

ADJUSTMENT

REQUIRED TEST EQUIPMENT

1. VTVM or DVM (DC VM)

- 1) Input resistance: More than 1 M Ω
- 2) Voltage range: 1.5 to 1000V DC

NOTE: A high-precision voltmeter may be used.
However, accurate readings can not be obtained for high-impedance circuits.

2. AF VTVM (AF VM)

- 1) Frequency range: 50 Hz to 10 kHz
- 2) Input impedance: 1 M Ω or greater
- 3) Voltage range: 10 mV to 30V

3. AF DUMMY LOAD

- 1) Impedance: 8 Ω
- 2) Dissipation: 3W or greater

4. OSCILLOSCOPE

Requires high sensitivity and external synchronization capability.

5. STANDARD SIGNAL GENERATOR (SSG)

- 1) Frequency range: 100 kHz to 80 MHz
- 2) Output: -20 dB/0.1 μ V to 120 dB/1V
- 3) Output Z = 50 Ω
- 4) Should have AM modulation capability.
Generator must be frequency stable.

6. FREQUENCY COUNTER

- 1) Minimum input voltage: 50 mV
- 2) Frequency range: Greater than 80 MHz

7. NOISE GENERATOR

Must generate ignition-like noise containing harmonics beyond 30 MHz.

PREPARATION

Unless otherwise specified, set the controls as follows.

POWER	ON
TIMER	OFF
FUNCTION	FREQUENCY
NARROW/WIDE	WIDE
TUNING SPEED	SLOW
F. LOCK	OFF
MODE	AM
AGC FAST	OFF
NB	OFF
DIMMER	OFF
AF GAIN	MIN
TONE	CENTER
SQUELCH	MIN
RF ATT	0
M.SCAN	OFF
PG.SCAN	OFF
AUTO.M	OFF

REFERENCE

Japanese "SSG"	American "SG"
-6 dB	0.25 μ V
0 dB	0.5 μ V
6 dB	1 μ V
12 dB	2 μ V
24 dB	8 μ V
30 dB	15.8 μ V
40 dB	50 μ V
50 dB	158 μ V
60 dB	500 μ V
70 dB	1.58 mV
80 dB	5 mV
90 dB	15.8 mV
100 dB	50 mV
120 dB	0.5 V

CIRCUIT DESCRIPTION

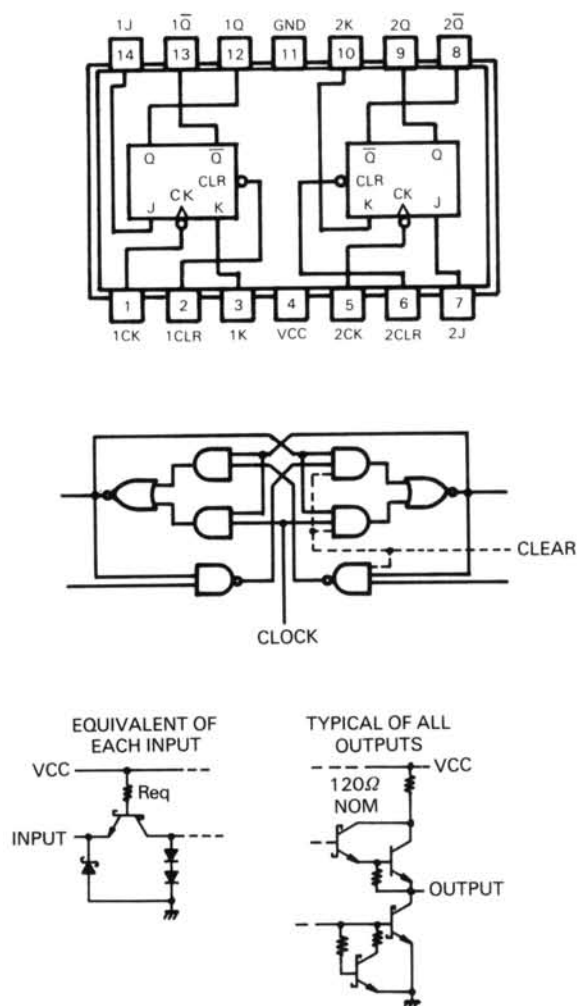


Fig. 6 SN74LS73N (PLL unit IC1)

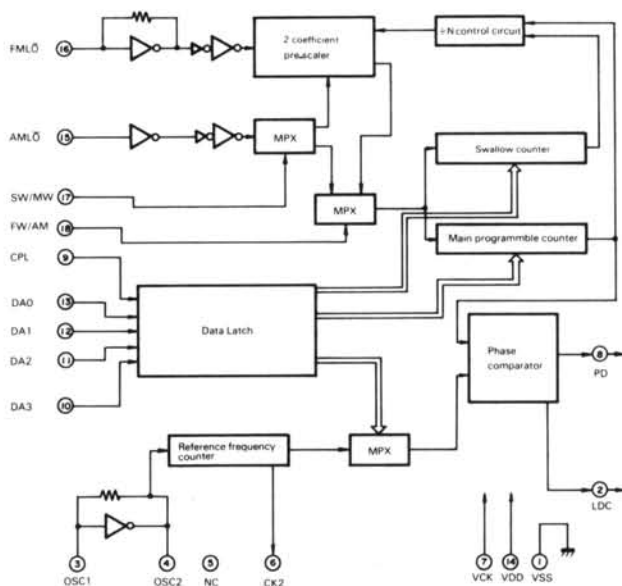
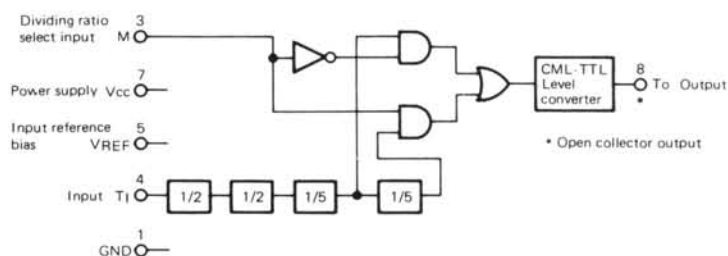


