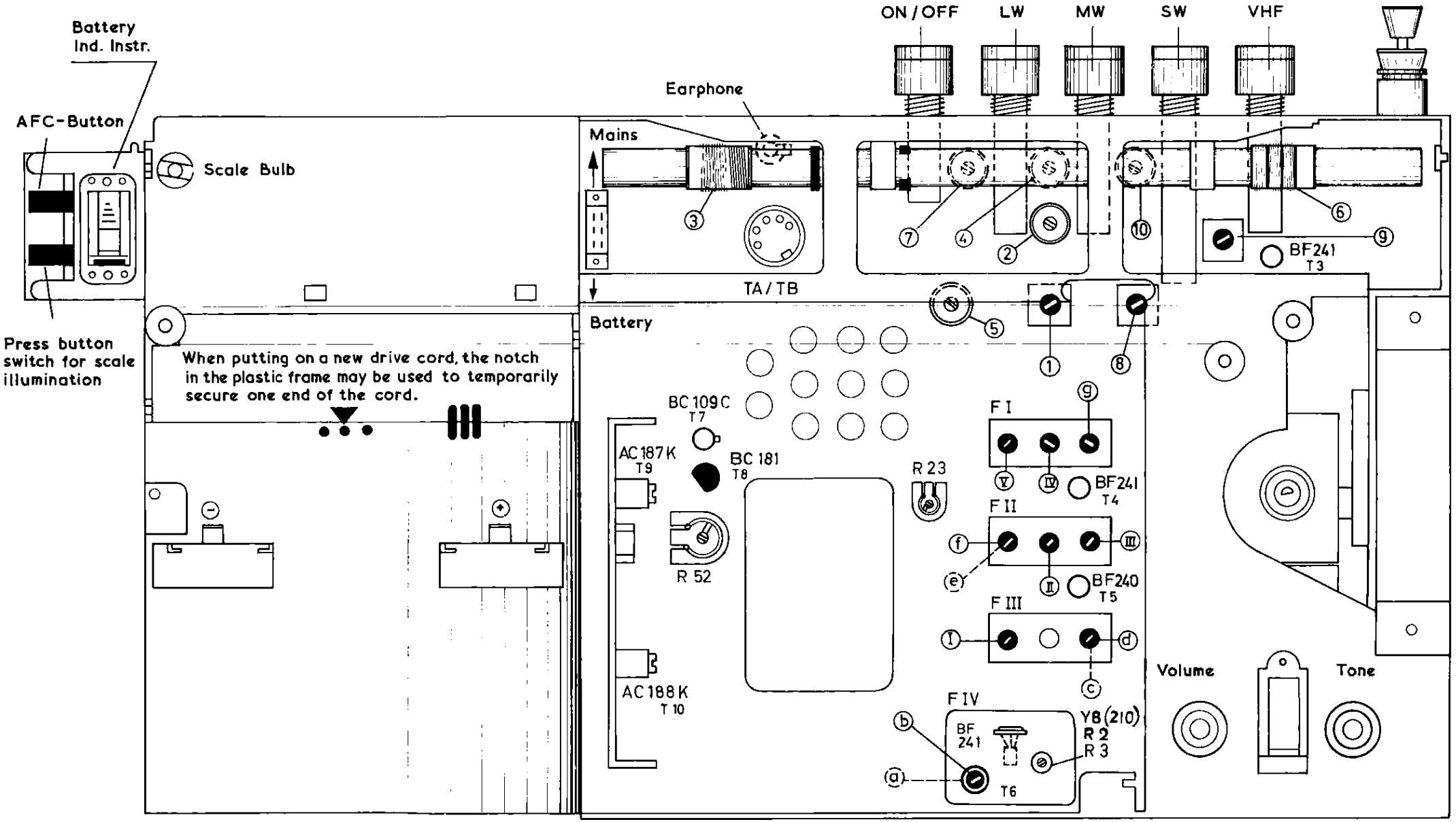
YACHT BOY 208

ALIGNMENT POINTS



