

Mobile & Basestation AP 700 UHF 20/25 kHz & 50 kHz 422-470 MHz

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		Stykl. nr.:	
	AP-RADIOTELEFON	Tegn. nr.:	71048/4

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		AP-RADIOTELEFON	Tegn. nr.:	71157/4

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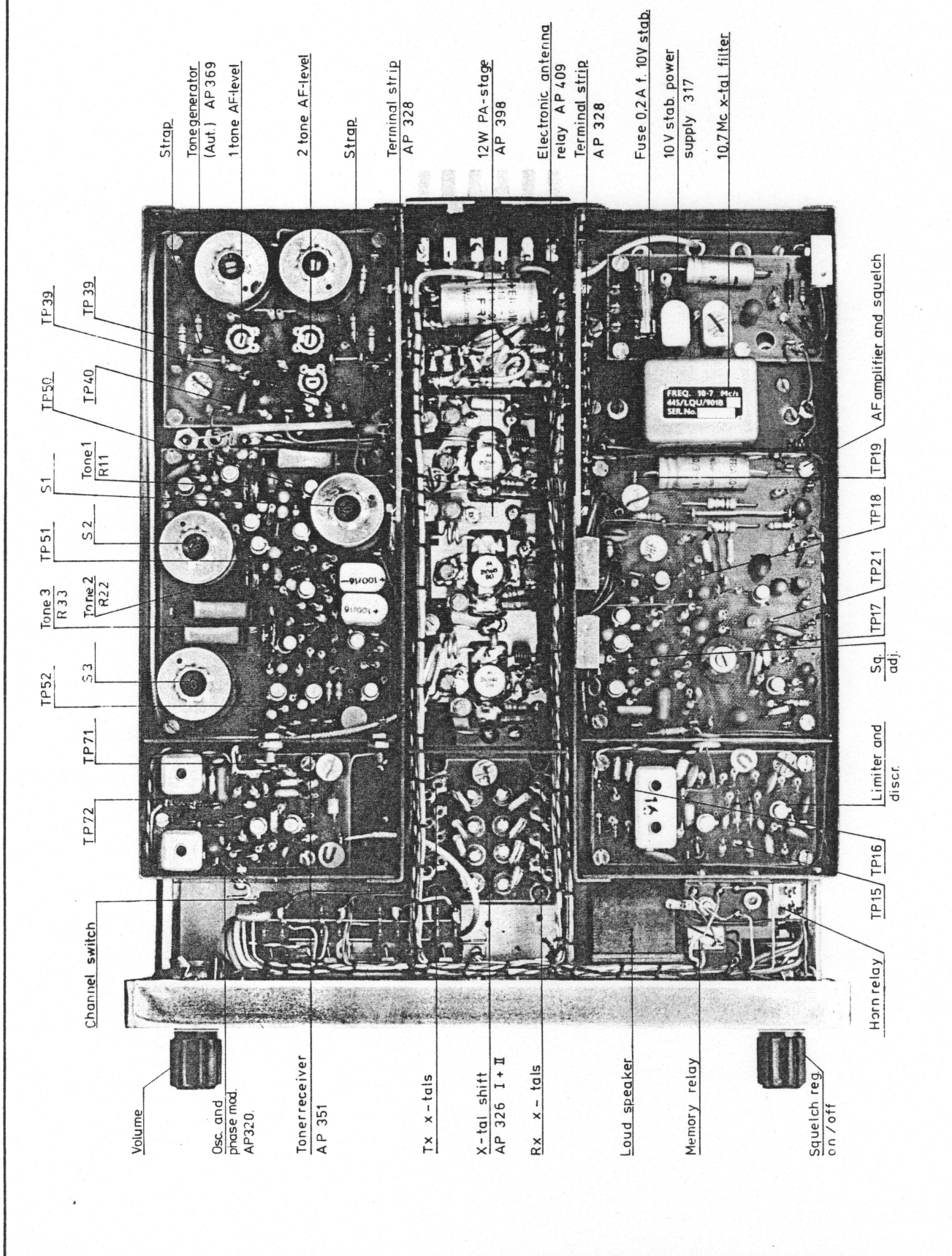
Rettet: 	CONTENTS III	Tegn.:	Kontr.: <i>E.F</i> <i>16-3-71</i>
		Stykl. nr.:	
	AP-RADIOTELEFON	Tegn. nr.: 71158/4	

Retter:

TOP VIEW OF MOBILE
LOCAL CONTROLLED AP 700 UHF.

AP - RADIOTELEFON

Tegn.:	Kontr.:
Stykl. nr.:	
Tegn. nr.:	71153/4



Volume

Osc. and phase mod. AP320

Channel switch

TP72

TP71

S3

Tone 2 R22

S2

Tone 1 R11

TP51

S1

TP50

TP39

TP39

Strap

Tone generator (Aut.) AP 369

1 tone AF-level

2 tone AF-level

Strap

Terminal strip AP 328

12W PA-stage AP 398

Electronic antenna relay AP 409

Terminal strip AP 328

Fuse 0.2 A f. 10V stab.

10 V stab. power supply 317

10.7 Mc x-tal filter

AF amplifier and squelch

TP19

TP18

TP21

TP17

Sq. adj.

Limiter and discr.

TP16

TP15

Horn relay

Squelch reg. on / off

Memory relay

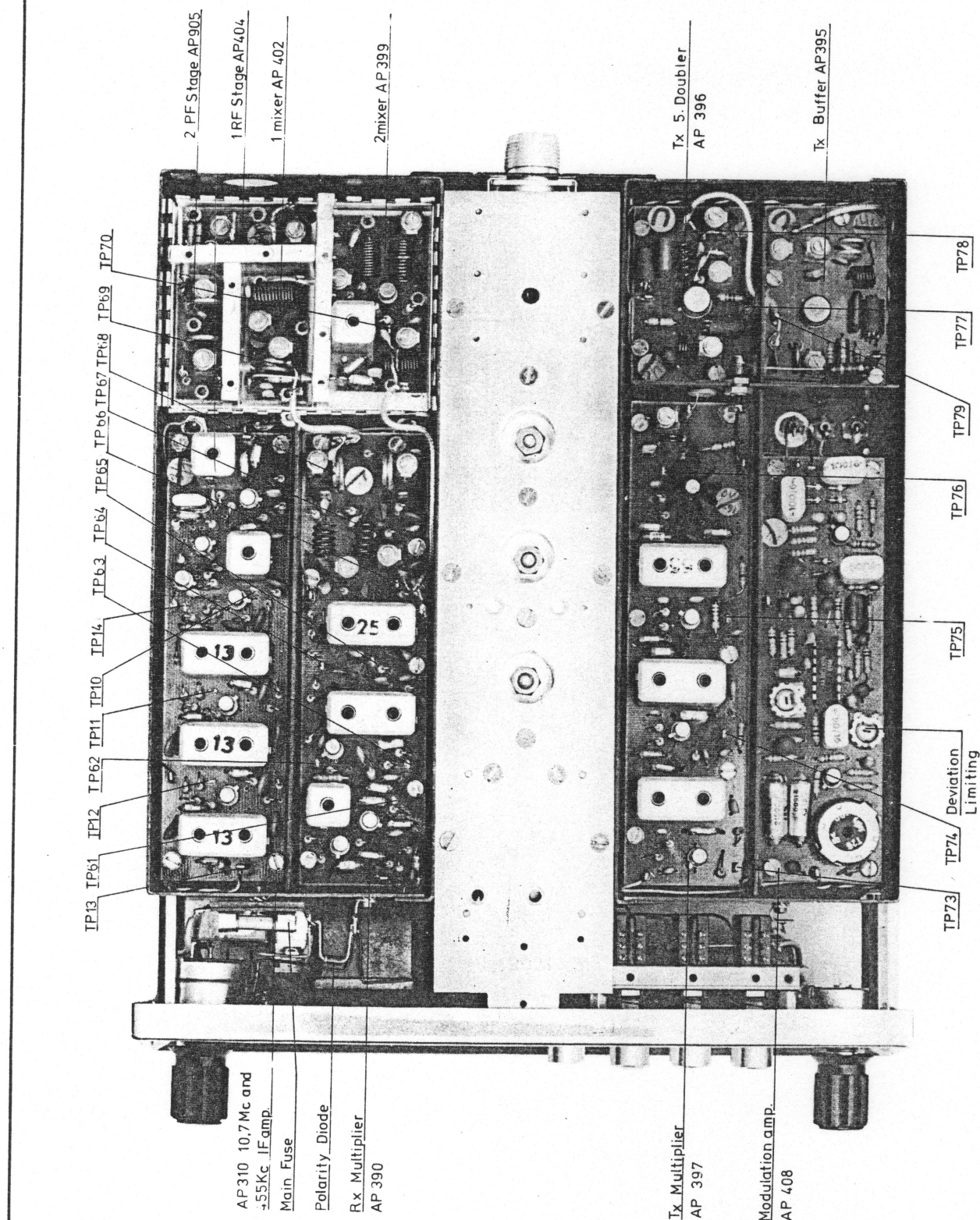
Loud speaker

Rx x - tals

X - tal shift AP 326 I + II

Tx x - tals

Tonerreceiver AP 351



Retter:

BOTTOM VIEW OF MOBILE
LOCAL CONTROLLED AP 700 UHF.

AP-RADIOTELEFON

Tegn.:

Kontr.:

Stykl. nr.:

Tegn. nr.:

71154/4

A.P. 700

4 channel UHF F.M. Radiotelephone.

Technical data:

General:

Operation: Single-frequency simplex, two-frequency simplex (semiduplex)

Channels: 1 to 4 with 20/25KHz and 50 KHz spacing.

Frequency range: 422 - 470 MHz

Modulation: Frequency modulation F 3.

Deviation: 4/5 KHz and 15 KHz

Controls: on/off switch, volume, squelch, channel selector, transmitter key, switch for selective call and an auxiliary switch.

Power supply: Main unit adapted for direct 12 Volt (nom.) battery supply with negative earth.
Optional separate converter units supplied for ± 6 , ± 12 and ± 24 Volts d.c. Separate 220 Volts AC Power supplies, and automatic emergency power supplies are also available.

Current consumption at 13,8 V: Stand by: 0,15 A.
Reception: 0,2 A.
Transmission: 3 A

Loudspeaker: Internal 5 ohms 2"

Microphone: 200 ohms dynamic.

Coaxial connector: 50 ohms UHF type

Working temperature: From -25° to $+50^{\circ}$ centigrade.

Dimensions: Height 5,7 cm, width 22 cm, depth 31 cm, weight 3,5kg

Rettet:	Technical Data I	Tegn.:	Kontr.: E.F.
	AP 700 UHF	Stykl. nr.:	18-9-70
	AP-RADIOTELEFON	Tegn. nr.:	70315/4

Transmitter:

Power output: 10 to 13 Watts at 13,8 V supply voltage.
6 Watt at 12,6 V in the 6 Watt version.

Spurious outputs and harmonics: Each less than 0,2 μ W.

Frequency Stability: Mobile, better than $\pm 2,5$ KHz from -25° to $+50^{\circ}$ C.
Basestation, better than ± 1 KHz " " "

Microphone input: Nominal for 200 ohms dynamic microphone.

A.F.response: Within +1 to -1,5 dB of a 6 dB pr. octave pre-emphasis characteristic from 0,3 to 3 KHz, referred to 1 KHz level.

Modulation limiting: Obtained by an a.g.c. controlled amplifier.
with less than 2% distortion at full limiting.

Receiver:

Sensitivity: 0,7 μ V E.M.F. for 12 dB SINAD.

Adjacent channel selectivity: Better than 75 dB

Spurious responses: None greater than 80 dB

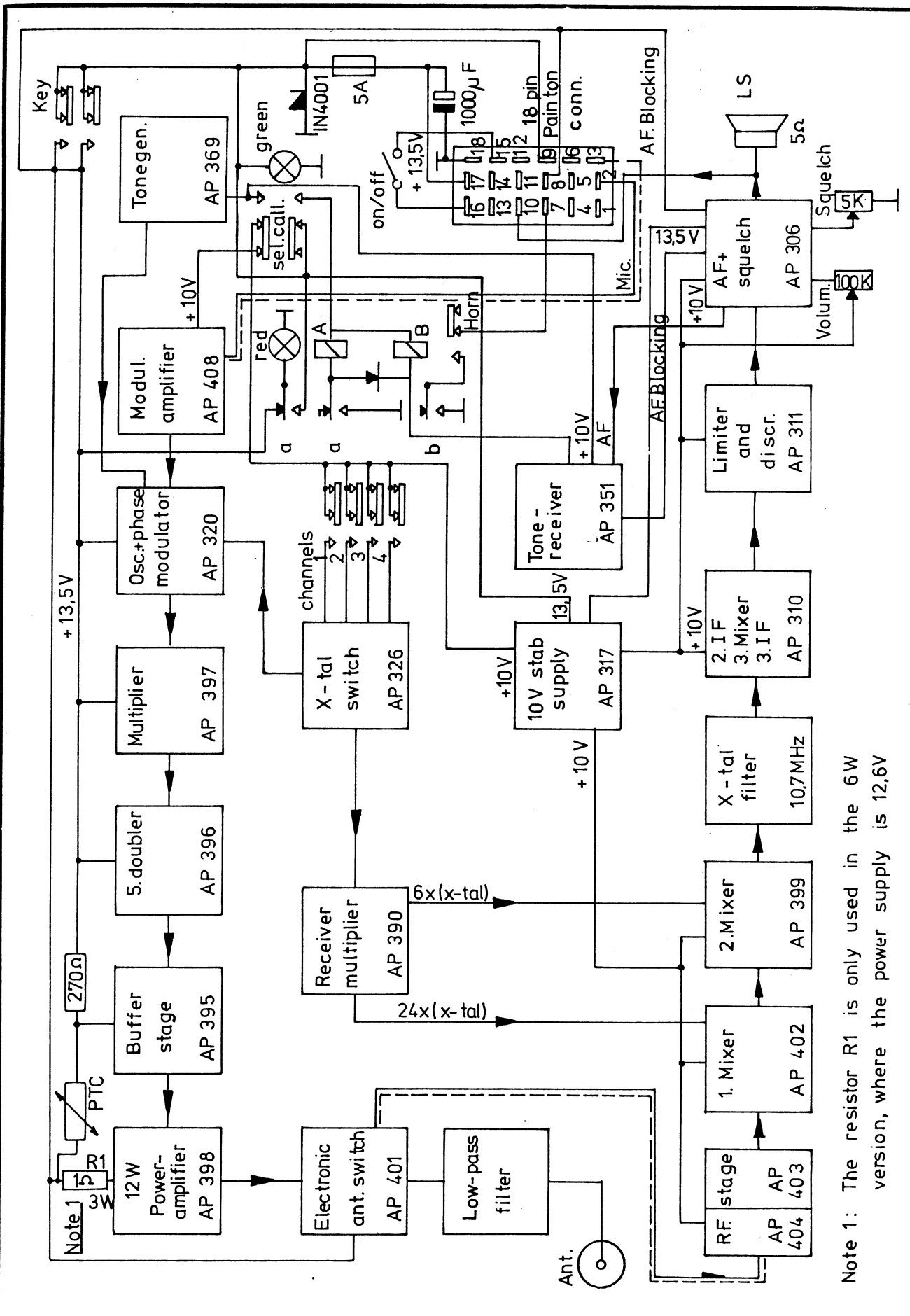
Intermodulation: 66 dB.

A.F.response: +1 to -3 dB of a 6 dB pr. octave deemphasis characteristic from 0,3 to 3 KHz referred to 1 KHz level.

Audio output power: 2 Watts into 5 ohms with less than 10% distortion at 13,8 V supply voltage

Figures quoted are typical and must be specifically confirmed before they become applicable to any particular tender, order or contract

Rettet:	Technical Data II	Tegn.:	Kontr.: EF
	AP 700 UHF	Stykl. nr.:	18-9-70
	AP-RADIOTELEFON	Tegn. nr.:	70316/4



Note 1: The resistor R1 is only used in the 6W version, where the power supply is 12.6V

Rettet: 	Diagram AP 700 UHF with 4 channels and sel.call. AP-RADIOTELEFON	Tegn.: AB.P 18/9-70 Stykl. nr.: Tegn. nr.: 70319/4	Kontr.: E.F 18-9-70
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Technical description of the
AP 700 UHF Communicationset.

Receiver.

The receiver is a triple super. It consists of one RF stage on the operating frequency, feeding the first mixer, mixing down to the first IF app. 80 MHz. This first IF is mixed down to 10,7 MHz in the second mixer, and fed through a x-tal filter to the 3rd mixer, where the low IF of 455 KHz is produced. This signal is detected and fed to the AF and loudspeaker.

The injection signals for the 1st and 2nd mixer are made by multiplication from a x-tal oscillator operating in the range 14-16 MHz. The multiplying factor is 24 times for the 1st oscillator and 6 times for the 2nd oscillator.

In the first stages of the receiver, field effect transistors are used in order to obtain good intermodulation and blocking ratios. The RF amplifier has 4 tuned circuits on the operating frequency in order to obtain the necessary selectivity. The RF-signal from the antenna is fed to a dual gate MOSFET, amplified and fed to the gate of the J-FET in the first mixer.

The injection signal from the first oscillator app. 80 MHz below the RF signal is fed to the source of the J-FET. The resulting first IF-signal app. 80 MHz, is passed through a 3-stage filter, to obtain high selectivity, and to gate 1 of the dual gate MOSFET in the 2nd mixer. The injection signal is fed to gate 2. The outcoming signal is the 2nd IF of 10,7 MHz, which is passed through a x-tal filter with 90 dB attenuation on neighbouring channels, and further amplified before it is fed to the 3rd mixer, where it is mixed with a x-tal oscillator on the frequency 10.245 MHz.

The converted signal on 455 KHz is amplified in a 2 stage amplifier and fed to a limiter and Foster Seeley discriminator.

The demodulated signal is integrated with a 6 dB roll off per octave and amplified in a 4 stage pre- & power AF-amplifier delivering 2 Watts in a 5 ohm load with nominal supply voltage.

Part of the noise generated in the limiter is fed via a rectifier doubler to a DC-amplifier, muting the LF-amplifier in case of missing or too weak RF signal.

Rettet:	Technical Description of the	Tegn.:	Kontr.: EF
	AP 700 UHF. Receiver	Stykl. nr.:	17-9-70
	AP-RADIOTELEFON	Tegn. nr.:	70313/4

Technical description of the AP 700 UHF Communicationset.

Transmitter.

The AF-signal from the microphone is amplified in a modulation amplifier, built around an integrated circuit, containing two separated amplifiers. The first amplifier is used as a normal pre-amplifier. Via a trimpot, for gain adjustment, the signal is fed into the next amplifier, through a gain compression system, which becomes active over a certain AF output level. With the aid of the following trimpot, max deviation can be adjusted. Finally the AF-signal is amplified in a single transistor amplifier followed by a lowpass-filter cutting off sharply over 3000 Hz.

The x-tal oscillator works at about 14 MHz. Via a bufferstage this signal is fed to a phasemodulator, consisting of 2 resonent circuits tuned with varactor diodes, modulated with the AF-signal. The phase modulated RF-signal is passed into the multiplier, consisting of 4 doubler stages with a bandpass filter between each stage, multiplying the frequency to 225 MHz.

A single doubler stage multiplies this signal up to 450 MHz, passing a further bandpassfilter. The signal is amplified in a bufferstage to 250 mW, which is used to drive the power amplifier. This power amplifier has 3 stages and the output power is 6 or 12 Watts. On the way to the antenna, the output passes an electronic antenna switch, consisting of 3 diodes and 2 quarterwavelength sections. With the transmitter on, a bias is impressed on the diodes making these work as a short, passing the transmitter signal unhampered; but preventing it from reaching the input circuit of the receiver. To suppress harmonic frequencies, the transmitter output signal is passed through a lowpass filter. To prevent overheating of the power amplifier transistors, either at high ambient temperature or with mismatched output, a ptc resistor is mounted on the heatsink and wired in series with power supply to the bufferstage, reducing the drive to the power amplifier, if the temperature rises over a dangerous value.

Rettet: _____ _____ _____ _____ _____ _____	Technical Description of the AP 700 UHF Transmitter	Tegn.: _____ Stykl. nr.: _____	Kontr.: EF 17-9-70
	AP-RADIOTELEFON	Tegn. nr.: 70314/4	

Tuning Instructions for the AP 700 UHF.

Receiver:

Instruments used:

VTVM	Marconi TF 2604	-	or equiv.
Signal/Generator	Marconi TF 1066/B	"	"
Sweep/Generator	TLH 208	-	" "
Distortion Meter	Heathkit	-	" "

2nd and 3rd IF amp. AP 310

With the sweep generator adjusted to 10,7 Hz, tune the 2nd and 3rd IF.

