



Sailor

Sailor

GAMME 2 MODEL!

**INSTRUKTIONSBOG FOR
SAILOR S1300**

**INSTRUCTION BOOK FOR
SAILOR S1300**



A/S S. P. RADIO · AALBORG · DENMARK

GENERAL DESCRIPTION

SAILOR S1300 is a telephony exciter for use in conjunction with the transmitter T1127.

SAILOR S1300 can be programmed for 240 channels free selected in the frequency range 1.6 - 4.0 MHz and the 4, 6, 8, 12, 16, 22 and 25 MHz maritime HF bands.

SAILOR S1300 channel programming is extremely easy with normal hand tools, no instruments are required.

SAILOR S1300 uses a digital synthesizer for frequency generation. The frequency stability is controlled from one 10 MHz TCXO.

SAILOR S1300 produces completely finished signals on the transmission frequency.

SAILOR S1300 has possibility for the following transmission modes A3J, A3A and A3H.

SAILOR S1300 is provided with a built-in alarm signal generator for distress calls.

SAILOR S1300 fits into SAILOR 19" rack system.

SAILOR S1300 is supplied from N1400 (24V DC) or N1401 (AC mains).

SAILOR S1300 is prepared for connection to telex.

CONTENS:

GENERAL DESCRIPTION.....	1
TECNICAL DATA.....	3
CONTROLS.....	4
PRINCIPLE OF OPERATION.....	5
EXCITER S1300.....	5
FREQUENCY GENERATION.....	6
FREQUENCY PROGRAMMING.....	9
FREQUENCY TABLE.....	11

DIAGRAMS

MAIN DIAGRAM

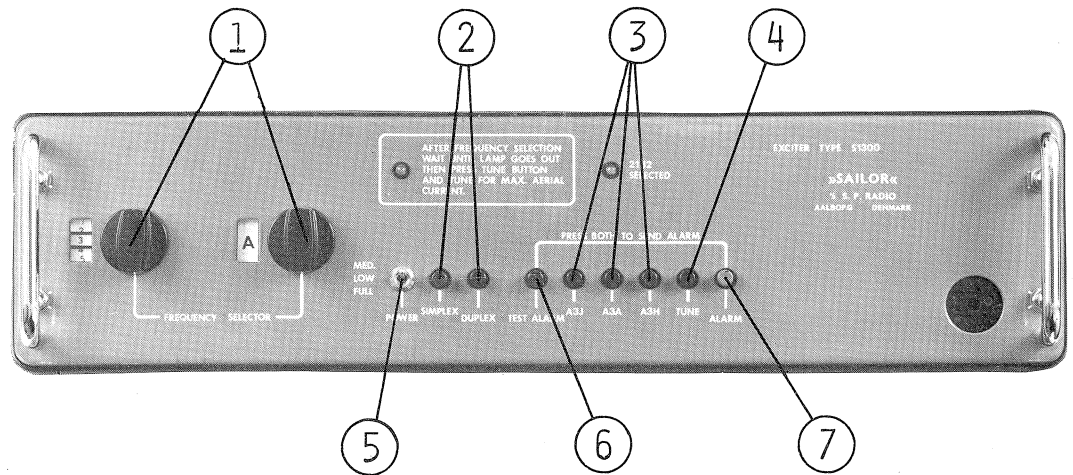
PARTS LISTS

TECHNICAL DATA

The exciter S1300 delivers USB signals on the channel frequency.

<u>Number of channels:</u>		240 channels free selected in the maritime MF and HF bands (resolution 100 Hz).
<u>Frequency range:</u>	MF:	1.6 - 4.0 MHz
	HF:	4, 6, 8, 12, 22 and 25 MHz maritime bands.
<u>Frequency stability:</u>		
Temperature range 0°C to +40°C:		Less than ± 1 ppm (± 25 Hz)
Long term stability :		Less than ± 1 ppm (± 25 Hz) p.a.
Short term stability :		Less than ± 2 Hz
<u>Mode of operation:</u>		A3J, A3A and A3H
<u>Distress call:</u>		Automatic A3H on 2182 kHz Two-Tone-Alarm: 1300 and 2200 Hz with a duration of 45 secs.
<u>Output power:</u>		1 Watt PEP/50 ohm
<u>Output power reduction:</u>		Three steps: 0 dB - 6 dB - 12 dB
<u>Modulation:</u>		350 - 2700 Hz with compressor
<u>Temperature range:</u>		-15°C to +55°C

CONTROLS



- ① FREQUENCY SELECTORS
By means of the Frequency Selectors, 240 pre-programmed frequencies can be selected in four groups A-B-C-D with 60 positions in each group.
- ② SIMPLEX, DUPLEX
Press button SIMPLEX for Single-Frequency Operation.
Press button DUPLEX for Two-Frequency Operation.
- ③ A3J, A3A and A3H
Select transmission mode A3J, A3A or A3H.
- ④ TUNE
For tuning of Transmitter T1127, a two-tone signal is generated.
- ⑤ POWER
For reducing the RF-output-Power in three steps.
FULL = 0 dB, MED = -6 dB, LOW = -12 dB.
- ⑥ TEST ALARM
Press button TEST ALARM and the two-tone-alarm signal will be heard in the microtelephone handset.
- ⑦ ALARM
Press both TEST ALARM (6) and ALARM (7) for transmitting two-tone-alarm signal in the DISTRESS frequency 2182 kHz.

Third Mixer is a double balanced mixer where both the local-oscillator-signal f_{LO2} and 2nd IF-signal f_{IF2} is suppressed. The output from the mixer is the carrier frequency f_{TX} , with the upper side-band. The band filter section serves the purpose of removing all undesired mixing products and the signal passes from the Band-Filters to the Driver-Unit where the final amplification to max. 1 Watt PEP/50 ohm takes place.

FREQUENCY GENERATION

The necessary frequencies are generated by two frequency synthesizers according to the Phase-Locked-Loop principle.

Local oscillator signal f_{LO2} to Third-Mixer is generated in the Phase-Locked-Loop 1 and have a resolution of 1 kHz.

Local oscillator signal f_{LO1} to Second-Mixer is generated in the Phase-Locked-Loop 2 and has a resolution of 100 Hz.

LOOP 1

The voltage-controlled oscillator (VCO) generates the necessary local oscillator frequencies in nine 2 MHz bands electronically selected by the MHz Selector via the Band and the Motor Control Unit. Inside each 2 MHz band the VCO-frequency f_{LO2} can be varied by means of a DC-control voltage from the Phase-Detector. The DC-control-voltage is filtered in the Loop 1 - Filter.

The Phase-Detector received two signals, one variable frequency f_V and one reference frequency f_R . The reference frequency f_R is a result of the 10 MHz TCXO frequency being divided down to 1 kHz.

The variable frequency f_V is generated from the VCO-frequency f_{LO2} in the following way:

In the Loop 1 Mixer the counter frequency f_T is produced from the VCO frequency f_{LO2} and the frequency f_{HARM} which is a multiple of 2 MHz. The 2 MHz signal is generated from the 10 MHz TCXO

$$f_T = f_{LO2} - f_{HARM} = f_{LO2} - (m \times 2 \text{ MHz}) = N_1 \times 1 \text{ kHz}$$

For every 2 MHz band a new f_{HARM} is selected of the MHz - Selector and it always results in only a variation of 2 MHz of the frequency f_T to the Programmable-Divider.

The frequency f_T is divided down by the dividing figure N_1 in the Programmable-Divider to the variable frequency f_V

$$f_V = f_T / N_1 = 1 \text{ kHz}$$

The working principle in a Phase-Locked-Loop is the following:

If there is a phase error between the variable frequency f_V and the reference frequency f_R , the regulation system has the characteristic that the DC-Control Voltage will correct the VCO-frequency and consequently the variable frequency f_V , so that f_V will always follow the reference frequency f_R in phase

$$f_R = f_V = 1 \text{ kHz}$$

The VCO-frequency f_{L02} is now phase locked on a fixed frequency to the reference frequency f_R and has therefore the same accuracy as this.

Changing of the VCO-frequency f_{L02} by e.g. 1 kHz can be performed by changing the dividing figure N_1 in the Programmable Divider by one.

$$f_{L02} = f_{HARM} + (N_1 \times 1 \text{ kHz})$$

Principle of programming is as follows:

The Programmable Divider contains a counter circuit, which is counting down from a start-figure $2000 + P_1$ and stops at the stop-figure S_1 . Each time the counter reaches the stop-figure S_1 , a pulse (f_V) is given to the Phase Detector, and the counter will start counting down again from the start figure $2000 + P_1$. Division of f_T by N_1 has now been achieved

$$f_V = f_T/N_1; N_1 = 2000 + P_1 - S_1$$

A special code from the MHz Selector to the Band and Motor-control-unit selects the right 2 MHz band for the VCO and Harm-Filter.

Inside each 2 MHz band the programmable figure P_1 , is encoded from the Frequency Selector (MHz and kHz positions) in BCD-code representing the direct frequency reading of the 2 MHz band.

$$0 \leq P_1 \leq 1999$$

$$\text{Start-figure: } 2000 + P_1$$

$$\text{Stop-figure : } -699$$

$$N_1 = 2000 + P_1 - S_1 = P_1 + 2699$$

Output frequency from Loop 1:

$$f_{L02} = m \times 2 \text{ MHz} + (P_1 + 2699) \times 1 \text{ kHz} \quad 4 \leq m \leq 16$$

LOOP 2

Phase-Locked-Loop 2 has a frequency variation of 1 kHz with a resolution of 100 Hz and the working principle is the same as for Phase-Locked-Loop 1. Principle of programming is as follows:

The frequency shift in Loop 2 is controlled from the 100 Hz Selector.

The Programmable Divider is counting up from the start-figure P_2 to the stop-figure S_2 .

The 100 Hz Selector is encoding the start-figure P_2 in BCD-code to the Programmable Divider.

$$\text{Start-figure: } 0 \leq P_2 \leq 9$$

$$\text{Stop-figure: } S_2 = 990$$

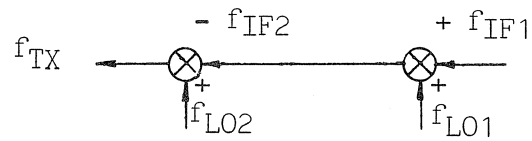
$$\text{Division number: } N_2 = S_2 - P_2 = 990 - P_2$$

Output frequency from Loop 2:

$$f_{L01} = 10 \text{ MHz} + (N_2 \times 0,1 \text{ kHz}) = 10 \text{ MHz} + ((990 - P_2) \times 0,1 \text{ kHz});$$

$$f_{L01} = 10,099 \text{ MHz} - (P_2 \times 0,1 \text{ kHz});$$

CARRIER FREQUENCY f_{TX} FROM EXCITER S1300



$$f_{IF1} = 0,600 \text{ MHz};$$

$$f_{L01} = 10,099 \text{ MHz} - (P_2 \times 0,1 \text{ kHz});$$

$$f_{IF2} = f_{IF1} + f_{L02} = 10,699 \text{ MHz} - (P_2 \times 0,1 \text{ kHz})$$

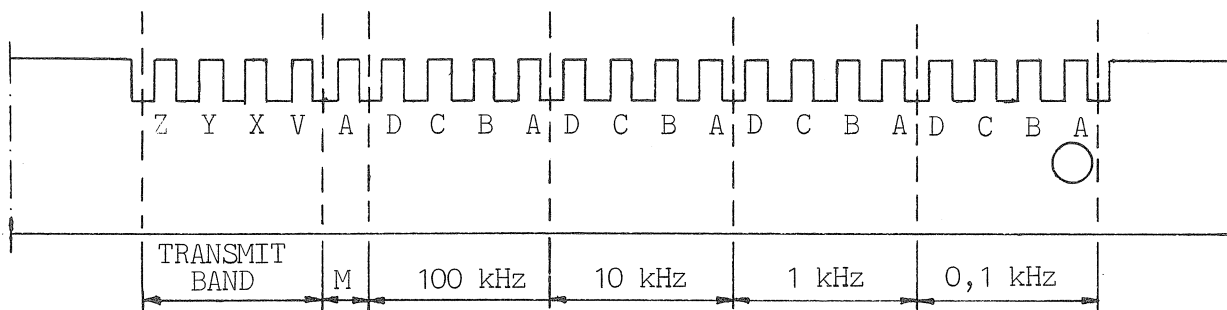
$$f_{L02} = m \times 2 \text{ MHz} + (P_1 + 2699) \times 1 \text{ kHz}$$

$$f_{TX} = f_{L02} - f_{IF2} = (m - 4) \times 2 \text{ MHz} + (P_1 + (0,1 \times P_2)) \times 1 \text{ kHz}$$

FREQUENCY PROGRAMMING

PROGRAMMING OF CARRIER FREQUENCIES

The Programming strip is carrying information for the frequency synthesizer and for selecting one of the 19 transmitter bands.



The Programming Strip has 21 bits. The drawing of the Programming Strip shows where the information for transmitter bands, MHz, 100 kHz, 10 kHz, 1 kHz and 0,1 kHz are located.

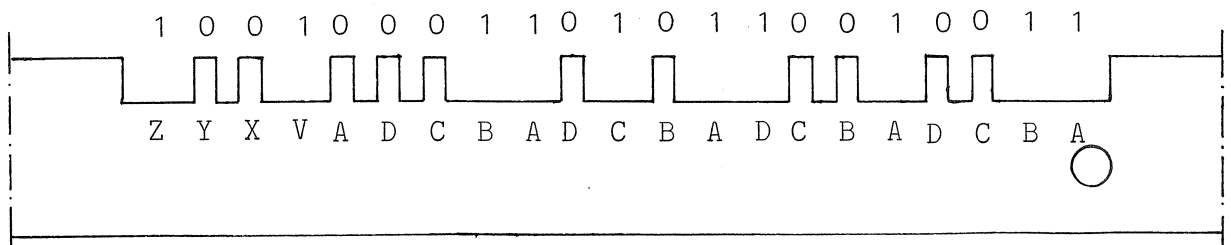
HOW TO PROGRAM A CARRIER FREQUENCY:

Find the frequency in the Programming Table and read directly the programming of the transmitter band code, MHz code, and 100 kHz code. For 10 kHz, 1 kHz, and 0,1 kHz the decimal number for each decade must be converted to a 4 bits BCD code. Use conversion table from decimal to BCD.

Conversion Table	
Decimal	BCD
	DCBA
0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001

Programming example:

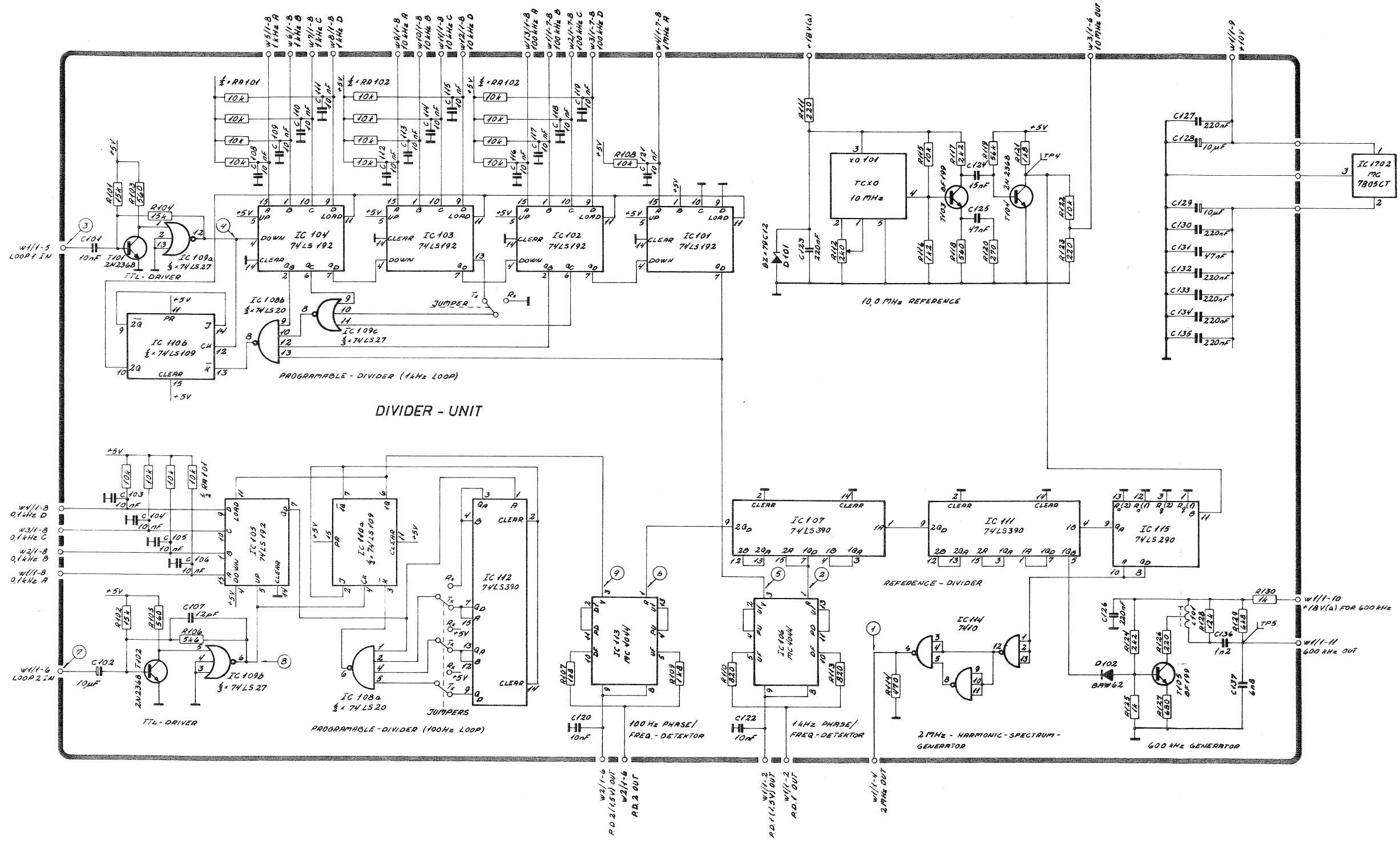
Carrier frequency 12359,3 kHz.

