1.0 GENERAL

Model	RCI-6900F HP / RCI-6900F TB
Frequency Range	28.245 - 29.655MHz.
Emission Modes	CW/FM/AM/SSB (A1/F3/A3/A3J)
Frequency Control	Phase Lock Loop (PLL) synthesizer.
Frequency Tolerance	± 0.005 %.
Frequency Stability	± 0.001 %.
Operating Temperature Range	-30°C to +50°C.
Microphone	Dynamic PTT, 500 Ω
Input Voltage	13.8V DC
Current Drain: Transmit (AM full mod.)	RCI-6900F HP < 5A; RCI-6900F TB < 15A.
Current Drain : Receiver (Squelched)	≤ 0.25A.
(Max. audio output)	< 0.5A.
Antenna Connector	UHF, SO239.
Dimensions : (RCI-6900F HP)	7 7/8”(W) x 10 3/4” (D) x 2 3/8”(H)
: (RCI-6900F TB)	7 7/8” (W) x 9 1/4” (D) x 3 7/8” (H)
Weight	5 lb. (RCI-6900F HP), 7lb 6 oz (RCI-6900F TB)

1.1 TRANSMITTER

AM/FM/CW ; SSB RF Power Output (RCI-6900FHP)	10W ; 25W PEP
AM/FM/CW ; SSB RF Power Output (RCI-6900FTB)	50W ; 100W PEP
RF Transmit Modes	CW/FM/AM/SSB.
Modulation	High and low level Class B, Amplitude Modulation.
Spurious Emissions	-50 dB.
Carrier Suppression	-35 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 ; CW/SSB)	< 0.5 µV ; < 0.25 µV.
Sensitivity For 20dB S/N (FM)	< 0.5 µV.
IF Frequency	AM: 10.695 MHz 1st IF, 455 KHz 2nd IF.
Image Rejection	> 50 dB.
Adjacent Channel Selectivity	> -55 dB (AM/FM) ; > -60 dB (CW/SSB)
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.

(SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE)

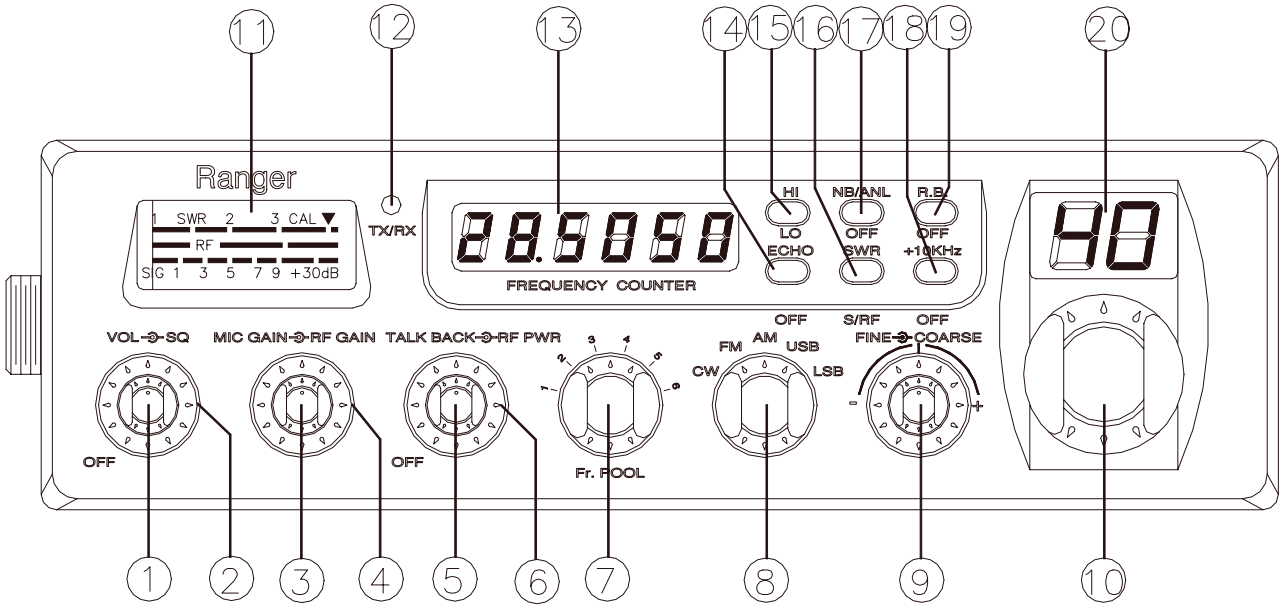


Figure 2-1 Front Panel

2.0 INTRODUCTION

This section explains the basic operating procedures for the RANGER RCI-6900F HP / RCI-6900F 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 of your radio, gently turn the switch fully counterclockwise, and then turn clockwise until the background noise is just eliminated. Further clockwise rotation will increase the threshold level and only strong signals will be heard.

