How to change T1130/T1135 so that they will be able to work with the continuously covering exciter (S1303/4, option 1)

---

1. Remove pin 10 from jack D/1 and cut the wire where it goes into the cable. Insert new molex pin with wire connected in jack D/1 (pin 10). See supplement 1.

2. Remove the two wires at points A and B on the input filter unit and cut the wires where they go into the cable. Solder the new wire from jack D/1 (pin 10) on the input filter unit (point A). See supplement 2.

3. Remove the ferrit bead (FP210) on the input filter unit and insert 47 ohm resistance (R206), if it has not been done from the factory. See supplement 2.

4. Solder one end of the second wire from the kit on the input filter unit (point B). See supplement 2. The other end of the wire must be soldered on the tuner control unit. See point 6.

5. If the tuner control unit does not have the character E or a succeeding one (F, G ...) in its number (see the soldering side of the print), then you remove the unit and insert a new one from the modification kit. Remember that the battery (B501) must be moved from the old unit to the new unit and tied to the print with two cable strips. See supplement 3.

6. When soldering the wires on the new tuner control unit you must observe where the new wire from the input filter unit (point B) is to be soldered (point C). See supplement 3.

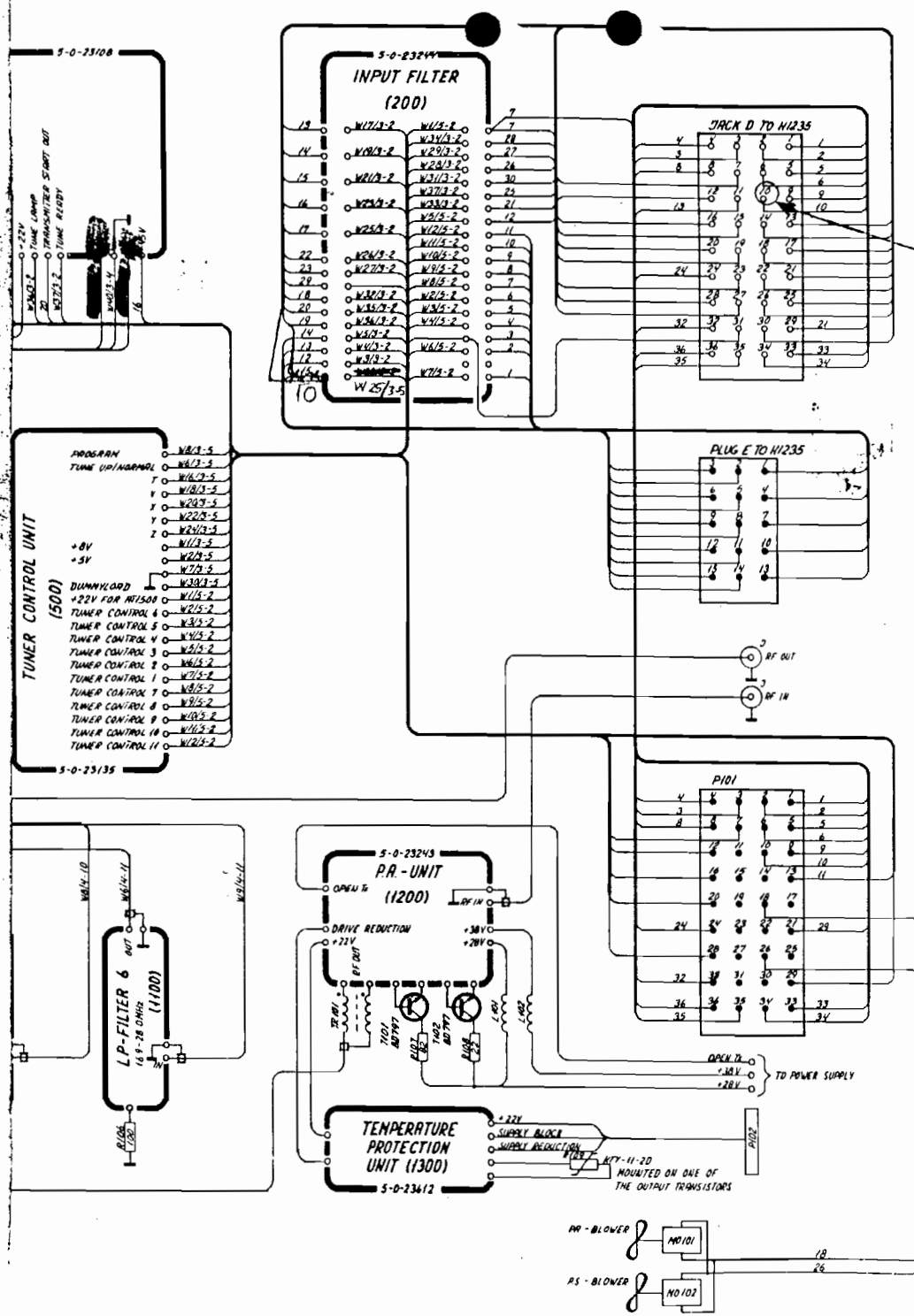
7. Tie the two new wires to the cables with the cable strips from the kit.

8. Remove IC301 from the transmitter control unit and insert new prom with the check sum 053A for T1135 and 054A for T1130. See supplement 4.

9. Remove the "drive level" sticker on top of T1130/T1135 and stick the new stickers from the kit instead.

10. When finished with the modification make a PERFORMANCE CHECK of the tuner control unit (see instruction manual) and TUNE UP the transmitter in each frequency band. See the tune up procedure in the instruction manual and supplement 5.

T1130



JACK D

1 +22V TO Rx	19 TUNE LAMP
2 +8V TO Rx	20 TRANSMITTER START
3 -45V TO Rx	21 BLOCK
4 +22V TO Ex	22 DRIVE LEVEL/RCG
5 +8V TO Ex	23 DRIVE LEVEL
6 -45V TO Ex	24 HT ON
7 +22V FOR T1150D	25 TUNE READY
8 Rx ON	26 METER -
9 GROUND TO Rx	27 METER +
10 ~~GROUND TO Ex~~ S	28 6,11 Tx BLOCK
11 GROUND	29 OPEN Tx
12 CONTROL 3 IN	30 DUMMYLOAD
13 T	31 CONTROL 3 TO T1150D
14 V	32 OFF
15 X	33 +BAT
16 Y	34 +22V
17 Z	35 ON
18 TUNE	36 -45V

PLUG E

1 TUNER CONTROL 1	
2 TUNER CONTROL 2	
3 TUNER CONTROL 3	
4 TUNER CONTROL 4	
5 TUNER CONTROL 5	
6 TUNER CONTROL 6	
7 TUNER CONTROL 7	
8 TUNER CONTROL 8	
9 TUNER CONTROL 9	
10 TUNER CONTROL 10	
11 TUNER CONTROL 11	
12 INVALID TUNING/180°	
13 MOTOR/AERIAL CURRENT	
14 AERIAL CURRENT	
~~15 POWER DOWN FROM POWER SUPPLY~~	

P101

1 +22V TO Rx	19
2 +8V TO Rx	20 TRANSMITTER START
3 -45V TO Rx	21 OPEN Tx
4 +22V TO Ex	22
5 +8V TO Ex	23
6 -45V TO Ex	24 HT ON
7 +22V FOR T1150D	25
8 Rx ON	26 BLOWER
9 GROUND TO Rx	27
10 GROUND TO Ex	28 +22V TO T1130
11	29 +8V TO T1130
12 POWER DOWN FROM POWER SUPPLY	30
13 GROUND	31
14	32 OFF
15	33 +BAT
16 -45V TO T1130	34 +22V
17	35 ON
18 BLOWER	36 -45V

P102

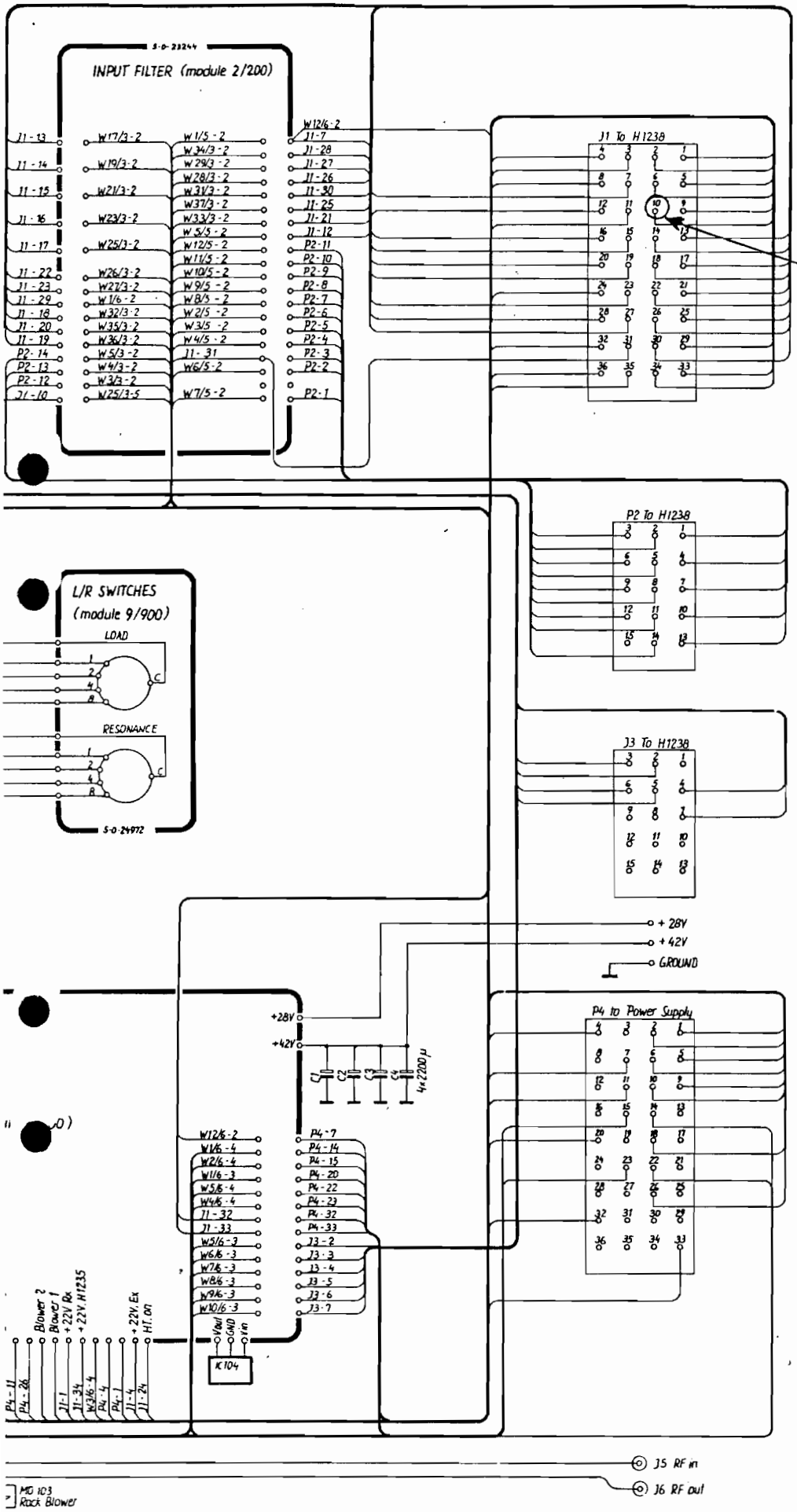
1 +22V	
2 SUPPLY BLOCK	
3 SUPPLY REDUCTION	

SUPPLEMENT 1 - T1130

MAIN SCHEMATIC DIAGRAM

FOR

SAILOR TRANSMITTER T1130 (D)



Jack 1

1	+ 22V to Rx	19	Tune Lamp
2	+ 8V to Rx	20	TRANSMITTER start
3	- 45V to Rx	21	- Block
4	+ 22V to Ex	22	Drive level/reg
5	+ 8V to Ex	23	Drive level
6	- 45V to Ex	24	HT on
7	+ 22V for AT1505	25	Tune ready
8	Rx on	26	Meter -
9	GROUND to Rx	27	Meter +
10	S	28	Ext Tx Block
11	GROUND	29	Open Tx
12	Control 3in	30	Dummy load
13	T	31	Control 3 to AT 1505
14	V	32	Start PU1
15	X	33	+ Batt
16	Y	34	+22V
17	Z	35	On
18	Tune	36	- 45V

Plug 2

1	TUNER control 1	11	TUNER control 11
2	TUNER control 2	12	Invalid tuning / 180°
3	TUNER control 3	13	Motor/Aerial Current
4	TUNER control 4	14	Aerial Current
5	TUNER control 5	15	
6	TUNER control 6		
7	TUNER control 7		
8	TUNER control 8		
9	TUNER control 9		
10	TUNER control 10		

Jack 3

1		11	
2	FILTER 7 control	12	
3	FILTER 8 control	13	
4	FILTER 4 control	14	
5	FILTER 5 control	15	
6	FILTER 6 control		
7	+ 22V		
8			
9			
10			

Plug 4 to POWER SUPPLY

1	+ 22V	19	
2	Supply for 8V Reg	20	TRANSMITTER start out
3		21	
4	+ 22V	22	- 3dB
5	Supply for 8V Reg	23	AC/DC
6	- 45V	24	
7	+ 22V to AT1505	25	
8		26	Blower II
9	GROUND	27	
10	Blower I	28	
11	Blower II	29	
12		30	
13		31	
14	Supply Reduction	32	Start PU1
15	Supply Block	33	+ Battery
16		34	
17		35	
18	Blower I	36	