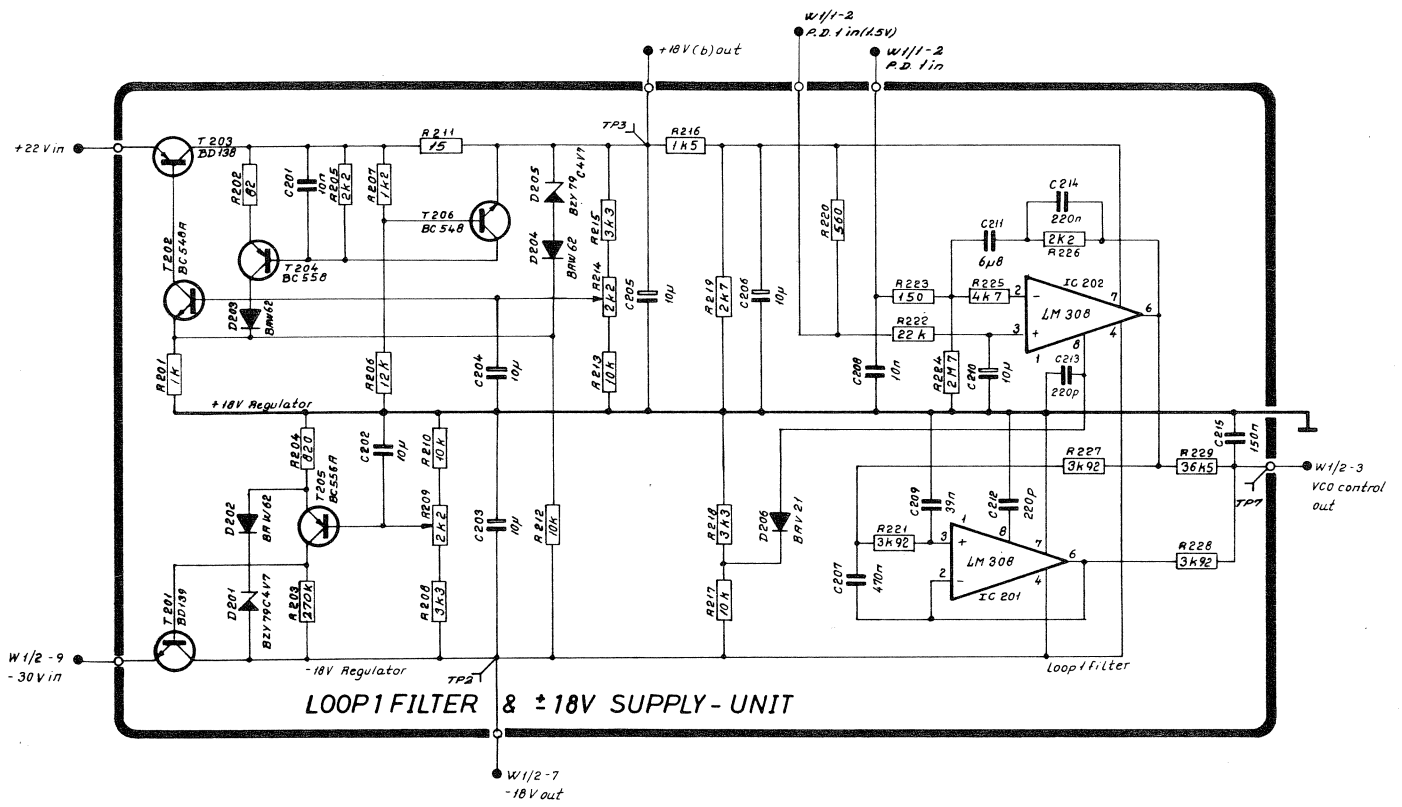


Binary "1": Cut the bit off with a nippers.

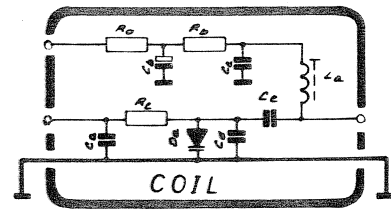
FREQUENCY TABLE

Carrier Frequencies	Programming Code					
	kHz	zyxv	M A	100 DCBA	10 DCBA	1 DCBA
1 600.0 to 1 699.9	0001	1	0110			
1 700.0 to 1 799.9	0001	1	0111			
1 800.0 to 1 899.9	0001	1	1000			
1 900.0 to 1 999.9	0001	1	1001			
2 000.0 to 2 099.9	0001	0	0000			
2 100.0 to 2 199.9	0001	0	0001			
2 200.0 to 2 299.9	0001	0	0010			
2 300.0 to 2 399.9	0001	0	0011			
2 400.0 to 2 499.9	0001	0	0100			
2 500.0 to 2 599.9	0001	0	0101			
2 600.0 to 2 699.9	0001	0	0110			
2 700.0 to 2 799.9	0001	0	0111			
2 800.0 to 2 899.9	0010	0	1000			
2 900.0 to 2 999.9	0010	0	1001			
3 000.0 to 3 099.9	0010	1	0000			
3 100.0 to 3 199.9	0011	1	0001			
3 200.0 to 3 299.9	0011	1	0010			
3 300.0 to 3 399.9	0011	1	0011			
3 400.0 to 3 499.9	0100	1	0100			
3 500.0 to 3 599.9	0100	1	0101			
3 600.0 to 3 699.9	0100	1	0110			
3 700.0 to 3 799.9	0101	1	0111			
3 800.0 to 3 899.9	0101	1	1000			
3 900.0 to 3 999.9	0101	1	1001			
4 000.0 to 4 099.9	0110	0	0000			
4 100.0 to 4 199.9	0110	0	0001			
6 200.0 to 6 299.9	0111	0	0010			
8 100.0 to 8 199.9	1000	0	0001			
8 200.0 to 8 299.9	1000	0	0010			
12 300.0 to 12 399.9	1001	0	0011			
12 400.0 to 12 499.9	1001	0	0100			
16 400.0 to 16 499.9	1010	0	0100			
16 500.0 to 16 599.9	1010	0	0101			
22 000.0 to 22 099.9	1011	0	0000			
22 100.0 to 22 199.9	1011	0	0001			
25 000.0 to 25 099.9	1100	1	0000			
Distress 2 182.0	1110	0	0001	1000	0010	0000
Special	1101					



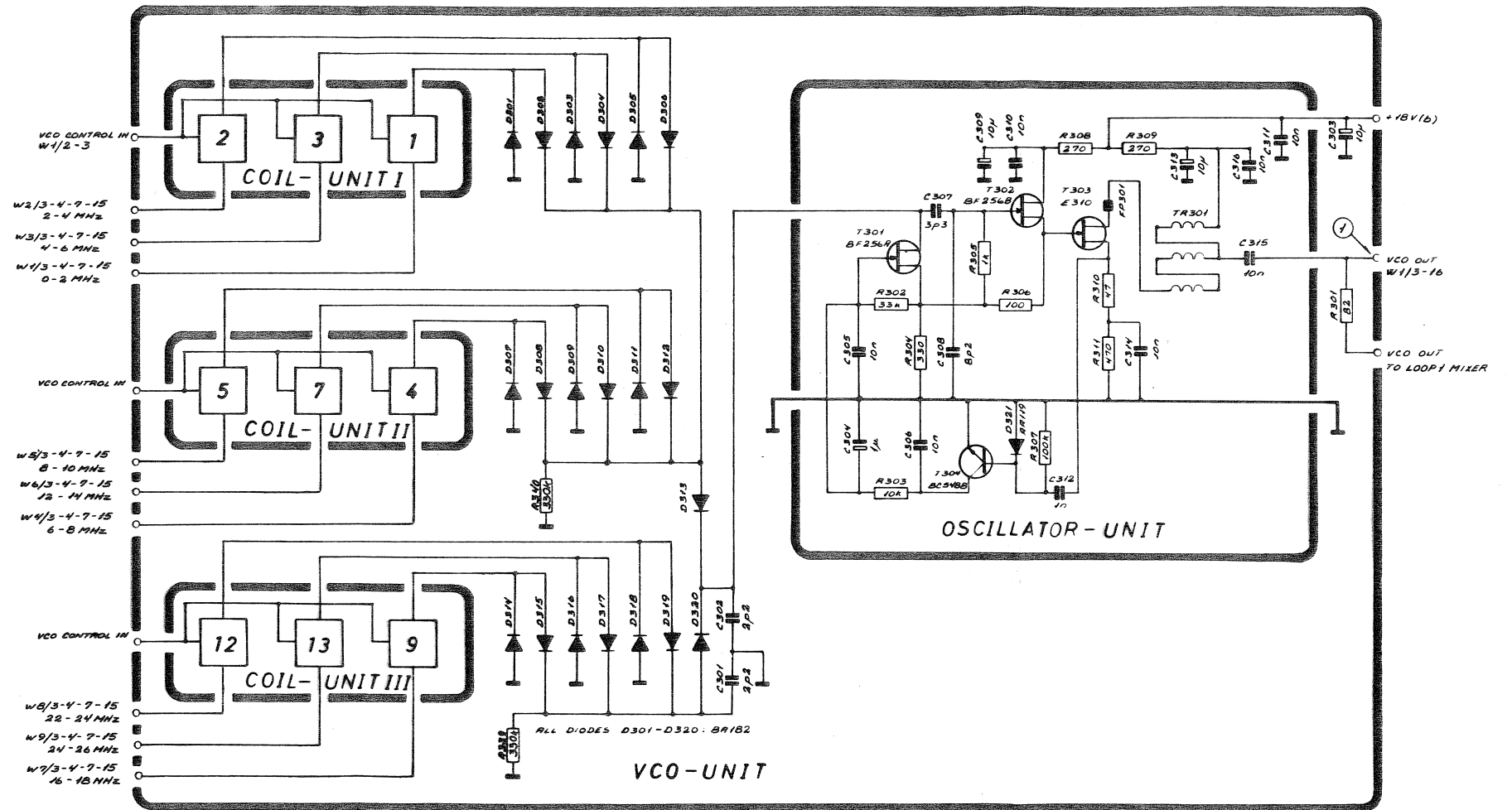


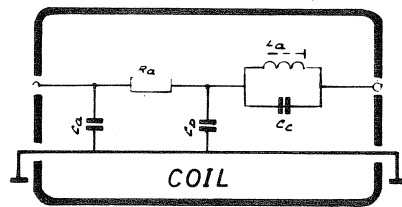
LOOP1 FILTER & ±18V SUPPLY-UNIT



COIL UNIT	COIL	R _b (Ω)	R _c (Ω)	R _d (Ω)	R _e (Ω)	C _b (nF)	C _c (μF)	C _d (nF)	C _e (pF)	L _a	D _a	
I	1	R312 470	R321 47	R330 5K6		C317 10n	C320 10μ	C329 10n	C338 120	L301 7L208	D322 BB113	
	2	R313 470	R322 47	R331 5K6			C321 10μ	C330 10n	C339 4p7	C348 100	L302 7L209	D323 BB113
	3	R314 470	R323 47	R332 4K7			C322 10μ	C331 10n	C340 8p2	C349 82	L303 7L210	D324 BB113
II	4	R315 470	R324 47	R333 3K9		C318 10n	C323 10μ	C332 10n	C341 40p	L304 7L211	D325 BB113	
	5	R316 470	R325 47	R334 3K3			C324 10μ	C333 10n	C342 8p2	C351 56	L305 7L212	D326 BB113
III	7	R317 470	R326 47	R335 3K3		C319 10n	C325 10μ	C334 10n	C343 10p	L306 7L213	D327 BB113	
	9	R318 470	R327 47	R336 3K3			C326 10μ	C335 10n	C344 5p6	C352 39	L307 7L214	D328 BB113
III	12	R319 470	R328 47	R337 4K7		C319 10n	C327 10μ	C336 10n	C345 8p2	L308 7L216	D329 BB113	
	13	R320 470	R329 47	R338 8K8			C328 10μ	C337 10n	C346 5p6	C355 27	L309 7L215	D330 BB113