3. MIC GAIN CONTROL

Adjusts the microphone gain in the transmit mode. This control adjusts the gain to the extent that full talk power is available several inches away from the microphone.

4. RF GAIN CONTROL

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

5. 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.

6. RF POWER CONTROL

This control allows the user to adjust RF power output.

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

8. MODE SWITCH
This control allows you to select one of the following operating modes: CW/FM/AM/USB/LSB.

9. FINE/COARSE CONTROL
Allows variation of the receiver operating frequency above and below the assigned frequency. Although this control is intended primarily to tune in SSB signal, it may be used to optimize AM/FM signals as described in the operating procedure paragraphs. Coarse operates both TX/RX, Fine operate in RX only.

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

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

12. 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.

13. FREQUENCY COUNTER
This display indicates the frequency of operations.

14. ECHO/OFF SWITCH
This control is used for echo effect.

15. HI/LO SWITCH
This switch changes tone quality in receive only. In LO position, bass is increased and in HI position, treble is increased.

16. 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.

17. 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.

18. 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.

19. +10KHz/OFF SWITCH
When the switch is pressed the frequency is shifted 10KHz up.

20. CHANNEL DISPLAY

The channel display indicates the current selected channel.

2.1.2 REAR PANEL

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

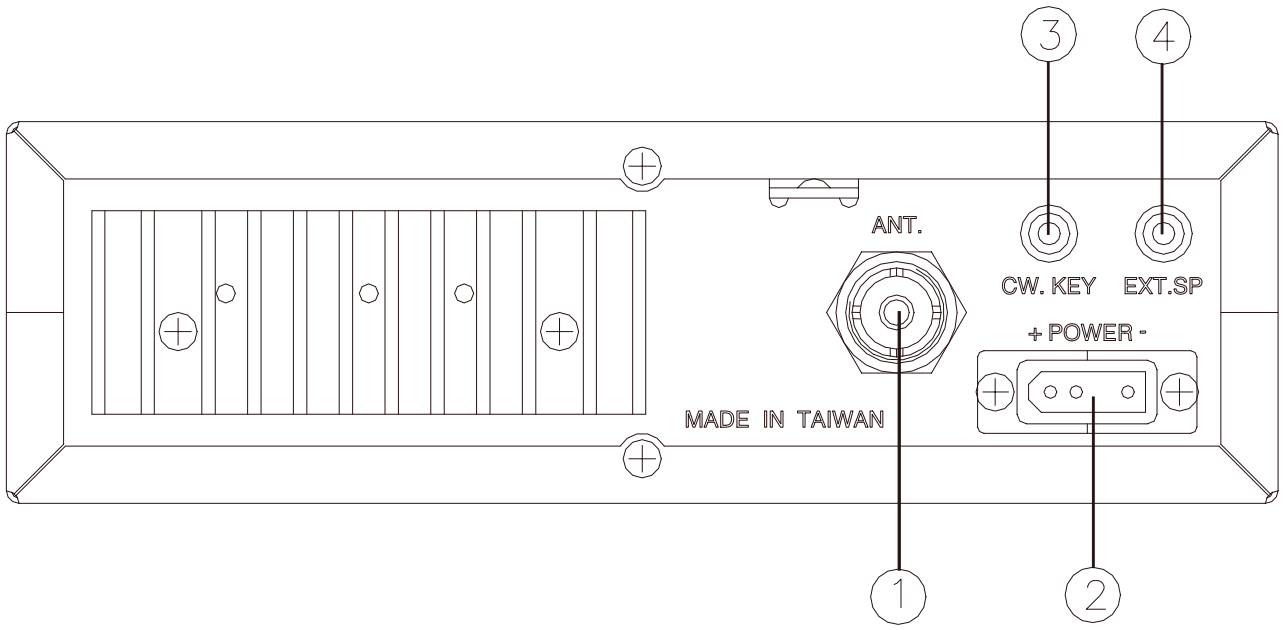


Figure 2-2 Rear Panel

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. CW. KEY

This is used for Morse Code operation. To operate this mode, connect a CW key to this jack, and place the MODE switch in the CW position.