Connect the diode probe to TP10, and the RF output to TP1 on pcb. AP 399. Now the 2nd IF can be tuned.

Starting on pcb. AP 399, tune S4 for min. ripple on the filter, continuing on pcb. AP 310, tune S1 for min. ripple and S2 for max. amplification.

Then move the diodeprobe to TP 13 and tune S3, S4 and S5 for max. amplification and symmetry.

Now connect the AF input of the sweep generator direct to TP 16 on pcb. AP 311. Tune S1 for max. slope and best possible symmetry.

With the RF probe of the VTVM connected to TP 14, check if the x-tal oscillator for the 3rd mixer is working. - reading 0,2 V.AC.

Multiplier AP 390:

The receiver frequency is found by the formula:

$$\text{frec} = 30 (\text{fx.tal}) - 10,7 \text{ MHz.}$$

The multiplying factor for the 1st oscillator is 24, and for the 2nd oscillator is 6.

Connect the RF probe of the VTVM to TP61 and read 0,3-0,4 VAC with the oscillator working.

Connect the DC probe to TP63 and tune S1 for max. deflection: 0,2-0,4 V DC.

Then connect the DC probe to TP65 and tune S2 to max. reading should be 0,3-0,5 V DC.

Then move DC probe to TP66 tune S3 for max. deflection, read 0,16-0,8 V DC.

Rettet:	TUNING INSTRUCTION I RECEIVER UHF AP 700	Tegn.: 25.1.71 BEP	Kontr.: EF/Js 26-1-71
		Stykl. nr.:	
		Tegn. nr.: 71052/4	
	AP-RADIOTELEFON		

Move the DC probe to TP67 and tune S4 and S5 for max. read 0,18-0,25 V DC.

Now connect RF probe to TP68 and tune S6 and S7 for max. reading approx. 0,4-0,7 V AC, depending on the position of C3 in the 1st mixer stage - pcb. AP 402 -.

2nd mixer AP 399

Connect the RF probe of the VTVM to TP70 and tune S3 for max. read 0,7-1 V AC.

Adjust the signal generator to the 1st IF i.e. $f_{\text{rec}} = 24 \times f_{\text{xtal}}$ MHz.

Fasten a loop to the generator cable and couple this to S1 on pcb. AP 402 and adjust S1 for max. sensitivity, continuing to pcb AP 399, adjust S1, S2 and S3 for max sensitivity.

1st mixer AP 402:

Connect the signal gen., tuned to the desired receiver frequency, to the input connector of the receiver.

Now adjust S1 and S2 for best possible sensitivity. Check with the RF probe of the VTVM that there is 0,4-0,6 V AC on TP69.

1st and 2nd RF stage's AP 403 and AP 404:

Adjust S1 and S2 on pcb 403 and AP 404 to max. sensitivity, which should be 0,6-0,8 μ V EMF for 12 dB SINAD or 0,9-1,1 μ V EMF for 20 dB quieting.

After ended receiver adjustments, the frontend shielding has to be fitted and a readjustment of the frontend is necessary

AF squelch AP 306

Normally it should not be necessary to adjust the AF amplifier, but for controlling the squelch functioning, the voltage readings on the different test points should be as follows:

On TP20 should be 8 V AC, "NOISE", so the squelch can function satisfactory.

With the squelch fully opened there should be 1,5 V DC on TP21 and 1,2 V DC on TP18.

With the squelch fully closed there should be no reading on TP18, and the AF amplifier blocked.

Check if the signal generator is capable to open the squelch at 0,7 μ V.

Rettet:	TUNING INSTRUCTION II RECEIVER UHF AP700	Tegn.: 25.1.71 BEP	Kontr.: EF/JS 26-1-71
		Stykl. nr.:	
		Tegn. nr.: 71053/4	
	AP-RADIOTELEFON		

Tuning Instructions for the AP 700 UHF.

Transmitter:

Instruments used:

VTVM - Marconi TF 2604 - or equiv.

Wattmeter Bird Tru Line 43 - -

Modulationmeter - Marconi TF 2300 - or equiv.

50 Ω resistive load.

Audio generator - Philips GM 2308 - or equiv.

Power supply during tuning has to be 12 Volt. The voltage as given on the diagram are measured on a ready tuned transmitter with a supply of 13,8 Volt.

Before tuning set all trimmers halfway.

Phase modulator AP 320:

To make sure the oscillator is working, connect the AC probe of the VTVM to TP71 and read 0,3 AC. Next connect the AC-probe to TP72 and tune S1 and S2 for max. deflection.

This tuning can also be done by connecting the DC probe to TP1 on print AP 397 and tune to max deflection.

Multiplier AP 397

Connect the DC probe to TP74 and tune S1 to max. deflection, move probe to TP75 and tune S2 for max. Tune S3 for max. with probe on TP76

5 doubler AP 396 and buffer AP 395.

Connect the Wattmeter to the output pins of print AP 395, by unsoldering the cable to the PA. stage. Measuring range: 1 W full scale.

Connect the DC probe to TP77 of print AP 396, tune C25 on AP 397 and C2 on AP 396 for max. deflection.

Now connect the DC probe to TP79 on AP 395. Tune C5 and C7 on print AP 395 to max. dip.

If the Wattmeter before this last instruction shows an output, adjust directly after this indication for max. output. Next adjust C6 and C7 for max. output.

Complete with fine tuning of all the trimmers. Resolder cable to PA stage.

Rettet	TUNING INSTRUCTION I TRANSMITTER UHF	Tegn.: 25.1.71 BEP	Kontr.: EF/J.S. 26-1-71
		Stykl. nr.:	
	AP-RADIOTELEFON	Tegn. nr.:	71054/4

PA stage AP 398:

Connect the Wattmeter to transmitter output connector. Start with turning C20 and C21 in and out, if there is an indication on the Wattmeter, adjust to max. If no indication on the Wattmeter, turn the other trimmers in and out, but make sure to leave the trimmers on the halfway point before turning to another trimmer, as long as there has not been any reaction on the Wattmeter. As soon as there is an indication on the Wattmeter, adjust C10 and C21 to max. indication. Then adjust C2 for max. deflection, adjust C8 and C9 over several times till the absolute maximum deflection is reached. The same counts for C14 and C15, also for C20 and C21.

Finally fine tune all trimmers beginning from the input.

Output effect should be at least 8 W with 12 Volt supply. With a supply of 13,8 V at least 11 W, and with a supply of 10,8 V at least 5 W.

Comprising 6 Watt types the power output should be between 6 and 7 Watt at 12,6 Volt supply. At 11,3 Volt at least 4,25 Watt should be obtained.

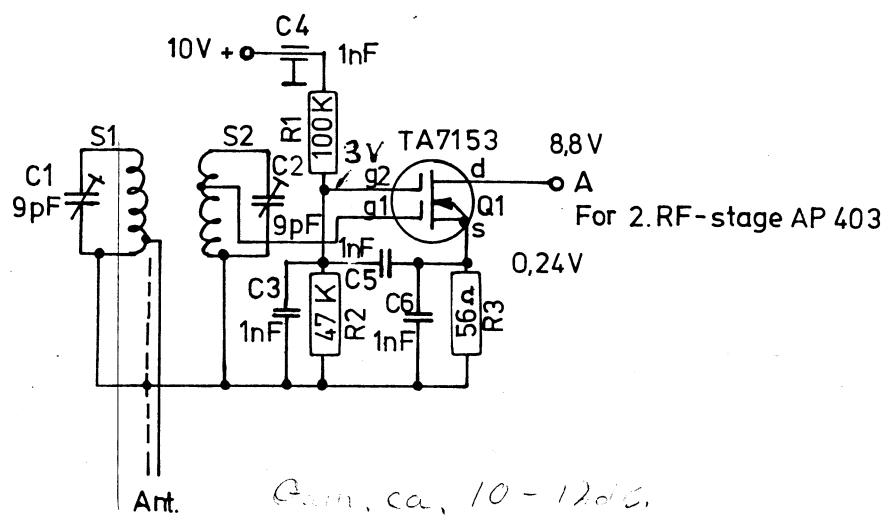
Modulation amplifier AP 408

Connect to the microphone input an audio generator matched to 200 Ω , with frequency 1000 Hz, input should be 2 mV. Connect modulation meter and tune in.

Adjust limiter pot R12 to max. allowed frequency deviation. Reduce input with 20 dB to 0,2 mV. Adjust level pot. R6 to 2/3 of max. frequency deviation. Readjust input to 2 mV again and check max. deviation, readjust if necessary.

Finally check frequency deviation with 0,2 mV input.

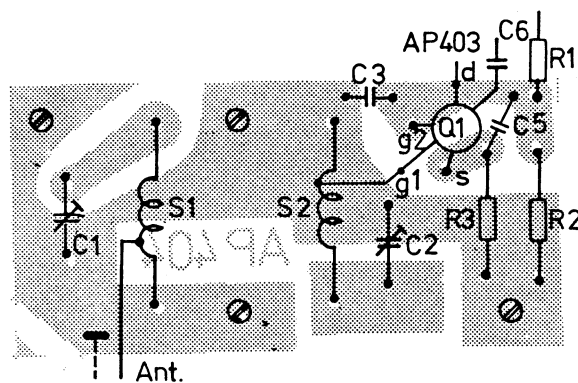
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		Stykl. nr.:	
		Tegn. nr.: 71055/4	
		AP-RADIOTELEFON	



Remarks: Quoted DC potentials are measured to chassis.

Ri = 10 MΩ provided 330 KΩ in series with test pin.

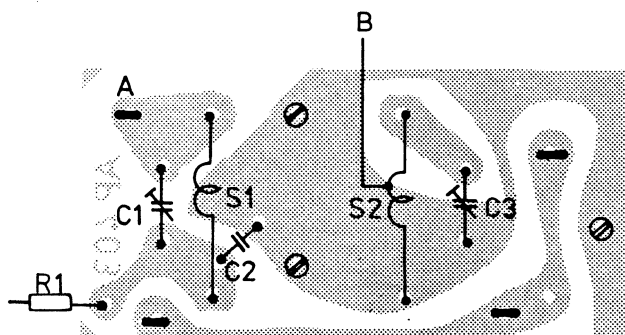
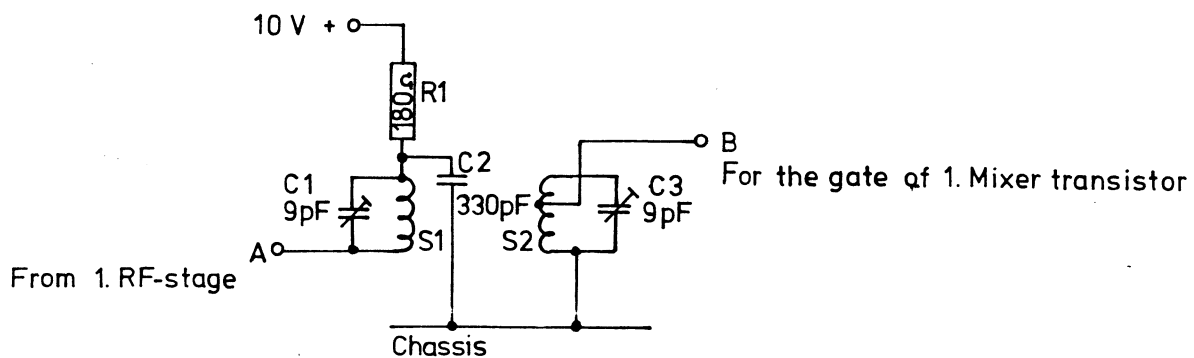
Rx stand by and Tx keyed.



Rettet: 	1. RF-STAGE UHF-RECEIVER PRINT BOARD AP 404.	Tegn.: 16.9.70 BEP	Kontr.:
	AP-RADIOTELEFON	Stykl. nr.: 70308/4	
		Tegn. nr.: 70307/4	

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		100 Kohm $\frac{1}{4}$ W			
R2		47 Kohm "			
R3		56 ohm "			
C1		9 pF trim.			
C2		9 pF trim.			
C3		1 nF ker.			
C4		1 nF ker.			
C5		1 nF ker.			
C6		1 nF ker.			
S1		L191			
S2		L191			
Q1		TA 7153 (3N 200)			
1.RF-Stage UHF-Receiver Print Board AP 404 AP 700 Tilhører tegn. nr.: 70307/4			Rettet:		Tegn.: Kontr.: Stykl. nr.: 70308/4



Rettet:

2. RF-STAGE UHF-RECEIVER
PRINT BOARD AP 403

AP-RADIOTELEFON

Tegn.: 15.9.70
BEP

Kontr.: 15.9.70
EF

Stykl. nr.: 70306/4

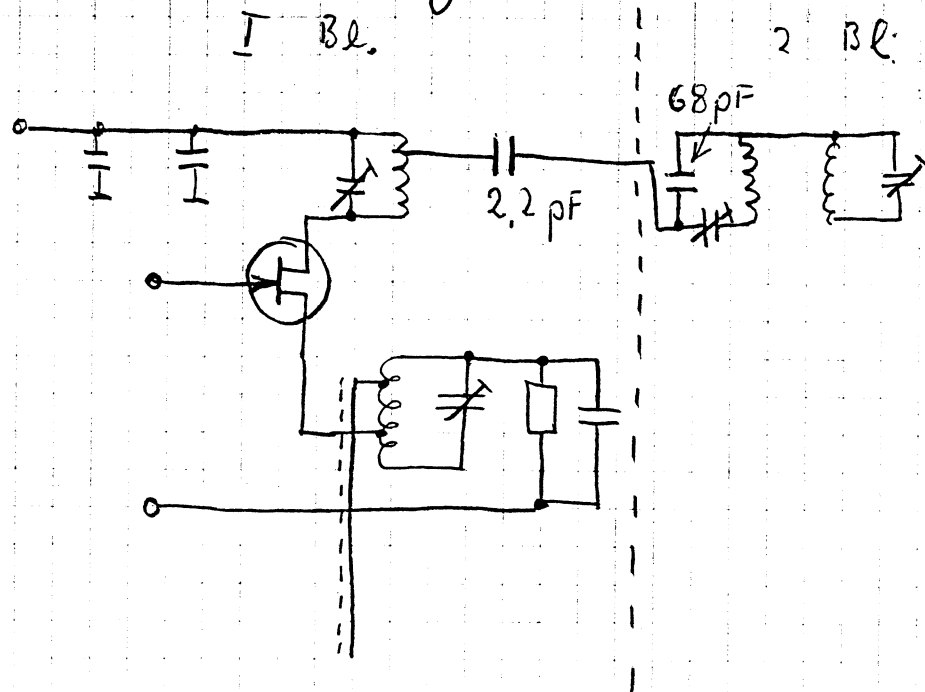
Tegn. nr.:

70305/4

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		180 ohm $\frac{1}{4}$ W			
C1		9 pF trim.			
C2		330 pF kor.			
C3		9 pF trim.			
S1		L191			
S2		L191			
2.RF-Stage UHF-Receiver Print Board AP 403 AP 700 Tilhører tegn. nr.: 70305/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70306/4

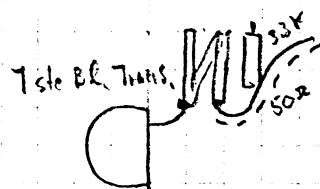
Ændring Til UHF



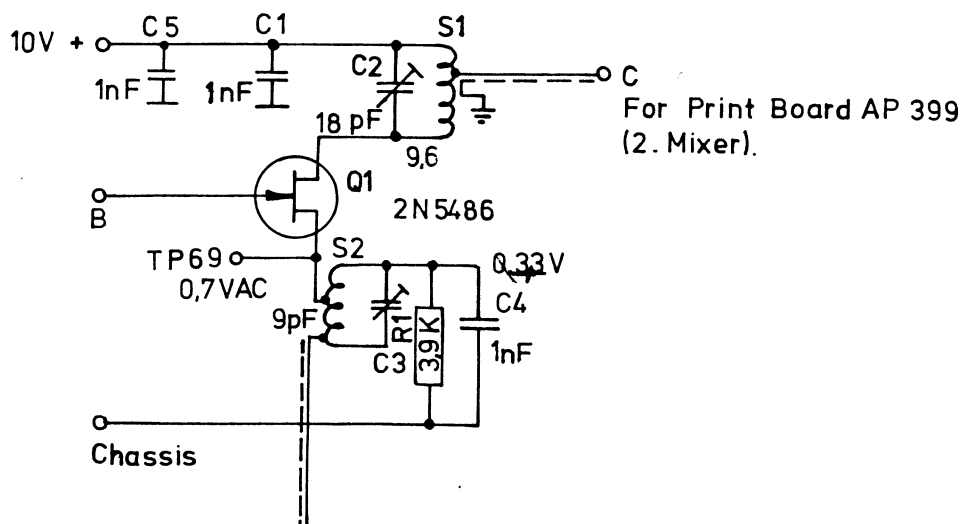
Fra 1. ste Bl. Til 2. den Bl. erstattes 50 ohm kabel med en 2,2 pF kondensator.

I indgangskredsen på 2. den Bl. udskiftes stgtoflex på 330 pF med en keramisk kondensator på 68 pF

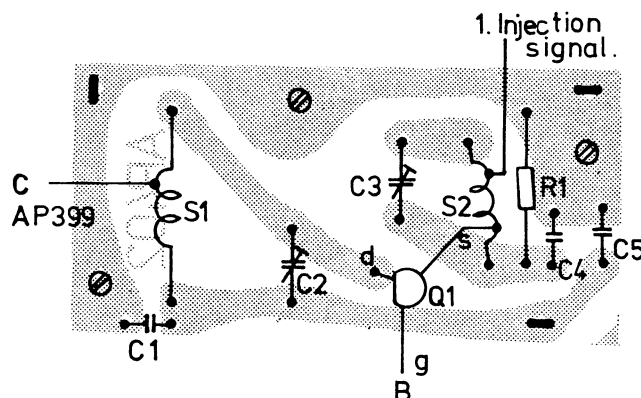
kablet fra multipliet til 1. ste Bl. Flyttes længere ned på kredsen i 1. ste Bl. omtrentlig position:



29-18-71
J. Swift



1. Injection Signal $24 \times \dots$ XTAL



Remarks: Quoted DC potentials are measured to chassis.

$R_i = 10 \text{ M}\Omega$ provided $330 \text{ K}\Omega$ in series with test pin.

Rx stand by and Tx keyed.

