

PRESIDENT

JAMES



MAINTENANCE MANUAL



COMMERCIAL CHARACTERISTICS



GENERAL:

Frequency Band:	26,965 MHz to 27,405 MHz
Number of channels:	40
Difference between channels:	10 KHz
Emission class:	A3E (AM),F3E (FM)
Power supply:	13,2 V (10,8 V to 15,6 V)
Temperature margin:	- 10° C to + 55 ° C
Antenna impedance:	50 Ohms

EMITTER:

Frequency difference:	less than +/- 600 Hz + 0,002 %
Output power:	4 W peak
Microphone impedance:	500 Ohms
Output power in adjacent channel:	less than 20 microwatts.

RECEIVER:

First I.F.:	10,695 MHz
Second I.F.:	455 KHz
Impedance of incorporated microphone:	8 Ohms
L.F. output power:	2W
Sensitivity:	better than 12 dB/microvolt



GENERAL USE



Phase locked-loop Circuit (PLL)

The PLL circuit consists essentially of:

- the voltage controlled oscillator (VCO) by the transistors Q403, Q402 and Q401
- the charge pump circuit Q405, Q406
- the integrated circuit IC401 which contains the reference frequency, the programmable generated frequency divider and the phase comparator.

The information necessary for the working of the integrated circuit is sent in series by the micro controller IC701.

The output signal of this oscillator is the frequency 38,100 MHz for channel 40 in emission mode.

The frequency difference between the two modes (reception and emission) is obtained by switching the coil L403.

EMITTER:

In AM the low frequency signal is preamplified by IC605, then amplified by IC201 and enters into the modulation transformer T201. This amplified low frequency signal is applied to the high frequency power supply stage Q502, Q501 by their collector so that the high frequency is modulated.

In FM the low frequency signal is limited and filtered by the stage IC606, D604 is applied to the diode Varicap D406 via the adjustable resistance VR400.

The signal delivered by the frequency modulated VCO by this low frequency signal, will be applied to the power supply stage which consists of the transistors Q201, Q502 et Q501.

In AM/FM, the amplified signal will be filtered before being sent to the antenna socket JK425.

RECEIVER:

The VCO signal is used as a first local oscillator. The mixing with the received frequency is carried out by the stage L7, D7, L8 which gives a first I.F. of 10,695 MHz. The signal reference of the PLL at 10,240 MHz is used as a second local oscillator by Q12 to obtain a second I.F. at 455 KHz.

In AM, the latter will be applied to the AM detector stage, composed of D12, and commanded by Q17.

In FM, the latter will be applied to the FM detector stage, composed of the integrated circuit IC1 (discriminator) and its loading coil L21.

In AM/FM, the low frequency signal is then applied to the transistor Q21, low frequency preamplifier and then to the low frequency amplifier IC 407 via the volume potentiometer.

ALIGNEMENT OF THE SYNTHESISER

1. Alignement Procedure

0	Channel 20, C band Reception in AM	L404	Frequency meter on pin 1 of the IC 401. Adjust L404 so as to obtain 10.240 MHz \pm 10 Hz
1	Channel 20, C band Reception in AM	L402	Connect the continued voltmeter to the point TP1 R423. Adjust L402 so as to obtain 2,8 V \pm 0,1
2	* Channel 40, F band Channel 1, A band		Check on TP1-R423 that: - 4,3 V \pm 0,1 channel 40 F band 1,8 V \pm 0,1 channel 1 A band
3	Channel 20, C band emission in AM	L403 TX 3V	Connect the TP1 voltmeter on R423. Adjust L403 so as to obtain 2,7 V \pm 0,1.
4	* Channel 40, F band Channel 1, A band	TX 5,2V TX 1,9V	Check on TP1-R423 that: 4,8 V \pm 0,1 channel 40 F band 1,5 V \pm 0,1 channel 1 A band
5	Channel 20, C band Reception in AM	L401	Connect the frequency meter to Pin 8 of the IC 401 so as to obtain 37.900 MHz.

* This check to be established on "Export Model" equipment only.

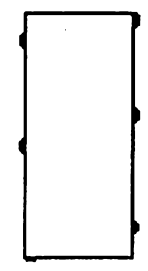
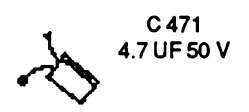
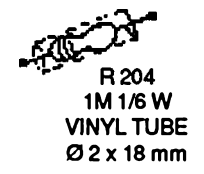
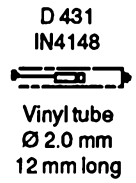
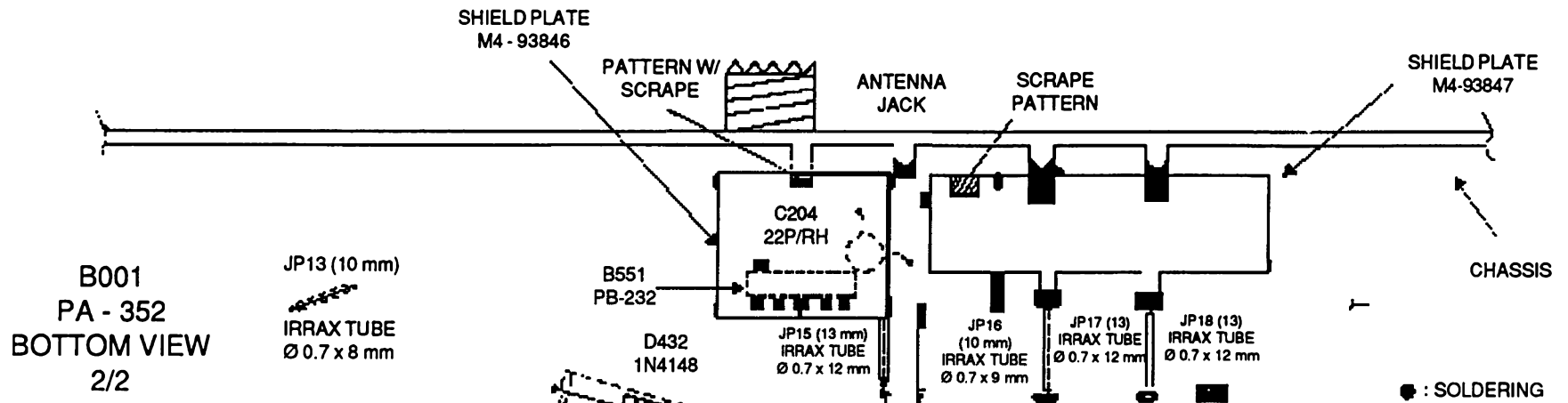
ALIGNEMENT OF THE RECEIVER

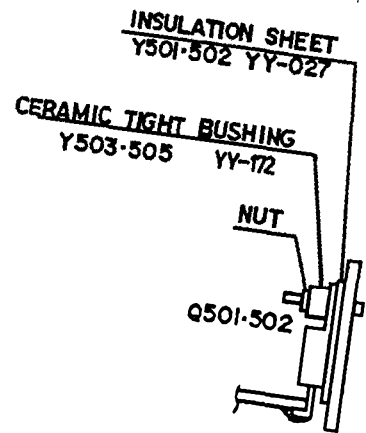
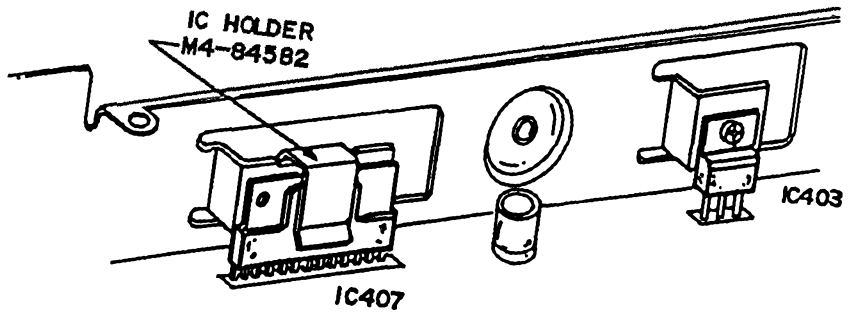
1	Channel 20, band C AM modulated 1 KHz 60% Level 1 μ V = -107 dBm	L2, L11, L12, L13, L16,L17, L18	Connect the HF voltmeter or an oscilloscope to the loud speaker. Readjust the coils in the given order so as to obtain a maximum reading.
2	Same as 1 except FM	L21	Readjust to obtain a maximum reading.
3	Same as 1 AM Level 100 μ V	VR2	Adjust so as to bring the LED to 9 in the display, position RF.
4	Same as 3	VR3	Connect an external V.U. meter. Adjust VR3 so as to obtain S.9. on the V.U-meter.
5	Channel 20 AM Maximum squelch Level 1000 μ V Modulated 1 KHz	VR1	Adjust VR1 so as to readjust the low frequency signals.

ALIGNEMENT OF THE EMITTER

1	* Channel 20 AM emission Without modulation	VR406	Adjust VR 406 so as to obtain 4 W on the wattmeter (French model), 12 W (Export model).
2	Channel 20 AM emission Without modulation	VR401	Adjust VR401 so that the V.U.-meter indicator is at S9, position RF.
3	Channel 20 AM emission Modulation 1 KHz Level 10mV	VR201	Adjust VR201 to obtain 90% modulation.
4	* Same as 3 except FM	VR405	Adjust VR405 to get a watt meter reading of 4 W (French model), 15 W (Export model) .
5	Channel 20 AM FM emission Modulation 1 KHz Level 10 mV		Adjust VR400 so as to obtain an FM excursion of 1,5.

* Measurement for "Export Model" equipment only





LIST OF SPARE PARTS FOR JAMES

REF.	DESIGNATION	QTY/MOD
BC184	COIL LZ-041 0.47 μ H	1
BC185	COIL LZ-0670.068 μ H (CMS)	1
BR014	COIL LB-119	1
BR018	COIL LB-224	2
BR022	COIL LB-233	1
BR029	COIL LB-341	1
BR031	COIL LB-343	1
BR201	COIL LB-313	1
BR206	COIL LB-948	2
BR212	COIL LB-955	1
BR213	COIL LB-956	1
BR214	COIL LB-957	1
BR215	COIL LD-193	2
BR216	COIL LD-201	3
BR220	COIL LC-240	1
BT025	COIL LB-336	1
BT027	TRANSFORMER TF-453 MODUL	1
CF018	CAPA 0.047F 5.5 V	1
DC070	DIODE 1SS 226 (CMS)	1
DC071	DIODE DAN 235 K (CMS)	1
DC072	DIODE KV 1430 (CMS)	1
DC073	DIODE RLS 135 (CMS)	2
DC074	DIODE ND 434 G	1
DC076	DIODE MA 716 (CMS)	2
DV033	DIODE HSM 88 AS (CMS)	3
DV034	DIODE HSM 88 WA (CMS)	2
HM037	MICROPHONE MK-444	1

LIST OF SPARE PARTS FOR JAMES

REF.	DESIGNATION	QTY/MOD
HP028	LOUD SPEAKER SP-238	1
IL075	INTEGRATED CIRCUIT M 51951	1
IL076	INTEGRATED CIRCUIT TC 4S66F CMS	2
IL077	INTEGRATED CIRCUIT TL 750M08C	1
IL078	INTEGRATED CIRCUIT M 54995F CMS	2
IP022	INTEGRATED CIRCUIT MB 3735	1
IR027	INTEGRATED CIRCUIT 78L05	1
IR125	INTEGRATED CIRCUIT LA 4485	1
IR126	INTEGRATED CIRCUIT MN 3207	1
IR127	INTEGRATED CIRCUIT MN 3102	1
IS048	INTEGRATED CIRCUIT PLL 2002 A1	1
IS054	INTEGRATED CIRCUIT UC 1520	1
IS055	INTEGRATED CIRCUIT 93C46T CMS	1
IY439	PCB F/PANEL. FOR JAMES	1
IY441	PCB ECHO MODUL. JAMES	1
IY443	PCB VOLUME BUTTON JAMES	1
IY445	PCB MIKE FOR JAMES	1
JX003	JACK JK-068 (JK261/JK370/JK426)	1
JX077	JACK JK-423 EXT METER	1
JX080	JACK JK-729 MIC 6 BROCHES CHASSIS	1
OA030	DISPLAY CRIS. LIQ DL-071	1
OX028	DIODE CL 140YG (CMS)	12
OX029	DIODE CL 140D (CMS)	12
PF052	FILTER FL-566	1
PQ060	QUARTZ 4.190 M FK-007	1
QX341	CRADLE SCREW PRESIDENT S/MODEL	2

REF.	DESIGNATION	QTY/MOD
QX345	FRONT PANEL JAMES	1
QX347	LIGHT DIFFUSER (B) JAMES	1
QX348	LIGHT DIFFUSER (A) JAMES	1
QX349	DISPLAY PLATE JAMES	1
QX352	LIGHT DIFFUSER PMMA JAMES	1
QX353	LIGHT SUPPORT JAMES	1
QX355	SUPPORT (A) PMMA JAMES	1
QX356	SUPPORT (B) PMMA JAMES	1
QX357	CHANNEL BUTTON GEORGE	1
QX361	INT. DOUBLE BUTTON/GEORGE	1
QX362	EXT. DOUBLE BUTTON/GEORGE	1
QX363	PUSH BUTTON (A) JAMES	1
QX364	PUSH BUTTON (B) JAMES	1
QX365	PUSH BUTTON (C) JAMES	1
QX366	BUTTON GEORGE	4
QX367	CRADLE JAMES	1
QX368	LOWER CASING JAMES	1
QX370	UPPER CASING JAMES	1
RV098	POTENTIOM. RV-785 1KA/1KB R/MG	1
RV099	POTENTIOM. RV-786 10KA VOLUME	1
RV100	POTENTIOM. RV-787 50KB CAL/SWR	2
RV101	POTENTIOM. RV-788 10KB SQ/CLARI	1
SS035	SWITCH SR-421 CHANNELS	1
SX094	SWITCH SW-752 FUNCTIONS	18
TH001	TRANSISTOR 2SC 2166	1
TX003	TRANSISTOR 2SC 1674	1
TX010	TRANSISTOR 2SC 2086	1
TX117	TRANSISTOR 2SC 3242	1
TX300	TRANSISTOR 2SC 2814 (CMS)	8

TX301	TRANSISTOR 2SD 1048X (CMS)	5
TX306	TRANSISTOR 2SA 1179 (CMS)	5
TX307	TRANSISTOR 2SC 2812 (CMS)	10
TX352	TRANSISTOR 2SA 950	1
TX353	TRANSISTOR 2SB 1135	2
TX355	TRANSISTOR 2SC 3356 (CMS)	1
TX356	TRANSISTOR 2SC 3772 (CMS)	3
TX357	TRANSISTOR 2SD 1683S	2
TX358	TRANSISTOR DTA 144 EK (CMS)	5
TX359	TRANSISTOR DTA 143 XK (CMS)	1
TX360	TRANSISTOR DTA 114 TK (CMS)	4
TX361	TRANSISTOR 2SK 323 (CMS)	2
TY129	TRANSISTOR 2SC 1945	1
XV004	LIGHT V.U.-METER PZ-028	2
XV005	LIGHT V.U.-METER PZ-035	2

SPARE PARTS SPECIFIC FOR EACH SET

EMITTER/ RECEIVER	P.A. power amplifier	P.L.L. phase loop locked	L.F. Low Frequencies
JIMMY	2SC 2166	SM 5124	TDA 1905
JOHNNY	2SC 2166	SM 5124	TDA 1905
HARRY	2SC 2166	SM 5124	TDA 1905
TAYLOR	2SC 2029	TC 9106/SM 5126B	MB 3712
VALERY	2SC 2029	TC 9109/SM 5126A	MB 3712
WILSON	2SC 2166	SM 5124	UPC 1242
HERBERT	2SC 2166	TC 9106/SM 5126B	UPC 1242
ROBERT (SS-120)	2SC 1944	UPD 2816	TA 7222
JACK	2SC 2312	MB 8719	UPC 1242 *
GRANT	2SC 2312	MB 8719	UPC 1242 *
J.F.K.	2SC 1944	UPD 2816	MB 3712
RICHARD (SS-360)	2SC 2312	MC 145106	TA 7222
JACKSON	MRF 477	MC 145106	UPC 1242 *
LINCOLN	MRF 477	PLL 0305	TDA 1905
BENJAMIN	2SC 2312	UPD 2824	UPC 1242
WILLIAM	2SC 2166	SM 5125 A	TDA 2822
MC 6700	2SC 1946	MB 8789	MB 3713 (HP) TA 7066 (comb)
JAMES	2SC 1945	PLL 2002 A1	LA 4485
GEORGE	2SC 1969	PLL 2002 A1	LA 4485

* In older models of this type, UPC 1182 is used for LF

**SPARE PARTS SPECIFIC FOR EACH SET**

REF. LF CIRCUIT	EMITTER / RECEIVER	REF. P.A.	EMITTER/ RÉCEIVER				
MB 3712	TAYLOR VALERY J.F.K. (2)	2SC 2166	JOHNNY HERBERT WILSON HARRY				
TDA 1905	HARRY-JIMMY LINCOLN JOHNNY		WILLIAM JIMMY				
UPC 1242	GRANT JACKSON JACK HERBERT BENJAMIN	2SC 1969	GEORGE				
		2SC 2029	TAYLOR VALERY				
TDA 2822	WILLIAM	2SC 1945	JAMES				
TA 7222	SS-120/ROBERT SS-360/RICHARD RONALD FRANKLIN	2SC 1944	SS-120/ROBERT J.F.K.				
		2SC 2312	SS-360/RICHARD GRANT JACK RONALD FRANKLIN BENJAMIN				
LA 4485	GEORGE JAMES			MRF 477	JACKSON LINCOLN		
MB 3713	MC-6700 (H.P.)						
UPC 1182	JACK old GRANT model JACKSON	<table border="0"> <tr> <td>MAINTENANCE MANUALS</td> <td rowspan="2">ALL MODELS</td> </tr> <tr> <td>VU METER BULBS</td> <td>ALL MODELS</td> </tr> </table>		MAINTENANCE MANUALS	ALL MODELS	VU METER BULBS	ALL MODELS
MAINTENANCE MANUALS	ALL MODELS						
VU METER BULBS				ALL MODELS			
DISPLAY	VALERY ROBERT J.F.K. RICHARD GRANT JACKSON JACK						
UR 202							

VU-METER

SWITCH

POTENTIOMETER

QUARTZ

Specific to each type of equipment

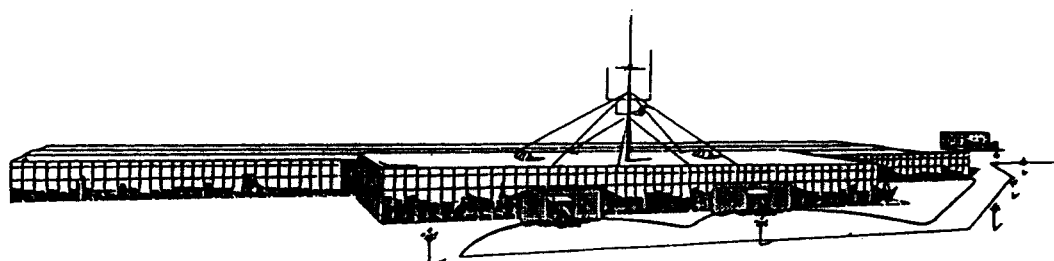
SPARE PARTS COMMON TO SEVERAL SETS

REF. P.L.L.	ÉMITTER / RÉCEIVER	REF. LOUD SPEAKER	ÉMITTER/ RÉCEIVER
SM 5124A	HARRY - JIMMY JOHNNY WILSON	SP 227/SP 306	VALERY TAYLOR JACK PC 33X/43
TC 9106 SM 5126B	TAYLOR HERBERT		
TC 9109 SM 5126A	VALERY	SP 226/SP 323	SS-360 GRANT JACKSON
UPD 2816	SS-120/ROBERT J.F.K.	SP 244/SP 301	J.F.K. SS-120
MB 8719	GRANT JACK	SP169	HARRY JIMMY JOHNNY WILSON
MC 145106	SS-360/RICHARD JACKSON RONALD FRANKLIN	SP 149	HERBERT
PLL 0305	LINCOLN	SP 238	JAMES GEORGE
UPD 2824	BENJAMIN		
MB 8789	MC 6700		
SM 5125A	WILLIAM		
PLL 2002 A1	JAMES GEORGE		



PRESIDENT

ELECTRONICS EUROPE



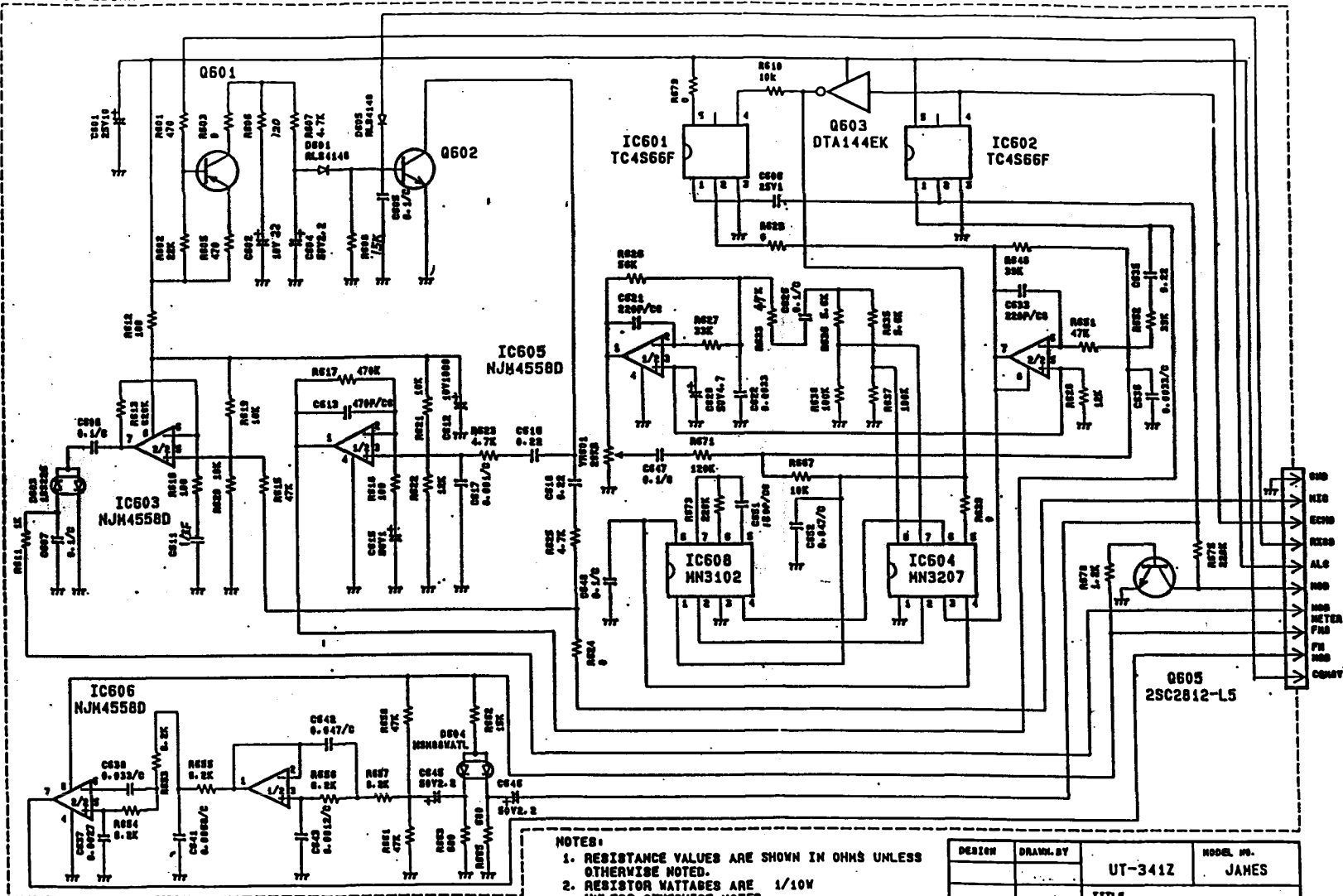
SIEGE SOCIAL - FRANCE
Route de SETE - BP 100
34540 BALARUC - Tél : 67.46.27.27
Télex : 490534F - Fax : 67.48.48.49

SUCCURSALE "ILE DE FRANCE"
50/56, rue du Pré des Aulnes
Parc d'activités des Arpents
77340 PONTAULT-COMBAULT
Tél : (1) 60.29.28.27 - Fax : (1) 60.28.44.00



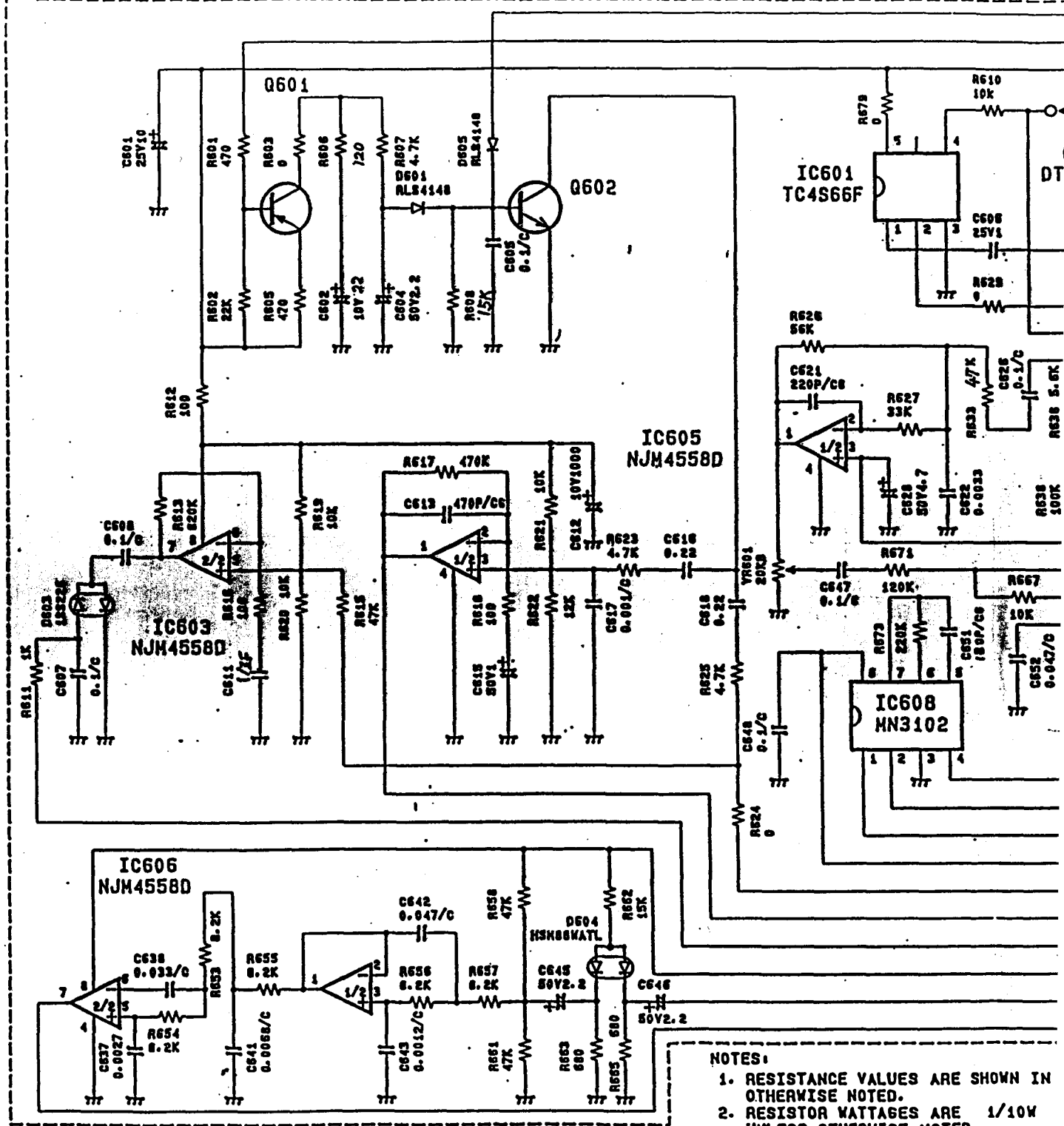
VENTE EXCLUSIVE AUX DISTRIBUTEURS - 2 SUCCURSALES A VOTRE SERVICE

S.A. CAPITAL 20.000.000 F.F. - SIREN SETE 315 230 490

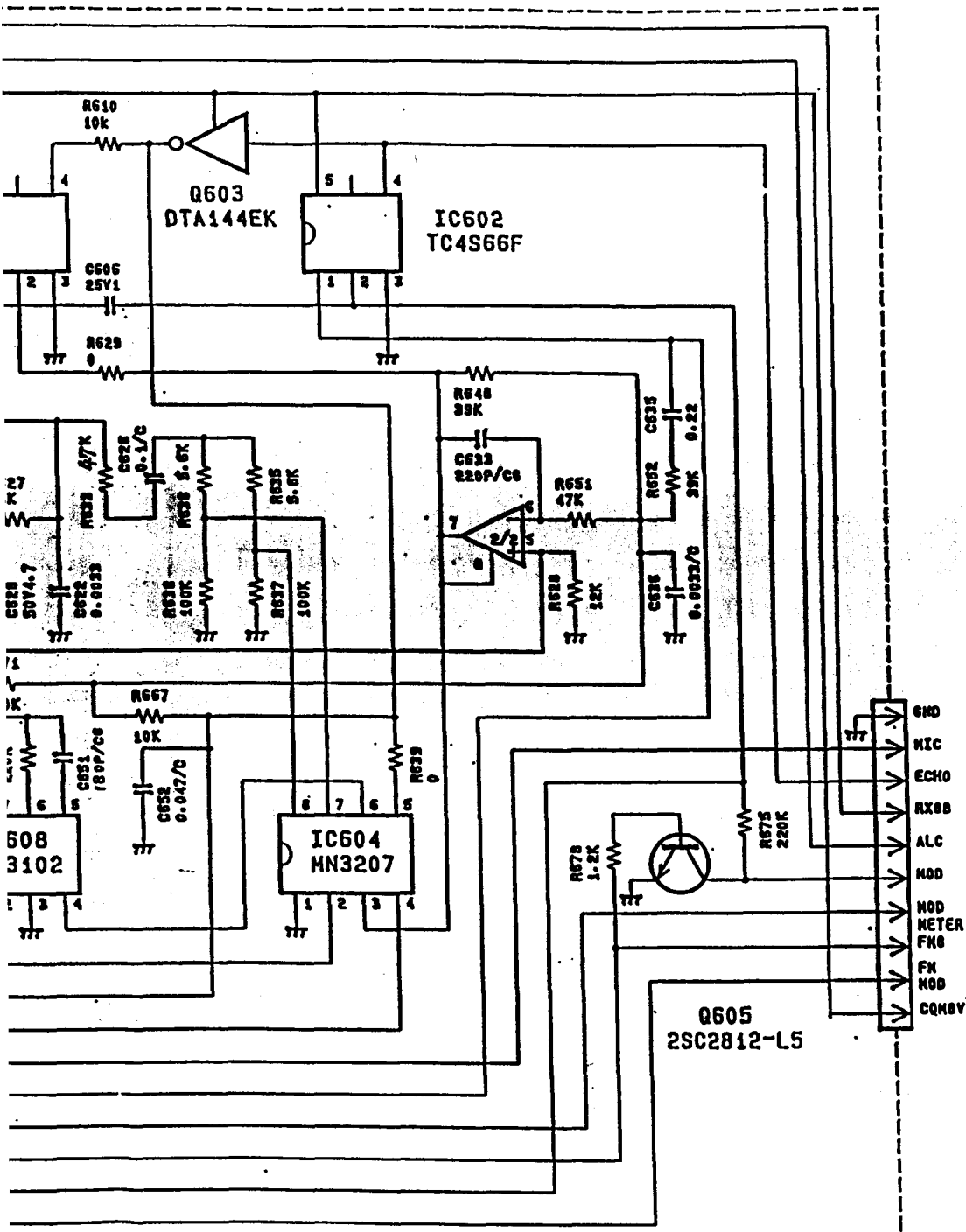


- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 2. RESISTOR WATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)
 4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE ZF UNLESS OTHERWISE NOTED.
 5. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

DESIGN	DRAWN BY	UT-341Z	MODEL NO.	JAMES
CHECK BY	APPROV BY	TITLE		
		SCHEMATIC DIAGRAM		
		DRAWING NO.		
REV. NO.				



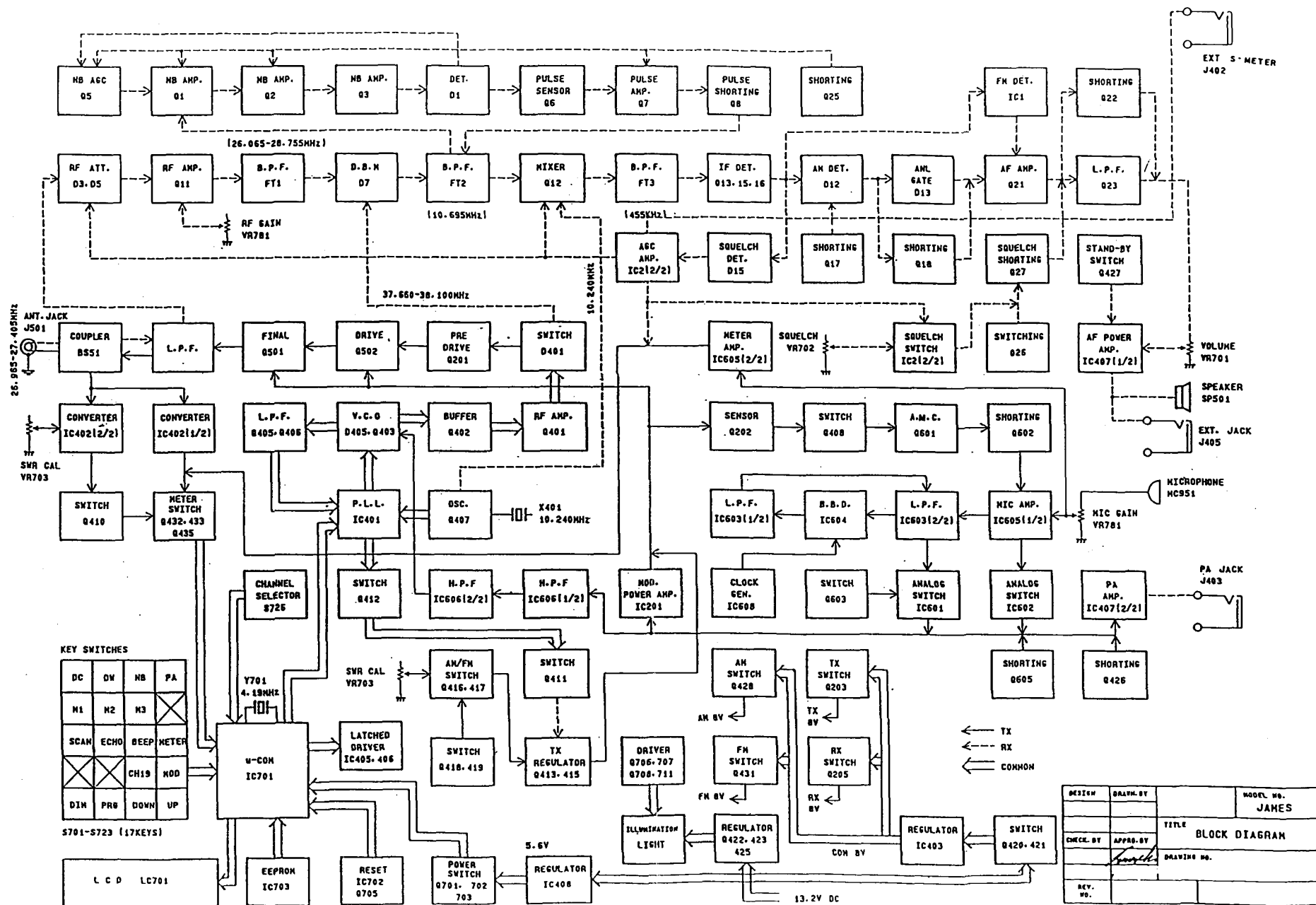
- NOTES:**
1. RESISTANCE VALUES ARE SHOWN IN OTHERWISE NOTED.
 2. RESISTOR WATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN FARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)
 4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE ZF UNLESS OTHERWISE NOTED.
 5. CHIP PARTS ARE NOT SPECIFIED IN SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.



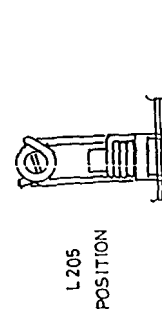
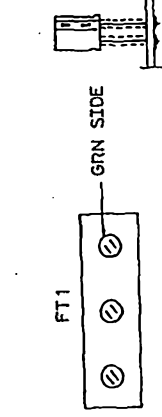
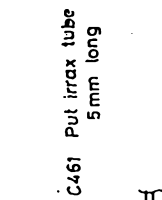
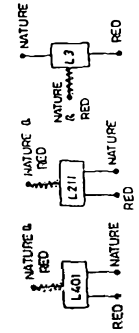
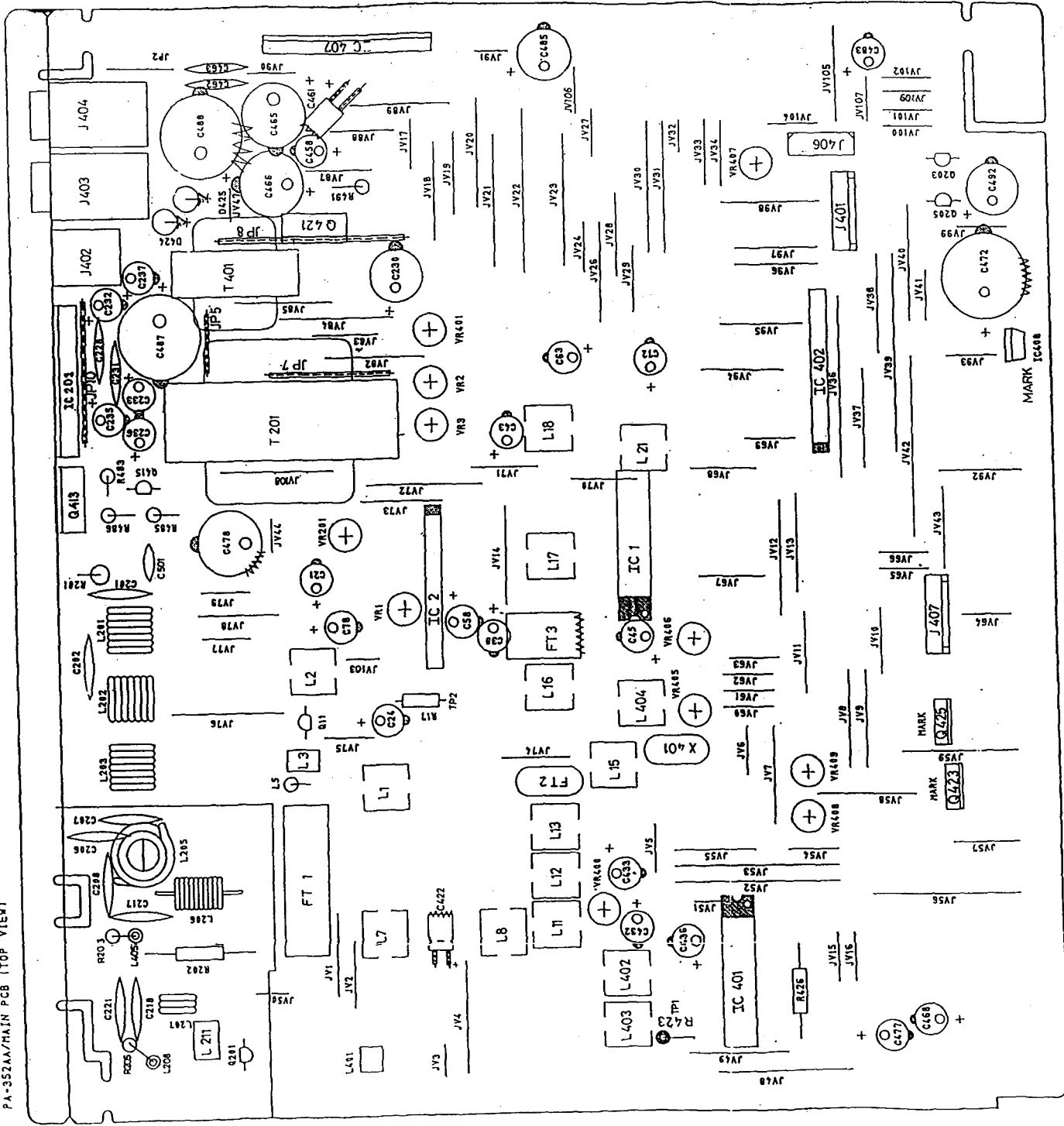
RESISTORS ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 CAPACITORS ARE 1/10W UNLESS OTHERWISE NOTED.
 VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED.
 TEMPERATURE CHARACTERISTICS NOT SPECIFIED IN THIS DRAWING.
 SEE THE PARTS LIST FOR

DESIGN	DRAWN BY	MODEL NO.
		UT-341Z
		JAMES
CHECK BY	APPRO BY	TITLE
		SCHEMATIC DIAGRAM
		DRAWING NO.
REV. NO.		