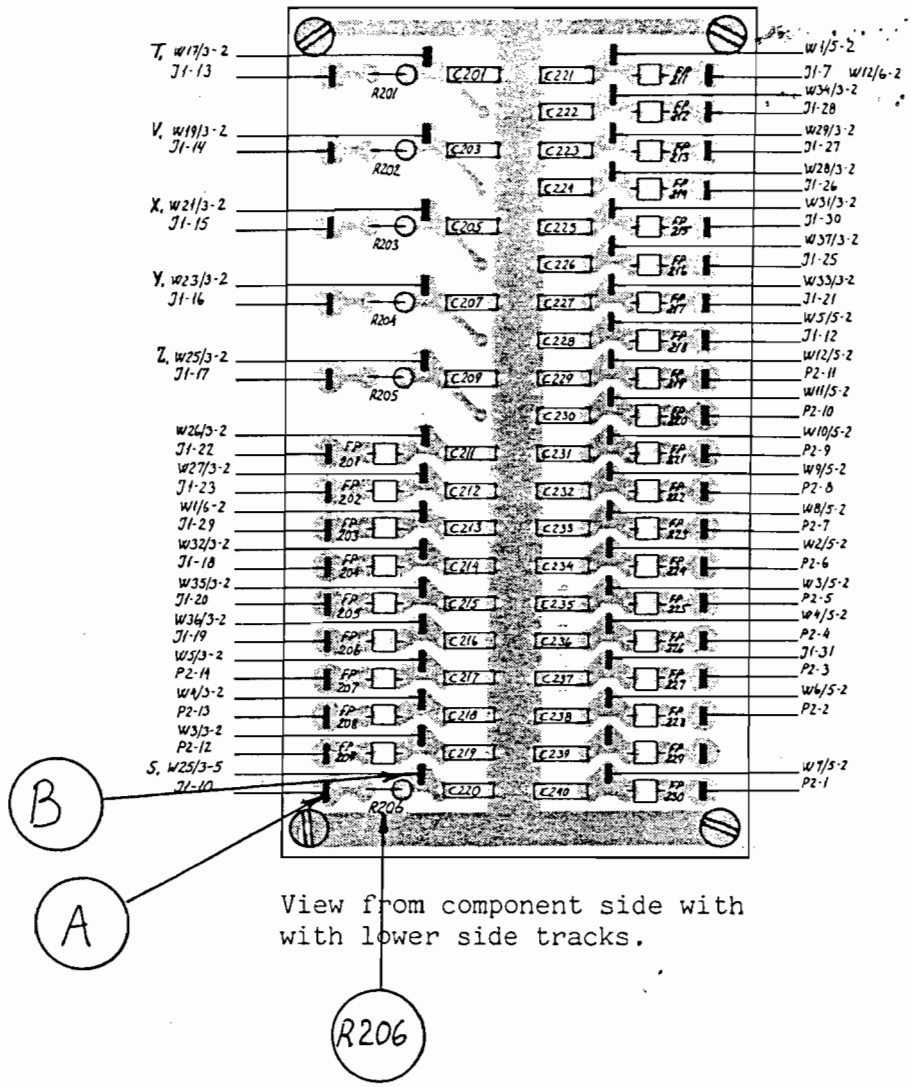
MAIN SCHEMATIC DIAGRAM T1135 (8)

SUPPLEMENT 1 T1135.

MAIN SCHEMATIC DIAGRAM

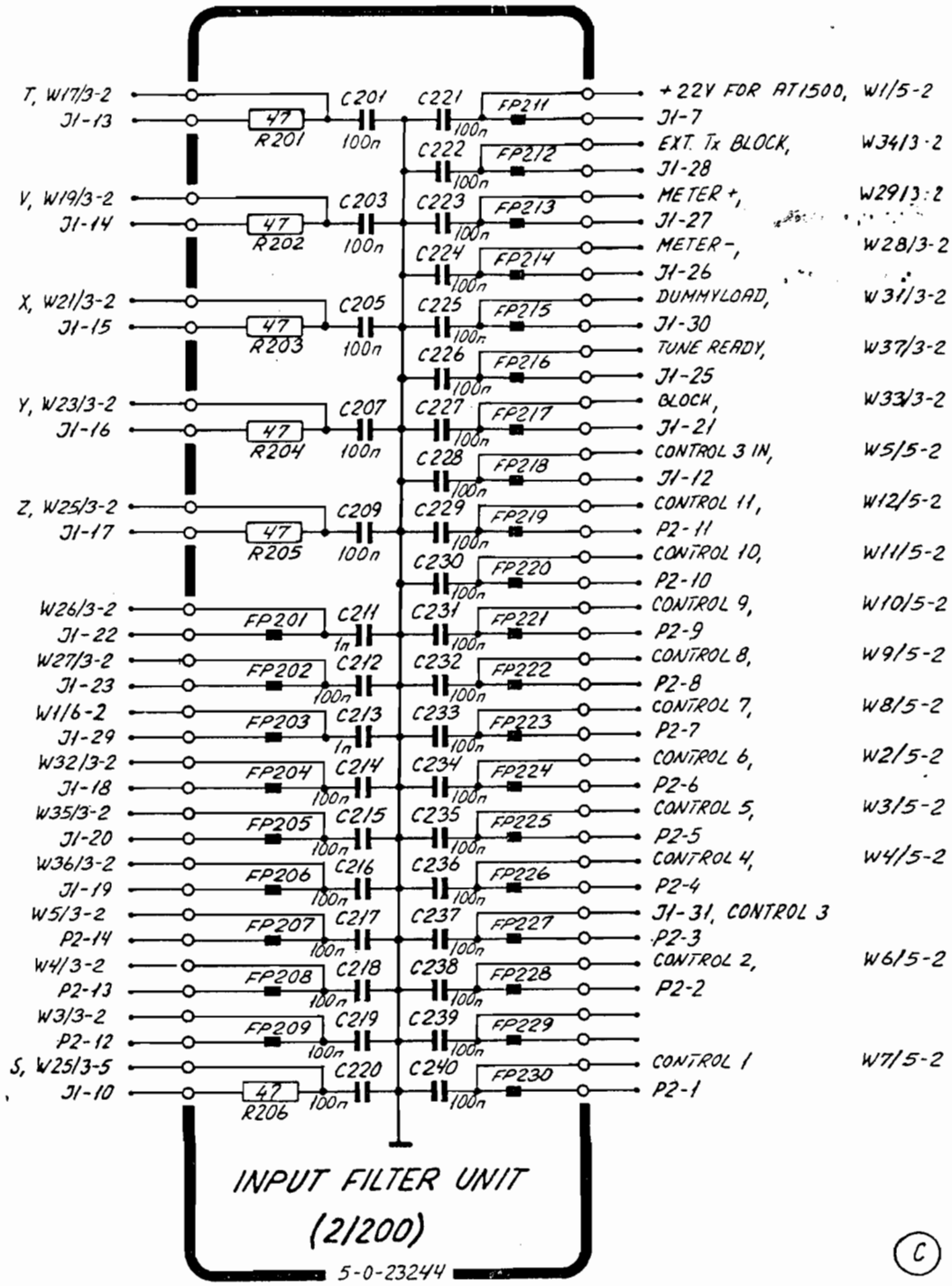
T1135

T1130/T1135
4-0-23244C, 4-6-23244



View from component side with
with lower side tracks.

SUPPLEMENT 2.



DRIVE LEVEL/RE6,

?IVE LEVEL,

OPEN Tx,

TUNE,

TRANSMITTER START,

TUNE LAMP,

AERIAL CURRENT,

MOTOR/AERIAL CURRENT,

INVALID TUNING /180°,

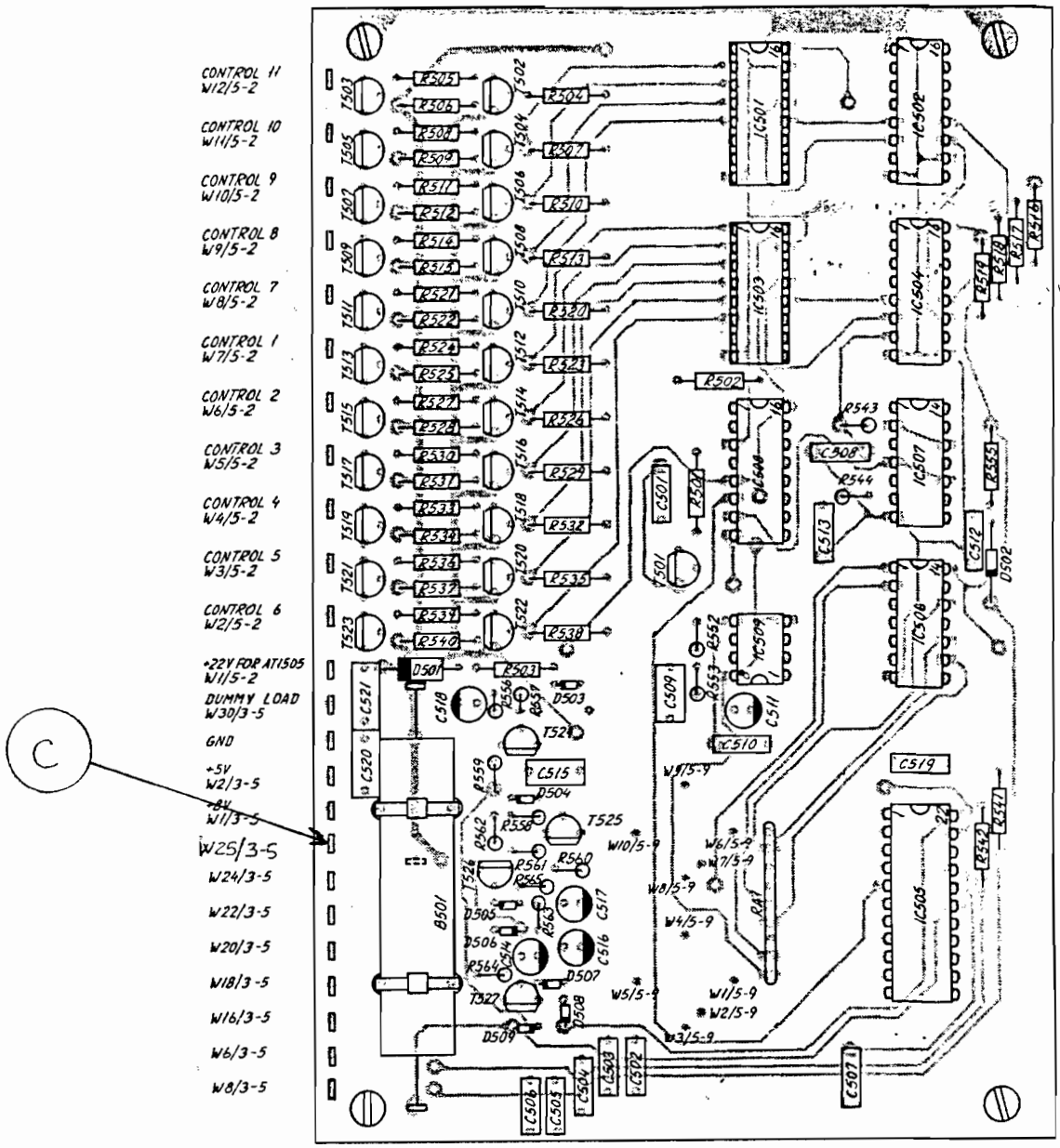
W26/3-2
J1-22
W27/3-2
J1-23
W1/6-2
J1-29
W32/3-2
J1-18
W35/3-2
J1-20
W36/3-2
J1-19
W5/3-2
P2-14
W4/3-2
P2-13
W3/3-2
P2-12

FP201 C211 1n
FP202 C212 100n
FP203 C213 1n
FP204 C214 100n
FP205 C215 100n
FP206 C216 100n
FP207 C217 100n
FP208 C218 100n
FP209 C219 100n

(C)

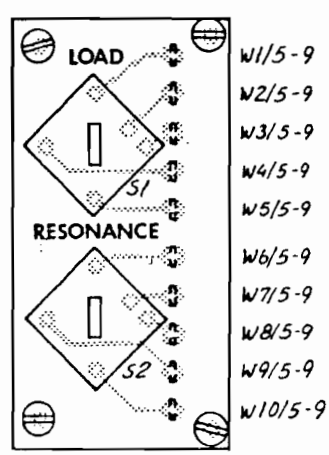
INPUT FILTER UNIT (MODULE 2/

TUNER CONTROL UNIT (MODULE 5/500)



View from component side with upper side tracks.

L/R SWITCHES (MODULE 9/900)

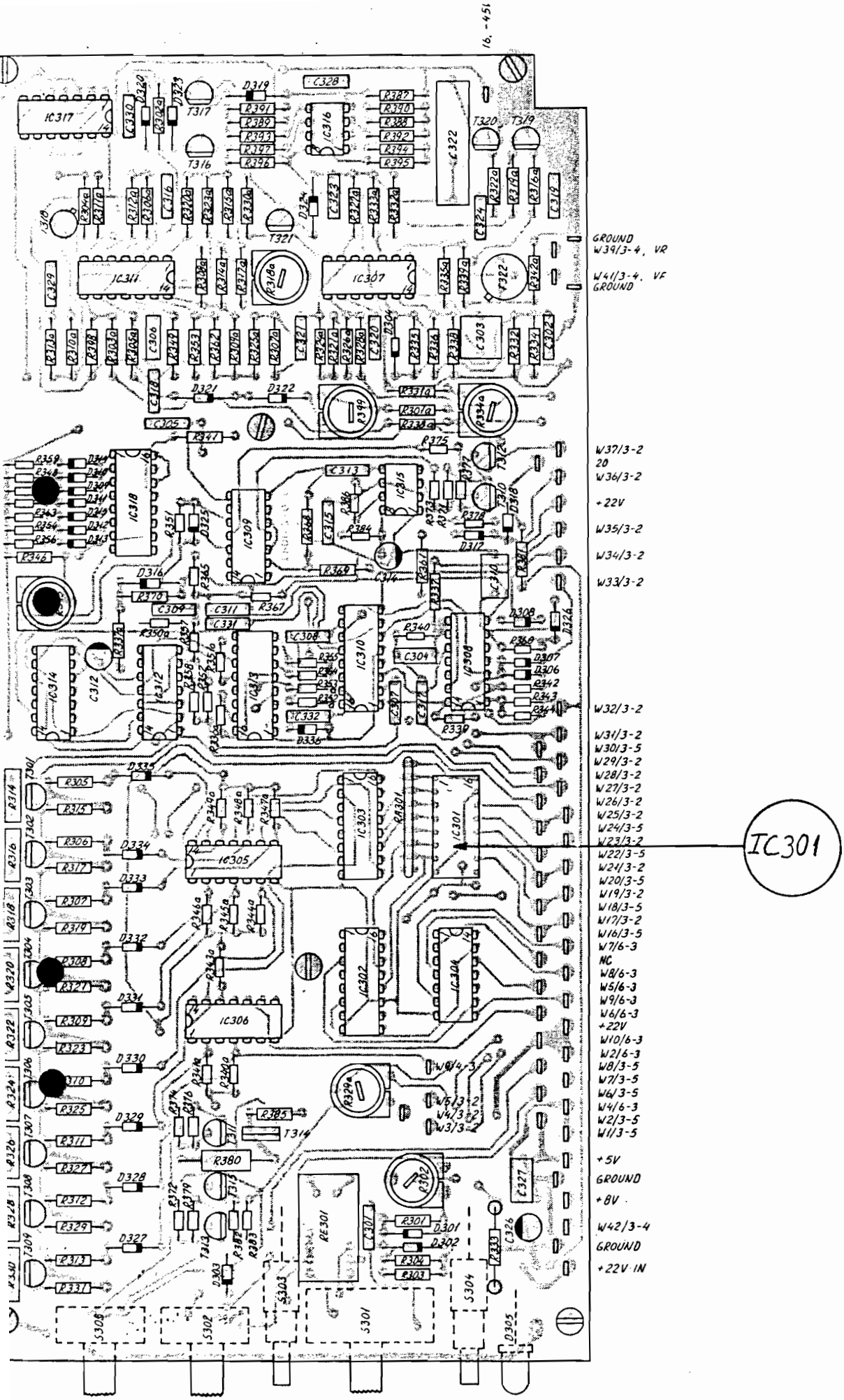


View from component side with lower side tracks.