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 a 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 **VOL.** knob clockwise to apply power to the radio.

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 receive gain.

8. Adjust the **FINE/COARSE** control to clarify the SSB signals or to optimize AM/FM signals.

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, depress 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

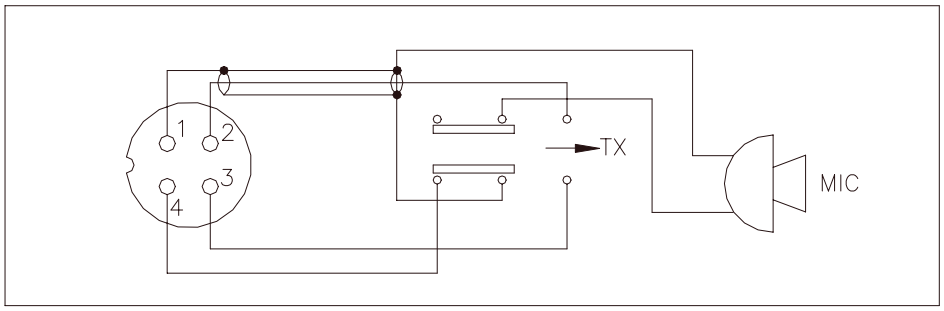


Figure 2-3 Your Transceiver Microphone Schematic

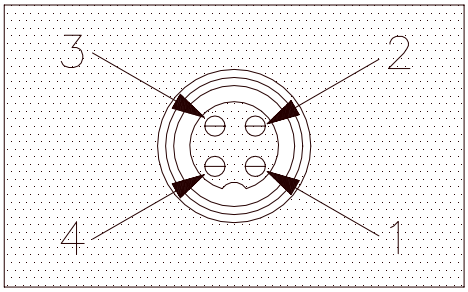


Figure 2-5 Microphone plugs pins numbers viewed from rear of pin receptacle.

RCI-6900F HP
RCI-6900F TB

CHAPTER 3 CIRCUIT DESCRIPTION

3.0 INTRODUCTION

This section explains the technical theory of operation for the RCI-6900F HP / RCI-6900F 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 GPS-0501 communicates the correct binary data information to the programmable divider inside of IC3. IC3 then controls the VCO (Voltage Controlled Oscillator), 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 of the Q18 & Q19 and then into the AM IF section of the receiver (depending on the mode of operation). The signal is then detected by either the AM detector or product detector or then fed to the audio amplifier section of the receiver and finally out to the speaker.

