



RadioShack®

ServiceManual

20-430A

PRO-2050
VHF/UHF/AIR/800MHz
300-CHANNEL TRUNKTRACKER HOME SCANNER

Catalog Number: 20-430A

CONTENTS

	Page
Specifications	2
Block Diagram	6
Alignment and Adjustment	7
Troubleshooting	11
Printed Circuit Boards	15
Wiring Diagram	19
Exploded View and Disassembly Instructions	20
Mechanical Parts List	21
Electrical Parts List	22
Semiconductor Lead Identification	34
IC Internal Diagrams	35
Voltage Chart	40
Schematic Diagrams	45

SPECIFICATIONS

GENERAL

Band coverage:	12 bands
Frequency range:	29 to 29.7 MHz (10 meter amateur band) 29.7 to 50 MHz (VHF low band) 50 to 54 MHz (6 meter amateur band) 108 to 136.975 MHz (Aircraft band) 137 to 144 MHz (Government) 144 to 148 MHz (2 meter amateur band) 148 to 174 MHz (VHF high band) 406 to 420 MHz (Federal government land mobile) 420 to 450 MHz (70-cm amateur band) 450 to 470 MHz (UHF standard band) 470 to 512 MHz (UHF "T" band) 806 to 956 MHz (Public service except cellular band)
Number of programmable channels:	300 channels (30 CH × 10 banks) 50 channels for search skip memory 20 channels for service scan skip memory
External Jacks:	ANT. jack: BNC type Earphone jack (EXT. SP): 3.5 mm dia. DC power jack: 5.5 mm dia.
Internal Speaker:	8-ohm, 2 W (2 1/4 inches dia.)
Power requirements:	12.0 V DC provided by AC adapter from DC Power jack
Operating temperature:	−10 °C ~ +50 °C
Storage temperature:	−20 °C ~ +60 °C
Dimensions (HWD):	70 × 205 × 195 mm
Weight:	750 g
Accessories:	Telescopic antenna, AC adapter
Heterodyne system:	1. 1st heterodyne 29 to 174 MHz: Upper heterodyne (IF 380.6050-380.7000 MHz) 406 to 512 MHz: Upper heterodyne (IF 380.6125-380.7000 MHz) 806 to 956 MHz: Lower heterodyne (IF 380.7000-380.7875 MHz) 2. 2nd heterodyne (IF 10.85 MHz) All bands: Upper heterodyne 3. 3rd heterodyne (IF 450 kHz) All bands: Lower heterodyne

Filter: 380.70 MHz: SAW Filter
10.85 MHz: Monolithic crystal filter
450 kHz: Ceramic filter

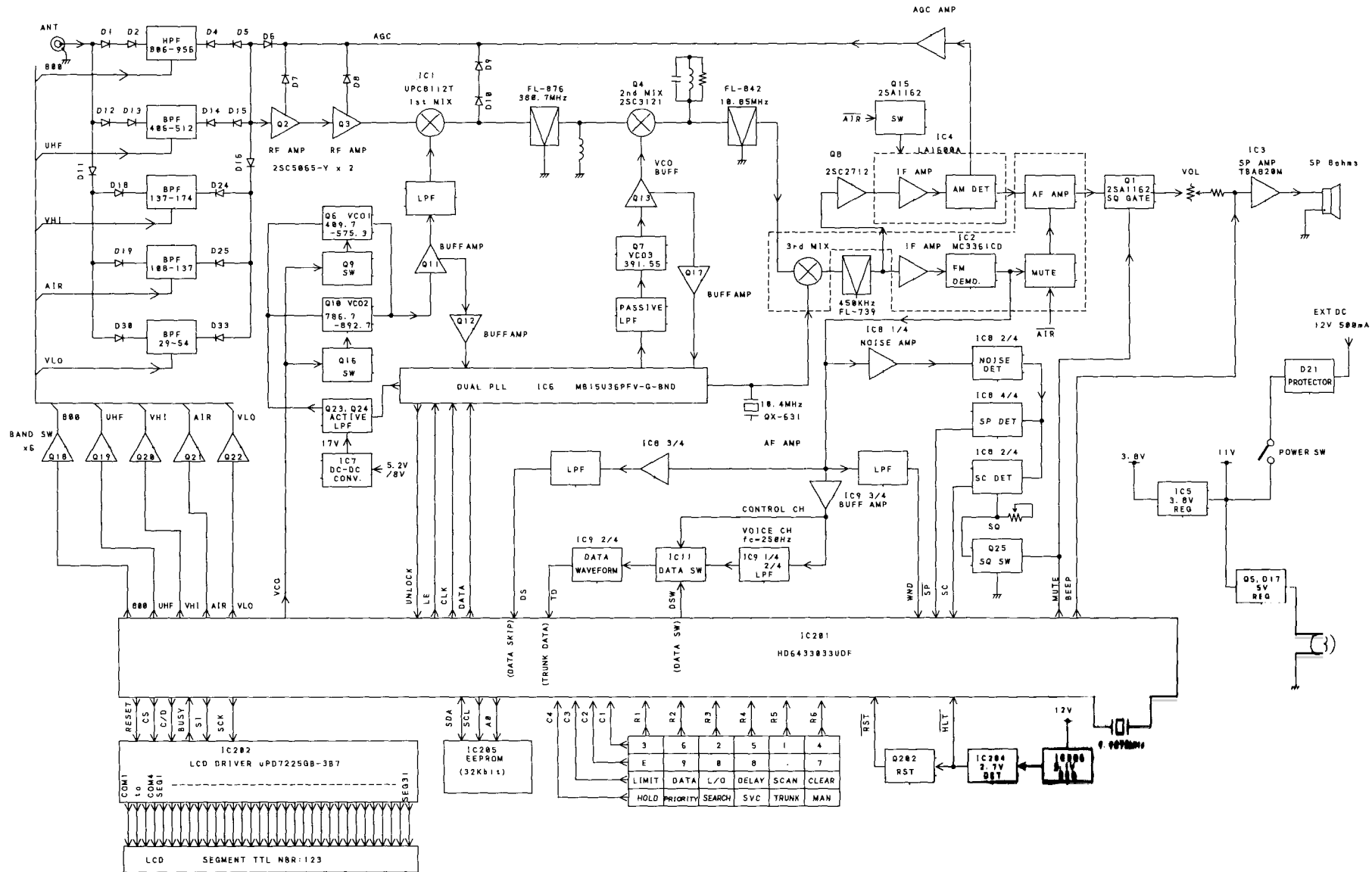
MEASUREMENT CONDITIONS

Power source: 12 V DC
Antenna impedance: 50-ohm
Test temperature: +25 °C $\pm$ 5 °C
Modulation frequency: 1 kHz
Deviation: FM $\pm$ 3 kHz dev./AM 60% for aircraft band
Mean signal input level: 100 μ V
Audio output load: 8-ohm resistive load
Standard ref. audio output: 50 mW

Item		Unit	Nominal	Limit
Sensitivity (S+N)/N=20 dB				
VHF low band	40.840 MHz	μV	0.5	2.0
VHF high band	162.400 MHz	μV	0.5	3.0
UHF band	453.250 MHz	μV	0.4	3.0
Aircraft band	127.175 MHz	μV	1.5	8.0
Public service band	857.200 MHz	μV	0.7	4.0
Maximum sensitivity	127.175 MHz	μV	0.2	2.0
Threshold squelch (MANUAL)				
VHF low band	at 40.840 MHz	μV	0.4	0.8
VHF high band	at 162.400 MHz	μV	0.5	1.2
UHF band	at 453.250 MHz	μV	0.4	1.8
Aircraft band	at 127.175 MHz	μV	0.6	2.0
Public service band	at 857.200 MHz	μV	0.3	3.0
Tight squelch (MANUAL) (S+N)/N				
VHF low band	at 40.840 MHz	dB	25	15
VHF high band	at 162.400 MHz	dB	25	15
UHF band	at 453.250 MHz	dB	25	15
Aircraft band	at 127.175 MHz	dB	15	10
Public service band	at 857.200 MHz	dB	25	15
Hum and noise				
VHF low band	at 40.840 MHz	dB	39	30
VHF high band	at 162.400 MHz	dB	39	30
UHF band	at 453.250 MHz	dB	39	30
Aircraft band	at 127.175 MHz	dB	50	30
Public service band	at 857.200 MHz	dB	39	30
Data deviation sensitivity				
Control ch data	at 851.0125 MHz	kHz	±0.3	±1.5
Voice ch data	at 851.0125 MHz	kHz	±0.1	±1.0
Audio frequency response –6 dB				
(at 162.400 MHz)	Low	Hz	300	200 ~ 450
	High	Hz	2300	1300 ~ 3000
(at 127.175 MHz)	Low	Hz	280	200 ~ 450
	High	Hz	2200	1300 ~ 3000
Audio output power of internal speaker				
(at 162.400 MHz)	Maximum	mW	1100	700
	10% THD	mW	1000	600
(at 127.175 MHz)	Maximum	mW	1100	700
	10% THD	mW	1000	600
(at 162.4 MHz 32 Ω EAR.)	Maximum	V	0.8	0.5

Item	Unit	Nominal	Limit
Distortion at 50 mW output			
at 162.400 MHz	%	1.7	6
at 127.175 MHz	%	3.0	10
Acceptable radio frequency displacement (EIA RS-204-D)			
at 162.400 MHz	kHz	±6	±3
IF rejection (380.7 MHz)			
at 162.4 MHz	dB	90	50
Residual noise (Vol.: min, SQ: Open)	mV	0.5	5
Scan/Search rate			
Scan	CH/sec.	50	25
Search (162.4 ~ 163.4 MHz)	Step/sec.	100	50
Scan delay	Sec.	2	1 ~ 5
Current drain (at 162.40 MHz)			
(at full output)	mA DC	436	500
(at Squelched)	mA DC	230	320

Note: Nominal specs represent the design specs. All units should be able to approximate these — some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; in no case should a unit fail to meet limit specs.



BLOCK DIAGRAM

ALIGNMENT AND ADJUSTMENT

PREPARATION FOR ALIGNMENT

To enter the following test frequencies into the channel memories:

Turn on the Power while pressing "2", "9" and "SCAN" keys. Then press "MANUAL" key.

TEST EQUIPMENT REQUIRED

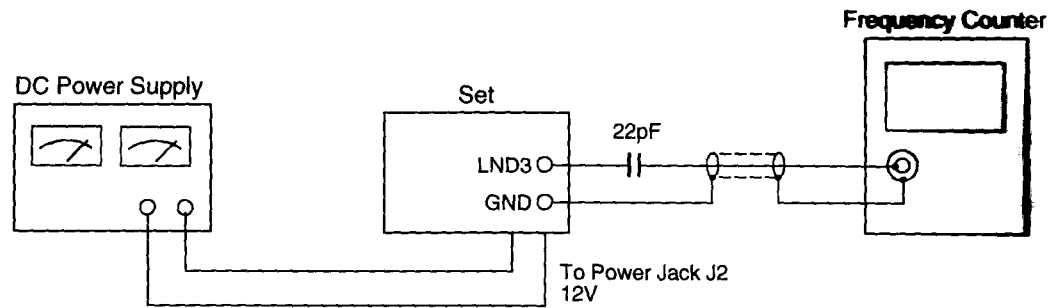
- DC power supply EXT. DC Power JACK: 12.0 V DC
- Oscilloscope
- Frequency counter
- Digital voltmeter
- SSVM
- Signal generator (SG)

Table 1. Test Frequency

Channel	Test Frequency	Channel	Test Frequency	Channel	Test Frequency
1	30.0500 MHz	8	453.2500 MHz	15	54.0000 MHz
2	40.8400 MHz	9	511.9125 MHz	16	806.0000 MHz
3	49.9000 MHz	10	108.5000 MHz	17	857.2000 MHz
4	138.1500 MHz	11	118.8000 MHz	18	911.5000 MHz
5	162.4000 MHz	12	127.1750 MHz	19	954.9125 MHz
6	173.2250 MHz	13	135.5000 MHz	31	29.0000 MHz
7	406.8750 MHz	14	29.0000 MHz	32	512.0000 MHz

ALIGNMENT OF REFERENCE OSC

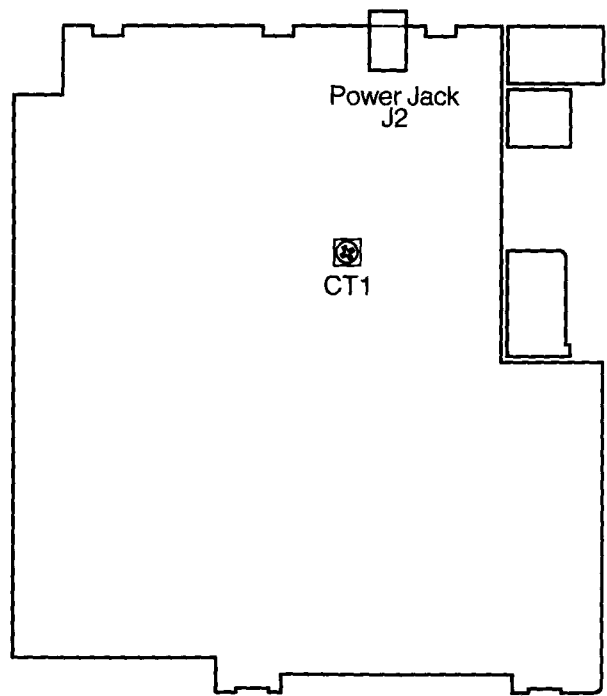
Test Equipment Required and Connections



Alignment Procedure

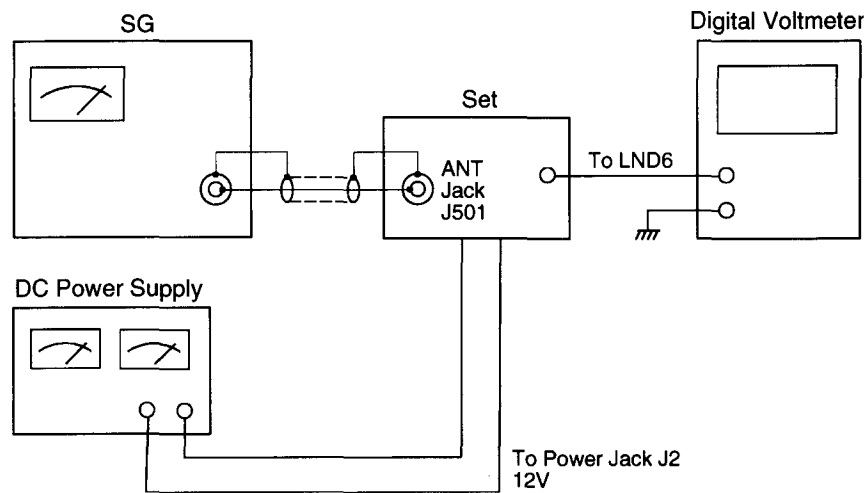
Step	Preset to	Adjustment	Result
1	CH14	CT1	Connect the frequency counter to LND3. (See Page 15 for the position.) Adjust CT1 to obtain 391.55 MHz $\pm$ 100 Hz.