SYNOPTIQUE



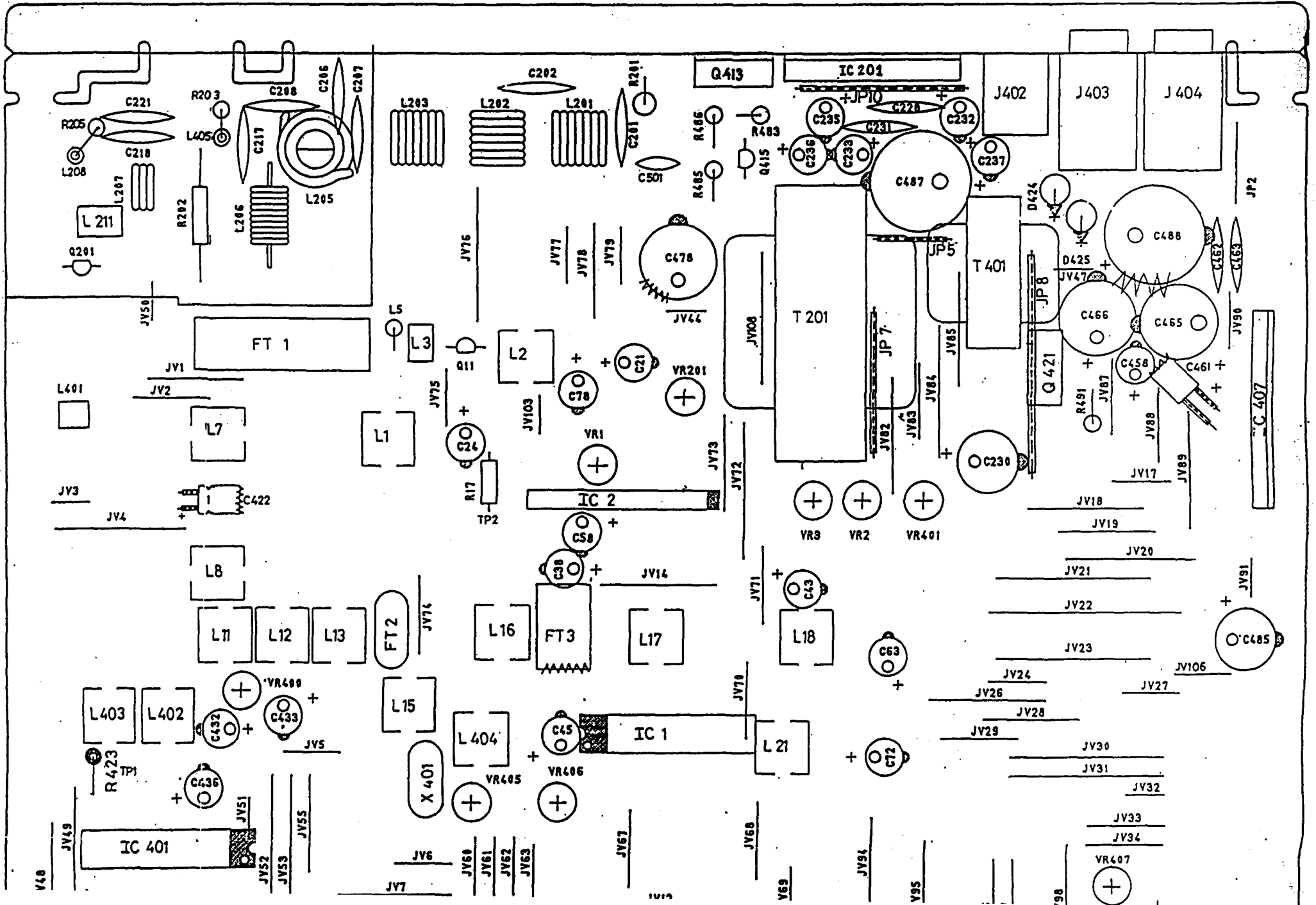
PA-352AA/MAIN PCB (TOP VIEW)

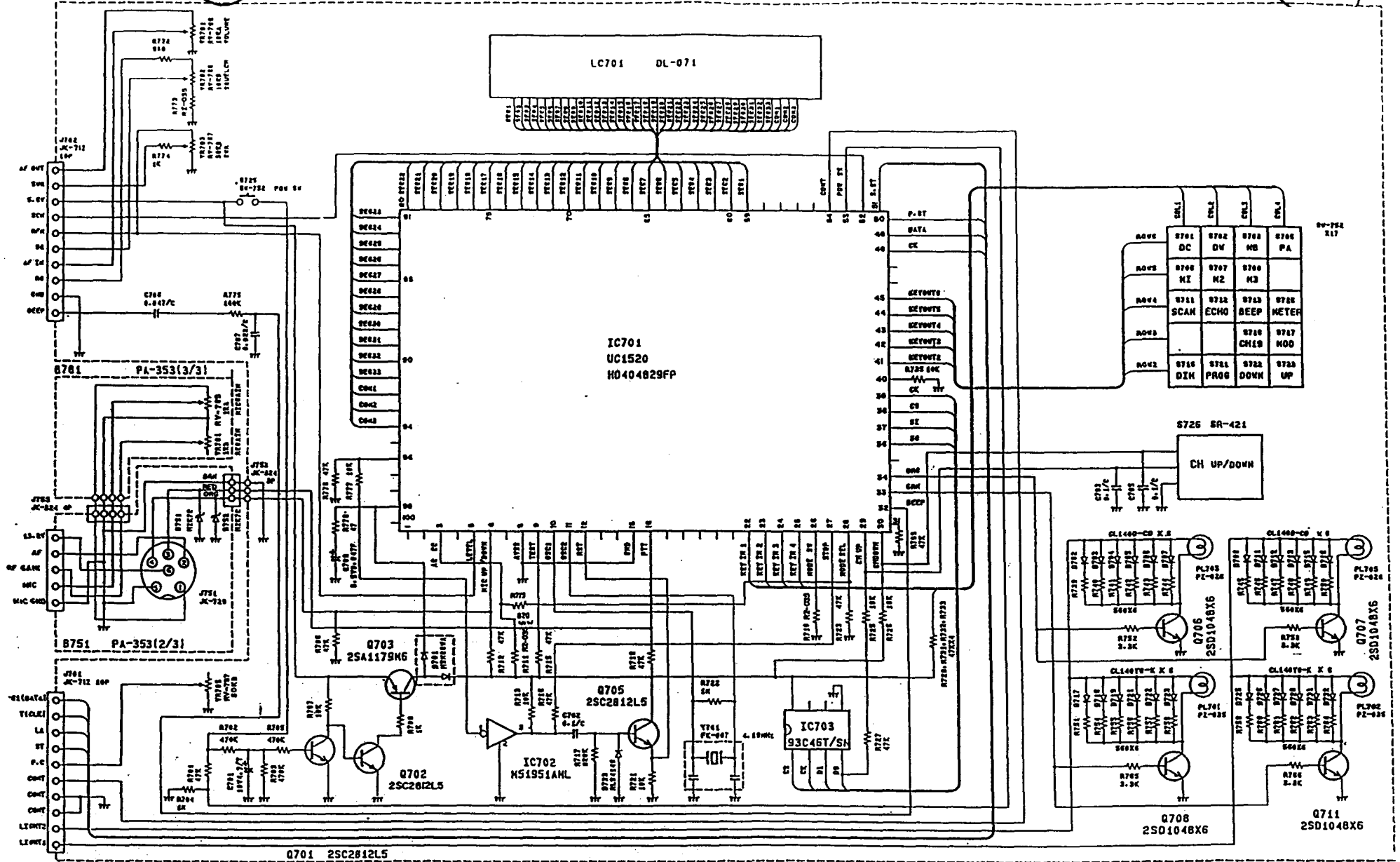


PLATINE PRINCIPALE

Côté composants

PA-352AA/MAIN PCB (TOP VIEW)

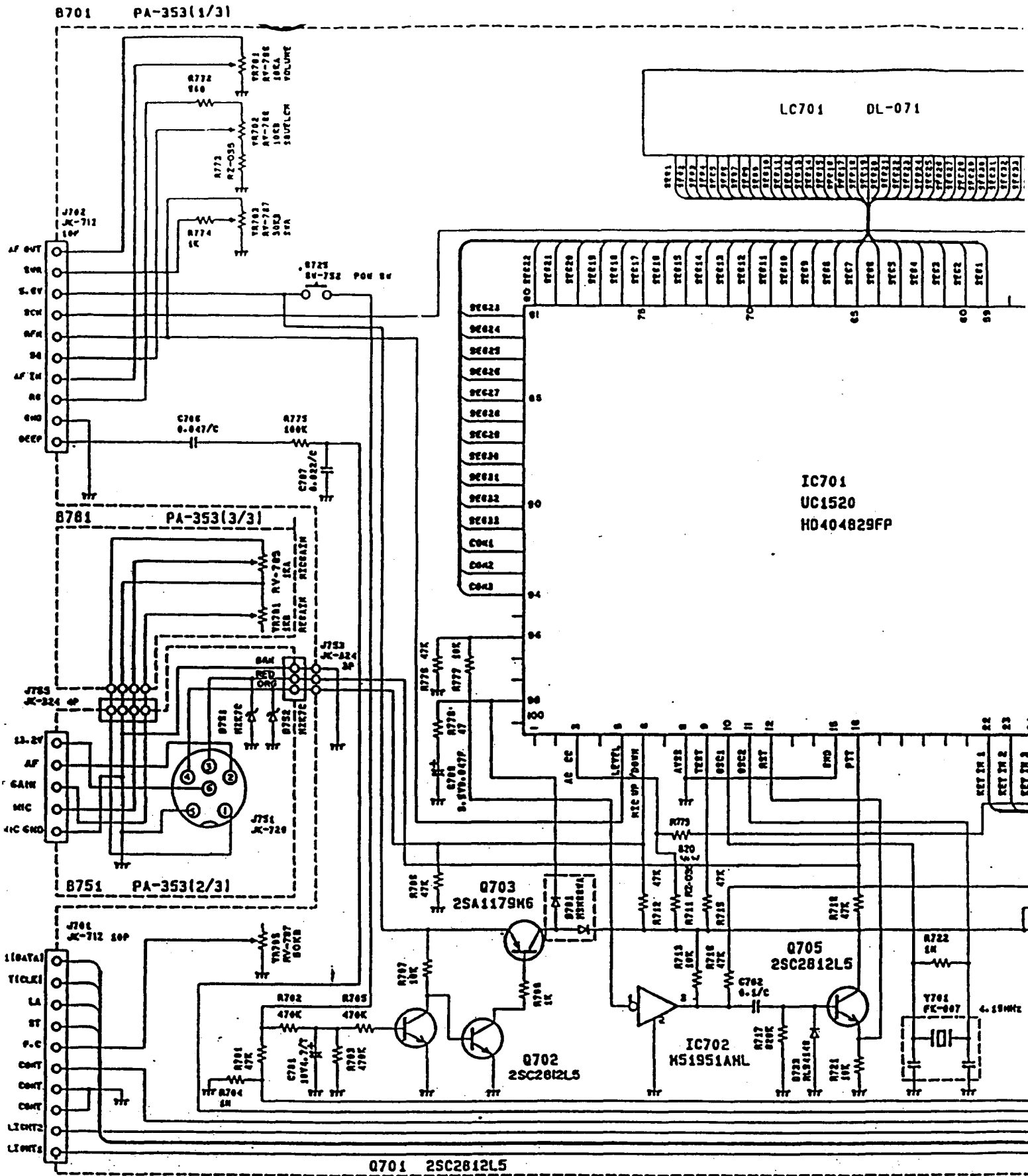




NOTES:

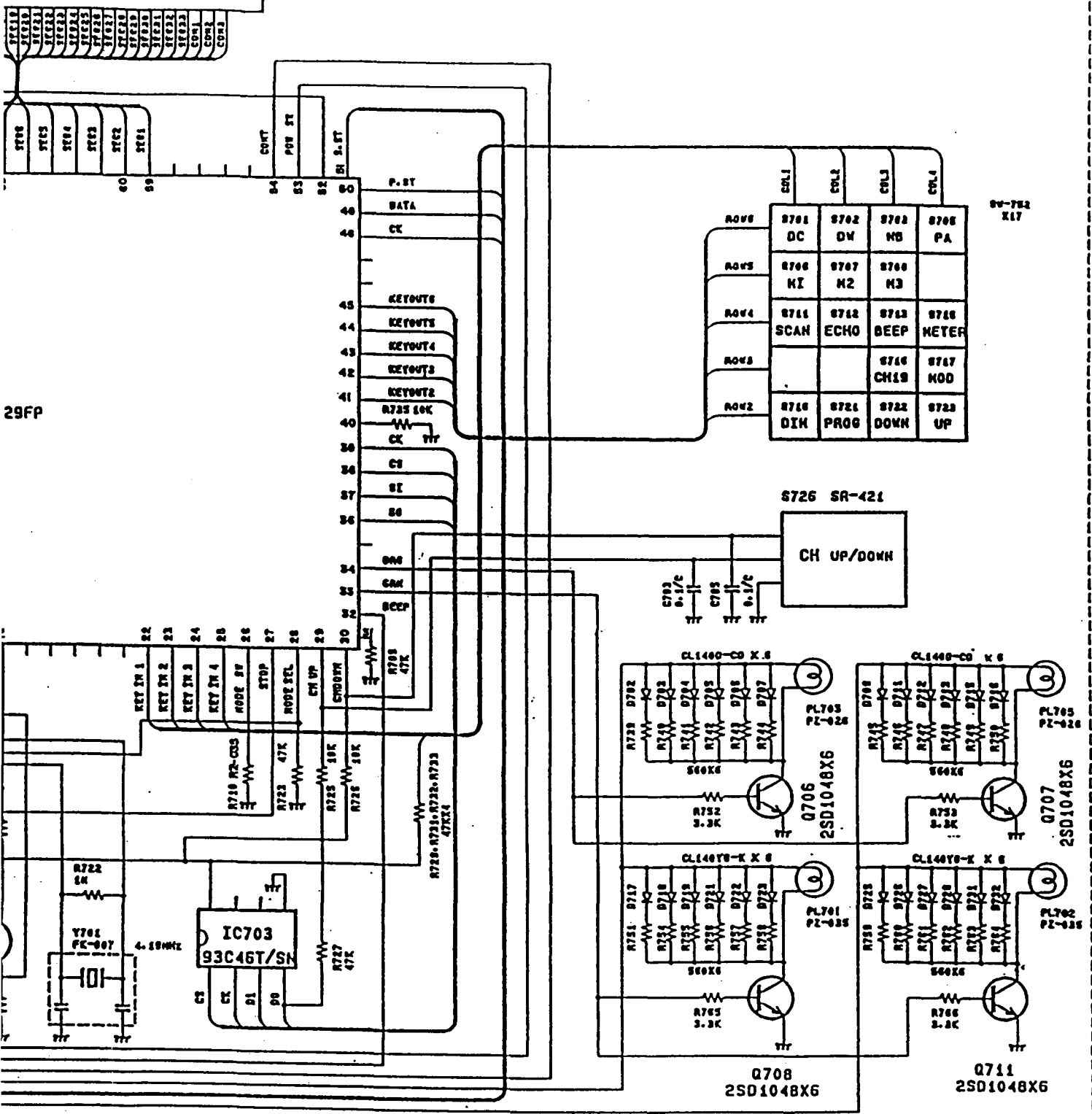
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
2. RESISTOR RATINGS ARE 1/10W UNLESS OTHERWISE NOTED.
3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)
4. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

DESIGN	DRAWN BY	UT-341Z	MODEL NO.	JAMES
CHECK BY	APPROV BY	TITLE SCHEMATIC DIAGRAM		
		DRAWING NO. ES2-0325		
		P.E.E		



- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 2. RESISTOR MATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICROFARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)

OL-071



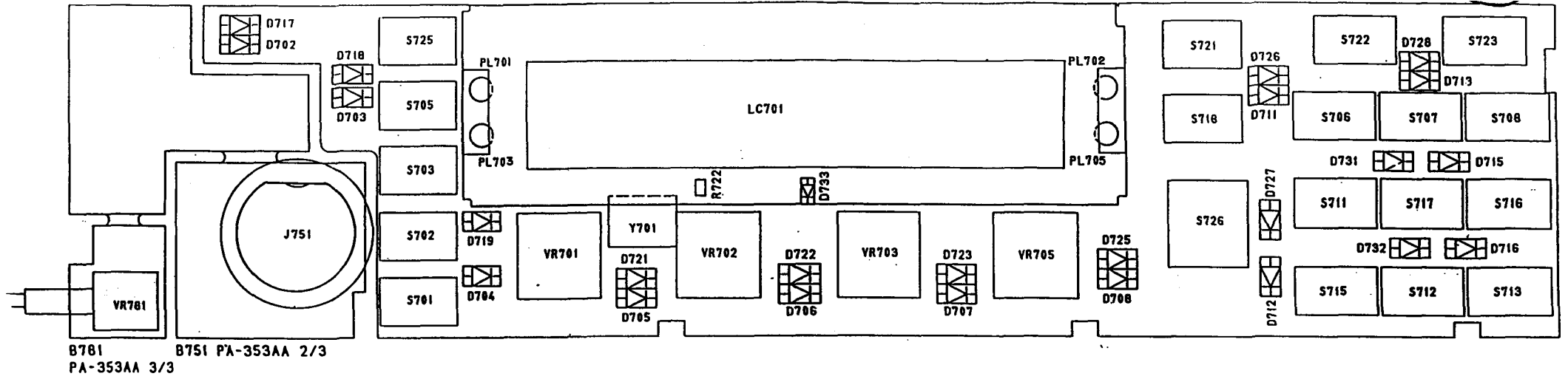
RESISTORS ARE SHOWN IN OHMS UNLESS NOTED.
 CAPACITORS ARE 1/10W UNLESS NOTED.
 DIMENSIONS ARE INDICATED IN MICRO INCHES UNLESS OTHERWISE NOTED.
 (RADI)

4. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

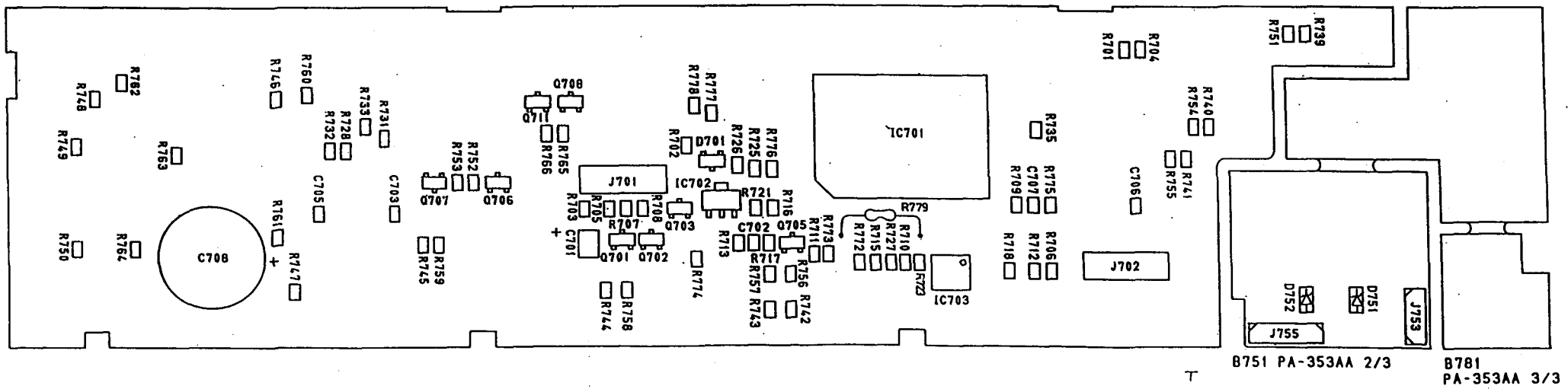
DESIGN	DRAWN BY	UT-341Z	MODEL NO.
			JAMES
CHECK BY	APPROV BY	TITLE	
		SCHEMATIC DIAGRAM	
		DRAWING NO.	
		ES2-0325	
		P.E.E	

PLATINE FACE AVANT

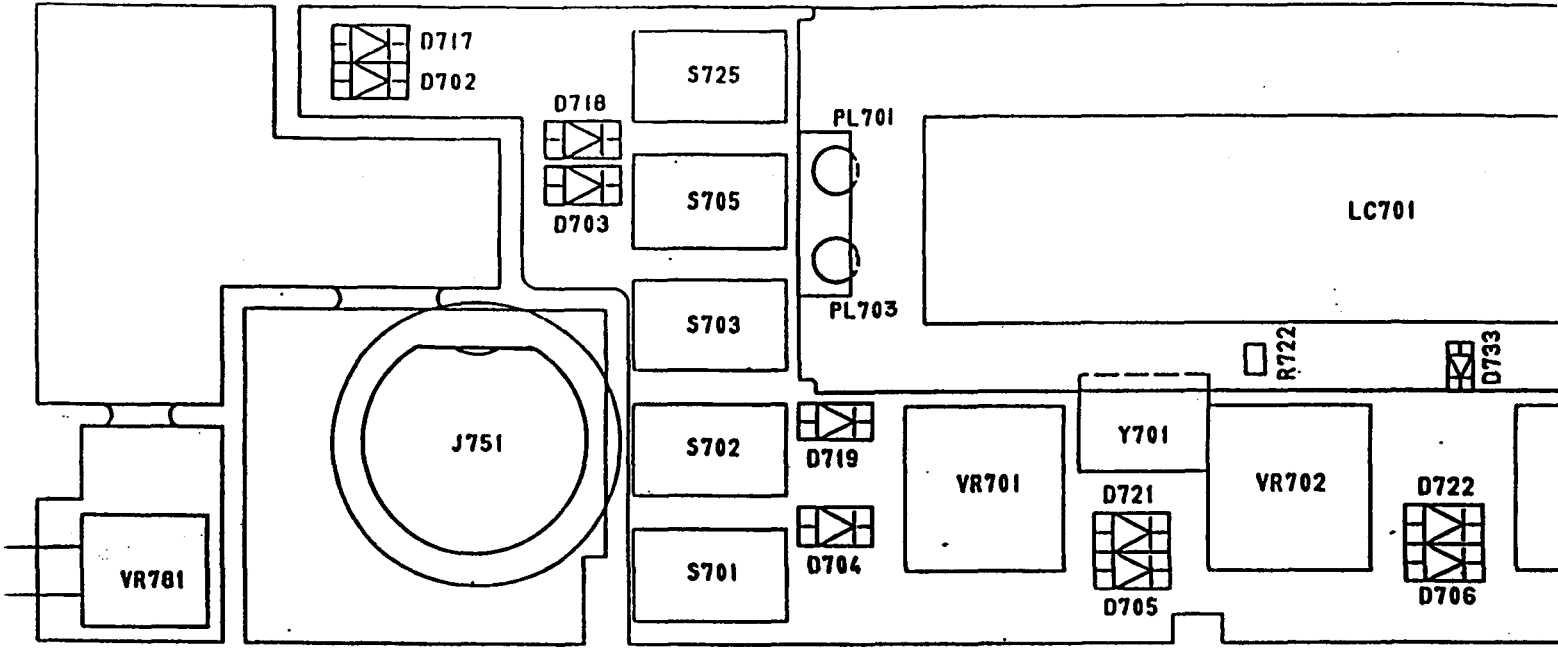
B701 PA-353AA 1/3 FRONT PCB (TOP VIEW)



B701 PA-353AA 1/3 FRONT PCB (BOTTOM VIEW)



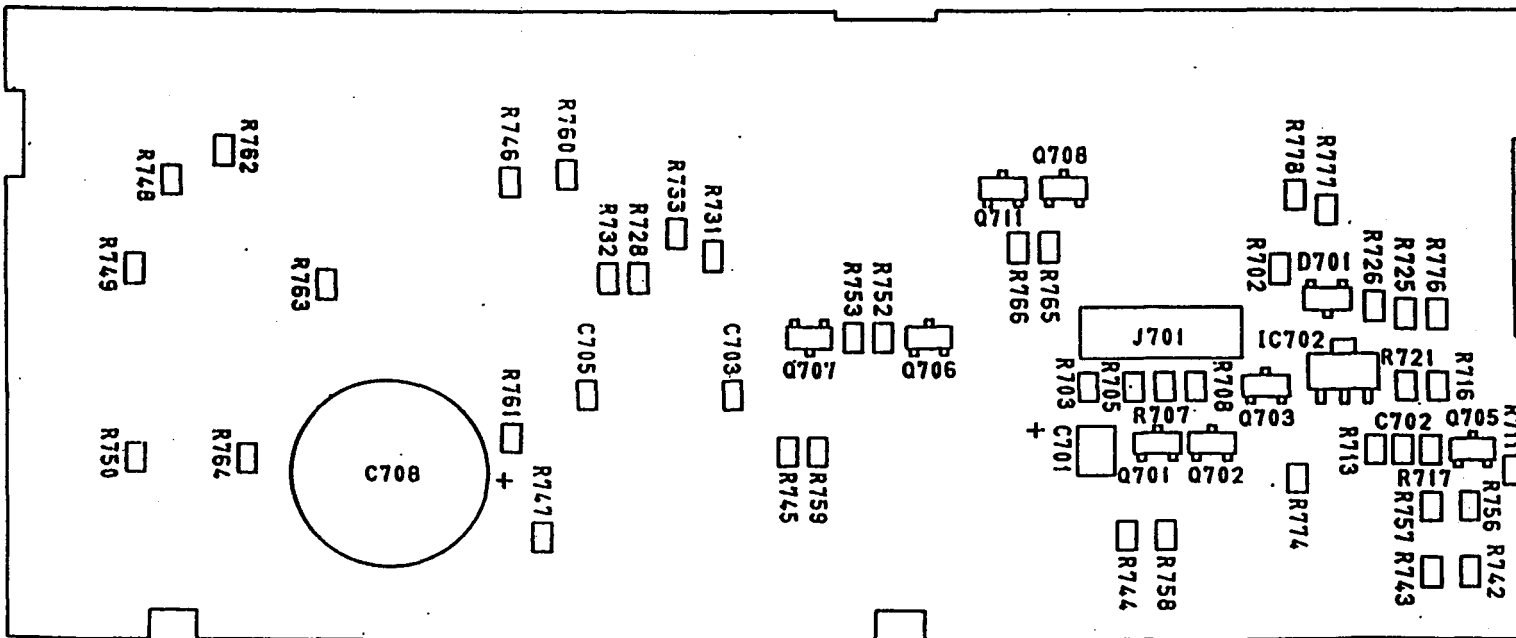
B701 PA-353AA 1/3 FRONT PCB (TOP VIEW)



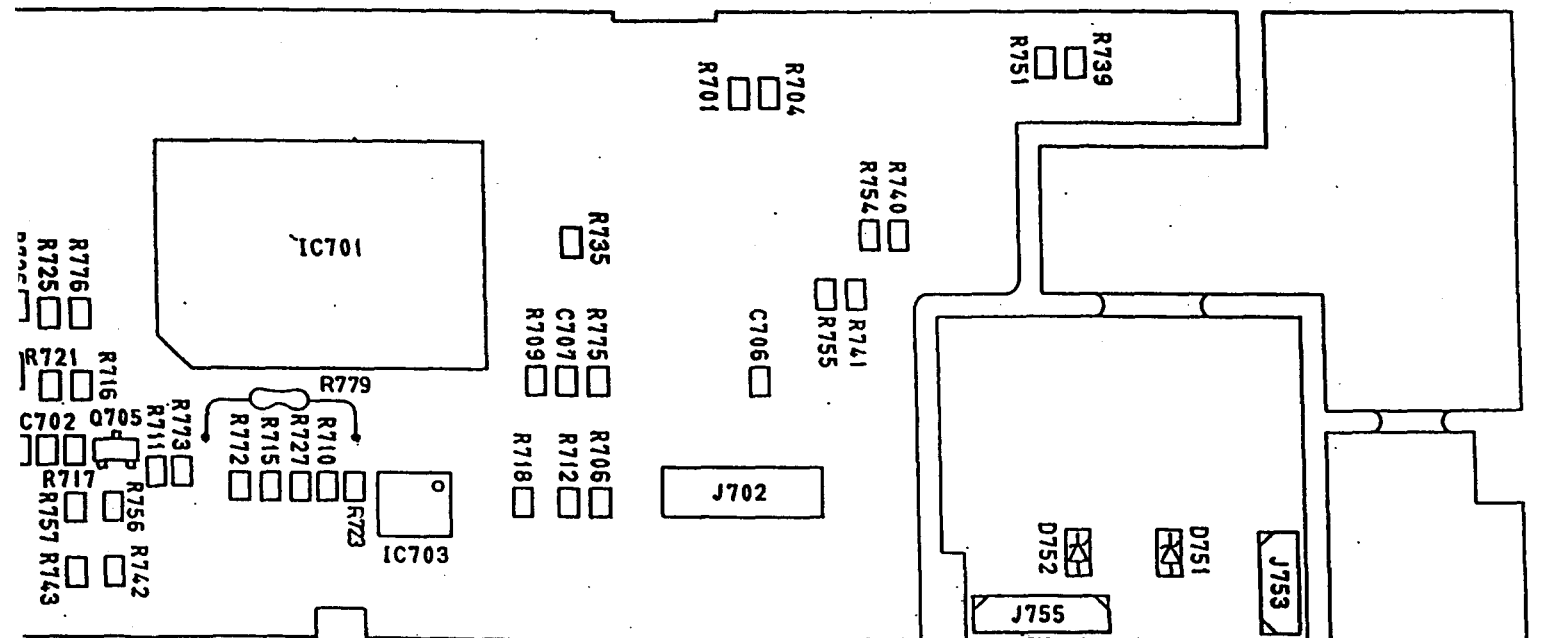
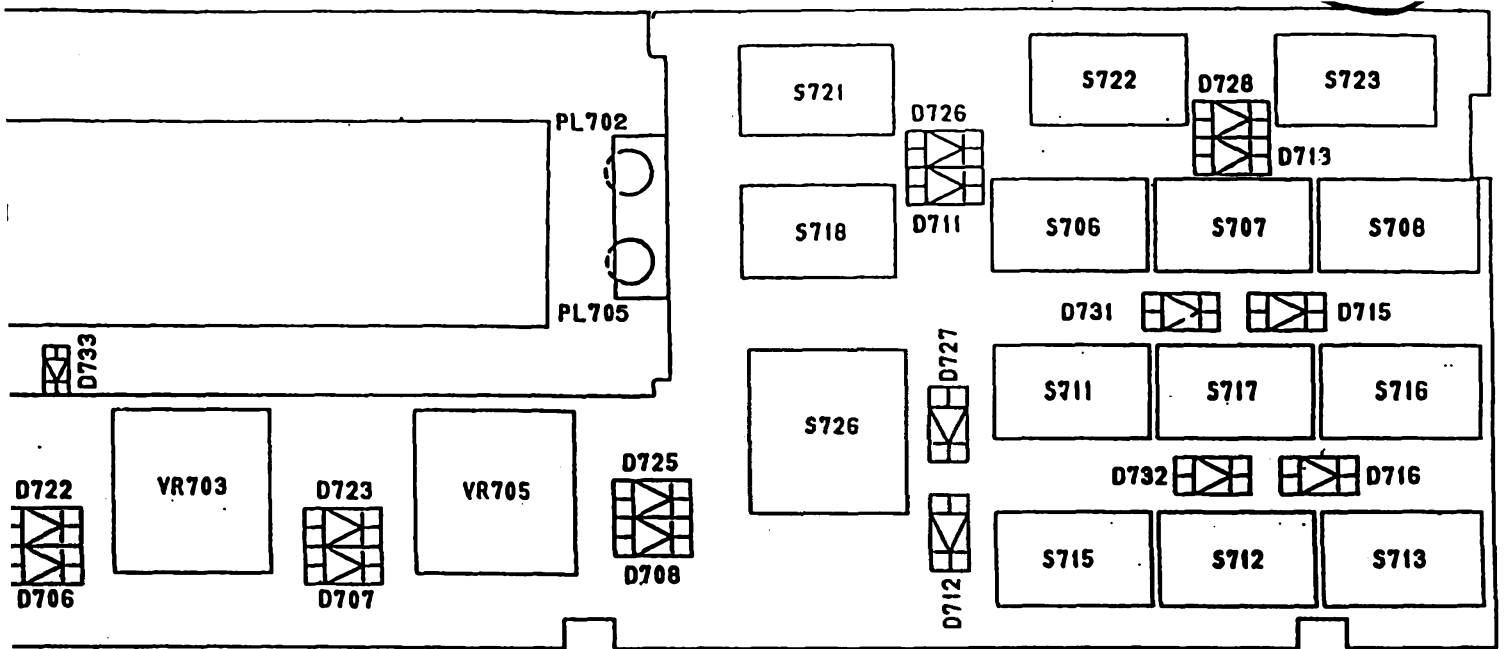
B781
PA-353AA 3/3

B751 PA-353AA 2/3

B701 PA-353AA 1/3 FRONT PCB (BOTTOM VIEW)



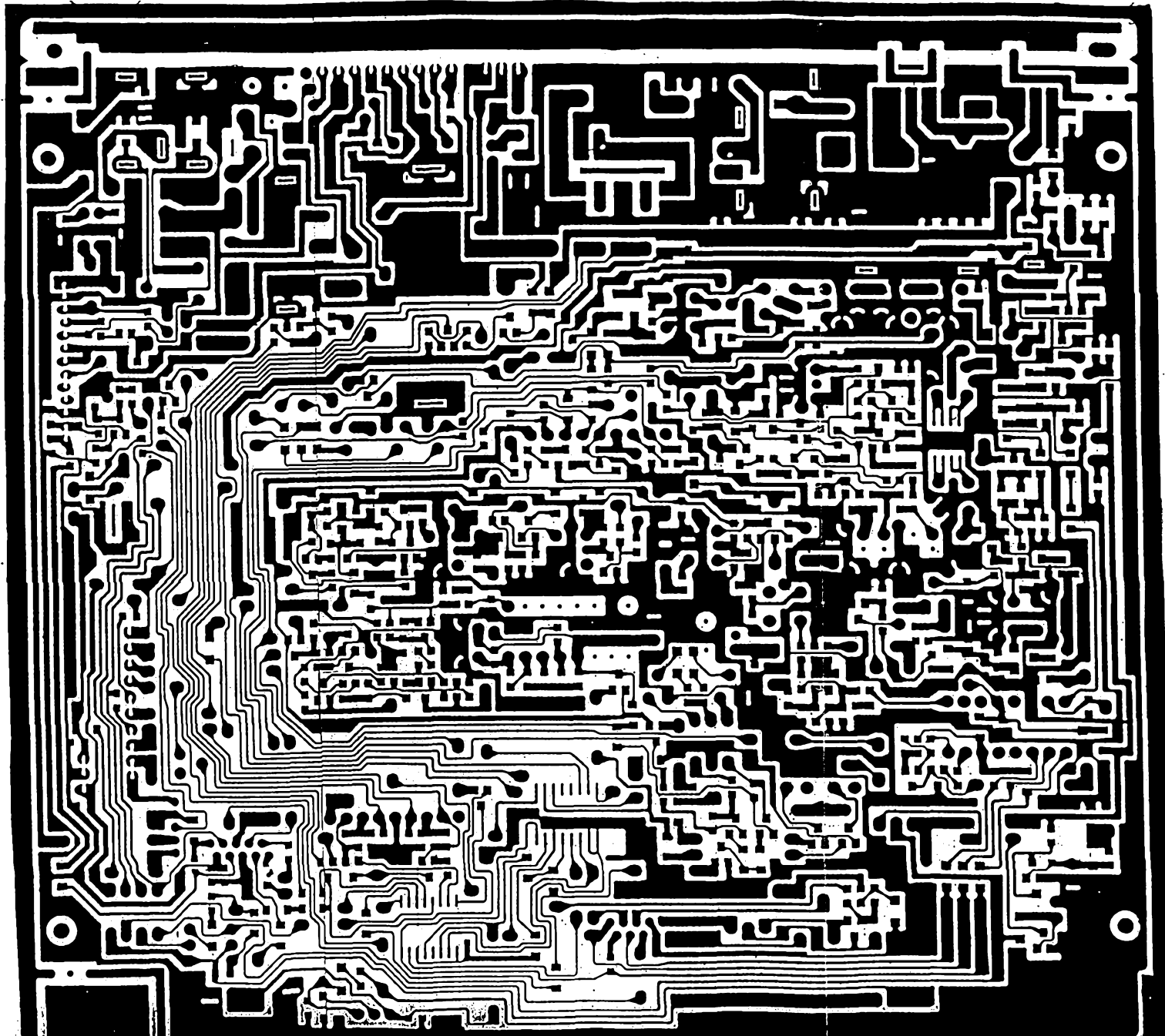
PLATINE FACE AVANT



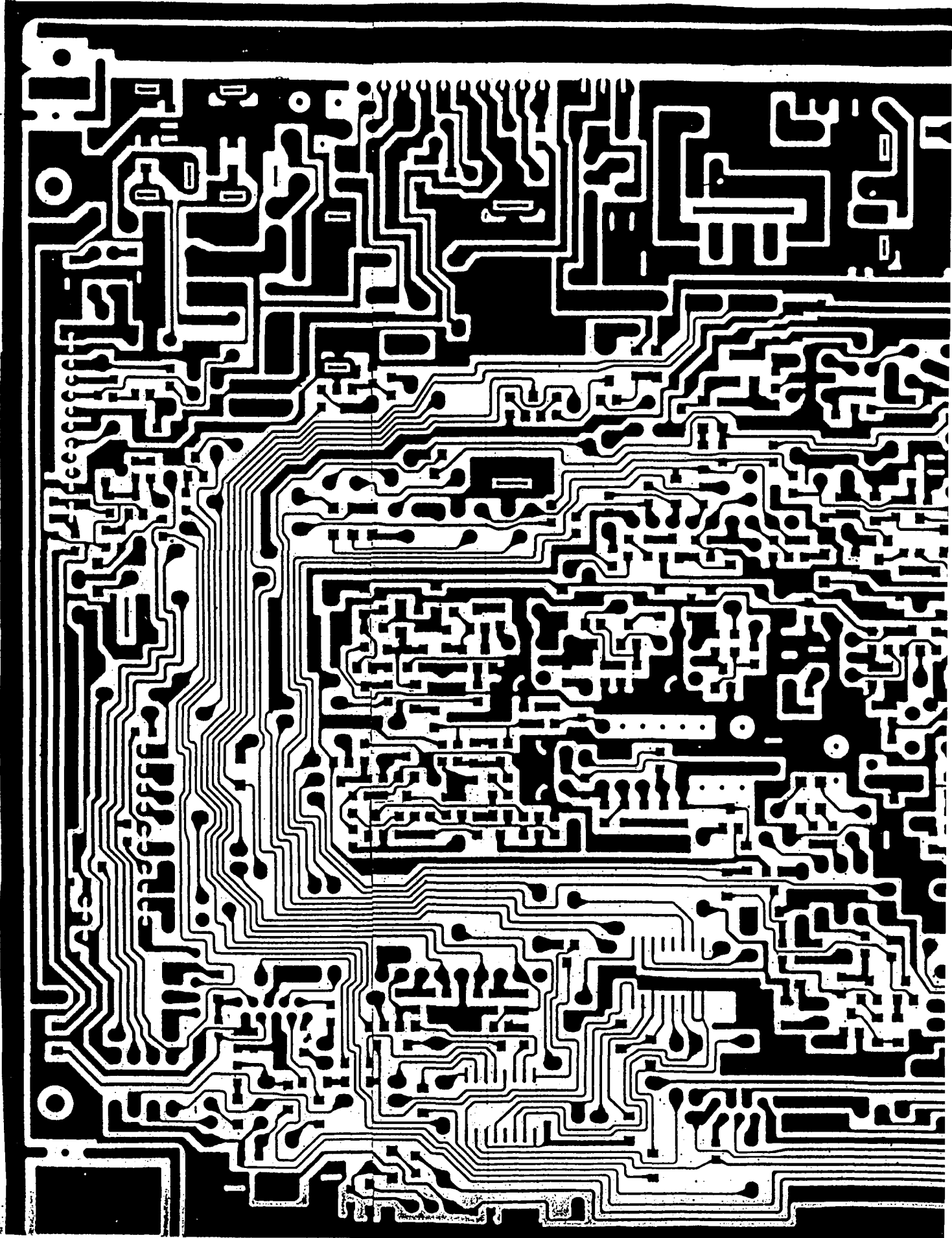
T

B751 PA-353AA 2/3

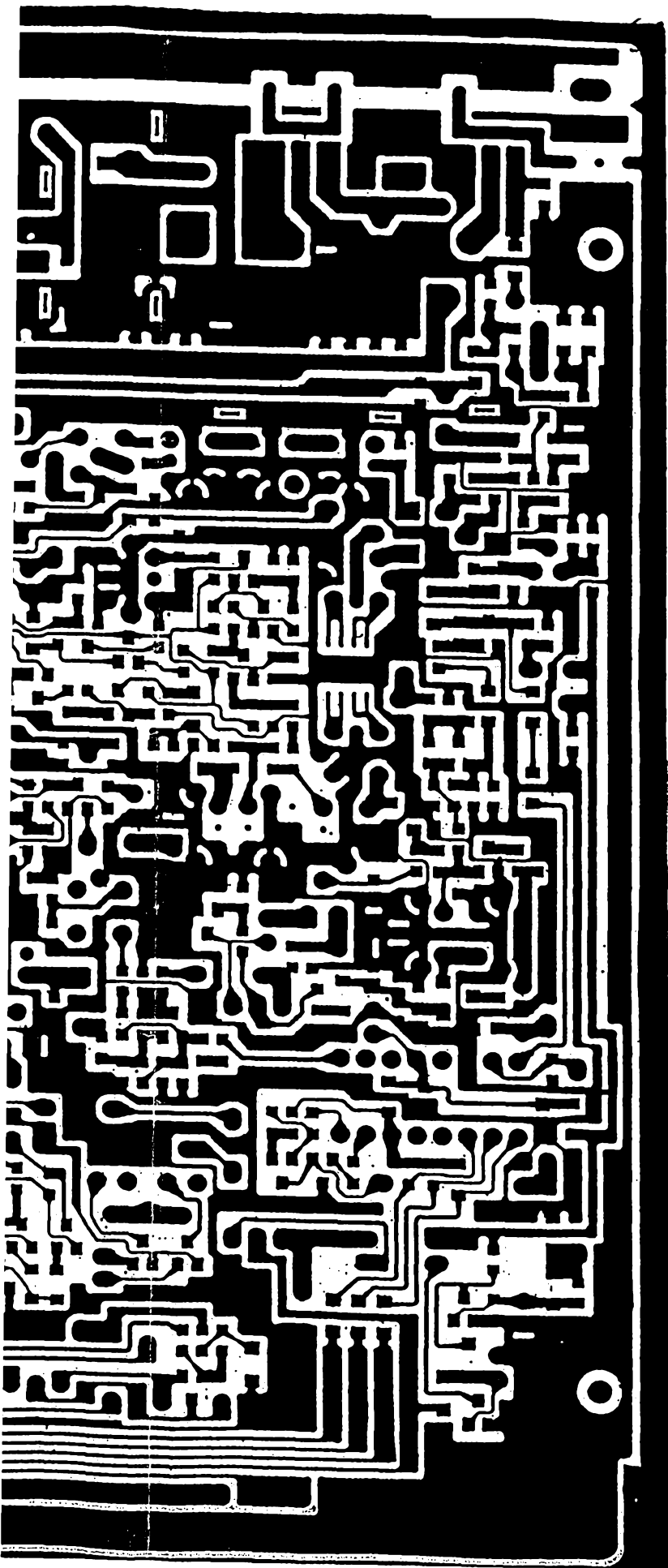
B781 PA-353AA 3/3

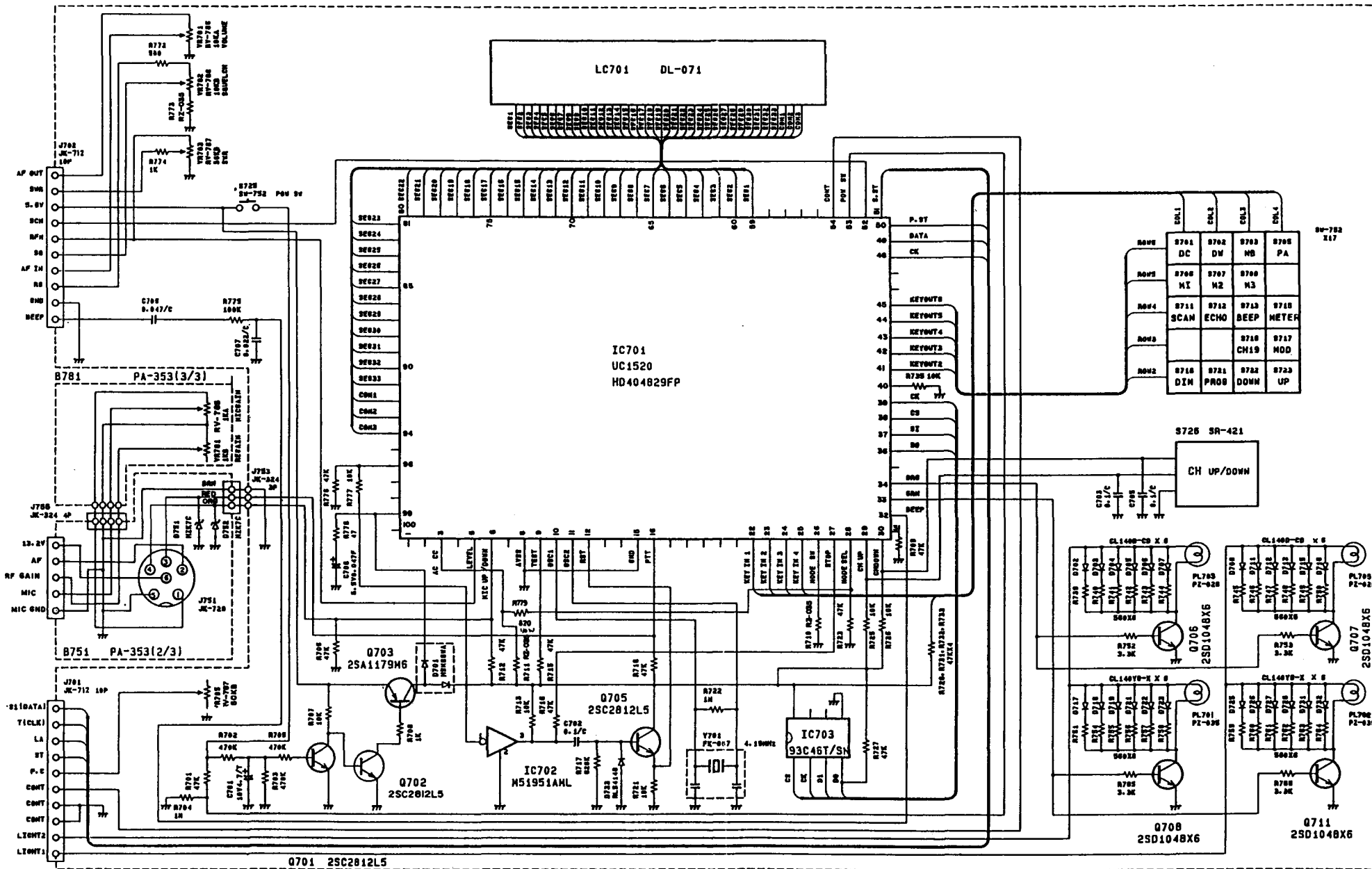


PLATINE PRINCIPALE



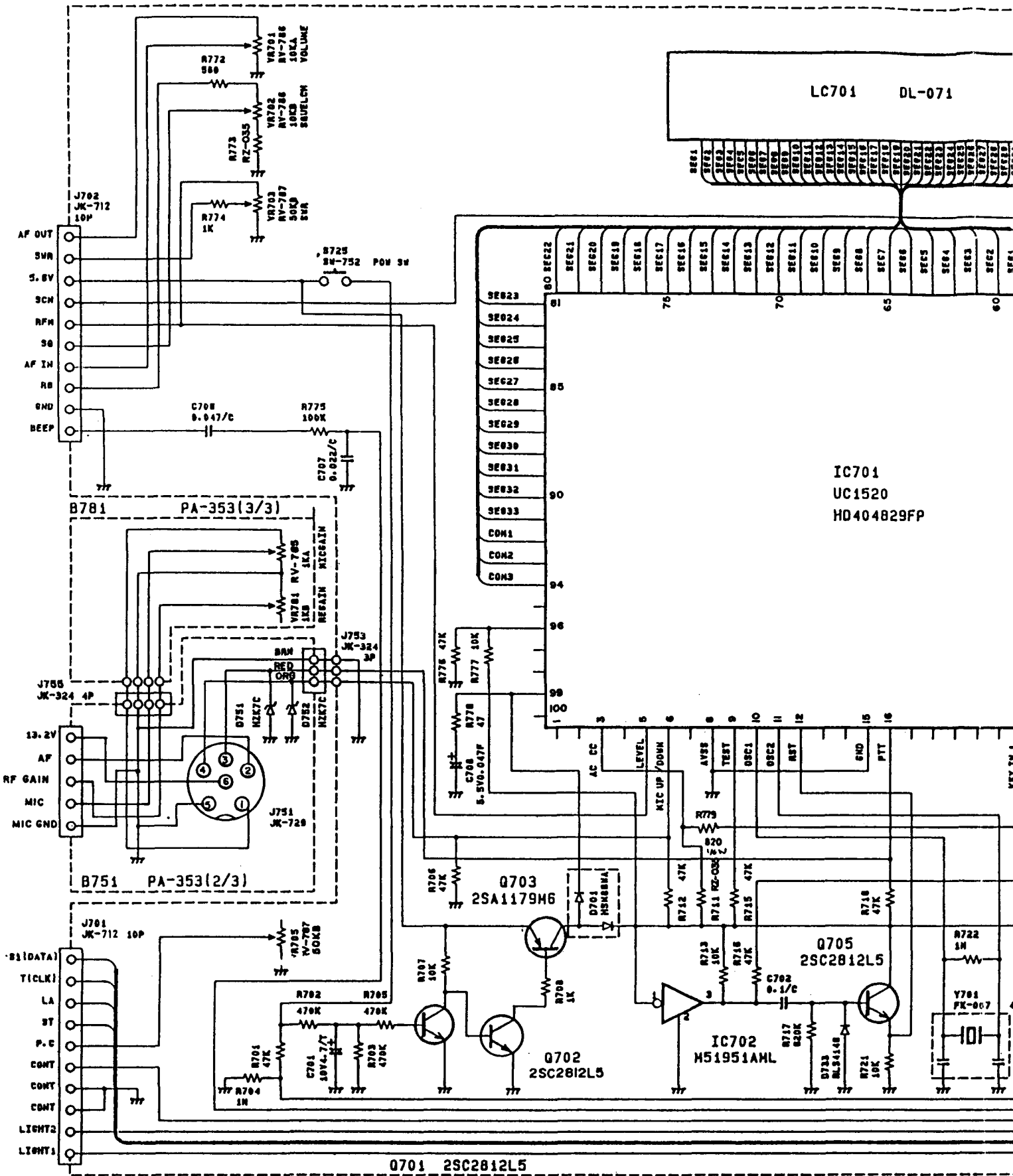
PLATINE PRINCIPALE





- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 2. RESISTOR WATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)
 4. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

