

FT-212RH

TECHNICAL SUPPLEMENT

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This manual is intended to serve as a supplement to the FT-212RH Operating Manual. Detailed information regarding functions, specifications, options and operation has been provided in the Operating Manual, and is not reprinted herein. Therefore, this supplement is not intended to serve as an independent reference, but to be used in conjunction with the information provided in the Operating Manual.

Because of the compactness and complexity of the double-sided glass-epoxy circuit boards used in the FT-212RH, four layout diagrams are provided for each board. Each side of the board is identified by the type of the majority of components installed on that side. In most cases one side has only chip components, and the other has either a mixture of both chip and lead components (trimmers, coils, electrolytic capacitors, packaged ICs, etc.), or lead components only. The two "obverse" views depict the board as it is seen when viewed directly with the eye, while the two "reverse" views depict the unseen side of the board as it would appear if one were to peer through the board from the other side without seeing the components and tracks on the near side.

While we believe the technical information in this manual is correct, Yaesu assumes no liability for damage that may occur as a result of typographical or other errors that may be present. Your cooperation in pointing out any inconsistencies in the technical information would be appreciated.

Yaesu Musen reserves the right to make changes in the circuitry of this transceiver, in the interest of technological improvement, without notification of the owners.

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CIRCUIT BOARD ACCESS

BOTTOM COVER REMOVAL

The following circuit boards are accessed by removing the bottom cover:

- Main Unit* (component side)
- IF Unit*
- Mic Unit*
- APC Unit
- VCO Unit
- PA Unit (lower edge only)

To remove the bottom cover, remove the four screws marked "★" in Figure 1, plus the four marked "※" if the top cover has not already been removed. Then lift the cover away.

* To access these boards it may be necessary to remove the loudspeaker and holder:

- (1) Referring to Figure 2, unplug the speaker wire connector from J1005 on the Main Unit, and lift the loudspeaker out of its bracket.
- (2) Remove the three screws in the arms of the speaker bracket and remove the bracket.

TOP COVER REMOVAL

Removing the top cover exposes the Solder Side of the Main Unit circuit board and the top edge of the PA Unit board.

To remove the top cover, remove the four screws marked "○" in Figure 1, plus the four marked "※" if the bottom cover has not already been removed. Then lift the cover away.

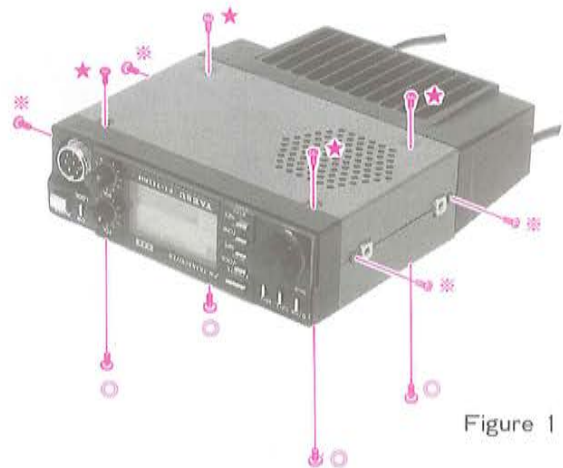


Figure 1

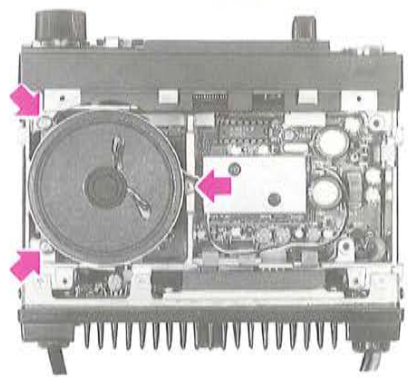


Figure 2

FRONT PANEL REMOVAL

Removing the front panel allows access to the Control Unit and LCD Unit circuit boards.

- (1) After the top and bottom covers have been removed, pull off the Selector, VOL and SQL knobs.
- (2) Remove the nut from the microphone jack using a slotted ring wrench as shown in Figure 3.

The front panel can now be slid forward.

CIRCUIT BOARD ACCESS

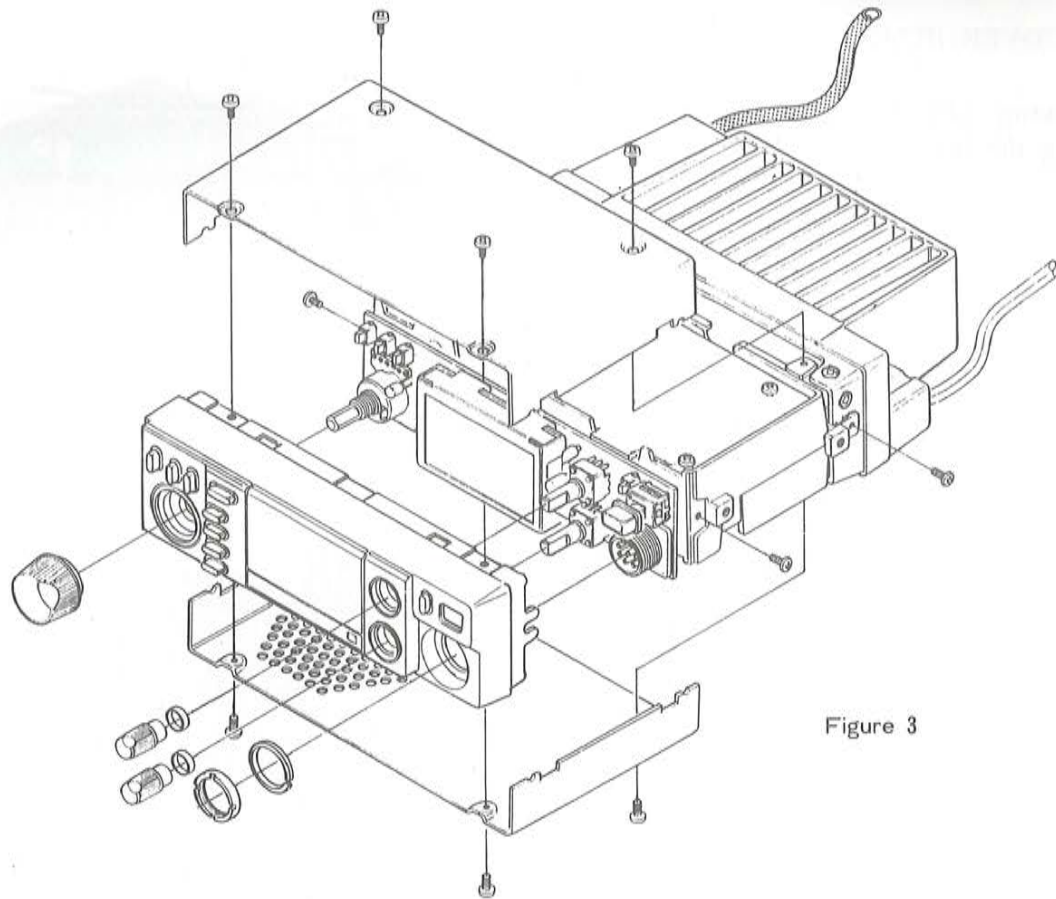
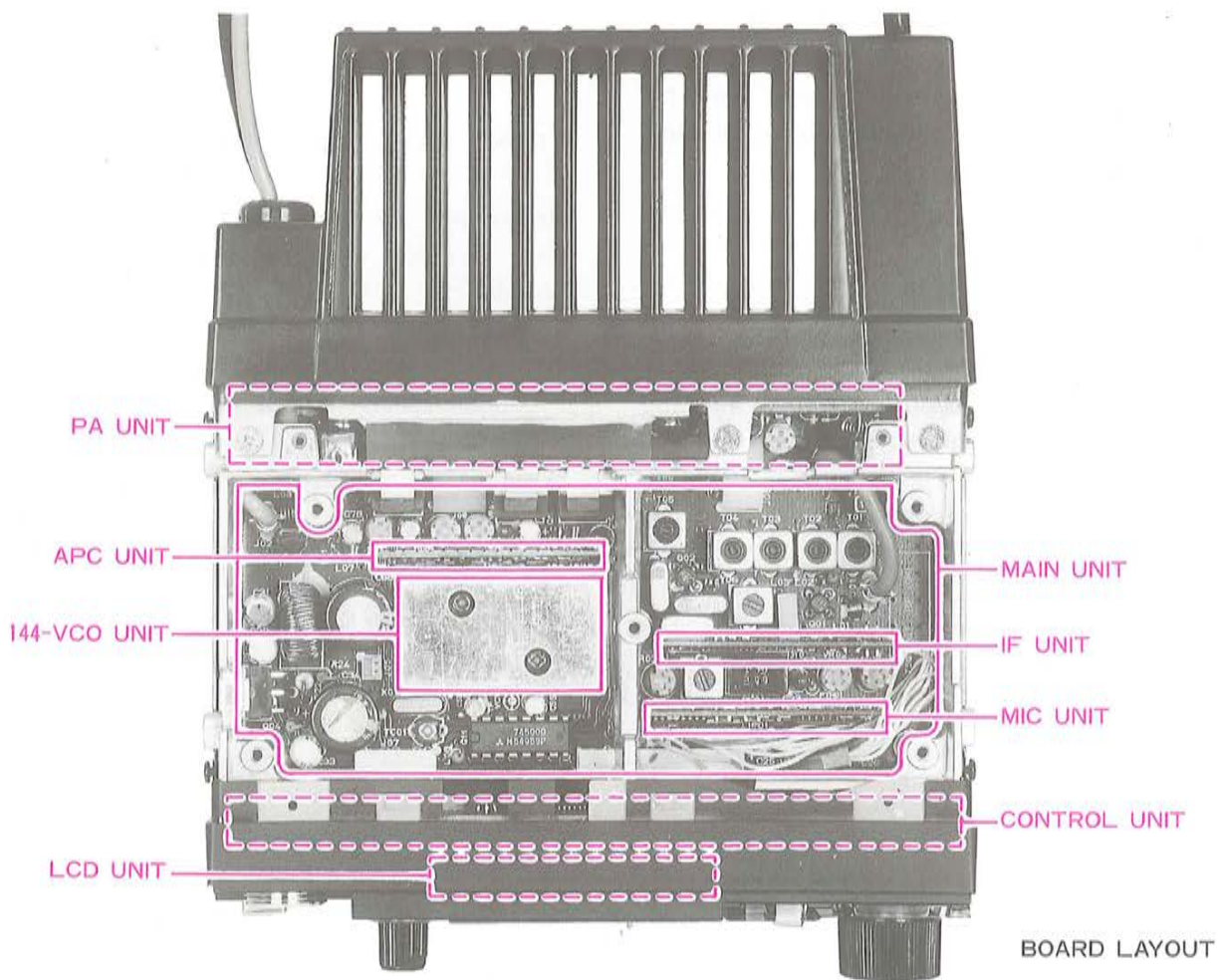


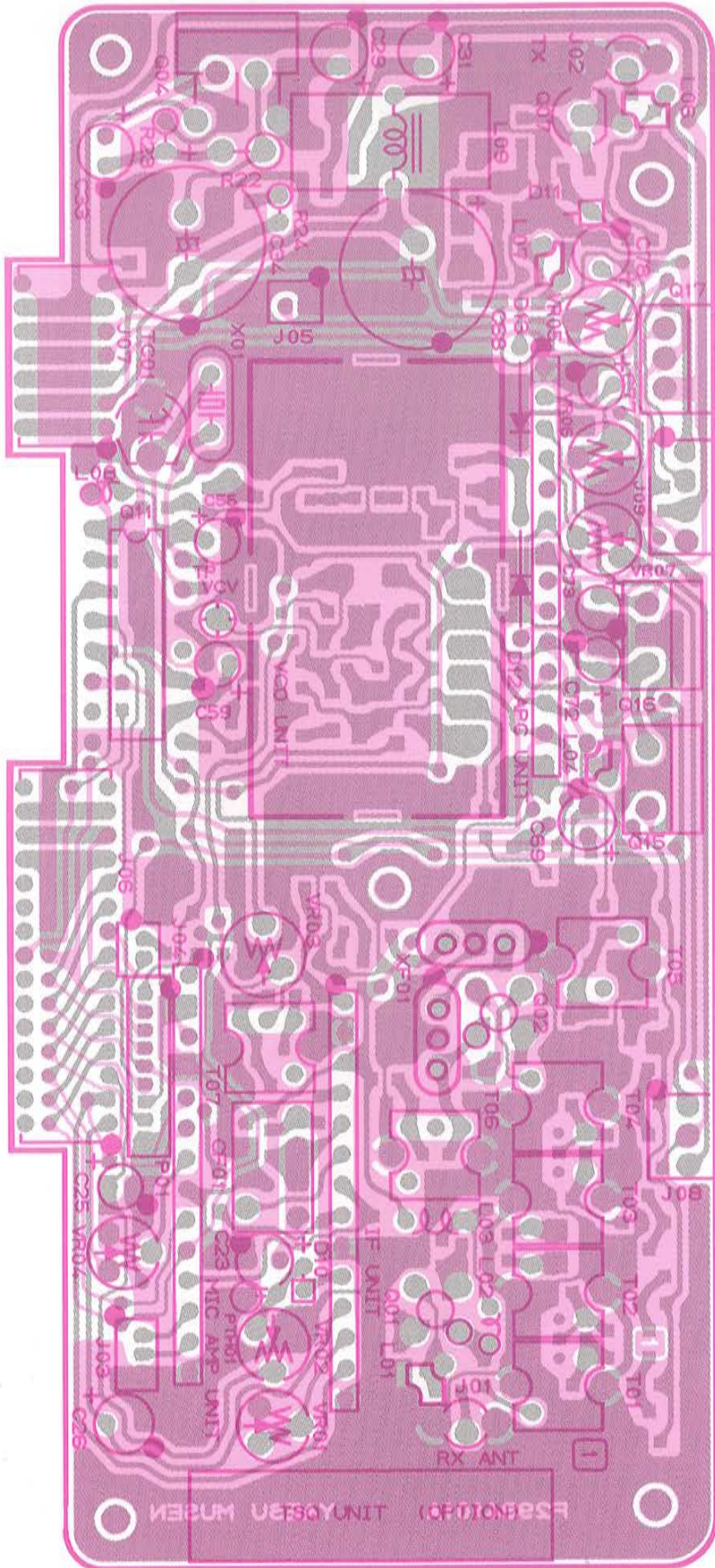
Figure 3



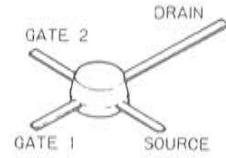
BOARD LAYOUT

MAIN UNIT PARTS LAYOUT

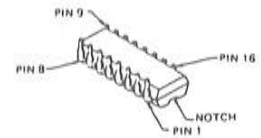
MAIN UNIT (No.1 XXX)



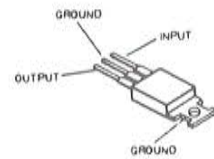
obverse view of "component" side



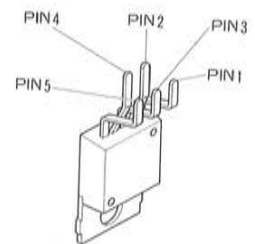
3SK81 (Q1002)
3SK122L (Q1001)



M54959P(Q1011)

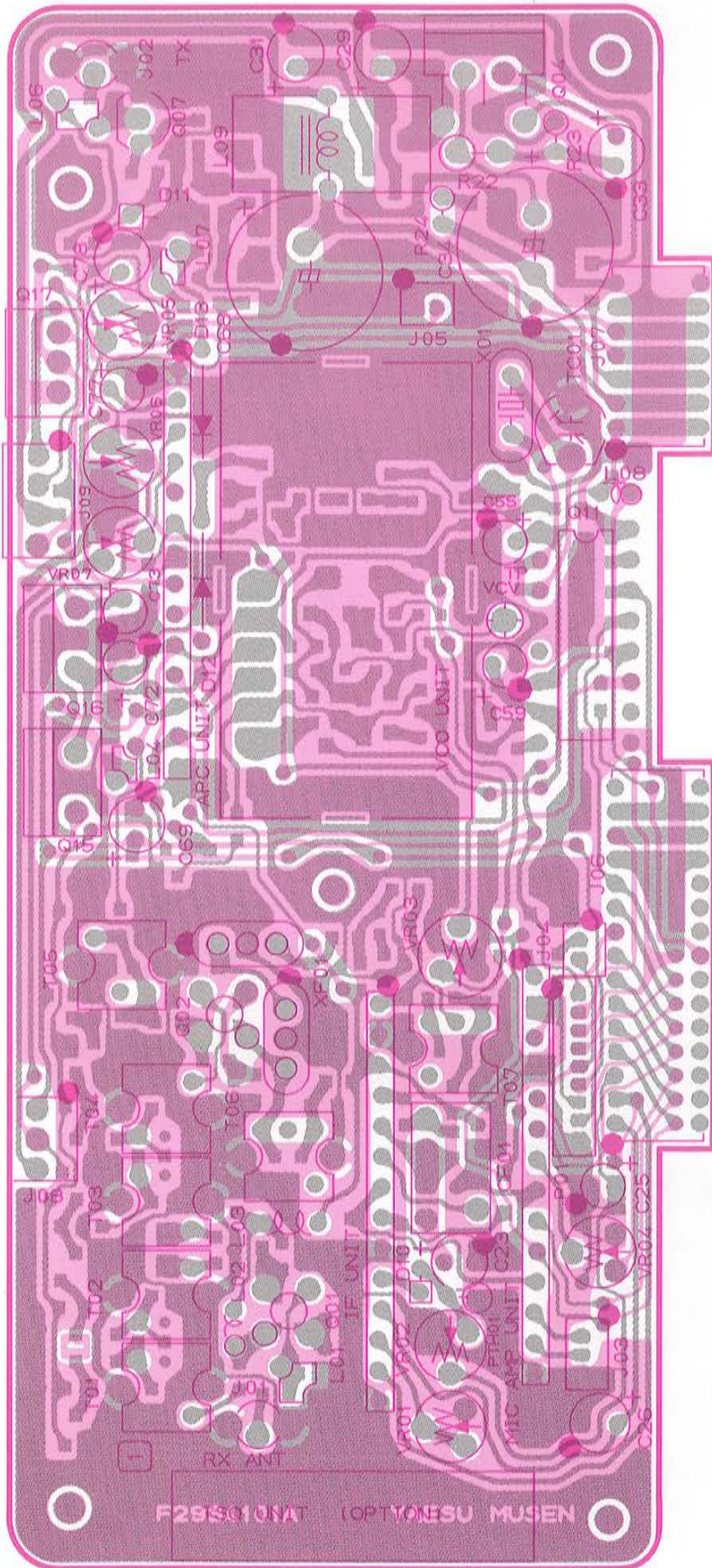


μPC7805H (Q1015)
L7809 (Q1016)

