



**TABLE OF
CONTENTS**

	PAGE
CHAPTER 1	
SPECIFICATIONS	
1.0 General	2
1.1 Transmitter	2
1.2 Receiver	2
CHAPTER 2	
OPERATION	
2.0 Introduction	3
2.1 Control & Connections	3
2.1.1 Front Panel	3
2.1.2 Rear Panel	6
2.1.3 Frequency Chart	7
2.2 Microphone	8
2.3 Operation	8
2.3.1 Procedure To Receive	8
2.3.2 Procedure To Transmit	8
2.4 Alternate Microphones And Installation	9
CHAPTER 3	
CIRCUIT DESCRIPTION	
3.0 Introduction	10
3.1 PLL Circuit	10
3.2 Receiver Circuit	10
3.3 Transmitter Modulation Circuit	10
3.4 Transmitter Amplifier Circuit	10
CHAPTER 4	
ALIGNMENT	
4.0 Required Test Equipment	15
4.1 Alignment Procedures	15
4.1.1 PLL Alignment	15
4.1.2 Transmitter Alignment	16
4.1.3 Receiver Alignment	17
CHAPTER 5	
MAINTENANCE	
5.0 Precautions	20
5.1 Periodic Inspection	20
5.2 Fuse Replacement	20
CHAPTER 6	
DIAGRAMS AND PART LIST	

**RCI-6300F HP
RCI-6300F TB**

**CHAPTER 1
SPECIFICATIONS**

1.0 GENERAL

Model	RCI-6300F HP / RCI-6300F TB
Frequency Range	28.245 - 29.655MHz.
Emission Modes	AM/FM (A3/F3)
Frequency Control	Phase Lock Loop (PLL) synthesizer.
Frequency Tolerance	± 0.005 %.
Frequency Stability	± 0.001 %.
Operating Temperature Range	-20°C to +50°C.
Microphone	Dynamic PTT, 500 Ω
Input Voltage	13.8V DC nominal ±15%.
Current Drain: Transmit (AM full mod.)	RCI-6300F HP < 5A; RCI-6300F TB < 15A.
Current Drain: Receiver (Squelched)	≤ 0.25A.
(Max. audio output)	< 0.5A.
Antenna Connector	UHF, SO239.
Dimensions (RCI-6300F HP)	2-3/8”(H) x 7-7/8”(W) x 10-3/4”(D).
Dimensions (RCI-6300F TB)	3-7/8”(H) x 7-7/8”(W) x 9-1/4”(D).
Weight	5 lb. (RCI-6300F HP) ; 7lb 6oz (RCI-6300F TB)

1.1 TRANSMITTER

RF Power Output (AM/FM)	10 W (RCI-6300F HP)
(DC Carrier Power)	50W (RCI-6300F TB)
RF Transmit Modes	AM/FM.
AM Modulation	High and low level Class B, Amplitude Modulation.
Spurious Emissions	-50 dB.
Audio Frequency Response	300 to 2500 Hz
Antenna Impedance	50 Ohms.
Output Indicators	Meter shows relative RF output power, receive signal and SWR. Transmit LED glows red when transmitter is in operation.

1.2 RECEIVER

Sensitivity For 10dB S/N (AM)	< 0.5 μV.
Sensitivity For 12dB S/N (FM)	< 0.25 μV.
IF Frequency	AM: 10.695 MHz 1 st IF, 455 KHz 2nd IF.
Image Rejection	> 50 dB.
Adjacent Channel Selectivity	> -55 dB.
RF Gain Control	45 dB adjustable for optimum signal reception.
Automatic Gain Control (AGC) Figure Of Merit	100 mV for 10 dB Change in Audio Output.
Squelch	Adjustable; threshold less than 0.5 μV.
Noise Blanker	RF type.
Audio Output Power	2.5W @ 10% THD.
Audio Frequency Response	300 to 2500 Hz.
Built-in Speaker	8 Ohms, 4 Watts.
External Speaker (Not Supplied)	8 Ohms; 4 Watts.

RCI-6300F HP RCI-6300F TB

CHAPTER 2 OPERATION

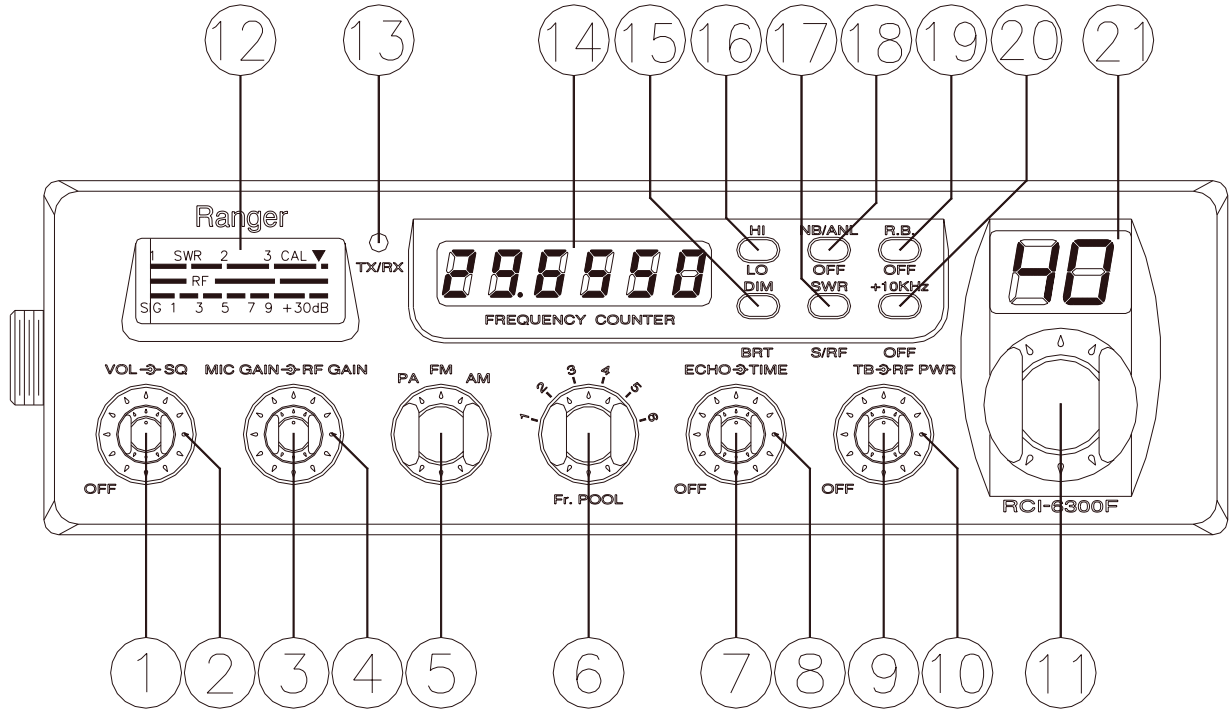


Figure 2-1 Front Panel

2.0 INTRODUCTION

This section explains the basic operating procedures for the RANGER RCI-6300F HP / RCI-6300F TB mobile transceiver.

2.1 CONTROL AND CONNECTIONS

2.1.1 FRONT PANEL

Refer to the above Figure 2-1 for the location of the following controls.

1. ON/OFF VOLUME CONTROL

This knob controls the volume and the power to the radio. To turn the radio on, rotate the knob clockwise. Turning the knob further will increase the volume of the receiver.

2. SQUELCH CONTROL

This switch is used to eliminate background noise being heard through the receiver which can be disturbing when no transmissions are being received. To use this feature, turn the switch fully counterclockwise and then turn clockwise slowly until the background noise is just eliminated. Further clockwise rotation will increase the threshold level which a signal must overcome in order to be heard. Only strong signals will be heard at a maximum clockwise setting.

3. MIC GAIN CONTROL

Adjusts the microphone gain in the transmit and PA modes. This controls the gain to the extent that full talk power is available several inches away from the microphone. In the Public Address (PA) mode, the control functions as the volume control.

4. RF GAIN CONTROL

This control is used to reduce the gain of the RF amplifier under strong signal conditions.

5. MODE SWITCH

This control allows you to select one of the following operating modes: PA/FM/AM.

In the PA position, the radio acts as a public address amplifier. Your voice will come out of the speaker that is plugged into the PA. SP. jack on the rear panel. The radio does not operate when you are in the PA mode. In the FM/AM position, the PA function is disabled and the unit will transmit and receive on the speaker that is connected to the radio.

6. FR. POOL SELECTOR

This switch is used to select the frequency range of operation (1 - 6).

7. ECHO SWITCH

This control is used for echo effect.

8. TIME CONTROL

This time control is used to control the intervals of the echo sound.

9. TALKBACK CONTROL

Adjust this knob for desired volume of Talkback. This is used to monitor your own voice. For example, you could use this feature to compare different microphones.

10. RF POWER CONTROL

This control allows the user to adjust RF power output.

11. CHANNEL SELECTOR

This control is used to select a desired transmit and receive channel.

12. FRONT PANEL METER

The Front Panel Meter allows the user to monitor signal strength, RF output power and SWR level.

13. TX/RX LED

The red LED indicates the unit is in the transmit mode. The green LED indicates the unit is in the receive mode.

14. FREQUENCY COUNTER

This display indicates the frequency of operation.

15. DIM/BRT SWITCH

This switch controls the level of brightness for the meter lamp, frequency display and the channel display. Press this switch (DIM) for the meter lamp, frequency display and the channel display to be dimly lighted. Depress this switch (BRT) for brighter effects.

16. HI/LO SWITCH

This switch selects received audio tone quality. In LO position, bass is increased and in HI position, treble is increased.

17. S-RF/SWR SWITCH

This is a two-function switch. In the S-RF position, the meter will indicate the strength of the signal being received, as well as the relative RF output of transmission. To use the meter to measure the standing wave ratio, turn the switch to the SWR position. The SWR function is self-calibrating.

18. NB/ANL/OFF SWITCH

In the NB/ANL position, the RF Noise Blanker and the Automatic Noise Limiter in the audio circuits are also activated. The Noise Blanker is very effective in eliminating repetitive impulse noise such as ignition interference.

19. R.B./OFF SWITCH

In the Roger Beep position, the radio transmits an audio tone at the end of your transmission to indicate that transmission has ended. As a courtesy to others, use the Roger Beep only when necessary.

20. +10KHz/OFF SWITCH

When the switch is pressed the frequency is shifted 10KHz up.

21. CHANNEL DISPLAY

The channel display indicates the current selected channel.

Figure 2-2 represents the location of the following connections:

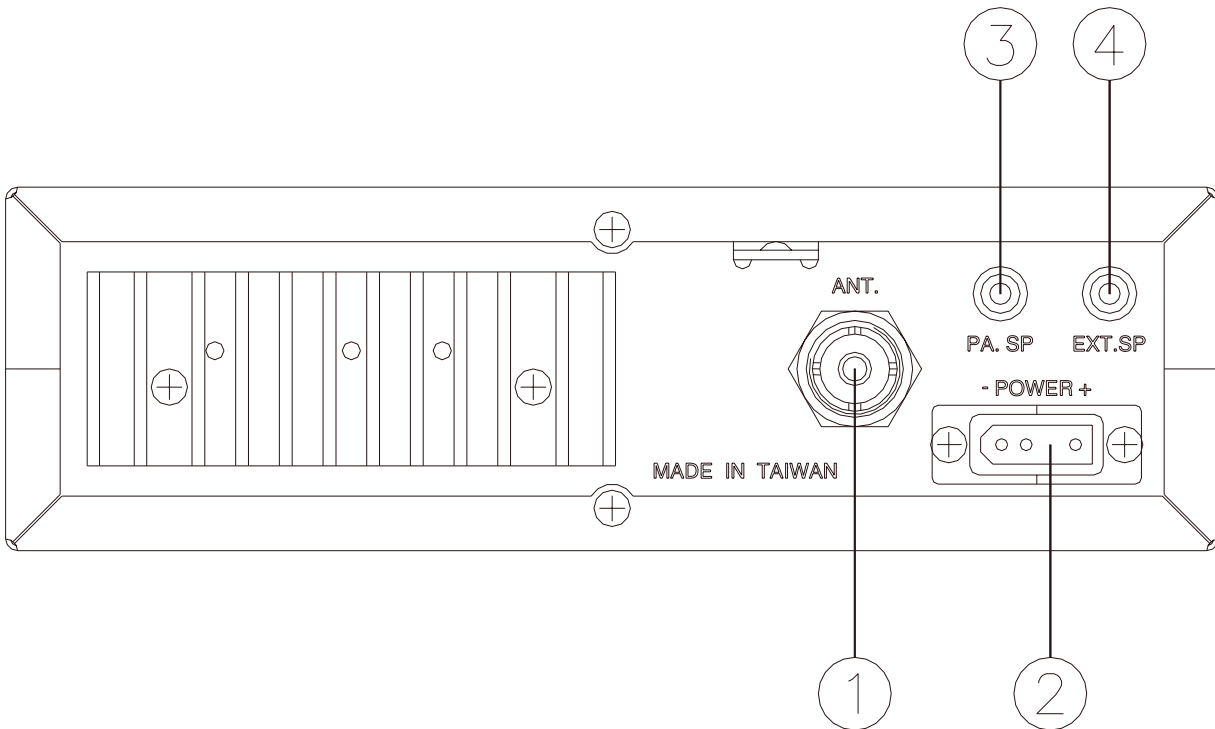


Figure 2-2 Rear Panel

1. ANTENNA

This jack accepts 50 ohms coaxial cable with a PL- 259 type plug.

2. POWER

This connector accepts 13.8V DC power cable with built-in fuse. The power cord provided with the radio has a black and red wire. The black goes to negative and the red goes to positive.

3. PA. SP.

This jack is for PA operation. Before operating, you must first connect a PA speaker (8 ohms, 4W) to this jack.

4. EXT. SP.

This jack accepts 4 to 8 ohms, 4 watts external speaker. When the external speaker is connected to this jack, the built-in speaker will be disabled.

2.1.3 FREQUENCY CHART

CHANNEL	FR. POOL					
	1 (MHz)	2 (MHz)	3 (MHz)	4 (MHz)	5 (MHz)	6 (MHz)
1	28.245	28.695	29.145	28.315	28.765	29.215
2	28.255	28.705	29.155	28.325	28.775	29.225
3	28.265	28.715	29.165	28.335	28.785	29.235
4	28.285	28.735	29.185	28.355	28.805	29.255
5	28.295	28.745	29.195	28.365	28.815	29.265
6	28.305	28.755	29.205	28.375	28.825	29.275
7	28.315	28.765	29.215	28.385	28.835	29.285
8	28.335	28.785	29.235	28.405	28.855	29.305
9	28.345	28.795	29.245	28.415	28.865	29.315
10	28.355	28.805	29.255	28.425	28.875	29.325
11	28.365	28.815	29.265	28.435	28.885	29.335
12	28.385	28.835	29.285	28.455	28.905	29.355
13	28.395	28.845	29.295	28.465	28.915	29.365
14	28.405	28.855	29.305	28.475	28.925	29.375
15	28.415	28.865	29.315	28.485	28.935	29.385
16	28.435	28.885	29.335	28.505	28.955	29.405
17	28.445	28.895	29.345	28.515	28.965	29.415
18	28.455	28.905	29.355	28.525	28.975	29.425
19	28.465	28.915	29.365	28.535	28.985	29.435
20	28.485	28.935	29.385	28.555	29.005	29.445
21	28.495	28.945	29.395	28.565	29.015	29.465
22	28.505	28.955	29.405	28.575	29.025	29.475
23	28.535	28.985	29.435	28.605	29.005	29.505
24	28.515	28.965	29.415	28.585	29.035	29.485
25	28.525	28.975	29.425	28.595	29.045	29.495
26	28.545	28.995	29.445	28.615	29.065	29.495
27	28.555	29.005	29.455	28.625	29.075	29.515
28	28.565	29.015	29.465	28.635	29.085	29.525
29	28.575	29.025	29.475	28.645	29.095	29.535
30	28.585	29.035	29.485	28.655	29.105	29.545
31	28.595	29.045	29.495	28.665	29.115	29.555
32	28.605	29.055	29.505	28.675	29.125	29.565
33	28.615	29.065	29.515	28.685	29.135	29.575
34	28.625	29.075	29.525	28.695	29.145	29.585
35	28.635	29.085	29.535	28.705	29.155	29.595
36	28.645	29.095	29.545	28.715	29.165	29.605
37	28.655	29.105	29.555	28.725	29.175	29.625
38	28.665	29.115	29.565	28.735	29.185	29.635
39	28.675	29.125	29.575	28.745	29.195	29.645
40	28.685	29.135	29.585	28.755	29.205	29.655

2.2 MICROPHONE

The receiver and transmitter are controlled by the push-to-talk switch on the microphone. Press the switch and the transmitter is activated, release switch to receive. When transmitting, hold the microphone two inches from the mouth and speak clearly in a normal voice. The radio comes complete with low impedance (500 ohm) dynamic microphone.

