

**uniden®**

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**CB TRANSCEIVER**  
**MODEL : PRO 810e**

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**thanks Homer**  
**for sharing this file**

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**SERVICE INFORMATION  
MANUAL**

UNIDEN CUSTOMER SERVICE  
9900 Westpoint Dr.  
P.O. Box 501368  
Indianapolis, IN 46250  
(317) 842-2483

UNIDEN PARTS DEPT.  
9900 Westpoint Dr.  
P.O. Box 50463  
Indianapolis, IN 46250  
(317) 842-1036

## SAFETY PRECAUTIONS

Before returning any units of this model to the customer, a safety check of the entire instrument should be made. The service technician must be sure that no protective device built into the instrument by the manufacturer has become defective or inadvertently degraded during servicing.

### 1. WARNING:

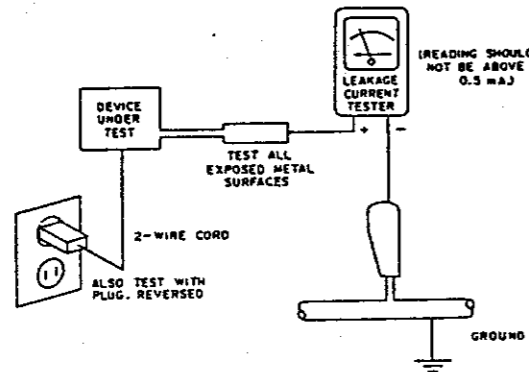
Alterations of the design or circuitry of this unit should not be made.

Any design alterations or additions such as, but not limited to, circuit modifications, auxiliary speaker jacks, switches, grounding, active or passive circuitry, etc. may alter the safety characteristics of this unit and potentially create a hazardous situation for user.

Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

### 2. LEAKAGE CURRENT HOT CHECK:

Plug the AC line cord directly into a 120V AC outlet (do not use an isolation transformer for this check) Use a Leakage Current Tester or a metering system which complies with American National Standards Institute (ANSI C101.1 "Leakage Current for Applicable"), and Underwriters Laboratories (UL) 1270, (40.7) and/or 1409 (45.7) Measure for current with the switch "on" and repeat with the switch "off" from all exposed metal parts of the cabinet (antennas, handle bracket, metal cabinet, screwheads, metal overlays, etc.), to a known earth ground (waterpipe, conduit etc.); particularly, any exposed metal part having a return path to the chassis. Any current measured must not exceed 0.5 milliamp. Reverse plug in the AC outlet and repeat test. ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND CORRECTIVE ACTION MUST BE TAKEN BEFORE RETURNING THIS UNIT TO THE CUSTOMER.



### 3. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by a  $\Delta$  in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

## CB TRANSCEIVER

### MODEL : PRO 810e

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BLOCK DIAGRAM	
SCHEMATIC DIAGRAM(1/2)	(E12-2724)
SCHEMATIC DIAGRAM(1/2)	(E13-2725)
P.C. BOARD VIEW	
MAIN	PCB TOP(1/2) (E22-7153)
FRONT CH SW	PCB (E22-7154)
PWR SUPPLY	PCB (E23-7155)
ADD PARTS	PCB BOTTOM (E23-7156)
SR	PCB (E24-7157)
WIRING DIAGRAM	(E32-2801)

Note: Circuit design and specifications are subject to change without notice.

# 1. SPECIFICATIONS

GENERAL      CB AM/SSB TRANSCEIVER      MODEL : PRO 810e (UT-552)

- 1. Channels : 40
- 2. Frequency Range : 26.965 MHz~27.405 MHz
- 3. Semiconductors : 44 Transistors, 76 Diodes, 6 IC's, 2 LED's,  
2 Digits Channel LED
- 4. Crystal Oscillators : 2
- 5. Microphone : 500  $\Omega$ , Dynamic Type
- 6. Speaker : 16  $\Omega$ , 7 W Max.
- 7. Antenna Connector : M-Type
- 8. Jacks & Connectors : MIC      4P Metal  
EXT SP    3.5  $\phi$   
PA SP    3.5  $\phi$   
AC Power Cable & Plug
- 9. Controls : Channel Selector, Mode Selector (AM-USB-LSB),  
Power ON/OFF-Volume Control, Squelch Control,  
Clarifier Control, Mic Gain Control,  
RF Gain Control, CH9 Switch, HI CUT Switch,  
ANL/NB Switch, PA Switch
- 10. Meter : RF Output Power, Signal Strength
- 11. Illumination Indicators (LED) : Channel Readout, TX, RX
- 12. Illumination (Pilot Lamp) : Meter Back Light
- 13. Cabinet Size : W : 340 mm  
H : 98 mm  
D : 200 mm
- 14. Weight : 3.7 kg
- 15. Accessories : Microphone, Microphone Hanger

## MEASUREMENT CONDITIONS

- 1. Power Source : 120V AC 60 Hz
- 2. Antenna Impedance : 50  $\Omega$
- 3. Test Temperature : 25°C  $\pm$ 5°C
- 4. AM Modulation Frequency : 1 kHz
- 5. SSB Modulation Frequency, Transmit Two Tone : Between 500 Hz & 2400 Hz
- 6. Standard RF Input Level : 1000  $\mu$ V

7. Reference AM Modulation Percentage	: 1 kHz, 30%
8. Reference Audio Output Power	: 0.5 W
9. Audio Frequency, SSB Receive	: 1 kHz
10. Audio Output Load	: 8 $\Omega$ Resistive
11. Measureing Channel	: 19
12. Standard Method of Measurement	: EIA RS-382 (ISS : 8-26-86)

TRANSMITTER SECTION

<u>ITEMS</u>		<u>UNIT</u>	<u>NOMINAL</u>	<u>LIMIT</u>	
1. Frequency Tolerance at 25°C (5 minutes after Switch on)	AM	Hz	$\pm 130$	$\pm 800$	
	SSB	Hz	$\pm 130$	$\pm 800$	
2. Carrier Power at No Modulation	AM	W	4.0	3.6~4.4	
3. PEP Power, Two Tone, SSB	SSB	W <sub>pep</sub>	12	10.8~13.2	
4. Spurious & Harmonic Emission	AM	dB	-65	-60	
	SSB	dB	-65	-60	
5. Carrier Suppression	SSB	dB	-55	-40	
6. Unwanted Sideband Suppression (at 2500 Hz 4 W <sub>pep</sub> 16 dB up Single tone)	SSB	dB	-50	-40	
7. AC Current at No Modulation	AM	mA	600	700	
	SSB	mA	250	350	
8. AC Current					
	AM : MAX Mod.	mA	600	700	
	SSB : MAX W <sub>pep</sub> , Two Tone	mA	550	700	
9. Modulation Frequency Response (1 kHz, 0 dB Reference)					
	Lower at 450 Hz, (EIA)	AM	dB	-4	-8
		SSB	dB	-4	-8
	Upper at 2.5 kHz, (EIA)	AM	dB	-4	-8
		SSB	dB	-4	-8
10. Microphone Sensitivity					
	AM : For 50% Mod.	mV	1.0	2.0	
	SSB : For 6 W <sub>pep</sub>	mV	1.0	2.0	
	AM : For 80% Mod.	mV	2.0	4.0	
	SSB : For 10 W <sub>pep</sub>	mV	2.0	4.0	
11. AMC Range					
	AM : 50~100% Modulation	dB	60	40	
	SSB : 9~13.2 Watts PEP	dB	60	40	
12. Hum and Noise in Transmit	AM	dB	50	40	

RECEIVER SECTION

<u>ITEMS</u>		<u>UNIT</u>	<u>NOMINAL</u>	<u>LIMIT</u>	
1. Max. Sensitivity	AM	$\mu$ V	0.5	1.0	
	SSB	$\mu$ V	0.25	0.5	
2. Sensitivity for 10 dB S/N	AM	$\mu$ V	0.5	1.0	
	SSB	$\mu$ V	0.25	0.5	
3. AGC Figure of Merit 50 mV for 10 dB Change in Audio Output	AM	dB	80	70	
	SSB	dB	80	70	
4. Overall Audio Fidelity at 6 dB down					
	Upper Frequency	AM	Hz	2000	1500~3000
		SSB	Hz	3000	2000~4000
	Lower Frequency	AM	Hz	300	200~500
	SSB	Hz	300	100~500	
5. Cross Modulation, (D-S Method)					
	AM	dB	50	40	
6. Adjacent Channel Rejection (D-S Method) ( $\pm 10$ kHz)	AM	dB	60	50	
	SSB	dB	70	60	
7. Maximum Audio Output Power					
	AM	W	3.5	2.5	
	SSB	W	3.5	2.5	
8. Audio Output Power at 10% THD					
	AM	W	2.5	2	
	SSB	W	2.5	2	
9. RF Gain Control Range	AM	dB	50	30	
	SSB	dB	50	30	
10. S/N Ratio at 1 mV Input	AM	dB	35	30	
11. Squelch Sensitivity at Threshold	AM	$\mu$ V	0.5	1.0	
	SSB	$\mu$ V	0.5	1.0	
12. Squelch Sensitivity at Tight	AM	$\mu$ V	1000	300~3000	
	SSB	$\mu$ V	1000	300~3000	
13. "S-9" Sensitivity (No Modulation AM)					
	AM	$\mu$ V	100	25~250	
	SSB	$\mu$ V	100	25~250	
14. Image Rejection Ratio	AM	dB	75	65	
	SSB	dB	75	65	
15. IF Rejection Ratio	AM	dB	85	70	
	SSB	dB	85	70	

ITEMS		UNIT	NOMINAL	LIMIT
16. Oscillator Dropout Voltage	AM	V	-	95
	SSB	V	-	95
17. AC Current at No Signal	AM	mA	150	200
	SSB	mA	150	200
18. AC Current at Max. Audio Output Power	AM	mA	200	300
	SSB	mA	200	300
19. Clarifier Range	AM	kHz	±1.5	±0.6~±2.5
	SSB	kHz	±1.5	±0.6~±2.5
20. ANL/NB Performance	AM	dB	1	3
	SSB	dB	1	3
21. Desensitization (D-S Method)	AM	dB	76	60
	AM	dB	80	70
22. Blocking (D-S Method)	AM	dB	80	70
	SSB	dB	80	70
23. 1/2 IF Rejection Ratio	AM	dB	80	70
	SSB	dB	80	70
24. Hi Cut Ratio @ 2 kHz	AM	dB	-8	-3
	SSB	dB	-8	-3

#### PUBLIC ADDRESS

1. Output Power at 10% Distortion	W	3	2
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#### OVERALL PERFORMANCE

- Output Protection : Shall meet for 5 minutes for all VSWR's (around the Smith Chart) of 20:1 without damage.
- Output stability of all VSWR'S (around the Smith Chart) of up to 5:1 under continuous operation of a duty cycle of 5 minutes transmitting, and 1 minute receiving.
- Standard Operating Temperature : -30°C~+50°C
- Storage Temperature : -40°C~+70°C
- Electrostatic Discharge Protection : All external case and component parts shall withstand the application of 15 kV ESD without causing failure or malfunction to the unit.