Alignment Point Locations (RF PCB)



ALIGNMENT OF NFM DISCRIMINATOR

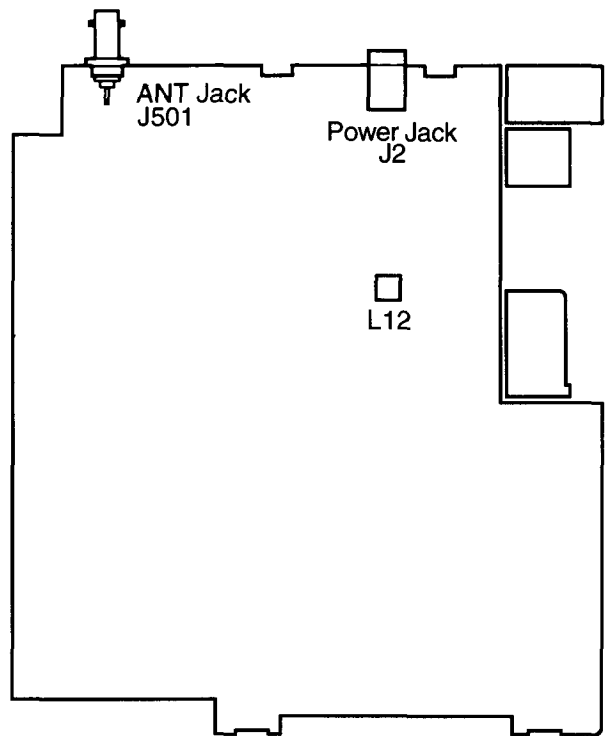
Test Equipment Required and Connections



Alignment Procedure

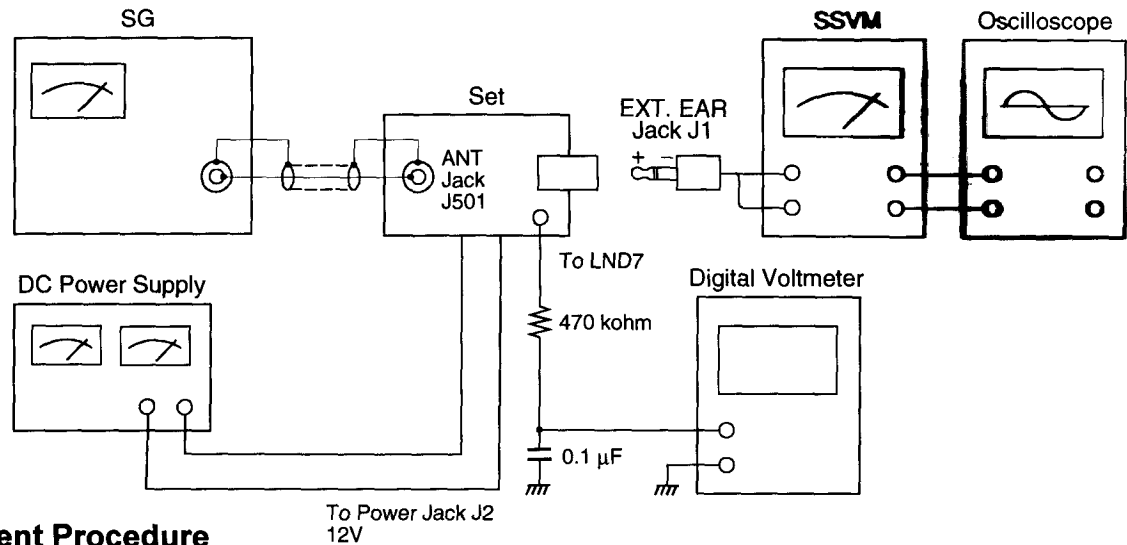
Step	Preset to	Adjustment	Result
1	CH2 SG: 40.84 MHz No modulation 100 μ V	L12	Connect the digital voltmeter to LND6. (See Page 15 for the position.) Adjust L12 to obtain 1.3 V $\pm$ 0.05 V DC.

Alignment Point Locations (RF PCB)



ALIGNMENT OF SQUELCH

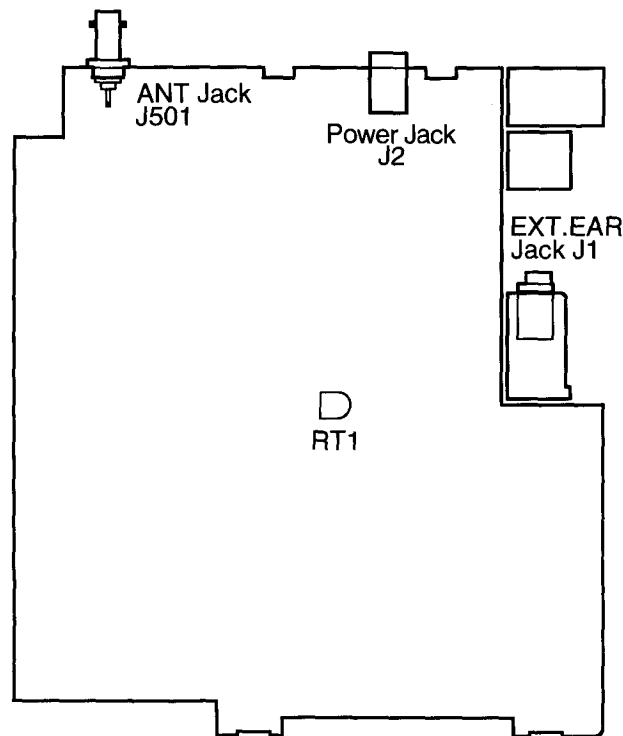
Test Equipment Required and Connections



Alignment Procedure

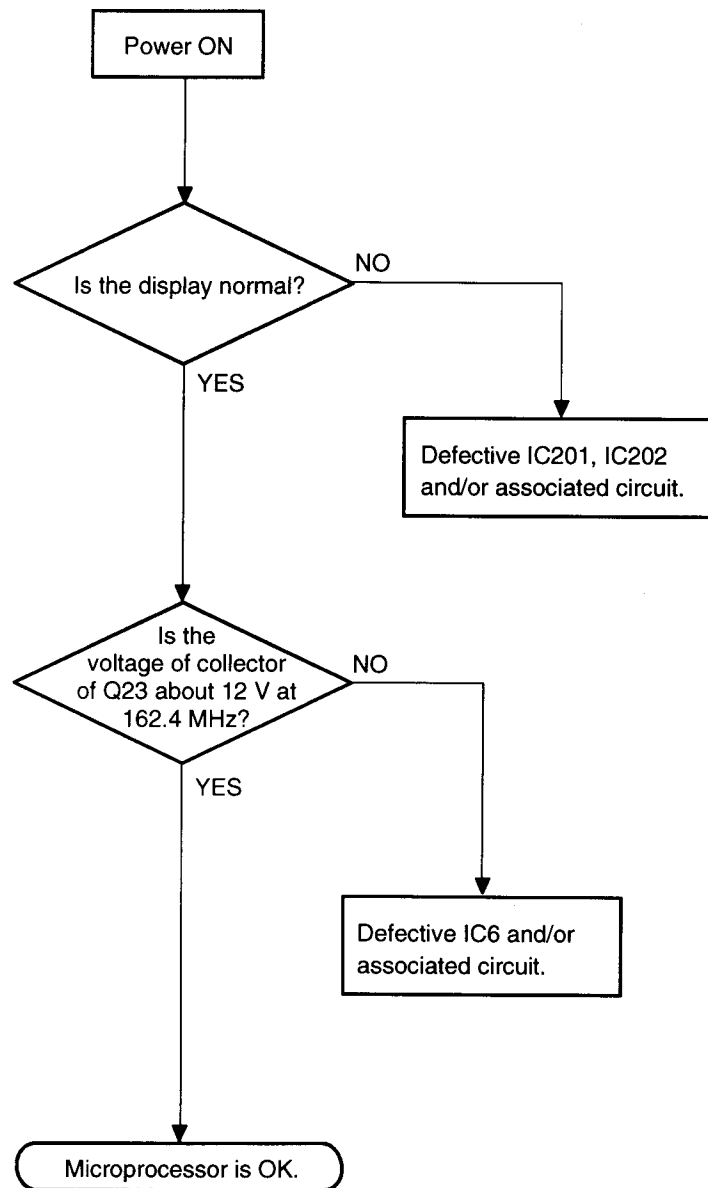
Step	Preset to	Adjustment	Result
1	CH2 SG: 40.840 MHz No modulation		Set the SG level so that the voltage at LND7 is 0.96 ± 0.05 V DC. (See Page 15 for the position.)
2	CH2 SG: 40.840 MHz 1KHz $\pm$ 3KHz Dev Squelch: CW	RT1	Adjust RT1 slowly until the squelch opens

Alignment Point Location (RF PCB)

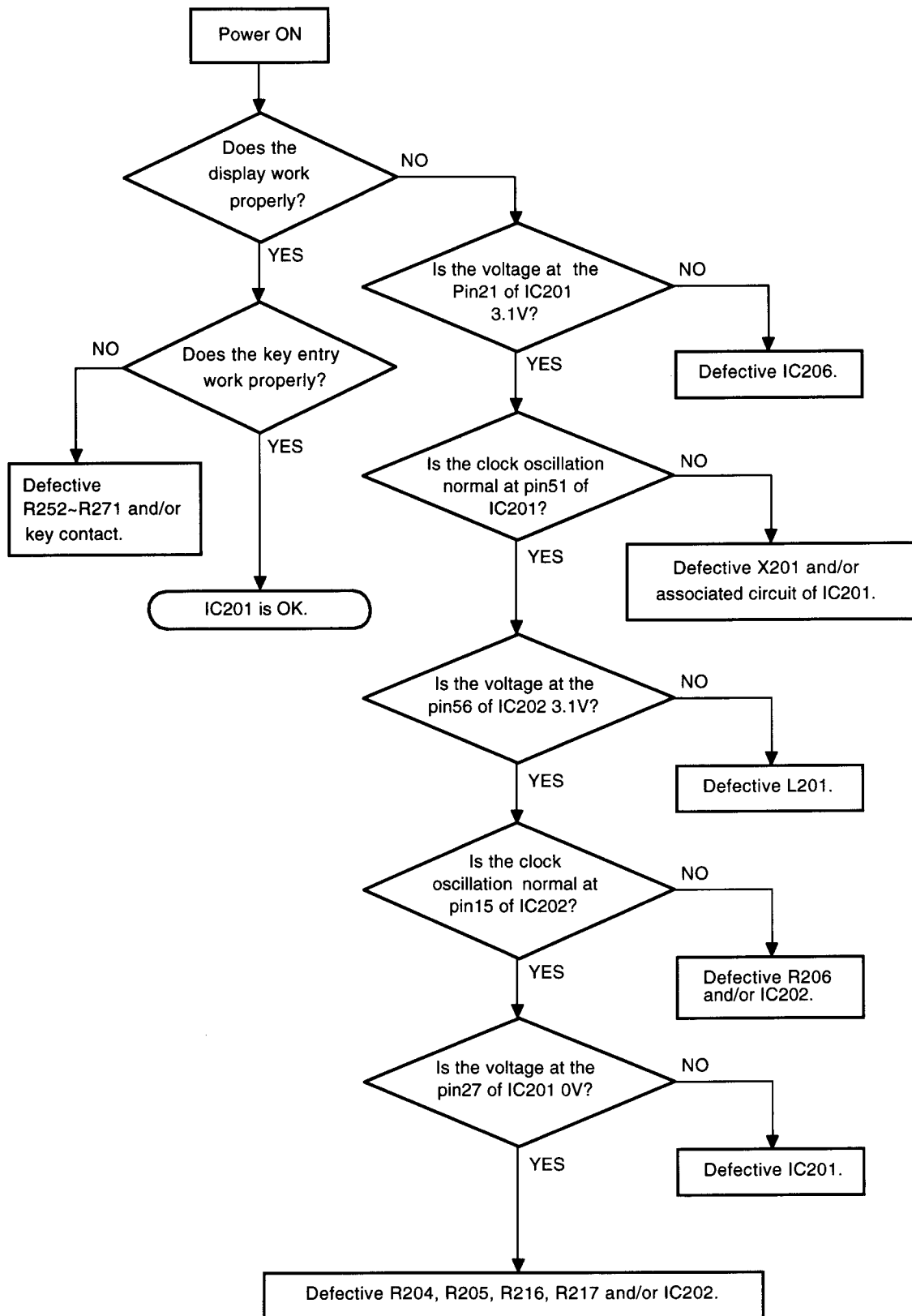


TROUBLESHOOTING

Reception Check

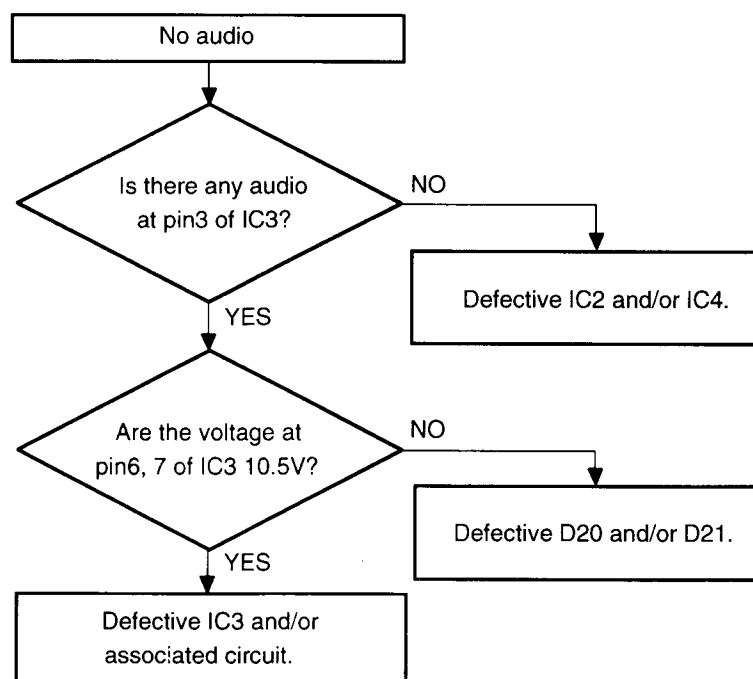


Microprocessor Check



Note: While checking the above items, the microprocessor might "lock up." If so, turn the power switch OFF and then ON and restart to check.