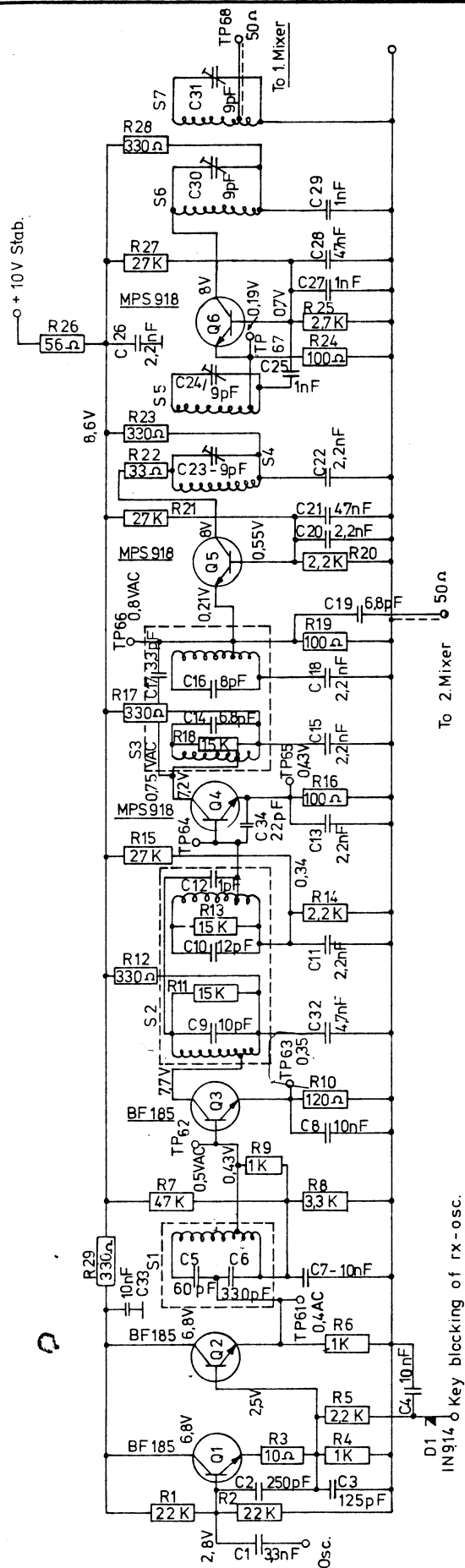
Rettet:	1. MIXER-STAGE UHF-RECEIVER PRINT BOARD AP 402	Tegn.: 16.9.70 BEP	Kontr.: 16.9.70 EF
		Stykl. nr.: 70310/4	
	AP-RADIOTELEFON	Tegn. nr.: 70309/4	

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		3,9 Kohm $\frac{1}{4}$ W			
C1		1 nF ker.			
C2		9 pF trim.			
C3		9 pF trim.			
C4		1 nF ker.			
C5		1 nF ker.			
S1		L193			
S2		L192			
Q1		2N 5486 (2N 5245, Ti-S88)			
1.Mixer-Stage UHF-Receiver Print Board AP 402 AP 700 Tilhører tegn. nr.: 70309/4			Rettet:		Tegn.: E3 Kontr.:
					Stykl. nr.: 70310/4

AP-RADIOTELEFON

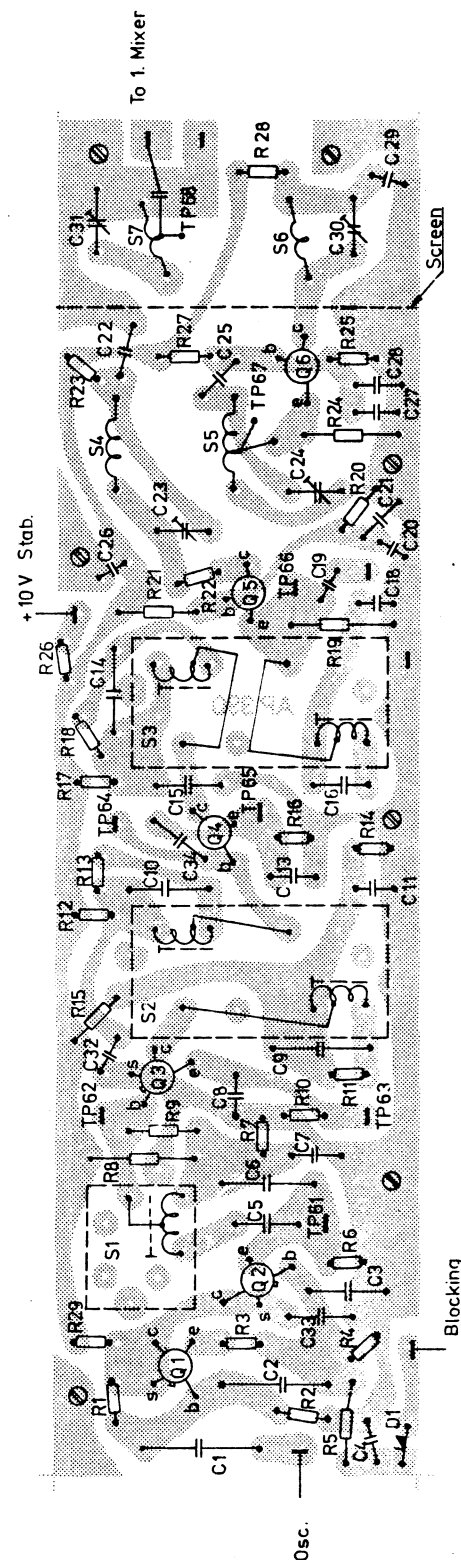
Nr.	Kode	Data	Nr.	Kode	Data
R1		220 ohm $\frac{1}{4}$ W			
R2		12 Kohm "			
R3		1,8 Kohm "			
R4		180 ohm "			
R5		120 ohm "			
C1		330 pF styr.			
C2		9 pF trim.			
C3		9 pF trim.			
C4		10 nF ker.			
C5		1 nF ker.			
C6		2,2 nF ker.			
C7		9 pF trim.			
C8		80 pF styr.			
C9		160 pF styr.			
S1		L194			
S2		L195			
S3		L196			
S4		L7 Tg. 68093/4			
Q1		TA 7153 (3N 200)			
2.Mixer-Stage UHF-Receiver Print Board AP 399 AP 700 Tilhører tegn. nr.: 70311/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70312/4



Remarks: Quoted DC potentials are measured to chassis.

Ri = 10 M Ω provided 330 K Ω in series with test pin.

Rx stand by and Tx keyed.



Rettet:

MULTIPLIER FOR UHF RECEIVER
PRINT BOARD AP 390
AP-RADIOTELEFON

Tegn.: A.B.P. 17-9-70	Kontr.: E.F. 18-9-70
Stykl. nr.: 70318/4	
Tegn. nr.: 70317/4	

RADIOTELEFONSERVICE

Nr.	Kode	Data	Nr.	Kode	Data
R1		22 Kohm $\frac{1}{4}$ W	C27		1 nF ker.
R2		22 Kohm "	C28		47 nF ker.
R3		10 ohm "	C29		1 nF ker.
R4		1 Kohm "	C30		9 pF trim.
R5		2,2 Kohm "	C31		9 pF trim.
R6		1 Kohm "	C32		4,7 nF ker.
R7		47 Kohm "	C33		10 nF ker.
R8		3,3 Kohm "	C34		22 pF ker.
R9		1 Kohm "			
R10		120 ohm "	S1		L17 Tg.68206/4
R11		15 Kohm "	S2		L198 Tg.70328/4
R12		330 ohm "	S3		L25 Tg.68206/4
R13		15 Kohm "	S4		L199
R14		2,2 Kohm "	S5		L197
R15		27 Kohm "	S6		L192
R16		100 ohm "	S7		L192
R17		330 ohm "			
R18		15 Kohm "	D1		1N914
R19		100 ohm "			
R20		2,2 Kohm "	Q1		BF 185
R21		27 Kohm "	Q2		BF 185
R22		33 ohm "	Q3		BF 185
R23		330 ohm "	Q4		MPS 918
R24		100 ohm "	Q5		MPS 918
R25		2,7 Kohm "	Q6		MPS 918
R26		56 ohm "			
R27		27 Kohm "			
R28		330 ohm "			
R29		330 ohm "			
C1		3,3 nF styr.			
C2		250 pF styr.			
C3		125 pF styr.			
C4		10 nF ker.			
C5		60 pF styr.			
C6		330 pF styr.			
C7		10 nF ker.			
C8		10 nF ker.			
C9		10 pF ker.			
C10		12 pF ker.			
C11		2,2 nF ker.			
C12		1 pF styr.			
C13		2,2 nF ker.			
C14		6,8 pF ker.			
C15		2,2 nF ker.			
C16		8 pF ker.			
C17		3,3 pF styr.			
C18		2,2 nF ker.			
C19		6,8 pF ker.			
C20		2,2 nF ker.			
C21		47 nF ker.			
C22		2,2 nF ker.			
C23		9 pF trim.			
C24		9 pF trim.			
C25		1 nF ker.			
C26		2,2 nF ker.			
Multiplier For UHF-Receiver Print Board AP 390 AP 700 Tilhører tegn. nr.: 70317/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70318/4

455 Kc IF

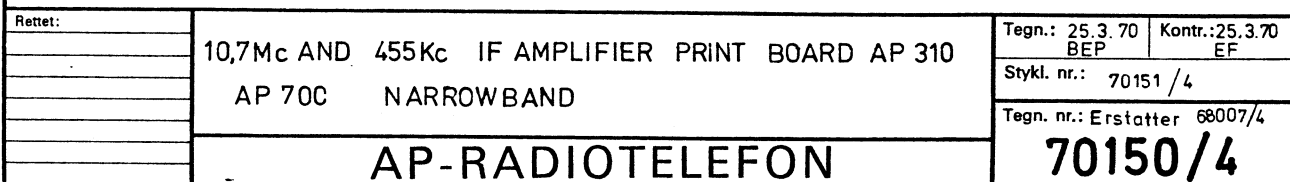
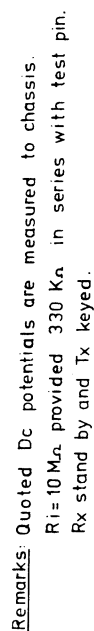
455 Kc IF

455 Kc IF

2 Mixer

10,7 Mc IF

R

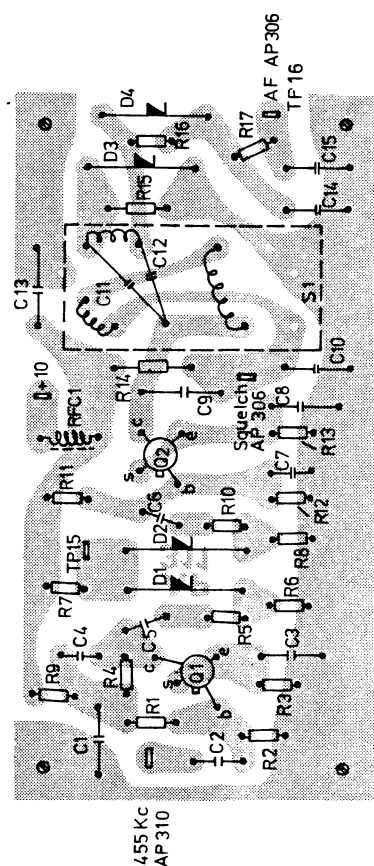
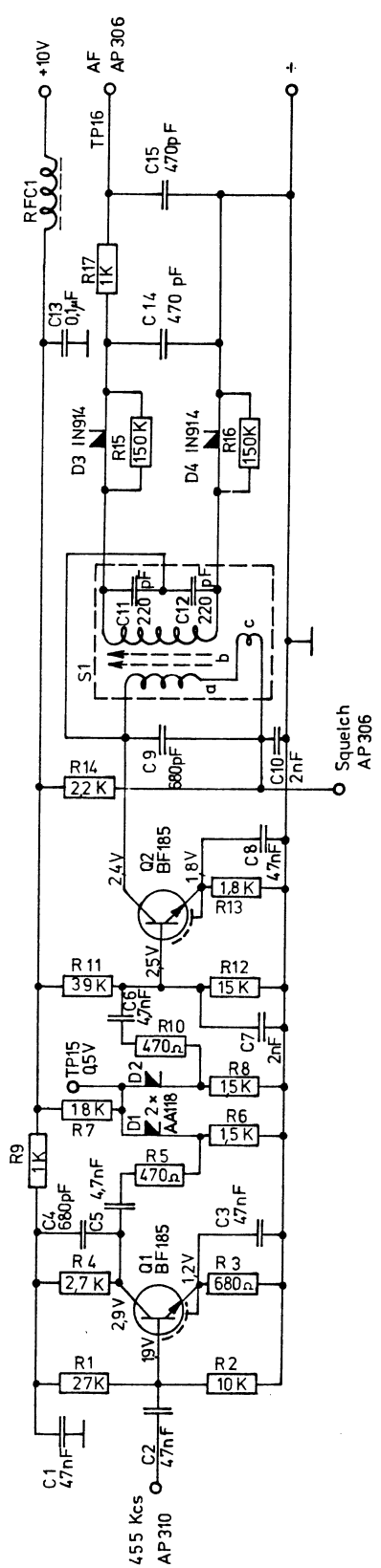


AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		1,5 Kohm $\frac{1}{4}$ W	C22		680 pF styr.
R2		15 Kohm "	C23		47 pF styr.
R3		27 Kohm "	C24		250 pF styr.
R4		220 ohm "	C25		125 pF styr.
R5		470 ohm "	C26		1 nF ker.
R6		15 Kohm "	C27		10 nF ker.
R7		39 Kohm "	C28		47 nF ker.
R8		56 ohm "			
R9		2,7 Kohm "	S1		L11 Tg. 68093/4
R10		220 ohm "	S2		L12 Tg. 68093/4
R11		22 Kohm "	S3		L13 Tg. 68095/4
R12		1 Kohm "	S4		L13 Tg. 68095/4
R13		15 Kohm "	S5		L13 Tg. 68095/4
R14		22 Kohm "			
R15		39 Kohm "	Q1		BF 185
R16		1,2 Kohm "	Q2		BF 185
R17		2,2 Kohm "	Q3		BF 185
R18		22 Kohm "	Q4		BF 185
R19		1 Kohm "	Q5		BF 185
R20		15 Kohm "	Q6		BF 185
R21		22 Kohm "			
R22		39 Kohm "	X1		X-tal 10.245 Mhz
R23		1,2 Kohm "			
R24		2,2 Kohm "			
R25		22 Kohm "			
R26		1 Kohm "			
R27		22 Kohm "			
R28		22 Kohm "			
R29		10 Kohm "			
R30		10 ohm "			
R31		3,3 Kohm "			
R32		680 ohm "			
R33		330 ohm "			
C1		250 pF styr.			
C2		1,5 nF styr.			
C3		10 nF ker.			
C4		220 pF styr.			
C5		10 nF ker.			
C6		47 nF/12v ker.			
C7		47 nF/12v ker.			
C8		680 pF styr.			
C9		47 nF/12v ker.			
C10		25 pF styr.			
C11		680 pF styr.			
C12		47 nF/12v ker.			
C13		47 nF/12v ker.			
C14		680 pF styr.			
C15		47 nF/12v ker.			
C16		25 pF styr.			
C17		680 pF styr.			
C18		47 nF/12v ker.			
C19		680 pF styr.			
C20		47 nF/12v ker.			
C21		25 pF styr.			
10,7Mc and 455kc IF-Amplifier Print Board AP310 Narrowband. Tilhører tegn. nr.: 70150/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70151/4

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4

12

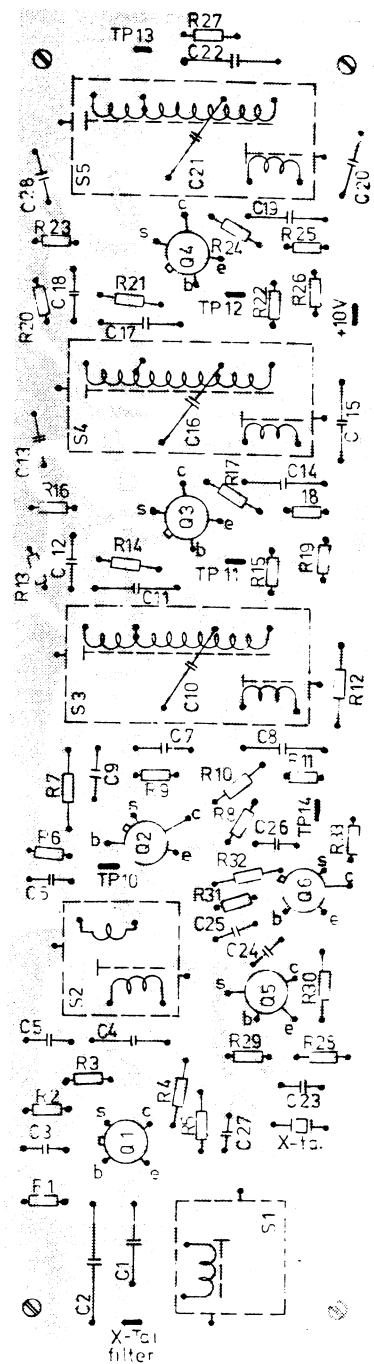


Remarks: Quoted Dc potentials are measured to chassis.
 Ri = 10 M Ω provided 330 K Ω in series with test pin.
 Rx stand by and fx keyed.

Rettet: 	LIMITER AND DISCRIMINATOR PRINT BOARD AP311 AP 700 AP-RADIOTELEFON	Tegn.: 9 6 70 BEP Kontr.: 9 6 70 E.F. Stykl. nr.: 70145/4 Tegn. nr.: Erstatte 68009/3 70145/4
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AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		27 Kohm $\frac{1}{4}$ W			
R2		10 Kohm "			
R3		680 ohm "			
R4		2,7 Kohm "			
R5		470 ohm "			
R6		1,5 Kohm "			
R7		18 Kohm "			
R8		1,5 Kohm "			
R9		1 Kohm "			
R10		470 ohm "			
R11		39 Kohm "			
R12		15 Kohm "			
R13		1,8 Kohm "			
R14		2,2 Kohm "			
R15		150 Kohm "			
R16		150 Kohm "			
R17		1 Kohm "			
C1		47 nF ker.			
C2		47 nF ker.			
C3		47 nF ker.			
C4		680 pF styr.			
C5		4,7 nF ker.			
C6		4,7 nF ker.			
C7		2 nF ker.			
C8		47 nF ker.			
C9		680 pF styr.			
C10		2 nF styr.			
C11		220 pF styr.			
C12		220 pF styr.			
C13		0,1 mF ker.			
C14		100 pF styr.			
C15		100 pF styr.			
RFC					
-1		Wide Band RFC			
S1		L16 Tg. 68096/4			
D1		AA118			
D2		AA118			
D3		1N914			
D4		1N914			
Q1		BF 185			
Q2		BF 185			
Limiter And Discriminator Print Board AP 311 AP 700 Tilhører tegn. nr.: 70145/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70146/4

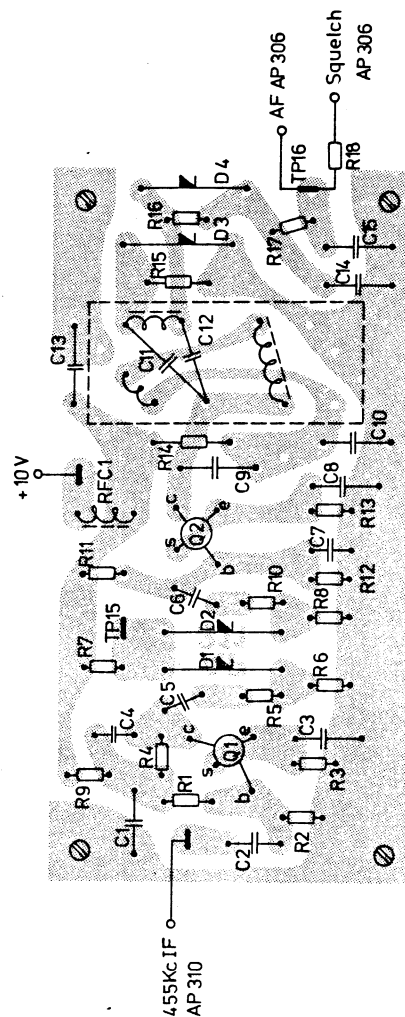
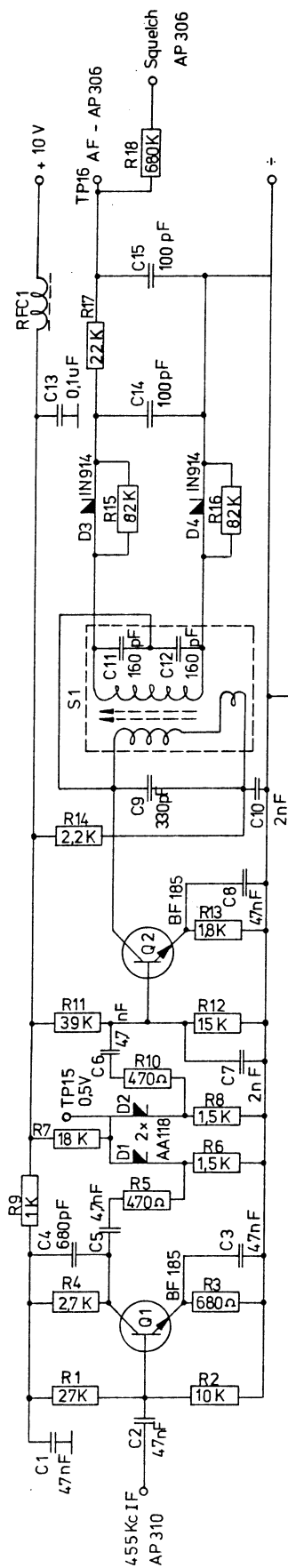


Remarks: Quoted Dc potentials are measured to chassis
 Ri = 10 M Ω provided 330 K Ω in series with test pin.
 Rx stand by and Tx keyed.