Fig. 7 MN6147C (PLL unit IC2, 5)



M	"L"	"H"
Dividing data output	1/20	1/100

Fig. 8 M54459L (PLL unit IC3)

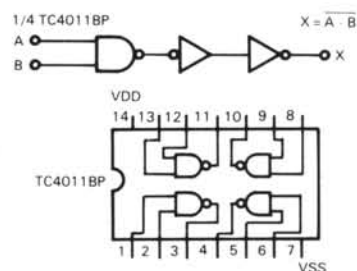


Fig. 9 TC4011BP (PLL unit IC6 ~ 11, 17)

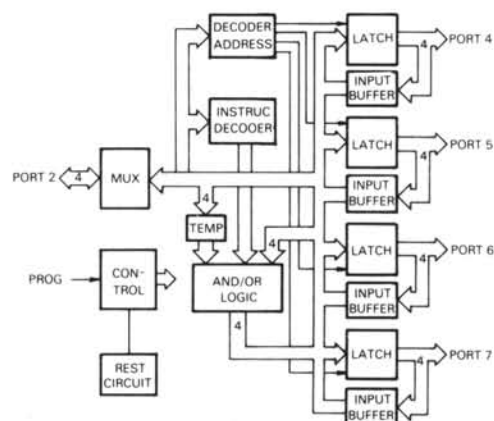


Fig. 10 μPD82C43C (PLL unit IC13, 14)

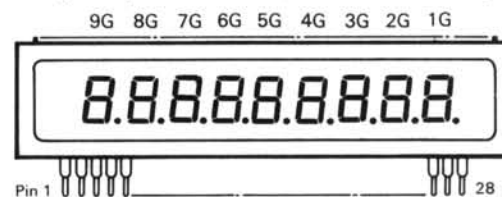


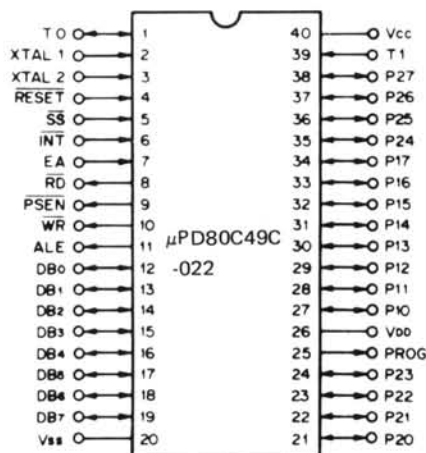
Fig. 11 FIP9D7 (PLL unit)

Table 8. FIP9D7 Terminals

Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Connection	F	NC	9G	NC	NC	8G	P(g)	P(f)	7G	P(e)	P(d)	6G	NC	NC
Terminal No.	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Connection	5G	NP	NP	4G	P(dP)	3G	P(c)	P(b)	2G	P(a)	NC	1G	NP	F

CIRCUIT DESCRIPTION

Item	Symbol	Rating	Unit
Operating voltage	V_{cc}	$V_{ss}-0.3 \sim +10$	V
Input voltage	V_i	$V_{ss}-0.3 \sim V_{cc}+0.3$	V
Output voltage	V_o	$V_{ss}-0.3 \sim V_{cc}+0.3$	V
Operating temperature	T_{opt}	$-40 \sim +85$	$^{\circ}\text{C}$
Storage temperature	T_{stg}	$-65 \sim +150$	$^{\circ}\text{C}$

Table 9. $\mu\text{PD80C49C-022}$ Max. RatingFig. 12. $\mu\text{PD80C49C-022}$ Terminal name $\mu\text{PD80C49C-022}$ TERMINAL FUNCTIONS

Terminal No.	Name	Function	Input	Output
1	TO	Power ON/OFF DATA input	○	
2	X0	Microcomputer CLOCK (5.74MHz) input	○	
3	X1			
4	RST	RESET input, Normally:H	○	
5	SS	Normally 5V		
6	INT	Clock signal (1KHz) input	○	
7	EA	Normally GND		
8				
9				
10		Not used, Normally:open		
11				
12	B0	AM	○	
13	B1	USB	○	
14	B2	LSB	○	
15	B3	CW	○	
16	B4	FM	○	
17	B5	VCO-L	○	
18	B6	VCO-M	○	
19	B7	VCO-H	○	
20	GND	GND	○	

Terminal No.	Name	Function	Input	Output
21	P20			○
22	P21			○
23	P22	I/O EXPANDER control output		○
24	P23			○
25	P24			○
26	VDD	STBY control input	○	
27	P10		○	
28	P11		○	
29	P12		○	
30	P13	DATA input	○	
31	P14		○	
32	P15		○	
33	P16		○	
34	P17	Program SCAN stop input	○	
35	P24	I/O EXPANDER SELECT (L:EX(O), H:EX(1))		
36	P25	TIMER OUT output		○
37	P26	Encoder UP/DOWN input (H:UP, L:Down)	○	
38	P27	VHF signal output (VHF:H)		○
39	T1	Encoder & program SCAN clock pulse input	○	
40	Vcc	Microcomputer 5V & Back up power supply		