Audio Section



RF Section

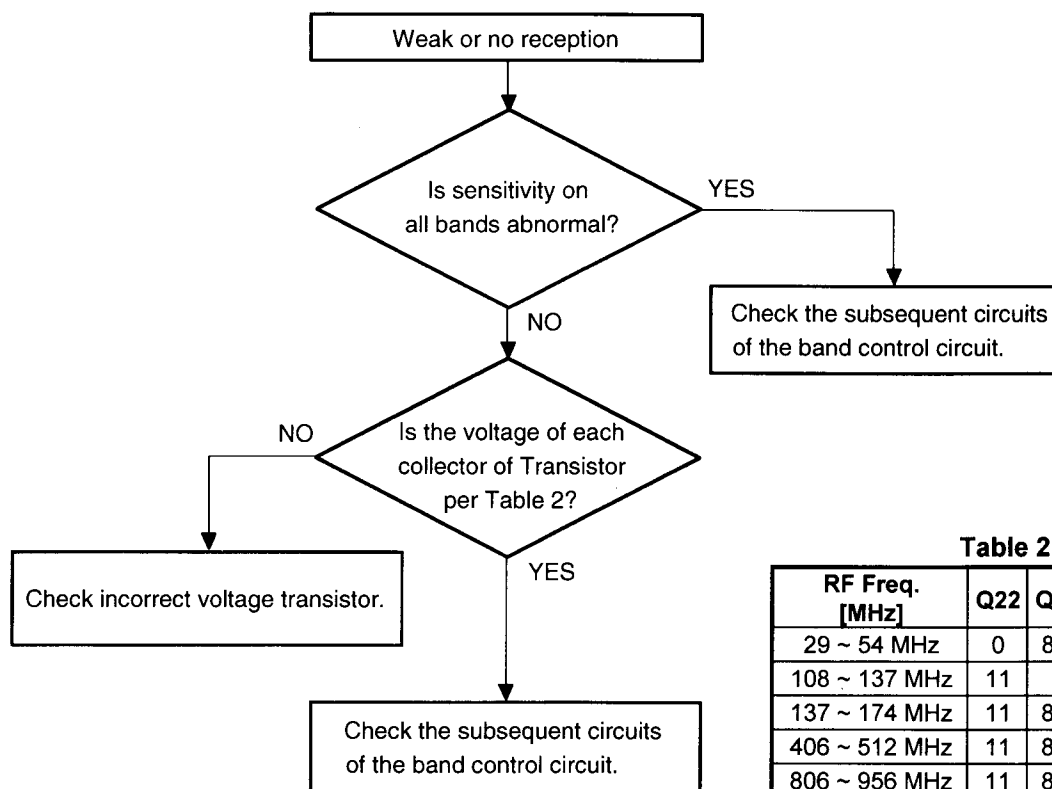
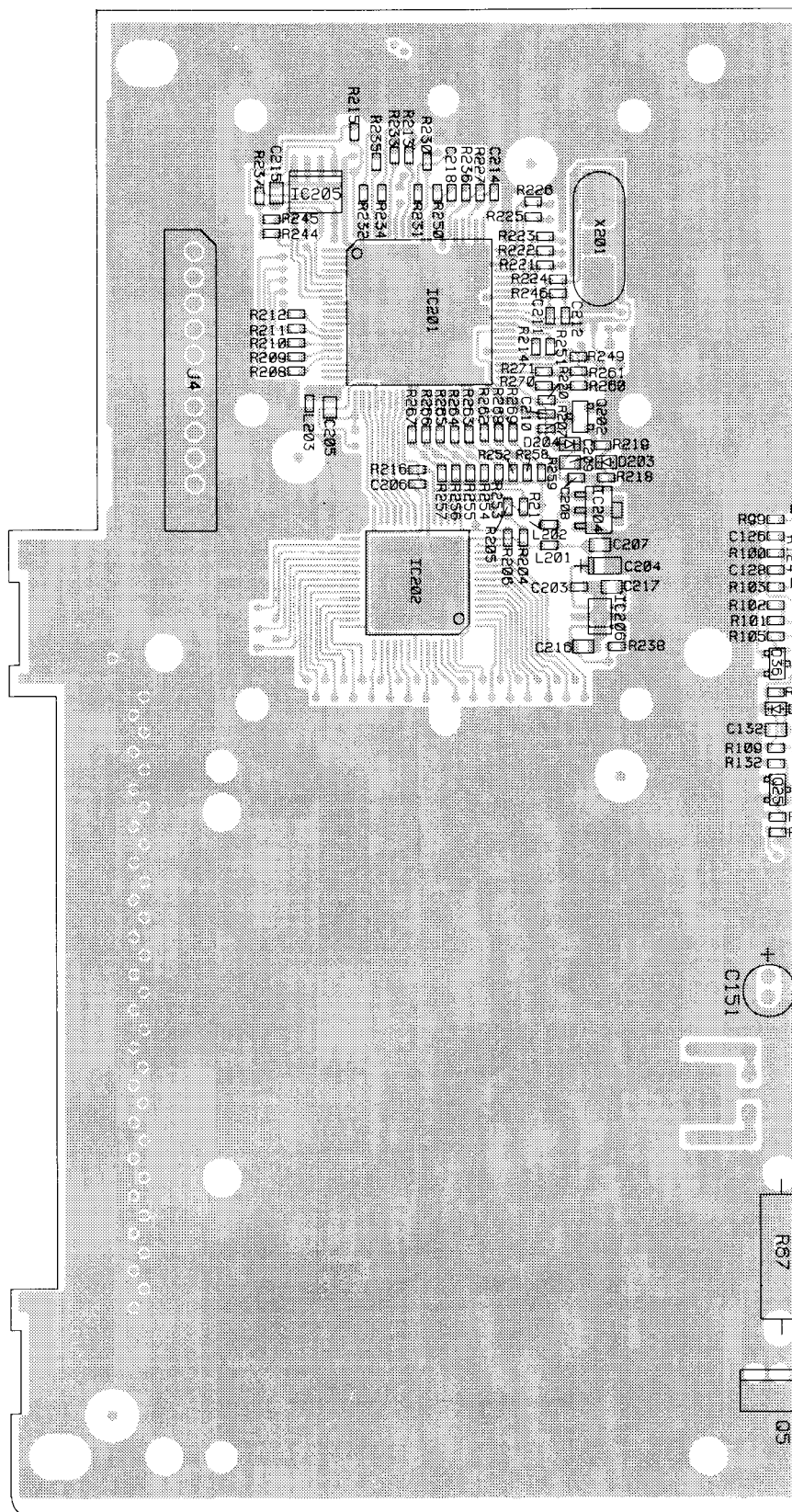


Table 2.

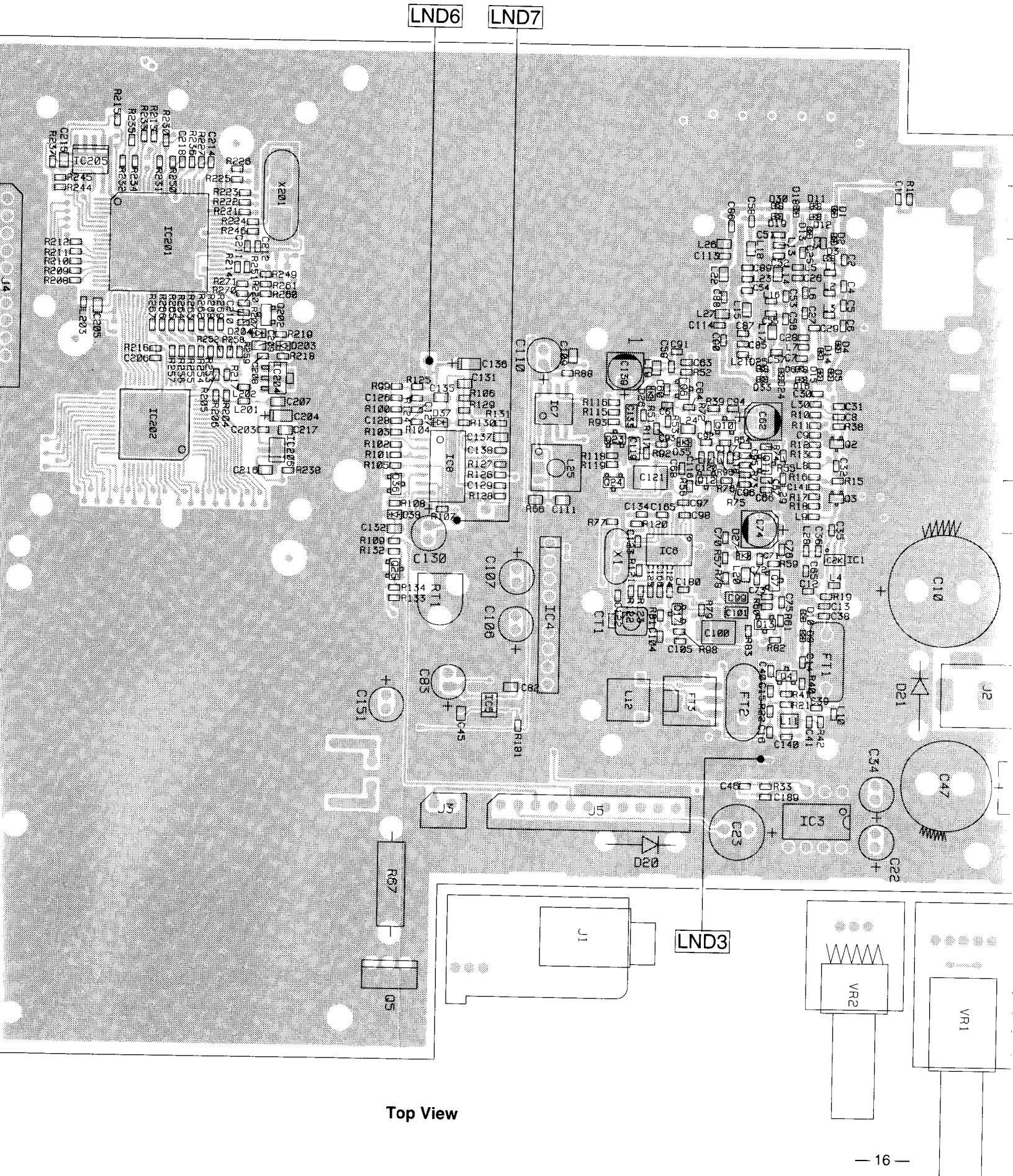
Unit: V

RF Freq. [MHz]	Q22	Q21	Q20	Q19	Q18
29 ~ 54 MHz	0	8.2	11	11	7.8
108 ~ 137 MHz	11	0	11	11	7.8
137 ~ 174 MHz	11	8.2	0	11	7.8
406 ~ 512 MHz	11	8.2	11	0	7.8
806 ~ 956 MHz	11	8.2	11	11	0