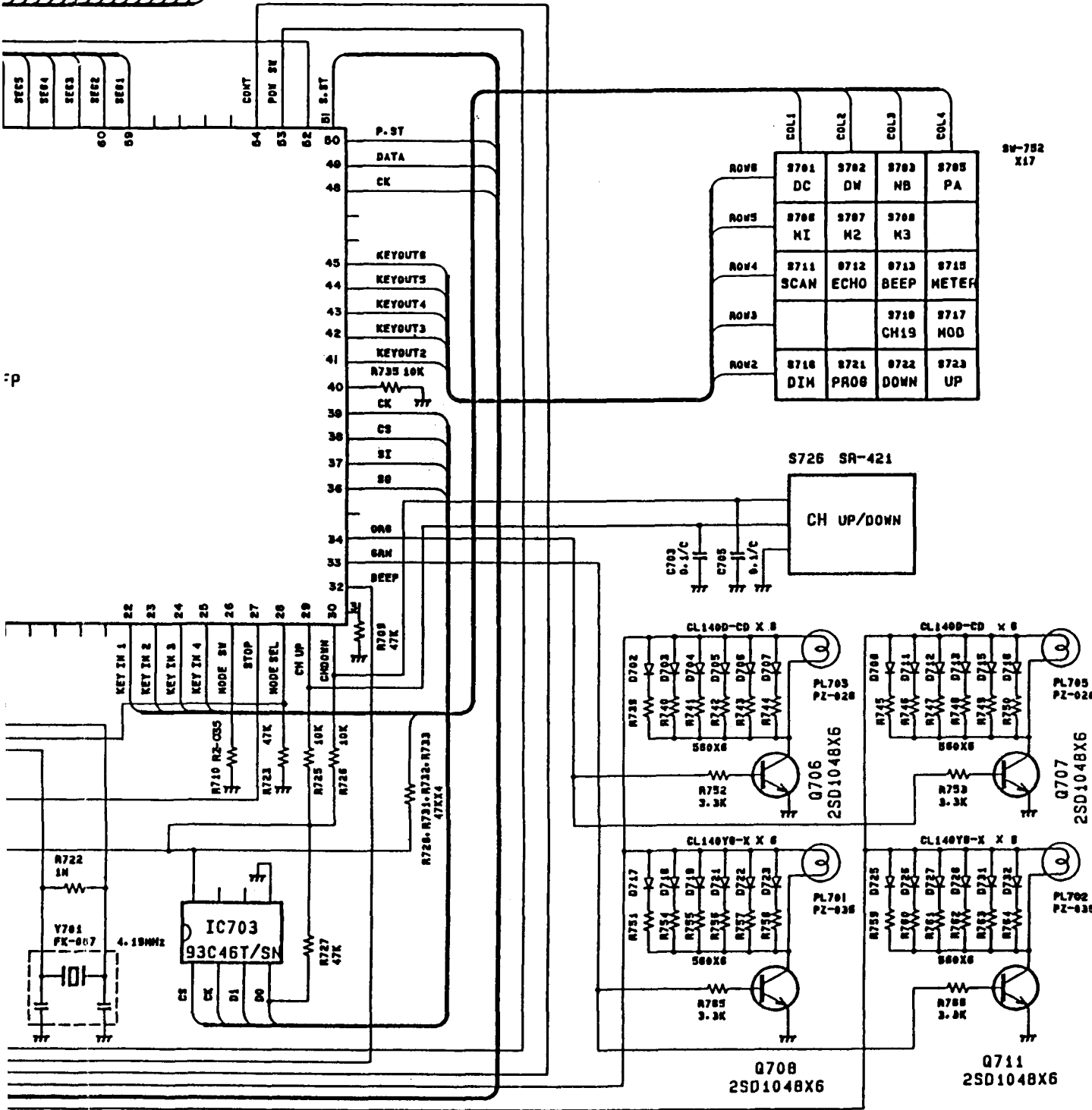
DESIGN	DRAWN BY	UT-341Z	MODEL NO.
	83-02-05		JAMES
	LORNA	TITLE	
		SCHEMATIC DIAGRAM	
CHECK BY	APPROV BY	DRAWING NO.	
CJT		ES2-0325	
REV. NO.	Feb. 8 '93	P.E.C	



- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHM UNLESS OTHERWISE NOTED.
 2. RESISTOR WATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN FARADS UNLESS OTHERWISE NOTED. (P-MICRO-MICRO FARAD)

L-071

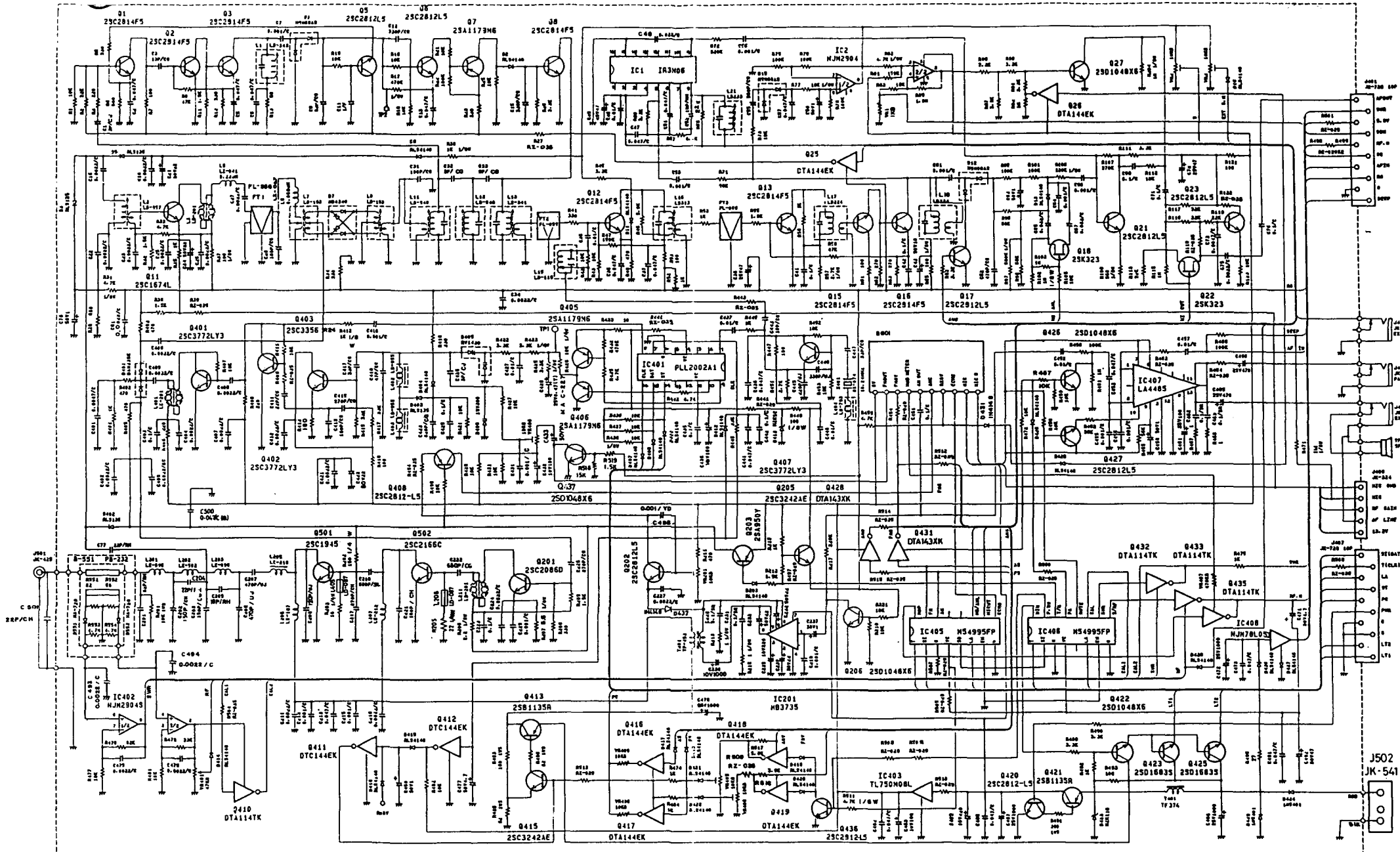
8E01
8E02
8E03
8E04
8E05
8E06
8E07
8E08
8E09
8E10
8E11
8E12
8E13
8E14
8E15
8E16
8E17
8E18
8E19
8E20
8E21
8E22
8E23
8E24
8E25
8E26
8E27
8E28
8E29
8E30
8E31
8E32
8E33
8E34
8E35
8E36
8E37
8E38
8E39
8E40
8E41
8E42
8E43
8E44
8E45
8E46
8E47
8E48
8E49
8E50
8E51
8E52
8E53
8E54
8E55
8E56
8E57
8E58
8E59
8E60
8E61
8E62
8E63
8E64
8E65
8E66
8E67
8E68
8E69
8E70
8E71
8E72
8E73
8E74
8E75
8E76
8E77
8E78
8E79
8E80
8E81
8E82
8E83
8E84
8E85
8E86
8E87
8E88
8E89
8E90
8E91
8E92
8E93
8E94
8E95
8E96
8E97
8E98
8E99
8E00



RESISTOR VALUES SHOWN IN OHMS UNLESS NOTED OTHERWISE.
RESISTOR VALUES IN MICROHMS ARE INDICATED IN MICROHMS UNLESS NOTED OTHERWISE.

4. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

DESIGN	DRAWN BY	MODEL NO.
	93.02.05	UT-341Z
	LORNA	JAMES
CHECK BY	APPROV BY	TITLE
		SCHEMATIC DIAGRAM
DATE	DRAWING NO.	
1/20/93	ES2-0325	
REV. NO.		P.E.E

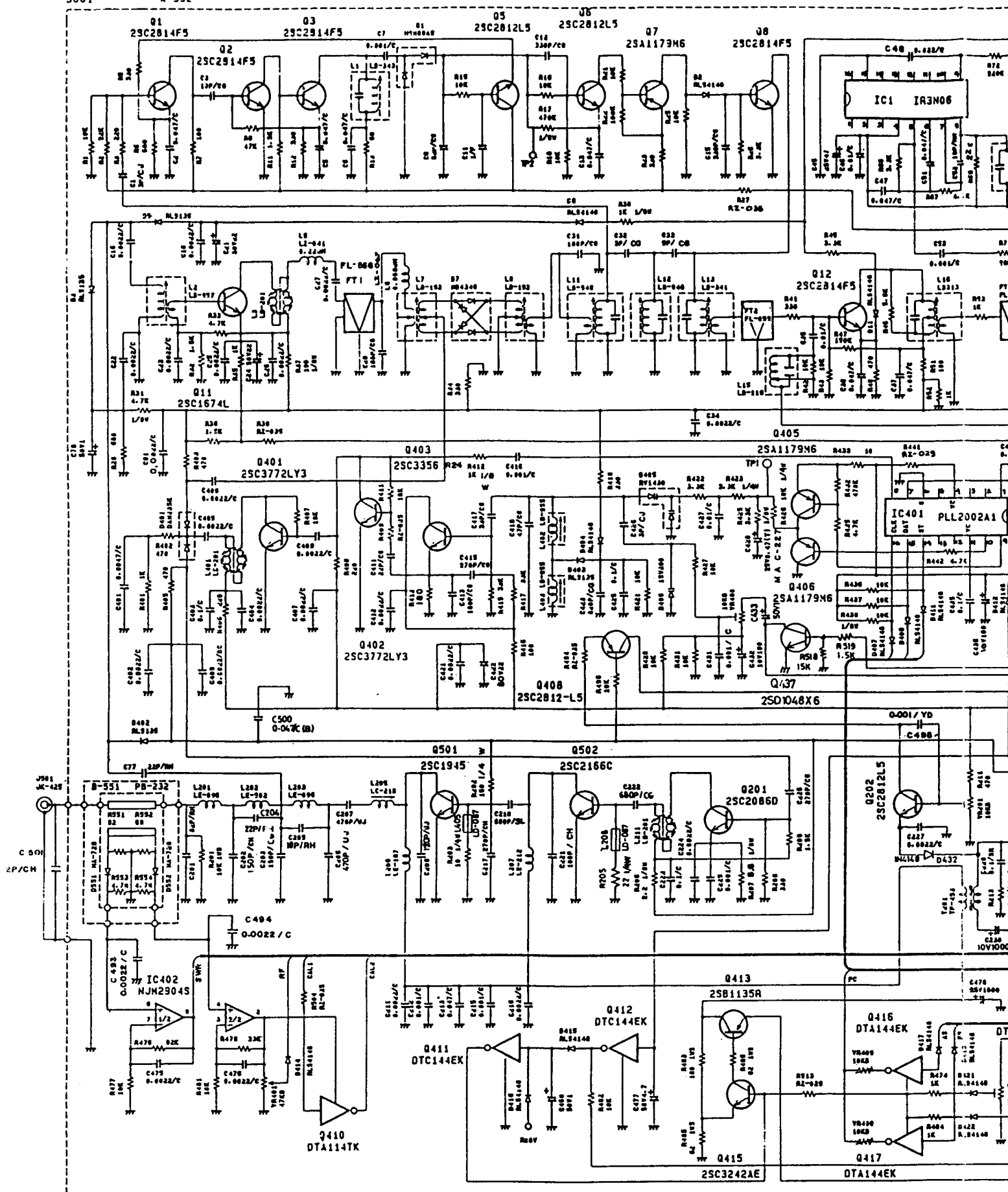


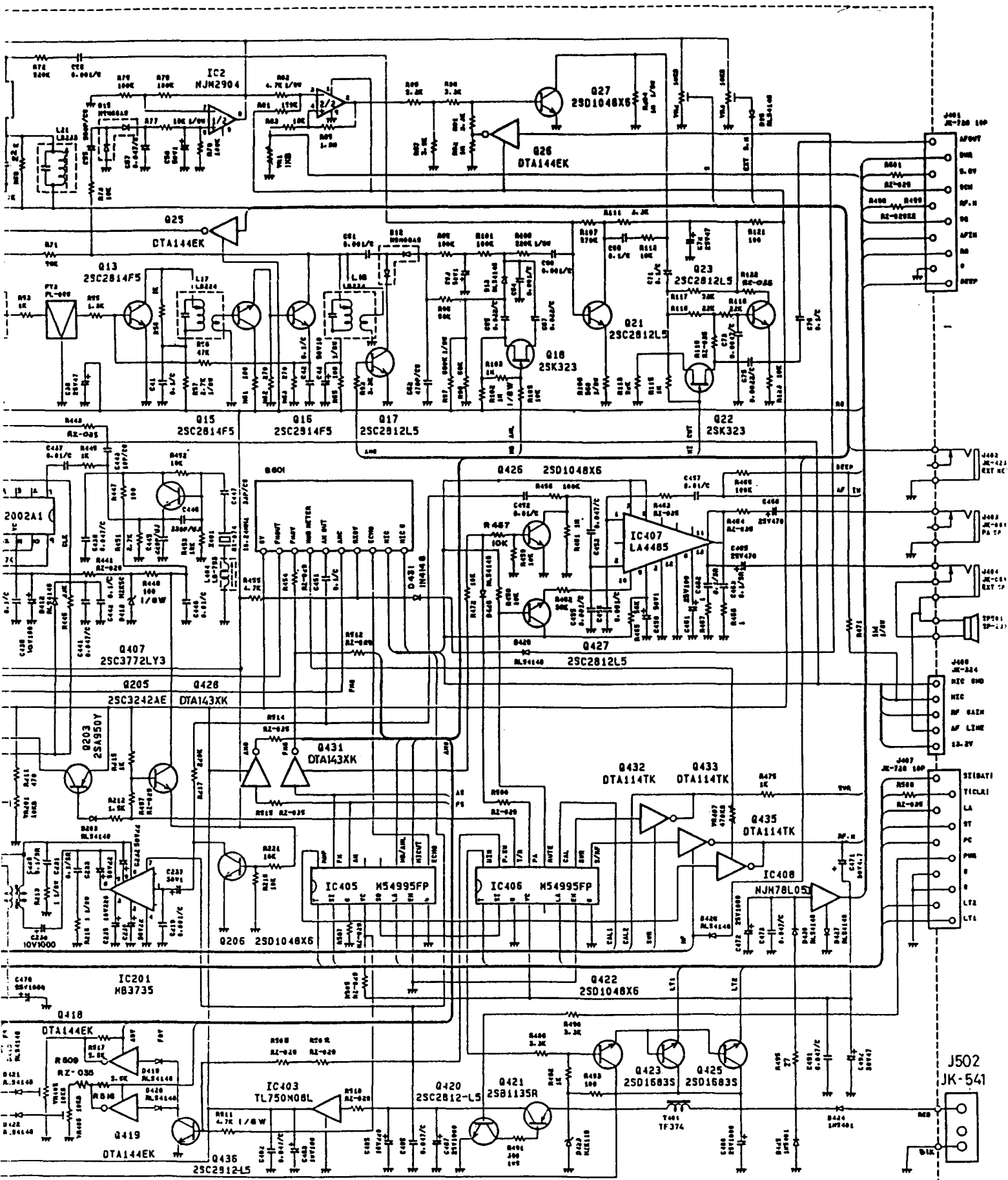
- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 2. RESISTOR WATTAGES ARE 1/16W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=PICTO-FARAD)

4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE DR UNLESS OTHERWISE NOTED.

5. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

DESIGN	ES2-0326	MODEL NO.	UT-341
DATE	83-02-08	DESIGNER	JAMES
CHKD BY	LCRM	TESTER	
APPROVED BY	[Signature]	SCHEMATIC DIAGRAM	
REV.	02	DATE	ES2-0326
			P.E.E.

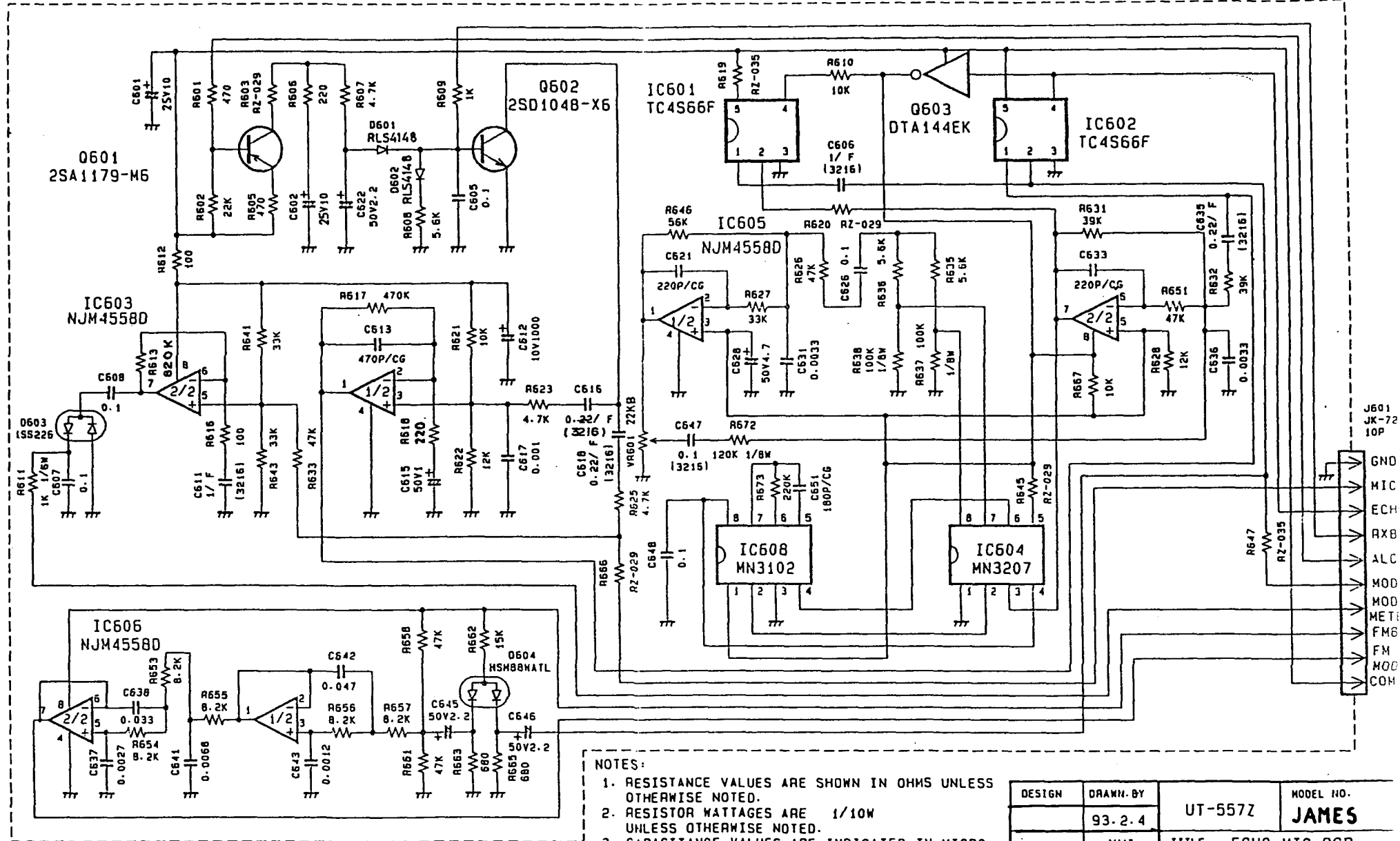




NOTES:

1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
2. RESISTOR WATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)
4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE SR UNLESS OTHERWISE NOTED.
5. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

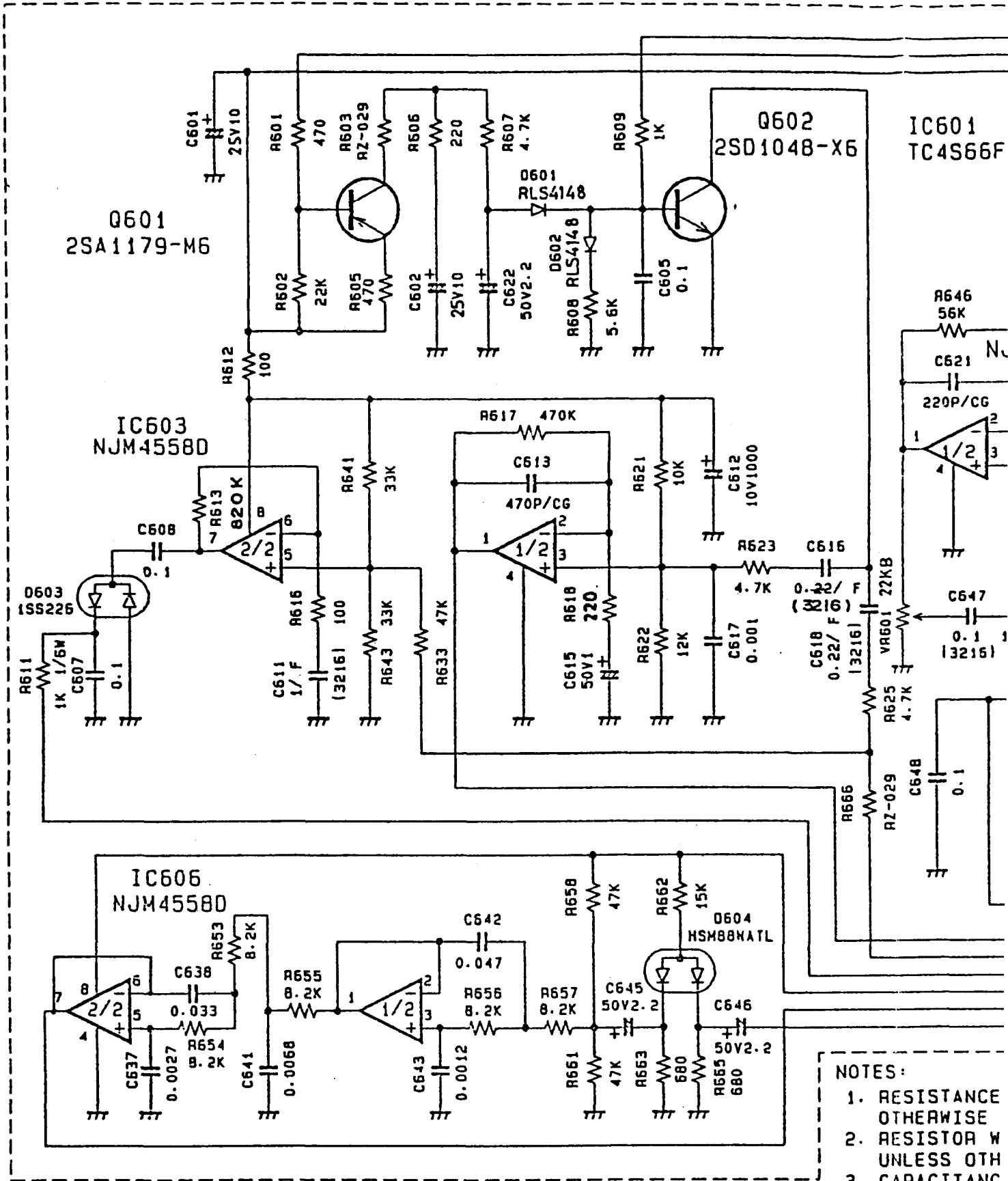
DESIGN	DATE	MODEL NO.	
ES2-0326	23.02.08	UT-341	JAMES
CHECKED BY	APPROVED BY	TITLE	
Robert M. [Signature]	[Signature]	SCHEMATIC DIAGRAM	
DATE	DATE	DRAWING NO.	
02/15/08	Feb. 8, '08	ES2-0326	
REV. NO.		P.E.E.	



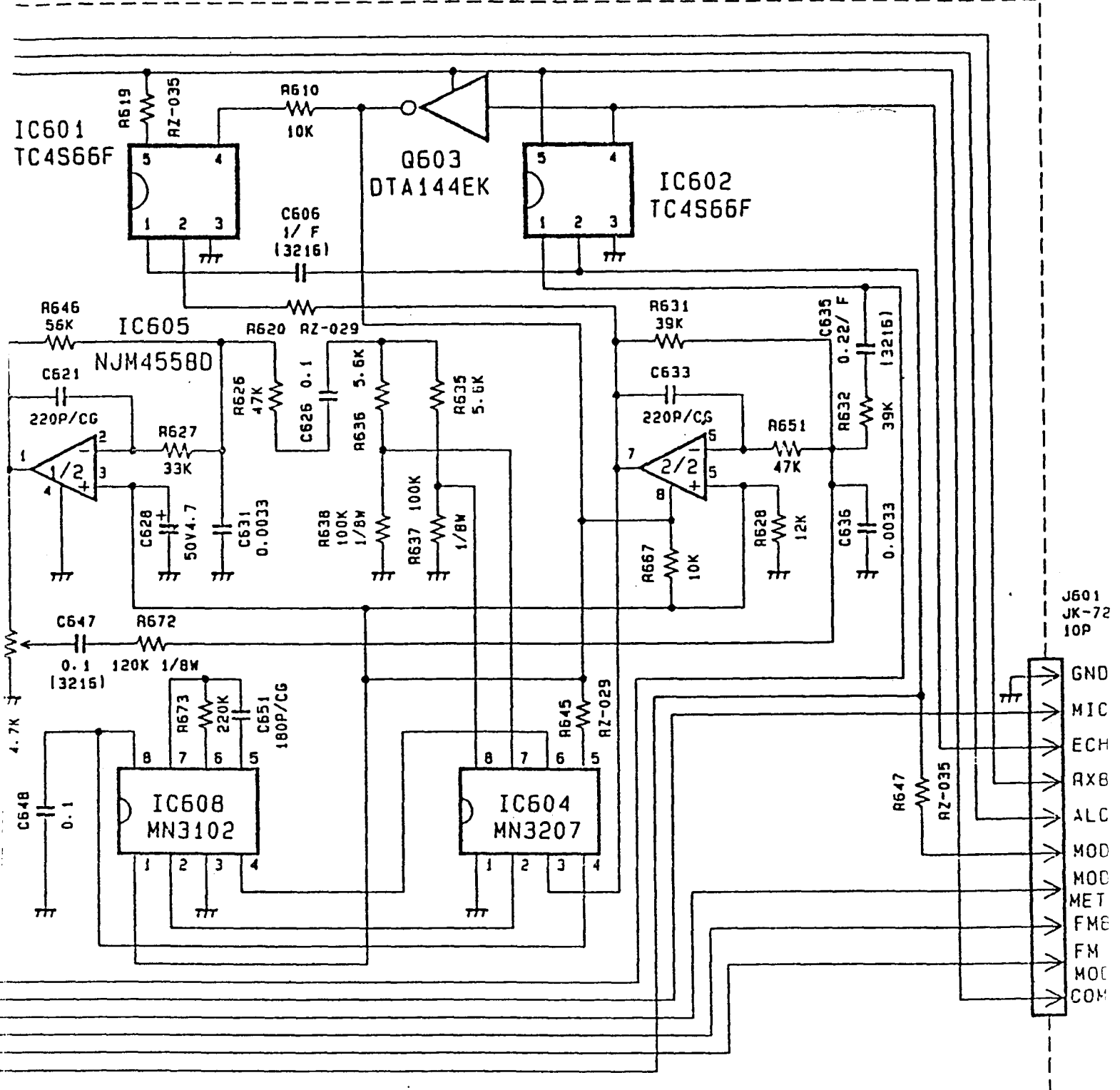
NOTES:

1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
2. RESISTOR WATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (p=MICRO-MICRO FARAD)
4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE B UNLESS OTHERWISE NOTED.
5. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

DESIGN	DRAWN BY	UT-557Z	MODEL NO.
	93.2.4		JAMES
CHECK BY	APPRO BY	TITLE ECHO MIC PCB SCHEMATIC DIAGRAM	
		DRAWING NO	
	Feb 23, 93	ES4-0334	
REV. NO.		P.E.E	



- NOTES:
1. RESISTANCE OTHERWISE
 2. RESISTOR W UNLESS OTH
 3. CAPACITANC FARADS UNL (P=MICRO-M
 4. ALL CAPACI ARE B UNL
 5. CHIP PARTS SCHEMATIC PLEASE REF THE CHIP P



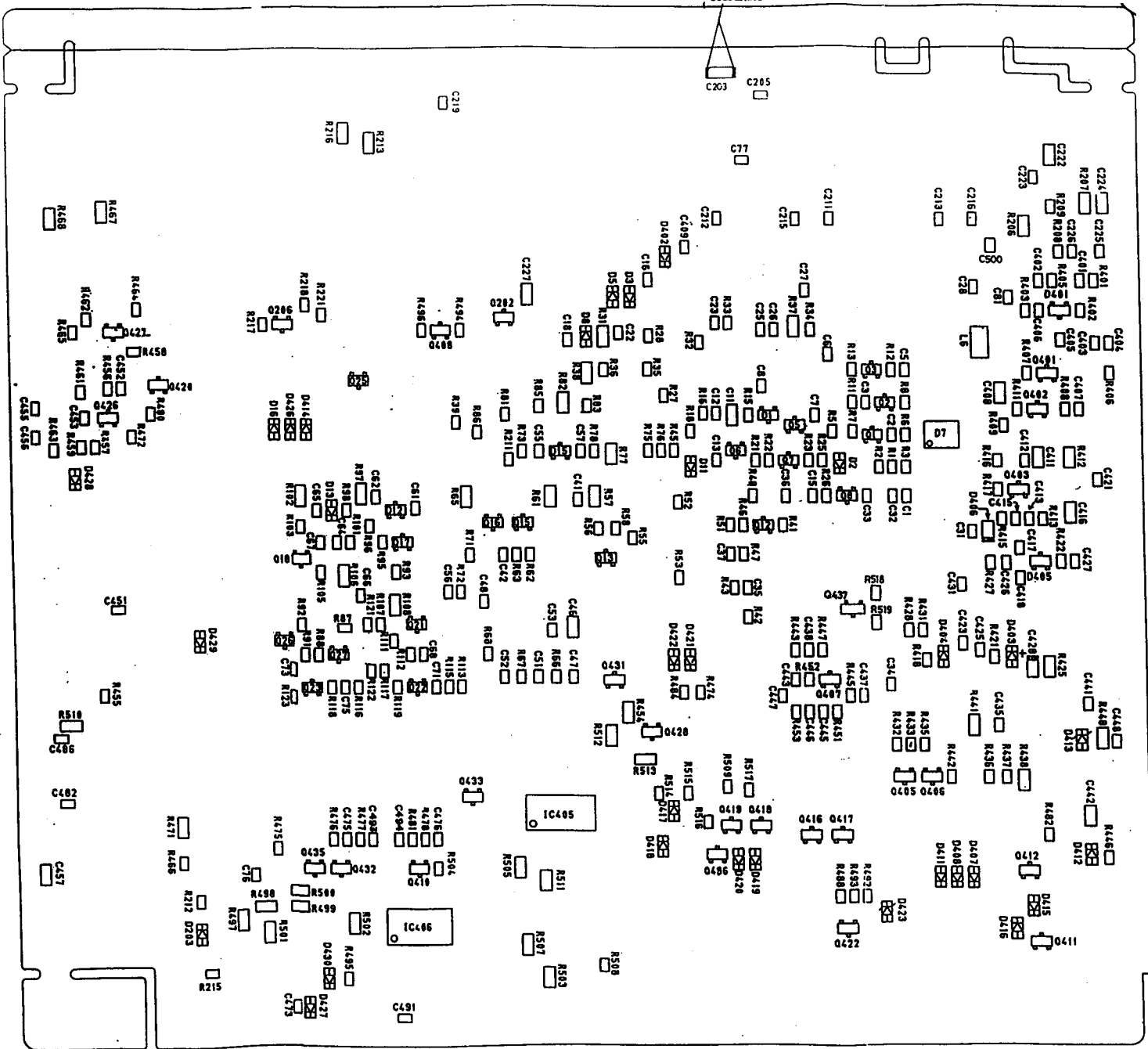
RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 RESISTOR WATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
 CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED.
 (P=MICRO-MICRO FARAD)
 ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE B UNLESS OTHERWISE NOTED.
 CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM.
 PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

DESIGN	DRAWN BY	UT-557Z	MODEL NO.
	93.2.4		JAMES
	YUI	TITLE	ECHO MIC PCB
CHECK BY	APPRO BY	SCHEMATIC DIAGRAM	
		DRAWING NO	
	Feb. 23, '93	ES4-0334	
REV. NO.		P.E.E	

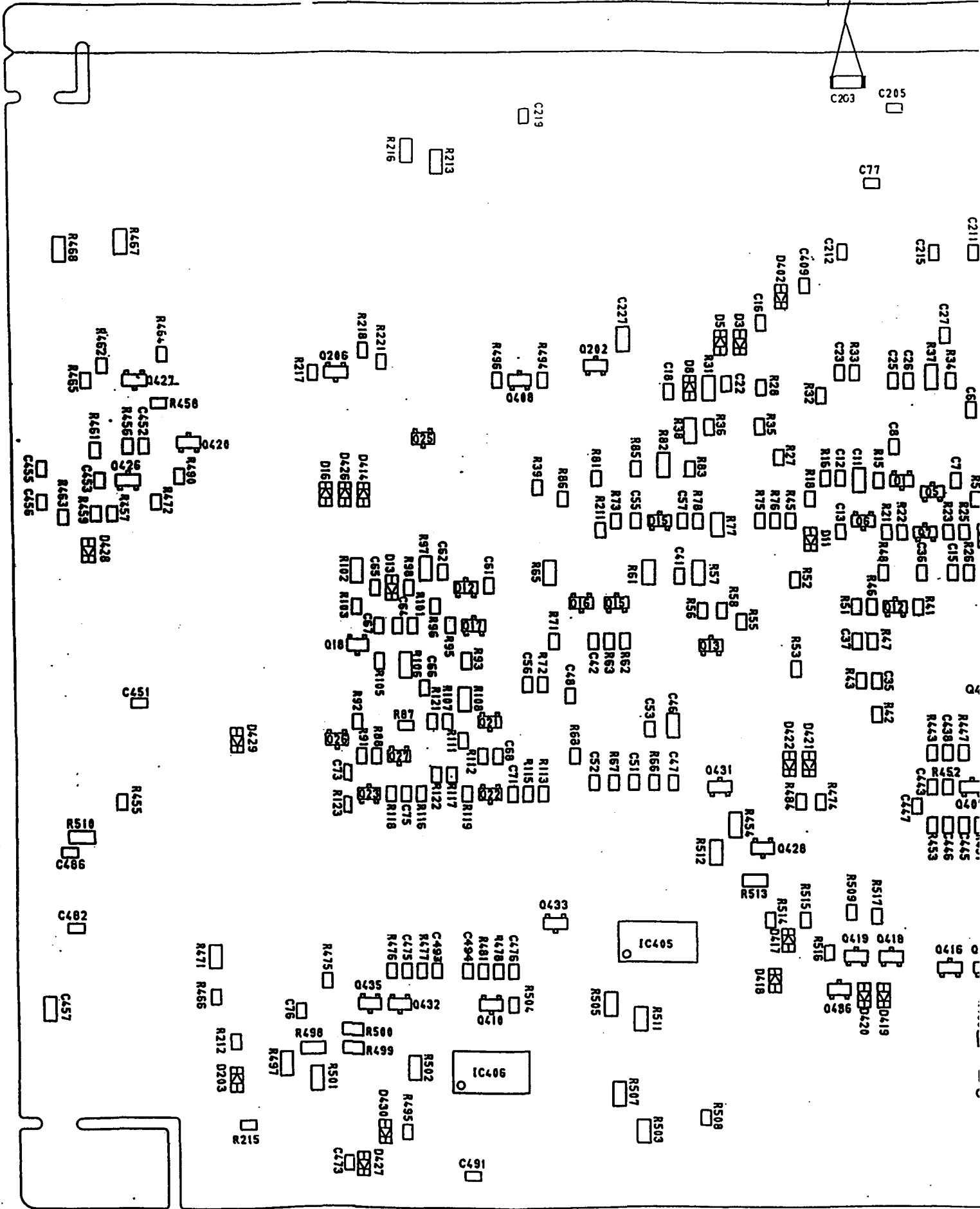
SOLDERING

PLATINE PRINCIPALE

Côté soudure

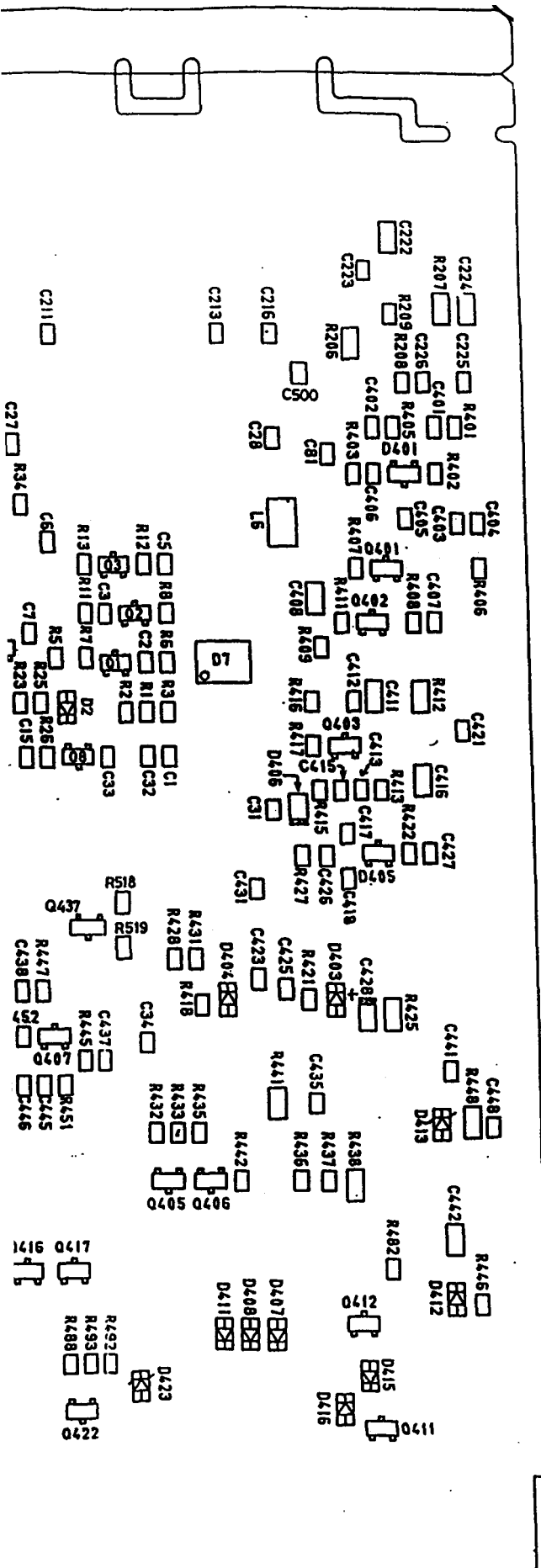


SOLDERING



PLATINE PRINCIPALE

Côté soudure



C21	50V22	C-130
C24	50V22	C-130
C38	25V47	C-130
C43	50V10	C-130
C45	25V47	C-130
C58	50V1	C-130
C63	50V1	C-130
C72	25V47	C-130
C78	50V1	C-130
C201	82P/RH	
C202	150P/CH	
C206	470P/UJ	
C207	470P/UJ	
C208	120P/RH	
C217	270P/CH	
C218	680P/SL	
C221	100P/CH	
C228	0.11SR1	
C230	10V1000	C-130
C231	0.11SR1	
C232	50V22	C-130
C233	50V22	C-130
C235	10V220	C-130
C236	50V22	C-130
C237	50V1	C-130
C422	50V22	C-130
C432	10V100	C-130
C433	50V1	C-130
C436	10V100	C-130
C458	50V1	C-130
C461	25V100	C-130
C462	0.11SR1	
C463	0.11SR1	
C465	25V470	C-130
C466	25V470	C-130
C468	50V1	C-130
C472	25V1000	C-130
C477	50V4.7	C-130
C478	25V1000	C-130
C483	10V100	C-130
C485	16V220	C-130
C487	25V1000	C-130
C488	25V1000	C-130
C492	50V47	C-130
C501	22P/CH	
D424	1N5401	
D425	1N5401	
Q11	25C1674-L	
Q201	25C2086-D	
Q203	25A950-Y	
Q205	25C3242A-E	
Q413	28B1135R	
Q415	25C3242A-E	
Q421	25B1135R	
Q423	25D1683-S	
Q425	25D1683-S	
IC1	1R3N86	
IC2	NJM2904S	
IC201	MB373S	
IC401	PLL2002A1	
IC402	NJM2904S	
IC407	LA4485	
IC608	UPC78L05J	

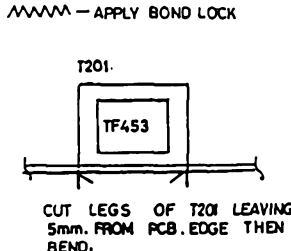
J401	JK-728	10P
J402	JK-423	
J403	JK-089	
J404	JK-089	
J406	JK-324	5P
J407	JK-728	10P
L1	LB343	
L2	LB957	
L3	LD-201	
L5	LZ-041	Q221H
L7	LD-193	
L8	LD-193	
L11	LB-948	
L12	LB-948	
L13	LB-341	
L15	LB-119	
L16	LB-313	
L17	LB-224	
L19	LB-224	
L21	LB233	
L201	LE-096	0 1/2T
L202	LE-502	9/16T
L203	LE-096	0 1/2T
L205	LC-218	
L206	LE-187	7T
L207	LE212	2 1/2T
L208	LD-087	
L211	LD-201	
L401	LD-201	
L402	LB-955	
L403	LB-955	
L404	LB-793	
L405	LD-087	
X431	QX-974	
	10.240	
R17	470K	1/6W
R201	10K	1WS
R202	150	
R203	10	
R423	3.3K	
R426	10K	
R483	180	1WS
R485	82	1WS
R486	82	1WS
R491	390	1WS
R205	22	
VR1	RT-528	1KB
VR2	RT-528	10KB
VR3	RT-528	10KB
VR201	RT-528	10KB
VR400	RT-528	10KB
VR401	RT-528	47KB
VR405	RT-528	10KB
VR406	RT-528	10KB
VR407	RT-528	470KB
VR408	RT-528	10KB
VR409	RT-528	10KB