Test Conditions - Probe : 150 pF with 500Ω in series  
Temp. : 25°C

## 2. ALIGNMENT PROCEDURE

### ALIGNMENT OF POWER SUPPLY PORTION

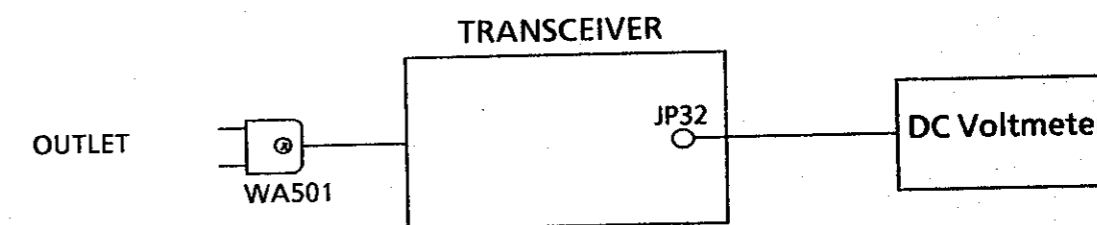
#### 1. Test Equipment Required

Power Supply 120V 60Hz (AC)  
DC Voltmeter

#### 2. Alignment Procedure

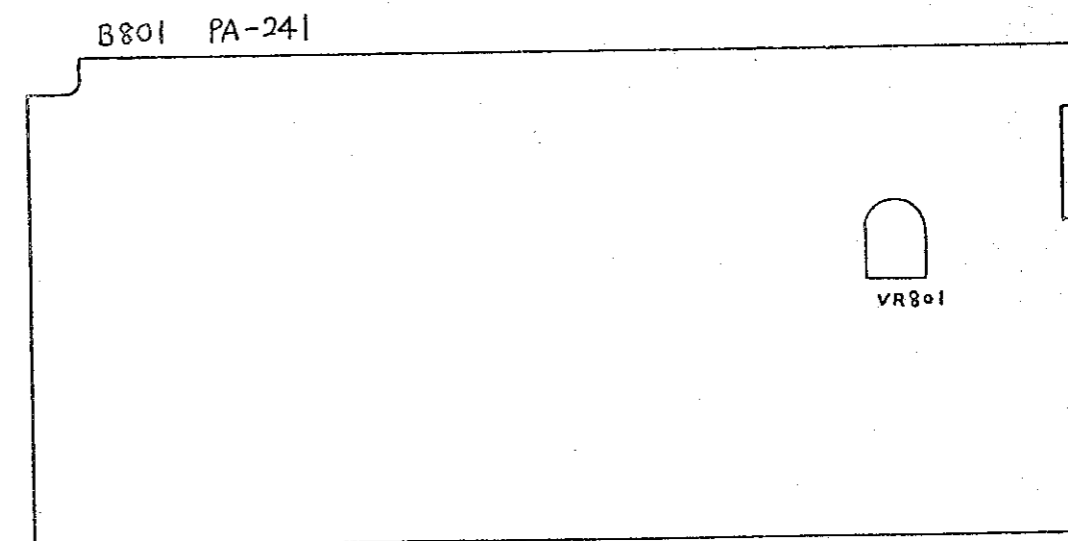
Step	Preset to	Adjustment	Remarks
1	RX STAND BY	VR 801	Connect a DC voltmeter to JP 32 and WA 501 to outlet (120V 60 Hz). Adjust VR 801 for 13.8 V ± 0.1 reading on the DC voltmeter.

#### 3. Test Equipment Connection



#### 4. Alignment Point

B801 PA-241



## ALIGNMENT OF P.L.L. AND CARRIER OSCILLATOR PORTION

### 1. Test Equipment Required

Power Supply (AC) : 120 V 60 Hz  
Frequency Counter

Oscilloscope

### 2. Preparation for Alignment

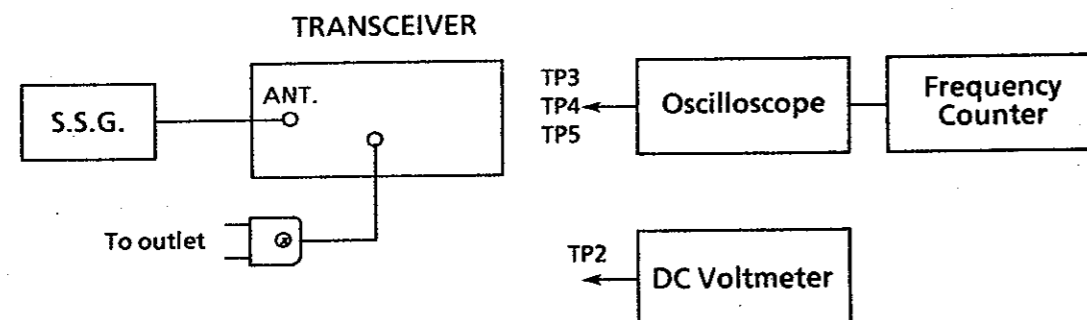
PA SW : OFF  
Adjustment Channel : 19

CH 9 SW : OFF  
Clarifier : Middle Position

### 3. Alignment Procedure

Step	Preset to	Adjustment	Remarks
1	RX AM 40 CH	L 38	Connect an oscilloscope to TP 4. Adjust L 38 for maximum reading on the oscilloscope.
2	RX AM 40 CH	L 13	Connect the DC voltmeter to TP 2. Adjust L 13 for 4.5 V $\pm$ 0.1 V reading on the DC voltmeter.
3	RX AM 1 CH	ditto	Check if the voltage level is more than 2 V at TP 2.
4	ditto	L 14	Connect the oscilloscope to TP 3. Adjust L 14 for maximum reading on the oscilloscope.
5	RX AM 19 CH	L 15	Connect a frequency counter to TP 3. Adjust L 15 for 16.490 MHz $\pm$ 20 Hz reading on the frequency counter.
6	RX USB 19 CH	L 16	Adjust L 16 for 16.4925 MHz $\pm$ 20 Hz reading on the frequency counter.
7	RX LSB 19 CH	L 17	Adjust L 17 for 16.4875 MHz $\pm$ 20 Hz reading on the frequency counter.
8	TX LSB 19 CH	VR 3	Adjust VR 3 for 16.4875 MHz $\pm$ 20 Hz reading on the frequency counter.
9	TX AM 19 CH	L 18	Connect the frequency counter to TP 9. Adjust L 18 for 10.695 MHz $\pm$ 20 Hz reading on the frequency counter.
10	RX USB 19 CH	L 19	Connect the frequency counter to TP 5. Adjust L 19 for 10.6925 MHz $\pm$ 20 Hz reading on the frequency counter.
11	RX LSB 19 CH	L 20	Adjust L 20 for 10.6975 MHz $\pm$ 20 Hz reading on the frequency counter.

### 4. Test Equipment Connection



## ALIGNMENT OF TRANSMITTER PORTION

### 1. Test Equipment Required

Power Supply (AC) : 120 V 60 Hz  
Standard Signal generator : AM 1KHz  
Dummy Load 50 $\Omega$

DC Amper meter  
SSB 500 Hz & 2400 Hz  
RF VTVM  
RF power meter  
AF oscillator

### 2. Preparation for Alignment

CB-PA : CB

MIC GAIN : MAX

### 3. Alignment Procedure

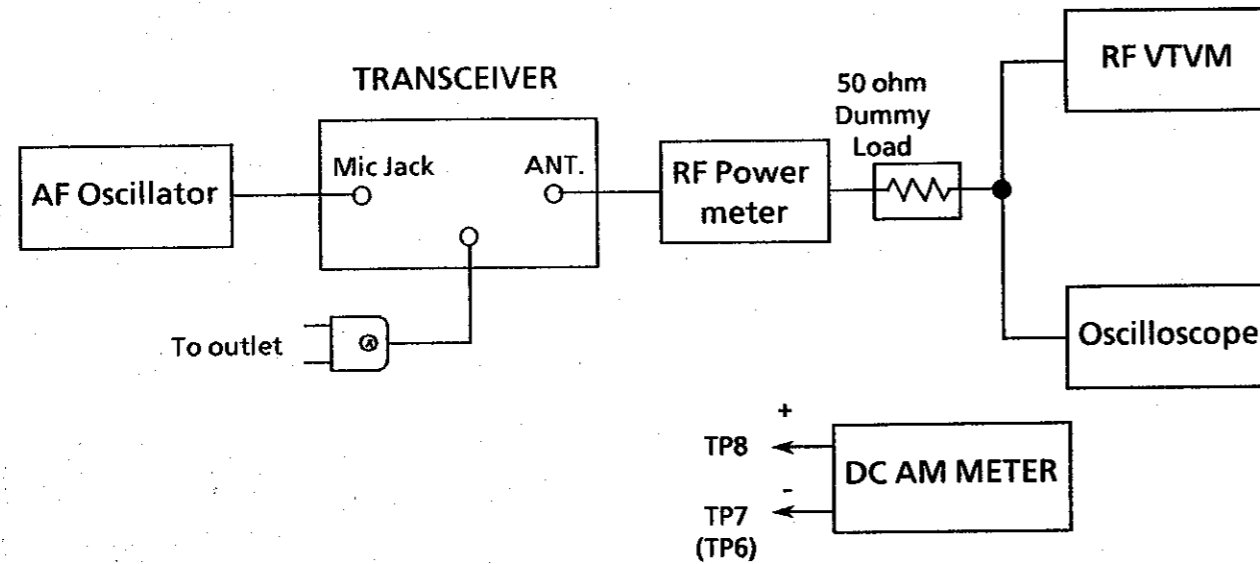
Step	Preset to	Adjustment	Remarks
1	USB 19CH NO MOD	VR 9	Remove the B 002 (PB-100) from Main PCB. Connect the DC amper mere to both TP 8 (+) and TP 7 (-). Adjust VR 9 for 65 mA reading on the DC amper meter
2	ditto	VR 8	Connect the DC amper meter to both TP 8 (+) and TP 6 (-). Adjust VR 8 for 70 mA reading on the DC amper meter.
3	USB 19 CH MOD IN	L 34, 35, 36, 37, 14	Disconnect the DC amper meter. Reinstall the B 002 to the main PCB. Connect an RF power meter to antenna jack. Connect an RF VTVM, the oscilloscope and an FM linear detector across an RF dummy load to the RF power meter. Adjust coils for maximum reading on the RF VTVM. During this step, set the AF oscillator so that the output is less than 20V. Repeat this step two times.
4	USB MOD IN	L 36	Adjust L 36 to obtain minimum variation between power level at CH 1 and CH 40 reading on the power meter.
5	AM 19 CH	L 26	Adjust modulation input and/or VR5 to obtain the 90% negative reading on the oscilloscope. Adjust L 26 for maximum reading on the RF VTVM.
6	USB 19 CH 30 mV MOD IN	VR 6	Adjust VR 6 for 24.5V reading on the RF VTVM.
7	ditto	VR 4	Adjust VR 4 so that the carrier leakage at USB and LSB become minimum and almost equal.

### Alignment for Transmitter Portion

Step	Preset to	Adjustment	Remarks
8	AM 19 CH NO MOD	VR 10	Adjust VR 10 for 4.0 W reading on the power meter.
9	ditto	VR 7	Adjust VR 7 for "4" reading on the RF POWER meter of set (PRO810e).
10	AM 19 CH 30mV MOD IN	VR 5	Adjust VR 5 to obtain the 90% negative reading on the oscilloscope.

Note : After alignment, must be seal the paraffin to L 26.

### 4. Test Equipment Connection



### ALIGNMENT OF RECEIVER PORTION

#### 1. Test Equipment Required.

Power Supply (AC) : 120 V, 60 Hz  
 Standard Signal Generator : 27.185 MHz (19 CH), 1 kHz 30% MOD.  
 Oscilloscope : AF VTVM

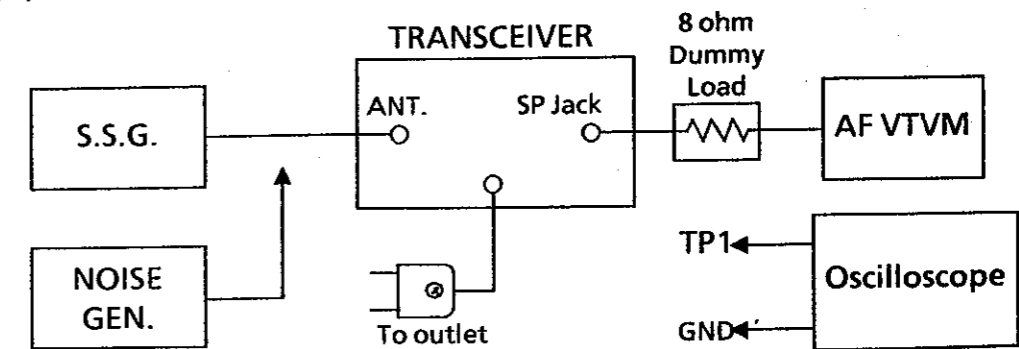
#### 2. Preparation for Alignment.