MAIN



PRINTED CIRCUIT BOARDS

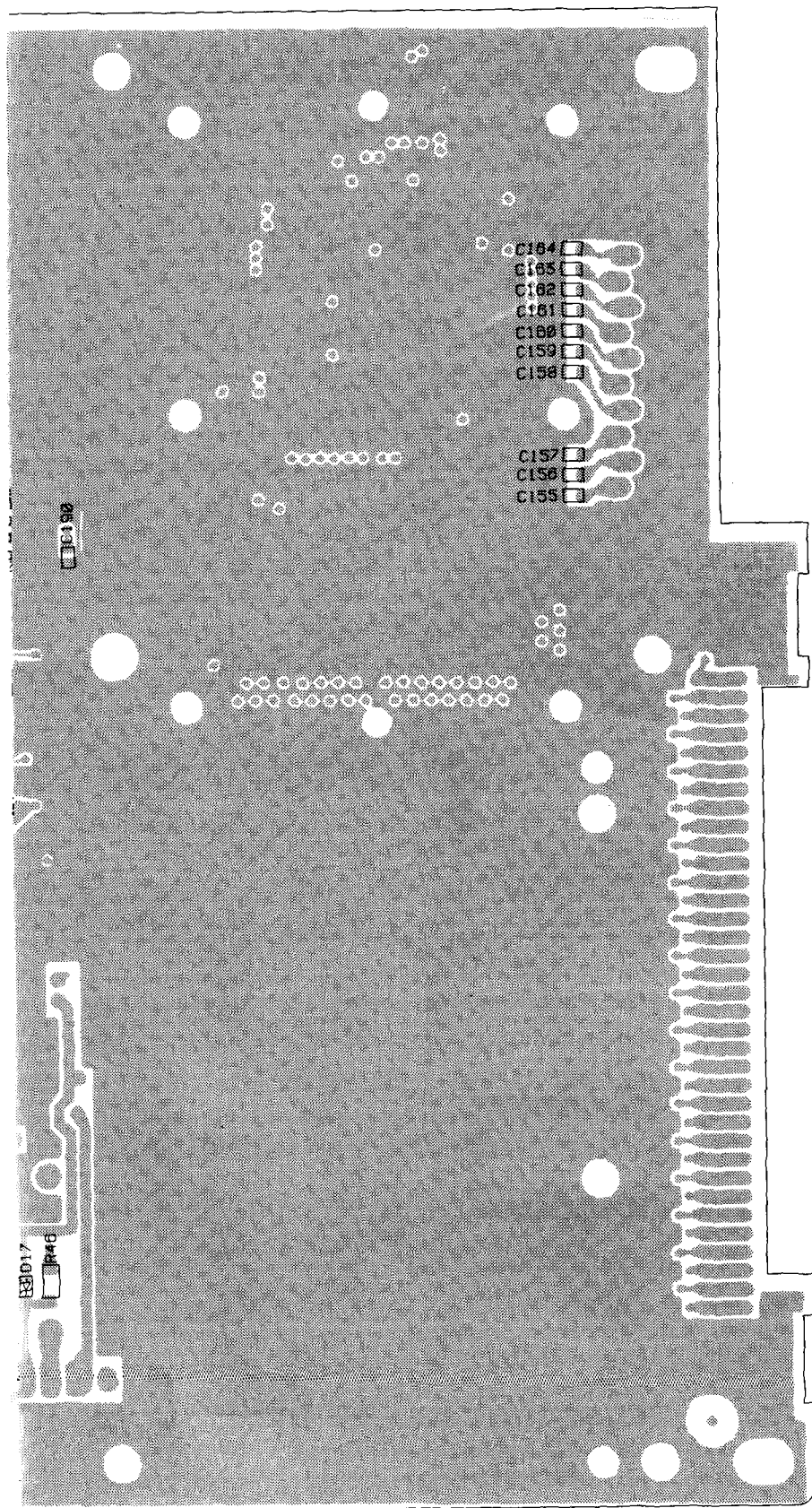


Top View

ND6 LND7

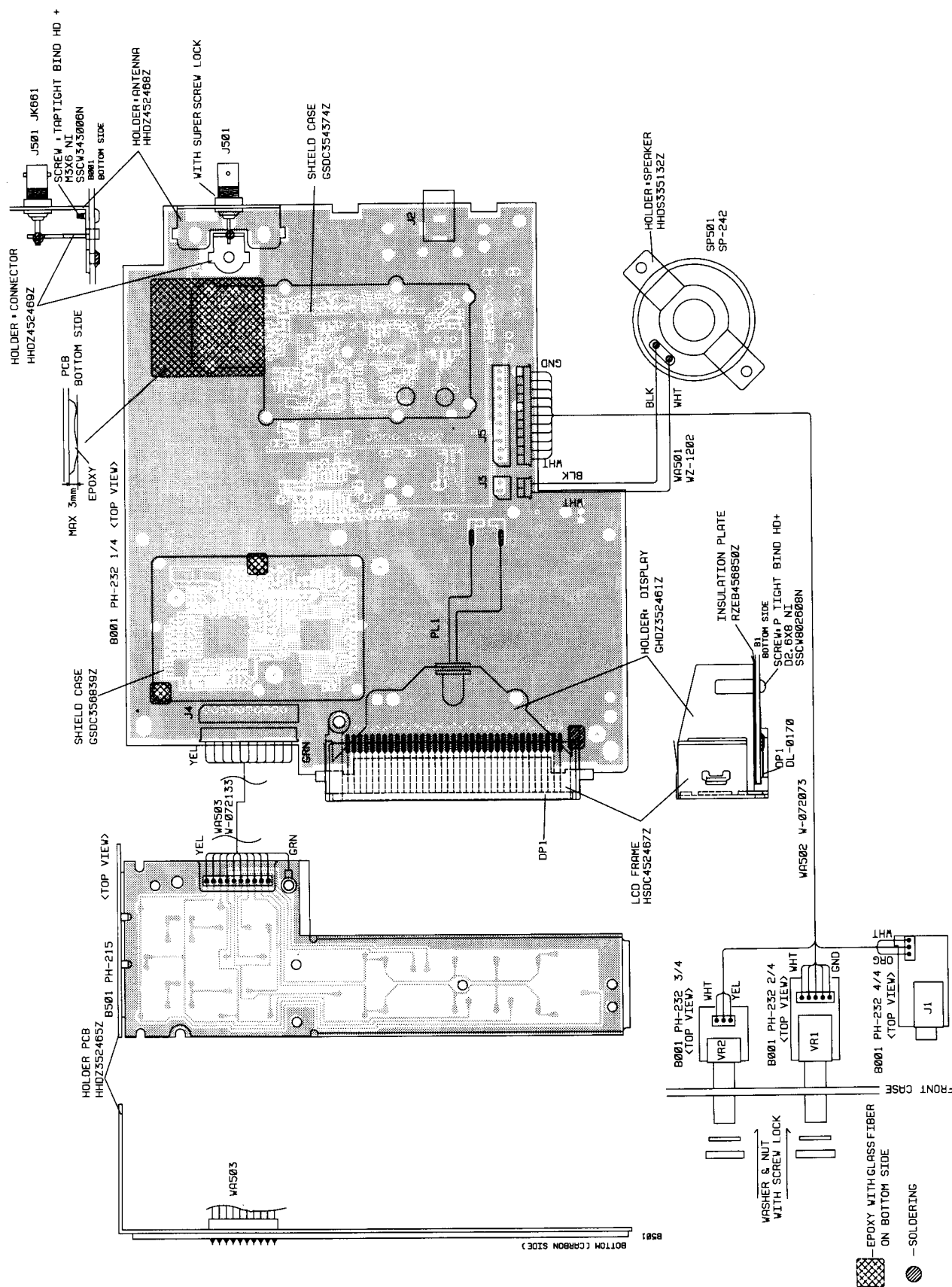






view

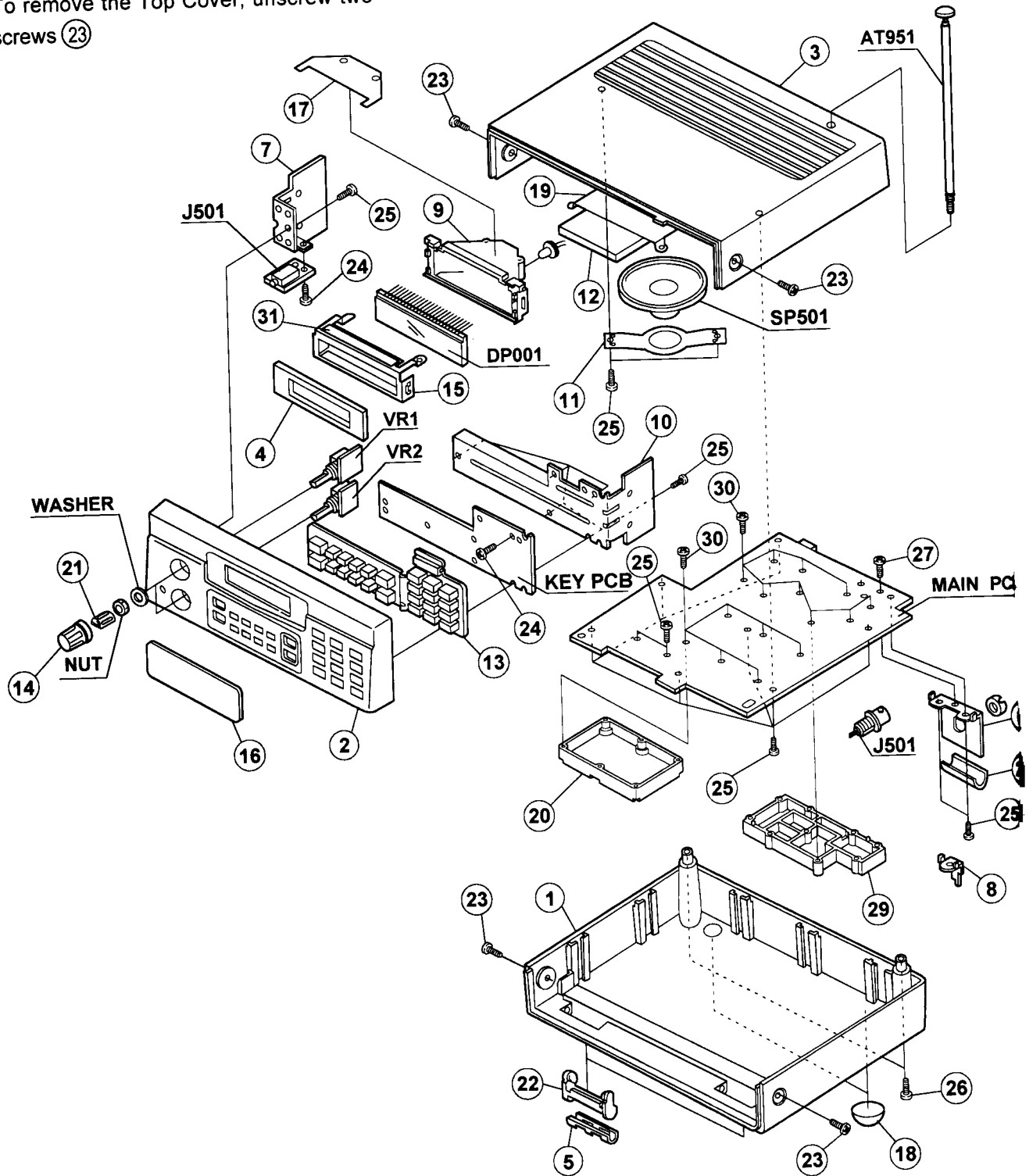
— 19 —



EXPLODED VIEW AND DISASSEMBLY INSTRUCTIONS

To remove the Bottom Cover, unscrew two screws (26) and two screws (23)

To remove the Top Cover, unscrew two screws (23)



MECHANICAL PARTS LIST

Ref. No.	Description	RS Part No.	Mfr's Part No.
1	Case, Bottom	ABS	GCAS152459Z
2	Panel, Front (Comp)	ABS	GCAS356846Z
3	Case, Top	ABS	GCAS152458Z
4	Cushion	Moltplene	RCUN453002Z
5	Foot	EPDM	LFUT452464Z
6	Holder, Antenna	SECC	HHZ452468Z
7	Holder, Case	SECC	HHZ452466Z
8	Holder, Connector	SPCC	HHZ452469Z
9	Holder, Display	ABS(HI-HEAT)	GHDZ352461Z
10	Holder, PCB	SECC	HHZ352465Z
11	Holder, Speaker	SUS304, 0.4T NON OIL	HHDS335132Z
12	Insulation Plate	PC	RZEB453512Z
13	Key Rubber	SI	LNBZ256849Z
14	Knob	ABS	GNBZ352460Z
15	LCD Frame	C5191(PBP)	HSDC452467Z
16	Plate, Display	PC	KDPZ456847Z
17	Insulation Plate	PC	RZEB456850Z
18	Rubber Foot	Polyuretan Rubber	TSTD0340012
19	Shield Cover	SPTE	HSDC452954Z
20	Shield Case	ABS	GSDC356839Z
21	Spring Plate, Knob	D6.02XL9.53	TSTD0200003
22	Stand	ABS	GCAS452462Z
23	Screw, Bind HD +	M3X6 BZMC	SSCW193006D
24	Screw, Bind HD +	M3X6 NI	SSCW193006N
25	Screw, P Tight Bind HD +	D2.6X8 NI	SSCW802608N
26	Screw, P Tight Bind HD +	D3X20 NI	SSCW803020N
27	Screw, TAP Tight Bind HD +	M3X6 NI	SSCW343006N
28	Himelon		RBLD451794Z
29	Shield Case	ABS	GSDC354374Z
30	Screw, P Tight Bind HD +	D2X8 NI	SSCW802008N
31	Cushion		RCUN431991Z
	Hardware Kit (Ref. No. 23 - 26)		HDWRKB287ZP

ELECTRICAL PARTS LIST

MAIN PCB ASSEMBLY

Ref. No.	Description	RS Part No.	Mfr's Part No.
B1	Assembly, Main PCB Consists of the following:		AB287ZPBA for U.S.A. AB287APBA for Canada
Capacitors			
Notes: All ceramic capacitors are Multilayer (1608) Tape type, unless otherwise specified. The following codes indicate variations of capacitors against temperature: B=±10%, CH=0±60 ppm/°C, CJ=0±120 ppm/°C, CK=0±250 ppm/°C F=+30-80%, RH=-220ppm/°C±60 ppm/°C, UJ=-750ppm/°C±120 ppm/°C			
C1	Ceramic	0.001μF 50V ±10 %	B BCML811025Z
C2	Ceramic	15 pF 50V ±5 %	CH BCMM811504Z
C3	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C4	Ceramic	4 pF 50V ±0.25 pF	CH BCMM814091Z
C5	Ceramic	2 pF 50V ±0.25 pF	CK BCMS812091Z
C6	Ceramic	4 pF 50V ±0.25 pF	CH BCMM814091Z
C7	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C8	Ceramic	0.01 μF 50V ±10 %	B BCML811035Z
C9	Ceramic	0.01 μF 50V ±10 %	B BCML811035Z
C10	Electrolytic	2200 μF 25V ±20 %	C-130 BCAP512226Z
	or Electrolytic	2200 μF 25V ±20 %	C-156 BCAZ512226Z
C11	Ceramic (2125)	0.001 μF 50V ±10 %	B BCXT811025Z
C12	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C13	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C14	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C15	Ceramic	0.01 μF 50V ±10 %	B BCML811035Z
C16	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C17	Ceramic (2125)	0.001 μF 50V ±5 %	CH BCBH811024Z
C18	Ceramic (2125)	0.0047 μF 50V ±10 %	B BCXT814725Z
C19	Ceramic (2125)	0.001 μF 50V ±10 %	B BCXT811025Z
C20	Ceramic (2125)	0.047 μF 50V ±10 %	B BCXT814735Z
C21	Ceramic (2125)	0.0082 μF 50V ±10 %	B BCXT818225Z
C22	Electrolytic	47 μF 25V ±20 %	C-130 BCAP514706Z
	or Electrolytic	47 μF 25V ±20 %	C-156 BCAZ514706Z
C23	Electrolytic	220 μF 25V ±20 %	C-130 BCAP512216Z
	or Electrolytic	220 μF 25V ±20 %	C-156 BCAZ512216Z
C24	Ceramic (2125)	0.001 μF 50V ±10 %	B BCXT811025Z
C25	Ceramic	47 pF 50V ±5 %	CH BCMM814704Z
C26	Ceramic	6 pF 50V ±0.5 pF	CH BCMM816092Z
C27	Ceramic	1.5 pF 50V ±0.25 pF	CK BCMS811591Z
C28	Ceramic	1.5 pF 50V ±0.25 pF	CH BCMM811591Z
C29	Ceramic	10 pF 50V ±0.5 pF	CH BCMM811002Z
C30	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C31	Ceramic	3 pF 50V ±0.25 pF	CJ BCMT813091Z
C32	Ceramic	56 pF 50V ±5 %	CH BCMM815604Z
C33	Ceramic (2125)	0.001 μF 50V ±10 %	B BCXT811025Z
C34	Electrolytic	2.2 μF 50V ±20 %	C-130 BCAP812296Z
	or Electrolytic	2.2 μF 50V ±20 %	C-156 BCAZ812296Z
C35	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C36	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z
C37	Ceramic (2125)	0.1 μF 25V ±10 %	B BCXT511045Z
C38	Ceramic	3 pF 50V ±0.25 pF	CK BCMT813091Z
C39	Ceramic	0.001 μF 50V ±10 %	B BCML811025Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
C40	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z
C41	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z
C42	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C43	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C44	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C45	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C46	Ceramic	3 pF	50V	± 0.25 pF	CJ		BCMT813091Z
C47	Electrolytic	1000 μ F	25V	± 20 %	C-130		BCAP511026Z
	or Electrolytic	1000 μ F	25V	± 20 %	C-156		BCAZ511026Z
C48	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C49	Ceramic (3216)	0.22 μ F	16V	± 10 %	R		BCBZ312245Z
C50	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C51	Ceramic	180 pF	50V	± 5 %	CH		BCMM811814Z
C52	Ceramic	39 pF	50V	± 5 %	CH		BCMM813904Z
C53	Ceramic	7 pF	50V	± 0.25 pF	CH		BCMM817091Z
C54	Ceramic	5 pF	50V	± 0.25 pF	CH		BCMM815091Z
C55	Ceramic	68 pF	50V	± 5 %	CH		BCMM816804Z
C56	Ceramic	1.5 pF	50V	± 0.25 pF	CJ		BCMS811591Z
C57	Ceramic	7 pF	50V	± 0.5 pF	CH		BCMM817092Z
C58	Ceramic	12 pF	50V	± 5 %	CH		BCMM811204Z
C59	Ceramic	39 pF	50V	± 5 %	UJ		BCMP813904Z
C60	Ceramic	6 pF	50V	± 0.5 pF	UJ		BCMP816092Z
C61	Ceramic	6 pF	50V	± 0.5 pF	UJ		BCMP816092Z
C62	Electrolytic	47 μ F	6.3V	± 20 %	C-258		BCFZ904706Z
C63	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z
C64	Ceramic	5 pF	50V	± 0.25 pF	CH		BCMM815091Z
C65	Ceramic	4 pF	50V	± 0.25 pF	CH		BCMM814091Z
C66	Ceramic	6 pF	50V	± 0.5 pF	CH		BCMM816092Z
C67	Ceramic	1 pF	50V	± 0.25 pF	CK		BCMS811091Z
C68	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z
C69	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C70	Ceramic	12 pF	50V	± 5 %	RH		BCMN811204Z
C71	Ceramic	12 pF	50V	± 5 %	CH		BCMM811204Z
C72	Ceramic	7 pF	50V	± 0.5 pF	CH		BCMM817092Z
C73	Ceramic	7 pF	50V	± 0.5 pF	CH		BCMM817092Z
C74	Electrolytic	47 μ F	6.3V	± 20 %	C-258		BCFZ904706Z
C75	Ceramic	10 pF	50V	± 0.5 pF	CH		BCMM811002Z
C76	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z
C77	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C78	Ceramic (2125)	0.022 μ F	50V	± 10 %	B		BCXT812235Z
C79	Ceramic (2125)	0.047 μ F	50V	± 10 %	B		BCXT814735Z
C80	Not Used						
C81	Ceramic (2125)	0.01 μ F	50V	± 10 %	B		BCXT811035Z
C82	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C83	Electrolytic	100 μ F	10V	± 20 %	C-130		BCAP111016Z
	or Electrolytic	100 μ F	10V	± 20 %	C-156		BCAZ111016Z
C84	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C85	Ceramic	150 pF	50V	± 5 %	CH		BCMM811514Z
C86	Ceramic	470 pF	50V	± 5 %	CH		BCMM814714Z
C87	Ceramic	68 pF	50V	± 5 %	CH		BCMM816804Z
C88	Ceramic	47 pF	50V	± 5 %	CH		BCMM814704Z
C89	Ceramic	100 pF	50V	± 5 %	CH		BCMM811014Z
C90	Ceramic	470 pF	50V	± 5 %	CH		BCMM814714Z
C91	Ceramic	8 pF	50V	± 0.25 pF	RH		BCMN818092Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
C92	Ceramic	4 pF	50V	±0.25 pF	RH		BCMN814091Z
C93	Ceramic	0.001 µF	50V	±10 %	B		BCML811025Z
C94	Ceramic	0.001 µF	50V	±10 %	B		BCML811025Z
C95	Ceramic	3 pF	50V	±0.25 pF	CJ		BCMT813091Z
C96	Ceramic	100 pF	50V	±5 %	CH		BCMM811014Z
C97	Ceramic	0.001 µF	50V	±10 %	B		BCML811025Z
C98	Ceramic	220 pF	50V	±5 %	CH		BCMM812214Z
C99	Chip Film	0.0047 µF	50V	±5 %	C-264		BCTG814724Z
C100	Chip Film	0.1 µF	50V	±5 %	C-264		BCTG811044Z
C101	Chip Film	0.0047 µF	50V	±5 %	C-264		BCTG814724Z
C102	Tantalum Chip	4.7 µF	10V	±20 %	A C-241 Tape		BCSS114796Z
C103	Ceramic (2125)	0.001 µF	50V	±10 %	B		BCXT811025Z
C104	Ceramic	0.001 µF	50V	±10 %	B		BCML811025Z
C105	Ceramic	3 pF	50V	±0.25 pF	CJ		BCMT813091Z
C106	Electrolytic	22 µF	50V	±20 %	C-130		BCAP812206Z
	or Electrolytic	22 µF	50V	±20 %	C-156		BCAZ812206Z
C107	Electrolytic	4.7 µF	50V	±20 %	C-130		BCAP814796Z
	or Electrolytic	4.7 µF	50V	±20 %	C-156		BCAZ814796Z
C108	Ceramic (2125)	0.1 µF	25V	±10 %	B		BCXT511045Z
C109	Ceramic (2125)	0.1 µF	25V	±10 %	B		BCXT511045Z
C110	Electrolytic	4.7 µF	50V	±20 %	C-130		BCAP814796Z
	or Electrolytic	4.7 µF	50V	±20 %	C-156		BCAZ814796Z
C111	Ceramic (2125)	1 µF	16V	-20+80 %	F		BCXK311050Z
C112	Ceramic (2125)	0.001 µF	50V	±10 %	B		BCXT811025Z
C113	Ceramic	82 pF	50V	±5 %	CH		BCMM818204Z
C114	Ceramic	100 pF	50V	±5 %	CH		BCMM811014Z
C115	Ceramic (2125)	0.001 µF	50V	±10 %	B		BCXT811025Z
C116	Ceramic	0.5 pF	50V	B	CH		BCMM815088Z
C117	Ceramic	2 pF	50V	±0.25 pF	RK		BCMH812091Z
C118	Ceramic	2 pF	50V	±0.25 pF	RK		BCMH812091Z
C119	Chip Film	0.0047 µF	50V	±5 %	C-264		BCTG814724Z
C120	Ceramic	0.001 µF	50V	±10 %	B		BCML811025Z
C121	Chip Film	0.1 µF	50V	±5 %	C-264		BCTG811044Z
C122	Ceramic	22 pF	50V	±5 %	CH		BCMM812204Z
C123	Ceramic	33 pF	50V	±5 %	CH		BCMM813304Z
C124	Ceramic	3 pF	50V	±0.25 pF	CJ		BCMT813091Z
C125	Ceramic	0.001 µF	50V	±10 %	B		BCML811025Z
C126	Ceramic	470 pF	50V	±5 %	CH		BCMM814714Z
C127	Ceramic	47 pF	50V	±5 %	CH		BCMM814704Z
C128	Ceramic	0.001 µF	50V	±10 %	B		BCML811025Z
C129	Ceramic	22 pF	50V	±5 %	CH		BCMM812204Z
C130	Electrolytic	100 µF	10V	±20 %	C-130		BCAP111016Z
	or Electrolytic	100 µF	10V	±20 %	C-156		BCAZ111016Z
C131	Ceramic (2125)	0.22 µF	16V	±10 %	B		BCXT312245Z
C132	Ceramic (2125)	0.047 µF	50V	±10 %	B		BCXT814735Z
C133	Chip Film	0.0047 µF	50V	±5 %	C-264		BCTG814724Z
C134	Ceramic	100 pF	50V	±5 %	CH		BCMM811014Z
C135	Ceramic (2125)	0.1 µF	25V	±10 %	B		BCXT511045Z
C136	Tantalum Chip	4.7 µF	10V	±20 %	A C-241 Tape		BCSS114796Z
C137	Ceramic (2125)	0.047 µF	50V	±10 %	B		BCXT814735Z
C138	Ceramic	0.0027 µF	50V	±10 %	B		BCML812725Z
C139	Electrolytic	10 µF	35V	±20 %	C-258		BCFZ661006Z
C140	Ceramic	15 pF	50V	±5 %	CH		BCMM811504Z
C141	Ceramic	0.01 µF	50V	±10 %	B		BCML811035Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
C142	Not Used						
C143	Ceramic (2125)	0.056 μ F	25V	± 10 %	B		BCXT515635Z
C144	Ceramic (2125)	0.0027 μ F	50V	± 10 %	B		BCXT812725Z
C145	Ceramic (2125)	680 pF	50V	± 5 %	CH		BCBH816814Z
C146	Ceramic (2125)	0.056 μ F	25V	± 10 %	B		BCXT515635Z
C147	Ceramic (2125)	0.0027 μ F	50V	± 10 %	B		BCXT812725Z
C148	Ceramic (2125)	390 pF	50V	± 5 %	CH		BCBH813914Z
C149	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C150	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C151	Electrolytic	22 μ F	50V	± 20 %	C-130		BCAP812206Z
	or Electrolytic	22 μ F	50V	± 20 %	C-156		BCAZ812206Z
C152	Not Used						
C153	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C154	Ceramic (2125)	220 pF	50V	± 5 %	CH		BCBH812214Z
C155	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C156	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C157	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C158	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C159	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C160	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C161	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C162	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C163	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C164	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C165	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z
C166	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z
C167~179	Not Used						
C180	Ceramic	100 pF	50V	± 5 %	CH		BCMM811014Z
C181	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C182	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C183	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C184	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C185	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C186	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C187	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C188	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C189	Ceramic	10 pF	50V	± 0.5 pF	CH		BCMM811002Z
C190	Ceramic (2125)	10 pF	50V	± 0.5 pF	CH		BCBH811002Z
C191	Ceramic (2125)	100 pF	50V	± 5 %	CH		BCBH811014Z
C192	Not Used						
C193	Ceramic (2125)	0.001 μ F	50V	± 10 %	B		BCXT811025Z
C194~202	Not Used						
C203	Ceramic	100 pF	50V	± 5 %	CH		BCMM811014Z
C204	Tantalum Chip	10 μ F	7V	± 10 %	A C-241 Tape		BCSS951005Z
C205	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C206	Ceramic	0.033 μ F	16V	± 10 %	B		BCML313335Z
C207	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C208	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z
C209	Ceramic (2125)	0.1 μ F	25V	± 10 %	B		BCXT511045Z
C210	Ceramic	0.01 μ F	50V	± 10 %	B		BCML811035Z
C211	Ceramic	22 pF	50V	± 5 %	CH		BCMM812204Z
C212	Ceramic	22 pF	50V	± 5 %	CH		BCMM812204Z
C213	Not Used						
C214	Ceramic	0.001 μ F	50V	± 10 %	B		BCML811025Z