T201	TF-453	
T401	TF-374	
FT001	FL-566	
FT002	FL-055	
FT003	FL-066	
JV1	12.5	
JV2	10	
JV3	5	
JV4	17.5	
JV5	7.5	
JV6	7.5	
JV7	15	
JV8	15	
JV9	15	
JV10	10	
JV11	5	
JV12	17.5	
JV13	15	
JV14	15	
JV15	7.5	
JV16	7.5	
JV17	7.5	
JV18	15	
JV19	12.5	
JV20	17.5	
JV21	20	
JV22	25	
JV23	20	
JV24	7.5	
JV26	15	
JV27	7.5	
JV28	12.5	
JV29	10	
JV30	20	
JV31	20	
JV32	5	
JV33	10	
JV34	10	
JV36	27.5	
JV37	15	
JV38	15	
JV39	30	
JV40	17.5	
JV41	7.5	
JV42	27.5	
JV43	12.5	
JV44	5	
JV47	5	
JV48	20	
JV49	15	
JV50	5	
JV51	5	
JV52	25	
JV53	25	
JV54	7.5	
JV55	12.5	
JV56	22.5	
JV57	10	
JV58	15	
JV59	17.5	
JV60	7.5	
JV61	7.5	
JV62	7.5	
JV63	7.5	
JV64	5	
JV65	7.5	

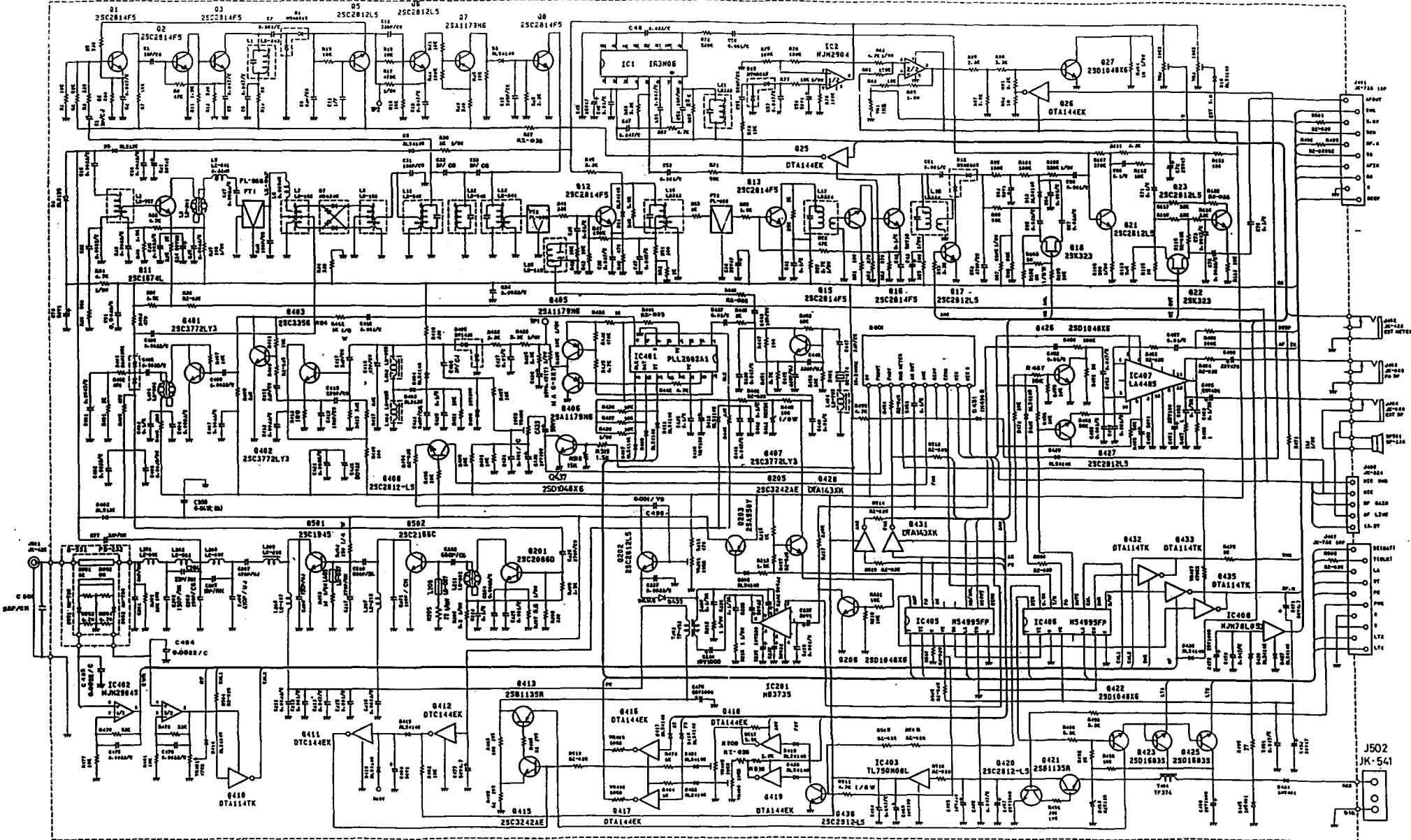
JV66	7.5	
JV67	10	
JV68	10	
JV69	7.5	
JV70	10	
JV71	10	
JV72	17.5	
JV73	12.5	
JV74	10	
JV75	7.5	
JV76	17.5	
JV77	7.5	
JV78	12.5	
JV79	7.5	
JV82	15	
JV83	10	
JV84	17.5	
JV85	15	
JV87	10	
JV88	10	
JV89	15	
JV90	7.5	
JV91	5	
JV92	12.5	
JV93	7.5	
JV94	12.5	
JV95	12.5	
JV96	12.5	
JV97	12.5	
JV98	15	
JV99	7.5	
JV100	7.5	
JV101	7.5	
JV102	7.5	
JV103	5	
JV104	7.5	
JV105	15	
JV106	7.5	
JV107	7.5	
JV108	17.5	
JV109	7.5	
JP2	10	
JP3	10	
JP4	10	
JP5	10	
JP6	10	
JP7	20	
JP8	30	
JP9	10	
JP10	22.5	

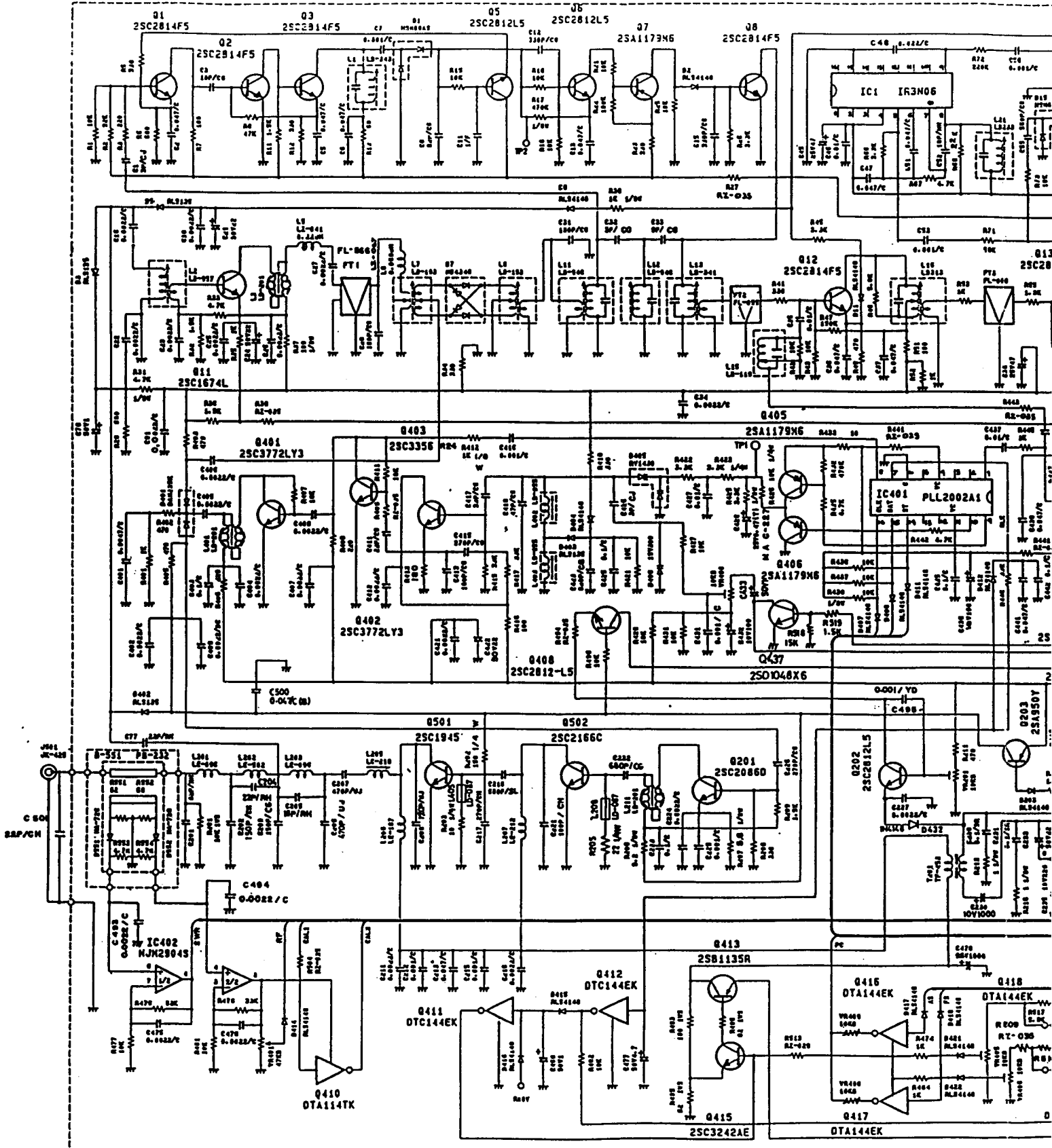
- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 2. RESISTOR WATTAGES ARE 1/4 W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=MICRO-MICRO FARAD)

DESIGN	UT-341Z	MODEL NO.	JAMES
CHECK BY	NORIE R.	TITLE	MAIN PCB PARTS ASSY TOP VIEW
APPRO. BY		DRAWING NO.	EM2-0961
REV. NO.			PHILS. IN

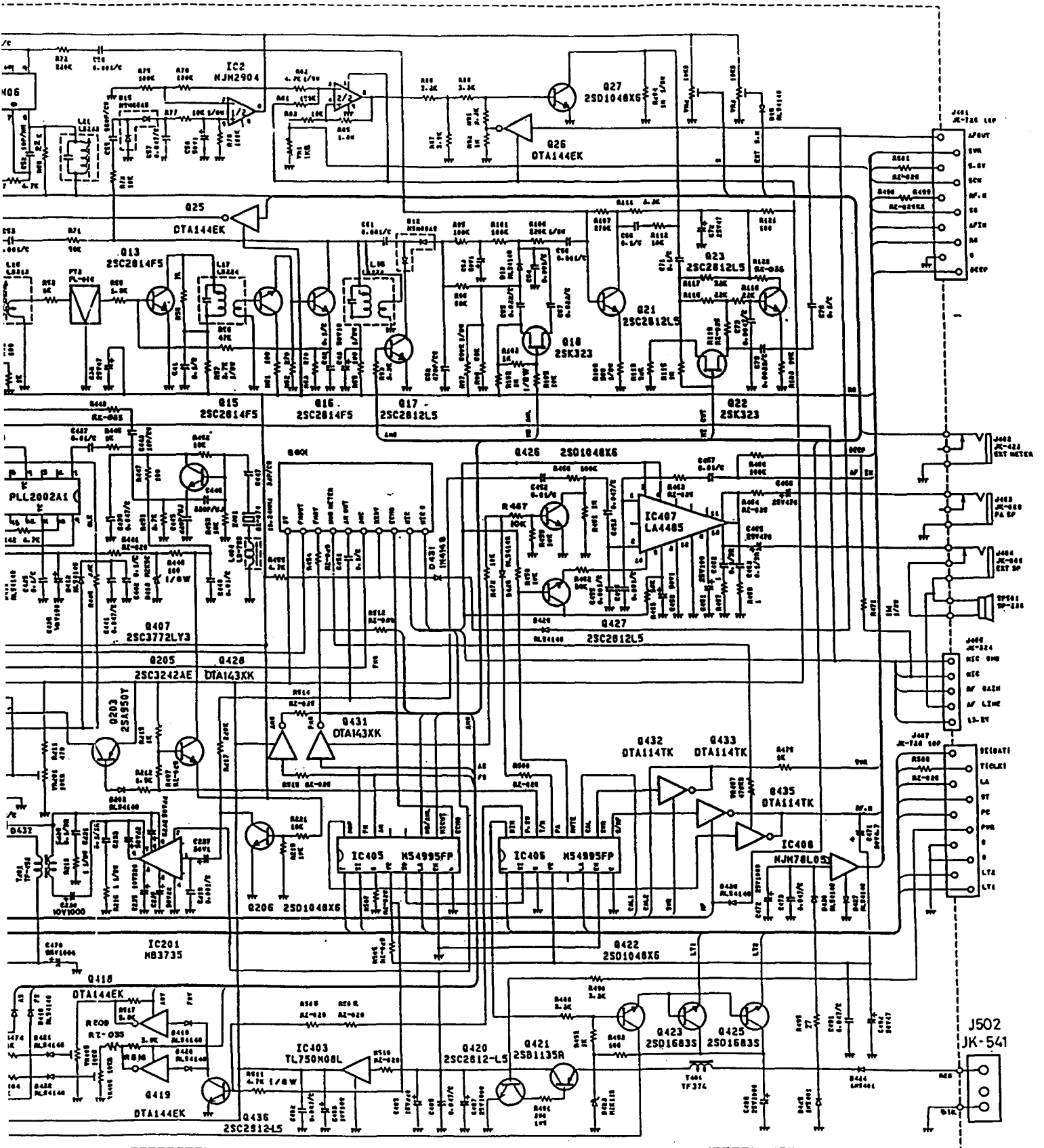


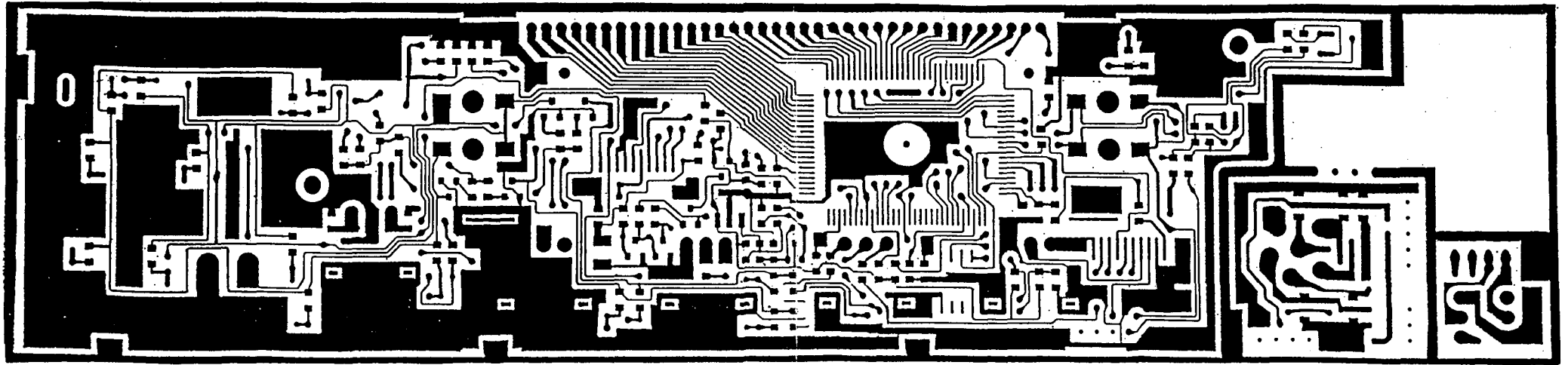
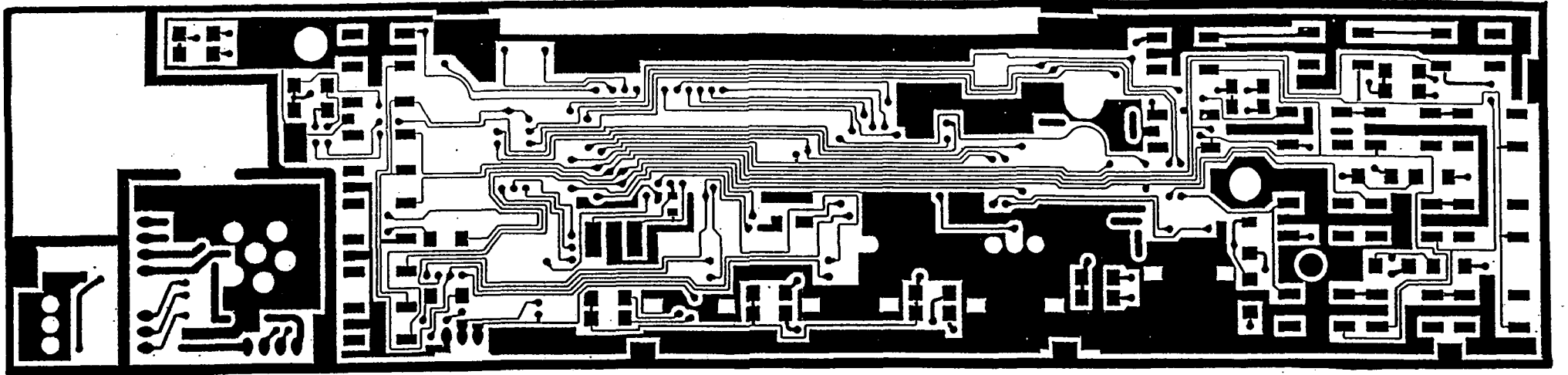
8001 PA-352

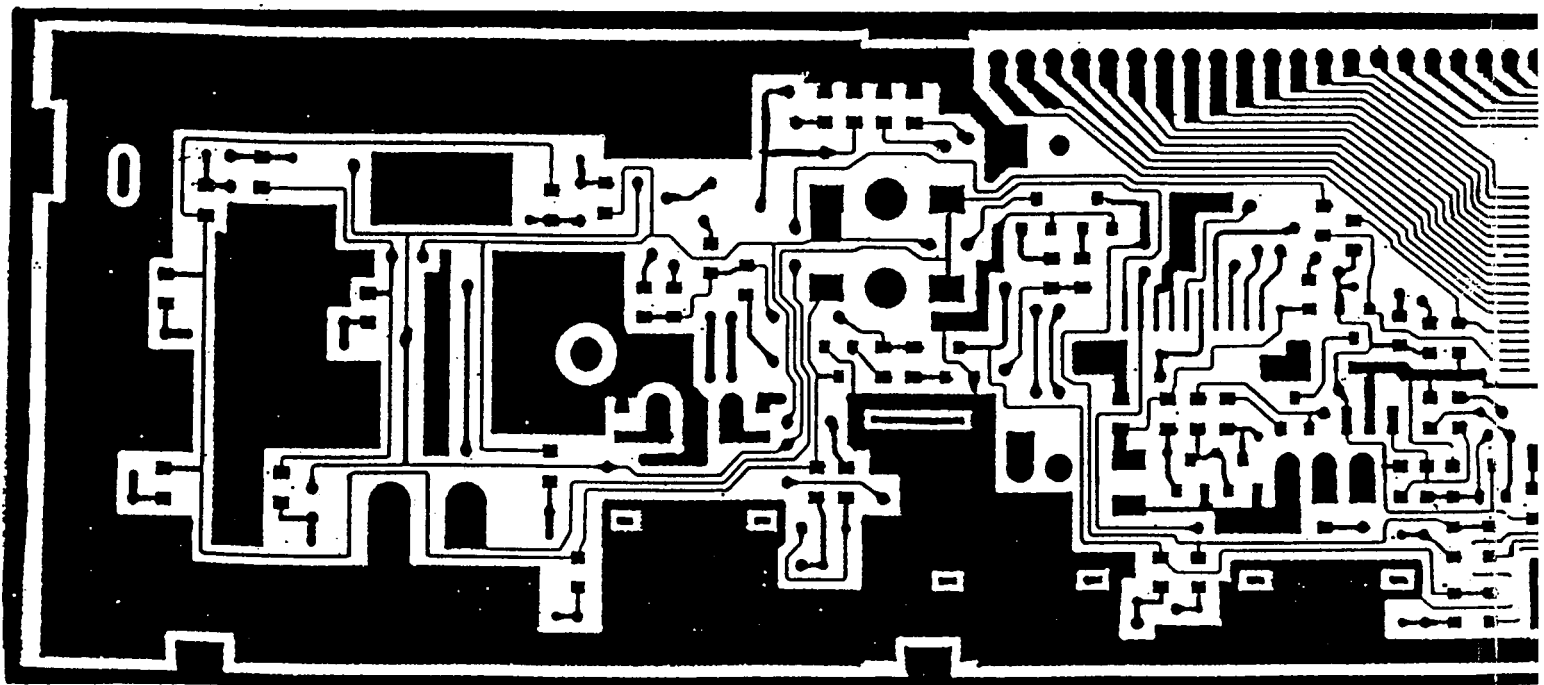
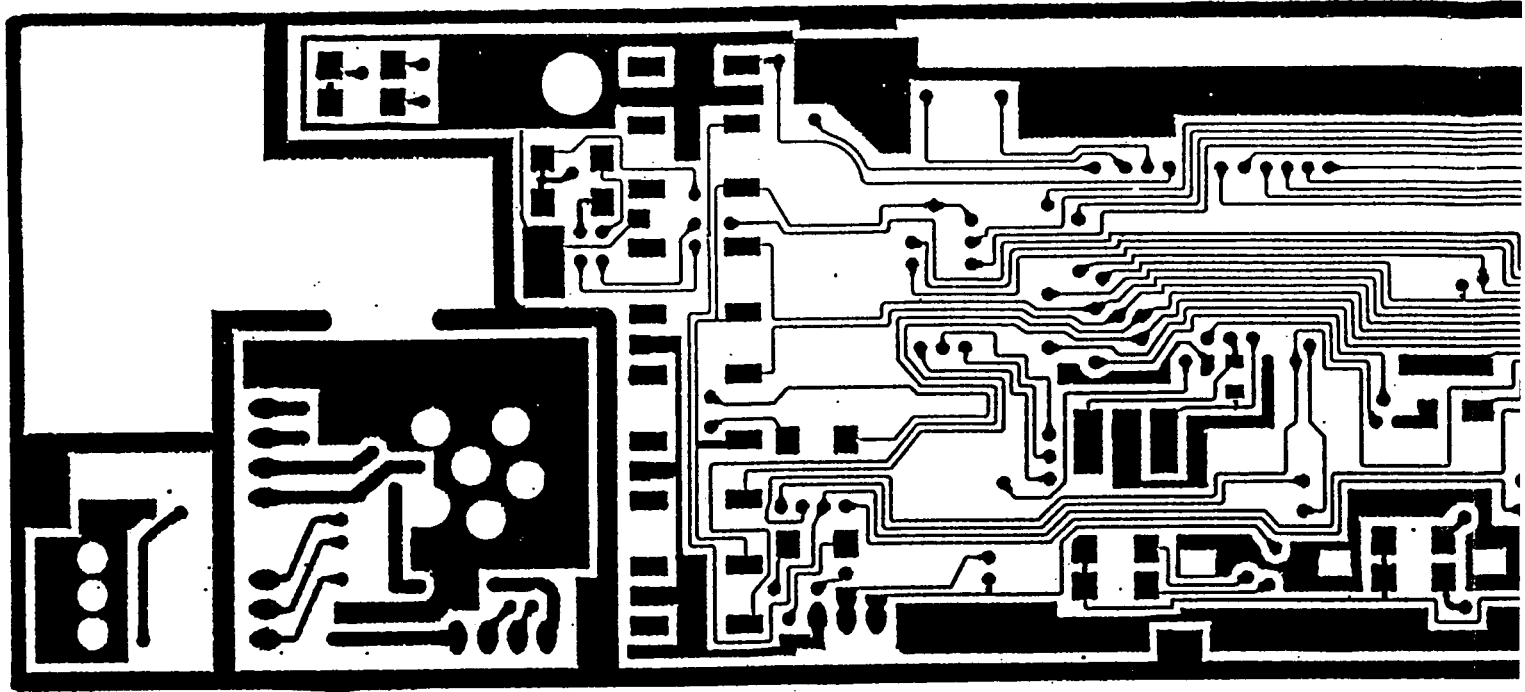


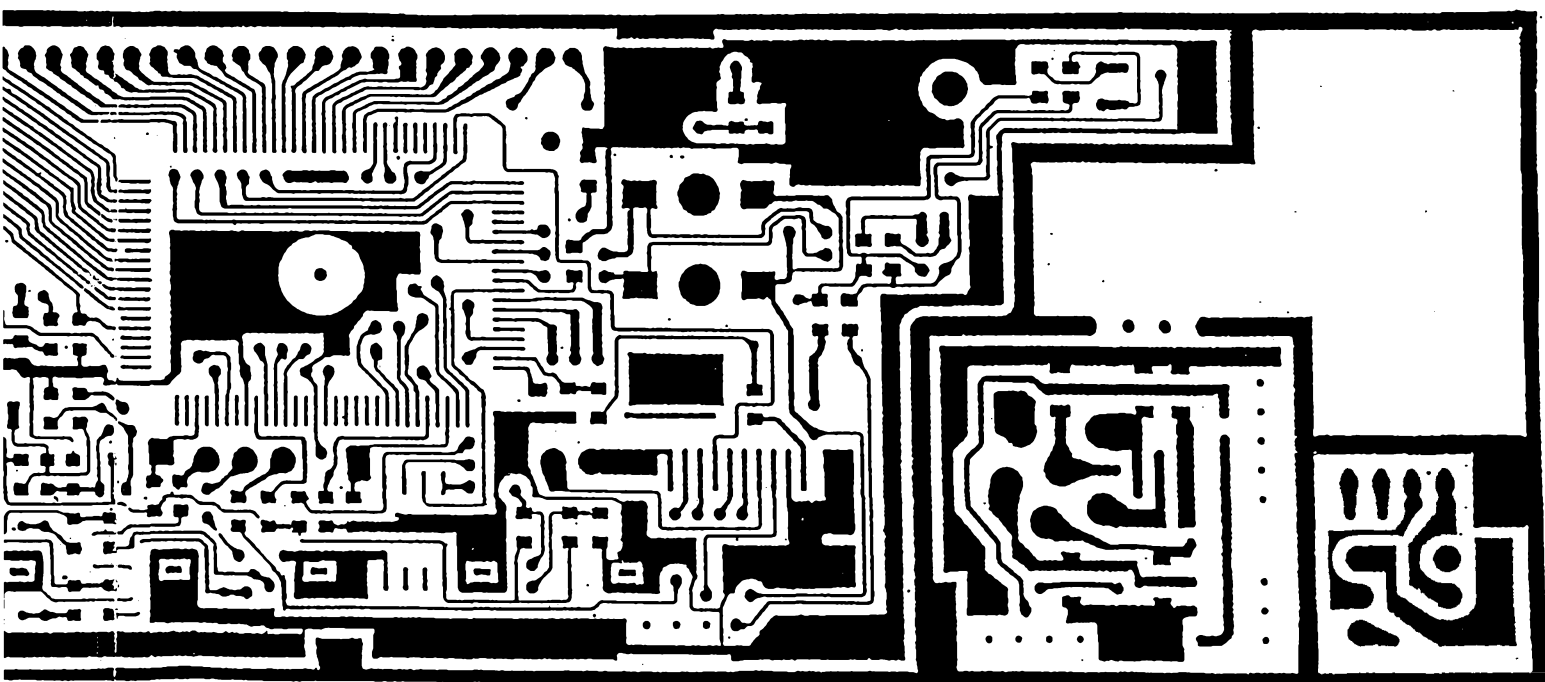
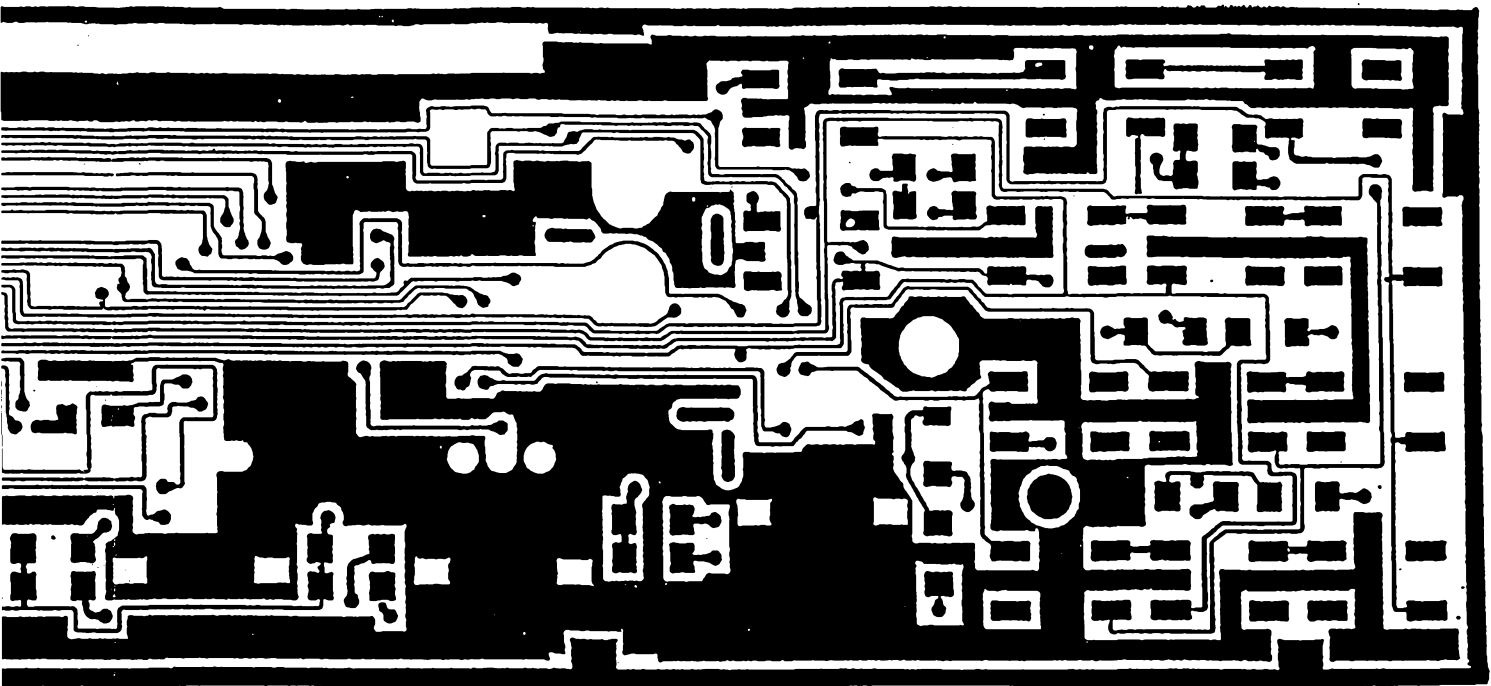


JAMES

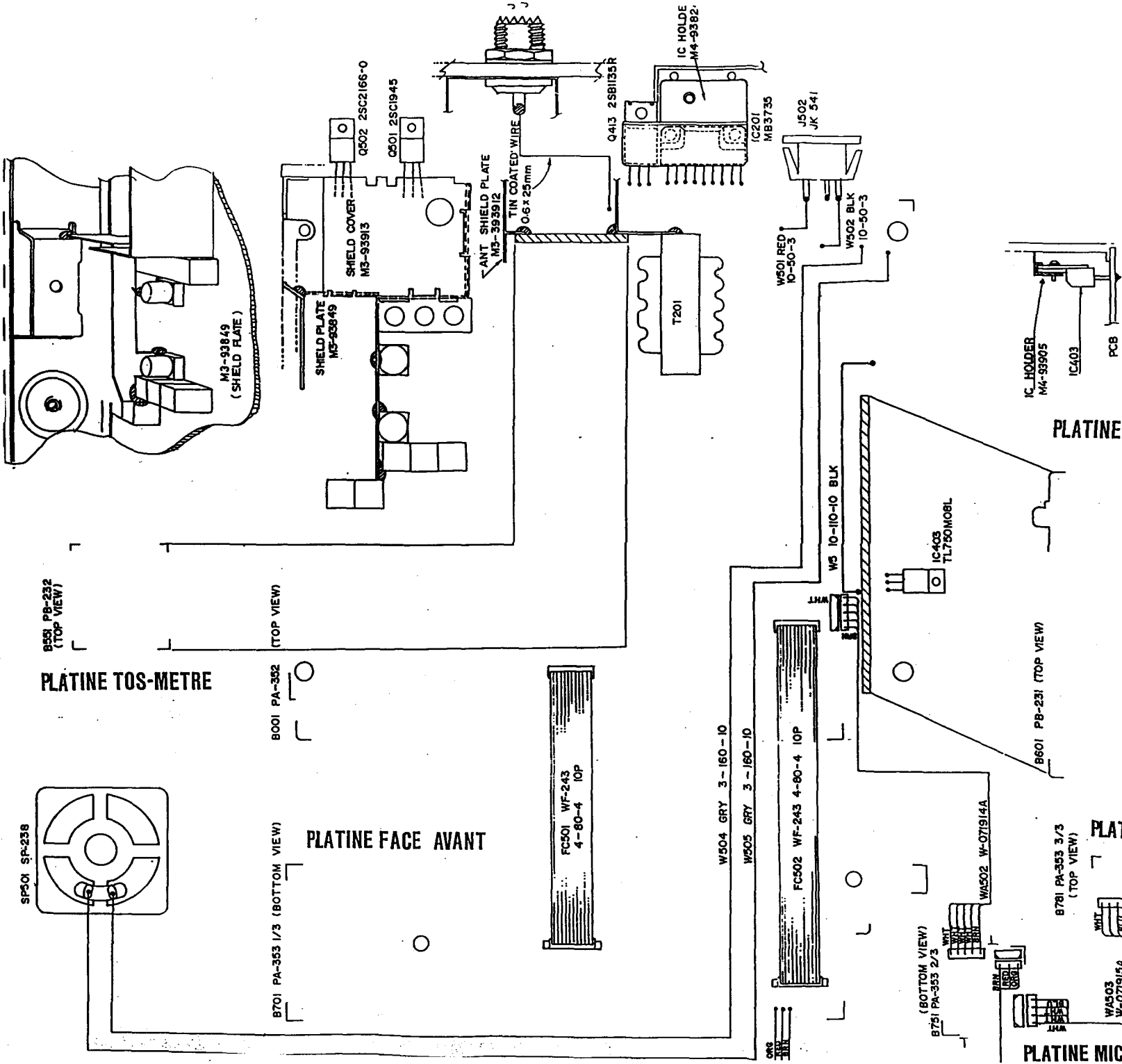








SCHEMA DE CABLAGE



PLATINE ECHO

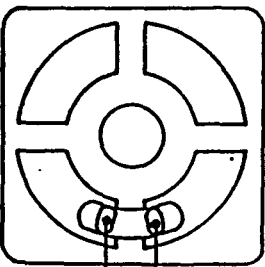
PLATINE TOS-METRE

PLATINE FACE AVANT

PLATINE MICRO

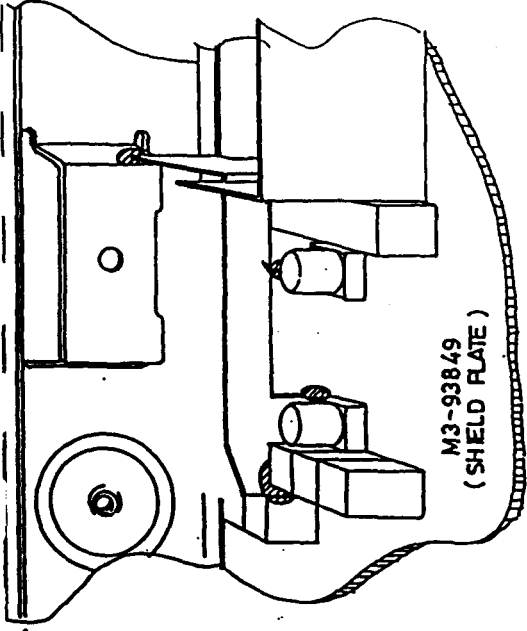
PLATINE VOLUME

SP501 SP-238



PLATINE TOS-METRE

B551 PB-232
(TOP VIEW)

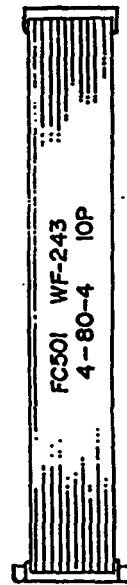
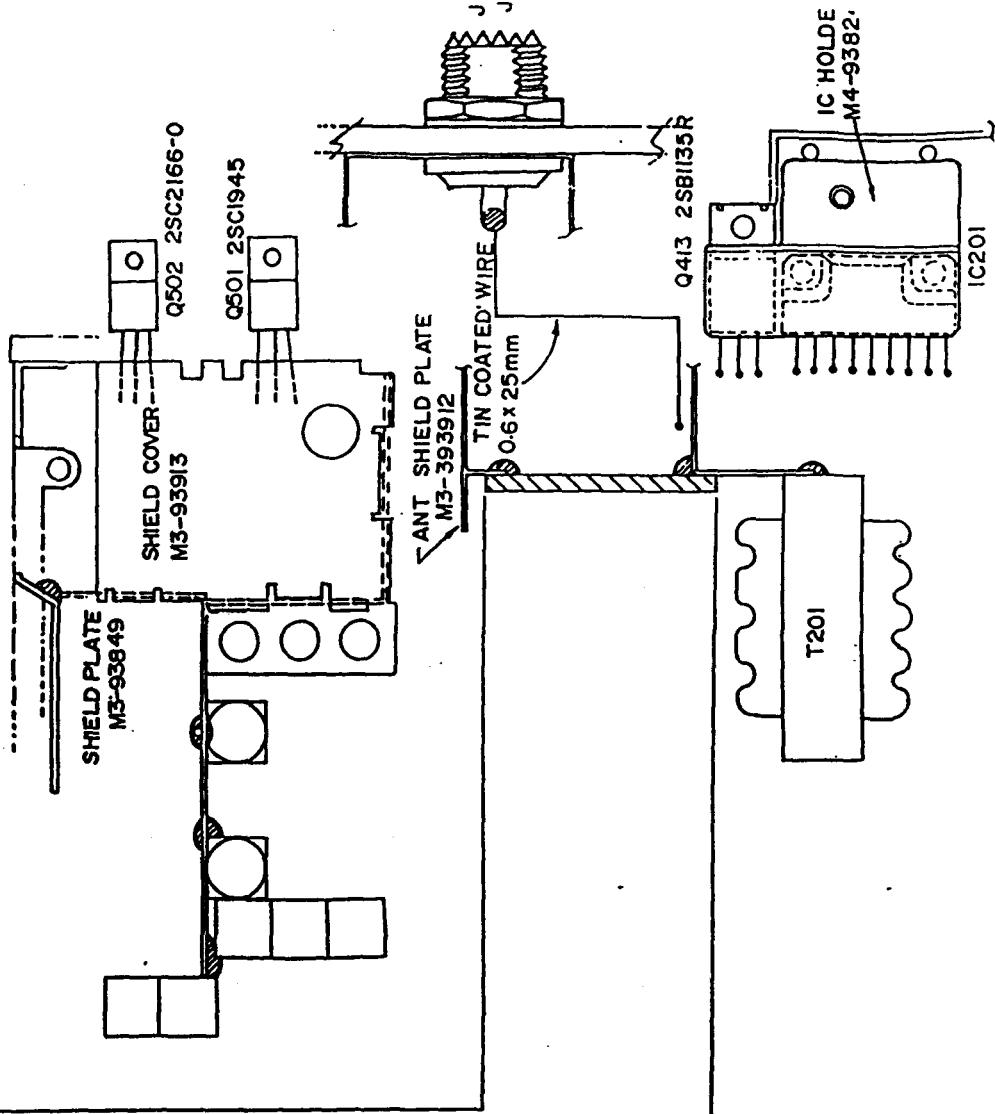


B701 PA-353 1/3 (BOTTOM VIEW)

PLATINE FACE AVANT

B001 PA-352

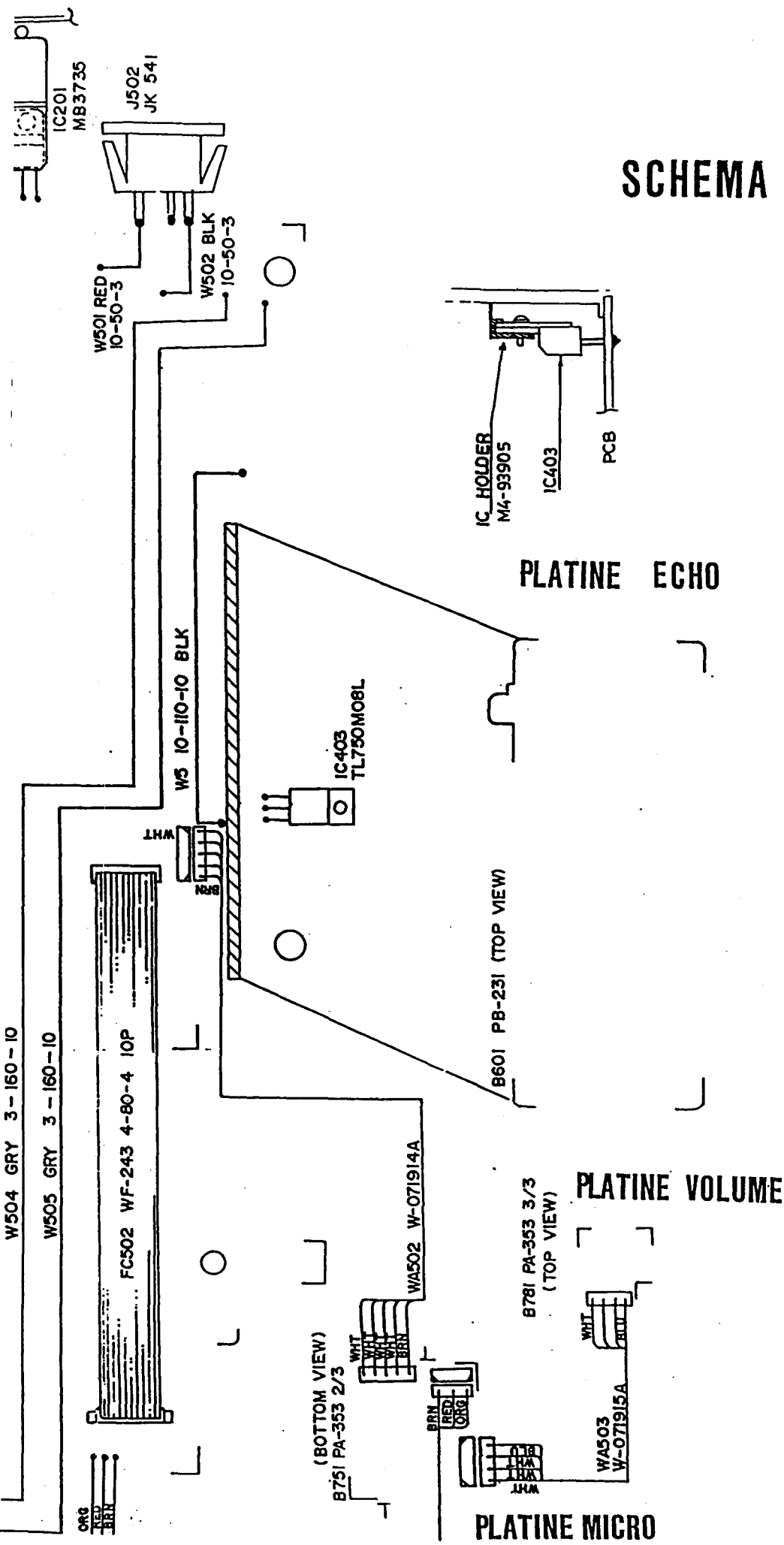
(TOP VIEW)