SUPPLEMENT 3.

TUNER CONTROL UNIT (MODULE 5/500)

L/R SWITCHES (MODULE 9/900)



ew from component side with lower side tracks.

SUPPLEMENT 4.

T1135
4-6-23108J

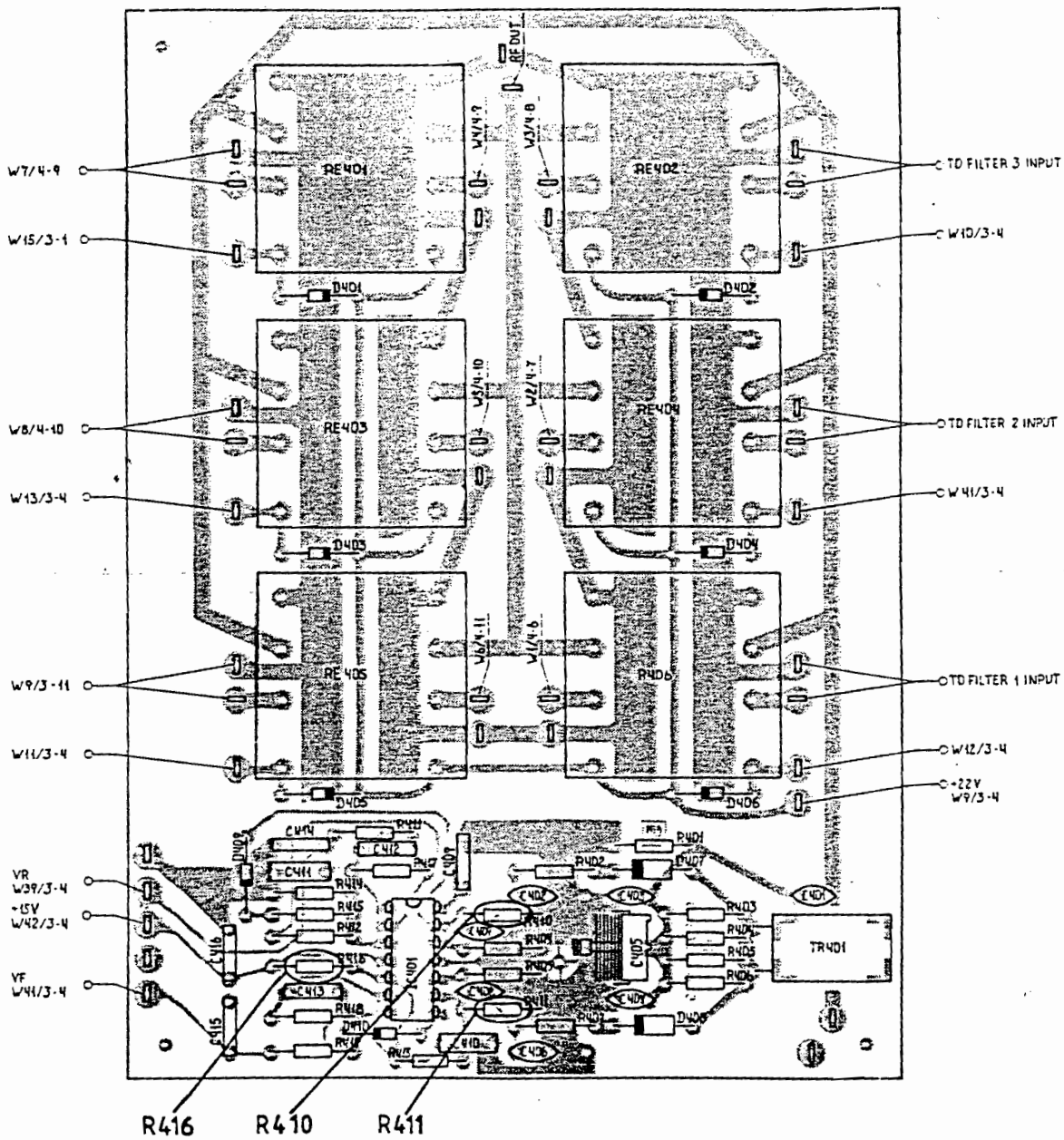

W7/4-9
W15/3-4
W8/4-10
W13/3-4
W9/3-11
W11/3-4
VR
W39/3-4
+15V
W42/3-4
VF
W41/3-4
RE401
RE402
RE403
RE404
RE405
RE406
D401
D402
D403
D404
D405
D406
TD FILTER 3 INPUT
W10/3-4
TD FILTER 2 INPUT
W41/3-4
TD FILTER 1 INPUT
W12/3-4
+22V
W9/3-4
TR401
R416
R410
R411

TABLE 2. VALID FOR T1130 WITH SERIAL NUMBER HIGHER THAN 20800

This table is based on several aerial measurements, but is must only be considered as a guide.

To make the table more complete it is most important that you fill in the TUNING TABLE FOR T1130 in the back of this manual and return it to S. P. Radio.

If it is not possible to tune the transmitter within the resonance and load numbers listed in table 2, then use TABLE 2a.

	AERIAL LENGTH T1130																	
FREQUENCY BANDS in T1130 kHz	5-6 m		7 m		8 m		9 m		10 m		11 m		12 m		13 m		14 m		15 m	
	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load
1600.0 - 1799.9	0-3	1	0-3	1	4-6	1	4-6	1	4-6	0-1	4-6	0-1	4-6	0-1	4-6	0	4-6	0	4-6	0
1800.0 - 1999.9	0-3	1	0-3	1	4-6	0-1	4-6	0-1	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0
2000.0 - 2199.9	0-3	0	0-3	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0
2200.0 - 2399.9	0-3	0	0-3	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0
2400.0 - 2599.9	0-3	0	0-3	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-7	0	4-7	0	4-7	0
2600.0 - 2799.9	0-3	0	0-3	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-7	0-1	4-7	0-1	4-7	0-1
2800.0 - 2999.9	0-3	0	0-3	0	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0-1	4-7	0-1	4-7	0-1
3000.0 - 3099.9	0-3	0	0-3	0	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0-1	4-7	0-1	4-7	0-1
3100.0 - 3399.9	0-3	0	0-3	0	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0-1	4-7	0-1	4-7	0-1
3400.0 - 3699.9	0-3	0	0-3	0	4-7	0	4-7	0	4-7	0-1	4-7	0-1	4-7	0-1	4-7	0-1	4-7	1-2	4-7	1-2
3700.0 - 3999.9	1-3	0	1-3	0	4-7	0-1	4-7	0-1	4-7	0-1	4-7	0-2	4-7	0-2	4-7	0-3	4-7	0-3	4-7	0-4
4000.0 - 4299.9	1-3	0	1-3	0-	5-7	0-2	5-7	0-2	5-7	0-2	5-7	0-2	5-7	0-2	5-8	0-3	5-8	1-7	5-8	1-7
4300.0 - 4599.9	4-7	0-4	4-7	0-3	5-7	0-2	5-7	0-2	5-8	0-2	5-8	0-2	5-8	0-2	5-8	0-3	5-8	1-8	5-8	1-9
4600.0 - 4999.9	4-7	0-1	4-7	0-3	5-7	0-2	5-8	0-2	5-8	0-2	5-8	0-2	5-8	0-3	5-9	7-10	5-9	7-10	6-9	7-10
5000.0 - 5499.9	5-7	0-1	5-7	0-3	6-8	0-2	6-8	0-2	6-9	2-5	6-9	5-10	6-9	5-10	6-9	5-10	6-9	5-10	6-9	2-5
5500.0 - 5999.9	6-8	0-1	5-8	0-3	6-8	0-2	6-9	1-3	6-9	5-10	6-9	5-10	6-10	5-10	6-9	5-10	6-9	2-6	6-9	2-6
6000.0 - 6399.9	6-9	0-4	4-9	0-3	6-9	0-3	6-9	1-5	6-9	5-9	7-9	5-9	7-9	5-10	7-9	4-8	7-9	4-8	7-9	4-8
6400.0 - 6999.9	6-9	0-4	6-9	0-5	6-9	3-8	6-9	4-8	6-9	5-9	7-9	4-8	7-9	4-8	7-9	4-8	7-9	4-8	7-9	3-6
7000.0 - 7599.9	6-10	0-4	6-10	0-5	6-9	3-8	6-9	4-8	6-9	4-8	7-9	3-6	7-9	4-8	7-9	4-8	7-9	4-8	7-9	2-5
7600.0 - 7999.9	6-11	0-4	6-11	0-5	6-9	3-8	6-9	4-8	6-9	4-8	6-9	2-6	7-9	2-6	7-9	2-6	7-9	2-6	7-9	2-4
8000.0 - 8499.9	9-11	0-4	9-11	0-5	6-9	3-6	6-9	3-6	6-9	4-8	6-9	1-4	7-9	1-4	7-9	1-4	7-9	1-4	7-9	2-4
8500.0 - 8999.9	6-11	0-4	6-11	0-8	7-10	3-6	7-10	3-6	7-10	2-6	7-10	2-5	7-10	1-4	7-10	1-4	7-10	1-4	7-10	1-4
9000.0 - 9499.9	7-11	0-4	7-11	0-8	7-11	3-6	7-11	3-6	7-10	2-6	7-10	2-5	7-10	1-4	7-10	1-4	7-10	1-4	7-10	1-4
9500.0 - 9999.9	8-12	0-4	8-12	0-8	7-11	3-6	7-11	2-5	7-11	1-4	7-11	1-4	7-11	1-4	7-10	0-3	7-10	0-3	7-10	0-3
10000.0 - 10499.9	8-12	0-4	8-12	0-8	7-11	2-5	7-11	2-5	7-11	1-4	7-11	1-4	7-11	0-3	7-11	0-3	7-11	0-3	7-11	0-3
10500.0 - 10999.9	9-12	0-4	9-12	0-8	7-11	1-4	7-11	1-4	7-11	1-4	7-11	0-3	7-11	0-3	7-11	10-3	7-11	0-3	7-11	0-3

SUPPLEMENT 5 T 1130

TABLE 2 continued

FREQUENCY BANDS in T1130 kHz	AERIAL LENGTH T1130																			
	5-6 m		7 m		8 m		9 m		10 m		11 m		12 m		13 m		14 m		15 m	
	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load
11000.0 - 11499.9	9-12	0-5	9-12	0-8	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3
11500.0 - 11999.9	9-12	0-5	9-12	0-7	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-4
12000.0 - 12499.9	10-12	3-6	10-12	1-5	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	0-5	10-13	0-5	10-13	0-5
12500.0 - 12999.9	10-13	0-4	10-13	0-7	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	0-5	10-13	0-5	10-13	0-5
13000.0 - 13499.9	10-13	0-4	10-13	0-7	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	0-5	10-13	0-5	10-13	0-5
13500.0 - 13999.9	10-13	0-4	10-13	0-7	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	0-5	10-13	0-5	10-13	0-5
14000.0 - 14499.9	10-13	0-4	10-13	0-7	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	1-6	11-13	1-6	11-13	0-5
14500.0 - 14999.9	10-13	0-4	10-13	0-7	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-4	11-13	0-5	11-13	1-6	11-13	1-6	11-13	1-6
15000.0 - 15599.9	11-14	0-4	11-14	0-7	11-13	0-4	11-13	1-5	11-13	1-5	11-13	1-5	11-13	0-5	11-13	1-6	11-13	1-6	11-13	1-6
15600.0 - 15999.9	11-14	0-3	11-14	0-7	11-13	1-5	11-13	1-5	11-13	1-5	11-13	1-5	11-13	1-6	11-13	1-6	12-14	1-5	12-14	1-5
16000.0 - 16499.9	11-14	0-3	11-14	0-7	11-13	1-5	11-13	1-5	11-13	1-5	11-13	1-5	12-14	1-6	12-14	2-5	12-14	1-5	12-14	1-5
16500.0 - 16999.9	11-13	0-2	11-13	0-2	11-13	1-5	11-13	1-4	11-13	1-4	11-13	1-4	12-14	2-5	12-14	2-5	12-14	1-5	12-14	1-5
17000.0 - 17499.9	11-14	0-3	11-14	0-7	11-13	1-5	11-13	1-4	11-14	1-4	11-14	2-5	12-14	2-5	12-14	2-5	11-14	1-5	11-14	1-5
17500.0 - 17999.9	11-14	0-3	11-14	0-7	11-13	1-4	11-13	1-4	11-14	2-5	11-14	2-6	12-14	2-5	12-14	1-5	12-14	0-4	12-14	0-4
18000.0 - 18999.9	11-14	0-3	11-14	0-6	11-13	0-4	12-15	0-4	11-14	2-5	11-14	1-5	12-14	1-5	12-14	1-4	12-14	0-4	12-14	0-4
19000.0 - 19999.9	12-14	0-3	12-14	0-6	12-14	0-4	12-15	0-4	12-15	2-5	11-14	1-5	12-14	1-5	12-14	1-4	12-14	0-4	12-14	0-4
20000.0 - 20999.9	13-15	0-3	13-15	0-6	13-15	0-4	13-15	0-4	12-15	1-5	11-14	0-5	12-14	0-5	12-14	0-4	12-14	0-4	12-15	0-4
21000.0 - 21999.9	13-15	0-3	13-15	0-5	13-15	0-4	13-15	0-4	12-15	0-4	12-15	0-4	12-15	0-4	12-15	0-4	12-15	0-4	13-15	0-4
22000.0 - 22999.9	14-15	1-3	14-15	1-3	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4
23000.0 - 23999.9	14-15	0-3	14-15	0-4	14-15	1-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
24000.0 - 24999.9	14-15	0-3	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
25000.0 - 25999.9	14-15	0-3	14-15	0-3	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
26000.0 - 26999.9	14-15	0-3	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
27000.0 - 27999.9	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
Fixed 2182	0-3	0	0-3	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0

SUPPLEMENT 5 T 1130

TABLE 2a. VALID FOR T1130 WITH SERIAL NO. HIGHER THAN 261800.

The table covers all permitted RESONANCE and LOAD numbers.