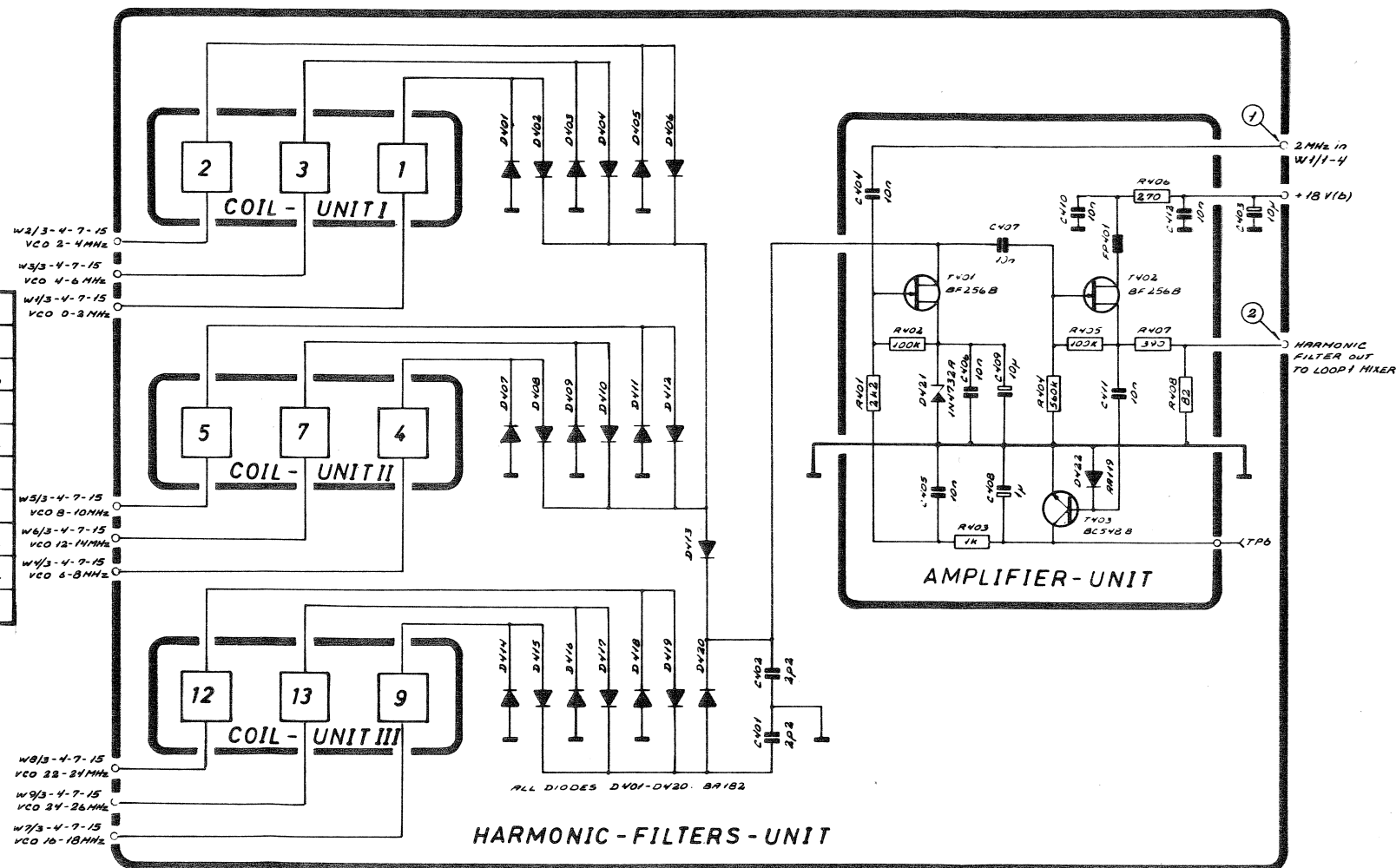
TABLE FOR COMPONENT VALUES OF COILS

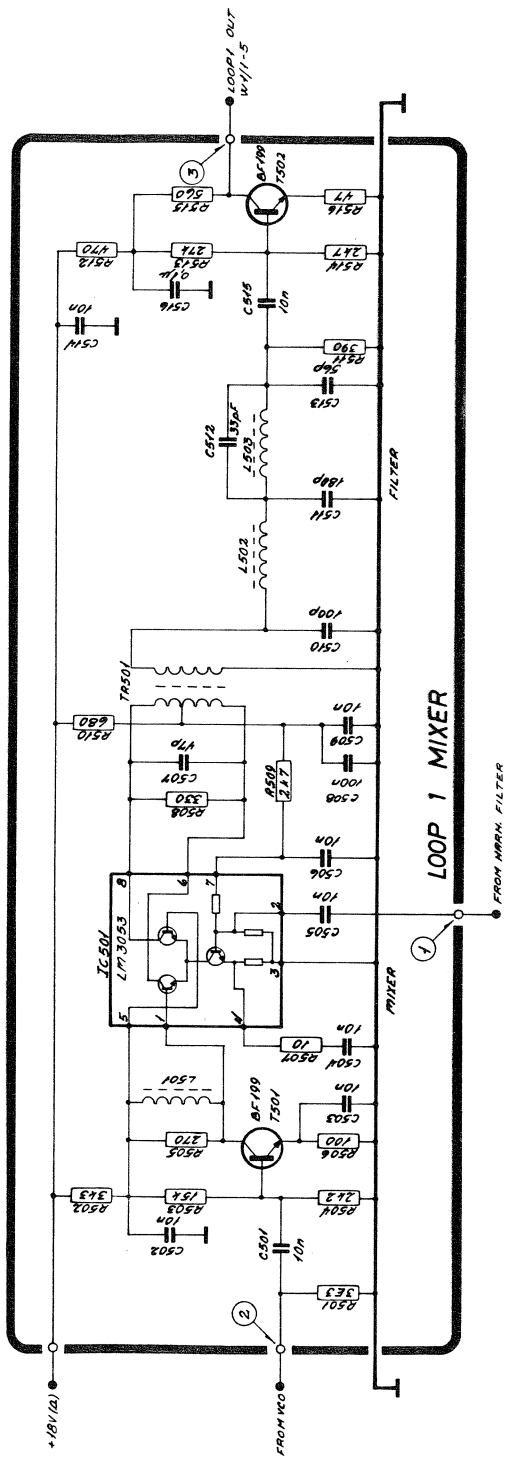


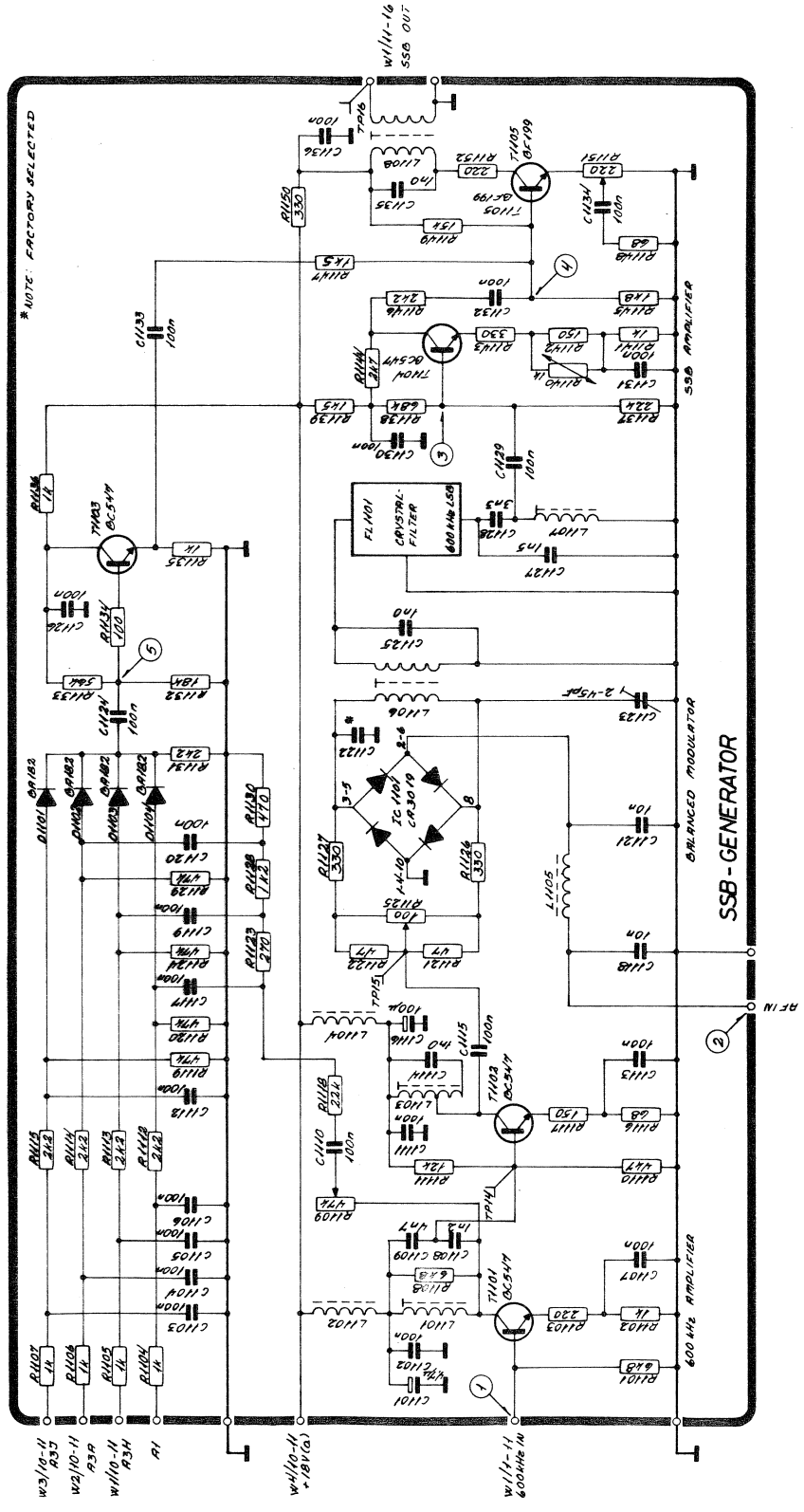


COIL UNIT	COIL	R _a (Ω)	C _a (nF)	C _b (nF)	C _c (pF)	L _a
I	1	R409 470	C413 10	C422 10	C431 270	L401 TL199
	2	R410 470	C414 10	C423 10	C432 220	L402 TL200
	3	R411 470	C415 10	C424 10	C433 220	L403 TL201
II	4	R412 470	C416 10	C425 10	C434 180	L404 TL202
	5	R413 470	C417 10	C426 10	C435 180	L405 TL203
III	9	R414 470	C418 10	C427 10	C436 110	L406 TL203
	12	R415 470	C419 10	C428 10	C437 100	L407 TL204
	13	R416 470	C420 10	C429 10	C438 82	L408 TL205
		R417 470	C421 10	C430 10	C439 91	L409 TL206

TABLE FOR COMPONENT VALUES OF COILS







* NOTE: FACTORY SELECTED

SSB - GENERATOR

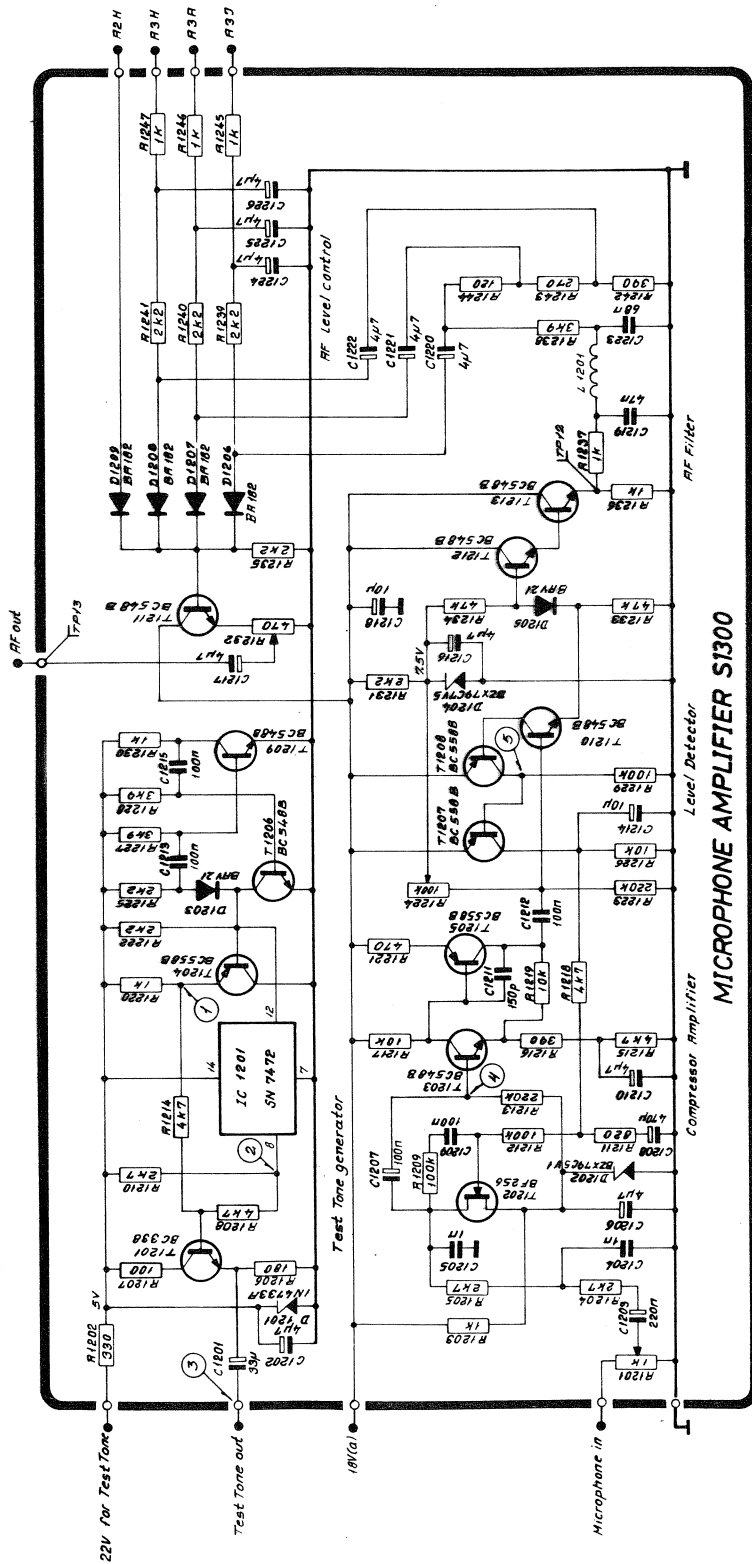
SSB AMPLIFIER

600 MHz AMPLIFIER

W3/10-11
R50
W2/10-11
R51
W1/10-11
R52
R1
W1/10-11
+18V(D)

W1/1-11
600MHz IN

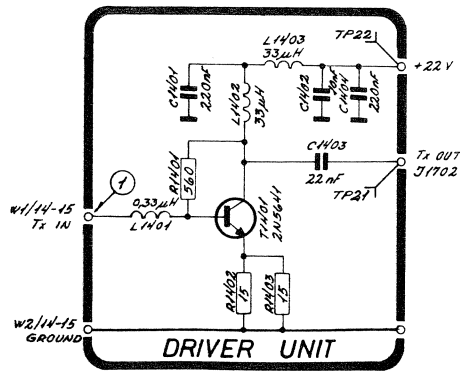
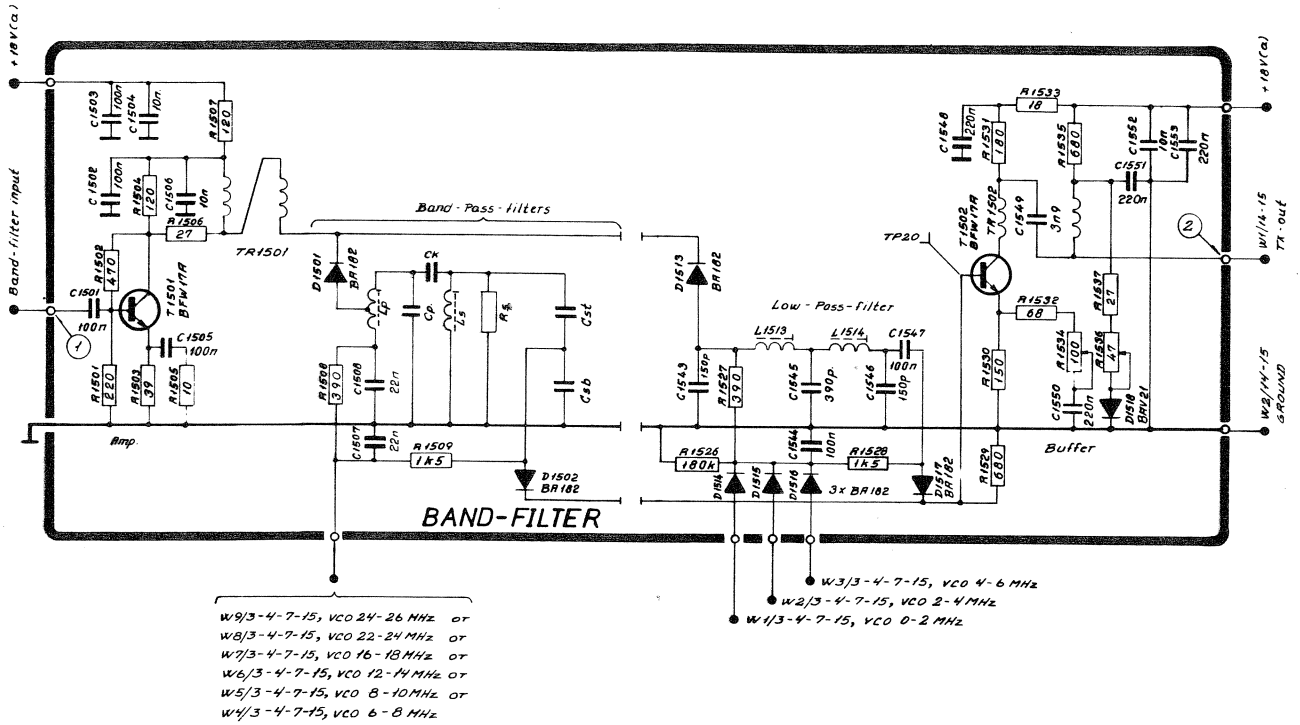
W1/1-16
SSB OUT

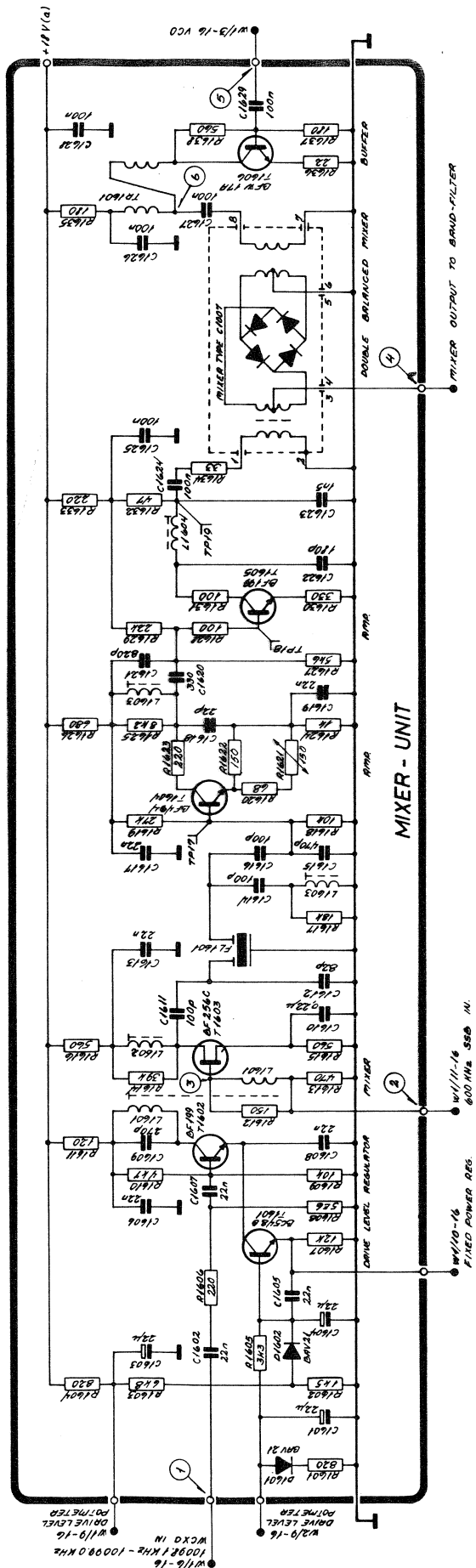


MICROPHONE AMPLIFIER S1300

Component table for Band-Pass-Filters

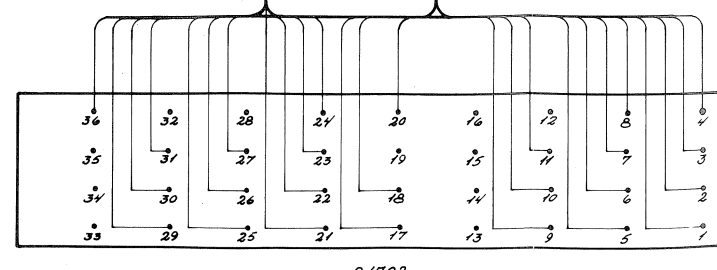
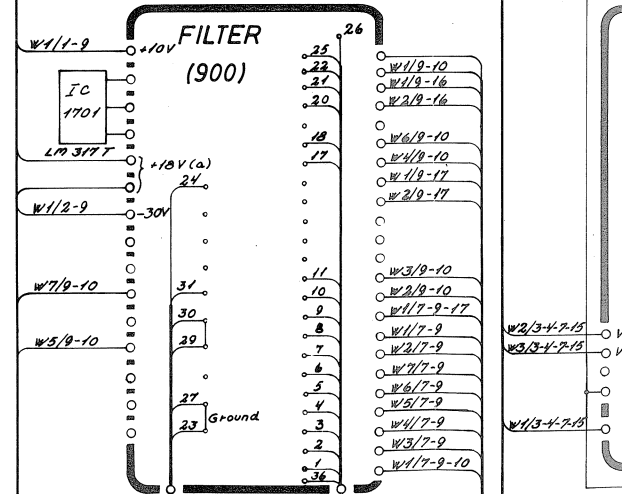
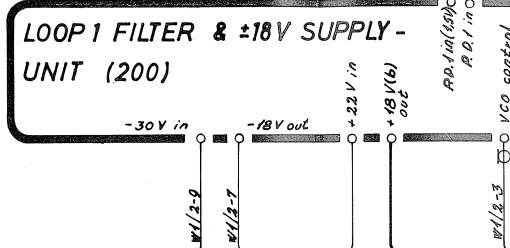
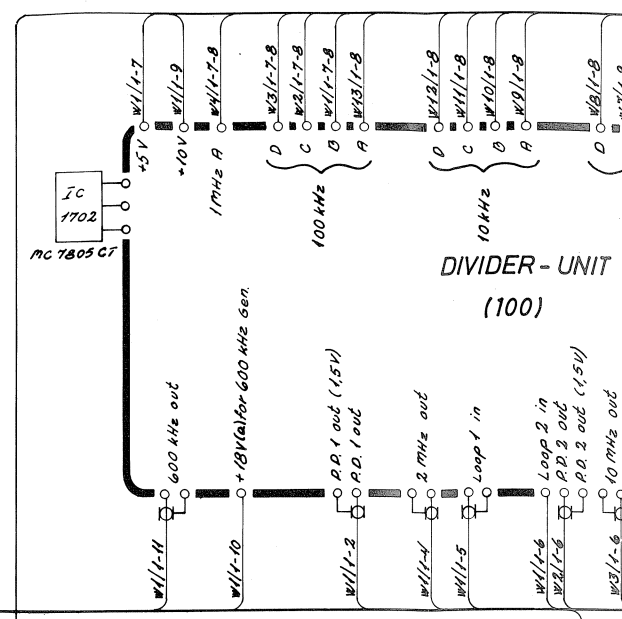
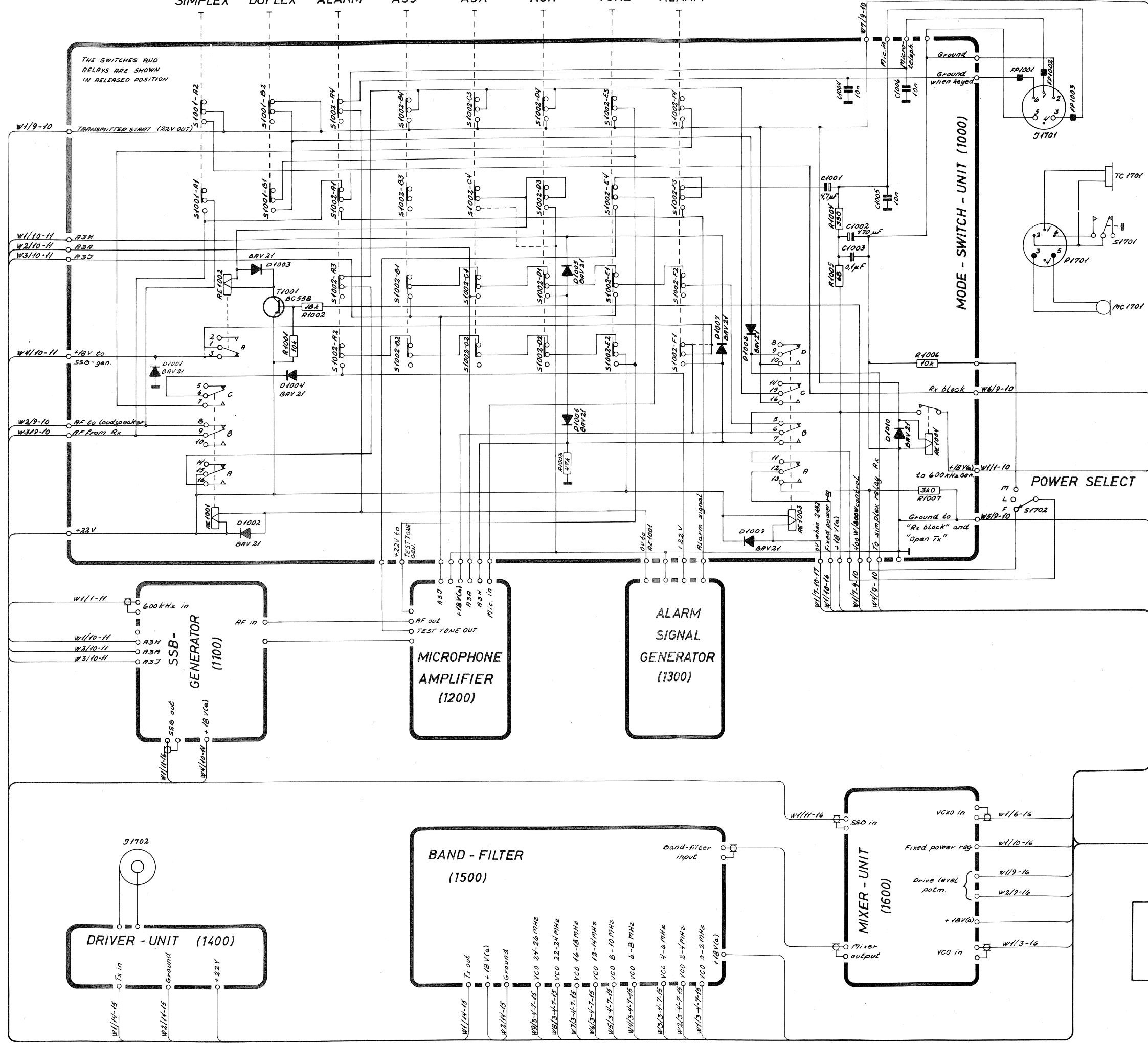
BRND	Lp	Cp	Ch	Ls	Rs	Csb	Cst
25 MHz	L1501	C1509 62 pF	C1510 3.3 pF	L1502	R1510 non	C1511 180 pF	C1512 91 pF
22 MHz	L1503	C1515 75 pF	C1516 4.3 pF	L1504	R1513 non	C1517 220 pF	C1518 110 pF
16 MHz	L1505	C1521 91 pF	C1522 5.1 pF	L1506	R1516 non	C1523 270 pF	C1524 130 pF
12 MHz	L1507	C1527 120 pF	C1528 7.5 pF	L1508	R1519 15 k ohm	C1529 330 pF	C1530 180 pF
8 MHz	L1509	C1533 180 pF	C1534 11 pF	L1510	R1522 15 k ohm	C1535 510 pF	C1536 270 pF
6 MHz	L1511	C1539 220 pF	C1540 18 pF	L1512	R1525 22 k ohm	C1541 680 pF	C1542 330 pF