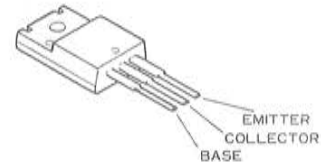


TDA2003 (Q1004)

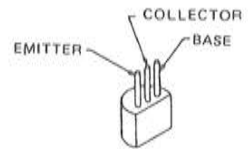
MAIN UNIT PARTS LAYOUT



reverse view of "component" side



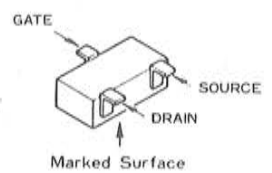
2SB1134R (Q1017)



2SC2538 (Q1007)

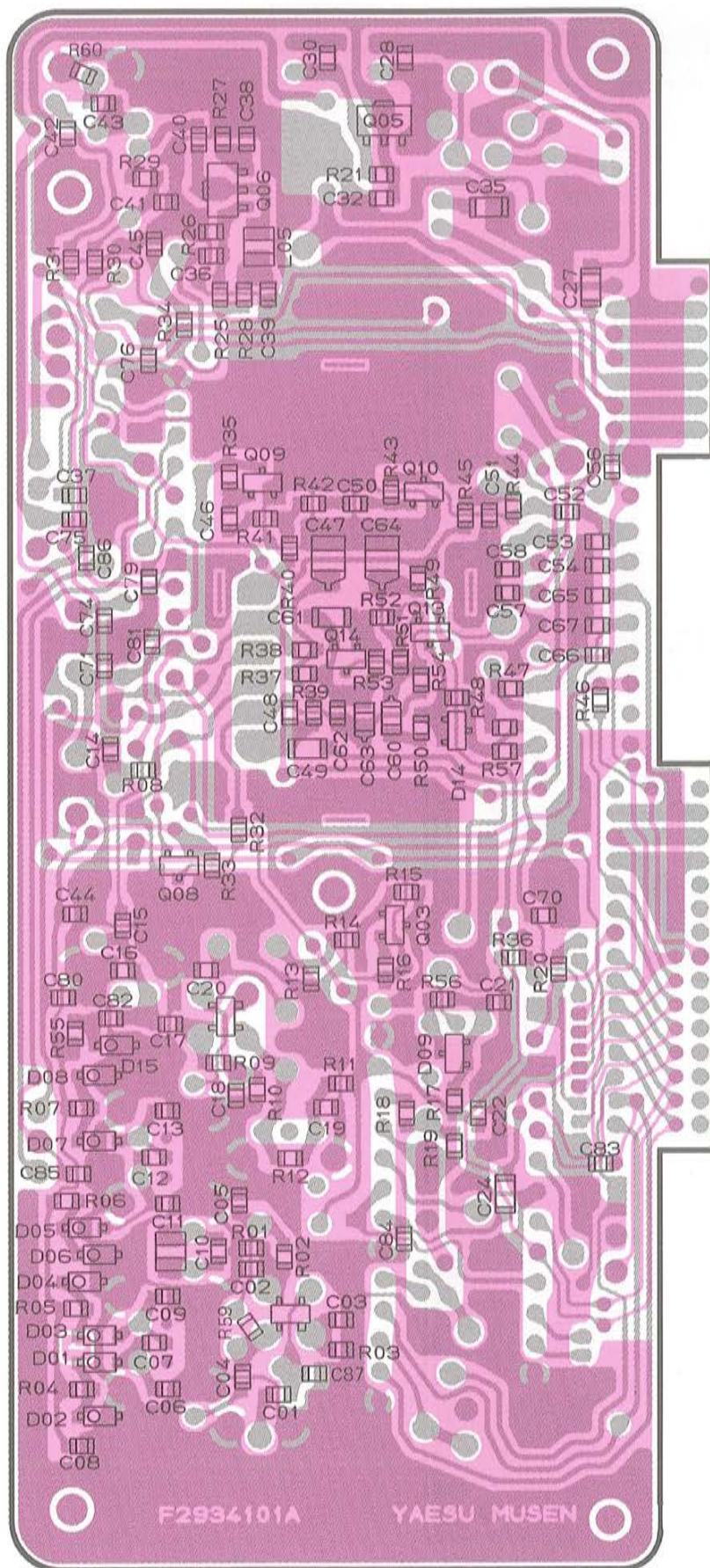


2SD1000(LL) (Q1005)
2SC3357(RK) (Q1006)

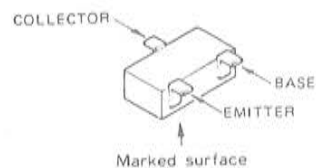


2SK209GR(XG) (Q1008)
2SK208Y (JY) (Q1013)

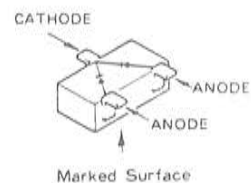
MAIN UNIT PARTS LAYOUT



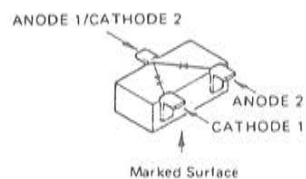
obverse view of "chip-only" side



2SC2620(QB)
(Q1003,1009,1010)
2SC1623(L7) (Q1014)

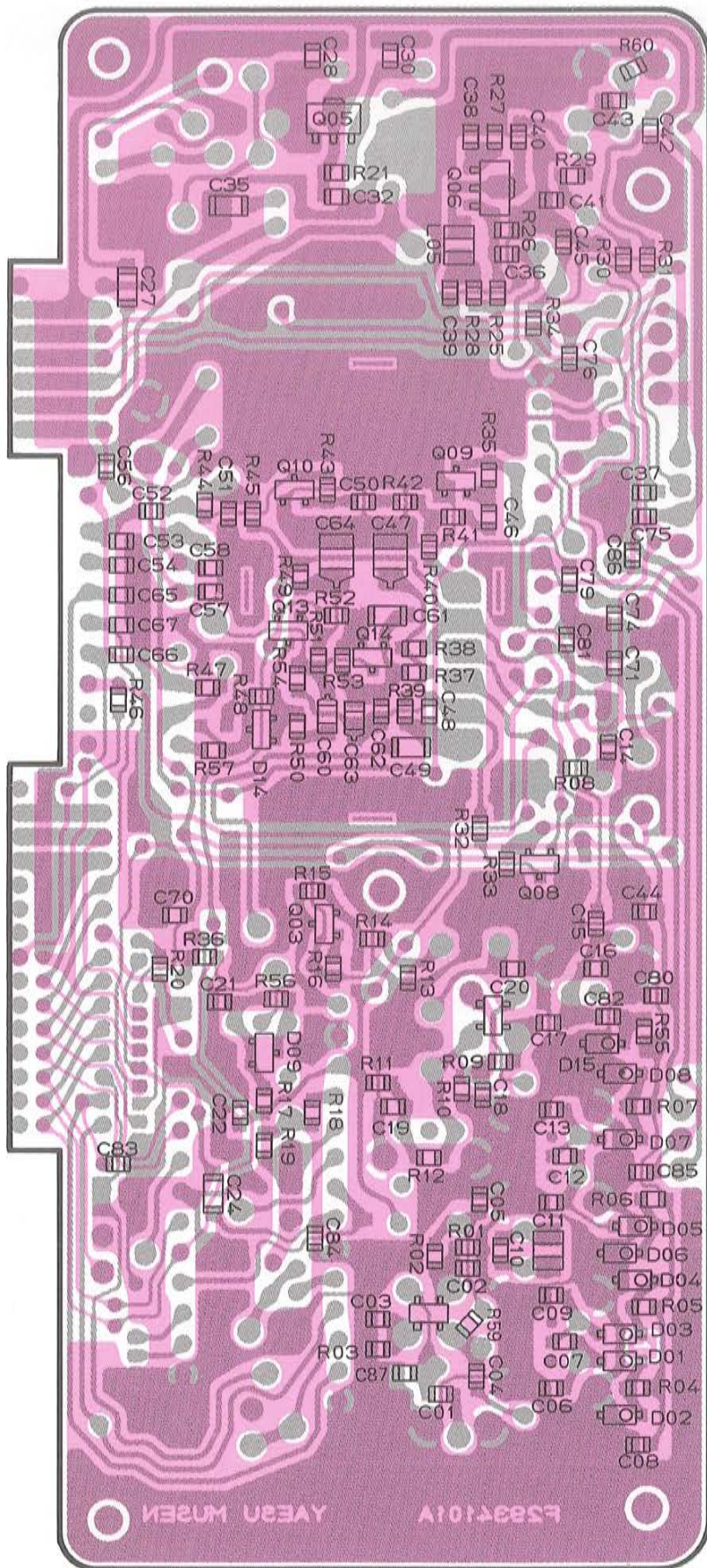


1SS184(B3) (D1014)



1SS226(O3) (D1009)

MAIN UNIT PARTS LAYOUT



reverse view of "chip-only" side

MAIN UNIT PARTS LAYOUT

MAIN UNIT VOLTAGE CHART

(DC VOLTS)

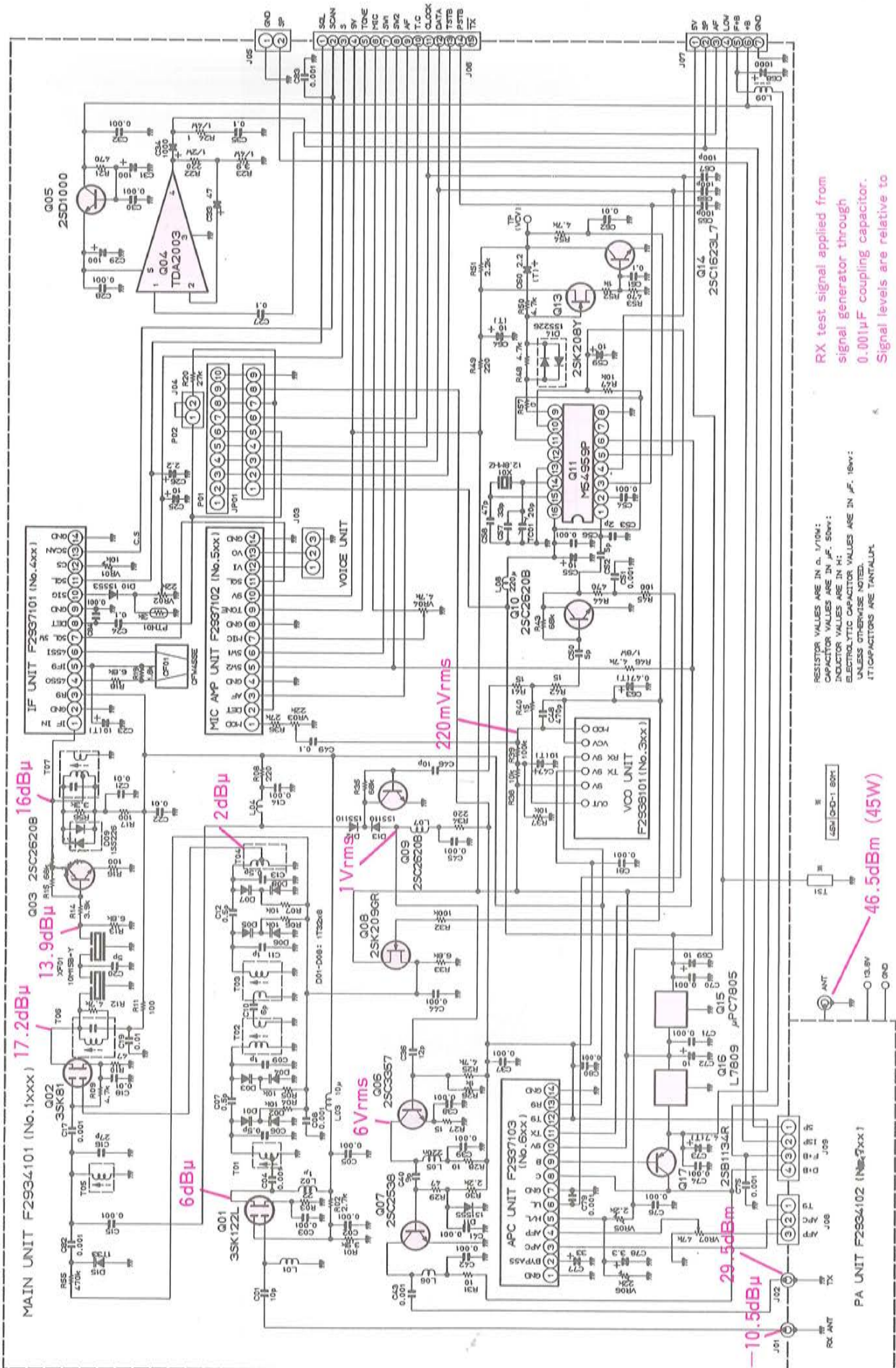
Symbol No.	E(S)	C(D)	B(G1)	G2	REMARKS
Q1001	0.2	9.0	0	5.2	
Q1002	0.18	8.60	0	0.15	
Q1003	0.2	8.8	0.8		
Q1005	12.8	13.6	13.6		
Q1006	0.6	8.5	1.0		
Q1007	0	11.80/350	0.55/0.55		RF POWER HIGH/LOW
Q1008	13.8	9.0	13.8		
Q1009	0	6.5	0.7		
Q1010	0	5.4	0.7		
Q1013	13.8	8.0	13.8		
Q1014	0	13.8	0.6		
Q1017	12.4/13.6	12.4/0	11.2/13.2		RX/TX

MAIN UNIT IC VOLTAGE CHART

(DC VOLTS)

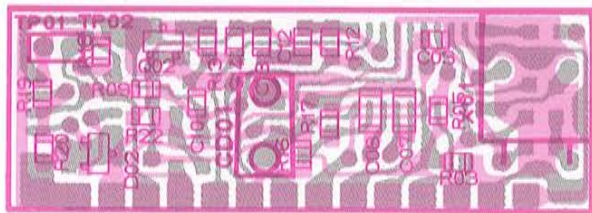
PIN No. Symbol No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	REMARKS
Q1004	0.7	0.7	0	6.4	13.6												
Q1011	2.3	2.6	4.4	0	0	0/3.6	0	0	1.5	0	4.6	0	0	2.0	2.0	4.6	RX/TX
Q1015	13.6	0	9.0														
Q1016	9.0	0	5.0														

MAIN UNIT CIRCUIT DIAGRAM

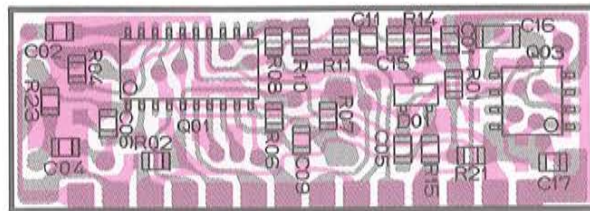


IF UNIT PARTS LAYOUT/CIRCUIT DIAGRAM

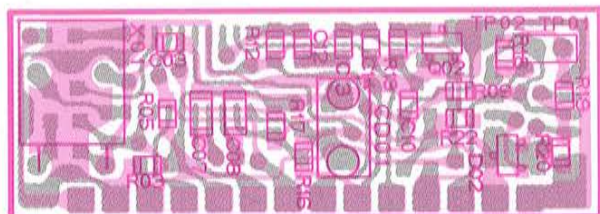
IF UNIT (No. 4 × ×)