I/O EXPANDER (0) IC13: $\mu\text{PD82C43C}$

Terminal No.	Name	Function	
2	P40	} B.P.F. Data (BCD)	
3	P41		
4	P42		
5	P43		
1	P50	} PLL dividing ratio data, address output & DATA SELECTOR output	
23	P51		
22	P52		
21	P53		
20	P60	PLL IC5	} Latch clock output
19	P61	PLL IC2	
18	P62	Beep output	
17	P63	TIMER error	
13	P70	M. SCAN	} LED output
14	P71	PG. SCAN	
15	P72	HOLD	
16	P73	AUTO. M	

I/O EXPANDER (1) IC14: $\mu\text{PD82C43C}$

Terminal No.	Name	Function	
2	P40	Display DIGIT output 100HZ	Active "L"
3	P41	Display DIGIT output 1K	
4	P42	Display DIGIT output 10K	
5	P43	Display DIGIT output 100K	
1	P50	Display DIGIT output 1M	
23	P51	Display DIGIT output 10M	
22	P52	Display DIGIT output 100M	
21	P53	Display DIGIT output CH	
20	P60	Display SEGMENT output a	Active "L"
19	P61	Display SEGMENT output b	
18	P62	Display SEGMENT output c	
17	P63	Display SEGMENT output d	
13	P70	Display SEGMENT output e	
14	P71	Display SEGMENT output f	
15	P72	Display SEGMENT output g	
16	P73	Display SEGMENT output point	

PARTS LIST

CAPACITORS

CC 45 TH 1H 220 J
1 2 3 4 5 6

- 1 = Type ceramic, electrolytic, etc 4 = Voltage rating
2 = Shape round, square, etc 5 = Value
3 = Temp coefficient 6 = Tolerance

● Temperature coefficient

1st Word	C	I	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm °C	0	80	150	220	330	470	750

2nd Word	G	H	J	K	L
ppm °C	+30	+60	+120	+250	+500

Example CC45TH = 470 + 60ppm °C

● Tolerance

Cord	C	D	G	J	K	M	X	Z	P	No cord
(%)	+0.25	+0.5	+2	+5	+10	+20	+40	+80	+100	More than 10% Less than 4.7% 10% - 50% 4.7% - 75%

Resistors not listed in this parts list are standard, fixed carbon composition, 1/4W or 1/8W.

The resistance values, in ohms, are indicated on the schematic diagram.

● Rating voltage

2nd word 1st word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	—
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	—
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	—

● Capacitor value

0 1 0 = 1pF

1 0 0 = 10pF

1 0 1 = 100pF

1 0 2 = 1000pF = 0.001μF

1 0 3 = 0.01μF

2 2 0 = 22pF
1st number Multiplier
2nd number

Less than 10 pF

Cord	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

Abbreviation		Abbreviation	
Cap	Capacitor	ML	Mylar
C	Ceramic	S	Styren
E	Electrolytic	T	Tantalum
MC	Mica		

SEMI CONDUCTOR

N: New Parts

Item	Name	Re- marks
Diode	1N60	
	1N4448	
	1S1007	
	1S1555	
	1S1587	
	1S2588	
	BA282	
	D33A	
	RD4.7EB3	
	V03C	
Zener-Diode	WZ-061	
	WZ-071	
	WZ-110	
	XZ-060	
LED	ON1110	
	LM358P	
	SG238D	
	SR538D	
	SY438D	
	TLG205	
	TLR205	

Item	Name	Re- marks
TR	TLY205	
	2SA1015(Y)	
	2SC1675(L)	
	2SC1775(E)	
	2SC1815(Y)	
	2SC1907	
	2SC1923(D)	
	2SC1959(Y)	
	2SC2240(GR)	
	2SC2878	N
FET	2SD235(Y)	
	2SK192A(GR)	
	3SK73(GR)	
IC	3SK74(L)	
	AN7805	N
	AN7809	N
	HA1368R	
	M54459L	
	MN6147C	
	NJM4558D	

Item	Name	Re- marks
	SN16913P	
	SN74LS145N	
	SN74LS73N	
	TA7060AP	
	TA7324P	
	TC4011BP	
	TC5065BP	
	TC5067BP	
	μPC577H	
	μPD80C49C-022	N
Varistor	μPD82C43C	N
	MV-13	
Vari-cap	1SV53A	
	1SV54GC	
Display tube	FIP9D7	
Surge-Absorber	ERZD03DK331	