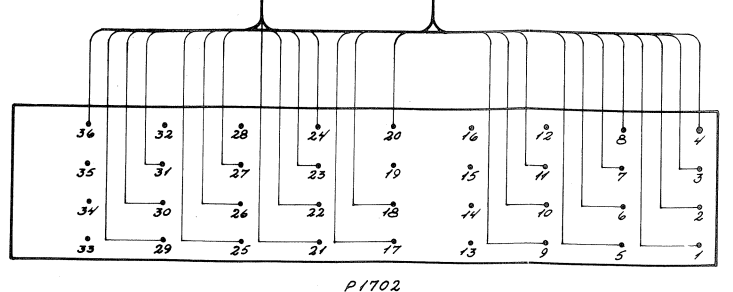
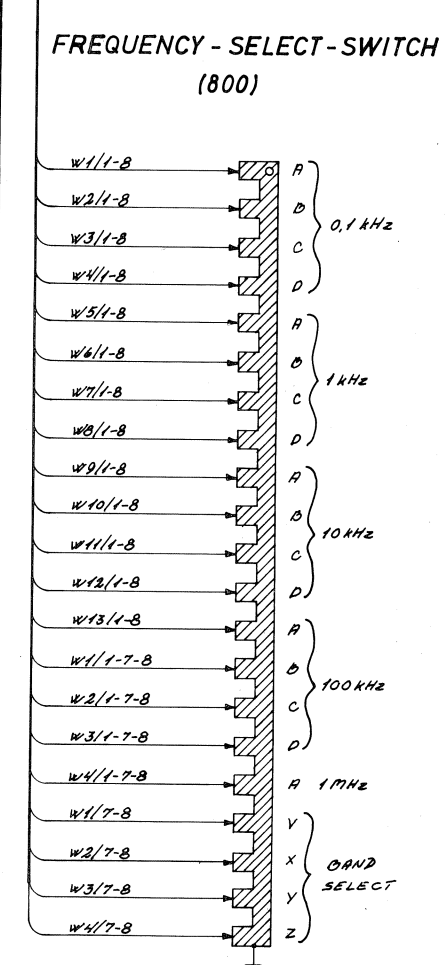
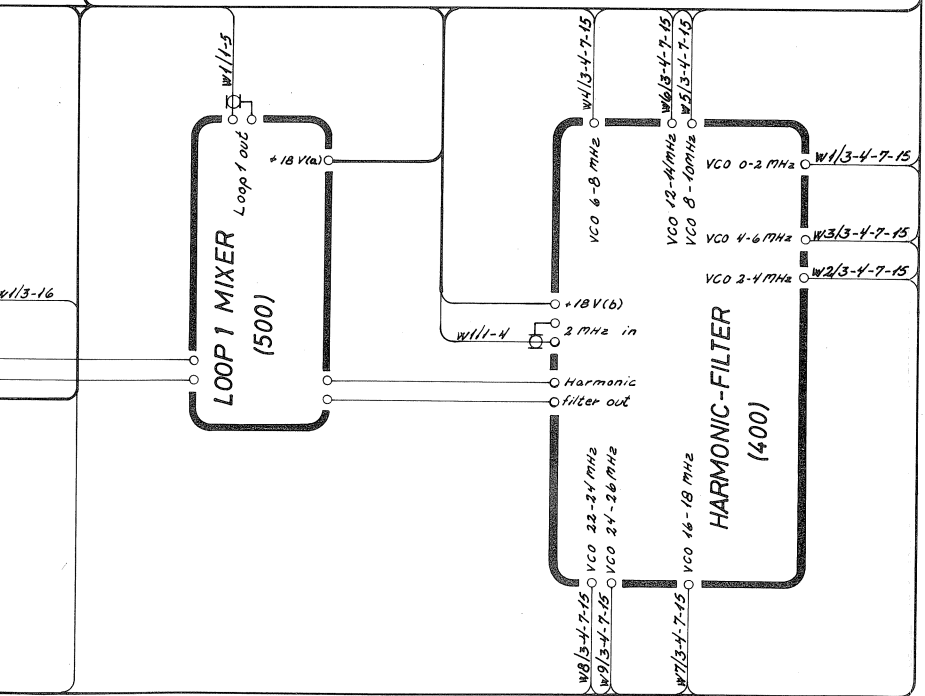
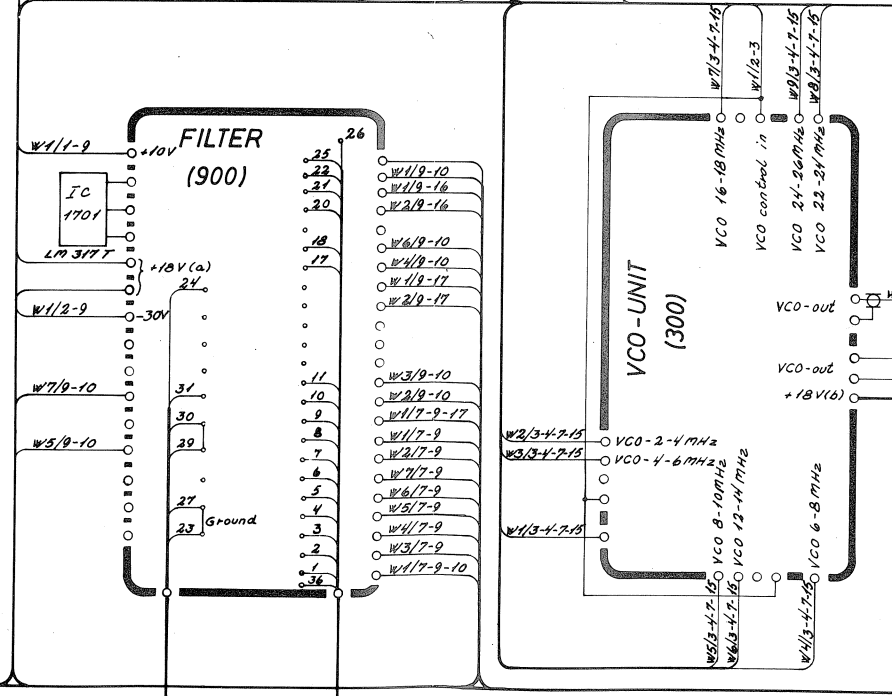
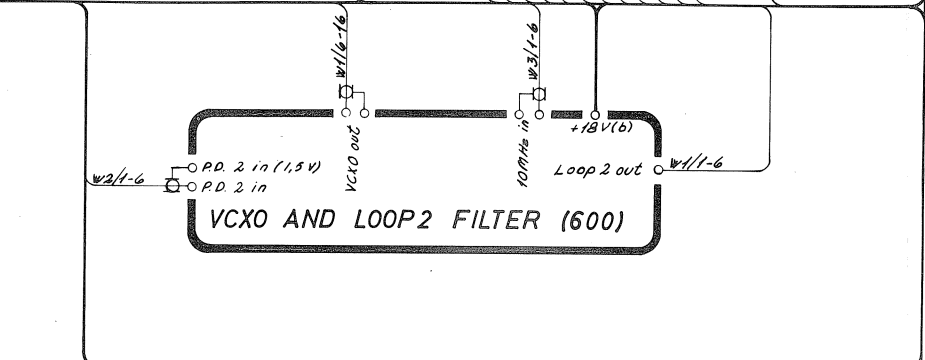
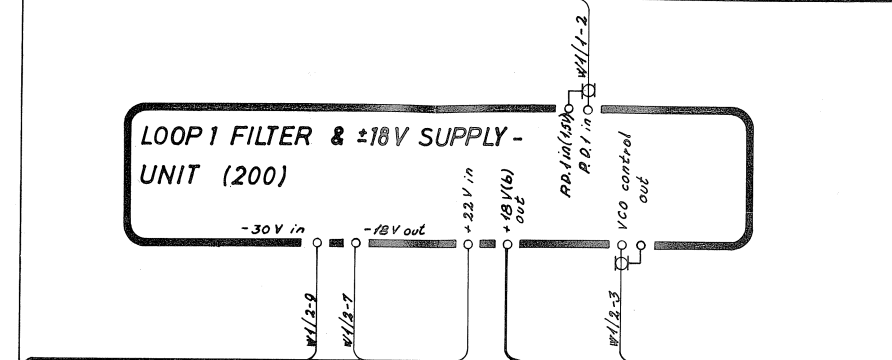
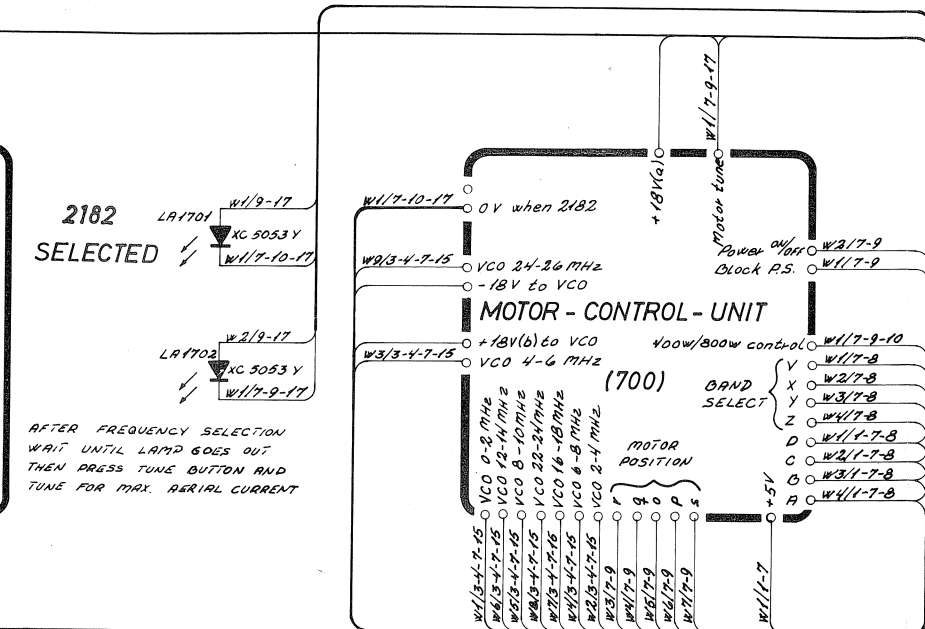
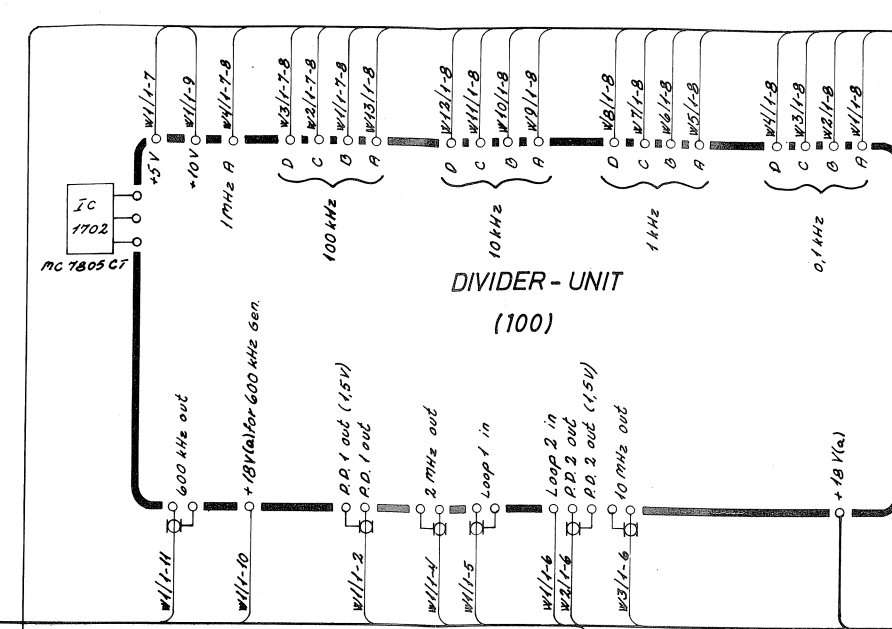
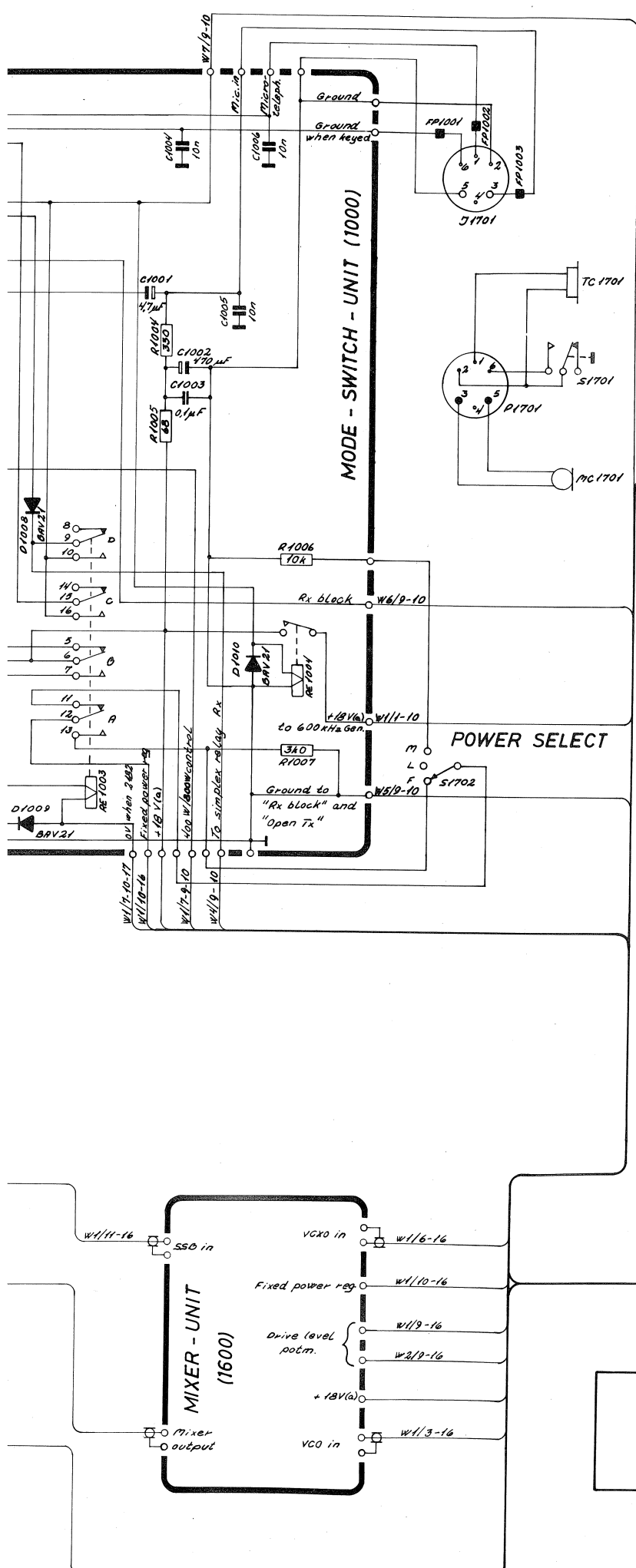




SIMPLEX DUPLEX ALARM A3J A3A A3H TUNE ALARM

THE SWITCHES AND RELAYS ARE SHOWN IN RELEASED POSITION





- | | | |
|----------------------|--------------------------------|----------------------|
| 1 400W/800W CONTROL | 13 | 25 +22V IN |
| 2 R-MOTORCONTROLWIRE | 14 | 26 +22V OUT |
| 3 G-MOTORCONTROLWIRE | 15 | 27 GROUND |
| 4 O-MOTORCONTROLWIRE | 16 | 28 |
| 5 P-MOTORCONTROLWIRE | 17 SIMPLEX RELAY RX | 29 RX-BLOCK 1/2 |
| 6 S-MOTORCONTROLWIRE | 18 RX BLOCK | 30 OPEN TX 1/2 |
| 7 POWER ON/OFF | 19 | 31 OPEN TX |
| 8 BLOCK P.S. | 20 DRIVE LEVEL POTMETER | 32 |
| 9 MOTOR TUNE | 21 DRIVE LEVEL POTMETER | 33 |
| 10 RF FROM TX | 22 TRANSMITTER START (22V OUT) | 34 |
| 11 RF FROM RX | 23 GROUND | 35 |
| 12 | 24 -45V | 36 400W/800W CONTROL |