Ref. No.	Description				RS Part No.	Mfr's Part No.
C215	Ceramic (2125)	0.1 μ F	25V	$\pm 10\%$	B	BCXT511045Z
C216	Ceramic (2125)	0.1 μ F	25V	$\pm 10\%$	B	BCXT511045Z
C218	Ceramic	0.033 μ F	16V	$\pm 10\%$	B	BCML313335Z
CT001	Trimmer	CT-090	ECR-LA030E52	30pF		BCTY0090300
Filters						
FT1		FL-876	SAF380MA10T or			BFLY0876001
		FL-655	NSRF C380			BFLY0655001
FT2		FL-842	UMF-7078			BFLY0842001
FT3	Ceramic	FL-739	SFPC450D			BFLY0739001
Diodes						
D1		1SS390	TE61			BDAY1041001
D2		1SS390	TE61			BDAY1041001
D3		1SS390	TE61			BDAY1041001
D4		1SS390	TE61			BDAY1041001
D5		1SS390	TE61			BDAY1041001
D6		1SS390	TE61			BDAY1041001
D7		1SS355	TE-17			BDAY0807001
D8		1SS355	TE-17			BDAY0807001
D9		1SS390	TE61			BDAY1041001
D10		1SS390	TE61			BDAY1041001
D11		1SS390	TE61			BDAY1041001
D12		1SS390	TE61			BDAY1041001
D13		1SS390	TE61			BDAY1041001
D14		1SS390	TE61			BDAY1041001
D15		1SS390	TE61			BDAY1041001
D16		1SS390	TE61			BDAY1041001
D17	Zener	UDZ5.6B	TE-17			BDAY0916013
D18		1SS390	TE61			BDAY1041001
D19		1SS390	TE61			BDAY1041001
D20		1N4003				BDAY0133001
D21		1N4003				BDAY0133001
D24		1SS390	TE61			BDAY1041001
D25		1SS390	TE61			BDAY1041001
D26	Varicap	1SV269(TPH3)				BDAY1055001
D27	Varicap	HVU308-1	TRF			BDAY0674001
D30		1SS390	TE61			BDAY1041001
D33		1SS390	TE61			BDAY1041001
D35	Varicap	1SV269(TPH3)				BDAY1055001
D36		1SS226	TE85L			BDAY0274001
D37		1SS355	TE-17			BDAY0807001
D38		1SS355	TE-17			BDAY0807001
D39~202	Not Used					
D203		1SS355	TE-17			BDAY0807001
D204		1SS355	TE-17			BDAY0807001
ICs						
IC1		UPC8112T-E3				BDEY2885003
IC2		MC3361CDR2				BDEY2768003
IC3		TBA820M				BDEY0659001
IC4		LA1600A				BDEY1000001

Ref. No.	Description			RS Part No.	Mfr's Part No.	
IC5	Not Used	TK11238AM-TL			BDEY3642003	
IC6		MB15U36PFV-G-BND-ER			BDEY3642003	
IC7		TK11806M			BDEY0999001	
IC8		NJM3403AM(TE1)			BDEY3104003	
IC9		NJM3403AM(TE1)			BDEY3104003	
IC10						
IC11		TC4066BF(EL)			BDEY1180003	
IC12~200						
IC201		UC2265	HD6433033UDF		BDDY0806001	
IC202			UPD7225GB-3B7		BDEY1529001	
IC203	Not Used					
IC204		RH5VL27CA-T1			BDEY2917003	
IC205		M24C32-WMN6T			BDEY3726003	
IC206		TK11231BMCL			BDEY3801003	
Jacks						
J1	SPEAKER DC	JK-424	HSJ0836-01-500		BJKY0424001	
J2		JK-1171	DJ32-2		BJKY1171001	
J3		JK-276	5267-02A		BJKY0276002	
J4		JK-276	5267-11A		BJKY0276011	
J5		JK-276	5267-11A		BJKY0276011	
Coils						
L1	Inductor Molded Chip	LZ-188	2.2 μ H	Tape	BLZY0188226	
L2	Inductor Molded Chip	LZ-188	4.7 μ H		BLZY0188476	
L3	Inductor Molded Chip	LZ-188	4.7 μ H		BLZY0188476	
L4	Inductor Molded Chip	LZ-188	27 μ H		BLZY0188277	
L5	Inductor Molded Chip	LZ-188	10 μ H		BLZY0188107	
L6	Inductor Molded Chip	LZ-188	56 μ H		BLZY0188567	
L7	Inductor Molded Chip	LZ-188	12 μ H		BLZY0188127	
L8	Inductor Molded Chip	LZ-188	1.8 μ H		BLZY0188186	
L9	Inductor Molded Chip	LZ-188	39 μ H		BLZY0188397	
L10	Inductor Molded Chip	LZ-188	56 μ H		BLZY0188567	
L11	Inductor Molded(Chip)	LZ-087	10 μ H J		BLZY0087100	
L12	Coil Chip Tape	LF-271	614AG-0246GW=P3		BLFY0271001	
L13	Inductor Molded Chip	LZ-188	33 μ H		BLZY0188337	
L14	Inductor Molded Chip	LZ-199	0.15 μ H		BLZY0199158	
L15	Inductor Molded Chip	LZ-199	0.27 μ H		BLZY0199278	
L16	Inductor Molded Chip	LZ-188	15 μ H		BLZY0188157	
L17	Inductor Molded Chip	LZ-199	0.15 μ H		BLZY0199158	
L18	Inductor Molded Chip	LZ-199	0.15 μ H		BLZY0199158	
L19	Inductor Molded Chip	LZ-199	0.012 μ H		BLZY0199127	
L20	Inductor Molded Chip	LZ-199	0.01 μ H		BLZY0199107	
L21	Inductor Molded Chip	LZ-188	27 μ H		BLZY0188277	
L22	Inductor Molded Chip	LZ-199	0.33 μ H		BLZY0199338	
L23	Inductor Molded Chip	LZ-188	15 μ H		BLZY0188157	
L24	Inductor Molded Chip	LZ-199	0.01 μ H		BLZY0199107	
L25	Inductor Molded	LZ-077	395AN-0054Z 1.2 MH		BLZY0077122	
L26	Inductor Molded Chip	LZ-199	0.15 μ H		BLZY0199158	
L27	Inductor Molded Chip	LZ-199	0.15 μ H		BLZY0199158	
L28	Inductor Molded Chip	LZ-188	10 μ H		BLZY0188107	
L29	Inductor Molded Chip	LZ-188	10 μ H		BLZY0188107	