NB/ANL SW : OFF  
 PA SW : OFF  
 Crarifier : Middle position  
 Volume : MAX.  
 RF Gain : MAX.  
 Squelch : MIN.  
 HI CUT SW : OFF

#### 3. Alignment Procedure.

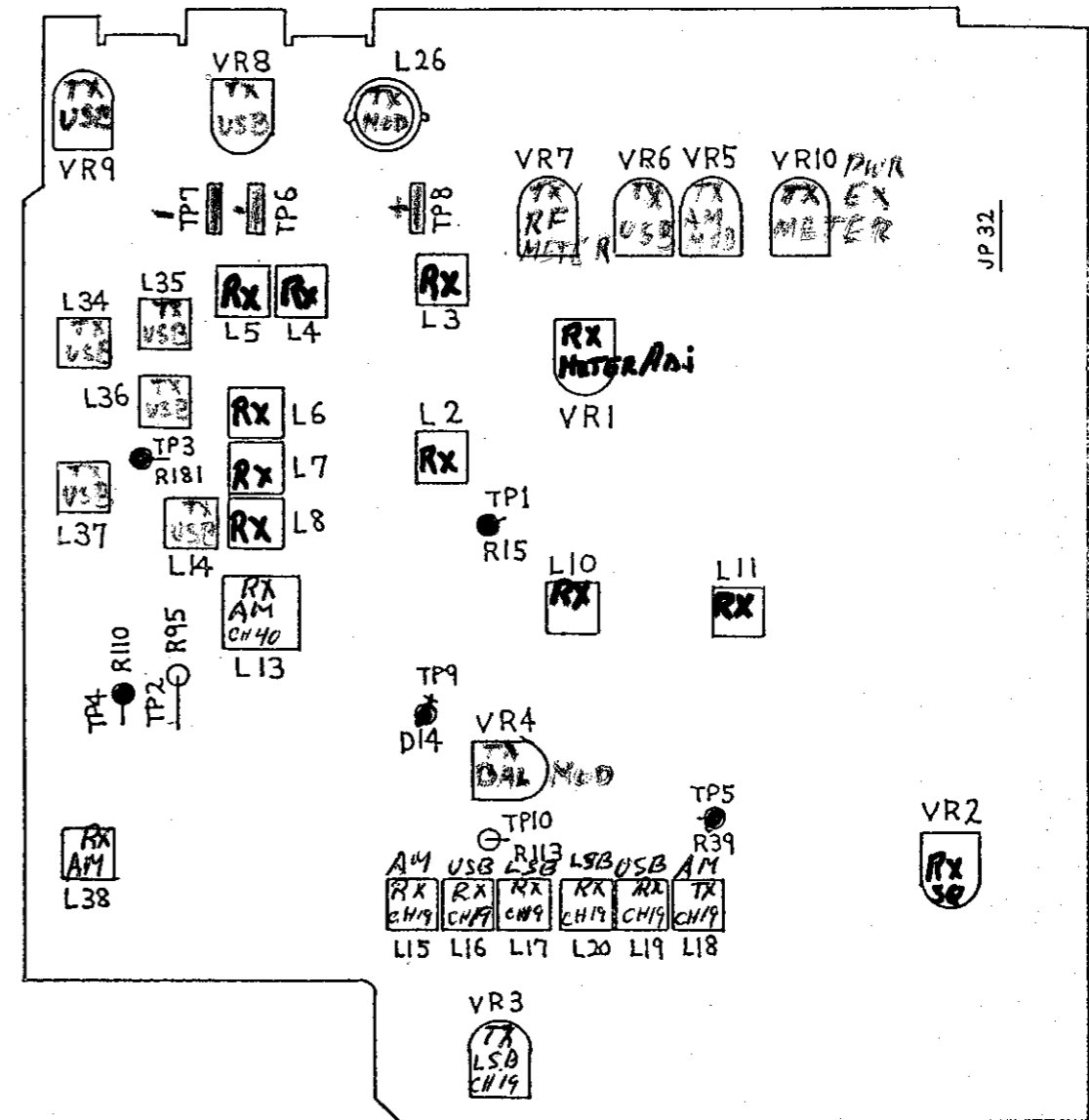
Step	Preset to	Adjustment	Remarks
1	RX AM 19 CH	L 5	Set the core of L 5 to bottom side of the coil bobbin.
2	ditto	L3,4, 6 ~ 8, 10 and 11	Connect the AF VTVM to Mic. jack. Adjust coils for maximum reading on the AF VTVM. During this step, set the attenuator of standard signal generator to less than standard output.
3	RX AM 1 CH/40 CH	L 5	Adjust L5 for maximum reading on the AF VTVM. Then, adjust L 5 to obtain less than 1 dB variation between at CH 1 and CH 40
4	RX USB 20 CH ANL/NB SW ON	L 2	Connect the oscilloscope to TP 1 (lead R 15) Adjust L 2 for maximum reading on the oscilloscope. During this step, set the attenuator of Standard signal generator to 20 dB. After adjustment turn off the ANL/NB switch.
5	RX AM 19 CH SQ MAX	VR 2	Set the output of standard signal generator to 66 dB ± 2 dB. Adjust VR 2 so that the squelch just breaks.
6	RX AM 19 CH	VR 1	Set the output of standard signal generator to 46 dB, no modulation. Adjust VR 1 so that the "9" LCD just lights on.

#### 4. Test Equipment Connection



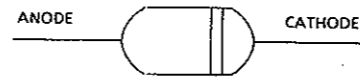
### 3. ALIGNMENT POINTS

PB-122

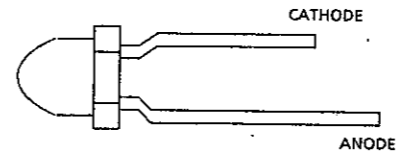




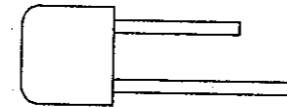
# 4. SEMICONDUCTOR LEAD IDENTIFICATION



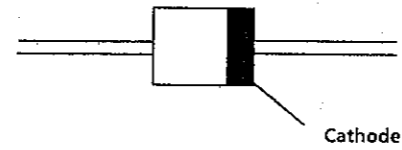
1N60 AM  
1N4003  
HZ3B3  
HZ6C2  
HZ5C-1  
1S1555  
MC-301  
1SV73-EB



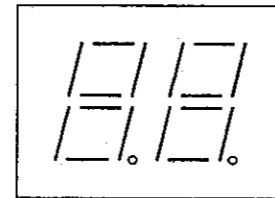
GL-9HD4



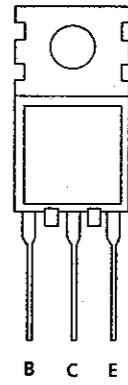
GL-9NG4



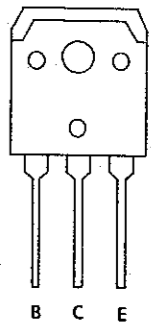
6A1



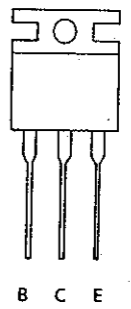
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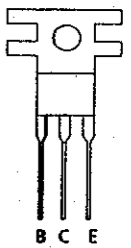
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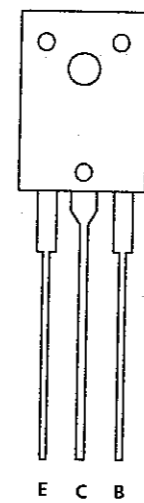
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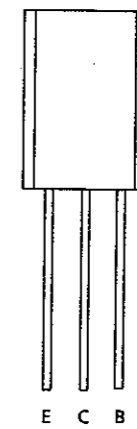
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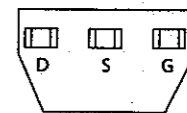
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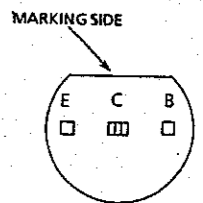
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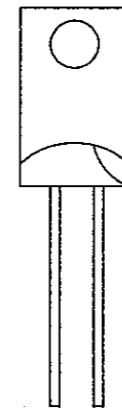
25K192A-BL



25C3242A-E



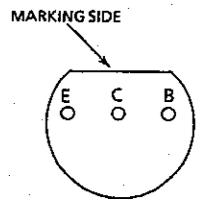
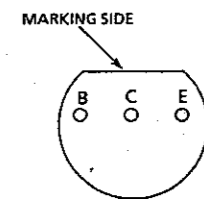
LL-2253YL



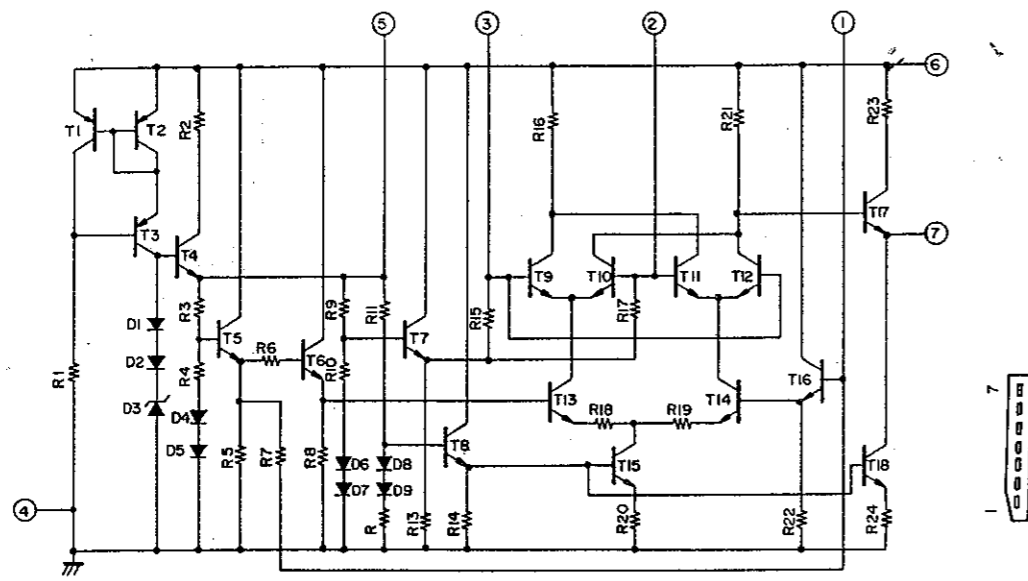
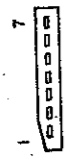
MV-1Y

25C1675-L  
25C1730-L  
25C945A-Q  
25C1674-L  
25A733A-PB

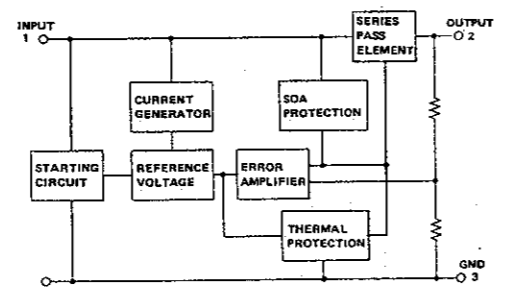
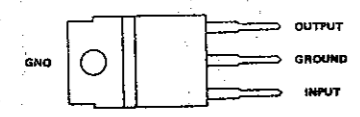
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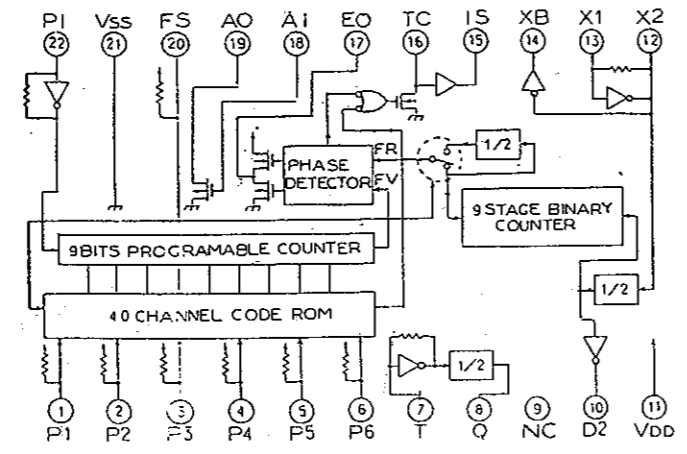
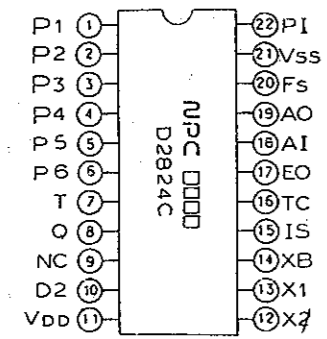
AN612