PARTS LIST

Part No.	Re- marks	Description	Part No.	Re- marks	Description
GENERAL			J61-0019-05		Band x 3
A01-0939-02	N	Case (upper)	J61-0401-05		Nylon band x 20
A01-0940-02	N	Case (lower)	K01-0411-05	N	Carring handle
A20-2465-03	N	Panel	K21-0769-04	N	Main knob
A23-1472-02	N	Rear panel	K23-0738-04		Knob, FUNCTION
B03-0529-04	N	Carring handle back plate	K23-0755-04	N	Knob x 4, AF, TONE, SQL, ATT
B03-0530-14	N	Switch name plate, NAR-WIDE	K27-0426-14		Band knob x 2
B03-0531-04	N	Ornamental plate, Meter	K29-0758-04		Push knob x 2, POWER, TIMER
B30-0817-15		Lamp, 14V 80mA	K29-0767-04		Push knob x 2, DIM, NB
B31-0641-05	N	Meter	K29-0768-04		Push knob, AGC
B39-0407-04		Spacer x2	K29-0771-04		Knob ring
B42-1722-24		FTZ plate	K29-0772-03	N	Knob ass'y
B43-0686-04	N	Badge	K29-0773-04	N	Push knob, MODE
B43-0687-04	N	Badge	K29-0774-04	N	Push knob, NAR-WIDE
B46-0058-10		Warranty card (TKC)	K29-0775-04	N	Push knob, F. LOCK
B50-4022-00	N	Instruction manual	K29-0776-04	N	Push knob x 3, TUNING SPEED
B50-4023-00	N	Instruction manual	L01-8064-05	N	Power transformer
B58-0637-00		Voltage warning paper	N09-0256-05		Ground screw, ANT
B58-0638-00		Warning paper	N09-0641-05		Screw x 7, Panel
B58-0653-00	N	Warning paper	N14-0508-04		Spanner nut, Panel
B58-0654-00	N	Warning paper	N15-1040-46		Washer x 2, Carring handle
C91-0079-05		C, 0.01 AC125V	N30-2608-41		Screw x 2, DC
E04-0152-05		UHF type receptacle, ANT	N30-3006-41		Screw x 7, Lamp, PLL, DIN
E07-0751-05		7P DIN plug, accessory	N30-3008-41		Screw x 2, AC
E12-0001-15		Phone plug, accessory	N30-3012-46		Screw, Panel
E18-0351-05		3P Inlet, AC power	N30-4006-46		Screw x 2, Carring handle
E30-1643-15		AC Cable ass'y	N32-2606-46		Flat screw x 4, Meter
E30-1644-15		AC Cable ass'y	N35-3006-41		Bind screw x 16, Case
E30-1645-05		AC Cable ass'y	N87-2606-46		Bind tapping screw x16
E30-1647-05		AC Cable ass'y	N87-2608-46		Self tapping screw x5
F05-1013-05		Fuse x 2, 0.1A, accessory	N87-3006-41		Knob ass'y x 5
F05-1521-05		Fuse 1.5A, accessory	N87-3008-41		Self tapping screw x 25
F15-0646-04	N	Switch mask, Piano switch	N87-3010-46		Push switch, etc
F19-0610-04		Connector mask, DC13.8V	N87-3012-46		Self tapping screw x 2, ANT, SP
F19-0622-04	N	Rear cover	N88-3006-46		Self tapping screw x 3, SP
G13-0669-04		Cushion, MODE	S90-0405-05	N	Tap tight screw x 24, PC board
G16-0506-04		Anti vibration sheet, Case	T07-0225-15	N	Tap tight screw x 10, Sub panel, etc.
G53-0510-04		Packing x 2, Case	X41-1480-00	N	Rotary remote switch, ATT
H01-4463-04	N	Packing carton	X41-1480-61	N	Speaker
H01-4464-04	N	packing carton	X41-1480-71	N	Switch unit
H03-2098-04	N	Packing carton	X50-1920-00	N	Switch unit
H10-2569-02	N	Packing fixture (R)	X54-1690-00	N	PLL unit
H10-2570-02	N	Packing fixture (L)	X55-1340-00	N	Encoder unit
H12-1320-04	N	Cushion			RX unit
H20-1419-03	N	Protective cover			
H25-0029-04		Protective bag 60x100			
H25-0105-04		Protective bag 150x350			
J02-0323-05		Foot x 4, Case (lower)			
J02-0403-04		Rubber foot x 4, Case			
J02-0428-05	N	Assistant foot, Case (lower)			
J19-1369-04	N	Knob metal fittings, Piano switch			
J19-1372-14	N	Knob metal fittings, Piano switch			
J21-2573-04		Foot metal fittings x 2, Case			
J21-2788-04	N	Speaker metal fittings x 3			
J32-0767-04	N	Hex. boss x 4, Meter			