3.3 TRANSMITTER MODULATION CIRCUIT

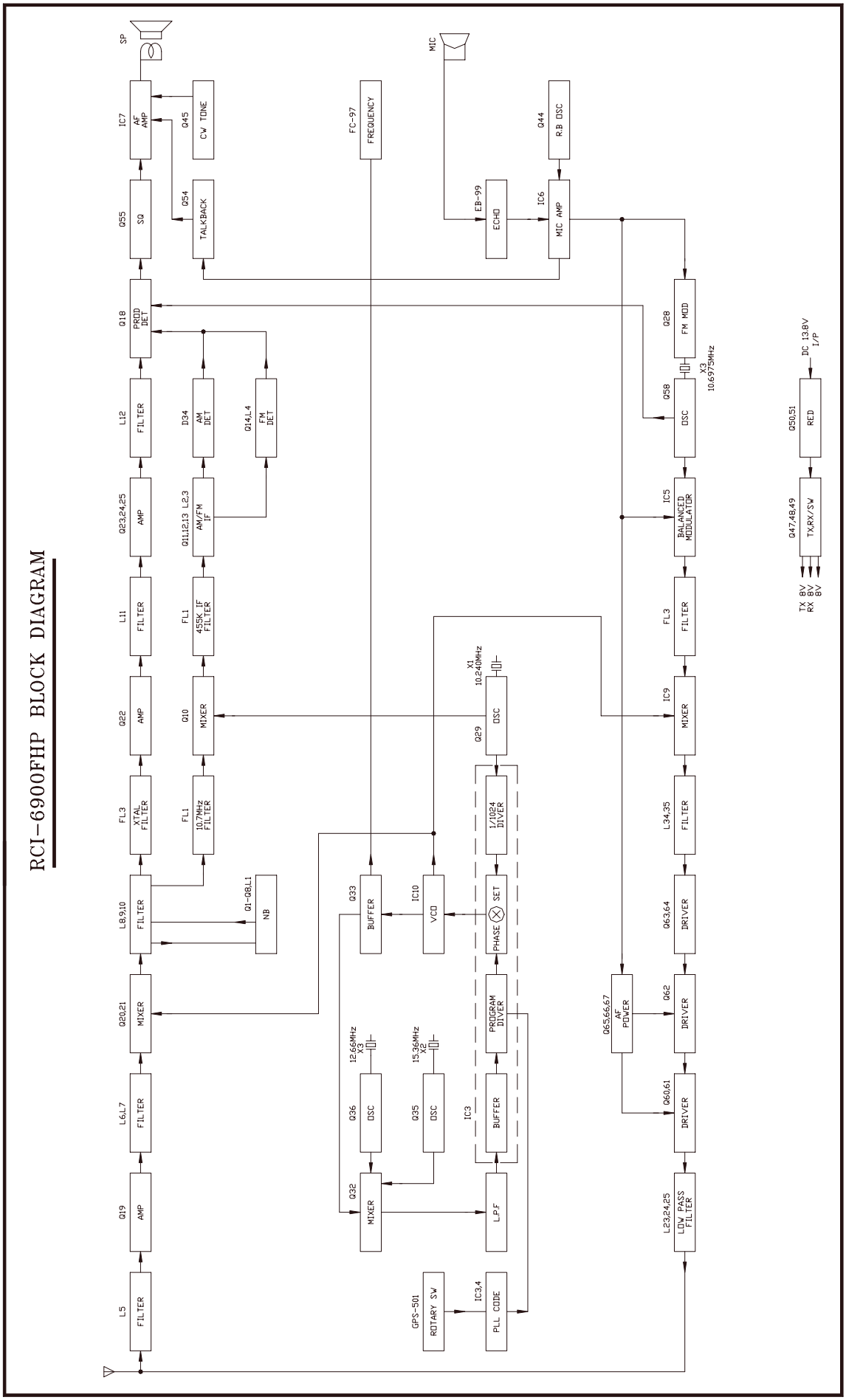
(i) The transmitter modulation circuit modulates the low-level RF signal from the PLL exciter circuit with the user's audio voice signal from the microphone. The audio from the microphone is then amplified and fed into the transmit amplifier circuit.

(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.