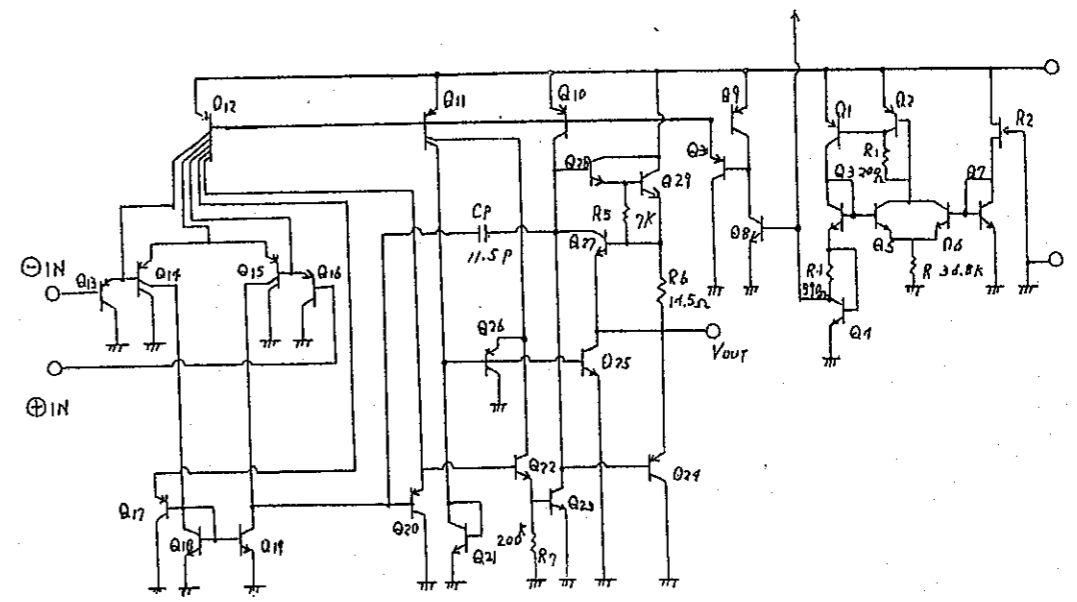
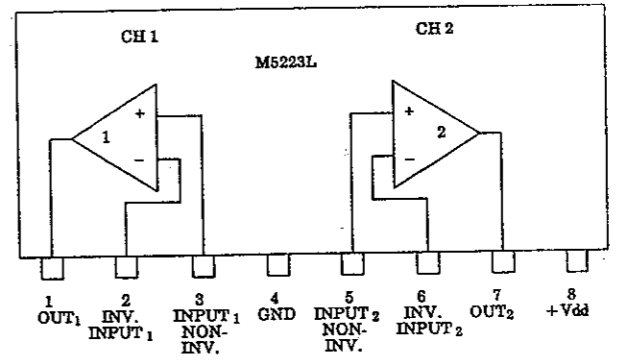
L7808CV



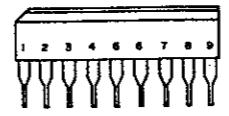
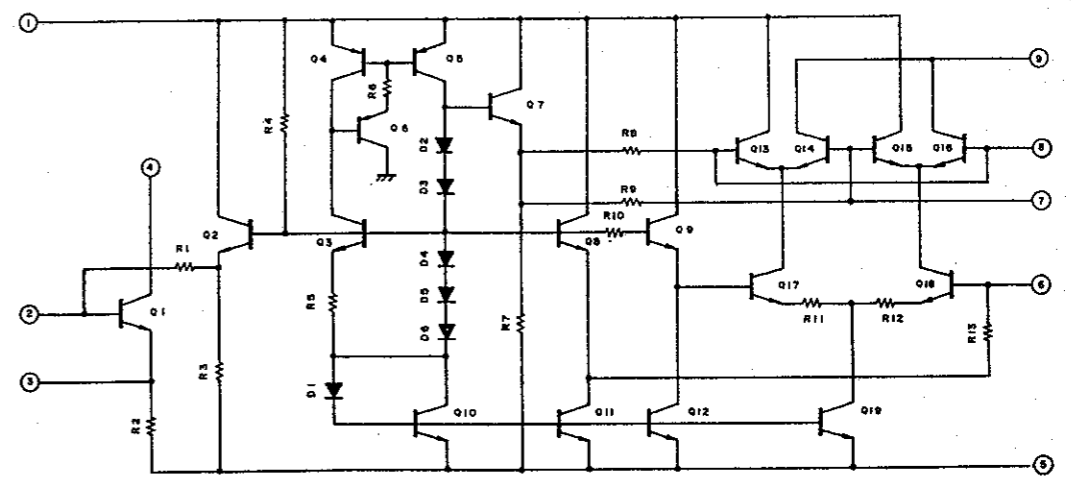
D2824C



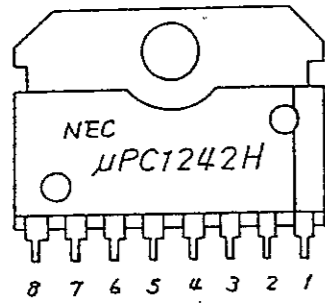
M5223L



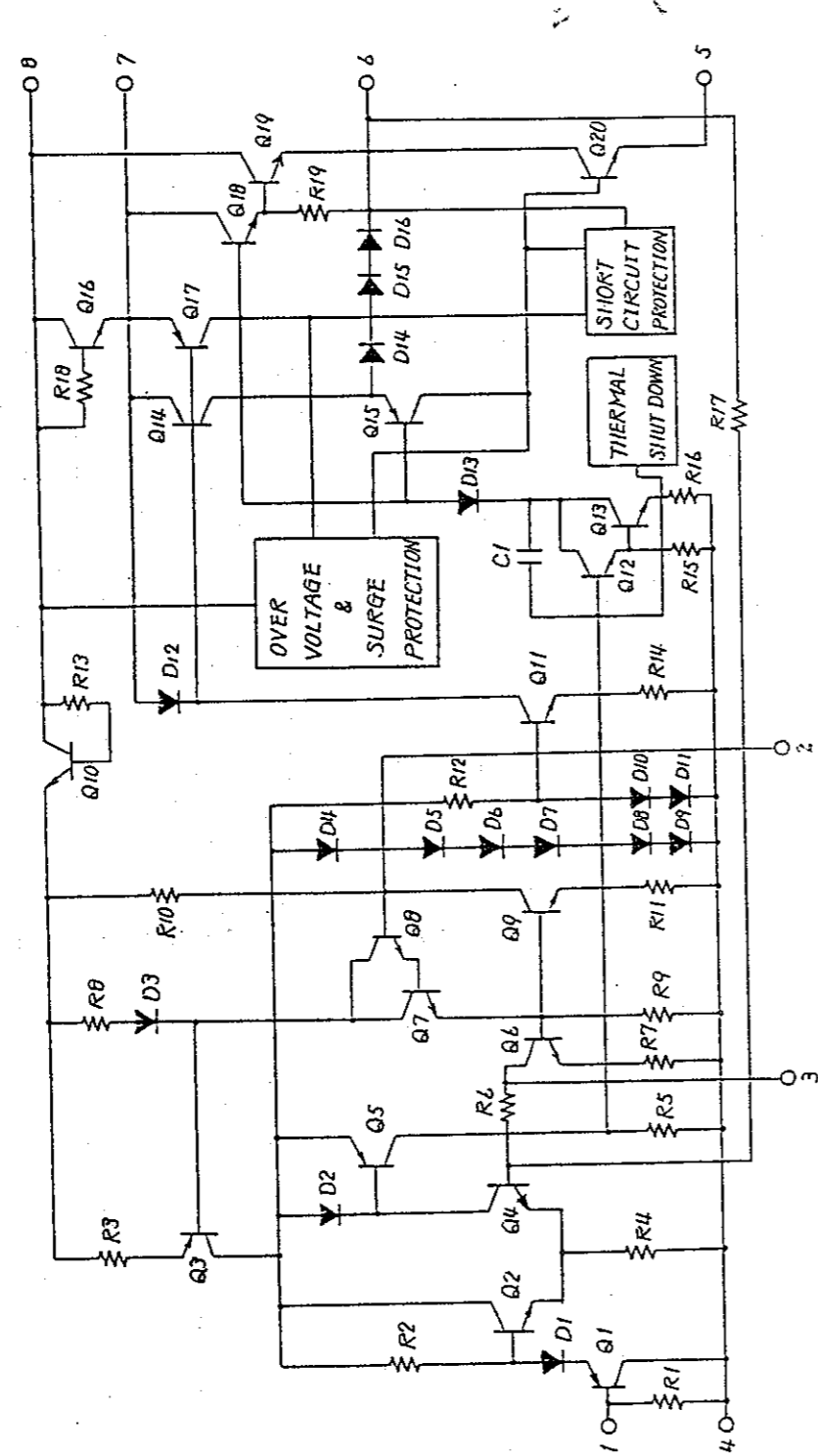
TA7320P  
BALANCED MODULATOR-DEMULATOR



μPC1242H



Terminal No.	μPC1242H
1	IN
2	Ripple filter
3	N.F.B.
4	GND
5	GND
6	OUT
7	Bootstrap
8	V <sub>dd</sub>



### 5. PARTS PRICE LIST

Parts price is subject to change without notice.







# 6. VOLTAGE CHART

(LIST PRICE) (QTY) (DESCRIPTION) (PARTS CODE) (SYMBOL) (LIST PRICE) (QTY) (DESCRIPTION) (PARTS CODE) (SYMBOL)

Table listing parts with columns: (SYMBOL), (DESCRIPTION), (PARTS CODE), (SYMBOL), (LIST PRICE), (QTY), (DESCRIPTION), (PARTS CODE), (SYMBOL), (LIST PRICE), (QTY). Includes parts like SHIELD PLATE, ID PLATE, DISPLAY PLATE, FOOT, HOLDER-LED, etc.