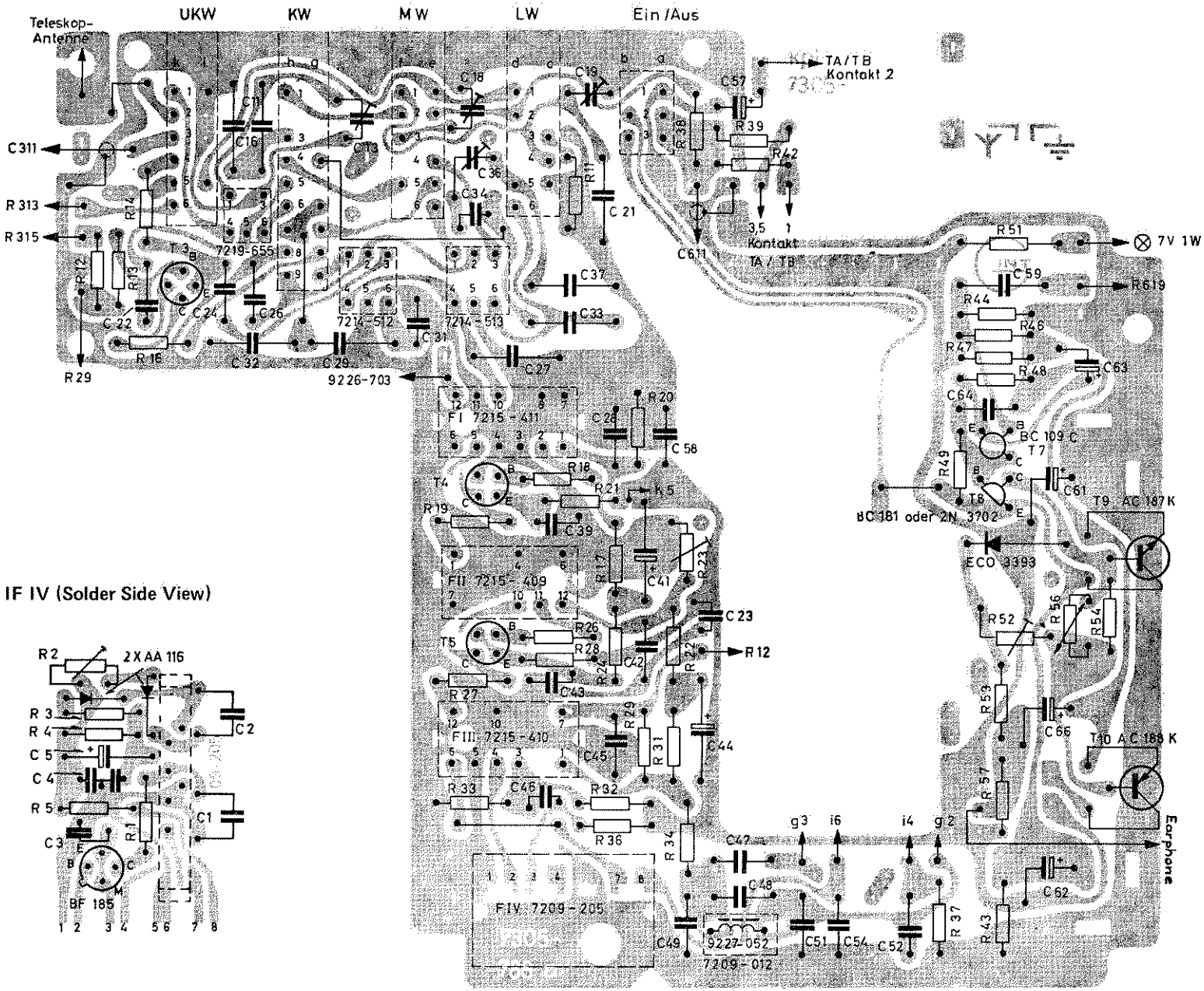
YACHT BOY 209/210

ALIGNMENT POINTS



YACHT BOY 208