FREQUENCY BANDS IN T1130 kHz	AERIAL LENGTH 5-8 m Reso-nance	Load	9-15 m Reso-nance	Load
1600.0 - 1799.9	0-3	0-1	4-7	0-1
1800.0 - 1999.9	0-3	0-1	4-7	0-1
2000.0 - 2199.9	0-3	0-1	4-7	0-1
2200.0 - 2399.9	0-3	0-1	4-7	0-1
2400.0 - 2599.9	0-3	0-1	4-7	0-1
2600.0 - 2799.9	0-3	0-2	4-7	0-2
2800.0 - 2999.9	0-3	0-2	4-7	0-2
3000.0 - 3099.9	0-3	0-2	4-7	0-2
3100.0 - 3399.9	0-3	0-6	4-7	0-6
3400.0 - 3699.9	0-3	0-6	4-7	0-6
3700.0 - 3999.9	0-3	0-6	4-7	0-6
4000.0 - 4299.9	1-3	0-10	5-7	0-10
4300.0 - 4599.9	4-7	0-10	5-7	0-10
4600.0 - 4999.9	4-7	0-10	5-7	0-10
5000.0 - 5499.9	5-7	0-9	5-7	0-9
5500.0 - 5999.9	5-8	0-9	5-8	0-9
6000.0 - 6399.9	6-9	0-9	6-9	0-9
6400.0 - 6999.9	6-9	0-9	6-9	0-9
7000.0 - 7599.9	6-10	0-9	6-10	0-9
7600.0 - 7999.9	6-11	0-9	6-11	0-9
8000.0 - 8499.9	6-11	0-9	6-11	0-9
8500.0 - 8999.9	6-11	0-8	6-11	0-8
9000.0 - 9499.9	7-11	0-8	7-11	0-8
9500.0 - 9999.9	8-12	0-8	8-12	0-8
10000.0 - 10499.9	8-12	0-8	8-12	0-8
10500.0 - 10999.9	9-12	0-8	9-12	0-8
11000.0 - 11499.9	9-12	0-8	9-12	0-8
11500.0 - 11999.9	9-12	0-7	9-12	0-7
12000.0 - 12499.9	10-13	0-7	10-13	0-7
12500.0 - 12999.9	10-13	0-7	10-13	0-7
13000.0 - 13499.9	10-13	0-7	10-13	0-7
13500.0 - 13999.9	10-13	0-7	10-13	0-7
14000.0 -14499.9	10-13	0-7	10-13	0-7
14500.0 - 14999.9	10-13	0-7	10-13	0-7

SUPPLEMENT 5 T 1130

Table 2a continued

FREQUENCY BANDS IN T1130 kHz	AERIAL LENGTH 5-8 m Reso-nance	Load	9-15 m Reso-nance	Load
15000.0 - 15599.9	11-14	0-7	11-14	0-7
15500.0 - 15999.9	11-14	0-7	11-14	0-7
16000.0 - 16499.9	11-14	0-7	11-14	0-7
16500.0 - 16999.9	11-14	0-7	11-14	0-7
17000.0 - 17499.9	11-14	0-7	11-14	0-7
17500.0 - 17999.9	11-14	0-7	11-14	0-7
18000.0 - 18999.9	11-14	0-6	11-14	0-6
19000.0 - 19999.9	12-14	0-6	12-14	0-6
20000.0 - 20999.9	13-15	0-5	13-15	0-5
21000.0 - 21999.9	13-15	0-5	13-15	0-5
22000.0 - 22999.9	14-15	0-4	14-15	0-4
23000.0 - 23999.9	14-15	0-4	14-15	0-4
24000.0 - 24999.9	14-15	0-4	14-15	0-4
25000.0 - 25999.9	14-15	0-4	14-15	0-4
26000.0 - 26999.9	14-15	0-4	14-15	0-4
27000.0 - 27999.9	14-15	0-4	14-15	0-4
Fixed 2182	0-3	0-1	4-7	0-1

This table is based on several ae[redacted] measure[redacted]s, but is must only be considered as a guide.

To make the table more complete it is most important that you fill in the TUNING TABLE FOR T1135 in the back of this manual and return it to S. P. Radio.

If it is not possible to tune the transmitter within the resonance and load numbers listed in table 2, then use TABLE 2a.

	AERIAL LENGTH T1135													
	9 m		10 m		11 m		12 m		13 m		14 m		15 m	
FREQUENCY BANDS in T1135 kHz	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load
1600.0 - 1799.9	4-6	1	4-6	0-1	4-6	0-1	4-6	0-1	4-6	0	4-6	0	4-6	0
1800.0 - 1999.9	4-6	0-1	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0
2000.0 - 2199.9	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0
2200.0 - 2399.9	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0
2400.0 - 2599.9	4-6	0	4-6	0	4-6	0	4-6	0	4-7	0	4-7	0	4-7	0
2600.0 - 2799.9	4-6	0	4-6	0	4-6	0	4-6	0	4-7	0-1	4-7	0-1	4-7	0-1
2800.0 - 2999.9	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0-1	4-7	0-1	4-7	0-1
3000.0 - 3099.9	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0-1	4-7	0-1	4-7	0-1
3100.0 - 3399.9	4-7	0	4-7	0	4-7	0	4-7	0	4-7	0-1	4-7	0-1	4-7	0-1
3400.0 - 3699.9	4-7	0	4-7	0-1	4-7	0-1	4-7	0-1	4-7	0-1	4-7	1-2	4-7	1-2
3700.0 - 3999.9	4-7	0-1	4-7	0-1	4-7	0-2	4-7	0-2	4-7	0-3	4-7	0-3	4-7	0-4
4000.0 - 4299.9	5-7	0-2	5-7	0-2	5-7	0-2	5-7	0-2	5-8	0-3	5-8	1-7	5-8	1-7
4300.0 - 4599.9	5-7	0-2	5-8	0-2	5-8	0-2	5-8	0-2	5-8	0-3	5-8	1-8	5-8	1-9
4600.0 - 4999.9	5-8	0-2	5-8	0-2	5-8	0-2	5-8	0-3	5-9	7-10	5-9	7-10	6-9	7-10
5000.0 - 5499.9	6-8	0-2	6-9	2-5	6-9	5-10	6-9	5-10	6-9	5-10	6-9	5-10	6-9	2-5
5500.0 - 5999.9	6-9	1-3	6-9	5-10	6-9	5-10	6-10	5-10	6-9	5-10	6-9	2-6	6-9	2-6
6000.0 - 6399.9	6-9	1-5	6-9	5-9	7-9	5-9	7-9	5-10	7-9	4-8	7-9	4-8	7-9	4-8
6400.0 - 6999.9	6-9	4-8	6-9	5-9	7-9	4-8	7-9	4-8	7-9	4-8	7-9	4-8	7-9	3-6
7000.0 - 7599.9	6-9	4-8	6-9	4-8	7-9	3-6	7-9	4-8	7-9	4-8	7-9	4-8	7-9	2-5
7600.0 - 7999.9	6-9	4-8	6-9	4-8	6-9	2-6	7-9	2-6	7-9	2-6	7-9	2-6	7-9	2-4
8000.0 - 8499.9	6-9	3-6	6-9	4-8	6-9	1-4	7-9	1-4	7-9	1-4	7-9	1-4	7-9	2-4
8500.0 - 8999.9	7-10	3-6	7-10	2-6	7-10	2-5	7-10	1-4	7-10	1-4	7-10	1-4	7-10	1-4
9000.0 - 9499.9	7-11	3-6	7-10	2-6	7-10	2-5	7-10	1-4	7-10	1-4	7-10	1-4	7-10	1-4
9500.0 - 9999.9	7-11	2-5	7-11	1-4	7-11	1-4	7-11	1-4	7-10	0-3	7-10	0-3	7-10	0-3
10000.0 - 10499.9	7-11	2-5	7-11	1-4	7-11	1-4	7-11	0-3	7-11	0-3	7-11	0-3	7-11	0-3
10500.0 - 10999.9	7-11	1-4	7-11	1-4	7-11	0-3	7-11	0-3	7-11	0-3	7-11	0-3	7-11	0-3

TABLE 2 continued

FREQUENCY BANDS in T1135 kHz	AERIAL LENGTH T1135													
	9 m		10 m		11 m		12 m		13 m		14 m		15 m	
	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load	Reso-nance	Load
11000.0 - 11499.9	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3
11500.0 - 11999.9	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-3	8-11	0-4
12000.0 - 12499.9	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	0-5	10-13	0-5	10-13	0-5
12500.0 - 12999.9	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	0-5	10-13	0-5	10-13	0-5
13000.0 - 13499.9	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	0-5	10-13	0-5	10-13	0-5
13500.0 - 13999.9	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	0-5	10-13	0-5	10-13	0-5
14000.0 - 14499.9	10-13	0-4	10-13	0-4	10-13	0-4	10-13	0-5	10-13	1-6	11-13	1-6	11-13	0-5
14500.0 - 14999.9	10-13	0-4	10-13	0-4	10-13	0-4	11-13	0-5	11-13	1-6	11-13	1-6	11-13	1-6
15000.0 - 15599.9	11-13	1-5	11-13	1-5	11-13	1-5	11-13	0-5	11-13	1-6	11-13	1-6	11-13	1-6
15600.0 - 15999.9	11-13	1-5	11-13	1-5	11-13	1-5	11-13	1-6	11-13	1-6	12-14	1-5	12-14	1-5
16000.0 - 16499.9	11-13	1-5	11-13	1-5	11-13	1-5	12-14	1-6	12-14	2-5	12-14	1-5	12-14	1-5
16500.0 - 16999.9	11-13	1-4	11-13	1-4	11-13	1-4	12-14	2-5	12-14	2-5	12-14	1-5	12-14	1-5
17000.0 - 17499.9	11-13	1-4	11-14	1-4	11-14	2-5	12-14	2-5	12-14	2-5	11-14	1-5	11-14	1-5
17500.0 - 17999.9	11-13	1-4	11-14	2-5	11-14	2-6	12-14	2-5	12-14	1-5	12-14	0-4	12-14	0-4
18000.0 - 18999.9	12-15	0-4	11-14	2-5	11-14	1-5	12-14	1-5	12-14	1-4	12-14	0-4	12-14	0-4
19000.0 - 19999.9	12-15	0-4	12-15	2-5	11-14	1-5	12-14	1-5	12-14	1-4	12-14	0-4	12-14	0-4
20000.0 - 20999.9	13-15	0-4	12-15	1-5	11-14	0-5	12-14	0-5	12-14	0-4	12-14	0-4	12-15	0-4
21000.0 - 21999.9	13-15	0-4	12-15	0-4	12-15	0-4	12-15	0-4	12-15	0-4	12-15	0-4	13-15	0-4
22000.0 - 22999.9	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4	14-15	1-4
23000.0 - 23999.9	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
24000.0 - 24999.9	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
25000.0 - 25999.9	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
26000.0 - 26999.9	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
27000.0 - 27999.9	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4	14-15	0-4
Fixed 2182	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0	4-6	0

SUPPLEMENT 5 T 1135

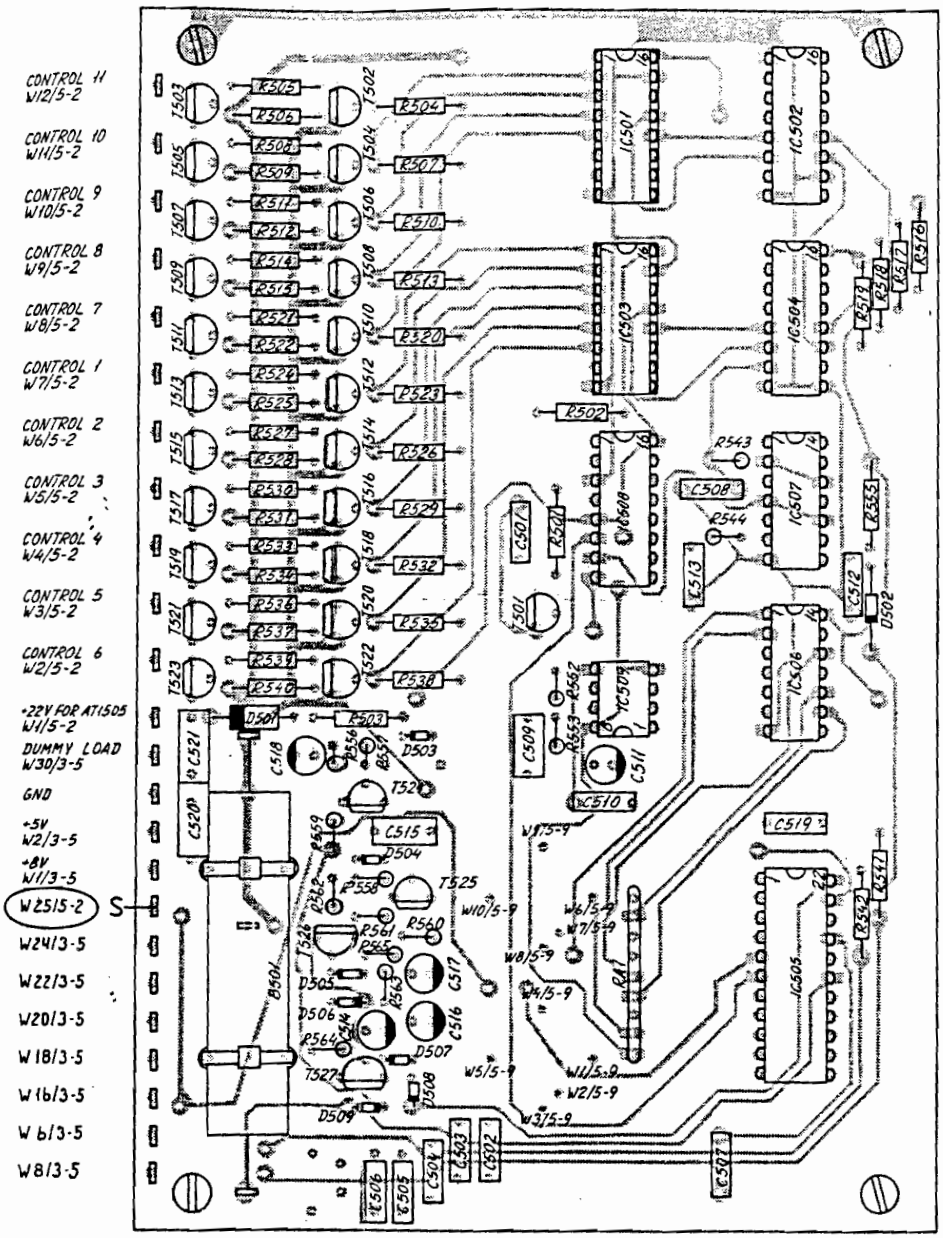
TABLE 2a.

