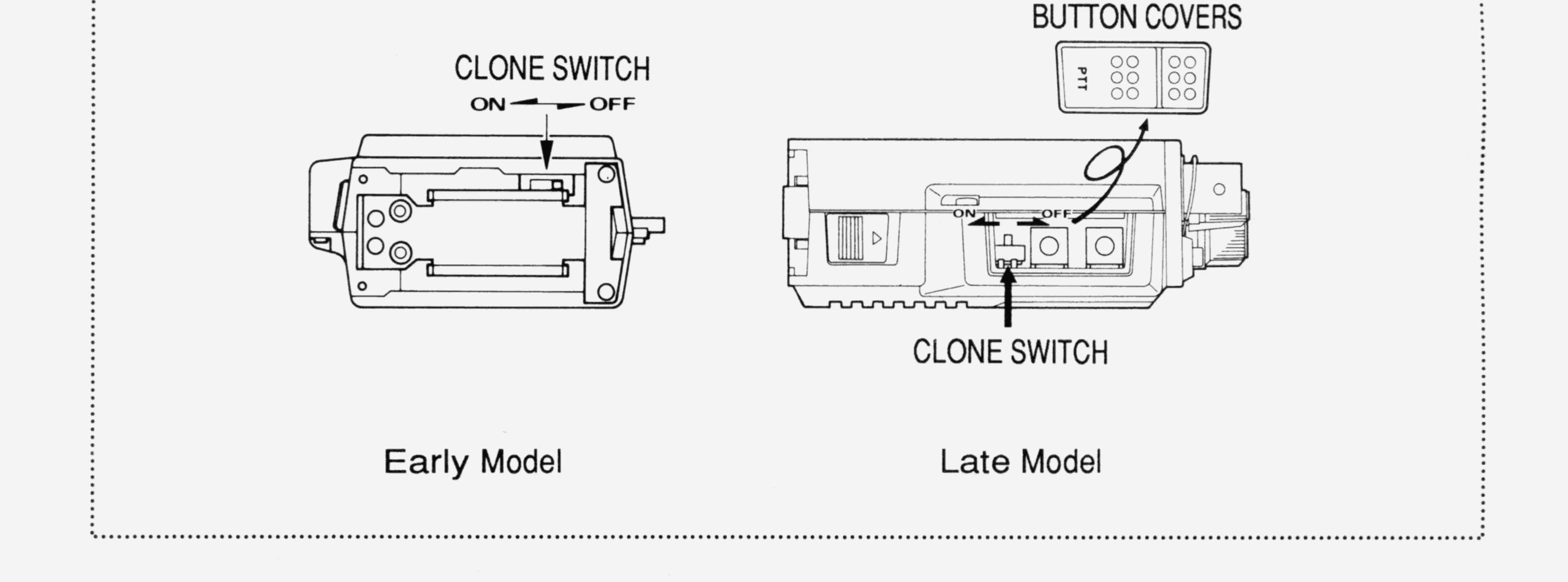
FT-23R TECHNICAL SUPPLEMENT



YAESU MUSEN CO., LTD. C.P.O. BOX 1500, TOKYO, JAPAN YAESU U.S.A. 17210 Edwards Rd., Cerritos, California 90701, U.S.A. YAESU EUROPE B.V. Snipweg 3. 1118AA Schiphol, The Netherlands Eatly and late models can be listinguished by the location of the clone switch, as shown below.



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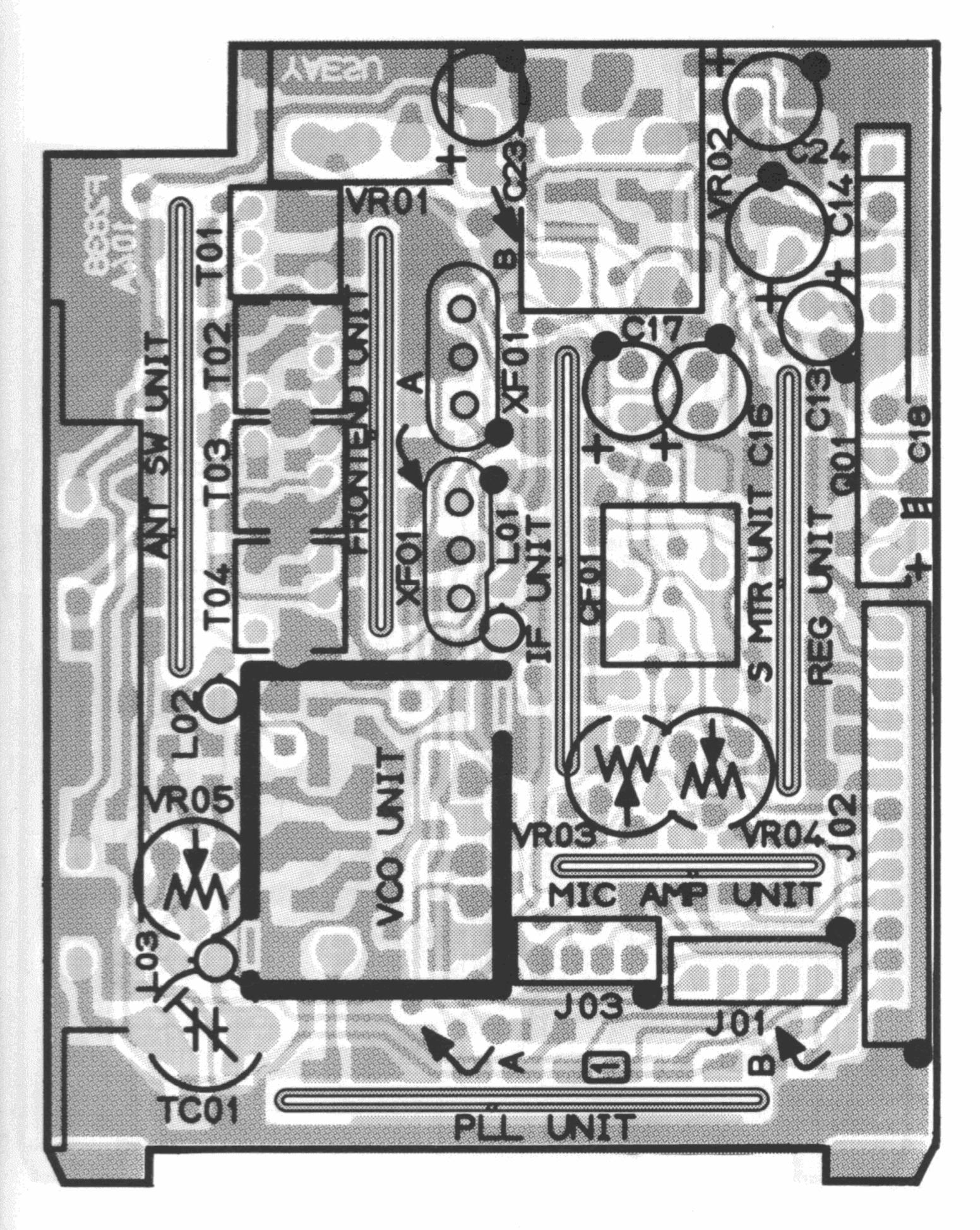
Early Model FT-23R

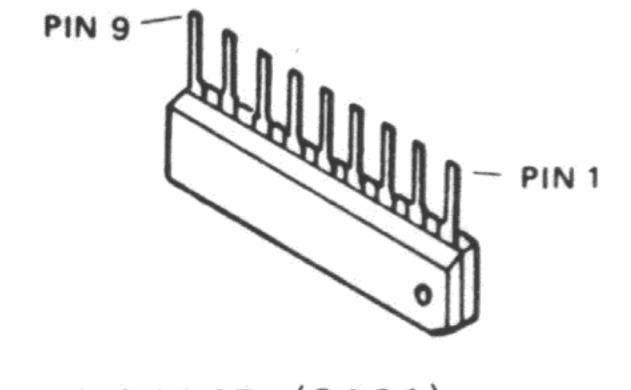
MOTHER BOARD		•	•		•	•	10.44				•						٠	÷.,		•		1					1-1	
FRONTEND UNI	Ť	•		•						•															•		1-4	
PLL UNIT ·	•	•				•				•	•	•	•	•	•	•	•	•	·							•	1-5	
VCO UNIT ·	•				•						•	•	•	•	•	•	•	•							•		1-5	
REG UNIT ·		•				•						•		•	•	•	•	•									1-6	
MIC AMP UNIT	•	•	•	•	•	•				•		•	•	•	•	•	•		•	•	•			÷.			1-6	
S METER UNIT			*		•		•	•	•	g				•	•	•	•	•	•							•	1-7	
ANT SW UNIT		÷														•	•						•				1.7	



ANT SW UNIT													and a start							2 M				• 1-	1
CNTL UNIT	•				•	•	•	•						14		ê je								• 1-	8
ALIGNMENT			•	•	•																	•		• 1-	11
PARTS LIST			•		•			•		•						•	•	•		•	•			• 1-	14
BLOCK DIAGRA	M								•		•				•	•						44		• 1-	20





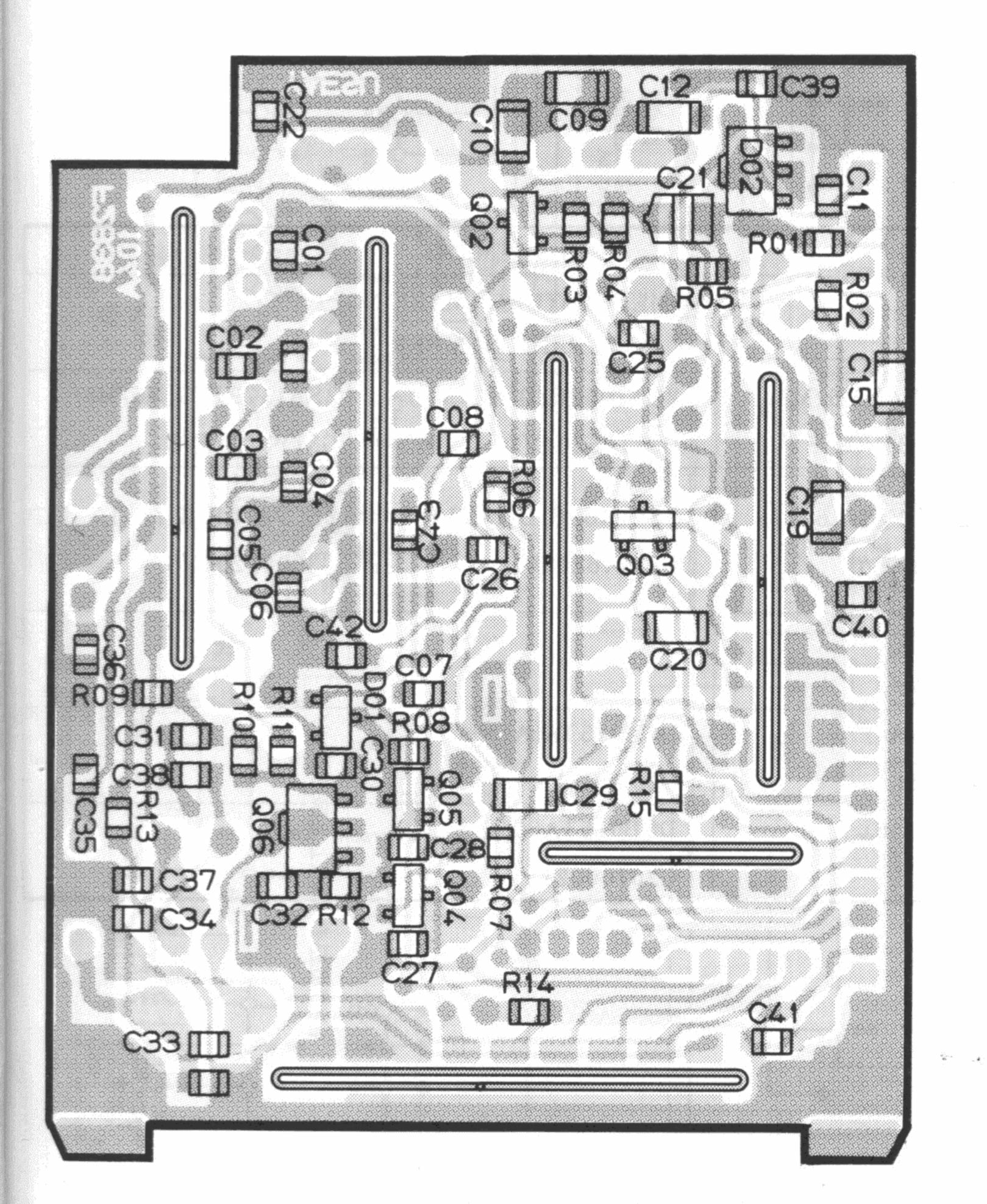


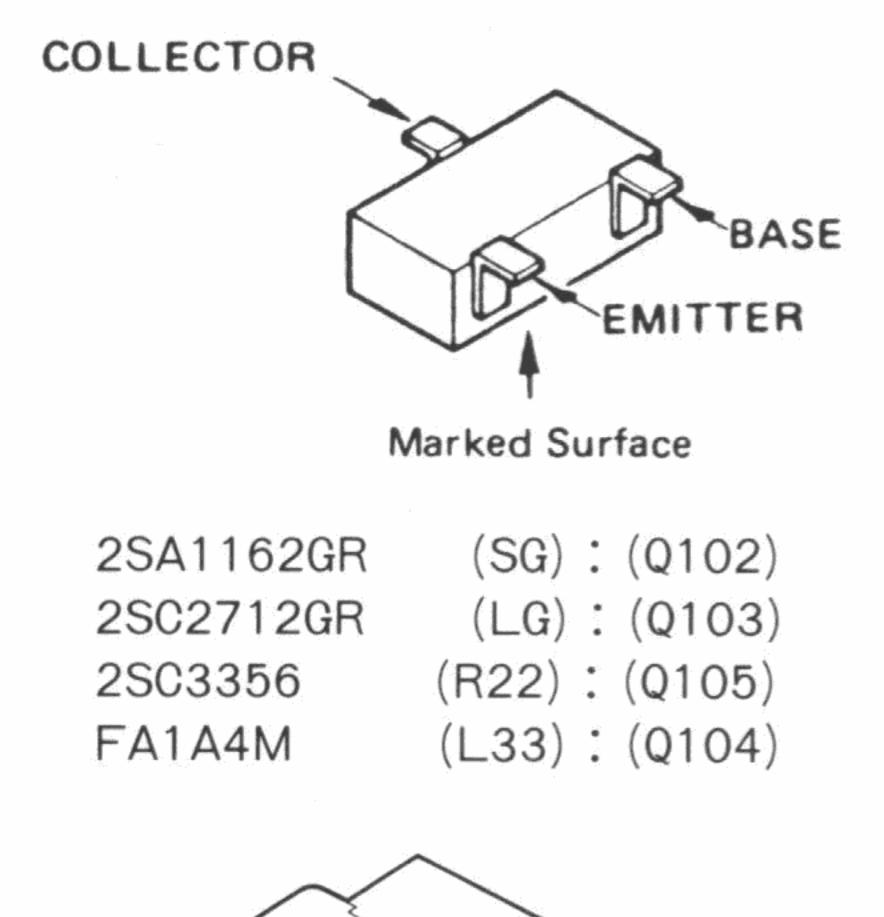
LA4145 (Q101)

VCC OUTPUT

M57796MA (Q107)

(obverse view of "component" side)

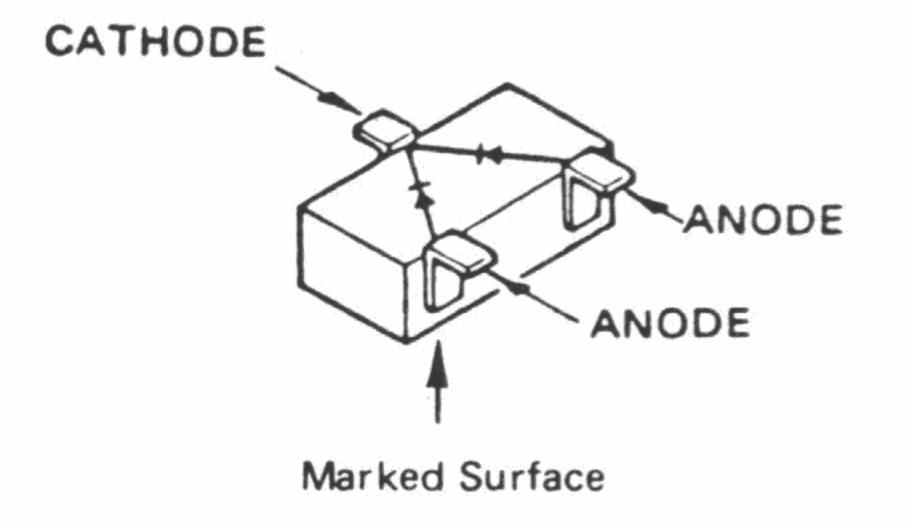




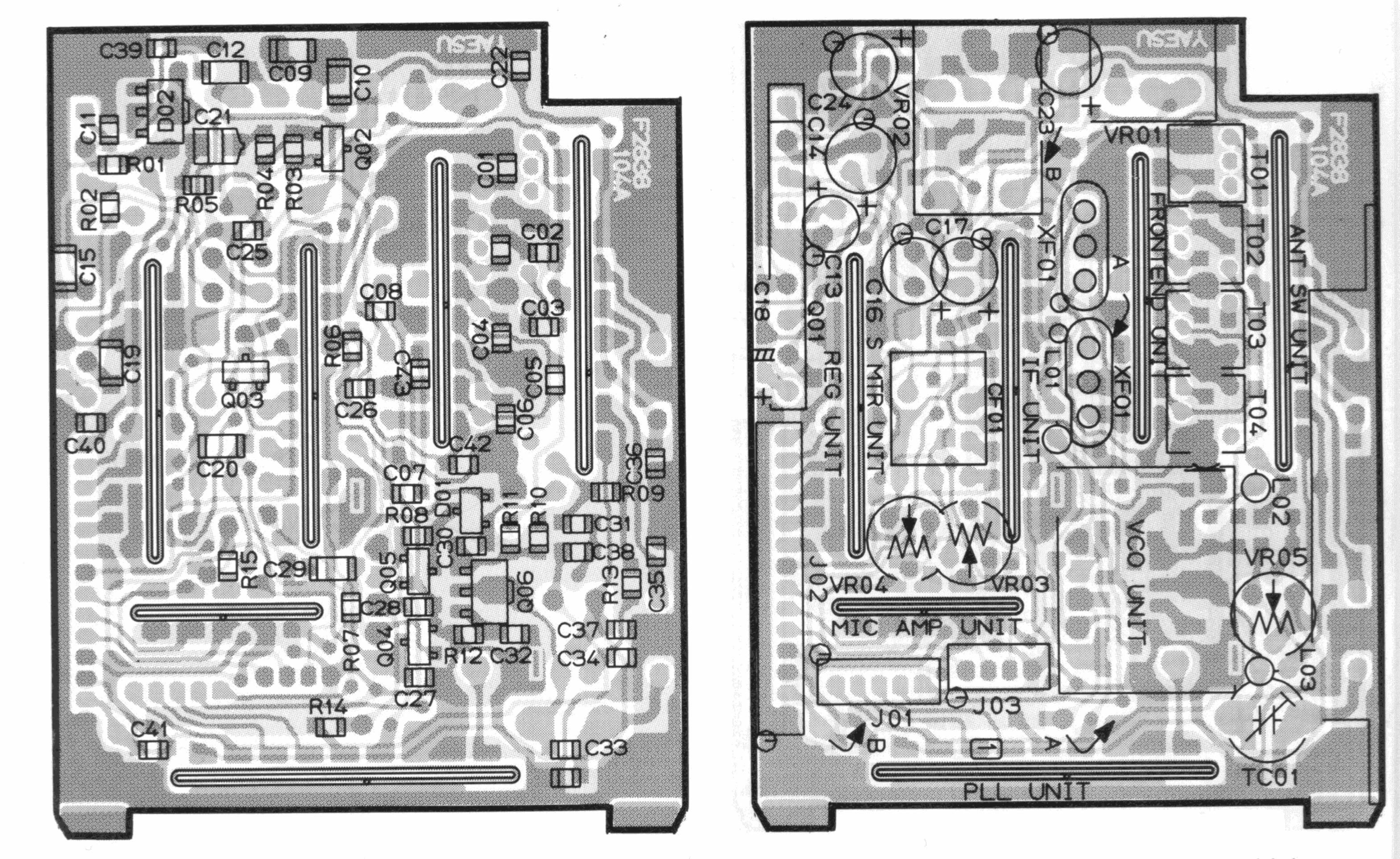


(reverse view of "chip-only" side)

2SC2954 (Q106)



1SS184 (B3): (D101)



(reverse view of "component" side)


(obverse view of "chip-only" side)

CHIP SEMICONDUCTOR CROSS-REFFERENCE

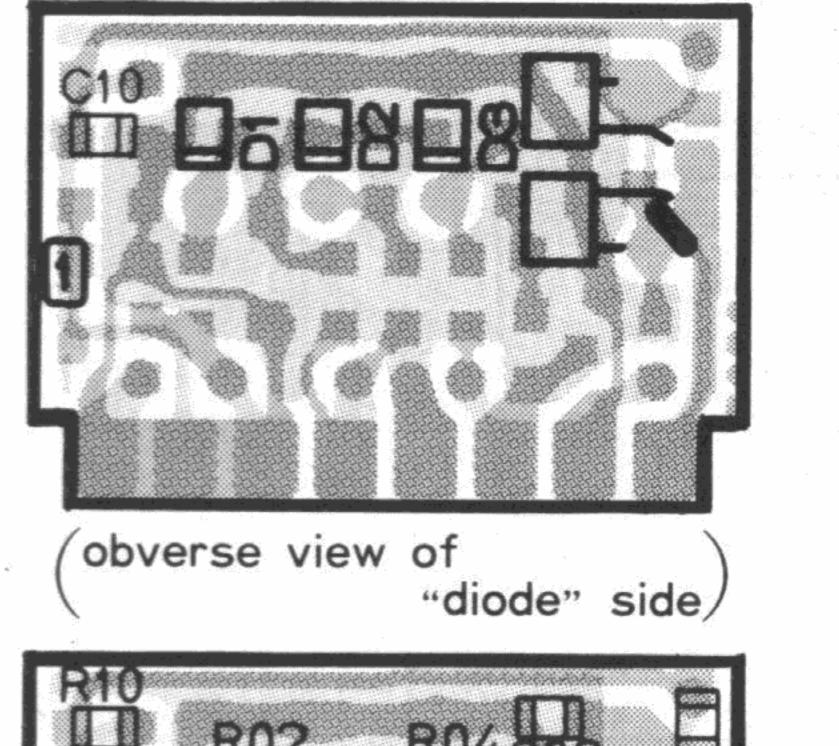
	ORIGINAL		REPLACEMENT	
PART LOCATION NO.	NOMENCLATURE (MARKING) AND PART NUMBER		NOMENCLATURE (MARKIN AND PART NUMBER	IG)
Q102,605,606,607,1002,1012	2SA1162GR(SG) G3111620G	2SA812F/G(M6/M7) G3108120F/G	2SA1052C/D(MC/MD) G3110520C/D	2SA1179F/G(M6/M7) G3111790F/G
Q103,602,603,608,801,802,902, 903,904,1003,1004,1005,1006, 1010	2SC2712GR/BL(LG/LL) G3327120G/B	2SC1623F/G(L6/L7) G3316230F/G	2SC2462C/D(LC/LD) G3324620D/D	2SC2812F/G(L6/L7) G3328120F/G
Q701	M5224FP G1090726	LA6324M G1090559		
D1001,1002	1SS181(A3) G2070001	MC2836(A4) G2070024	DCA015TA(A4) G2070014	
D603,1007,1008	1SS184(B3) G2070009	MC2838(A6) G2070018	DCB015TA(A6) G20700021	

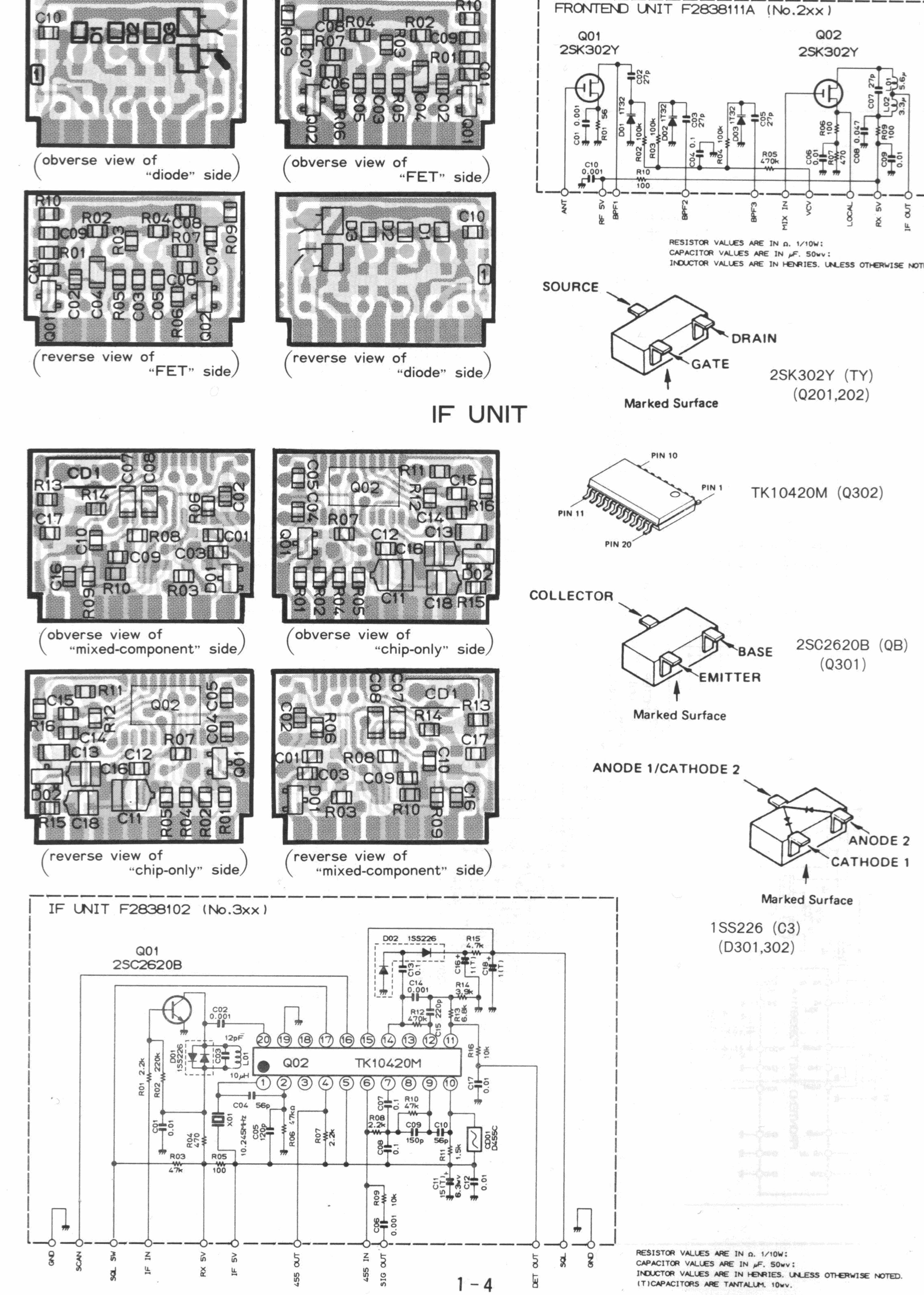
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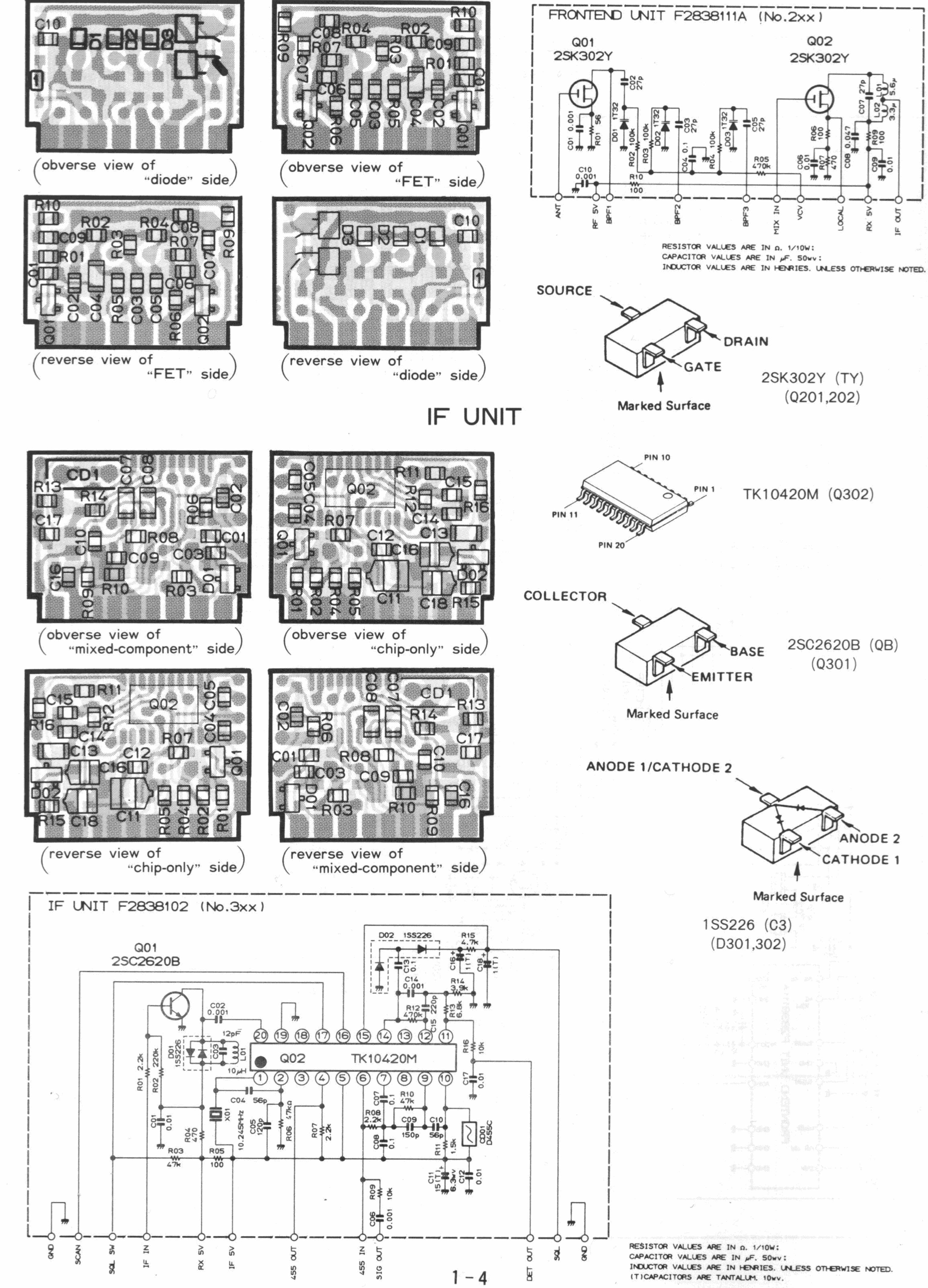
* Semiconductors not listed above may be replaced only with original types.