Symbol	Description	Manufact.	
R101	Resistor 15Kohm $\pm 5\%$	0,33W Philips	2322 211 13153
R102	Resistor 15Kohm $\pm 5\%$	0,33W Philips	2322 211 13153
R103	Resistor 560 ohm $\pm 5\%$	0,33W Philips	2322 211 13561
R104	Resistor 15Kohm $\pm 5\%$	0,33W Philips	2322 211 13153
R105	Resistor 560 ohm $\pm 5\%$	0,33W Philips	2322 211 13561
R106	Resistor 5,6Kohm $\pm 5\%$	0,33W Philips	2322 211 13562
R107	Resistor 1,8Kohm $\pm 5\%$	0,33W Philips	2322 211 13182
R108	Resistor 10Kohm $\pm 5\%$	0,33W Philips	2322 211 13103
R109	Resistor 1,8Kohm $\pm 5\%$	0,33W Philips	2322 211 13182
R110	Resistor 820 ohm $\pm 5\%$	0,33W Philips	2322 211 13821
R111	Resistor 220 ohm $\pm 5\%$	0,33W Philips	2322 211 13221
R112	Trimming potentiometer 2Kohm $\pm 10\%$	0,5 W Bourns	3299 W-1-202
R113	Resistor 820 ohm $\pm 5\%$	0,33W Philips	2322 211 13821
R114	Resistor 470 ohm $\pm 5\%$	0,33W Philips	2322 211 13471
R115	Resistor 10Kohm $\pm 5\%$	0,33W Philips	2322 211 13103
R116	Resistor 1,2Kohm $\pm 5\%$	0,33W Philips	2322 211 13122
R117	Resistor 2,2Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R118	Resistor 560 ohm $\pm 5\%$	0,33W Philips	2322 211 13561
R119	Resistor 56Kohm $\pm 5\%$	0,33W Philips	2322 211 13563
R120	Resistor 270 ohm $\pm 5\%$	0,33W Philips	2322 106 33271
R121	Resistor 1,8Kohm $\pm 5\%$	0,33W Philips	2322 211 13182
R122	Resistor 10Kohm $\pm 5\%$	0,33W Philips	2322 211 13103
R123	Resistor 220 ohm $\pm 5\%$	0,33W Philips	2322 106 33221
R124	Resistor 2,2Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R125	Resistor 1Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R126	Resistor 220 ohm $\pm 5\%$	0,33W Philips	2322 211 13221
R127	Resistor 680 ohm $\pm 5\%$	0,33W Philips	2322 211 13681
R128	Resistor 12Kohm $\pm 5\%$	0,33W Philips	2322 211 13123
R129	Resistor 6,8Kohm $\pm 5\%$	0,33W Philips	2322 211 13682
R130	Resistor 1Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
RA101	Resistor array 8 x 10Kohm $\pm 5\%$	0,125W ITT	VR8, 10Kohm $\pm 5\%$
RA102	Resistor array 8 x 10Kohm $\pm 5\%$	0,125W ITT	VR8, 10Kohm $\pm 5\%$

Symbol	Description		Manufact.	
C101	Capacitor, polyester 10nF \pm 20%	250V	Philips	2222 344 40103
C102	Capacitor, tantal 10uF-20/+50%	16V	ERO	ETP 2E
C103	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C104	Capacitor, ceramic 10nF-20/+80%	32v	Ferroperm	9/0145.9
C105	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C106	Capacitor, ceramic 10nF-20/+80%	32v	Ferroperm	9/0145.9
C107	Capacitor, ceramic 12pF NPO \pm 5%	400V	Ferroperm	9/0112.9
C108	Capacitor, ceramic 10nF-20/+80%	32v	Ferroperm	9/0145.9
C109	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C110	Capacitor, ceramic 10nF-20/+80%	32v	Ferroperm	9/0145.9
C111	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C112	Capacitor, ceramic 10nF-20/+80%	32v	Ferroperm	9/0145.9
C113	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C114	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C115	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C116	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C117	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C118	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C119	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C120	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C121	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C122	Capacitor, ceramic 10nF-20/+80%	32V	Ferroperm	9/0145.9
C123	Capacitor, polyester 220nF \pm 20%	100V	Philips	2222 344 24224
C124	Capacitor, polyester 15nF \pm 20%	250V	Philips	2222 344 40153
C125	Capacitor, polyester 47nF \pm 20%	250V	Philips	2222 344 40473
C126	Capacitor, polyester 220nF \pm 20%	100V	Philips	2222 344 24224
C127	Capacitor, polyester 220nF \pm 20%	100V	Philips	2222 344 24224
C128	Capacitor, electrolytic 10uF-10/+100%	40V	Siemens	B41313-A7106-V
C129	Capacitor, electrolytic 10uF-10/+100%	40V	Siemens	B41313-A7106-V
C130	Capacitor, polyester 220nF \pm 20%	100V	Philips	2222 344 24224
C131	Capacitor, polyester 47nF \pm 20%	250V	Philips	2222 344 40473
C132	Capacitor, polyester 220nF \pm 20%	100V	Philips	2222 344 24224
C133	Capacitor, polyester 220nF \pm 20%	100V	Philips	2222 344 24224
C134	Capacitor, polyester 220nF \pm 20%	100V	Philips	2222 344 24224
C135	Capacitor, polyester 220nF \pm 20%	100V	Philips	2222 344 24224
C136	Capacitor, polystyrene 1,2nF \pm 5%	63V	Philips	2222 424 21202
C137	Capacitor, polystyrene 6,8nF \pm 5%	63V	Philips	2222 424 26802
L101	Coil		S.P.	TL 235

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
D101	Diode, zener 12V $\pm 5\%$	Philips	BZX 79 C12
D102	Diode, silicon	Philips	BAW 62
T101	Transistor	Philips	2N2368
T102	Transistor	Philips	2N2368
T103	Transistor	Philips	BF199
T104	Transistor	Philips	2N2368
T105	Transistor	Philips	BF199
IC101	Integrated circuit	Texas	SN74LS192N
IC102	Integrated circuit	Texas	SN74LS192N
IC103	Integrated circuit	Texas	SN74LS192N
IC104	Integrated circuit	Texas	SN74LS192N
IC105	Integrated circuit	Texas	SN74LS192N
IC106	Integrated circuit	Motorola	MC4044P
IC107	Integrated circuit	Texas	SN74LS390N
IC108	Integrated circuit	Texas	SN74LS20N
IC109	Integrated circuit	Texas	SN74LS27N
IC110	Integrated circuit	Texas	SN74LS109N
IC111	Integrated circuit	Texas	SN74LS390N
IC112	Integrated circuit	Texas	SN74LS390N
IC113	Integrated circuit	Motorola	MC4044P
IC114	Integrated circuit	Texas	SN7410N
IC115	Integrated circuit	Texas	SN74LS290N
X0101	TCXO 8 10,0 MHz SP nr. C1001	ITT	Spec. B383
S101	Switch for 2182 (only R1117-18)	Petrick	7-3-21412

Symbol	Description	Manufact.	
R201	Resistor 1Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R202	Resistor 82 ohm $\pm 5\%$	0,33W Philips	2322 211 13829
R204	Resistor 820 ohm $\pm 5\%$	0,33W Philips	2322 211 13821
R205	Resistor 2,2Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R206	Resistor 12Kohm $\pm 5\%$	0,33W Philips	2322 211 13123
R207	Resistor 1,2Kohm $\pm 5\%$	0,33W Philips	2322 211 13122
R208	Resistor 3,3Kohm $\pm 5\%$	0,33W Philips	2322 211 13332
R209	Potentiometer trimmer 2,2Kohm $\pm 20\%$	0,5 W Philips	2322 482 20222
R210	Resistor 10Kohm $\pm 5\%$	0,33W Philips	2322 211 13103
R212	Resistor 10Kohm $\pm 5\%$	0,33W Philips	2322 211 13103
R213	Resistor 10Kohm $\pm 5\%$	0,33W Philips	2322 211 13103
R214	Potentiometer trimmer 2,2Kohm $\pm 20\%$	0,5 W Philips	2322 482 20222
R215	Resistor 3,3Kohm $\pm 5\%$	0,33W Philips	2322 211 13332
R216	Resistor 1,5Kohm $\pm 5\%$	0,33W Philips	2322 211 13152
R217	Resistor 10Kohm $\pm 5\%$	0,33W Philips	2322 211 13103
R218	Resistor 3,3Kohm $\pm 5\%$	0,33W Philips	2322 211 13332
R219	Resistor 2,7Kohm $\pm 5\%$	0,33W Philips	2322 106 33272
R220	Resistor 560 ohm $\pm 5\%$	0,33W Philips	2322 211 13561
R221	Resistor 3,92Kohm $\pm 1\%$	0,25W Vitrohm	471-0
R222	Resistor 22Kohm $\pm 5\%$	0,33W Philips	2322 211 13223
R223	Resistor 150 ohm $\pm 5\%$	0,33W Philips	2322 211 13151
R224	Resistor 2,7Mohm $\pm 5\%$	0,33W Philips	2322 211 12275
R225	Resistor 4,7Kohm $\pm 5\%$	0,33W Philips	2322 211 13472
R226	Resistor 2,2Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R227	Resistor 3,92Kohm $\pm 1\%$	0,25W Vitrohm	471-0
R228	Resistor 3,92Kohm $\pm 1\%$	0,25W Vitrohm	471-0
R229	Resistor 36,5Kohm $\pm 1\%$	0,25W Vitrohm	471-0
	S1300 only		
R203	Resistor 270Kohm $\pm 5\%$	0,33W Philips	2322 211 13274
R211	Resistor 15 ohm $\pm 5\%$	0,33W Philips	2322 211 13159
	R1117 only		
R203	Resistor 150Kohm $\pm 5\%$	0,33W Philips	2322 211 13154
R211	Resistor 12 ohm $\pm 5\%$	0,33W Philips	2322 211 13129

Symbol	Description	Manufact.	
C201	Capacitor ceramic 10nF-20/+80% 32V	Ferroperm	9/0145,9
C202	Capacitor tantal 10uF-20/+50% 25V	Ero	ETP-3F
C203	Capacitor tantal 10uF-20/+50% 25V	Ero	ETP-3F
C204	Capacitor tantal 10uF-20/+50% 25V	Ero	ETP-3F
C205	Capacitor electrolytic 10uF- 10/+100% 40V	Siemens	B41313-A7106V
C206	Capacitor tantal 10uF-20/+50% 25V	Ero	ETP-3F
C207	Capacitor polycarbonate 470nF $\pm 10\%$ 100V	Philips	2222 344 21474
C208	Capacitor ceramic 10nF-20/+80% 32V	Ferroperm	9/0145,9
C209	Capacitor polystyrene 39nF $\pm 1\%$ 63V	Philips	2222 424 43903
C210	Capacitor tantal 10uF-20/+50% 25 V	Ero	ETP-3F
C211	Capacitor polyester 6,8uF $\pm 10\%$ 100V	Philips	2222 344 25685
C212	Capacitor ceramic 220pF $\pm 20\%$ 400V	Ferroperm	9/0129,9
C213	Capacitor ceramic 220pF $\pm 20\%$ 400V	Ferroperm	9/0129,9
C214	Capacitor polyester 220nF $\pm 10\%$ 100V	Philips	2222 344 25224
C215	Capacitor polyester 150nF $\pm 10\%$ 100V	Philips	2222 344 25154
T201	Transistor	Philips	BD139
T202	Transistor	Philips	BC548A
T203	Transistor	Philips	BD138
T204	Transistor	Philips	BC558
T205	Transistor	Philips	BC556A
T206	Transistor	Philips	BC548
D201	Diode zener	Philips	BZX79C4V7
D202	Diode	Philips	BAW62
D203	Diode	Philips	BAW62
D204	Diode	Philips	BAW62
D205	Diode	Philips	BZX79C4V7
D206	Diode	Philips	BAV21
IC201	Intergrated circuit	National	LM308N
IC202	Intergrated circuit	National	LM308N

<i>Symbol</i>	<i>Description</i>			<i>Manufact.</i>	
R301	Resistor	82 ohm	0,33W	Philips	3322 211 13829
R339	Resistor	330 Kohm	0,33W	Philips	2322 211 13334
R340	Resistor	330 Kohm	0,33W	Philips	2322 211 13334
C301	Capacitor ceramic	2,2pF $\pm 0,25$ pF	250V	Ferroperm	9/0112.9
C302	Capacitor ceramic	2,2pF $\pm 0,25$ pF	250V	Ferroperm	9/0112.9
C303	Capacitor tantal	10uF -20/+50%	25V	ERO	ETP-3F
D301- D320	Diode			Ph/Sie	BA182

Symbol	Description	Manufact.	
R302	Resistor 33Kohm 0,33W	Philips	2322 211 13333
R303	Resistor 10Kohm 0,33W	Philips	2322 211 13103
R304	Resistor 330 ohm 0,33W	Philips	2322 211 13331
R305	Resistor 1Kohm 0,33W	Philips	2322 211 13102
R306	Resistor 100 ohm 0,33W	Philips	2322 211 13101
R307	Resistor 100Kohm 0,33W	Philips	2322 211 13104
R308	Resistor 270 ohm 0,33W	Philips	2322 211 13271
R309	Resistor 270 ohm 0,33W	Philips	2322 211 13271
R310	Resistor 47 ohm 0,33W	Philips	2322 211 13479
R311	Resistor 470 ohm 0,33W	Philips	2322 211 13471
C304	Capacitor tantal 1uF $\pm 10\%$ 16V	ERO	ETQ-3
C305	Capacitor ceramic 10nF $-20/+80\%$ 30V	Ferroperm	9/0145.9
C306	Capacitor ceramic 10nF $-20/+80\%$ 30V	Ferroperm	9/0145.9
C307	Capacitor ceramic 3,3pF $\pm 0,25pF$ 400V	Ferroperm	9/0112.9
C308	Capacitor ceramic 8,2pF $\pm 0,25pF$ 400V	Ferroperm	9/0112.9
C309	Capacitor tantal 10uF $-20/+50\%$ 25V	ERO	ETP-3F
C310	Capacitor ceramic 10nF $-20/+80\%$ 30V	Ferroperm	9/0145.9
C311	Capacitor ceramic 10nF $-20/+80\%$ 30V	Ferroperm	9/0145.9
C312	Capacitor ceramic 1nF $-20/+80\%$ 40V	Ferroperm	9/0129.8
C313	Capacitor tantal 10uF $-20/+50\%$ 25V	ERO	ETP-3F
C314	Capacitor ceramic 10nF $-20/+80\%$ 30V	Ferroperm	9/0145.9
C315	Capacitor ceramic 10nF $-20/+80\%$ 30V	Ferroperm	9/0145.9
C316	Capacitor ceramic 10nF $-20/+80\%$ 30V	Ferroperm	9/0145.9
T301	Transistor	Philips	BF 256 A
T302	Transistor	Philips	BF 256 B
T303	Transistor	Siliconix	E 310
T304	Transistor	Philips	BC 548 B
D321	Diode	Ph/Sie	AA 119
TR301	Transformer	S.P.	TL 207
FP301	1 piece ferrocube beads 4B1	Philips	4322 020 34420

Symbol	Description	Manufact.	
R312-			
R320	Resistor 470 ohm	0,33W Philips	2322 211 13471
R321-			
R329	Resistor 47 ohm	0,33W Philips	2322 211 13479
R330	Resistor 5,6Kohm	0,33W Philips	2322 211 13562
R331	Resistor 5,6Kohm	0,33W Philips	2322 211 13562
R332	Resistor 4,7Kohm	0,33W Philips	2322 211 13472
R333	Resistor 3,9Kohm	0,33W Philips	2322 211 13392
R334	Resistor 3,3Kohm	0,33W Philips	2322 211 13332
R335	Resistor 3,3Kohm	0,33W Philips	2322 211 13332
R336	Resistor 3,3Kohm	0,33W Philips	2322 211 13332
R337	Resistor 4,7Kohm	0,33W Philips	2322 211 13472
R338	Resistor 6,8Kohm	0,33W Philips	2322 211 13682
C317-			
C319	Capacitor ceramic 10nF -20/+80%	30V Ferroperm	9/0145.9
C320-			
C328	Capacitor tantal 10uF	25V ITT	TAG 10m 25SP
C329-			
C337	Capacitor ceramic 10nF $\pm 20\%$	40V Ferroperm	9/0141.8
C338	Print		
C339	Capacitor ceramic 4,7uF $\pm 0,25pF$	400V Ferroperm	9/0112.9
C340	Capacitor ceramic 8,2pF $\pm 0,25pF$	400V Ferroperm	9/0112.9
C341	Capacitor ceramic 10pF $\pm 5\%$	400V Ferroperm	9/0112.9
C342	Capacitor ceramic 8,2pF $\pm 0,25pF$	400V Ferroperm	9/0112.9
C343	Capacitor ceramic 10pF $\pm 5\%$	400V Ferroperm	9/0112.9
C344	Capacitor ceramic 5,6pF $\pm 0,25pF$	400V Ferroperm	9/0112.9
C345	Capacitor ceramic 8,2pF $\pm 0,25pF$	400V Ferroperm	9/0112.9
C346	Capacitor ceramic 5,6pF $\pm 0,25pF$	400V Ferroperm	9/0112.9

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
C347	Capacitor polystyrene 120pF $\pm 1\%$ 500V	Philips	2222 427 41201
C348	Capacitor polystyrene 100pF $\pm 1\%$ 500V	Philips	2222 427 41001
C349	Capacitor polystyrene 82pF $\pm 1\%$ 500V	Philips	2222 427 48209
C350	Capacitor polystyrene 68pF $\pm 1\%$ 500V	Philips	2222 427 46809
C351	Capacitor polystyrene 56pF $\pm 1\%$ 500V	Philips	2222 427 45609
C352	Capacitor polystyrene 100pF $\pm 1\%$ 500V	Philips	2222 427 41001
	Capacitor polystyrene 91pF $\pm 1\%$ 500V	Philips	2222 427 49109
C353	Capacitor polystyrene 82pF $\pm 1\%$ 500V	Philips	2222 427 48209
	Capacitor polystyrene 75pF $\pm 1\%$ 500V	Philips	2222 427 47509
C354	Capacitor polystyrene 68pF $\pm 1\%$ 500V	Philips	2222 427 46809
	Capacitor polystyrene 62pF $\pm 1\%$ 500V	Philips	2222 427 46209
C355	Capacitor polystyrene 56pF $\pm 1\%$ 500V	Philips	2222 427 45609
	Capacitor polystyrene 51pF $\pm 1\%$ 500V	Philips	2222 427 45109
L301	Coil	S.P.	TL208
L302	Coil	S.P.	TL209
L303	Coil	S.P.	TL210
L304	Coil	S.P.	TL211
L305	Coil	S.P.	TL212
L306	Coil	S.P.	TL213
L307	Coil	S.P.	TL214
L308	Coil	S.P.	TL216
L309	Coil	S.P.	TL215
D322- D330	Diode	Siemens	3 pieces BB113 Q 62702-B41