(SYMBOL) (PARTS CODE) (DESCRIPTION) (QTY) (LIST PRICE) (SYMBOL) (PARTS CODE) (DESCRIPTION) (QTY) (LIST PRICE)

SYMBOL NO.	RX, TX	BASE GATE	COLLECTOR DRAIN	EMITTER SOURCE	SYMBOL NO.	RX, TX	BASE GATE	COLLECTOR DRAIN	EMITTER SOURCE
Q1	RX	1.5	6.9	0.8	Q28	RX	7.8	6.6	8.0
	NB ON					TX	7.8	0	8.0
Q2		0.7	2.6	0	Q29	TX	1.0	7.8	1.4
Q3		2.6	6.8	1.9					
Q4		0.1	7.2	0.8	Q30	PA	2.5	4.5	1.8
Q5		0.1	6.6	0	Q31	RX	7.8	8.0	7.2
Q6		6.6	0	7.2		TX	0	8.0	0
Q7		0	0	0	Q32		5.0	7.9	4.7
Q8	RX	0.4	8.0	0			0.7	0	0
Q9	RX	0.7	0	0	Q33		8.0	0	8.0
	SSB						8.0	7.8	7.2
Q10	RX	0.7	0	0	Q34	TX	0	7.8	1.4
Q11		1.6	4.7	0.9		SSB			
Q12	SQ MIN	0	0	0	Q35	TX AM	1.2	5.7	0.5
	SQ MAX	0.7	0	0		SSB	1.2	7.8	0.5
Q13	RX	2.1	6.8	1.4	Q36		6.2	12.2	5.7
Q14		0	6.5	3.4			12.6	13.2	13.1
Q15		1.4	7.9	0.7	Q37		12.8	5.7	12.3
Q16		0.7	3.4	0			13.0	13.7	13.2
Q17		3.4	6.2	2.7	Q38		0.3	12.9	0
Q18		2.7	6.4	1.9			0.7	0	0
Q19	RX AM	0.7	0	0	Q501		0.5	5.6	0
	SSB	0	2.9	0			0.6	13.7	0
Q20	RX	1.3	4.7	0.8	Q502		0.6	5.5	0
	TX	1.3	4.7	0.8			0.7	13.7	0
Q21		2.9	6.8	2.5	Q503		12.8	5.7	13.5
Q22		0.7	4.3	0			13.0	13.7	13.7
Q23		4.2	5.6	3.5	Q504	RX	14.4	21.4	13.8
Q24	RX SSB	2.8	6.9	2.1		TX	14.4	21.4	13.8
	TX	2.8	6.7	2.1	Q801	RX	6.8	6.2	15.0
Q25	TX	1.7	3.4	1.1		TX	6.8	6.2	15.0
Q26		0.9	1.7	0.3	Q802	RX	15.0	21.4	14.4
Q27	RX	0.7	0	0		TX	15.0	21.4	14.4
	TX	0	0	0					



## 7. FREQUENCY CHART

FREQUENCIES OF LOCAL OSCILLATORS AND IF STAGE IN RECEIVING STATE

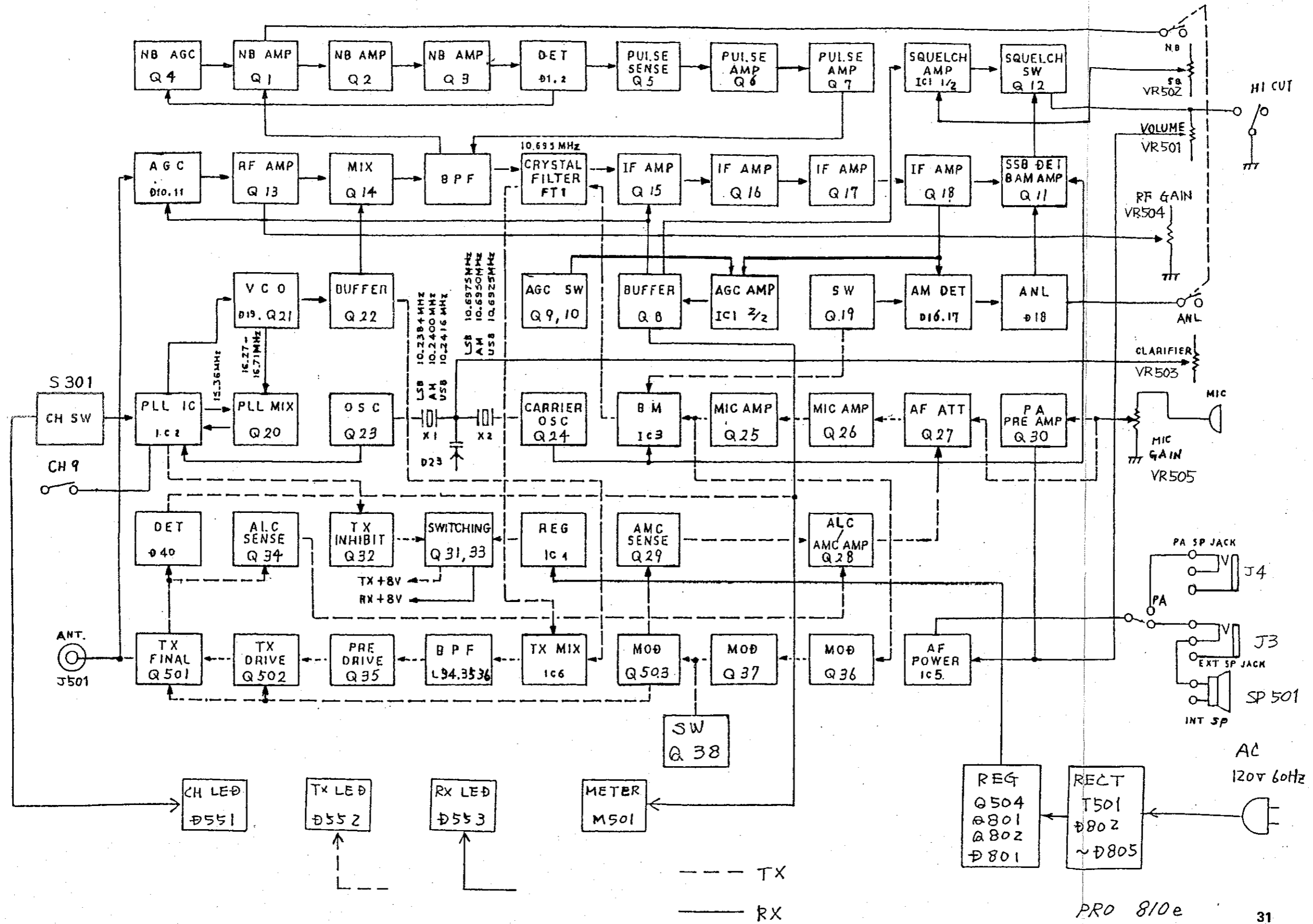
SYMBOL NO.	PIN NO.	RX/TX	VOLTAGE	SYMBOL NO.	PIN NO.	RX/TX	VOLTAGE	
IC1	1	RX	0.2	IC3	1	RX	0	
	2		0.1		2		3.3	
	3		0.1		3		3.2	
	4		0		4		0	
	5		1.2		5		5.8	
	6		1.5		6		7.3	
	7		0		7		6.6	
	8		8.0				3.6	
IC2	1	RX	5.1	IC4	1	RX	8.0	
		TX				TX		
	2		0		2		0	
	3		0	3		13.7		
	4		5.1	IC5	1	RX	0.1	
	5		5.1		2		1.9	
	6		0		3		1.3	
	7		5.1		4		0	
	8		-		5		0	
	9		-		6		7.0	
	10		2.0		7		12.7	
	11		5.1		8		13.7	
	12		2.5		IC6	1	TX	7.6
	13		2.5			2		-
14		-	3			-		
15		5.2	4			-		
16		5.1	5			0		
17		1.6	6			2.6		
18		1.6	7		4.2			
19		3.9	8		4.2			
20		-	9		7.4			
21		0						
22		2.4						

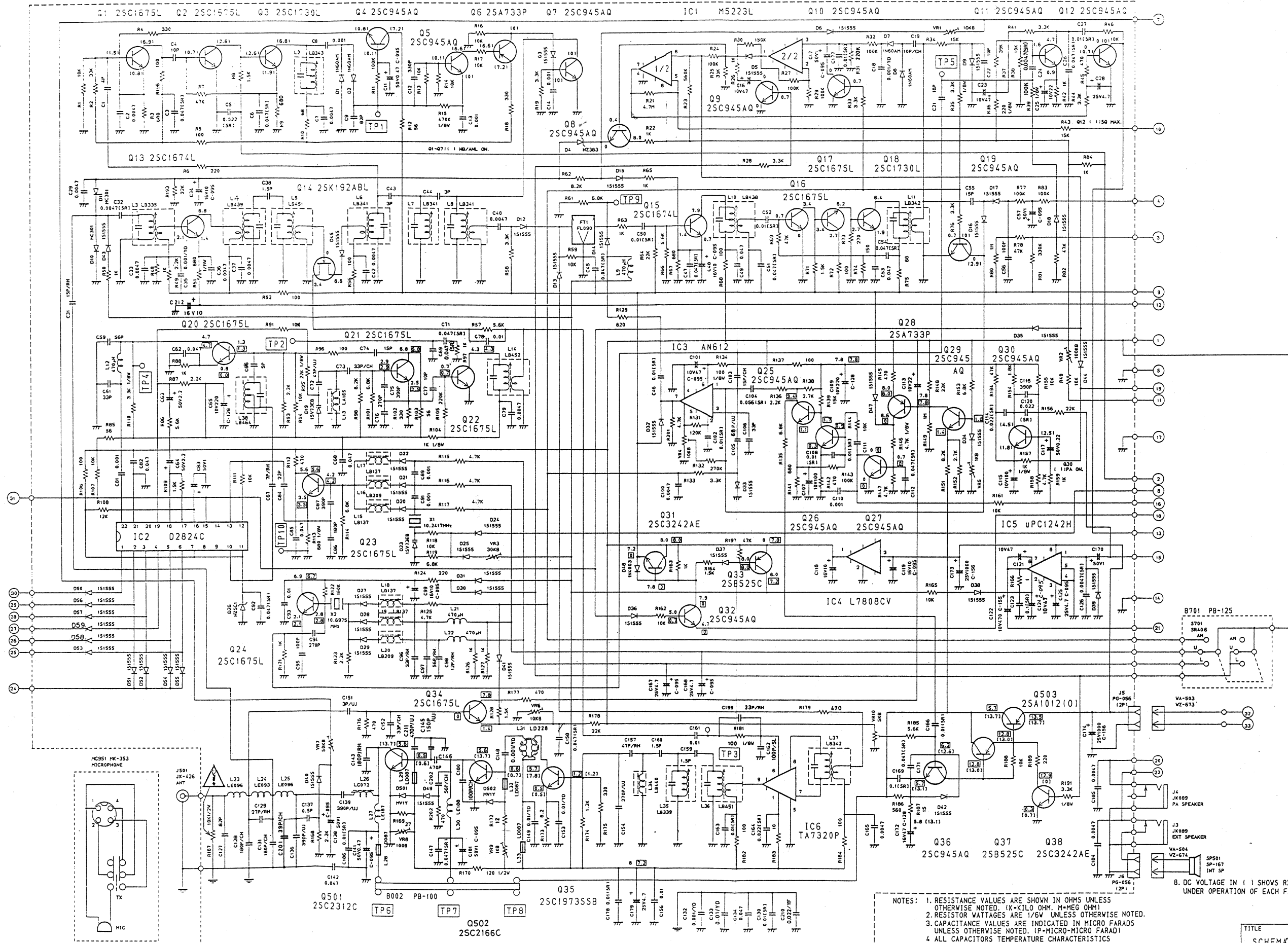
CHANNEL NO.	RECEPTION FREQUENCIES	DIVIDE RATIO (N)	LOCAL OSCILLATOR FREQUENCIES (MHz)			IF FREQUENCY (MHz)
	(MHz)		AM mode	USB mode	LSB mode	
1	26.965	91	16.270	16.2725	16.2675	10.695
2	26.975	92	16.280	16.2825	16.2775	10.695
3	26.985	93	16.290	16.2925	16.2875	10.695
4	27.005	95	16.310	16.3125	16.3075	10.695
5	27.015	96	16.320	16.3225	16.3175	10.695
6	27.025	97	16.330	16.3325	16.3275	10.695
7	27.035	98	16.340	16.3425	16.3375	10.695
8	27.055	100	16.360	16.3625	16.3575	10.695
9	27.065	101	16.370	16.3725	16.3675	10.695
10	27.075	102	16.380	16.3825	16.3775	10.695
11	27.085	103	16.390	16.3925	16.3875	10.695
12	27.105	105	16.410	16.4125	16.4075	10.695
13	27.115	106	16.420	16.4225	16.4175	10.695
14	27.125	107	16.430	16.4325	16.4275	10.695
15	27.135	108	16.440	16.4425	16.4375	10.695
16	27.155	110	16.460	16.4625	16.4575	10.695
17	27.165	111	16.470	16.4725	16.4675	10.695
18	27.175	112	16.480	16.4825	16.4775	10.695
19	27.185	113	16.490	16.4925	16.4875	10.695
20	27.205	115	16.510	16.5125	16.5075	10.695
21	27.215	116	16.520	16.5225	16.5175	10.695
22	27.225	117	16.530	16.5325	16.5275	10.695
23	27.255	120	16.560	16.5625	16.5575	10.695
24	27.235	118	16.540	16.5425	16.5375	10.695
25	27.245	119	16.550	16.5525	16.5475	10.695
26	27.265	121	16.570	16.5725	16.5675	10.695
27	27.275	122	16.580	16.5825	16.5775	10.695
28	27.285	123	16.590	16.5925	16.5875	10.695
29	27.295	124	16.600	16.6025	16.5975	10.695
30	27.305	125	16.610	16.6125	16.6075	10.695
31	27.315	126	16.620	16.6225	16.6175	10.695
32	27.325	127	16.630	16.6325	16.6275	10.695
33	27.335	128	16.640	16.6425	16.6375	10.695
34	27.345	129	16.650	16.6525	16.6475	10.695
35	27.355	130	16.660	16.6625	16.6575	10.695
36	27.365	131	16.670	16.6725	16.6675	10.695
37	27.375	132	16.680	16.6825	16.6775	10.695
38	27.385	133	16.690	16.6925	16.6875	10.695
39	27.395	134	16.700	16.7025	16.6975	10.695
40	27.405	135	16.710	16.7125	16.7075	10.695