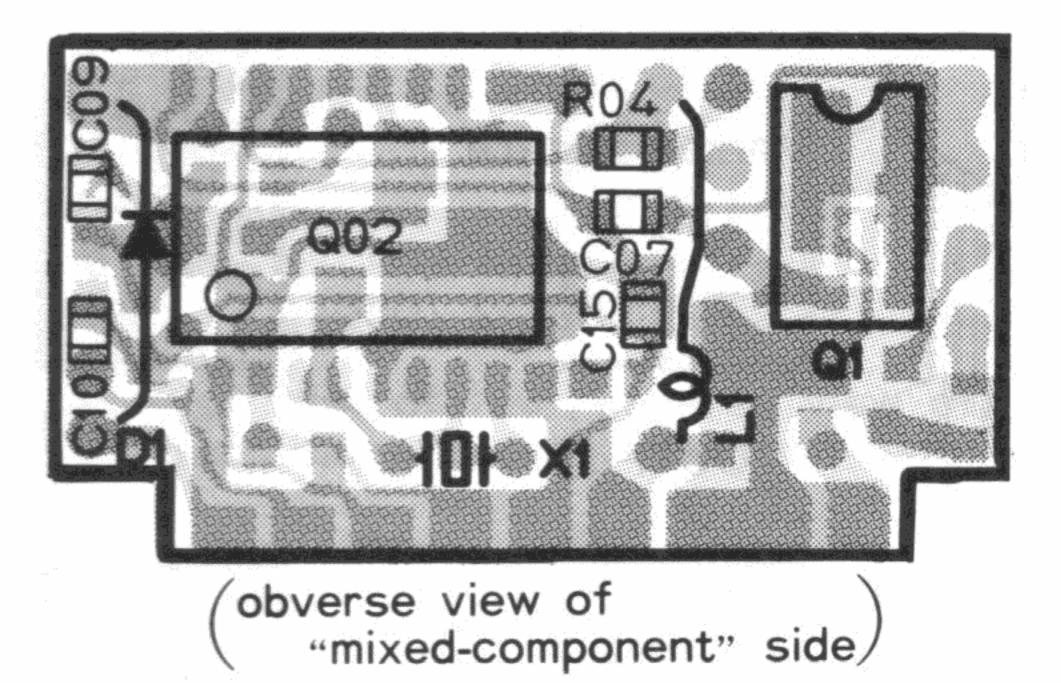


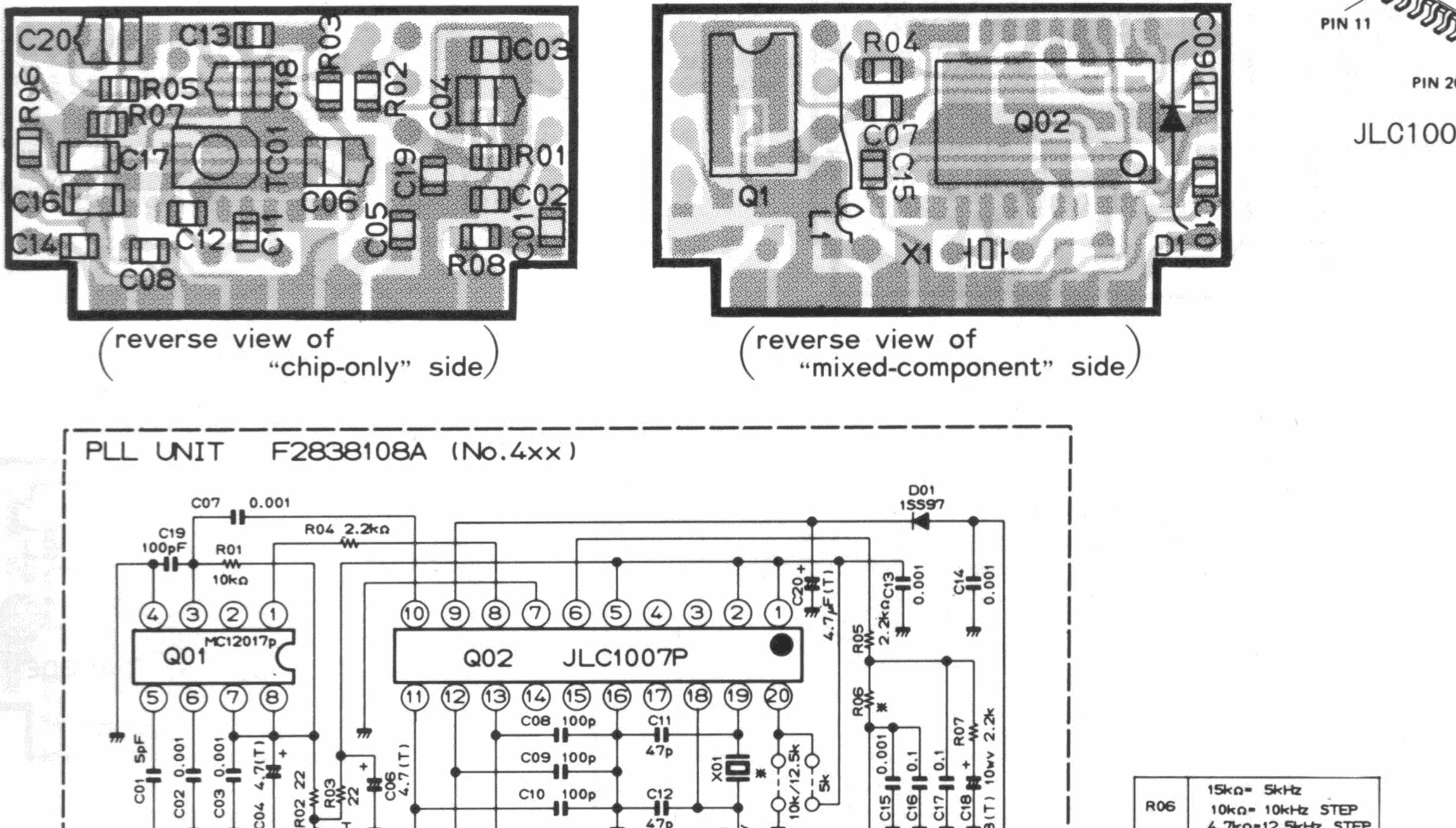
FRONTEND UNIT



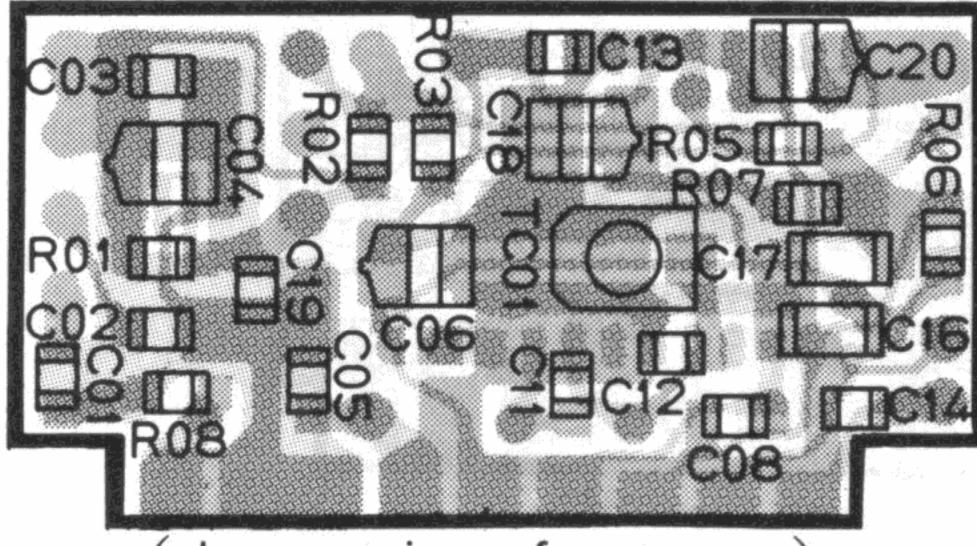




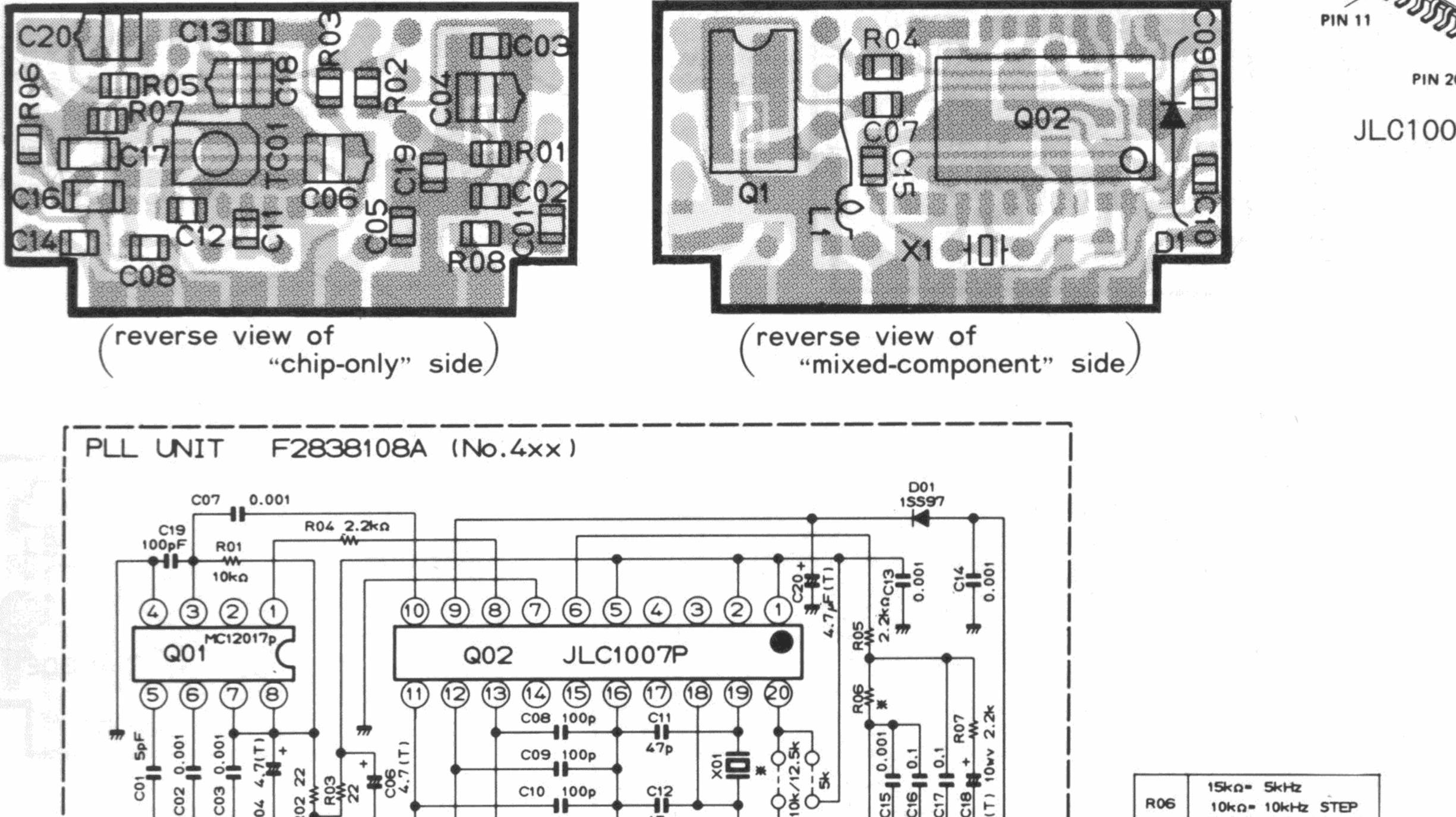


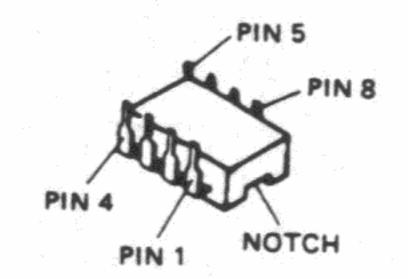


PLL UNIT

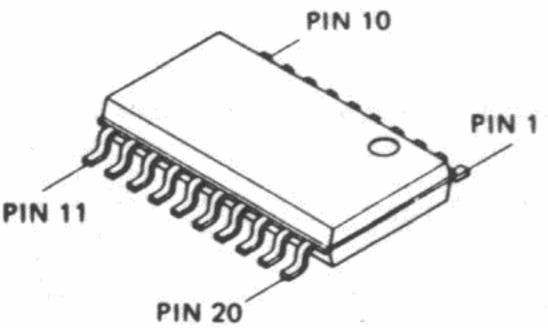


obverse view of "chip-only" side/

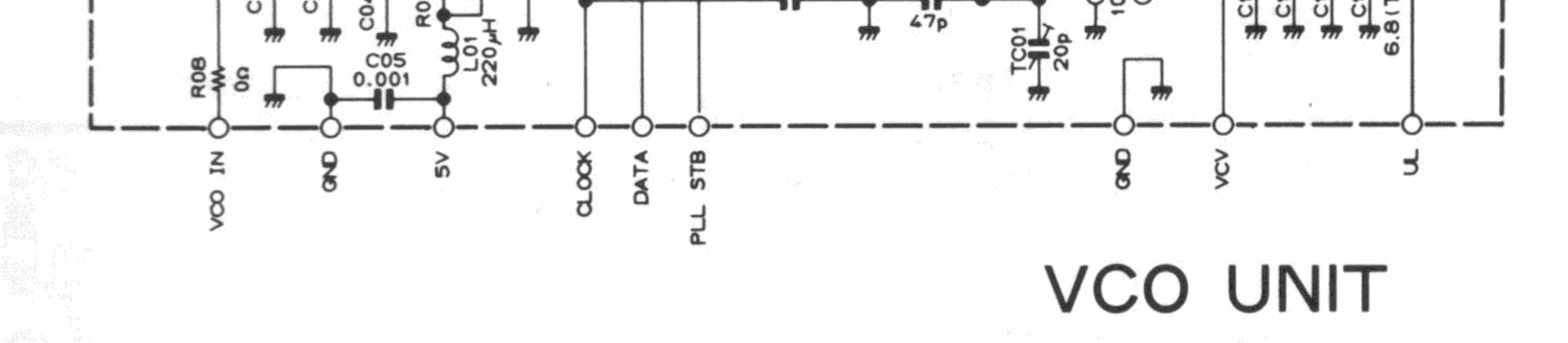


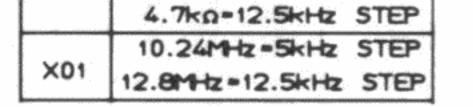


MC12017P (Q401)

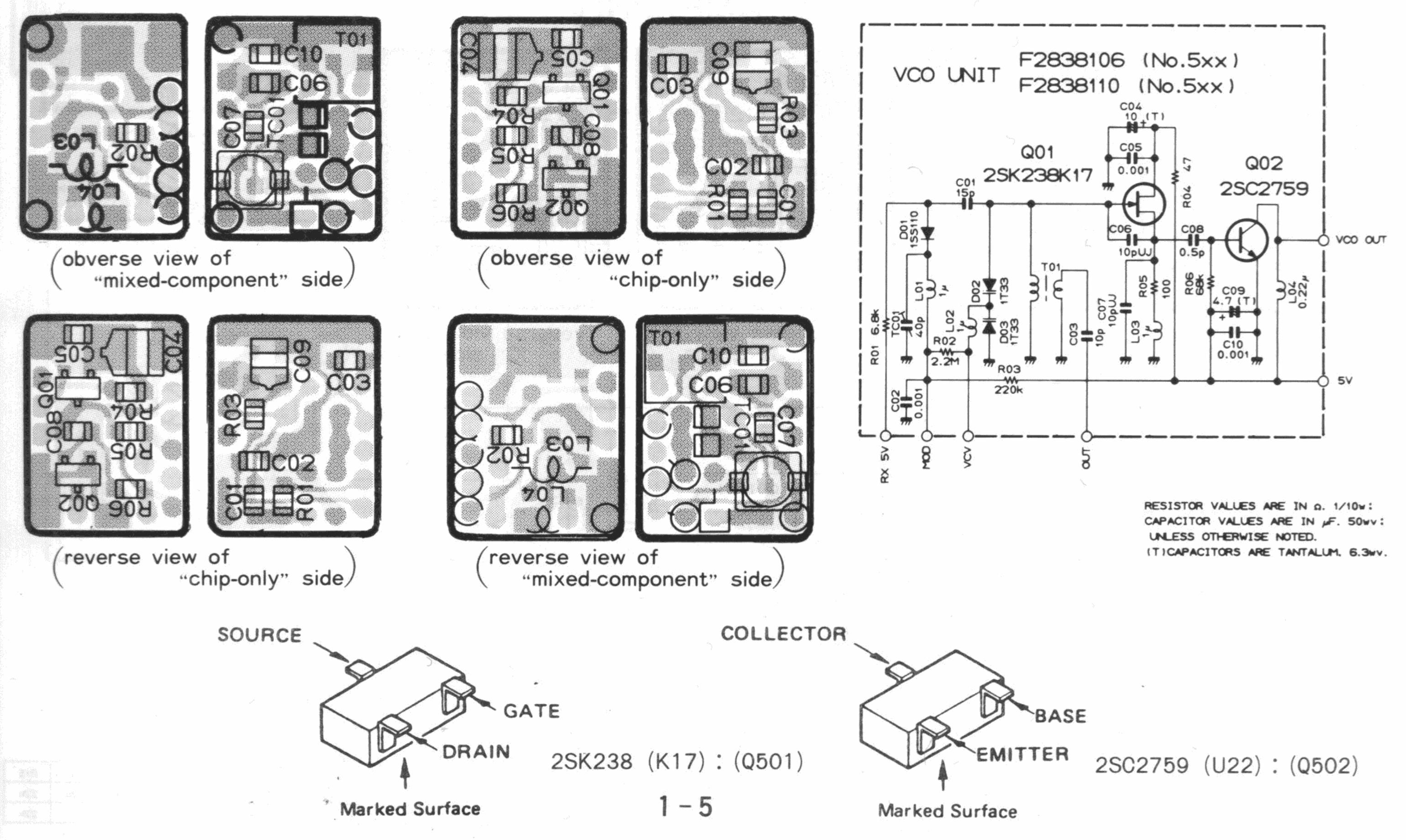


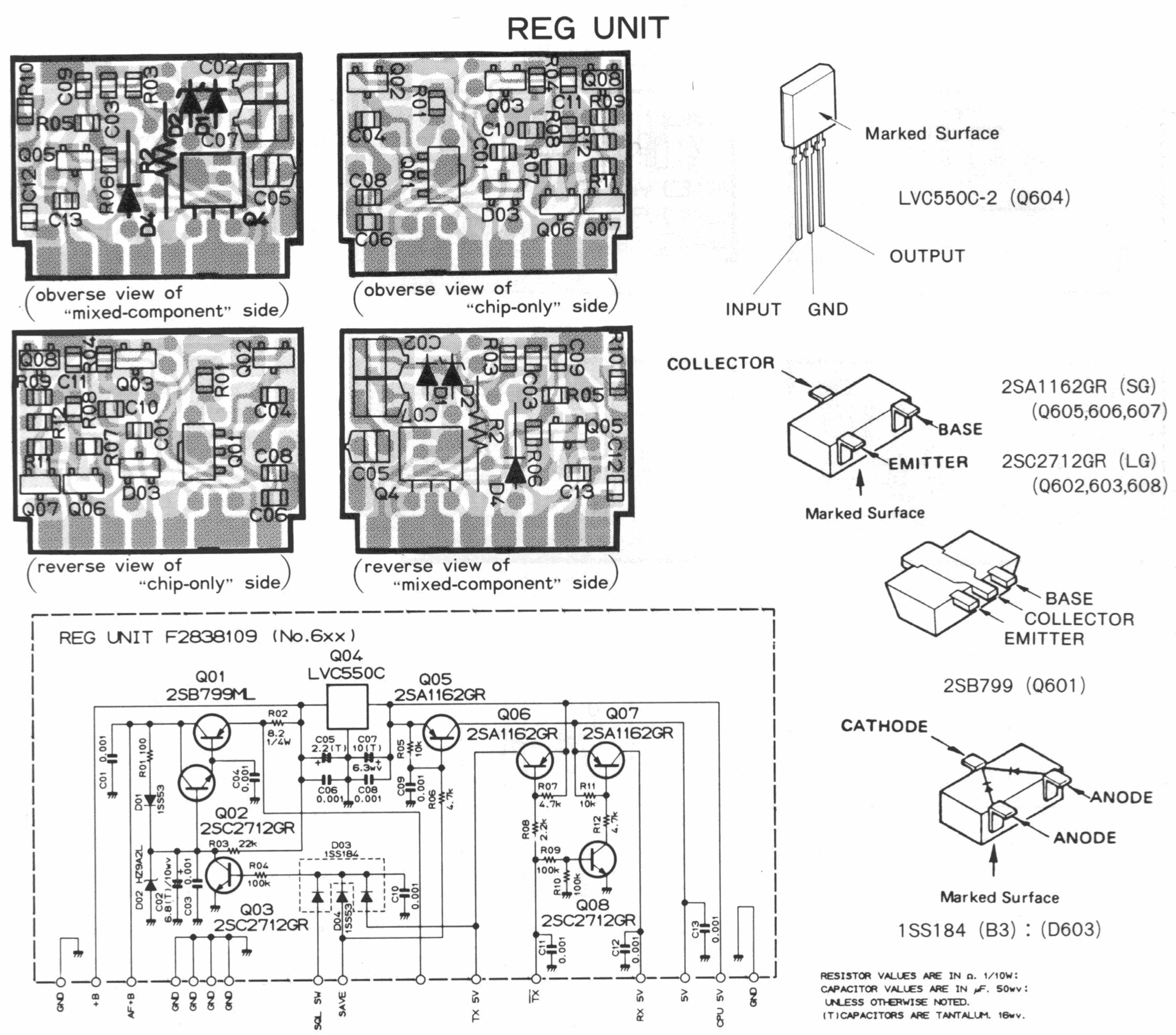
JLC1007P (Q402)

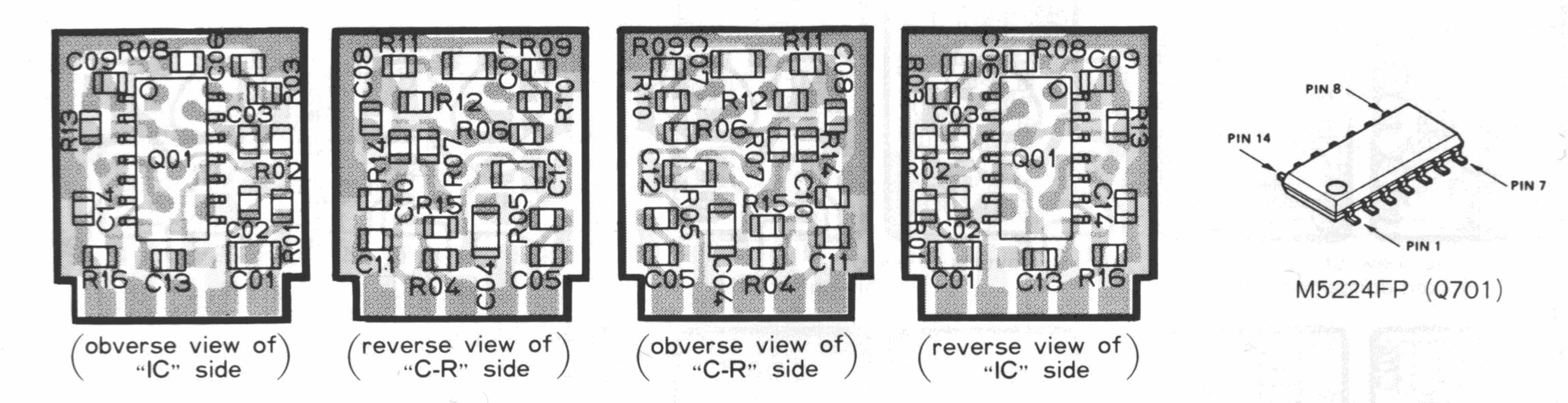




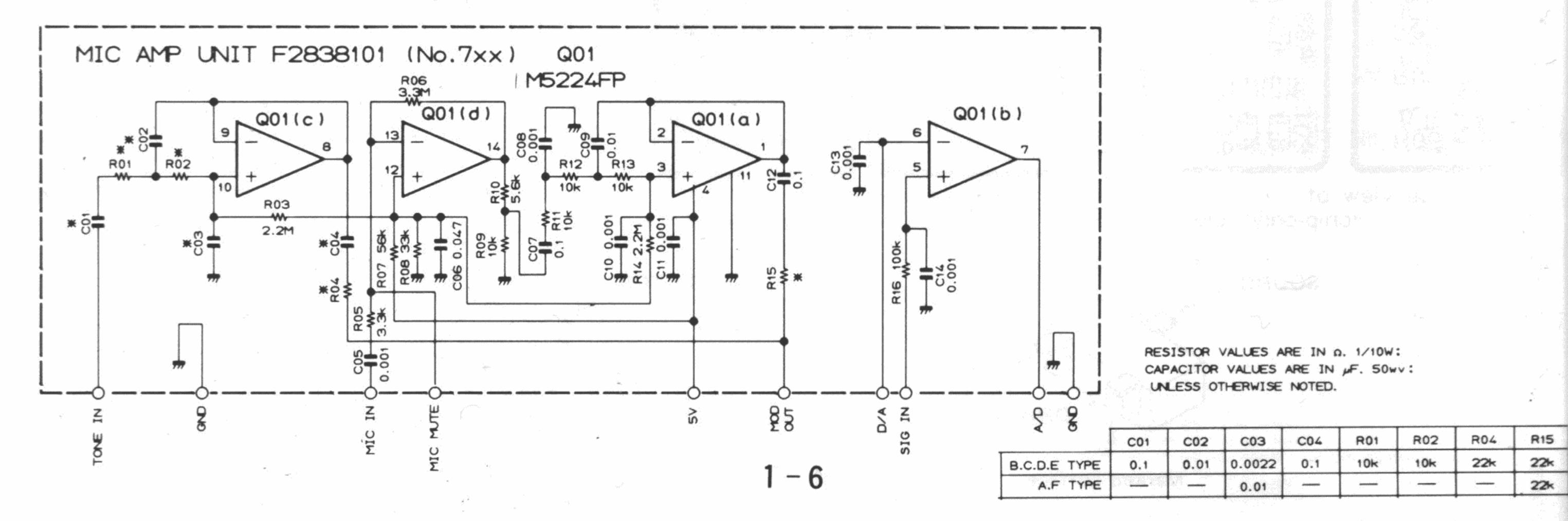
RESISTOR VALUES ARE IN Q. 1/10W: CAPACITOR VALUES ARE IN #F. 50wv: INDUCTOR VALUES ARE IN HENRIES, UNLESS OTHERWISE NOTED. (T) CAPACITORS ARE TANTALUM. 6.3WV.



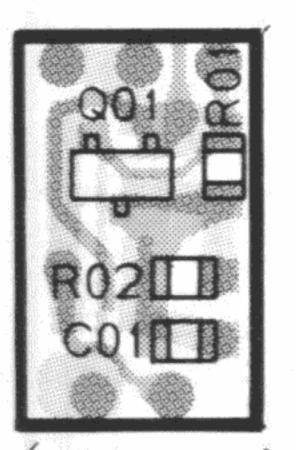


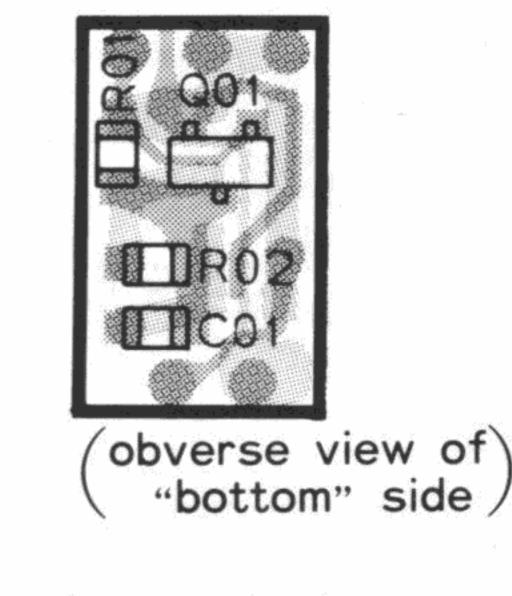


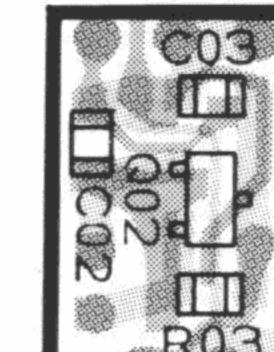
MIC AMP UNIT



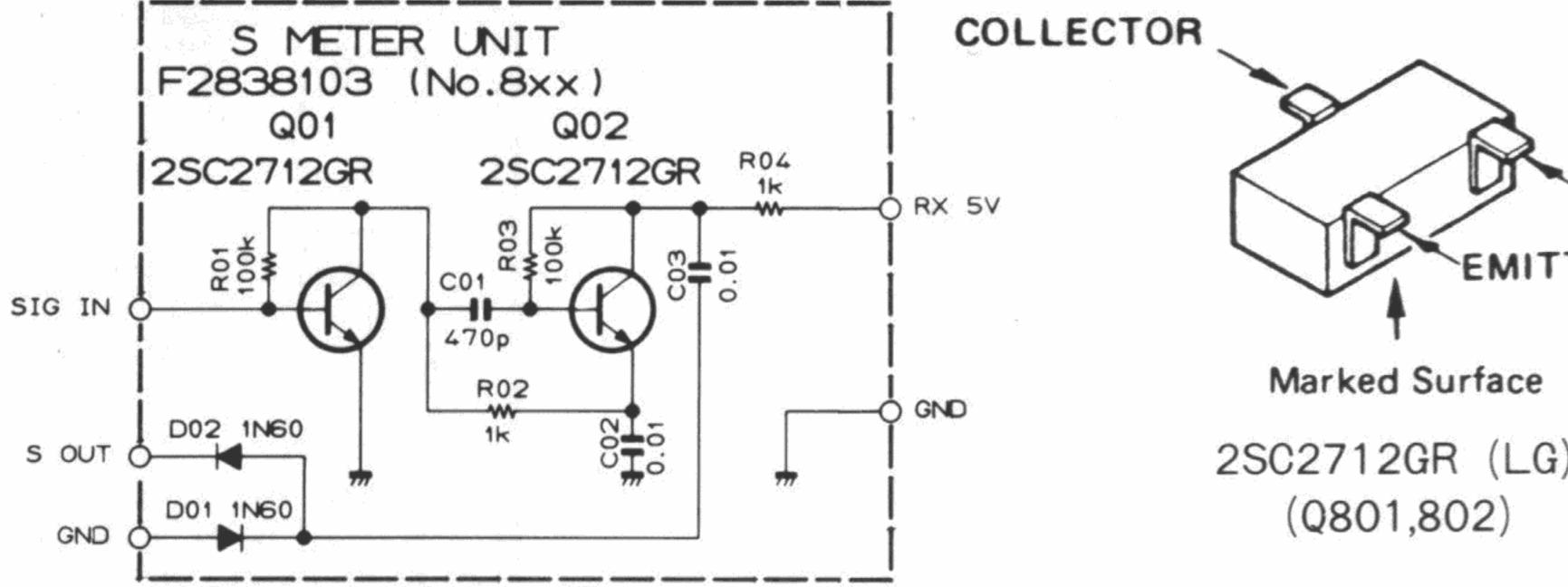
obverse view of "top" side







S METER UNIT

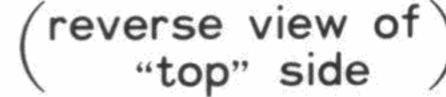


RESISTOR VALUES ARE IN Q. 1/10W: CAPACITOR VALUES. ARE IN #F. 50 wv: UNLESS OTHERWISE NOTED.

BASE EMITTER 2SC2712GR (LG)

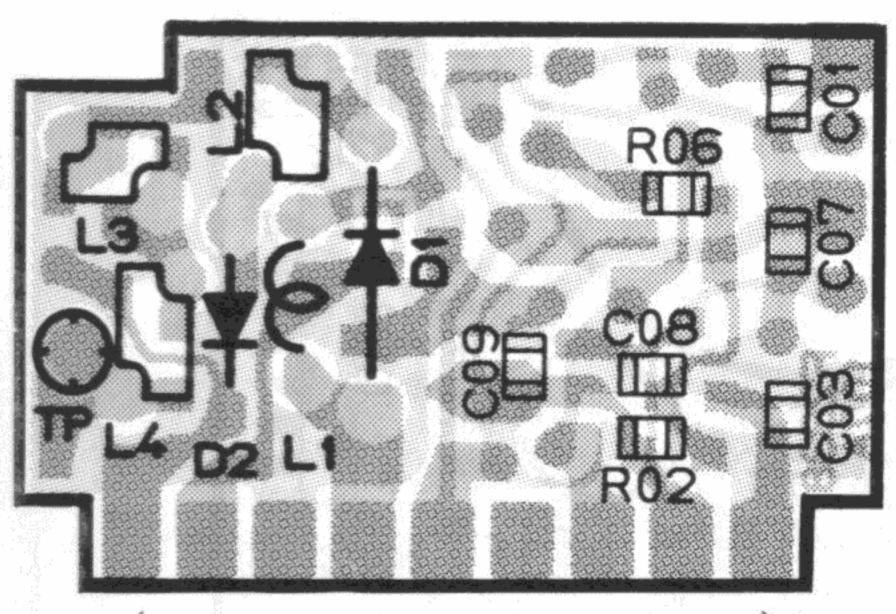


reverse view of) "bottom" side /

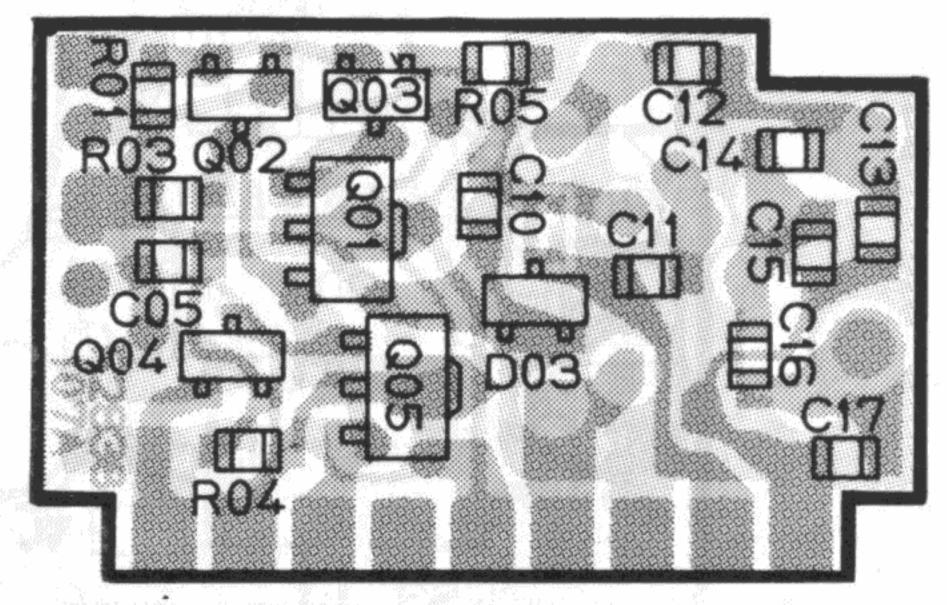


ANT SW UNIT

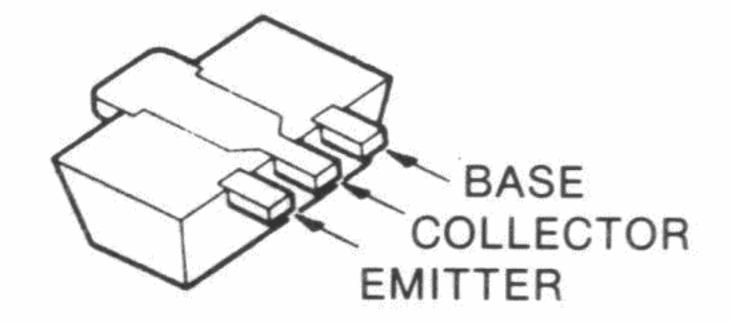
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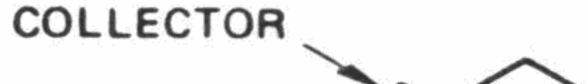
obverse view of "mixed-component" side/

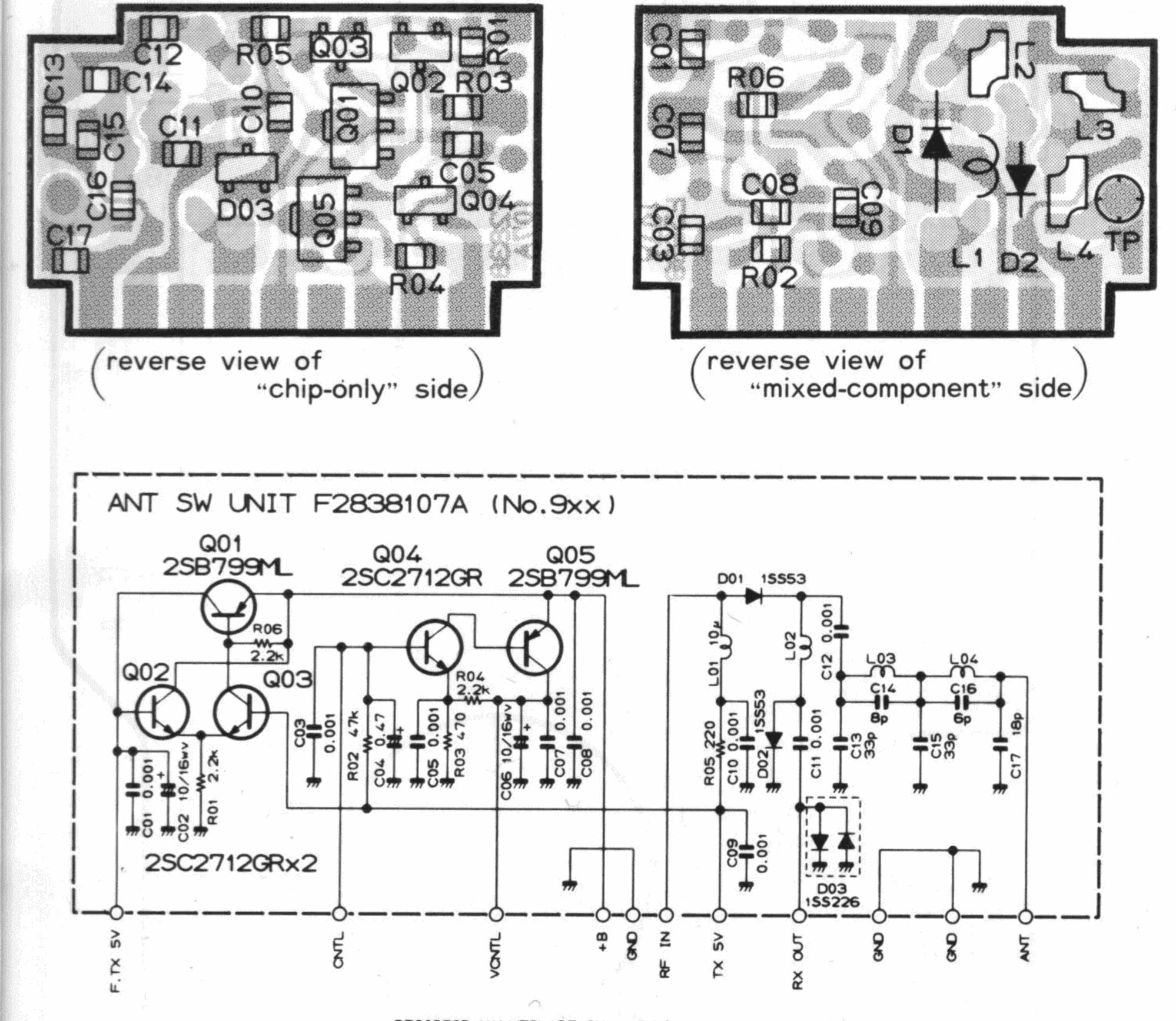


obverse view of "chip-only" side/



2SB799 (Q901,905)



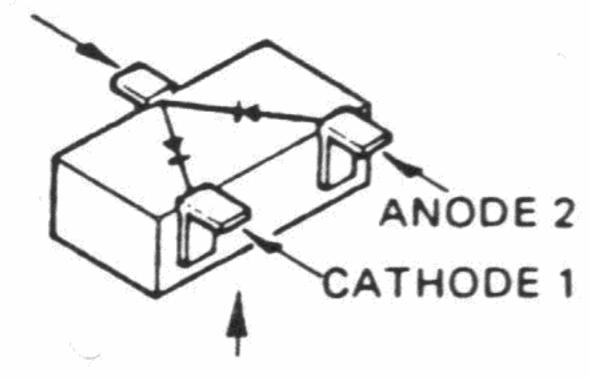


BASE EMITTER

Marked Surface 2SC2712GR (LG) (Q902, 903, 904)

ANODE 1/CATHODE 2

N.