Ref. No.	Description					RS Part No.	Mfr's Part No.
L30	Inductor Molded Chip	LZ-188	8.2 μ H				BLZY0188826
L31~200	Not Used						
L201	Inductor Molded Chip	LZ-207	MMZ1608Y601BT	600			BLZY0207601
L202	Inductor Molded Chip	LZ-207	MMZ1608Y601BT	600			BLZY0207601
L203	Inductor Molded Chip	LZ-207	MMZ1608Y601BT	600			BLZY0207601
Transistors							
Q1		DB-036	2SA1162-Y	TE85L			BDBA1162124
Q2		DB-848	2SC5065-Y				BDBC5065124
Q3		DB-848	2SC5065-Y				BDBC5065124
Q4		DB-724	2SC3121	TE85L			BDBC3121000
Q5		DB-440	2SD1683-S				BDBD1683118
Q6		DB-711	2SC3356-R24	T1B			BDBC3356646
Q7		DB-711	2SC3356-R24	T1B			BDBC3356646
Q9		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q10		DB-711	2SC3356-R24	T1B			BDBC3356646
Q11		DB-711	2SC3356-R24	T1B			BDBC3356646
Q12		DB-711	2SC3356-R24	T1B			BDBC3356646
Q13		DB-711	2SC3356-R24	T1B			BDBC3356646
Q14		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q15		DB-036	2SA1162-Y	TE85L			BDBA1162124
Q16		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q17		DB-711	2SC3356-R24	T1B			BDBC3356646
Q18		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q19		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q20		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q21		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q22		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q23		DB-1004	MMBT6428L	T1			BDBZ1004001
Q24	Field Effect	DC-052	2SK209-GR				BDCB0209303
Q25		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q26~201	Not Used						
Q202		DB-381	2SC2712-Y	TE85L			BDBC2712124
Resistors							
R1	Carbon Fixed Chip	1 kohm	1/16W	$\pm 5\%$	Taping		BRFC161024Z
R2	Carbon Fixed Chip	2.2 kohm	1/10W	$\pm 5\%$	Taping		BRFC012224Z
R3	Carbon Fixed Chip	2.2 kohm	1/10W	$\pm 5\%$	Taping		BRFC012224Z
R4	Carbon Fixed Chip	2.2 kohm	1/10W	$\pm 5\%$	Taping		BRFC012224Z
R5	Carbon Fixed Chip	4.7 kohm	1/10W	$\pm 5\%$	Taping		BRFC014724Z
R6	Carbon Fixed Chip	2.2 kohm	1/10W	$\pm 5\%$	Taping		BRFC012224Z
R7	Carbon Fixed Chip	2.2 kohm	1/10W	$\pm 5\%$	Taping		BRFC012224Z
R8	Carbon Fixed Chip	100 kohm	1/10W	$\pm 5\%$	Taping		BRFC011044Z
R9	Carbon Fixed Chip	100 ohm	1/10W	$\pm 5\%$	Taping		BRFC011014Z
R10	Carbon Fixed Chip	68 kohm	1/16W	$\pm 5\%$	Taping		BRFC166834Z
R11	Carbon Fixed Chip	15 kohm	1/16W	$\pm 5\%$	Taping		BRFC161534Z
R12	Carbon Fixed Chip	470 ohm	1/16W	$\pm 5\%$	Taping		BRFC164714Z
R13	Carbon Fixed Chip	15 ohm	1/16W	$\pm 5\%$	Taping		BRFC161504Z
R14	Carbon Fixed Chip	100 ohm	1/10W	$\pm 5\%$	Taping		BRFC011014Z
R15	Carbon Fixed Chip	68 kohm	1/16W	$\pm 5\%$	Taping		BRFC166834Z
R16	Carbon Fixed Chip	15 kohm	1/16W	$\pm 5\%$	Taping		BRFC161534Z
R17	Carbon Fixed Chip	1.2 kohm	1/16W	$\pm 5\%$	Taping		BRFC161224Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
R18	Carbon Fixed Chip	100 ohm	1/16W	±5 %	Taping		BRFC161014Z
R19	Carbon Fixed Chip	100 ohm	1/16W	±5 %	Taping		BRFC161014Z
R20	Carbon Fixed Chip	100 kohm	1/10W	±5 %	Taping		BRFC011044Z
R21	Carbon Fixed Chip	5.6 kohm	1/16W	±5 %	Taping		BRFC165624Z
R22	Carbon Fixed Chip	100 ohm	1/16W	±5 %	Taping		BRFC161014Z
R23	Carbon Fixed Chip	33 kohm	1/10W	±5 %	Taping		BRFC013334Z
R24	Carbon Fixed Chip	330 kohm	1/10W	±5 %	Taping		BRFC013344Z
R25	Carbon Fixed Chip	180 kohm	1/10W	±5 %	Taping		BRFC011844Z
R26	Carbon Fixed Chip	39 kohm	1/10W	±5 %	Taping		BRFC013934Z
R27	Carbon Fixed Chip	330 kohm	1/10W	±5 %	Taping		BRFC013344Z
R28	Carbon Fixed Chip	10 kohm	1/10W	±5 %	Taping		BRFC011034Z
R29	Carbon Fixed Chip	220 kohm	1/10W	±5 %	Taping		BRFC012244Z
R30	Carbon Fixed Chip	1 kohm	1/10W	±5 %	Taping		BRFC011024Z
R31	Carbon Fixed Chip	33 kohm	1/10W	±5 %	Taping		BRFC013334Z
R32	Carbon Fixed Chip	56 kohm	1/10W	±5 %	Taping		BRFC015634Z
R33	Carbon Fixed Chip	680 kohm	1/16W	±5 %	Taping		BRFC166844Z
R34	Carbon Fixed Chip	47 ohm	1/2W	±5 %	Tape		BRFC124704Z
R35	Carbon Fixed Chip	47 kohm	1/10W	±5 %	Taping		BRFC014734Z
R36	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping		BRFC012224Z
R37	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping		BRFC012224Z
R38	Carbon Fixed Chip	470 ohm	1/16W	±5 %	Taping		BRFC164714Z
R39	Carbon Fixed Chip	330 ohm	1/16W	±5 %	Taping		BRFC163314Z
R40	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R41	Carbon Fixed Chip	27 ohm	1/16W	±5 %	Taping		BRFC162704Z
R42	Carbon Fixed Chip	1M ohm	1/16W	±5 %	Taping		BRFC161054Z
R43	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping		BRFC012234Z
R44	Carbon Fixed Chip	33 kohm	1/10W	±5 %	Taping		BRFC013334Z
R45	Carbon Fixed Chip	1 ohm	1/10W	±5 %	Taping		BRFC011094Z
R46	Carbon Fixed Chip	1 kohm	1/8W	±5 %	Taping		BRFC181024Z
R47	Carbon Fixed Chip	68 ohm	1/2W	±5 %	Tape		BRFC126804Z
R48	Carbon Fixed Chip	47 kohm	1/10W	±5 %	Taping		BRFC014734Z
R49	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping		BRFC012224Z
R50	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping		BRFC012224Z
R51	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping		BRFC164724Z
R52	Carbon Fixed Chip	22 kohm	1/16W	±5 %	Taping		BRFC162234Z
R53	Carbon Fixed Chip	470 ohm	1/16W	±5 %	Taping		BRFC164714Z
R54	Carbon Fixed Chip	22 ohm	1/16W	±5 %	Taping		BRFC162204Z
R55	Carbon Fixed Chip	330 ohm	1/16W	±5 %	Taping		BRFC163314Z
R56	Carbon Fixed Chip	220 ohm	1/16W	±5 %	Taping		BRFC162214Z
R57	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping		BRFC164724Z
R58	Carbon Fixed Chip	680 ohm	1/10W	±5 %	Taping		BRFC016814Z
R59	Carbon Fixed Chip	39 kohm	1/16W	±5 %	Taping		BRFC163934Z
R60	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R61	Carbon Fixed Chip	22 ohm	1/16W	±5 %	Taping		BRFC162204Z
R62	Carbon Fixed Chip	820 ohm	1/10W	±5 %	Taping		BRFC018214Z
R63	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping		BRFC012224Z
R64	Not Used						
R65	Carbon Fixed Chip	68 ohm	1/10W	±5 %	Taping		BRFC016804Z
R66	Carbon Fixed Chip	4.7 ohm	1/10W	±5 %	Taping		BRFC014794Z
R67	Metal Oxide (Formed)	39 ohm	2WS	±5 %	(P=15)		BRSM023904Z
R68	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping		BRFC012234Z
R69	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping		BRFC012224Z
R70	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping		BRFC012224Z
R71	Carbon Fixed Chip	10 kohm	1/10W	±5 %	Taping		BRFC011034Z

Ref. No.	Description						RS Part No.	Mfr's Part No.
R72	Carbon Fixed Chip	15 kohm	1/16W	±5 %	Taping			BRFC161534Z
R73	Carbon Fixed Chip	22 ohm	1/16W	±5 %	Taping			BRFC162204Z
R74	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping			BRFC161044Z
R75	Carbon Fixed Chip	68 ohm	1/16W	±5 %	Taping			BRFC166804Z
R76	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping			BRFC161044Z
R77	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping			BRFC161034Z
R78	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping			BRFC161034Z
R79	Carbon Fixed Chip	5.6 kohm	1/16W	±5 %	Taping			BRFC165624Z
R80	Carbon Fixed Chip	47 ohm	1/10W	±5 %	Taping			BRFC014704Z
R81	Carbon Fixed Chip	330 ohm	1/16W	±5 %	Taping			BRFC163314Z
R82	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping			BRFC161044Z
R83	Carbon Fixed Chip	68 ohm	1/16W	±5 %	Taping			BRFC166804Z
R84	Carbon Fixed Chip	10 kohm	1/10W	±5 %	Taping			BRFC011034Z
R85	Carbon Fixed Chip	8.2 kohm	1/10W	±5 %	Taping			BRFC018224Z
R86	Carbon Fixed Chip	4.7 kohm	1/10W	±5 %	Taping			BRFC014724Z
R87	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping			BRFC012234Z
R88	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping			BRFC161024Z
R89	Carbon Fixed Chip	47 kohm	1/10W	±5 %	Taping			BRFC014734Z
R90	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping			BRFC012224Z
R91	Carbon Fixed Chip	2.2 kohm	1/10W	±5 %	Taping			BRFC012224Z
R92	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping			BRFC164724Z
R93	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping			BRFC164724Z
R94	Carbon Fixed Chip	100 ohm	1/10W	±5 %	Taping			BRFC011014Z
R95	Carbon Fixed Chip	10 kohm	1/10W	±5 %	Taping			BRFC011034Z
R96	Carbon Fixed Chip	270 ohm	1/16W	±5 %	Taping			BRFC162714Z
R97	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping			BRFC012234Z
R98	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping			BRFC161044Z
R99	Carbon Fixed Chip	1.8 kohm	1/16W	±5 %	Taping			BRFC161824Z
R100	Carbon Fixed Chip	2.2 kohm	1/16W	±5 %	Taping			BRFC162224Z
R101	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping			BRFC161034Z
R102	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping			BRFC161024Z
R103	Carbon Fixed Chip	560 kohm	1/16W	±5 %	Taping			BRFC165644Z
R104	Carbon Fixed Chip	100 ohm	1/16W	±5 %	Taping			BRFC161014Z
R105	Carbon Fixed Chip	10 ohm	1/16W	±5 %	Taping			BRFC161004Z
R106	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping			BRFC164724Z
R107	Carbon Fixed Chip	470 kohm	1/16W	±5 %	Taping			BRFC164744Z
R108	Carbon Fixed Chip	220 kohm	1/16W	±5 %	Taping			BRFC162244Z
R109	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping			BRFC161024Z
R110	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping			BRFC012234Z
R111	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping			BRFC012234Z
R112	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping			BRFC012234Z
R113	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping			BRFC012234Z
R114	Carbon Fixed Chip	22 kohm	1/10W	±5 %	Taping			BRFC012234Z
R115	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping			BRFC164724Z
R116	Carbon Fixed Chip	470 ohm	1/16W	±5 %	Taping			BRFC164714Z
R117	Carbon Fixed Chip	5.6 kohm	1/16W	±5 %	Taping			BRFC165624Z
R118	Carbon Fixed Chip	8.2 kohm	1/16W	±5 %	Taping			BRFC168224Z
R119	Carbon Fixed Chip	3.9 kohm	1/16W	±5 %	Taping			BRFC163924Z
R120	Carbon Fixed Chip	33 kohm	1/16W	±5 %	Taping			BRFC163334Z
R121	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping			BRFC161034Z
R122	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping			BRFC161034Z
R123	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping			BRFC161034Z
R124	Carbon Fixed Chip	390 kohm	1/16W	±5 %	Taping			BRFC163944Z
R125	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping			BRFC164724Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
R126	Carbon Fixed Chip	8.2 kohm	1/16W	±5 %	Taping		BRFC168224Z
R127	Carbon Fixed Chip	3.3 kohm	1/16W	±5 %	Taping		BRFC163324Z
R128	Carbon Fixed Chip	1M ohm	1/16W	±5 %	Taping		BRFC161054Z
R129	Carbon Fixed Chip	680 kohm	1/16W	±5 %	Taping		BRFC166844Z
R130	Carbon Fixed Chip	220 kohm	1/16W	±5 %	Taping		BRFC162244Z
R131	Carbon Fixed Chip	2.2M ohm	1/16W	±5 %	Taping		BRFC162254Z
R132	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R133	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R134	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R135	Carbon Fixed Chip	10 kohm	1/10W	±5 %	Taping		BRFC011034Z
R136	Carbon Fixed Chip	100 ohm	1/10W	±5 %	Taping		BRFC011014Z
R137	Carbon Fixed Chip	10 kohm	1/10W	±5 %	Taping		BRFC011034Z
R138	Carbon Fixed Chip	470 kohm	1/10W	±5 %	Taping		BRFC014744Z
R139	Carbon Fixed Chip	1 kohm	1/10W	±5 %	Taping		BRFC011024Z
R140	Not Used						
R141	Carbon Fixed Chip	470 kohm	1/10W	±5 %	Taping		BRFC014744Z
R142	Carbon Fixed Chip	10 kohm	1/10W	±5 %	Taping		BRFC011034Z
R143	Carbon Fixed Chip	680 kohm	1/10W	±5 %	Taping		BRFC016844Z
R144	Carbon Fixed Chip	680 kohm	1/10W	±5 %	Taping		BRFC016844Z
R145	Carbon Fixed Chip	820 kohm	1/10W	±5 %	Taping		BRFC018244Z
R146	Not Used						
R147	Carbon Fixed Chip	820 kohm	1/10W	±5 %	Taping		BRFC018244Z
R148,149	Not Used						
R150	Carbon Fixed Chip	330 kohm	1/10W	±5 %	Taping		BRFC013344Z
R151~159	Not Used						
R160	Carbon Fixed Chip	1 kohm	1/10W	±5 %	Taping		BRFC011024Z
R161~179	Not Used						
R180	Carbon Fixed Chip	390 kohm	1/10W	±5 %	Taping		BRFC013944Z
R181	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R182~203	Not Used						
R204	Carbon Fixed Chip	39 kohm	1/16W	±5 %	Taping		BRFC163934Z
R205	Carbon Fixed Chip	39 kohm	1/16W	±5 %	Taping		BRFC163934Z
R206	Carbon Fixed Chip	330 kohm	1/16W	±5 %	Taping		BRFC163344Z
R207	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R208	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R209	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R210	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R211	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R212	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R213	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R214	Carbon Fixed Chip	47 kohm	1/16W	±5 %	Taping		BRFC164734Z
R215	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R216	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R217	Carbon Fixed Chip	39 kohm	1/16W	±5 %	Taping		BRFC163934Z
R218	Carbon Fixed Chip	180 kohm	1/16W	±5 %	Taping		BRFC161844Z
R219	Carbon Fixed Chip	180 kohm	1/16W	±5 %	Taping		BRFC161844Z
R220	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R221	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping		BRFC164724Z
R222	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping		BRFC164724Z
R223	Carbon Fixed Chip	4.7 kohm	1/16W	±5 %	Taping		BRFC164724Z
R224	Carbon Fixed Chip	220 ohm	1/16W	±5 %	Taping		BRFC162214Z
R225	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R226	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R227	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
R228,229	Not Used						
R230	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R231	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R232	Carbon Fixed Chip	2.2 kohm	1/16W	±5 %	Taping		BRFC162224Z
R233	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R234	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R235	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R236	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R237	Carbon Fixed Chip	47 kohm	1/16W	±5 %	Taping		BRFC164734Z
R238	Carbon Fixed Chip	10 kohm	1/16W	±1 %	Taping		BRFC161034Z
R239~243	Not Used						
R244	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R245	Carbon Fixed Chip	47 kohm	1/16W	±5 %	Taping		BRFC164734Z
R246	Carbon Fixed Chip	1 Mohm	1/16W	±5 %	Taping		BRFC161054Z
R247,248	Not Used						
R249	Carbon Fixed Chip	10 kohm	1/16W	±5 %	Taping		BRFC161034Z
R250	Carbon Fixed Chip	680 kohm	1/16W	±5 %	Taping		BRFC166844Z
R251	Carbon Fixed Chip	0 ohm	1/16W	±5 %	Taping		BRFC160004Z
R252	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R253	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R254	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R255	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R256	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R257	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R258	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R259	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R260	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R261	Carbon Fixed Chip	100 kohm	1/16W	±5 %	Taping		BRFC161044Z
R262	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R263	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R264	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R265	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R266	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R267	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R268	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R269	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R270	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
R271	Carbon Fixed Chip	1 kohm	1/16W	±5 %	Taping		BRFC161024Z
RT1	Semi-Fixed	RT-552			100KB		BRTY0552104
VR1	Variable	RV-875			100KA		BRVY0875001
VR2	Variable	RV-876			100KC		BRVY0876001

Ref. No.	Description	RS Part No.	Mfr's Part No.
Miscellaneous			
DP1	Liquid Crystal Display DL-170		BDLY0170001
PL1	Pilot Lamp PL-105		BPLY0105001
X1	Crystal QX-631 10.4MHZ		BQXY0631001
X201	Crystal QX-650 9.9072MHZ		BQXY0650001
	Holder Display ABS(HI-HEAT)		GHDZ352461Z
	Shield Case ABS		GSDC354374Z
	Shield Case ABS		GSDC356839Z
	Holder Antenna SECC		HHDZ452468Z
	Holder Connector SPCC		HHDZ452469Z
	LCD Frame C5191(PBP)		HSDC452467Z
	Insulation Plate PC		RZEB456850Z
	Screw Taptight Bind Hd + M3X6 NI		SSCW343006N
	Screw P Tight Bind Hd + D2X8 NI		SSCW802008N

OTHER ELECTRICAL PARTS

Ref. No.	Description	RS Part No.	Mfr's Part No.
AD951	AC Adapter for USA AD-221		BADY0221001
AD951	AC Adapter for Canada AD-247		BADY0247001
AT951	Antenna AT-192 TY-9009-1401		BATY0192001
B501	PCB Key PH-215AA		BPHY0215AAZ
J501	Jack JK-661 BNC-RF3		BJKY0661001
SP501	Speaker SP-242 57R89T604		BSPY0242001
WA501	Wires Assembled WZ-1202 65 W/P 2P		BWZY1202001
WA502	Wires Assembled W-072073		CZDZ072073Z
WA503	Wires Assembled W-072133		CZDZ072133Z