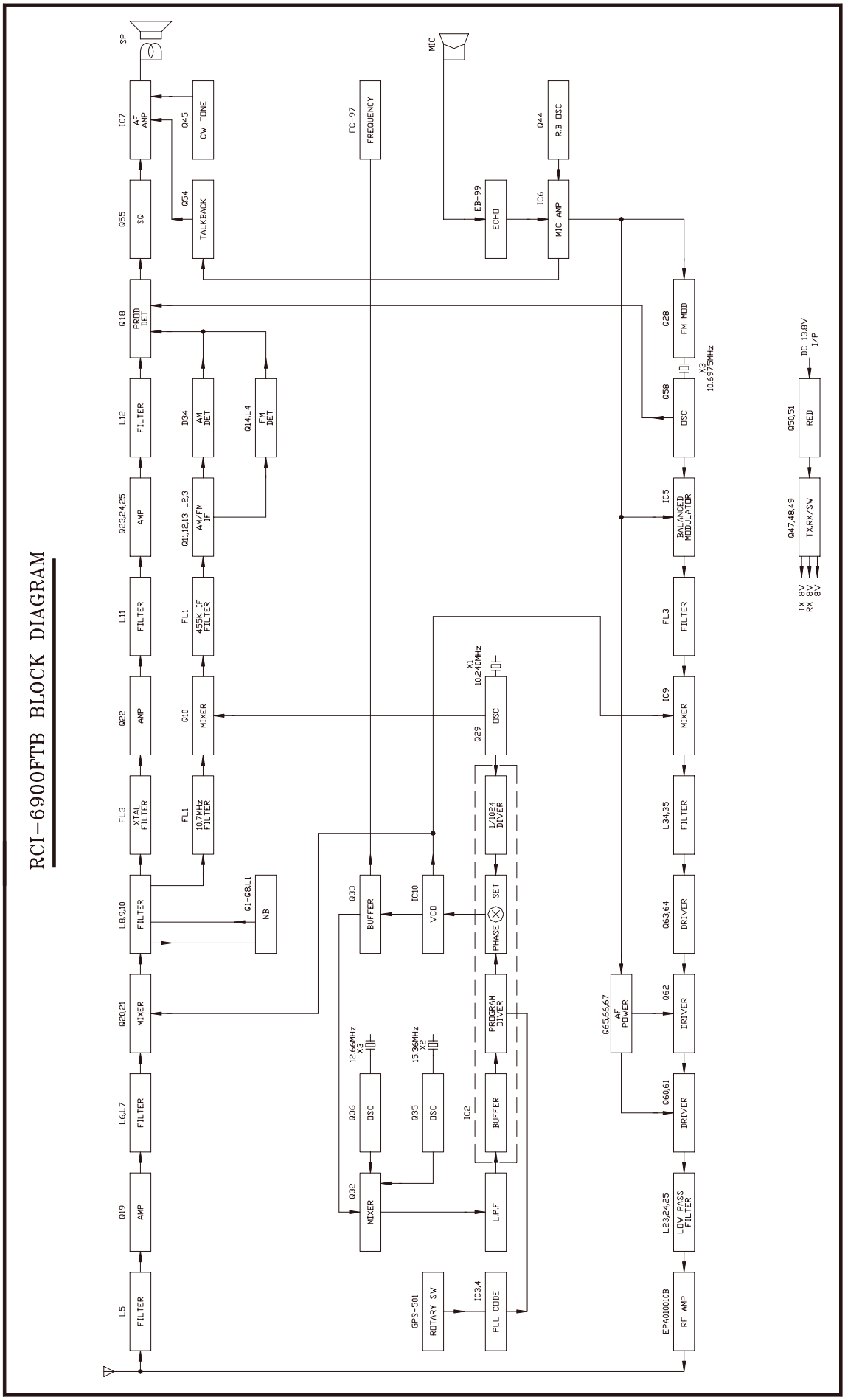
3.4 TRANSMITTER AMPLIFIER CIRCUIT

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 EPA010010B (only for RCI-6900F TB) where it is sent out to the antenna connector.