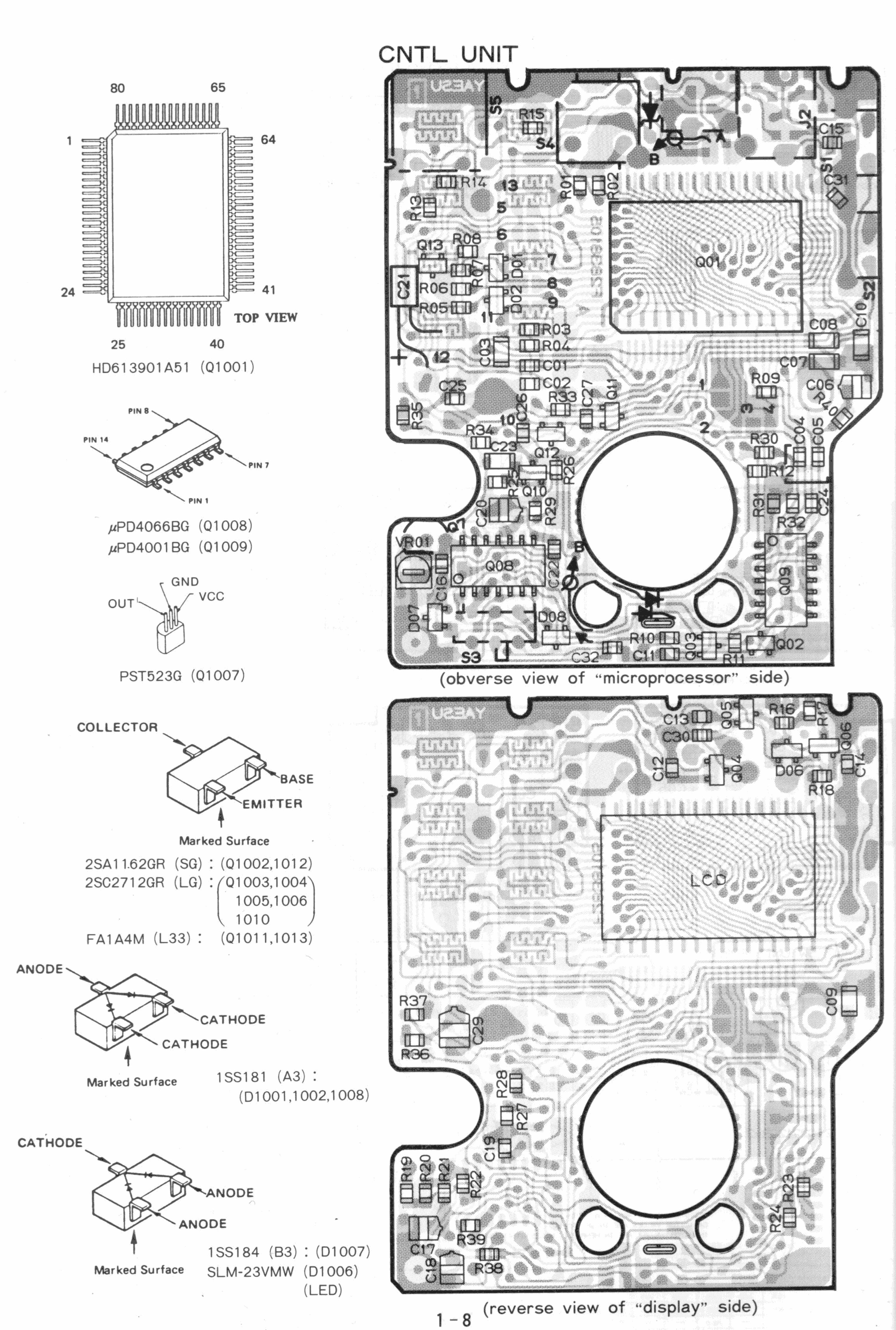


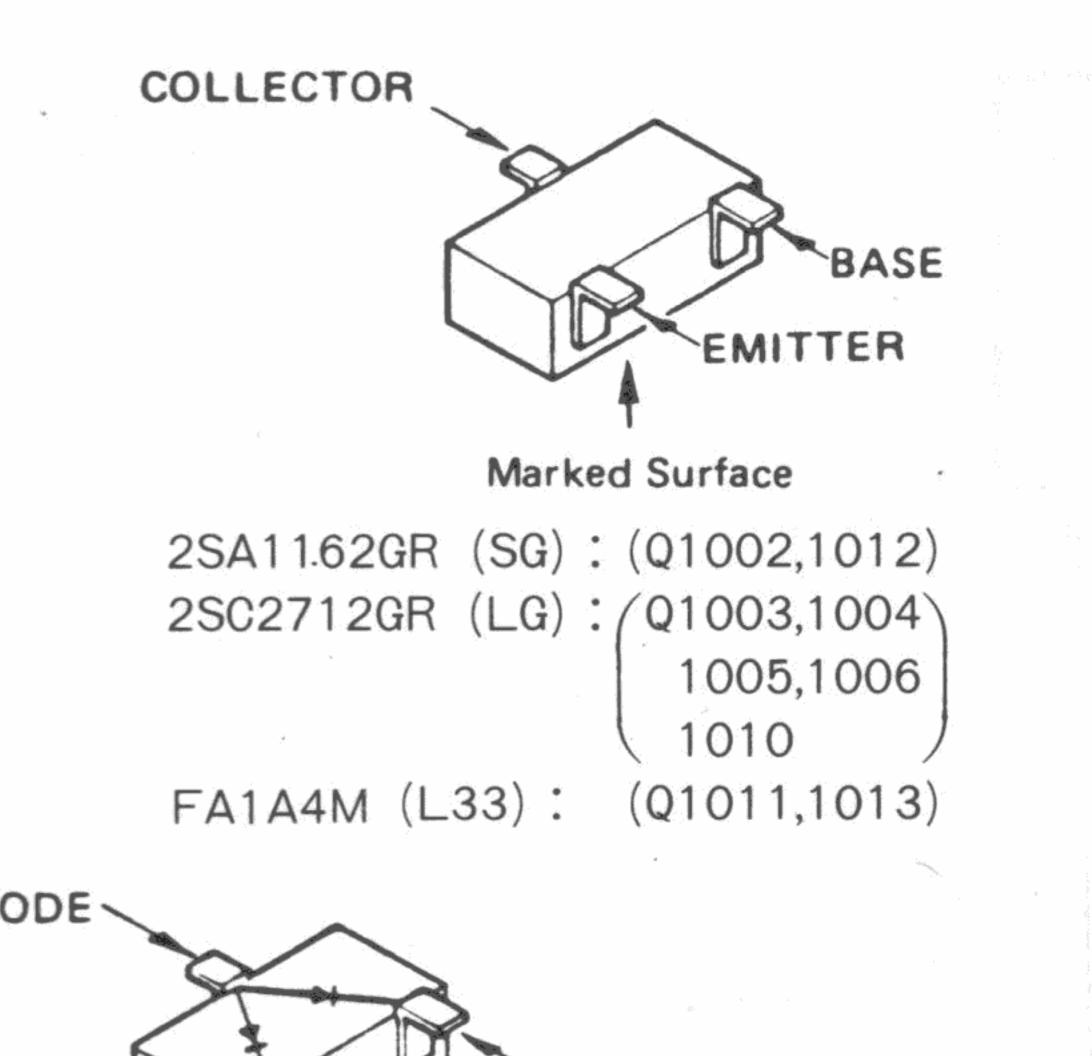
Marked Surface

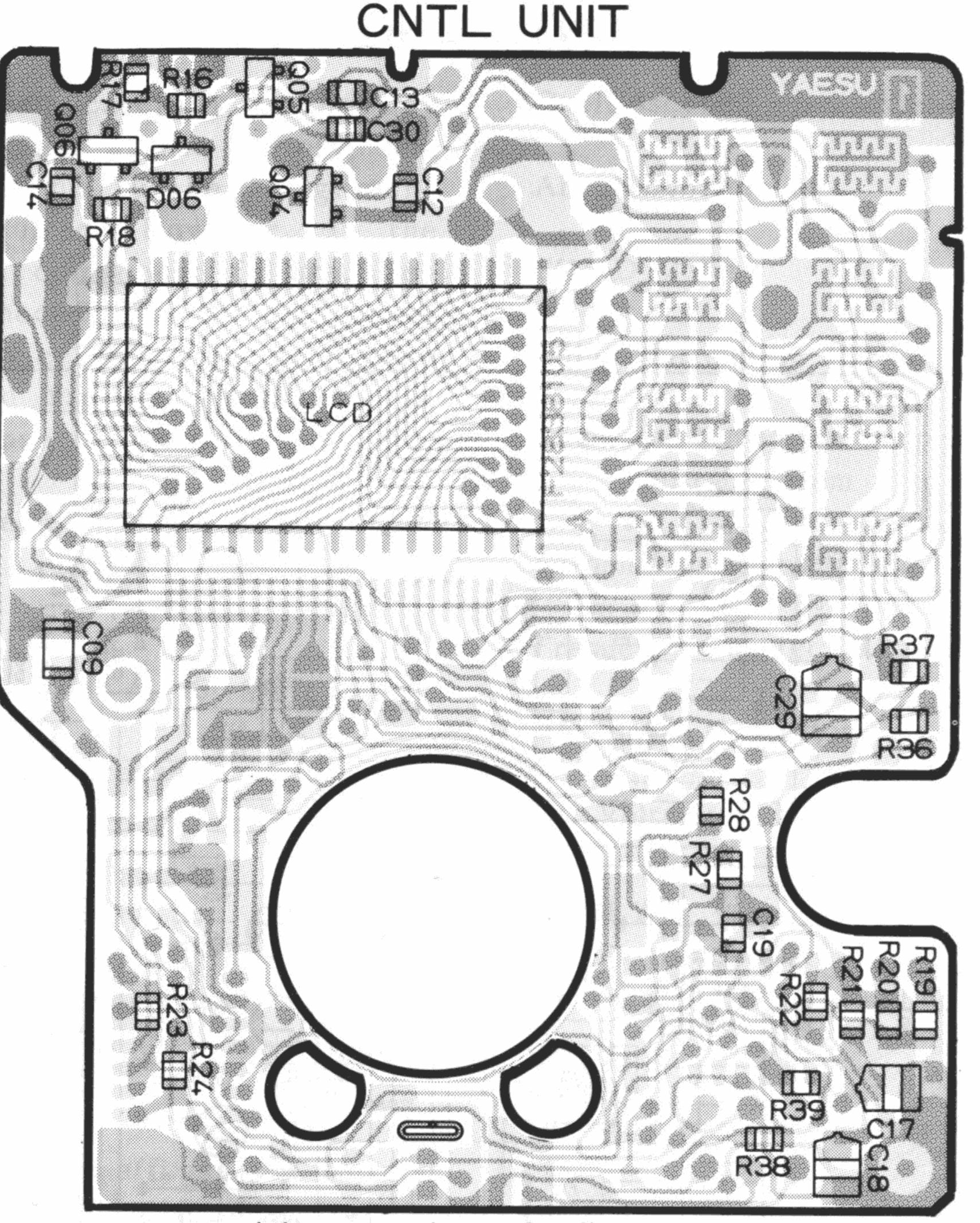
1SS226 (C3): (D903)

RESISTOR VALUES ARE IN Q. 1/10W: CAPACITOR VALUES ARE IN #F. 50 WV : INDUCTOR VALUES ARE IN HENRIES. UNLESS OTHERWISE NOTED.

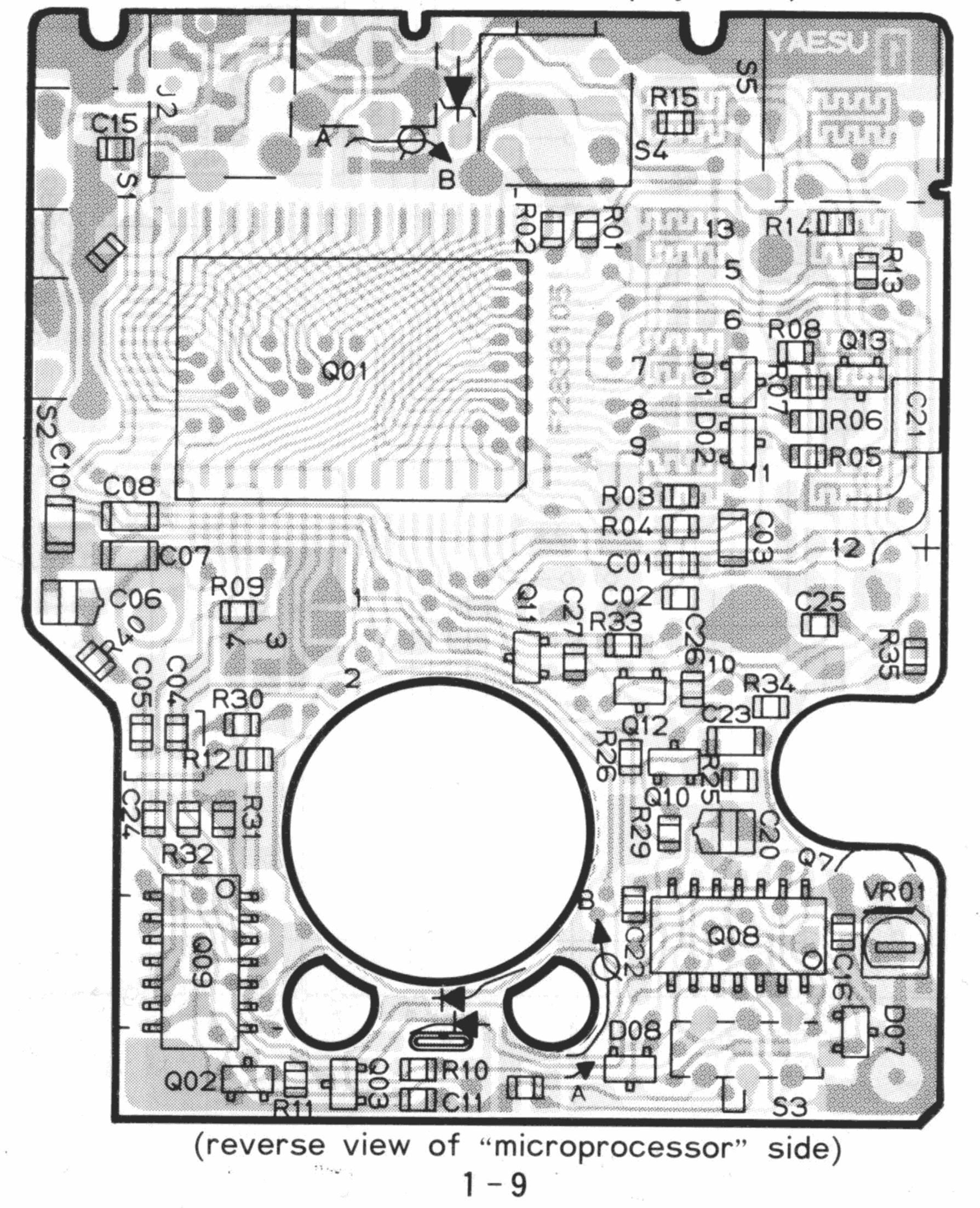
| - 7








(obverse view of "display" side)





ALIGNMENT

The FT-23R has been carefully aligned by highly skilled technicians at the factory, and is designed so that no further alignment should ever be required. However, in the unlikely event of a component failure, realignment may be necessary. All component replacement and service should be performed only by an authorized Yaesu representative, or the warranty policy may be voided.

The following test equipment is required for alignment:

Oscilloscope

AF Millivoltmeter

SINAD Meter

Inline Wattmeter: 150 MHz

Regulated DC Power Supply: adjustable from 4 to 17V, 2A

50-ohm Non-reactive Dummy Load: 10W at 150 MHz

RF Signal Generator: calibrated output level at 150 MHz

Deviation Meter (linear detector)

Frequency Counter: 0.2ppm accuracy at 150 MHz

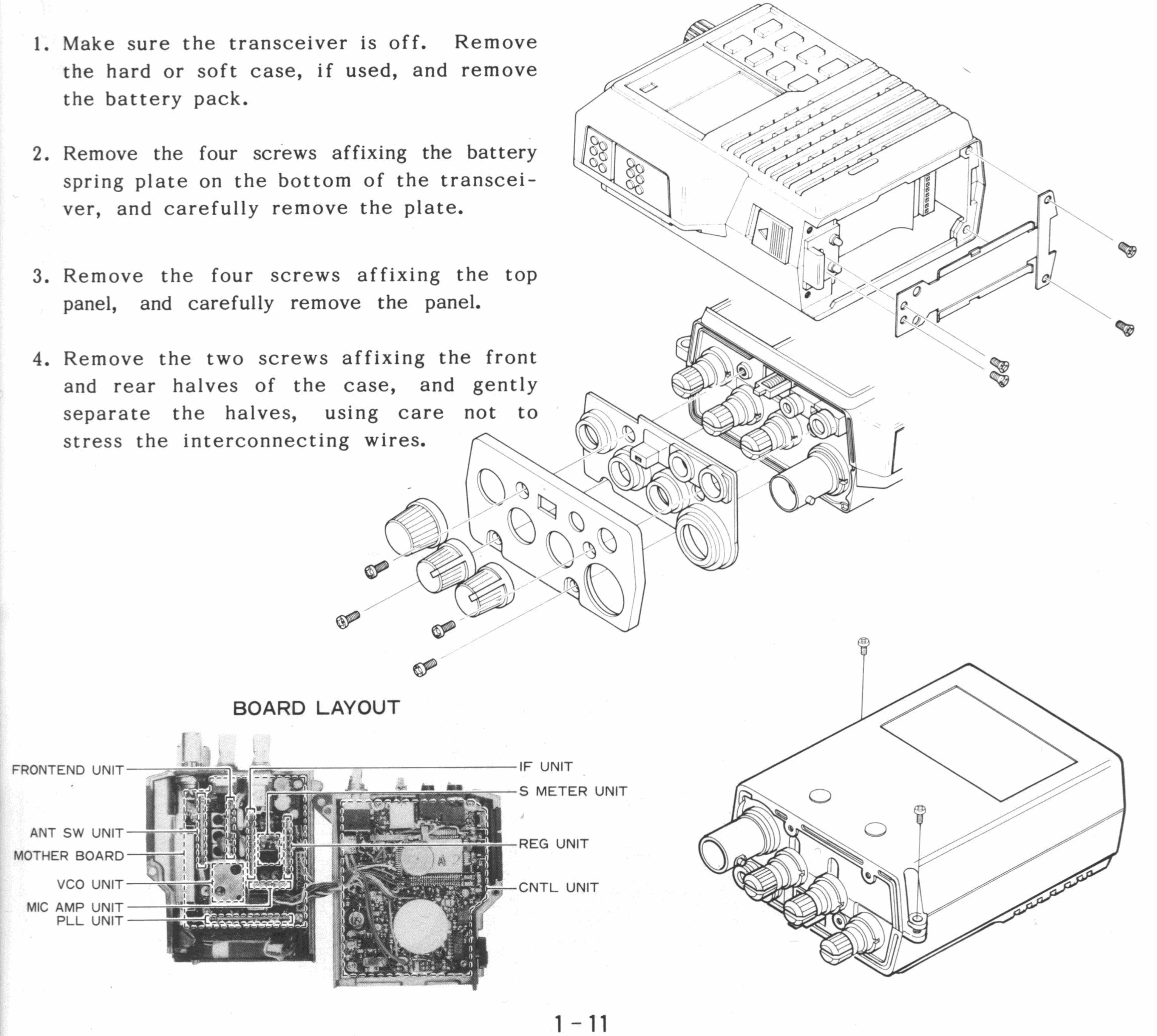
AF Signal Generator

DC Voltmeter: high impedance

CASE DISASSEMBLY

the hard or soft case, if used, and remove the battery pack.

spring plate on the bottom of the transcei-



I. PLL & TRANSMITTER

Set up the test equipment as shown in the diagram below for transmitter alignment. Adjust the supply voltage to 12.0V for all steps except Transmitter Output Power alignment (B).

- A. PLL VCV (Varactor Control Voltage)
- (1) Connect the DC voltmeter between C416 on the PLL Unit and chassis ground.
- (2) While transmitting on 144.000 MHz adjust

B. Transmitter Output Power

(1) Tune the transceiver to band center (145 or 146 MHz), and set the LOW switch to the undepressed position. II.

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- (2) Increase the supply voltage to 12.5V.
- (3) Adjust TC101 on the Mother Board for peak output power on the wattmeter (at least 5W with less than 1.5A supply current).
- (4) Press the LOW switch on the top panel, and adjust VR105 on the Mother Board for

transformer T501 on the VCO Unit for 1.35 ± 0.05 VDC.

- (3) While receiving on 144.000 MHz adjust trimmer TC501 on the VCO Unit for 1.1 ±0.05 VDC.
- (4) Retune the transceiver and confirm the high-end VCV for the transceiver version being aligned, as follows:

Version	Frequency	Tx VCV	Rx VCV
A, C, E	148.000	<1.8V	<1.6 V
B, D	146.000	$< 1.7 \mathrm{V}$	<1.5 V

PLL & TRANSMITTER ALIGNMENT SETUP

0.5 watts output.

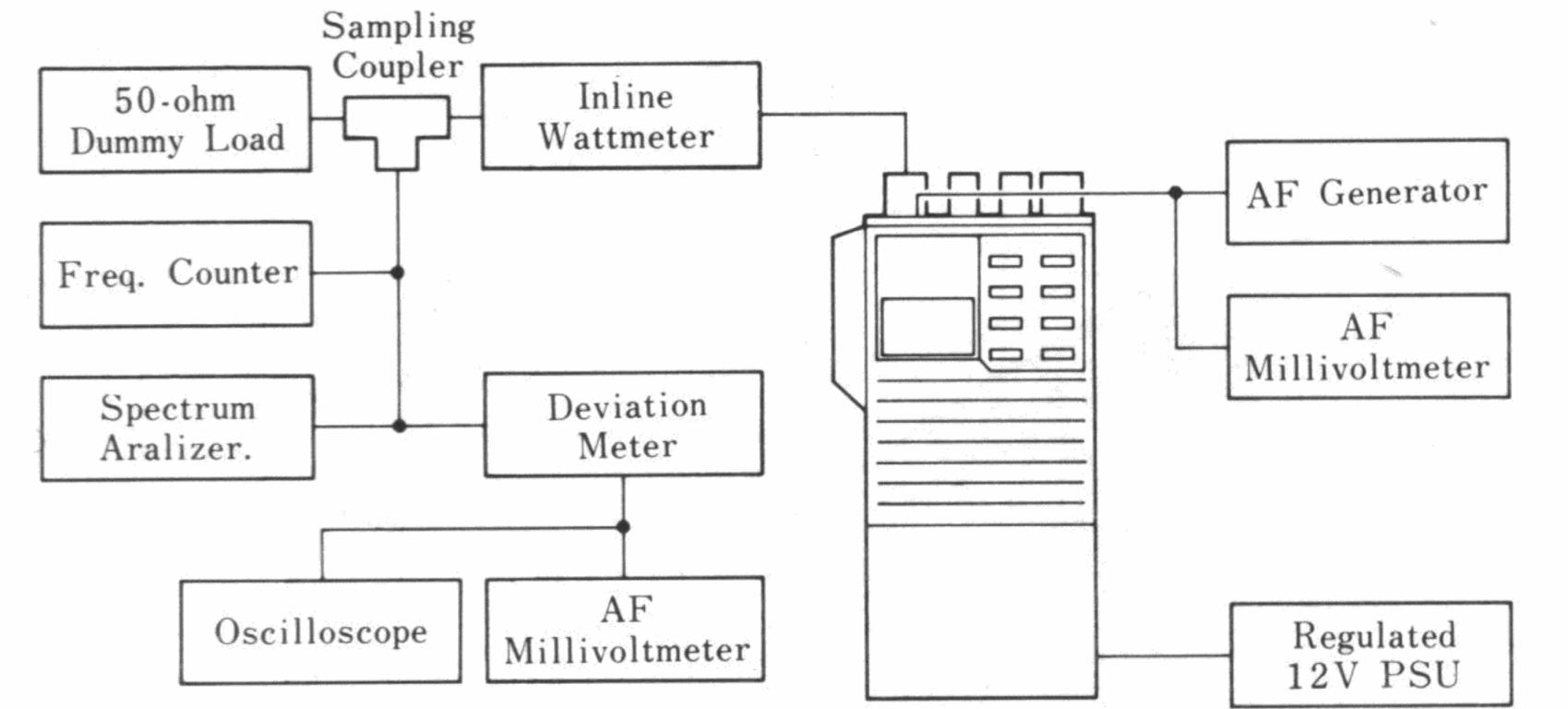
(5) Return the supply voltage to 12.0V.

C. PLL Reference Frequency

With the transceiver tuned to band center (145 or 146 MHz), adjust TC401 on the PLL Unit, if necessary, so that the display frequency matches the frequency counter when transmitting.

D. Modulation Level

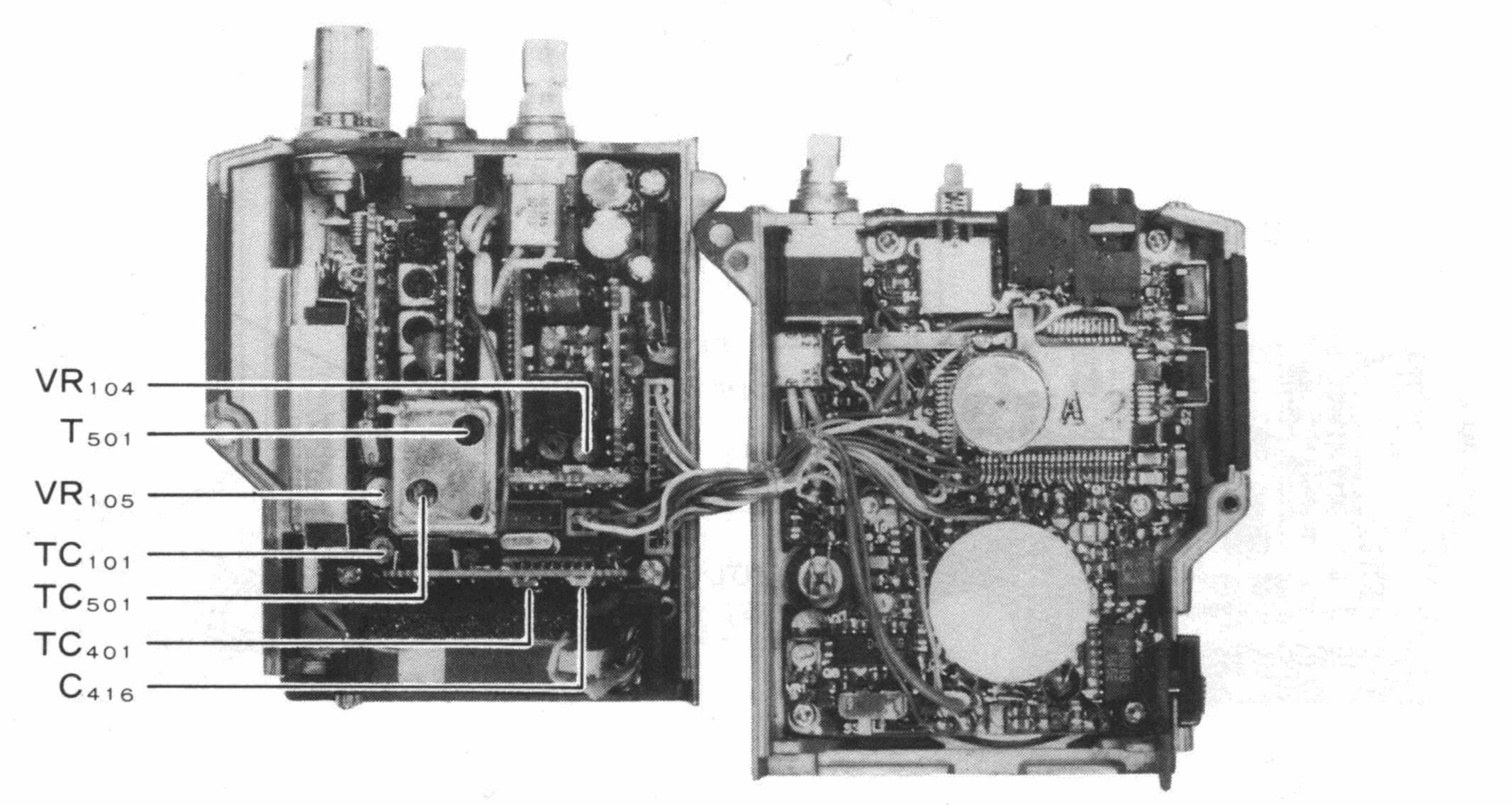
(1) With the transceiver tuned to band center



(145 or 146 MHz), adjust the AF generator for 25mV output at 1 kHz to the MIC jack.

(2) Adjust VR104 on the Mother Board for ± 4.5 kHz deviation on the deviation meter.

PLL & TRANSMITTER ALIGNMENT POINTS



II. RECEIVER

Set up the test equipment as shown above for receiver alignment.

Sensitivity Α.

(1) With the transceiver and RF signal generator both tuned to band center (145 or 146 MHz), set the generator for ± 3.5 kHz deviation of 1 kHz tone modulation, and set the output level for 40 dBu at the

S-meter Sensitivity В.

- (1) With the transceiver and RF signal generator set up as in step (1) of the above Sensitivity adjustment procedure, set the signal generator for 20 dBu output.
- (2) Adjust VR103 on the Mother Board so that all bargraph segments are just turned on.
- (3) Reduce the generator output so that only two bargraph segments are on, and confirm that the generator output level is now 5

antenna jack.

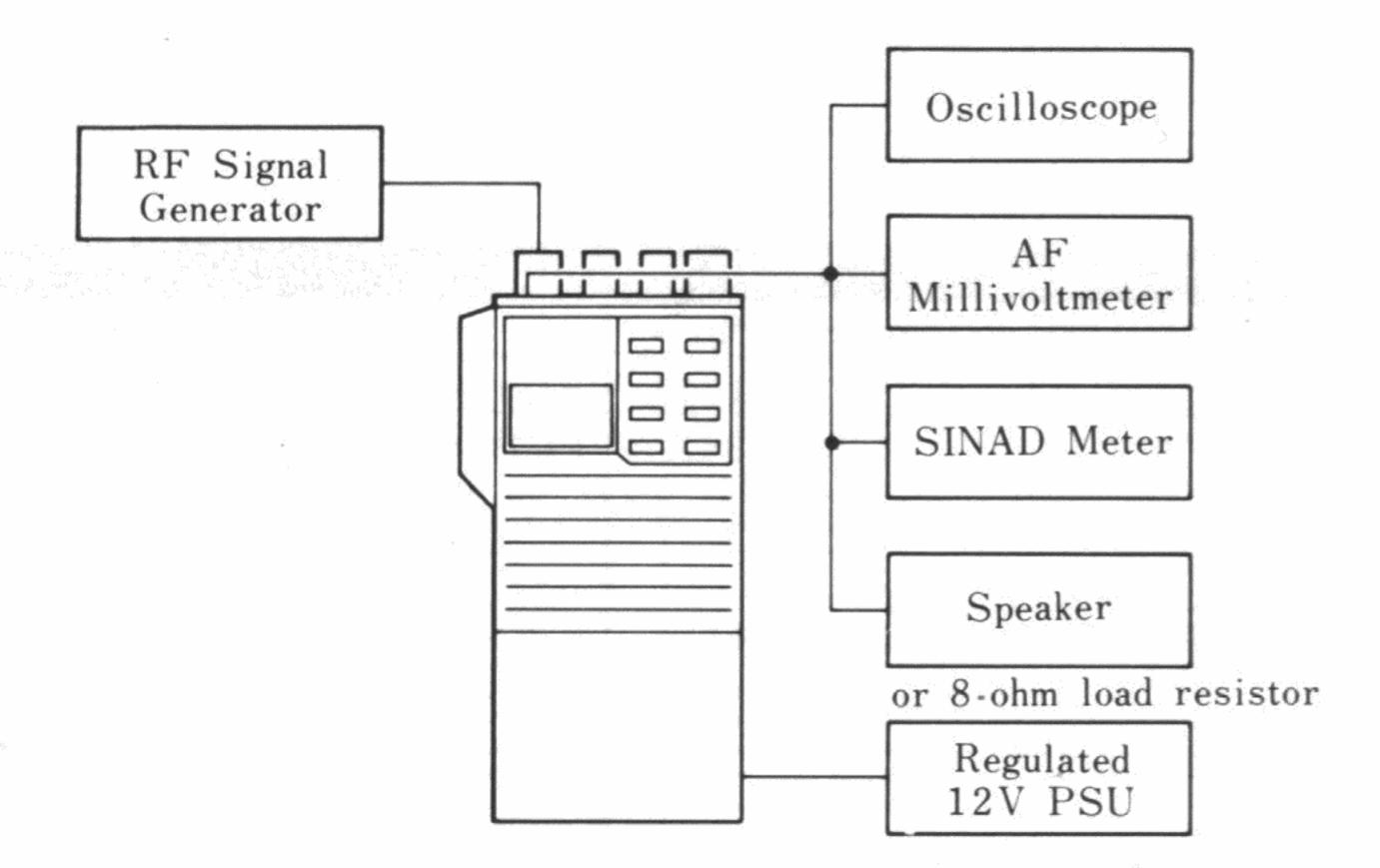
(2) Preset VR103 on the Mother Board fully clockwise.