PARTS LIST

Part No.	Re- marks	Description	Ref. No.	Q'ty	Part No.	Re- marks	Description	Ref. No.	Q'ty
SWITCH UNIT (X41-1480-00)									
-00: K, M, T, W -61: W ₂ , -71: X									
CE04W1C100M		E, 10 16V	C8	1	CC45CH1H150J		C, 15P	C52,76,150	3
CE04W1H4R7M		E, 4.7 50V	C2,4	2	CC45CH1H220J		C, 22P	C14,155	2
CQ92M1H102K		ML, 0.001	C5	1	CC45RH1H010C		C, 1P ± 0.25P	C135	1
CQ92M1H104K		ML, 0.1	C1,13	2	CC45RH1H020C		C, 2P ± 0.25P	C133,142	2
CQ92M1H683K		ML, 0.068	C3	1	CC45RH1H040C		C, 4P ± 0.25P	C138	1
CK45F1H103Z		C, 0.01	C6,7,9,12	4	CC45RH1H060D		C, 6P ± 0.5P	C140,143,146	3
CK45F1H473Z		C, 0.047	C21,23,24	3	CC45RH1H070D		C, 7P ± 0.5P	C51	1
C90-0814-05		C, 4700 25V	C22	1	CC45RH1H100D		C, 10P ± 0.5P	C115,120,125	3
E11-0413-05		US jack, phones		1	CC45RH1H220J		C, 22P	C144,	1
E11-0414-05	N	US jack, REC		1	CC45RH1H330J		C, 33P	C141	1
E23-0512-05		Terminal		2	CC45RH1H470J		C, 47P	C49, 118	2
E40-0273-05		Mini connector 2P		2	CC45RH1H560J		C, 56P	C113	1
E40-0442-05		Power connector (4P)		1	CC45SL1H101J		C, 100P	C13,16,26	3
F05-1521-05		Fuse, 1.5A		1	CC45SL1H121J		C, 120P	C147	1
J13-0401-05		Fuse holder		2	CC45SL1H180J		C, 18P	C181,182	2
J30-0514-14		LED spacer		6	CC45SL1H181J		C, 180P	C68	1
R01-3421-05		Pot. 10KΩ (A), AF, tone	VR1,2	2	CC45SL1H330J		C, 33P	C11	1
R06-9406-05	N	Pot. 50KΩ (B), 10KΩ (B) SQL	VR3,	1	CC45SL1H560J		C, 56P	C65,67,112	3
RS14AB3A220J		Metal film 22Ω ± 5% 1W	R12	1	CE04W1A101M		E, 100 10V	C175,	1
RS14AB3A470J		Metal film 47Ω ± 5% 1W	R11	1	CE04W1A470M		E, 47 10V	C177,185	2
R92-0150-05		Jumper wire		25	CE04W1C101M		E, 100 16V	C222	1
S29-1429-05	N	Rotary switch, FUNCTION	S30	1	CE04W1C220M		E, 22 16V	C18,47,55,97, 100	5
S29-1430-05	N	Voltage select switch	S40	1	CE04W1C221M		E, 220 16V	C186	1
S40-2440-15		Push switch, NB, DIM, AGC	S27 ~ 29	3	CE04W1E100M		E, 10 25V	C187,189	2
S40-2442-05	N	Push switch, NAR-WIDE	S24	1	CE04W1E470M		E, 47 25V	C213,217	2
S42-2406-05	N	Push switch, power, timer	S31	1	CE04W1H0R1M		E, 0.1 50V	C180,	1
S42-4402-05	N	Push switch, tuning speed	S23	1	CE04W1H010M		E, 1 50V	C178,231	2
S50-1409-05		Tact switch, BAND	S25,26	2	CE04W1H100M		E, 10 50V	C190,191	2
S50-1411-05		Tact switch, MODE	S16 ~ 20	5	CE04W1HR47M		E, 0.47 50V	C227,230	2
S50-1412-05	N	Tact switch	S1 ~ 15,21,22	17	CE04W1H4R7M		E, 4.7 50V	C201	1
PLL UNIT (X50-1920-00)					CK45B1H102K		C, 0.001	C40,60,64,66,70,79,80,82, 90,148,153,157, ~ 159,166, 172,198,202,234,236	23
C05-0013-15		Ceramic trimmer 30pF	C1	1	CK45B1H221K		C, 220P	C12	1
CC45CH1H010C		C, 1P ± 0.25P	C75,	1	CK45F1H103Z		C, 0.01	C25,36,54,63,98,99,111, 131,132,137,149,152, 156,160,188,203,211, 235	18
CC45CH1H030C		C, 3P ± 0.25P	C88	1	CK45F1H223Z		C, 0.022	C24,28,29,39,56,59,74,83, 84,85,89,129,193 ~ 197, 204 ~ 210,237	27
CC45CH1H050C		C, 5P ± 0.25P	C15,22,37,38, 57,58,87,154	8	CK45F1H473Z		C, 0.047	C21,35,41,42,61,62,69,77, 91,167,170,176,179,184 199,212,216,224,225,228 232, 238	22
CC45CH1H0R5C		C, 0.5P ± 0.25P	C31,134,136	3	CQ92M1H103K		ML, 0.01	C92,93	2
CC45CH1H100D		C, 10P ± 0.5P	C23,33,53, 117,121,122, 126,127,151	9	CQ92M1H104K		ML, 0.1	C45,95,214, 215,218 ~ 221	8
CC45CH1H120J		C, 12P	C116	1	CQ92M1H123K		ML, 0.012	C43,44,94,	3
					CQ92M1H333K		ML, 0.033	C173,174	2
					CQ92M1H472K		ML, 0.0047	C48,128	2
					C90-0817-05		C, 1000 16V	C130	1
					C91-0456-05		E, 0.047 25V	C19,46,71 ~ 73,96,162,168, 169,171,183,192,200, 223,226,229	16
					E04-0154-05		Coax connector		4
					E06-0752-05	N	DIN connector, 7P, REMOTE		1