Rettet:	10,7 Mc AND 455Kc IF-AMPLIFIER PRINT BOARD	Tegn.: 2 7 7 0 REP	Kontr.: 2 7 7 0 E.F.
	AP 310; 50Kc. AP 700	Stykl. nr.: 70170	
	AP-RADIOTELEFON	Tegn. nr.: Erstatler 69016/3 70169/4	

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		1,5 Kohm $\frac{1}{4}$ W	C21		25 pF styr.
R2		15 Kohm "	C22		220 pF styr.
R3		27 Kohm "	C23		47 pF styr.
R4		220 ohm "	C24		250 pF styr.
R5		470 ohm "	C25		125 pF styr.
R6		15 Kohm "	C26		1 nF ker.
R7		39 Kohm "	C27		10 nF ker.
R8		56 ohm "	C28		47 nF/12v ker.
R9		2,7 Kohm "			
R10		220 ohm "	S1		L11 Tg. 68093/4
R11		22 Kohm "	S2		L12 Tg. 68093/4
R12		1 Kohm "	S3		L153 Tg. 69028/4
R13		15 Kohm "	S4		L153 Tg. 69028/4
R14		22 Kohm "	S5		L153 Tg. 69028/4
R15		39 Kohm "			
R16		1,2 Kohm "	Q1		BF 185
R17		2,2 Kohm "	Q2		BF 185
R18		22 Kohm "	Q3		BF 185
R19		1 Kohm "	Q4		BF 185
R20		15 Kohm "	Q5		BF 185
R21		22 Kohm "	Q6		BF 185
R22		39 Kohm "			
R23		1,2 Kohm "	X1		X-tal 10.245 Mhz
R24		2,2 Kohm "			
R25		22 Kohm "			
R26		1 Kohm "			
R27		22 Kohm "			
R28		22 Kohm "			
R29		10 Kohm "			
R30		10 ohm "			
R31		3,3 Kohm "			
R32		680 ohm "			
R33		330 ohm "			
R34		220 ohm "			
C1		250 pF styr.			
C2		1,5 nF styr.			
C3		10 nF ker.			
C4		220 pF styr.			
C5		10 nF ker.			
C6		47 nF/12v ker.			
C7		47 nF/12v ker.			
C8		220 pF styr.			
C9		47 nF/12v ker.			
C10		25 pF styr.			
C11		220 pF styr.			
C12		47 nF/12v ker.			
C13		47 nF/12v ker.			
C14		220 pF styr.			
C15		47 nF/12v ker.			
C16		25 pF styr.			
C17		220 pF styr.			
C18		47 nF/12v ker.			
C19		220 pF styr.			
C20		47 nF/12v ker.			
10,7 Mc and 455Kc IF-Amplifier Print Board AP 310 Wideband. Tilhører tegn. nr.: 70169/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70170/4



Rettet: C 74, C 15 og
R 17 ændret 4-3-77

DISCRIMINATOR AND LIMITER, 50 Khz.

PRINT BOARD AP 311

AP-RADIOTELEFON

Tegn.: ABP
26.11.70

Kontr.: EF
11-3-77

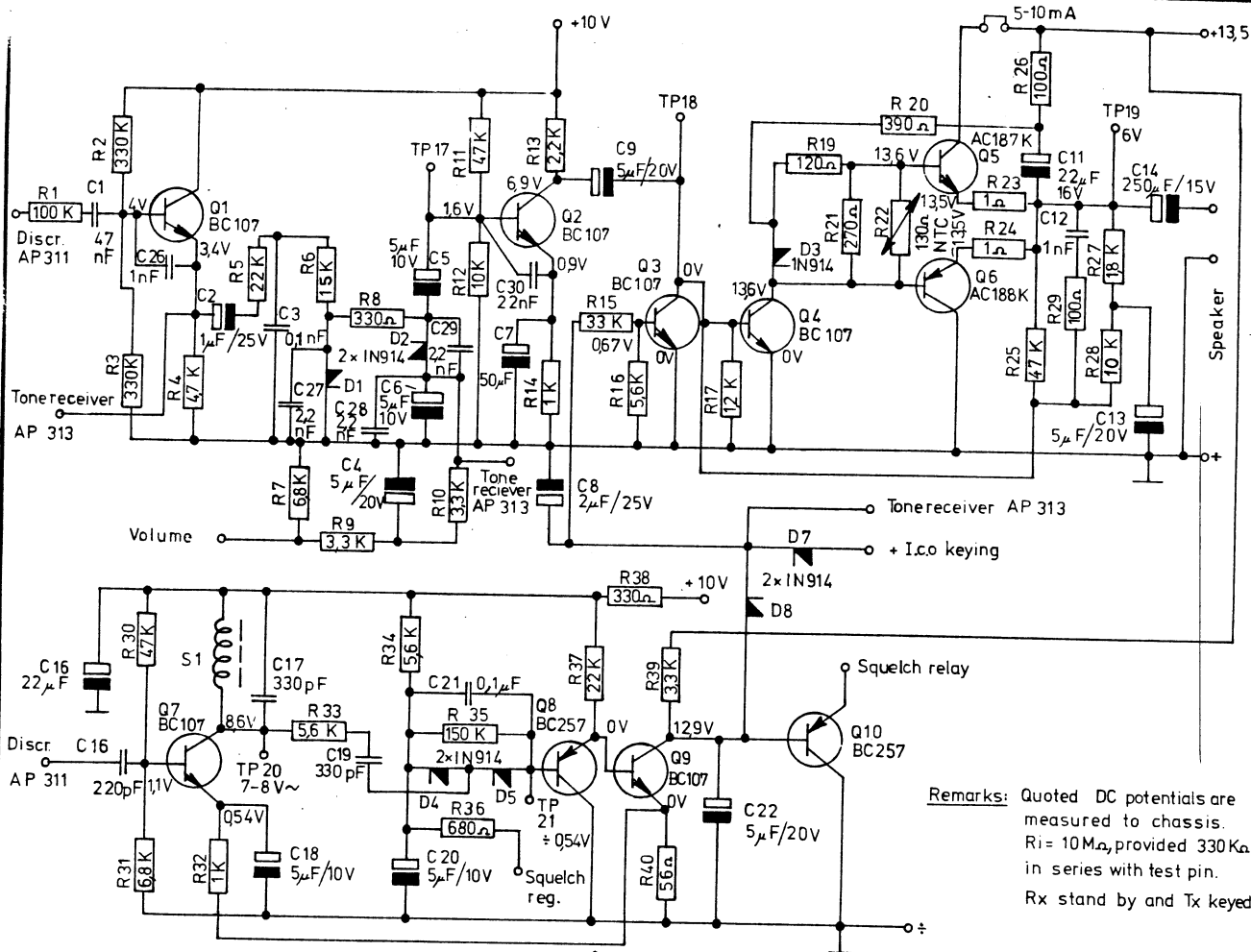
Stykl. nr.: 70469 / 4

Tegn. nr.:

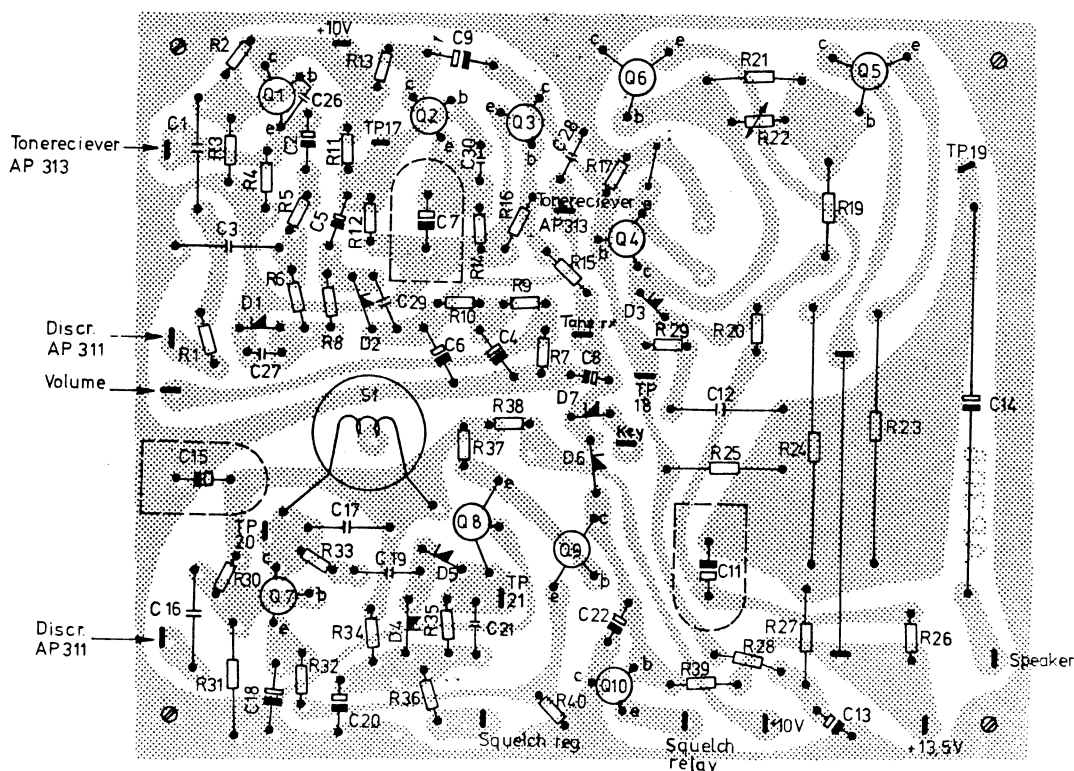
70464 / 4

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		27 Kohm $\frac{1}{4}$ W			
R2		10 Kohm "			
R3		680 ohm "			
R4		2,7 Kohm "			
R5		470 ohm "			
R6		1,5 Kohm "			
R7		18 Kohm "			
R8		1,5 Kohm ..			
R9		1 Kohm "			
R10		470 ohm "			
R11		39 Kohm "			
R12		15 Kohm "			
R13		1,8 Kohm "			
R14		2,2 Kohm "			
R15		82 Kohm "			
R16		82 Kohm "			
R17		22 Kohm "			
R18		680 Kohm "			
C1		47 nF. ker.			
C2		47 nF. ker.			
C3		47 nF. ker.			
C4		680 pF. styr.			
C5		4,7 nF. ker.			
C6		4,7 nF. ker.			
C7		2 nF. ker.			
C8		47 nF. ker.			
C9		330 pF. styr.			
C10		2 nF. styr.			
C11		160 pF. styr.			
C12		160 pF. styr.			
C13		0,1 nF. ker.			
C14		100 pF. styr.			
C15		100 pF. styr.			
RFC	1	Wide band RFC			
S1		L 16 tg.68096/4			
D1		AA118			
D2		AA118			
D3		IN914			
D4		In914			
Q1		BF185			
Q2		BF185			
Discr. and Limiter 50 KHz Print board AP 311 Tilhører tegn. nr.: 70464/4			Rettet:		Tegn.: EF 11-3-71 Kontr.: Stykl. nr.: 70469/4



Remarks: Quoted DC potentials are measured to chassis.
 $R_i = 10 M\Omega$, provided $330 K\Omega$ in series with test pin.
 Rx stand by and Tx keyed



Rettet: R6, R18, C10
 C12, R25, R28, C3
 C16 (R41-R29) 5/1-7/1

AF AND SQUELCH AP 700 PRINT BOARD AP306

AP-RADIOTELEFON

Tegn.: BEP Kontr.: E.F
 18.6.70 18.6.70

Stykl. nr.: 70144/4

Tegn. nr.: Erstatte 68013/3

70143/4

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		100 Kohm $\frac{1}{4}$ W	C15		22 mF/16v tant.
R2		330 Kohm "	C16		220 pF styr.
R3		330 Kohm "	C17		330 pF styr.
R4		4,7 Kohm "	C18		4,7 mF/lov tant.
R5		22 Kohm "	C19		330 pF styr.
R6		15 Kohm "	C20		4,7 mF/lov tant.
R7		6,8 Kohm "	C21		0,1 mF/12v ker.
R8		330 ohm "	C22		4,7 mF/25v tant.
R9		3,3 Kohm "	C26		1 nF ker.
R10		3,3 Kohm "	C27		2,2 nF ker.
R11		47 Kohm "	C28		2,2 nF ker.
R12		10 Kohm "	C29		2,2 nF ker.
R13		2,2 Kohm "	C30		2,2 nF ker.
R14		1 Kohm "			
R15		33 Kohm "	S1		L21 Tg. 67091/4
R16		5,6 Kohm "			
R17		1,2 Kohm "	D1		1N914
		"	D2		1N914
R19		120 ohm "	D3		1N914
R20		390 ohm "	D4		1N914
R21		270 ohm "	D5		1N914
R22		130 ohm NTC	D6		1N914
R23		1 ohm $\frac{1}{2}$ W	D7		1N914
R24		1 ohm "			
R25		47 Kohm $\frac{1}{4}$ W	Q1		BC 107 b
R26		100 ohm "	Q2		BC 107 b
R27		1,8 Kohm "	Q3		BC 107 b
R28		10 Kohm "	Q4		BC 107 b
R29		100 ohm "	Q5		AC 187 k
R30		47 Kohm "	Q6		AC 188 k parret
R31		6,8 Kohm "	Q7		BC 107 b
R32		1 Kohm "	Q8		BC 257 a
R33		5,6 Kohm "	Q9		BC 107 b
R34		5,6 Kohm "	Q10		BC 257 a
R35		150 Kohm "			
R36		680 ohm "			
R37		22 Kohm "			
R38		330 ohm "			
R39		3,3 Kohm "			
R40		56 ohm "			
C1		47 nF pol.			
C2		1 mF/35v tant.			
C3		0,1 nF pol.			
C4		4,7 mF/25v tant.			
C5		4,7 mF/lov tant.			
C6		4,7 mF/lov tant.			
C7		50 mF/16v lyt.			
C8		2,2 mF/35v tant.			
C9		4,7 mF/25v tant.			
C11		22 mF/16v tant.			
C12		1 nF styr.			
C13		4,7 mF/25v tant.			
C14		250 mF/16v lyt.			
Af and Squelch AP 700 Print Board AP 306 Tilhører tegn. nr.: 70143/4			Rettet: EF. 3. 3. 71		Tegn.: EB Kontr.:
					Stykl. nr.: 70144/4

Alignment procedure for sequence tonereceiver AP 351.

The capacitors of the chosen code numbers in accordance to the scheme (see dwg.no.70180/4.) are to be installed, first code at C7, second at C13 and third at O20. Place the trim.pot. meters R11, R22 and R33 to center position.

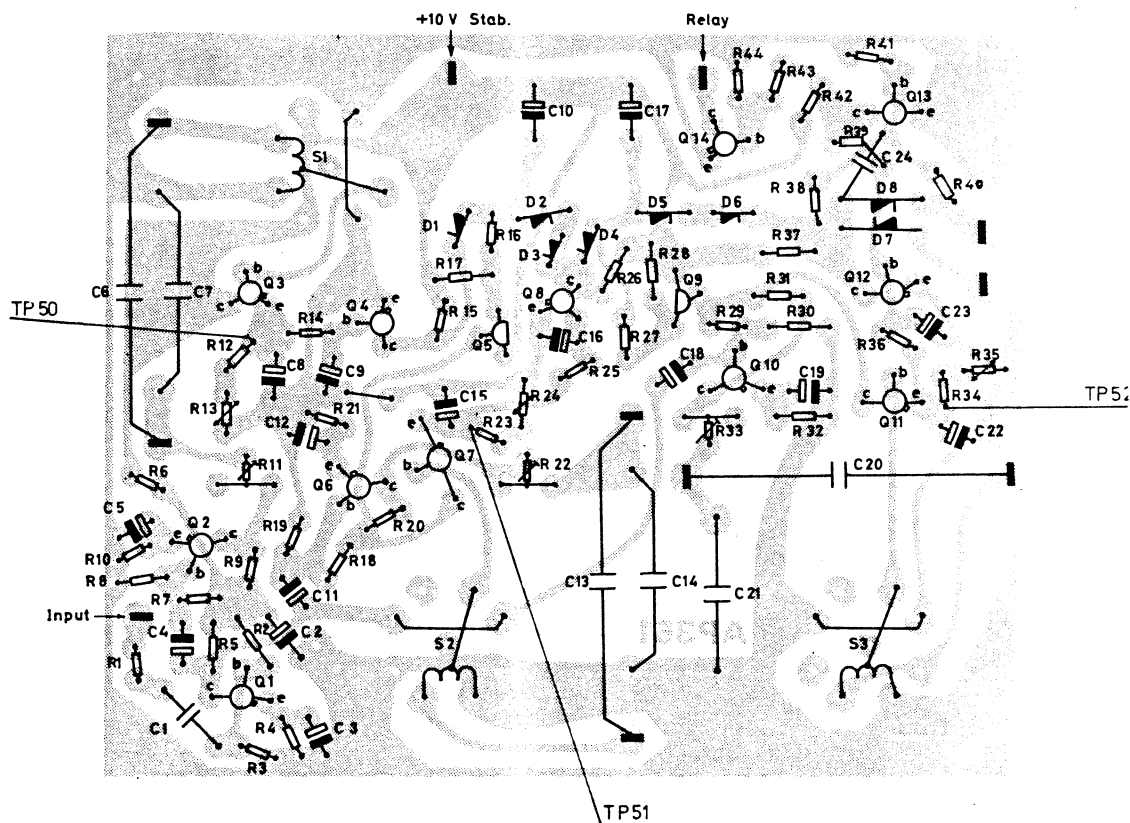
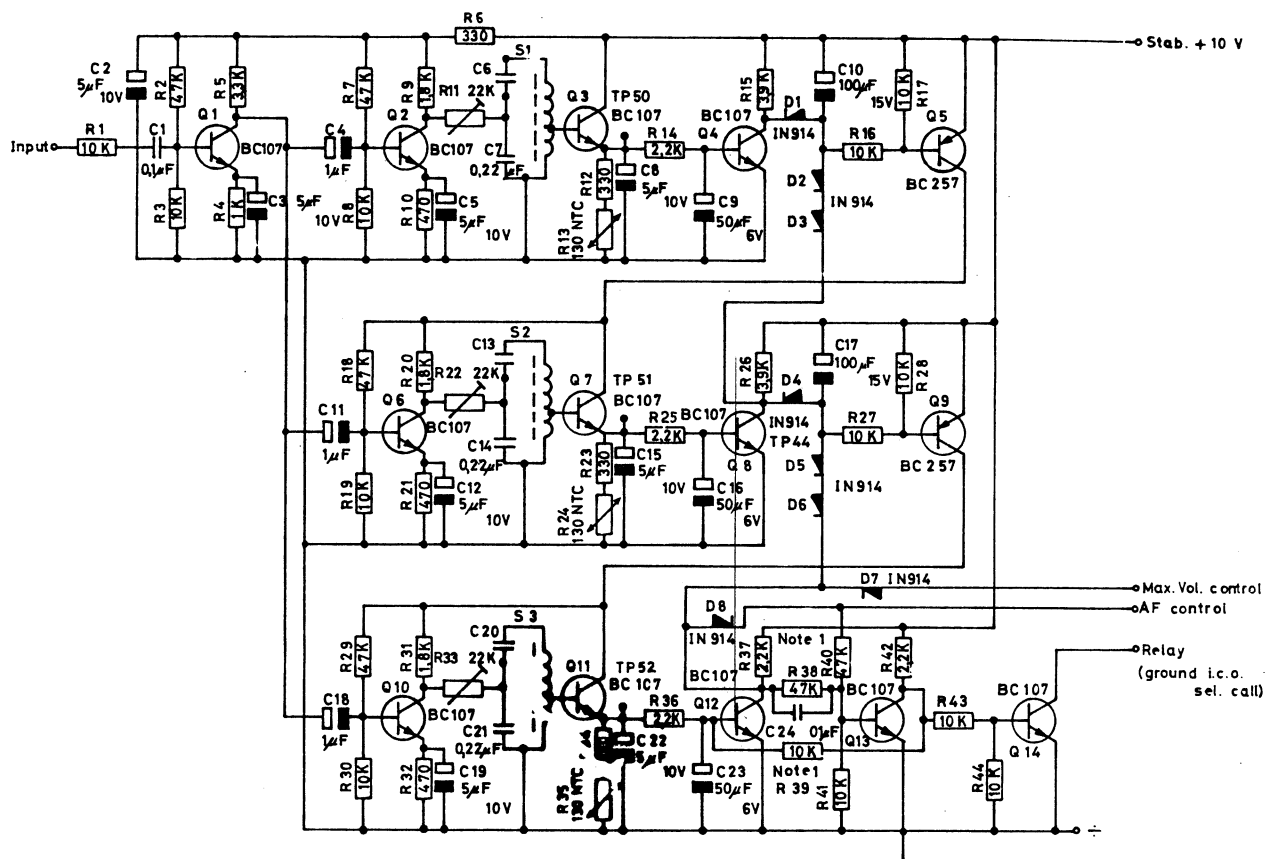
An AF-generator tuned to the chosen frequency in connection with a signal generator is connected to the VHF-receiver. The deviation is adjusted in accordance to the scheme. A VTM in range 3 Volt is connected to TP 50. The core of S1 is adjusted to max. deflection. By means of R11 the size of the deflection is adjusted to 1,5 Volt hereby another max. adjustment must be tried on the iron core of S1 and the deflection readjusted to 1,5 Volt. First tone should be adjusted and the same procedure is followed for tone two and three where R22, S2 and R33, S3 have to be used.

To obtain the tuning of tone two and three a separate power supply of each tone section has to be made, to obtain this, a connection between + 10V and the house of the respective transistor- Q7 and Q11 has to be made.

For tonereceivers, comprising only one or two tones, the procedure is the same as mentioned above.