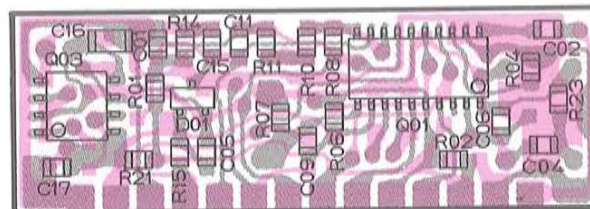
obverse view of "mixed-component" side



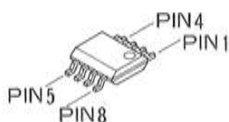
obverse view of "chip-only" side



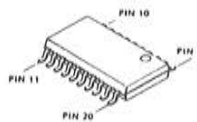
reverse view of "mixed-component" side



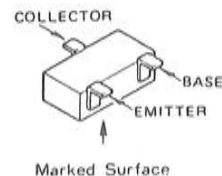
reverse view of "chip-only" side



M5223FP (Q403)



TK10487M (Q401)

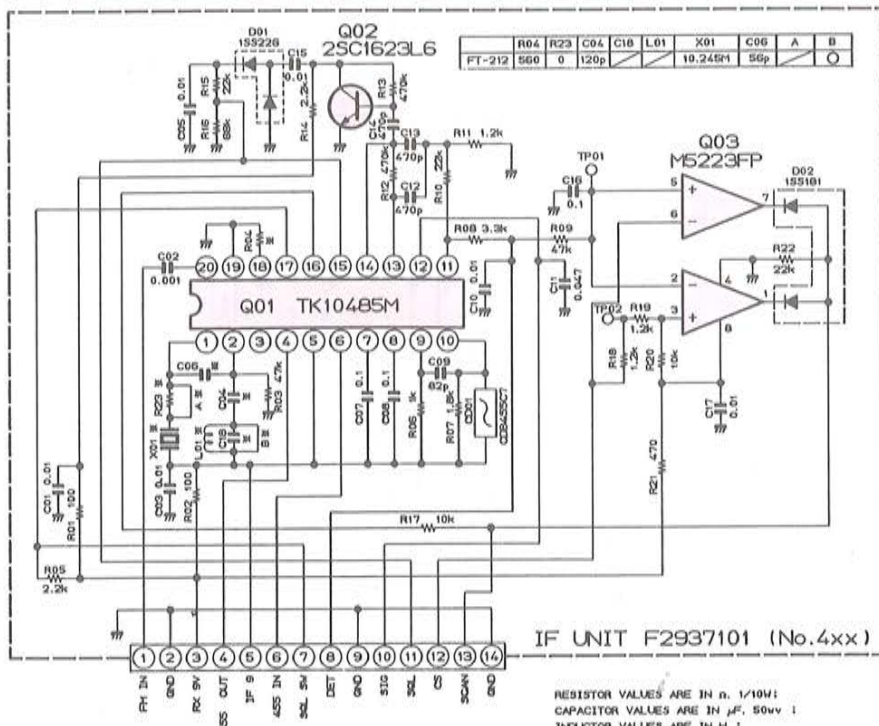


2SC1623(L6) (Q402)

IF UNIT VOLTAGE CHART

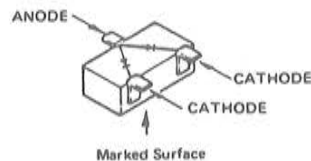
(DC VOLTS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	REMARKS
FM IN	GND	RX 9V	455 OUT	IF 9	455 IN	SOL SW	DET	GND	SIG	SOL	CS	SCAN	GND	
8.7/0	0	9.0/0	8.0/0	8.4/0	6.6/0	50.0FT 50.0IN 9/0 7.4/0	3.2/0	0		0.2-1.6/1.0	2.7/0	50.0FT 50.0IN 50.0A 0.0/4	0	RX/TX

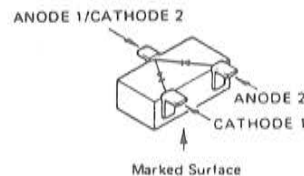


IF UNIT F2937101 (No.4xx)

RESISTOR VALUES ARE IN Ω, 1/10W!
CAPACITOR VALUES ARE IN μF, 50V!
INDUCTOR VALUES ARE IN H!
UNLESS OTHERWISE NOTED.



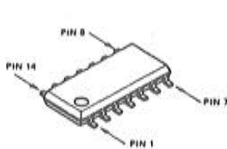
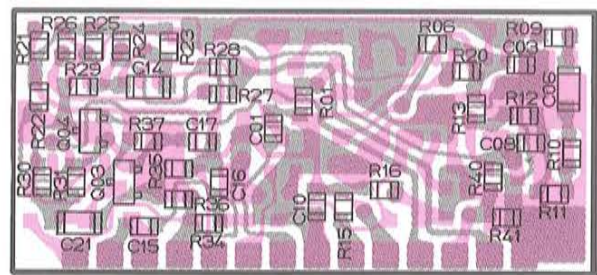
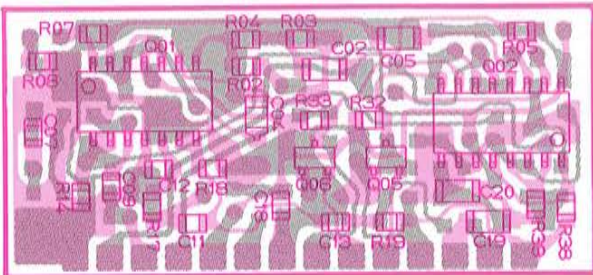
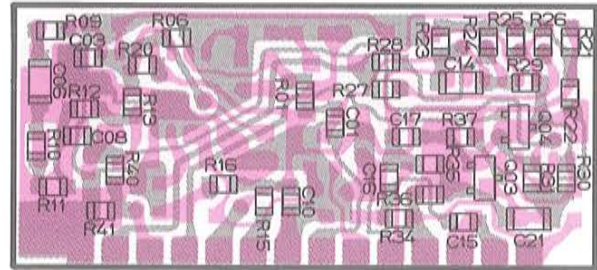
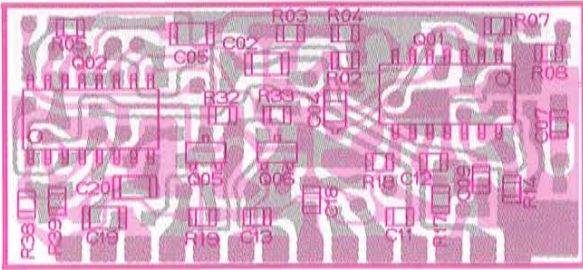
1SS181(A3) (D402)



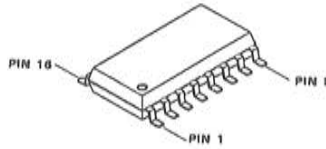
1SS226(C3) (D401)

MIC UNIT PARTS LAYOUT/CIRCUIT DIAGRAM

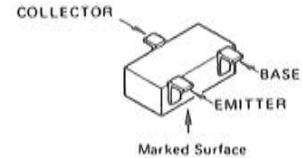
MIC UNIT (No. 5xx)



LA6324M (Q501)



μPD4052BG (Q502)

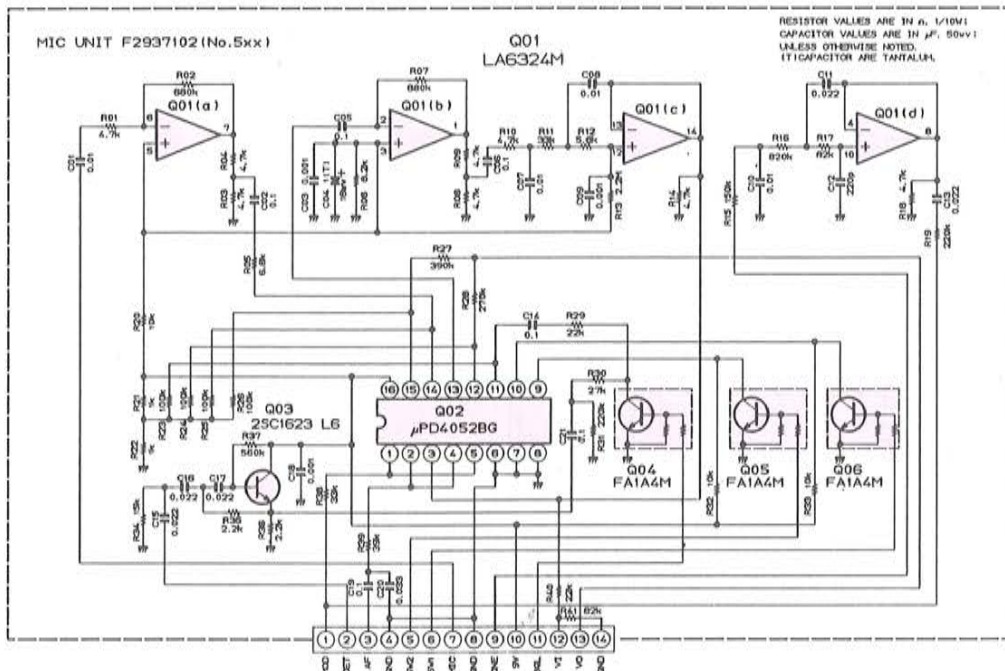


2SC1623(L6) (Q503)
FA1A4M-T2B (L33)
(Q504-506)

MIC UNIT VOLTAGE CHART

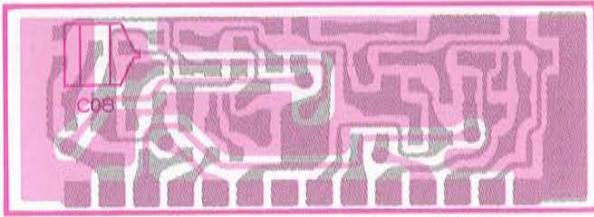
(DC VOLTS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	REMARKS
MOD	DET	AF	GND	SW2	SW1	MIC	GND	TONE	9V	SQL	VI	VO	GND	
0/2.1			0	0/4.3	0	0	0	1.6/1.6	9.0/9.0	0	3.0/3.0	3.0/9.0	0	RX/TX

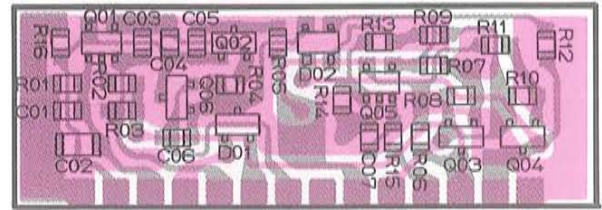


APC UNIT PARTS LAYOUT/CIRCUIT DIAGRAM

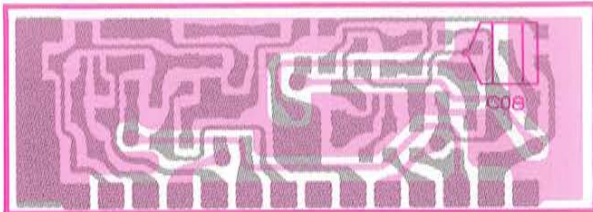
APC UNIT (No. 6 × ×)



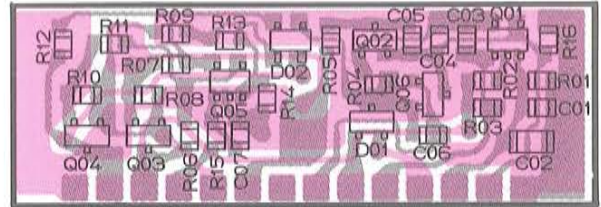
obverse view of "Tantalum CAP" side



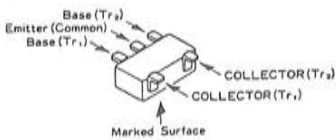
obverse view of "chip-only" side



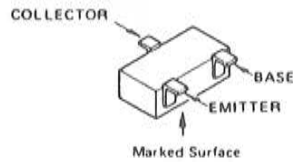
reverse view of "Tantalum CAP" side



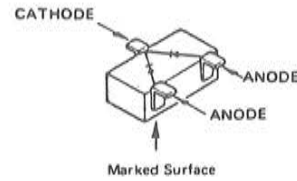
reverse view of "chip-only" side



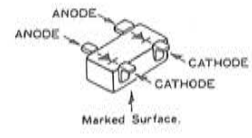
FMS1(S1) (Q601)
FMW1(W1) (Q605)



2SB624(BV4) (Q603,604)
2SC1623(L6) (Q602)
FA1A4M-T2B(L33) (Q606)



1SS184(B3) (D601)

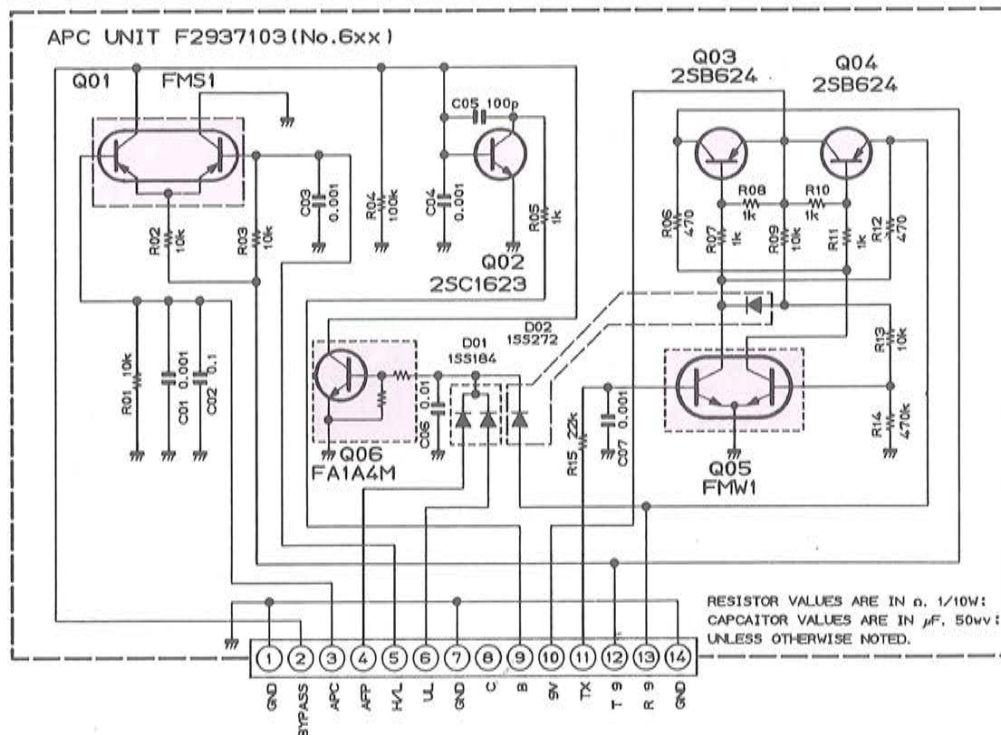


1SS272(A1) (D602)

APC UNIT VOLTAGE CHART

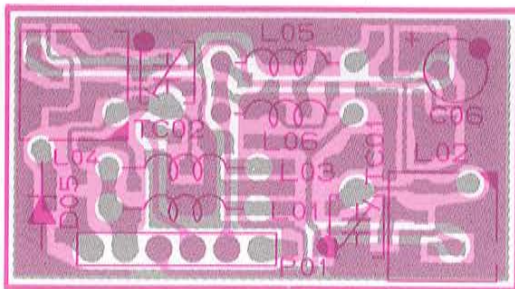
(DC VOLTS)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	REMARKS
GND	BYPASS	APC	AFP	H/L	UL	GND	C	B	9V	TX	T9	R9	GND	RX/TX
0	0/0.6	0/5.7	0	RF HIGH RF LOW 0/5.1 0/1.2	0.1/0.1	0	0/3.7	13.6/13.2	9.0/9.0	0/3.6	0/9.0	9.0/0	0	

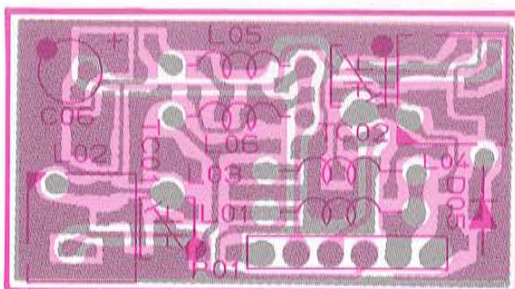


144-VCO UNIT PARTS LAYOUT/CIRCUIT DIAGRAM

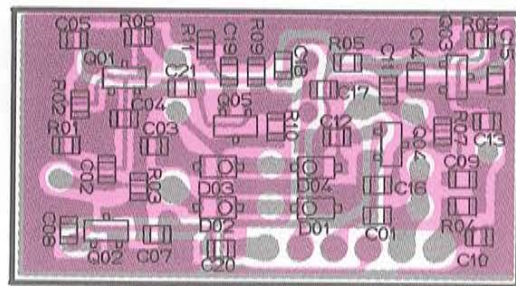
144-VCO UNIT (No. 3XX)