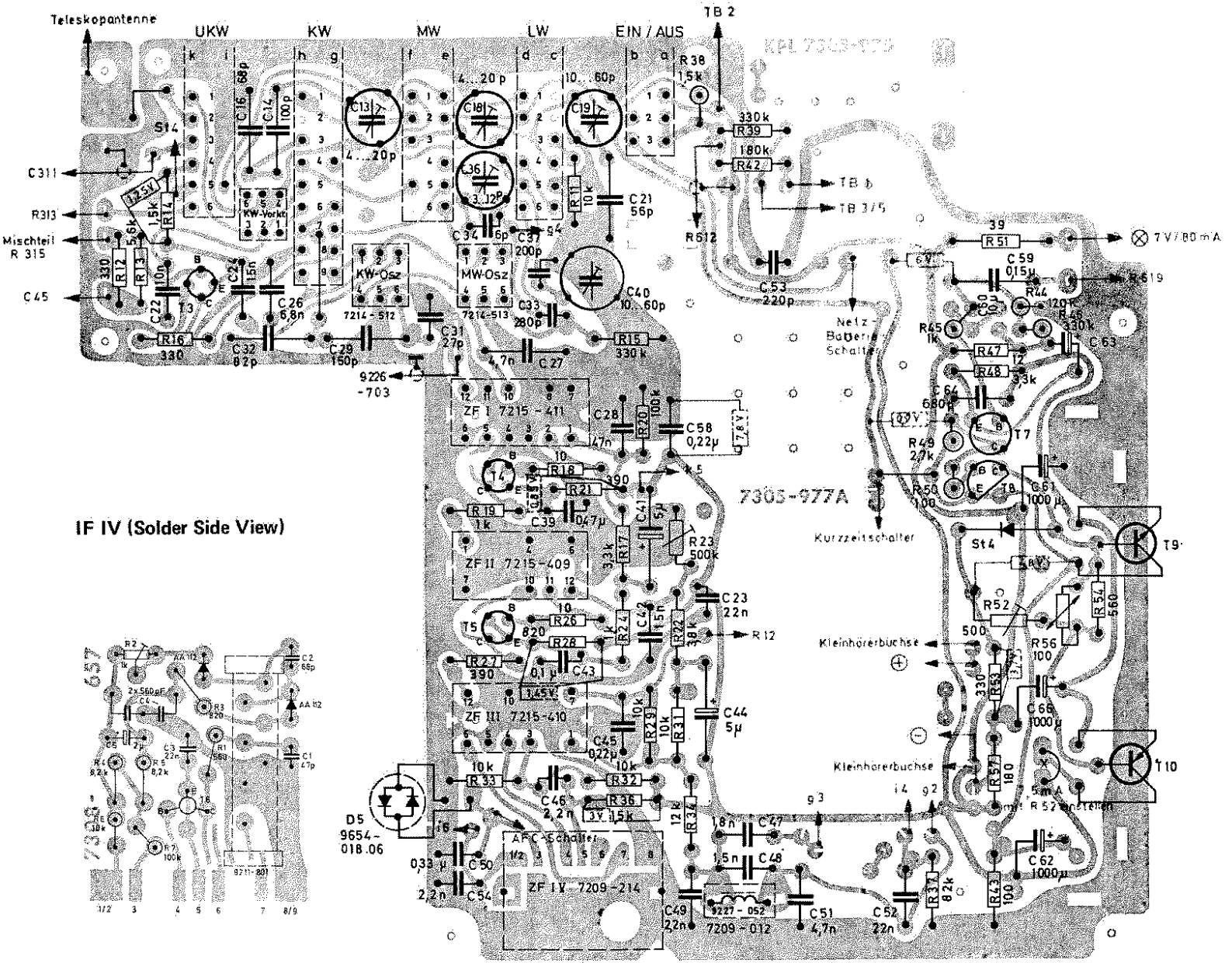
PRINTED CIRCUIT (Solder Side View)