E. Folling 31-7-70.

AP-RADIOTELEFON



Alignment procedure
look for description no. 70176/4
and C values no. 70180/4

Note 1: R 39 and R 40 are only incorporated
at squelch controlled sel. call.

Rettet:	Sequence tone receiver for 3 tones	Tegn.: 25.8.70	Kontr.: 25.8.70
	Printboard AP 351 AP 700	H	E.F
		Stykl. nr.: 70213 /4	
		Tegn. nr.:Erstatter 69041/3.	
	AP-RADIOTELEFON	70212 /4	

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		10 Kohm $\frac{1}{4}$ W	C13		matched f. code
R2		47 Kohm "	C14		0,22 mF MKH
R3		10 Kohm "	C15		5 mF/10v tant.
R4		1 Kohm "	C16		50 mF/6v tant.
R5		3,3 Kohm "	C17		100 mF/15v lyt.
R6		330 ohm "	C18		1 mF/35v tant.
R7		47 Kohm "	C19		5 mF/10v tant.
R8		10 Kohm "	C20		matched f. code
R9		1,8 Kohm "	C21		0,22 mF MKH
R10		470 ohm "	C22		5 mF/10v tant.
R11		22 Kohm pot.	C23		50 mF/6v tant.
R12		330 ohm $\frac{1}{4}$ W	C24		0,1 mF/12v ker.
R13		130 ohm NTC	S1		L181 Tg. 69148/4
R14		2,2 Kohm $\frac{1}{4}$ W	S2		L181 Tg. 69148/4
R15		3,9 Kohm "	S3		L181 Tg. 69148/4
R16		10 Kohm "			
R17		10 Kohm "	D1		1N914
R18		47 Kohm "	D2		1N914
R19		10 Kohm "	D3		1N914
R20		1,8 Kohm "	D4		1N914
R21		470 ohm "	D5		1N914
R22		22 Kohm pot.	D6		1N914
R23		330 ohm $\frac{1}{4}$ W	D7		1N914
R24		130 ohm NTC	D8		1N914
R25		2,2 Kohm $\frac{1}{4}$ W			
R26		3,9 Kohm "	Q1		Bc 107
R27		10 Kohm "	Q2		Bc 107
R28		10 Kohm "	Q3		Bc 107
R29		47 Kohm "	Q4		Bc 107
R30		10 Kohm "	Q5		Bc 257
R31		1,8 Kohm "	Q6		Bc 107
R32		470 ohm "	Q7		Bc 107
R33		22 Kohm pot.	Q8		Bc 107
R34		330 ohm $\frac{1}{4}$ W	Q9		Bc 257
R35		130 ohm NTC	Q10		Bc 107
R36		2,2 Kohm $\frac{1}{4}$ W	Q11		Bc 107
R37		2,2 Kohm "	Q12		Bc 107
R38		47 Kohm "	Q13		Bc 107
R39		10 Kohm "	Q14		Bc 107
R40		47 Kohm "			
R41		10 Kohm "			
R42		2,2 Kohm "			
R43		10 Kohm "			
R44		10 Kohm "			
C1		0,1 mF/12v ker.			
C2		5 mF/10v tant.			
C3		5 mF/10v tant.			
C4		1 mF/35v tant.			
C5		5 mF/10v tant.			
C6		matched f. code			
C7		0,22 mF MKH			
C8		5 mF/10v tant.			
C9		50 mF/6v tant.			
C10		100 mF/15v lyt.			
C11		1 mF/35v tant.			
C12		5 mF/10v tant.			
Sequence Tone Receiver for 3 Tones Print AP 351 Tilhører tegn. nr.: 70212/4 AP 700			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70 213/4

TUNING INSTRUCTION

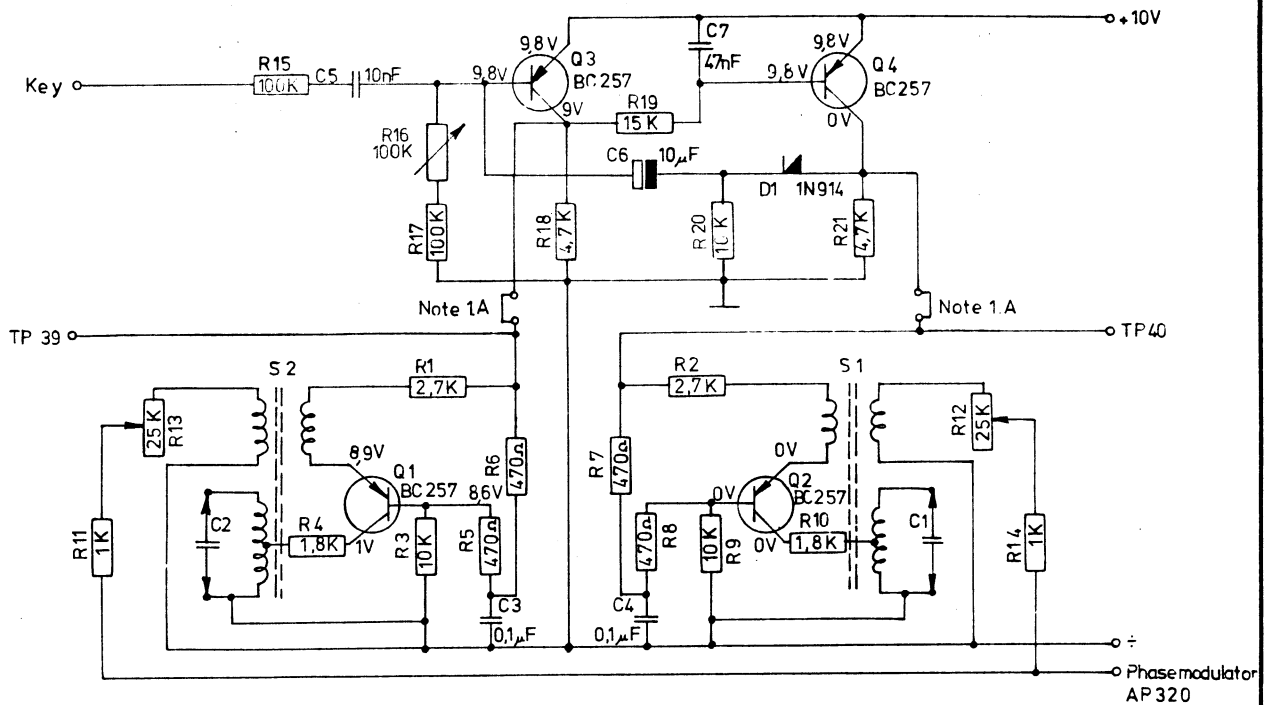
Tone Transmitter AP 369. (See dwg. 70210/4)

The chosen tonenumbers are being set in according to the scheme dwg.no.: 7o 18o/4, so that the capacitor representing tone 1 is mounted in position "C 1" and the capacitor representing tone 2 is mounted in position "C 2".

Connect 1o Volt supply to TP 39 and tune S 1 to the correct tone frequency with the aid of an AF frequency counter, and set the deviation by means of R 12, with the aid of a modulation meter, according to the scheme. Similar for tone 2 connect 1o Volt supply to TP 4o, frequency correction, tune S 2 , deviation set R 13.

In case of an automatic dual tone transmitter follow instructions above and for setting the timing of the tones, adjust R 16 so that first tone, when actuated, lasts 2 sec. before tone 2 starts.

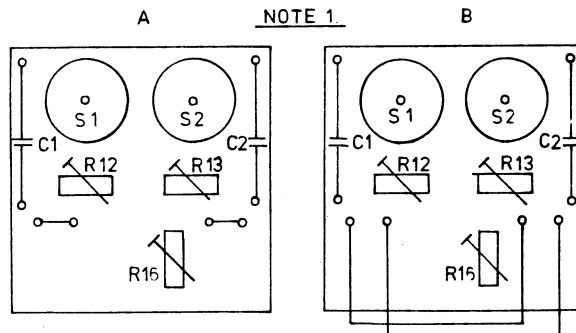
Rettet:	TUNING INSTRUCTION FOR TONE TRANSMITTER AP 369	Tegn.: 26.8.70	Kontr.: 26.8.70
			G.A.V.
	AP-RADIOTELEFON	Stykl. nr.:	
		Tegn. nr.:	70222/4



Note 1 ("A" and "B")

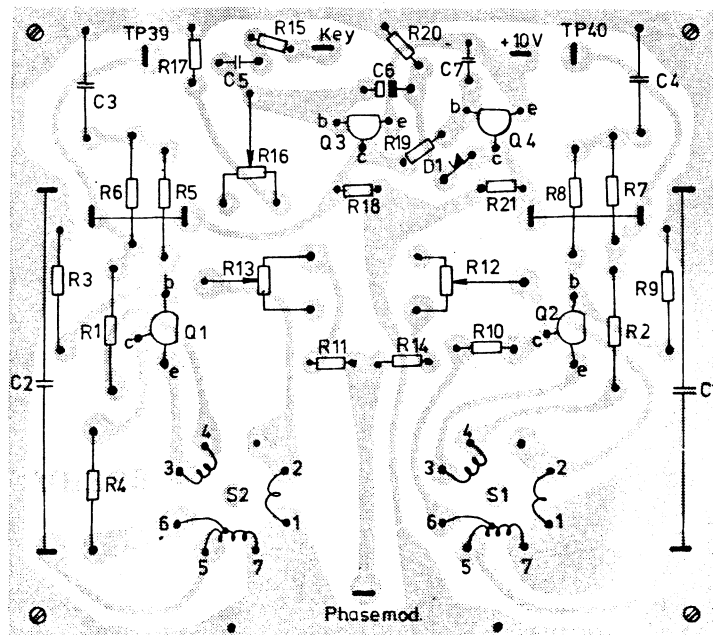
At normal strapping as in note 1 "A" tone sequence is tone 1 - tone 2.

By a strapping as in note 1 "B" the tone sequence is tone 2 - tone 1.



NB. The change over is obtained by the pushbutton switch situated in the control panel (To obtain two different calls)

See tuning instruction dwg. 70 222/4



Rettet:	DUAL TONEGENERATOR WITH AUTOMATIC CHANGE OVER PRINT BOARD AP 369. AP700. AP-RADIOTELEFON	Erstatte 58072/3 Tegn.: 26 8 70 BEP Kontr.: 26 8 70 EF Styl. nr.: 70211/4 Tegn. nr.: 70210/4
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AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		2,7 Kohm $\frac{1}{4}$ W			
R2		2,7 Kohm "			
R3		10 Kohm "			
R4		1,8 Kohm "			
R5		470 ohm "			
R6		470 ohm "			
R7		470 ohm "			
R8		470 ohm "			
R9		10 Kohm "			
R10		1,8 Kohm "			
R11		1 Kohm "			
R12		25 Kohm pot.			
R13		25 Kohm pot.			
R14		1 Kohm $\frac{1}{4}$ W			
R15		100 Kohm "			
R16		100 Kohm pot.			
R17		100 Kohm $\frac{1}{4}$ W			
R18		4,7 Kohm "			
R19		15 Kohm "			
R20		10 Kohm "			
R21		4,7 Kohm "			
C1		matched f. code			
C2		matched f. code			
C3		0,1 mF pol.			
C4		0,1 mF pol.			
C5		10 nF ker.			
C6		10 mF/25v tant.			
C7		47 nF ker.			
S1		L67 Tg. 69142/4			
S2		L67 Tg. 69142/4			
D1		1N914			
Q1		Bc 257			
Q2		Bc 257			
Q3		Bc 257			
Q4		Bc 257			
Dual Tonegenerator with Automatic Change Over			Rettet:		Tegn.: EB
Tilhører tegn. nr.: 70210/4 AP 369					Kontr.: 70211/4

Rettet:

C values for tone-receiver
AP 351, and tonetransmitter AP 369

AP-RADIOTELEFON

Tegn.: ABP
13/10-70

Stykl. nr.:

Tegn. nr.:

70180/4

Kontr.: EF
13-10-70

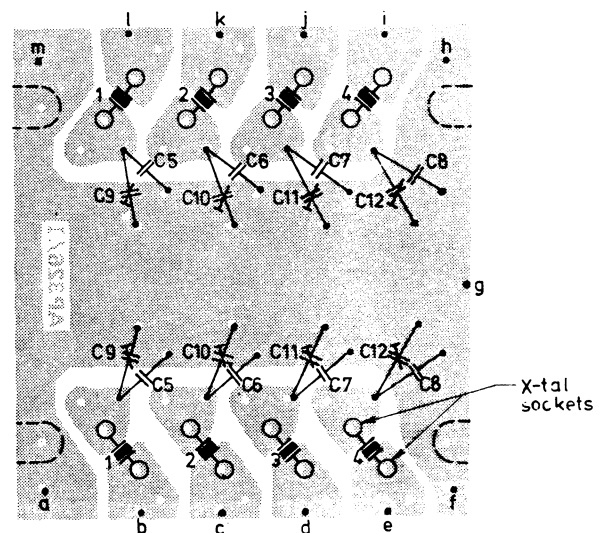
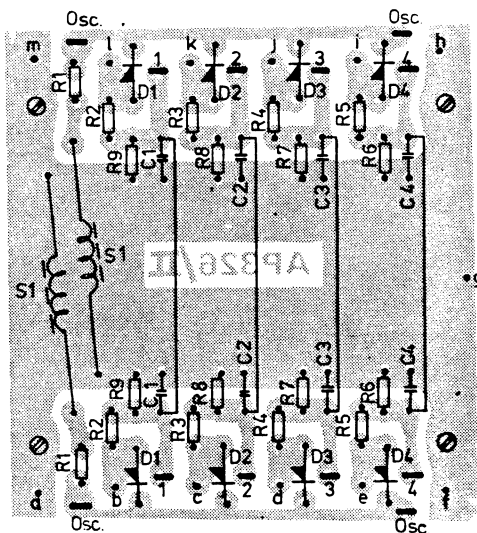
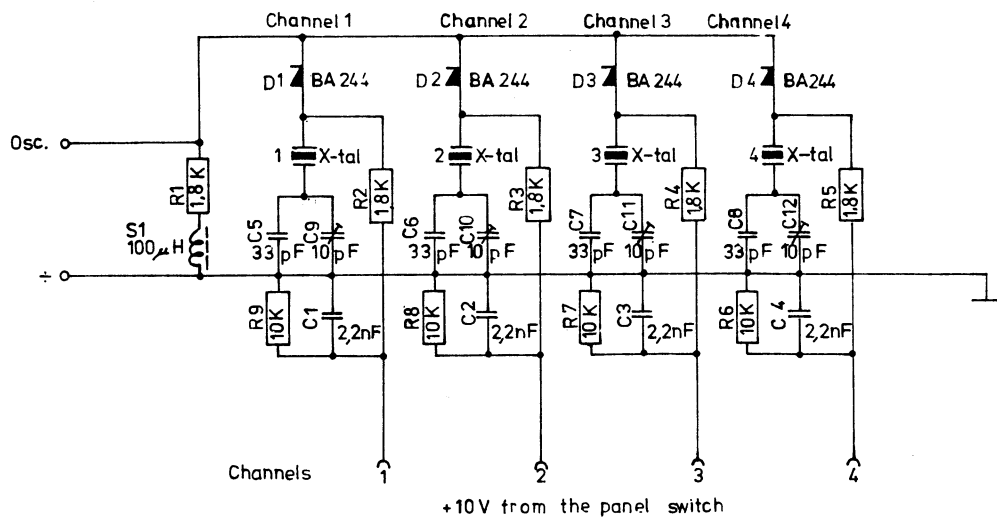
Rad / Gr. Rad / Gr. Rod

		Values for "Siemens" pot. core 22/13 N28 A315	Values for "Philips" pot. core 22/13 - 3B7 AOA - μ e 150	Values for "Siemens" pot. core 22/13 N28 A315	Values for "Philips" pot. core 22/13 AOA μ e 150	
Tone	Frequency in c/s	Tone-receiver C7 and C13 pF	Tone-receiver C7 and C13 pF	Tone-transmitter C1 and C2 pF	Tone-transmitter C1 and C2 in pF	Frequency Deviation in K c/s
0	980	23500	16900	21000	16000	1,2
1	1190	15500	11400	13800	10700	1,4
2	1380	11200	8300	10100	7900	1,65
3	1600	8300	6200	7300	5800	1,9
4	1800	6500	4900	5600	4500	2,2
5	2010	5200	3900	4400	3500	2,5
6	2220	4200	3200	3500	2800	2,8
7	2410	3600	2700	2900	2300	3,1
8	2590	3100	2300	2400	1950	3,3
9	2820	2600	2000	1900	1600	3,5

Rettet: 	10 V STAB. POWERSUPPLY	Tegn.: 30.7.70 BEP	Kontr.: 30.7.70 E.F.
	PRINT BOARD AP 317.	Stykl. nr.: 70178/4	
	AP-RADIOTELEFON	Tegn. nr.: 70177/4	

AP-RADIOTELEFON

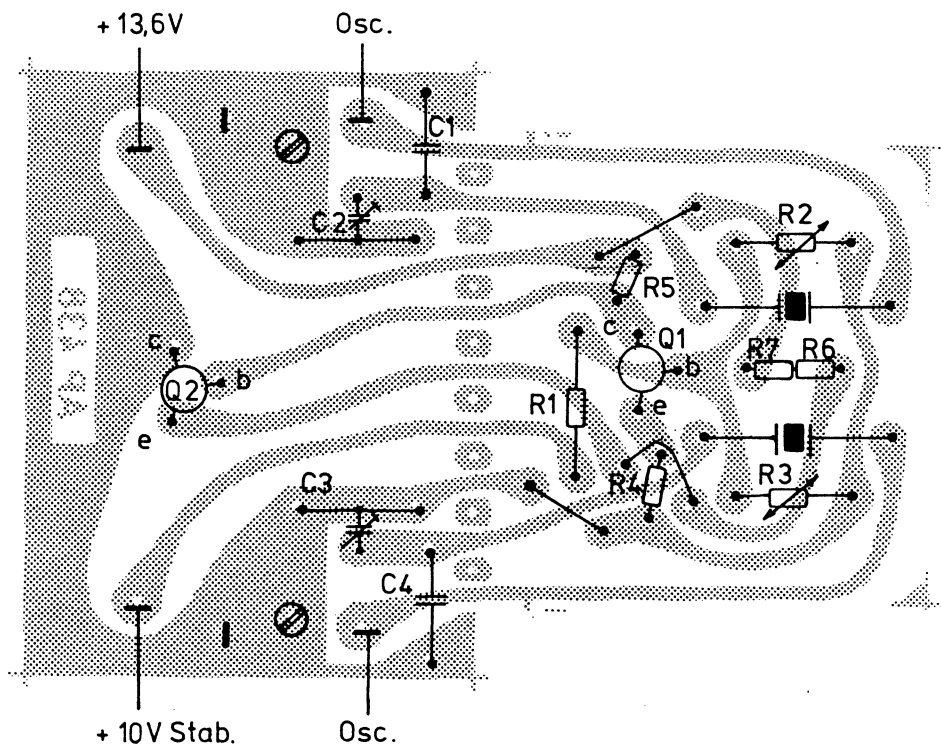
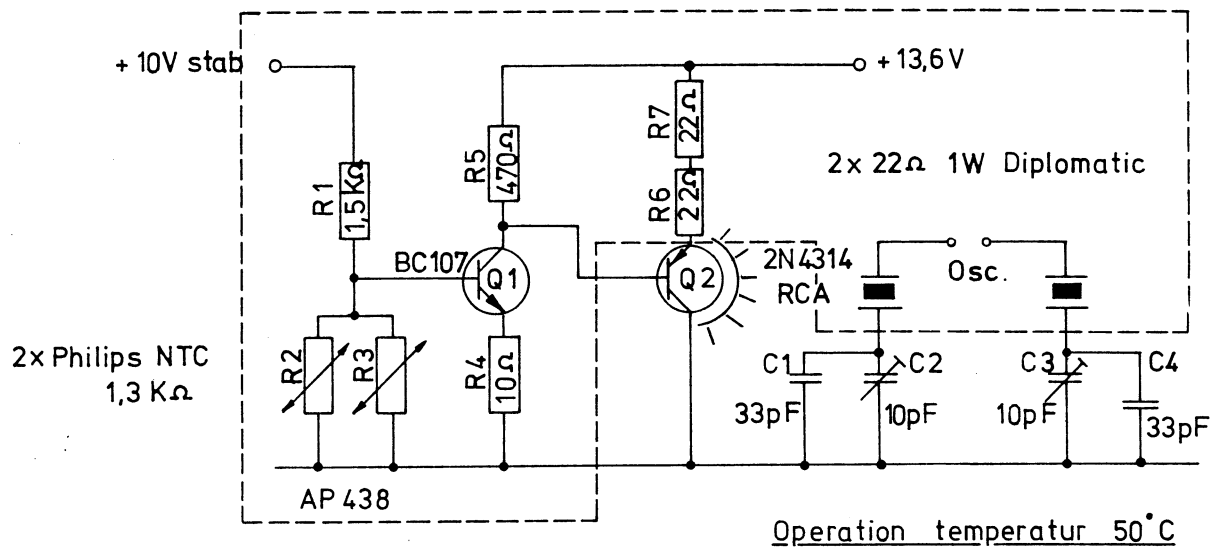
Nr.	Kode	Data	Nr.	Kode	Data
R1		3,3 ohm $\frac{1}{8}$ W			
R2		470 ohm $\frac{1}{4}$ W			
R3		10 ohm "			
R4		330 ohm "			
C1		50 mF/16v lyt.			
C2		250 mF/15v lyt.			
C3		100 mF/16v lyt.			
C4		100 mF/16v lyt.			
D1		1N5240 10v zener			
Q1		Ac 187 k			
F1		200 mA sikring			
10v stab. Powersupply AP 700 Printboard AP 317 Tilhører tegn. nr.: 70177/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70178/4