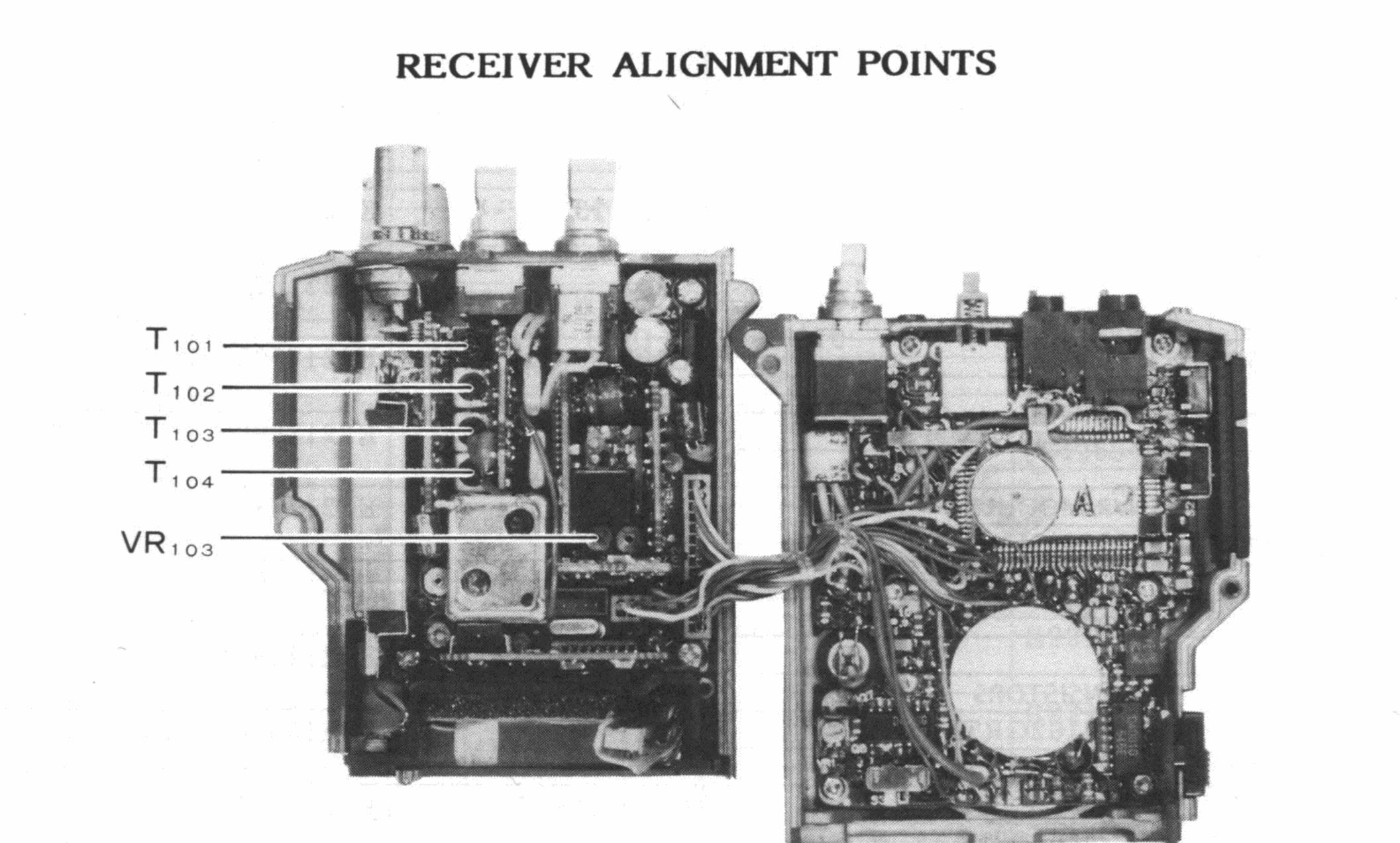
(3) Adjust T101 through T104 on the Mother Board for maximum S-meter indication, reducing the generator level if more than four bargraph segments turn on.

After step (3), generator level should be 0.2uV or less for 12dB SINAD. Perform the following adjustment next.

dBu or less.

RECEIVER ALIGNMENT SETUP







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PARTS LIST

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	MAIN CHA	ASSIS			
Symbol No.	Part No.	Name & Description			
		CONNECTOR			
J01	P1090541	BNC-RM ANT			CERAMIC FILTER
			CF101	H3900280	LF-B12
		MISCELLANEOUS			
	R3116390	DIAL Knob		70.005.050	RESISTORS
	R3116620	VOL,SQL Knobs	R112	J24205479	RMC 1/10T4R7J 1/10W 4.7Ω
	R3508300	PTT Button Cover	R113	J24205100	1000 1036
	R3508310	UNLOCK Lever	R102	J24205220	" " $220J$ " 22Ω " " $221J$ " 220Ω
	R0117370	Coil Spring	R106,109	J24205221	" " 331J " 330Ω
	R0507950B	Battery Spring Plate	R110	J24205331 J24205102	" " 102J " 1kΩ
	R3503650A	Top Panel Gasket	R111 R114	J24205102	" " 1020 1K32 " " 108Ω
	R3507960	Jack Seal Gasket	R107,118A,F	J24205223	" " 223J " 22kΩ
			R116	J00215223	Carbon film $1/8W 22k\Omega$
			R101	J24205333	RMC 1/10T333J 1/10W33kΩ
			R108,115	J24205473	" " 473J " 47kΩ
			R103-105,117	J24205104	" " 104J " 100kΩ
	MOTHER B	OARD			
Symbol No.	Part No.	Name & Description			
	F2838104A	Printed Circuit Board			
	C028384AA				POTENTIOMETERS
			VR101	J60800128	K091K0004-20KB 20kΩ B
			VR102	J60800129	K0911100D-20KA 20kΩ A
			VR103-105	J51776473	RH0411CS4J 47kΩ B
3.					
				1700170000	CAPACITORS
			C104-106	K22170203	Chip Ceramic 50WV 2pF CH
			C107	1299170904	(C2012CH1H020CFA) """ 3pF "
			C107	K22170204	(C2012CH1H030CFA)
			C101,108	K22170206	" " " 5pF "
			0101,100	R22110200	(C2012CH1H050CFA)
			C130,133	K22170209	" " 8pF "
					(C2012CH1H080DFA)
			C143	K22170211	" " 10pF "
		IC			(C2012CH1H100DFA)
Q101	G1090558	LA4145	C103	K22170221	" " 27pF "
					(C2012CH1H270JFA)
			C111,122,125-127	K22170805	" " 0.001µF E
			131,135-141		(C2012B1H102MFA)
		PWR-MODULE	C102,132,134	K22170817	" " 0.01µF '
Q107	G1090732	M57796MA			(C2012B1H103MFA)
			C128,142	K22171008	" " 0.047µF I
				7700141004	(C2012F1H473ZFA)
		TRANCICTORC	C109,110,112,115	K22141904	
0		TRANSISTORS	119,120,129	170120001	(C3216D1E104MFA)
Q102	G3111627G		C121	K78130001	Tantalum 20WV 0.47µF (F951D474MRAAF1Q2)
Q103	G3327127G	FA1A4M	C113,118,123	K40129052	Electrolytic 16WV 10µF
Q104	G3070001 G3333567	2SC3356-T2B		11 10120002	(RC3-16V100M)
Q105	G3333567 G3329547	2SC2954-T2B	C114,124	K40129038	" " 16WV 100µF
Q106	00020041				(RC2-16V101M)
			C116,117	K40089020	" " 6.3WV 100µF
			>		(RC3-6V101M)
		DIODE			
D101	G2070009	1SS184TE85R Si			
~					
					TRIMMER CAPACITOR
			TC101	K91000149	VCT31E161A 20pF
		and the second se			
		CRYSTAL FILTER			

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T102-104 L L101,102 L L103 L J101 P J102 P J103 P P101(with wire) T Symbol No. F	20021416 20021418 20021418 21190275 21020671 20090599 20090601 20090598 29205436 29205436 29205436 29205436 29205436	Name & Description Printed Circuit Board	Symbol No. Q302 Q301 D301,302 X301	G1090698 G3326207B G2070007	Name & Description Printed Circuit Board PCB with Components IC IC TK10420M TRANSISTOR 2SC2620QBTR DIODES 1SS226TE85L Si CRYSTAL
101,102 L 103 L 101 P 102 P 103 P 101(with wire) T Symbol No.	21190275 21020671 20090599 20090599 20090598 29205436 29205436 29205436 Part No. 2838111A	LAL02NAR22M 0.22µH CONNECTORS IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	Q301 D301,302	C028382AA G1090698 G3326207B G2070007	PCB with Components IC IC TK10420M TRANSISTOR 2SC2620QBTR DIODES 1SS226TE85L Si
L 103 L 101 P 102 P 103 P 101(with wire) T Symbol No. F:	21020671 20090599 20090601 20090598 29205436 9205436 SP205436 Part No. 2838111A	LAL02NAR22M 0.22µH CONNECTORS IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	Q301 D301,302	G1090698 G3326207B G2070007	IC TK10420M TRANSISTOR 2SC2620QBTR DIODES 1SS226TE85L Si
103 L 101 P 102 P 103 P 101(with wire) T Symbol No. F	21020671 20090599 20090601 20090598 29205436 9205436 SP205436 Part No. 2838111A	LAL02NAR22M 0.22µH CONNECTORS IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	Q301 D301,302	G3326207B G2070007	TK10420M TRANSISTOR 2SC2620QBTR DIODES 1SS226TE85L Si
103 L 101 P 102 P 103 P 101(with wire) T Symbol No.	21020671 20090599 20090601 20090598 29205436 9205436 SP205436 Part No. 2838111A	LAL02NAR22M 0.22µH CONNECTORS IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	Q301 D301,302	G3326207B G2070007	TK10420M TRANSISTOR 2SC2620QBTR DIODES 1SS226TE85L Si
103 L 101 P 102 P 103 P 101(with wire) T Symbol No.	21020671 20090599 20090601 20090598 29205436 9205436 SP205436 Part No. 2838111A	CONNECTORS IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	Q301 D301,302	G3326207B G2070007	TK10420M TRANSISTOR 2SC2620QBTR DIODES 1SS226TE85L Si
101 P 102 P 103 P 101(with wire) T Symbol No. F	20090599 20090601 20090598 9205436 9205436 FRONT END Part No. 2838111A	IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	Q301 D301,302	G3326207B G2070007	TRANSISTOR 2SC2620QBTR DIODES 1SS226TE85L Si
102 P 103 P 101(with wire) T Symbol No. F	P0090601 P0090598 P205436 FRONT END Part No. Part No. 2838111A	IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	D301,302	G2070007	2SC2620QBTR DIODES 1SS226TE85L Si
102 P 103 P 101(with wire) T Symbol No. F	P0090601 P0090598 P205436 FRONT END Part No. Part No. 2838111A	IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	D301,302	G2070007	2SC2620QBTR DIODES 1SS226TE85L Si
1102 P 1103 P P101(with wire) T Symbol No. F	P0090601 P0090598 P205436 FRONT END Part No. Part No. 2838111A	IL-Y-5P-S15T2-EF IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF OUNIT Name & Description Printed Circuit Board	D301,302	G2070007	2SC2620QBTR DIODES 1SS226TE85L Si
1102 P 1103 P P101(with wire) T Symbol No. F	P0090601 P0090598 P205436 FRONT END Part No. Part No. 2838111A	IL-Y-14P-S15T2-EF IL-Y-4P-S15T2-EF DUNIT Name & Description Printed Circuit Board	D301,302	G2070007	DIODES 1SS226TE85L Si
P 101(with wire) T Symbol No. F:	P0090598 9205436 FRONT END Part No. 2838111A	IL-Y-4P-S15T2-EF DUNIT Name & Description Printed Circuit Board			1SS226TE85L Si
P101(with wire) The symbol No.	9205436 FRONT END Part No. 2838111A	OUNIT Name & Description Printed Circuit Board			1SS226TE85L Si
Symbol No.	FRONT END Part No. 2838111A	Name & Description Printed Circuit Board			1SS226TE85L Si
F	Part No. 2838111A	Name & Description Printed Circuit Board			1SS226TE85L Si
F	Part No. 2838111A	Name & Description Printed Circuit Board			
F	Part No. 2838111A	Name & Description Printed Circuit Board	X301		CRYSTAL
F	Part No. 2838111A	Name & Description Printed Circuit Board	X301		CRYSTAL
F	Part No. 2838111A	Name & Description Printed Circuit Board	X301		
				H0102773	UM-1 10.245MHz
	202838BAA	DOD with O			
		PCB with Components			
					CERAMIC DISCRIMINATOR
			CD301	H7900260	D455C
J. J		FETS			
Q201,202 G	3803027Y	2SK302YTE85R			
					RESISTORS
			R305	J24205101	RMC 1/10T101J 1/10W100Ω
		DIODES	R304	J20205471	" " 471J " 470Ω
D201-203 G	2090248	1T32 Varactor	R311	J24205152	" " 152J " 1.5kΩ
			R301,307,308	J24205222	" " 222J " 2.2kΩ
			R314	J24205392	" " 392J " 3.9kΩ
			R315	J24205472	" " 472J " 4.7kΩ
		RESISTORS	R313	J24205682	" " 682J " 6.8kΩ
	24205560	RMC 1/10T 560J 1/10W 56Ω	R309,316	J24205103	" " 103J " 10kΩ
	24205101	" " 101J " 100Ω	R303,310	J24205473	" " 473J " 47kΩ
	24205471	" " 471J " 470Ω	R306	J24205823	" " 823J " 82kΩ
	24205104	$\frac{11}{10} \frac{104J}{100k} \frac{100k}{100k}$	R302	J24205224	" " 224J " 220kΩ
R205 J2	24205474	" " 474J " 470kΩ	R312	J24205474	" " 474J " 470kΩ
		CAPACITORS			CAPACITORS
C202,203,205,207 K	22170221	Chip Ceramic 50WV 27pF CH	C303	K22170213	Chip Ceramic 50WV 12pF CH
0001 010	00170005	(C2012CH1H270JFA)	0004.010		(C2012CH1H120JFA)
C201,210	22170805	" " 0.001μF B (C2012B1H102MFA)	C304,310	K22170229	" " 56pF " (C2012CH1H560JFA)
C206,209 K	22170817	" " 0.01µF "	C305	K22170237	" " 120pF "
C208	22171008	(C2012B1H103MFA)	C200	······································	(C2012CH1H121JFA)
		" " 0.047μF F (C2012F1H473ZFA)	C309	K22170239	" " 150pF " (C2012CH1H151JFA)
C204 K	22141904	" " 25WV 0.1µF D	C315	K22170243	" " 220pF "
		(C3216D1E104MFA)	C302,306,314	K22170805	(C2012CH1H221JFA) """ 0.001µF B
			0002,000,014	R221(0803	(C2012B1H102MFA)
			C301,312,317	K22170817	" " 0.01µF "
T 901		INDUCTORS	0000 000 010		(C2012B1H103MFA)
and a second		LALO2NA3R3K 3 3uH	C307,308,313	K22141904	" " $25V \ 0.1\mu F D$ (C3216D1F104MFA)
	1130203	LAL02NA3R3K 3.3µH	C316,318	an initia and an	(C3216D1E104MFA) Chip Tantalum 10WV 1µF
	<u>1.57</u>		010,010		(F951C105MRAAF1Q2)

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C311 L301 Symbol No.	K78080004	Chip Tantalum 6.3W 15µF (F950J156MVCAF1Q2) INDUCTOR LAL02KR100K 10µH	TC401 L401	K91000154	TRIMMER CAPACITOR ECR-KN020E11X 20pF INDUCTORS
		INDUCTOR			INDUCTORS
			L401	T.1190311	
			L401	T.1190311	
			L401	I.1190311	
			L401	L1190311	
		LAL02KR100K 10µH	L401	90311	T T T DOLT A DOLT 7 000 TT
Symbol No.	PLLUN				LAL02NA221K 220µH
Symbol No.	PLLUN				
Symbol No.	PLL UN				
Symbol No.	PLL UN				
Symbol No.	PLL UN				
Symbol No.					
	Part No.	Name & Description		VCO UN	
	F2838108A	Printed Circuit Board	Symbol No.	Part No.	Name & Description
	C028388AA	PCB with Components		F2838106	Printed Circuit Board
		Model A1, A2, D, E2 5kHz steps			VCO-LC
	C028388AB	<u>11 11 11</u>		F2838110	11 11 11
		Model F 10kHz steps			VCO-OSC
Le construction de la constructi	C028388AC			C028386AF	PCB with Components
		Model B,C2 12.5kHz steps			
					FET
		ICs	Q501	G3802387S	2SK238-K17
0401	C1000795		Q301	000020010	ZURZUU NII
Q401	G1090725	MC12017P			
Q402	G1090582	JLC1007P			
					TRANSICTOR
			0500	000075070	TRANSISTOR
۷			Q502	G3327597C	2SC2759-T2B U23
		DIODE			
D401	G2090118	1SS97 Schottky			
					DIODES
			D501	G2090297	1SS110 Si
		CRYSTAL	D502,503	G2090271	1T33 Varactor
X401**	H0102771	UM-1 10.240MHz			
X401	H0102772	UM-1 12.800MHz			
					RESISTORS
			R504	J24205470	RMC 1/10T 470J 1/10W 47Ω
		RESISTORS	R505	J24205101	" " 101J " 100Ω
R408	J24205000	RMC 1/10T 000J 1/10W 0Ω	R501	J24205682	" " 682J " 6.8kΩ
R402,403	J24205220	" " 220J " 22Ω	R506	J24205683	" " 683J " 68kΩ
R404,405,407	J24205222	" " 222J " 2.2kΩ	R503	J24205224	" " 224J " 220kΩ
R406	J24205472	" " 472J " 4.7kΩ	R502	J24205225	" " 225J " 2.2MΩ
R401,406*	J24205103	" " 103J " 10kΩ	1.002		
R406°	J24205153	" " 153J " 15kΩ			
A400	024200100	1000 10032			
					CAPACITORS
			C508	K22170201	Chip Ceramic 50WV 0.5pF CH
		CADACITODC	- 000	R221(0201	(C2012CH1HOR5CFA)
	1700170000	CAPACITORS	0502	1700170011	
C401	K22170206	Chip Ceramic 50WV 5pF CH	C503	K22170211	Tobt
		(C2012CH1H050CFA)			(C2012CH1H100DFA)
C411,412	K22170227	" " 47pF "	C506,507	K22170311	" " " UJ
		(C2012CH1H470JFA)			(C2012UJ1H100DFA)
C408-410,419	K22170235	" " 100pF "	C501	K22170215	" " 15pF CH
5		(C2012CH1H101JFA)			(C2012CH1H150JFA)
C402,403,405,407	K22170805	" " 0.001µF B	C502,505,510	K22170805	" " 0.001µF B
413-415		(C2012B1H102MFA)		v .	(C2012B1H102MFA)
C416,417	K22141904	" " 25WV 0.1µF D	C509	K78080002	Chip Tantalum 6.3WV 4.7µF
		(C3216D1E104MFA)			(F950J475MSAAF1Q2)
C404,406,420	K78080002	Chip Tantalum 6.3WV 4.7µF	C504	K78080003	" " 10µF
0404,400,420	110000002	(F950J475MSAAF1Q2)	0001		(F950J106MTAAF1Q2)
C410	1270100000				(1 0000100m11m111q4)
C418	K78100003	IOW COOPE			
		(F951A685MTAAF1Q2)			
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Model A1,A2,D,E2
 Model B,C2

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TOF 01	1701000150	TRIMMER CAPACITOR	C602	K78100003	Chip Tantalum 10WV 6.8µF
TC501	K91000152	ECR-JA040G12X	0607	177000000	(F951A685MTAAF1Q2)
			C607	K78080003	" 6.3WV 10μF (F950J106MTAAF1Q2)
					(1'5505100MIAAF1Q2)
		INDUCTORS			
L501-503	L1190283	LAL02NA1R0M 1µH			
L504	L1190342	LAL02KRR22M 0.22µH			
				MICAMP	UNIT
		TRANCEORAER	Symbol No.	Part No.	Name & Description
T501	L0021684A	TRANSFORMER		F2838101	Printed Circuit Board
1001	L0021004A	R12-E991X 150MHz		C028381AA	PCB with Componnents
				C028381AB	Model A1,A2,F
				CUZOJOIAD	Model B,C2,D,E2
		TEST POINTS		· · · · · · · · · · · · · · · · · · ·	model D,C2,D,E2
TP	Q5000082	IPS-1091-01			
					IC
	R0116640	SHIELD CASE	Q701	G1090726	M5224FP
	R0117100	SHIELD TOP			
					DECICEDOR
	REGL	INIT	R705	J24205332	RESISTORS
Symbol No.	Part No.	Name & Description	R710	J242055562	RMC 1/10T332J1/10W3.3kΩ"562J5.6kΩ
	F2838109A	Printed Circuit Board	R701*,702*,709	J24205103	" " 562J " 5.6kΩ " " 103J " 10kΩ
	C028389AA	PCB with Components	711-713	021200100	1000 10K32
			R704*,715	J24205223	" " 223J " 22kΩ
			R708	J24205333	" " 333J " 33kΩ
			R707	J24205563	" " 563J " 56kΩ
0.004		IC	R716	J24205104	" " 104J " 100kΩ
Q604	G1090736	LVC550C-2	R703,714	J24205225	" " 225J " 2.2MΩ
			R706	J24205335	" " 335J " 3.3MΩ
		TRANSISTORS			
Q601	G3207997L	2SB799ML			CAPACITORS
Q602,603,608	G3327127G	2SC2712GRTE85R	C705,708,710,711	K22170805	Chip Ceramic 50WV 0.001µF B
Q605-607	G3111627G	2SA1162GRTE85R	713,714		(C2012B1H102MFA)
			C703*	K22170809	" " 0.0022µF "
					(C2012B1H220MFA)
			C702*,703°,709	K22170817	" " " 0.01µF B
D601 604	0000007	DIODES			(C2012B1H103MFA)
D601,604 D602	G2090027 G2090183	1SS53SiHZ9A2LZener	C706	K22171008	""" 0.047µF"
D603	G2070009	HZ9A2L Zener 1SS184TE85R Si	C701*,704*,707		(C2012B1H473ZFA)
2000	02010000	IDDIOTILOUN DI	712	K22141904	""" 0.1µF D (C3216D1E104MFA)
			114		(C3210DIE104WIFA)
		RESISTORS			
R602	J01245829	Carbon film 1/4W 8.2Ω TJ			
R601	J24205101	RMC 1/10T101J 1/10W 100Ω			
R608	J24205222	" " 222J " 2.2kΩ		S METER I	UNIT
R606,607,612	J24205472	" " 472J " 4.7kΩ	Symbol No.	Part No.	Name & Description
R605,611 R603	J24205103	1030 10KS2			Printed Circuit Board
R604,609,610	J24205223 J24205104	223J 22KS2		C028383AA	PCB with Components
1001,003,010	024200104	" " 104J " 100kΩ			
					TRANSISTORS
		CAPACITORS	Q801,802	G3327127G	2SC2712GRTE85R
C601,603,604	K22170805	Chip Ceramic 50WV 0.001µF B			
606,608-613		(2012B1H102MFA)			
C605	K78120002	Chip Tantalum 16WV 2.2µF			
		(F951C225MSAAF1Q2)			

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Model A1,A2,F
* Model B,C2,D,E2

		DIODES		8	INDUCTORS
D801,802	G2090029	1N60 Ge	L901	L1190344	LAL02KR100K 10µH
			L902, L904	L0021683	
			L903	L0021682	
		•.			
		RESISTORS			
R802	J24205102	RMC 1/10T102J 1kΩ			
R804	J01245102	Carbon film 1/4W 1kΩ			TERMINAL POSTS
R801,803	J24205104	RMC 1/10T104J 100kΩ	TP901	Q5000016	TP-E/MS-60124
		CAPACITORS			
C801	K22170801	Chip Ceramic 50WV 470pF B			
		(C2012B1H471MFA)		CNTL U	
C802,803	K22170817	" " 0.01µF "	Symbol No.	Part No.	Name & Description
		(C2012B1H103MFA)		<u>- , ind , , , , , , , , , , , , , , , , , , ,</u>	Printed Circuit Board
				C028385AA	PCB with Components Model F
		2		C028385AB	
				CULOSOSAD	Model A1, A2
				C028385AC	ter a second second second second second for a second second second second second second second second second s
	ANTSW	UNIT			Model B, C2, D, E2
Symbol No.	Part No.	Name & Description	1		w/o BAT1001
	F2838107A				
		PCB with Components			
					ICs
			Q1001	G1090741	HD613901A51
		TRANSISTORS	Q1007	G1090752	PST523G
Q901,905	G3207997L	2SB799ML	Q1008	G1090602	μPD4066BG
Q902-904	G3327127G	2SC2712GRTE85R	Q1009	G1090601	μPD4001BG
an a support a supplication provident and a sub-state of the sub-state of the support of the support of the sub-		DIODES			TRANSISTORS
D901,902	G2090027	DIODES 1SS53 Si	Q1002,1012	C3111627C	TRANSISTORS 2SA1162GRTE85R
D903	G2070007	1SS226TE85R "	Q1003-1006,1010		2SC2712GRTE85R
2000		100220110010	Q1011,1013	G3070001	FA1A4M
			1		
		RESISTORS			
R905	J24205221	RMC 1/10T221J 1/10W 220Ω			DIODES
R903	J24205471	" " 471J " 470Ω	D1001,1002,1008	G2070001	1SS181TE85R Si
R901,904,906	J24205222	" " 222J " 2.2kΩ	D1003,1005	G2090334	HZ4ALL Zene
R902	J24205473	" " 473J " 47kΩ	D1004	G2090118	1SS97 Scho
			D1006		SLM-23VMW T-97 LED
			D1007	G2070009	1SS184TE85R Si
		CAPACITORS			
C916	K22170207	Chip Ceramic 50WV 6pF CH			
		(C2012CH1H060DFA)			LIQUID CRYSTAL DISPLAY
C914	K22170209		DS1001	G6090060	LR-541C
		(C2012CH1H080DFA)			
C917	K22170217	" " 18pF "			
		(C2012CH1H180JFA)			
C913,915	K22170223	" " " 33pF "			CERAMIC RESONATOR
		(C2012CH1H330JFA)	X1001	H7900270	CSB800K
C901,903,905	K22170805	" " 0.001µF B			
907-912		(C2012B1H102MFA)			
C90,4	K40179033	Electrolytic " 0.47µF			
		(RC3-50VR47M)			
0000 000	K40129052	" 16WV 10µF			
C902,906				4 1997	
C902,906		(RC3-16V100M)			
C902,906		(RC3-16V100M)			

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		RESISTORS			SPEAKER
R1017	J24205221	RMC 1/10T221J 1/10W 220Ω	SP1001	M4090063	T036S13Y2611
R1027	J24205331	" " 331J " 330 Ω		1111000000	100001012011
R1037	J24205471	" " 471J " 470Ω	1		
R1016	J24205561	" " 561J " 560Ω			
R1029	J24205102	" " 102J " 1kΩ			MIC
R1019, 1036	J24205152	" " 152J " 1.5kΩ	MIC1001	M3290008	EM-78CYE
R1035	J24205222	" " 222J " 2.2kΩ		11020000	
R1004*,1012,1020	J24205472	" " 472J " 4.7kΩ			
1038	021200112	1120 1.1720			
R1011, 1015,1018	J24205103	" " 103J " 10kΩ			SWITCHES
1021-1024,1033	021200100	1000 10030	S1001,1002	N5090018	KHH15951 SQL, OFF•,
1034,1039			51001,1002	140000010	BURST*, PTT
R1028	J24205183	" " 183J " 18kΩ	S1003	N6090063	SSSS22050A
R1003*,1008	J24205223	" " 223J " 22kΩ	S1004	N4090088	SPJ622N09 HI/LO
R1010,1025,1031	J24205473	" " 473J " 47kΩ	S1005	N0190139	SRBMIL066 DIAL
R1001,1002,1005	J24205104	" " 104J " 100kΩ		110100100	
1013,1014,1026	021200101	1010 100136			
1030					
R1006,1032	J24205224	" " 224J " 220kΩ			CONNECTORS
R1007	J24205394	" " 394J " 390kΩ	J1001	P1090369	HSJ0838-01-010 MIC
R1007	J24205394	" " 105J " 1MΩ	J1002	P1090370	HSJ0836-01-010 MIC HSJ0836-01-010 EAR
101000	021200100	1000 111122	01002	1 1030370	11500030-01-010 EAK
		POTENTIOMETER			LITHIUM BATTERY
VR1001	J51771103	RVG4F03103-TG 10kΩ	BAT1001	Q9000366	CR2025
YICTOUT	00111100	INVGHEUSIUS-IG IUKSZ	DATIOUI	Q3000300	0112020
					RUBBER CONDUCTOR
		CAPACITORS	3	S2000026	24.3x1.8x1 SS
		CAFACITURS			
C1004 1005	K99170935	Chin Commin 50WW 100mF CH			DIORIORI DD
C1004,1005	K22170235	Chip Ceramic 50WV 100pF CH			
		(C2012CH1H101MFA)			
C1011-1016,1019	K22170235 K22170805	(C2012CH1H101MFA) """0.001µF B			
C1011-1016,1019 1022,1024-1027		(C2012CH1H101MFA)			
C1011-1016,1019 1022,1024-1027 1030	K22170805	(C2012CH1H101MFA) """0.001µF B (C2012B1H102MFA)			
C1011-1016,1019 1022,1024-1027	K22170805	(C2012CH1H101MFA) """0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF "	Symbol No.	ACCESSO	DRIES*
C1011-1016,1019 1022,1024-1027 1030 C1028	K22170805 K10176102	(C2012CH1H101MFA) """0.001μF B (C2012B1H102MFA) Ceramic disc "0.001μF " (DD104B102K50)	Symbol No.		DRIES* Name & Description
C1011-1016,1019 1022,1024-1027 1030	K22170805	(C2012CH1H101MFA) """0.001μF B (C2012B1H102MFA) Ceramic disc "0.001μF " (DD104B102K50) Chip Ceramic "0.0022μF "	Symbol No.	ACCESS(Part No.	ORIES* Name & Description ANTENNA
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002	K22170805 K10176102 K22170809	(C2012CH1H101MFA) " " 0.001µF B (C2012B1H102MFA) Ceramic disc " 0.001µF " (DD104B102K50) Chip Ceramic " 0.0022µF " (C2012B1H222MFA)	Symbol No.	ACCESSO	DRIES* Name & Description
C1011-1016,1019 1022,1024-1027 1030 C1028	K22170805 K10176102	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF "	Symbol No.	ACCESS(Part No.	ORIES* Name & Description ANTENNA
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1018	K22170805 K10176102 K22170809 K22170817	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA)	Symbol No.	ACCESS(Part No.	ORIES* Name & Description ANTENNA
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1018 C1003,1007-1010	K22170805 K10176102 K22170809	<pre>(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " 25WV 0.1μF D</pre>	Symbol No.	ACCESS(Part No. Q3000049	DRIES* Name & Description ANTENNA YHA-16
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1003,1007-1010 1023	K22170805 K10176102 K22170809 K22170817 K22141904	<pre>(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA)</pre>	Symbol No.	ACCESS(Part No.	ORIES* Name & Description ANTENNA
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1018 C1003,1007-1010	K22170805 K10176102 K22170809 K22170817	<pre>(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " 25WV 0.1μF D (C3216D1E104MFA) " 6.3WV 4.7μF</pre>	Symbol No.	ACCESS(Part No. Q3000049	DRIES* Name & Description ANTENNA YHA-16
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002	(C2012CH1H101MFA) " " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2)	Symbol No.	ACCESS(Part No. Q3000049	DRIES* Name & Description ANTENNA YHA-16
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1003,1007-1010 1023	K22170805 K10176102 K22170809 K22170817 K22141904	<pre>(C2012CH1H101MFA) " " 0.001µF B (C2012B1H102MFA) Ceramic disc " 0.001µF " (DD104B102K50) Chip Ceramic " 0.0022µF " (C2012B1H222MFA) " " 0.01µF " (C2012B1H103MFA) " " 25WV 0.1µF D (C3216D1E104MFA) " " 6.3WV 4.7µF (F950J475MSAAF1Q2) " " 10WV 6.8µF</pre>	Symbol No.	ACCESS(Part No. Q3000049	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78100003	(C2012CH1H101MFA) " " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2)	Symbol No.	ACCESSO Part No. Q3000049 S6000098	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK*
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002	(C2012CH1H101MFA) " " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF	Symbol No.	ACCESS(Part No. Q3000049	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003	(C2012CH1H101MFA) " " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2)	Symbol No.	ACCESSO Part No. Q3000049 S6000098	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK*
C1011-1016,1019 1022,1024-1027 1030 C1028 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78100003	<pre>(C2012CH1H101MFA) " " " 0.001µF B (C2012B1H102MFA) Ceramic disc " 0.001µF " (DD104B102K50) Chip Ceramic " 0.0022µF " (C2012B1H222MFA) " " 0.01µF " (C2012B1H103MFA) " " 0.01µF T (C2012B1H103MFA) " " 6.3WV 0.1µF D (C3216D1E104MFA) " " 6.3WV 4.7µF (F950J475MSAAF1Q2) " " 10WV 6.8µF (F951A685MTAAF1Q2) " " 6.3WV 10µF (F950J106MTAAF1Q2) Electrolytic " 220µF</pre>	Symbol No.	ACCESSO Part No. Q3000049 S6000098	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK*
C1011-1016,1019 1022,1024-1027 1030 C1028 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003	(C2012CH1H101MFA) " " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2)	Symbol No.	ACCESSO Part No. Q3000049 S6000098	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10
C1011-1016,1019 1022,1024-1027 1030 C1028 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003	<pre>(C2012CH1H101MFA) " " " 0.001µF B (C2012B1H102MFA) Ceramic disc " 0.001µF " (DD104B102K50) Chip Ceramic " 0.0022µF " (C2012B1H222MFA) " " 0.01µF " (C2012B1H103MFA) " " 0.01µF T (C2012B1H103MFA) " " 6.3WV 0.1µF D (C3216D1E104MFA) " " 6.3WV 4.7µF (F950J475MSAAF1Q2) " " 10WV 6.8µF (F951A685MTAAF1Q2) " " 6.3WV 10µF (F950J106MTAAF1Q2) Electrolytic " 220µF</pre>	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10
C1011-1016,1019 1022,1024-1027 1030 C1028 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003	<pre>(C2012CH1H101MFA) " " " 0.001µF B (C2012B1H102MFA) Ceramic disc " 0.001µF " (DD104B102K50) Chip Ceramic " 0.0022µF " (C2012B1H222MFA) " " 0.01µF " (C2012B1H103MFA) " " 0.01µF T (C2012B1H103MFA) " " 6.3WV 0.1µF D (C3216D1E104MFA) " " 6.3WV 4.7µF (F950J475MSAAF1Q2) " " 10WV 6.8µF (F951A685MTAAF1Q2) " " 6.3WV 10µF (F950J106MTAAF1Q2) Electrolytic " 220µF</pre>	Symbol No.	ACCESSO Part No. Q3000049 S6000098	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10
C1011-1016,1019 1022,1024-1027 1030 C1028 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2) Electrolytic " 220μF (RC2-6V221M)	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10
C1011-1016,1019 1022,1024-1027 1030 C1028 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003	<pre>(C2012CH1H101MFA) " " " 0.001µF B (C2012B1H102MFA) Ceramic disc " 0.001µF " (DD104B102K50) Chip Ceramic " 0.0022µF " (C2012B1H222MFA) " " 0.01µF " (C2012B1H103MFA) " " 0.01µF T (C2012B1H103MFA) " " 6.3WV 0.1µF D (C3216D1E104MFA) " " 6.3WV 4.7µF (F950J475MSAAF1Q2) " " 10WV 6.8µF (F951A685MTAAF1Q2) " " 6.3WV 10µF (F950J106MTAAF1Q2) Electrolytic " 220µF</pre>	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10 CSC-25 u/w FNB-10, FTT-4
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029 C1021	K22170805 K10176102 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003 K78080003	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2) Electrolytic " 220μF (RC2-6V221M)	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029 C1021 C1021 P1001• P1001*	K22170805 K10176102 K22170809 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003 K78080003 K78080003 F79205433 T9205433	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2) Electrolytic " 220μF (RC2-6V221M)	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10 CSC-25 u/w FNB-10, FTT-4
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029 C1020,1029 C1021 P1001* P1001* P1002*	K22170805 K10176102 K22170809 K22170809 K22170817 K22141904 K78080002 K78100003 K78080003 K78080003 T9205433 T9205434 T9205432	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2) Electrolytic " 220μF (RC2-6V221M)	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10 CSC-25 u/w FNB-10, FTT-4
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029 C1021 C1021 P1001• P1001*	K22170805 K10176102 K22170809 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003 K78080003 K78080003 F79205433 T9205433	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2) Electrolytic " 220μF (RC2-6V221M)	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10 CSC-25 u/w FNB-10, FTT-4
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029 C1020,1029 C1021 P1001* P1001* P1002*	K22170805 K10176102 K22170809 K22170809 K22170817 K22141904 K78080002 K78100003 K78080003 K78080003 T9205433 T9205434 T9205432	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2) Electrolytic " 220μF (RC2-6V221M)	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10 CSC-25 u/w FNB-10, FTT-4
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029 C1020,1029 C1021 P1001* P1001* P1002*	K22170805 K10176102 K22170809 K22170809 K22170817 K22141904 K78080002 K78100003 K78080003 K78080003 T9205433 T9205434 T9205432	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2) Electrolytic " 220μF (RC2-6V221M)	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10 CSC-25 u/w FNB-10, FTT-4
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029 C1020,1029 C1021 P1001* P1001* P1002*	K22170805 K10176102 K22170809 K22170809 K22170817 K22141904 K78080002 K78100003 K78080003 K78080003 T9205433 T9205434 T9205432	(C2012CH1H101MFA) " " 0.001µF B (C2012B1H102MFA) Ceramic disc " 0.001µF " (DD104B102K50) Chip Ceramic " 0.0022µF " (C2012B1H222MFA) " " 0.01µF " (C2012B1H103MFA) " " 25WV 0.1µF D (C3216D1E104MFA) " " 6.3WV 4.7µF (F950J475MSAAF1Q2) " " 10WV 6.8µF (F951A685MTAAF1Q2) " " 6.3WV 10µF (F950J106MTAAF1Q2) Electrolytic " 220µF (RC2-6V221M) CONNECTORS	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10 CSC-25 u/w FNB-10, FTT-4
C1011-1016,1019 1022,1024-1027 1030 C1028 C1001,1002 C1001,1002 C1018 C1003,1007-1010 1023 C1006 C1017 C1020,1029 C1020,1029 C1021 P1001* P1001* P1002*	K22170805 K10176102 K22170809 K22170809 K22170817 K22141904 K78080002 K78080003 K78080003 K78080003 T9205433 T9205433 T9205435A	(C2012CH1H101MFA) " " 0.001μF B (C2012B1H102MFA) Ceramic disc " 0.001μF " (DD104B102K50) Chip Ceramic " 0.0022μF " (C2012B1H222MFA) " " 0.01μF " (C2012B1H103MFA) " " 25WV 0.1μF D (C3216D1E104MFA) " " 6.3WV 4.7μF (F950J475MSAAF1Q2) " " 10WV 6.8μF (F951A685MTAAF1Q2) " " 6.3WV 10μF (F950J106MTAAF1Q2) Electrolytic " 220μF (RC2-6V221M)	Symbol No.	ACCESSO Part No. Q3000049 S6000098 D3000493	DRIES* Name & Description ANTENNA YHA-16 HAND STRAP BATTERY PACK* FNB-10 VINYL SOFT CASE* CSC-23 u/w FNB-10 CSC-25 u/w FNB-10, FTT-4