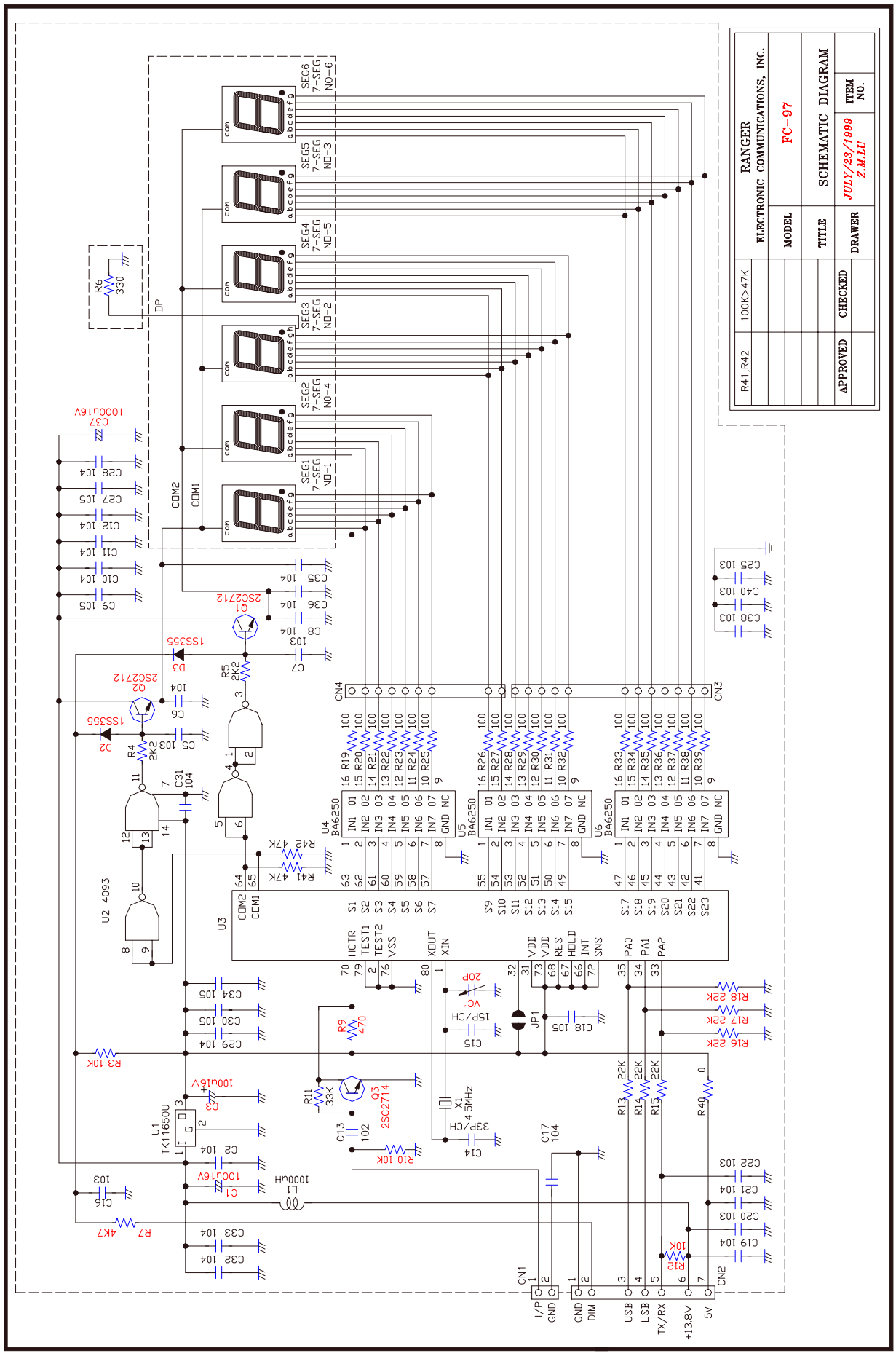
RCI-6900FHP BLOCK DIAGRAM



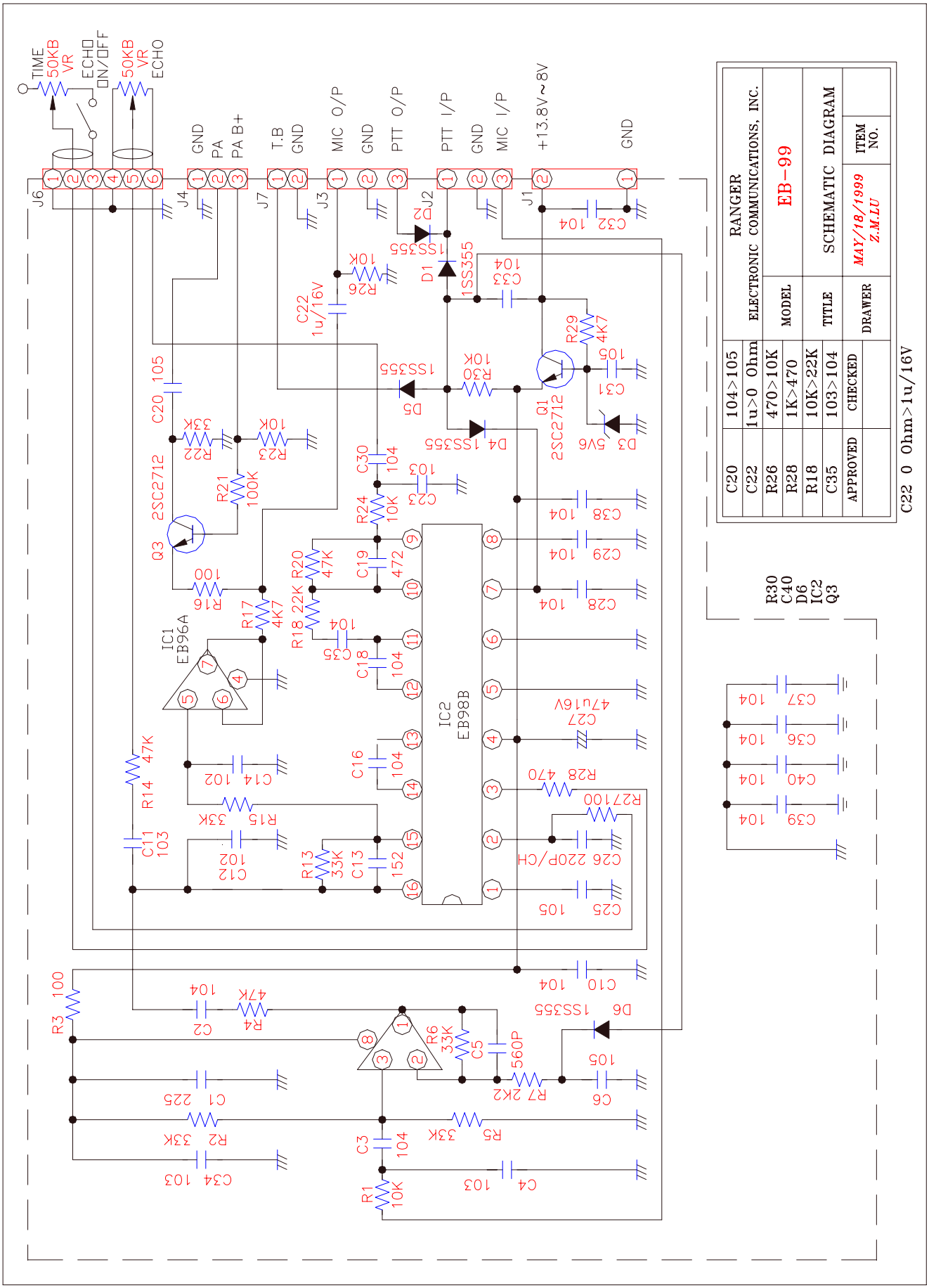
RCI-6900FTB BLOCK DIAGRAM



RCI-6900F HP / RCI-6900F TB FREQUENCY COUNTER CIRCUIT DIAGRAM



RCI-6900F HP / RCI-6900F TB ECHO BOARD (EB-99) CIRCUIT DIAGRAM



4.0 REQUIRED TEST EQUIPMENT

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
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 is used for the test setup or alignment shown in Figure 4-1 Transmitter Test Setup and Figure 4-2 Receiver Test Setup. This test setup is 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 'short PCB" from TP7, TP8 and TP9. Set radio to Fr. Pool 6, CH 40 AM RX mode. Set +10KHz/OFF switch to OFF position. Connect Multimeter to TP2. Connect Frequency Counter to TP11.	 L15 VC1	 6.5 VDC ± 0.1 10.2400MHz ± 20Hz