This table covers all permitted RESONANCE and LOAD numbers.

FREQUENCY BANDS IN T1135 kHz	AERIAL LENGTH 9-15 m	
	Reso-nance	Load
1600.0 - 1799.9	4-7	0-1
1800.0 - 1999.9	4-7	0-1
2000.0 - 2199.9	4-7	0-1
2200.0 - 2399.9	4-7	0-1
2400.0 - 2599.9	4-7	0-1
2600.0 - 2799.9	4-7	0-2
2800.0 - 2999.9	4-7	0-2
3000.0 - 3099.9	4-7	0-2
3100.0 - 3399.9	4-7	0-6
3400.0 - 3699.9	4-7	0-6
3700.0 - 3999.9	4-7	0-6
4000.0 - 4299.9	5-7	0-10
4300.0 - 4599.9	5-7	0-10
4600.0 - 4999.9	5-7	0-10
5000.0 - 5499.9	5-7	0-9
5500.0 - 5999.9	5-8	0-9
6000.0 - 6399.9	6-9	0-9
6400.0 - 6999.9	6-9	0-9
7000.0 - 7599.9	6-10	0-9
7600.0 - 7999.9	6-11	0-9
8000.0 - 8499.9	6-11	0-9
8500.0 - 8999.9	6-11	0-8
9000.0 - 9499.9	7-11	0-8
9500.0 - 9999.9	8-12	0-8
10000.0 - 10499.9	8-12	0-8
10500.0 - 10999.9	9-12	0-8
11000.0 - 11499.9	9-12	0-8
11500.0 - 11999.9	9-12	0-7
12000.0 - 12499.9	10-13	0-7
12500.0 - 12999.9	10-13	0-7
13000.0 - 13499.9	10-13	0-7
13500.0 - 13999.9	10-13	0-7
14000.0 -14499.9	10-13	0-7
14500.0 - 14999.9	10-13	0-7

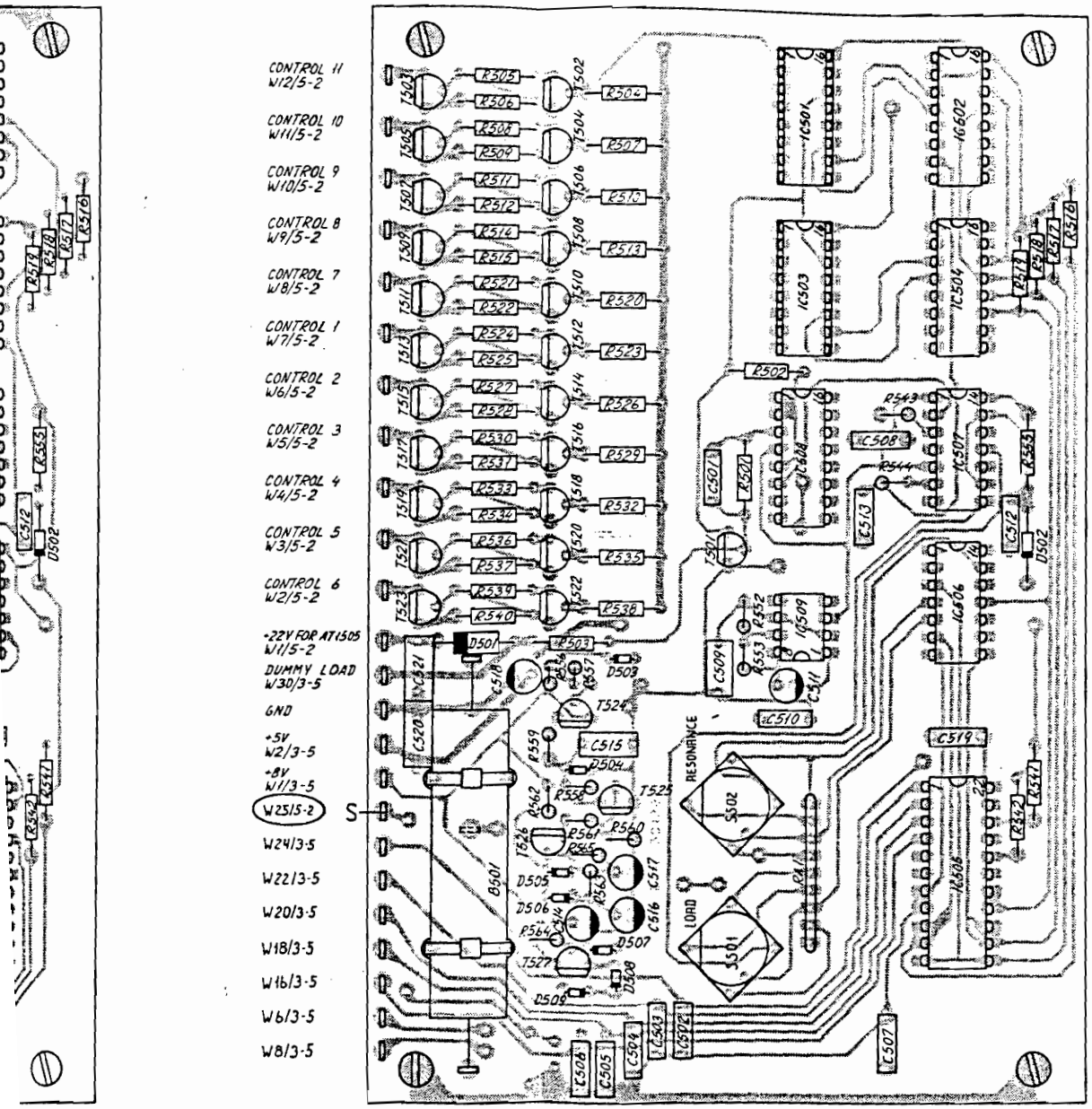
Table 2a continued

FREQUENCY BANDS IN T1135 kHz	AERIAL LENGTH 9-15 m	
	Reso-nance	Load
15000.0 - 15599.9	11-14	0-7
15500.0 - 15999.9	11-14	0-7
16000.0 - 16499.9	11-14	0-7
16500.0 - 16999.9	11-14	0-7
17000.0 - 17499.9	11-14	0-7
17500.0 - 17999.9	11-14	0-7
18000.0 - 18999.9	11-14	0-6
19000.0 - 19999.9	12-14	0-6
20000.0 - 20999.9	13-15	0-5
21000.0 - 21999.9	13-15	0-5
22000.0 - 22999.9	14-15	0-4
23000.0 - 23999.9	14-15	0-4
24000.0 - 24999.9	14-15	0-4
25000.0 - 25999.9	14-15	0-4
26000.0 - 26999.9	14-15	0-4
27000.0 - 27999.9	14-15	0-4
Fixed 2182	4-7	0-1



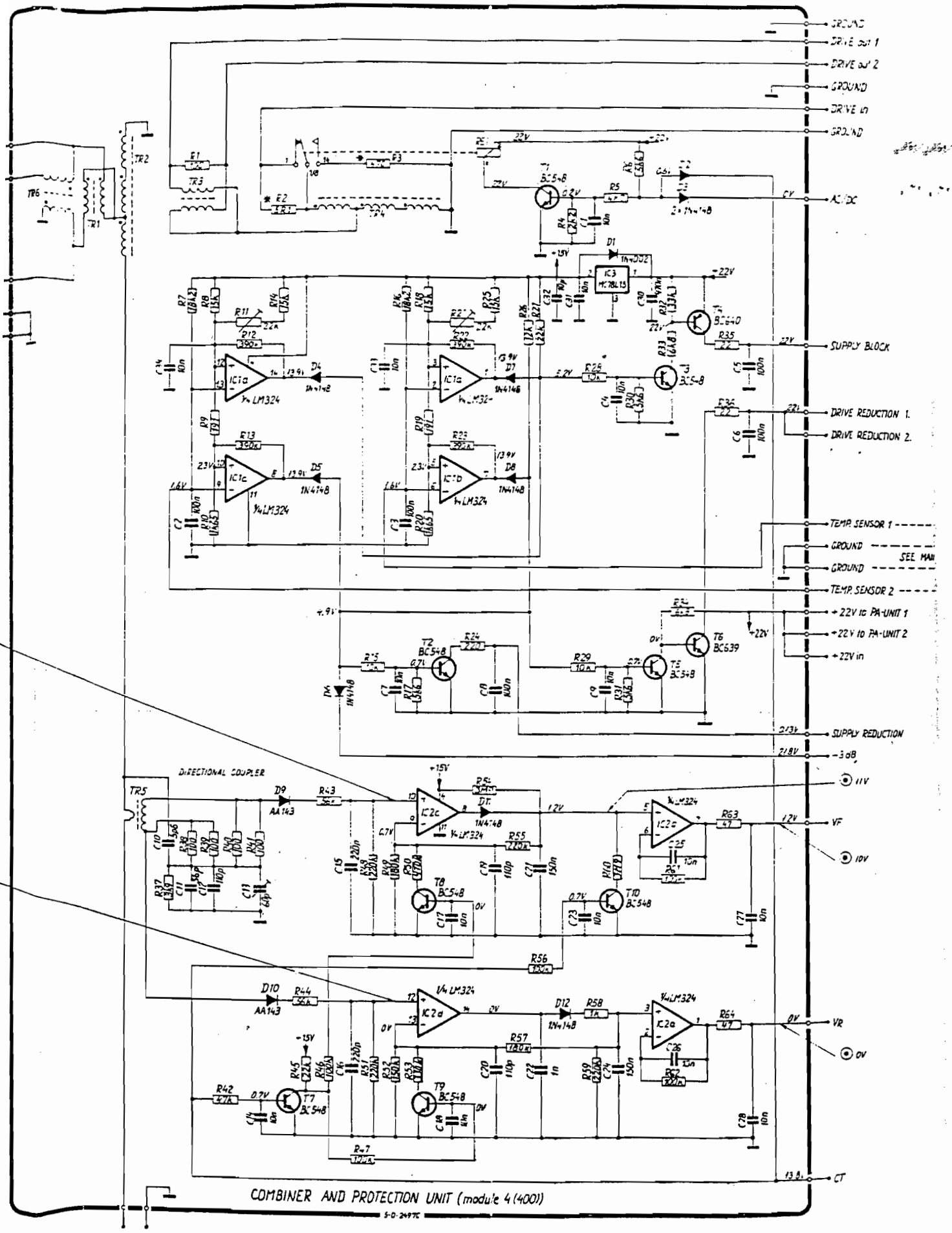
View from component side with upper side tracks.

TUNER CONTROL UNIT (MODULE 5/500)



cks.

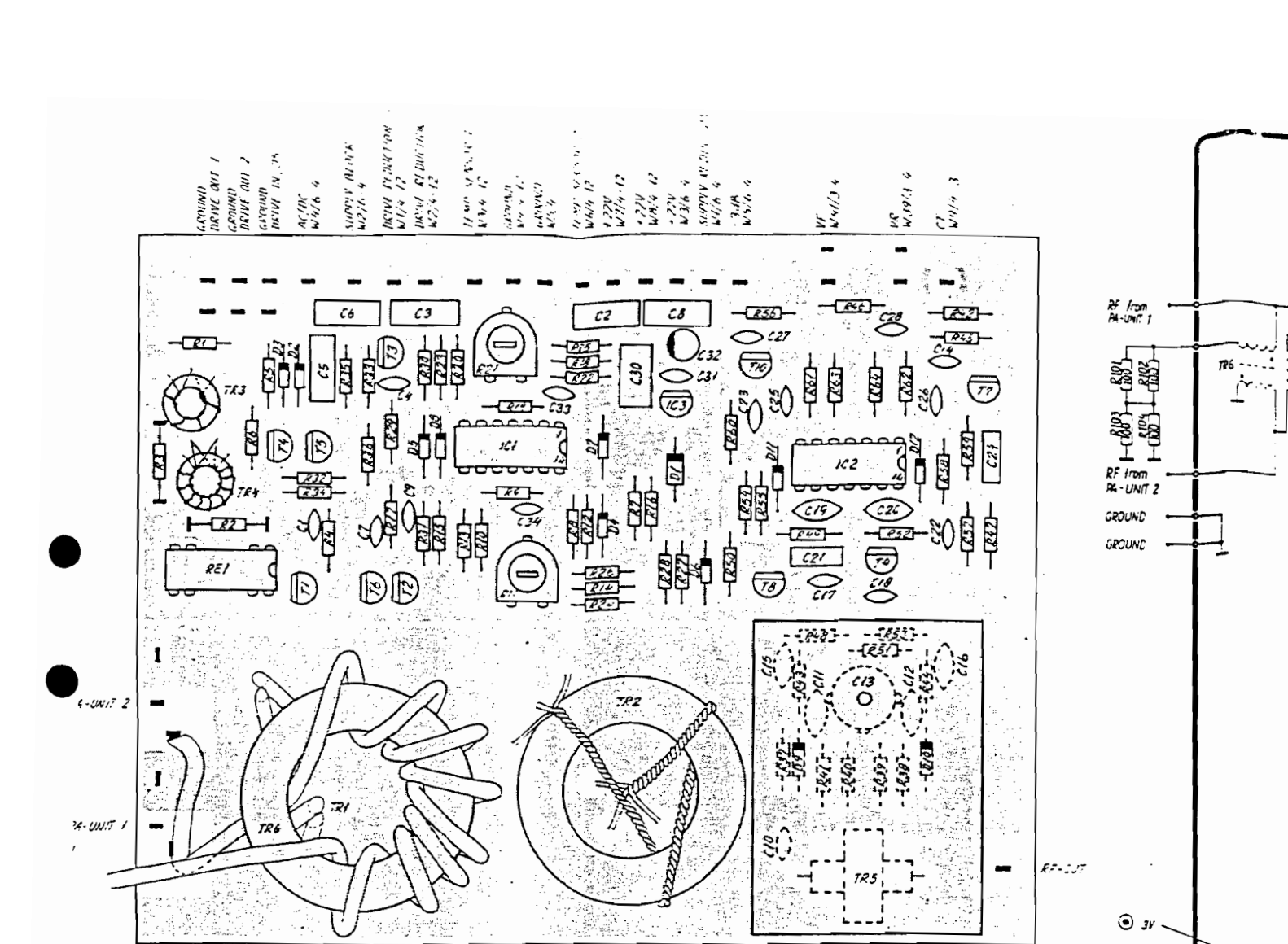
View from component side with lower side tracks.