Rettet:	4 CHANNEL X-TAL SHIFT PRINT BOARD AP 326 I+II AP-RADIOTELEFON	Tegn.: 14.8.70 BEP	Kontr.: 14.8.70 E.F.
		Stykl. nr.: 70197/4	
		Tegn. nr.: Erstatte 68071/4	
		70196 /4	

AP-RADIOTELEFON

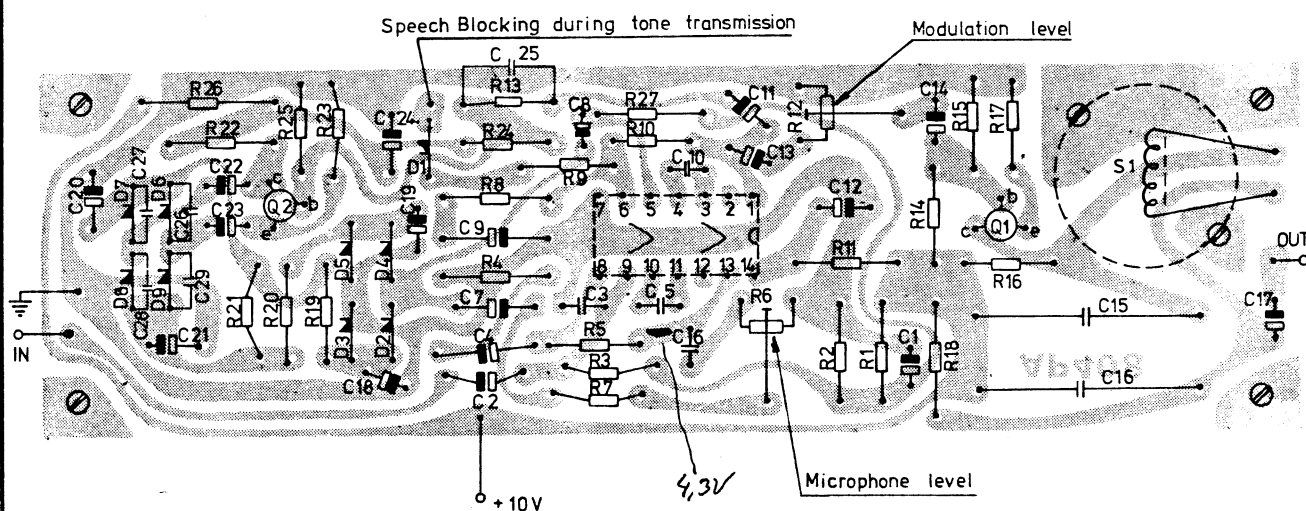
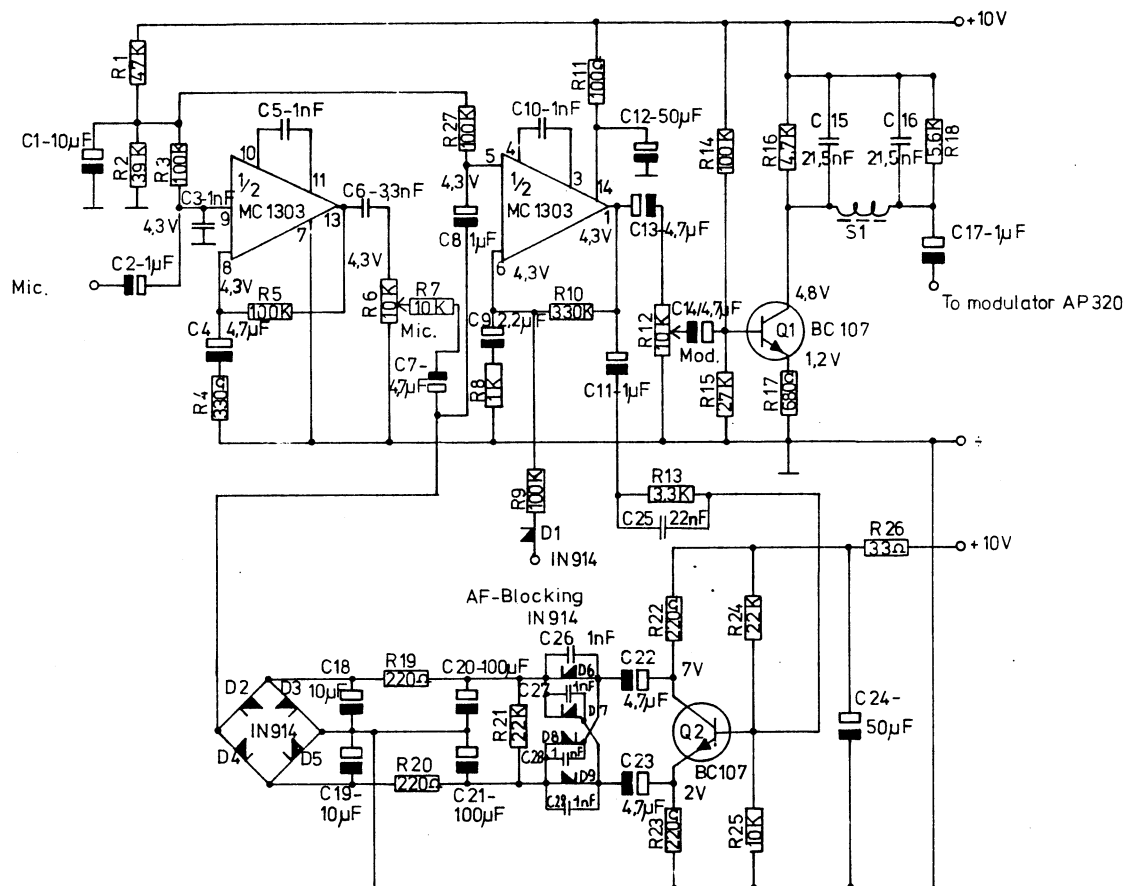
Nr.	Kode	Data	Nr.	Kode	Data
R1		1,8 Kohm $\frac{1}{4}$ W			
R2		1,8 Kohm "			
R3		1,8 Kohm "			
R4		1,8 Kohm "			
R5		1,8 Kohm "			
R6		10 Kohm "			
R7		10 Kohm "			
R8		10 Kohm "			
R9		10 Kohm "			
C1		2,2 nF ker.			
C2		2,2 nF ker.			
C3		2,2 nF ker.			
C4		2,2 nF ker.			
C5		33 pF styr.			
C6		33 pF styr.			
C7		33 pF styr.			
C8		33 pF styr.			
C9		10 pF trim.			
C10		10 pF trim.			
C11		10 pF trim.			
C12		10 pF trim.			
S1		Wide Band RFC			
D1		BA 244			
D2		BA 244			
D3		BA 244			
D4		BA 244			
4 Channel X-tal Shift AP 700 Printboard AP 326 1+2 Tilhører tegn. nr.: 70196/4			Rettet:		Tegn.: EB Kontr.: Stykl. nr.: 70197/4



Rettet:	Temperatur stabilized crystal oven for U.H.F. Base station Pcb 438	Tegn.: A.B.P 4.1. 71	Kontr.: 18.2.71 J.S.
		Stykl. nr.: 71156 1/4	
	AP-RADIOTELEFON	Tegn. nr.: 71002/ 4	

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		1,5 Kohm $\frac{1}{4}$ Watt			
R2		1,3 Kohm NTC			
R3		1,3 Kohm NTC			
R4		10 Ohm $\frac{1}{4}$ Watt			
R5		470 Ohm $\frac{1}{4}$ Watt			
R6		22 Ohm 1 Watt			
R7		22 Ohm 1 Watt			
		Diplomatic			
C1		33 pF Styroflex			
C2-					
C3		10 pF Jackson trimmer 5750			
C4		33 pF Styroflex			
Q2		RCA 2N4314			
Q1		BC 107			
Crystal oven for UHF base st. Print board AP 438. Tilhører tegn. nr.: 71002/4			Rettet:		Tegn.: EF 16-3-71 Kontr.:
					Stykl. nr.: 71156/4



Remarks: Quoted DC potentials are measured to chassis.

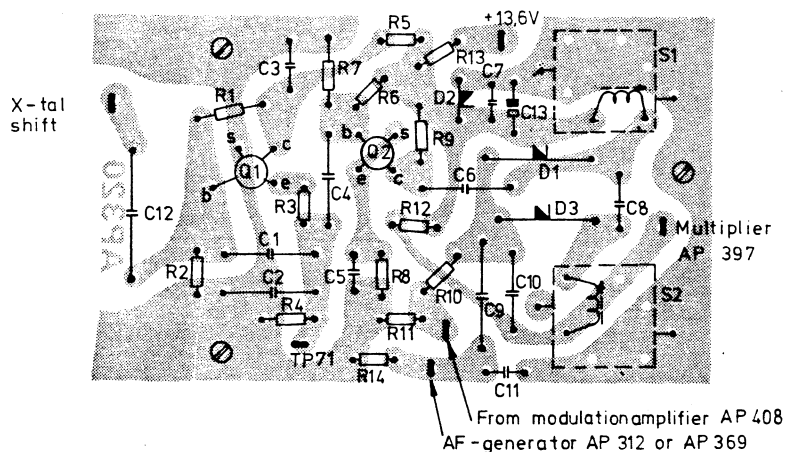
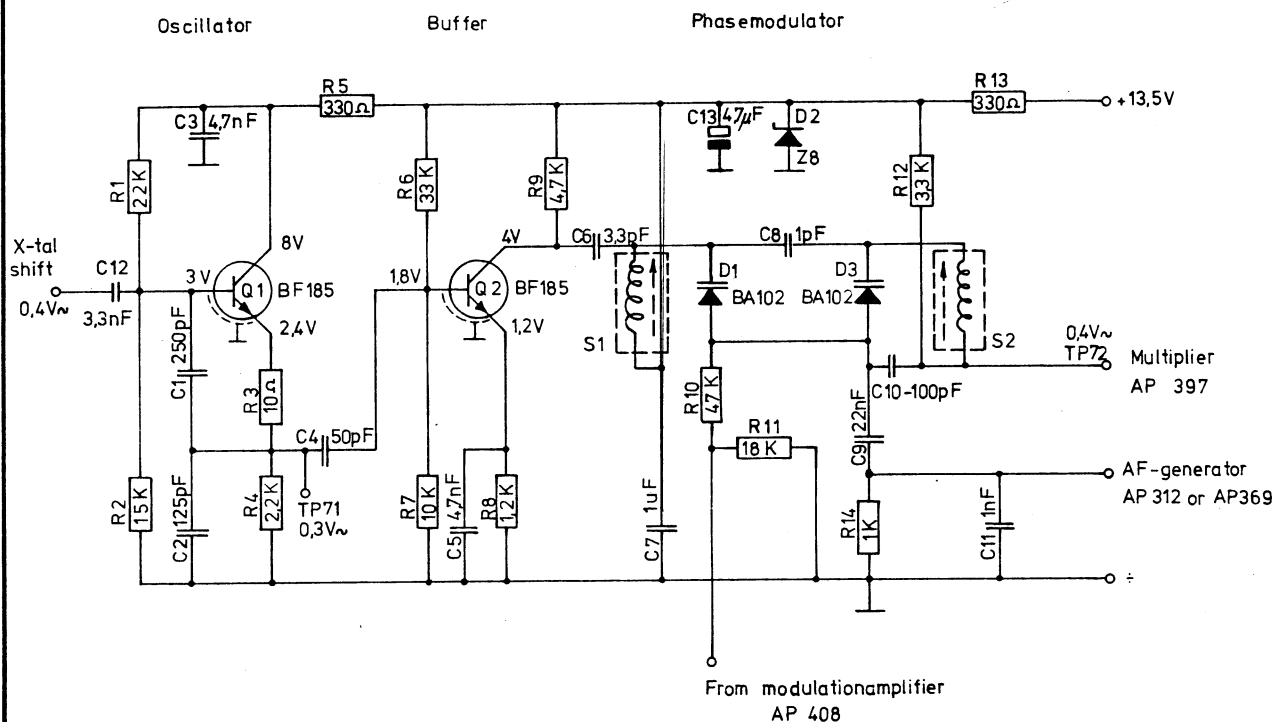
Ri = 10 M Ω provided 330 K Ω in series with test pin.

Rx stand by and Tx keyed.

Rettet:	MODULATION AMPLIFIER WITH AVC	Tegn.: 10/9-70 AB.P	Kontr.: E.F 11-9-70
	PRINTBOARD AP 408	Stykl. nr.: 70285/4	
	AP-RADIOTELEFON	Tegn. nr.: 70284/4	

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		47 Kohm $\frac{1}{4}$ W	S1		L66 Tg. 7o386/4
R2		39 Kohm "			
R3		100 Kohm "	D1		1N 914
R4		330 ohm "	D2		1N 914
R5		100 Kohm "	D3		1N 914
R6		10 Kohm pot.	D4		1N 914
R7		10 Kohm $\frac{1}{4}$ W	D5		1N 914
R8		1 Kohm "	D6		1N 914
R9		100 Kohm "	D7		1N 914
R10		330 Kohm "	D8		1N 914
R11		100 ohm "	D9		1N 914
R12		10 Kohm pot.			
R13		3,3 Kohm $\frac{1}{4}$ W	Q1		BC 1o7b
R14		100 Kohm "	Q2		BC 1o7b
R15		27 Kohm "			
R16		4,7 Kohm "	IC		MC 13o3 IC
R17		680 ohm "			
R18		5,6 Kohm "			
R19		220 ohm "			
R20		220 ohm "			
R21		22 Kohm "			
R22		220 ohm "			
R23		220 ohm "			
R24		22 Kohm "			
R25		10 Kohm "			
R26		33 ohm "			
R27		100 Kohm "			
C1		10 mF/25v tant.			
C2		1 mF/35v tant.			
C3		1 nF ker.			
C4		4,7 mF/lov tant.			
C5		1 nF ker.			
C6		3,3 nF styr.			
C7		4,7 mF/lov tant.			
C8		1 mF/35v tant.			
C9		2,2 mF/25v tant.			
C10		1 nF ker.			
C11		1 mF/35v tant.			
C12		50 mF/16v lyt.			
C13		4,7 mF/lov tant.			
C14		4,7 mF/lov tant.			
C15		21,5 nF styr.			
C16		21,5 nF styr.			
C17		1 mF/35v tant.			
C18		10 mF/25v tant.			
C19		10 mF/25v tant.			
C20		100 mF/6v lyt.			
C21		100 mF/6v lyt.			
C22		4,7 mF/lov tant.			
C23		4,7 mF/lov tant.			
C24		50 mF/16v lyt.			
C25		22 nF Pol.laco			
C26		1 nF ker.			
C27		1 nF ker.			
C28		1 nF ker.			
C29		1 nF ker.			
Modulation Amplifier w. AVC Print Board AP 4o8 AP 7oo Tilhører tegn. nr.: 7o284/4			Rettet:		Tegn.: EB Kontr.: 70285 14



Remarks: Quoted DC potentials are measured to chassis.

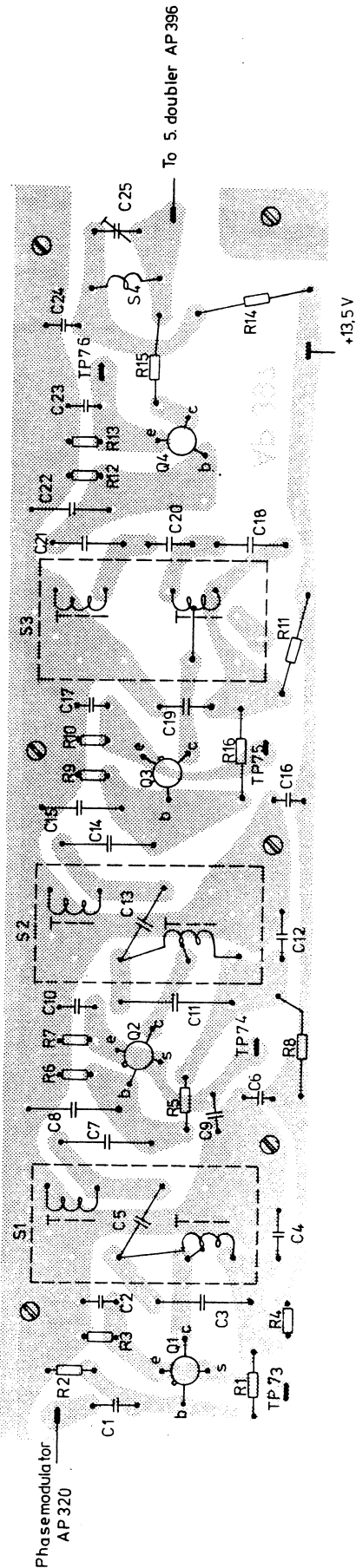
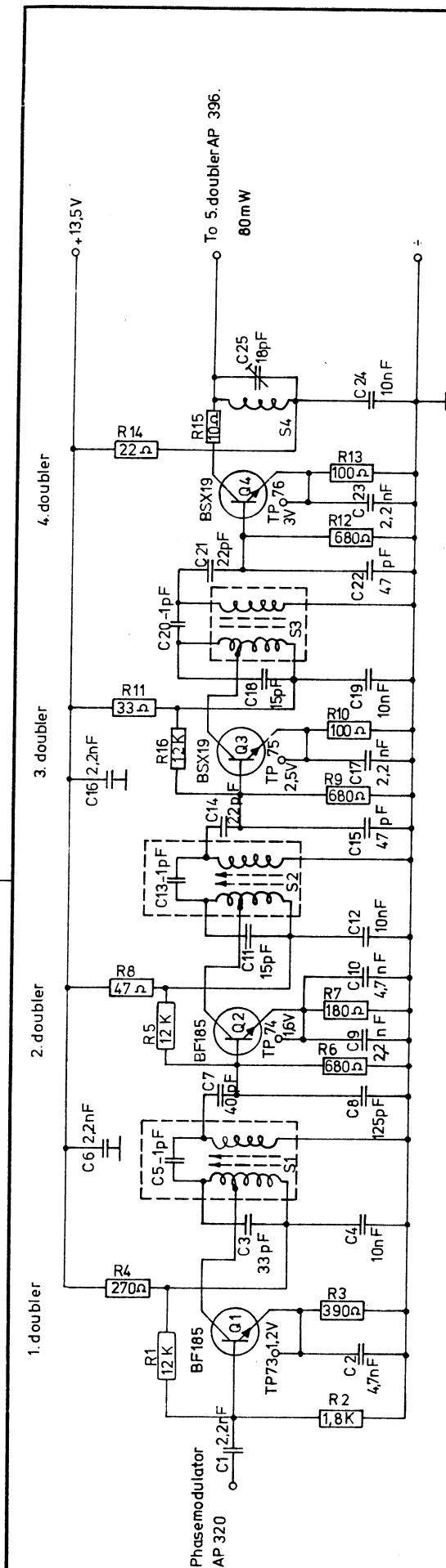
R_i = 10 M Ω provided 330 K Ω in series with test pin.

R_x stand by and T_x keyed.