W504 GRY 3-160-10

W505 GRY 3-160-10

SCHEMA DE CABLAGE



PLATINE ECHO

PLATINE VOLUME

PLATINE MICRO

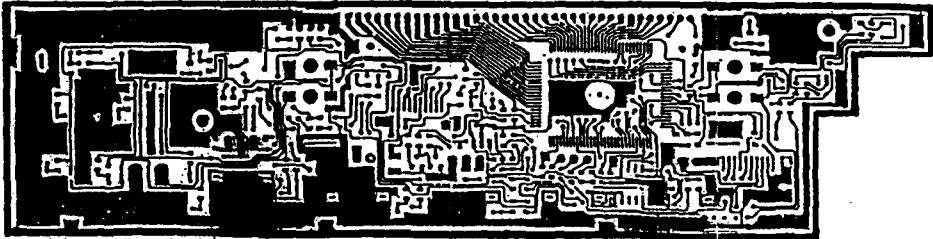
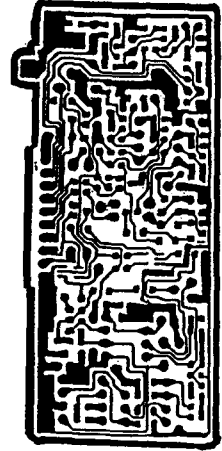
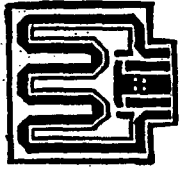
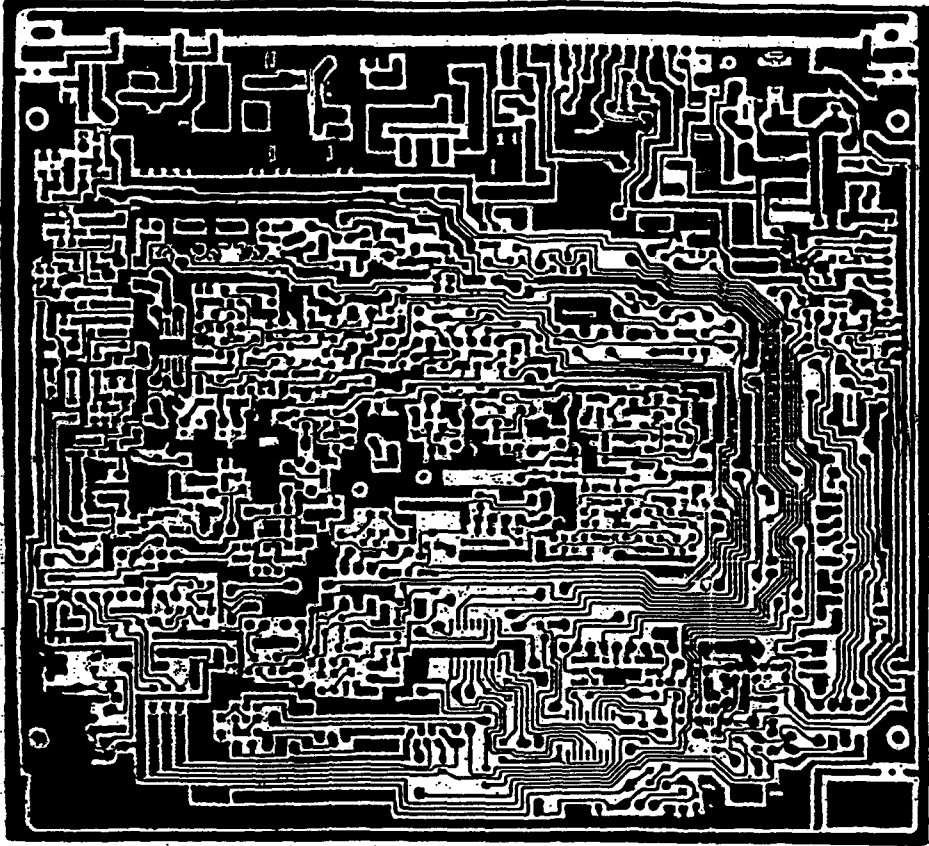


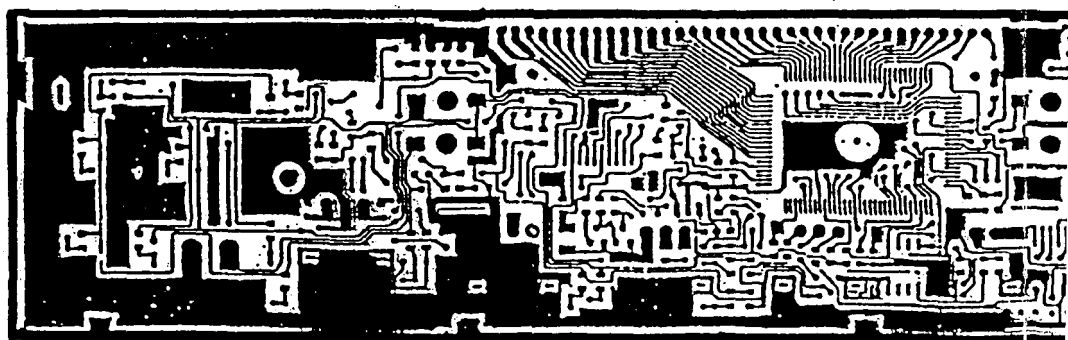
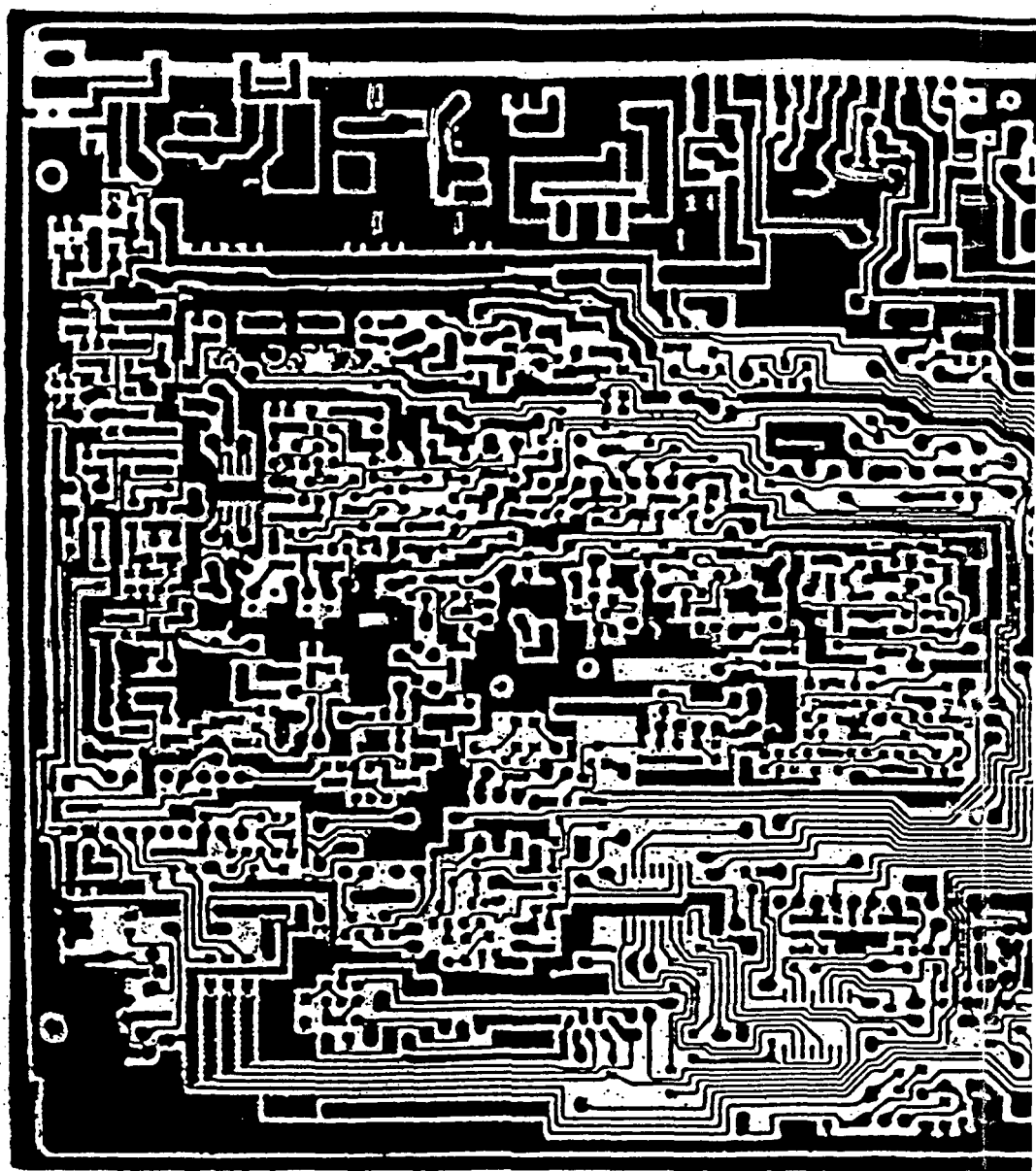
JAMES MEASUREMENT READINGS

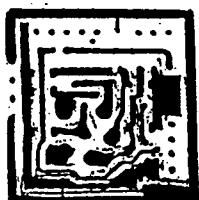
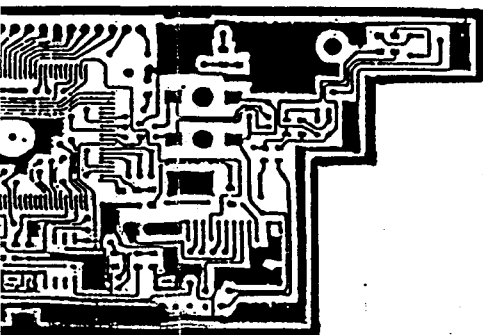
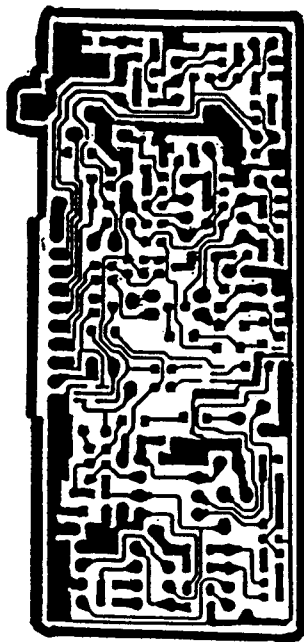
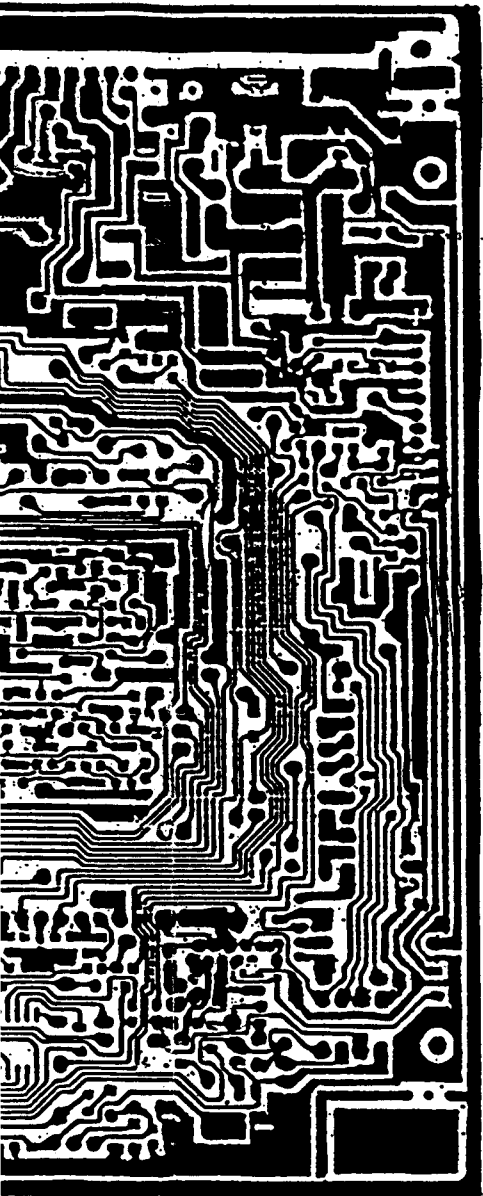


*** OSCILLOGRAMS**

*** VOLTAGE OF INTEGRATED CIRCUITS AND TRANSISTORS**

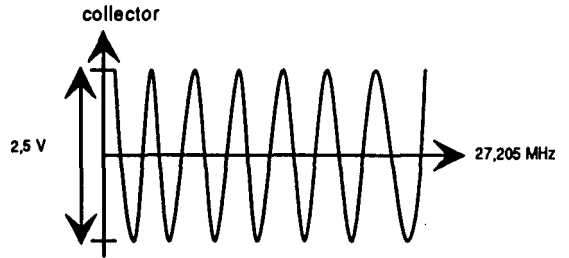
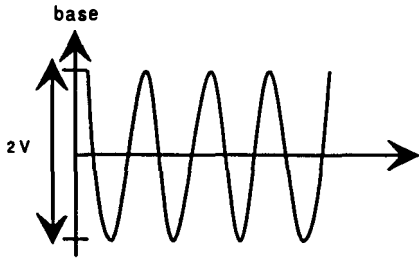




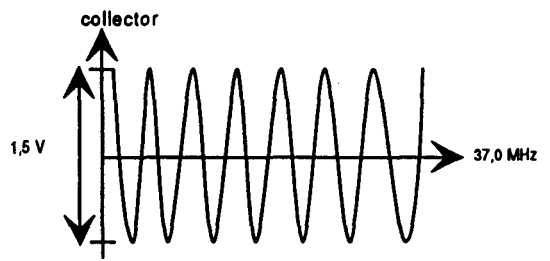
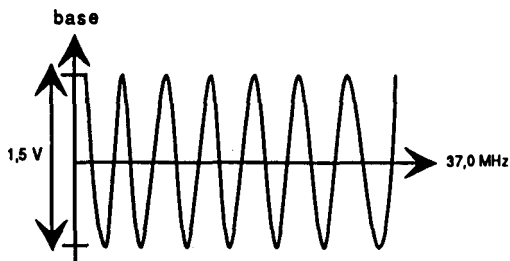


OSCILLOGRAMS

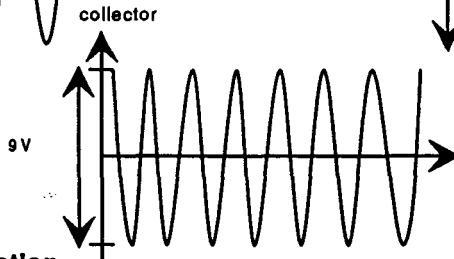
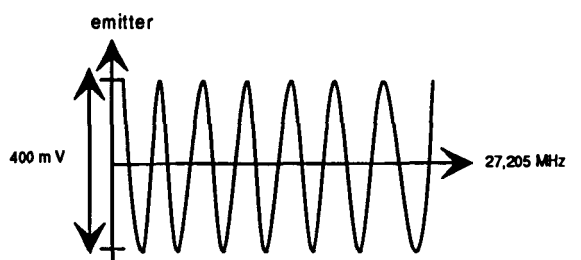
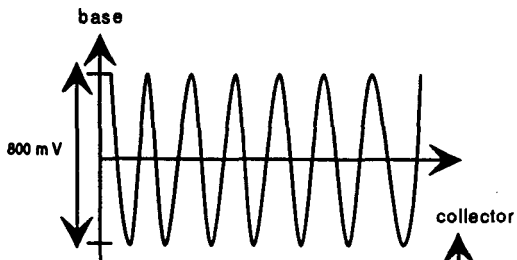
Q 401 - AM without modulation - In TX channel 20



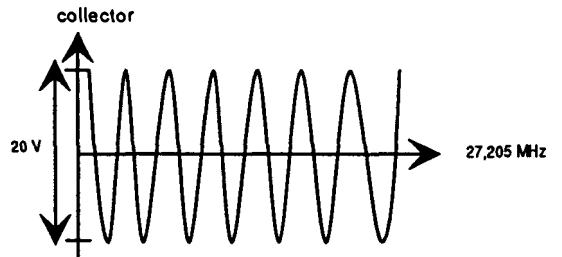
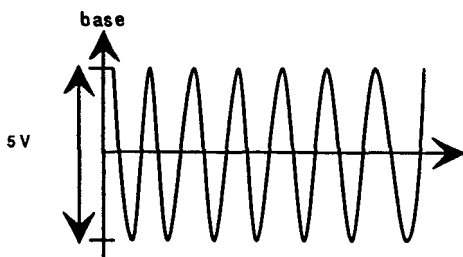
Q 401 - AM without modulation - RX



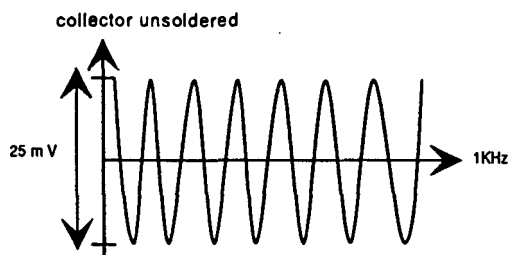
Q 201 - AM without modulation - In TX channel 20



Q 502 - AM without modulation



Collector of Q 502 coil output L 26 - 1000 Hz in modulation



INTEGRATED CIRCUIT VOLTAGES

IR3N06 - MOD. FM.RX

PINS	
1	NC
2	NC
3	NC
4	8 V
5	1 V
6	1 V
7	1 V
8	8 V
9	4,40 V
10	-
11	-
12	-
13	-
14	-
15	0 V
16	-

IC2NJM2904

	SQUELCH ON	SQUELCH OFF
1	8 V	8 V
2	6,71 V	0 V
3	0,362 V	0,362 V
4	3,8 V	0 V
5	0 V	0 V
6	0 V	0 V
7	0 V	0 V
8	0 V	0 V
9	NC	NC

	Name of the integrated circuits	Pins	Reception (V)	Emission (V)
IC201	MB3735	1	3,3	3,3
		2	3,3	3,3
		3	3,4	3,4
		4	0	0
		5	6,7	6,7
		6	12,1	11,7
		7	13,1	12,8
		8	6,6	6,35
		9	12	1,75

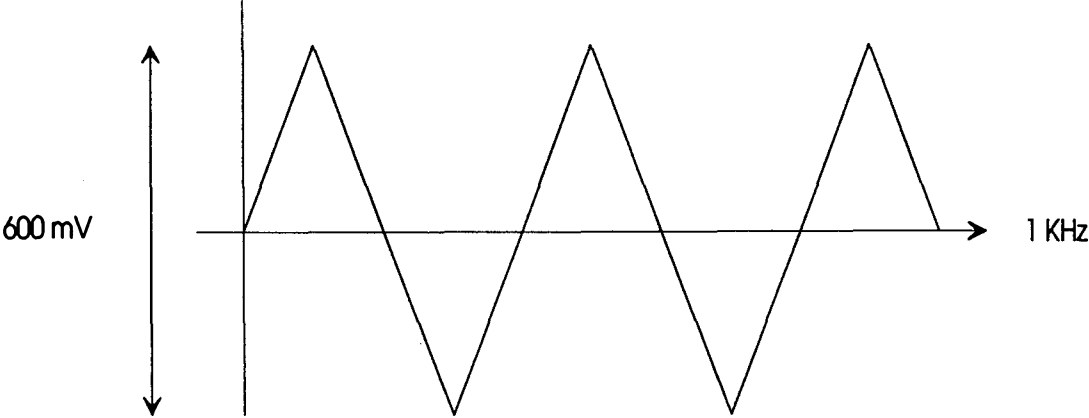
LA 4485 - BF

	Reception	Emission
1	6,82 V	-0,163 V
2	0	0
3	6,82 V	-0,126 V
4	0	2,342 V
5	1,014 V	0,745 V
6	13,2 V	13,2 V
7	13,2 V	13,2 V
8	6,53 V	0
9	(NC)	(NC)
10	0,7 V	0
11	0	0
12	1,27 V	0,5 V
13	1,27 V	0,3 V

VOLTAGE OF THE PLL 2002

1	2,6 V
2	5,25 V
3	0 V
4	NC
5	5,28 V
6	0 V
7	2,874 V
8	2,806 V
9	5,26 V
10	5,28 V
11	5,27 V
12	0 V
13	0 V
14	0,6 V
15	0,603 V
16	0,609 V

FM output of the mike/echo PCB10mV 1 KHz



IC 601

	ECHO ON	ECHO OFF
1	4,3 V	0 V
2	4,3 V	320 mV
3	0 V	0 V
4	8 V	0 V
5	8 V	0 V

IC 602

	ECHO ON	ECHO OFF
1	4,3 V	4,3 V
2	0 V	4,17 V
3	0 V	0 V
4	0 V	8 V
5	8 V	8 V

Q 425

Lamp strongly lit

e	b	c
13 V	10 V	10,63 V

Q 423

Lamp strongly lit

e	b	c
13 V	7,46 V	8,0 V

Lamp weakly lit

e	b	c
13 V	7,41 V	10,63 V

Lamp weakly lit

e	b	c
13 V	7,41 V	10,63 V

Q 121

	e	b	c
OFF	13,30 V	12,92 V	0
ON	13,30 V	12,4 V	13,12 V

Q 413

	e	b	c
RX	13 V	12,7 V	0,8 V
TX	13 V	12 V	11 V

▨ DIODES - TRANSISTORS - INTEGRATED CIRCUITS ▨

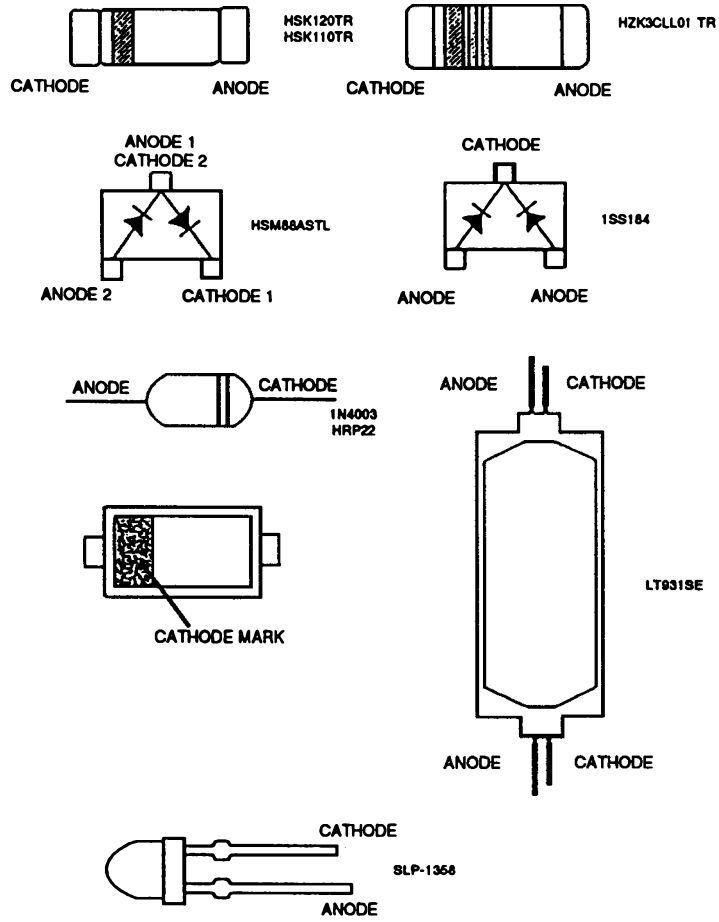
*** PIN DIAGRAMS OF DIODES**

*** PIN DIAGRAMS OF TRANSISTORS**

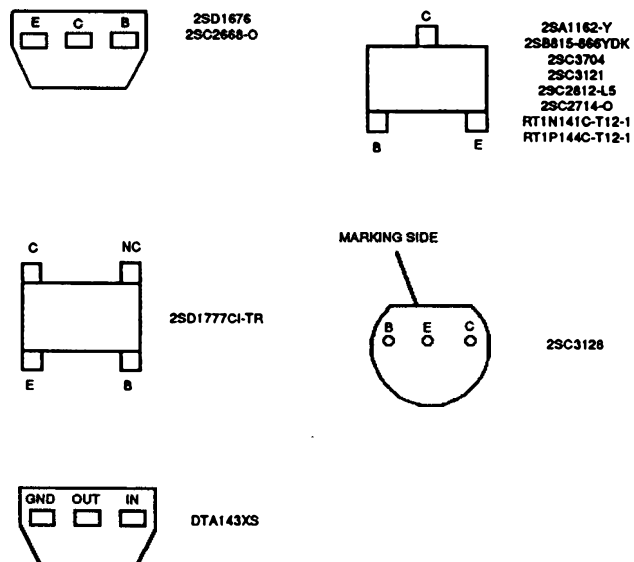
*** PIN DIAGRAMS OF CIRCUITS INTEGRES**

PIN DIAGRAM OF SEMI-CONDUCTORS

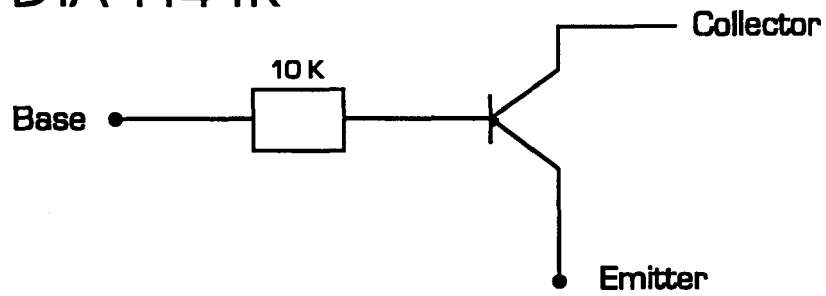
DIODES



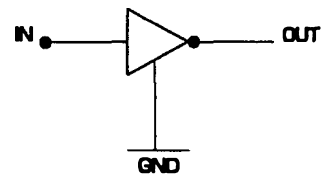
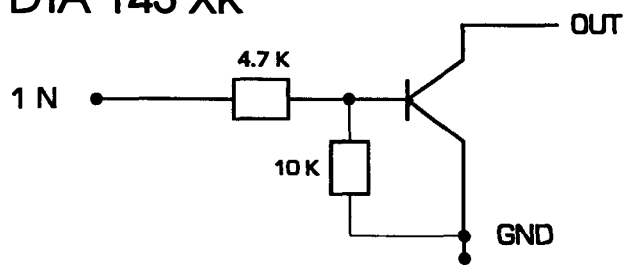
TRANSISTOR



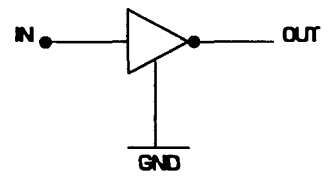
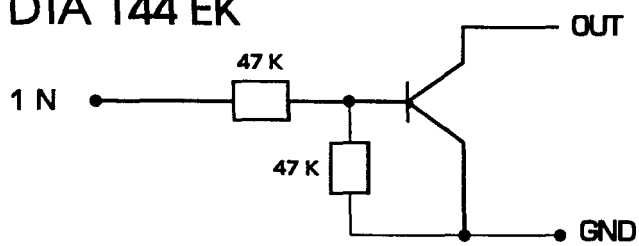
DTA 114 TK



DTA 143 XK

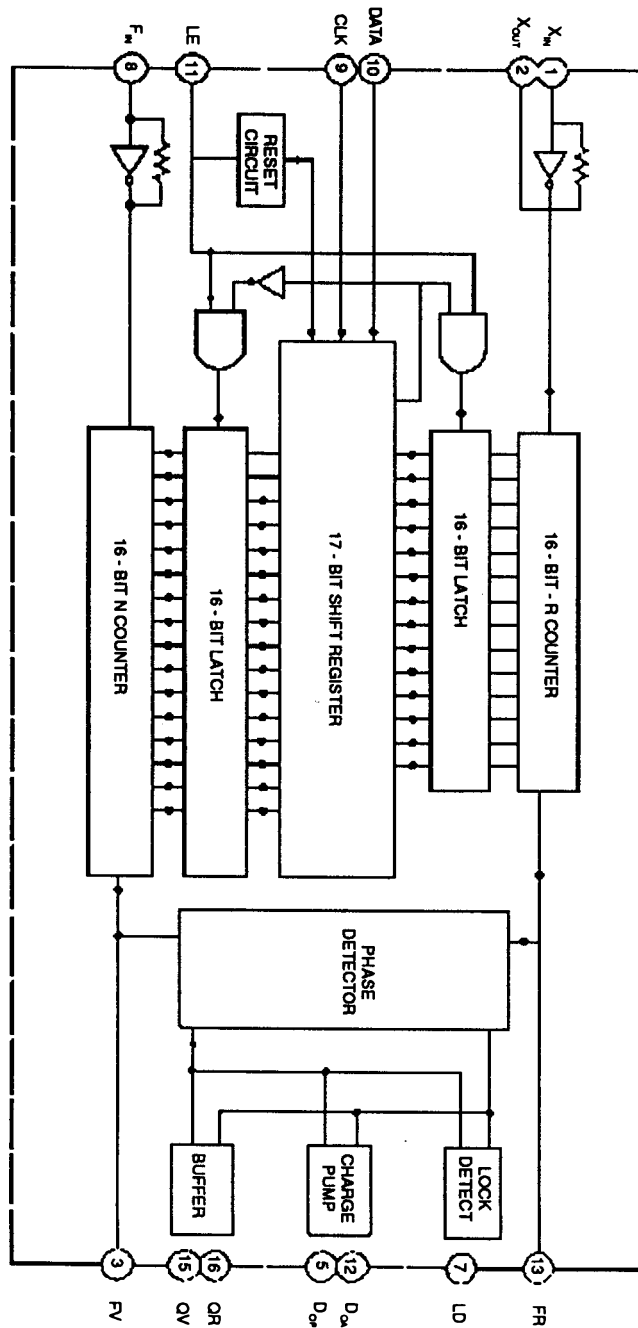
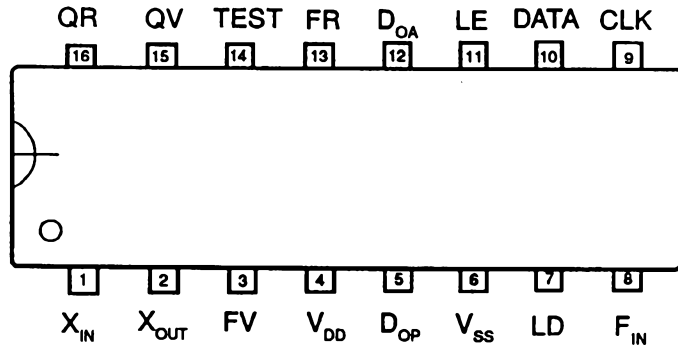


DTA 144 EK

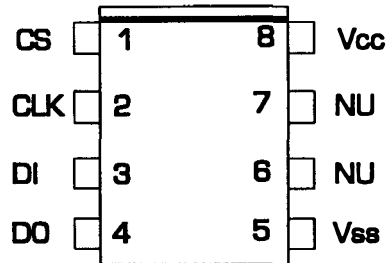


/// PIN DIAGRAM - INTERNAL SYNOPTICS - INTEGRATED CIRCUITS ///

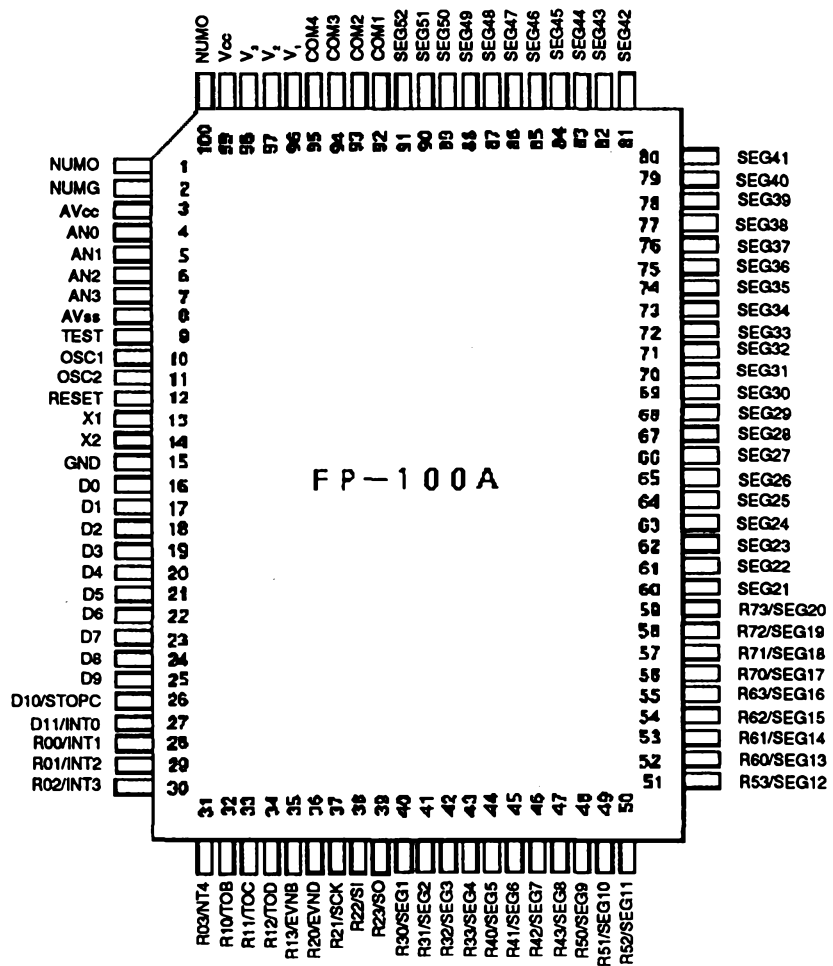
PLL2002A1 IC 401



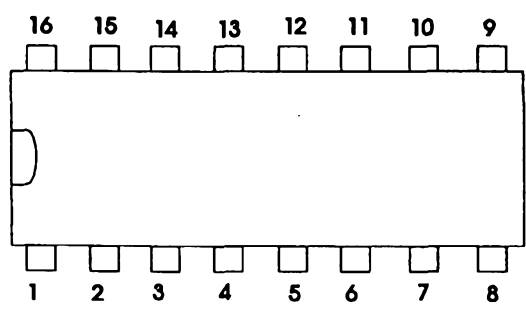
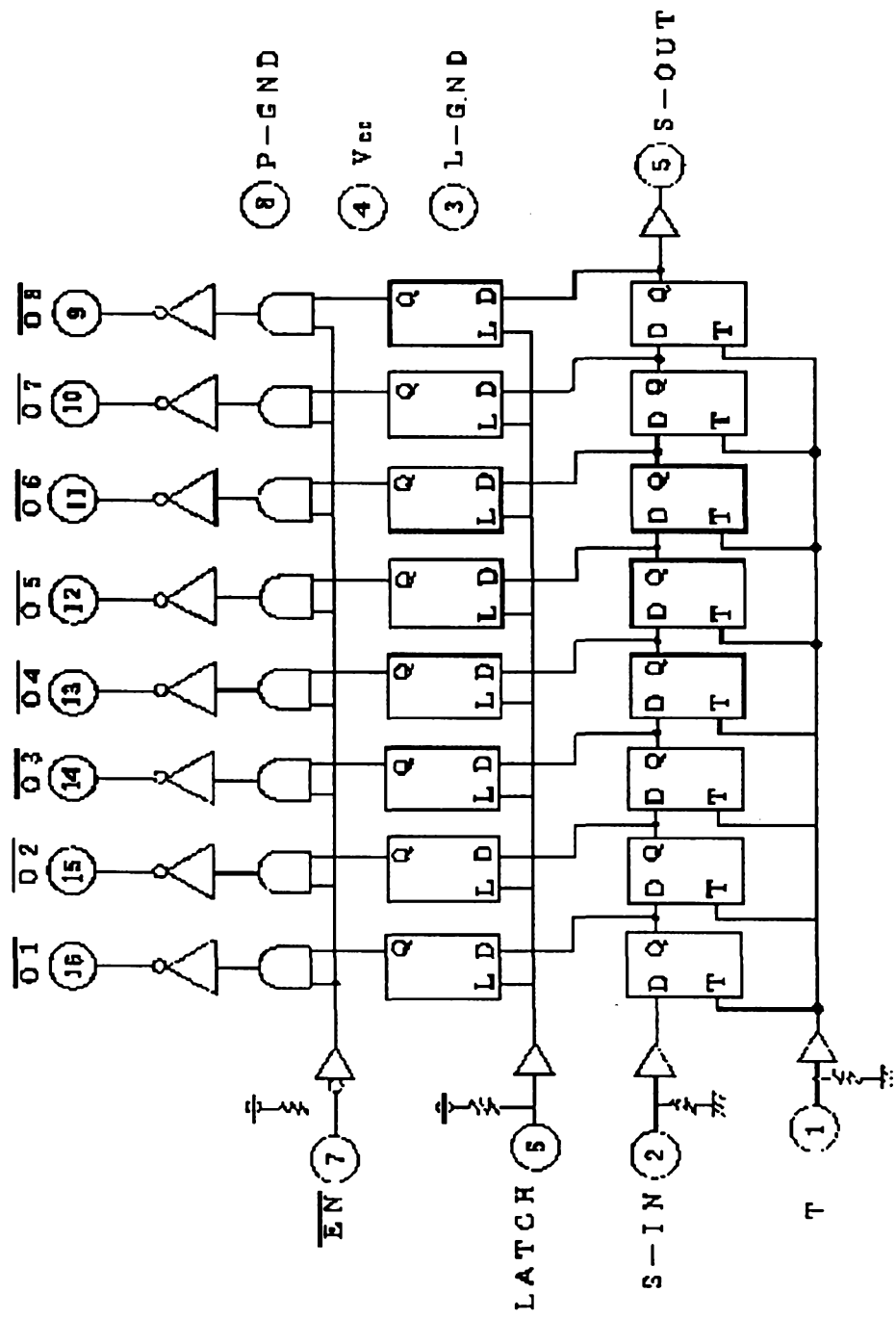
93C46 IC 703



UC 1520 IC 701

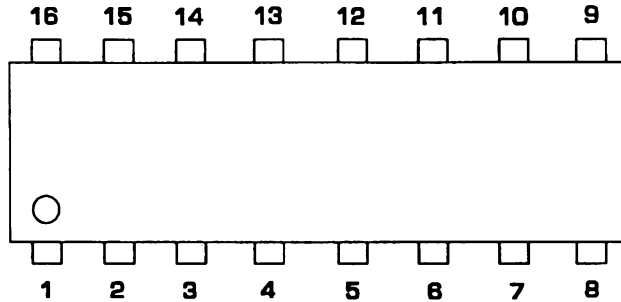


54995F IC 405 IC 406

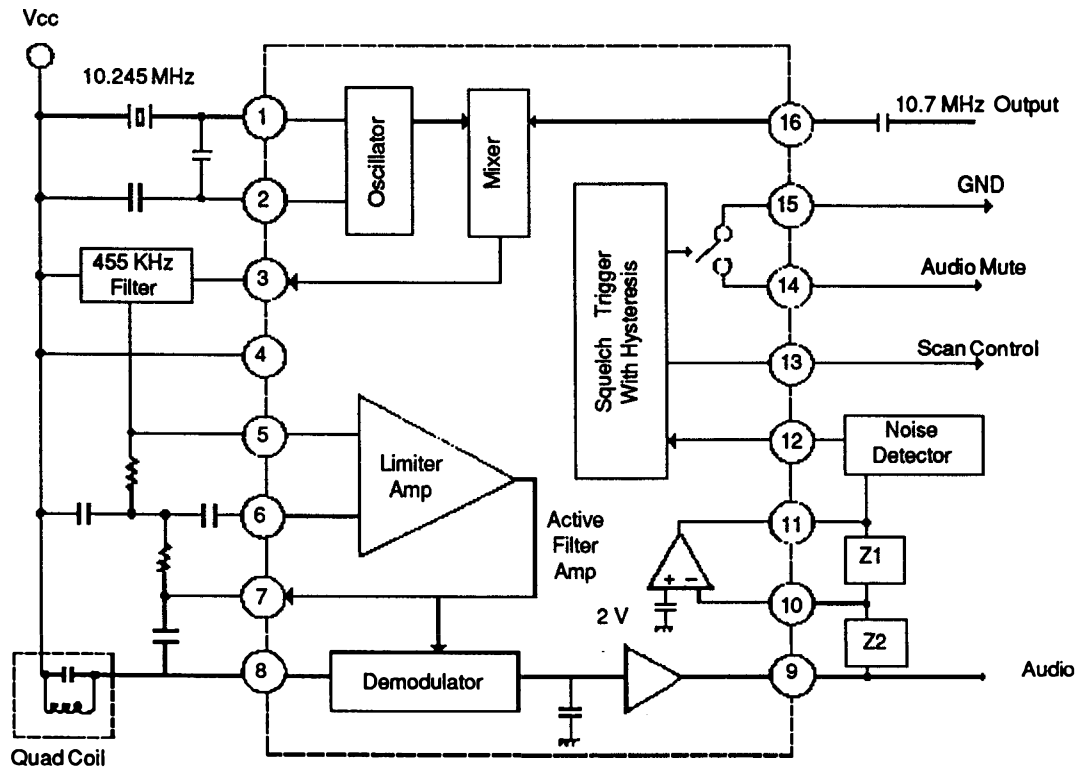


IC 1 IR3N06

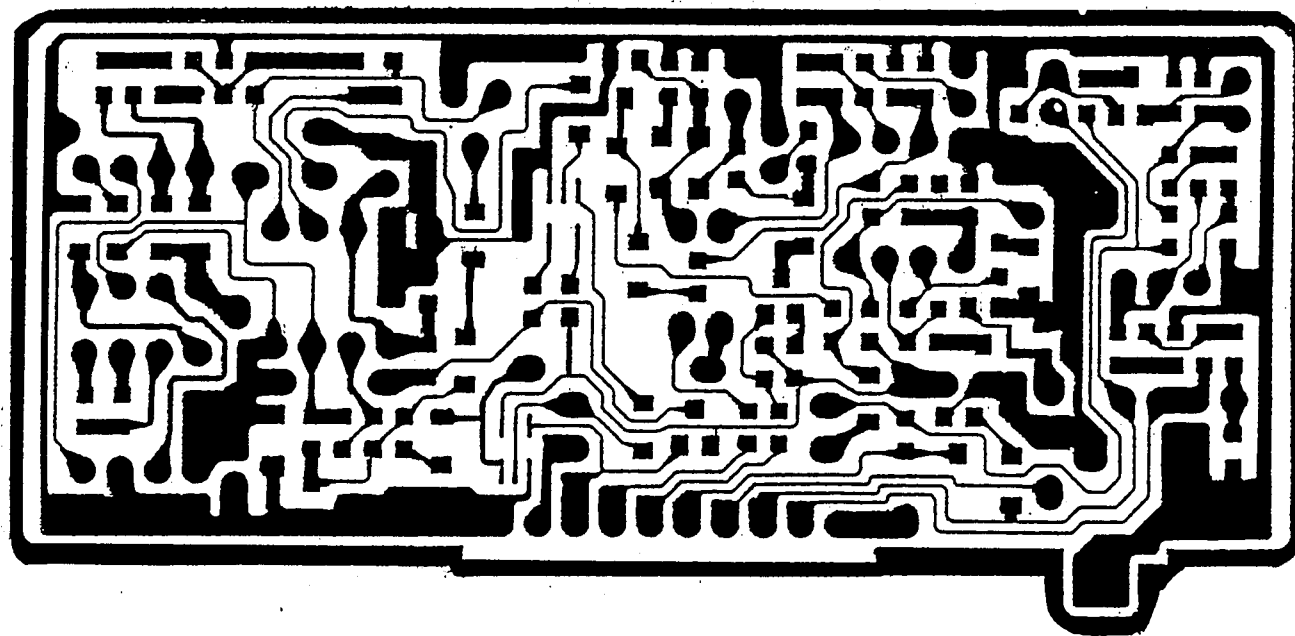
IR3N06



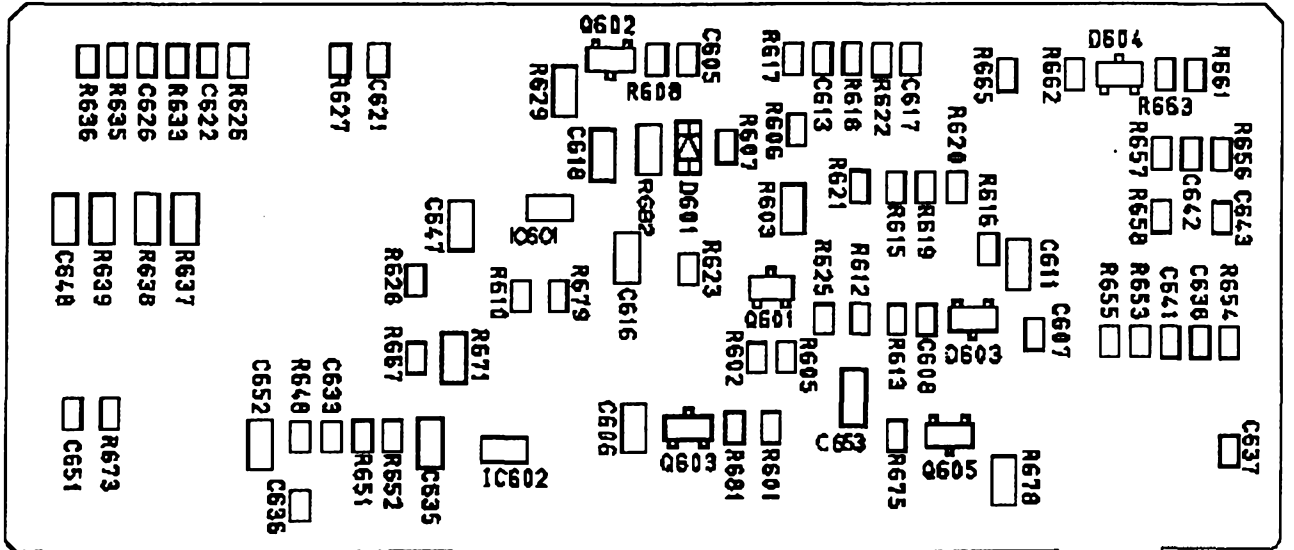
1	Crystal OSC.	9	Demodulator Output
2		10	Filter Input
3	Mixer Output	11	Filter Output
4	Vcc	12	Squelch Input
5	Limiter Input	13	Scan Control
6	Decoupling	14	Audio Mute
7	Limiter Output	15	GND
8	Quad Input	16	RF Input