PARTS LIST

Part No.	Re- marks	Description	Ref. No.	Q'ty
E06-1051-05	N	DIN connector, 10P V. CONVERTER		1
E11-0408-05		MIC jack, EXT SP		1
E23-0046-04		Square terminal		2
E40-0273-05		Mini connector, 2P		12
E40-0373-05		Mini connector, 3P		3
E40-0473-05		Mini connector, 4P		4
E40-0573-05		Mini connector, 5P		3
E40-0673-05		Mini connector, 6P		1
E40-0773-05		Mini connector, 7P		1
J21-2792-04		Connector metal fittings (B)		1
J31-0502-04		PC Board collar		9
J42-0428-05		PC Board bush		9
L19-0323-05		OSC transformer DC-DC	T9	1
L32-0651-05		OSC coil VCO-L	T6	1
L32-0652-05		OSC coil VCO-M	T7	1
L32-0653-05		OSC coil VCO-H	T8	1
L34-0540-05		Tuning coil 455KHz	T10	1
L34-0863-05		Tuning coil 455KHz	T11	1
L34-2058-05		Tuning coil VCO	T3	1
L34-2147-05	N	Tuning coil 9.42MHz	T4	1
L34-2148-05	N	Tuning coil 9.42MHz	T5	1
L34-2149-05	N	Tuning coil 36MHz	T1,2	2
L40-1001-03		Ferri-inductor 10 μ H	L22,39	2
L40-1001-14		Ferri-inductor 10 μ H	L67,68	2
L40-1011-03		Ferri-inductor 100 μ H	L6,11,19,40 ~ 44	15
			46, ~50,57,65	
L40-1011-13		Ferri-inductor 100 μ H	L58,66	2
L40-1011-14		Ferri-inductor 100 μ H	L51 ~ 56	6
L40-1021-03		Ferri-inductor 1mH	L7 ~ 9,12,20, 23,27,59,60	9
L40-1092-14		Ferri-inductor 1 μ H	L32	1
L40-1292-14		Ferri-inductor 1.2 μ H	L29,31,34	3
L40-1501-03		Ferri-inductor 15 μ H	L26	1
L40-1511-03		Ferri-inductor 150 μ H	L13,15,45	3
L40-1541-27		Ferri-inductor 150 μ H	L21,	1
L40-1801-03		Ferri-inductor 18 μ H	L25,	1
L40-1892-14		Ferri-inductor 1.8 μ H	L30,	1
L40-2201-03		Ferri-inductor 22 μ H	L24,37,38,	3
L40-2211-03		Ferri-inductor 220 μ H	L16	1
L40-2225-04		Ferri-inductor 2.2mH	L14,	1
L40-2282-14		Ferri-inductor 0.22 μ H	L33,36	2
L40-3982-14		Ferri-inductor 0.39 μ H	L35,	1
L40-4701-03		Ferri-inductor 47 μ H	L10,28	2
L40-4711-03		Ferri-inductor 470 μ H	L1 ~ 5,17,18	7
L72-0337-05	N	Ceramic filter 9.42MHz	CF1	1
L77-0984-05	N	Crystal 9MHz	X1	1
L78-0005-05		Ceramic oscillator 5.745MHz	X2	1
N09-0641-05		Screw		2
N10-2030-46		Screw		2
N30-2606-46		Screw		6
N30-3006-46		Screw		1
N30-3008-46		Screw		2
R12-6401-05		Trim. pot 470K (B)	VR1	1
RS14AB3D101J		Metal film 100 Ω $\pm$ 5% 2W	R217	1
RS14AB3D150J		Metal film 15 Ω $\pm$ 5% 2W	R218,	1
R90-0162-05		Inline block 47k Ω $\times$ 8	IB2 ~ 4	3
R92-0563-05		Inline block 150k Ω $\times$ 5	IB5,6	2
R92-0150-05		Short jumper		191

Part No.	Re- marks	Description	Ref. No.	Q'ty
S51-2408-05		Relay	RL1	1
W09-0323-05		Lithium battery		1
ENCODER UNIT (X54-1690-00)				
CE04W0J101M		E, 100 6.3V	C1	1
D09-0305-04		Encoder slit		1
D21-0824-05		Shaft ass'y		1
N30-2606-46		Screw		2
R12-2409-05		Trim. pot 5k Ω (B)	VR1,2	2
RX UNIT (X55-1340-00)				
CC45CG1H221J		C, 220P	C165	1
CC45CH1H020C		C, 2P $\pm$ 0.25P	C110	1
CC45CH1H050C		C, 5P $\pm$ 0.25P	C93	1
CC45CH1H0R5C		C, 0.5P $\pm$ 0.25P	C95	1
CC45CH1H070D		C, 7P $\pm$ 0.5P	C96	1
CC45CH1H150J		C, 15P	C111	1
CC45CH1H151J		C, 150P	C175	1
CC45CH1H220J		C, 22P	C188	
CC45CH1H270J		C, 27P	C164	1
CC45CH1H330J		C, 33P	C169	1
CC45RH1H020C		C, 2P $\pm$ 0.25P	C80	1
CC45RH1H070D		C, 7P $\pm$ 0.5P	C90	1
CC45SL1H101J		C, 100P	C141,144	2
CC45SL1H120J		C, 12P	C234,235	2
CC45SL1H151J		C, 150P	C29,31,36,37, 67	5
CC45SL1H220J		C, 22P	C205,207	2
CC45SL1H241J		C, 240P	C27 ~ 29	3
CC45SL1H270J		C, 27P	C109	1
CC45SL1H301J		C, 300P	C30	1
CC45SL1H331J		C, 330P	C19,21	2
CC45SL1H511J		C, 510P	C16 ~ 18	3
CC45SL1H680J		C, 68P	C38	1
CC45SL1H820J		C, 82P	C40,170,243	3
CE04W1A101M		E, 100 10V	C233,247	2
CE04W1A470M		E, 47 10V	C156,158,160,226,231, 237,251,252	8
CE04W1C100M		E, 10 16V	C11,15,22,26,32,35,41,44, 51,54,60,63,64,71,76,78, 83,112,117 ~ 119,123 ~ 130, 147,148,150,176,181 210,212,214,228,240	39
CE04W1C101M		E, 100 16V	C217,	1
CE04W1C102M		E, 1000 16V	C238	1
CE04W1C221M		E, 220 16V	C218,	1
CE04W1H0R1M		E, 0.1 50V	C149,	1
CE04W1H010M		E, 1 50V	C3,69	8
			155,157,159, 172,197,255	
CE04W1HR22M		E, 0.22 50V	C182,183, 215	3