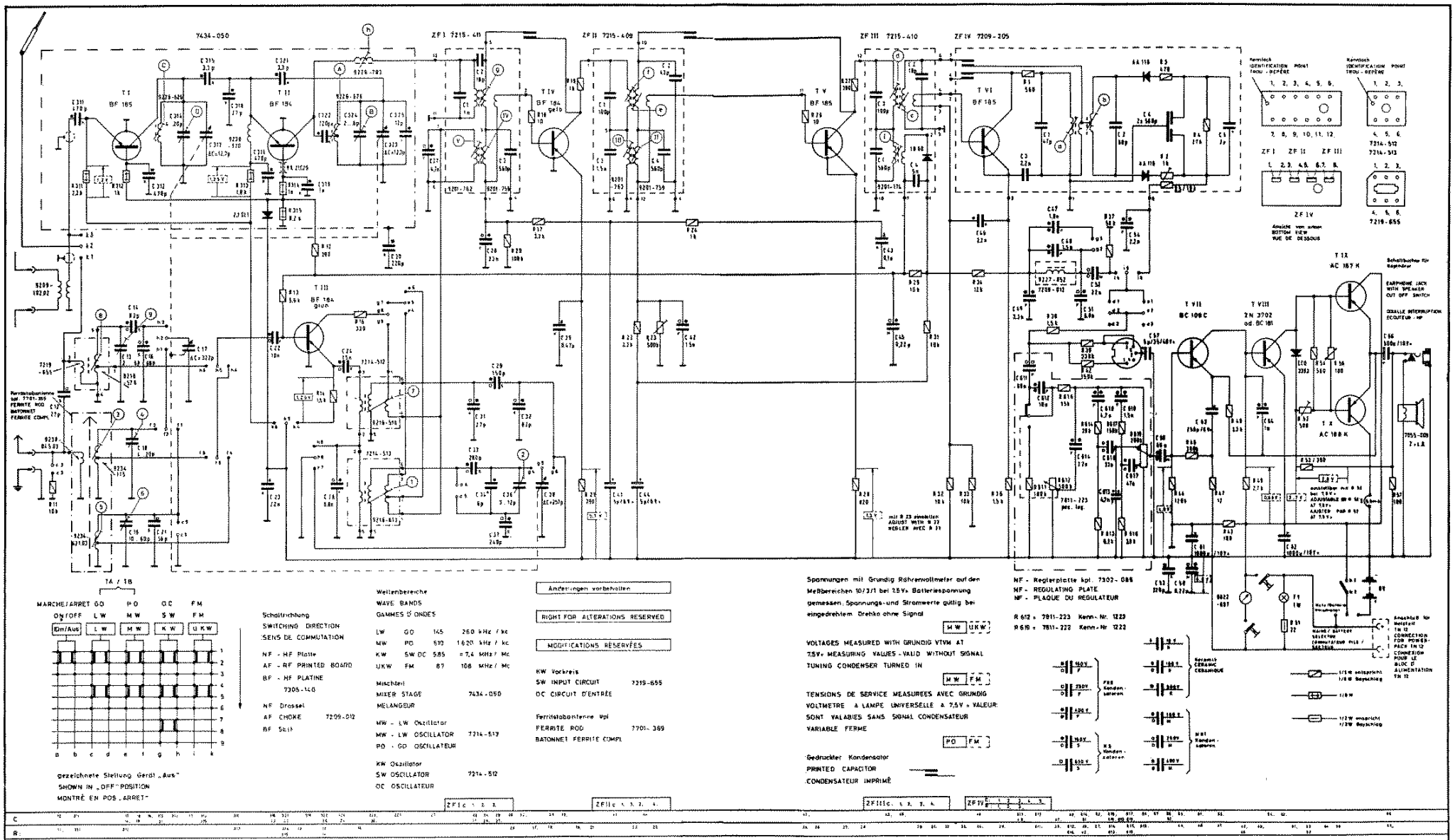
IF IV (Solder Side View)