AM Frequency	Set radio to Fr. Pool 1, CH 1 AM RX mode. Set radio to Fr. Pool 6, CH 40 AM RX mode. Connect Frequency Counter to TP3.	L45 L41	17.5500MHz ± 20Hz 18.9600MHz ± 20Hz
USB Frequency	Set radio to Fr. Pool 1, CH 1 USB RX mode. Set radio to Fr. Pool 6, CH 40 USB RX mode. Connect Frequency Counter to TP3.	L46 L42	17.5525MHz ± 20Hz 18.9625MHz ± 20Hz
LSB Frequency	Set radio to Fr. Pool 1, CH 1 LSB RX mode. Set radio to Fr. Pool 6, CH 40 LSB RX mode. Connect Frequency Counter to TP3.	L47 L43	17.5475MHz ± 20Hz 18.9575MHz ± 20Hz
TX Frequency	Set radio to Fr. Pool 1, CH 1 AM TX mode. Connect Frequency Counter to TP3.	VR8	17.5500MHz ± 20Hz
AM OSC	Set radio to Fr. Pool 1, CH 1 AM TX mode. Connect Frequency Counter to TP5.	L18	10.6950MHz ± 10Hz
USB OSC	Set radio to Fr. Pool 1, CH 1 USB TX mode. Connect Frequency Counter to TP5.	L19	10.6925MHz ± 10Hz
LSB OSC	Set radio to Fr. Pool 1, CH 1 LSB TX mode. Connect Frequency Counter to TP5.	L20	10.6975MHz ± 10Hz