Rettet: 	TX. OSCILLATOR AND PHASEMODULATOR UHF PRINT BOARD AP 320 AP-RADIOTELEFON	Tegn.: AB.P 16/9-70 Kontr.: E.F 16.9-70 Stykl. nr.: 70301/4 Tegn. nr.: 70300/4
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RADIOTELEFONSERVICE

Nr.	Kode	Data	Nr.	Kode	Data
R1		22 Kohm $\frac{1}{4}$ W			
R2		10 Kohm "			
R3		10 ohm "			
R4		2,2 Kohm "			
R5		330 ohm "			
R6		33 Kohm "			
R7		10 Kohm "			
R8		1,2 Kohm "			
R9		4,7 Kohm "			
R10		47 Kohm "			
R11		18 Kohm "			
R12		3,3 Kohm "			
R13		330 ohm "			
R14		1 Kohm "			
C1		250 pF styr.			
C2		125 pF styr.			
C3		4,7 nF ker.			
C4		50 pF styr.			
C5		4,7 nF ker.			
C6		3,3 pF ker.			
C7		4,7 nF ker.			
C8		1 pF ker.			
C9		22 nF pol.			
C10		100 pF styr.			
C11		1 nF ker.			
C12		3,3 nF styr.			
C13		4,7 mF/25v tant.			
S1		L147 Tg. 70322/4			
S2		L147 Tg. 70322/4			
D1		BA 102			
D2		Z 8,2 zener			
D3		BA 102			
Q1		BF 185			
Q2		BF 185			
TX-oscill. and Phasemod. UHF Print Board AP 320 AP 700 Tilhører tegn. nr.: 70300/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70301/4



Rettet:

MULTIPLIER UHF TRANSMITTER

PRINT BOARD AP 397

AP-RADIOTELEFON

Tegn.: A.B.P.

11/9-70

Kontr.: E.F.

16-9-70

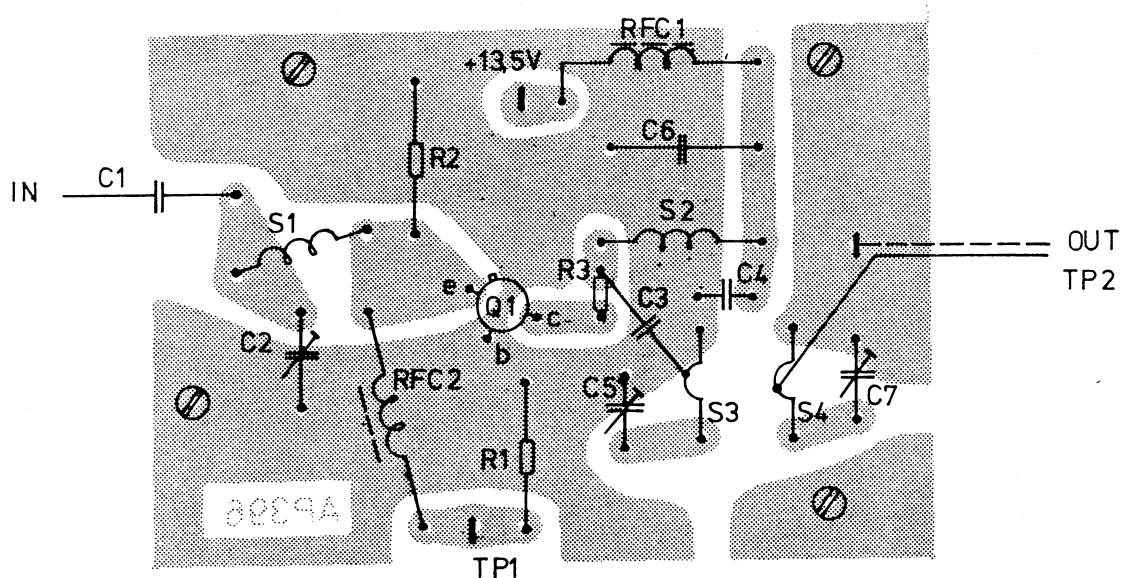
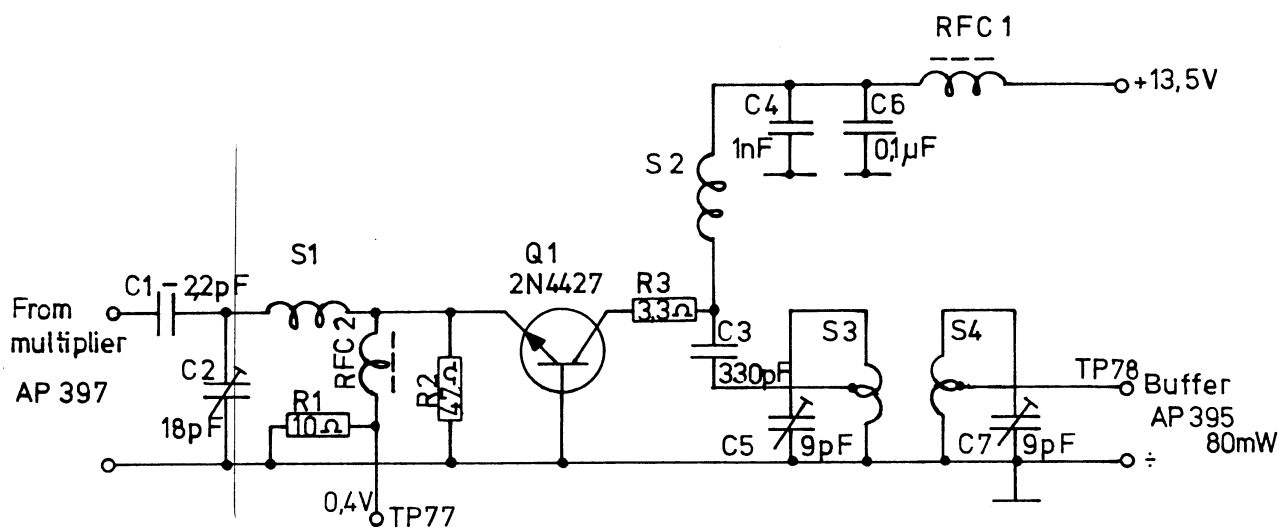
Stykl. nr.: 70291/4

Tegn. nr.:

70290/4

AP-RADIOTELEFON

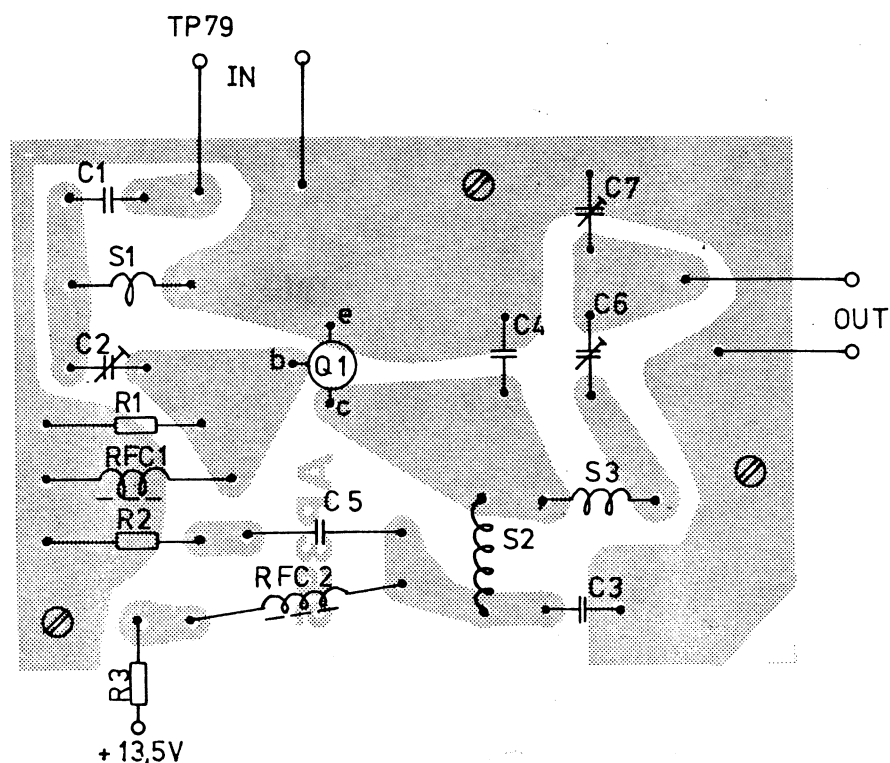
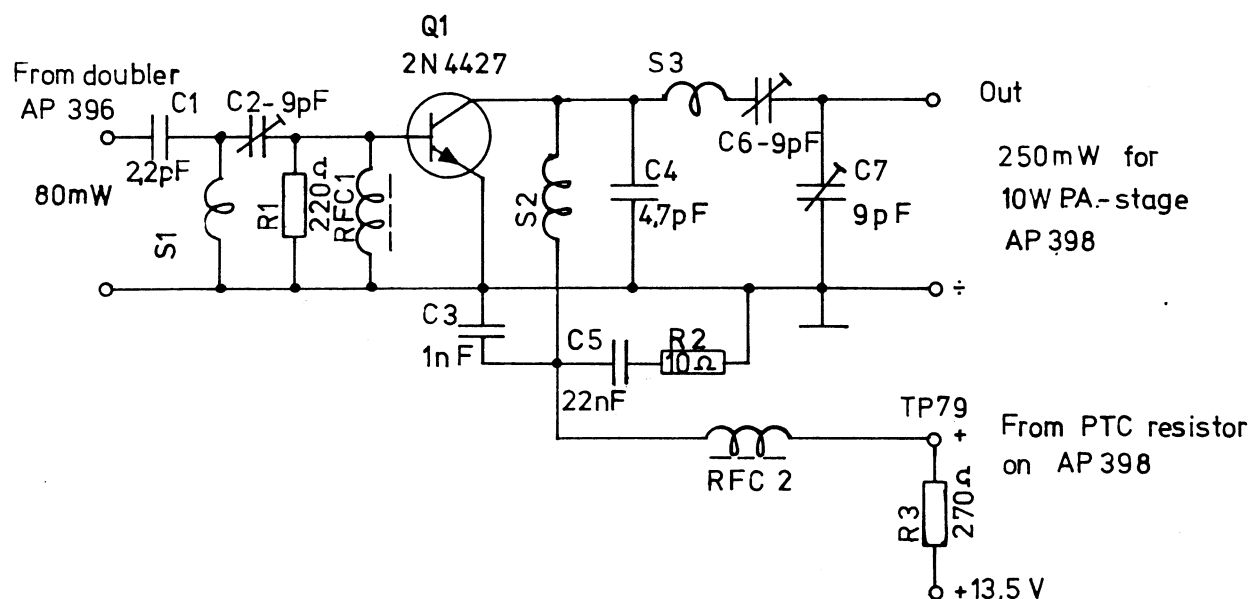
Nr.	Kode	Data	Nr.	Kode	Data
R1		12 Kohm $\frac{1}{4}$ W			
R2		1,8 Kohm "			
R3		390 ohm "			
R4		270 ohm "			
R5		12 Kohm "			
R6		680 ohm "			
R7		180 ohm "			
R8		47 ohm "			
R9		680 ohm "			
R10		100 ohm "			
R11		33 ohm "			
R12		680 ohm "			
R13		100 ohm "			
R14		22 ohm "			
R15		10 ohm "			
R16		12 Kohm "			
C1		2,2 nF ker.			
C2		4,7 nF ker.			
C3		33 pF styr.			
C4		10 nF ker.			
C5		1 pF ker.			
C6		2,2 nF ker.			
C7		40 pF styr.			
C8		125 pF styr.			
C9		2,2 nF ker.			
C10		4,7 nF ker.			
C11		15 pF styr.			
C12		10 nF ker.			
C13		1 pF ker.			
C14		22 pF styr.			
C15		47 pF styr.			
C16		2,2 nF ker.			
C17		2,2 nF ker.			
C18		15 pF styr.			
C19		10 nF ker.			
C20		1 pF ker.			
C21		22 pF styr.			
C22		47 pF styr.			
C23		2,2 nF ker.			
C24		10 nF ker.			
C25		18 pF trim.			
S1		L152			
S2		L150			
S3		L55 Tg. 68097/4			
S4		L148			
Q1		BF 185			
Q2		BF 185			
Q3		BSX 19			
Q4		BSX 19			
Multiplier UHF-Transmitter Print Board AP 397 AP 700 Tilhører tegn. nr.: 70290/4			Rettet:		Tegn.: EB Kontr.: 70291/4



Rettet:	Tx - 5. Doubler UHF Printboard AP 396 AP-RADIOTELEFON	Tegn.: A.B.P. 3/9-70 Stykl. nr.: 70251/4 Tegn. nr.: 70250/4	Kontr.: E.F. 11-9-70
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AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		10 ohm $\frac{1}{4}$ W			
R2		47 ohm "			
R3		3,3 ohm "			
C1		2,2 pF ker.			
C2		18 pF trim.			
C3		330 pF ker.			
C4		1 nF ker.			
C5		9 pF trim.			
C6		0,1 mF pol.			
C7		9 pF trim.			
S1		L141			
S2		L142			
S3		L143			
S4		L143			
RFC					
-1		Wide Band Choke			
RFC					
-2		Wide Band Choke			
Q1		2N 4427			
5. Doubler UHF-Transmitter Print Board AP 396 AP 700 Tilhører tegn. nr.: 70250/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70251/4



Remarks: Quoted DC potentials are measured to chassis.
 $R_i = 10\text{ M}\Omega$ provided $330\text{ K}\Omega$ in series with test pin.
 Rx stand by and Tx keyed.

Rettet:

Tx-buffer UHF
 Printboard AP 395

AP-RADIOTELEFON

Tegn.: A.B.P.
 3/9-70

Kontr.: E.F.
 3/9-70

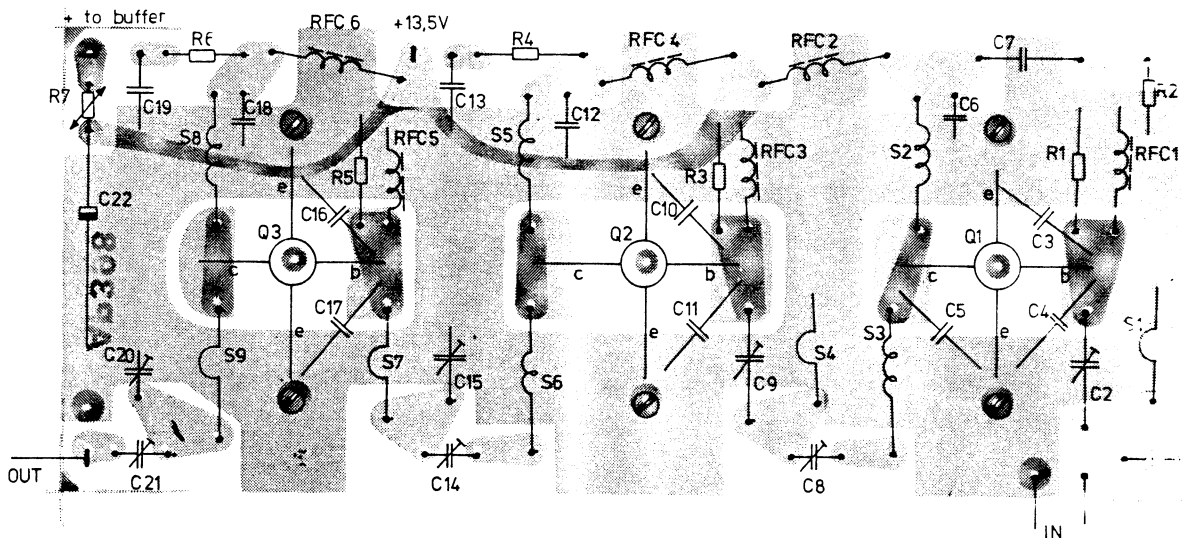
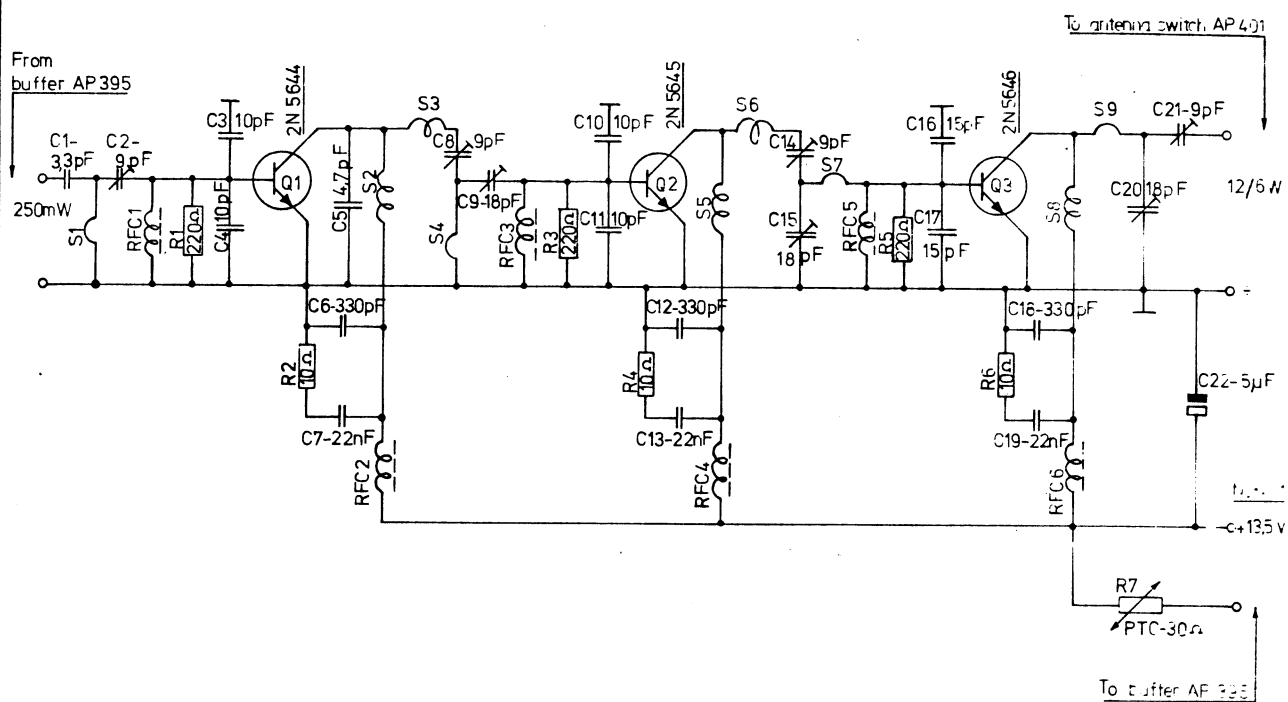
Stykl. nr.: 70255/4

Tegn. nr.:

70254/4

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		220 ohm $\frac{1}{4}$ W			
R2		10 ohm "			
R3		270 ohm "			
C1		2,2 pF ker.			
C2		9 pF trim.			
C3		1 nF ker.			
C4		4,7 pF ker.			
C5		22 nF pol.			
C6		9 pF trim.			
C7		9 pF trim.			
S1		L164			
S2		L187			
S3		L166			
RFC					
-1		2,2 microH choke			
RFC					
-2		Wide Band Choke			
Q1		2N 4427			
Buffer UHF-Transmitter Print Board AP 395 AP 700 Tilhører tegn. nr.: 70254/4			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70255/4



Remarks: Quoted DC potentials are measured to chassis.

Ri = 10 M Ω provided 330 K Ω in series with test pin.