8. TECHNICAL DRAWINGS

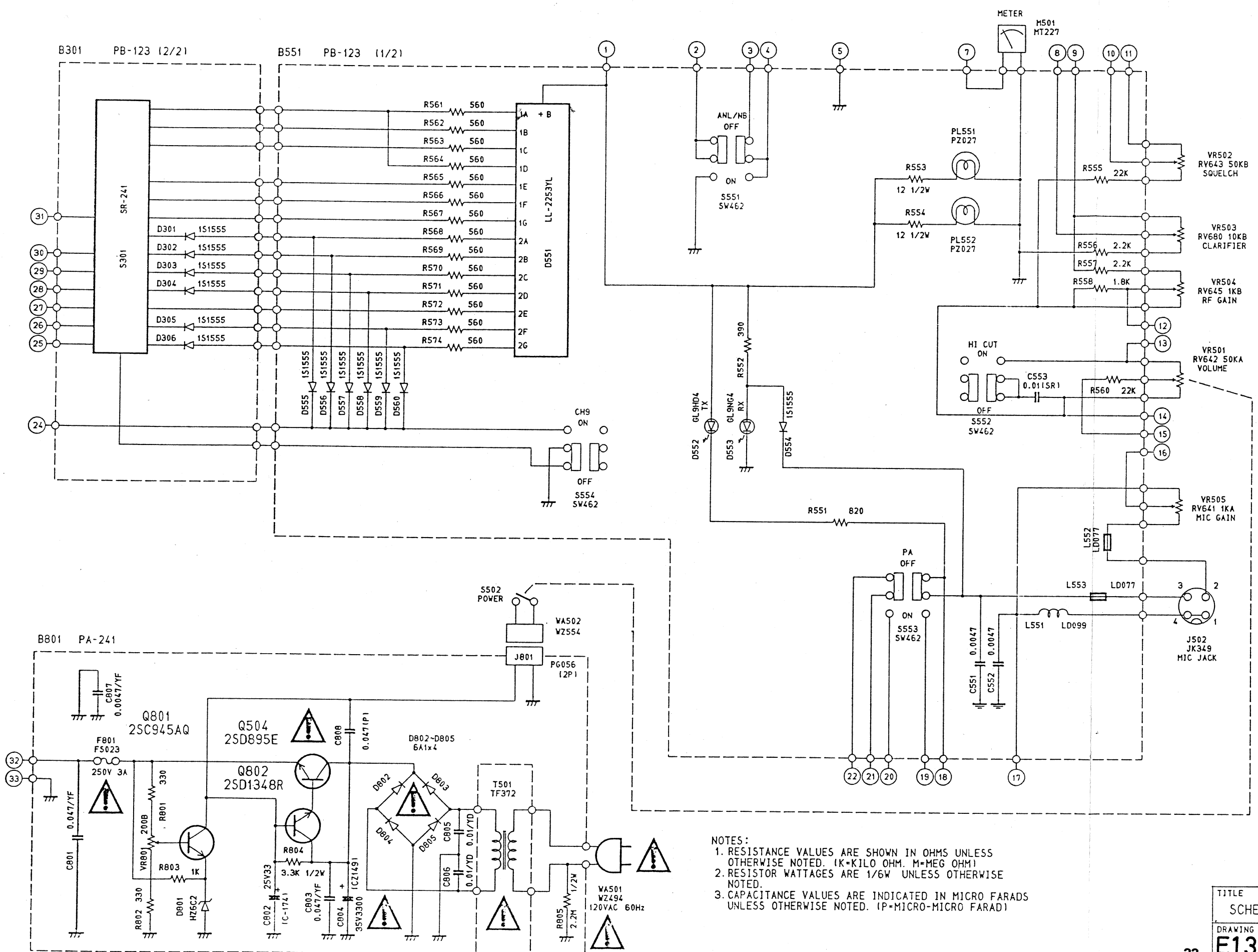
# BLOCK DIAGRAM





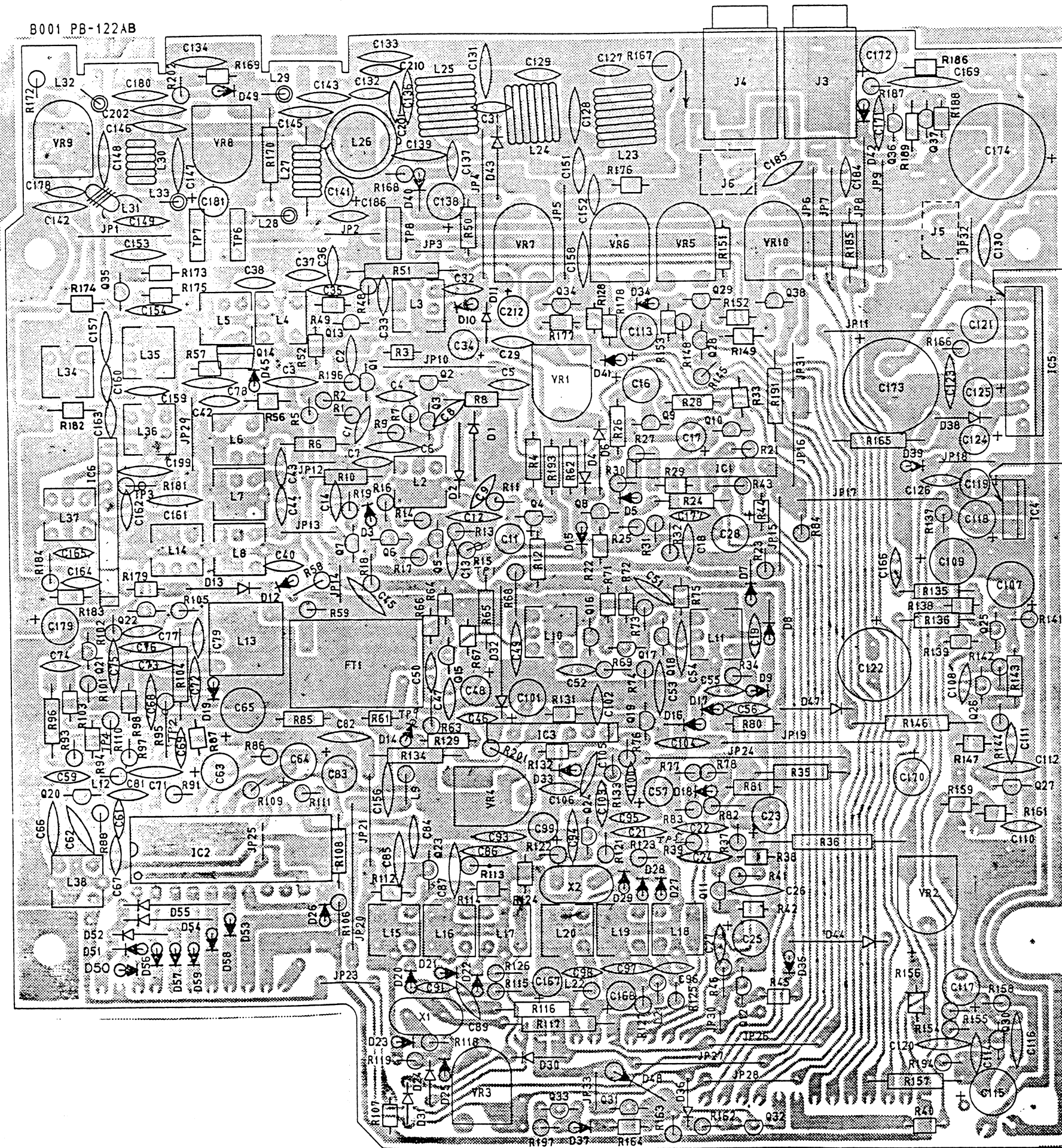
- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (K-KILO OHM, M-MEG OHM)
  2. RESISTOR WATTAGES ARE 1/6W UNLESS OTHERWISE NOTED.
  3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P-MICRO-MICRO FARAD)
  4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE 5L (LESS THAN 1000PF), ZF (0.0047uF) OR YF (0.001uF-0.039uF) UNLESS OTHERWISE NOTED.
  5. DC VOLTAGE IN ( ) SHOWS TX AM CONDITION.
  6. DC VOLTAGE IN [ ] SHOWS TX SSB CONDITION.
  7. DC VOLTAGE IN NO MARK SHOWS RX CONDITION.

8. DC VOLTAGE IN 1 SHOWS RX CONDITION UNDER OPERATION OF EACH FUNCTION.



NOTES:  
 1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (K=KILO OHM, M=MEG OHM)  
 2. RESISTOR WATTAGES ARE 1/6W UNLESS OTHERWISE NOTED.  
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)

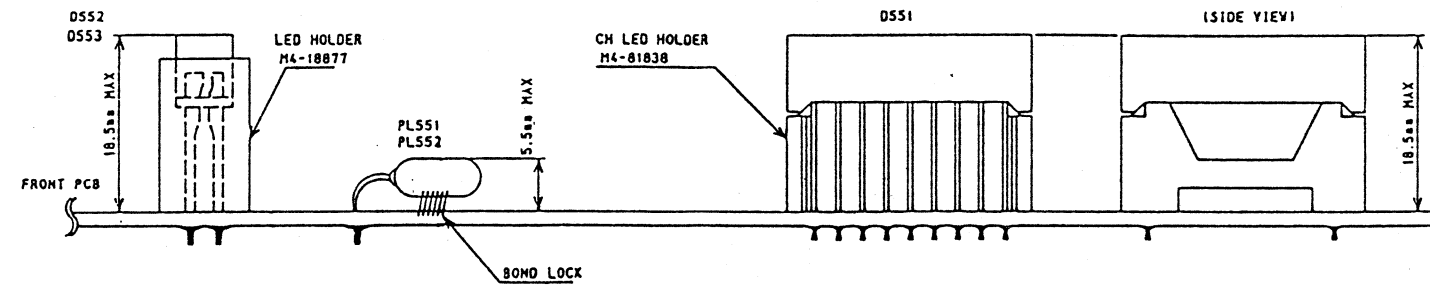
TITLE (2/3)	
SCHEMATIC DIAGRAM	
DRAWING NO.	REV. MARK
<b>E13-2725</b>	



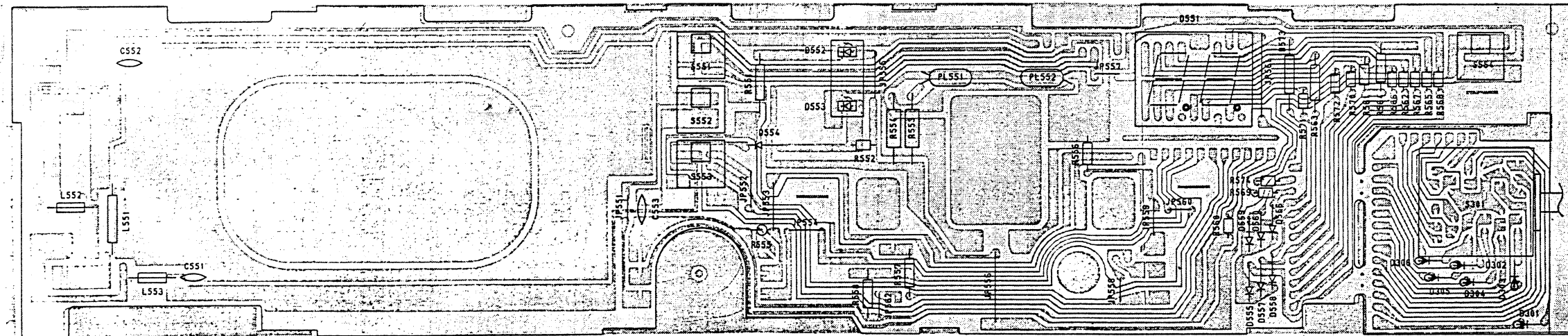
MARKING SIDE

TITLE MAIN PCB (1/2)	
PARTS ASSEMBLY TOP VIEW	
E22-7153 1/2	REV. MARK
UNIDEN CORP.	