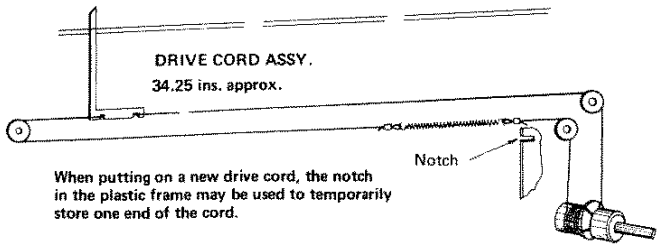
YACHT BOY 209-210

PRINTED CIRCUIT (Solder Side View)



IF IV (Solder Side View)



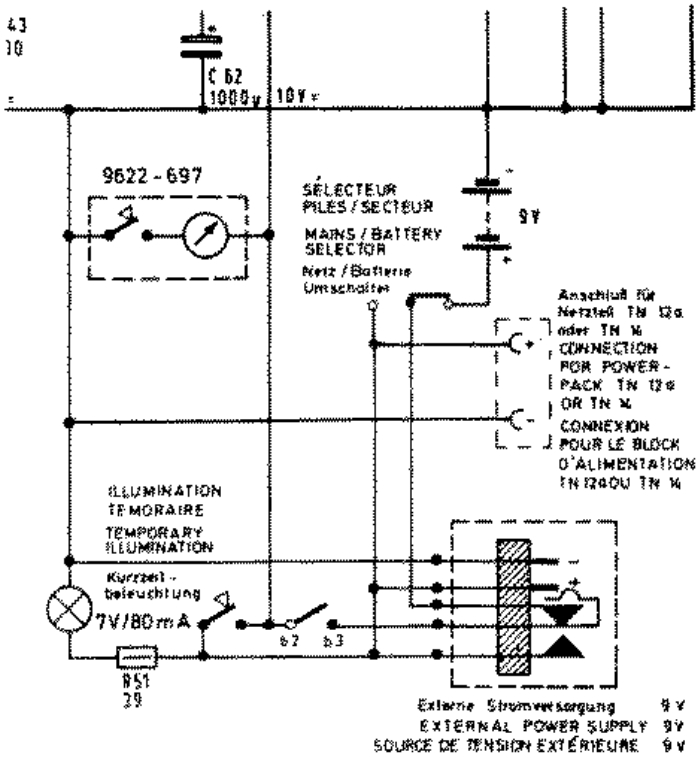


When putting on a new drive cord, the notch in the plastic frame may be used to temporarily store one end of the cord.

Yacht-Boy 208

(14-1480-81)