Symbol	Description	Manufact.	9/0112.9
C401	Capacitor ceramic 2,2pF $\pm 0,25$ pF 250V	Ferroperm	9/0112.9
C402	Capacitor ceramic 2,2pF $\pm 0,25$ pF 250V	Ferroperm	9/0112.9
C403	Capacitor tantal 10uF -20/+50% 25V	ERO	ETP-3F
D401-	Diode	Ph/Sie	Ba182
D420			

Symbol	Description			Manufact.	
R401	Resistor	2,2 Kohm	0,33W	Philips	2322 211 13222
R402	Resistor	100 Kohm	0,33W	Philips	2322 211 13104
R403	Resistor	1 Kohm	0,33W	Philips	2322 211 13102
R404	Resistor	560 Kohm	0,33W	Philips	2322 211 13564
R405	Resistor	100 Kohm	0,33W	Philips	2322 211 13104
R406	Resistor	270 ohm	0,33W	Philips	2322 211 13271
R407	Resistor	390 ohm	0,33W	Philips	2322 211 13391
R408	Resistor	82 ohm	0,33W	Philips	2322 211 13829
C404	Capacitor ceramic	10nF -20/+80%	30V	Ferroperm	9/0145.9
C405	Capacitor ceramic	10nF -20/+80%	30V	Ferroperm	9/0145.9
C406	Capacitor ceramic	10nF -20/+80%	30V	Ferroperm	9/0145.9
C407	Capacitor ceramic	10nF -20/+80%	30V	Ferroperm	9/0145.9
C408	Capacitor tantal	1uF -20/+50%	35V	ERO	ETP-1A
C409	Capacitor tantal	10uF -20/+50%	25V	ERO	ETP-3F
C410	Capacitor ceramic	10nF -20/+80%	30V	Ferroperm	9/0145.9
C411	Capacitor ceramic	10nF -20/+80%	30V	Ferroperm	9/0145.9
C412	Capacitor ceramic	10nF -20/+80%	30V	Ferroperm	9/0145.9
T401	Transistor			Philips	BF 256 B
T402	Transistor			Philips	BF 256 B
T403	Transistor			Philips	BC 548 B
D421	Diode zener		4,7V	Motorola	1N 4732 A
D422	Diode			Ph/Sie	AA 119
FP401	Ferrit bead	4B1		Philips	4322 020 34420

Symbol	Description		Manufact.	
R409- R417	Resistor 470 ohm	0,33W	Philips	2322 211 13471
C413- C421	Capacitor ceramic 10nF -20/+80%	30V	Ferroperm	9/0145.9
C422- C430	Capacitor ceramic 10nF \pm 20%	40V	Ferroperm	9/0141.8
C431	Capacitor polystyrene 270 pF \pm 1%	500V	Philips	2222 427 42701
C432	Capacitor polystyrene 220 pF \pm 1%	500V	Philips	2222 427 42201
C433	Capacitor polystyrene 220 pF \pm 1%	500V	Philips	2222 427 42201
C434	Capacitor polystyrene 180 pF \pm 1%	500V	Philips	2222 427 41801
C435	Capacitor polystyrene 180 pF \pm 1%	500V	Philips	2222 427 41801
C436	Capacitor polystyrene 110 pF \pm 1%	500V	Philips	2222 427 41101
C437	Capacitor polystyrene 100 pF \pm 1%	500V	Philips	2222 427 41001
C438	Capacitor polystyrene 82 pF \pm 1%	500V	Philips	2222 427 48209
C439	Capacitor polystyrene 91 pF \pm 1%	500V	Philips	2222 427 49109
L401	Coil		S.P.	TL 199
L402	Coil		S.P.	TL 200
L403	Coil		S.P.	TL 201
L404	Coil		S.P.	TL 202
L405	Coil		S.P.	TL 203
L406	Coil		S.P.	TL 203
L407	Coil		S.P.	TL 204
L408	Coil		S.P.	TL 205
L409	Coil		S.P.	TL 206

Symbol	Description			Manufact.	
R501	Resistor	3,3 ohm $\pm 5\%$	0,33W	Philips	2322 211 13338
R502	Resistor	3,3 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13332
R503	Resistor	15 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13153
R504	Resistor	2,2 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13222
R505	Resistor	270 ohm $\pm 5\%$	0,33W	Philips	2322 211 13271
R506	Resistor	100 ohm $\pm 5\%$	0,33W	Philips	2322 211 13101
R507	Resistor	10 ohm $\pm 5\%$	0,33W	Philips	2322 211 13109
R508	Resistor	330 ohm $\pm 5\%$	0,33W	Philips	2322 211 13331
R509	Resistor	2,7 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13272
R510	Resistor	680 ohm $\pm 5\%$	0,33W	Philips	2322 211 13681
R511	Resistor	390 ohm $\pm 5\%$	0,33W	Philips	2322 211 13391
R512	Resistor	470 ohm $\pm 5\%$	0,33W	Philips	2322 211 13471
R513	Resistor	27 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13273
R514	Resistor	2,7 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13272
R515	Resistor	560 ohm $\pm 5\%$	0,33W	Philips	2322 211 13561
R516	Resistor	47 ohm $\pm 5\%$	0,33W	Philips	2322 211 13479
C501					
C506	Capacitor ceramic	10nF -20/+80%	32V	Ferroperm	9/0145,9
C507	Capacitor ceramic	47pF $\pm 2\%$	100V	Philips	2222 638 34479
C508	Capacitor polyester	0,1uF $\pm 20\%$	100V	Ph/Ero	2222 344 24104
C509	Capacitor ceramic	10nF -20/+80%	32V	Ferroperm	9/0145,9
C510	Capacitor ceramic	100pF $\pm 2\%$	100V	Philips	2222 638 34101
C511	Capacitor polystyrene	180pF $\pm 1\%$	500V	Philips	2222 427 41801
C512	Capacitor ceramic	33pF $\pm 2\%$	100V	Philips	2222 638 34339
C513	Capacitor ceramic	56pF $\pm 2\%$	100V	Philips	2222 638 34569
C514	Capacitor ceramic	10nF -20/+80%	32V	Ferroperm	9/0145,9
C515	Capacitor ceramic	10nF -20/+80%	32V	Ferroperm	9/0145,9
C516	Capacitor polyester	0,1uF $\pm 20\%$	100V	Ph/Ero	2222 344 24104
L501	Coil	6uH		S.P.	TL 059
L502	Coil	12uH $\pm 5\%$		Kaschke	220/5
L503	Coil	12uH $\pm 5\%$		Kaschke	220/5
TR501	Transformer			S.P.	TL198
T501	Transistor			Philips	BF199
T502	Transistor			Philips	BF199
IC501	Integrated circuit			N.S.	LM 3053

Symbol	Description	Manufact.	
C501	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
C502	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
C503	Capacitor ceramic 47pF $\pm 2\%$ 100V	Philips	2222 638 34479
C504	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
C505	Capacitor polyethylene 0.1uF $\pm 20\%$ 100V	Ph/ERO	2222 344 24104
C506	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
C507	Capacitor ceramic 100pF $\pm 2\%$ 100V	Philips	2222 638 34101
C508	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
C509	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
C510	Capacitor polystyrene 180pF $\pm 1\%$ 500V	Philips	2222 427 41801
C511	Capacitor ceramic 33pF $\pm 2\%$ 100V	Philips	2222 638 34339
C512	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
C513	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
C514	Capacitor ceramic 56pF $\pm 2\%$ 100V	Philips	2222 638 34569
C515	Capacitor polyethylene 0.1uF $\pm 20\%$ 100V	Ph/ERO	2222 344 24104
C516	Capacitor ceramic 10nF -20/+80% 30V	Ferroperm	9/0145.9
R501	Resistor 2.7K ohm 0.33W	Philips	2322 101 33272
R502	Resistor 330 ohm 0.33W	Philips	2322 101 33331
R503	Resistor 10 ohm 0.33W	Philips	2322 101 33109
R504	Resistor 680 ohm 0.33W	Philips	2322 101 33681
R505	Resistor 270 ohm 0.33W	Philips	2322 101 33271
R506	Resistor 100 ohm 0.33W	Philips	2322 101 33101
R507	Resistor 15K ohm 0.33W	Philips	2322 101 33153
R508	Resistor 2.2K ohm 0.33W	Philips	2322 101 33222
R509	Resistor 470 ohm 0.33W	Philips	2322 101 33471
R510	Resistor 390 ohm 0.33W	Philips	2322 101 33391
R511	Resistor 3.3K ohm 0.33W	Philips	2322 101 33332
R512	Resistor 3,3 ohm 0.33W	Philips	2322 101 33338
R513	Resistor 27K ohm 0.33W	Philips	2322 101 33273
R514	Resistor 2.7K ohm 0.33W	Philips	2322 101 33272
R515	Resistor 560 ohm 0.33W	Philips	2322 101 33561
R516	Resistor 47 ohm 0.33W	Philips	2322 101 33479
L501	Coil 6uH	S.P.	TL 059
L502	Coil 12uH $\pm 5\%$	Kaschke	220/5
L503	Coil 12uH $\pm 5\%$	Kaschke	220/5
TR501	Transformer TL 198 Tg. no.6-0-21345	S.P.	15+15/30/0,15 ES

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
T501	Transistor	Philips	BF 199
T502	Transistor	Philips	BF 199
IC501	Integrated circuit	N.S.	LM 3053

VCXO and Loop 2-filter for S1300

1/2

Symbol	Description				Manufact.	
R601	Resistor	2,7 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13272
R602	Resistor	10 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13103
R603	Resistor	220 ohm	$\pm 5\%$	0,33W	Philips	2322 211 13221
R604	Resistor	2,7 Mohm	$\pm 5\%$	0,33W	Philips	2322 211 13275
R605	Resistor	4,7 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13472
R606	Resistor	220 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13224
R607	Resistor	18 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13183
R608	Resistor	NTC 4,7Kohm	$\pm 5\%$	0,5 W	Philips	2322 635 02472
R609	Resistor	180 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13184
R610	Resistor	15 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13153
R611	Resistor	680 ohm	$\pm 5\%$	0,33W	Philips	2322 211 13681
R612	Resistor	180 ohm	$\pm 5\%$	0,33W	Philips	2322 211 13181
R613	Resistor	33 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13333
R614	Resistor	1,5 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13152
R615	Resistor	100 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13104
R616	Resistor	5,6 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13562
R617	Resistor	18 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13183
R618	Resistor	10 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13103
R619	Resistor	390 ohm	$\pm 5\%$	0,33W	Philips	2322 211 13391
R620	Resistor	39 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13393
R621	Resistor	5,6 Kohm	$\pm 5\%$	0,33W	Philips	2322 211 13562
R622	Resistor	560 ohm	$\pm 5\%$	0,33W	Philips	2322 211 13561
R623	Resistor	150 ohm	$\pm 5\%$	0,33W	Philips	2322 211 13151
R624	Resistor	560 ohm	$\pm 5\%$	0,33W	Philips	2322 211 13561
C601	Capacitor	ceramic	10nF-20/+80%	32V	Ferroperm	9/0145,9
C602	Capacitor	ceramic	10nF-20/+80%	32V	Ferroperm	9/0145,9
C603	Capacitor	polyester	47nF $\pm 10\%$	100V	Philips	2222 344 25473
C604	Capacitor	ceramic	33pF $\pm 2\%$	100V	Philips	2222 642 34339
C605	Capacitor	polyester	680 nF $\pm 10\%$	100V	Philips	2222 344 25684
C606	Capacitor	polyester	47nF $\pm 10\%$	100V	Philips	2222 344 25473
C607	Capacitor	polyester	470nF $\pm 10\%$	100V	Philips	2222 344 25474
C608	Capacitor	polyester	47nF $\pm 20\%$	100V	Philips	2222 344 24473
C609	Capacitor	ceramic	56pF $\pm 2\%$	100V	Philips	2222 642 34569
C610	Capacitor	polyester	51pF $\pm 1\%$	500V	Philips	2222 427 45109
C611	Capacitor	ceramic	5,6pF $\pm 0,25\text{pF}$	63V	Draloric	3x4 N150/1B
C612	Capacitor	ceramic	10nF-20/+80%	32V	Ferroperm	9/0145,9
C613	Capacitor	tantal	10uF-20/+50%	25V	Ero	ETP-3F

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
C614	Capacitor polyester 47nF $\pm 20\%$ 100V	Philips	2222 344 24473
C615	Capacitor tantal 10uF $-20/+50\%$ 25V	Ero	ETP-3F
C616	Capacitor polystyrene 220pF $\pm 5\%$ 500V	Philips	2222 427 22201
L601	Coil	S.P.	TL 257
T601	Transistor	Philips	BF256B
T602	Transistor	Philips	BF199
T603	Transistor	Philips	BC558
D601	Diode variocap.	Motorola	MV109
D602	Diode variocap.	Motorola	MV109
IC601	Integrated circuit	N.S.	LM 308N
X601	Crystal f=10097,60 kHz 30 pF	K.V.G.	XS 2804

Motor control unit S1300

1/3

Symbol	Description	Manufact.	
R701	Resistor 390 ohm $\pm 5\%$	Philips	2322 211 13391
R702	Resistor 10Kohm $\pm 5\%$	Philips	2322 211 13103
R703	Resistor 3.9Kohm $\pm 5\%$	Philips	2322 211 13392
R704	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R705	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R706	Resistor 820 ohm $\pm 5\%$	Philips	2322 211 13821
R707	Resistor 8,2Kohm $\pm 5\%$	Philips	2322 211 13822
R708	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R709	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R710	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R711	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R712	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R713	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R714	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R715	Resistor 10Kohm $\pm 5\%$	Philips	2322 211 13103
R716	Resistor 10Kohm $\pm 5\%$	Philips	2322 211 13103
R717	Resistor 5,6Kohm $\pm 5\%$	Philips	2322 211 13562
R718	Resistor 1Kohm $\pm 5\%$	Philips	2322 211 13102
R719	Resistor 1Kohm $\pm 5\%$	Philips	2322 211 13102
R720	Resistor 1Kohm $\pm 5\%$	Philips	2322 211 13102
R721	Resistor 1Kohm $\pm 5\%$	Philips	2322 211 13102
R722	Resistor 1Kohm $\pm 5\%$	Philips	2322 211 13102
R723	Resistor 3,9Kohm $\pm 5\%$	Philips	2322 211 13392
R724	Resistor 100Kohm $\pm 5\%$	Philips	2322 211 13104
R725	Resistor 3,9Kohm $\pm 5\%$	Philips	2322 211 13392
R726	Resistor 1Kohm $\pm 5\%$	Philips	2322 211 13102
R727	Resistor 100Kohm $\pm 5\%$	Philips	2322 211 13104
R728	Resistor 100Kohm $\pm 5\%$	Philips	2322 211 13104
R729	Resistor 100Kohm $\pm 5\%$	Philips	2322 211 13104
R730	Resistor 100Kohm $\pm 5\%$	Philips	2322 211 13104
R731	Resistor 100Kohm $\pm 5\%$	Philips	2322 211 13104
R732	Resistor 10Kohm $\pm 5\%$	Philips	2322 211 13103
RA701	Resistor, array 8x10Kohm $\pm 5\%$	ITT	VR8, 10Kohm $\pm 5\%$
RA702	Resistor, array 8x820 ohm $\pm 5\%$	ITT	VR10, 820ohm $\pm 5\%$
RA703	Resistor, array 8x10Kohm $\pm 5\%$	ITT	VR8, 10Kohm $\pm 5\%$

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
C701	Capacitor, polyester 220nF \pm 20% 100V	Philips	2222 344 24224
C702	Capacitor, electrolytic 10uF-10/+100% 25V	Siemens	B41313-A5106-V
C703	Capacitor, polyester 10nF \pm 20% 250V	Philips	2222 344 40103
C704	Capacitor, tantal 0,1uF-20/+50% 35V	Ero	ETP 1A
C705	Capacitor, tantal 0,1uF-20/+50% 35V	Ero	ETP 1A
C706	Capacitor, tantal 0,1uF-20/+50% 35V	Ero	ETP 1A
C707	Capacitor, tantal 0,1uF-20/+50% 35V	Ero	ETP 1A
C708	Capacitor, tantal 0,1uF-20/+50% 35V	Ero	ETP 1A
D701	Diode, silicon	Philips	BAV 21
D702	Diode, silicon	Philips	BAV 21
D703	Diode, silicon	Philips	BAV 21
D704	Diode, silicon	Philips	BAV 21
D705	Diode, silicon	Philips	BAV 21
D706	Diode, silicon	Philips	BAV 21
D708	Diode, silicon	Philips	BAV 21
D709	Diode, silicon	Philips	BAV 21
D710	Diode, silicon	Philips	BAV 21
D711	Diode, silicon	Philips	BAV 21
D712	Diode, silicon	Philips	BAV 21
T701	Transistor	Philips	BC548
T702	Transistor	Philips	BC328-25
T703	Transistor	Philips	BC328-25
T704	Transistor	Philips	BC328-25
T705	Transistor	Philips	BC328-25
T706	Transistor	Philips	BC328-25
T707	Transistor	Philips	BC328-25
T708	Transistor	Philips	BC328-25
T709	Transistor	Philips	BC328-25
T710	Transistor	Philips	BC328-25
T711	Transistor	Philips	BC338-25
T712	Transistor	Philips	BC548
T713	Transistor	Philips	BC548
T714	Transistor	Philips	BC548
T715	Transistor	Philips	BC548

Motor control unit S1300

3/3

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
IC701	Integrated circuit	Texas	SN7407N
IC702	Integrated circuit	Motorola	MC14519B CP
IC703	Integrated circuit	Motorola	MC14077B CP
IC704	Integrated circuit	Motorola	MC14077B CP
IC705	Integrated circuit	Motorola	MC14081B CP
IC706	Integrated circuit	Motorola	MC14530B CP
IC707	Integrated circuit	Motorola	MC14515B CP

Symbol	Description	Manufact.	
R901	Resistor 470 ohm 5% 1,14W	Philips	2322 214 13471
R902	Potentiometer 1 Kohm cermet 0,5 W	Philips	2322 482 20102
R903	Resistor 2,7Kohm 5% 0,33W	Philips	2322 211 13272
R904	Resistor 220 ohm 5% 0,33W	Philips	2322 211 13221
R905	Resistor 33 ohm 5% 7 W	Philips	2322 330 32339
R906	Resistor 1Kohm 5% 0,5 W	Philips	2322 212 13102
R907	Resistor 1Kohm 5% 0,5 W	Philips	2322 212 13102
C901-			
C915	Capacitor polyester 100nF $\pm 20\%$ 100V	Philips	2222 344 24104
C916	Capacitor polycarbonate 1nF $\pm 20\%$ 630V	ERO	KC 1849 210/6
C917-			
C920	Capacitor polyester 100nF $\pm 20\%$ 100V	Philips	2222 344 24104
C921	Capacitor polycarbonate 1nF $\pm 20\%$ 630V	ERO	KC 1841 210/6
C922	Capacitor polycarbonate 1nF $\pm 20\%$ 630V	ERO	KC 1849 210/6
C923	Capacitor electrolytic 47uF-10/+50% 63V	Siemens	B41283-C8476-T
C924	Capacitor polyester 100nF $\pm 20\%$ 100V	Philips	2222 344 24104
C925	Capacitor tantalum 10uF-20/+50% 25V	ERO	ETP 3F
C926	Capacitor electrolytic 10uF-10/+100%40V	Siemens	B41313-A7106-V
C927	Capacitor polyester 100nF $\pm 20\%$ 100V	Philips	2222 344 24104
D901	Diode	Philips	BAV 21

Symbol	Description	Manufact.	
R1001	Resistor 10Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13103
R1002	Resistor 18Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13183
R1003	Resistor 47Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13473
R1004	Resistor 330 ohm $\pm 5\%$ 1,15W	Philips	2322 214 13331
R1005	Resistor 68 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13689
R1006	Resistor 10Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13103
R1007	Resistor 3,0Kohm $\pm 5\%$ 0,33W	Philips	2322 211 23302
C1001	Capacitor tantal 4,7uF-20/+50% 35V	Ero	ETP 2E
C1002	Capacitor electrolytic 470uF-20/+50% 25V	Philips	2222 017 16471
C1003	Capacitor polyester 0,1uF $\pm 10\%$ 100V	Philips	2222 344 25104
C1004	Capacitor polyester 10nF $\pm 20\%$ 250V	Philips	2222 344 40103
C1005	Capacitor polyester 10 nF $\pm 20\%$ 250V	Philips	2222 344 40103
C1006	Capacitor polyester 10nF $\pm 20\%$ 250V	Philips	2222 344 40103
FP1001-			
FP1003	Ferrit bead	Kaschke	K3/1200/0,1HZ 4/2/7A
D1001	Diode	Philips	BAV 21
D1002	Diode	Philips	BAV 21
D1003	Diode	Philips	BAV 21
D1004	Diode	Philips	BAV 21
D1005	Diode	Philips	BAV 21
D1006	Diode	Philips	BAV 21
D1007	Diode	Philips	BAV 21
D1008	Diode	Philips	BAV 21
D1009	Diode	Philips	BAV 21
D1010	Diode	Philips	BAV 21
RE1001	Relay 24V	Siemens	V23154-N0721-B110
RE1002	Relay 22V-15/+10%-10°C/+60°C	Pasi	MS/K BV863
R1003	Relay 24V	Siemens	V23154-N0721-B110
R1004	Relay reed	Siemens	V23100-V4024-A001
T1001	Transistor	Philips	BC 558
S1001	Switch (Simplex/duplex)	MEC	Draw. 7-3-21486
S1002	Switch	MEC	Draw. 7-3-20060
	Only versions which are not allowed to send A3H above 4Mc.		