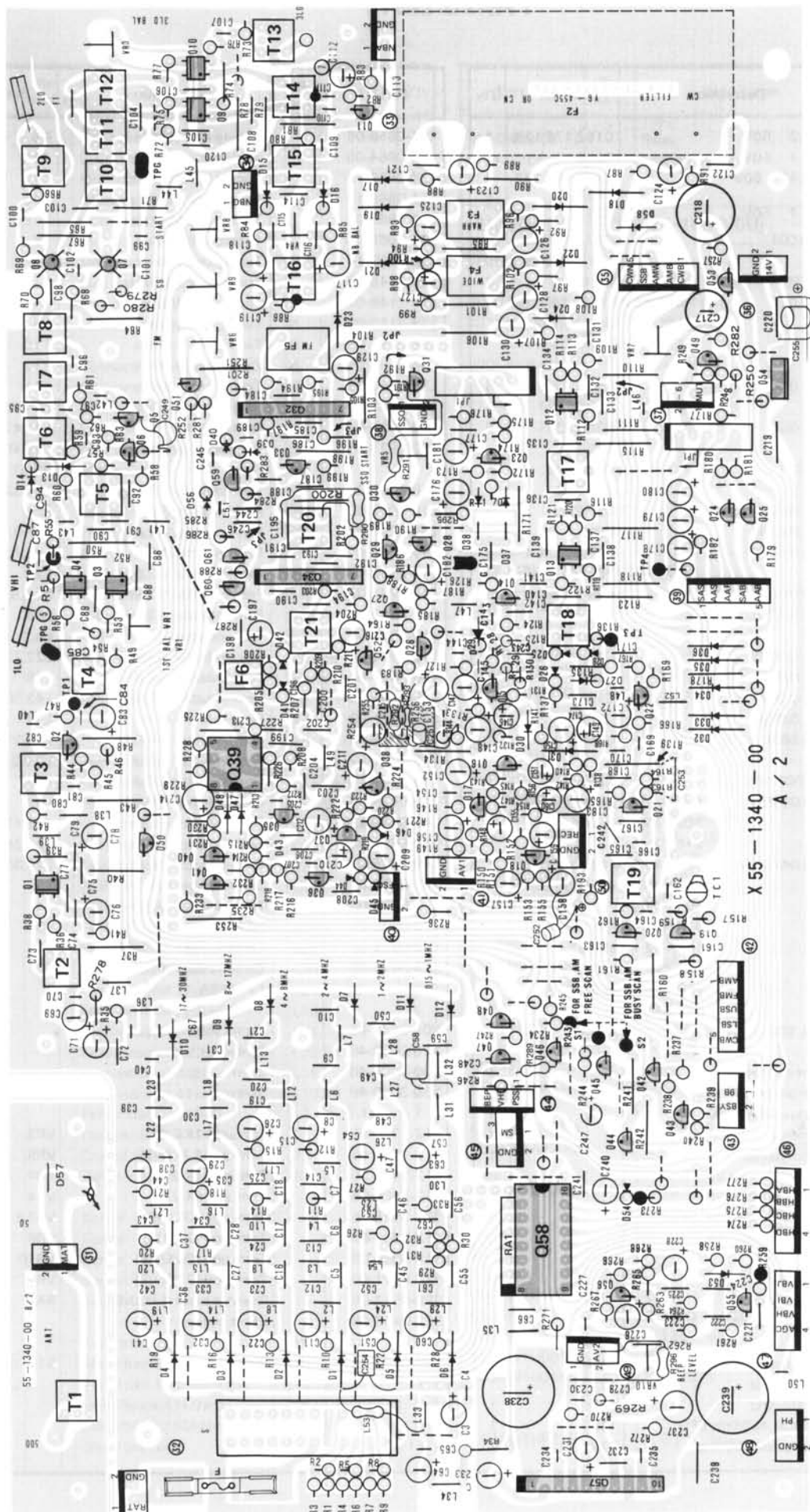
PARTS LIST

Part No.	Re- marks	Description	Ref. No.	Q'ty	Part No.	Re- marks	Description	Ref. No.	Q'ty
CE04W1H2R2M		E, 2.2 50V	C152,178,179	3	L34-0858-05		Tuning coil 46MHz	T5	1
CE04W1H3R3M		E, 3.3 50V	C209	1	L34-0864-05		Tuning coil 455KHz	T14	1
CE04W1HR47M		E, 0.47 50V	C146,151,153,180	4	L34-0865-15		Tuning coil 455KHz	T15	1
CE04W1H4R7M		E, 4.7 50V	C211,	1	L34-0866-15		Tuning coil 455KHz	T16	1
CK45B1H102K		C, 0.001	C87,94,100	6	L34-0868-05		Tuning coil 455KHz	T18	1
CK45B1H681K		C, 680P	107,196,245		L34-2068-05		Tuning coil 46MHz	T6,7	2
CK45F1H103Z		C, 0.01	C8,10,20	3	L34-2109-15		Tuning coil 46MHz	T3	1
			C73,92,98,113,115,116,121,122,131,136,163,171,186,221,232,241	16	L34-2148-05		Tuning coil 9.42MHz	T13	1
					L34-2149-05		Tuning coil 36MHz	T9	1
CQ92M1H102K		ML, 0.001	C5 ~ 7,168,200,254	6	L34-2150-05	N	Tuning coil 46 MHz	T8	1
CQ92M1H103K		ML, 0.01	C206,222 ~ 225	5	L34-2151-05	N	Tuning coil 9.9MHz	T10	1
CQ92M1H104K		ML, 0.1	C219,220,239,253	4	L34-2152-05	N	Tuning coil 9.9MHz	T12	1
CQ92M1H122K		ML, 0.0012	C9,48,50	3	L34-2153-05	N	Tuning coil 9.9MHz	T11	1
CQ92M1H183K		ML, 0.018	C201,	1	L40-1001-02		Ferri-inductor 10μH	L24,26	2
CQ92M1H222K		ML, 0.0022	C47,202,204,208	4	L40-1011-03		Ferri-inductor 100μH	L41,42,44,45,	4
CQ92M1H272K		ML, 0.0027	C49,57,59,	3	L40-1021-03		Ferri-inductor 1mH	L39,40,46 ~ 48,51,52	7
CQ92M1H333K		ML, 0.033	C55,56,167,173,174	5	L40-1205-25		Ferri-inductor 12μH	L31,32	2
CQ92M1H392K		ML, 0.0039	C45,46,230	3	L40-1092-02		Ferri-inductor 1μH	L54	1
CQ92M1H393K		ML, 0.039	C203	1	L40-1292-02		Ferri-inductor 1.2μH	L9,10,14,16	4
CQ92M1H473K		ML, 0.047	C199,213,229	3	L40-1892-02		Ferri-inductor 1.8μH	L12,13,	2
CQ92M1H562K		ML, 0.0056	C58	1	L40-2282-14		Ferri-inductor 0.22μH	L20	1
CQ09FS1H561G		ML, 560P ± 2%	C166	1	L40-2791-02		Ferri-inductor 2.7μH	L3,4,8,11	4
C90-0817-05		E, 1000 16V	C236	1	L40-3382-14		Ferri-inductor 0.33μH	L36,	1
C91-0131-05		C, 0.01 25V	C4,65,70,81,84,97,99,101,102,143,145,154,189,216,227	15	L40-3392-02		Ferri-inductor 3.3μH	L6,7	2