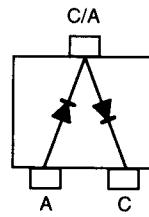
SEMICONDUCTOR LEAD IDENTIFICATION

DIODES

1SS355
1SS390
1SV269
UDZ5.6B
HVU308-1



1SS226

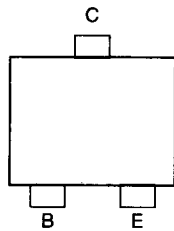


1N4003

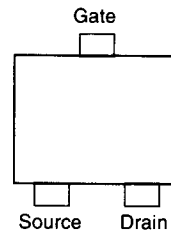


TRANSISTORS

2SA1162-Y
2SC2712-Y
2SC3121
2SC3356-R24
MMBT6428LT1
2SC5065

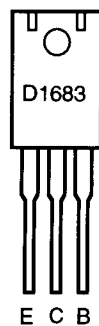


2SK209
2SK431



B: Base
C: Collector
E: Emitter

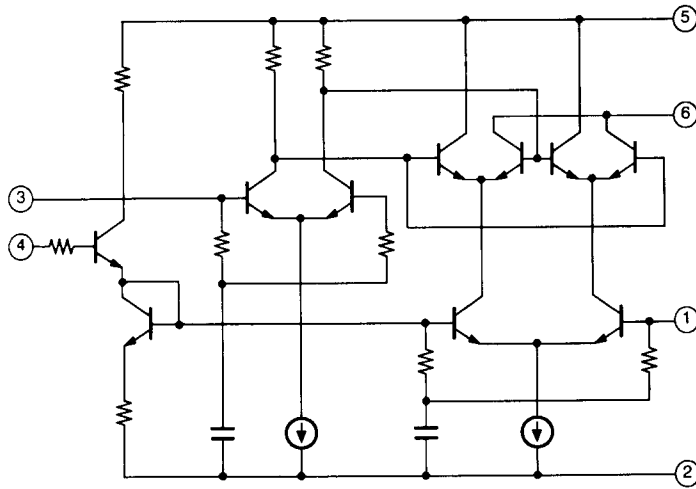
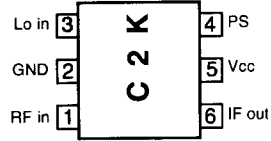
2SD1683



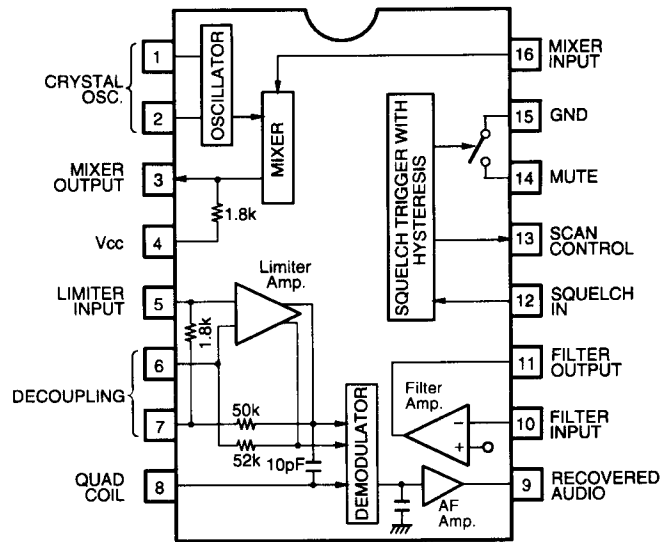
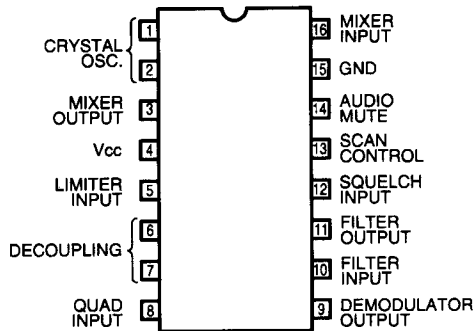
B: Base
C: Collector
E: Emitter

IC INTERNAL DIAGRAMS

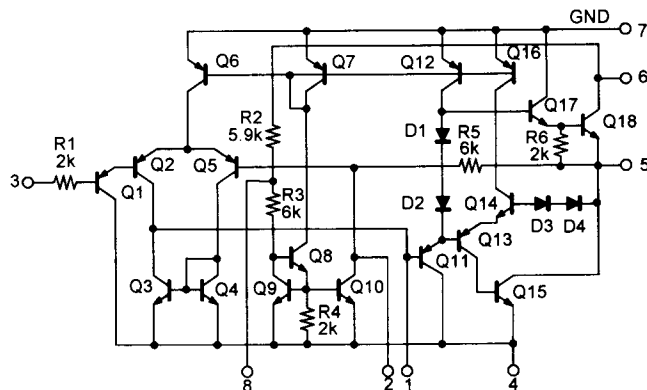
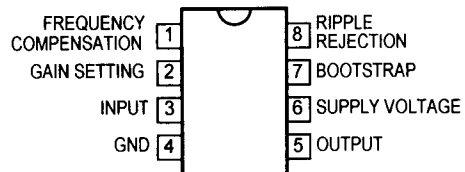
IC1
μPC8112T



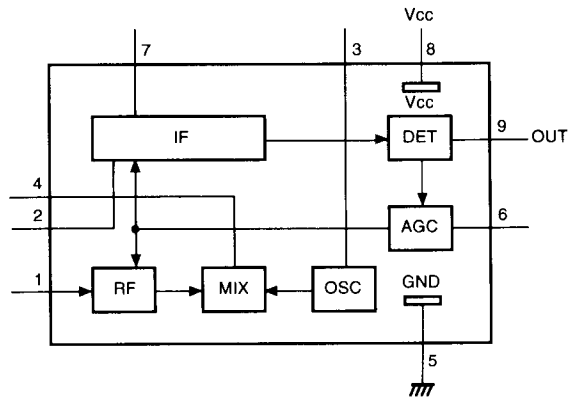
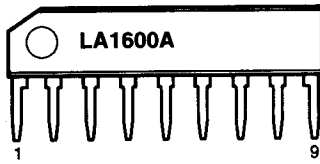
IC2
MC3361CDR2



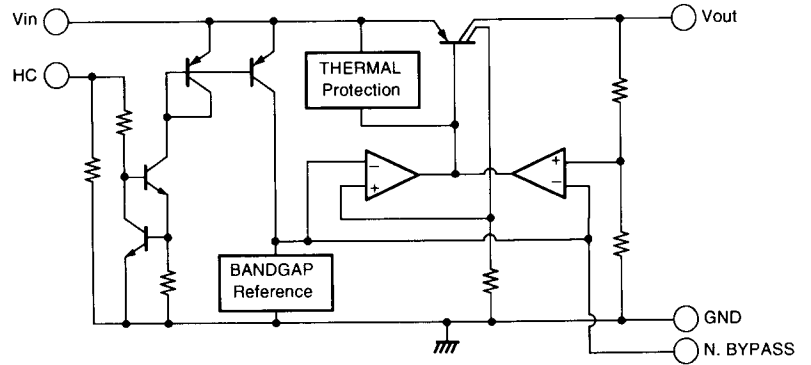
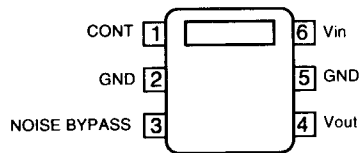
IC3
TBA820M



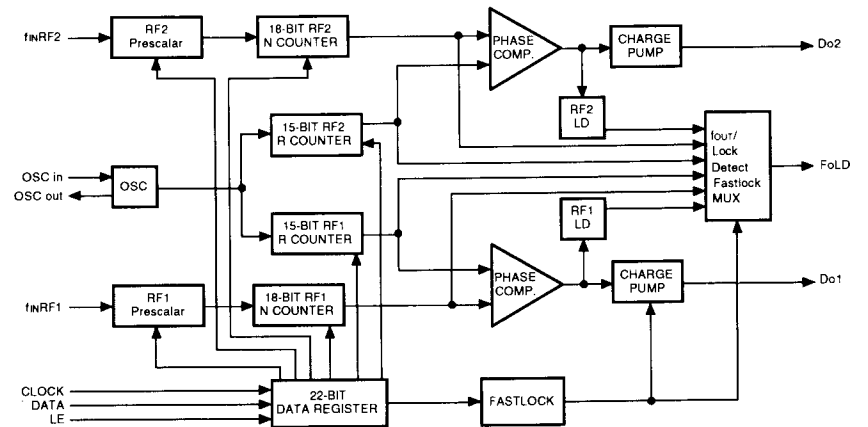
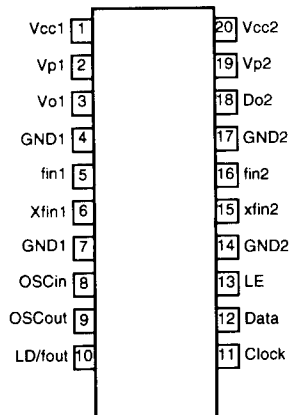
IC4
LA1600A



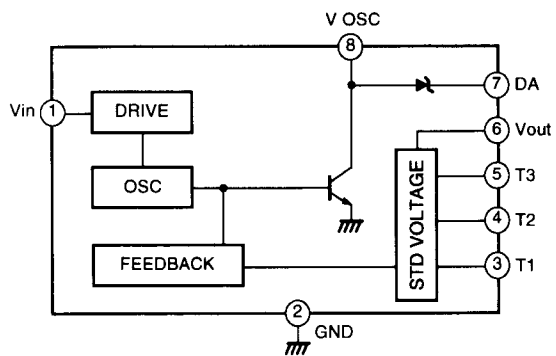
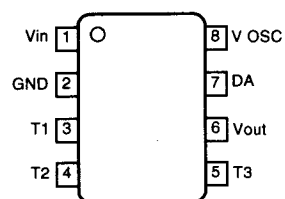
IC5
TK11238AM



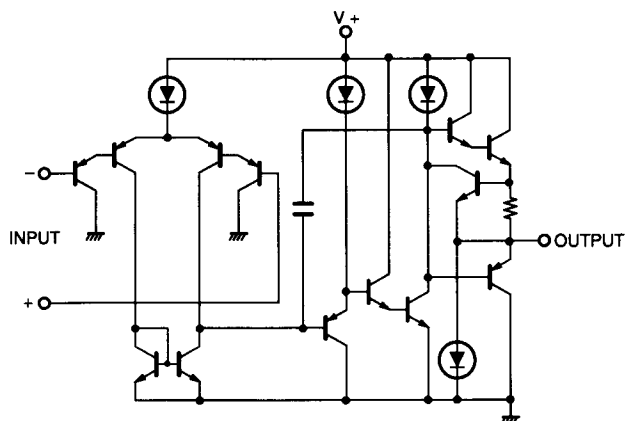
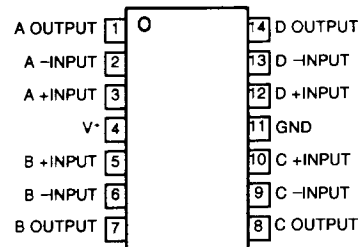
IC6
MB15U36PFV



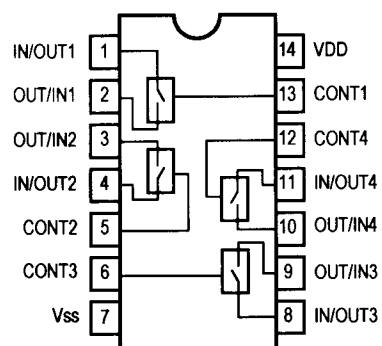
IC7
TK11806M



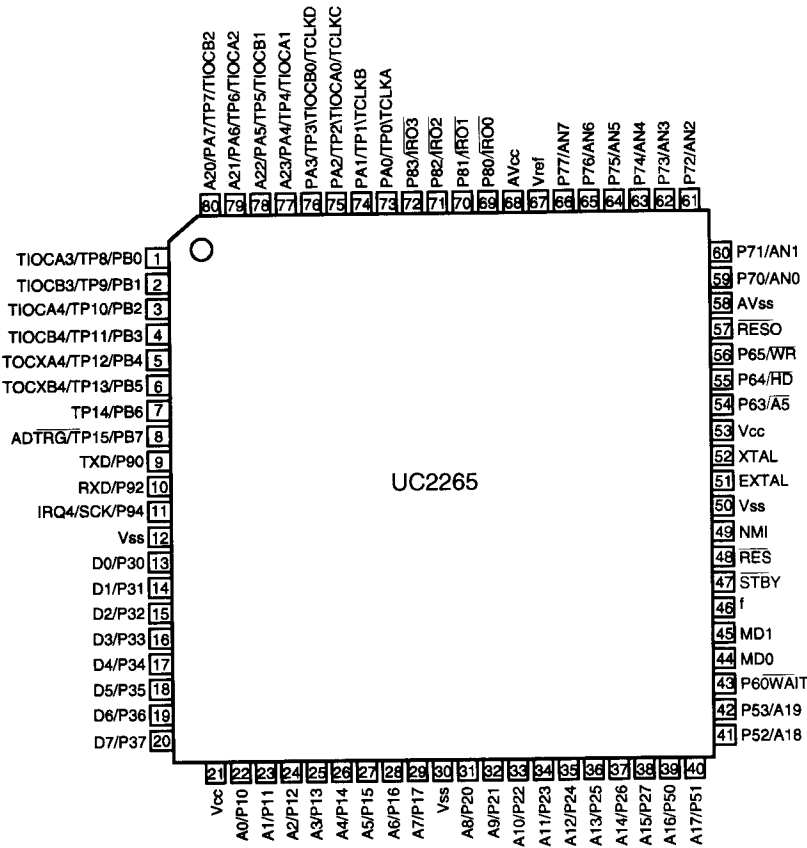
IC8/IC9
NJM3403AM



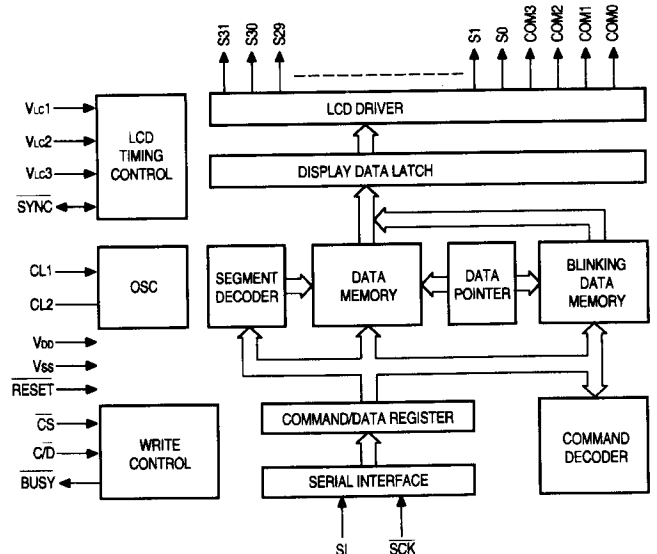
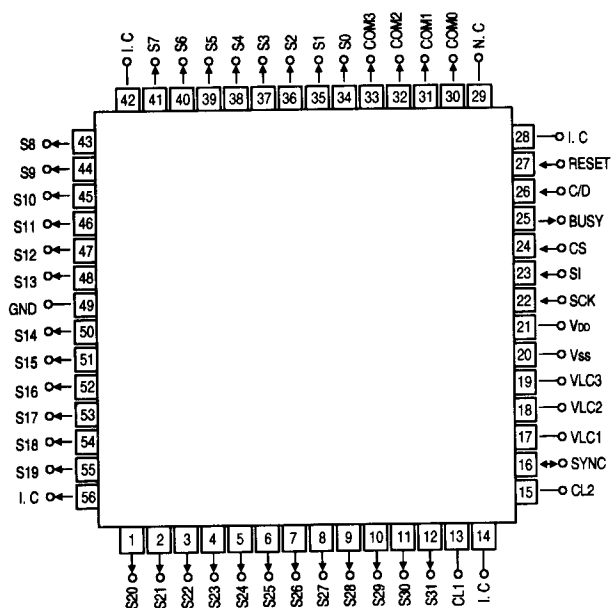
IC11
TC4066BF