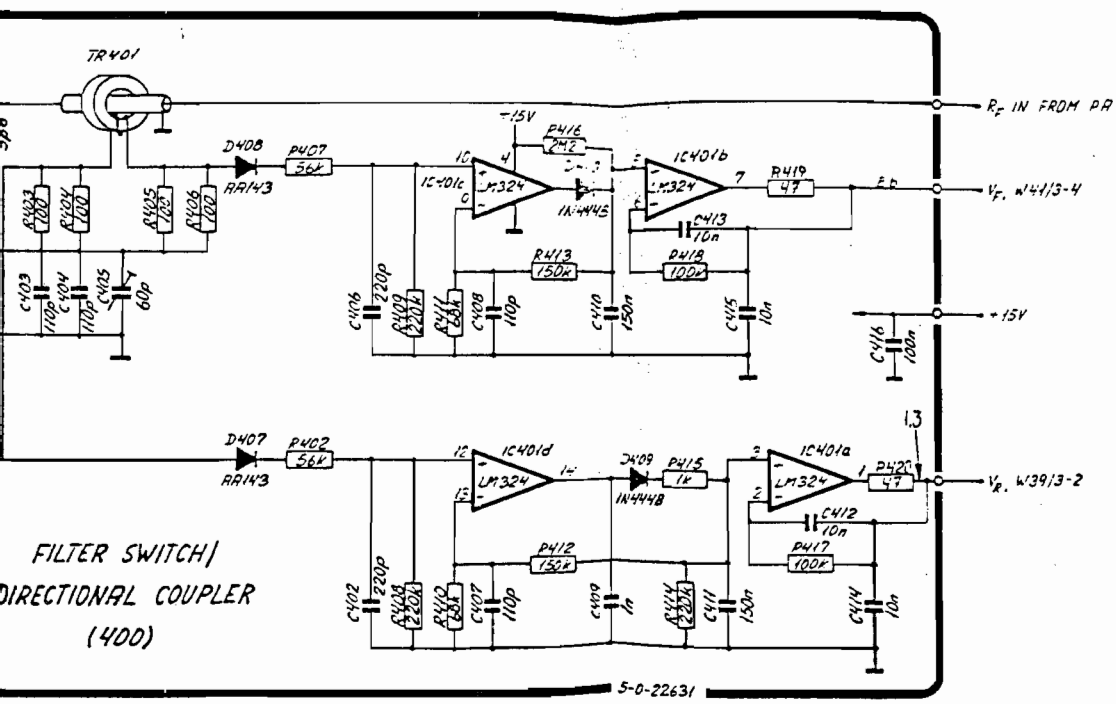
* Factory selected

Below serial no. 327896

R50=220k
R53=150k
R54=2M7



View from component side with upper side tracks.



Below serial nr. 333280

R410 = 100k

R411 = 100k

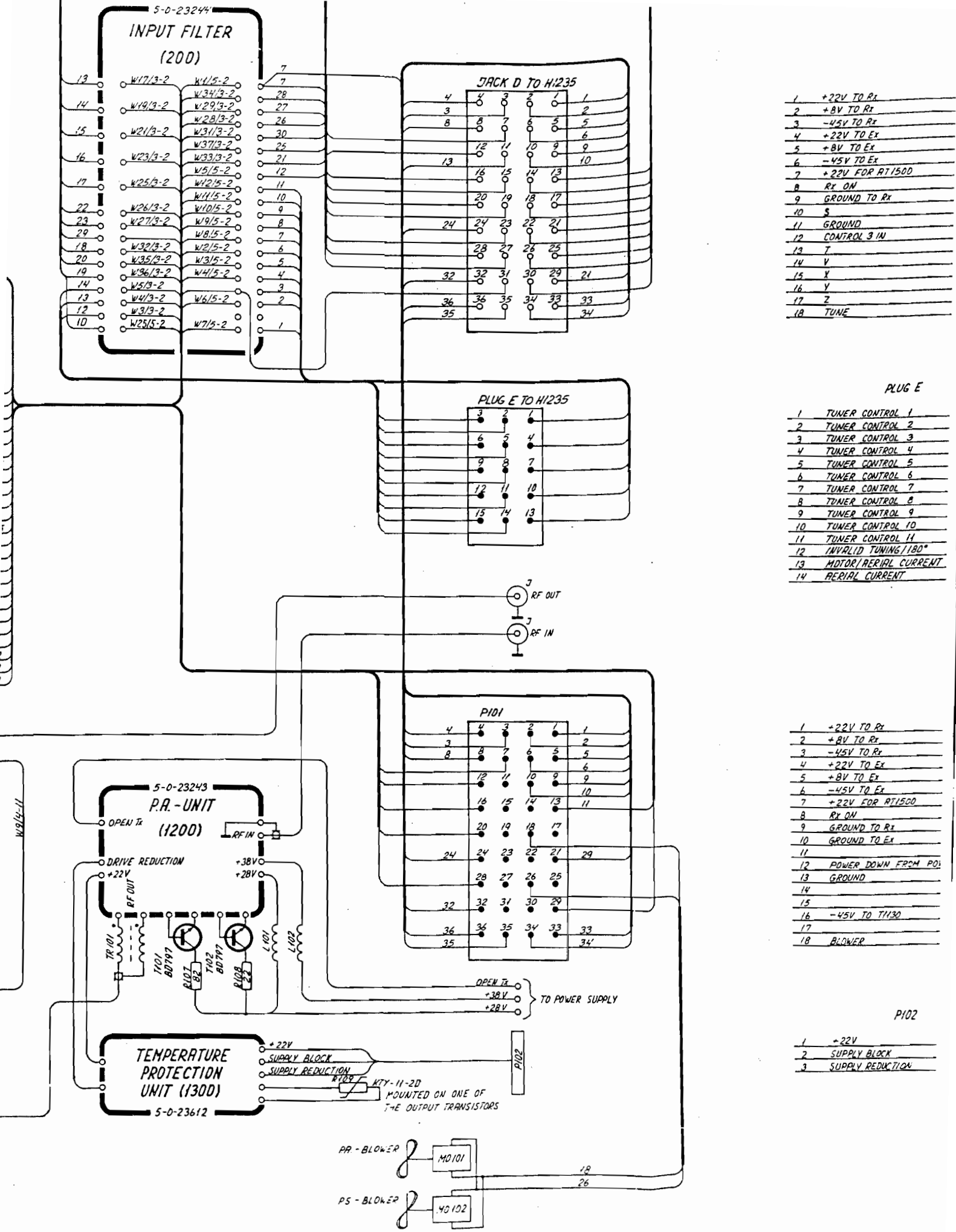
R416 = 2M7

Below serial

R410 = 100k

R411 = 100k

R416 = 2M7



1	+22V TO Rx
2	+8V TO Rx
3	-45V TO Rx
4	+22V TO Ex
5	+8V TO Ex
6	-45V TO Ex
7	+22V FOR RT1500
8	Rx ON
9	GROUND TO Rx
10	S
11	GROUND
12	CONTROL 3 IN
13	T
14	V
15	X
16	Y
17	Z
18	TUNE

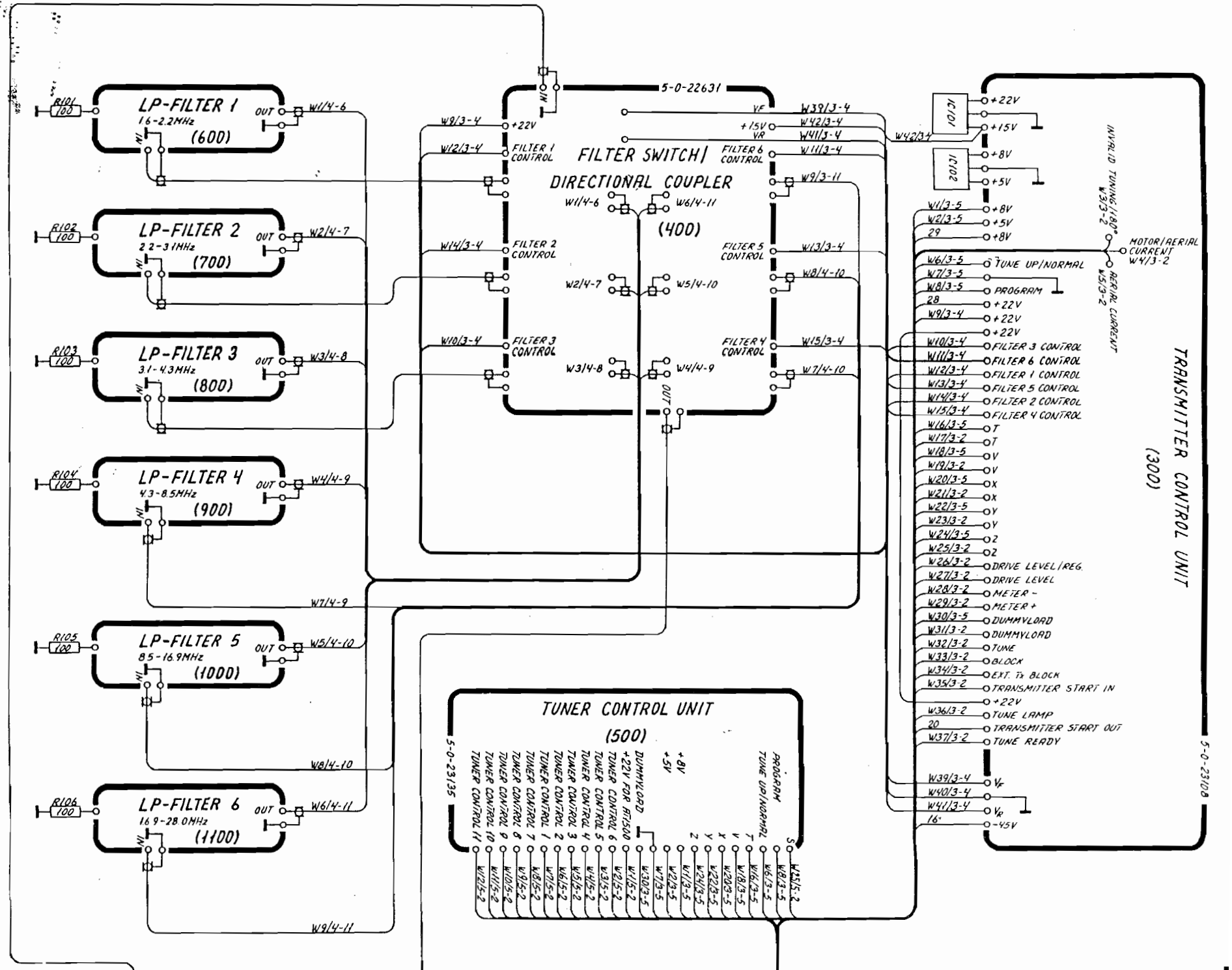
PLUG E

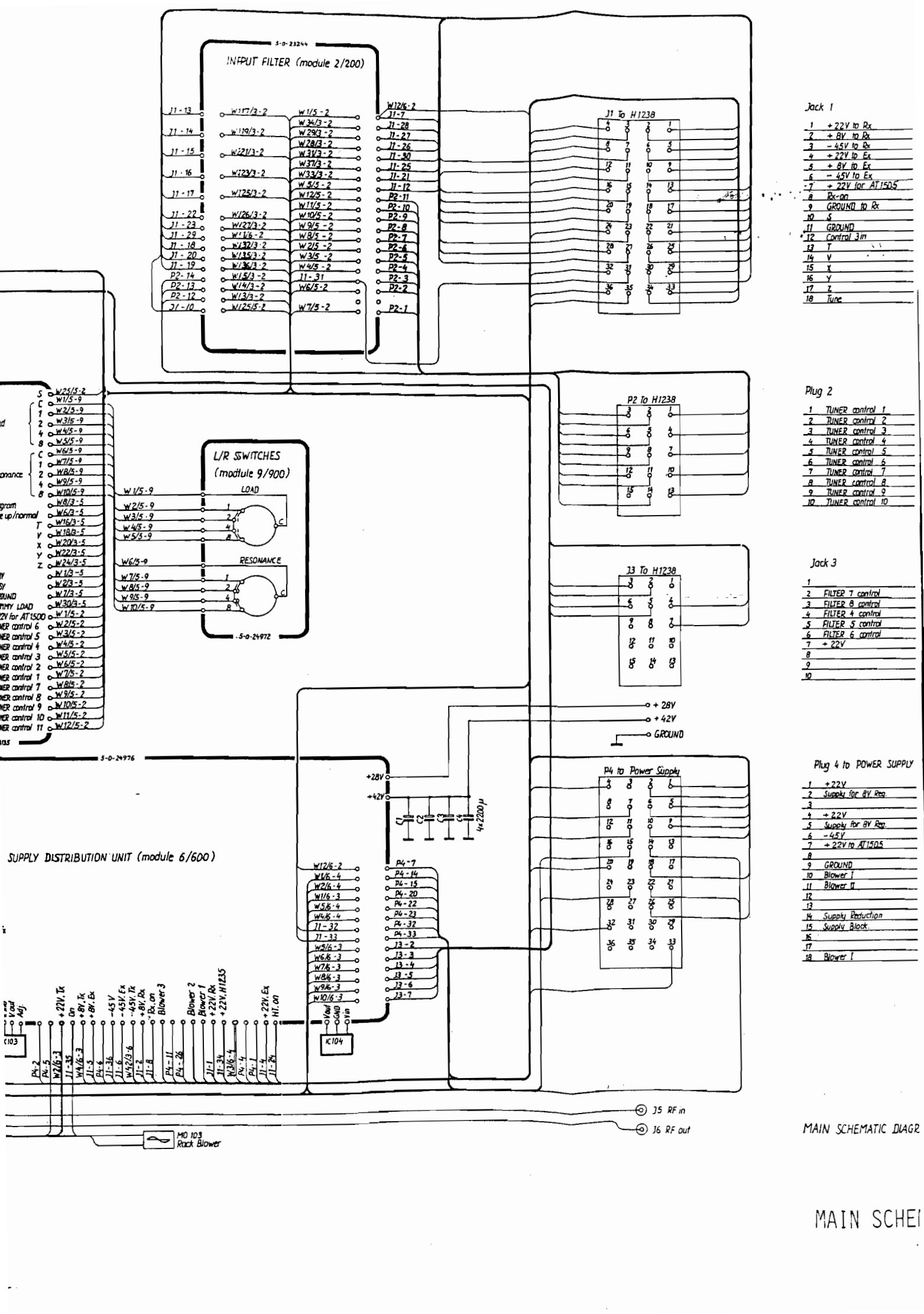
1	TUNER CONTROL 1
2	TUNER CONTROL 2
3	TUNER CONTROL 3
4	TUNER CONTROL 4
5	TUNER CONTROL 5
6	TUNER CONTROL 6
7	TUNER CONTROL 7
8	TUNER CONTROL 8
9	TUNER CONTROL 9
10	TUNER CONTROL 10
11	TUNER CONTROL 11
12	INVALID TUNING/180°
13	MOTOR/AERIAL CURRENT
14	AERIAL CURRENT