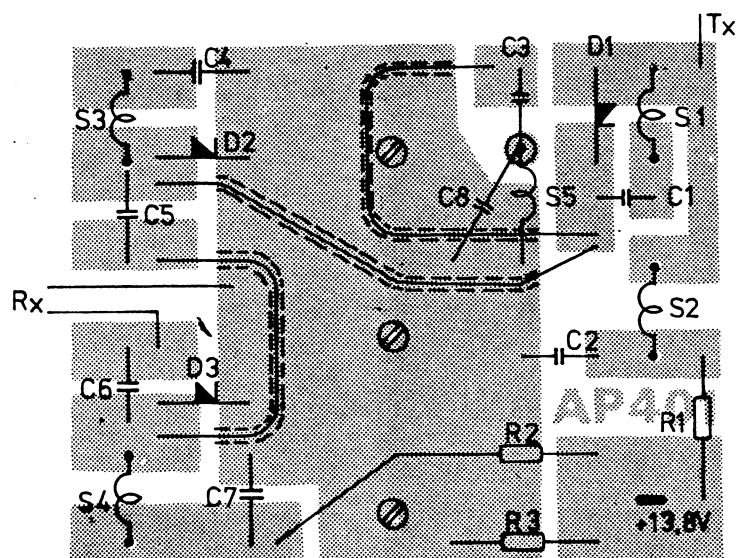
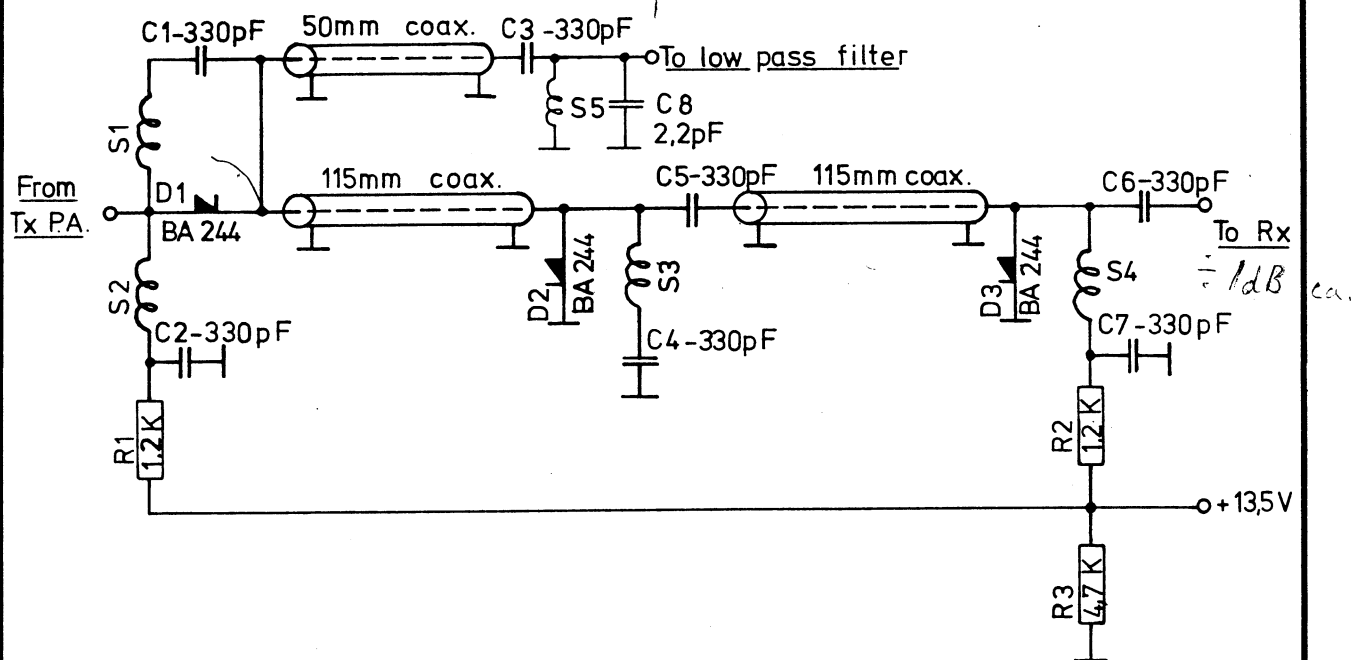
Rx stand by and Tx keyed.

Note 1: To obtain 6W a resistor 1 Ω /3W has to be incorporated in the power supply, which has to be 12.6 V.

Rettet:	TX 12/6W POWER AMPLIFIER UHF PRINT BOARD AP 398	Tegn.: ABP 15/9-70	Kontr.: EF 16-9-70
		Stykl. nr.: 70 299/4	
	AP-RADIOTELEFON	Tegn. nr.: 70298/4	

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		220 ohm $\frac{1}{4}$ W			
R2		10 ohm "			
R3		220 ohm "			
R4		10 ohm "			
R5		220 ohm "			
R6		10 ohm "			
R7		30 ohm PTC			
C1		3,3 pF ker.			
C2		9 pF trim.			
C3		10 pF ker.			
C4		10 pF ker.			
C5		4,7 pF ker.			
C6		330 pF ker.			
C7		22 nF pol.			
C8		9 pF trim.			
C9		18 pF trim.			
C10		10 pF ker.			
C11		10 pF ker.			
C12		330 pF ker.			
C13		22 nF pol.			
C14		9 pF trim.			
C15		18 pF trim.			
C16		15 pF ker.			
C17		15 pF ker.			
C18		330 pF ker.			
C19		22 nF pol.			
C20		18 pF trim.			
C21		9 pF trim.			
C22		5 mF/35v lyt.			
S1		L182			
S2		L183			
S3		L184			
S4		L182			
S5		L183			
S6		L184			
S7		L185			
S8		L183			
S9		L186			
RFC					
-1		2,2 microH choke			
RFC					
-2		Wide Band Choke			
RFC					
-3		2,2 microH choke			
RFC					
-4		Wide Band Choke			
RFC					
-5		2,2 microH choke			
RFC					
-6		Wide Band Choke			
Q1		2N 5644			
Q2		2N 5645			
Q3		2N 5646			
TX Power Amplifier UHF Print Board AP 398 AP 700 Tilhører tegn. nr.: 70298/4			Rettet:		Tegn.: EF Kontr.: 70299/4



Remarks: Quoted DC potentials are measured to chassis.

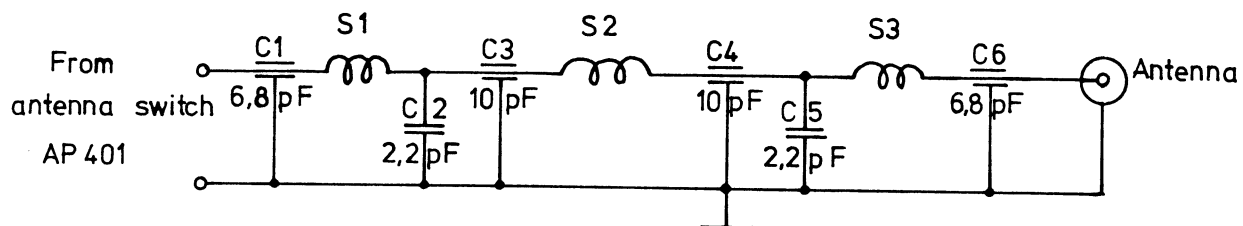
Ri = 10 M Ω provided 330 K Ω in series with test pin.

Rx stand by and Tx keyed.

Rettet: 	ELECTRONIC ANTENNA SWITCH UHF Print board AP 401 AP-RADIOTELEFON	Tegn.: AB.P. 14/9-70 Kontr.: E.F. 16-9-70 Stykl. nr.: 70 297/4 Tegn. nr.: 70296/4
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AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
R1		1,2 Kohm $\frac{1}{4}$ W			
R2		1,2 Kohm "			
R3		4,7 Kohm "			
C1		330 pF ker.			
C2		330 pF ker.			
C3		330 pF ker.			
C4		330 pF ker.			
C5		330 pF ker.			
C6		330 pF ker.			
C7		330 pF ker.			
S1		L188			
S2		L187			
S3		L188			
S4		L188			
S5		L200			
D1		BA 244			
D2		BA 244			
D3		BA 244			
Electronic Antenna Switch Print Board AP 401 AP 700 Tilhører tegn. nr.: 70296/4 UHF			Rettet:		Tegn.: EB Kontr.:
					Stykl. nr.: 70297/4



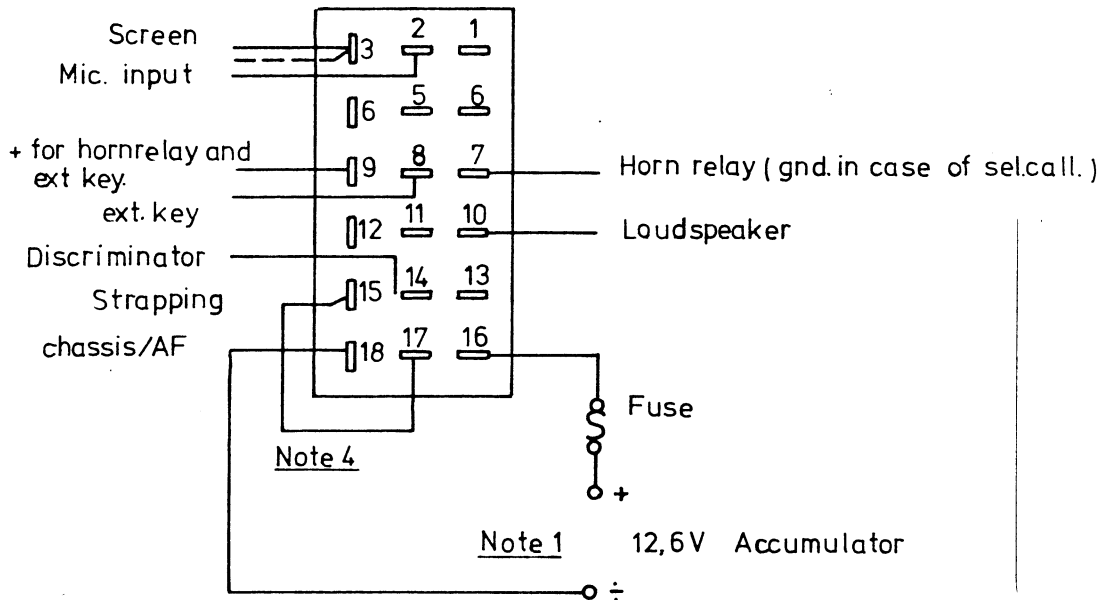
Rettet:	LOW PASS FILTER UHF		Tegn.: A.B.P.	Kontr.: EF
			14/9-70	14-9-70
	AP-RADIOTELEFON		Stykl. nr.: 70 293/4	
			Tegn. nr.: 70292/4	

AP-RADIOTELEFON

Nr.	Kode	Data	Nr.	Kode	Data
C1		6,8 pF Feed Thru			
C2		2,2 pF ker.			
C3		10 pF Feed Thru			
C4		10 pF Feed Thru			
C5		2,2 pF ker.			
C6		6,8 pF Feed Thru			
S1		L189			
S2		L190			
S3		L189			
Low Pass Filter UHF			Rettet:		Tegn.: ER Kontr.: 70293/4
Tilhører tegn. nr.:					

Without DC-Converter only 12,6V chassis negative.

18 pin "Painton" conn.



Note 1: DC converter has to be used as far as the power supply is not 12,6VDC with chassis negative.

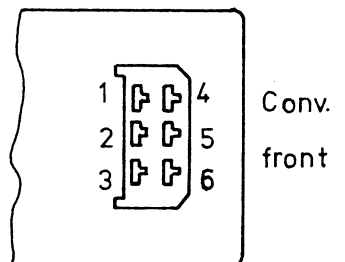
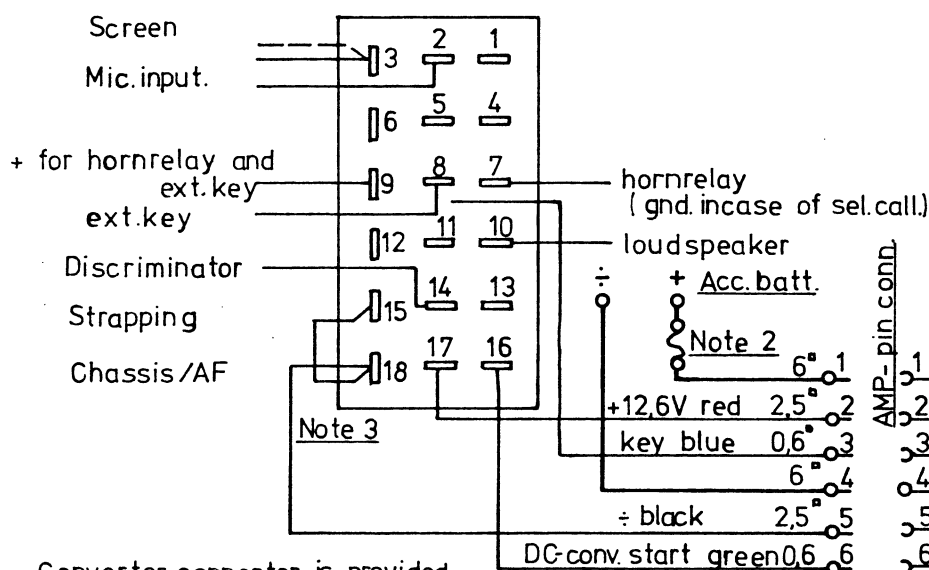
Note 2: Main fuse has to be incorporated in Power supply line.

Note 3: When DC-converter is used strap pin 15 and 18.

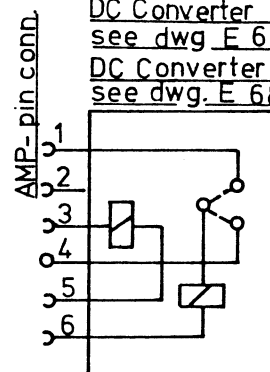
Note 4: At 12,6 V strap 15 and 17.

For DC- Converter:

18 pin "Painton" conn.



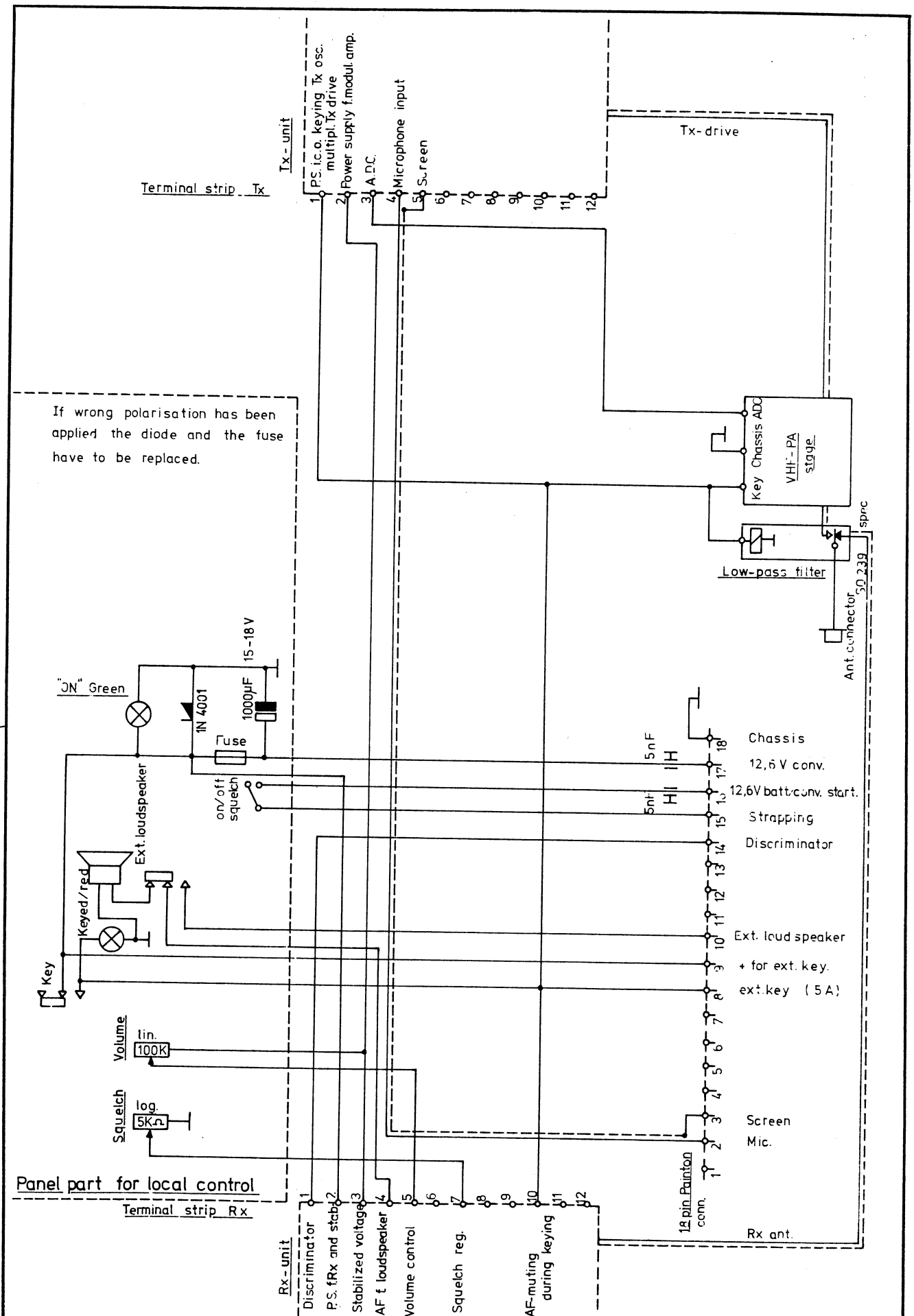
DC Converter for 6V or 12V
see dwg. E 68171/4.
DC Converter for 24V
see dwg. E 68194/4.



Converter connector is provided with 3 sizes AMP pins 0,6°, 2,5°, 6°

Alle mål uden tolerance

	Materiale	Model nr.	Lager nr.	Målforhold	Tegn.	17/8-70	A.B.P.
					Kont.	18/8-70	E.F.
	Genstand: Mounting Instructions. local control. Mobile without) DC-converter.				Tg. nr	68127/4	



Rettet:

MOBILE AP 700 LOCAL CONTROLLED
SIMPLEX, 1 CHANNEL, FUNCTION, LAY-OUT

AP-RADIOTELEFON

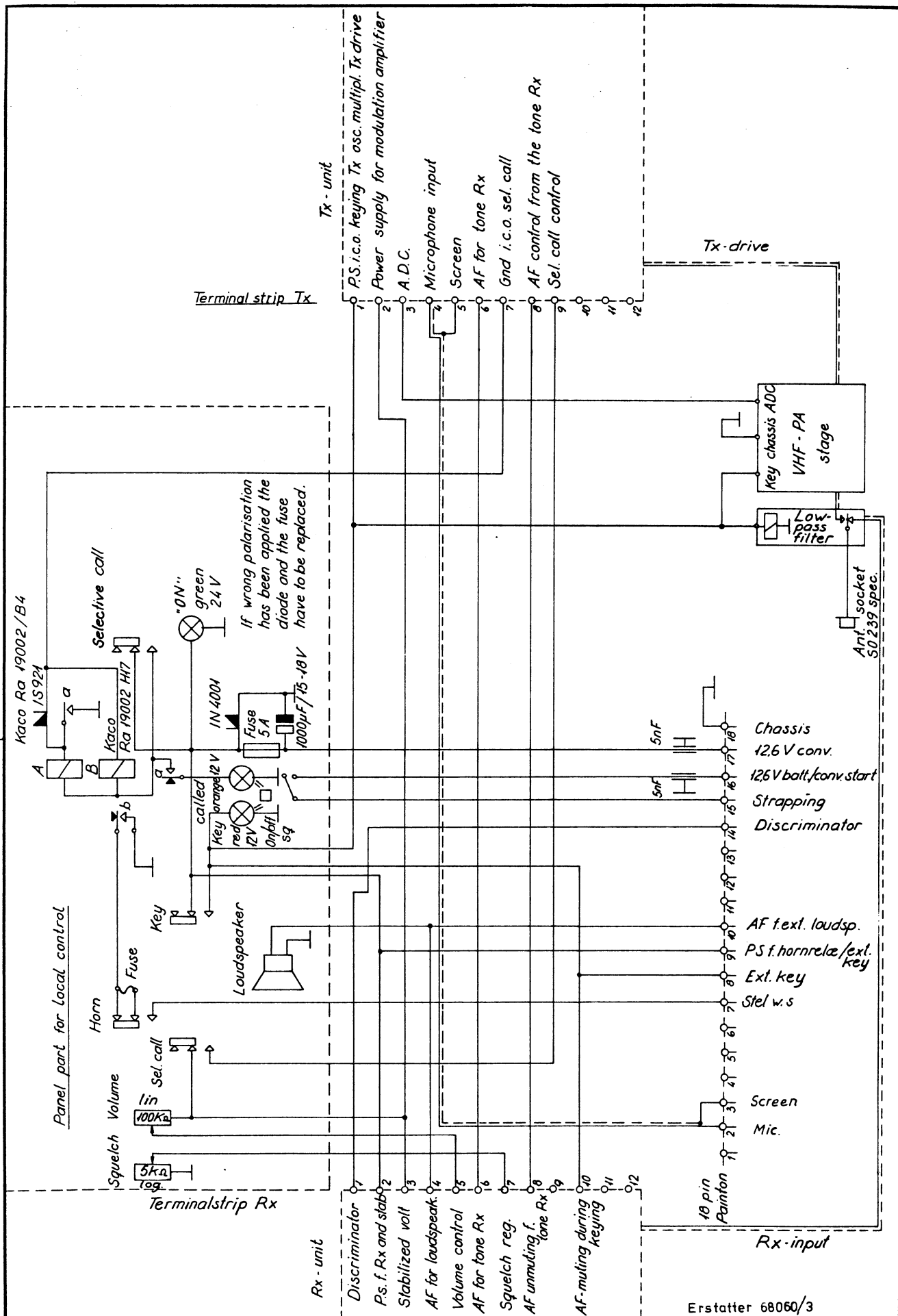
Tegn.: 19-8-70
ABP

Kontr.: 19/8-70
EF

Stykl. nr.:

Tegn. nr.: Erstatte 68069/3

70202/4



Erstatter 68060/3

Rettet:

Mobile AP 700

Local controlled simplex 1 channel, sel. call
function lay-out.

AP-RADIOTELEFON

Tegn.: U.K.

Kontr.: E.F.
2-9-79

Stykl. nr.:

Tegn. nr.:

70225/4