Symbol	Description	Manufact.	
R1101	Resistor 6,8 Kohm $\pm 5\%$	0,33W Philips	2322 211 13682
R1102	Resistor 1 Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R1103	Resistor 220 ohm $\pm 5\%$	0,33W Philips	2322 211 13221
R1104	Resistor 1 Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R1105	Resistor 1 Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R106	Resistor 1 Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R1107	Resistor 1 Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R1108	Resistor 6,8 Kohm $\pm 5\%$	0,33W Philips	2322 211 13682
R1109	Trimming potentiometer 47 Kohm $\pm 20\%$	0,5 W Philips	2322 482 20473
R1110	Resistor 4,7 Kohm $\pm 5\%$	0,33W Philips	2322 211 13472
R1111	Resistor 12 Kohm $\pm 5\%$	0,33W Philips	2322 211 13123
R1112	Resistor 2,2 Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R1113	Resistor 2,2 Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R1114	Resistor 2,2 Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R1115	Resistor 2,2 Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R1116	Resistor 68 ohm $\pm 5\%$	0,33W Philips	2322 211 13689
R1117	Resistor 150 ohm $\pm 5\%$	0,33W Philips	2322 211 13151
R1118	Resistor 22 Kohm $\pm 5\%$	0,33W Philips	2322 211 13223
R1119	Resistor 47 Kohm $\pm 5\%$	0,33W Philips	2322 211 13473
R1120	Resistor 47 Kohm $\pm 5\%$	0,33W Philips	2322 211 13473
R1121	Resistor 47 ohm $\pm 5\%$	0,33W Philips	2322 211 13479
R1122	Resistor 47 ohm $\pm 5\%$	0,33W Philips	2322 211 13479
R1123	Resistor 220 ohm $\pm 5\%$	0,33W Philips	2322 211 13271
R1124	Resistor 47Kohm $\pm 5\%$	0,33W Philips	2322 211 13473
R1125	Trimming potentiometer 100 ohm $\pm 20\%$	0,5 W Philips	2322 482 20101
R1126	Resistor 330 ohm $\pm 5\%$	0,33W Philips	2322 211 13331
R1127	Resistor 330 ohm $\pm 5\%$	0,33W Philips	2322 211 13331
R1128	Resistor 1,2 Kohm $\pm 5\%$	0,33W Philips	2322 211 13122
R1129	Resistor 47 Kohm $\pm 5\%$	0,33W Philips	2322 211 13473
R1130	Resistor 470 ohm $\pm 5\%$	0,33W Philips	2322 211 13471
R1131	Resistor 2,2 Kohm $\pm 5\%$	0,33W Philips	2322 211 13222
R1132	Resistor 18 Kohm $\pm 5\%$	0,33W Philips	2322 211 13183
R1133	Resistor 56 Kohm $\pm 5\%$	0,33W Philips	2322 211 13563
R1134	Resistor 100 ohm $\pm 5\%$	0,33W Philips	2322 211 13101
R1135	Resistor 1 Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R1136	Resistor 1 Kohm $\pm 5\%$	0,33W Philips	2322 211 13102
R1137	Resistor 22 Kohm $\pm 5\%$	0,33W Philips	2322 211 13223
R1138	Resistor 68 Kohm $\pm 5\%$	0,33W Philips	2322 211 13683
R1139	Resistor 1.5 Kohm $\pm 5\%$	0,33W Philips	2322 211 13152

Symbol	Description	Manufact.	
R1140	Resistor NTC 1 Kohm $\pm 10\%$	Philips	0,5 W 2322 642 12102
R1141	Resistor 1 Kohm $\pm 5\%$	Philips	0,33W 2322 211 13102
R1142	Resistor 150 ohm $\pm 5\%$	Philips	0,33W 2322 211 13151
R1143	Resistor 330 ohm $\pm 5\%$	Philips	0,33W 2322 211 13331
R1144	Resistor 2,7 Kohm $\pm 5\%$	Philips	0,33W 2322 211 13272
R1145	Resistor 1,8 Kohm $\pm 5\%$	Philips	0,33W 2322 211 13782
R1146	Resistor 22 Kohm $\pm 5\%$	Philips	0,33W 2322 211 13222
R1147	Resistor 15 Kohm $\pm 5\%$	Philips	0,33W 2322 211 13152
R1148	Resistor 168 ohm $\pm 5\%$	Philips	0,33W 2322 211 13689
R1149	Resistor 15 Kohm $\pm 5\%$	Philips	0,33W 2322 211 13153
R1150	Resistor 330 ohm $\pm 5\%$	Philips	0,33W 2322 211 13331
R1151	Trimming potentiometer 220 ohm $\pm 20\%$	Philips	0,5W 2322 482 20221
R1152	Resistor 220 ohm $\pm 5\%$	Philips	0,33W 2322 211 13221
C1101	Capacitor tantal 4,7uF-20/+50%	ERO	35V ETP 2E
C1102	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1103	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1104	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1105	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1106	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1107	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1108	Capacitor polystyrene 1,2nF $\pm 5\%$	Philips	125V 2222 425 21202
C1109	Capacitor polystyrene 4,7nF $\pm 5\%$	Philips	125V 2222 425 24702
C1110	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1111	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1112	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1113	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1114	Capacitor polystyrene 1nF $\pm 5\%$	Philips	125V 2222 425 21002
C1115	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1116	Capacitor electrolytic 100uF-20/+50%	Siemens	25V B41283-B5107-T
C1117	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1118	Capacitor polyester 10nF $\pm 20\%$	Philips	250V 2222 344 40103
C1119	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1120	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 40103
C1121	Capacitor polyester 10nF $\pm 20\%$	Philips	250V 2222 344 40103
C1122	Capacitor ceramic 27pF $\pm 5\%$	Ferroperm	400V 9/0112,9
C1123	Capacitor trimmer teflon 2,5-45pF	NPO DAU	107-5901 045
C1124	Capacitor polyester 0,1uF $\pm 20\%$	Philips	100V 2222 344 24104
C1125	Capacitor polystyrene 1nF $\pm 5\%$	Philips	125V 2222 425 21002

Symbol	Description	Manufact.	
C1126	Capacitor polyester 0,1uF $\pm 20\%$ 100V	Philips	2222 344 24104
C1127	Capacitor polystyrene 1,5nF $\pm 5\%$ 125V	Philips	2222 425 21502
C1128	Capacitor polystyrene 3,3nF $\pm 5\%$ 125V	Philips	2222 425 23302
C1129	Capacitor polyester 0,1uF $\pm 20\%$ 100V	Philips	2222 344 24104
C1130	Capacitor polyester 0,1uF $\pm 20\%$ 100V	Philips	2222 344 24104
C1131	Capacitor polyester 0,1uF $\pm 20\%$ 100V	Philips	2222 344 24104
C1132	Capacitor polyester 0,1uF $\pm 20\%$ 100V	Philips	2222 344 24104
C1133	Capacitor polyester 0,1uF $\pm 20\%$ 100V	Philips	2222 344 24104
C1134	Capacitor polyester 0,1uF $\pm 20\%$ 100V	Philips	2222 344 24104
C1135	Capacitor polystyrene 1nF $\pm 5\%$ 125V	Philips	2222 425 21002
C1136	Capacitor polyester 0,1uF $\pm 20\%$ 100V	Philips	2222 344 24104
L1101	Coil	S.P.	TL013
L1102	RF-Choke 1mH	Prahn	1580/9K
L1103	Coil	S.P.	TL 260
L1104	RF-Choke 1mH	Prahn	1580/9K
L1105	RF-Choke 1mH	S.P.	TL 076
L1106	Coil	S.P.	TL 026
L1107	Coil	S.P.	TL 013
L1108	Coil	S.P.	TL 220
T1101	Transistor silicon	Philips	BC 547
T1102	Transistor silicon	Philips	BC 547
T1103	Transistor silicon	Philips	BC 547
T1104	Transistor silicon	Philips	BC 547
T1105	Transistor silicon	Philips	BF 199

SSB-Generator S1300

4/4

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
D1101	Diode silicon	Philips	BA182
D1102	Diode silicon	Philips	BA182
D1103	Diode silicon	Philips	BA182
D1104	Diode silicon	Philips	BA182
IC1101	Integrated circuit	RCA	CA3019
FL1101	LSB crystal filter	NDK	YF600

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
R1201	Potentiometer trimmer 1 Kohm	Philips	2322 482 20102
R1202	Resistor 330 ohm $\pm 5\%$ 1,15W	Philips	2322 214 13331
R1203	Resistor 1Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13102
R1204	Resistor 2,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13272
R1205	Resistor 2,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13272
R1206	Resistor 180 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13181
R1207	Resistor 100 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13101
R1208	Resistor 4,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13472
R1209	Resistor 100Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13104
R1210	Resistor 2,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13272
R1211	Resistor 820 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13821
R1212	Resistor 100Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13104
R1213	Resistor 220Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13224
R1214	Resistor 4,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13472
R1215	Resistor 4,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13472
R1216	Resistor 390 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13391
R1217	Resistor 10Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13103
R1218	Resistor 4,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13472
R1219	Resistor 10Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13103
R1220	Resistor 1Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13102
R1221	Resistor 470 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13471
R1222	Resistor 2,2Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13222
R1223	Resistor 220Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13224
R1224	Potentiometer trimmer 100Kohm	Philips	2322 482 20104
R1225	Resistor 2,2Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13222
R1226	Resistor 10Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13103
R1227	Resistor 3,9Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13392
R1228	Resistor 3,9Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13392
R1229	Resistor 100Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13104
R1230	Resistor 1Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13102
R1231	Resistor 2,2Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13222
R1232	Potentiometer trimmer 470 ohm 0,33W	Philips	2322 482 20471
R1233	Resistor 47Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13473
R1234	Resistor 47Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13473
R1235	Resistor 2,2Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13222
R1236	Resistor 1Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13102
R1237	Resistor 1Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13102

Microphone amplifier S1300

2/3

Symbol	Description		Manufact.	
R1238	Resistor 3,9 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13392
R1239				
R1241	Resistor 2,2 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13222
R1242	Resistor 390 ohm $\pm 5\%$	0,33W	Philips	2322 211 13391
R1243	Resistor 270 ohm $\pm 5\%$	0,33W	Philips	2322 211 13271
R1244	Resistor 120 ohm $\pm 5\%$	0,33W	Philips	2322 211 13121
R1245				
R1247	Resistor 1 Kohm $\pm 5\%$	0,33W	Philips	2322 211 13102
C1201	Capacitor tantal 33uF-20/+50%	10V	Ero	ETP 3G
C1202	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
C1203	Capacitor tantal 220nF-20/+50%	35V	Ero	ETP 1A
C1204	Capacitor ceramic 1nF-20/+80%	40V	Ferroperm	9/0129,8
C1205	Capacitor ceramic 1nF-20/+80%	40V	Ferroperm	9/0129,8
C1206	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
C1207	Capacitor tantal 100nF-20/+50%	35V	Ero	ETP 1A
C1208	Capacitor electrolytic 470uF-10/+50%	10V	Siemens	B41283-A3477-T
C1209	Capacitor polyester 100nF $\pm 20\%$	100V	Ero	MKT 1822-410/0
C1210	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
C1211	Capacitor ceramic, distance between terminals=5,1mm 150pF $\pm 10\%$	25V	Ferroperm	9/0121,8
C1212				
C1213	Capacitor polyester 100nF $\pm 20\%$	100V	Ero	MKT 1822-410/0
C1214	Capacitor electrolytic 10uF-10/+50%	63V	Siemens	B41283-A8106-T
C1215	Capacitor polyester 100nF $\pm 20\%$	100V	Ero	MKT 1822-410/0
C1216	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
C1217	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
C1218	Capacitor tantal 10uF-20/+50%	25V	Ero	ETP 3F
C1219	Capacitor polyester 47nF $\pm 10\%$	250V	Philips	2222 344 41473
C1220	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
C1221	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
C1222	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
C1223	Capacitor polyester 68nF $\pm 10\%$	250V	Philips	2222 344 41683
C1224				
C1226	Capacitor tantal 4,7uF-20/+50%	35V	Ero	ETP 2E
L1201	Coil		S.P.	TL 219

Microphone amplifier S1300

3/3

Symbol	Description	Manufact.	
T1201	Transistor	Philips	BC338
T1202	Transistor	Philips	BF256
T1203	Transistor	Philips	BC548B
T1204	Transistor	Philips	BC548B
T1205	Transistor	Philips	BC548B
T1206	Transistor	Philips	BC548B
T1207	Transistor	Philips	BC558B
T1208	Transistor	Philips	BC558B
R1209	Transistor	Philips	BC548B
T1210-			
T1213	Transistor	Philips	BC548B
D1201	Diode, zener	5,1V $\pm 5\%$	1W Motorola 1N4733A
D1202	Diode, zener	5,1V $\pm 5\%$	0,4W Philips BZX79 C5V1
D1203	Diode		Philips BAV 21
D1204	Diode, zener	7,5V $\pm 5\%$	0,4W Philips BZX79 C7V5
D1205	Diode		Philips BAV 21
D1206-			
D1209	Diode		Philips BA 182
IC1201	Integrated circuit	Texas	SN7472N

Alarm Signal Generator S1300

1/2

Symbol	Description	Manufact.	
R1301	Trimming potmeter 100Kohm	Philips	2322 410 43311
R1302	Resistor 2,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13272
R1303	Resistor 150 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13151
R1304	Resistor 33 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13339
R1305	Resistor 1Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13102
R1306	Resistor 2,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13272
R1307	Resistor 150 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13151
R1308	Resistor 82Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13823
R1309	Resistor 22Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13223
R1310	Resistor 270 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13271
R1311	Resistor 22Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13223
R1312	Resistor 100 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13101
R1313	Resistor 82Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13823
R1314	Resistor 2,7Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13272
R1315	Resistor 1Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13102
R1316	Resistor 3,3Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13332
R1317	Resistor 15Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13153
R1318	Resistor 27Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13273
R1319	Resistor 150 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13151
R1320	Resistor 1Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13102
R1321	Resistor 270 ohm $\pm 5\%$ 1,15W	Philips	2322 214 13271
R1322	Resistor 10Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13103
R1323	Resistor 270Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13274
R1324	Resistor 27 ohm $\pm 5\%$ 0,33W	Philips	2322 211 13279
R1325	Resistor 330Kohm $\pm 5\%$ 0,33W	Philips	2322 211 13334
C1301	Capacitor tantal 4,7uF-20/+50% 35V	Ero	ETP2E
C1302	Capacitor tantal 10uF-20/+50% 25V	Ero	ETP3F
C1303	Capacitor tantal 1,5uF-20/+50% 35V	Ero	ETP1B
C1304	Capacitor polystyren 22nF $\pm 1\%$ 125V	Philips	2222 425 42203
C1305	Capacitor polyester 22nF $\pm 10\%$ 250V	Philips	2222 344 41223
C1306	Capacitor polyester 22nF $\pm 10\%$ 250V	Philips	2222 344 41223
C1307	Capacitor tantal 10uF-20/+50% 25V	Ero	ETP3F
C1308	Capacitor polystyren 47nF $\pm 1\%$ 125V	Philips	2222 425 44703
C1309	Capacitor tantal 3,3uF-20/50% 35V	Ero	ETP 2D
C1310	Capacitor tantal 22uF-20/50% 16V	Ero	ETP3G

Alarm Signal Generator S1300

2/2

Symbol	Description	Manufact.	
C1311	Capacitor tantal 10uF-20/50%	Ero	25V ETP3F
C1312	Capacitor tantal 22uF-20/50%	Ero	16V ETP3G
C1313	Capacitor tantal 22uF-20/50%	Ero	16V ETP3G
C1314	Capacitor tantal 4,7uF-20/50%	Ero	35V ETP2E
C1315	Capacitor polyester 10nF $\pm 10\%$	Philips	2222 344 41103
C1316	Capacitor tantal 68uF $\pm 10\%$	Ero	16V ETQ5
L1301	Coil 2200 Hz	SP	TLO22
L1302	Coil 1300 Hz	SP	TLO21
D1301	Diode silicon	Philips	BAX 16
D1302	Diode silicon	Philips	BA182
D1303	Diode silicon	Philips	BA182
D1304	Diode zener 7,5V $\pm 5\%$	Motorola	1W 1N4737A
T1101	Transistor	Motorola	2N4871
T1102	Transistor	Philips	BC548
T1103	Transistor	Philips	BC548
T1104	Transistor	Philips	BC338
T1105	Transistor	Philips	BC548
IC1301	Integrated circuit	Texas	SN 7472 N
IC1302	Integrated circuit	Motorola	MC 1455 P1.