PLATINE MIC ECHO



MIKE ECHO P.C.B. Soldered side



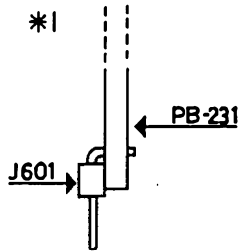
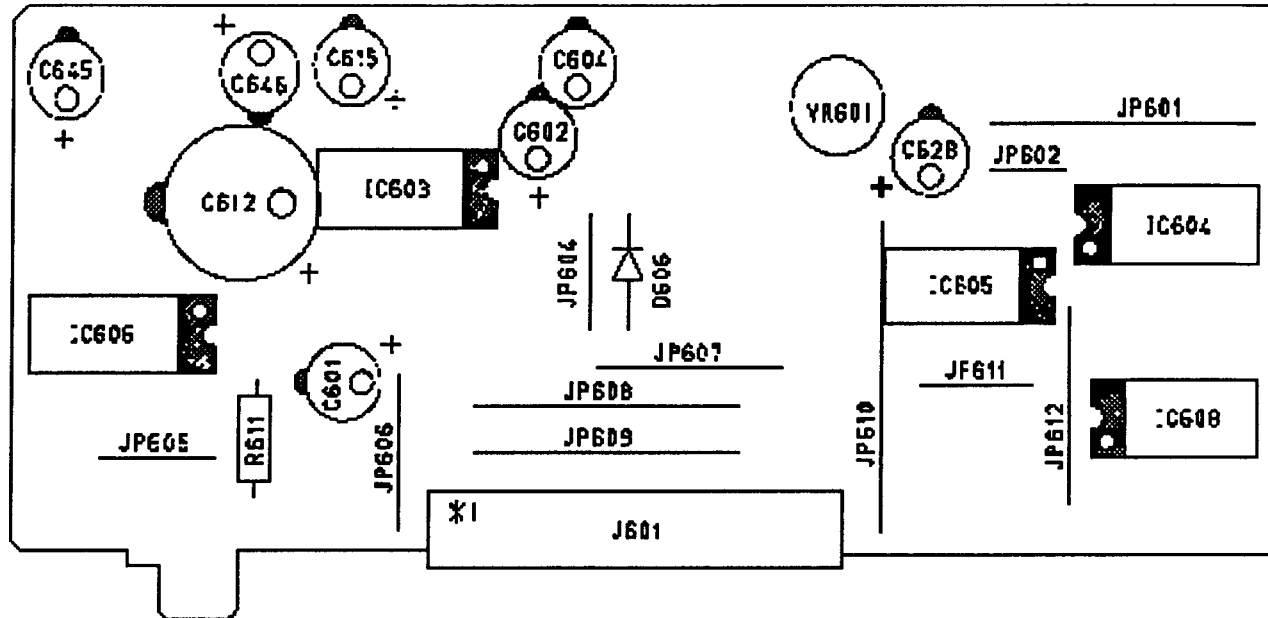
C605	0.1/C
C606	1/2 F
C607	0.1/C
C608	0.1/C
C611	1/2 F
C613	470P/C/G
C618	0.22/Z F
C617	0.001/C
C618	0.22/Z F
C621	220P/C/G
C622	0.0033/C
C626	0.1/C
C633	220P/C/G
C636	0.22/Z F
C636	0.0033/C
C637	0.0027/C
C638	0.0033/C
C641	0.0008/C
C641	0.047/C
C642	0.0010/C
C643	0.0010/C
C647	0.1/C
C648	0.1/C
C651	100P/C/G
C652	0.047/C
C653	0.22/F
IC601	TC4548F
IC602	TC4548F

D601	RLS4148
D603	1SS226
D604	HSMB8WA
D601	25A1170-MS
C602	25D1048-308
C603	DTA144EK
C605	25C2812-L6
R601	470
R602	22K
R603	PZ-029
R605	470
R606	120
R607	4.7K
R608	15K
R610	10K
R612	100
R613	820K
R615	47K
R616	100
R617	470K
R618	100
R619	10K
R620	10K
R621	10K

R622	12K
R623	4.7K
R625	4.7K
R626	56K
R627	33K
R628	12K
R629	PZ-029
R635	47K
R636	6.8K
R636	5.6K
R637	100K 1/8W
R638	100K 1/8W
R639	PZ-029
R648	30k
R651	47k
R652	30K
R653	0.2K
R654	0.2K
R656	0.2K
R657	0.2K
R658	47K
R661	47K
R662	15K
R663	650
R665	650
R667	10K
R671	120K 1/8W
R673	220K

R675	220K
R676	1.2K 1/8W
R679	PZ-036
R681	PZ-036
R682	PZ-029

MIKE ECHO P.C.B. Componants side



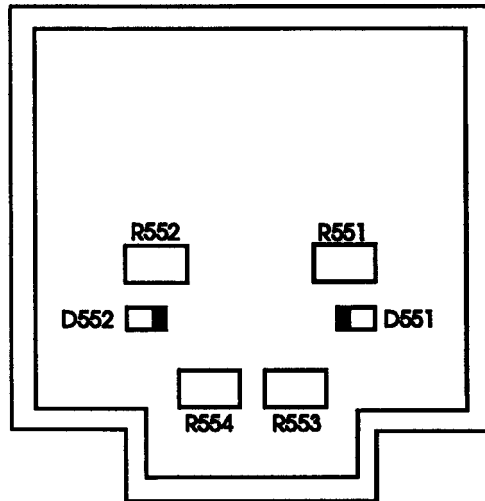
C601	50V10 C-130
C602	50V22 C-130
C604	50V2.2 C-130
C612	10V1000 C-130
C615	50V1 C-130
C628	50V4.7 C-130
C645	50V2.2 C-130
C646	50V2.2 C-130
VR601	RT-528 22KB
R611	1K

C601	50V10 C-130
C602	50V22 C-130
C604	50V2.2 C-130
C612	10V1000 C-130
C615	50V1 C-130
C628	50V4.7 C-130
C645	50V2.2 C-130
C646	50V2.2 C-130
VR601	RT-528 22KB
R611	1K

IC603	50V10 C-130
IC604	50V22 C-130
IC605	50V2.2 C-130
IC606	10V1000 C-130
IC608	50V1 C-130
J601	JK-727 10P

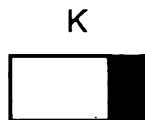
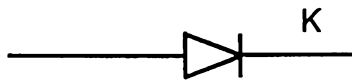
NOTES :
 1. RESISTANCES VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 2. RESISTOR WATTAGES ARE 1/6 W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED.
 (P=MICRO-MICRO FARAD)

TOS-METER PCB

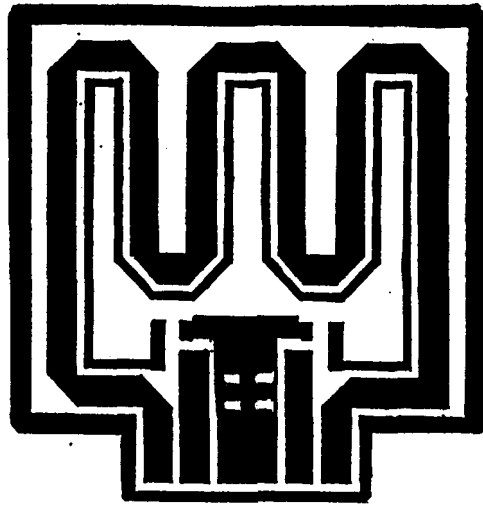


R551	82 1/10 W
R552	68 1/10 W
R554	4,7 M 1/10 W
R553	4,7 M 1/10 W

D551	MA728 TX
D552	MA728 TX



PLATINE TOS-MÈTRE



AGENTE GENERALE: MARCUCCI S.p.A. VIA RIVOLTANA 4 - VIGNATE (MI)

PRESIDENT JAMES



**RICETRASMETTITORE VEICOLARE PER
EMISSIONI AM, FM SU 40 CANALI**

MANUALE D'ISTRUZIONE

INDICE DEL CONTENUTO

CARATTERISTICHE TECNICHE	2
INSTALLAZIONE	4
OPERAZIONI BASILARI DA EFFETTUARE PRIMA DI USARE IL RICETRASMETTITORE PER LA PRIMA VOLTA	8
CONTROLLO DEL R.O.S.	9
DESCRIZIONE DEI CONTROLLI ED INTERRUTTORI	11
CONNETTORI SUL PANNELLO POSTERIORE.....	21
CODIFICA DI SICUREZZA PER LA DETERRENZA AL FURTO	22
RICERCA DELLE ANOMALIE	24
CORRISPONDENZA FRA CANALI E FREQUENZE DI TRASMISSIONE	25
SCHEMA ELETTRICO GENERALE	26
SCHEMA DELLA CPU	27
SCHEMA DEL CIRCUITO DI RIVERBERAZIONE ECO	28

Ci rallegriamo con Voi per l'acquisto di un apparato CB della 3^a generazione ovvero dalle caratteristiche interattive.

Nuove tecnologie offrono nuove possibilità operative impensabili nei modelli precedenti. L'apparato si distingue non solo per la nuova linea, ma per la qualità dei componenti impiegati in modo da soddisfare con la conseguente affidabilità l'utente CB più severo. Si raccomanda comunque di leggere il presente manuale prima di procedere all'installazione ed all'uso dell'apparato.

ATTENZIONE!

Non commutare in trasmissione l'apparato senza avere prima collegato la linea coassiale di trasmissione ad un'antenna adattata oppure ad un carico fittizio. La mancata osservanza di tale accorgimento distrugge lo stadio finale del trasmettitore ed invalida le clausole di garanzia.

CARATTERISTICHE TECNICHE

GENERALI

Numero di canali	40
Emissioni:	AM, FM.
Portata operativa:	da 26.965 a 27.405 MHz
Impedenza di antenna:	50 Ω
Tensione di alimentazione:	13.2V
Dimensioni:	180 x 188 x 50 mm
Peso:	1.4 kg
Accessori in dotazione:	microfono con relativo supporto, staffa di supporto e viti per il fissaggio.

TRASMETTITORE

Potenza RF:	4W in AM/FM
Stabilità in frequenza:	± 300 Hz
Soppressione di prodotti armonici:	< 4 nW (-50 dBm)
Potenza sul canale adiacente:	< 20 μ W
Risposta audio:	da 300 Hz a 3000 Hz su entrambe i modi di emissione.
Sensibilità microfonica:	1 μ V
Consumo:	2.5A
Distorsione max. sulla modulazione:	2.5%

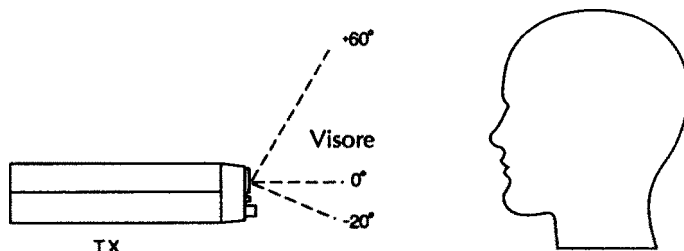
RICEVITORE

Sensibilità max. per 20 dB SINAD:	0.5 μ V in AM/FM
Risposta in frequenza:	da 300 Hz a 3 kHz
Selettività sul canale adiacente:	70 dB
Sensibilità dello squelch:	da 0.7 μ V ad 1 mV
Reiezione al valore della media frequenza:	70 dB
Consumo:	500 mA in attesa; 1.3A al vol. max.
Escursione max. del clarifier:	\pm 2 kHz
Potenza audio max:	3W

INSTALLAZIONE

Per l'installazione tenere presente alcuni accorgimenti fondamentali:

- Scegliere la posizione più comoda per una facile lettura del visore.



- L'ubicazione scelta non dovrà interferire con la guida del mezzo o costituire un pericolo per i passeggeri in caso di incidente.
- La visibilità migliore presentata dal visore a cristalli liquidi va da -20° a $+60^{\circ}$ rispetto al piano orizzontale.
- Il cablaggio al ricetrasmittitore, ovvero la linea di trasmissione all'antenna e il cavo di alimentazione, non dovrà interferire con la guida del mezzo.
- Per l'installazione ricorrere alla staffa di supporto che andrà fissata tramite le viti autofilettanti. Eseguire le necessarie forature con un trapano dalla punta di 3.2 mm.
- Non dimenticare di inserire i gommini per l'assorbimento delle scosse dove necessario.
- Scegliere un posto appropriato per agganciare il microfono quando non in uso.
- Nel caso si ricorra ad un altoparlante addizionale, regolarlo per la migliore udibilità.

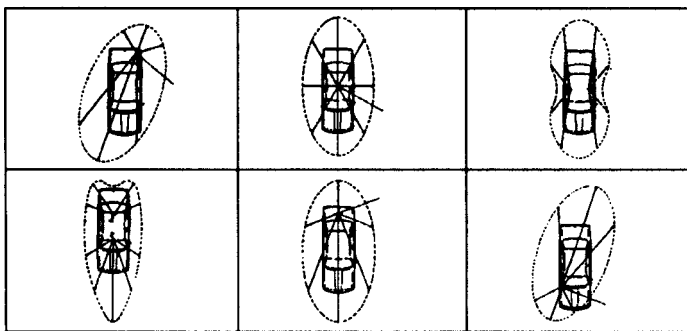
INSTALLAZIONE DELL'ANTENNA

Tener presente una regola fondamentale: più lunga (estesa) é l'antenna, migliori saranno i risultati ottenuti.

Antenna veicolare

- Dovrà essere ubicata possibilmente sopra una superficie metallica (che faccia da contrappeso). Ubicazioni preferenziali: in mezzo al tetto o sul cofano posteriore.
- Nel caso un altro tipo di apparato sia già installato nella vettura, l'antenna per l'utenza CB dovrà essere ubicata più in alto.
- Vi sono antenne già pre-regolate sulla frequenza operativa oppure quelle regolabili tramite la lunghezza dello stilo.
- Nel caso l'installazione richieda foratura, certi elementi dell'antenna dovranno essere positivamente connessi alla lamiera della vettura. Gli strati di vernice andranno accuratamente tolti.
- Attenzione a non schiacciare la linea coassiale oppure intaccarla o interromperla durante l'installazione.

Fissare il connettore coassiale intestato sull'estremità della linea di trasmissione al relativo connettore posto sul retro dell'apparato.



Diagrammi di irradiazione a seconda dell'ubicazione dell'antenna

Antenna per stazione fissa

- Andrà installata nell'ubicazione più libera possibile.
- Meglio se fissata su un paletto che nel contempo ne elevi l'altezza rispetto alle strutture circostanti.

COLLEGAMENTO DELL'ALIMENTAZIONE

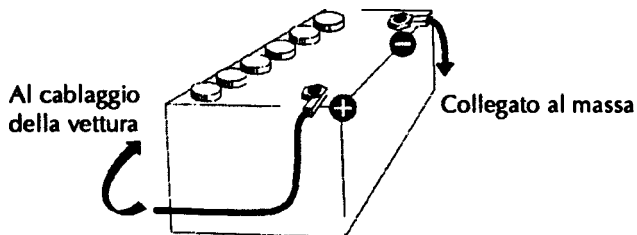
Benché l'apparato sia protetto contro alimentazione con polarità invertita, è bene controllare prima tutte le connessioni effettuate. È richiesta una alimentazione in continua di 12V con il negativo a massa. Assicurarsi perciò che la propria autovettura sia cablata in tale modo (le vetture di produzione britannica hanno la polarità positiva della batteria connessa a massa).

ATTENZIONE

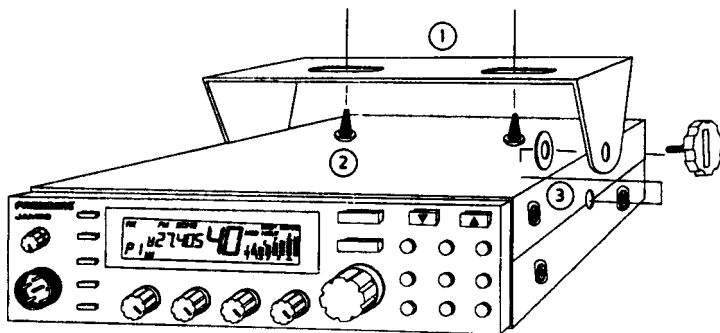
Gli autocarri in genere hanno una alimentazione da 24V. Sarà perciò opportuno ricorrere ad un adatto alimentatore/riduttore della tensione.

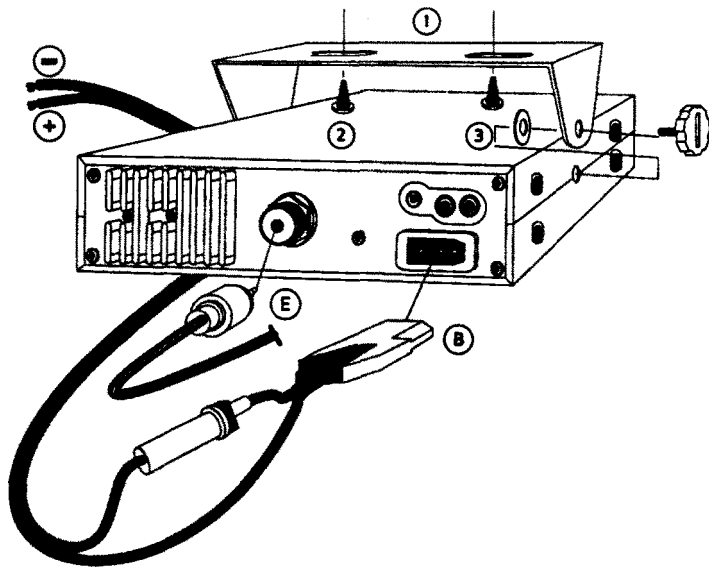
Prima di collegare il cordone di alimentazione all'apparato accertarsi di quanto segue:

- a) Verificare che la tensione di batteria sia effettivamente di 12V.



- b) Assicurarsi della polarità presente sui morsetti della batteria, quindi il filo rosso andrà connesso alla polarità positiva (+) mentre quello nero a quella negativa. Il collegamento diretto ai morsetti della batteria è preferibile a quello di un altro punto del cablaggio in quanto sfrutta il potere filtrante (antidisturbo) della batteria stessa. Nel caso il cordone di alimentazione debba essere allungato, il filo aggiuntivo dovrà avere la medesima sezione (se non maggiore).





- c) Un altro motivo per collegare il cordone di alimentazione direttamente alla batteria é di evitare interruzioni dell'alimentazione, il che evita di dover nuovamente impostare la codifica (di deterrenza al furto) di cui l'apparato é equipaggiato.
- d) Collegare il connettore con cui é intestato il cordone di alimentazione sul retro dell'apparato.

ATTENZIONE

Non sostituire il fusibile di protezione con un tipo dalla dissipazione maggiore.

- e) Nel caso l'alimentazione all'apparato venga sconnessa o comunque interrotta interverrà il dispositivo di protezione e di conseguenza alla successiva riaccensione verrà richiesta l'impostazione della propria codifica.

OPERAZIONI BASILARI DA EFFETTUARE PRIMA DI USARE IL RICETRASMETTITORE PER LA PRIMA VOLTA

- a) Collegare il microfono.
- b) Controllare la connessione della linea coassiale di trasmissione.
- c) Accendere il ricetrasmittitore:
Azionare quattro volte il tasto PROGRAM (codifica iniziale). Ogni qualvolta si premerà un tasto il conteggio sul visore si incrementerà di una unità.
Azionare una volta il tasto POWER. L'apparato si accenderà e si predisporrà in modo automatico sul canale 19 con il modo AM (MIC GAIN e RF GAIN predisposti al valore massimo).
- d) Regolare lo Squelch a fine corsa antioraria. Regolare il controllo RF POWER al massimo (fine corsa in senso orario). Regolare il Volume al livello richiesto.
- e) Impostare il canale 20 con il tasto "CH ▲" posto sul microfono oppure tramite il selettore rotativo posto sul frontale.

CONTROLLO DEL R.O.S.

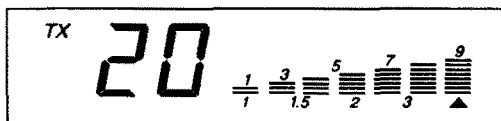
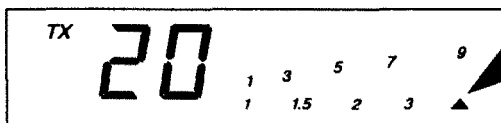
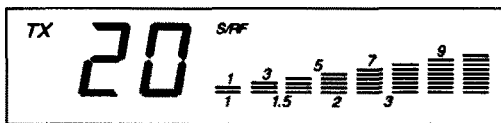
ATTENZIONE

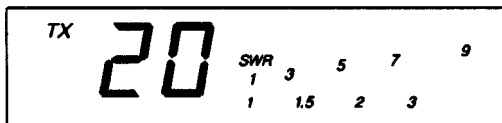
Il controllo é necessario soltanto ad installazione ultimata (oppure se l'ubicazione dell'antenna verrà modificata). La regolazione andrà fatta all'aperto ovvero non in un garage.

Mediante lo strumento incorporato

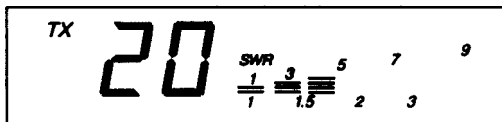
Procedere come segue:

- Premere il pulsante PTT per commutare in trasmissione durante il periodo della misura.
- Azionare il tasto METER sino ad ottenere l'indicazione ▲ sul visore.
- Regolare il controllo SWR/CAL sino ad ottenere 7 gruppi di barrette sino al simbolo ▲. Il controllo RF/POWER dovrà essere spinto sino a fine corsa oraria.
- Azionare nuovamente il tasto METER in modo che il visore indichi "SWR" mentre il simbolo ▲ sparirà. È possibile ora leggere il valore SWR. Se il visore indica meno di tre gruppi di barrette il valore di ROS é accettabile (un gruppo costituisce il valore ottimale). Nel caso invece si osservino più di tre gruppi sarà opportuno regolare l'antenna quindi riprovare.
- Azionare il tasto METER mentre si aziona il pulsante PTT, in modo da ottenere l'indicazione S/RF.

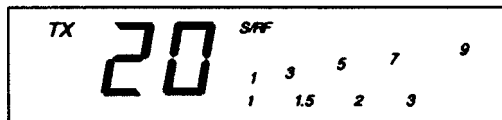




Valore minimo



Valore massimo



Ripristino alla lettura "S/RF"

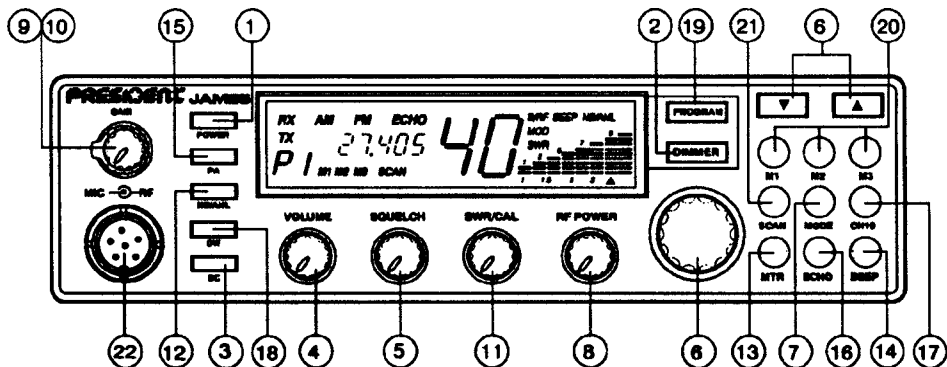
Mediante uno strumento esterno

Collegare lo strumento per la misura del ROS:

- Collegare lo strumento con un connettore di prolunga al corpo del ricetrasmittitore (onde evitare errori dovuti alle componenti reattive del cavo, quest'ultimo dovrà essere lungo mezza lunghezza d'onda "elettrica" ovvero moltiplicata per il fattore di velocità del cavo. Altra soluzione per evitare errori consiste nel sistemare lo strumento alla base dell'antenna, in tal caso la lunghezza del cavo non é critica -I2AMC-).
- Calibrare lo strumento con l'indice sulla tacca (REF) di riferimento.
- Effettuare la misura sul centro banda.

Il ricetrasmittitore sarà ora pronto all'uso.

DESCRIZIONE DEI CONTROLLI ED INTERRUTTORI



1. POWER

La pressione sul tasto accende o spegne l'apparato.

Se detto tasto viene mantenuto premuto per più di tre secondi, si abilita il circuito di protezione dato dalla codifica individuale. Successivamente per usare l'apparato si dovrà reimpostare la codifica individuale.

NOTA: quando l'apparato verrà spento le condizioni operative resteranno in memoria in modo da poterle riprendere con la successiva accensione.

2. DIMMER

a) Apparato spento però con l'alimentazione connessa: azionando il tasto DIMMER si otterrà l'intermittenza dell'indicazione *code*. Ciò sta a significare che la deterrenza al furto è stata abilitata durante l'assenza dell'operatore. Tale funzione non dovrà essere lasciata in tale stato per più di tre giorni in quanto, essendoci un lieve consumo, si troverebbe la batteria dell'automezzo scarica.

b) Apparato acceso. Nella sola configurazione interna, il tasto DIMMER permette la regolazione della luminosità del visore.

3. DC

Permette di modificare la colorazione del visore: color ambra o verde a seconda delle preferenze dell'operatore.

4. VOLUME

La rotazione in senso orario aumenta il volume del ricevitore.

5. SQUELCH

Sopprime il fruscio del ricevitore in assenza di segnale. Il controllo andrà ruotato in senso orario sino a sopprimere il fruscio. Tale punto é detto "di soglia" e non deve essere oltrepassato di molto per non sopprimere i segnali più deboli. Lo Squelch non influisce sulla qualità del segnale trasmesso, ma rende soltanto più gradevole la ricezione.

6. TASTI CH "▲/▼" OPPURE IL SELETORE ROTATIVO

I due tasti "CH" posti sul microfono e sul pannello frontale permettono l'escursione fra tutti i canali accessibili. La medesima funzione é espletata dal selettore rotativo.

L'azionamento momentaneo di uno di detti tasti determina l'incremento di un canale in una direzione o nell'altra; mantenendolo premuto invece si ottiene l'escursione di 5 canali al secondo.

7. MODE

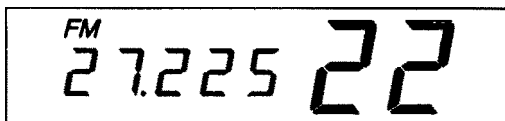
Commuta fra i due modi operativi: AM o FM.

AM: suggerita per medie distanze.

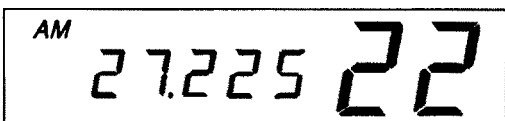
FM: suggerita per distanze più grandi o in presenza di disturbi. Il circuito limitatore infatti "taglia" via tutti i disturbi del tipo impulsivo.

Esempi di commutazione del modo operativo

Si supponga che l'apparato sia predisposto in FM sul canale 22.



- Breve azionamento sul tasto MODE:
l'apparato commuta su AM.
Il canale resta invariato.



8. RF POWER

Regola la potenza RF in uscita. Il fine corsa in senso orario determina la potenza più alta. È consigliabile mantenere la potenza al minimo per comunicazioni locali.

9. RF GAIN

Regola la sensibilità durante la ricezione, di conseguenza i segnali più deboli richiedono la rotazione massima in senso orario. In caso di segnali locali o comunque molto forti è conveniente ridurre la sensibilità dell'apparato.

10. MIC GAIN

- a) Regola l'amplificazione microfonica. Si consiglia di usare il microfono preamplificato fornito in dotazione.
- b) Regola il volume dell'amplificatore di bassa frequenza (P.A.) descritto più avanti nel testo.

11. SWR/CAL

Permette la calibrazione dell'indicazione di R.O.S. come descritto in precedenza.

12. NB/ANL

Inserisce due circuiti: il Noise Blanker (soppressore dei disturbi) o l'ANL (limitatore automatico dei disturbi) di cui i relativi concetti operativi sono totalmente differenti.

Entrambi i circuiti permettono di migliorare la ricezione in presenza di disturbi, particolarmente quelli causati dal sistema di accensione del motore a scoppio durante la ricezione in AM.

Premere il relativo tasto per abilitare il circuito. Il visore indicherà "NB/ANL". Premerlo nuovamente per escluderlo.

13. MTR

Il tasto ha diverse funzioni:

- a) **"S/RF"**. Durante la ricezione indica il livello del segnale ricevuto (o "S" meter), mentre in trasmissione indica la potenza relativa trasmessa.
- b) **"MODE"**. Operativo soltanto durante la trasmissione in quanto permette la misura della modulazione.
- c) **"▲"**. Permette la calibrazione del circuito per la misura del ROS (riferirsi ai paragrafi precedenti).
- d) Posizione **"SWR"**. Permette la lettura del ROS come descritto in precedenza.

Per accedere a tali funzioni azionare il tasto con l'apparato commutato in trasmissione. Durante la ricezione si ha solo l'indicazione "S/RF".

14. BEEP

Determina il **"Roger Beep"**: un breve tono quando si rilascia il pulsante PTT.

Azionando una volta detto tasto si inserisce detta funzione nonché l'emissione di un tono di conferma ogni qualvolta un tasto qualsiasi verrà azionato. Il visore indicherà "BEEP". Per cancellare la funzione azionare nuovamente il medesimo tasto. Il livello sonoro del tono può essere regolato tramite il controllo del VOLUME.

15. P.A.

Trasforma il ricetrasmittitore in un amplificatore di bassa frequenza per cui sarà necessario installare un altoparlante all'esterno della vettura. Il visore indicherà soltanto "PA"; tutte le altre indicazioni spariscono.

Evitare che il microfono possa percepire il suono emesso dall'altoparlante al fine di evitare inneschi. Il volume emesso è determinato dal controllo MIC GAIN.

16. ECHO

Tramite riverberazione inserisce un effetto di eco sul proprio segnale. L'ammontare di tale eco è regolabile internamente e può essere determinato tramite l'amplificazione P.A. oppure via radio tramite un corrispondente.

L'inserzione/disabilitazione del circuito avviene mediante il tasto "ECHO". Il visore indicherà "ECHO" durante l'inserzione del circuito.

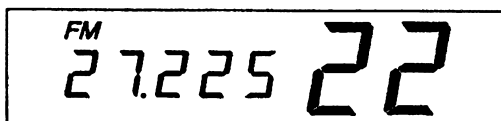
17. CH 19

Predisporre immediatamente l'apparato sul canale 19 ed il modo in AM.

Per ritornare alle condizioni operative precedenti azionare nuovamente detto tasto.

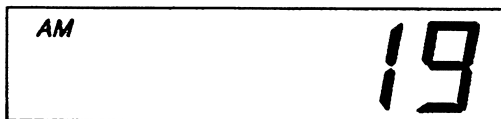
Uso del canale 19 (usato per chiamate/emergenza)

Si supponga di essere sintonizzati sul canale 22 in FM.



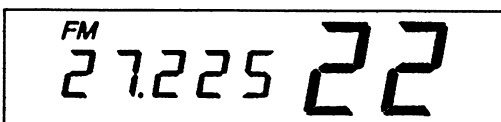
Azionare il tasto "CH 19".

La frequenza indicata sparisce per evidenziare la predisposizione sul canale 19 AM.



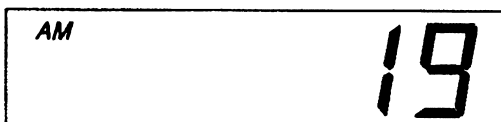
Azionare il tasto "CH 19".

Il ricetrasmittitore si predispose sulla frequenza avuta in precedenza: Canale 22 FM.



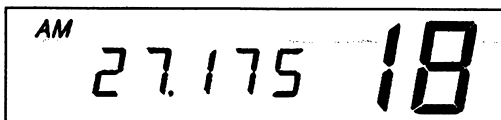
Azionare il tasto "CH 19".

Il ricetrasmittitore si predispose sul canale 19 AM.



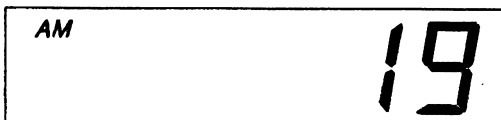
Azionare il tasto "CH ▼".

Il ricetrasmittitore si predispose sul canale 18.



Azionare il tasto "CH 19".

Il ricetrasmittitore si predispose sul canale 19 AM.



18. DW (Dual Watch)

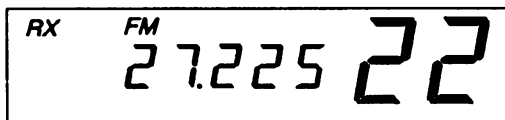
Permette di controllare l'attività sul canale 19 AM ed un'altra frequenza. Le due frequenze vengono campionate con una cadenza di 1 s. e la ricerca si arresterà non appena un segnale sarà presente su una delle due frequenze. È necessario impostare lo Squelch al punto di soglia. Non appena il segnale verrà a cessare il Dual Watch riprende il campionamento accennato.

Per dare avvio al Dual Watch premere il tasto in oggetto. Il visore indicherà DW. Per cancellare la funzione premere nuovamente il tasto. L'indicazione sparirà dal visore.

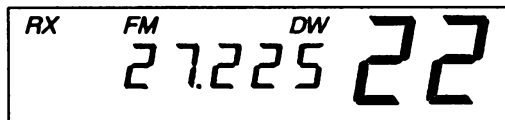
Esempio:

Predisposizioni

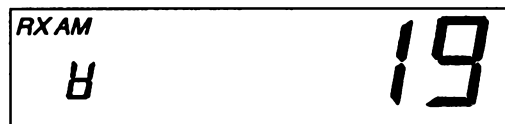
L'apparato é predisposto sul canale 22 FM.



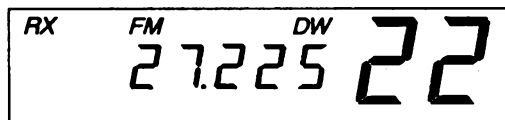
Azionare il tasto "DW".



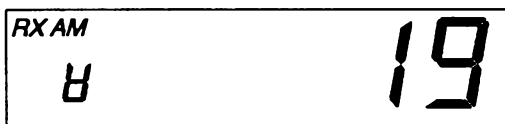
Si otterrà l'alternanza fra le due indicazioni



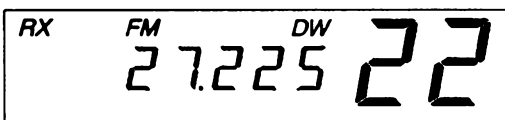
Se un segnale sarà presente sul canale 22, la ricezione rimarrà su tale frequenza sinché il segnale verrà a cessare.



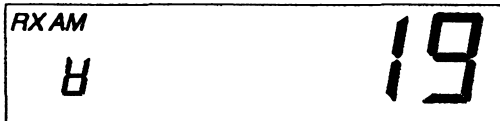
Il segnale sul canale 22 FM viene a cessare.



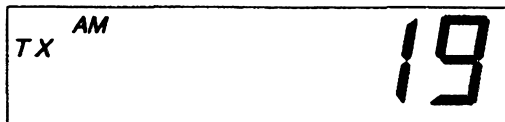
Si otterrà l'alternanza fra le due indicazioni



Ricezione di un segnale sul canale 19 AM.



Rispondere a detta stazione azionando il PTT. Il Dual Watch verrà così cancellato.



19. PROGRAM

Detto tasto in abbinamento a quelli corrispondenti alle memorie "M1, M2, M3" permette la registrazione delle frequenze e modo operativo in memoria.

Azionando rapidamente il tasto PROGRAM, P1, P2, P3, P4 verranno indicati dal visore. Mantenendo premuto un poco più a lungo uno di questi 4 tasti (P1 - P4) si determinerà l'intermittenza del visore. Si dovrà allora azionare uno dei tasti pertinenti alle 3 memorie (M1 - M3) in modo da effettuare la registrazione non solo della frequenza ma pure del tipo di modulazione attualmente in uso. A conferma dell'avvenuta registrazione si udrà un tono di conferma lungo.

20. M1-M2-M3

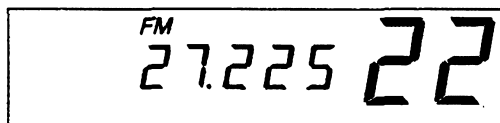
Detti tasti, pertinenti alle relative memorie, vanno usati congiuntamente al tasto PROGRAM in modo da registrare o richiamare una di tali memorie. È pure possibile definire le 3 memorie mediante i tasti P1 - P4 ottenendo in tale modo 12 memorie memorizzabili.

Esempio:

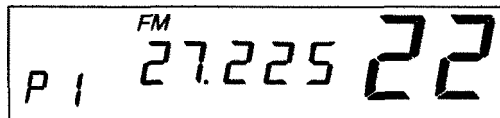
Predisposizioni

a) Registrazione in memoria

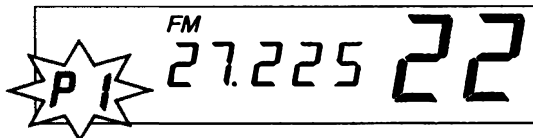
Predisposizione iniziale:
canale 22 FM.



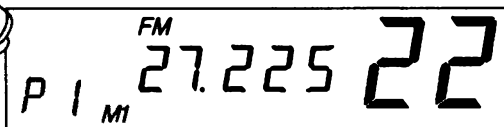
Premere brevemente il tasto PROGRAM: il visore indicherà P1.



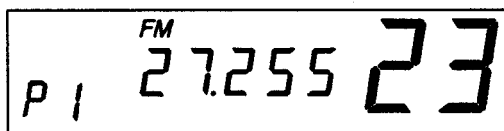
Premere più a lungo il tasto PROGRAM: l'indicazione P1 diverrà intermittente.



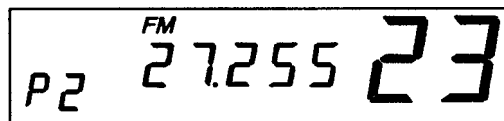
Azionare il tasto M1: P1 cesserà di essere intermittente, verrà indicato M1 con l'emissione di un tono di conferma lungo in modo da evidenziare che il canale 22 FM è stato registrato in P1 M1.



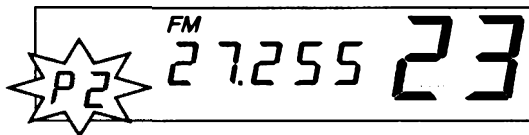
Modificare il canale operativo azionando uno dei tasti "CH ▲/CH ▼" posti sul microfono e sul pannello frontale. L'indicazione M1 sparirà.



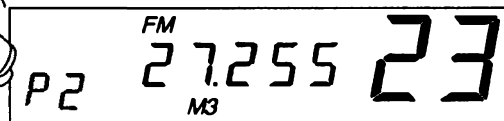
Un breve azionamento del tasto PROGRAM determinerà il passaggio da P1 a P2.



Un azionamento più lungo del tasto PROGRAM determinerà l'intermittenza di P2.

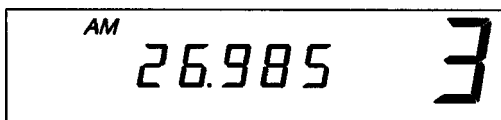


Azionare il tasto M3: P2 cesserà di essere intermittente, M3 si accende con l'emissione di un beep lungo. Ciò evidenzia che il canale 23 FM è stato registrato in P2 M3.

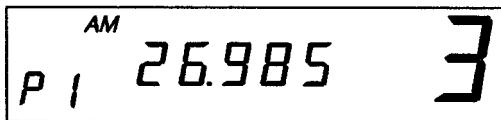


b) Richiamo di una memoria

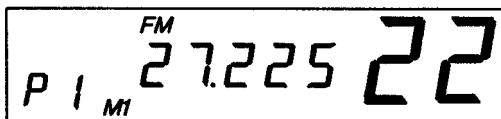
Predisposizione iniziale: canale 3 AM.



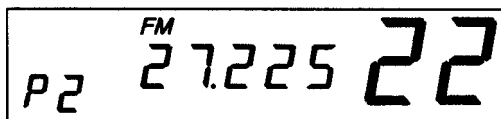
Rapido azionamento del tasto PROGRAM. Il visore indicherà P1.



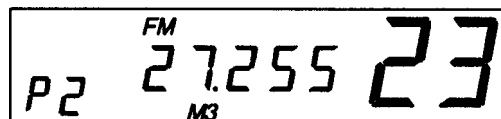
Azionare il tasto M1. I dati registrati in P1 M1 verranno richiamati e l'apparato si predisporrà sul canale in memoria (CH 22 FM è l'esempio illustrato).



Rapido azionamento del tasto PROGRAM. Il visore indicherà P2.



Azionando il tasto M3 verranno richiamati i dati registrati nella memoria P2 M3 perciò l'apparato si predisporrà sul canale 23 FM (come illustrato).



21. SCAN

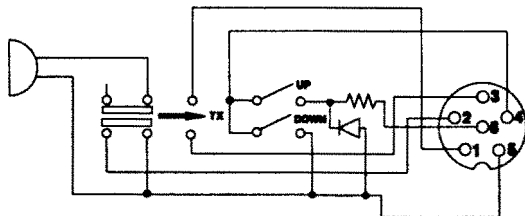
La funzione permette di effettuare la ricerca fra i canali registrati in memoria. La ricerca si arresta non appena una delle frequenze registrate risulti occupata con del traffico in corso. Non appena il segnale verrà a cessare la ricerca riprende.

Commutando in trasmissione con il corrispondente udito si interromperà il processo di ricerca.

La ricerca si attiva con l'azionamento del tasto SCAN ed il visore indicherà "SCAN". Sarà indispensabile regolare prima lo Squelch al livello di soglia. Per cancellare la funzione azionare il tasto precedente; l'indicazione "SCAN" sparirà dal visore.

25. CONNETTORE MICROFONICO

Connettere il microfono in dotazione. Riferirsi allo schema annesso.



1. Segnale microfonico

2. Rx

3. Tx

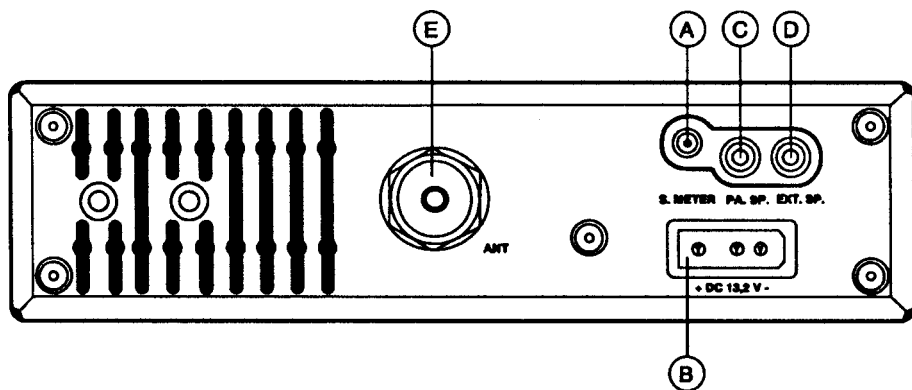
4. Non collegato

5. Massa

6. Alimentazione

Cablaggio del microfono

CONNETTORI SUL PANNELLO POSTERIORE



A. S METER

Collegare uno strumento esterno se richiesto.

B. CONNETTORE PER L'ALIMENTAZIONE IN CONTINUA (13.2V)

C. CONNETTORE PER L'ALTOPARLANTE ESTERNO (P.A.)

D. CONNETTORE PER UN ALTOPARLANTE INTERNO ADDIZIONALE

E. CONNETTORE PER LA LINEA DI TRASMISSIONE COASSIALE

Del tipo SO-239 accetta il relativo connettore PL-259 intestato sulla linea coassiale di trasmissione che fa capo all'antenna (si raccomanda che tale linea sia lunga $\lambda/2$ elettrici o un multiplo di tale lunghezza).

CODIFICA DI SICUREZZA PER LA DETERRENZA AL FURTO

Trattasi di una codifica di 4 cifre che dovrà essere impostata per accedere alle varie funzioni dell'apparato. Tale codifica dovrà essere re-impostata nel caso che:

- L'alimentazione a 12V venga a mancare.
- Il tasto POWER venga mantenuto premuto per più di 4 secondi. In questo caso il ricetrasmittitore resta bloccato nelle sue funzioni sinché verrà re-impostato il codice corretto.

La codifica provvisoria registrata in origine consiste in:

4 brevi azionamenti sul tasto PROGRAM.

ATTENZIONE!

Nel caso si dimentichi o venga perso il codice d'accesso l'apparato potrà essere re-inizializzato soltanto in fabbrica oppure da un laboratorio autorizzato. Ovviamente per ragione di sicurezza l'operazione verrà fatta soltanto se l'apparato verrà ritornato con il proprio certificato di garanzia. Raccomandiamo perciò di annotare in qualche posto la propria codifica. Vengono fornite due decalcomanie da inserire sul vetro della vettura per evidenziare tale tipo di codifica.

COME PERSONALIZZARE IL PROPRIO CODICE DI ACCESSO

Si raccomanda di leggere attentamente la sequenza prima di modificare il codice di accesso.

- Accendere l'apparato azionando il tasto POWER.
- Spegnere l'apparato azionando il tasto POWER.
- Mantenere premuto il tasto POWER: l'apparato si accenderà quindi si spegnerà nuovamente.
- Mantenendo premuto il tasto POWER azionare contemporaneamente i tasti "NB/ANL" e "PROGRAM".
- Rilasciare soltanto il tasto POWER mantenendo perciò premuti i tasti "NB/ANL" e "PROGRAM": il visore indicherà con intermittenza per 5 secondi **codE**.