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
Model A1,A2,F
* Model B,C2,D,E2

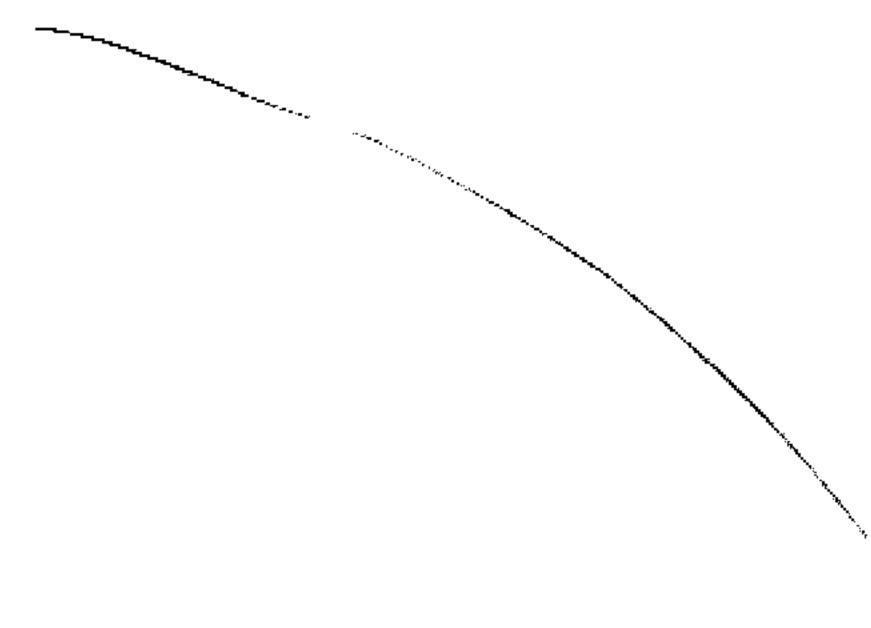
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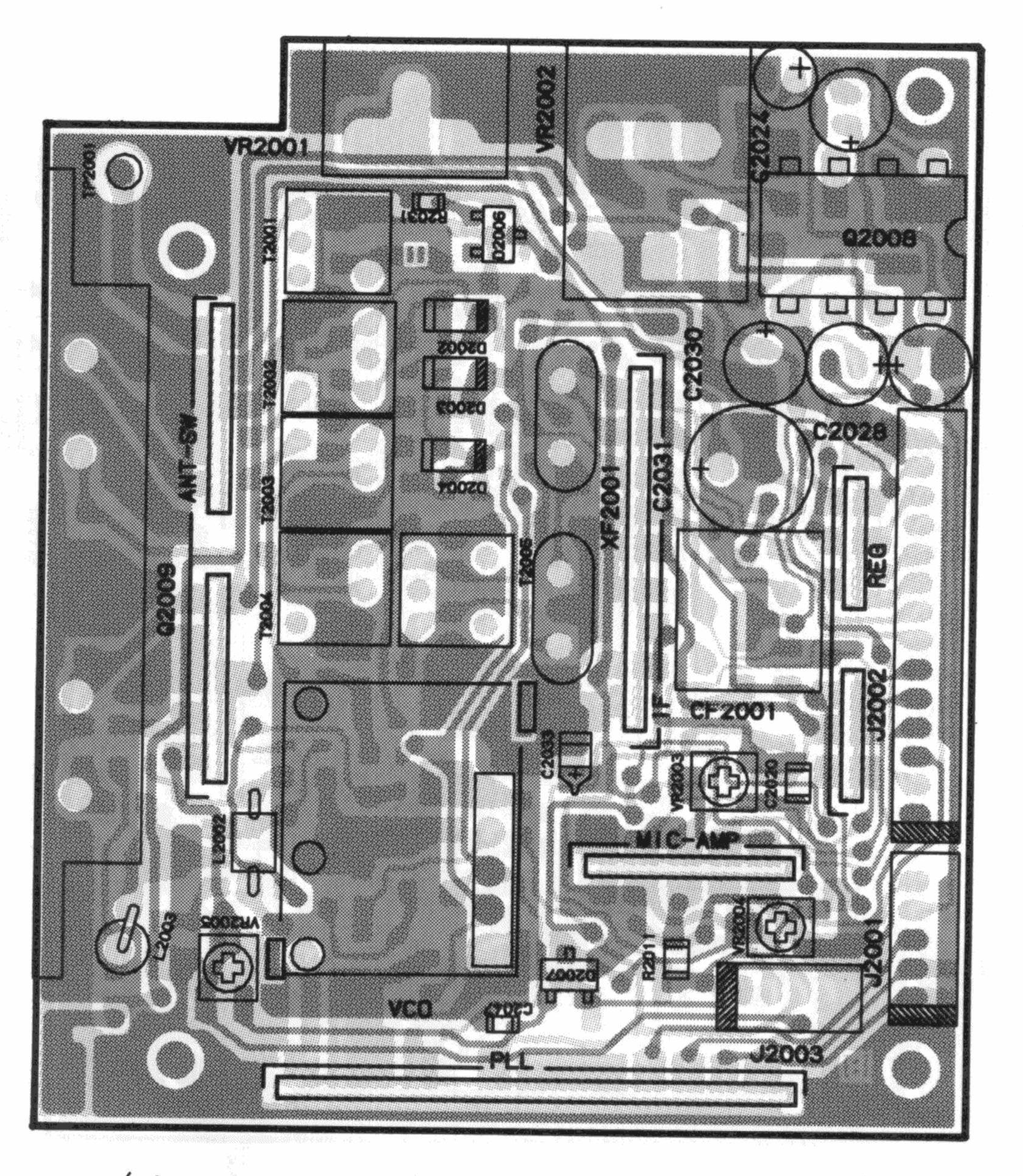


Late Model FT-23R

MOTHER BOARD • • • • • •	• • • • •	• • • • • •	· · · · · · · · · · · 2-1
IF UNIT · · · · · · · · ·	• • • • •	• • • • •	•••••••••••••2-4
PLL UNIT · · · · · · · · ·	• • • • •	• • • • • •	$\cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot 2-5$
$VCOUNIT \cdot \cdot$	• • • • •	• • • • •	· · · · · · · · · · · 2-6
REGUNIT · · · · · · · · ·	• • • • •	• • • • • •	· · · · · · · · · · 2-7
$MIC AMP UNIT \cdot \cdot$	• • • • •	• • • • • •	$\cdot \cdot \cdot \cdot \cdot \cdot \cdot \cdot 2-8$

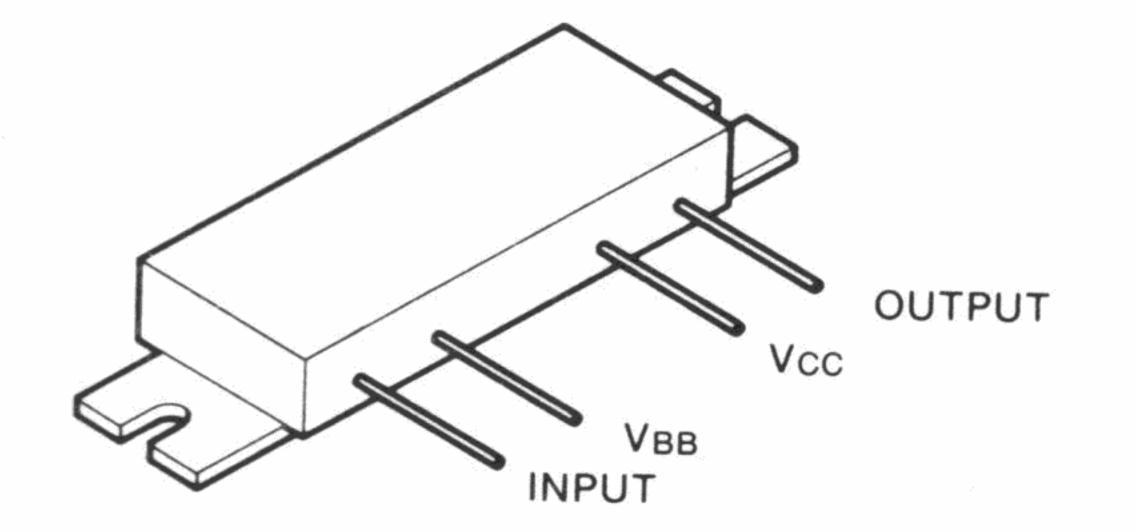


ANT SW UNIT	•	•	٠	٠	¢	٠	•	٠	•	٠	•	•	٠	٠	٠	۰	٠	•	٠	٠	٠	٠	٠	•	٠	۰	٠	•	٠	٠	٠	2-8
CNTL UNIT	٠	•	٠	÷	٠	٠	٠	٠	٠	•	٠	۰	٠	٠	٠	۰	٠	•	٠	٠	٠	٠	٠	٠	•	•	٠	٠	٠	Ŧ	٠	2-9
DUMMY UNIT •	•	•	٠	٠		٠	۰	٠	٠	•	٠	●	•	٠	•	٠	•	٠	٠	٠	·	٠	٠	٠	٠	٠	ŧ	٠	٠	٠	٠	2-12
ALIGNMENT	٠	٠	۰	٠	٠	٠	۲	٠	٠	٠	• 2	•	٠	•	•	•	٠	•	٠	۲	٠	ŧ	٠	۲	٠	٠	٠	٠	٠	٠	٠	2-13
BLOCK DIAGAM		٠	٠	٠	٠	٠	٠	•	•	•	•	٠	٠	٠	• 7	٠	٠	٠	ŧ	٠	•	•	۰	ب	٠	٠	٠	٠	٠	٠	٠	2-16
PARTS LIST	•	٠	٠	٠	٠	•	٠	٠	٠	•	٠	۰	٠	٠	•	٠	٠	≜	•	٠	٠	٠	٠	٠	٠	•	٠	٠	•	٠	•	2-17
EXPLODED VIEV	W	•	٠	•	٠	٠	٠	٠	•	٠	٠	٠	٠	•	٠	•	•	٠	•	•	٠	٠	٠	•	٠	٠	•	•	٠	•	٠	2-32

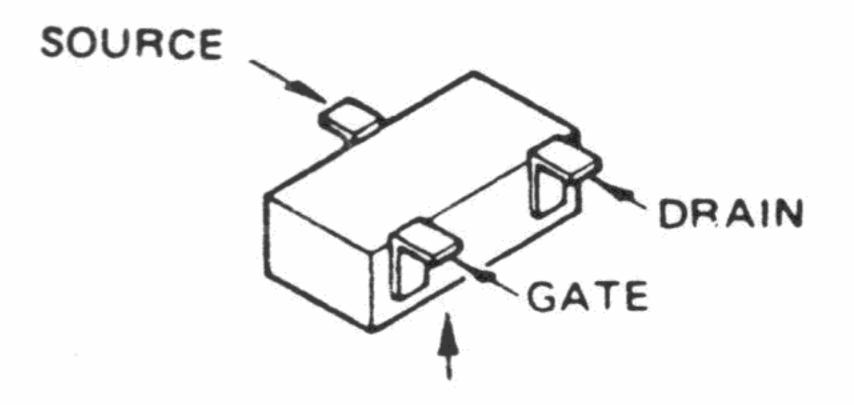


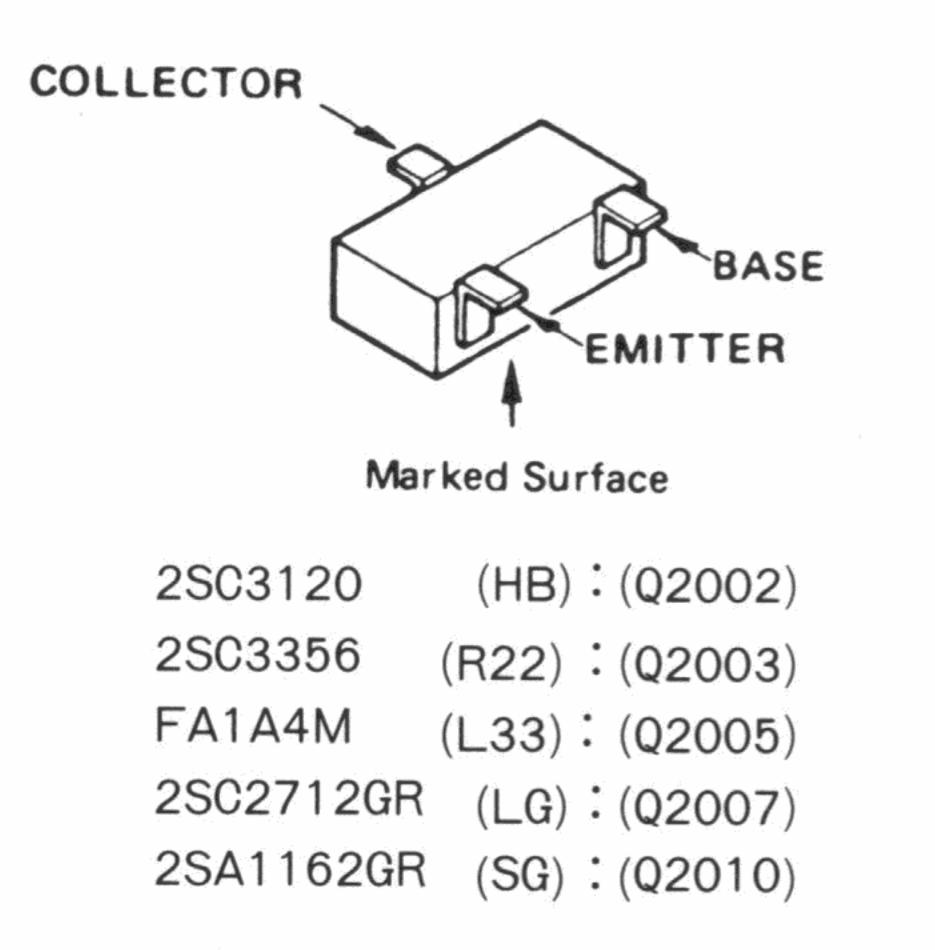
(obverse view of "mixed-component" side)

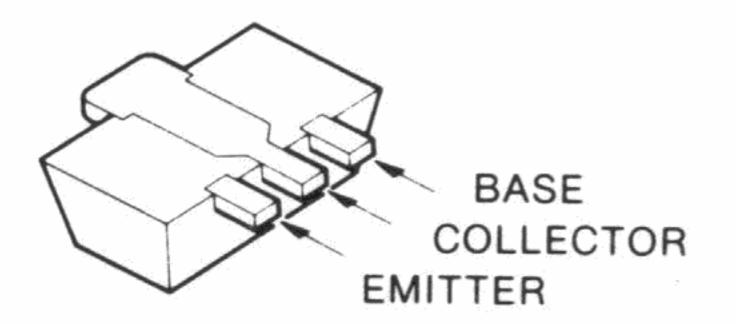
2 - 1



M57796MA (Q2009)





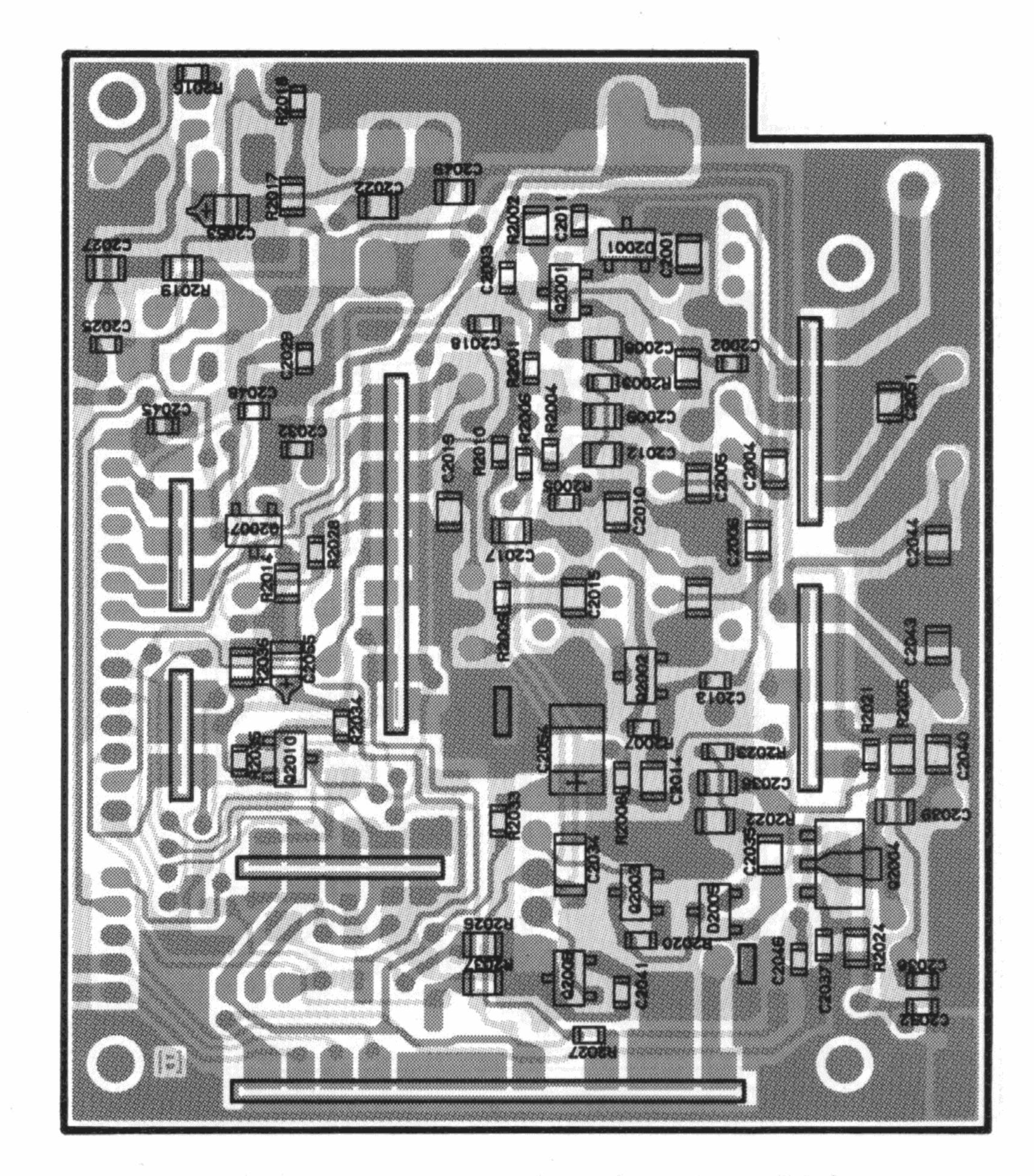


Marked Surface

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2SK302Y(TY):(Q2001)

2SC2954 (QK) : (2004)



(obverse view of "chip-only" side)

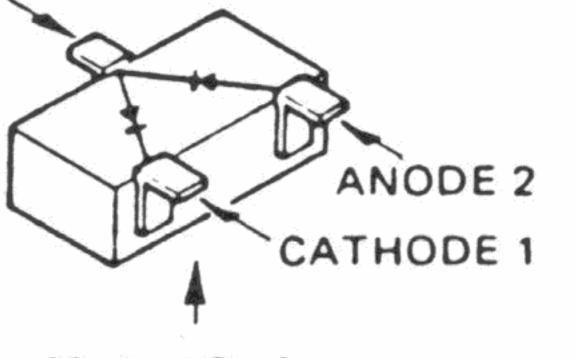


t.

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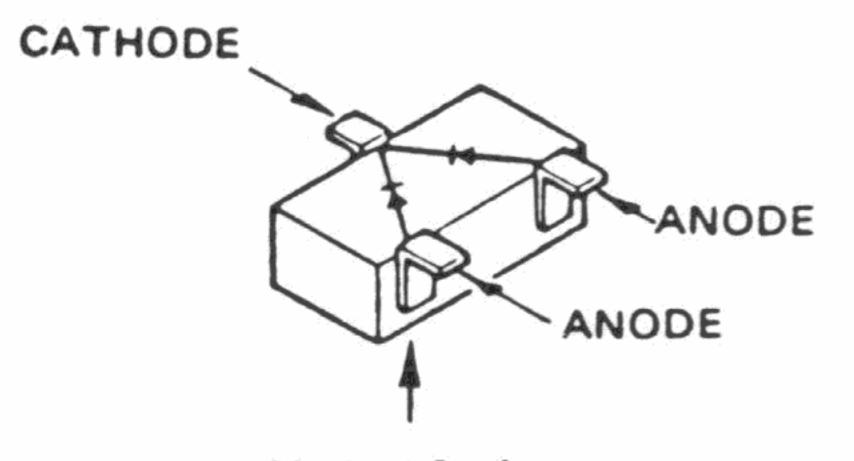
£...

100



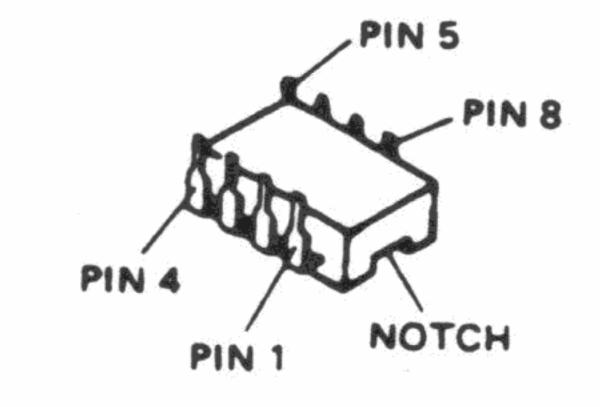
Marked Surface

1SS226 (C3) : (D2001,D2007)




Marked Surface

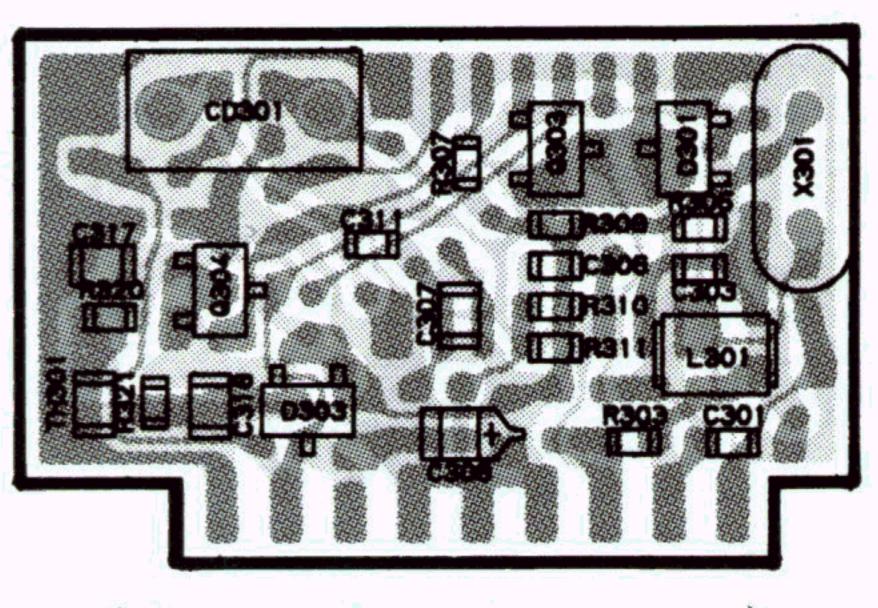
1SS184 (B3) : (D2005)



NJM386D (Q2008)

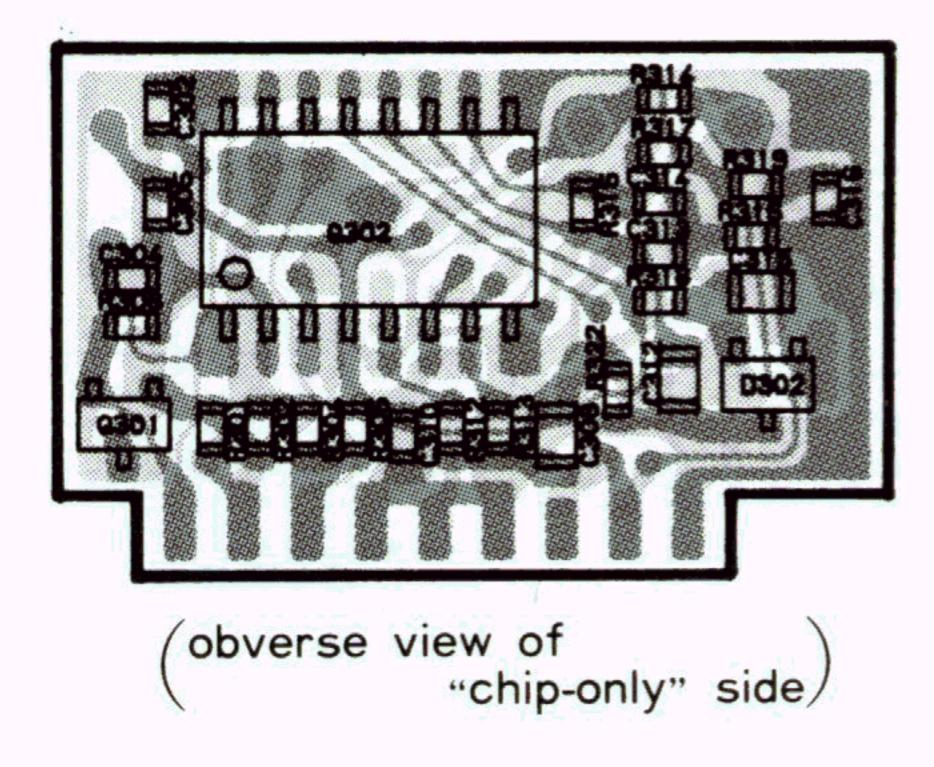
MOTHER BOARD

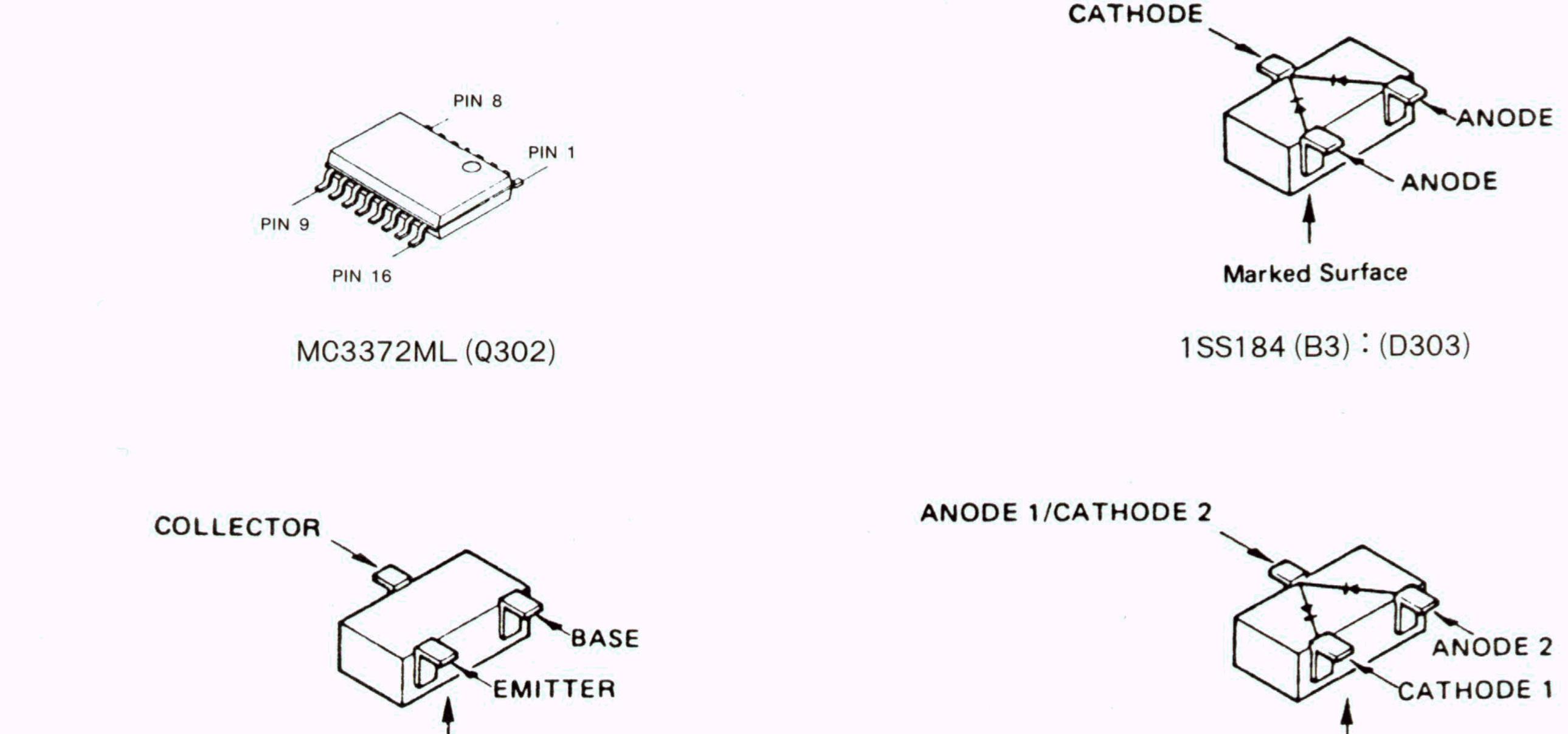




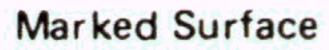
(obverse view of "mixed-component" side)

IF UNIT

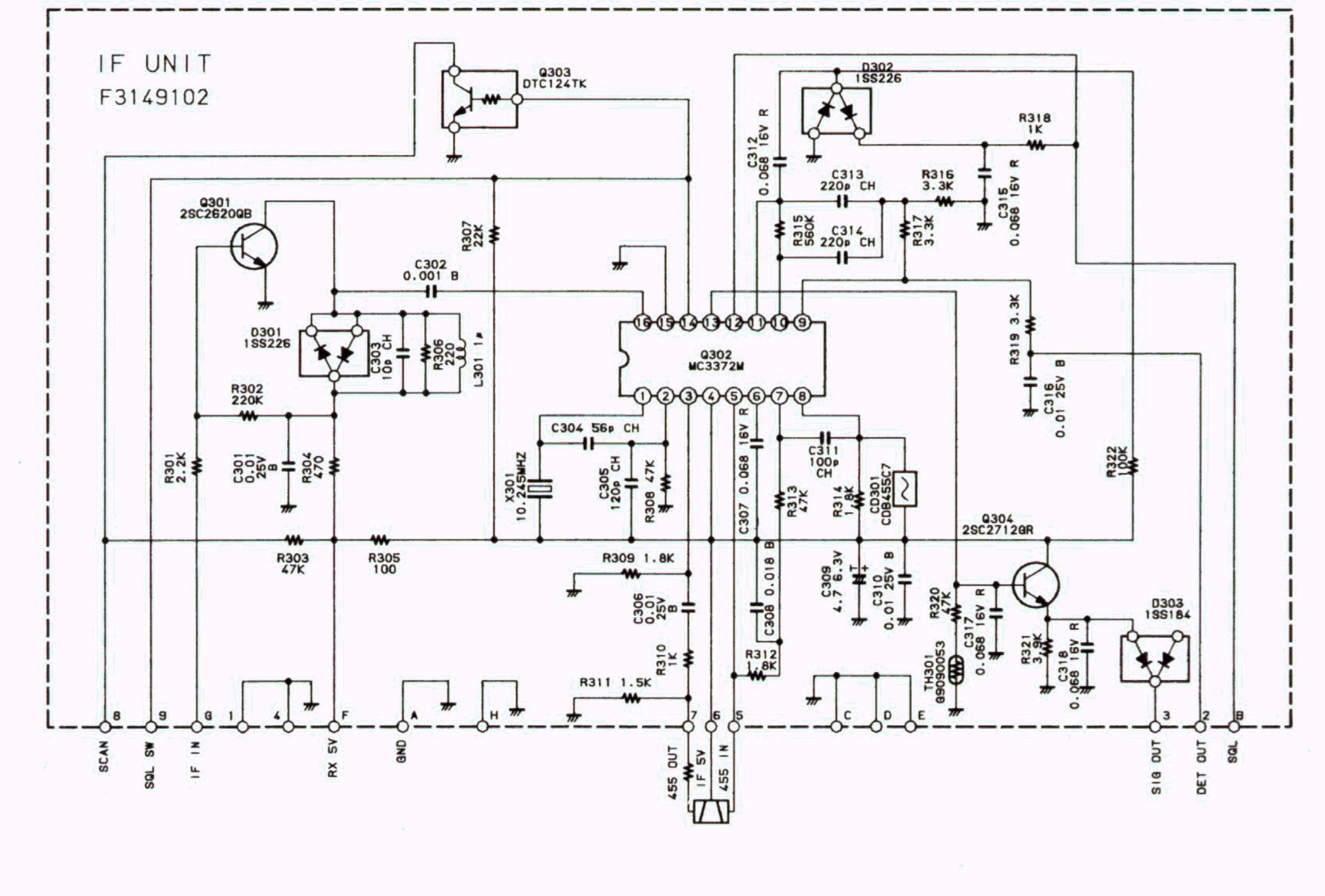




Marked Surface 2SC2620B (QB) (Q301) 2SC2712GR (LG) (Q304) DTC124TK (05) (Q303)