2.3 OPERATION

2.3.1 PROCEDURE TO RECEIVE

1. Be sure that power source, microphone and antenna are connected to the proper connectors before going to the next step.
2. Turn unit on by turning **VOL** knob clockwise on transceiver.
3. Set the **VOL** to a comfortable listening level.
4. Set the **MODE** switch to the desired mode.
5. Listen to the background noise from the speaker. Turn the **SQ** knob slowly clockwise until the noise just disappears. The **SQ** is now properly adjusted. The receiver will remain quiet until a signal is actually received. Do not advance the control too far or some of weaker signals will not be heard.
6. Set the **CHANNEL** selector switch to the desired channel.
7. Set the **RF GAIN** control fully clockwise for maximum RF gain.

2.3.2 PROCEDURE TO TRANSMIT

1. Select the desired channel of transmission
2. Set the **MIC GAIN** control fully clockwise.
3. If the channel is clear, press the push-to-talk switch on the microphone and speak in a normal voice.

2.4 ALTERNATE MICROPHONES AND INSTALLATION

For best results, the user should select a low impedance dynamic type microphone or a transistorized microphone. Transistorized type microphones have a low output impedance characteristic. The microphones must be provided with a four-lead cable. The audio conductor and its shielded lead comprise two of the leads. The third lead is for transmit control and the fourth is for receiving control. The microphone should provide the functions shown in schematic below (Figure 2-3).

4 WIRE MIC CABLE

Pin Number	Mic Cable Lead
1	Audio Shield
2	Audio Lead
3	Transmit Control
4	Receive Control

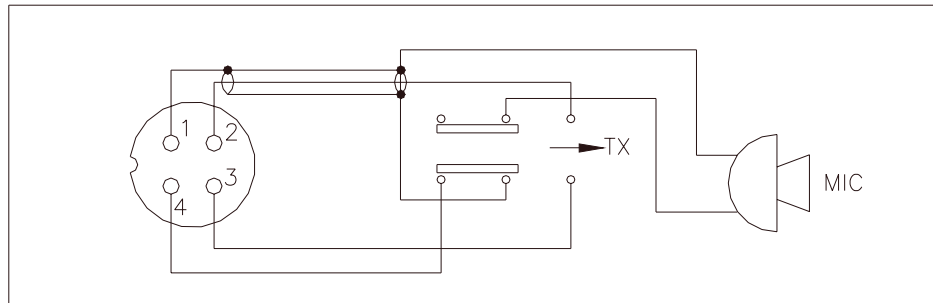


Figure 2-3 Your Transceiver Microphone Schematic

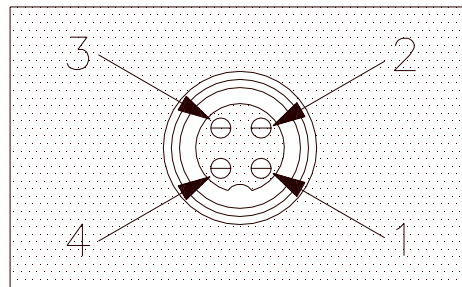


Figure 2-4 Microphone plug pin numbers viewed from rear of pin receptacle.

3.0 INTRODUCTION

This section explains the technical theory of operation for the RCI-6300F HP / RCI-6300F TB mobile transceiver.

3.1 PLL CIRCUIT

The Phase Lock Loop (PLL) circuit is responsible for developing the receiver's first local oscillator signal and the transmitter's exciter signal. The PLL circuit consists primarily of IC2, IC3, IC4, IC5 Q25, Q27, Q28, Q29 and Q61. The PLL circuit is programmed by the rotary channel switch GPS-0501. The switch communicates the correct binary data information to the programmable divider inside of IC3. IC3 then controls the VCO (Voltage Controlled Oscillator), consisting of VCO to oscillate on the correct frequency. This signal is fed either into the receiver's first mixer (for receive operation) or the transmitter's mixer (for transmit operation).

3.2 RECEIVER CIRCUIT

The incoming RF signal comes into the radio via the antenna and into the front-end pre-amp, Q17. The RF signal is fed into the mixer circuit Q18 & Q19 and then into the IF section of the receiver (depending on the mode of operation). The signals is then detected by either the AM detector or FM detector and then fed to the audio amplifier section of the receiver and finally out to the speaker.

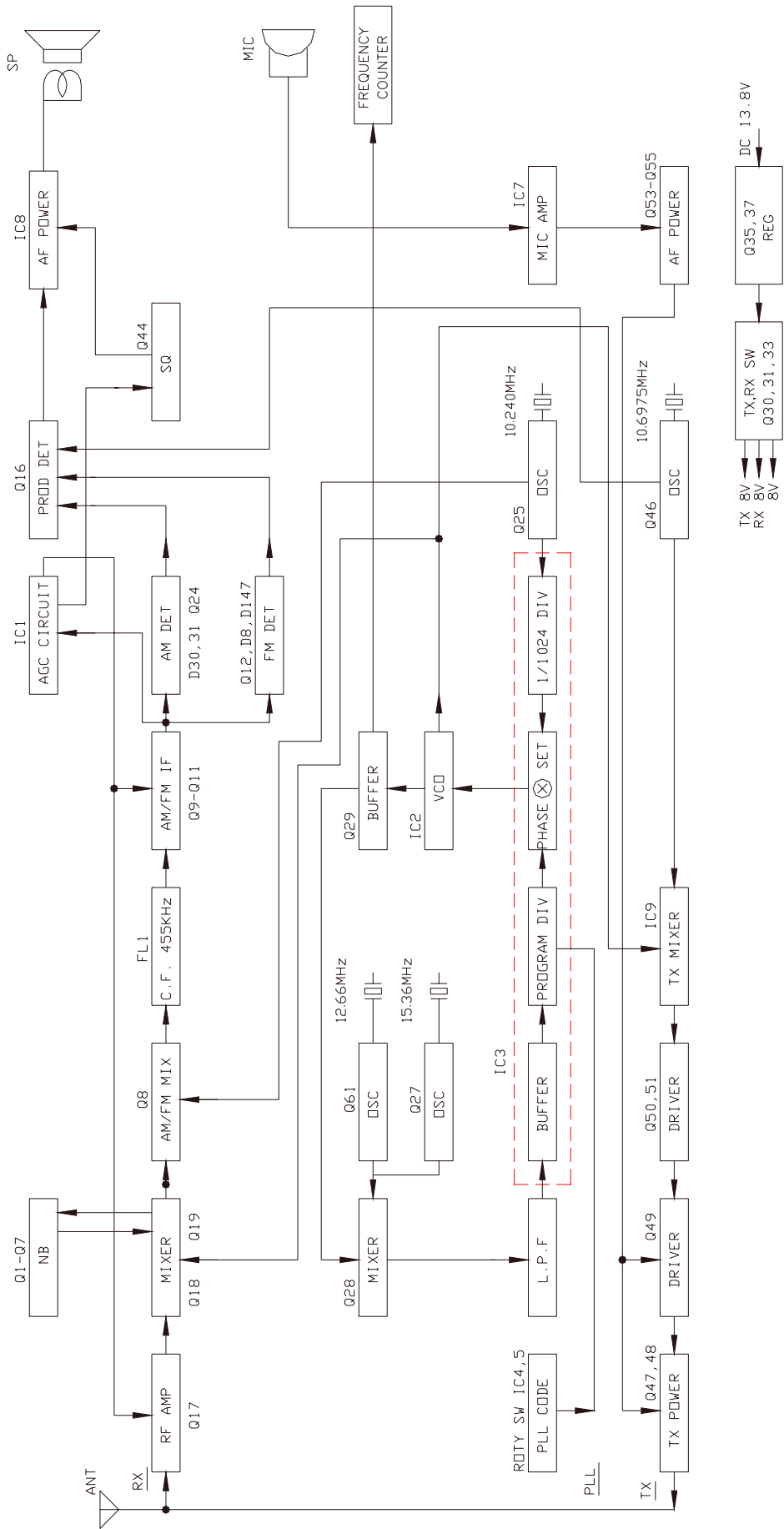
3.3 TRANSMITTER MODULATION CIRCUIT

- (i) The transmitter modulation circuit modulates the low-level RF signal from the PLL exciter circuit with the user's audio voice signal from the microphone. The audio from the microphone is then amplified and fed into the transmit amplifier circuit.
- (ii) If the transceiver is in the AM mode, the AF power amplifier modulates the last RF amplifier which produces a true amplitude modulated RF signal.

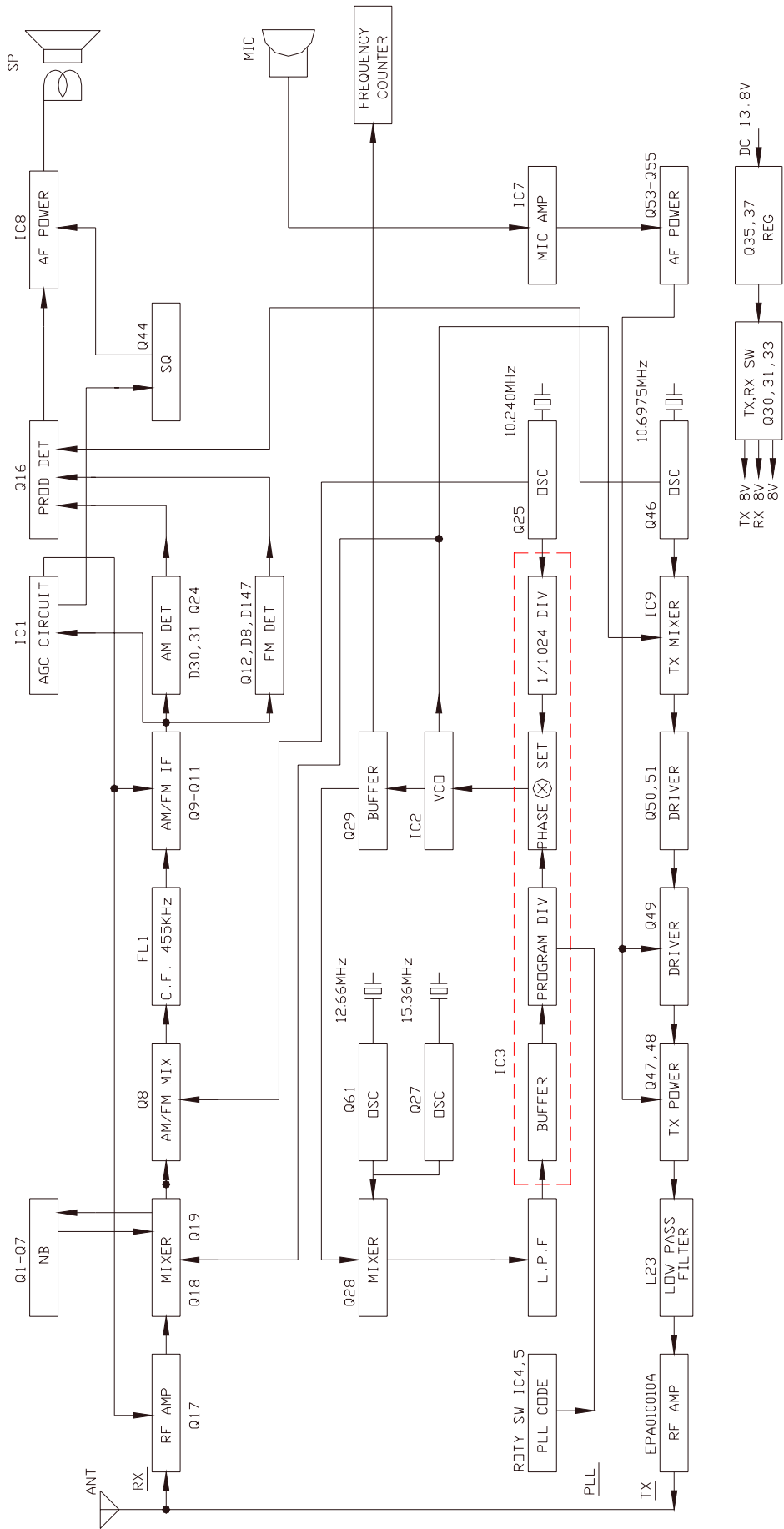
3.4 TRANSMITTER AMPLIFIER CIRCUIT

The transmitter takes the basic exciter signal from the TX mixer and amplifies it through a series of amplifiers consisting of Q50, Q51, Q49, Q47, Q48 and EPA010010A (only for RCI-6300F TB) where it is sent out to the antenna connector.