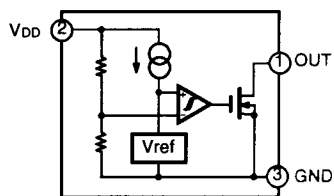
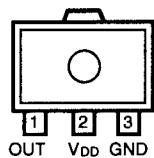
IC201 HD6433033



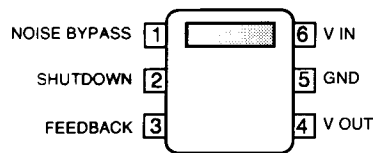
IC202 μPD7225GB



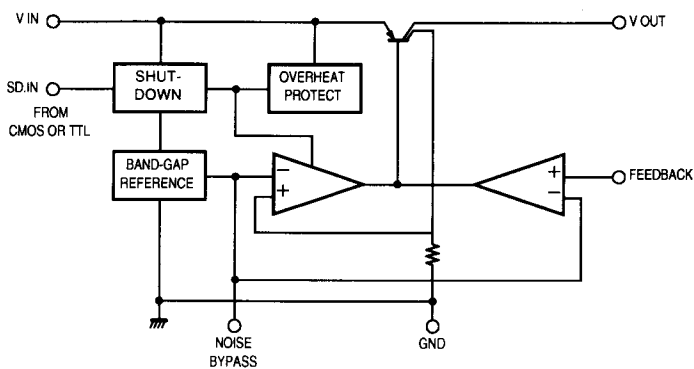
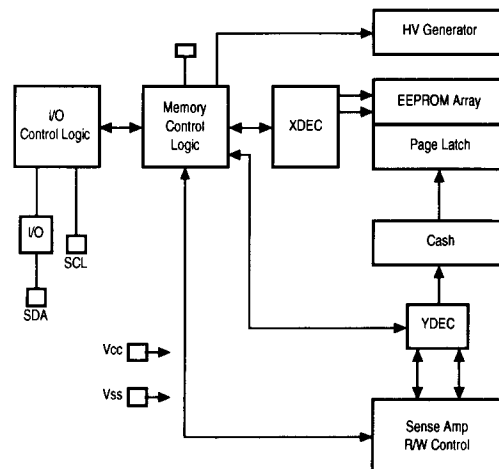
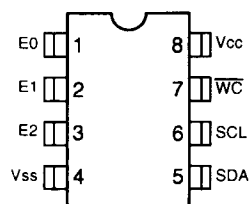
IC204
RH5VL27CA



IC206
TK11231BMCL



IC205
M24C32



VOLTAGE CHART

TRANSISTORS

Unit [V]

Ref. No.	Pin	Voltage	Remarks
Q1	B	1.2/1.2	162.4 MHz 100 μ V RF=ON/OFF SQ=TIGHT
	E	1.8/1.8	
	C	1.8/0	
Q2	B	0.8	162.4 MHz 100 μ V
	E	0.0	
	C	2.5	
Q3	B	0.7	162.4 MHz 100 μ V
	E	0.0	
	C	1.7	
Q4	B	1.0	162.4 MHz 100 μ V
	E	0.4	
	C	3.7	
Q5	B	5.6	EXT. POWER
	E	4.9	
	C	5.0	
Q6	B	2.7	162.4 MHz 100 μ V
	E	2.0	
	C	2.7	
Q7	B	2.2	162.4 MHz 100 μ V
	E	1.5	
	C	2.7	
Q9	B	0.7	162.4 MHz 100 μ V
	E	0.0	
	C	0.0	
Q10	B	2.2	162.4 MHz 100 μ V
	E	2.2	
	C	2.7	
Q11	B	0.9	162.4 MHz 100 μ V
	E	0	
	C	3.0	
Q12	B	0.7	162.4 MHz 100 μ V
	E	0.0	
	C	3.1	
Q13	B	0.9	162.4 MHz 100 μ V
	E	0.0	
	C	2.4	
Q14	B	0.6	127.175 MHz 100 μ V
	E	0.0	
	C	2.5	
Q15	B	3.0	127.175 MHz 100 μ V
	E	3.8	
	C	3.8	
Q16	B	1.6	453.25 MHz 100 μ V
	E	0.0	
	C	0.0	
Q17	B	0.7	162.4 MHz 100 μ V
	E	0.0	
	C	3.0	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
Q18	B	0.7	857.2 MHz 100 μ V
	E	0.0	
	C	0.0	
Q19	B	0.7	453.25 MHz 100 μ V
	E	0.0	
	C	0.0	
Q20	B	0.7	162.4 MHz 100 μ V
	E	0.0	
	C	0.0	
Q21	B	0.7	127.175 MHz 100 μ V
	E	0.0	
	C	0.0	
Q22	B	0.7	40.84 MHz 100 μ V
	E	0.0	
	C	0.0	
Q23	B	0.6	162.4 MHz 100 μ V
	E	0.0	
	C	10.3	
Q24	G	0.6	162.4 MHz 100 μ V
	S	0.9	
	D	3.7	
Q25	B	0/0.6	162.4 MHz 100 μ V RF=ON/OFF SQ=TIGHT
	E	0/0	
	C	0.2/0	
Q202	B	0.0	162.4 MHz 100 μ V
	E	0.0	
	C	3.0	

IC'S

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC1	1	1.2	162.4 MHz 100 μ V
	2	0.0	
	3	1.4	
	4	3.0	
	5	3.0	
	6	3.0	
IC2	1	3.7	162.4 MHz 100 μ V
	2	NC	
	3	3.2	
	4	3.8	
	5	3.3	
	6	3.3	
	7	3.3	
	8	3.8	
	9	1.4	
	10	0.6	
	11	1.8	
	12	4.1	
	13	NC	
	14	1.4	
	15	0.0	
	16	3.8	
IC3	1	0.7	162.4 MHz 100 μ V VOL. MIN.
	2	0.5	
	3	0	
	4	0	
	5	4.6	
	6	10.4	
	7	10.4	
	8	6.3	
IC4	1	NC	127.175 MHz 100 μ V
	2	1.1	
	3	NC	
	4	NC	
	5	0.0	
	6	1.4	
	7	1.1	
	8	3.7	
	9	2.4	
IC5	1	10.2	162.4 MHz 100 μ V
	2	0	
	3	1.2	
	4	3.8	
	5	0	
	6	11.1	
IC6	1	3.5	
	2	3.5	
	3	0.6	
	4	0	
	5	2.5	
	6	2.5	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC6	7	0	162.4 MHz 100 μ V
	8	1.5	
	9	1.4	
	10	3.5	
	11	0	
	12	0	
	13	0	
	14	0	
	15	2.5	
	16	2.5	
	17	0	
IC7	1	11.1	162.4 MHz 100 μ V
	2	0	
	3	9.3	
	4	9.3	
	5	16.9	
	6	16.9	
	7	17.9	
	8	11.1	
IC8	1	1.3/1.3	162.4 MHz 100 μ V RF=ON/OFF SQ=TIGHT
	2	1.3/1.3	
	3	1.3/1.3	
	4	3.8/3.8	
	5	1.6/1.1	
	6	0.8/1.4	
	7	3.1/0	
	8	1.0/1.0	
	9	1.1/1.1	
	10	1.1/1.1	
	11	0/0	
	12	0.8/1.9	
	13	0.7/1.8	
	14	3.1/3.1	
IC9	1	1.5	857.2 MHz 100 μ V
	2	1.5	
	3	1.3	
	4	3.8	
	5	1.3	
	6	1.3	
	7	1.6	
	8	1.4	
	9	1.4	
	10	1.3	
	11	0	
	12	1.3	
	13	1.4	
	14	1.4	
IC11	1	1.5	

IC'S

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC11	2	1.3	
	3	1.3	
	4	1.3	
	5	3.1	
	6	0	
	7	0	
	8	0	
	9	0	
	10	0	
	11	0.1	
	12	3.1	
	13	0.1	
	14	3.8	
IC201	1	0	
	2	0	
	3	0	
	4	0	
	5	3.1	
	6	3.1	
	7	3.1	
	8	3.1	
	9	0	
	10	0	
	11	0	
	12	0	
	13	0	
	14	0	
	15	3.1	
	16	0	
	17	0	
	18	0	
	19	0	
	20	0	
	21	3.1	
	22	3.1	
	23	0	
	24	3.1	
	25	3.1	
	26	0	
	27	0	
	28	0	
	29	0	
	30	0	
	31	0	
	32	0	
	33	0	
	34	0	
	35	0	
	36	0	
	37	0	
	38	0	

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC201	39	3.1	
	40	3.1	
	41	3.1	
	42	3.1	
	43	NC	
	44	3.1	
	45	3.1	
	46	NC	
	47	3.1	
	48	3.1	
	49	3.1	
	50	0	
	51	1.5	
	52	1.4	
	53	3.1	
	54	0	
	55	0	
	56	0	
	57	NC	
	58	0	
	59	1.0	
	60	1	
	61	0	
	62	0	
	63	3.2	
	64	0	
	65	0	
	66	3.1	
	67	3.1	
	68	3.1	
	69	0	
	70	0	
	71	3.3	
	72	3.2	
	73	0	
	74	NC	
	75	1.5	
	76	3.1	
	77	0	
	78	0	
	79	0	
	80	3.1	
IC202	1	—	Square wave
	2	—	Square wave
	3	—	Square wave
	4	—	Square wave
	5	—	Square wave
	6	—	Square wave
	7	—	Square wave
	8	—	Square wave
	9	—	Square wave

Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC202	10	—	Square wave
	11	—	Square wave
	12	—	Square wave
	13	—	Clock
	14	3.1	
	15	—	Clock
	16	NC	
	17	2.1	
	18	1.2	
	19	0.3	
	20	0	
	21	3.1	
	22	0	
	23	0	
	24	3.1	
	25	3.1	
	26	0	
	27	3.1	
	28	3.1	
	29	NC	
	30	—	Square wave
	31	—	Square wave
	32	—	Square wave
	33	—	Square wave
	34	—	Square wave
	35	—	Square wave
	36	—	Square wave
	37	—	Square wave
	38	—	Square wave
	39	—	Square wave
	40	—	Square wave
	41	—	Square wave
	42	3.1	
	43	—	Square wave
	44	—	Square wave
	45	—	Square wave
	46	—	Square wave
	47	—	Square wave
	48	—	Square wave
	49	3.1	
	50	—	Square wave
	51	—	Square wave
	52	—	Square wave
	53	—	Square wave
	54	—	Square wave
	55	—	Square wave
	56	3.1	
IC204	1	3.1	
	2	3.1	162.4 MHz 100 μ V
	3	0	
IC205	1	3.1	

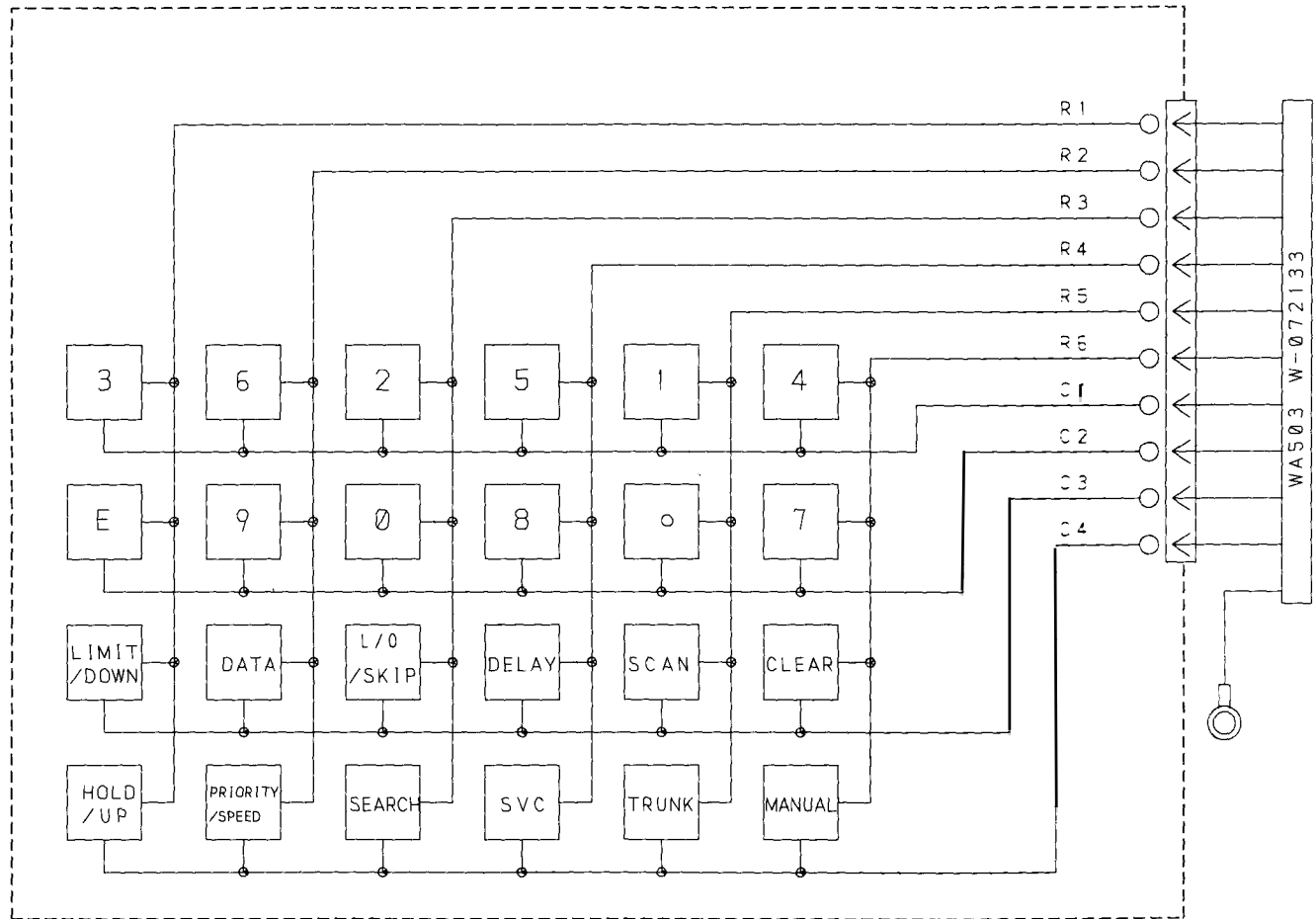
Unit [V]

Ref. No.	Pin	Voltage	Remarks
IC205	2	0	
	3	0	
	4	0	162.4 MHz 100 μ V
	5	3.1	
	6	3.1	
	7	3.1	
	8	3.1	
IC206	1	10.0	
	2	0	
	3	1.2	162.4 MHz 100 μ V
	4	3.1	
	5	0	
	6	11.1	

SCHEMATIC DIAGRAMS (Cat. No. 20-430A)

KEY PCB

B501 PH-0215



NOTE

NOTE

RadioShack
A Division of Tandy Corporation
Fort Worth, Texas 76102

IMPORTED FOR/IMPORTE POUR
InterTAN CANADA LTD. BARRIE, CANADA, L4M 4W5
InterTAN AUSTRALIA LTD. A.C.N. 002 511 944
InterTAN U.K. LTD., WEST MIDLANDS, WS2 7PS
REGISTERED TRADEMARK LICENSED BY RADIOSHACK
DIVISION OF TANDY CORPORATION (USA)