C91-0456-05		C, 0.047 25V	C82,248,249,12 ~ 14,23 ~ 25,33,34,42,43,52,53,61,62,72,74,75,77,79,85,86,91,103, ~ 106,108,114,120,132, ~ 135,137 ~ 140,142,177,184,185,187,190 ~ 195,198,66,88,89,244,246	1	L40-3982-14		Ferri-inductor 0.39μH	L22,23	2
C91-0490-05		Cap, 1000P 50V	C242	1	L40-3991-02		Ferri-inductor 3.9μH	L38	1
E04-0154-05		Coax connector		1	L40-4701-03		Ferri-inductor 47μH	L43,50	2
E04-0157-05		Mini pin jack A		3	L40-4711-03		Ferri-inductor 470μH	L33 ~ 35,37	4
E21-0461-05	N	4P push terminal		1	L40-4782-02		Ferri-inductor 0.47μH	L19,21	2
E23-0512-05		Terminal		2	L40-4791-02		Ferri-inductor 4.7μH	L2,5,25,	3
E29-0434-05		1P connector		1	L40-4791-14		Ferri-inductor 4.7μH	L53	1
E40-0273-05		Mini connector 2P		14	L40-6825-04		Ferri-inductor 6.8mH	L49	1
E40-0373-05		Mini connector 3P		1	L40-6882-02		Ferri-inductor 0.68μH	L15,17,18,	3
E40-0473-05		Mini connector 4P		2	L40-6891-02		Ferri-inductor 6.8μH	L27,28	2
E40-0573-05		Mini connector 5P		3	L40-8209-25		Ferri-inductor 82μH	L29,30	2
J13-0039-05		Fuse holder		2	L72-0316-05		Ceramic filter CFW 455E	F5	1
J31-0502-04		PC Board collar		12	L72-0319-05		Ceramic filter CFW 455HT	F4	1
J42-0428-05		PC Board bush		12	L72-0332-05		Ceramic filter CFW455K1	F3	1
L19-0324-05		Wide band width transformer	T1,2,4	3	L72-0338-05	N	Ceramic filter SFE9.8MK	F1	1
L30-0503-05		IFT 455KHz	T21	1	L79-0446-05		Ceramic discriminator CFY455S	F6	1
L30-0504-05		IFT 455KHz	T20	1	N09-0641-05		Round screw		2
L32-0646-05		OSC coil 455KHz, BFO	T19	1	N10-2030-46		Screw		3
L34-0540-05		Tuning coil 455KHz	T17	1	N30-3008-46		Screw		1
					N30-3010-46		Screw		2
					R12-1038-05		Trim. pot 1KΩ (B)	VR3,	1
					R12-1040-05		Trim. pot 4.7KΩ (B)	VR5,	1
					R12-1414-05		Trim. pot 1KΩ (B)	VR1,	1
					R12-2409-05		Trim. pot 5KΩ (B)	VR4,	1
					R12-3045-05		Trim. pot 10KΩ (B)	VR7,8,	2
					R12-3046-05		Trim. pot 47KΩ (B)	VR6	1
					R12-5030-05		Trim. pot 100KΩ (B)	VR10	1
					R12-6401-05		Trim. pot 470KΩ (B)	VR9	1
					R90-0522-05		Resistor block 47KΩx6	RA-1	1
					R92-0150-05		Short jumper		70
					S90-0406-05	N	Slide switch, ATT	S1	1

R-2000

PC BOARD VIEW

16 RX UNIT (X55 - 1340 - 00) Component Side view



2SA1015 (Y)
2SC1675 (L)
2SC1775 (E)
2SC1815 (Y)
2SC1959 (Y)
2SC2240 (GR)
2SC2878

2SK192A

3SK73 (GR)

3SK74 (L)

μ PC577H

HA1368R