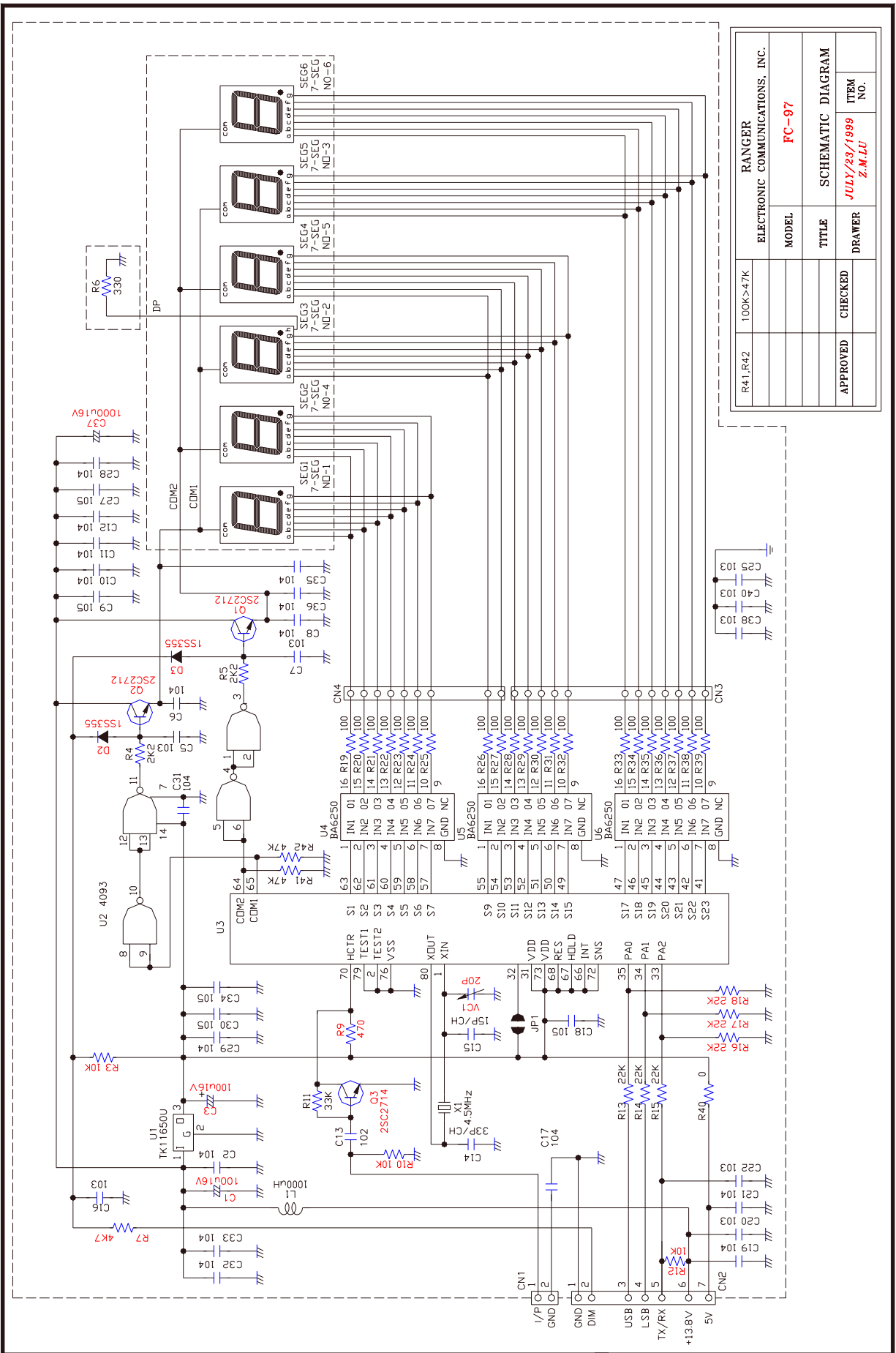
RCI-6300FHP BLOCK DIAGRAM



RCI-6300FTB BLOCK DIAGRAM

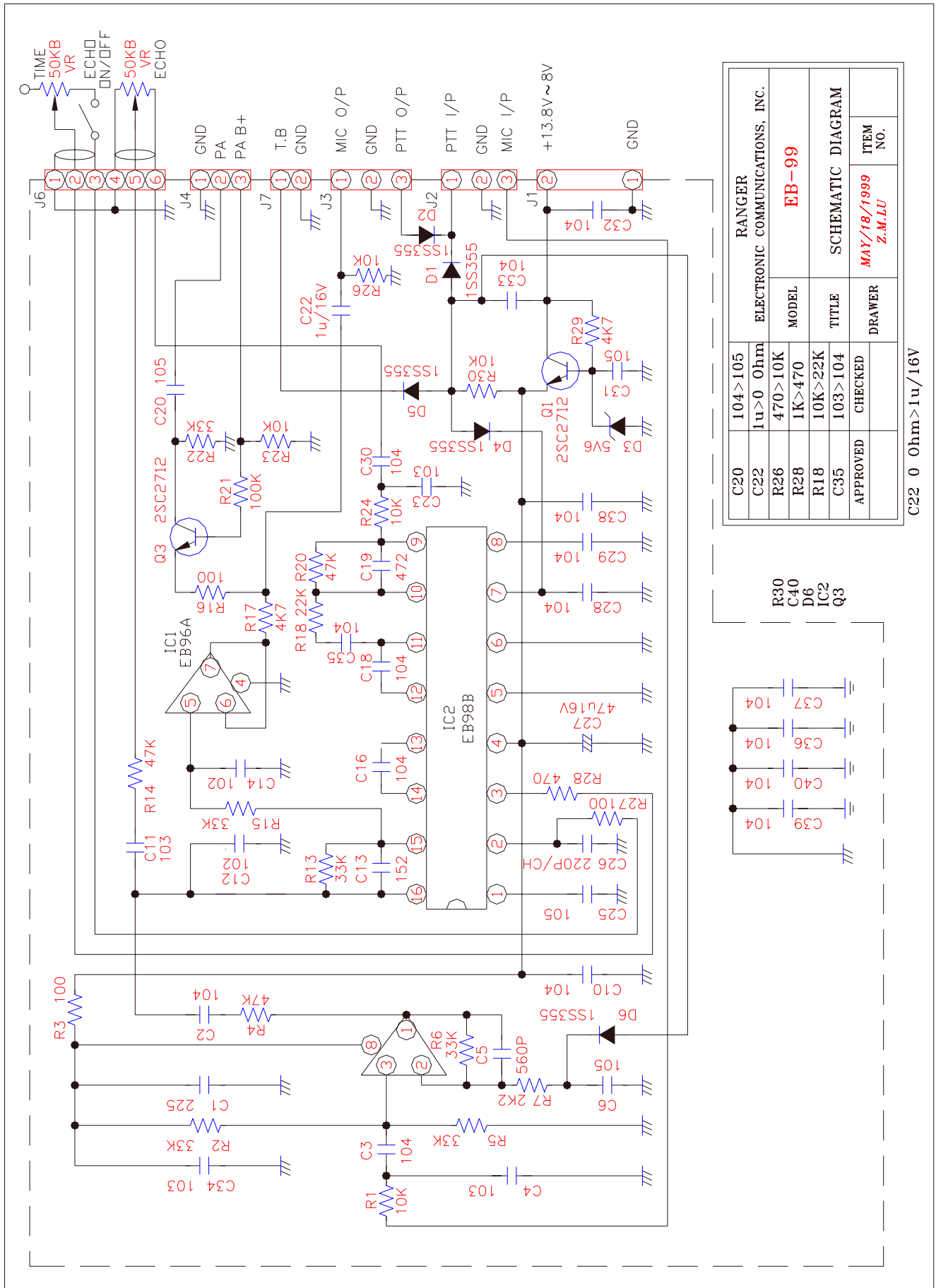


RCI-6300F HP / RCI-6300F TB FREQUENCY COUNTER CIRCUIT DIAGRAM

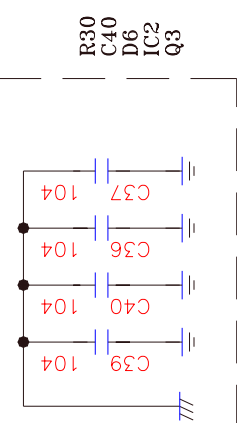


R41,R42	100K>47K	RANGER ELECTRONIC COMMUNICATIONS, INC.	
		MODEL	FC-97
		TITLE	SCHEMATIC DIAGRAM
		DRAWER	JULY/23/1989 Z.M.L.U
		CHECKED	
		APPROVED	
			ITEM NO.

RCI-6300F HP / RCI-6300F TB ECHO BOARD (EB-99) CIRCUIT DIAGRAM



RANGER		ELECTRONIC COMMUNICATIONS, INC.	
C20	104 > 105	MODEL	EB-99
C22	1u > 0 Ohm	TITLE	SCHEMATIC DIAGRAM
R26	470 > 10K	DRAWER	MAY/18/1999
R28	1K > 470	ITEM NO.	Z.M.LU
R18	10K > 22K		
C35	103 > 104		
APPROVED	CHECKED		



C22 0 Ohm > 1u/16V

4.0 REQUIRED TEST EQUIPMENT

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ① DC Power Supply (13.8VDC, 20A) ② RF Wattmeter (25~60 MHz, 100W) ③ Multimeter (Digital) ④ Automatic Modulation Meter ⑤ Audio Signal Generator | <ul style="list-style-type: none"> ⑥ Frequency Counter (100 MHz) ⑦ RF Signal Generator (100 MHz) ⑧ Automatic Distortion Meter ⑨ Oscilloscope (50 MHz) ⑩ Sinad Meter |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

4.1 ALIGNMENT PROCEDURES

This transceiver has been aligned at the factory and does not require any adjustments at installation. The required test equipment listed are used for the test setup or alignment shown in Figure 4-1 Transmitter Test Setup and Figure 4-2 Receiver Test Setup. These test setup are used in part or total during the following adjustments and refer to Figure 4-3 for adjustment location.

4.1.1 PLL ALIGNMENT

ITEM	U.U.T. SETTING	ADJUST POINT	MEASUREMENT
VCO Voltage	Disconnect the “short PCB” from TP7, TP8 and TP9. Set radio to Fr Pool 6, CH 40 AM RX mode. Set the +10KHz switch to OFF position. Connect Multimeter to TP2. Connect Oscilloscope to TP3.	L14 L15	6.5 VDC \pm 0.1 Maximum Output and Balance. (CH 1 & CH 40)
AM Frequency	Set radio to Fr Pool 1, CH 1 AM RX mode. Set radio to Pool 6, CH 40 AM RX mode. Connect Frequency Counter to TP3.	L20 L17	17.5500 MHz \pm 20Hz 18.9600 MHz \pm 20Hz
TX Frequency	Set radio to Fr Pool 1, CH 1 AM TX mode. Connect Frequency Counter to TP3.	VR7	17.5500 MHz \pm 20Hz
AM OSC	Set radio to Fr Pool 1, CH 1 AM TX mode. Connect Frequency Counter to TP5.	L23	10.6950 MHz \pm 20Hz

4.1.2 TRANSMITTER ALIGNMENT

ITEM	U.U.T. SETTING	ADJUST POINT	MEASUREMENT
TX Power	Set radio to Fr Pool 2, CH 19 AM TX mode. Connect "short PCB" to TP7, TP8 and TP9. Connect RF Power Meter to antenna jack. Set RF Power Fully Clockwise.	L40,L42,L43, L44 L40,L42	Power MAX. Spurious emission Min. Balance Power between CH 1 and CH 40.
AM TX Power	Set radio to Fr Pool 2, CH 19 AM TX mode. Modulation off.	VR14	10W (RCI-6300F HP) 50W (RCI-6300F TB)
RF Power Meter	Set radio to Fr Pool 2, CH 19 AM TX mode. Set SWR/S-RF switch to S/RF position. Modulation off.	VR9	Adjust RF Power meter needle until it is in-between the green and red bar on PWR scale.
AM Modulation	Set radio to Fr Pool 2, CH 19 AM TX mode. Set Mic Gain Fully Clockwise. AF signal 30 mV, 1 KHz to microphone.	VR16	90%
FM Deviation	Set radio to Fr Pool 2, CH 19 FM TX mode. Set Mic Gain Fully Clockwise. AF signal 30 mV, 1 KHz to microphone.	VR5	4KHz
Frequency Counter Adjust	Set radio to Fr Pool 2, CH 19 AM RX mode. Set DIM/BRT switch to BRT position.	VC1 on frequency counter	Display should be 28.9150

4.1.3 RECEIVER ALIGNMENT

ITEM	U.U.T. SETTING	ADJUST POINT	MEASUREMENT
AM Sensitivity	Set radio to Fr Pool 2, CH 19 AM RX mode. Set RF Gain Fully Clockwise. Set SQ Fully Counter Clockwise. Set VOL Control at 2 o'clock. Set NB-ANL/OFF switch to OFF position. Connect RF SG to antenna jack Frequency 28.915 MHz, 1uV. Mod 30%. Set radio to Pool 6, CH 40 AM mode. RF SG setting 29.655 MHz. Set radio to Pool 1, CH 1 AM mode. RF SG setting 28.245 MHz.	L2,3,5,6,7,8, 9,10 L5,L6 L5,L6	Audio output > 2V S/N > 10 dB. For Balance between CH 1 and CH 40.
FM Sensitivity	Set radio to Fr Pool 2, CH 19 FM RX mode. Set MODE switch to FM mode. RF SG setting 28.915 MHz, 0.5uV. Mod 3KHz.	L4	Audio output Max S/N > 20 dB.
NB Adjust	Set radio to Fr Pool 2, CH 19 AM RX mode RF SG setting 28.915 MHz, 100uV. Mod off. Set NB-ANL/OFF switch to NB/ANL position. Connect Voltmeter to TP1.	L1	DC voltage to max. (>2.0V)
AM Squelch	Set radio to Fr Pool 2, CH 19 AM RX mode. Set SQ control fully clockwise. RF SG setting 28.915 MHz, 1 mV. Mod 30%.	VR4 Slowly	Adjust very slowly until squelch just open
AM S/RF Meter	Set radio to Fr Pool 2, CH 19 AM RX mode. Set SWR/S-RF switch to S/RF position. RF SG setting 28.915 MHz, 100uV. Mod 30%.	VR1	Meter needle to S9 on the S scale