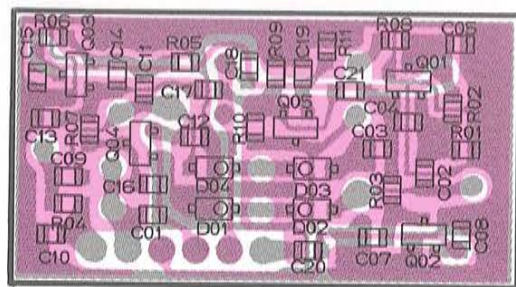
obverse view of "component" side



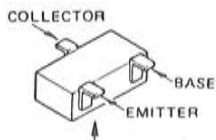
reverse view of "component" side



obverse view of "chip-only" side



reverse view of "chip-only" side



Marked Surface

2SC3356(R24)

(Q301,303,305)

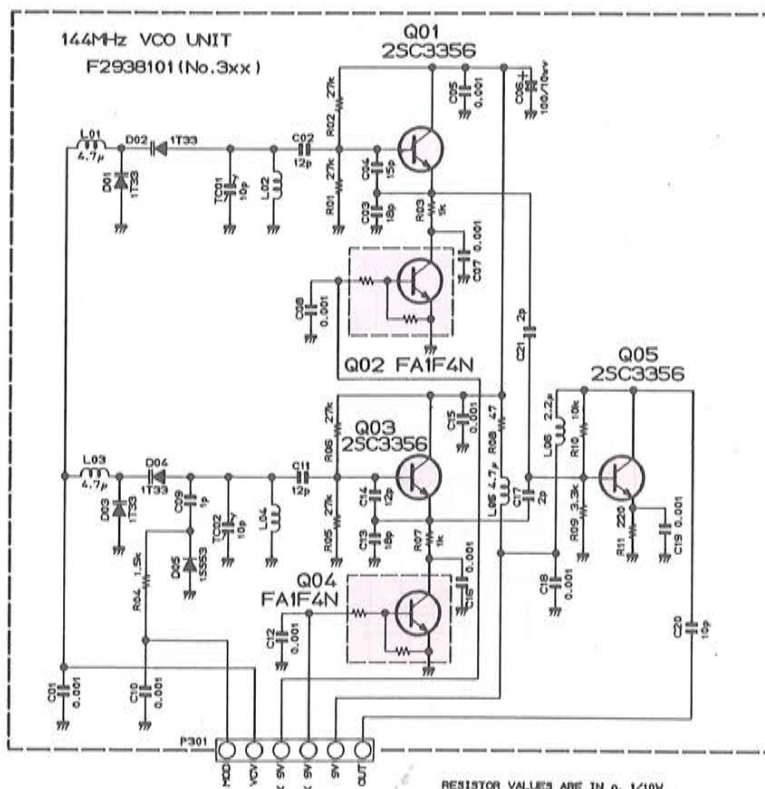
FA1F4N-T2B(R24)

(Q302,304)

VCO UNIT VOLTAGE CHART

(DC VOLTS)

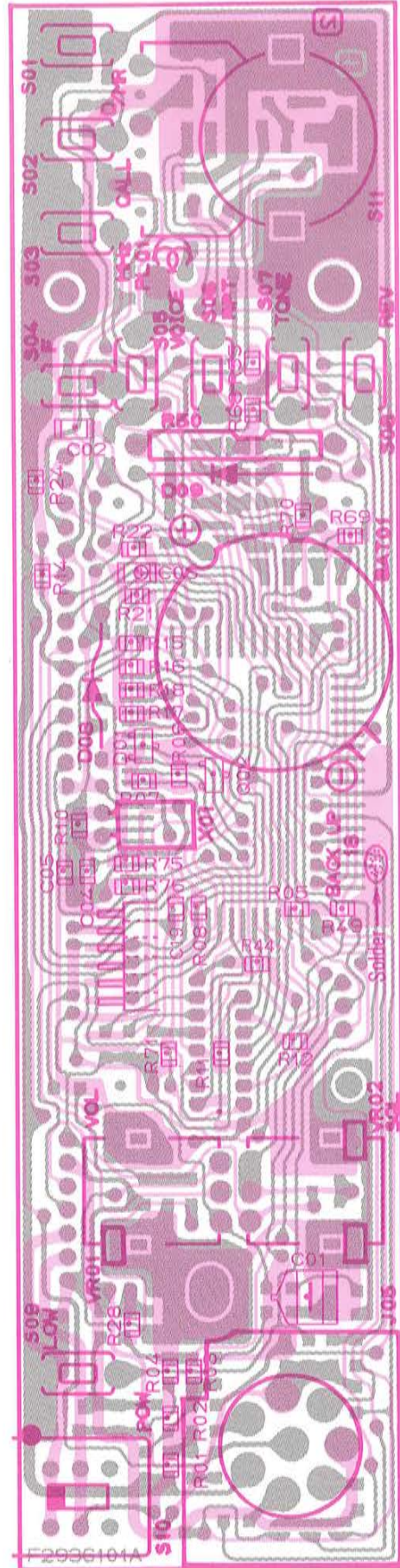
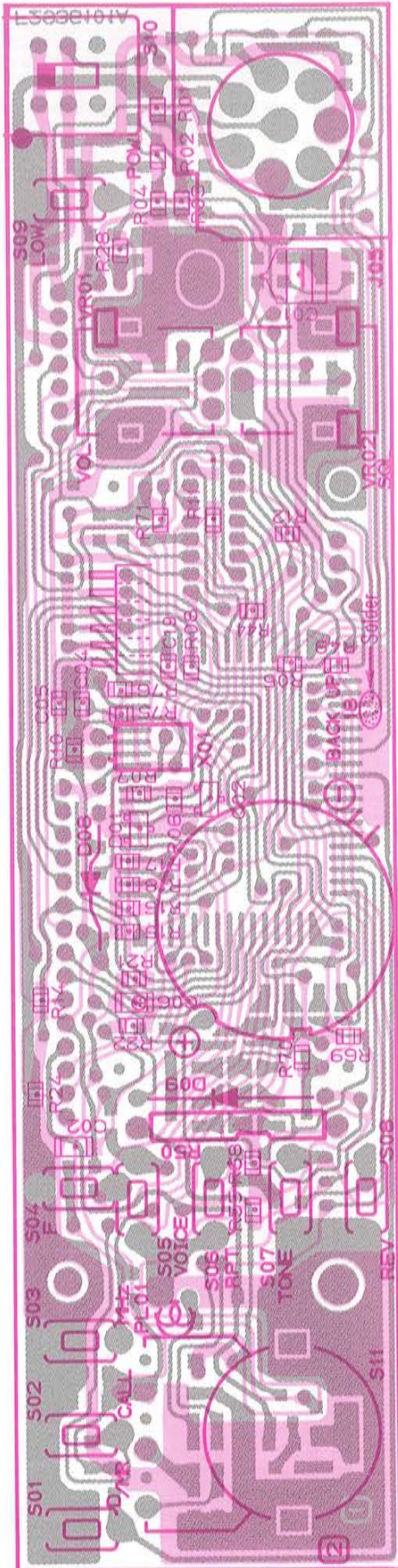
MOD	VCV	R9	T9	9	OUT	REMARKS
3.6		9.0/0	0/9.0	9.0	0	RX/TX



RESISTOR VALUES ARE IN Ω, 1/16W
CAPACITOR VALUES ARE IN μF, 50vV1
INDUCTOR VALUES ARE IN H! UNLESS OTHERWISE NOTED.

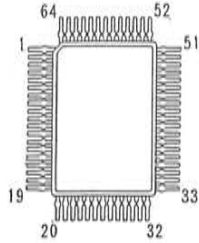
CONTROL UNIT PARTS LAYOUT

CONTROL UNIT (No. 2 XXX)

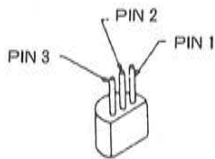
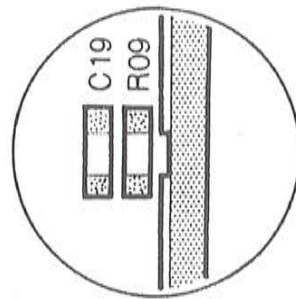


obverse view of "mixed-component" side reverse view of "mixed-component" side

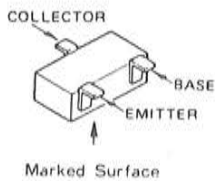
CONTROL UNIT PARTS LAYOUT



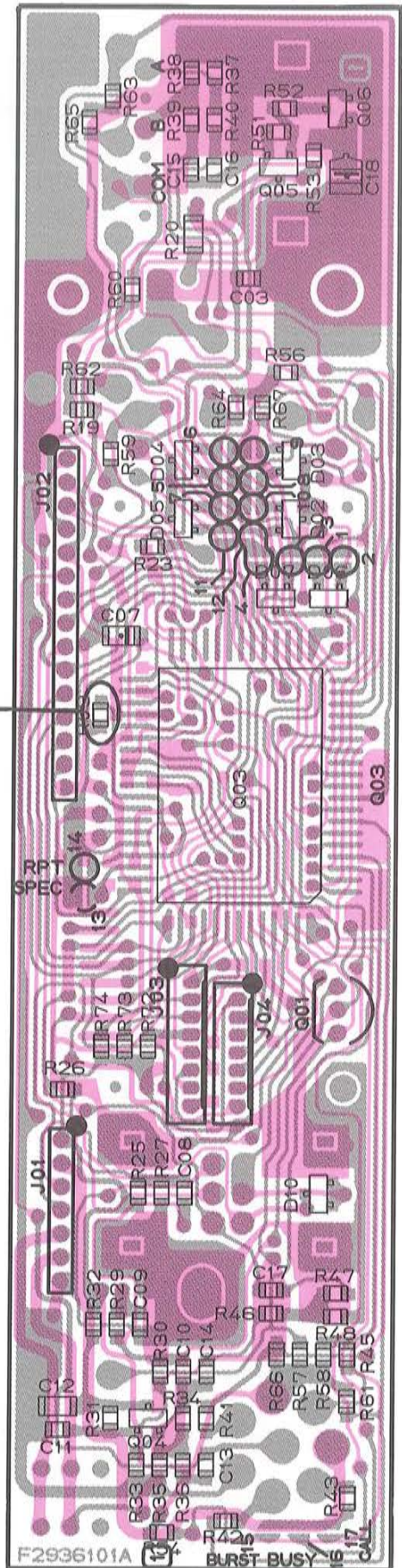
HD404418A01F (Q2003)



PST523C-2 (Q2001)

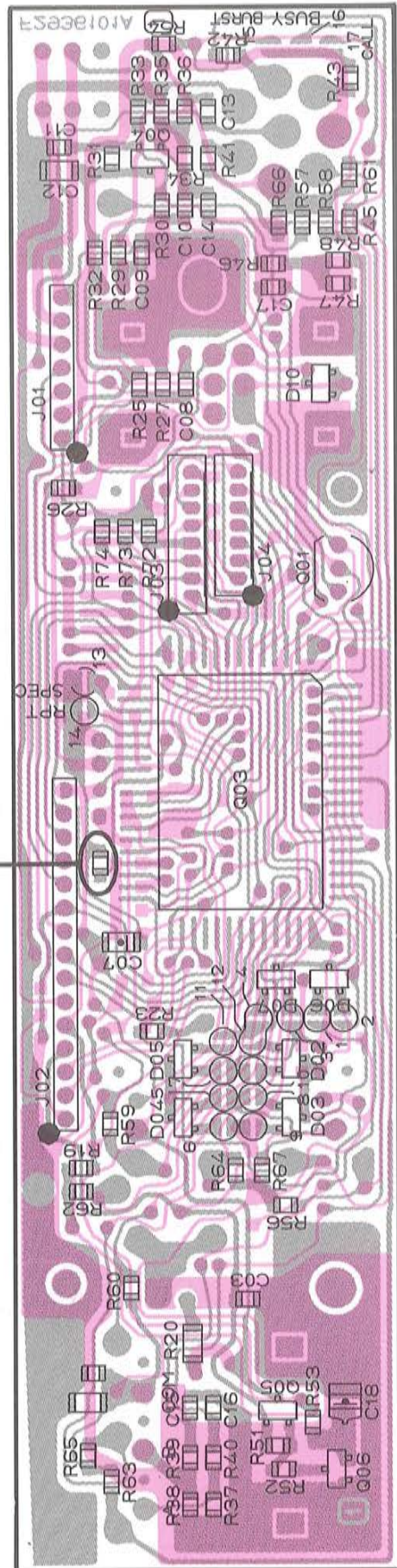


- 2SA812(M6) (Q2002)
- 2SB624(BV4) (Q2005)
- 2SC1623(L6) (Q2004,2006)

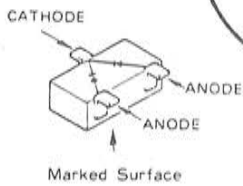


obverse view of "IC" side

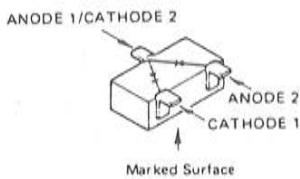
CONTROL UNIT PARTS LAYOUT



obverse view of "IC" side

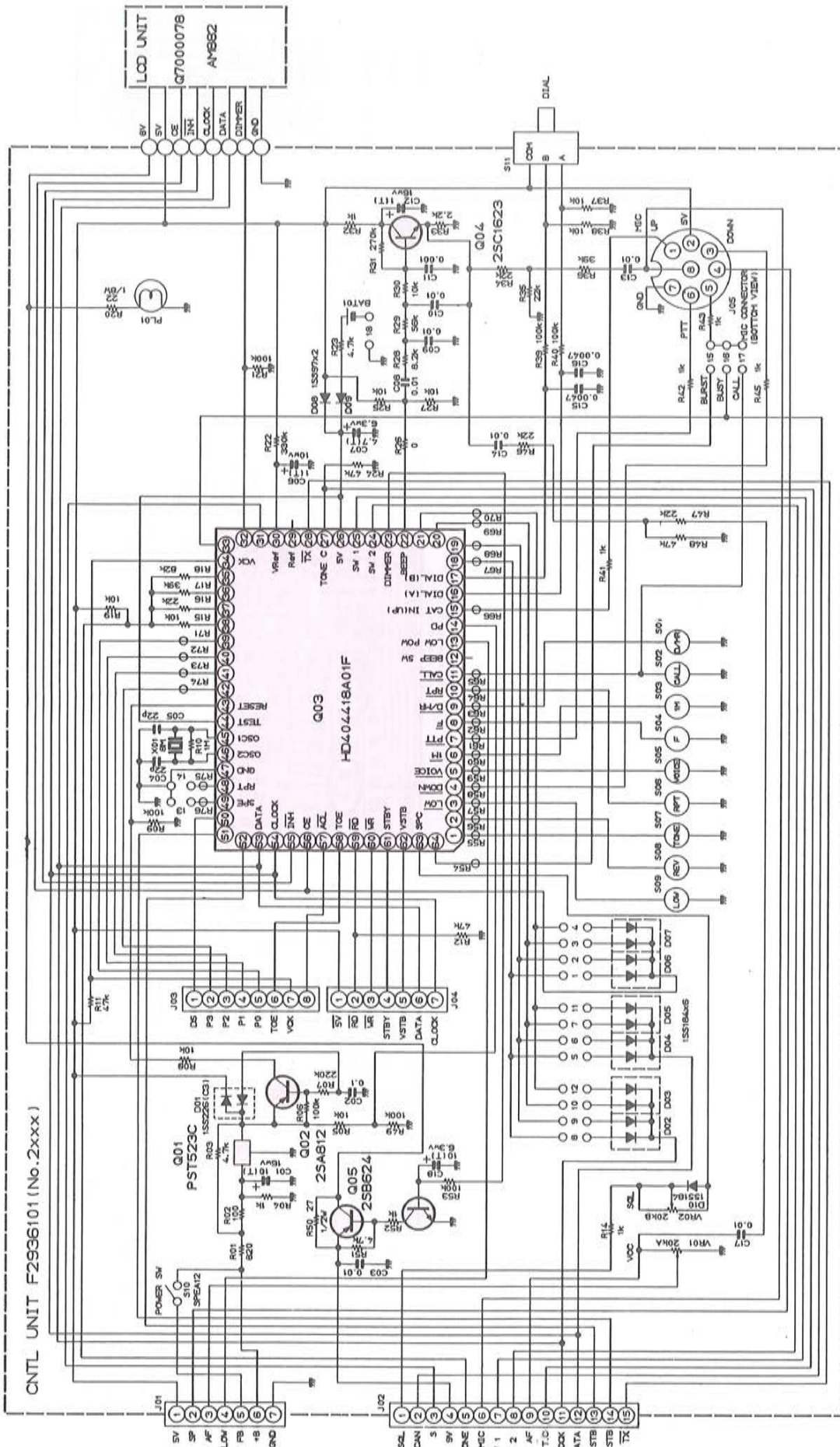


1SS184(B3)
 (D2002,2003,2004)
 2005,2006,2007
 2010



1SS226(C3) (D2001)

CONTROL UNIT CIRCUIT DIAGRAM



CNTL UNIT F2936101(No.2xxx)

R54, R58, R61, R65, R66: 220 Ω
 R55-R57: 150 Ω
 R62-R64: 150 Ω
 R67-R76: 150 Ω
 R44: OUT OF USE

RESISTOR VALUES ARE IN Ω , $\frac{1}{10}\Omega$,
 CAPACITOR VALUES ARE IN μ F, 500V;
 UNLESS OTHERWISE NOTED.
 1T1: CAPACITORS ARE TANTALUM.