- f) Non appena l'indicazione **codE** sparisce il visore indicherà 1.
 - g) Rilasciare i tasti "NB/ANL" e "PROGRAM".
 - h) Premere il primo tasto della codifica precedente (PROGRAM nella configurazione di origine). Il visore indicherà 2.
 - i) Premere il tasto corrispondente alla seconda cifra della codifica precedente (PROGRAM nella configurazione di origine). Il visore indicherà 3.
 - j) Premere il tasto corrispondente alla terza cifra della codifica precedente (PROGRAM nella configurazione di origine). Il visore indicherà 4.
 - k) Premere il tasto corrispondente alla quarta cifra della codifica precedente (PROGRAM nella configurazione di origine). Il visore indicherà 1, verrà emesso un beep ed il visore indicherà la lettera P in modo da evidenziare che l'apparato è ora pronto ad essere personalizzato con la nuova codifica di 4 cifre.
 - l) Premere il primo tasto corrispondente alla nuova codifica scegliendo fra M1 M2 M3 e PROGRAM: il visore indicherà 2 nonché la lettera P.
 - m) Premere il secondo tasto corrispondente alla nuova codifica scegliendo fra M1 M2 M3 e PROGRAM: il visore indicherà 3 nonché la lettera P.
 - n) Premere il terzo tasto corrispondente alla nuova codifica scegliendo fra M1 M2 M3 e PROGRAM: il visore indicherà 4 nonché la lettera P.
 - o) Premere il quarto tasto corrispondente alla nuova codifica scegliendo fra M1 M2 M3 e PROGRAM: il visore si spegne.
 - p) Premere il tasto POWER: il ricetrasmittitore si accende ed è ora predisposto nella nuova codifica.
- Se durante l'impostazione della vecchia codifica si commette un errore, la sequenza si riporta al passo h). Riprendere l'impostazione da questo punto.
 - Nel caso si commetta un errore con l'impostazione della nuova codifica azionare un tasto che sia differente da M1, M2, M3 e PROGRAM (ad esempio SCAN). Il visore si spegne. Per riaccenderlo azionare il POWER, l'apparato si predisporrà in modo automatico al passo l).

RICERCA DELLE ANOMALIE

- 1) Il ricetrasmittitore non trasmette oppure la trasmissione è di qualità scadente:
 - Assicurarsi che la funzione PA sia esclusa.
 - Verificare che il controllo RF POWER sia ruotato a finecorsa oraria.
 - Verificare che l'antenna sia appropriatamente connessa e compensata per il minimo valore di ROS.
 - Verificare che il controllo MIC GAIN sia ruotato a finecorsa oraria.
 - Verificare che il connettore microfonico sia ben inserito nella sua sede.
 - Si noterà che azionando il pulsante PTT, nel visore compare l'indicazione Tx. Ciò significa che l'apparato è in trasmissione. Rilasciare il PTT per ricommutare in ricezione.

- 2) Il ricetrasmittitore non riceve oppure la ricezione è difettosa:
 - Assicurarsi che la funzione PA sia esclusa.
 - Assicurarsi che lo Squelch sia predisposto al valore di soglia.
 - Verificare che il controllo RF GAIN sia ruotato a finecorsa oraria.
 - Verificare che il controllo di volume sia regolato in modo appropriato.
 - Verificare che il connettore microfonico sia ben inserito nella sua sede.
 - Verificare che l'antenna sia appropriatamente connessa e compensata per il minimo valore di ROS.
 - Controllare che la modulazione selezionata sia simile a quella usata dal corrispondente.

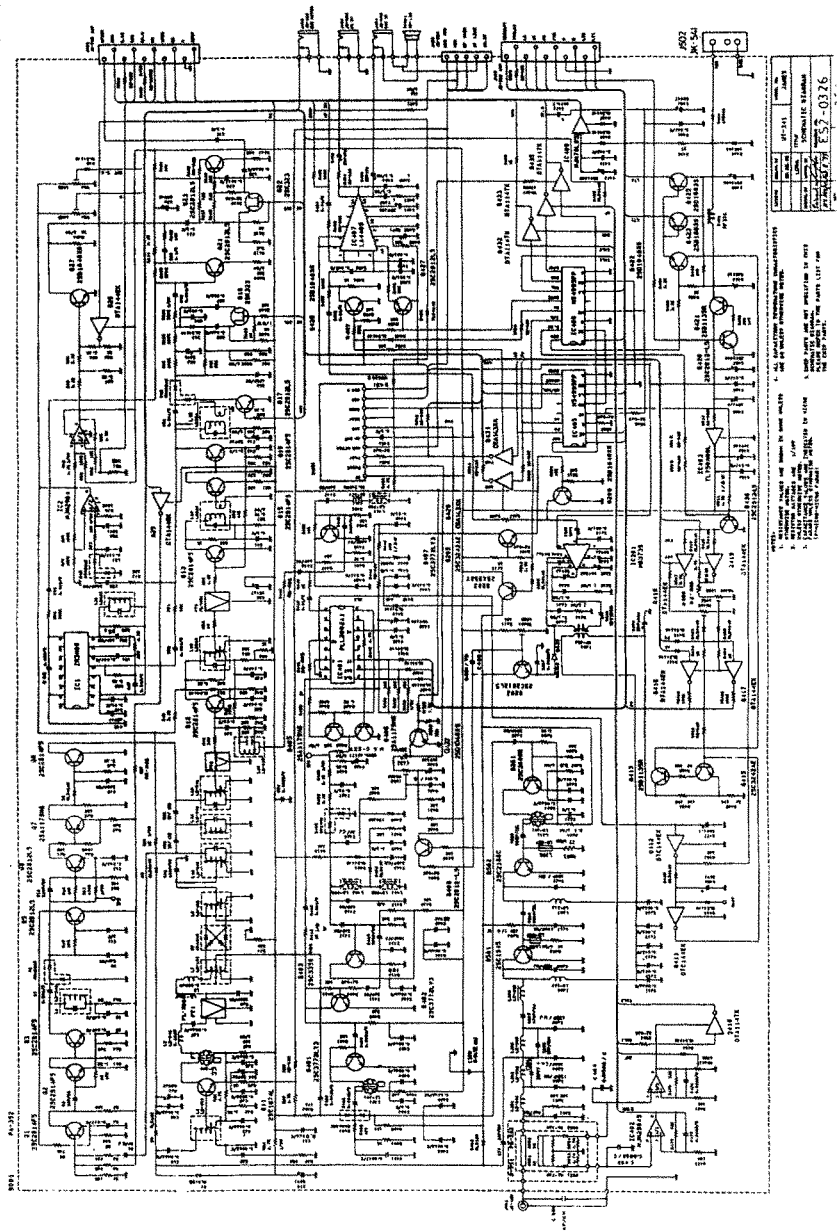
- 3) Il visore indica **codE** quando si commuta in trasmissione:
 - Controllare la tensione di alimentazione e che il valore di quest'ultima non cali quando si assorbono 3A.

- 4) Il ricetrasmittitore non si accende:
 - Controllare la sorgente in continua.
 - Controllare il cablaggio.
 - Verificare che sia stato inserito il codice esatto.
 - Verificare che il tasto POWER sia stato azionato.

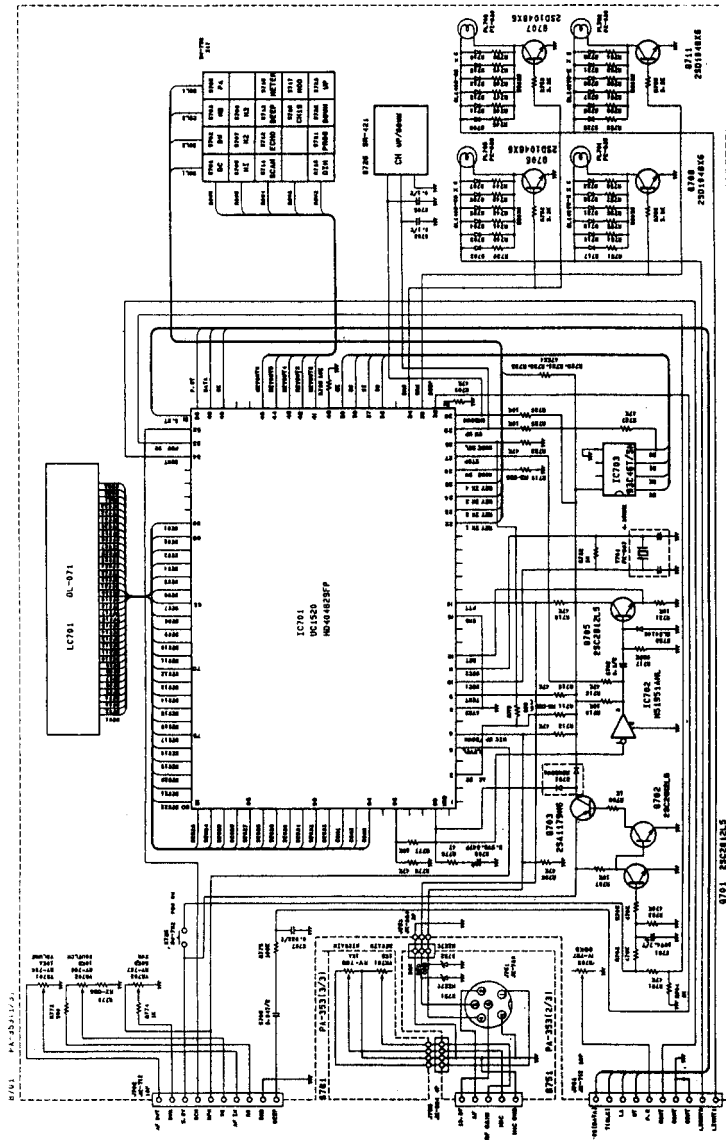
CORRISPONDENZA FRA CANALI E FREQUENZE DI TRASMISSIONE

N. di CANALE	FREQUENZA (MHz)	N. di CANALE	FREQUENZA (MHz)
1	26.965	21	27.215
2	26.875	22	27.225
3	26.985	23	27.255
4	27.005	24	27.235
5	27.015	25	27.245
6	27.025	26	27.265
7	27.035	27	27.275
8	27.055	28	27.285
9	27.065	29	27.295
10	27.075	30	27.305
11	27.085	31	27.315
12	27.105	32	27.325
13	27.115	33	27.335
14	27.125	34	27.345
15	27.135	35	27.355
16	27.155	36	27.365
17	27.165	37	27.375
18	27.175	38	27.385
19	27.185	39	27.395
20	27.205	40	27.405

SCHEMA ELETTRICO GENERALE



SCHEMA DELLA CPU



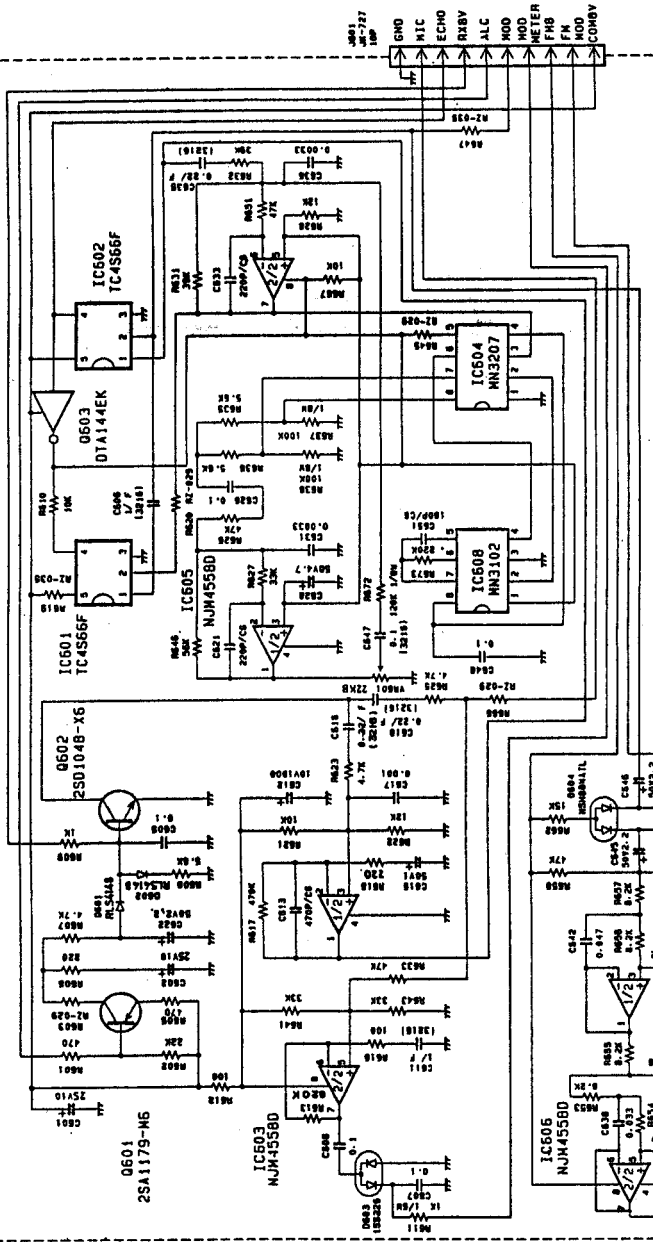
PRODOTTORE	UT-SALIC	MODELLO	JAMES
NUMERO IN	100.000.000	NUMERO DI	100.000.000
PRODOTTORE	UT-SALIC	MODELLO	JAMES
NUMERO IN	100.000.000	NUMERO DI	100.000.000
PRODOTTORE	UT-SALIC	MODELLO	JAMES
NUMERO IN	100.000.000	NUMERO DI	100.000.000
PRODOTTORE	UT-SALIC	MODELLO	JAMES
NUMERO IN	100.000.000	NUMERO DI	100.000.000
PRODOTTORE	UT-SALIC	MODELLO	JAMES
NUMERO IN	100.000.000	NUMERO DI	100.000.000

- NOTA:
- 1- I VALORI NON SPECIFICATI SONO DA SCELGERE IN BASE AI DATI DI FABBRICA.
 - 2- I VALORI NON SPECIFICATI SONO DA SCELGERE IN BASE AI DATI DI FABBRICA.
 - 3- I VALORI NON SPECIFICATI SONO DA SCELGERE IN BASE AI DATI DI FABBRICA.
 - 4- I VALORI NON SPECIFICATI SONO DA SCELGERE IN BASE AI DATI DI FABBRICA.

SCHEMA DEL CIRCUITO DI RIVERBERERAZIONE ECO

Imp. UT557/ECHONIC

P8501 PB-231



NOTES:

1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE SPECIFIED.
2. RESISTANCE VALUES ARE 1/10W UNLESS OTHERWISE NOTED.
3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED.
4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE B UNLESS OTHERWISE NOTED.
5. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

DESIGN	UT-557Z	MODEL NO.	JAMES
DRAWN BY	93.2.4	TITLE	ECHO MIC PCB
CHECKED BY		APPROVED BY	
DATE	6.6.27.73	DRAWING NO.	ES4-0334
REV.			P.E.E

Traduzione & Impaginazione:

TEC. MAN. s.r.l.

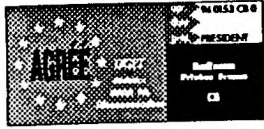
Consulenza & Documentazione Tecnica

marcucci S.p.A.

Via F.lli Bronzetti, 37 - Milano
Tel. 7386051

CB
27/81

MPT 1320



ETS 300135

JAMES



Français

Manuel d'utilisation
40 CANAUX FM

English

Owner's manual
40 CHANNEL FM

PRESIDENT

SOMMAIRE

PRÉSENTATION DU JAMES.....	5
INSTALLATION.....	6
UTILISATION.....	11
PROTECTION PAR CODE D'ACCÈS.....	21
CARACTÉRISTIQUES TECHNIQUES.....	23
GUIDE DE DÉPANNAGE.....	24
TABLEAU DE FRÉQUENCES.....	25
GLOSSAIRE.....	26
SCHÉMAS.....	27

SUMMARY

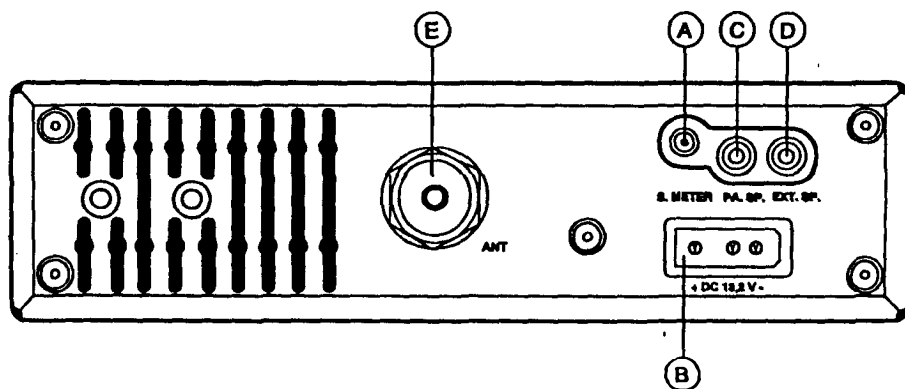
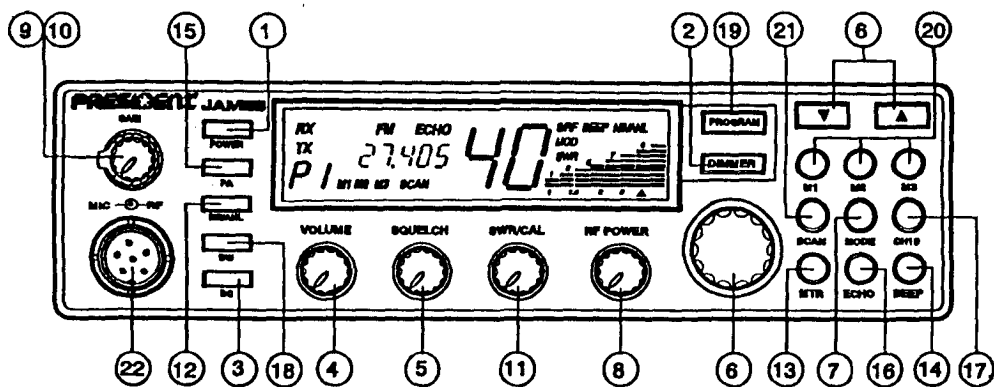
.....PRESENTATION OF THE JAMES
.....INSTALLATION
.....USE
.....SECURITY CODE SYSTEM
.....TECHNICAL CHARACTERISTICS
.....BREAKDOWN GUIDE
.....FREQUENCY TABLES
.....GLOSSARY
.....TECHNICAL DRAWINGS

ATTENTION !

Avant toute utilisation, prenez garde de ne jamais émettre sans avoir branché l'antenne (connecteur **E** situé sur la face arrière de l'appareil), ni réglé le TOS (Taux d'Ondes Stationnaires)! Sinon, vous risquez de détruire l'amplificateur de puissance, ce qui n'est pas couvert par la garantie.

WARNING !

*Before using, be careful never to transmit without first having connected the antenna (connection **E** situated on the back panel of the equipment) or without having set the SWR (Standing Wave Ratio)! Failure to do so may result in destruction of the power amplifier, which is not covered by the guarantee.*



Français

Bienvenue dans le monde des émetteurs-récepteurs CB de la 3^{ème} génération. Cette nouvelle gamme de postes INTERACTIFS vous fait accéder à la communication électronique la plus performante. Grâce à l'utilisation de technologies de pointe garantissant des qualités sans précédent, votre PRESIDENT JAMES est un nouveau jalon dans la convivialité et la solution par excellence pour le pro de la CB le plus exigeant. Pour tirer le meilleur parti de toutes ses possibilités, nous vous conseillons de lire attentivement ce mode d'emploi avant d'installer et d'utiliser votre CB PRESIDENT JAMES.

Anglais

Welcome to the world of the 3rd generation of CB radios. The new PRESIDENT INTERACTIVE range gives you access to top performance CB equipment. With the use of up-to-date technology, which guarantees unprecedented quality, your PRESIDENT JAMES is a new step in personal communications and is the surest choice for the most demanding of professional CB radio users. To ensure that you make the most of all its capacities, we advise you to read carefully this manual before installing and using your PRESIDENT JAMES.



A) INSTALLATION :

1) CHOIX DE L'EMPLACEMENT ET MONTAGE DU POSTE MOBILE :

- a) Choisissez l'emplacement le plus approprié à une utilisation simple et pratique de votre poste mobile.
- b) Veillez à ce qu'il ne gêne pas le conducteur ni les passagers du véhicule.
- c) Tenez compte du fait que la visibilité maximale de l'afficheur LCD se situe dans un angle de vision compris entre - 20° à + 60°.
- d) Prévoyez le passage et la protection des différents câbles, (alimentation, antenne, accessoires...) afin qu'ils ne viennent en aucun cas perturber la conduite du véhicule.
- e) Utilisez pour le montage le berceau (1) livré avec l'appareil, fixez-le solidement à l'aide des vis autotaraudeuses (2) fournies (dia-

mètre de perçage 3.2 mm). Prenez garde de ne pas endommager le système électrique du véhicule lors du perçage du tableau de bord.

- f) Lors du montage, n'oubliez pas d'insérer les rondelles de caoutchouc (3) entre le poste et son support. Celles-ci jouent en effet un rôle «d'amortisseur» et permettent une orientation et un serrage en douceur du poste.
- g) Choisissez un emplacement pour le support du micro et prévoyez le passage de son cordon.

- **NOTA :** Votre poste mobile possédant une prise micro en façade peut être encastré dans le tableau de bord. Dans ce cas, il est recommandé d'y adjoindre un haut-parleur externe pour une meilleure écoute des communications (connecteur EXT.SP situé sur la face arrière de l'appareil : D). Renseignez-vous auprès de votre revendeur Point Conseil le plus proche pour le montage de votre appareil.

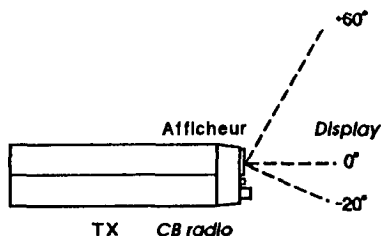
A) INSTALLATION :

1) WHERE AND HOW TO MOUNT YOUR MOBILE CB RADIO :

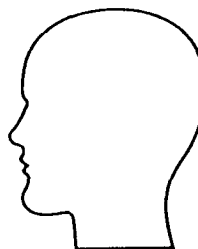
- a) You should choose the most appropriate setting from a simple and practical point of view.
- b) Your CB radio should not interfere with the driver or the passengers.
- c) Remember that maximum visibility of the LCD display is at an angle of vision between -20° and +60°.
- d) Remember to provide for the passing and protection of different wires (e.g. power, antenna, accessory cabling) so that they do not in any way interfere with the driving of the vehicle.
- e) To mount your CB radio you should use the cradle (1) supplied which must be firmly fixed using the self-tapping screws (2) provided (drilling diameter 3.2 mm). Take care not to damage the vehicle's electrical system while drilling the dash board.

- f) Do not forget to insert the rubber joints (3) between the CB and its support as these have a shock-absorbing effect which permits gentle orientation and tightening of the set.
 - g) Choose where to place the microphone support and remember that the microphone cord must stretch to the driver without interfering with the controls of the vehicle.
- **N.B. :** As the transceiver has a front microphone socket, you can set it into the dash board. In this case, you will need to add an external loud speaker to improve the sound quality of communications (connector EXT.SP situated on the back panel : D). Ask your dealer for advice on mounting your CB radio.

ANGLE DE VISION



ANGLE OF VISION



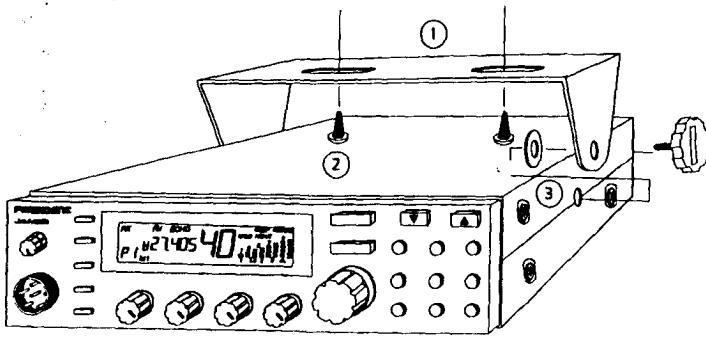


SCHÉMA GÉNÉRAL DE MONTAGE

MOUNTING DIAGRAM

2) INSTALLATION DE L'ANTENNE :

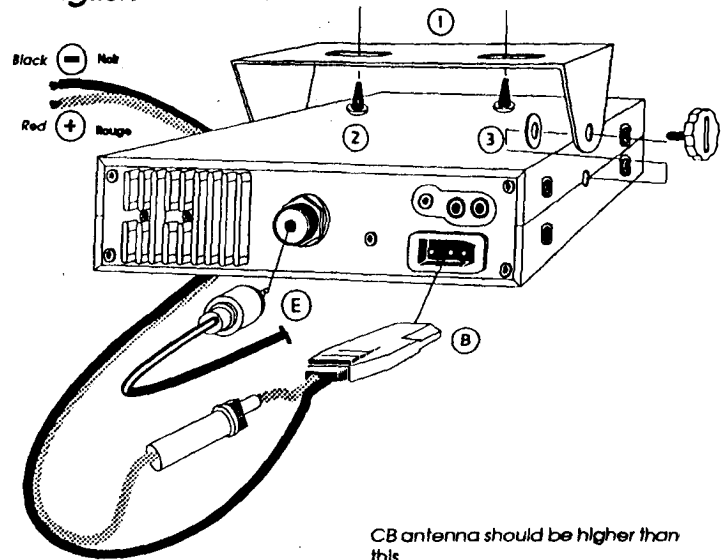
a) Choix de l'antenne :

- En CB, plus une antenne est grande, meilleur est son rendement. Votre Point Conseil saura orienter votre choix.

b) Antenne mobile :

- Il faut l'installer à un endroit du véhicule où il y a un maximum de surface métallique (plan de masse), en s'éloignant des montants du pare-brise et de la lunette arrière.
- Dans le cas où une antenne radiotéléphone est déjà installée, l'antenne CB doit être au-dessus de celle-ci.
- Il existe 2 types d'antennes : les *préréglées* et les *réglables*.

- Les *préréglées* s'utilisent de préférence avec un bon plan de masse (pavillon de toit ou malle arrière).
- Les *réglables* offrent une plage d'utilisation beaucoup plus large et permettent de tirer parti de plans de masse moins importants (voir p 5 § 5 RÉGLAGE DU TOS).
- Pour une antenne à fixation par perçage, il est nécessaire d'avoir un excellent contact antenne/plan de masse ; pour cela, grattez légèrement la tôle au niveau de la vis et de l'étoile de serrage.
- Lors du passage du câble coaxial, prenez garde de ne pas le pincer ou l'écraser (risque de rupture ou de court-circuit).
- Branchez l'antenne (E).



2) ANTENNA INSTALLATION :

a) Choosing your antenna :

- For CB radios, the longer the antenna, the better its results. Your dealer will be able to help you with your choice of antenna.

b) Mobile antenna :

- Must be fixed to the vehicle where there is a maximum of metallic surface (ground plane), away from windscreen mountings.
- If you already have a radiotelephone antenna installed, the

CB antenna should be higher than this.

- There are two types of antenna : *pre-regulated*, which should be used on a good ground plane (e.g. car roof or lid of the boot), and *adjustable* which offer a much larger range and can be used on a smaller ground plane (see «How to Adjust SWR», page 5).
- For an antenna which must be fixed by drilling, you will need a good contact between the antenna and the ground plane. To obtain this, you should lightly scratch the surface where the screw and tightening star are to be placed.
- Be careful not to pinch or flatten the coaxial cable (as this runs the risk of break down and/or short circuiting).
- Connect the antenna (E).

c) Antenne fixe :

- Veillez à ce qu'elle soit dégagée au maximum. En cas de fixation sur un mât, il faudra éventuellement haubaner conformément aux normes en vigueur (se renseigner auprès d'un professionnel). Les antennes et accessoires PRESIDENT sont spécialement conçus pour un rendement optimal de chaque appareil de la gamme.

3) CONNEXION DE L'ALIMENTATION :

Votre PRESIDENT JAMES est muni d'une protection contre les inversions de polarité. Néanmoins, avant tout branchement, vérifiez vos connexions.

Votre poste doit être alimenté par une source de courant continu de 12 Volts (B). A l'heure actuelle, la

plupart des voitures et des camions fonctionnent avec une mise à la masse négative. On peut s'en assurer en vérifiant que la borne (-) de la batterie soit bien connectée au bloc moteur ou au châssis. Dans le cas contraire, consultez votre revendeur.

ATTENTION : Les camions possèdent généralement deux batteries et une installation électrique en 24 Volts. Il sera donc nécessaire d'intercaler dans le circuit électrique un convertisseur 24/12 Volts (Type PRESIDENT CV 24/12).

Toutes les opérations de branchement suivantes doivent être effectuées sur un cordon d'alimentation non raccordé au poste :

- Assurez-vous que l'alimentation soit bien de 12 Volts.
- Repérez les bornes (+) et (-) de la batterie (+ = rouge, - = noir). Dans le cas où il serait nécessaire de rallonger le cordon d'alimentation, utilisez un câble de section équivalente ou supérieure.

c) Fixed antenna :

- A fixed antenna should be installed in a clear space as possible. If it is fixed to a mast, it will perhaps be necessary to stay it, according to the laws in force (you should seek professional advice). All PRESIDENT antennas and accessories are designed to give maximum efficiency to each CB radio within the range.

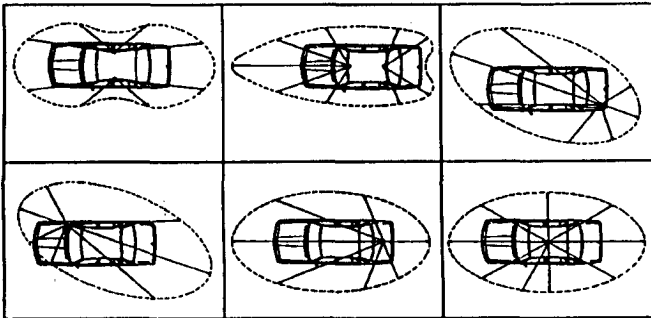
3) POWER CONNECTION :

Your PRESIDENT JAMES is protected against an inversion of polarity. However, before switching it on, you are advised to check all the connections. Your mobile set must be supplied with a continued current of 12 volts (B). Today, most cars and lorries are negative earth. You can check this by making sure that the negative terminal of the

battery is connected either to the engine block or to the chassis. If this is not the case, you should consult your dealer.

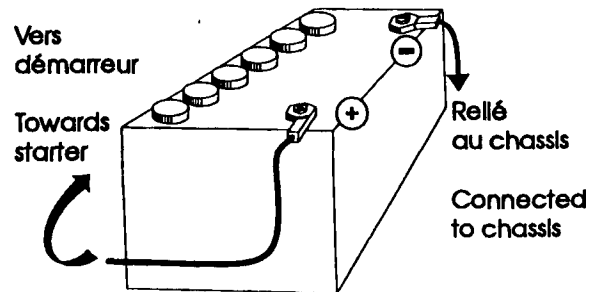
WARNING : Lorries generally have two batteries and an electrical installation of 24 volts, in which case it will be necessary to insert a 24/12 volt converter (type CV 24/12 PRESIDENT) into the electrical circuit. The following connection steps should be carried out with the power cable disconnected from the set.

- Check that the battery is of 12 volts.
- Locate the positive and negative terminals of the battery (+ is red and - is black). Should it be necessary to lengthen the power cable, you should use the same or a superior type of cable.



LOBE DE RAYONNEMENT

OUTPUT RADIUS PATTERNS



Français

- c) Il est nécessaire de se connecter sur un (+) et un (-) permanents, afin de ne pas avoir à saisir le code d'accès (Security Code System) à chaque mise en route du véhicule. Nous vous conseillons donc de brancher directement le cordon d'alimentation sur la batterie (le branchement sur le cordon de l'auto-radio ou sur d'autres parties du circuit électrique pouvant dans certains cas favoriser la réception de signaux parasites).
- d) Branchez le fil rouge (+) à la borne positive de la batterie et le fil noir (-) à la borne négative de la batterie.
- e) Branchez le cordon d'alimentation au poste.

ATTENTION: Ne jamais remplacer le fusible d'origine (5 A) par un modèle d'une valeur différente !

- f) Si vous retirez l'alimentation, l'appareil se met automatiquement en mode de protection et vous demandera de saisir le code d'accès à la prochaine mise sous-tension.

4) OPÉRATIONS DE MISE À EFFECTUER AVANT LA PREMIÈRE UTILISATION, SANS PASSER EN ÉMISSION (sans appuyer sur la pédale du micro) :

- a) Branchez le micro,
b) Vérifiez le branchement de l'antenne,
c) Mise en marche de l'appareil : Appuyez 4 fois sur la touche PROGRAM (code d'accès établi en usine). Appuyez 1 fois sur POWER. L'appareil s'allume et se cale automatiquement sur le canal 19 en mode FM (Mic Gain et RF Gain au maximum).
- d) Tournez le bouton SQUELCH au minimum (dans le sens inverse des aiguilles d'une montre). Tournez le bouton RF POWER au maximum (dans le sens des aiguilles d'une montre). Réglez le bouton VOLUME à un niveau convenable.
- e) Amenez le poste sur le canal 20 soit à l'aide du bouton «CH ▲» du micro ou de la face avant, soit à l'aide du rotateur.

5) RÉGLAGE DU TOS (Taux d'ondes stationnaires) :

ATTENTION : Opération à effectuer impérativement lors de la première utilisation de l'appareil ou lors d'un changement d'antenne. Ce réglage doit être fait dans un endroit dégagé, à l'air libre.

English

- c) So that you do not have to re-enter the code (security code system) each time you start the vehicle's engine, you should connect your CB to a permanent (+) and (-). We advise you therefore to connect the power cable directly to the battery (as the connection of the CB cable to the wiring of the car-radio or other parts of the electrical circuit may, in some cases, increase the likelihood of interference).
- d) Connect the red wire (+) to the positive terminal of the battery and the black (-) wire to the negative terminal of the battery.
- e) Connect the power cable to your CB radio.

WARNING: Never replace the original fuse (5A) by one of a different value.

- f) If you disconnect the power supply, the equipment will automatically go into protection mode and will ask you to re-enter the access code when you re-connect the power.

4) BASIC OPERATIONS TO BE CARRIED OUT BEFORE USING YOUR SET FOR THE FIRST TIME (without transmitting and without using the "push-to-talk" switch on the microphone) :

- a) Connect the microphone
b) Check the antenna connections
c) To turn the equipment on : Press «PROGRAM» key four times (access code pre-determined in the factory). Each time you press a key, the counter in the display increases by one. Press the «POWER» key once. Your CB radio will light up and automatically go to Channel 19, in FM. (MIC GAIN and RF GAIN set to maximum).
- d) Turn the squelch knob to minimum (anti-clockwise). Turn the «RF POWER» switch to maximum (clockwise). Adjust the volume to a comfortable level.
- e) Go to Channel 20 using either the «CH ▲» key on the microphone or on the front panel, or the rotary knob.

5) ADJUSTMENT OF SWR (Standing wave ratio) :

WARNING: This must be carried out when you use your CB radio for the first time (and whenever you re-position your antenna). The adjustment must be carried out in an obstacle-free area.

- Réglage avec TOS-Mètre Intégré
Pour ce faire, veuillez procéder de la façon suivante :

a) Appuyez sur la pédale du micro pour passer en émission, et maintenez-la pendant toute la durée du réglage.

b) Appuyez sur la touche MTR jusqu'à l'affichage de l'index ▲

c) Réglez le bouton SWR/CAL jusqu'à allumer les 7 rangées de digits (au niveau de l'index ▲) avec le bouton RF/POWER au maximum.

d) Réappuyez 1 fois sur MTR, alors SWR s'allume et l'index ▲ s'éteint. Ainsi, vous pouvez lire la valeur du TOS. Si vous voyez sur votre afficheur moins de 3 rangées de digits allumées, cela signifie que la valeur du TOS est acceptable (1 étant la valeur optimale du TOS). Au-delà, nous vous conseillons de réajuster l'antenne et de reprendre la procédure en a).

e) Réappuyez une dernière fois sur MTR, pédale d'émission enfoncée, de manière à remettre le poste en mode S/RF.

- Using the Integrated SWR meter:
For this, carry out the following steps :

a) Press the «push-to-talk» switch on the microphone and keep it pressed down throughout the adjustment.

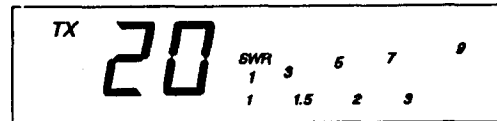
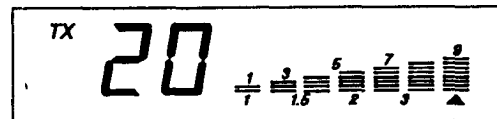
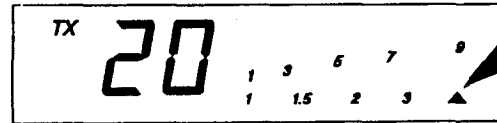
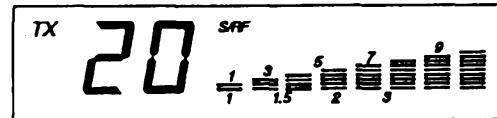
b) Press the «MTR» key until ▲ appears in the display.

c) Adjust the SWR/CAL key so that the 7 rows (like a bar graph ▲) appear in the display, with the RF/POWER knob turned to maximum.

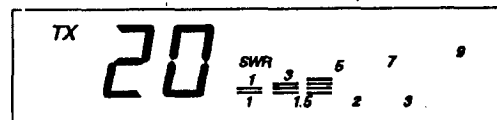
d) Press again the «MTR» key so that «SWR» appears in the display and the ▲ disappears. It is now possible to take the SWR reading. If in the display there are less than three rows of the bar graph, then the SWR reading is acceptable (1 being the ideal SWR value). If there are more than three rows, we advise you to re-adjust your antenna and re-start the procedure from step a).

e) Press the «MTR» key, with the «push-to-talk» switch pressed down, so that the equipment is in S/RF mode.

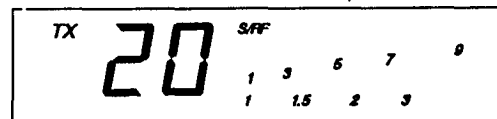
Afficheurs/Display



Valeur min./Minimum value



Valeur maxi./Maximum value



Français

- Réglage avec TOS-Mètre externe (type TOS-1 ou TOS-2 de PRESIDENT) :

a) Branchement du Tos-mètre :

- branchez le Tos-mètre entre le poste et l'antenne, le plus près possible du poste (utilisez pour cela un câble de 40 cm maximum type CA-2C PRESIDENT).

b) Réglage du Tos :

- amenez le poste sur le canal 20.
- positionnez le commutateur du Tos-mètre en position CAL (calibrage).
- appuyez sur la pédale du micro pour passer en émission.
- amenez l'aiguille sur l'index ▼ à l'aide du bouton de calibrage.
- basculez le commutateur en position SWR (lecture de la valeur du TOS). La valeur lue sur le vu-mètre doit être très proche de 1. Dans le cas contraire, réajustez votre antenne jusqu'à obtention d'une valeur aussi proche que possible de 1 (une valeur de TOS comprise entre 1 et 1,8 est acceptable).
- Il est nécessaire de recalibrer le Tos-mètre, entre chaque opération de réglage de l'antenne.

Maintenant, votre poste est prêt à fonctionner.

B) UTILISATION :

1) POWER :

- a) Une pression brève permet d'allumer et d'éteindre le poste.
- b) Une pression longue (environ 3 secondes) active la protection par code d'accès. Il est alors nécessaire de saisir à nouveau ce dernier afin de remettre le poste en marche.

NOTA : Dès l'extinction de votre appareil, la dernière configuration est enregistrée pour la prochaine utilisation.

2) DIMMER :

- a) Poste à l'arrêt (mais alimenté) : Une pression sur la touche «DIMMER» affiche le message clignotant **codE**, indiquant clairement et de façon continue la protection de l'appareil en votre absence. Toutefois, n'utilisez pas cette fonction sur une période supérieure à 3 jours sans faire démonter le véhicule (risque de décharger la batterie).

- b) Poste en marche : réglage de l'intensité lumineuse de l'afficheur.

English

- Using an external SWR meter (e.g. SWR 1 or SWR 2 PRESIDENT) :

B) HOW TO USE YOUR CB :

1) POWER :

- a) One quick press on this key turns your CB on and off.
- b) A longer depression (about three seconds) activates the protection by code procedure. The code must be re-entered to put the set on.

NOTA : As soon as your set goes off, the last configuration is memorised ready for the next time.

2) DIMMER :

- a) Set turned off (but with power supply connected): By pressing the DIMMER key the message **codE** flashes indicating clearly and permanently the code protection in your absence. You should not leave this function on for more than three days without starting your vehicle's engine (risk of flat battery).
 - b) Set turned on : Adjusts the display's luminosity.
- a) To connect the SWR meter:
 - Connect the SWR meter between the CB radio and the antenna as close as possible to the CB (use a maximum of 40 cm cable, type CA 2C PRESIDENT).
 - b) To adjust the SWR meter :
 - Set the CB to channel 20.
 - Put the switch on the SWR meter to position «CAL» (= calibrate).
 - Press the «push-to-talk» switch on the microphone.
 - Bring the Index needle to ▼ by using the calibration key.
 - Change the switch to position SWR (reading of the SWR level). The reading on the V.U. meter should be as near as possible to 1. If this is not the case, re-adjust your antenna to obtain a reading as close as possible to 1. (An SWR reading between 1 and 1.8 is acceptable).
 - It will be necessary to re-calibrate after each adjustment of the antenna.

Your CB is now ready for use.

3) DC (Double Couleur) :

Cette commande vous permet de changer la couleur de l'affichage digital soit ambre, soit chartreuse, afin d'harmoniser l'afficheur avec l'habitacle de votre véhicule.

4) VOLUME :

Pour augmenter le volume sonore, tournez ce bouton dans le sens des aiguilles d'une montre.

5) SQUELCH :

Permet de supprimer les bruits de fond indésirables en l'absence de communication. Tournez le bouton du squelch dans le sens des aiguilles d'une montre jusqu'au point exact où tout bruit de fond disparaît. C'est un réglage à effectuer avec précision, car mis en position maximum dans le sens des aiguilles d'une montre, seuls les signaux les plus forts peuvent être perçus. Le squelch ne joue ni sur le volume sonore ni sur la puissance d'émission, mais il permet d'améliorer considérablement le confort d'écoute.

6) SÉLECTEUR DE CANAUX :

Touches «CH ▲» et «CH ▼» et ROTACTEUR

Ces deux touches «CH ▼» et «CH ▲» accessibles sur le micro et sur la face avant, permettent d'effectuer une montée ou une descente des canaux. Cette fonction est également accessible à partir du rotacteur de canaux.

Touche «CH ▼» : une pression brève permet de descendre d'un canal, une pression continue permet de descendre les canaux avec un défilement de 5 par seconde.

Touche «CH ▲» : une pression brève permet de monter d'un canal, une pression continue permet de monter les canaux avec un défilement de 5 par seconde.

7) MODE :

Cette touche n'est pas utilisée dans cette version.

3) DC (Double Colour) :

With this key you can change the colour of the digital display to either amber or green, so that your set is in harmony with the interior of your vehicle.

4) VOLUME :

To increase the volume, turn this knob clockwise.

5) SQUELCH :

Suppresses undesirable background noise when there are no communications. Turn the squelch knob clockwise to the exact point where all background noise disappears. This adjustment should be done with precision as, if set to maximum, only the strongest of signals can be received. Squelch does not effect either sound or transmission power, but allows for considerable improvement in listening comfort.

6) CHANNEL SELECTOR KEYS «CH ▲», «CH ▼» AND/OR ROTARY KNOB :

The two keys, «CH ▲» and «CH ▼» on the microphone and on the front panel, allow you to go up and down the channels. This can also be done with the channel rotary knob.

«CH ▼» key : one quick press allows you to go down by one channel, continued pression allows you to descend five channels per second.
«CH ▲» key : one quick press allows you to go up by one channel, continued pression allows you to ascend five channels per second.

7) MODE :

Unused key on this version.

Français

8) RF POWER :

Lorsque vous tournez le bouton en butée dans le sens des aiguilles d'une montre, la puissance HF (norme 4 Watts crête) est au maximum. Réduisez la puissance d'émission, dans le cas d'une communication rapprochée avec un correspondant non équipé d'un RF GAIN.

La position normale de cette fonction se situe au maximum dans le sens des aiguilles d'une montre.

9) RF GAIN :

Réglage de la sensibilité en réception. Position maximum dans le cas de réception de communications longue distance. Vous pouvez diminuer le RF GAIN, pour éviter des distorsions, lorsque l'interlocuteur est proche. Réduisez le gain en réception dans le cas d'une communication rapprochée avec un correspondant non équipé d'un RF POWER.

La position normale de cette fonction se situe au maximum dans le sens des aiguilles d'une montre.

10) MIC GAIN :

- Réglage du niveau de sensibilité du micro dans le cas d'une utilisation d'un micro accessoire (préamplifié).
- Réglage du volume sonore en mode PA (voir point 15).

La position normale de cette fonction se situe au maximum dans le sens des aiguilles d'une montre.

11) SWR/CAL :

Permet le calibrage du Tos-mètre (voir réglage du TOS p. 5 § 5).

12) NB/ANL :

Noise Blanker/Automatic Noise Limiter. Ces filtres permettent de réduire les bruits de fond et certains parasites en réception.

Une pression active les filtres, et NB/ANL apparaît sur l'afficheur. Une nouvelle pression désactive les filtres, et NB/ANL disparaît.