1	+22V TO Rx
2	+8V TO Rx
3	-45V TO Rx
4	+22V TO Ex
5	+8V TO Ex
6	-45V TO Ex
7	+22V FOR RT1500
8	Rx ON
9	GROUND TO Rx
10	GROUND TO Ex
11	
12	POWER DOWN FROM PO
13	GROUND
14	
15	
16	-45V TO TH30
17	
18	BLOWER

P102

1	+22V
2	SUPPLY BLOCK
3	SUPPLY REDUCTION


LP-FILTER 1
1.6-2.2MHz
(600)
LP-FILTER 2
2.2-3.1MHz
(700)
LP-FILTER 3
3.1-4.3MHz
(800)
LP-FILTER 4
4.3-8.5MHz
(900)
LP-FILTER 5
8.5-16.9MHz
(1000)
LP-FILTER 6
16.9-28.0MHz
(1100)
R101 100
R102 100
R103 100
R104 100
R105 100
R106 100
IN
OUT
W1/4-6
W2/4-7
W3/4-8
W4/4-9
W5/4-10
W6/4-11
W7/4-9
W8/4-10
W9/4-11
5-0-22631
FILTER SWITCH/
DIRECTIONAL COUPLER
(400)
W1/4-6
W6/4-11
W2/4-7
W5/4-10
W3/4-8
W4/4-9
W9/3-4 +22V
W12/3-4 FILTER 1 CONTROL
W14/3-4 FILTER 2 CONTROL
W10/3-4 FILTER 3 CONTROL
VF W39/3-4
+15V W42/3-4
VR W41/3-4
FILTER 6 CONTROL W11/3-4
W9/3-11
FILTER 5 CONTROL W13/3-4
W8/4-10
FILTER 4 CONTROL W15/3-4
W7/4-10
IC101
IC102
W42/3-4
+22V
+15V
+8V
+5V
W1/3-5 +8V
W2/3-5 +5V
29 +8V
INVALID TUNING/180° W3/3-2
MOTOR/AERIAL CURRENT W4/3-2
AERIAL CURRENT W5/3-2
W6/3-5 TUNE UP/NORMAL
W7/3-5
W8/3-5 PROGRAM
28 +22V
W9/3-4 +22V
+22V
W10/3-4 FILTER 3 CONTROL
W11/3-4 FILTER 6 CONTROL
W12/3-4 FILTER 1 CONTROL
W13/3-4 FILTER 5 CONTROL
W14/3-4 FILTER 2 CONTROL
W15/3-4 FILTER 4 CONTROL
W16/3-5 T
W17/3-2 T
W18/3-5 V
W19/3-2 V
W20/3-5 X
W21/3-2 X
W22/3-5 Y
W23/3-2 Y
W24/3-5 Z
W25/3-2 Z
W26/3-2 DRIVE LEVEL/REG.
W27/3-2 DRIVE LEVEL
W28/3-2 METER -
W29/3-2 METER +
W30/3-5 DUMMYLOAD
W31/3-2 DUMMYLOAD
W32/3-2 TUNE
W33/3-2 BLOCK
W34/3-2 EXT. Tx BLOCK
W35/3-2 TRANSMITTER START IN
+22V
W36/3-2 TUNE LAMP
20 TRANSMITTER START OUT
W37/3-2 TUNE READY
W39/3-4 VF
W40/3-4
W41/3-4 VR
16 -45V
TRANSMITTER CONTROL UNIT
(300)
5-0-23108
TUNER CONTROL UNIT
(500)
5-0-23135
TUNER CONTROL 11
TUNER CONTROL 10
TUNER CONTROL 9
TUNER CONTROL 8
TUNER CONTROL 7
TUNER CONTROL 6
TUNER CONTROL 5
TUNER CONTROL 4
TUNER CONTROL 3
TUNER CONTROL 2
TUNER CONTROL 1
+22V FOR RT-500
DUMMYLOAD
+8V
+5V
Z
Y
X
V
T
TUNE UP/NORMAL
PROGRAM
S
W12/5-2
W11/5-2
W10/5-2
W9/5-2
W8/5-2
W7/5-2
W6/5-2
W5/5-2
W4/5-2
W3/5-2
W2/5-2
W1/5-2
W30/3-5
W7/3-5
W21/3-5
W1/3-5
W24/3-5
W22/3-5
W20/3-5
W18/3-5
W16/3-5
W6/3-5
W8/3-5
W25/5-2



Jack 1

1	+ 22V to Rx
2	+ 8V to Rx
3	- 45V to Rx
4	+ 22V to Ex
5	+ 8V to Ex
6	- 45V to Ex
7	+ 22V for AT1505
8	Rx-on
9	GROUND to Rx
10	S
11	GROUND
12	Control 3 in
13	T
14	V
15	X
16	Y
17	Z
18	Tune

Plug 2

1	TUNER control 1
2	TUNER control 2
3	TUNER control 3
4	TUNER control 4
5	TUNER control 5
6	TUNER control 6
7	TUNER control 7
8	TUNER control 8
9	TUNER control 9
10	TUNER control 10

Jack 3

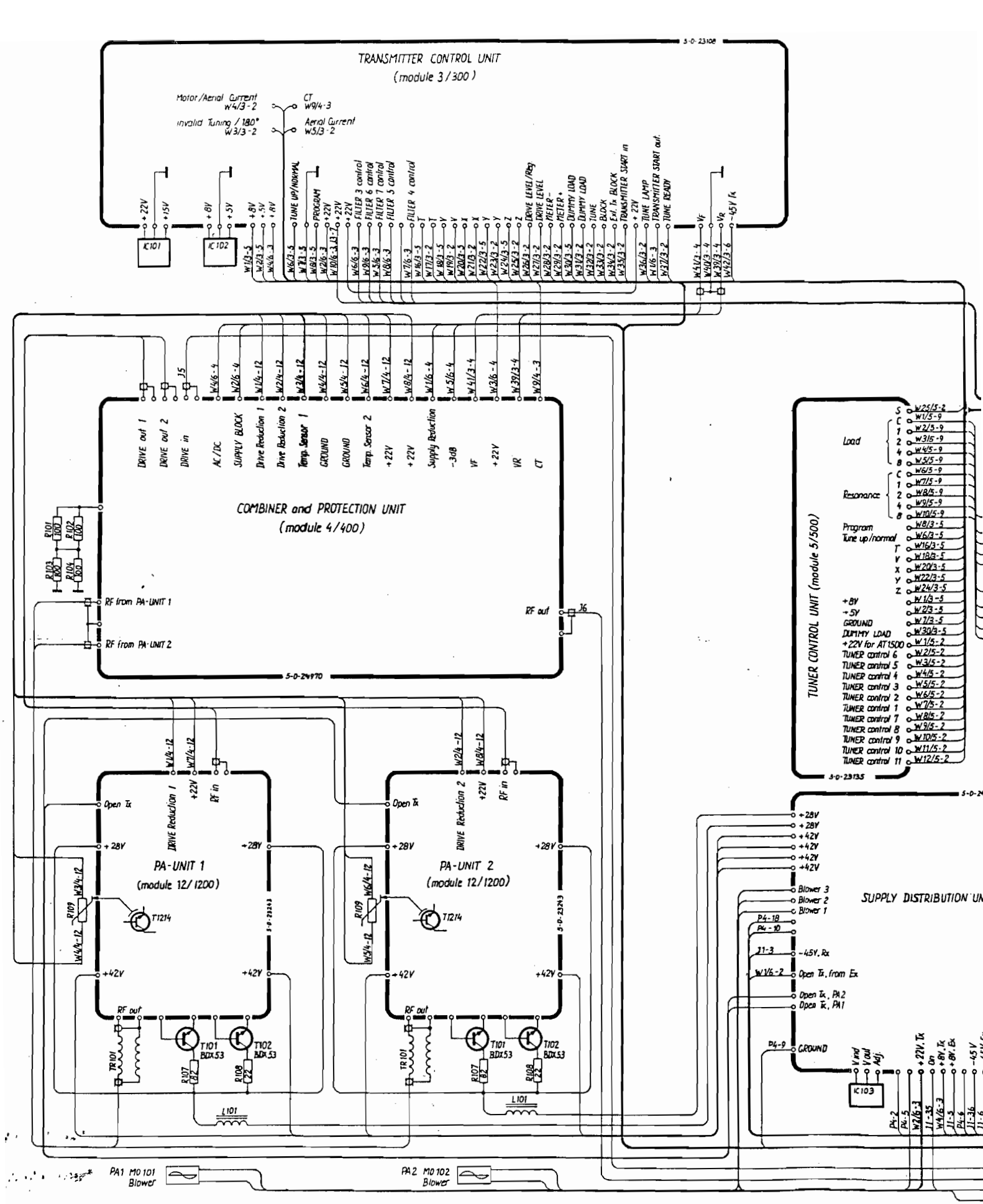
1	
2	FILTER 7 control
3	FILTER 8 control
4	FILTER 4 control
5	FILTER 5 control
6	FILTER 6 control
7	+ 22V
8	
9	
10	

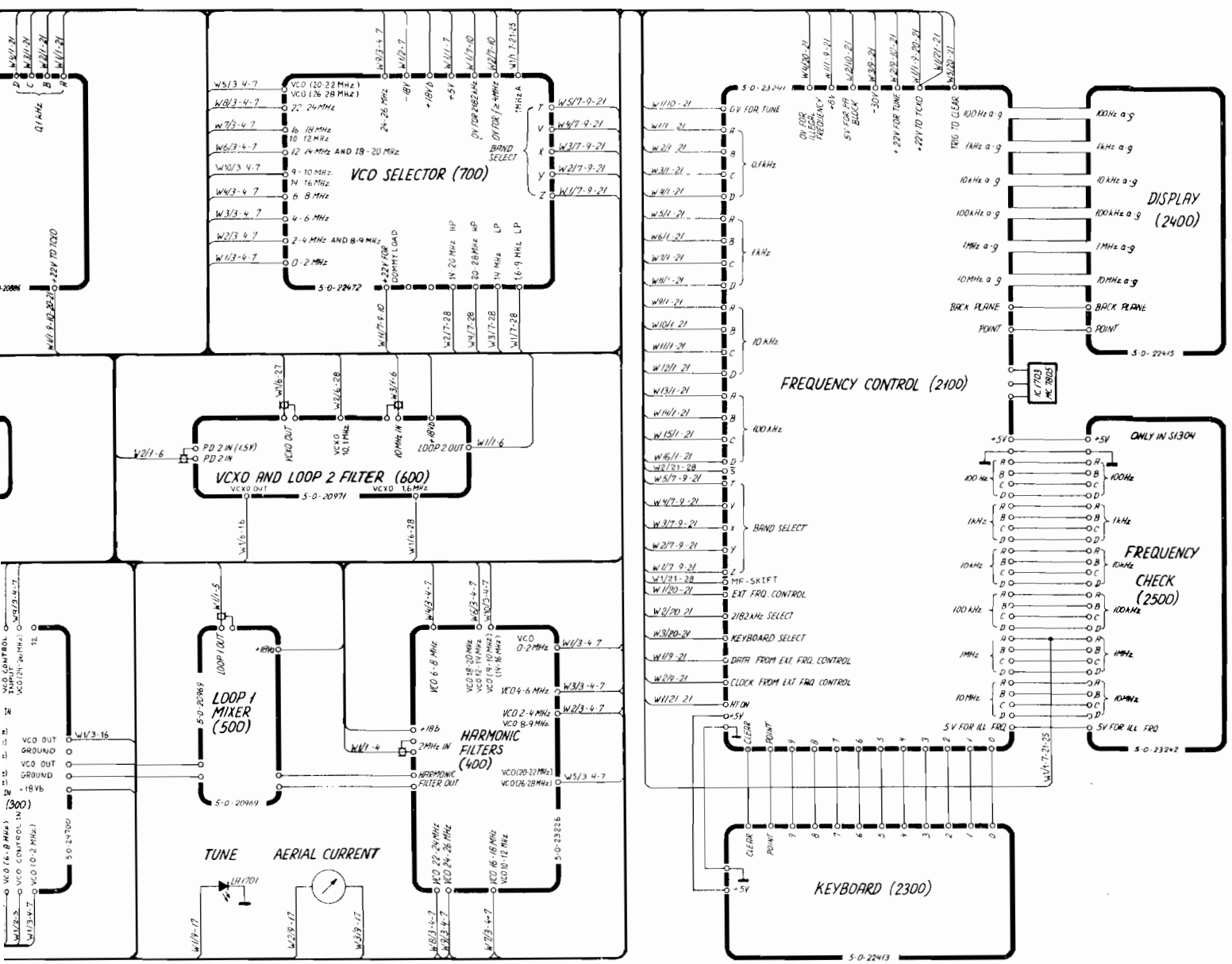
Plug 4 to POWER SUPPLY

1	+ 22V
2	Supply for 8V Reg.
3	
4	+ 22V
5	Supply for 8V Reg.
6	- 45V
7	+ 22V to AT1505
8	
9	GROUND
10	Blower I
11	Blower II
12	
13	
14	Supply Reduction
15	Supply Block
16	
17	
18	Blower I