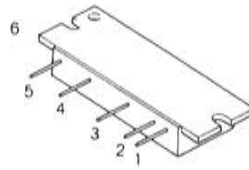
9 5S81
 1 8S01
 10 P83
 3 8S2
 11 5T8
 4 8S3
 12 P84
 5 8F0
 13 P85
 6 8F1
 7 8F2
 14 5S8T
 8 5S8S
 15 8S8T
 16 8S8S
 17 CALL
 18 BACK UP

PA UNIT PARTS LAYOUT

PA UNIT (No. 7XX)

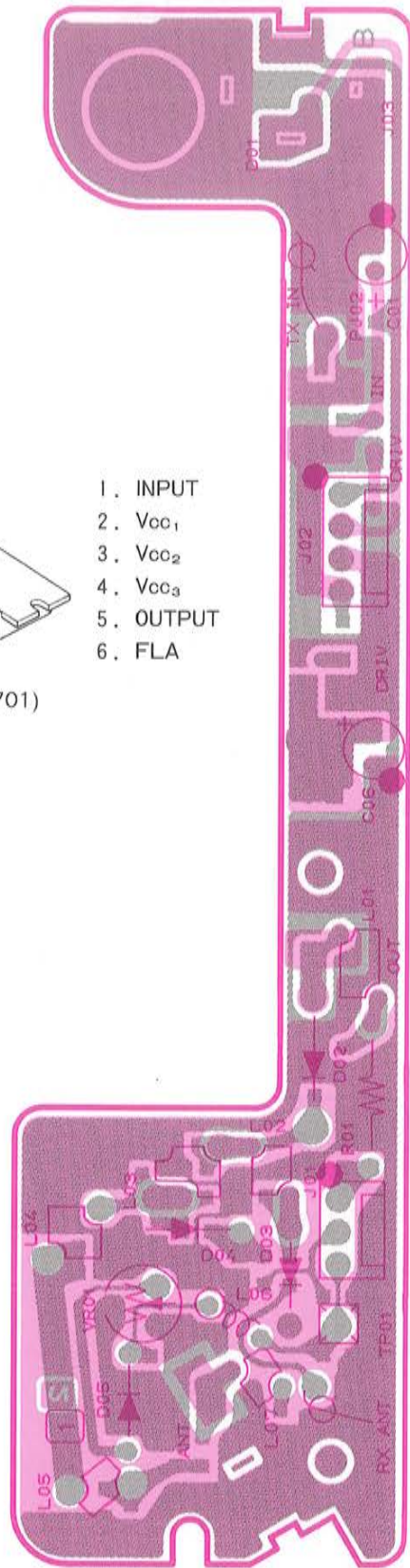


obverse view of "component" side



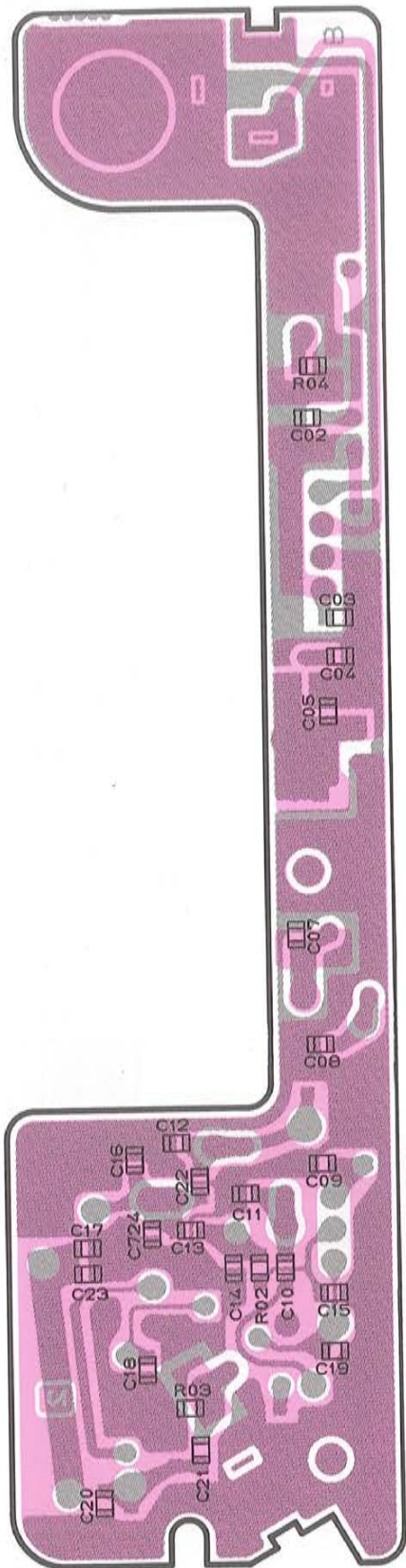
M57726 (Q701)

1. INPUT
2. Vcc₁
3. Vcc₂
4. Vcc₃
5. OUTPUT
6. FLA

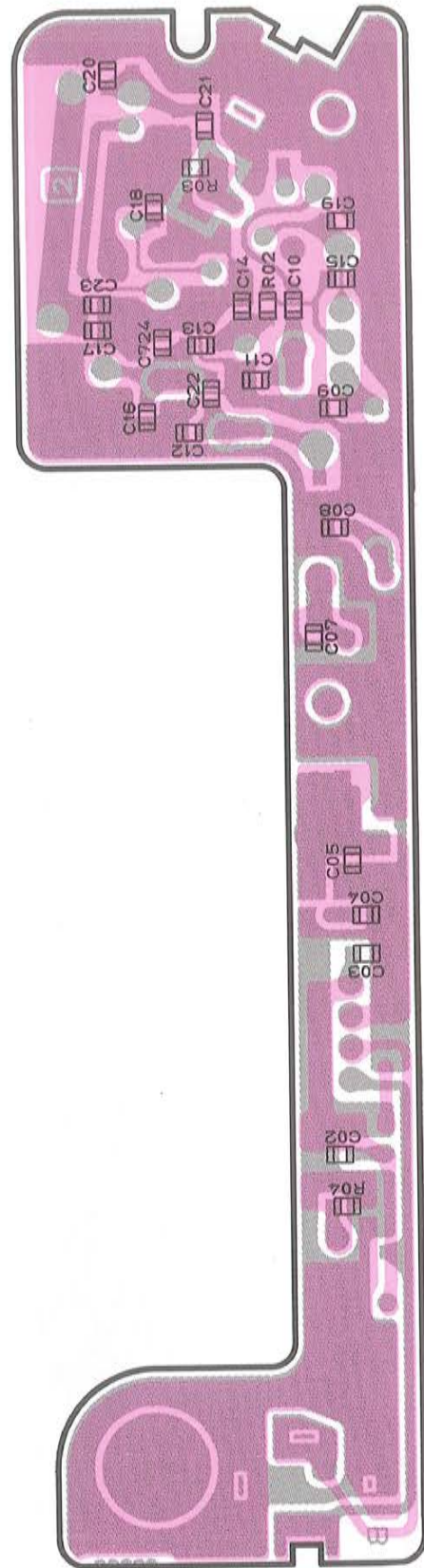


reverse view of "component" side

PA UNIT PARTS LAYOUT

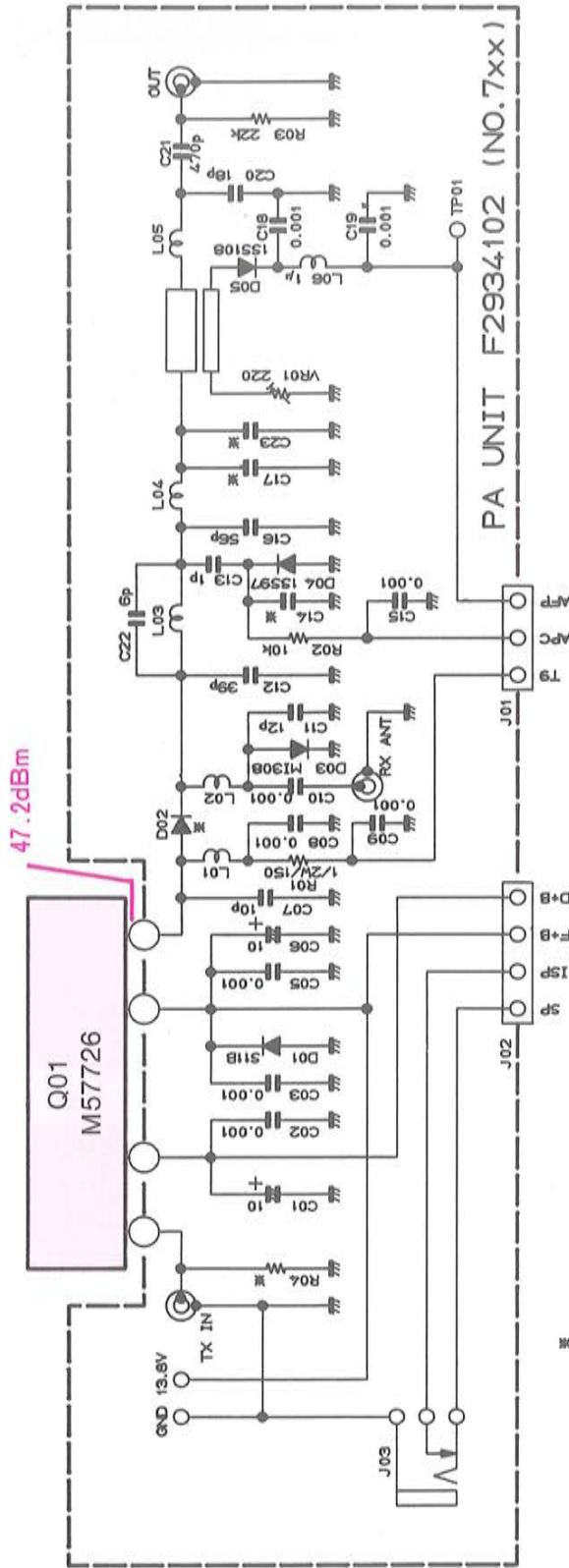


obverse view of "chip-only" side



reverse view of "chip-only" side

PA UNIT CIRCUIT DIAGRAM



RESISTOR VALUES ARE IN Ω, 1/10W ;
 CAPACITOR VALUES ARE IN μF, 50V ;
 INDUCTOR VALUES ARE IN H ;
 ELECTROLYTIC CAPACITOR VALUES ARE IN μF, 16V ;
 UNLESS OTHERWISE NOTED.

Q01	D02	R04	C14	C17	C23
45V M57726	1N4001	3p	27p	27p	27p

SEMICONDUCTOR CROSS-REFERENCE

◎ MAIN UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q1004	TDA2003	μ PC2002V		
	G1090769	G1090284		
Q1014	2SC1623-T2BL7	2SC2712BL TE85R	2SC2462 LDTR	2SC2812 L7TR
	G3316237G	G3327127B	G3324627D	G3328127G
Q1015	μ PC7805H	L7805		
	G1090299	G1090776		
D1009	1SS226 TE85R	1SS123-T2B		
	G2070003	G2070020		
D1014	1SS184 TE85R	MC2838-T14-2	DCB015-TA	
	G2070009	G2070018	G2070012	

◎ IF UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q402	2SC1623-T2BL6	2SC2712GR TE85R	2SC2462 LCTR	2SC2812 L6TR
	G3316237F	G3327127G	G334627C	G3328127F
Q401	1SS226 TE85R	1SS123-T2B		
	G2070003	G2070020		
D402	1SS181 TE85R	MC2836-T14-2	DCA015-TA	
	G2070001	G2070024	G2070014	

◎ MIC UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q501	LA6324M	μ PC324G		
	G1090559	G1090603		
Q503	2SC1623-T2BL6	2SC2712GR TE85R	2SC2462 LCTR	2SC2812 L6TR
	G3316237F	G3327127G	G3324627C	G3328127F

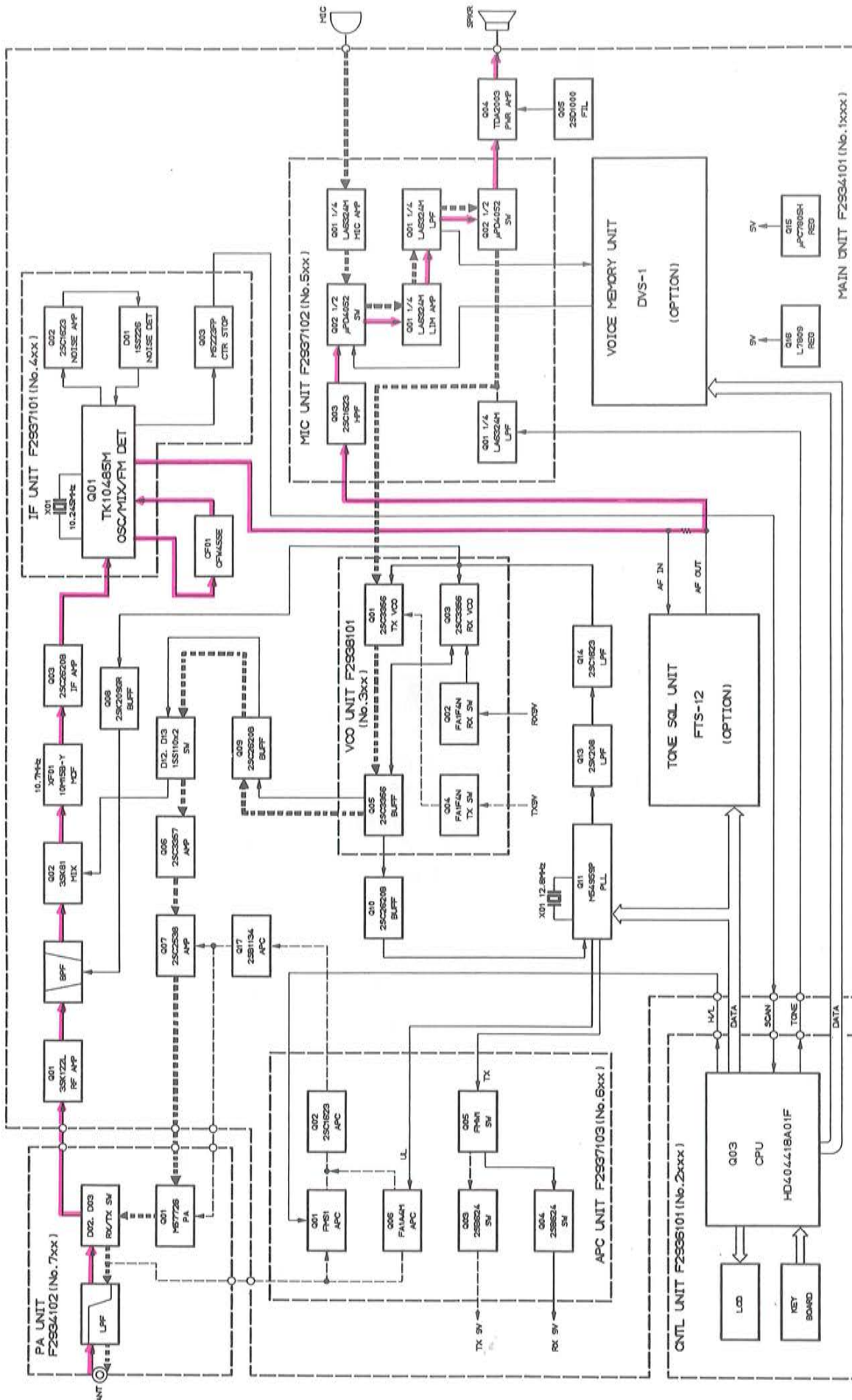
◎ APC UNIT

Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q602	2SC1623-T2BL6	2SC2712GR TE85R	2SC2462 LCTR	2SC2812 L6TR
	G3316237F	G332712G	G3324627C	G3328127F
D601	1SS184 TE85R	MC2838-T14-2	DCB015-TA	
	G2070009	G2070018	G2070012	