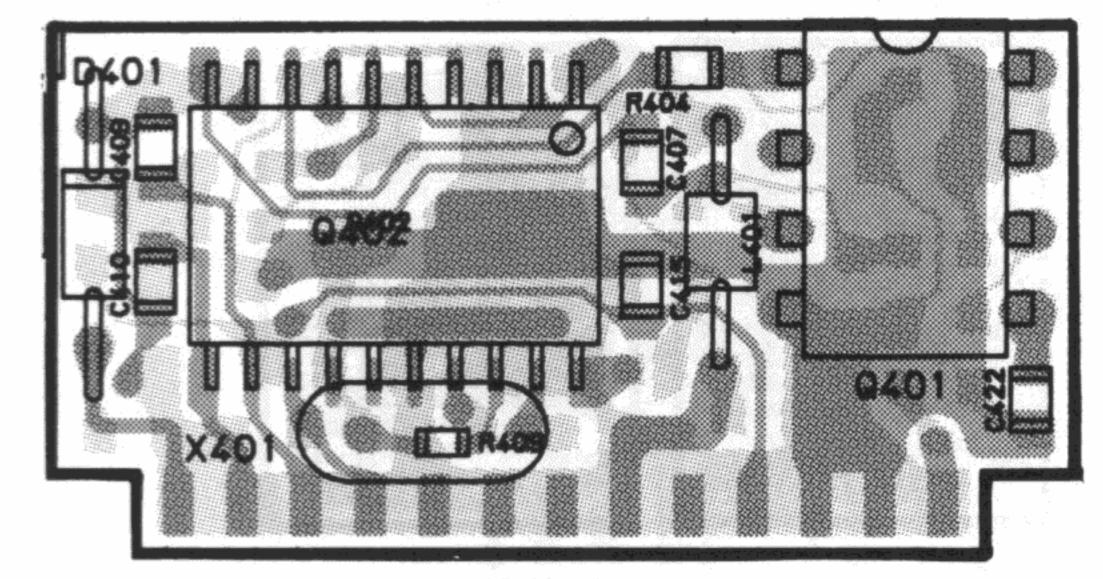
1SS226 (C3) (D301,302)



2 - 4

1.52

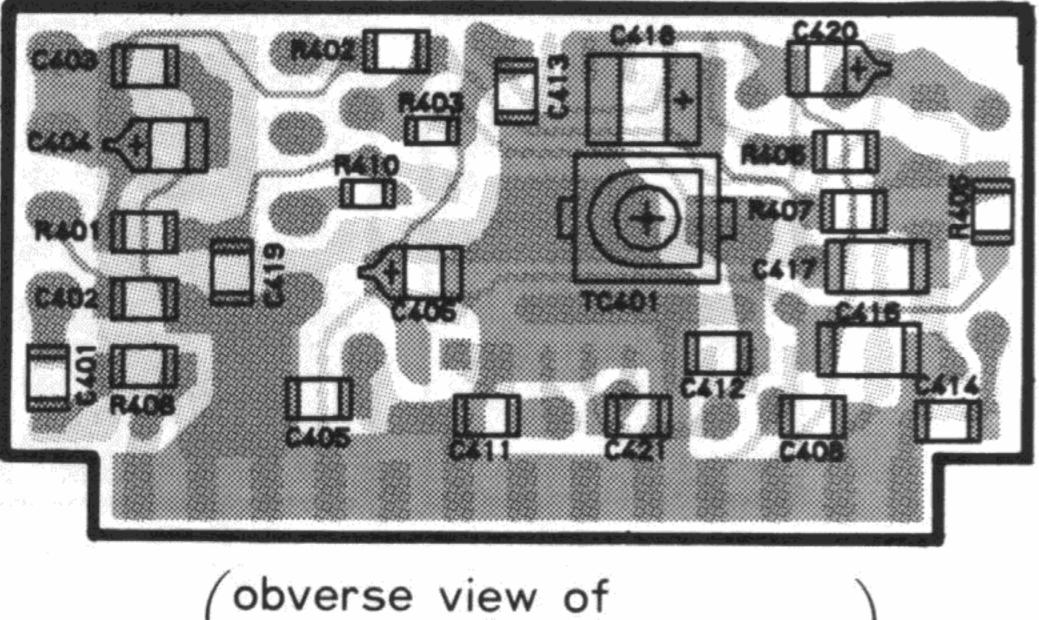
PLL UNIT



obverse view of "mixed-component" side/

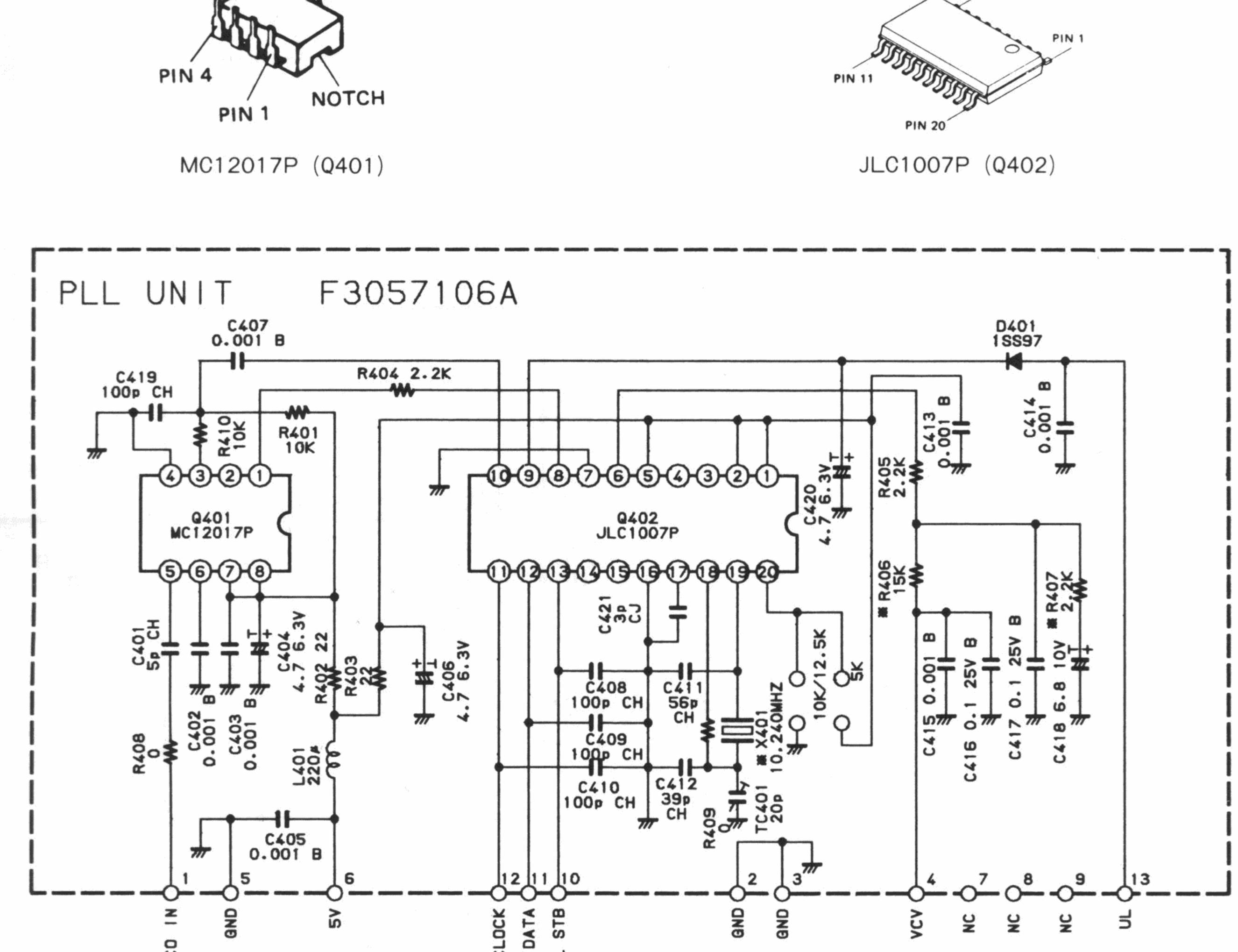
PIN 5

PIN 8



"chip-only" side/

PIN 10



vco

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BN

S

CLOCK

PL

2 - 5

BN

N

N N N

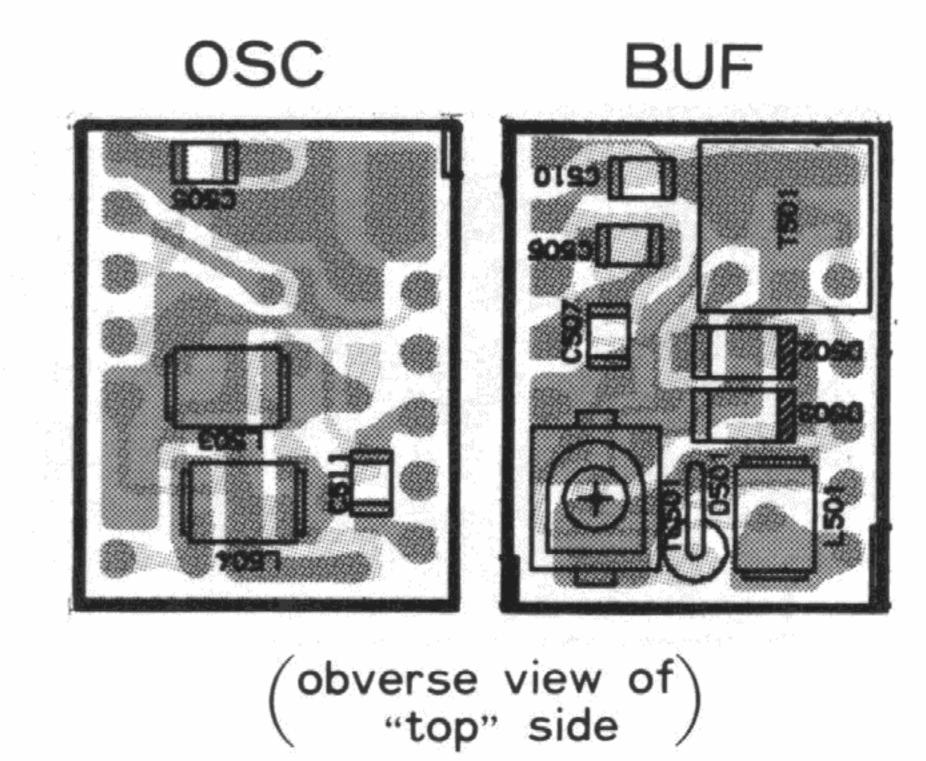
D

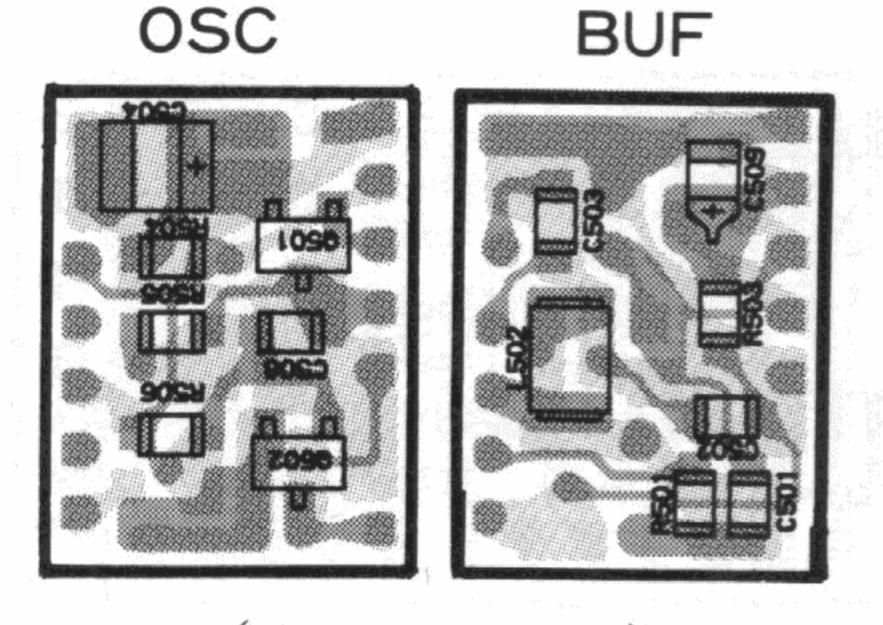
Š

XF401 R406 R407 A1. A2. D. E2. A3 TYPE 10.240MHZ 15Ka 1.5Ka B. C2 TYPE 12.800MHZ 4.7Kg 1Ko

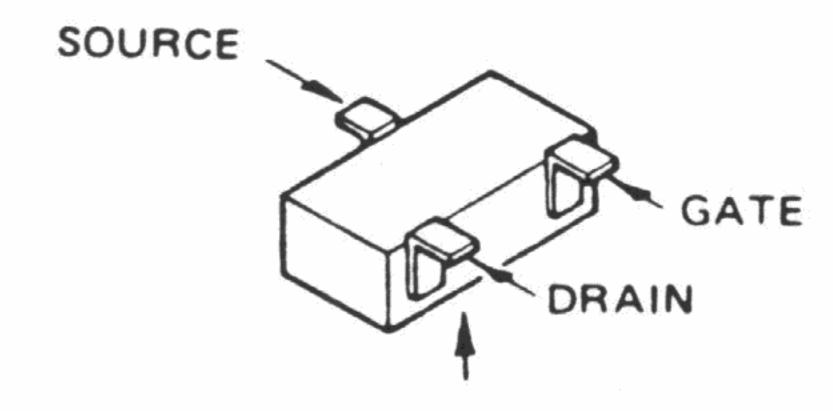
NOTE: RESISTER VALUES ARE IN 4.1/10W ; CAPACITOR VALUES ARE IN #F. 50V ; (T) CAPACITOR VALUES ARE TANTALUM ; INDUCTOR VALUES ARE IN H UNLESS OTHERWISE NOTED.

VCO UNIT





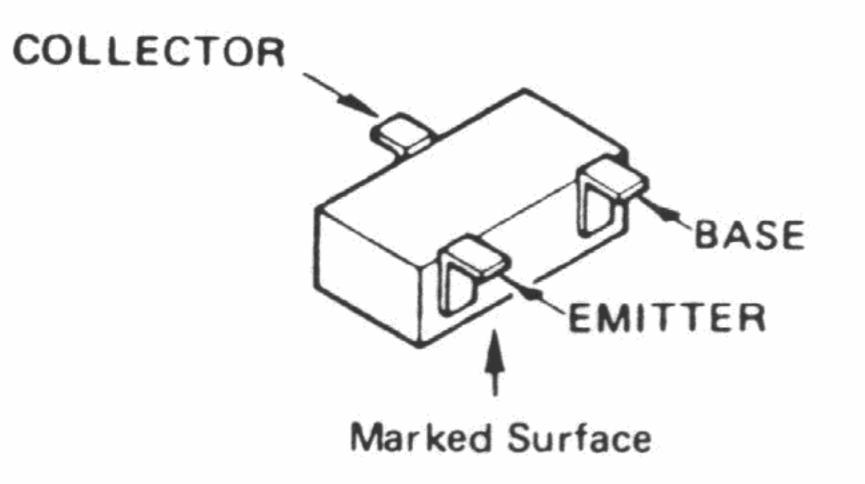
(obverse view of) "bottom" side)



Marked Surface

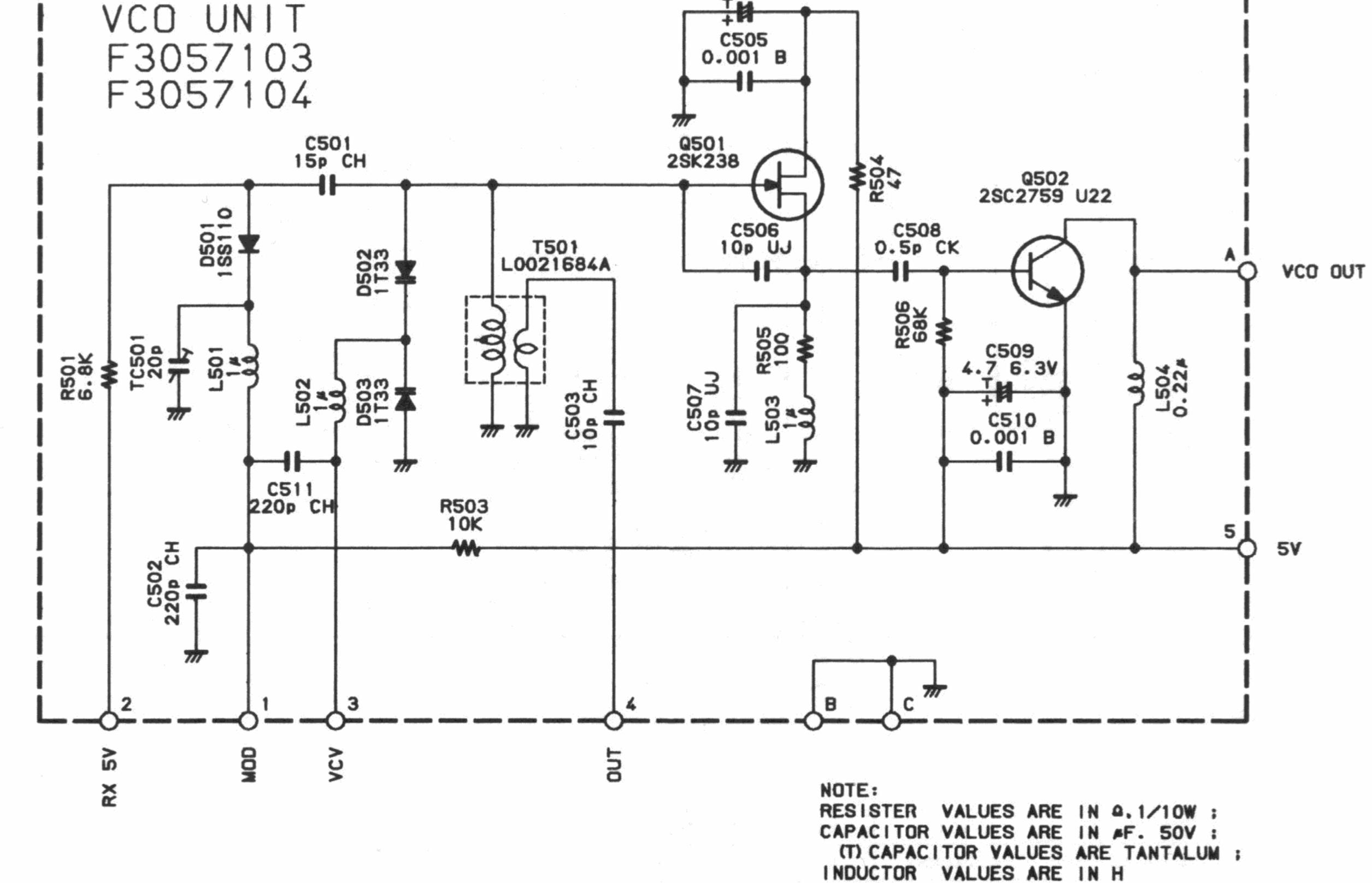
2SK238 (K17) : (Q501)

3



2SC2759 (U22) : (Q502)

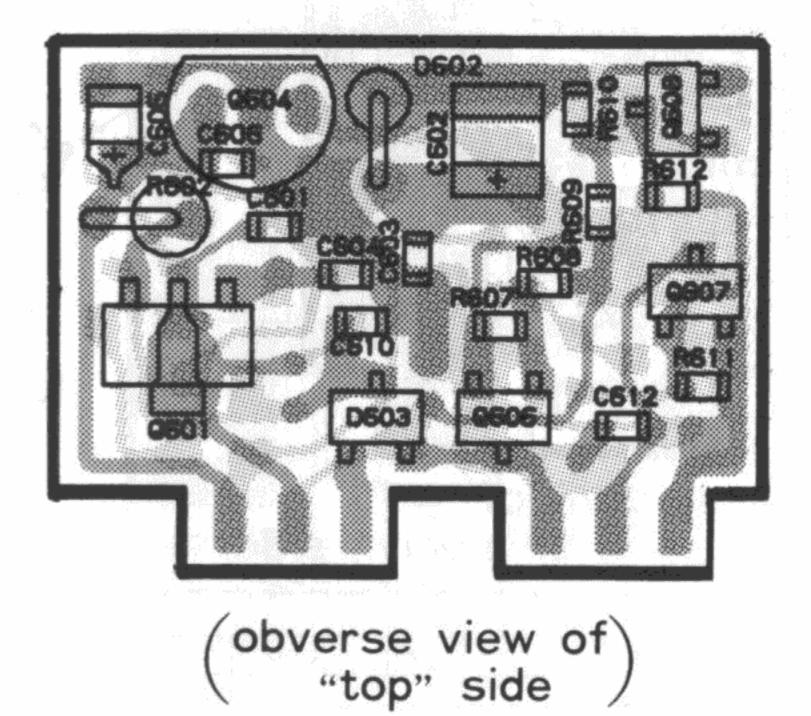


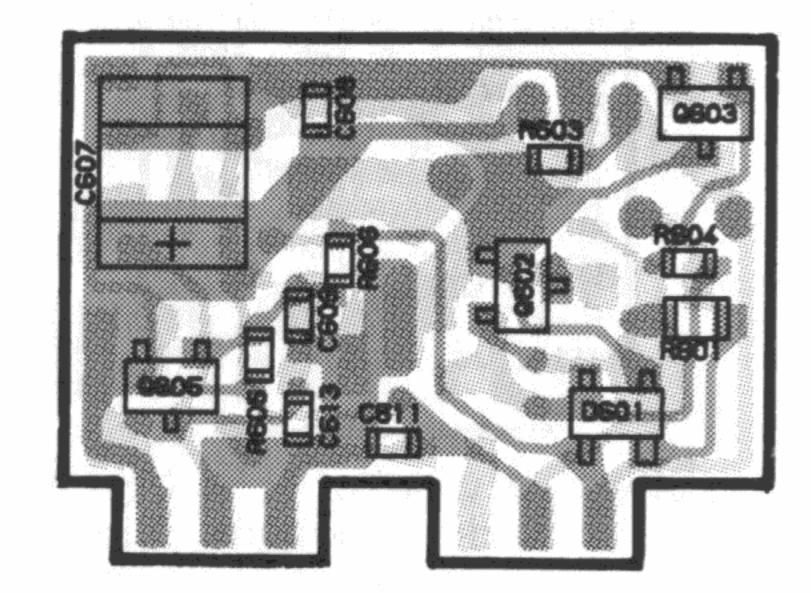


2 - 6

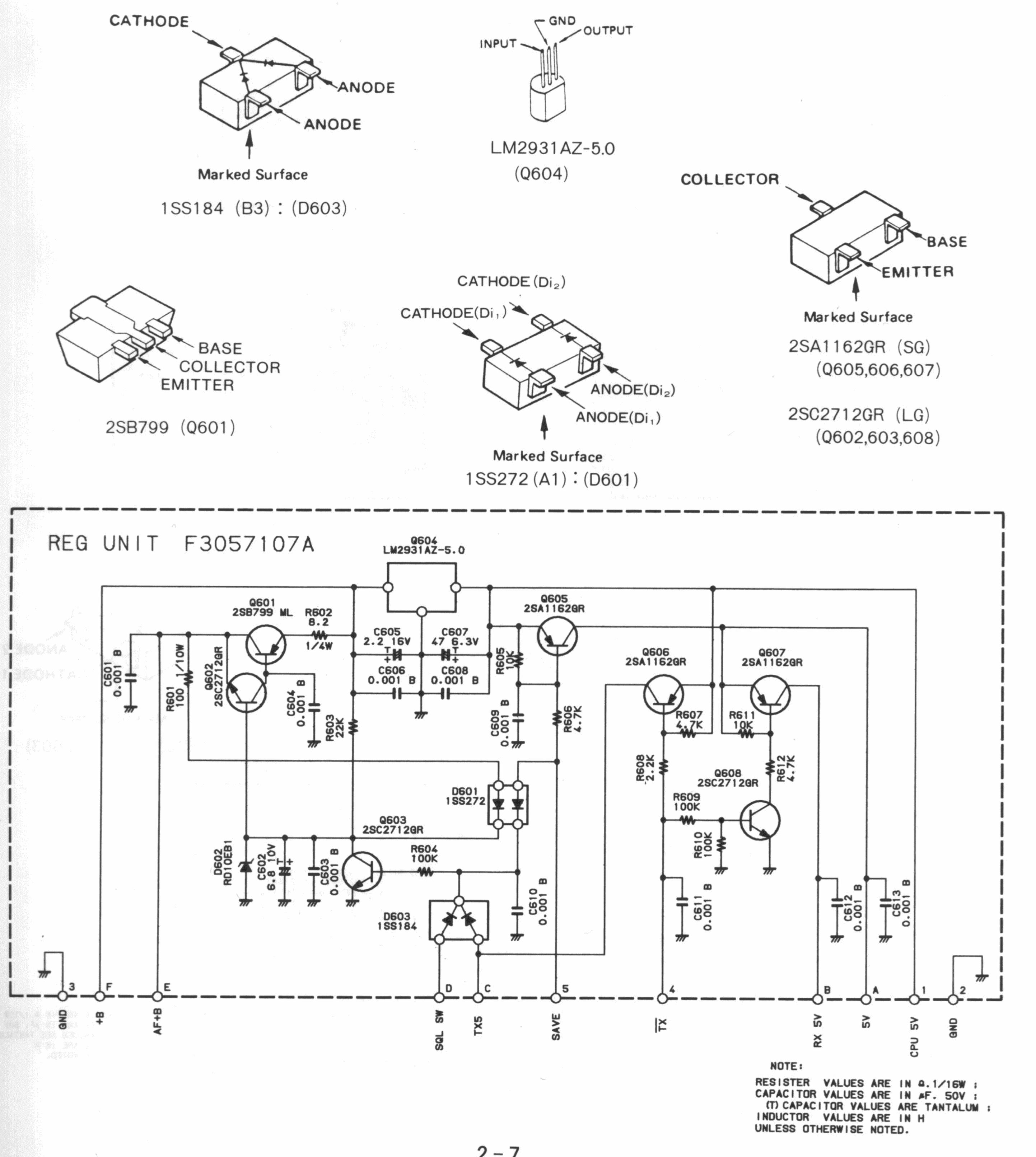
UNLESS OTHERWISE NOTED.

REG UNIT

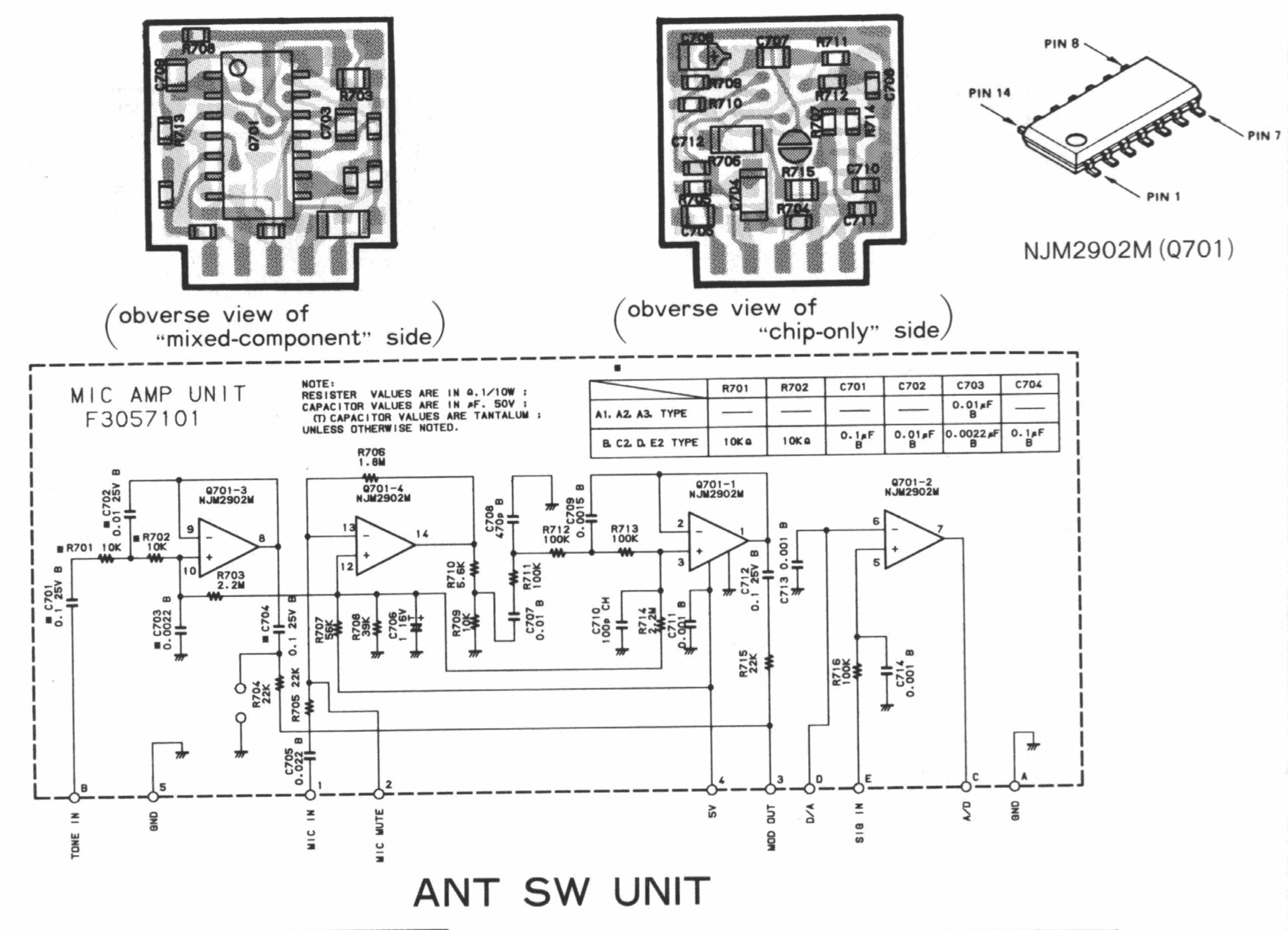


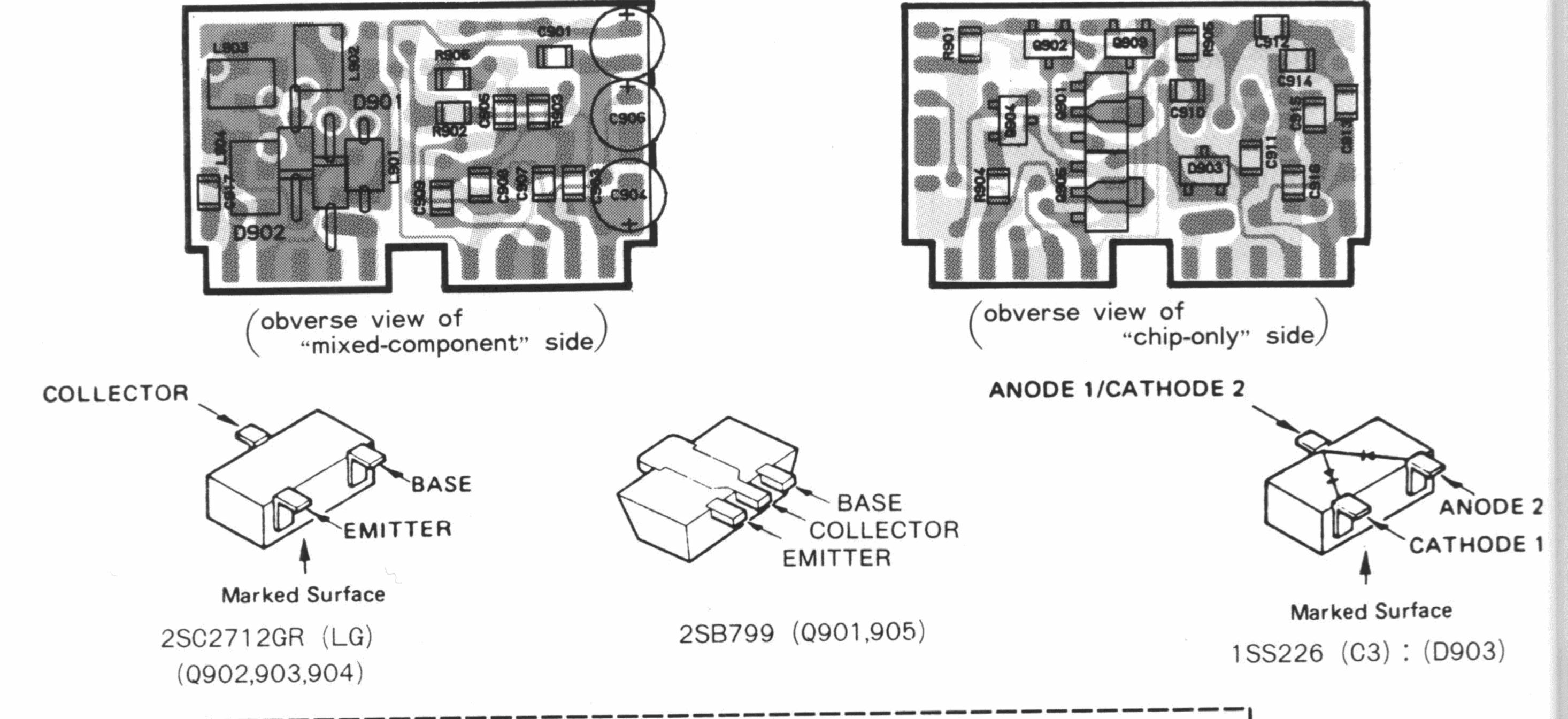


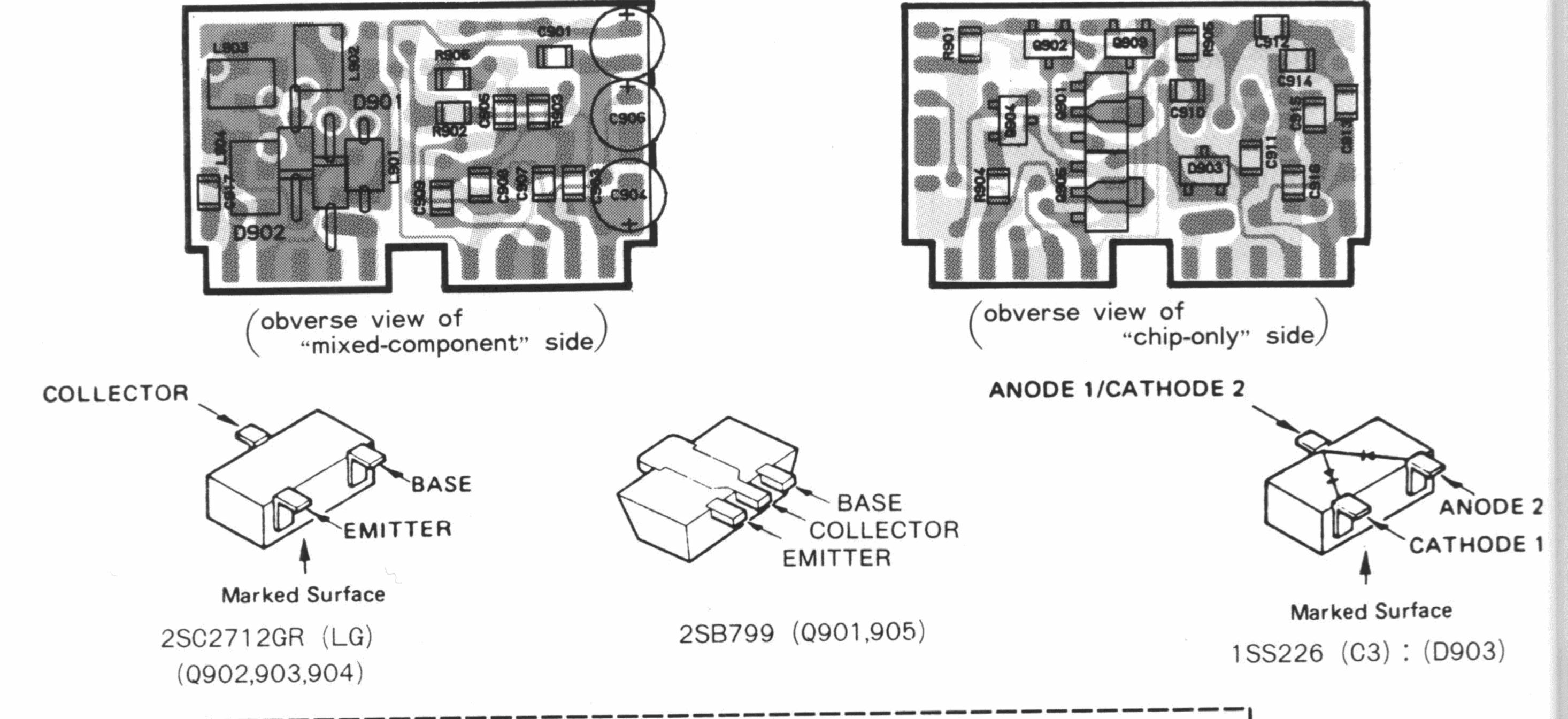
(obverse view of) "bottom" side)