13) MTR :

Cette touche est multifonction :

- Position S/RF : lecture au vu-mètre de la puissance d'émission et de réception.
- Position MODE : ne fonctionne qu'en mode d'émission (TX). Permet de mesurer la puissance de modulation (niveau de la voix).
- Position ▲ : calibrage du TOS-mètre. Voir procédure de réglage du TOS (p.5 § 5)
- Position SWR : lecture de la valeur du TOS. Voir procédure de réglage du TOS (p.5 § 5)
Ces fonctions sont accessibles par pressions successives, en mode émission (TX). En mode réception (RX), cette touche est verrouillée sur la position «S/RF».

English

8) RF POWER :

When you turn this knob fully clockwise the RF power (nom peak 4 watts) is at maximum. You should reduce transmission power when the communication is close to someone who does not have RF GAIN.

The normal setting of this knob is on maximum (fully clockwise).

9) RF GAIN :

This knob is for adjusting sensitivity during reception. For long distance communications RF GAIN should be set to maximum. RF GAIN can be reduced to avoid distortion, when your correspondent is close by and when he does not have RF POWER.

The normal setting of this knob is on maximum (fully clockwise).

10) MIC GAIN :

- Is for regulating microphone sensitivity, when using a microphone other than the one supplied with your PRESIDENT JAMES. (pre-amplified).
- Also adjusts the sound volume of Public Address mode (see point 17).

The normal setting of this knob is fully clockwise.

11) SWR/CAL :

Used for the calibration of the SWR meter (see «Adjustment of SWR» page 5).

12) NB/ANL :

Noise Blanker/ Automatic Noise Limiter. These filters allow the reduction of back ground noise, and some reception interference.

Press once to activate the function. «NB/ANL» appears in the display. To cancel, press the same key. «NB/ANL» disappears from the display.

13) MTR :

This key has several functions :

- Position «S/RF» : for taking a V.U. meter reading of transmission and reception power ;
- Position «MODE» only works during transmission. Allows modulation measurement (voice level).
- Position ▲ : calibration of the SWR meter. See «Adjustment of SWR meter» page 5.
- Position «SWR» : reading of the SWR value. See «Adjustment of SWR meter», page 5.

To use these functions, press the METER key successively in transmission mode. In reception mode this key locks itself onto position «S/RF».

14) BEEP :

Le «Roger Beep» émet un beep lorsqu'on relâche la pédale du micro pour laisser la parole à son correspondant. Historiquement, la CB étant un mode de communication «simplex», c'est-à-dire qu'il n'est pas possible de parler et d'écouter en même temps (comme c'est le cas pour le téléphone par exemple), il était d'usage de dire «Roger» une fois que l'on avait fini de parler afin de prévenir son correspondant qu'il pouvait parler à son tour. Le mot «Roger» a été remplacé par un «beep» significatif, d'où son nom «Roger Beep».

Une pression active le ROGER BEEP ainsi que la sonorisation des touches, le mot BEEP apparaît sur l'afficheur. Une deuxième pression le désactive, le mot BEEP disparaît de l'afficheur. Il n'y a plus de validation sonore des touches. Le niveau sonore du BEEP des touches est réglable par le bouton VOLUME.

15) PA (Public Address) :

Un haut-parleur de sonorisation extérieure peut être connecté sur le PRÉSIDENT JAMES par une prise Jack située sur le panneau arrière PA.SP (C). En appuyant sur la touche PA, le message émis dans le microphone sera dirigé vers le haut-parleur extérieur et amplifié. Tenez le microphone à une distance suffisante de ce haut-parleur afin d'éviter l'effet Larsen.

Une pression sur cette touche affiche le mot PA sur l'afficheur et active cette fonction. Tout le reste s'éteint. Le volume du PA est réglable par le bouton MIC GAIN. Une nouvelle pression désactive le PA et votre poste revient à sa configuration précédente.

16) ECHO :

Mise en fonction de la chambre d'écho. Cette fonction donne un effet de réverbération (écho) à votre voix. Le niveau de réverbération est réglable. Renseignez-vous auprès de votre Point Conseil pour effectuer ce réglage. Vous pouvez vérifier votre niveau de réverbération soit en utilisant la fonction PA et en connectant un haut-parleur de sonorisation, soit en faisant un essai d'émission (TX) avec un correspondant.

Une pression active la chambre d'écho, et ECHO apparaît sur l'afficheur. Une nouvelle pression désactive la chambre d'écho, et ECHO disparaît.

17) CH19 (Canal 19 FM) :

Le canal 19 FM sera automatiquement sélectionné en appuyant sur cette touche.

Une pression active le canal 19 FM. Une nouvelle pression vous ramène à la configuration précédente.

14) BEEP :

When you finish speaking and you release the «push-to-talk» switch to allow your correspondent to speak, a «beep» sounds. Radio CB is what is known as a «simplex» method of communication, that is to say, that you cannot listen and speak at the same time (as you can, for example, with the telephone). It was custom to say «roger» to indicate to your correspondent that you'd finished speaking and that it was his turn to talk. The word «roger» has now been replaced with a beep, hence its name, «Roger Beep».

By depressing this key once, the roger beep is activated as well as the sounding of all the keys and the word BEEP appears in the display. To cancel out the beep, depress the same key. The sound level of the beep can be adjusted by using the VOLUME knob.

15) PA (PUBLIC Address) :

An external loud speaker can be connected to your PRÉSIDENT JAMES by the Jack plug situated on the back panel PA.SP (C). By pressing the PA key, the message transmitted into the microphone will be directed towards the external speaker and be amplified. PA appears in the display and everything else disappears. Hold the microphone far enough away from this loud speaker so as to avoid the Larsen effect.

The PA volume is regulated by the MIC GAIN knob. To cancel PA, press the «PA» key and the set returns to the previous configuration.

16) ECHO :

Use of the echo chamber. This function gives a reverberation (echo) effect to your voice. The level of echo can be adjusted. Ask your dealer to carry out this adjustment for you. You can check level of echo either by using the PA function and connecting a loud speaker, or by carrying out a trial transmission with a correspondent.

To activate this function press the PA key once. «ECHO» appears in the display. To cancel it simply press the same key. «ECHO» disappears from the display.

17) CH19 (Channel 19 FM) :

Channel 19 FM is automatically selected when you depress this key.

This function is activated by depressing the key. To return to the previous configuration re-depress the same key.

Français

English

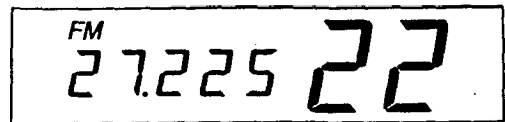
Afficheurs/Display

Configuration

Configuration

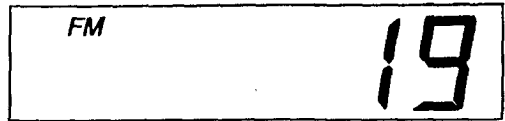
Vous êtes sur le canal 22 FM

You are in Channel 22 FM



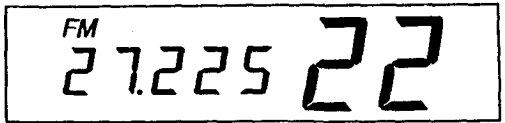
- une pression sur «CH 19» :
Extinction de la fréquence pour indiquer que le canal 19 FM est sélectionné,
accès direct au canal 19 FM

- Press «CH19»
Frequency disappears to indicate that Channel 19 FM is selected.
Set goes directly to Channel 19 FM



- une pression sur «CH 19» :
retour à la configuration précédente :
Canal 22 FM

- Press «CH19»
Set returns to previous configuration :
Channel 22 FM



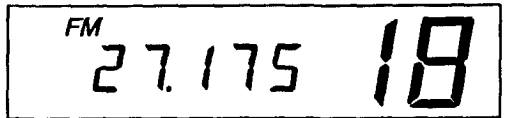
- une pression sur «CH 19» :
accès direct au canal 19 FM

- Press «CH19»
Set goes directly to Channel 19 FM



- une pression sur «CH ▼» :
descente d'un canal

- Press «CH ▼»
Set goes down one to Channel 18



- une pression sur «CH 19» :
accès direct au canal 19 FM

- Press «CH19»
Set goes directly to Channel 19 FM



français

18) DW (Double Velle) :

Cette fonction permet d'effectuer une velle entre le canal 19 FM et le canal en cours. L'appareil effectue un va-et-vient (durée : 1 seconde environ par canal) entre ces deux canaux et s'arrête sur celui où il détecte un signal (niveau de réception défini par le squelch). La

double velle reprend dès la fin du signal, sauf si on est passé en émission (TX).

Une pression active la double velle, et «DW» apparaît sur l'afficheur. Une pression désactive la double velle, et «DW» disparaît.

Exemples de fonctionnement :

Configuration

- Vous êtes sur le canal 22 FM

- une pression sur «DW» :

Exemples :

Configuration

- You are in Channel 22 FM

- Press «DW»

English

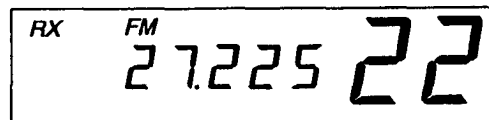
18) DW (Dual Watch) :

This function lets you watch over Channel 19 FM and the channel you are using. The equipment goes to and from the two channels (1 second per channel) and stops on the one where a signal is detected (reception level defined by

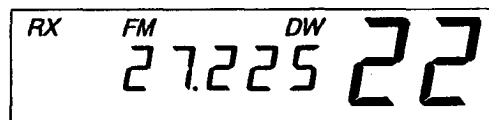
squelch). Dual Watch returns at the end of the signal unless you go into transmission.

To activate this surveillance function, press «DW». «DW» appears in the display. To cancel, press the same key. «DW» disappears from the display.

Afficheurs/Display



RX FM 27.225 22



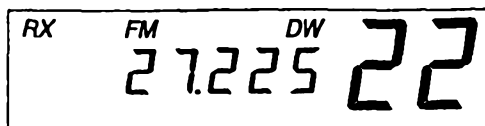
RX FM DW 27.225 22

Alternativement/Alternates between



RX FM H 19

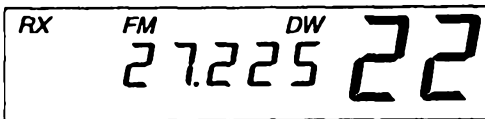
- si un signal arrive sur le canal 22 l'appareil écoute ce canal et reste dans cette situation jusqu'à la fin du signal.
- If a signal is detected on Channel 22 your CB listens to the channel and stays there until the end of the signal.



- fin du signal sur le canal 22 FM
- End of signal on Channel 22 FM



Alternativement/Alternates between



- Réception d'un signal sur le canal 19 FM
- Reception of signal on Channel 19 FM



- Réponse à cet appel en appuyant sur la pédale du micro. Fin de la double veille. «DW» s'éteint.
- Reply to this call by pressing the «push-to-talk» switch on the microphone. «DW» is cancelled.



Français

19) PROGRAM :

Cette touche utilisée en association avec «M1-M2-M3», permet de définir le niveau de mémorisation.

De brèves pressions sur cette touche permettent d'afficher successivement P1, P2, P3, P4. Une pression longue sur l'un de ces 4 niveaux fait clignoter l'affichage et permet, si on appuie ensuite sur une touche mémoire M1, M2, M3, de stocker la configuration (canal et mode de modulation) utilisée à

ce moment précis. L'appareil valide l'opération par un beep long (voir exemple après le point 20)

20) M1-M2-M3 :

En association avec la touche PROGRAM, ces touches permettent de stocker ou de récupérer les informations mémorisées. On peut ainsi définir 4 canaux mémorisés par passer P1 à P4. Ce qui fait au total 12 possibilités de mémorisation.

Exemples de fonctionnement :

Configuration

a) Stockage en mémoire

- Configuration initiale Canal 22 FM

- une pression brève sur «PROGRAM»: P 1 s'allume

- une pression longue sur «PROGRAM»: P 1 clignote

Exemples :

Configuration

a) How to memorise information

- Initial configuration Channel 22 FM

- Short depression of «PROGRAM»: P 1 appears in the display

- Longer depression of «PROGRAM»: P 1 flashes in the display

English

19) PROGRAM :

This key is used in conjunction with keys «M1-M2-M3» and is for memorizing chosen channels.

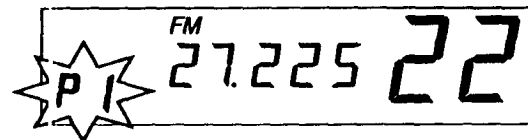
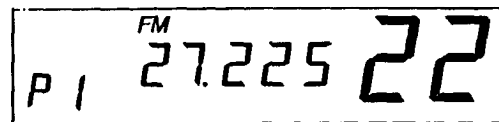
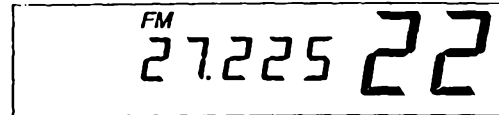
By rapidly pressing the «PROGRAM» key, P1, P2, P3, P4 will show in the display. Pressing longer on one of the four keys (P1 - P4) will cause the display to flash. By immediately pressing one of the memory keys (M1 - M3) the channel and the modulation mode currently in use

will be stored in the memory. The operation is validated with a long beep. (See example after paragraph 20)

20) M1-M2-M3 :

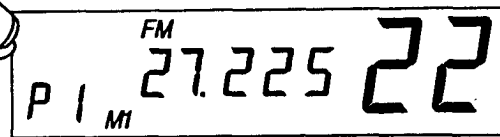
Used in conjunction with the «PROGRAM» key, these keys allow you to memorise and to call up information. It is also possible to define the four memorised channels by using the keys P1 - P4, thus giving a total of 12 possible memories.

Afficheurs/Display



- une pression sur la touche «M1»: P1 arrête de clignoter M1 s'allume, beep long Le Canal 22 FM est stocké dans la case P1 M1

- Depresson of «M1»: P1 stops flashing, M1 appears, long beep sounds to indicate that Channel 22 FM is memorised in P1 M1.



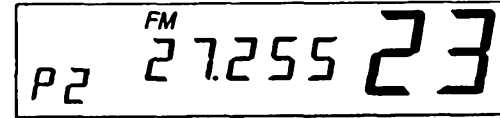
- changement de canal en appuyant sur une des touches «CH▲» / «CH ▼» du micro ou de la face avant : extinction de M1

- Change of channel by depressing one of the keys «CH▲», «CH▼» on the microphone or front panel: M1 disappears.



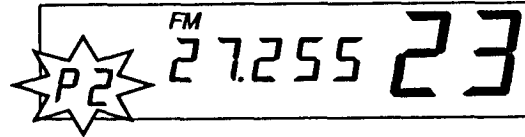
- une pression brève sur «PROGRAM» passage de P1 à P2

- Rapid depression of «PROGRAM» Set goes from P1 to P2



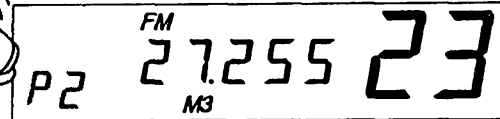
- une pression longue sur «PROGRAM» P2 clignote

- Longer depression of «PROGRAM» P2 flashes



- une pression sur «M3» P2 arrête de clignoter M3 s'allume, beep long Le canal 23 FM est stocké dans la case P2 M3.

- Press «M3», P2 stops flashing, M3 lights up, long beep sounds. Channel 23 FM is memorised in P2 M3.



Français

b) Accès direct à une case mémoire
Configuration Initiale Canal 3 FM

b) Direct access to one of the
memories
Initial configuration Channel 3 FM

- une pression brève sur «PROGRAM»
P 1 s'allume

- Rapid depression of «PROGRAM»
P 1 appears in the display

- une pression sur «M1» les données
sur la case P 1 M1 sont appelées
(voir plus haut) et le poste passe
automatiquement au canal 22 FM

- Depression of «M1» The information
in P 1 M1 is called up and the set
automatically goes to the
memorised channel (CH 22 FM in
our example above)

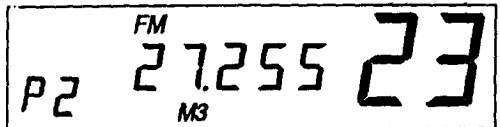
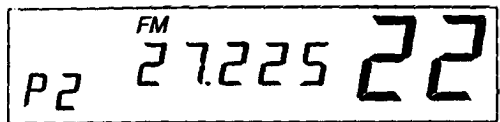
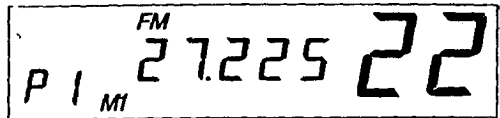
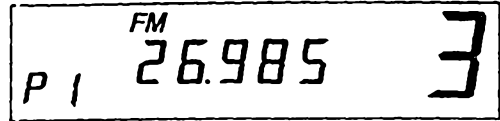
- une pression brève sur la touche
«PROGRAM» P 2 s'allume

- Rapid depression of «PROGRAM»
P 2 appears in the display-

- une pression sur la touche «M3» les
données de la case P 2 M3 sont
appelées (voir plus haut). Le poste
passe automatiquement sur le ca-
nal 23 FM.

- By pressing «M3» the information in
P 2 M3 is called up and the set
automatically goes to the
memorised setting (CH 23 FM in our
example above)

English



21)SCAN :

Cette fonction effectue un balayage (Scanning) sur tous les canaux mémorisés (12). La fonction Scanning s'arrête lorsqu'un signal est détecté sur une des mémoires. Le balayage reprend à la fin du signal. Un passage en émission permet de répondre à un interlocuteur éventuel et de sortir du mode SCAN.

Une pression active le Scanning, et SCAN apparaît sur l'afficheur. Le niveau du signal est défini par le squelch. Une nouvelle pression désactive la fonction, et SCAN disparaît.

22)PRISE MICRO 6 BROCHES

Voir schéma ci-dessous.

C)PROTECTION PAR CODE D'ACCÈS :

RAPPEL : Votre poste est systématiquement protégé par un code d'accès personnalisable (Security

Code System) à 4 touches dans les cas suivants :

- Déconnexion de l'alimentation 12 Volts ou
 - Pression prolongée (plus de 4 secondes) sur la touche POWER (poste allumé ou éteint).
- Dans ces deux cas, le poste se trouve bloqué et il est alors nécessaire de composer le bon code d'accès avant toute mise en marche. Le code d'accès établi par PRESIDENT en usine ou après un retour S.A.V. est :

4 pressions brèves sur la touche PROGRAM.

ATTENTION : En cas d'oubli de votre code d'accès, seul le S.A.V. de PRESIDENT est en mesure de réinitialiser votre appareil, et pour des raisons de sécurité, cette opération ne sera effectuée que dans le cas où le poste est renvoyé, accompagné de sa carte de garantie. Nous vous recommandons de noter votre code sur un document personnel.

21) SCAN :

This function allows you to "scan" all the memorised channels. Scanning stops when a signal is detected on one of the memorised channels. At the end of the signal, scanning continues. By going into transmission mode you may communicate with your correspondent and your CB leaves the scanning mode.

This function is activated by depressing the SCAN key and «SCAN» appears in the display. The level of the signal is defined by using the squelch button. To cancel, depress the same key, «SCAN» disappears from the display.

- If the 12 volt power supply is disconnected and/or
 - after a long depression (more than four seconds) of the POWER key (radio on or off).
- In these two cases, the CB is blocked and it is necessary to enter the correct access code. The access code, established by PRESIDENT in the factory or after being returned to the After Sales Service department is:

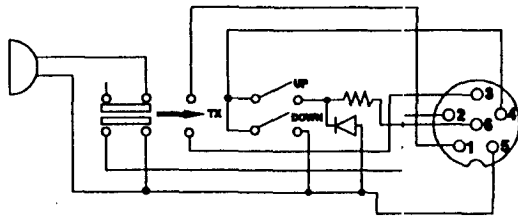
4 short depressions of the PROGRAM key.

22) 6-PIN MICROPHONE PLUG

C)PROTECTION BY SECURITY CODE SYSTEM :

REMINDER : Your radio CB is automatically protected by a personal 4-digit access code (security code system) which must be re-entered in the following circumstances:

WARNING : If you forget your access code, only PRESIDENT After Sales Service can re-initialise your set. For security reasons this can only be done when the set is returned with its guarantee card. We strongly advise you to make a note of your code.



1	Modulation	Modulation
2	RX	RX
3	TX	TX
4	UP/DOWN	UP/DOWN
5	Masse	Earth
6	Alimentation	Alimentation

Français

PROCÉDURE DE PERSONNALISATION DU CODE D'ACCÈS :

Veuillez lire impérativement et attentivement cette procédure avant tout changement de code d'accès !

- a) Allumez votre poste en appuyant sur POWER.
- b) Éteignez votre poste en appuyant sur POWER.
- c) Appuyez longuement sur POWER sans relâcher la touche : le poste s'allume puis s'éteint.
- d) Appuyez simultanément sur NB/ANL et PROGRAM tout en maintenant la touche POWER enfoncée.
- e) Relâchez POWER tout en maintenant les 2 autres touches : l'affichage **code** clignote pendant 5 secondes.
- f) A l'extinction de **code** : **1** apparaît sur l'afficheur.
- g) Relâchez les touches NB/ANL et PROGRAM.
- h) Appuyez sur la première touche composant l'ancien code, («PROGRAM» en configuration de livraison) **2** apparaît sur l'afficheur.
- i) Appuyez sur la deuxième touche composant l'ancien code, («PROGRAM» en configuration de livraison) **3** apparaît sur l'afficheur.
- j) Appuyez sur la troisième touche composant l'ancien code, («PROGRAM» en configuration de livraison) **4** apparaît sur l'afficheur.
- k) Appuyez sur la quatrième touche

composant l'ancien code, («PROGRAM» en configuration de livraison). **1** apparaît sur l'afficheur ainsi que la lettre **P** indiquant que le poste est prêt à enregistrer le nouveau code (4 touches).

- l) Appuyez sur la première touche composant le nouveau code en faisant un choix entre : «M1», «M2», «M3» ou «PROGRAM» : **2** apparaît sur l'afficheur ainsi que la lettre **P**.
- m) Appuyez sur la deuxième touche composant le nouveau code en faisant un choix entre : «M1», «M2», «M3» ou «PROGRAM» : **3** apparaît sur l'afficheur ainsi que la lettre **P**.
- n) Appuyez sur la troisième touche composant le nouveau code en faisant un choix entre : «M1», «M2», «M3» ou «PROGRAM» : **4** apparaît sur l'afficheur ainsi que la lettre **P**.
- o) Appuyez sur la quatrième touche composant le nouveau code en faisant un choix entre : «M1», «M2», «M3» ou «PROGRAM» : l'afficheur s'éteint.
- p) Appuyez sur POWER : le poste s'allume et a enregistré votre nouveau code.

- Si lors de la saisie de l'ancien code une erreur survenait, le poste se mettrait automatiquement à la position (h). Dans ce cas reprenez la procédure à ce point.

- Si lors de la saisie du nouveau code vous appuyez par erreur sur une touche autre que «M1», «M2», «M3» ou «PROGRAM» (SCAN par exemple) l'afficheur s'éteindrait. Pour le rallumer, appuyez sur POWER, et le poste reviendra à la situation (l).

English

HOW TO PERSONALIZE YOUR ACCESS CODE :

Please carefully read this procedure before changing the access code.

- a) Turn your CB on by pressing «POWER».
- b) Turn your CB off by pressing «POWER».
- c) Depress «POWER» and keep depressed: your CB goes on and then goes off.
- d) Depress both «NB/ANL» and «PROGRAM» while keeping «POWER» depressed.
- e) Release «POWER», but keeping «NB/ANL» and «PROGRAM» depressed: **code** flashes in the display for 5 seconds.
- f) When **code** disappears, **1** appears on the display.
- g) Release the keys «NB/ANL» and «PROGRAM».
- h) Press the first key of the old code (PROGRAM in the original configuration) **2** appears in the display.
- i) Press the second key of the old code (PROGRAM in the original configuration) **3** appears in the display.
- j) Press the third key of the old code (PROGRAM in the original configuration) **4** appears in the display.

k) Press the fourth key of the old code (PROGRAM in the original configuration). **1** appears in the display as well as the letter **P**, which indicates that your radio CB is ready to register the new code (4 key code).

- l) Depress the first key of the new code choosing between M1 M2 M3 and PROGRAM : **2** appears in the display as well as the letter **P**.
- m) Depress the second key of the new code choosing between M1 M2 M3 and PROGRAM : **3** appears in the display as well as the letter **P**.
- n) Press the third key of the new code choosing between M1 M2 M3 and PROGRAM : **4** appears in the display as well as the letter **P**.
- o) Press the fourth key of the new code choosing between M1 M2 M3 and PROGRAM : The display goes out.
- p) Depress «POWER»: your CB lights up and the new code is memorised.

- If, while you are entering the old code, you make a mistake, the set will automatically return to point (h). Restart from this point.

- If, while entering the new access code, you press a key other than M1, M2, M3, or PROGRAM (eg SCAN) the display will go off. To turn it back on depress POWER and your CB will automatically go to point (l).

D) CARACTÉRISTIQUES TECHNIQUES :

1) GÉNÉRALES :

- Canaux	:	40
- Modes de modulation	:	FM
- Impédance d'antenne	:	50 ohms
- Tension d'alimentation	:	13.2V
- Dimensions (en mm)	:	180 (L) x 188 (P) x 50 (H)
- Poids	:	1.4 kg
- Accessoires inclus	:	1 microphone et son support 1 support de montage vis de fixation.

2) ÉMISSION :

- Tolérance de fréquence	:	+/- 300 Hz
- Puissance porteuse	:	4 W FM
- Émissions parasites	:	inférieure à 4 nW (-50 dBm)
- Réponse en fréquence	:	300 Hz à 3 kHz en FM
- Puissance émise dans le canal adj.	:	inférieure à 20 µW
- Sensibilité du microphone	:	1 µV
- Consommation	:	2.5 A (avec modulation)
- Distorsion max. du signal modulé	:	2.5 %

3) RÉCEPTION :

- Sensibilité max à 20 dB sinad	:	0.5 µV - 113 dBm (FM)
- Réponse en fréquence	:	300 Hz à 3 kHz en FM
- Sélectivité du canal adj.	:	70 dB
- Puissance audio max	:	3 W
- Sensibilité du squelch	:	mini 0.5 µV - 113 dBm maxi 1 mV - 47 dBm
- Taux de réj. fréq. Image	:	70 dB
- Taux de réjection fréq. Intermédiaire	:	70 dB
- Consommation	:	500 mA nominal 800 mA max 800 mA nominal 1.3 A

(sans signal BF)
(avec signal BF)

D) TECHNICAL CHARACTERISTICS :

1) GENERAL :

- Channels	:	40
- Modulation modes	:	FM
- Antenna impedance	:	50 ohms
- Power supply	:	13.2 V
- Dimensions (en mm)	:	180 (L) x 188 (H) x 50 (D)
- Weight	:	1.4 kg
- Accessories supplied	:	microphone with support, mounting cradle, screws.

2) TRANSMISSION :

- Frequency allowance	:	+/- 300 Hz
- Carrier power	:	4 watts FM
- Transmission interference	:	Inferior to 4 nW (-50 dBm)
- Audio response	:	300 Hz à 3 kHz in FM
- Emitted power in the adj. channel	:	Inferior to 20 µW
- Microphone sensitivity	:	1 µV
- Drain	:	5A (with modulation)
- Modulated signal distortion	:	2.5%

3) RECEPTION :

- Max. sensitivity at 20 dB sinad	:	0.6 µV - 112 dBm (FM)
- Frequency response	:	300 Hz à 3 kHz in FM
- Adjacent channel selectivity	:	70 dB
- Maximum audio power	:	3 W
- Squelch sensitivity	:	minimum 0.5 µV - 113 dBm maximum 1 mV - 47 dBm
- Frequency image rejection rate	:	70 dB
- Intermediate freq. rejection rate	:	70 dB
- Drain	:	500 mA nominal 800 mA maximum 800 mA nominal 1.3 A

(without LF signal)
(with LF signal)

Français

E) GUIDE DE DÉPANNAGE:

1) VOTRE POSTE N'ÉMET PAS OU VOTRE ÉMISSION EST DE MAUVAISE QUALITÉ :

- Vérifiez que la fonction PA ne soit pas activée.
- Vérifiez que le RF POWER soit tourné en butée dans le sens des aiguilles d'une montre.
- Vérifiez que l'antenne soit correctement branchée et que le TOS soit bien réglé.
- Vérifiez que le MIC GAIN soit tourné en butée dans le sens des aiguilles d'une montre.
- Vérifiez que le micro soit bien branché.
- Pédale d'émission activée, l'affichage TX clignote. Relâchez la pédale, puis réappuyez sur celle-ci afin de passer en émission.

2) VOTRE POSTE NE REÇOIT PAS OU VOTRE RÉCEPTION EST DE MAUVAISE QUALITÉ :

- Vérifiez que la fonction PA ne soit pas activée.
- Vérifiez que le niveau du squelch soit correctement réglé.
- Vérifiez que le bouton RF Gain soit bien au maximum dans le sens

- des aiguilles d'une montre.
- Vérifiez que le bouton Volume soit réglé à un niveau convenable.
- Vérifiez que le micro soit branché.
- Vérifiez que l'antenne soit correctement branchée et le TOS bien réglé.
- Vérifiez si vous êtes bien sur le même type de modulation que votre interlocuteur.

3) VOTRE POSTE AFFICHE LE MOT *codE* QUAND VOUS PASSEZ EN TX :

- Vérifiez que la puissance de votre alimentation soit suffisante pour alimenter votre TX.

4) VOTRE POSTE NE S'ALLUME PAS :

- Vérifiez votre alimentation.
- Vérifiez qu'il n'y ait pas d'inversion des fils au niveau de votre branchement.
- Vérifiez que le code que vous venez de saisir ne soit pas erroné.
- Vérifiez que la touche POWER soit bien activée.

English

E) TROUBLE -SHOOTING

1) YOUR CB RADIO WILL NOT TRANSMIT OR YOUR TRANSMISSION IS OF POOR QUALITY :

- Check that the PA function is turned off.
- Check that the RF POWER knob is turned fully clockwise.
- Check that the antennas correctly connected and that the SWR is properly adjusted.
- Check that the MIC GAIN knob is turned fully clockwise.
- Check that the microphone is properly plugged in.
- With the «push-to-talk» switch activated, the display flashes. Release the «push-to-talk» switch, then re-press it to go into transmission.

2) YOUR CB RADIO WILL NOT RECEIVE OR RECEPTION IS POOR :

- Check that the PA function is not activated
- Check that the squelch level is properly adjusted.
- Check that the RF GAIN is tuned

fully clockwise.

- Check that the volume is set to a comfortable listening level.
- Check that the microphone is properly plugged in.
- Check that the antennas correctly connected and that the SWR is properly adjusted.
- Check that you are using the same modulation mode as your correspondent.

3) *codE* SHOWS IN THE DISPLAY WHEN YOU GO INTO TRANSMISSION :

- Check that your power supply is sufficient.

4) YOUR CB WILL NOT LIGHT UP :

- Check the power supply.
- Check the connection wiring.
- Check that you have entered the correct code.
- Check that the POWER button has been pressed.

F) TABLEAU DE FRÉQUENCES

F) FREQUENCY TABLES :

ATTENTION

WARNING

Toutes les fréquences et canaux indiqués dans ce manuel sont ceux de la réglementation internationale. En fonction de la version du poste (CEPT ou MPT1320) utiliser une des tables de fréquences ci-dessous :

All frequencies and channels indicated in this manual concern the international regulation. For the MPT 1320 version the following frequency table should be used :

N° du canal Channel N°	Fréquences Frequency	N° du canal Channel N°	Fréquences Frequency	N° du canal Channel N°	Fréquences Frequency	N° du canal Channel N°	Fréquences Frequency
1	26,965 MHz	21	27,215 MHz	1	27,60125MHz	21	27,80125 MHz
2	26,975 MHz	22	27,225 MHz	2	27,61125 MHz	22	27,81125 MHz
3	26,985 MHz	23	27,235 MHz	3	27,62125 MHz	23	27,82125 MHz
4	27,005 MHz	24	27,245 MHz	4	27,63125MHz	24	27,83125 MHz
5	27,015 MHz	25	27,255 MHz	5	27,64125 MHz	25	27,84125 MHz
6	27,025 MHz	26	27,265 MHz	6	27,65125MHz	26	27,85125MHz
7	27,035 MHz	27	27,275 MHz	7	27,66125 MHz	27	27,86125 MHz
8	27,055 MHz	28	27,285 MHz	8	27,67125 MHz	28	27,87125MHz
9	27,065 MHz	29	27,295 MHz	9	27,68125 MHz	29	27,88125MHz
10	27,075 MHz	30	27,305 MHz	10	27,69125MHz	30	27,89125MHz
11	27,085 MHz	31	27,315 MHz	11	27,70125MHz	31	27,90125 MHz
12	27,105 MHz	32	27,325 MHz	12	27,71125 MHz	32	27,91125 MHz
13	27,115 MHz	33	27,335 MHz	13	27,72125MHz	33	27,92125 MHz
14	27,125 MHz	34	27,345 MHz	14	27,73125 MHz	34	27,93125 MHz
15	27,135 MHz	35	27,355 MHz	15	27,74125 MHz	35	27,94125 MHz
16	27,155 MHz	36	27,365 MHz	16	27,75125MHz	36	27,95125 MHz
17	27,165 MHz	37	27,375 MHz	17	27,76125MHz	37	27,96125 MHz
18	27,175 MHz	38	27,385 MHz	18	27,77125 MHz	38	27,97125 MHz
19	27,185 MHz	39	27,395 MHz	19	27,78125MHz	39	27,98125 MHz
20	27,205 MHz	40	27,405 MHz	20	27,79125 MHz	40	27,99125 MHz

Français

Au fil de l'utilisation de votre TX, vous découvrirez parfois un langage particulier employé par certains cibistes. Afin de vous aider à mieux le comprendre, vous trouverez ci-dessous dans le glossaire et le code «Q.» un récapitulatif des termes utilisés. Toutefois, il est évident qu'un langage clair et précis facilitera le contact entre tous les amateurs de radiocommunication. C'est la raison pour laquelle les termes que vous lirez ci-dessous sont donnés à titre indicatif, mais ne sont pas à utiliser de façon formelle.

GLOSSAIRE

LANGAGE TECHNIQUE :

BF	:	Basse fréquence
CB	:	Citizen Band (bande du citoyen)
CH	:	Channel (canal)
CQ	:	Appel général
CW	:	Continuous waves (morse)
DX	:	Liaison longue distance
DW	:	Dual watch (double veille)
FM	:	Frequency modulation (modulation de fréquence)
GMT	:	Greenwich MeanTime (heure du méridien de Greenwich)
GP	:	Antenne verticale
HF	:	High Frequency (haute fréquence)
RX	:	Receiver (récepteur)
SWR	:	Standing Waves Ratio
SWL	:	Short waves listening (écoute en ondes courtes)
SW	:	Short waves (ondes courtes)
TOS	:	Taux d'ondes stationnaires
TX	:	Indique l'émission. Terme également employé pour désigner un poste émetteur- récepteur CB.
UHF	:	Ultra-haute fréquence
VHF	:	Very high Frequency (très haute fréquence)

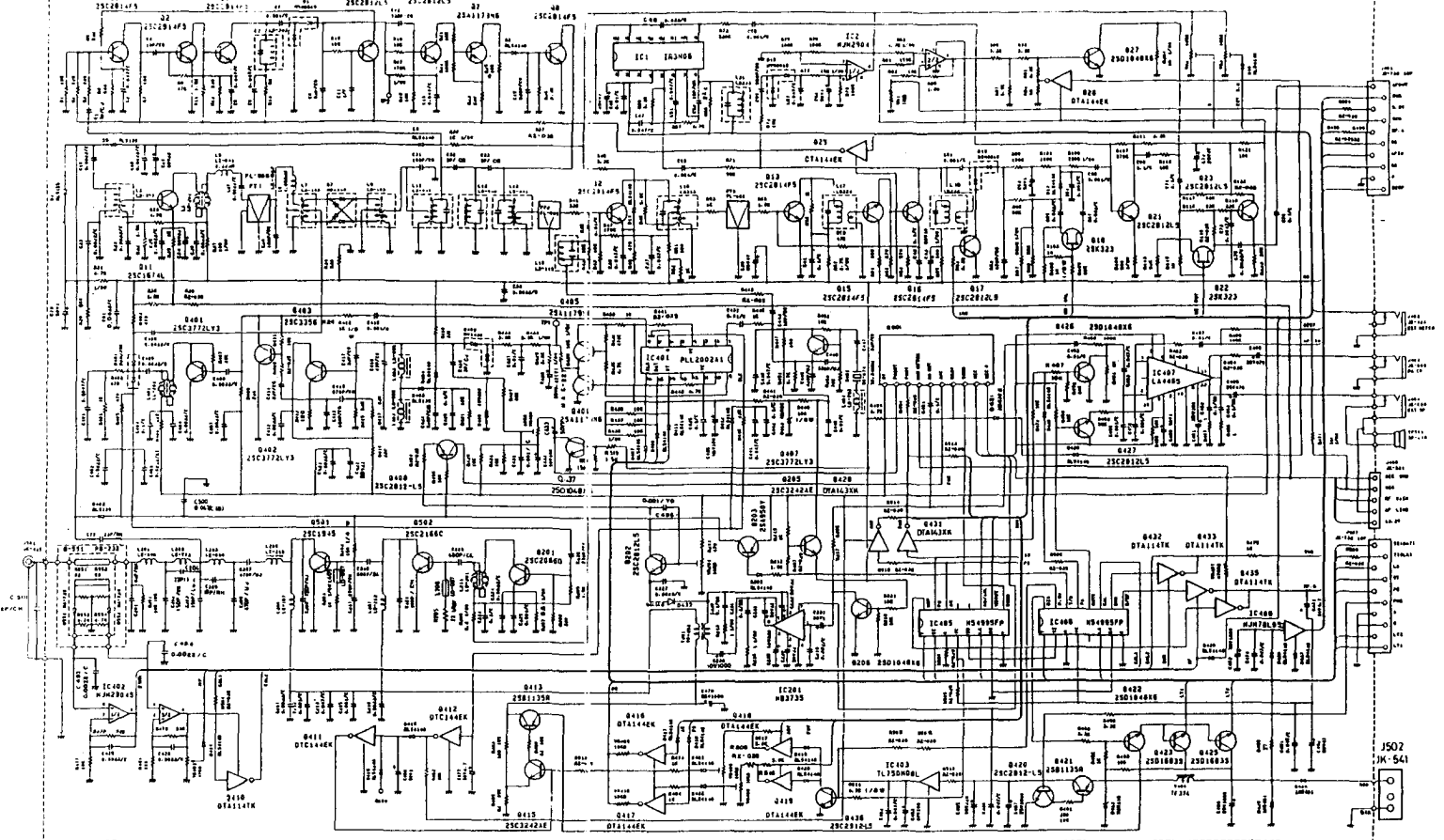
English

Below you will find some of the most frequently used CB radio expressions. Remember this is meant for fun and that you are by no means obliged to use them. In an emergency, you should be as clear as possible.

GLOSSARY

TECHNICAL VOCABULARY :

CB	:	Citizen's Band
CH	:	Channel
CW	:	Continuous Wave
DX	:	Long Distance Liaison
DW	:	Dual Watch
FM	:	Frequency Modulation
GMT	:	Greenwich MeanTime
HF	:	High Frequency
LF	:	Low Frequency
RX	:	Receiver
SWR	:	Standing Wave Ratio
SWL	:	Short Wave Listening
SW	:	Short Wave
TX	:	CB Transceiver
UHF	:	Ultra High Frequency
VHF	:	Very High Frequency

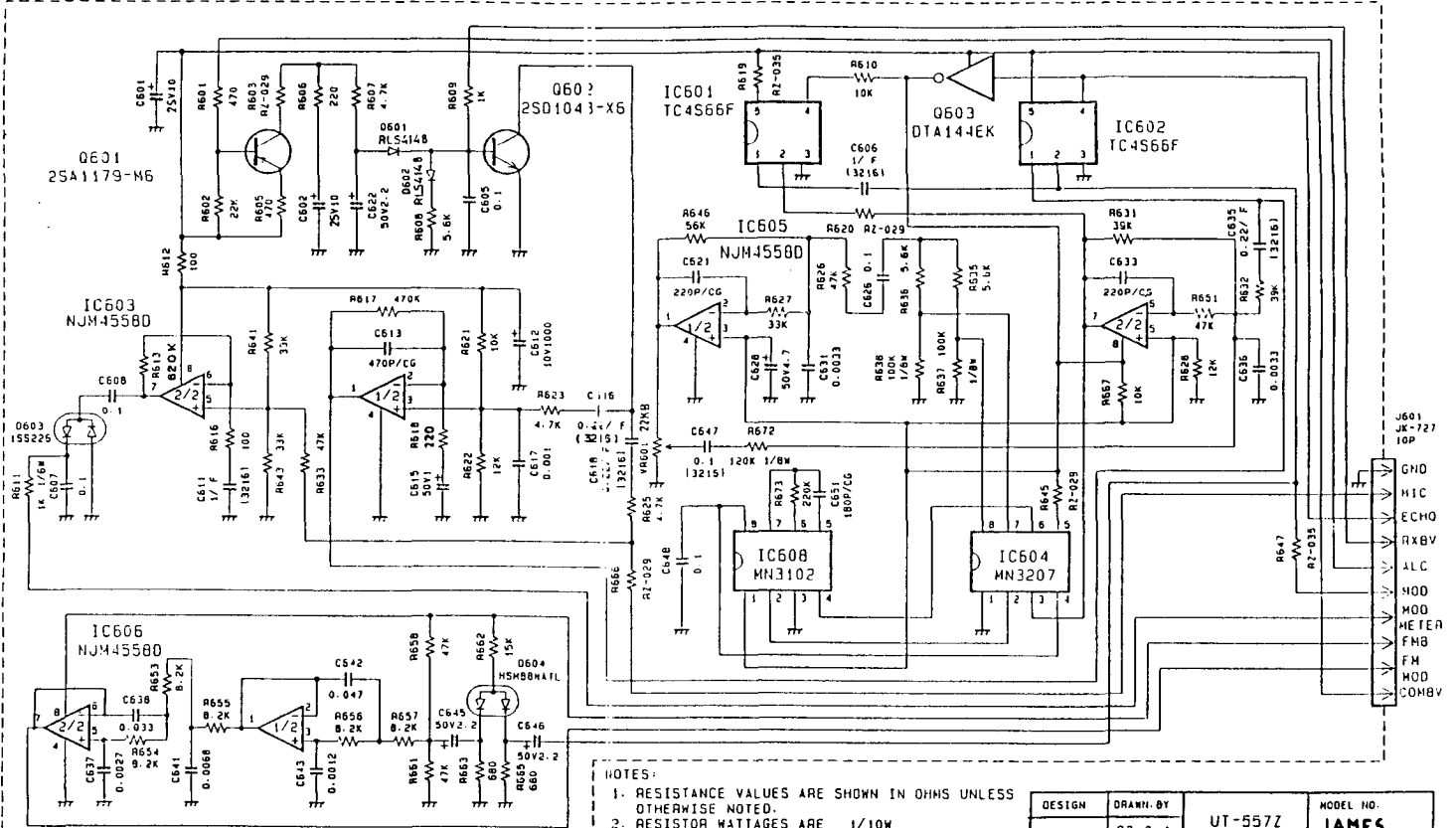


NOTES:
 1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 2. RESISTOR CAPACITANCE AND DIMENSIONS UNLESS NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED.
 4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE AS UNLESS OTHERWISE NOTED.
 5. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

REV	DATE	BY	CHKD BY	APP'D BY
1	10/21/88	JAMES		

REV	DATE	BY	CHKD BY	APP'D BY
1	10/21/88	JAMES		

DATE	10/21/88	ISSUE	1
REV	1	DESCRIPTION	SCHEMATIC DIAGRAM
REV	1	DESCRIPTION	ES2-0326
REV	1	DESCRIPTION	P.E.E.



- NOTES:
1. RESISTANCE VALUES ARE SHOWN IN OHMS UNLESS OTHERWISE NOTED.
 2. RESISTOR WATTAGES ARE 1/10W UNLESS OTHERWISE NOTED.
 3. CAPACITANCE VALUES ARE INDICATED IN MICRO FARADS UNLESS OTHERWISE NOTED. (P=MICRO=MICRO FARAD)
 4. ALL CAPACITORS TEMPERATURE CHARACTERISTICS ARE B UNLESS OTHERWISE NOTED.
 5. CHIP PARTS ARE NOT SPECIFIED IN THIS SCHEMATIC DIAGRAM. PLEASE REFER TO THE PARTS LIST FOR THE CHIP PARTS.

DESIGN	DRWN. BY	UT-557Z	MODEL NO.
	93.2.4		JAMES
CHECK. BY	APPR. BY	TITLE ECHO MIC PCB SCHEMATIC DIAGRAM	
		DRAWING NO	ES4-0334
REV. NO.			P.E.E

PRESIDENT

ELECTRONICS EUROPE

PRESIDENT ELECTRONICS EUROPE
S.A. Capital 40.000.000. FF

SIEGE SOCIAL - FRANCE
Route de SETE - BP 100
34540 BALARUC - Tél: 67.46.27.27
Télex: 490534F - Fax: 67.46.46.49

SUCCESSALE «ILE DE FRANCE»
50/56, rue du Pré des Aulnes
Parc d'activités des Arpents
77340 PONTAULT-COMBAULT
Tél: (1) 60.29.28.27 - Fax: (1) 60.28.44.00