Figure 4-1 Transmitter test setup

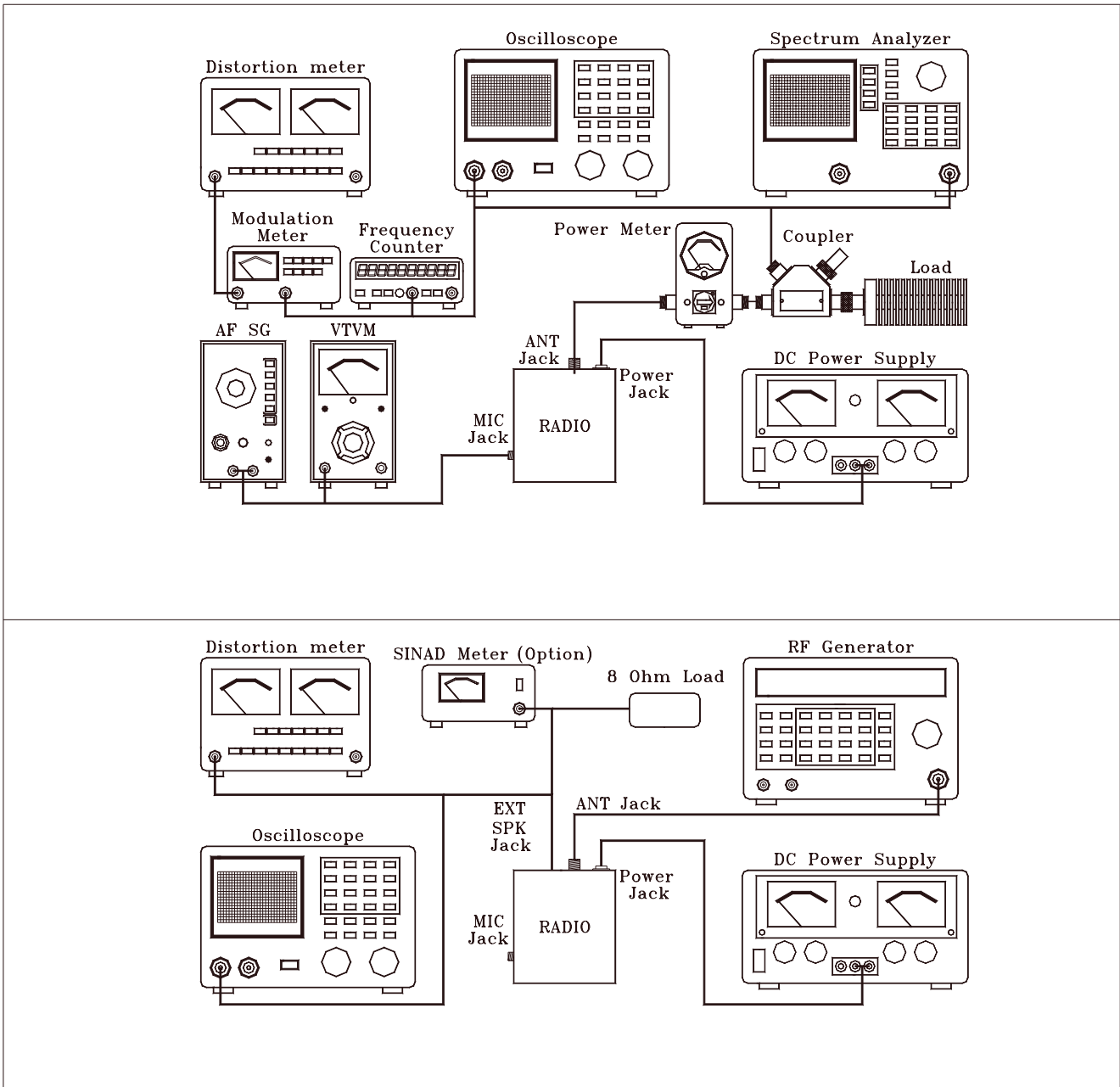


Figure 4-2 Receiver test setup

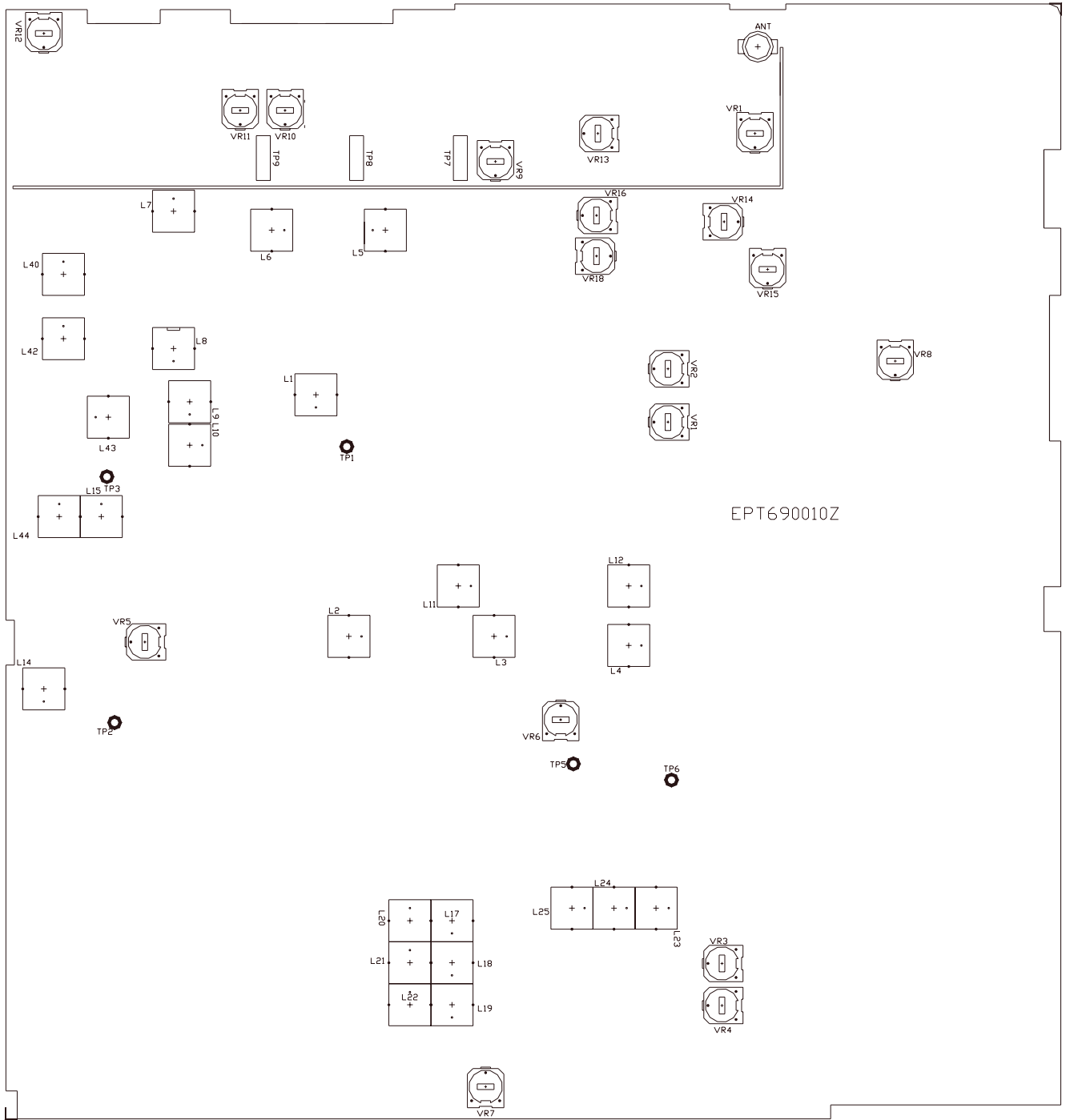


Figure 4-3 Main PCB Adjustment Location

5.0 PRECAUTIONS

The inherent quality of the solid-state components used in this transceiver will provide many years of continuous use. Taking the following precautions will prevent damage to the transceiver.

- (i) Never key the transmitter unless an antenna or suitable dummy load is connected to the antenna receptacle.
- (ii) Ensure that the input voltage does not exceed 16 VDC or fall below 11 VDC.
- (iii) During alignment, do not transmit for more than 10 seconds at a time. Transmitting over long periods can cause heat built-up and cause transmitter damage.

5.1 PERIODIC INSPECTION

This unit is aligned at the factory to deliver maximum performance. However, continued performance cannot be expected without periodic inspection and maintenance. Important points to be checked regularly are as follows;

Check Item	Action
Whip antenna (option)	If cracked or broken, replace it.
Coaxial cable	If sheath is cracked, seal with vinyl tape. If immersed with water, install new coaxial cable.
Coaxial & power plug connections	If loosened, reconnect. If corroded, clean contacts.
Battery connection	If corroded, clean power terminals.
Ground terminal	If corroded, clean terminal.

5.2 FUSE REPLACEMENT

To protect the equipment from serious damage, a fuse is provided on the power supply lines. The fuse protect against overvoltage / reverse polarity and internal fault of the equipment. If the fuse has blown, first find out the cause of the trouble before replacing it. A fuse rated for more than the transceiver requirement should not be used, since it may permanently damage the equipment. Damage due to overfusing is not covered by the warranty.

**RCI-6300F HP
RCI-6300F TB**

**CHAPTER 6
DIAGRAMS &
PARTS LIST**

6.0 GENERAL

Information on most electrical and mechanical parts is included in the parts list. The reference designators are in alphanumeric order.

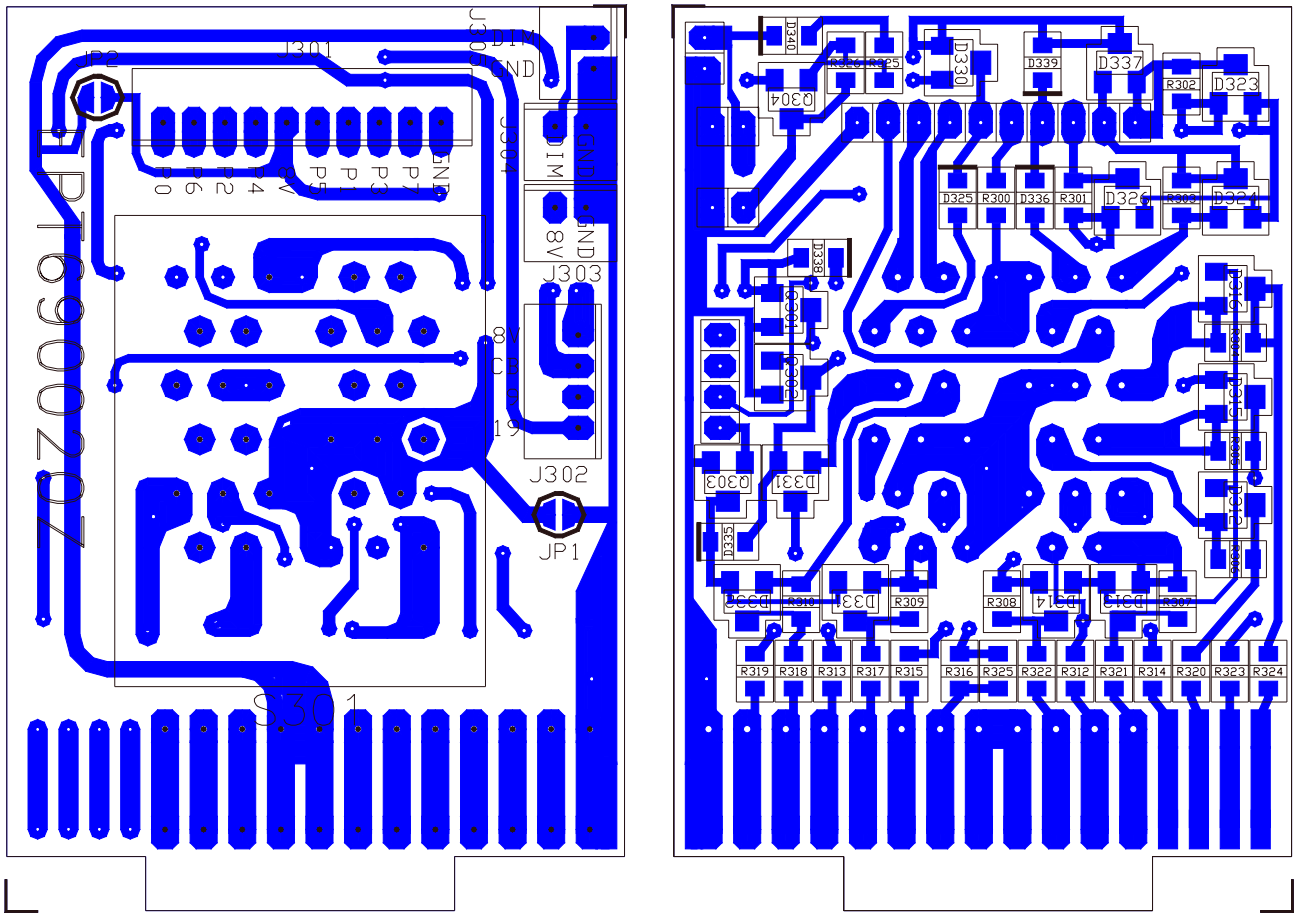
6.1 ORDERING REPLACEMENT PARTS

Parts orders should be referred to the Parts Department at:

- Ranger Communications, Inc.
3377 Carmel Mountain Road
San Diego, CA 92121

Tel: 858-259-0287

Fax: 858-259-0437



PART LIST:

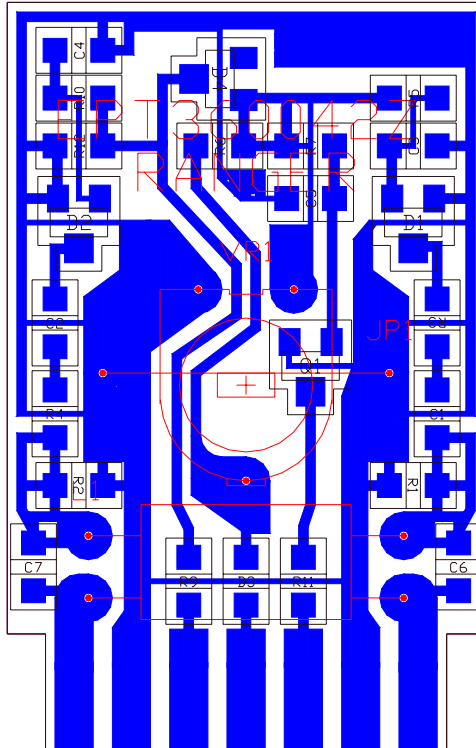
RCI-6300F HP / RCI-6300F TB ROTARY SW P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT690020Z	ROTARY SW P.C.B
2	R300-R310,D325, D331,D336	RCY010004Z	0 OHM 0.1W
3	R312-R325	RCY011024Z	1K OHM 0.1W
4	R327	RCY012224Z	2.2K OHM 0.1W
5	R326	RCY014724Z	4.7K OHM 0.1W
6	D340	EDSS00355Y	DIODE 1SS355
7	Q304	TY2SC2712G	TR 2SC2712GR
8	J303-J305	EX07N48223	PCB CONN/S 2PIN
9	J301	EX07N48209	PCB CONN/S 10PIN
10	S301	EWRT32000S	ROTARY SW

REMARK:

LEFT: COMPONENT SIDE (BLUE)

RIGHT: COPPER SIDE (BLUE)



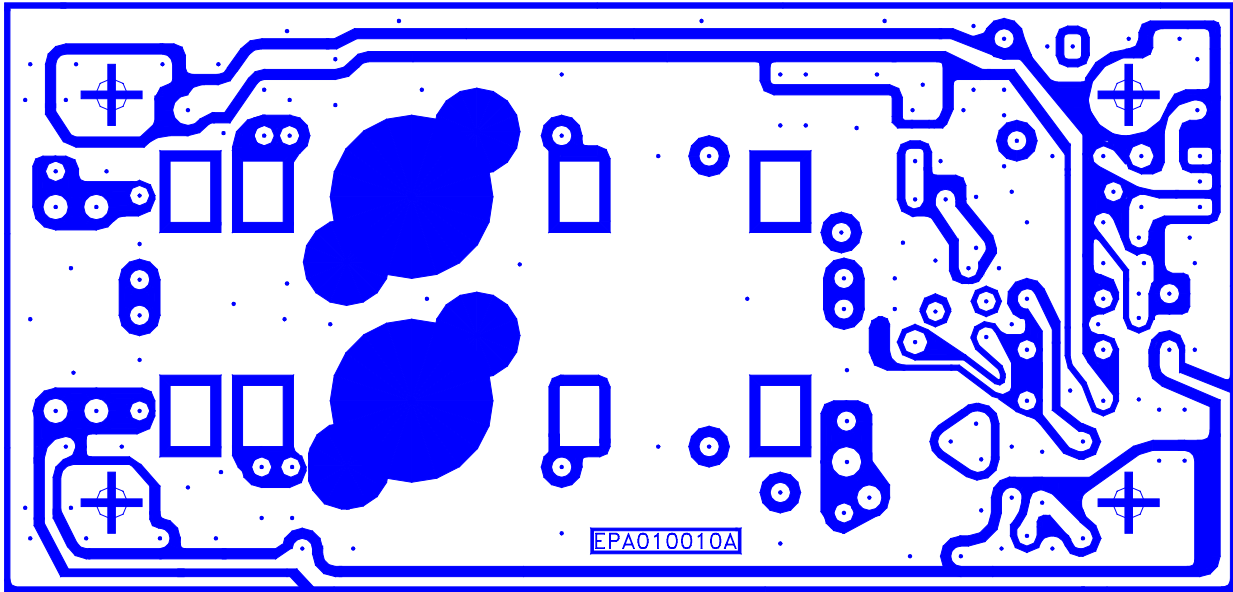
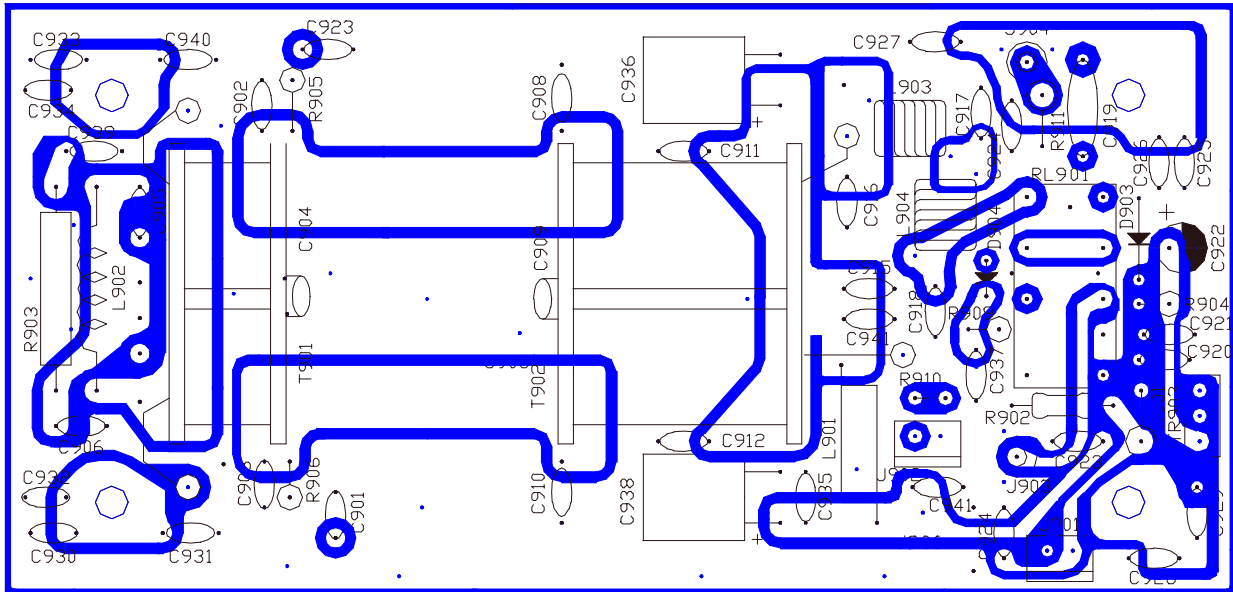
PART LIST:

RCI-6300F HP ANT P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT360042Z	ANT P.C.B
2	R9	RCY010004Z	0 OHM 0.1W
3	R1	RCY014714Z	470 OHM 0.1W
4	R3,R4	RCY011014Z	100 OHM 0.1W
5	R2	RCY013314Z	330 OHM 0.1W
6	R5,R11	RCY011024Z	1K OHM 0.1W
7	R10	RCY012224Z	2.2K OHM 0.1W
8	R12	RCY014724Z	4.7K OHM 0.1W
9	R7	RCY011034Z	10K OHM 0.1W
10	C5	RCY012234Z	22K OHM 0.1W
11	C7	CK1059AB1A	0.5PF 50WV
12	C6	CK1030AB1A	3PF 50WV
13	C3,C4	CK2104AB7R	0.1uF 25WV
14	C1,C2	CK1103AB7L	0.001uF 50WV
15	Q1	TY2SC2712G	TR 2SC2712GR
16	D3	EDSS00355Y	DIODE 1SS355
17	D1,D2	EDHM0198SY	DIODE HSM198S
18	D4	EDMA0028TY	DIODE MA28T
19	L1	ECRFZ10053	RF COIL C3RH0610
20	VR1	RE10300009	S/F/R 10K OHM
21	JP1	WX01070715	JUMPER WIRE

REMARK:

COPPER SIDE (BLUE)



PART LIST:

RC1-6300F TB POWER P.C.B

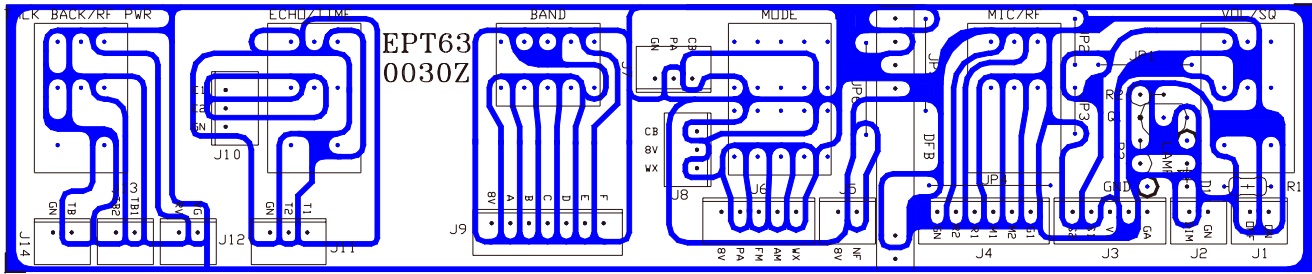
ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPA010010A	POWER P.C.B
2	R904	RCU141094Z	1 OHM 1/4W
3	R905,R906	RCU141004Z	10 OHM 1/4W
4	R909	RCP141034Z	10K OHM 1/4W
5	R902	RCM141024A	1K OHM 1/4W
6	R911	RCP121034Z	10K OHM 1/2W
7	R903	RCP202204Z	22 OHM 2W
8	R901,R909(R910)	RE10200046	S/F/R 1K OHM
9	BETWEEN C901 & GROUND	RCP141024Z	1K OHM 1/4W
10	T901,T902	RFP202214Z	220 OHM 2W
ITEM	REFERENCE NUMBER	RANGER PART	DESCRIPTION

		NUMBER	
11	COPPER SIDE	RCY011014Z	100 OHM 0.1W
12	C901	CC0501015A	100PF 50WV
13	C943	CC0500591A	0.5PF 50WV
14	C906,C926,C932, C937,TERMINALx2	CC0501037L	0.01uF 50WV
15	C905,C920,C921,C923x2, C924x2,C925,C935,C939, C941,T901-902x2, C927-C931,C933,C940	CC0501047L	0.1uF 50WV
16	C918	CD3006804Z	68PF 300WV
17	C916	CD3001514Z	150PF 300WV
18	C917	CD5001018Z	100PF 500WV
19	C908,C910,C936	CD3001814Z	180PF 300WV
20	C945	CD5005614Z	560PF 500WV
21	C909	CD5008214Z	820PF 500WV
22	C904	CD1001024Z	0.001uF 100WV
23	C919	CX0071037Z	HV DISC/ C 0.01μF
24	C922	CE0162277Z	220uF 16WV
25	C938	CE0352277Z	220uF 35WV
26	TR903	T2SD02531Z	TR 2SD2531
27	TR901,TR902	T2SC02290Z	TR 2SC2290
28	D903,D904	ED1N04148Z	DIODE 1N4148
29	D901,D902	ED1N04001Z	DIODE 1N4001
30	L903,L904	ECSPG18069	SPRING COIL
31	L901	ECBAD18553	BEAD COIL
32	L902	ECCHK16098	CHOKO COIL
33	T901	ECRFZ10096	RF COIL
34	T902	ECRFZ10097	RF COIL
35	J901,J902	EX07N41226	PCB CONN/S 2PIN
36	RL901	EX05N40825	RELAY
37	J903,J904	GZZZ50062Z	V TYPE JACK
38	J905,J906	GZZZ50011Z	C PIN

REMARK:

TOP: COMPONENT SIDE (WHITE)

BOTTOM: COPPER SIDE (WHITE)



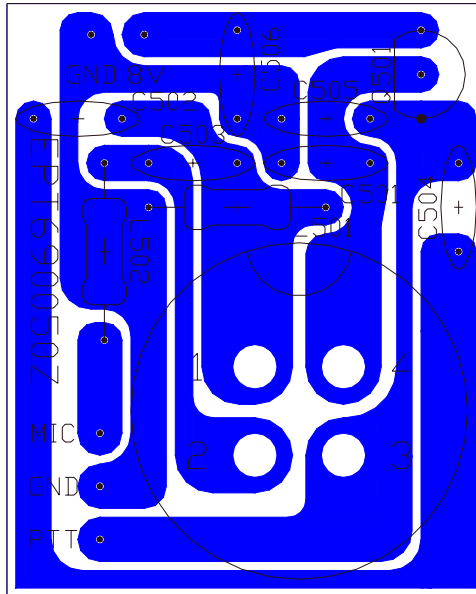
PART LIST:

RCI-6300F HP / RCI-6300F TB BAND SWITCH P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT630030Z	BAND SWITCH P.C.B
2	R1	RCP164704Z	47 OHM 1/16W
3	R2,R3	RCP161024Z	1K OHM 1/16W
4	D1	ED1N04148Z	DIODE 1N4148
5	Q1	T2SC00945P	TR 2SC945P
6	J1,J2,J12-J14	EX07N48223	PCB CONN/S 2PIN
7	J7,J10	EX07N48350	PCB CONN/S 3PIN
8	J6	EX07N48490	PCB CONN/S 4PIN
9	J9	EX07N48224	PCB CONN/S 7PIN
10	J11	EX07W48824	PCB CONN/S 3PIN
11	J3	EX07W48826	PCB CONN/S 5PIN
12	J4	EX07W48827	PCB CONN/S 6PIN
13	JP3	WX01070705	JUMPER WIRE
14	JP1	WX01070710	JUMPER WIRE
15	MIC/RF	RV10203524	VR 1KB/1KA
16	TALK BACK/RF PWR	RV20303560	VR 20KB/5KB
17	VOL/SQ,ECHO/TIME	RV50303522	VR 50KB/50KA W/SW
18	MODE	EWRT32084S	ROTARY SW 3N
19	BAND	EWRT32094S	ROTARY SW 6N

REMARK:

COPPER SIDE (WHITE)



PART LIST:

RCI-6300F HP / RCI-6300F TB MIC P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION	REMARK
1		EPT690050Z	MIC P.C.B	
2	C502-C504	CC0501027L	0.001uF 50WV	RCI-6300F HP
3	C501	CC0501027L	0.001uF 50WV	
4	C505,C506	CC0501037L	0.01uF 50WV	
5	L501	ECCHK16001	CHOKE COIL 5.6uH	
6	L502	ECBAD18526	BEAD COIL	
7	1-4	EX06N41020	MIC JACK	
8	MIC/GND/PTT	EX07N48903	WIRE CONN/H 3PIN	

REMARK:

COPPER SIDE (BLUE)

PART LIST:

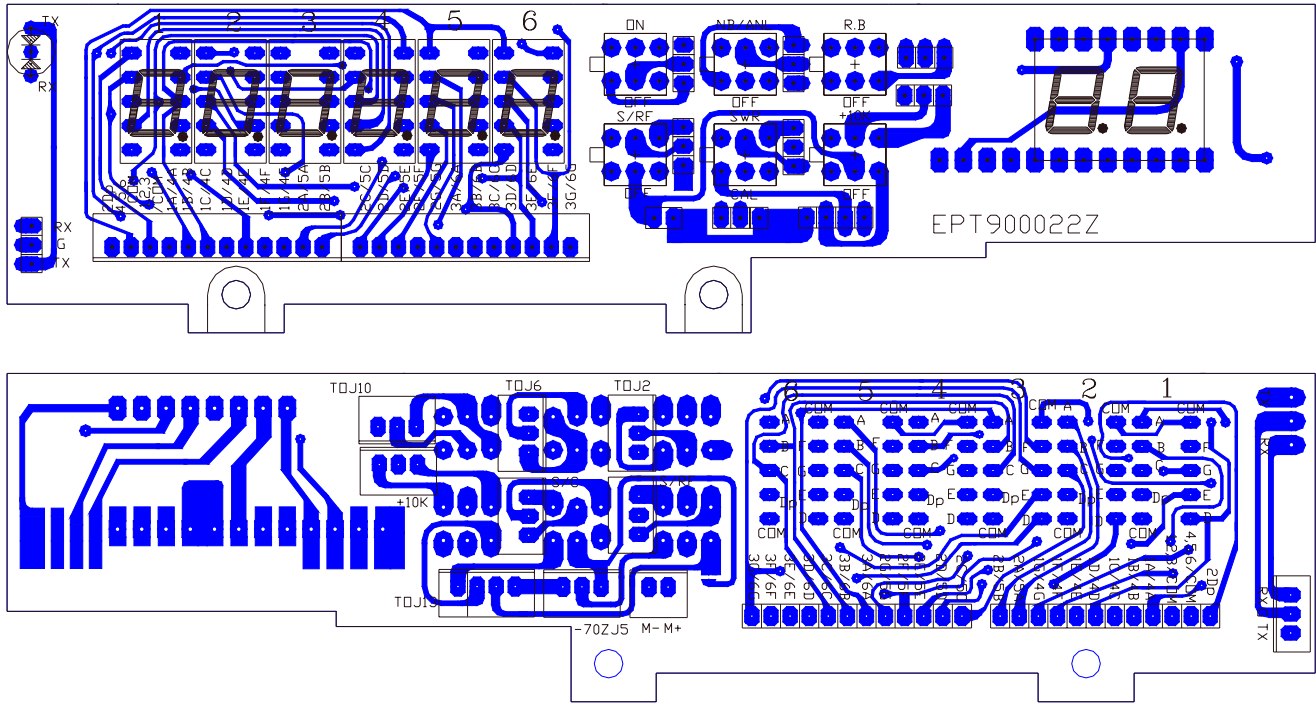
RCI-6300F HP / RCI-6300F TB COUNTER P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT900040Z	COUNTER P.C.B
2	R40	RCY010004Z	0 OHM 0.1W
3	R19-R39	RCY011014Z	100 OHM 0.1W
4	R6	RCY013314Z	330 OHM 0.1W
5	R9	RCY014714Z	470 OHM 0.1W
6	R4,R5	RCY012224Z	2.2K OHM 0.1W
7	R7	RCY014724Z	4.7K OHM 0.1W
8	R3,R10,R12	RCY011034Z	10K OHM 0.1W
9	R13-R18	RCY012234Z	22K OHM 0.1W
10	R11	RCY013334Z	33K OHM 0.1W
11	R41,R42	RCY014734Z	47K OHM 0.1W
12	C15	CK1150AB4A	15PF 50WV
13	C14	CK1330AB4A	33PF 50WV
14	C2,C6,C8,C10,C11,C12, C17,C19,C21,C29,C31, C32,C33,C35,C36,C28	CK2104AB7R	0.1uF 25WV
15	C5,C7,C16,C20,C22, C25,C38,C40	CK1103AB6U	0.01uF 50WV
16	C13	CK1102AB7L	0.001uF 50WV
17	C9,C18,C27,C30,C34	CK5105AA7R	1uF 16WV
18	U3	YNRG0GX3SP	IC LC7232N 18PIN
19	U2	YNTA04073B	IC TC4093BFN 14PIN
20	U4,U5,U6	YNR006250F	IC BA6250F 16PIN
21	U1	YNT011650U	IC TK11650U 3PIN
22	Q3	TY25C2714Z	TR 2SC2714
23	Q1,Q2	TY25C2712G	TR 2SC2712GR
24	D2,D3	EDSS00355Y	DIODE 1SS355
25	L1	YCCHK16259	CHOKE COIL 1000UH
26	VC1	CV038200AY	TRIMMER/C 20PF
27	C1,C3	CEM161077A	100UF 16WV
28	X1	EYCAP04500	CRYSTAL 4.500MHz
29	C37	CE0161087Z	1000UF 16WV
30	COUNTER PCB x2	EX07N48927	PCB CONN/S 12PIN
31	CN1	EX07N48223	PCB CONN/S 2PIN
32	CN2	EX07N48224	PCB CONN/S 7PIN

REMARK:

TOP: COMPONENT SIDE (BLUE)

BOTTOM: COPPER SIDE (BLUE)



PART LIST:

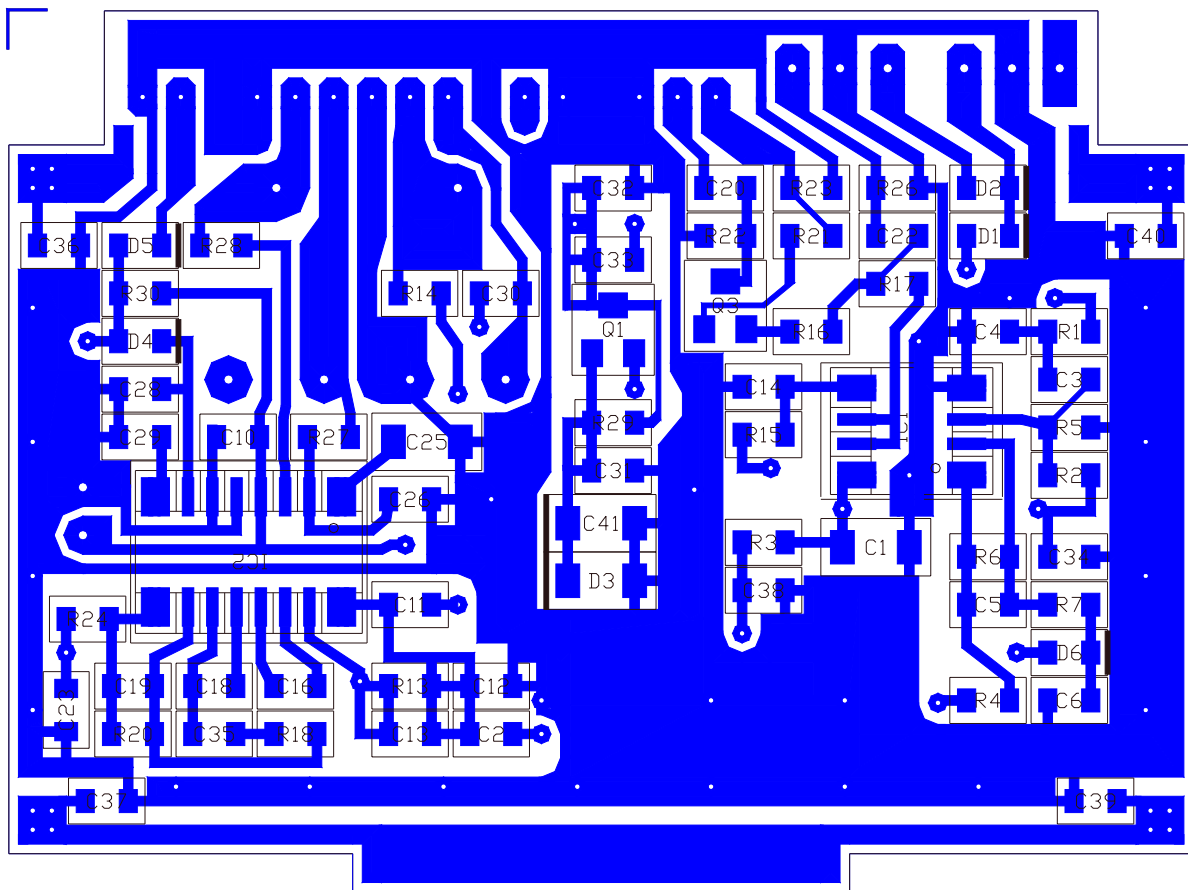
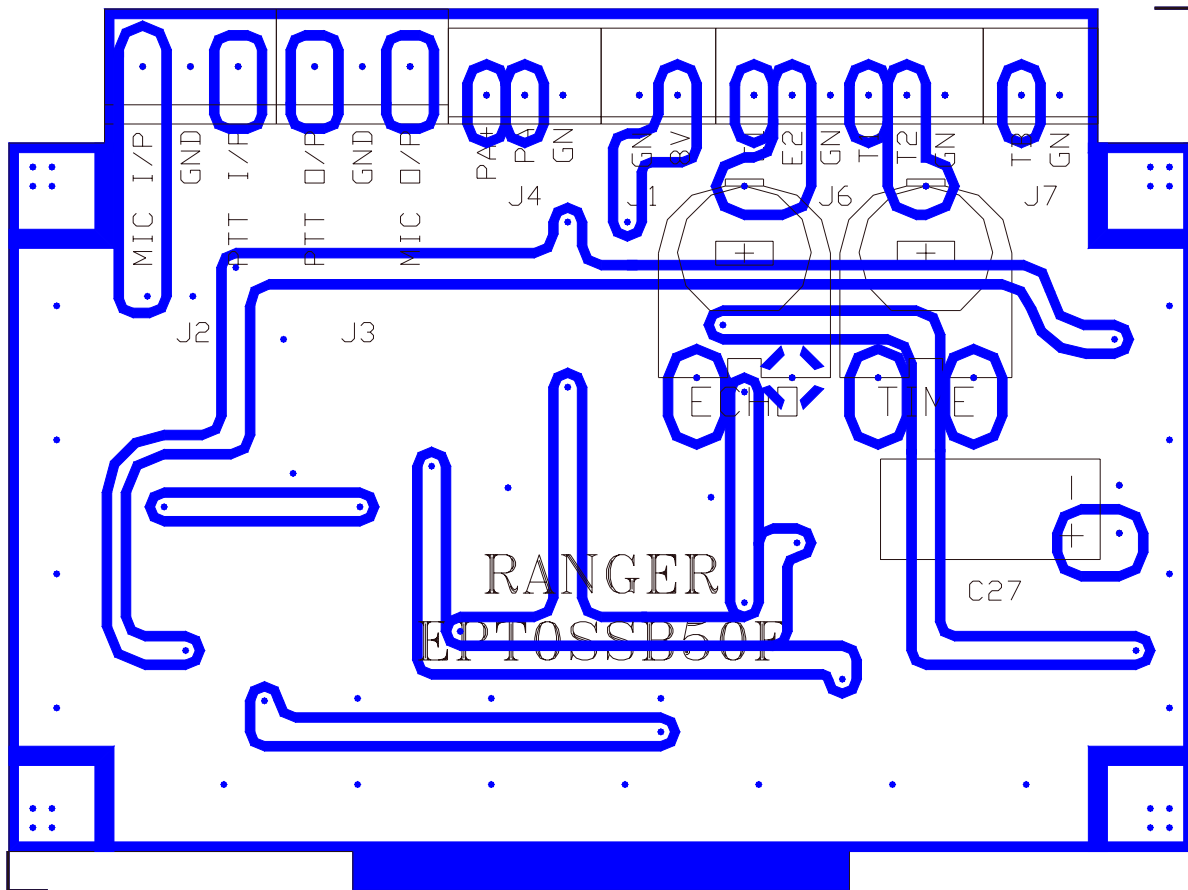
RCI-6300F HP / RCI-6300F TB LED DISPLAY P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT900022Z	LED DISPLAY P.C.B
2	DISPLAY PCB	EX03N40003	LED DISPLAY
3	1,2,3,4,5,6	EX03N40476	LED DISPLAY
4	TX/RX	EX01N40004	LED
5	ON,NB/ANL,R.B,S/R/F, SWR,+10K	EWPS33033X	PUSH SW.
6	DISPLAY PCB	EX07N48928	PCB CONN/S 12PIN
7	TOJ10,+10K,S/R/F, M-M+	EX07N48223	PCB CONN/S 2PIN
8	TOJ2,TOJ6	EX07N48350	PCB CONN/S 3PIN
9	RX/G/TX	EX07N48947	PCB CONN/S 3PIN
10	TOJ13	EX07W48824	PCB CONN/S 4PIN

REMARK:

TOP: COMPONENT SIDE (BLUE)

BOTTOM: COPPER SIDE (BLUE)



PART LIST:

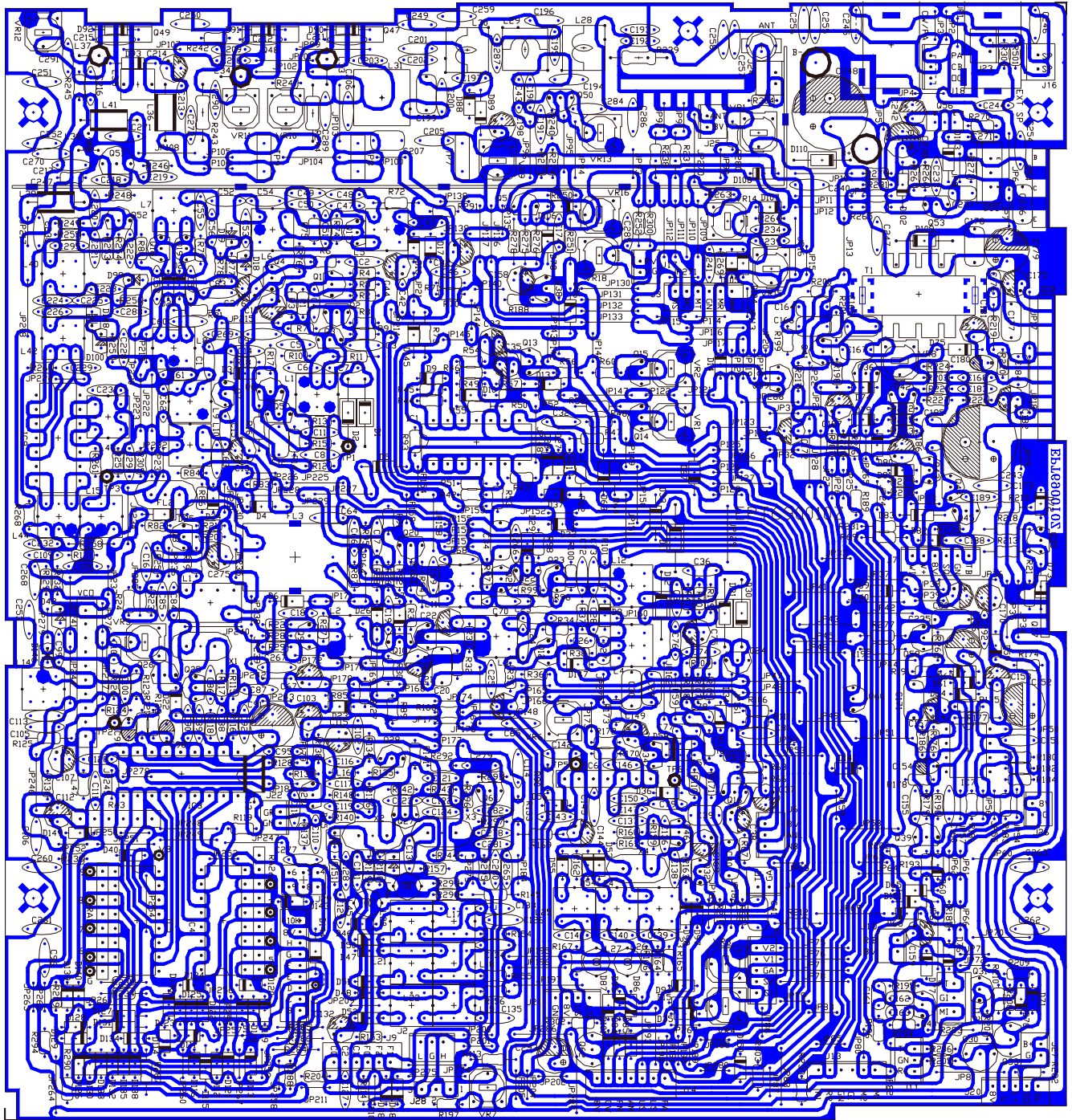
RCI-6300F HP / RCI-6300F TB ECHO P.C.B (EB-99)

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT0SSB50F	ECHO P.C.B
2	R3,R16	RCY011014Z	10 OHM 0.1W
3	R28	RCY014714Z	470 OHM 0.1W
4	R27	RCY011024Z	1K OHM 0.1W
5	R7	RCY012224Z	2.2K OHM 0.1W
6	R17,R29	RCY014724Z	4.7K OHM 0.1W
7	R1,R23,R24,R30,R26	RCY011034Z	10K OHM 0.1W
8	R18	RCY012234Z	22K OHM 0.1W
9	R2,R5,R6,R13,R15,R22	RCY013334Z	33K OHM 0.1W
10	R14,R20,R4	RCY014734Z	47K OHM 0.1W
11	R21	RCY011044Z	100K OHM 0.1W
12	C26	CK1331AB5A	330PF 50WV
13	C5	CK1561AB5A	560PF 50WV
14	C12,C14	CK1102AB7L	0.001uF 50WV
15	C4,C11,C23,C34	CK2103AB7R	0.01uf 25WV
16	C2,C3,C10,C16,C28,C29, C30,C32,C33,C36,C37, C38,C39,C40,C18,C35	CK2104AB7R	0.1Uf 25WV
17	C6,C31,C20,C22	CK510AB7R	1uF 16WV
18	C13	CK1152AB7R	0.0015uF 50WV
19	C19	CK1472AB6U	.0047uF 50WV
20	C25	CK5105ZZ7R	1uF 16WV
21	C1	CK5225AA7R	2.2uF 16WV
22	IC1	YNJR04558M	IC NJM4558M 8PIN
23	IC2	YNES56033S	IC ES56033S 16PIN
24	Q1,Q3	TY2SC2712G	TR 2SC2712GR
25	D1,D2,D4,D5,D6	EDSS00355Y	DIODE 1SS355
26	D3	EDZD05569Y	ZENER DIODE 5.6V
27	C27	CE0164767Z	47uF 16WV
28	J3	EX07N41216	PCB CONN/S 3PIN
29	J2	EX07N41227	PCB CONN/S 3PIN
30	J1	EX07N48223	PCB CONN/S 2PIN
31	J6	EX07N48331	PCB CONN/S 6PIN

REMARK:

TOP: COMPONENT SIDE (WHITE)

BOTTOM: COPPER SIDE (BLUE)



RCI-6300F HP / RCI-6300F TB MAIN PCB.