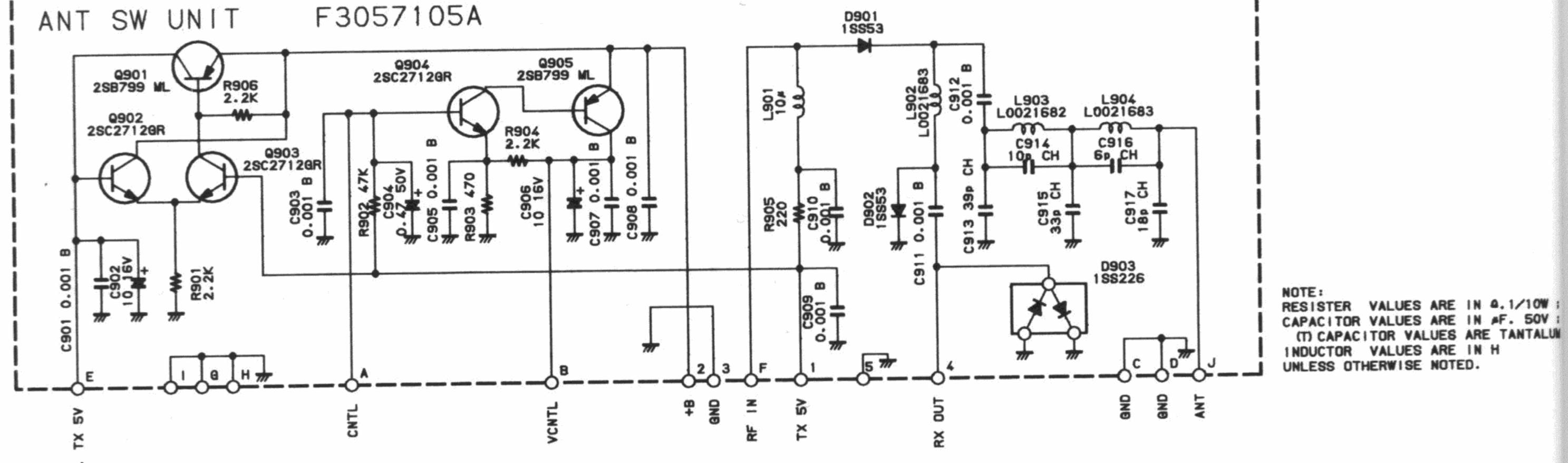


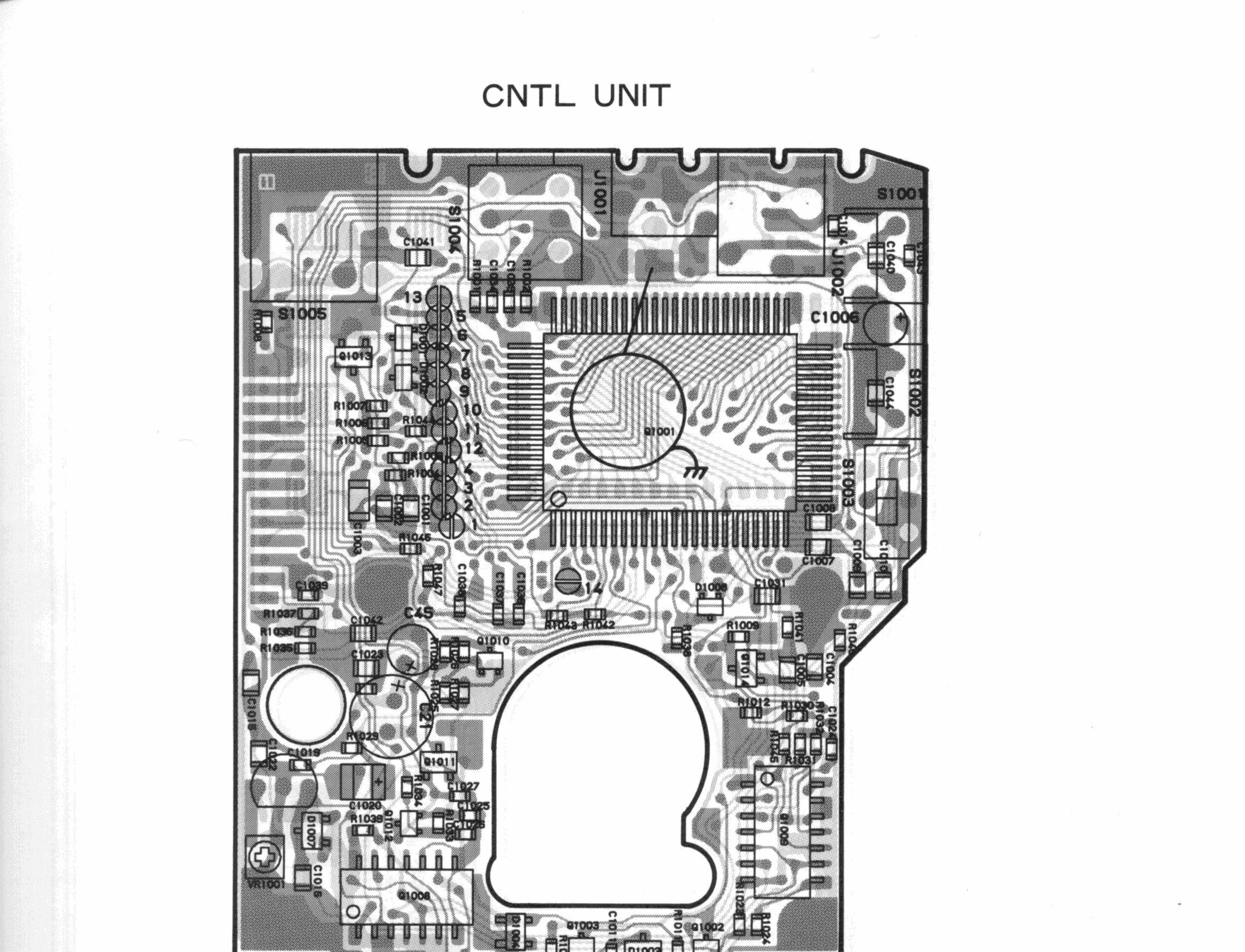
MIC AMP UNIT

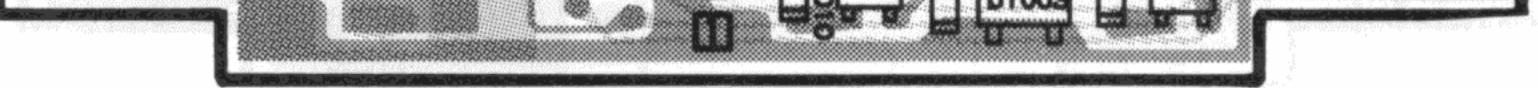




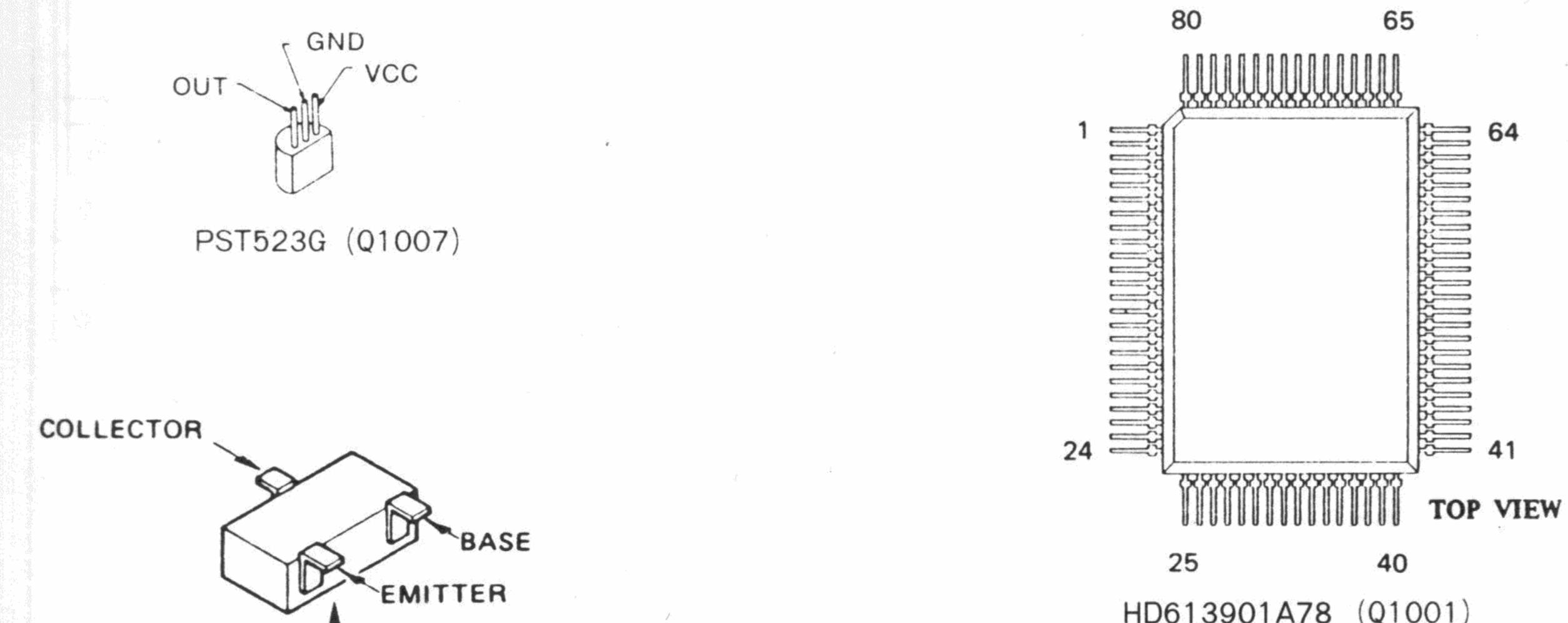








(obverse view of "mixed-component" side)

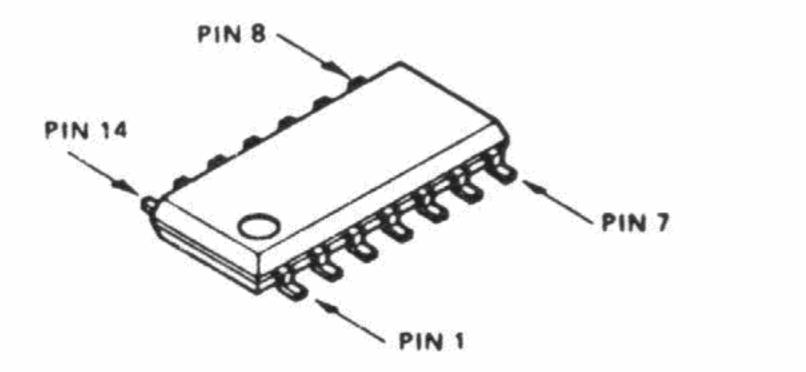


Marked Surface 2SA1586Y (SY):(Q1002,Q1012) 2SC4116GR (LG): (Q1003,Q1004) Q1005,Q1006 Q1010 (L33): (Q1011,Q1013) FA1A4M

((L6):(Q1014)

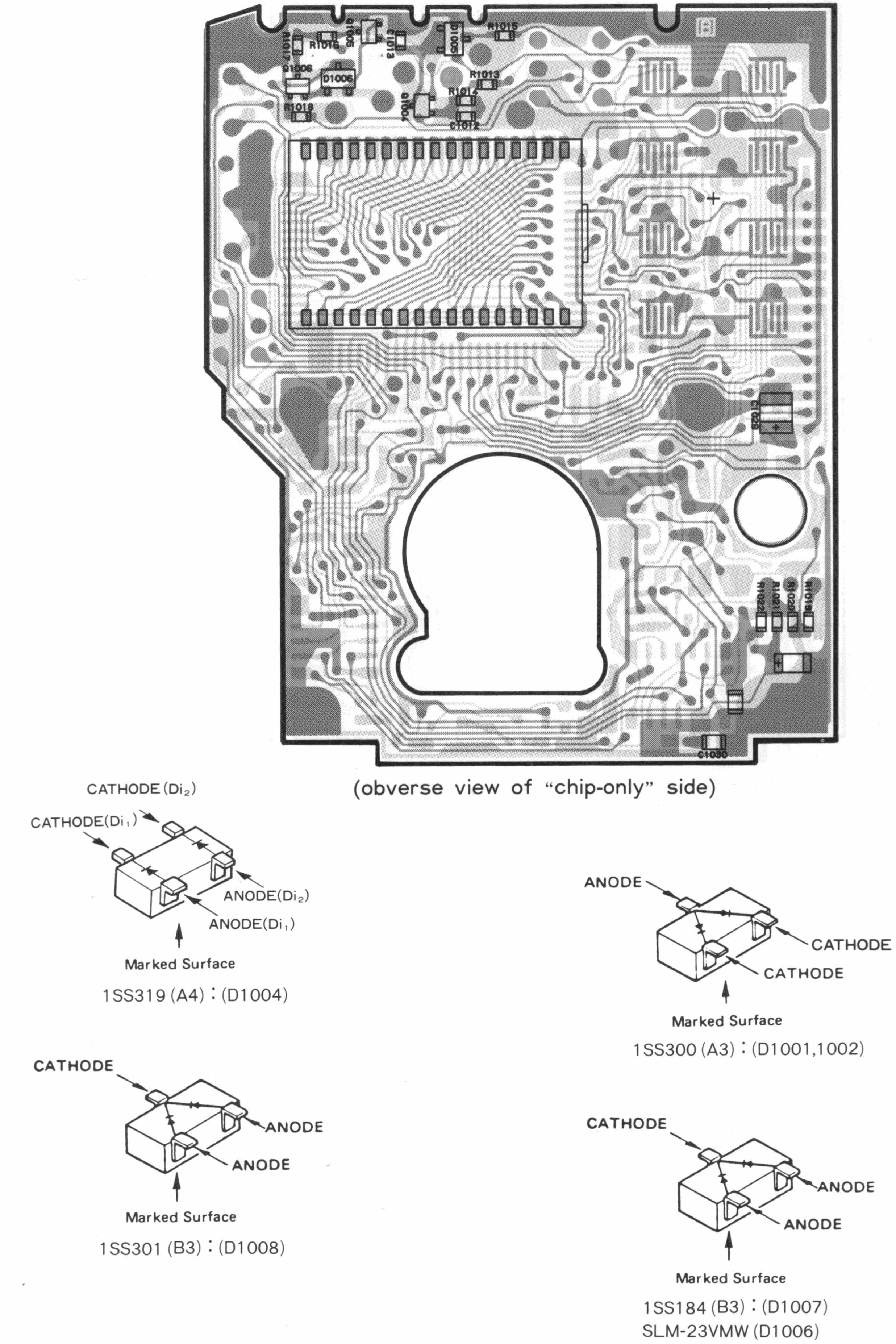
2SC1623

μPD4066BG (Q1008) µPD4001BG (Q1009)



HD613901A78 (Q1001)

CNTL UNIT






4

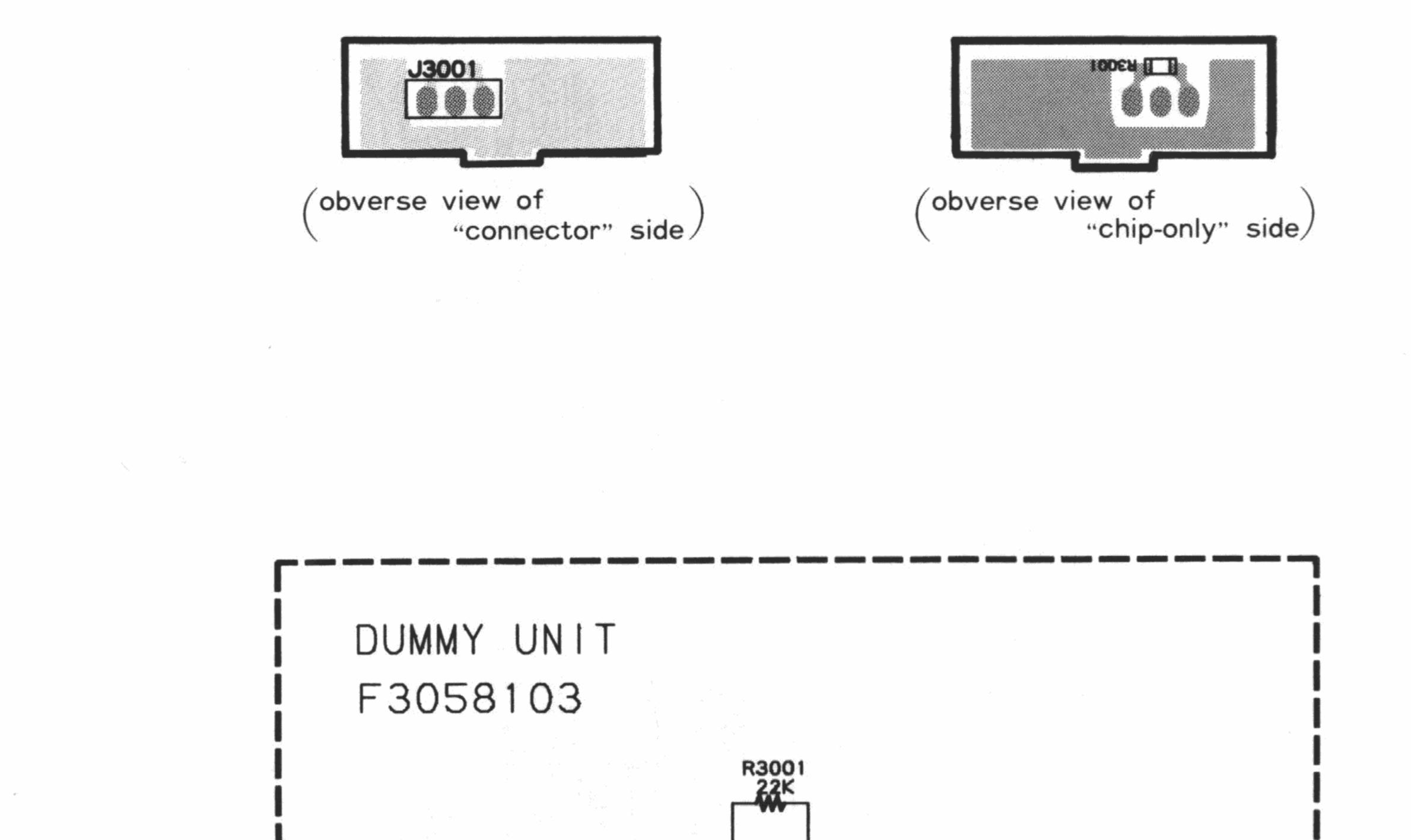
91

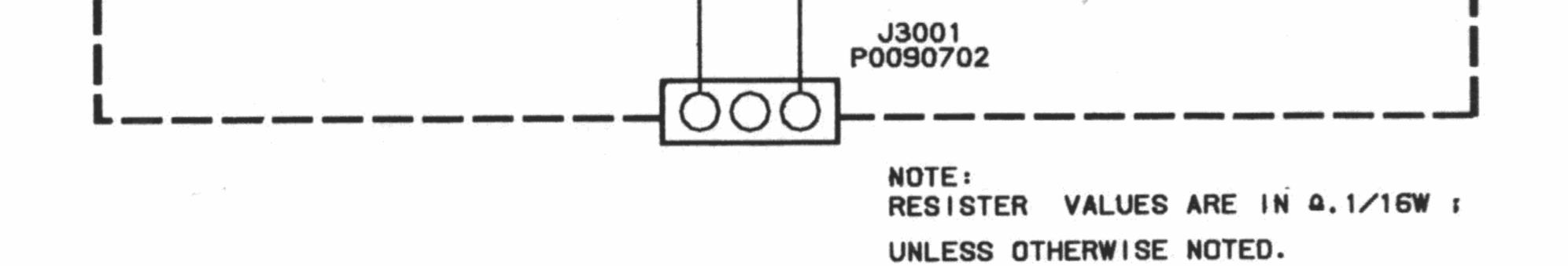
2 - 10

(LED)



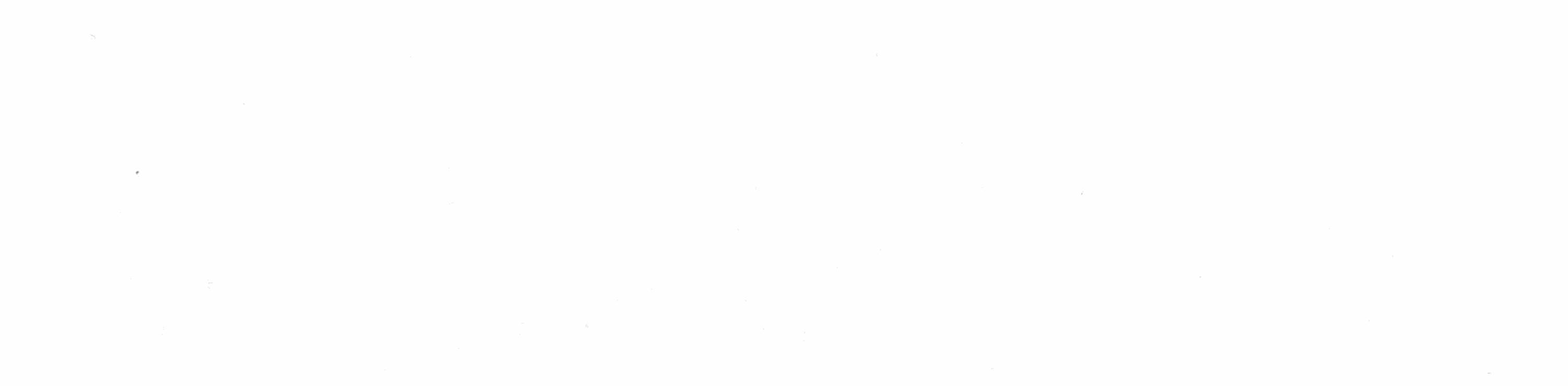
DUMMY UNIT





6

#1



ALIGNMENT

The FT-23R has been aligned by highly-skilled technicians at the factory, and is designed so that no further alignment should ever be required. However, in the unlikely event of a component failure, realignment may be necessary. All component replacement and service should be performed only by an authorized Yaesu representative, or the warranty policy may be voided.

Required Test Equipment

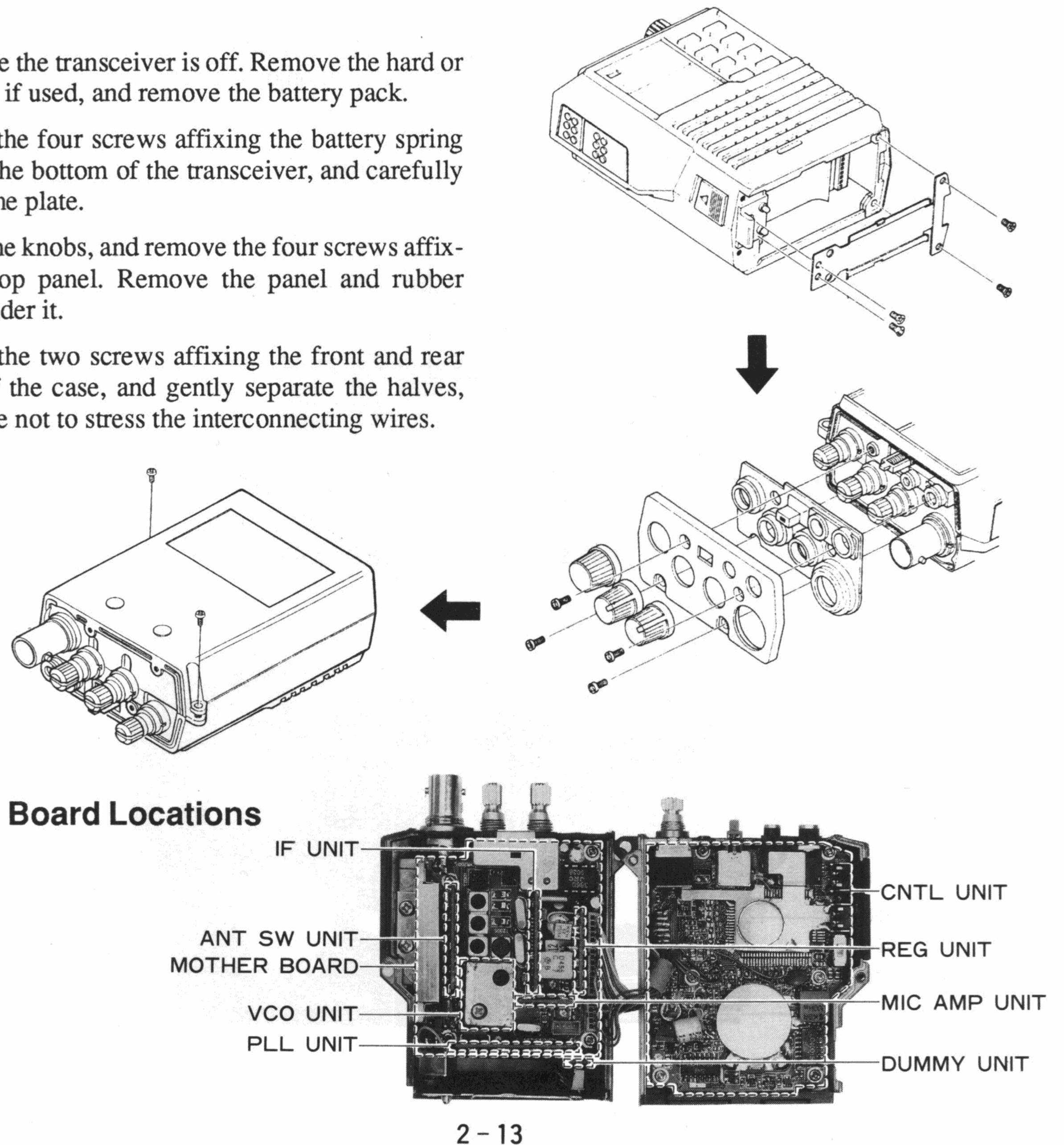
- AF Millivoltmeter
- Deviation Meter
- SINAD Meter
- Inline Wattmeter with 5% accuracy at 150 MHz
- Regulated DC Power Supply adjustable from 10 to 15V, 2A
- 50-Ω Non-reactive Dummy Load: 10W at 150 MHz

- RF Signal Generator with calibrated output level at 150 MHz
- Spectrum Analyzer
- RF Sampling Coupler
- Oscilloscope

- Frequency Counter: ±0.2ppm accuracy at 150 MHz
- AF Signal Generator
- DC Voltmeter: high impedance
- External Loudspeaker or $8-\Omega$ load resistor.

Case Disassembly

- Make sure the transceiver is off. Remove the hard or soft case, if used, and remove the battery pack.
- Remove the four screws affixing the battery spring plate on the bottom of the transceiver, and carefully remove the plate.



- Pull off the knobs, and remove the four screws affixing the top panel. Remove the panel and rubber gasket under it.
- Remove the two screws affixing the front and rear halves of the case, and gently separate the halves, using care not to stress the interconnecting wires.

PLL & Transmitter

Set up the test equipment as shown below for transmitter alignment. Adjust the supply voltage to 12.0V for all steps except Transmitter Output Power.

PLL VCV (Varactor Control Voltage)

- (1) Connect the DC voltmeter between C417 on the PLL Unit and chassis ground.
- (2) Set the transceiver to 144.00 MHz. Key the transmitter and adjust transformer T501 on the VCO Buffer Unit for 11.5 ± 0.05 V DC on the voltmeter.

Transmitter Output Power

- Tune the transceiver to band center (145 or 146 MHz), and select high power output (LOW switch not depressed).
- Increase the supply voltage to 12.5 V, and then adjust VR2005 on the Mother Board for peak output power on the wattmeter (at least 5 watts with less than 1.5 A supply current).
- (3) Now press the LOW button, and adjust VR2005 (again), this time for 0.5 ± 0.1 watt.
- (3) While receiving on 144.00 MHz, adjust trimmer TC501 on the VCO Unit for 0.8 ± 0.05 V DC.
- (4) Tune the transceiver to the high band edge and confirm the correct high-end VCV for the transceiver version being aligned, in both transmit and receive, as follows:

Version	High Band Edge	Tx VCV	Rx VCV
A, C & E	148.000 MHz	< 1.6 V	< 1.3 V
B&D	146.000 MHz	<1.5 V	< 1.2 V

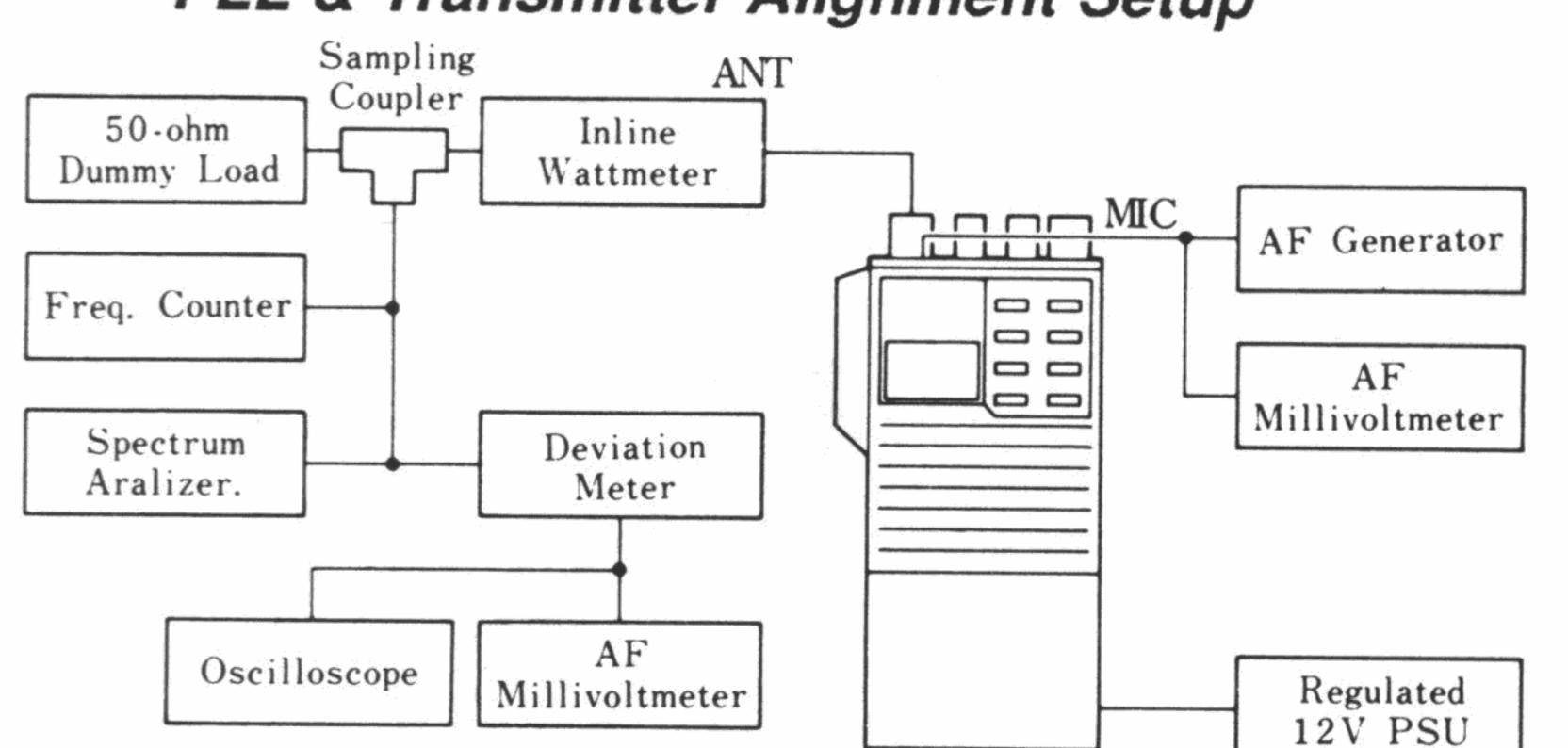
PLL & Transmitter Alignment Setup

PLL Reference Frequency

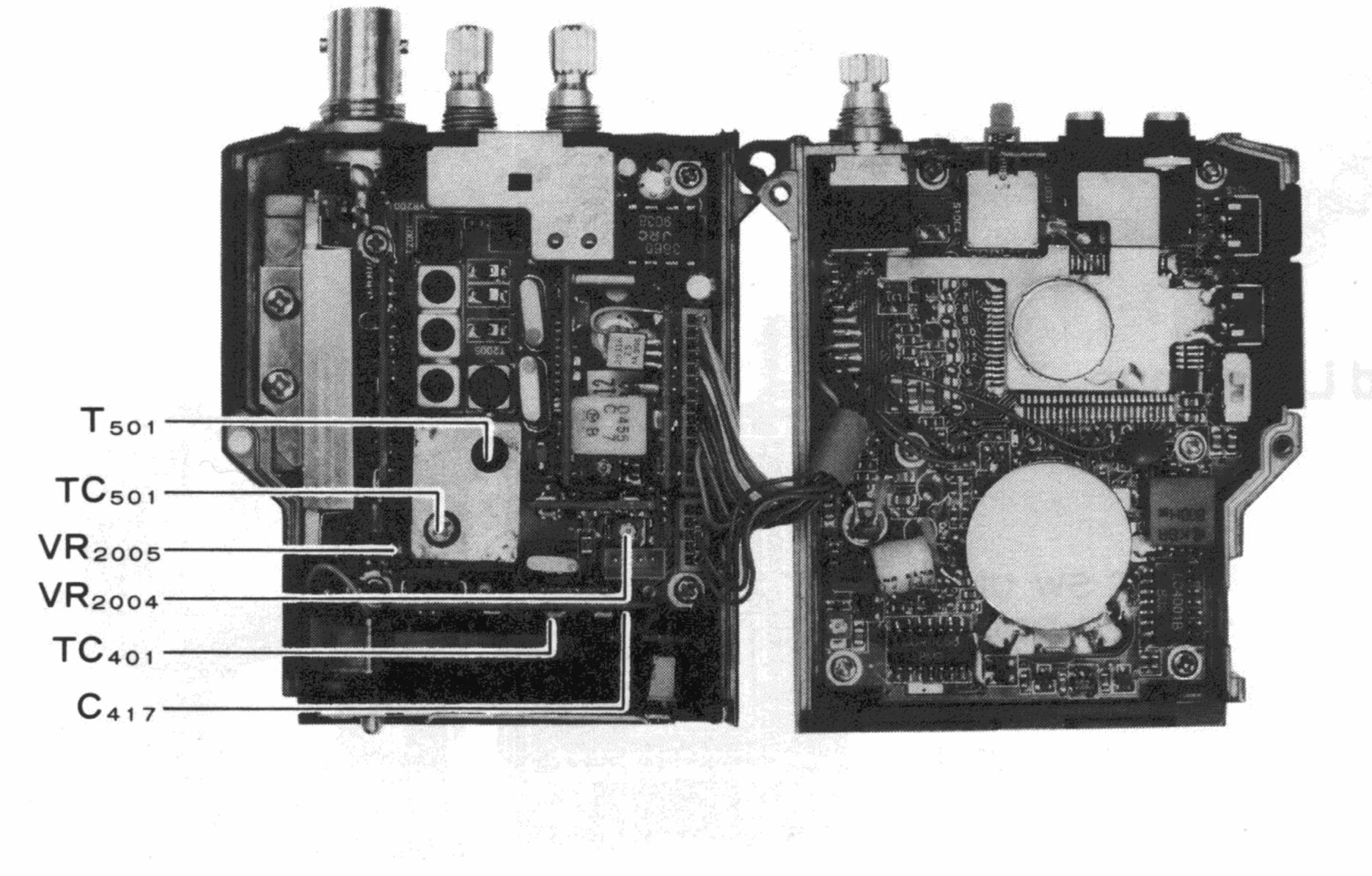
With the transceiver tuned to band center (145 or 146 MHz), adjust TC401 on the PLL Unit, if necessary, so the display frequency matches the frequency counter when transmitting.