20374



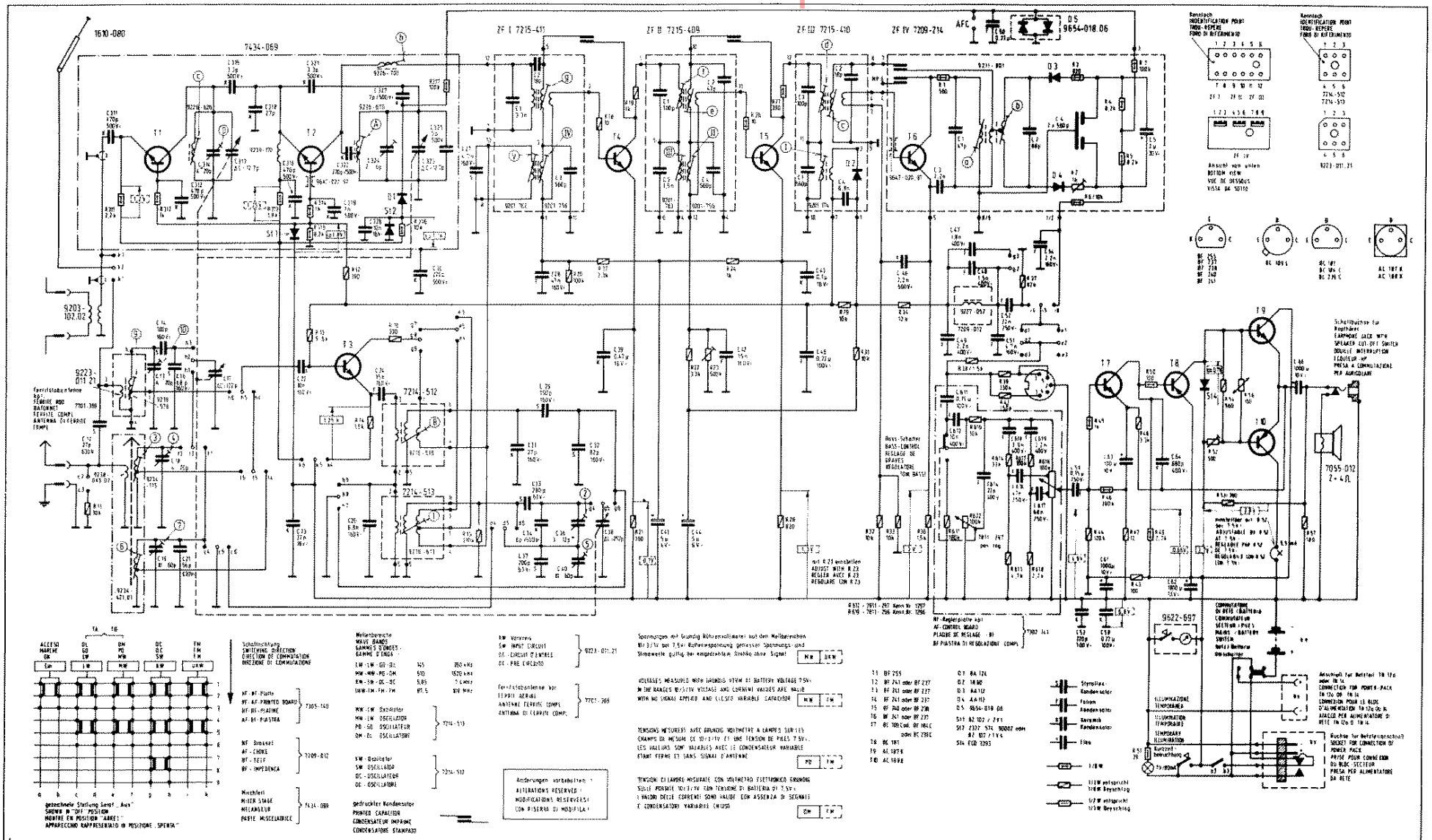
	62, 62,	66,
43, 48, 50, 49, 51,	52, 53, 54, 56,	57,

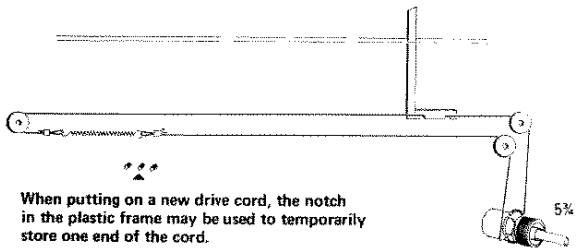
Circuit Difference

For

Yacht-Boy 209

(14-1610-8141)





When putting on a new drive cord, the notch in the plastic frame may be used to temporarily store one end of the cord.

5¾ turns

AM-FM DRIVE CORD
length approx. 890 mm
(variable capacitor opened)

Yacht-Boy 210

(14-1648-8201)