REMARK:
COPPER SIDE (WHITE)

PART LIST

RCI-6300F HP MAIN PCB

REFERENCE NUMBER	RANGER PART NO.	DESCRIPTION
R246	EPT690010Z	MAIN P.C.B
R267	RCP164794Z	4.7 Ω 1/16W
R241,242	RCP161504Z	15 Ω 1/16W
R133,213,253,282, VR10,VR11	RCP162204Z	22 Ω 1/16W
R130,215,220	RCP164704Z	47 Ω 1/16W
R11	RCP165604Z	56 Ω 1/16W
R3,5,8,30,33,76,81, 259,260,263,JP237	RCP166804Z	68 Ω 1/16W
R32,249	RCP161014Z	100 Ω 1/16W
R23	RCP161514Z	150 Ω 1/16W
R140,163,177	RCP161814Z	180 Ω 1/16W
R31	RCP162214Z	220 Ω 1/16W
R6,10,16,24,248,254, 300	RCP162714Z	270 Ω 1/16W
R141,188,268,293	RCP163314Z	330 Ω 1/16W
R258,266	RCP164714Z	470 Ω 1/16W
R4,50,209	RCP165614Z	560 Ω 1/16W
R74	RCP166814Z	680 Ω 1/16W
R36,62,64,67,72,115, 116,118,123,136-138, 143,144,160,164,179, 186,189,205,214,232, 261,291,292,295,303, 206,237	RCP168214Z	820 Ω 1/16W
R192	RCP161024Z	1KΩ 1/16W
R132,207,233,247,255 ,273,79,80	RCP161224Z	1.2KΩ 1/16W
R226	RCP161524Z	1.5KΩ 1/16W
R20,27,71,73,75,134, 162,122,283	RCP161824Z	1.8KΩ 1/16W
R9,25,28	RCP162224Z	2.2KΩ 1/16W
R18,22,58,66,128,129 ,191,219,274,277	RCP162724Z	2.7KΩ 1/16W
R52,57	RCP163324Z	3.3KΩ 1/16W
R26,35,131,165,190, 195,196	RCP163924Z	3.9KΩ 1/16W
R264,265	RCP164724Z	4.7KΩ 1/16W
R14,40,41,82,127,148 ,297	RCP165624Z	5.6KΩ 1/16W
R275	RCP166824Z	6.8KΩ 1/16W
R1,13,17,37,38,65, 142,145,159,161,168, 175,181,202,216,227- 231,272,276,294,296, 262,68	RCP168224Z	8.2KΩ 1/16W
R178	RCP161034Z	10KΩ 1/16W
R180	RCP161234Z	12KΩ 1/16W
R187,208	RCP161534Z	15KΩ 1/16W
R121	RCP162234Z	22KΩ 1/16W
R2	RCP162734Z	27KΩ 1/16W
R46	RCP163334Z	33KΩ 1/16W
R7,29,61,63,126,185, 218,234,235,236,224, 222.	RCP163934Z	39KΩ 1/16W
R21,85,105,107	RCP164734Z	47KΩ 1/16W
R45	RCP166834Z	68KΩ 1/16W
R12,42-44,51,53,77, 78,104,108,112,182, 184,225,256,257,278, 221	RCP168234Z	82KΩ 1/16W
R47,59,117,135,139, 194	RCP161044Z	100KΩ 1/16W
R49,55,176	RCP162244Z	220KΩ 1/16W
R15,34,111,183	RCP162744Z	270KΩ 1/16W
R48	RCP164744Z	470KΩ 1/16W
R106	RCP168244Z	820KΩ 1/16W
R193	RCP161054Z	1MΩ 1/16W
R124	RCP161554Z	1.5MΩ 1/16W
JP264	RCP161064Z	10MΩ 1/16W
R243,244	RCP142204Z	22 Ω 1/4W
R239	RCP121514Z	150 Ω 1/2W
C1,49,108,119,122, 279,147	RCP121034Z	10KΩ 1/2W
C224	CC0501004L	10PF 50WV
	CC0501504L	15PF 50WV

C195	CC0501804L	18PF 50WV
C24,287	CC0503304L	33PF 50WV
C8	CC0508204L	82PF 50WV
C4,53	CC0501015L	100PF 50WV
C137	CC0501515L	150PF 50WV
C56,222	CC0501815L	180PF 50WV
C28	CC0502215L	220PF 50WV
C31,136	CC0502715L	270PF 50WV
C11,14	CC0503315L	330PF 50WV
C23	CC0505615L	560PF 50WV
C197	CC0500101A	1PF 50WV
C225	CC0500201A	2PF 50WV
C286	CC0500301A	3PF 50WV
C61,62,90,226,218	CC0500501A	5PF 50WV
C89	CC0501504A	15PF 50WV
C43	CC0501804A	18PF 50WV
C84	CC0502704A	17PF 50WV
C202	CC0504704A	47PF 50WV
C88,116,117	CC0506804A	68PF 50WV
C192	CC0508204A	82PF 50WV
C194	CC0501515A	150PF 50WV
C196,295	CC0501815A	180PF 50WV
C139	CC0503904D	39PF 50WV
C281	CC0501015G	100PF 50WV
C282	CC0501815G	180PF 50WV
C124	CC0506804G	68PF 50WV
C123	CC0501215G	120PF 50WV
C220	CC0502215G	220PF 50WV
C86	CC0502715G	270PF 50WV
C85,201,203	CC0503915G	390PF 50WV
C209,210	CC0504715G	470PF 50WV
C199	CD3005614Z	560P 300WV
C7,47,50,74,95,99, 100,110,118,120,174, 183,244,246,245, C161	CC0501027L	0.001UF 50WV
	CC0501537L	0.015UF 50WV
	CC0501047L	0.1UF 50WV
C81,83,111,113,126, 173,193,206,207,211- 213,228,234,236,249, 250,256,259,268,272, 280,288,292,296 (COPPER SIDE), C270, C177,R302	CC0504737L	0.047uF 50WV
C5,18,20,48,65,87,92 ,96,102,105,106,151, 160,233,251-253,257, 258,260-263,240	CC0504727L	0.0047UF 50WV
C32,42,45,46,221,162 ,163	CC0502237L	0.022UF 50WV
C155	CC1001037L	0.01UF 100WV
	CC0501037L	0.01UF 50WV
C2,3,6,9,15-17,19, 25,51,57,58,60,109, 114,121,138,188,189, 205,216,217,219,223, 229,230,232,247,254, 255,265,267,269,271, 277,278,285,184	CT0162246Z	0.22UF 16WV
C154	CT0164746Z	T/CO.47UF 16WV
C97	CT0162256Z	2.2UF 16WV
C98	CT0161056Z	1UF 16WV
C112	CM0501045Z	0.1UF 50WV
C40,178,171,235	CM0501025Z	0.001UF 50WV
C26,27,237	CM0501035Z	0.01UF 50WV
C29,78,185,41	CM0502235Z	0.022UF 50WV
C39	CM0504725Z	0.0047UF 50WV
C176	CM0504735Z	.047UF 50WV
C34	CM0502225Z	.0022UF 50WV
C12,30,101	CE0504747Z	0.47UF 50WV
C10	CE0501057Z	1UF 50WV
C67,75,153,157,170, 186,187,198	CE0502257Z	2.2UF 50WV
C159,214,148	CE0504757Z	4.7UF 50WV
C38,103,182	CE0251067Z	10UF 25WV
C13,21,22,44,82,115,		

158,275,276			L13,39,41	ECBAD18526	BEAD COIL
C80,181	CE0252267Z	22UF 25WV	VR16	RE10200041	S/F/R 1K
C37,175	CE0254767Z	47UF 25WV	VR14,18	RE50200042	S/F/R 5K
C107,156,238,293	CE0161077Z	100UF 16WV	VR1,5	RE10300031	S/F/R 10K
C152,179	CE0163377Z	330UF 16WV	VR9	RE10400043	S/F/R 100K
C91	CE0104777Z	470UF 10WV	VR4	RE50400087	S/F/R 500K
C243,248	CE0251087Z	1000UF 25WV	RA1	RCS0870014	R/ARRAY
C35	CEM254767Z	47UF 25WV	RA2	RCS0970015	R/ARRAY
FL1	EFCFW455HT	C/FILTER	RA3	RCS0670025	R/ARRAY
		455HT	C165-R223	WL0007009Z	LEAD WIRE
FL2	EFCFE107MX	C/FILTER	C167-R223	WL0207009Z	LEAD WIRE
		10.7MX RED	J29	WX01070703	J/W 7x3x7
X1	EYCAB10240	CRYSTAL	JP1-3,4,7,9,23,24-26	WX01060605	J/W 6x5x6
		10.240MHZ	,32,33,38,39,50,54-		
X2	EYCAA15360	CRYSTAL	57,59,61,62,63,65,66		
		15.360MHZ	,71,72,79,80,82,85,		
X3	EYBAA12660	CRYSTAL	86,87,93,100,105,106		
		12.660MHZ	,114,115,118-122,124		
X4	EYBAE10697	CRYSTAL	-126,190,135,138-140		
		10.6975MHZ	,144,145,152,153,156		
IC1	ENJR00324D	NJM324D	,157,159,160,128,165		
IC3	ENMC45106P	MC145106	,166,168,170,172,174		
IC4,5	ENMC14008B	MC14008BCP	,175,177-179,181,184		
IC7	ENJR04558D	NJM4558D	,188,91,190		
IC9	ENSM06130Z	TDA6130	JP200-202,204,205,	WX01070705	J/W 7x5x7
VCO	ENRG0IC090	IC090 10PIN	209-211,212,214,217,		
Q8,17	T2SC01674L	2SC1674L	219,220,224,226,231-		
Q51	T2SC02538Z	2SC2538	233,235,236,238,239,		
Q52	T2SC01906Z	2SC1906	242,243,245,250,252,		
Q26,36	TDTC0124ES	DTC124ES	253,255-260,262,263,		
Q24,43	TDTC0114ES	DTC114S	265,271-273,276,278-		
Q30,33,62	T2SA01282E	2SA1282AE	280,285,267x2,R245,		
Q1,2,9,10-12,25,27,	T2SC01675L	2SC1675	R305,R89,C142,C291,		
28,29,46,61			D26,D46,D50,D95,D49-		
Q60	TDTA0124ES	DTA124ES	L46,TP8,C133		
Q3-5,7,14,16,31,35,	T2SC00945P	2SC945P	R19,119	WX01070706	J/W 7x6x7
39,42,44,53,57,58,40			D25	WX01070708	J/W 7x8x7
Q6,38	T2SA00733P	2SA733P	JP6,11,12,16-19,34-	WX01060610	J/W 6x10x6
Q55	T2SA01869Z	2SA1869	37,40-49,51-53,58,60		
Q18,19	FM0J00310Z	F.E.T J310	,67,70,88,96,101-104		
D3,5,7-10,13,14,20-	ED1N04148Z	1N4148	,107-109,116,117,127		
23,27,33,34,35,37,			,129,133,136,137,143		
40,53,60-65,69,75-			,147,148,151,161,167		
82,84,85,88-91,97,			,169,176,131,132,111		
102,106,107,111-141,			,130		
143,144,147,149,150,			JP215,218,222,223,	WX01070710	J/W 7x10x7
JP191			225,227,228,230,234,		
D1,2,11,12,30,31	ED1N00060P	1N60P	241,244,246-249,251,		
D110	ED1N04003Z	1N4003	254,261,266,277,286,		
D109	ED1N04007Z	1N4007	287,240,IC6,C128-L45		
D16,17	EDSS00053Z	ISS53	,L36		
			JP75-78,81,193	WX01070712	J/W 7x12x7
D59,72	EDMA00027W	MA27W-A	JP99	WX01070713	J/W 7x13x7
D71,145	EDMA00027T	MA27T-A	FL3	WX01070715	J/W 7x15x7
D18,19,42,99,100,	EDSV00251Z	SVC-251SPA	TP7-TP8,TP8-TP9	WX01070718	J/W 7x18x7
146,148			J7x2,10,17,22,Q41	EX07N48223	P/C/S 3P
D70	EDZD05519Z	5.1V 0.5W	J2,3,6,11,18	EX07N48350	P/C/S 3P
D73	EDZD05759Z	7.5V 0.5W	J21	EX07N48490	P/C/S 4P
L2,3	ECIFT12002	I.F.T	J5,20	EX07N48222	P/C/S 5P
L6	ECIFT12290	I.F.T	J13	EX07N48331	P/C/S 6P
L17,20	ECIFT12012	I.F.T	J14	EX07N48224	P/C/S 7P
L23	ECIFT12016	I.F.T	J1	EX07N48543	P/C/S 9P
L1	ECIFT12252	I.F.T	J28	EX07N48244	P/C/S 3P
L44	ECIFT12255	I.F.T	J12	EX07N41227	P/C/S 3P
L9,10	ECIFT12256	I.F.T	J16	EX07N41330	P/C/S 2P
L15,43	ECIFT12258	I.F.T	J4	EX07N49140	P/C/S 2P
L40	ECIFT12262	I.F.T	J28	EX07N48151	P/C/H
L14	ECIFT12558	I.F.T	TP2,3,5	EX07N48612	P/C/S 1PIN
L5	ECIFT12253	I.F.T	EXT SP,CW/PA	EX06N41045	EAR JACK
L7,42	ECIFT12440	I.F.T	DC SOCKETx2	CC0501037L	0.01uF 50WV
L8	ECIFT12492	I.F.T	IC8	ENTA07222A	IC TA7222AP
L4	ECIFT12526	I.F.T	Q54	T2SB00754Y	TR 2SB754Y
L503,504	ECCHK16000	CHOKE COIL	Q49	T2SC02166C	TR 2SC2166C
T1	ECCHK16004	CHOKE COIL	Q47,48	T2SC02312C	TR 2SC2312C
L34,37,33	ECCHK16070	CHOKE COIL	Q37	T2SA01869Z	TR 2SA1869
L47	ECCHK16176	CHOKE COIL	DC SOCKET	EDLT6A400Z	DIODE
L16	ECCHK16246	CHOKE COIL			LT6A400
L28	ECS PG18003	SPRING COIL			
L30	ECS PG18077	SPRING COIL			
L29	ECS PG18075	SPRING COIL			
L31	ECS PG18365	SPRING COIL			
L35	ECS PG18001	SPRING COIL			
L38	ECRFZ10048	RF COIL			

RCI-6300F HP MISC. PARTS

REFERENCE NUMBER	RANGER PART NO.	DESCRIPTION
-	MM7878041B	HEAT SINK
-	MT3001021X	SET CHASSIS
-	MT3600050X	DC SOCKET HOLDER
2SB754Y	XZZZ90020Z	INSULATING PLATE
Q47, 48, 49	XZZZ90003Z	INSULATING PLATE
Q47, 48, 49	XZZZ90358Z	INSULATING PLATE
IC8	LZZZ61008Z	IC SHIELD B
DC(2)	JS053006MN	SET SCREW
Q37	JS052006MN	SET SCREW
Q47, 48, 49	JS052012MN	SET SCREW
IC8	JS013006MV	SET SCREW
Q54	JS052010MN	SET SCREW
HEAT SINK	JS013008TN	SET SCREW
ANT JACK(1), MIC JACK(1)	XZZZ90098Z	SOLDER PLATE
-	ES300835SQ	SPEAKER
-	PT9000060K	FRONT PANEL
-	PT9000020E	CH KNOB
-	PT9000040E	INNER KNOB
-	PT9000050E	OUTER KNOB
-	PT3600080A	SIGNAL METER HOLDER
-	PT9000070E	BAND KNOB
-	PT2100031C	COUNT WINDOW
-	PT2100041C	DISPLAY WINDOW
-	PT7001070C	PUSH KEY
-	MT9000010X	FRONT CHASSIS
-	MT3600040S	CHANNEL BRACKET
-	MT3600061X	TOP HOUSING
-	MT36000710	BOTTOM HOUSING
-	MT3600030S	HANDLER
-	XZZZ90004Z	FOAM
-	XZZZ90005Z	FOAM
-	XZZZ90367A	SPONGE
-	GZZZ50000Z	CLAMP
-	XZZZ90098Z	SOLDER PLATE
-	XZZZ90021Z	FOAM
-	XZZZ90064Z	INSULATING PLATE
COUNTER	XZZZ90363Z	PVC STAND OFF
COUNTER	JS013016WH	SET SCREW
FRONT PANEL(4)	JS033008MN	SET SCREW
TONE(2), CH9(2), WB/ANL(2)	JS052004MN	SET SCREW
SWR SW(2)	JS052605MN	SET SCREW
CH BKT(2), CHASSIS(12)	JS053006MN	SET SCREW
SPK(4)	JS053008MN	SET SCREW
MAIN PCB(5)	JS053006TN	SET SCREW
SPK(4)	JN263035ZS	NUT WITH WASHER
-	HZZZ76005Z	SSEBRIH K 905