◎ CONTROL UNIT

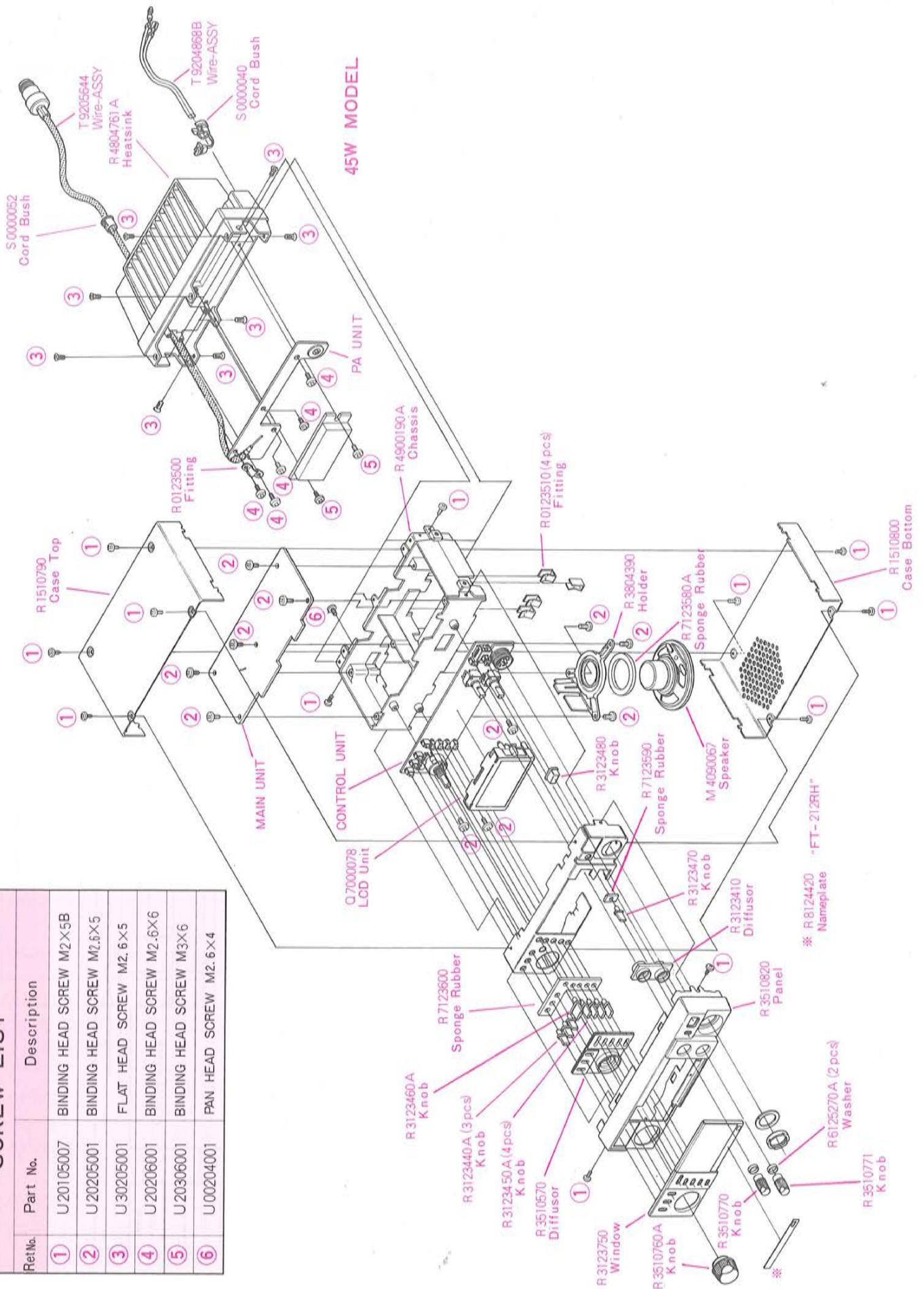
Symbol No.	ORIGINAL	REPLACEMENT	REPLACEMENT	REPLACEMENT
	Part No.	Part No.	Part No.	Part No.
Q2002	2SA812-T2BM6B	2SA1162GR TE85R	2SA1052 MCTR	2SA1179 M6TR
	G3108127F	G3111627G	G3110527C	G3111797E
Q2004,2006	2SC1623-T2BL6	2SC2712GR TE85R	2SC2462 LCTR	2SC2812 L6TR
	G3316237F	G3327127G	G3324627C	G3328127F
D2001	1SS226 TE85R	1SS123-T2B		
	G2070003	G2070020		
D2002,2003,2004 2005,2006,2007 2010	1SS184 TE85R	MC2838-T14-2	DCB015-TA	
	G2070009	G2070018	G2070012	

BLOCK DIAGRAM



EXPLODED VIEW

SCREW LIST	
Ret.No.	Description
①	BINDING HEAD SCREW M2X5B
②	BINDING HEAD SCREW M2.5X5
③	FLAT HEAD SCREW M2.6X5
④	BINDING HEAD SCREW M2.6X6
⑤	BINDING HEAD SCREW M3X6
⑥	PAN HEAD SCREW M2.6X4



ALIGNMENT

The high reliability of the chip components in the FT-212RH minimize the possibility that repair or realignment should be needed after leaving the factory. However, if damage occurs and some parts subsequently be replaced, realignment may be required. If a sudden problem occurs during normal operation, it is likely due to component failure; realignment should not be done until after the faulty component has been replaced.

Because of the compact circuitry of this transceiver, we recommend that servicing be performed only by authorized Yaesu service technicians who are experienced with the circuitry and fully equipped for repair and alignment. Therefore, if a fault is suspected, contact the dealer from whom the transceiver was purchased for instructions regarding repair. Authorized Yaesu service technicians realign all circuits and make complete performance checks to ensure compliance with factory specifications after replacing any faulty components.

Those who do undertake any of the following alignments are cautioned to proceed at their own risk. Yaesu must reserve the right to change circuits and alignment procedures in the interest of improved performance, without notifying owners.

No alignment should be attempted unless the normal function and operation of the transceiver are clearly understood, the cause of the malfunction has been clearly pinpointed and any faulty components replaced, and the need for realignment determined to be absolutely necessary.

The following test equipment (and thorough familiarity with its correct use) is necessary for complete realignment. Correction of problems caused by misalignment resulting from use of improper test equipment is not covered under the warranty policy.

A 50-ohm dummy load that is non-reactive up to 150 MHz is required. Correct alignment is not possible with an antenna.

Alignment Equipment

DC voltmeter (at least 20-kilohms/volt)
150 MHz standard signal generator (SSG) with calibrated level and modulation (see note below)
AF signal generator
SINAD meter (SINADDER)
FM linear detector (deviation meter)
CM coupler (directional coupler)
RF wattmeter (50W, $\pm 5\%$ @ 150MHz)
50-ohm non-reactive (@150 MHz) dummy load
Frequency counter (100Hz resolution at 150MHz)
Oscilloscope (recommended, not required)

Note: SSG levels referred to in the alignment procedure are based on $0\text{dBu}=0.5\text{uV}$.

Alignment Precautions

Correct alignment requires that the ambient temperature be the same as that of the transceiver and test equipment, and that this temperature be held constant between 20 and 30 °C (68 to 86 °F). When the transceiver is brought into the shop it should be allowed at least 2 hours for thermal equalization before alignment.

Alignments must not be made unless the oscillator shields and circuit boards are firmly affixed in place. Also, the frequency counter must be thoroughly warmed up before beginning.

Supply voltage during alignment must be held constant at 13.8V DC. Use a well regulated, adjustable power supply capable of at least 10A continuous load.

ALIGNMENT (PLL)

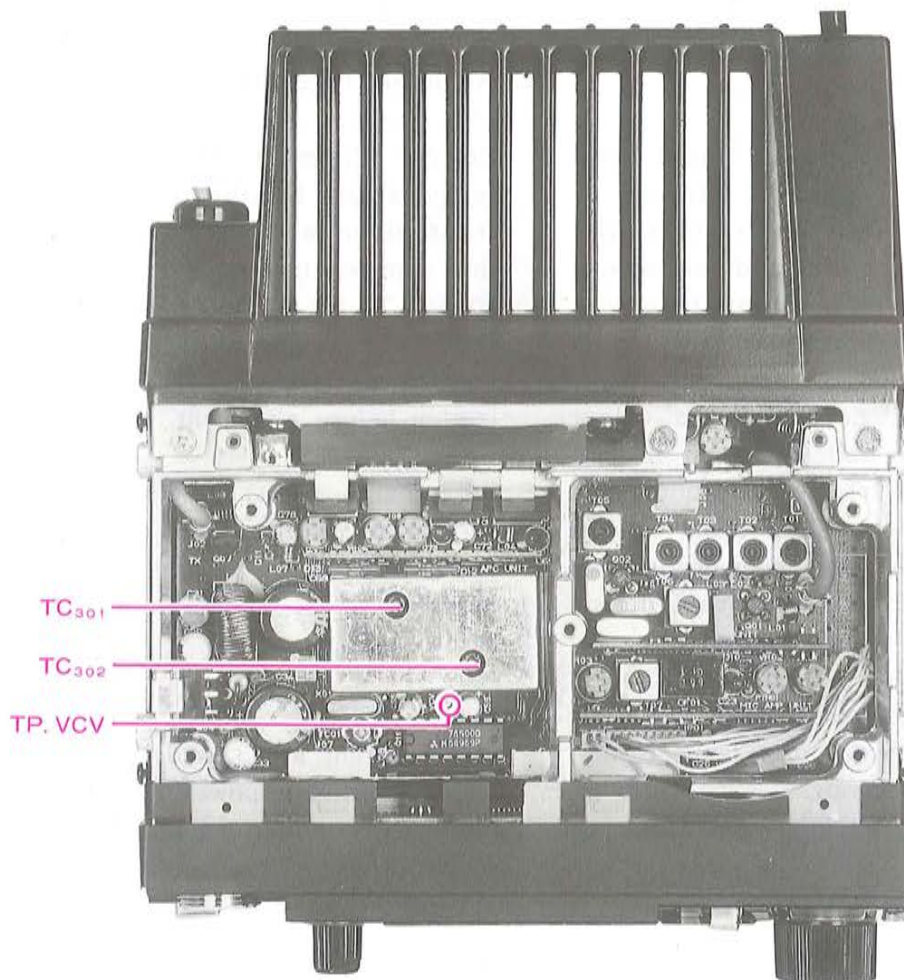
A. PLL Unit

1) VCV (Varactor Control Voltage)

- a) With the dummy load connected to the ANT jack, connect the DC voltmeter (3V scale) to the VCV terminal on the VCO Unit.
- b) Tune the transceiver to the top edge of the band for the model being aligned, and while receiving, adjust TC301 on the VCO Unit for the voltage indicated below ($\pm 0.1V$) for Receive at that frequency:

	Receive	Transmit
146 MHz	1.5V	1.4V
148 MHz	1.7V	1.6V

- c) Retune the transceiver to 144 MHz and confirm at least 1.3V.
- d) Retune to the top edge of the band, close the PTT line, and adjust TC302 for the voltage indicated above for Transmit.
- e) Again retune to 144 MHz and confirm at least 1.2V on the meter while transmitting.
- f) Repeat steps b - e several times, and then remove the voltmeter.



PLL ALIGNMENT POINTS

(Transmitter) ALIGNMENT

B. Transmitter

Set up the test equipment as shown in Figure 1. Close the PTT line when making adjustments. All adjustment points are on the Main Unit.

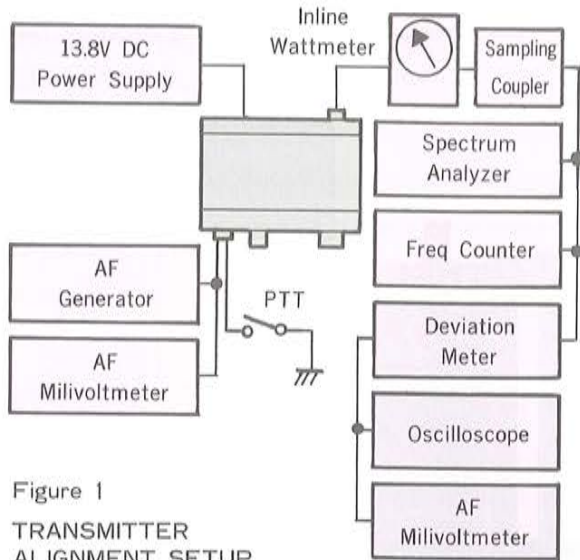


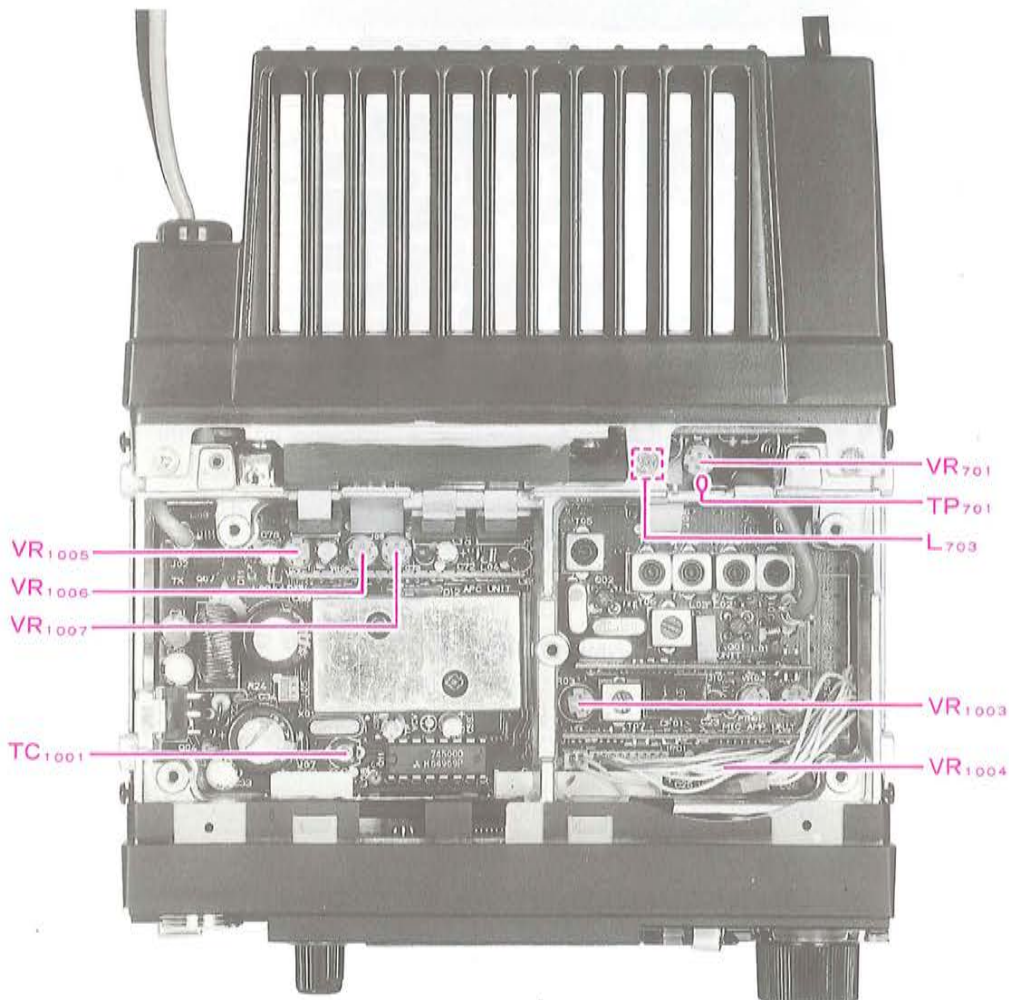
Figure 1
TRANSMITTER
ALIGNMENT SETUP

1) Early Stage Coupling

- Tune the transceiver to the center of the band, and set the LOW button to the high power position.
- Adjust L703 for maximum power output (at least 46 watts).

2) Power Output

- With the transceiver tuned to the center of the band, set the LOW button to the high power position.
- Connect the DC voltmeter to TP701 on the PA Unit.
- Press the PTT switch and adjust VR701 for minimum on the voltmeter.



TRANSMITTER ALIGNMENT POINTS

ALIGNMENT (Transmitter)

d) Adjust VR1006 for 46 watts output.

e) Press the LOW switch and adjust VR1005 for 5W output.

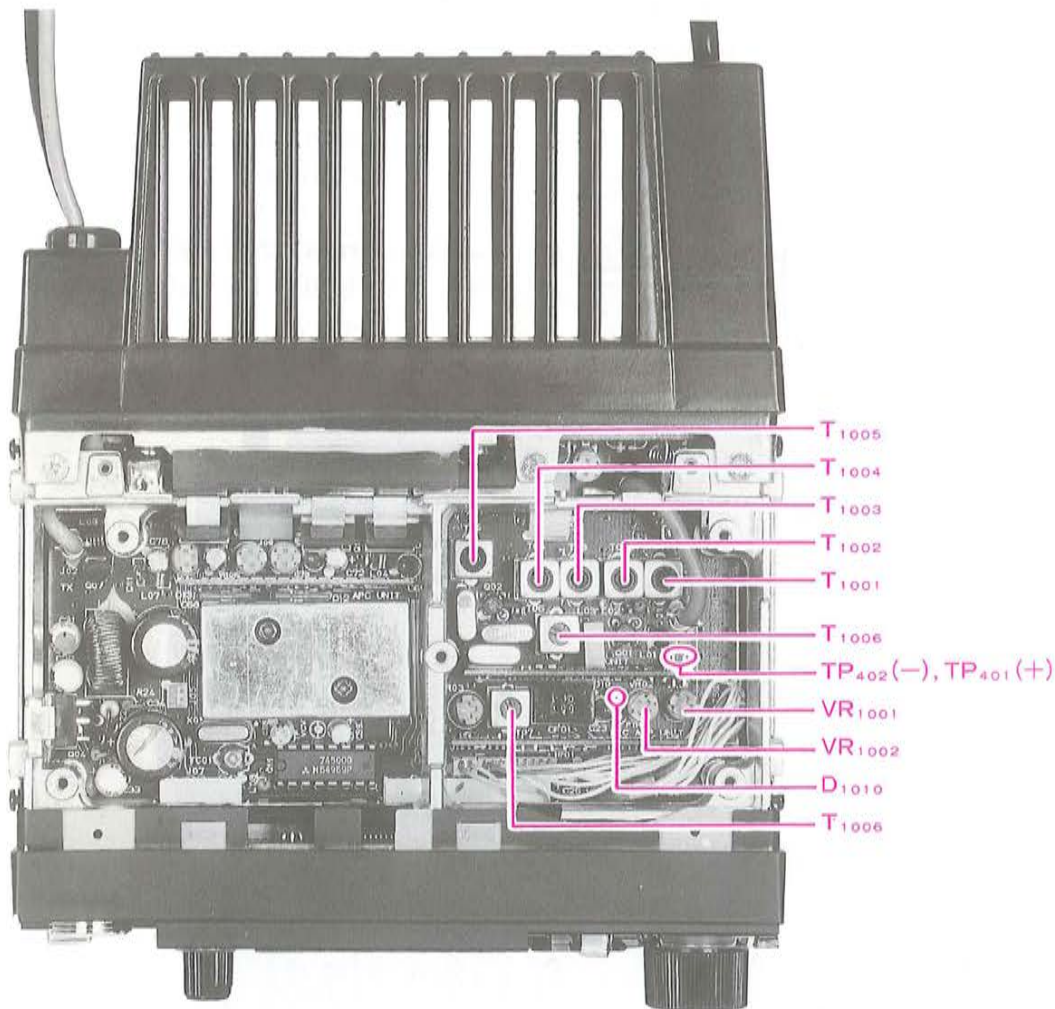
3) Frequency Calibration

a) Adjust TC1001 to match the counter indication with the transceiver frequency.