MAIN SCHEMATIC DIAGR

MAIN SCHE

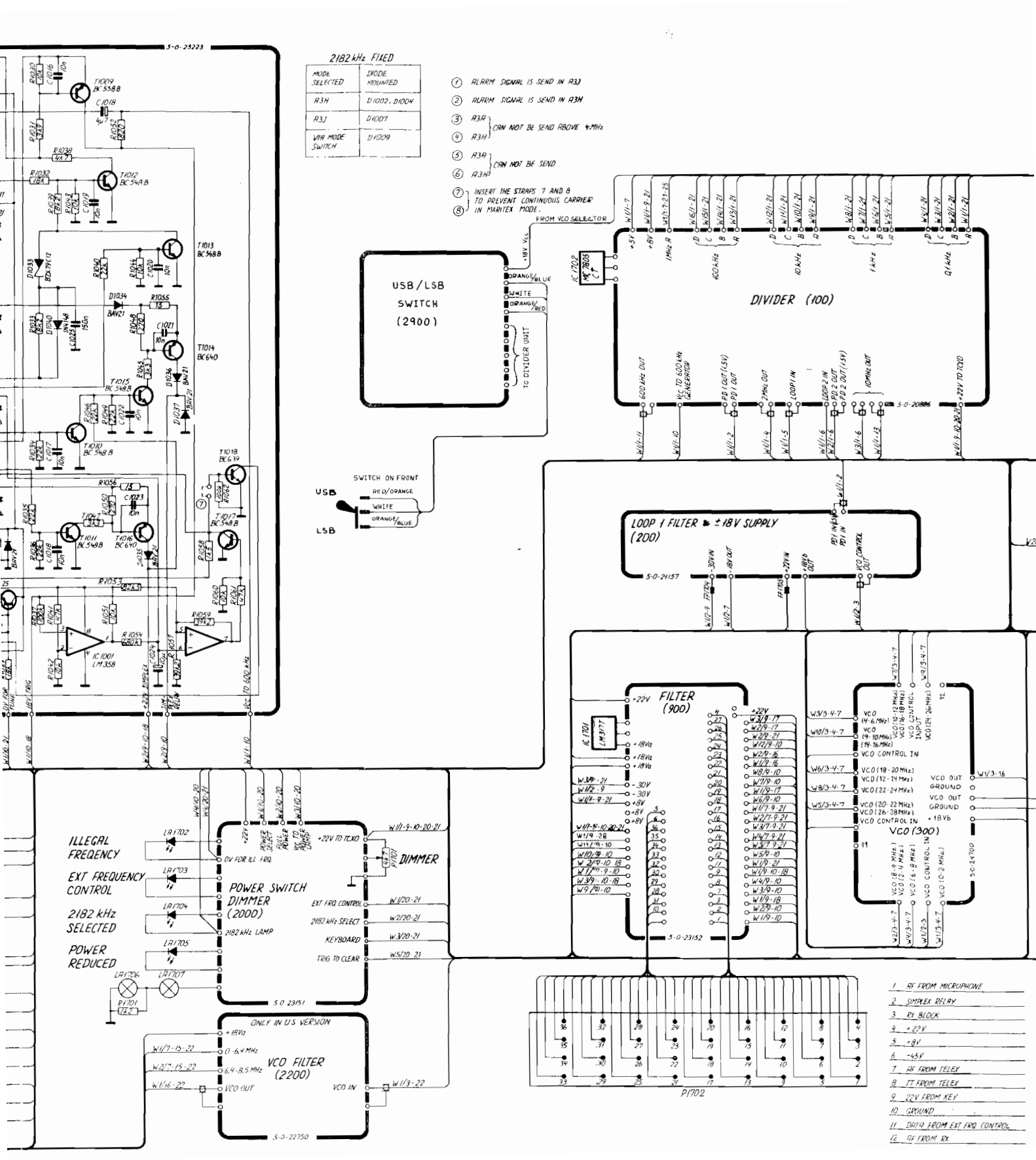

TRANSMITTER CONTROL UNIT
(module 3/300)
COMBINER and PROTECTION UNIT
(module 4/400)
TUNER CONTROL UNIT (module 5/500)
PA-UNIT 1
(module 12/1200)
PA-UNIT 2
(module 12/1200)
SUPPLY DISTRIBUTION UN
PA1 M0101 Blower
PA2 M0102 Blower

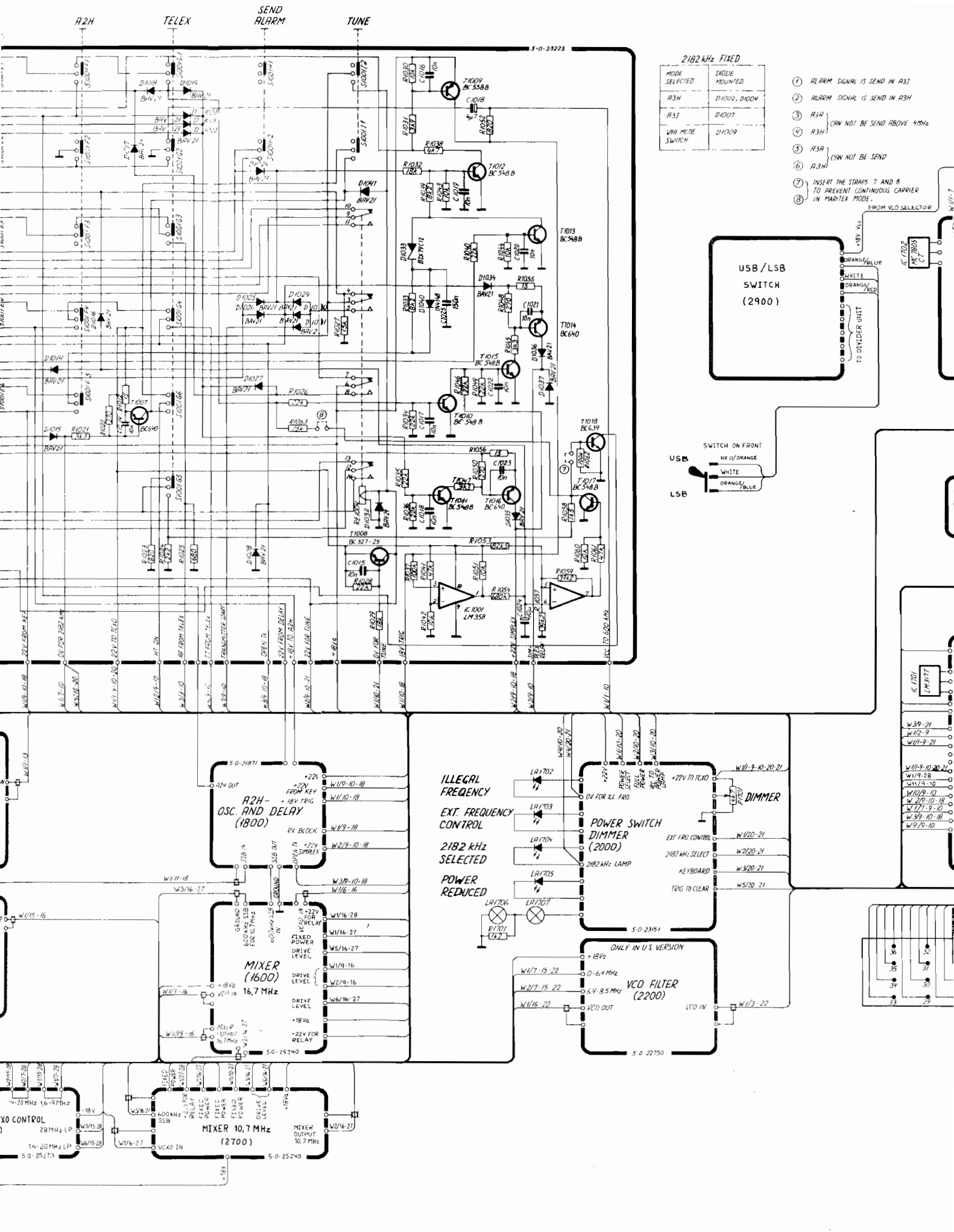


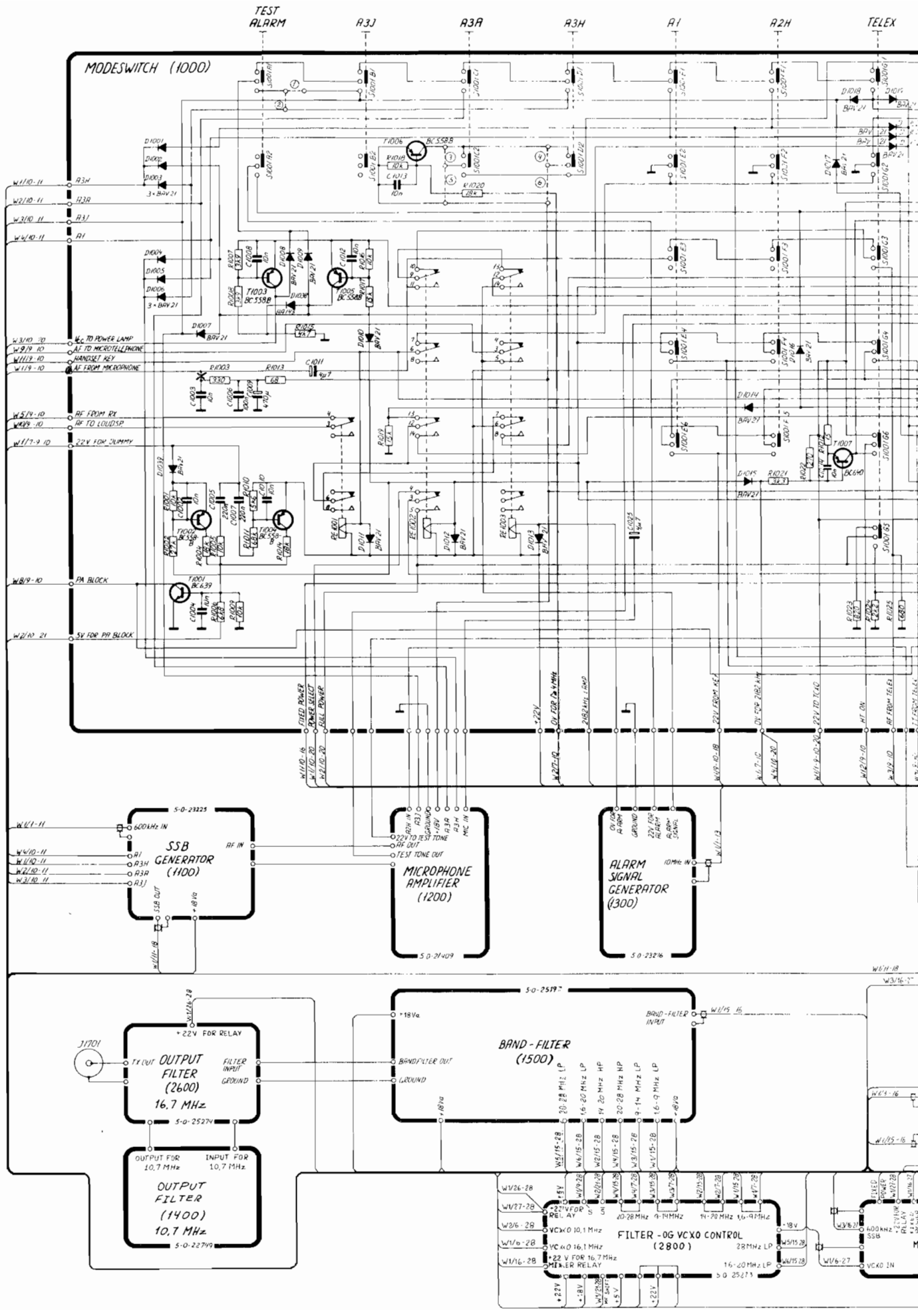
E FROM MICROPHONE	13 T	25 CLOCK FROM EXT FRQ. CONTROL
MAEL RELAY	14 V	26 AERIAL METER 1
K BLOCK	15 X	27 AERIAL METER 2
22V	16 Y	28 AF TO MICROTELEPHONE
8V	17 Z	29 OPEN TX
5V	18 22V FOR TUNE	30 22V FOR DUMMY LOAD
C FROM TELEX	19 TO TUNE LAMP	31 GROUND FOR MIC AND TELEX
R FROM TELEX	20 TRANSMITTER START	32 + 22V SIMPLEX
V FROM KEY	21 PA BLOCK	33 AF TO LOUDSPEAKER
POINT	22 DRIVE LEVEL 1	34 HANDSET KEY
TA FROM EXT FRQ. CONTROL	23 DRIVE LEVEL 2	35 S-BIT
E FROM TX	24 HT ON	36 + 22V TO TCXO

MAIN SCHEMATIC DIAGRAM FOR SAILOR EXCITER S1303/S130

WITH OPTION I


2182 kHz FIXED
MODE SELECTED
DIODE MOUNTED
A3H
D1002, D1004
A3J
D1007
VIA MODE SWITCH
D1009
1 ALARM SIGNAL IS SEND IN A3J
2 ALARM SIGNAL IS SEND IN A3H
3 A3A
4 A3H
CAN NOT BE SEND ABOVE 4 MHz
5 A3A
6 A3H
CAN NOT BE SEND
7 INSERT THE STRAPS 7 AND 8
8 TO PREVENT CONTINUOUS CARRIER IN MARITEX MODE.
FROM VCO SELECTOR
USB/LSB SWITCH (2900)
TO DIVIDER UNIT
DIVIDER (100)
SWITCH ON FRONT
USB
LSB
LOOP 1 FILTER & ±18V SUPPLY (200)
FILTER (900)
VCO (300)
VCO (14-16 MHz)
VCO (10-12 MHz)
VCO (16-18 MHz)
VCO (18-20 MHz)
VCO (12-14 MHz)
VCO (22-24 MHz)
VCO (20-22 MHz)
VCO (26-28 MHz)
VCO CONTROL IN
VCO OUT
GROUND
+18Vb
ILLEGAL FREQENCY
EXT FREQUENCY CONTROL
2182 kHz SELECTED
POWER REDUCED
POWER SWITCH DIMMER (2000)
DIMMER
2182 kHz LAMP
EXT FRQ CONTROL
2182 kHz SELECT
KEYBOARD
TRIG TO CLEAR
ONLY IN U.S VERSION
VCO FILTER (2200)
VCO IN
VCO OUT
P1702
1 RF FROM MICROPHONE
2 SIMPLEX RELAY
3 RX BLOCK
4 +22V
5 +8V
6 -45V
7 RF FROM TELEX
8 TT FROM TELEX
9 22V FROM KEY
10 GROUND
11 DATA FROM EXT FRQ CONTROL
12 RF FROM RX


A2H
TELEX
SEND ALARM
TUNE
5-0-28223
2182 kHz FIXED
MODE SELECTED
DIODE MOUNTED
A3H
D1002, D1004
A3J
D1007
VIA MODE SWITCH
D1009
1 ALARM SIGNAL IS SEND IN A3J
2 ALARM SIGNAL IS SEND IN A3H
3 A3A
4 A3H
CAN NOT BE SEND ABOVE 4MHz
5 A3A
6 A3H
CAN NOT BE SEND
7
8
INSERT THE STRAPS 7 AND 8 TO PREVENT CONTINUOUS CARRIER IN MARITEX MODE.
FROM VCO SELECTOR
USB/LSB SWITCH (2900)
TO DIVIDER UNIT
SWITCH ON FRONT
USB
LSB
A2H- OSC. AND DELAY (1800)
MIXER (1600) 16,7 MHz
ILLEGAL FREQUENCY
EXT. FREQUENCY CONTROL
2182 kHz SELECTED
POWER REDUCED
POWER SWITCH DIMMER (2000)
DIMMER
VCO FILTER (2200)
ONLY IN U.S. VERSION
MIXER 10,7 MHz (2700)



S1303/4-I
4-0-25396