PART LIST RCI-6300F TB MAIN PCB

REFERENCE NUMBER	RANGER PART NO.	DESCRIPTION
	EPT690010Z	MAIN P.C.B
R246	RCP164794Z	4.7 Ω 1/16W
R267	RCP161504Z	15 Ω 1/16W
R241,VR10	RCP162204Z	22 Ω 1/16W
J3(2-4P)	RCP163304Z	33 Ω 1/16W
R133,213,253,282	RCP164704Z	47 Ω 1/16W
R130,215,220,249	RCP165604Z	56 Ω 1/16W
R11	RCP166804Z	68 Ω 1/16W
R3,5,8,30,33,76,81,259,260,263,JP237	RCP161014Z	100 Ω 1/16W
R32	RCP161514Z	150 Ω 1/16W
R23	RCP161814Z	180 Ω 1/16W
R140,163,177	RCP162214Z	220 Ω 1/16W
R31	RCP162714Z	270 Ω 1/16W
R6,10,16,24,248,254,300	RCP163314Z	330 Ω 1/16W
R141,188,268,293	RCP164714Z	470 Ω 1/16W
R258,266	RCP165614Z	560 Ω 1/16W
R4,50,209	RCP166814Z	680 Ω 1/16W
R74	RCP168214Z	820 Ω 1/16W
R36,62,64,67,72,115,116,118,123,136-138,143,144,160,164,179,186,189,205,214,232,261,291,292,295,303,206,L5	RCP161024Z	1KΩ 1/16W
R192	RCP161224Z	1.2KΩ 1/16W
R132,207,233,247,255,273,79,80	RCP161524Z	1.5KΩ 1/16W
R226	RCP161824Z	1.8KΩ 1/16W
L7	RCP162024Z	2KΩ 1/16W
R20,27,71,73,75,134,162,122,283	RCP162224Z	2.2KΩ 1/16W
R9,25,28	RCP162724Z	2.7KΩ 1/16W
R18,22,58,66,128,129,191,219,274,277	RCP163324Z	3.3KΩ 1/16W
R52,57	RCP163924Z	3.9KΩ 1/16W
R26,35,131,165,190,195,196	RCP164724Z	4.7KΩ 1/16W
R264,265	RCP165624Z	5.6KΩ 1/16W
R14,40,41,82,127,148,297,70	RCP166824Z	6.8KΩ 1/16W
R275	RCP168224Z	8.2KΩ 1/16W
R1,13,17,37,38,65,142,145,159,161,168,175,181,202,216,227-231,272,276,294,296,262,68	RCP161034Z	10KΩ 1/16W
R178	RCP161234Z	12KΩ 1/16W
R180	RCP161534Z	15KΩ 1/16W
R187,208	RCP162234Z	22KΩ 1/16W
R121	RCP162734Z	27KΩ 1/16W
R2	RCP163334Z	33KΩ 1/16W
R46	RCP163934Z	39KΩ 1/16W
R7,29,61,63,126,185,218,234,235,236,224,222.	RCP164734Z	47KΩ 1/16W
R21,85,105,107	RCP166834Z	68KΩ 1/16W
R45	RCP168234Z	82KΩ 1/16W
R12,42-4,51,53,77,78,104,108,112,182,184,225,256,257,278,221		
R47,59,117,135,139,194	RCP162244Z	220KΩ 1/16W
R49,55,176	RCP162744Z	270KΩ 1/16W
R15,34,111,183	RCP164744Z	470KΩ 1/16W

R48	RCP168244Z	820KΩ 1/16W
R106	RCP161054Z	1MΩ 1/16W
R193	RCP161554Z	1.5MΩ 1/16W
R124	RCP161064Z	10MΩ 1/16W
JP264	RCP142204Z	22 Ω 1/4W
R244	RCP121514Z	150 Ω 1/2W
R239	RCP121034Z	10KΩ 1/2W
C1,49,108,119,122,279,147	CC0501004L	10PF 50WV
C224	CC0501504L	15PF 50WV
C195	CC0501804L	18PF 50WV
C24,287	CC0503304L	33PF 50WV
C8	CC0508204L	82PF 50WV
C4,53	CC0501015L	100PF 50WV
C137	CC0501515L	150PF 50WV
C56,222	CC0501815L	180PF 50WV
C28	CC0502215L	220PF 50WV
C31,136	CC0502715L	270PF 50WV
C11,14	CC0503315L	330PF 50WV
C23	CC0505615L	560PF 50WV
C197	CC0500101A	1PF 50WV
C225,52	CC0500201A	2PF 50WV
C61,62,90,226,218	CC0500501A	5PF 50WV
C89	CC0501504A	15PF 50WV
C43	CC0501804A	18PF 50WV
C84	CC0502704A	17PF 50WV
C202	CC0504704A	47PF 50WV
C88,116,117	CC0506804A	68PF 50WV
C192,8	CC0508204A	82PF 50WV
C194	CC0501515A	150PF 50WV
C196,295	CC0501815A	180PF 50WV
C139	CC0503904D	39PF 50WV
C281	CC0501015G	100PF 50WV
C282	CC0501815G	180PF 50WV
C124	CC0506804G	68PF 50WV
C123	CC0501215G	120PF 50WV
C220	CC0502215G	220PF 50WV
C86	CC0502715G	270PF 50WV
C85,201,203	CC0503915G	390PF 50WV
C209,210	CC0504715G	470PF 50WV
C199	CD3005614Z	560P 300WV
C7,47,50,74,95,99,100,110,118,120,174,183,244,246,245	CC0501027L	0.001UF 50WV
C161	CC0501537L	0.015UF 50WV
C81,83,111,113,126,173,193,206,207,211,213,228,234,236,249,250,256,259,268,272,280,288,292,296 (COPPER SIDE),C270,C177,R302	CC0501047L	0.1UF 50WV
C5,18,20,48,65,87,92,96,102,105,106,151,160,233,251-253,257,258,260-263,240	CC0504737L	0.047uF 50WV
C32,42,45,46,221,162,163	CC0504727L	0.0047UF 50WV
C155	CC0502237L	0.022UF 50WV
C200	CC1001037L	0.01UF 100WV
C2,3,6,9,15-17,19,25,51,57,58,60,109,114,121,138,188,189,205,216,217,219,223,229,230,232,247,254,255,265,267,269,271,277,278,285,184	CC0501037L	0.01UF 50WV
C154	CT0162246Z	0.22UF 16WV
C97	CT0164746Z	0.47UF 16WV
C98	CT0162256Z	2.2UF 16WV
C112	CT0161056Z	1UF 16WV
C40,178,171,235	CM0501045Z	0.1UF 50WV
C26,27,237,39	CM0501025Z	0.001UF 50WV
C29,185	CM0501035Z	0.01UF 50WV
C41	CM0502235Z	0.022UF 50WV
C176	CM0504725Z	0.0047UF 50WV
C34	CM0504735Z	.047UF 50WV

C12,30,101	CM0502225Z	.0022UF 50WV	L37,33 L47	ECCHK16070 ECCHK16176	CHOKE COIL CHOKE COIL
C78	CM0502245Z	.22UF 50WV	L16	ECCHK16246	CHOKE COIL
C10	CE0504747Z	0.47UF 50WV	L28	ECSFG18003	SPRING COIL
C67,75,153,157,170, 186,187,198	CE0501057Z	1UF 50WV	L30	ECSFG18077	SPRING COIL
C159,214,148	CE0502257Z	2.2UF 50WV	L29	ECSFG18075	SPRING COIL
C38,103,182	CE0504757Z	4.7UF 50WV	L31	ECSFG18365	SPRING COIL
C13,21,22,44,82,115, 158,275,276	CE0251067Z	10UF 25WV	L35	ECSFG18001	SPRING COIL
C80,181	CE0252267Z	22UF 25WV	L38	ECRFZ10048	RF COIL
C37,175	CE0254767Z	47UF 25WV	L13,39,41	ECBAD18526	BEAD COIL
C107,156,238,293	CE0161077Z	100UF 16WV	VR16,18	RE10200041	S/F/R 1K
C152,179	CE0163377Z	330UF 16WV	VR14	RE50200042	S/F/R 5K
C91	CE0104777Z	470UF 10WV	VR1,5	RE10300031	S/F/R 10K
C243,248	CE0251087Z	1000UF 25WV	VR9	RE10400043	S/F/R 100K
C35	CEM254767Z	47UF 25WV	VR4	RE50400087	S/F/R 500K
FL1	EFCFW455HT	C/FILTER 455HT	RA2	RCS0870014	R/ARRAY
FL2	EFCFE107MX	C/FILTER 10.7MX RED	RA1	RCS0970015	R/ARRAY
X1	EYCAB10240	CRYSTAL 10.240MHZ	RA3	RCS0670025	R/ARRAY
X2	EYCAA15360	CRYSTAL 15.360MHZ	R201-R223	WL0007009Z	LEAD WIRE
X3	EYBAA12660	CRYSTAL 12.660MHZ	R223-R198	WL0207009Z	LEAD WIRE
X4	EYBAE10697	CRYSTAL 10.6975MHZ	JP1-3,4,7,9,23,24-26 ,32,33,38,39,50,54- 57,59,61,62,63,65,66 ,71,72,79,80,82,85, 86,87,93,100,105,106 ,114,115,118-122,124 -126,190,135,138-140 ,144,145,152,153,156 ,157,159,160,128,165 ,166,168,170,172,174 ,175,177-179,181,184 ,188,125	WX01060605	J/W 6x5x6
IC1	ENJR00324D	I.C.NJM324D	JP200-202,204,205, 209,211,212,214,217, 219,220,224,226,231- 233,235,236,238,239, 242,243,245,250,252, 253,255-260,262,263, 265,271-273,276,278- 280,285,267x2,R119, R305,R89,R19,C142, C291,C128,C129,D26, D46,D50,D49-L46,TP8, C133,D95	WX01070705	J/W 7x5x7
IC3	ENMC45106P	MC145106	R19,119	WX01070706	J/W 7x6x7
IC4,5	ENMC14008B	MC14008BCP	D25	WX01070708	J/W 7x8x7
IC7	ENJR04558D	NJM4558D	JP6,11,12,16-19,34- 37,40-49,51-3,58,60, 67,70,88,96,101-104, 107-109,116,117,127, 129,133,136,137,143, 147,148,151,161,167, 169,176,131,132,240	WX01060610	J/W 6x10x6
IC9	ENSM06130Z	TDA6130	JP215,218,222,223, 225,227,228,230,234, 241,244,246-249,251, 254,261,266,277,286, 287,IC6,L36	WX01070710	J/W 7x10x7
VCO	ENRG0IC090	IC090 10PIN	JP75-78,81	WX01070712	J/W 7x12x7
Q8,17	T2SC01674L	2SC1674L	JP99	WX01070713	J/W 7x13x7
Q51	T2SC02538Z	2SC2538	FL3	WX01070715	J/W 7x15x7
Q52	T2SC01906Z	2SC1906	TP7-TP8,TP8-TP9	WX01070718	J/W 7x18x7
Q26,36	TDTC0124ES	DTC124ES	J7x2,10,17,22,Q41	EX07N48223	P/C/S 3P
Q24,43	TDTC0114ES	DTC114S	J2,3,6,11,18	EX07N48350	P/C/S 3P
Q30,33,62	T2SA01282E	2SA1282AE	J21	EX07N48490	P/C/S 4P
Q1,2,9,10-12,25,27, 28,29,46,61	T2SC01675L	2SC1675	J5,20	EX07N48222	P/C/S 5P
Q60	TDTA0124ES	DTA124ES	J13,7	EX07N48331	P/C/S 6P
Q3-5,7,14,16,31,35, 39,42,44,53,57,58,40	T2SC00945P	2SC945P	J14	EX07N48224	P/C/S 7P
Q6,38	T2SA00733P	2SA733P	J1	EX07N48543	P/C/S 9P
Q55	T2SA01869Z	2SA1869	J28	EX07N48244	P/C/S 3P
Q18,19	FM0J00310Z	F.E.T J310	J12	EX07N41227	P/C/S 3P
D3,5,7-10,13,14,20- 23,27,33,34,35,37,40 ,53,60-65,69,75-82, 84,85,88-90,97,102, 106,107,111-141,143, 144,147,149,150, JP191	ED1N04148Z	DIODE 1N4148	J16	EX07N41330	P/C/S 2P
D1,2,11,12,30,31	ED1N00060P	1N60P	J28	EX07N48151	P/C/H
D110	ED1N04003Z	1N4003	TP2,3,5	EX07N48612	P/C/S 1PIN
D109	ED1N04007Z	1N4007	IC8	ENTA07222A	IC TA7222AP
D16,17	EDSS00053Z	ISS53	Q54	T2SB00754Y	TR 2SB754Y
D59,72	EDMA00027W	MA27W-A	Q49	T2SC02166C	TR 2SC2166C
D71,145	EDMA00027T	MA27T-A	Q47	T2SC01969C	TR 2SC1969C
D18,19,42,99,100,146 ,148	EDSV00251Z	SVC-251SPA	Q37	T2SA01869Z	TR 2SA1869
D70	EDZD05519Z	5.1V 0.5W			
D73	EDZD05759Z	7.5V 0.5W			
L2,3	ECIFT12002	I.F.T			
L6	ECIFT12290	I.F.T			
L17,20	ECIFT12012	I.F.T			
L23	ECIFT12016	I.F.T			
L1	ECIFT12252	I.F.T			
L44	ECIFT12255	I.F.T			
L9,10	ECIFT12256	I.F.T			
L15,43	ECIFT12258	I.F.T			
L40	ECIFT12262	I.F.T			
L14	ECIFT12558	I.F.T			
L5	ECIFT12253	I.F.T			
L7,42	ECIFT12440	I.F.T			
L8	ECIFT12492	I.F.T			
L4	ECIFT12526	I.F.T			
L503,504	ECCHK16000	CHOKE COIL			
T1	ECCHK16004	CHOKE COIL			

Q37		JS052006MN	SET SCREW
Q47, 49		JS052012MN	SET SCREW
IC8		JS013006MV	SET SCREW
	-	JS052010MN	SET SCREW
Q47, 49		JN242012ZS	NUT

RCI-6300F TB MISC. PARTS

REFERENCE NUMBER	RANGER PART NO.	DESCRIPTION
-	PT9000060K	FRONT PANEL
-	PT9000020E	CH KNOB
-	PT9000070E	BAND KNOB
-	PT9000040E	INNER KNOB
-	PT9000050E	OUTER KNOB
-	PT2100041C	DISPLAY WINDOW
-	PT3600080A	SIGNAL METER HOLDER
-	PT2100031C	COUNT WINDOW
-	PT7001070C	PUSH KEY
-	MT9000010X	FRONT CHASSIS
-	MT3600040S	CHANNEL BRACKET
-	MT3600061X	TOP HOUSING
-	MT3600071N	BOTTOM HOUSING
-	MT3600030S	HANDLER
-	XZZZ90004Z	FOAM
-	GZZZ50000Z	CLAMP
-	LZZZ60001Z	SHIELD CLOTH
-	XZZZ90098Z	SOLDER PLATE
-	XZZZ90021Z	FOAM
-	XZZZ90064Z	INSULATING PLATE
-	BA0112010P	MIC PLATE
COUNTER	XZZZ90363Z	PVC STAND OFF
COUNTER	JS013016WH	SET SCREW
FRONT PANEL (4)	JS033008MN	SET SCREW
CH BKT (2),	JS053006MN	SET SCREW
CHASSIS (12)		
SPK (4)	JS053008MN	SET SCREW
MAIN PCB (5)	JS053006TN	SET SCREW
SPK (4)	JN263035ZS	NUT
-	XZZZ90008Z	MIC STOPPER
-	XZZZ90007Z	MOUNTING SCREW
-	JS015010WH	SET SCREW
-	JS013509TH	SET SCREW
-	JW315510CN	OUT-TOOTH WASHER
-	XZZZ90188Z	FIBER WASHER
-	HZZZ76005Z	SSSEBRIH K 905
-	MT3600200X	SET CHASSIS
2SB754Y	XZZZ90020Z	INSULATING PLATE
Q47, 49	XZZZ90003Z	INSULATING PLATE
Q47, 49	XZZZ90358Z	INSULATING PLATE
IC8	LZZZ61008Z	IC SHIELD B