4) Deviation

a) Set the AF generator for 25mV output at 1 kHz. Adjust VR1003 for ± 4.5 kHz deviation on the Deviation Meter.

b) Reduce the AF generator level to 5mV and adjust VR1004 for ± 3.5 kHz deviation.



RECEIVER ALIGNMENT POINTS

C. Receiver

Set up the test equipment as shown in Figure 2. All adjustment points are on the Main Unit.

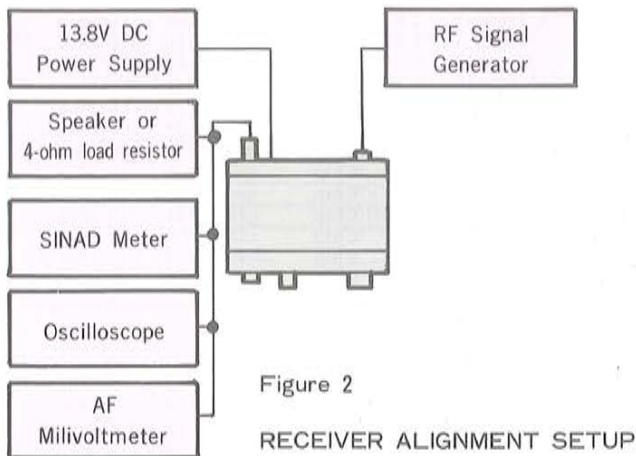


Figure 2

RECEIVER ALIGNMENT SETUP

1) Interstage Transformers

- a) Connect the DC voltmeter between the cathode of D1010 and chassis ground.
- b) Modulate the RF signal generator for ± 3.5 kHz deviation of a 1 kHz tone.
- c) Tune the transceiver and signal generator to the same frequency at the center of the band, and set the injection level to produce midrange S-meter indication.
- d) Adjust T1001 through T1007 for maximum S-meter indication. Reduce the injection level, if

necessary, to keep the S-meter near midrange.

- e) Confirm 12dB SINAD sensitivity of -7.5 dBu (0.21 μ V) or better on the SINADDER.

2) S-Meter Calibration

- a) At the center of the band, set the signal generator for 30dBu (50 μ V) injection with ± 3.5 kHz deviation of a 1 kHz tone.
- b) Adjust VR1002 so that all S-meter segments are just on.

3) Scanner Center-Stop

- a) Connect the DC voltmeter (3V range) between TP401 (+) and TP402 (-) on the IF Unit.
- b) Tune the transceiver to 146.000 MHz, and set the SQL fully counterclockwise (the BUSY lamp should be lit).
- c) Tune the signal generator also to 146.000 MHz, and inject 20dBu (5 μ V) with ± 3.5 kHz deviation of a 1 kHz tone.
- d) Adjust VR1001 for 0V on the voltmeter.

PARTS LIST

MAIN UNIT									
Symbol No.	Part No.	Description	Device						
	F2934101A	Printed Circuit Board		R1024	J02245010	Carbon Film RES.	1/4W	1 ohm	SJ
	C029341AA	without IF, MIC, APC, 144-VCO UNIT		R1025	J24205472	RES. Chip	1/10W	4.7k ohm	
	C029341AB	with IF, MIC, APC, 144-VCO UNIT		R1026	J24205102	RES. Chip	1/10W	1k ohm	
	C029341AC	without IF, MIC, APC, 144-VCO UNIT		R1027	J24205150	RES. Chip	1/10W	15 ohm	
	C029341AD	with IF, MIC, APC, 144-VCO UNIT		R1028	J24205100	RES. Chip	1/10W	10 ohm	
	C029341AG	without IF, MIC, APC, 144-VCO UNIT		R1029	J24205470	RES. Chip	1/10W	47 ohm	
	C029341AH	with IF, MIC, APC, 144-VCO UNIT		R1030	J24205472	RES. Chip	1/10W	4.7k ohm	
Q1001	G4801220L	FET	3SK122L	R1030	J24205222	RES. Chip	1/10W	2.2k ohm	
Q1002	G4800810	FET	3SK81	R1031	J24205100	RES. Chip	1/10W	10 ohm	
Q1003	G3326207B	Transistor	2SC2620QBTR	R1032	J24205104	RES. Chip	1/10W	100k ohm	
Q1004	G1090769	IC	TDA2003	R1033	J24205682	RES. Chip	1/10W	6.8k ohm	
Q1005	G3410007L	Transistor	2SD1000-T2LL	R1034	J24205221	RES. Chip	1/10W	220 ohm	
Q1006	G3333577	Transistor	2SC3357-T2	R1035	J24205683	RES. Chip	1/10W	68k ohm	
Q1007	G3325380	Transistor	2SC2538	R1036	J24205273	RES. Chip	1/10W	27k ohm	
Q1008	G3802097G	FET	2SK209GRTE85R	R1037	J24205103	RES. Chip	1/10W	10k ohm	
Q1009	G3326207B	Transistor	2SC2620QBTR	R1038	J24205103	RES. Chip	1/10W	10k ohm	
Q1010	G3326207B	Transistor	2SC2620QBTR	R1039	J24205104	RES. Chip	1/10W	100k ohm	
Q1011	G1090845	IC	M54959P	R1040	J24205150	RES. Chip	1/10W	15 ohm	
Q1013	G3802087G	FET	2SK208YTE85R	R1041	J24205150	RES. Chip	1/10W	15 ohm	
Q1014	G3316237G	Transistor	2SC1623-T2BL7	R1042	J24205150	RES. Chip	1/10W	15 ohm	
Q1015	G1090299	IC	uPC7805H	R1043	J24205683	RES. Chip	1/10W	68k ohm	
Q1016	G1090778	IC	L7809	R1044	J24205471	RES. Chip	1/10W	470 ohm	
Q1017	G3211340R	Transistor	2SB1134R	R1045	J24205101	RES. Chip	1/10W	100 ohm	
				R1046	J24205472	RES. Chip	1/10W	4.7k ohm	
				R1047	J24205103	RES. Chip	1/10W	10k ohm	
D1001	G2070035	Diode	1T32-T8	R1048	J24205472	RES. Chip	1/10W	4.7k ohm	
D1002	G2070035	Diode	1T32-T8	R1049	J24205221	RES. Chip	1/10W	220 ohm	
D1003	G2070035	Diode	1T32-T8	R1050	J24205472	RES. Chip	1/10W	4.7k ohm	
D1004	G2070035	Diode	1T32-T8	R1051	J24205222	RES. Chip	1/10W	2.2k ohm	
D1005	G2070035	Diode	1T32-T8	R1052	J24205821	RES. Chip	1/10W	820 ohm	
D1006	G2070035	Diode	1T32-T8	R1053	J24205471	RES. Chip	1/10W	470 ohm	
D1007	G2070035	Diode	1T32-T8	R1054	J24205472	RES. Chip	1/10W	4.7k ohm	
D1008	G2070035	Diode	1T32-T8	R1055	J24205474	RES. Chip	1/10W	470k ohm	
D1009	G2070003	Diode	1SS226TE85R	R1056	J24205332	RES. Chip	1/10W	3.3k ohm	
D1010	G2090027	Diode	1SS53	R1057	J24205000	RES. Chip	1/10W	0 ohm	
D1011	G2015550	Diode	1SS1555	R1059	J24205331	RES. Chip	1/10W	330 ohm	
D1012	G2090297	Diode	1SS110	R1060	J24205101	RES. Chip	1/10W	100 ohm	
D1013	G2090297	Diode	1SS110						
D1014	G2070009	Diode	1SS184TE85R	PTH1001	G9090036	Posistor		3k ohm	
D1015	G2070040	Diode	1T33-T7						
X1001	H0102857	XTAL	HC-43/U 12.8MHz	VR1001	J51745103	POT.	B	10k ohm	
X1001	H1102096	XTAL Filter	10M15B-Y	VR1002	J51745223	POT.	B	22k ohm	
CF1001	H3900200	Ceramic Filter	CFW455E	VR1003	J51745223	POT.	B	22k ohm	
				VR1004	J51745472	POT.	B	4.7k ohm	
R1001	J24205392	RES. Chip	1/10W 3.9k ohm	VR1005	J51745222	POT.	B	2.2k ohm	
R1002	J24205272	RES. Chip	1/10W 2.7k ohm	VR1006	J51745223	POT.	B	22k ohm	
R1003	J24205220	RES. Chip	1/10W 22 ohm	VR1007	J51745473	POT.	B	47k ohm	
R1004	J24205103	RES. Chip	1/10W 10k ohm	C1001	K22170211	CAP. Chip	CH	50V 10pF	
R1005	J24205103	RES. Chip	1/10W 10k ohm	C1001	K22170204	CAP. Chip	CH	50V 3pF	
R1006	J24205103	RES. Chip	1/10W 10k ohm	C1002	K22170805	CAP. Chip	B	50V 0.001uF	
R1007	J24205103	RES. Chip	1/10W 10k ohm	C1003	K22170805	CAP. Chip	B	50V 0.001uF	
R1008	J24205221	RES. Chip	1/10W 220 ohm	C1004	K22170805	CAP. Chip	B	50V 0.001uF	
R1009	J24205472	RES. Chip	1/10W 4.7k ohm	C1005	K22170805	CAP. Chip	B	50V 0.001uF	
R1010	J24205470	RES. Chip	1/10W 47 ohm	C1006	K22170201	CAP. Chip	CH	50V 0.5pF	
R1010	J24205000	RES. Chip	1/10W 0 ohm	C1007	K22170201	CAP. Chip	CH	50V 0.5pF	
R1011	J24205101	RES. Chip	1/10W 100 ohm	C1008	K22170805	CAP. Chip	B	50V 0.001uF	
R1012	J24205472	RES. Chip	1/10W 4.7k ohm	C1009	K22170202	CAP. Chip	CH	50V 1pF	
R1013	J24205682	RES. Chip	1/10W 6.8k ohm	C1010	K22170207	CAP. Chip	CH	50V 6pF	
R1014	J24205392	RES. Chip	1/10W 3.9k ohm	C1011	K22170202	CAP. Chip	CH	50V 1pF	
R1015	J24205683	RES. Chip	1/10W 68k ohm	C1012	K22170201	CAP. Chip	CH	50V 0.5pF	
R1016	J24205101	RES. Chip	1/10W 100 ohm	C1013	K22170201	CAP. Chip	CH	50V 0.5pF	
R1017	J24205101	RES. Chip	1/10W 100 ohm	C1014	K22170805	CAP. Chip	B	50V 0.001uF	
R1018	J24205332	RES. Chip	1/10W 3.3k ohm	C1015	K22170805	CAP. Chip	B	50V 0.001uF	
R1019	J24205222	RES. Chip	1/10W 2.2k ohm	C1016	K22170221	CAP. Chip	CH	50V 27pF	
R1020	J24205273	RES. Chip	1/10W 27k ohm	C1017	K22170805	CAP. Chip	B	50V 0.001uF	
R1021	J24205471	RES. Chip	1/10W 470 ohm	C1018	K22170817	CAP. Chip	B	50V 0.01uF	
R1022	J02275221	Carbon Film RES.	1/2W 220 ohm	C1019	K22170817	CAP. Chip	B	50V 0.01uF	
R1023	J02245399	Carbon Film RES.	1/4W 3.9 ohm	C1020	K22170206	CAP. Chip	CH	50V 5pF	
				C1021	K22170817	CAP. Chip	B	50V 0.01uF	
				C1022	K22170817	CAP. Chip	B	50V 0.01uF	
				C1023	K70127106	Tantalum CAP.		50V 10uF	
				C1024	K22141809	CAP. Chip	B	25V 0.1uF	
				C1025	K40129012	AL. Electro. CAP.		16V 100uF	
				C1026	K70137225	Tantalum CAP.		20V 2.2uF	
				C1027	K22141809	CAP. Chip	B	25V 0.1uF	
				C1028	K22170805	CAP. Chip	B	50V 0.001uF	
				C1029	K40129038	AL. Electro. CAP.		16V 100uF	
				C1030	K22170805	CAP. Chip	B	50V 0.001uF	
				C1031	K40129038	AL. Electro. CAP.		16V 100uF	
				C1032	K22170805	CAP. Chip	B	50V 0.001uF	
				C1033	K40129028	AL. Electro. CAP.		16V 47uF	
				C1034	K40129021	AL. Electro. CAP.		16V 1000uF	