Modulation Level

- (1) With the transceiver tuned to band center (145 or 146 MHz), adjust the AF generator for 25-mV output at 1 kHz to the MIC jack.
- (2) Adjust VR2004 on the Mother Board for ± 4.8 -kHz deviation on the deviation meter.



PLL & Transmitter Alignment Points



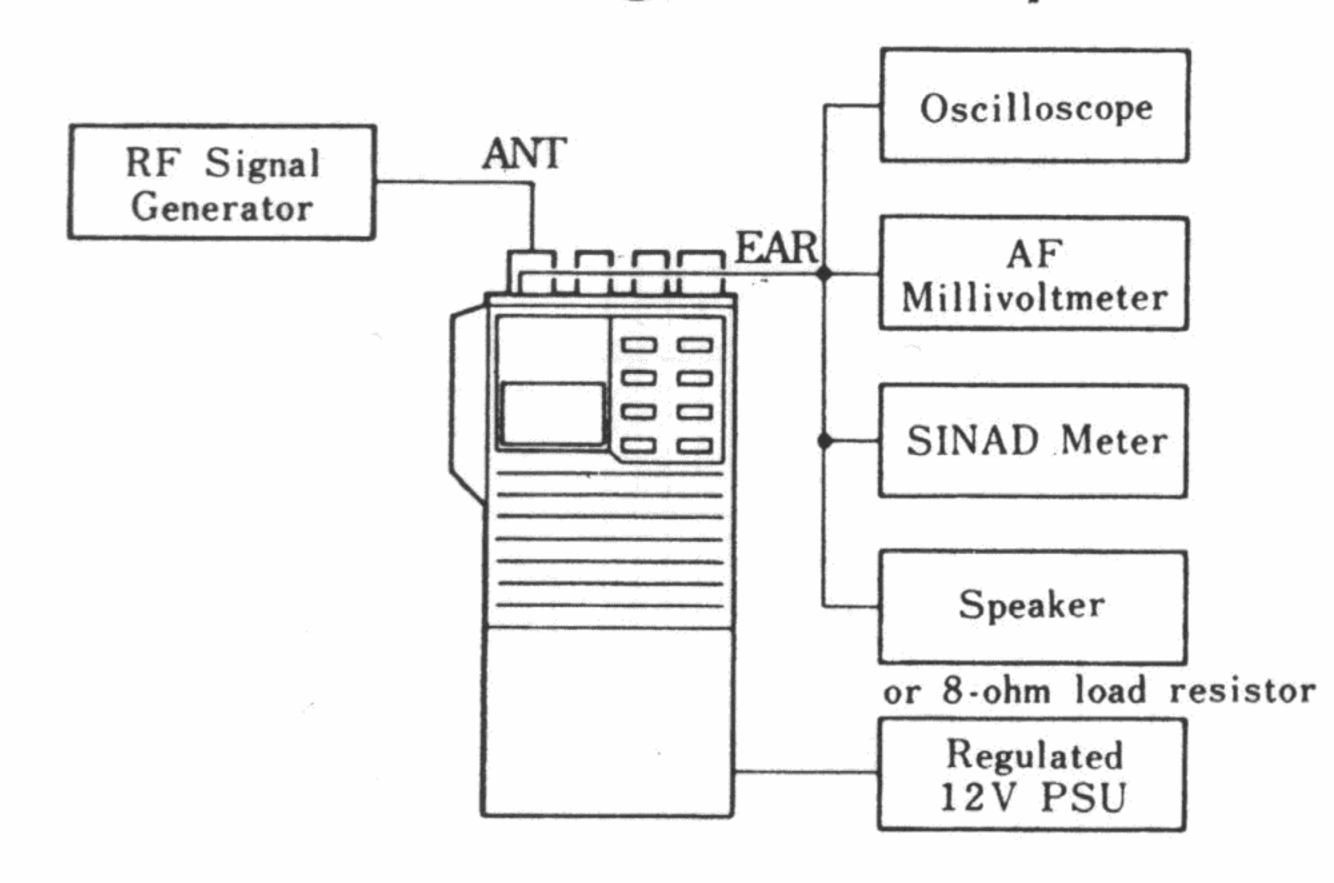
2 - 14

Receiver

Set up the test equipment as shown below for receiver alignment.

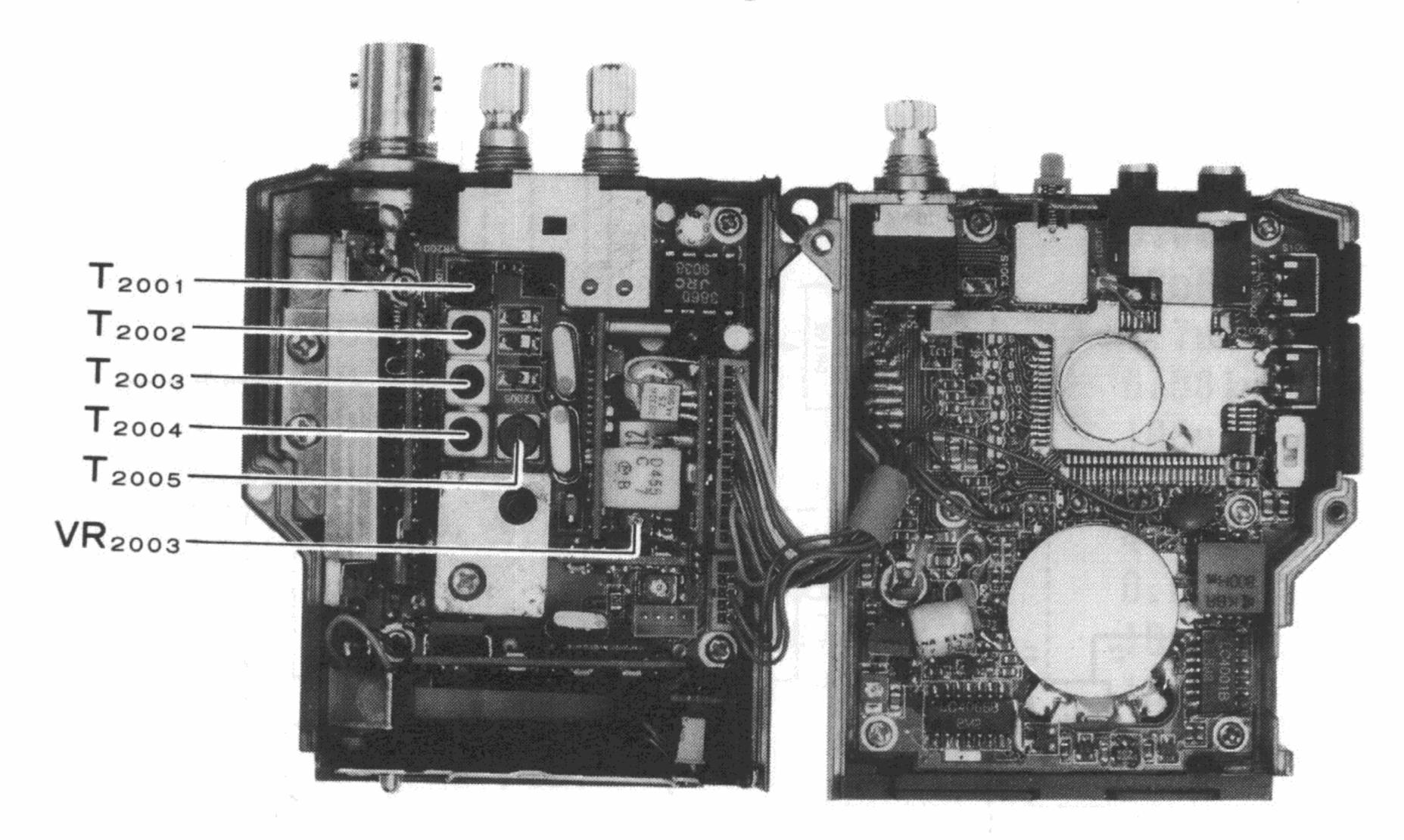
- (1) With the transceiver and the RF signal generator both tuned to band center (145 or 146 MHz), set the generator for ± 3.5 kHz deviation of 1-kHz tone modulation, and set the output level for 40 dB μ at the antenna jack.
- (2) Preset VR2003 on the Mother Board fully clockwise.
- (3) Adjust T2001 through T2005 on the Mother Board for maximum S-meter indication, reducing the generator level if more than 4 bargraph segments turn on.
- (4) After adjusting the transformers, generator level should be $0.2 \,\mu V$ or less for 12dB SINAD.
- (5) Reduce the RF injection from the signal generator to 20 dBμ.
- (6) Adjust VR2003 on the Mother Board so that all bargraph segments are just turned on.

Receiver Alignment Setup




(7) Reduce the generator output so that only 2 segments are on, and confirm that the injection level is 5 dBµ or less.

Receiver Alignment Points



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*** IF UNIT ***

.1	CA0007001	P.C.B. W/COMP.	
	F3149100	P.C.B. W/O COMP.	
C 0301	K22144802	CHIP CAP.	GRM39B10
C 0302	K22174809	CHIP CAP.	GRM39B10
C 0303	K22174211	CHIP CAP.	GRM39CH1
C 0304	K22174229	CHIP CAP.	GRM39CH
C 0305	K22174237	CHIP CAP.	GRM39CH
C 0306	K22144802	CHIP CAP.	GRM39B10
C 0307	K22120805	CHIP CAP.	GRM40R68
			GRM40B1
C 0309			F950J47
C 0310	K22144802		GRM39B1
C 0311	K22174235	CHIP CAP.	GRM39CH
C 0312	K22120805	CHIP CAP.	GRM40R6
C 0313	K22174243	CHIP CAP.	GRM39CH:
C 0314	K22174243	CHIP CAP.	GRM39CH
C 0315			GRM40R6
C 0316	K22144802	CHIP CAP.	GRM39B1
C 0317	K22120805	CHIP CAP.	GRM40R6
C 0318	K22120805	CHIP CAP.	GRM40R6
CD0301	H7900180	CERAMIC DISC.	CDB455C
D 0301	G2070003	DIODE	1SS226
			1SS226
			1SS184
L 0301	L1690016	COIL	32CS 38
	C 0302 C 0303 C 0304 C 0305 C 0306 C 0307 C 0308 C 0309 C 0309 C 0310 C 0311 C 0312 C 0312 C 0313 C 0314 C 0315 C 0314 C 0315 C 0316 C 0317 C 0316 C 0317 C 0318 C 0301 D 0301 D 0302 D 0303	F3149100C0301K22144802C0302K22174809C0303K22174211C0304K22174229C0305K22174237C0306K22144802C0307K22120805C0308K22170820C0309K78080002C0310K22144802C0311K22174235C0312K22120805C0313K22174243C0314K22174243C0315K22120805C0316K22144802C0317K22120805C0318K22120805C0318K22120805C0318K22120805C0318K22120805C0311H7900180D0302G2070003D0303G2070003D0303G2070003	C 0302 K22174809 CHIP CAP. C 0303 K22174211 CHIP CAP. C 0304 K22174229 CHIP CAP. C 0305 K22174237 CHIP CAP. C 0306 K22144802 CHIP CAP. C 0307 K22120805 CHIP CAP. C 0308 K22170820 CHIP CAP. C 0309 K78080002 CHIP CAP. C 0309 K78080002 CHIP TANTALUM CAP. C 0310 K22144802 CHIP CAP. C 0310 K22144802 CHIP CAP. C 0310 K22144802 CHIP CAP. C 0311 K22174235 CHIP CAP. C 0312 K22174243 CHIP CAP. C 0313 K22174243 CHIP CAP. C 0314 K22174243 CHIP CAP. C 0315 K22120805 CHIP CAP. C 0316 K2214802 CHIP CAP. C 0317 K22120805 CHIP CAP. C 0318 K22120805 CHIP CAP. C 0318 K22120805 CHIP CAP. C 0318 K22120805 CHIP CAP. C 031

72

B103M25PT	0.01uF	25V	В
B102M50PT	0.001uF	50V	В
ICH100D50PT	10pF	50V	CH
ICH560J50PT	56pF	50V	CH
ICH121J50PT	120pF	50V	CH
B103M25PT	0.01uF	25V	В
R683M16PT	0.068uF	16V	R
B183M50PT	0.018uF	50V	B
475MSAAF1Q2	4.7uF	6.3V	
B103M25PT	0.01uF	25V	B
ICH101J50PT	100pF	50V	CH
R683M16PT	0.068uF	16V	R
CH221J50PT	220pF	50V	CH
CH221J50PT	220pF	50V	CH
R683M16PT	0.068uF	16V	R
B103M25PT		25V	В
)R683M16PT	0.068uF	16V	R
DR683M16PT	0.068uF	16V	R

7

TE85R TE85R TE85R

> BOKB-1ROM=P 1uH

Q 0301	G3326207B	TRANSISTOR	2SC2620QBTR		
Q 0302	G1091108	IC	MC3372ML		
Q 0303	G3070031	TRANSISTOR	DTC124TK T97		
Q 0304	G3327127G	TRANSISTOR	2SC2712GR TE85R		
76 6					
R 0301	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16₩
R 0302	J24185224	CHIP RES.	RMC1/16 224JATP	220K	1/16W
R 0303	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W
R 0304	J24185471	CHIP RES.	RMC1/16 471JATP	470	1/16₩
R 0305	J24185101	CHIP RES.	RMC1/16 101JATP	100	1/16₩
R 0306	J24185473	CHIP RES.	RMC1/16 221JATP	220	1/16W
R 0307	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W
R 0308	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W
R 0309	J24185682	CHIP RES.	RMC1/16 182JATP	1.8K	1/16W
R 0310	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W
R 0311	J24185152	CHIP RES.	RMC1/16 152JATP	1.5K	1/16W
R 0312	J24205182	CHIP RES.	RMC1/16 182JATP	1.8K	1/16W
R 0313	J24205473	CHIP RES.	RMC1/10T 473J	47K	1/10W
R 0314	J24185182	CHIP RES.	RMC1/16 182JATP	1.8K	1/16₩
R 0315	J24185564	CHIP RES.	RMC1/16 564JATP	560K	1/16W
R 0316	J24185332	CHIP RES.	RMC1/16 332JATP	3.3K	1/16W
R 0317	J24185332	CHIP RES.	RMC1/16 332JATP	3.3K	1/16W
R 0318	J24185102	CHIP RES.	RMC1/16 102JATP	1K	1/16W
R 0319	J24185332	CHIP RES.	RMC1/16 332JATP	3.3K	1/16W
R 0320	J24185473	CHIP RES.	RMC1/16 473JATP	47K	1/16W
R 0321	J24185392	CHIP RES.	RMC1/16 392JATP	3.9K	1/16W
R 0322	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W
TH0301	G9090053	THERMISTER	157-252-53006TP		
X 0301	H0102773	X' TAL	UM-1 10.245MHZ		
			2 - 20		

PARTS LIST

- 4

*** MOTHER BOARD UNIT ***

CS0851002	P.C.B.	W/COMP./MIC	AMP/IF/VCO/	
		ANT	SW/PLL/REG UNITS(TYP	A1)
CS0851003	P.C.B.	W/COMP./MIC	AMP/IF/VCO/	1997 - 1 99
		ANT	SW/PLL/REG UNITS(TYP	A2)
CS0851004	P.C.B.	W/COMP./MIC	AMP/IF/VCO/	
			SW/PLL/REG UNITS(TYP	A3)
CS0851005	P.C.B.	W/COMP./MIC	AMP/IF/VCO/	
a de la compansión de la c	a 1. 1.		SW/PLL/REG UNITS(TYP	B)
CS0851006	P.C.B.	W/COMP./MIC	AMP/IF/VCO/	
			SW/PLL/REG UNITS(TYP	C2)
CS0851007	P.C.B.	W/COMP./MIC	AMP/IF/VCO/	
		ANT	a set a series de la serie	D)
CS0851008	P.C.B.	W/COMP./MIC	AMP/IF/VCO/	
		ANT	SW/PLL/REG UNITS(TYP	E2)
F3058101B	P.C.B.	W/O COMP.		

C	2001	K22170204	CHIP CAP.	GRM40CJ030C50PT	3pF	5.01/	CT
C		K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	50V 25V	CJ
-	2003	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF		B
	2004	K22170223	CHIP CAP.	GRM40CH330J50PT		50V	B
	2005	K22170203	CHIP CAP.	GRM40CK020C50PT	33pF 2pF	50V	CH
	2006	K22170203	CHIP CAP.	GRM40CK020C50PT	2pF 2pF	50V	CK
	2008	K22170223	CHIP CAP.	GRM40CH330J50PT	2pF 33pF	50V	CK
č		K22170223	CHIP CAP.	GRM40CH330J50PT	33pF	50V	CH
Č	the second second	K22170223	CHIP CAP.	GRM40CH330J50PT	33pF 33pF	50V	CH
	2011	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V 50V	CH
Č		K22120805	CHIP CAP.	GRM40R683M16PT	0.068uF	16V	B
C		K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	R B
C		K22170202	CHIP CAP.	GRM40CK010C50PT	1pF	50V	
Ĉ		K22170229	CHIP CAP.	GRM40CH560J50PT	56pF	50V	CK
1.0	2017	K22170817	CHIP CAP.	GRM40B103M50PT	0.01uF	50V	CH
	2018	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF		B
	2019	K22170206	CHIP CAP.	GRM40CH050C50PT	5pF	25V 50V	В
	2020	K22120805	CHIP CAP.	GRM40R683M16PT	0.068uF	16V	CH R
	2022	K22120805	CHIP CAP.	GRM40R683M16PT	0.068uF	16V	R
	2023	K40089023	AL. ELECTRO. CAP.	RC2-6V470MS	47uF	6V	n.
	2024	K40129059	AL. ELECTRO. CAP.	RC3-16V4R7MS	4.7uF	16V	
	2025	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF		В
	2026	K40109026	AL. ELECTRO. CAP.	10VB-100(M)CC	100uF	10V	D
	2027	K22120805	CHIP CAP.	GRM40R683M16PT	0.068uF	16V	R
	2028	K70107476	TANTALUM CAP.	DN1A470MIS	47uF	107	n
С	2029	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	В
С	2030	K40129052	AL. ELECTRO. CAP.	RC3-16V100M	10uF	16V	D
С	2031	K40129038	AL. ELECTRO. CAP.	RC2-16V101MS	100uF	16V	
С	2032	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	В
С	2033	K78100002	CHIP TANTALUM CAP.	F951A335MSAAF1Q2	3.3uF	6.3V	D
С	2034	K22141808	CHIP CAP.	GRM42-6B473M25PT	0.047uF	50V	В
С	2035	K22170221	CHIP CAP.	GRM40CH270J50PT	27pF	50V	CH
С	2036	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B
С	2037	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B
С	2038	K22144802	CHIP CAP.	GRM39B103M25PT	0.01uF	25V	B
С	2039	K22170221	CHIP CAP.	GRM40CH270J50PT	27pF	50V	СН
С	2040	K22170211	CHIP CAP.	GRM40CH100D50PT	10pF	50V	CH
С	2041	K22174235	CHIP CAP.	GRM39CH101J50PT	100pF	50V	СН
C	2043	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B
C	2044	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B
C	2045	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B
C	2046	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B
C	2047	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	B
				2011-2012년 - 1912년 1917년 1917년 1917년 - 1917년 1917년 - 1917년 - 1917년 1917년 - 1917년 - 1917년 - 1917년 - 1917년 - 1917 1917년 - 1917년 - 1917년 1917년 - 1917년 - 1917	1997 - 1997 -	्रम् (मन् , मि)	

*** VCO UNIT ***

CP1992001 F3057103 F3057104				
C 0501 K22170215 C 0502 K22170243 C 0503 K22170211 C 0504 K78080003 C 0505 K22170805 C 0506 K22170311 C 0507 K22170311 C 0508 K22170201 C 0509 K78080002 C 0510 K22170805 C 0511 K22170243	나는 것이 것 집에서 안생하지? 아무씨에서 여러 가지 않았어? 그 그는 것이 같은 것이 가 것	GRM40UJ100D50PT GRM40UJ100D50PT GRM40CK0R5C50PT	15pF 220pF 10pF 10uF 0.001uF 10pF 10pF 0.5pF 4.7uF 0.001uF 220pF	50V CH 50V CH 50V CH 6.3V 50V B 50V UJ 50V UJ 50V UJ 50V CK 6.3V 50V B 50V B
D 0501 G2090297 D 0502 G2070040 D 0503 G2070040 L 0501 L1690016 L 0502 L1690016 L 0503 L1690016	DIODE DIODE DIODE COIL COIL COIL	1SS110 1T33-T7 1T33-T7 32CS 380LB-1R0M=P 32CS 380LB-1R0M=P 32CS 380LB-1R0M=P	luH luH luH	
L 0504 L1690025 Q 0501 G3802387S Q 0502 G3327597B R 0501 J24205682 R 0503 J24205103 R 0504 J24205470 R 0505 J24205101	COIL FET TRANSISTOR CHIP RES. CHIP RES. CHIP RES. CHIP RES.	32CS 380NB-R22M=P 2SK238-T2B K17 2SC2759 T2B-U22 RMC1/10 682J RMC1/10T 103J RMC1/10 470J RMC1/10T 101J	0.22uH 6.8K 10K 47 100	1/10W 1/10W 1/10W 1/10W
R 0506 J24205683 T 0501 L0021684A TC0501 K91000151 R0130390	CHIP RES. COIL TRIMMER CAP. TERMINAL	RMC1/10 683J R12-E991X ECR-JA020E12X	68K 20p 2pcs	1/10W

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*** REG UNIT ***

CA0011001 P.C.B. W/COMP. F3057107A P.C.B. W/O COMP.

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С	0601	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	В
С	0602	K78100003	CHIP TANTALUM	CAP.	F951A685MTAAF1Q2	6.8uF	6.3V	
С	0603	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	В
	0604	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	В
	0605	K78120002	CHIP TANTALUM	CAP.	F951C225MSAAF1Q2	2.2uF	6.3¥	
	0606	K22174809	CHIP CAP.	1999-1999 (C. 1999) 1999-1999 (C. 1999)	GRM39B102M50PT	0.001uF	50V	В
	0607	K78080013	CHIP TANTALUM	CAP.	F950J476MFCAF1	47uF	6.3V	1
	0608	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	B
	0609	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	B
	0610	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	B
< 62, -	0611	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	В
	0612	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	B
	0613	K22174809	CHIP CAP.		GRM39B102M50PT	0.001uF	50V	B
~			and the second		بالمحافظ بمربع وتعاطيه فياليا الماكم فيعالمه			
Ð	0601	G2070048	DIODE		1SS272 TE85R			
	0602	G2090153	DIODE		RD10EB1			
	0603	G2070009	DIODE		1SS184 TE85R			
			10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					
۵	0601	G3207997L	TRANSISTOR		2SB799-T2ML			
197	0602	G3327127G	TRANSISTOR		2SC2712GR TE85R			
	0603	G3327127G	TRANSISTOR		2SC2712GR TE85R			
1.1		G1090785	IC		LM2931AZ-5.0			
		G3111627G	TRANSISTOR		2SA1162GR TE85R			
-	0606	G3111627G	TRANSISTOR		2SA1162GR TE85R			
- T (0607	G3111627G	TRANSISTOR		2SA1162GR TE85R			
· •		G3327127G	TRANSISTOR		2SC2712GR TE85R			
	20 - 21 - 22 - 22 - 22 - 22 - 22 - 22 -	সম্প্রি বিদ্যালয়ে বি	요즘 가지 않는 것이 있는 것이 있는 것이 없는 것이 없다. 것이 있는 것이 없는 것이 없 않이 않는 것이 없는 것이 없 않이		요즘 아이들 가지 않는 것이라. 가지 않는 것이라.			

R	0601	J24205101	CHIP RES.	RMC 1/10T 101J	100	1/10W
R	0602	J02245829	CARBON FILM RES.	RD14SJ8R2 8.2	8.2	1/4W
R	0603	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W
R	0604	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W
R	0605	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W
R	0606	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W
R	0607	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W
R	0608	J24185222	CHIP RES.	RMC1/16 222JATP	2.2K	1/16W
R	0609	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W
R	0610	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16W
R	0611	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W
R	0612	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W

*** CONTROL UNIT ***

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TYP B

TYP C2

TYP D

TYP E2

TYP B

TYP C2

TYP D

TYP E2

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CS0847002	P.C.B.	W/COMP.(TYP	A1)
CS0847003	P.C.B.	W/COMP.(TYP	A2)
CS0847004	P.C.B.	W/COMP.(TYP	A3)
CS0847005	P.C.B.	W/COMP.(TYP	B)
CS0847006	P.C.B.	W/COMP.(TYP	C2)
CS0847007	P.C.B.	W/COMP.(TYP	D)
CS0847008	P.C.B.	W/COMP.(TYP	E2)
F3058102B	P.C.B.	W/O COMP.	

BT1001	Q9000366	LITHIUM BATTERY	CR2025-T02			
BZ1001	M4290005	BUZZER	EFB-RE25D07			
C 1001 C 1001 C 1001 C 1001 C 1002 C 1002 C 1002 C 1002 C 1002 C 1003 C 1004 C 1005 C 1006 C 1007 C 1006 C 1007 C 1008 C 1009 C 1010 C 1011 C 1012 C 1013	K22170809 K22170809 K22170809 K22170809 K22170809 K22170809 K22170809 K22170809 K22170809 K22170235 K22170235 K22170235 K22170235 K22170235 K22170805 K22120805 K22120805 K22120805 K22120805 K22120805 K22174809 K22174809 K22174809	CHIP CAP. CHIP CAP. TANTALUM CHIP CAP. CHIP CAP.	GRM40B222M50PT GRM40B222M50PT GRM40B222M50PT GRM40B222M50PT GRM40B222M50PT GRM40B222M50PT GRM40B222M50PT GRM40B222M50PT GRM40B222M50PT GRM40CH101J50PT GRM40CH101J50PT DN1A4R7M1S GRM40CH101J50PT GRM40R683M16PT GRM40R683M16PT GRM40R683M16PT GRM40R683M16PT GRM40R683M16PT GRM40R683M16PT GRM39B102M50PT GRM39B102M50PT	0.0022uF 0.0000 0.00000 0.00000000000000000000	50V 50V 50V 50V 50V 50V 50V 50V 50V 10V 16V 16V 16V 16V 50V 50V 50V	B B B B B B B B B B B B B B B B B B B
C 1013 C 1014	K22174809 K22174809	CHIP CAP. CHIP CAP.	GRM39B102M50PT GRM39B102M50PT	0.001uF 0.001uF	50V 50V	B B
C 1015	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	В
C 1016	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B
C 1017	K78120009	TANTALUM CHIP CAP.	TESVA1C105M1-8R	1uF	16V	D
C 1018 C 1019	K22170817 K22174809	CHIP CAP. CHIP CAP.	GRM40B103M50PT	0.01uF	50V 50V	B B
C 1019 C 1020	K78080003	TANTALUM CHIP CAP.	GRM39B102M50PT F950J106MTAAF1Q2	0.001uF 10uF	6.3V	D
C 1020	K40089010	AL. ELECTRO. CAP.	RC2-6V221M	220uF	6.3V	
C 1022	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	В
C 1023	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B
C 1024	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	В
C 1025	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	В
C 1026	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	50V	В
C 1027	K22174809	CHIP CAP.	GRM39B102M50PT	0.001uF	507	В
C 1028	K10176102	CERAMIC CAP.	DD104B102K50	0.001uF	50V	В
C 1029	K78080003	TANTALUM CHIP CAP.	F950J106MTAAF1Q2	10uF	6.3V	
C 1030	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	В
C 1031	K22170821	CHIP CAP.	GRM40B223M50PT	0.022uF	50V	В
C 1034	K22174817	CHIP CAP.	GRM39B472M50PT	0.0047uF		B
C 1035	K22174817	CHIP CAP.	GRM39B472M50PT	0.0047uF	11111111	В
C 1040	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	В
C 1042	K22170235	CHIP CAP.	GRM40CH101J50PT	100pF	50V	CH
C 1044	K22170805	CHIP CAP.	GRM40B102M50PT	0.001uF	50V	B
C01001	H7900400	CERAMIC OSC.	KBR-800H			
D 1001	G2070084	DIODE	1SS300 TE85R			

R 0714 J24185225 CHIP RES. R 0715 J24205223 CHIP RES.	RMC1/16104JATP100K1/16WRMC1/16225JATP2.2M1/16WRMC1/10223J22K1/10WRMC1/16104JATP100K1/16W
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R	1008	J24185103	CHIP	RES.	RMC1/16	103JATP	10K	1/16₩
R	1009	J24185105	CHIP	RES.	RMC1/16	105JATP	1M	1/16W
R	1010	J24185473	CHIP	RES.		473JATP	47K	1/16W
R	1011	J24185103	CHIP	RES.		103JATP	10K	1/16W
R	1012	J24185472	CHIP	RES.		472JATP	4.7K	1/16W
R	1013	J24185104	CHIP	RES.	2011년 2012년 2012년 - 1	104JATP	100K	1/16W
R	1014	J24185104	CHIP	RES.		104JATP	100K	1/16₩
R	1015	J24185103	CHIP	RES.		103JATP	10K	1/16W
R	1016	J24185561	CHIP	RES.	RMC1/16	561JATP	560	1/16W
R	1017	J24185561	CHIP	RES.		561JATP	560	1/16W
R	1018	J24185103	CHIP	RES.	RMC1/16	103JATP	10K	1/16W
R	1019	J24185101	CHIP	RES.	RMC1/16	101JATP	100	1/16₩
R	1020	J24185472	CHIP	RES.	RMC1/16	472JATP	4.7K	1/16₩
R	1021	J24185104	CHIP	RES.	RMC1/16	104JATP	100K	1/16₩
R	1022	J24185103	CHIP	RES.	RMC1/16	103JATP	10K	1/16W
R	1023	J24185103	CHIP	RES.	RMC1/16	103JATP	10K	1/16₩
R	1024	J24185103	CHIP	RES.	RMC1/16	103JATP	10K	1/16₩
R	1025	J24185474	CHIP	RES.	RMC1/16	474JATP	470K	1/16W
R	1026	J24185105	CHIP	RES.	RMC1/16	105JATP	1M	1/16₩
R	1027	J24185000	CHIP	RES.	RMC1/16	OOOJATP	0	1/16₩
R	1028	J24185183	CHIP	RES.	RMC1/16	183JATP	18K	1/16₩
R	1029	J24185102	CHIP	RES.	RMC1/16	102JATP	1K	1/16₩
R	1030	J24185104	CHIP	RES.	RMC1/16	104JATP	100K	1/16W
R	1031	J24185473	CHIP	RES.	RMC1/16	473JATP	47K	1/16W
R	1032	J24185224	CHIP	RES.	RMC1/16	224JATP	220K	1/16W
R	1033	J24185103	CHIP	RES.	RMC1/16	103JATP	10K	1/16W
R	1034	J24185103	CHIP	RES.	RMC1/16	103JATP	10K	1/16W
R	1035	J24185222	CHIP	RES.	RMC1/16	222JATP	2.2K	1/16W
	1036	J24185152	CHIP	RES.	RMC1/16	152JATP	1.5K	1/16W
	1037	J24185471	CHIP		RMC1/16	471JATP	470	1/16W
R	1038	J24185472	CHIP		RMC1/16		4.7K	1/16₩
D	1020	19/105109	CUID	DEC	DMC1/10	100 1400	1017	1/104

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	R	1039	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W
	R	1040	J24185103	CHIP RES.	RMC1/16 103JATP	10K	1/16W
	R	1041	J24185472	CHIP RES.	RMC1/16 472JATP	4.7K	1/16W
	R	1042	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W
	R	1043	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W
	R	1044	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W
	R	1045	J24185223	CHIP RES.	RMC1/16 223JATP	22K	1/16W
	R	1046	J24185000	CHIP RES.	RMC1/16 000JATP	0	1/16W
	R	1047	J24185104	CHIP RES.	RMC1/16 104JATP	100K	1/16₩
	S	1001	N5090018	TACT SWITCH	KHH-15951		
	S	1002	N5090018	TACT SWITCH	KHH-15951		
	S	1003	N6090057	SLIDE SWITCH	SSSS22		
	S	1004	N4090088	PUSH SWITCH	SPJ622N FI9		
1	S	1005	N0190139	ROTARY SWITCH	SRBM1L017B		
	v	1001	112000400	OPD LVI O OCO	WDD GOON		
	X	1001	H7900400	CERAMIC OSC.	KBR-800H		
			R8118690	SEAL			
			R7132740	MYLAR			
			R7132750	MYLAR			
			R0130380	SHIELD PLATE			
		¹⁷ bi ₁₉		- 김정 영상 방송에 가면서 그 같아요. 관람들이 없어 있는 것이 것을 물었다. 것이 가지 않는 것이 없다.			
			R7074930	DOUBLE FACE ADDESIVE			
			R7109650	DOUBLE FACE ADHESIVE			

*** DUMMY UNIT ***

	CS0853001 F3058103	P.C.B. W/COMP. P.C.B. W/O COMP.		
P 3001	P0090702	CONNECTOR	9230B-1-03Z003-T	
R 3001	J24185223	CHIP RES.	RMC1/16 223JATP	22K



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
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EXPLODED VIEW



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