8551 PB-123AA 1/2



8301 PB-123AA 2/2

C551	0.0047/YF
C552	0.0047/YF
C553	0.0115R1
S551	SV462
S552	SV462
S553	SV462
S554	SV462

D551	LL-2253YL
D552	GL9HD4
D553	GL9HG4
D554	IS1555
D555	IS1555
D556	IS1555
D557	IS1555
D558	IS1555
D559	IS1555
D560	IS1555

JP551	5
JP552	7.5
JP553	10
JP554	7.5
JP555	10
JP556	15
JP557	5
JP558	5
JP559	7.5
JP560	5
JP561	17.5
JP562	5

L551	L0099
L552	L0077
L553	L0077
PL551	P2027
PL552	P2027

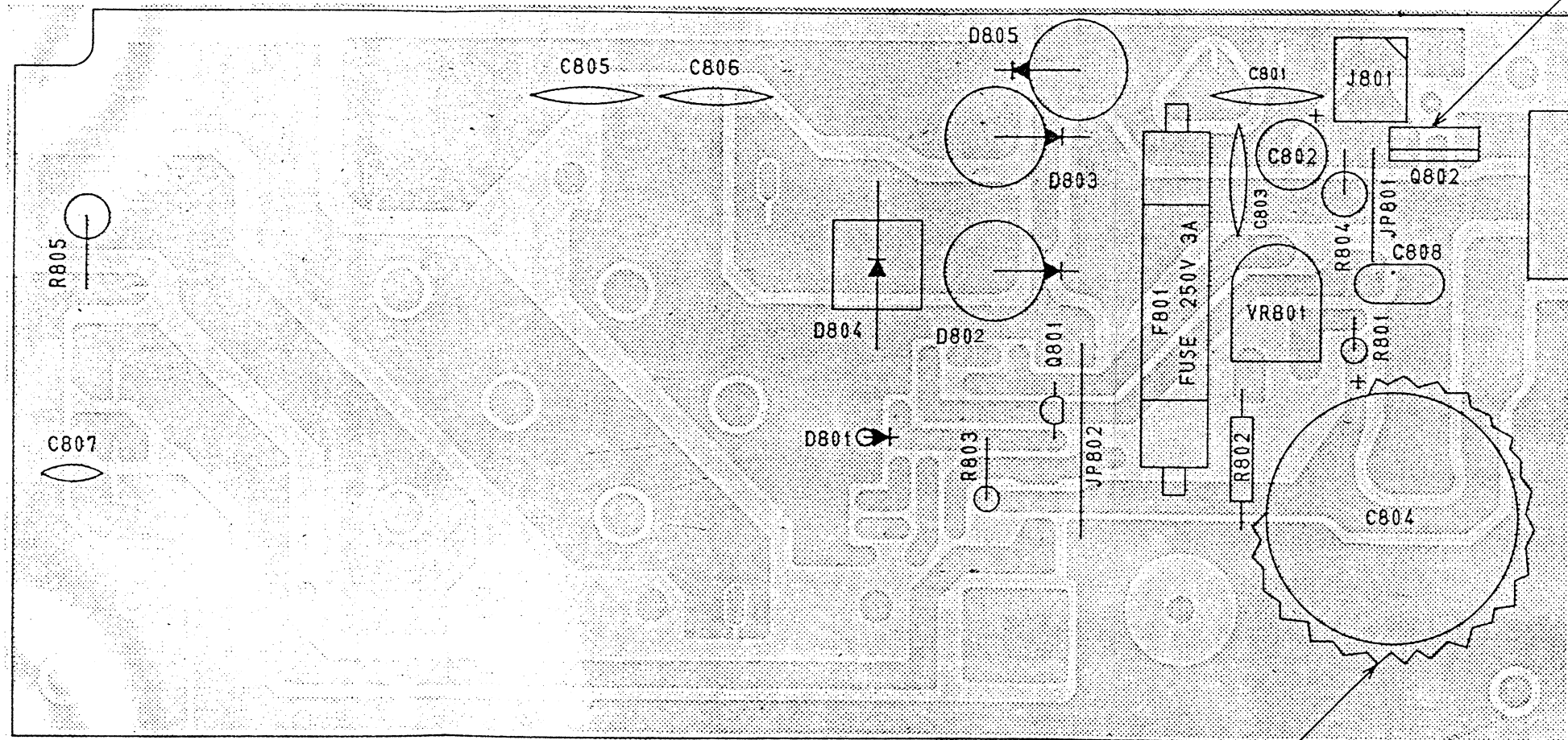
R551	820
R552	390
R553	12 1/2W
R554	12 1/2W
R555	22K
R556	2.2K
R557	2.2K
R558	1.8K
R560	22K
R561	560
R562	560
R563	560
R564	560
R565	560
R566	560

R567	560
R568	560
R569	560
R570	560
R571	560
R572	560
R573	560
R574	560

D301	IS1555
D302	IS1555
D303	IS1555
D304	IS1555
D305	IS1555
D306	IS1555
S301	SR241

NOTES:  
 1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (R=K=10<sup>3</sup>, M=10<sup>6</sup>)  
 2. RESISTOR WATTAGES ARE 1/8W UNLESS OTHERWISE NOTED  
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=PICO=10<sup>-12</sup> FARAD)

B801 PA-241AB



C801	0.047/YF
C802	25V 33 C-174
C803	0.047/YF
C804	35V 3300 CZ149
C805	0.01/YD
C806	0.01/YD
C807	0.0047/YF
C808	0.0471P1

R801	330
R802	330
R803	1K
R804	3.3K 1/2W
R805	2.2M 1/2W

D801	HZ6C2
D802	6A1
D803	6A1
D804	6A1
D805	6A1

F801	FS023 250V 3A

J801	PG056(2P)

JP801	1101
JP802	117.51

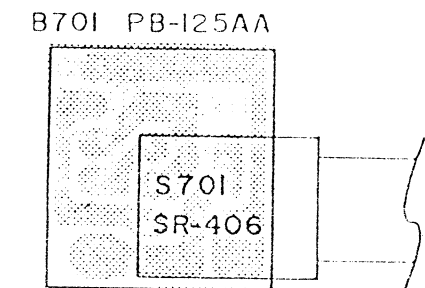
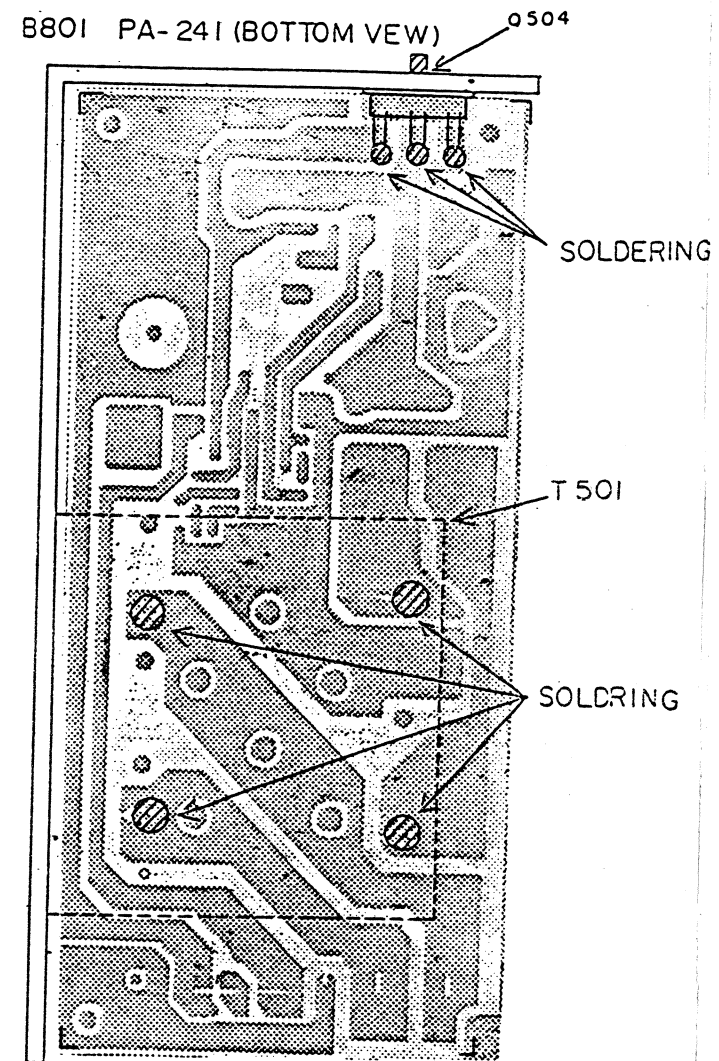
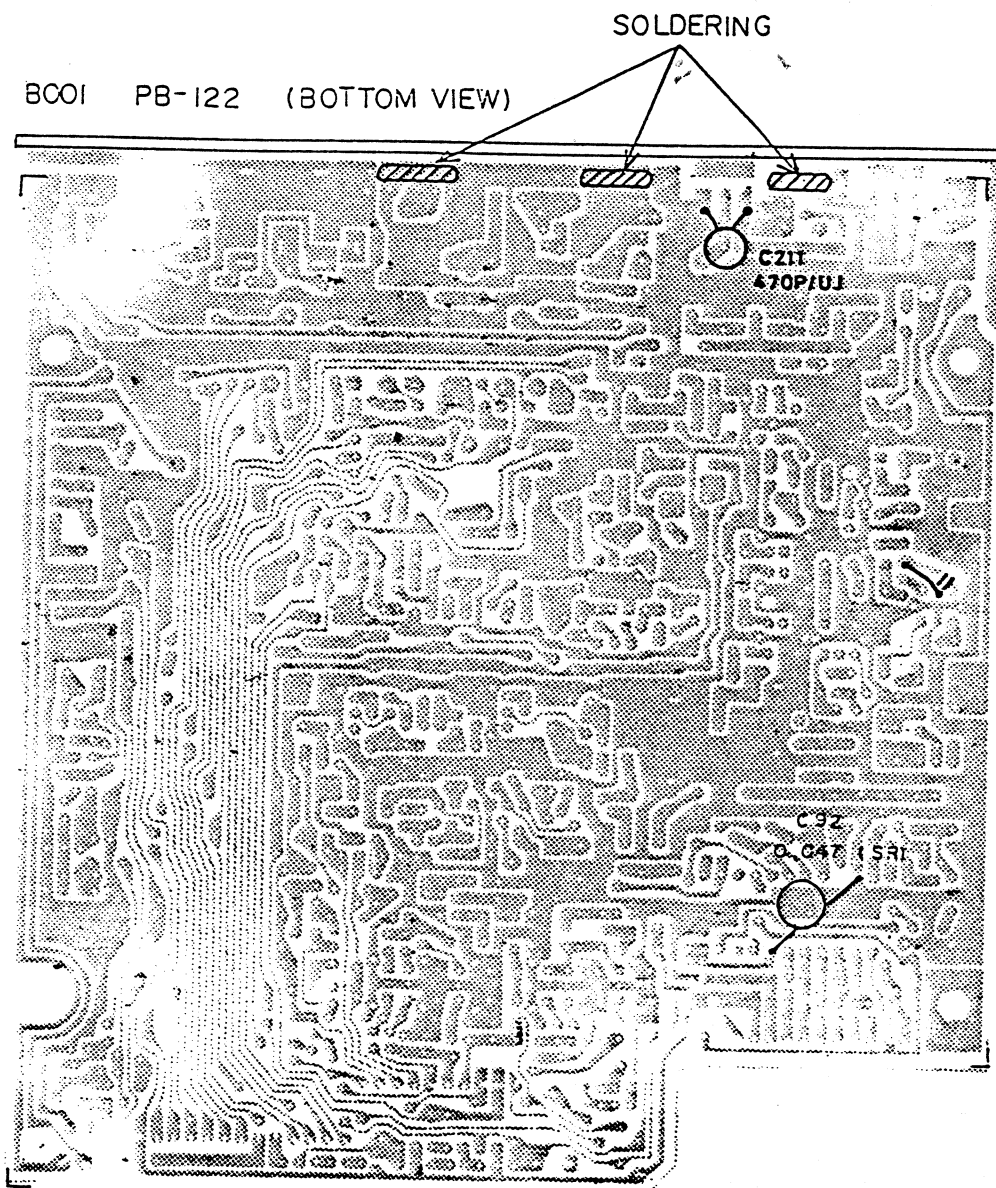
Q801	2SC945AQ
Q802	2SD1348-R

- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED. (K-KILO OHM, M-MEG OHM)
  2. RESISTOR WATTAGES ARE 1/8W UNLESS OTHERWISE NOTED.
  3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P-MICRO-MICRO FARAD)

TITLE PWR SUPPLY PCB  
PARTS ASSE'Y TOP VIEW

E23-7155

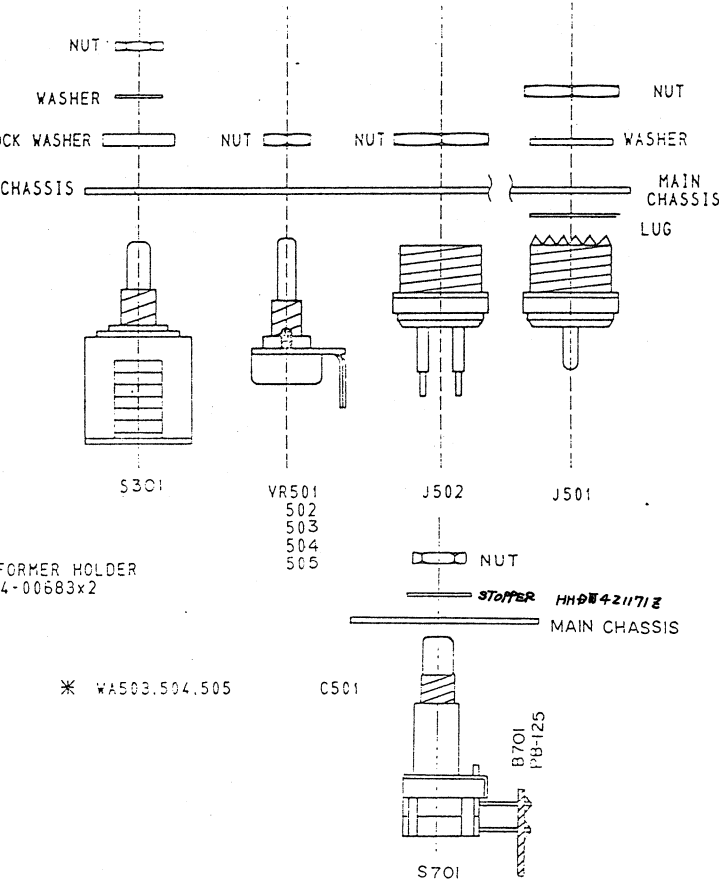
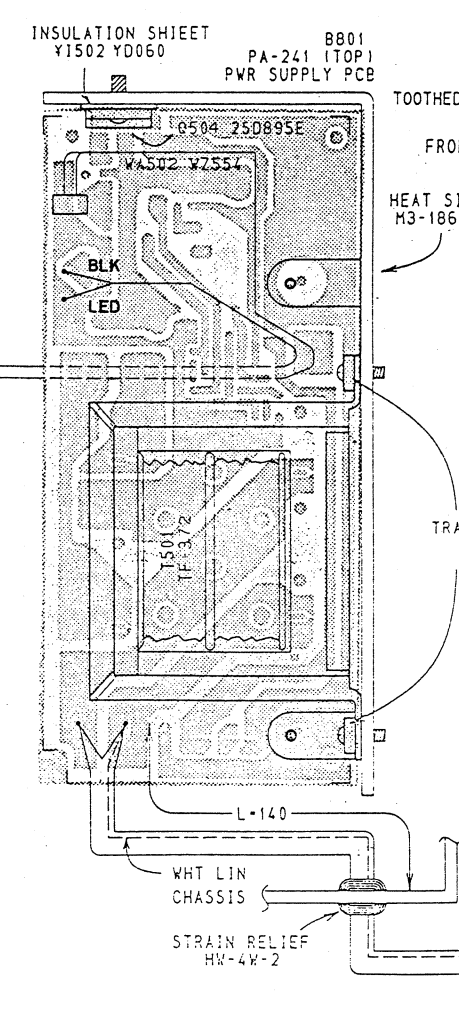
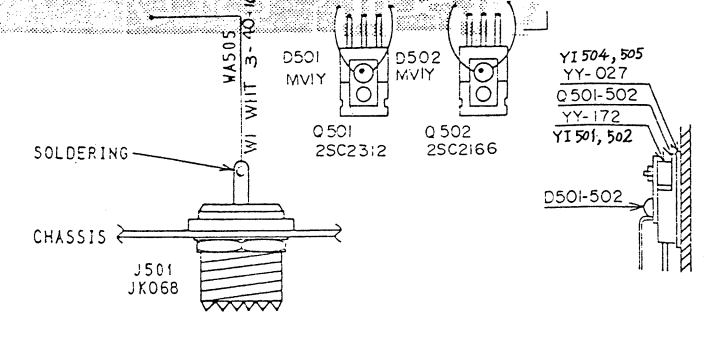
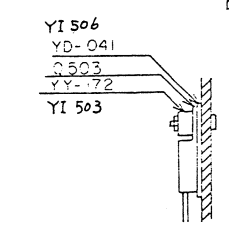
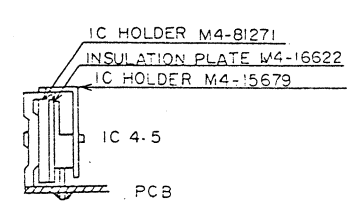
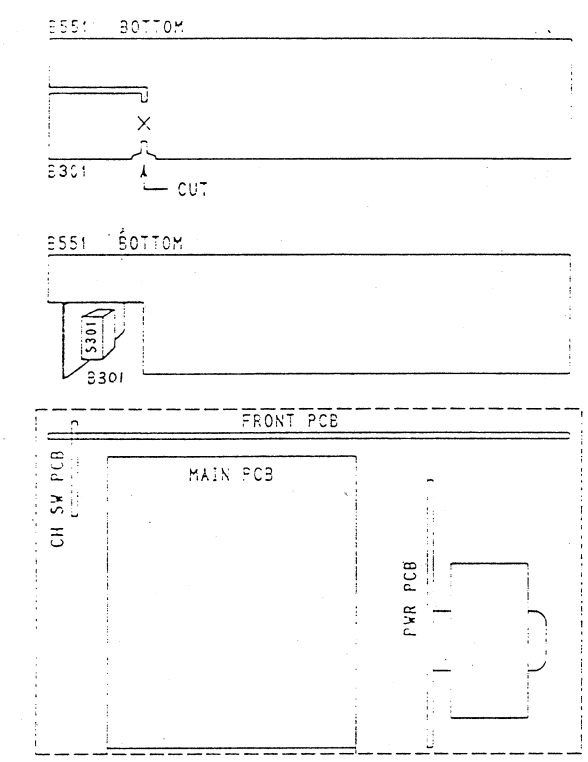
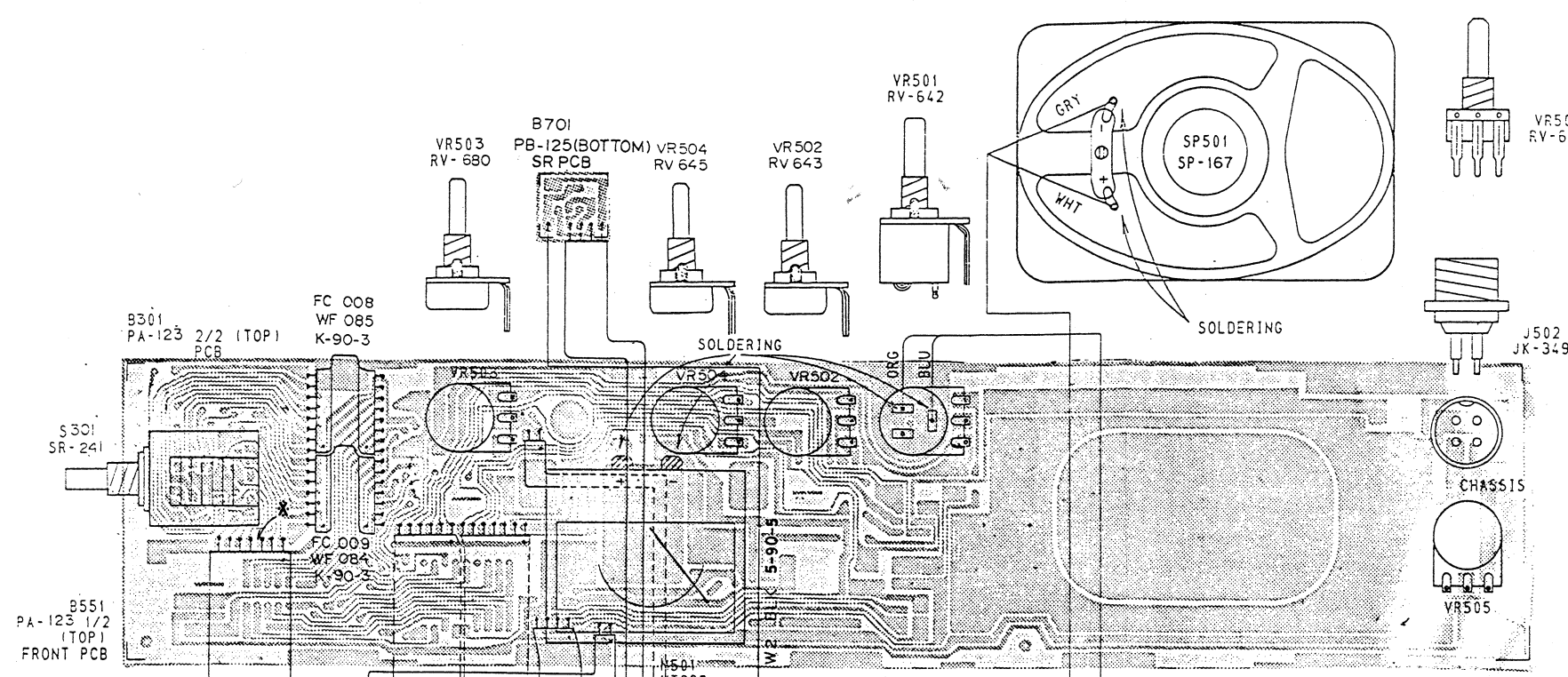
REV.	
MARK	



TITLE ADDITIONAL PARTS ON BOTTOM	
DRAWING NO. <b>E23-7156</b>	REV MARK

TITLE SR PCB PARTS ASSY TOP VIEW	
DRAWING NO. <b>E24-7157</b>	REV MARK





TITLE  
 WIRING DIAGRAM  
 DRAWING NO. 38 E32-2801  
 UNIDEN CORP.