Driver-Unit for S1300

1/1

Symbol	Description	Manufact.	
R1401	Resistor 560 ohm $\pm 5\%$ 1,15W	Philips	2322 214 13561
R1402	Resistor 15 ohm $\pm 5\%$ 0,5 W	Philips	2322 211 23159
R1403	Resistor 15 ohm $\pm 5\%$ 0,5 W	Philips	2322 211 23159
C1401	Capacitor polyester 220nF $\pm 20\%$ 100V	Philips	2222 344 24224
C1402	Capacitor ceramic 10nF -20/+80% 32V	Ferroperm	9/0145,9
C1403	Capacitor polyester 22nF $\pm 20\%$ 250V	Philips	2222 344 40223
C1404	Capacitor polyester 220nF $\pm 20\%$ 100V	Philips	2222 344 24224
L1401	Coil 330nH $\pm 10\%$	Ferroperm	1582/7
L1402	Coil 33uH $\pm 10\%$	Ferroperm	1583
L1403	Coil 33uH $\pm 10\%$	Ferroperm	1583
T1401	Transistor, $h_{FE} > 10$ for ($V_{CE}, I_C = (5V, 0,25A)$)	Motorola	2N5641

Symbol	Description			Manufact.	
R1501	Resistor	220 ohm $\pm 5\%$	0,33W	Philips	2322 211 13221
R1502	Resistor	470 ohm $\pm 5\%$	0,33W	Philips	2322 106 33471
R1503	Resistor	39 ohm $\pm 5\%$	0,33W	Philips	2322 211 13399
R1504	Resistor	120 ohm $\pm 5\%$	0,33W	Philips	2322 211 13121
R1505	Resistor	10 ohm $\pm 5\%$	0,33W	Philips	2322 211 13109
R1506	Resistor	27 ohm $\pm 5\%$	0,33W	Philips	2322 211 13279
R1507	Resistor	120 ohm $\pm 5\%$	0,5 W	Philips	2322 212 13121
R1508	Resistor	390 ohm $\pm 5\%$	0,33W	Philips	2322 106 33391
R1509	Resistor	1,5Kohm $\pm 5\%$	0,33W	Philips	2322 211 13152
R1510	Not mounted				
R1511	Resistor	390 ohm $\pm 5\%$	0,33W	Philips	2322 106 33391
R1512	Resistor	1,5Kohm $\pm 5\%$	0,33W	Philips	2322 211 13152
R1513	Not mounted				
R1514	Resistor	390 ohm $\pm 5\%$	0,33W	Philips	2322 106 33391
R1515	Resistor	1,5Kohm $\pm 5\%$	0,33W	Philips	2322 211 13152
R1516	Not mounted				
R1517	Resistor	390 ohm $\pm 5\%$	0,33W	Philips	2322 106 33391
R1518	Resistor	1,5Kohm $\pm 5\%$	0,33W	Philips	2322 211 13152
R1519	Resistor	15Kohm $\pm 5\%$	0,33W	Philips	2322 211 13153
R1520	Resistor	390 ohm $\pm 5\%$	0,33W	Philips	2322 106 33391
R1521	Resistor	1,5Kohm $\pm 5\%$	0,33W	Philips	2322 211 13152
R1522	Resistor	15Kohm $\pm 5\%$	0,33W	Philips	2322 211 13153
R1523	Resistor	390 ohm $\pm 5\%$	0,33W	Philips	2322 106 33391
R1524	Resistor	1,5Kohm $\pm 5\%$	0,33W	Philips	2322 211 13152
R1525	Resistor	22Kohm $\pm 5\%$	0,33W	Philips	2322 211 13223
R1526	Resistor	180Kohm $\pm 5\%$	0,33W	Philips	2322 211 13184
R1527	Resistor	390 ohm $\pm 5\%$	0,33W	Philips	2322 106 33391
R1528	Resistor	1,5Kohm $\pm 5\%$	0,33W	Philips	2322 211 13152
R1529	Resistor	680 ohm $\pm 5\%$	0,33W	Philips	2322 211 13681
R1530	Resistor	150 ohm $\pm 5\%$	0,33W	Philips	2322 211 13151
R1531	Resistor	180 ohm $\pm 5\%$	0,33W	Philips	2322 211 13181
R1532	Resistor	68 ohm $\pm 5\%$	0,33W	Philips	2322 211 13689
R1533	Resistor	18 ohm $\pm 5\%$	0,33W	Philips	2322 211 13189

Symbol	Description	Manufact.			
R1534	Potentiometer trimmer, cerment 100 Ohm $\pm 2\%$	Philips	2322	482	20101
R1535	Resistor 680 ohm $\pm 5\%$ 0,5W	Philips	2322	212	13681
R1536	Potentiometer trimmer, 47 ohm $\pm 10\%$ 3W	A.B.Metal	115	Q 7	
R1537	Resistor 27 ohm $\pm 5\%$ 0,33W	Philips	2322	211	13279
C1501	Capacitor polyester 100 nF $\pm 20\%$ 100V	Philips	2222	344	24104
C1502	Capacitor polyester 100 nF $\pm 20\%$ 100V	Philips	2222	344	24104
C1503	Capacitor polyester 100 nF $\pm 20\%$ 100V	Philips	2222	344	24104
C1504	Capacitor ceramic 10 nF $-20/+80\%$ 32V	Ferroperm	9/0145,9		
C105	Capacitor polyester 100 nF $\pm 20\%$ 100V	Philips	2222	344	24104
C1506	Capacitor ceramic 10 nF $-20/+80\%$ 32V	Ferroperm	9/0145,9		
C1507	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222	344	40223
C1508	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222	344	40223
C1509	Capacitor polystyrene 62 pF $\pm 2\%$ 500V	Philips	2222	427	36209
C1510	Capacitor ceramic 3,3 pF $\pm 0,25\text{pF}$ NPO 400V	Ferroperm	9/0112,9		
C1511	Capacitor polystyrene 180 pF $\pm 2\%$ 500V	Philips	2222	427	31801
C1512	Capacitor polystyrene 91 pF $\pm 2\%$ 500V	Philips	2222	427	39109
C1513	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222	344	40223
C1514	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222	344	40223
C1515	Capacitor polystyrene 75 pF $\pm 2\%$ 500V	Philips	2222	427	37509
C1516	Capacitor ceramic 4,3pF $\pm 0,25\text{pF}$ NPO 400V	Ferroperm	9/0112,9		
C1517	Capacitor polystyrene 220 pF $\pm 2\%$ 500V	Philips	2222	427	32201
C1518	Capacitor polystyrene 110 pF $\pm 2\%$ 500V	Philips	2222	427	31101
C1519	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222	344	40223
C1520	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222	344	40223
C1521	Capacitor polystyrene 91 pF $\pm 2\%$ 500V	Philips	2222	427	39109
C1522	Capacitor ceramic 5,1pF $\pm 0,25\text{pF}$ NPO 400V	Ferroperm	9/0112,9		
C1523	Capacitor polystyrene 270 pF $\pm 2\%$ 500V	Philips	2222	427	32701
C1524	Capacitor polystyrene 130 pF $\pm 2\%$ 500V	Philips	2222	427	31301
C1525	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222	344	40223
C1526	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222	344	40223

Symbol	Description	Manufact.	
C1527	Capacitor polystyrene 120 pF $\pm 2\%$ 500V	Philips	2222 427 31201
C1528	Capacitor ceramic 7,5 pF $\pm 0,25$ pF NPO 4 00V	Ferroperm	9/0112,9
C1529	Capacitor polystyrene 330 pF $\pm 2\%$ 500V	Philips	2222 427 33301
C1530	Capacitor polystyrene 180 pF $\pm 2\%$ 500V	Philips	2222 427 31801
C1531	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222 344 40223
C1532	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222 344 40223
C1533	Capacitor polystyrene 180 pF $\pm 2\%$ 500V	Philips	2222 427 31801
C1534	Capacitor ceramic 11 pF $\pm 5\%$ NPO 400V	Ferroperm	9/0112,9
C1535	Capacitor polystyrene 510 pF $\pm 2\%$ 250V	Philips	2222 426 35101
C1536	Capacitor polystyrene 270 pF $\pm 2\%$ 500V	Philips	2222 427 32701
C1537	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222 344 40223
C1538	Capacitor polyester 22 nF $\pm 20\%$ 250V	Philips	2222 344 40233
C1539	Capacitor polystyrene 220 pF $\pm 2\%$ 500V	Philips	2222 427 32201
C1540	Capacitor ceramic 13 pF $\pm 5\%$ NPO 400V	Ferroperm	9/0112,9
C1541	Capacitor polystyrene 680 pF $\pm 2\%$ 250V	Philips	2222 426 36801
C1542	Capacitor polystyrene 330 pF $\pm 2\%$ 500V	Philips	2222 427 33301
C1543	Capacitor polystyrene 150 pF $\pm 2\%$ 500V	Philips	2222 427 31501
C1544	Capacitor polyester 100 nF $\pm 20\%$ 100V	Philips	2222 344 24104
C1545	Capacitor polystyrene 390 pF $\pm 2\%$ 250V	Philips	2222 426 33901
C1546	Capacitor polystyrene 150 pF $\pm 2\%$ 500V	Philips	2222 427 31501
C1547	Capacitor polyester 100 nF $\pm 20\%$ 100V	Philips	2222 344 24104
C1548	Capacitor polyester 220 nF $\pm 20\%$ 100V	Philips	2222 344 24224
C1549	Capacitor polystyrene 3,9 nF $\pm 5\%$ 63V	Philips	2222 424 23902
C1550	Capacitor polyester 220 nF $\pm 20\%$ 100V	Philips	2222 344 24224
C1551	Capacitor polyester 220 nF $\pm 20\%$ 100V	Philips	2222 344 24224
C1552	Capacitor ceramic 10 nF $-20/+80\%$ 32V	Ferroperm	9/0145,9
C1553	Capacitor polyester 220 nF $\pm 20\%$ 100V	Philips	2222 344 24224
L1501	Coil	S.P.	TL 247
L1502	Coil	S.P.	TL 248
L1503	Coil	S.P.	TL 245
L1504	Coil	S.P.	TL 246
L1505	Coil	S.P.	TL 243
L1506	Coil	S.P.	TL 244
L1507	Coil	S.P.	TL 241
L1508	Coil	S.P.	TL 242
L1509	Coil	S.P.	TL239

Bandfilter S1300

4/4

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
L1510	Coil	S.P.	TL 240
L1511	Coil	S.P.	TL 237
L1512	Coil	S.P.	TL 238
L1513	Coil	S.P.	TL 236
L1514	Coil	S.P.	TL 236
T1501	Transistor	Philips	BFW17A
T1502	Transistor	Philips	BFW17A
D1501-			
D1517	Diode	Philips	BA182
D1518	Diode	Philips	BAV21
TR1501	Transformer	S.P.	TL 249
TR1502	Transformer	S.P.	TL 249

Symbol	Description			Manufact.	
R1601	Resistor	820 ohm $\pm 5\%$	0,33W	Philips	2322 211 13821
R1602	Resistor	1,5Kohm $\pm 5\%$	0,33W	Philips	2322 211 13152
R1603	Resistor	6,8Kohm $\pm 5\%$	0,33W	Philips	2322 211 13682
R1604	Resistor	820 ohm $\pm 5\%$	0,33W	Philips	2322 211 13821
R1605	Resistor	3,3Kohm $\pm 5\%$	0,33W	Philips	2322 211 13332
R1606	Resistor	220 ohm $\pm 5\%$	0,33W	Philips	2322 211 13221
R1607	Resistor	12Kohm $\pm 5\%$	0,33W	Philips	2322 211 13123
R1608	Resistor	5,6Kohm $\pm 5\%$	0,33W	Philips	2322 211 13568
R1609	Resistor	10Kohm $\pm 5\%$	0,33W	Philips	2322 211 13103
R1610	Resistor	4,7Kohm $\pm 5\%$	0,33W	Philips	2322 211 13472
R1611	Resistor	120 ohm $\pm 5\%$	0,33W	Philips	2322 211 13121
R1612	Resistor	150 ohm $\pm 5\%$	0,33W	Philips	2322 211 13151
R1613	Resistor	470 ohm $\pm 5\%$	0,33W	Philips	2322 211 13471
R1614	Resistor	39Kohm $\pm 5\%$	0,33W	Philips	2322 211 13393
R1615	Resistor	560 ohm $\pm 5\%$	0,33W	Philips	2322 211 13561
R1616	Resistor	560 ohm $\pm 5\%$	0,33W	Philips	2322 211 13561
R1617	Resistor	8Kohm $\pm 5\%$	0,33W	Philips	2322 211 13183
R1618	Resistor	10Kohm $\pm 5\%$	0,33W	Philips	2322 211 13103
R1619	Resistor	27Kohm $\pm 5\%$	0,33W	Philips	2322 211 13273
R1620	Resistor	68 ohm $\pm 5\%$	0,33W	Philips	2322 211 13689
R1621	Resistor, NTC	150 ohm $\pm 10\%$	0,5 W	Philips	2322 642 12151
R1622	Resistor	150 ohm $\pm 5\%$	0,33W	Philips	2322 211 13151
R1623	Resistor	220 ohm $\pm 5\%$	0,33W	Philips	2322 211 13221
R1624	Resistor	1Kohm $\pm 5\%$	0,33W	Philips	2322 211 13102
R1625	Resistor	8,2Kohm $\pm 5\%$	0,33W	Philips	2322 211 13822
R1626	Resistor	680 ohm $\pm 5\%$	0,33W	Philips	2322 211 13681
R1627	Resistor	5,6Kohm $\pm 5\%$	0,33W	Philips	2322 211 13562
R1628	Resistor	100 ohm $\pm 5\%$	0,33W	Philips	2322 211 13101
R1629	Resistor	22Kohm $\pm 5\%$	0,33W	Philips	2322 211 13223
R1630	Resistor	330 ohm $\pm 5\%$	0,33W	Philips	2322 211 13331
R1631	Resistor	100 ohm $\pm 5\%$	0,33W	Philips	2322 211 13101
R1632	Resistor	47 ohm $\pm 5\%$	0,33W	Philips	2322 211 13479
R1633	Resistor	220 ohm $\pm 5\%$	0,33W	Philips	2322 211 13221
R1634	Resistor	33 ohm $\pm 5\%$	0,33W	Philips	2322 211 13339
R1635	Resistor	180 ohm $\pm 5\%$	0,5 W	Philips	2322 212 13181
R1636	Resistor	22 ohm $\pm 5\%$	0,33W	Philips	2322 211 13229
R1637	Resistor	180 ohm $\pm 5\%$	0,33W	Philips	2322 211 13181
R1638	Resistor	560 ohm $\pm 5\%$	0,33W	Philips	2322 211 13561

Symbol	Description	Manufact.	
C1601	Capacitor tantalum 22uF-20/+50% 16V	Ero	ETP 3G
C1602	Capacitor polyester 22nF+20% 250V	Philips	2222 344 40223
C1603	Capacitor tantalum 22uF-20/+50% 16V	Ero	ETP 3G
C1604	Capacitor tantalum 22uF-20/+50% 16V	Ero	ETP 3G
C1605	Capacitor polyester 22nF+20% 250V	Philips	2222 344 40223
C1606	Capacitor polyester 22nF+20% 250V	Philips	2222 344 40223
C1607	Capacitor polyester 22nF+20% 250V	Philips	2222 344 40223
C1608	Capacitor polyester 22nF+20% 250V	Philips	2222 344 40223
C1609	Capacitor polystyren 270pF+2% 500V	Philips	2222 427 32701
C1610	Capacitor polyester 220nF+20% 100V	Philips	2222 344 24224
C1611	Capacitor polystyren 100pF+2% 500V	Philips	2222 427 31001
C1612	Capacitor polystyren 82pF+2% 500V	Philips	2222 427 38209
C1613	Capacitor polyester 22nF+20% 250V	Philips	2222 344 40223
C1614	Capacitor polystyren 100pF+2% 500V	Philips	2222 427 31001
C1615	Capacitor polystyren 470pF+2% 250V	Philips	2222 426 34701
C1616	Capacitor polystyren 100pF+2% 500V	Philips	2222 427 31001
C1617	Capacitor polyester 22nF+20% 250V	Philips	2222 344 40223
C1618	Capacitor ceramic 22pF+10% 400V	Ferroperm	9/0116,9
C1619	Capacitor polyester 22nF+20% 250V	Philips	2222 344 40223
C1620	Capacitor polystyren 330pF+2% 500V	Philips	2222 427 33301
C1621	Capacitor polystyren 820pF+2% 250V	Philips	2222 426 38201
C1622	Capacitor polystyren 180pF+2% 500V	Philips	2222 427 31801
C1623	Capacitor polystyren 1,5nF+2% 125V	Philips	2222 425 31502
C1624	Capacitor polyester 100nF+20% 100V	Philips	2222 344 24104
C1625	Capacitor polyester 100nF+20% 100V	Philips	2222 344 24104
C1626	Capacitor polyester 100nF+20% 100V	Philips	2222 344 24104
C1627	Capacitor polyester 100nF+20% 100V	Philips	2222 344 24104
C1628	Capacitor polyester 100nF+20% 100V	Philips	2222 344 24104
C1629	Capacitor polyester 100nF+20% 100V	Philips	2222 344 24104
L1601	Coil	S.P.	TL 251
L1602	Coil	S.P.	TL 252
L1603	Coil	S.P.	TL 252
L1604	Coil	S.P.	TL 251
L1605	Coil	S.P.	TL 251
TR1601	W.B. Trafo	S.P.	TL 256

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
T1601	Transistor	Philips	BC548B
T1602	Transistor	Philips	BF199
T1603	Transistor	Philips	BF256C
T1604	Transistor	Philips	BF494
T1605	Transistor	Philips	BF199
T1606	Transistor	Philips	BFW17A
D1601	Diode	Philips	BAV21
D1602	Diode	Philips	BAV21
FL1601	Crystal filter f=10,697 MHz	S.P.	10F15AC
M1601	Mixer, double balanced	S.P.	C1007

Main chassis S1300

1/1

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
LA1701	Light emitting diode	MER-EL	XC 5053Y
LA1702	Light emitting diode	MER-EL	XC 5053Y
IC1701	Voltage regulator	National	LM317T
IC1702	Voltage regulator	Motorola	MC7805CT
S1701	Switch	Cherry	E62 10HS PDT
S1702	Switch	C&K	7103 SYZQ
J1701	Socket	Hirschmann	Meb 60 H-DK
J1702	Coax-socket	K.V.Hansen	S0 239
P1701	Plug	Hirschmann	Mes 60 BZ
P1702	Plug	Molex	03-06-2364
MC1701	Microphone cartridge	50 ohm	GNT AN1-52001
TC1701	Telephone cartridge	200 ohm	Holmco 6890 350A3