● : Version F ⊙ : 10W Model
 ▲ : Version A1, A2, A3, A4, B △ : 45W Model

PARTS LIST

C1035	K22141809	CAP. Chip	B	25V	0.1uF	J1007	P1090601	Connector	
C1036	K22170213	CAP. Chip	CH	50V	12pF	J1008	P0090640	Connector	
C1037	K22170805	CAP. Chip	B	50V	0.001uF	J1009	P0090641	Connector	
C1038	K22170805	CAP. Chip	B	50V	0.001uF	P1002	T9205638A	Wire-ASSY	
C1039	K22170805	CAP. Chip	B	50V	0.001uF	JP1001	T9205642A	Wire-ASSY	P1001
C1040	K22170210	CAP. Chip	CH	50V	9pF				
C1041	K22170805	CAP. Chip	B	50V	0.001uF				
C1042	K22170805	CAP. Chip	B	50V	0.001uF				
C1043	K22170209	CAP. Chip	CH	50V	8pF				
C1043	K22170805	CAP. Chip	B	50V	0.001uF				
C1044	K22170805	CAP. Chip	B	50V	0.001uF				
C1045	K22170805	CAP. Chip	B	50V	0.001uF				
C1046	K22170211	CAP. Chip	CH	50V	10pF				
C1047	K78100004	Tantalum Chip		10V	10uF				
C1048	K22170801	CAP. Chip	B	50V	470pF				
C1049	K22141809	CAP. Chip	B	25V	0.1uF				
C1050	K22170206	CAP. Chip	CH	50V	5pF				
C1051	K22170805	CAP. Chip	B	50V	0.001uF				
C1052	K22170206	CAP. Chip	CH	50V	5pF				
C1053	K22170203	CAP. Chip	CH	50V	2pF				
C1054	K22170805	CAP. Chip	B	50V	0.001uF				
C1055	K40129012	AL. Electro. CAP.		16V	10uF				
C1056	K22170805	CAP. Chip	B	50V	0.001uF				
C1057	K22170223	CAP. Chip	CH	50V	33pF				
C1058	K22170227	CAP. Chip	CH	50V	47pF				
C1059	K40129012	AL. Electro. CAP.		16V	10uF				
C1060	K78100002	Tantalum Chip		16V	2.2uF				
C1061	K22141809	CAP. Chip	B	25V	0.1uF				
C1062	K22170817	CAP. Chip	B	50V	0.01uF				
C1063	K78160005	Tantalum Chip		35V	0.47uF				
C1064	K78100004	Tantalum Chip		10V	10uF				
C1065	K22170235	CAP. Chip	CH	50V	100pF				
C1066	K22170235	CAP. Chip	CH	50V	100pF				
C1067	K22170235	CAP. Chip	CH	50V	100pF				
C1068	K40129021	AL. Electro. CAP.		16V	1000uF				
C1069	K70127106	Tantalum CAP.		16V	10uF				
C1070	K22170805	CAP. Chip	B	50V	0.001uF				
C1071	K22170805	CAP. Chip	B	50V	0.001uF				
C1072	K40129012	AL. Electro. CAP.		16V	10uF				
C1073	K70147475	Tantalum CAP.		25V	4.7uF				
C1074	K22170805	CAP. Chip	B	50V	0.001uF				
C1075	K22170805	CAP. Chip	B	50V	0.001uF				
C1076	K22170805	CAP. Chip	B	50V	0.001uF				
C1077	K40129008	AL. Electro. CAP.		16V	33uF				
C1078	K40179007	AL. Electro. CAP.		50V	3.3uF				
C1079	K22170805	CAP. Chip	B	50V	0.001uF				
C1080	K22170805	CAP. Chip	B	50V	0.001uF				
C1081	K22170805	CAP. Chip	B	50V	0.001uF				
C1082	K22170805	CAP. Chip	B	50V	0.001uF				
C1083	K22170805	CAP. Chip	B	50V	0.001uF				
C1084	K22170805	CAP. Chip	B	50V	0.001uF				
C1085	K22170805	CAP. Chip	B	50V	0.001uF				
C1086	K22170805	CAP. Chip	B	50V	0.001uF				
C1087	K22170211	CAP. Chip	B	50V	0.001uF				
TC1001	K91000168	Trimmer CAP.			20pF				
L1001	L0020744	Coil							
L1002	L1190149	M. RFC			1uH				
L1003	L1190295	M. RFC			10uH				
L1004	L0020743	Coil							
L1005	L1690003	Coil. Chip			220nH				
L1006	L0020879	Coil							
L1007	L0020743	Coil							
L1008	L1190222	M. RFC			220uH				
L1009	L2190001	AFC.			72uH				
T1001	L0021702	Coil							
T1002	L0021703	Coil							
T1003	L0021703	Coil							
T1004	L0021704	Coil							
T1005	L0021738	Coil			140MHz				
T1006	L0021162	Coil			10.7MHz				
T1007	L0021162	Coil			10.7MHz				
J1001	P1090210	Connector							
J1002	P1090210	Connector							
J1003	P0090648	Connector							
J1004	P0090647	Connector							
J1005	P0090647	Connector							
J1006	P1090602	Connector							
J1007	P1090601	Connector							
J1008	P0090640	Connector							
J1009	P0090641	Connector							
P1002	T9205638A	Wire-ASSY							
JP1001	T9205642A	Wire-ASSY							P1001
IF UNIT									
Symbol No.	Part No.	Description			Device				
	F2937101A	Printed Circuit Board							
	C029371AA	PCB with Component							
Q401	G1090859	IC			TK10487M				
Q402	G3316237F	Transistor			2SC1623-T2BL6				
Q403	G1090846	IC			M5223FP				
D401	G2070003	Diode			1SS226TE85R				
D402	G2070001	Diode			1SS181TE85R				
X401	H0100720A	XTAL			HC-18/U	10.245MHz			
CD401	H7900180	Ceramic DISC			CDB455C7				
R401	J24205101	RES. Chip			1/10W 100 ohm				
R402	J24205101	RES. Chip			1/10W 100 ohm				
R403	J24205473	RES. Chip			1/10W 47k ohm				
R404	J24205561	RES. Chip			1/10W 560 ohm				
R405	J24205222	RES. Chip			1/10W 22k ohm				
R406	J24205102	RES. Chip			1/10W 1k ohm				
R407	J24205182	RES. Chip			1/10W 1.8k ohm				
R408	J24205332	RES. Chip			1/10W 3.3k ohm				
R409	J24205473	RES. Chip			1/10W 47k ohm				
R410	J24205223	RES. Chip			1/10W 22k ohm				
R411	J24205122	RES. Chip			1/10W 1.2k ohm				
R412	J24205474	RES. Chip			1/10W 470k ohm				
R413	J24205474	RES. Chip			1/10W 470k ohm				
R414	J24205222	RES. Chip			1/10W 2.2k ohm				
R415	J24205223	RES. Chip			1/10W 22k ohm				
R416	J24205683	RES. Chip			1/10W 68k ohm				
R417	J24205103	RES. Chip			1/10W 10k ohm				
R418	J24205122	RES. Chip			1/10W 1.2k ohm				
R419	J24205122	RES. Chip			1/10W 1.2k ohm				
R420	J24205103	RES. Chip			1/10W 10k ohm				
R421	J24205471	RES. Chip			1/10W 470 ohm				
R422	J24205223	RES. Chip			1/10W 22k ohm				
R423	J24205000	RES. Chip			1/10W 0 ohm				
C401	K22170817	CAP. Chip	B	50V	0.01uF				
C402	K22170805	CAP. Chip	B	50V	0.001uF				
C403	K22170817	CAP. Chip	B	50V	0.01uF				
C404	K22170237	CAP. Chip	CH	50V	120pF				
C405	K22170817	CAP. Chip	B	50V	0.01uF				
C406	K22170229	CAP. Chip	CH	50V	56pF				
C407	K22141809	CAP. Chip	B	25V	0.1uF				
C408	K22141809	CAP. Chip	B	25V	0.1uF				
C409	K22170233	CAP. Chip	CH	50V	82pF				
C410	K22170817	CAP. Chip	B	50V	0.01uF				
C411	K22141003	CAP. Chip	F	25V	0.047uF				
C412	K22170801	CAP. Chip	B	50V	470pF				
C413	K22170801	CAP. Chip	B	50V	470pF				
C414	K22170801	CAP. Chip	B	50V	470pF				
C415	K22170817	CAP. Chip	B	50V	0.01uF				
C416	K22141809	CAP. Chip	B	25V	0.1uF				
C417	K22170817	CAP. Chip	B	50V	0.01uF				
TP401	Q5000096	Terminal							
MIC UNIT									
Symbol No.	Part No.	Description			Device				
	F2937102	Printed Circuit Board							
	C029372AA	PCB with Component							
Q501	G1090559	IC			LA6324M				
Q502	G1090831	IC			uPD4052BG				
Q503	G3316237F	Transistor			2SC1623-T2BL6				
Q504	G3070001	Transistor			FA1A4M-T2B				
Q505	G3070001	Transistor			FA1A4M-T2B				
Q506	G3070001	Transistor			FA1A4M-T2B				

PARTS LIST

R501	J24205472	RES. Chip	1/10W 4.7k ohm	R604	J24205104	RES. Chip	1/10W 100k ohm
R502	J24205684	RES. Chip	1/10W 680k ohm	R605	J24205102	RES. Chip	1/10W 1k ohm
R503	J24205472	RES. Chip	1/10W 4.7k ohm	R606	J24205471	RES. Chip	1/10W 470 ohm
R504	J24205472	RES. Chip	1/10W 4.7k ohm	R607	J24205102	RES. Chip	1/10W 1k ohm
R505	J24205682	RES. Chip	1/10W 6.8k ohm	R608	J24205102	RES. Chip	1/10W 1k ohm
R506	J24205822	RES. Chip	1/10W 8.2k ohm	R609	J24205103	RES. Chip	1/10W 10k ohm
R507	J24205684	RES. Chip	1/10W 680k ohm	R610	J24205102	RES. Chip	1/10W 1k ohm
R508	J24205472	RES. Chip	1/10W 4.7k ohm	R611	J24205102	RES. Chip	1/10W 1k ohm
R509	J24205472	RES. Chip	1/10W 4.7k ohm	R612	J24205471	RES. Chip	1/10W 470 ohm
R510	J24205472	RES. Chip	1/10W 4.7k ohm	R613	J24205103	RES. Chip	1/10W 10k ohm
R511	J24205333	RES. Chip	1/10W 33k ohm	R614	J24205472	RES. Chip	1/10W 4.7k ohm
R512	J24205562	RES. Chip	1/10W 5.6k ohm	R615	J24205103	RES. Chip	1/10W 10k ohm
R513	J24205225	RES. Chip	1/10W 2.2M ohm	R616	J24205101	RES. Chip	1/10W 100 ohm
R514	J24205472	RES. Chip	1/10W 4.7k ohm	C601	K22170805	CAP. Chip	B 50V 0.001uF
R515	J24205154	RES. Chip	1/10W 150k ohm	C602	K22170809	CAP. Chip	B 50V 0.1uF
R516	J24205824	RES. Chip	1/10W 820k ohm	C603	K22170805	CAP. Chip	B 50V 0.001uF
R517	J24205823	RES. Chip	1/10W 82k ohm	C604	K22170805	CAP. Chip	B 50V 0.001uF
R518	J24205472	RES. Chip	1/10W 4.7k ohm	C605	K22170235	CAP. Chip	CH 50V 100pF
R519	J24205224	RES. Chip	1/10W 220k ohm	C606	K22170805	CAP. Chip	B 50V 0.001uF
R520	J24205103	RES. Chip	1/10W 10k ohm	C607	K22170805	CAP. Chip	B 50V 0.001uF
R521	J24205102	RES. Chip	1/10W 1k ohm				
R522	J24205102	RES. Chip	1/10W 1k ohm				
R523	J24205104	RES. Chip	1/10W 100k ohm				
R524	J24205104	RES. Chip	1/10W 100k ohm				
R525	J24205104	RES. Chip	1/10W 100k ohm				
R526	J24205104	RES. Chip	1/10W 100k ohm				
R527	J24205394	RES. Chip	1/10W 390k ohm				
R528	J24205274	RES. Chip	1/10W 270k ohm				
R529	J24205223	RES. Chip	1/10W 22k ohm				
R530	J24205273	RES. Chip	1/10W 27k ohm				
R531	J24205224	RES. Chip	1/10W 220k ohm				
R532	J24205103	RES. Chip	1/10W 10k ohm				
R533	J24205103	RES. Chip	1/10W 10k ohm				
R534	J24205153	RES. Chip	1/10W 15k ohm				
R535	J24205222	RES. Chip	1/10W 2.2k ohm				
R536	J24205222	RES. Chip	1/10W 2.2k ohm				
R537	J24205564	RES. Chip	1/10W 560k ohm				
R538	J24205333	RES. Chip	1/10W 33k ohm				
R539	J24205393	RES. Chip	1/10W 39k ohm				
R540	J24205223	RES. Chip	1/10W 22k ohm				
R541	J24205823	RES. Chip	1/10W 82k ohm				
C501	K22170817	CAP. Chip	B 50V 0.01uF	R301	J24205273	RES. Chip	1/10W 27k ohm
C502	K22141809	CAP. Chip	B 25V 0.1uF	R302	J24205273	RES. Chip	1/10W 27k ohm
C503	K22170805	CAP. Chip	B 50V 0.001uF	R303	J24205102	RES. Chip	1/10W 1k ohm
C504	K78120009	Tantalum Chip	16V 1uF	R304	J24205152	RES. Chip	1/10W 1.5k ohm
C505	K22141809	CAP. Chip	B 25V 0.1uF	R305	J24205273	RES. Chip	1/10W 27k ohm
C506	K22141809	CAP. Chip	B 25V 0.1uF	R306	J24205273	RES. Chip	1/10W 27k ohm
C507	K22170817	CAP. Chip	B 50V 0.01uF	R307	J24205102	RES. Chip	1/10W 1k ohm
C508	K22170817	CAP. Chip	B 50V 0.01uF	R308	J24205470	RES. Chip	1/10W 47 ohm
C509	K22170805	CAP. Chip	B 50V 0.001uF	R309	J24205332	RES. Chip	1/10W 3.3k ohm
C510	K22170817	CAP. Chip	B 50V 0.01uF	R310	J24205103	RES. Chip	1/10W 10k ohm
C511	K22140807	CAP. Chip	B 25V 0.022uF	R311	J24205221	RES. Chip	1/10W 220 ohm
C512	K22170243	CAP. Chip	CH 50V 220pF	C301	K22170805	CAP. Chip	B 50V 0.001uF
C513	K22140807	CAP. Chip	B 25V 0.022uF	C302	K22170213	CAP. Chip	CH 50V 12pF
C514	K22141809	CAP. Chip	B 25V 0.1uF	C303	K22170217	CAP. Chip	CH 50V 18pF
C515	K22140807	CAP. Chip	B 25V 0.022uF	C304	K22170215	CAP. Chip	CH 50V 15pF
C516	K22140807	CAP. Chip	B 25V 0.022uF	C305	K22170805	CAP. Chip	B 50V 0.001uF
C517	K22140807	CAP. Chip	B 25V 0.022uF	C306	K40129038	AL. Electro. CAP.	16V 100uF
C518	K22170805	CAP. Chip	B 50V 0.001uF	C307	K22170805	CAP. Chip	B 50V 0.001uF
C519	K22141809	CAP. Chip	B 25V 0.1uF	C308	K22170805	CAP. Chip	B 50V 0.001uF
C520	K22141806	CAP. Chip	B 25V 0.033uF	C309	K22170202	CAP. Chip	CH 50V 1pF
C521	K22141809	CAP. Chip	B 25V 0.1uF	C310	K22170805	CAP. Chip	B 50V 0.001uF
				C311	K22170213	CAP. Chip	CH 50V 12pF
				C312	K22170805	CAP. Chip	B 50V 0.001uF
				C313	K22170217	CAP. Chip	CH 50V 18pF
				C314	K22170213	CAP. Chip	CH 50V 12pF
				C315	K22170805	CAP. Chip	B 50V 0.001uF
				C316	K22170805	CAP. Chip	B 50V 0.001uF
				C317	K22170203	CAP. Chip	CH 50V 2pF
				C318	K22170805	CAP. Chip	B 50V 0.001uF
				C319	K22170805	CAP. Chip	B 50V 0.001uF
				C320	K22170211	CAP. Chip	CH 50V 10pF
				C321	K22170203	CAP. Chip	CH 50V 2pF
				TC301	K91000157	Trimmer CAP.	10pF
				TC302	K91000157	Trimmer CAP.	10pF
D601	G2070009	Diode	ISS184TE85R	L301	L1190203	M. RFC	4.7uH
D602	G2070048	Diode	ISS272TE85R	L302	L0190135	Coil	
				L303	L1190203	M. RFC	4.7uH
R601	J24205103	RES. Chip	1/10W 10k ohm	L304	L0190136	Coil	
R602	J24205103	RES. Chip	1/10W 10k ohm	L305	L1190203	M. RFC	4.7uH
R603	J24205103	RES. Chip	1/10W 10k ohm	L306	L1190199	M. RFC	2.2uH

PARTS LIST

Symbol No.	Part No.	Description	Device
Q1000065	Lamp	9V 60mA	
PA UNIT			
F2934120B	Printed Circuit Board		
C029342AA	PCB with Component (45W Model)		
C029342AB	PCB with Component (10W Model)		
Q701	G1090251	IC ⊙	M57715
	G1090625	IC △	M57726
D701	G2090232	Diode	S11B
D702	G2090345	Diode ⊙	MI407
	G2090425	Diode △	UM9415
D703	G2090337	Diode	MI308
D704	G2090118	Diode	ISS97
D705	G2090377	Diode	ISS108
R701	J01275151	CAP. Chip	1/10W 150 ohm
R702	J24205103	CAP. Chip	1/10W 10k ohm
R703	J24205223	CAP. Chip	1/10W 22k ohm
R704	J24205101	CAP. Chip	1/10W 100 ohm
VR701	J50770221	POT.	220 ohm
C701	K40129012	AL. Electro. CAP.	16V 10uF
C702	K22170805	CAP. Chip	B 50V 0.001uF
C703	K22170805	CAP. Chip	B 50V 0.001uF
C705	K22170805	CAP. Chip	B 50V 0.001uF
C706	K40129012	AL. Electro. CAP.	16V 10uF
C707	K22170211	CAP. Chip	CH 50V 10pF
C708	K22170805	CAP. Chip	B 50V 0.001uF
C709	K22170805	CAP. Chip	B 50V 0.001uF
C710	K22170805	CAP. Chip	B 50V 0.001uF
C711	K22170213	CAP. Chip	CH 50V 12pF
C712	K22170225	CAP. Chip	CH 50V 39pF
C713	K22170202	CAP. Chip	CH 50V 1pF
C714	K22170204	CAP. Chip	CH 50V 3pF
C715	K22170805	CAP. Chip	B 50V 0.001uF
C716	K22170221	CAP. Chip	CH 50V 27pF
C717	K22170229	CAP. Chip ⊙	CH 50V 56pF
	K22170221	CAP. Chip △	CH 50V 27pF
C718	K22170805	CAP. Chip	B 50V 0.001uF
C719	K22170805	CAP. Chip	B 50V 0.001uF
C720	K22170217	CAP. Chip	CH 50V 18pF
C721	K22170801	CAP. Chip	B 50V 470pF
C722	K22170207	CAP. Chip	CH 50V 6pF
C723	K22170221	CAP. Chip	CH 50V 27pF
C724	K22170221	CAP. Chip	CH 50V 27pF
J701	P1090599	Connector	
J702	P1090600	Connector	
J703	P1090603	Connector	
ACCESSORIES			
Symbol No.	Part No.	Description	Device
	T9015605	DC Cord ⊙	
	T9015615	DC Cord △	
	Q0000005	Fuse ⊙	5A 2 pcs
	Q0000008	Fuse △	15A 2 pcs
	D1000067	MIC ●	MH-14D8
	D1000051	MIC ▲	MH-14A8
	D1000052	MIC ▲	MH-14B8
	D1000067	MIC ▲	MH-14D8
	D1000060	MIC ▲	MH-15C8
	D1000061	MIC ▲	MH-15D8
	D6000055	Mobile Bracket	MMB-36
	D6000056	Mobile Bracket ▲	MMB-37

⊙ : 10W Model

▲ : 45W Model

● : Version F

▲ : Version A1, A2, A3, A4, B : One of these MICROPHONE will be supplied is per local requirement.