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. Modulation Off. Set radio to Fr. Pool 2, CH 19 USB TX mode. AF signal 30mV, 1 KHz to microphone. Connect Oscilloscope to TP12. Set RF PWR Fully Clockwise. Set FINE/COARSE Control to 12 o'clock.	L18,L37,L35, L34 L35,L34	Maximum Output. Maximum Output and Balance.
AM APC	Set radio to Fr. Pool 2, CH 19 AM TX mode. Connect Multimeter to TP8.	VR15	6VDC
SSB APC	Set radio to Fr. Pool 2, CH 19 USB TX mode. Connect Multimeter to TP8.	VR18	12.5VDC
BIAS Current	Set radio to Fr. Pool 2, CH 19 USB TX mode. Modulation Off. Connect current meter to TP7(+) and TP9 (-) Connect current meter to TP7 (+) and TP8 (-)	 VR13 VR12 + VR11	 10 mA (50 mA + 50 mA) = 100 mA
AM TX Power	Set radio to Fr. Pool 2, CH 19 AM TX mode. Connect 'short PCB" to TP7, TP8 and TP9. Set RF PWR Fully Counter Clockwise. Connect RF Power Meter to antenna jack.	VR15 VR19	10W (RCI-6900FHP) 50W (RCI-6900FTB) 2W
RF Power Meter	Set radio to Fr. Pool 2, CH 19 AM TX mode. Set RF PWR Fully Clockwise.	VR10	Adjust RF Power meter needle until it is in-between the green and red bar on TX PWR scale.
SSB ALC	Set radio to Fr. Pool 2, CH 19 USB TX mode. AF signal 30mV, 1 KHz to microphone. Set RF PWR Fully Clockwise.	VR14	25W (RCI-6900FHP) 100W (RCI-6900F TB)
SSB Carrier Balance	Set radio to Fr. Pool 2, CH 19 USB TX mode. AF signal 30mV, 1 KHz to microphone. Connect Oscilloscope to antenna jack.	VR7	Spurious Emission to minimum.
CW TX	Set radio to Fr. Pool 2, CH 19 CW TX mode. Plug in CW key. Disconnect the Mic Jack. Connect AC Voltmeter to EXT SP.	VR9	200mV (Sine Wave)
SWR Meter	Set radio to Fr. Pool 2, CH 19 AM TX mode. Set SWR/S/RF switch to SWR position. Connect 100 Ohm to antenna jack.	VR1 on SWR P.C.B	Adjust SWR needle until it is on the "2" SWR scale.
AM Modulation FM Modulation	Set radio to Fr. Pool 2, CH 19 AM TX mode. Set radio to Fr. Pool 2, CH 19 FM TX mode. AF signal 30mV, 1 KHz to microphone. Set Mic Gain Fully Clockwise.	VR17	90% 4KHz
Frequency Counter Adjust	Set radio to Fr Pool 2, CH 19 AM RX mode.	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 Fr. Pool 6, CH 40 AM RX mode. RF SG setting 29.655 MHz. Set radio to Fr. Pool 1, CH 1 AM RX 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.
USB Sensitivity	Set radio to Fr. Pool 2, CH19 USB RX mode. Set VOL Control Fully Clockwise. RF SG setting 28.916 MHz, 0.5uV. Mod off.	L11,L12	Audio Output > 2V S/N > 10dB.
LSB Sensitivity	Set radio to Fr. Pool 2, CH19 LSB RX mode. Set VOL Control Fully Clockwise. RF SG setting 28.914 MHz, 0.5uV. Mod off.	L11,L12	Audio Output > 2V S/N >10db.
FM Distortion	Set radio to Fr. Pool 2, CH 19 FM RX mode. Set MODE switch to FM mode. RF SG setting 28.915 MHz, 1mV. Mod 3KHz.	L4	Audio output > 3V Distortion < 10%
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
SSB Squelch	Set radio to Fr. Pool 2, CH 19 USB RX mode. Set SQ Control Fully Clockwise. RF SG setting 28.915 MHz, 1 mV. Mod off.	VR3 Slowly	Adjust very slowly until squelch just open
AM S/RF Meter AM S-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
SSB S-Meter	Set radio to Fr. Pool 2, CH 19 USB RX mode. Set SWR/S/RF switch to S/RF position. RF SG setting 28.916 MHz, 100uV. Mod off.	VR2	Meter needle to S9 on the S scale

Figure 4-1 Transmitter test setup

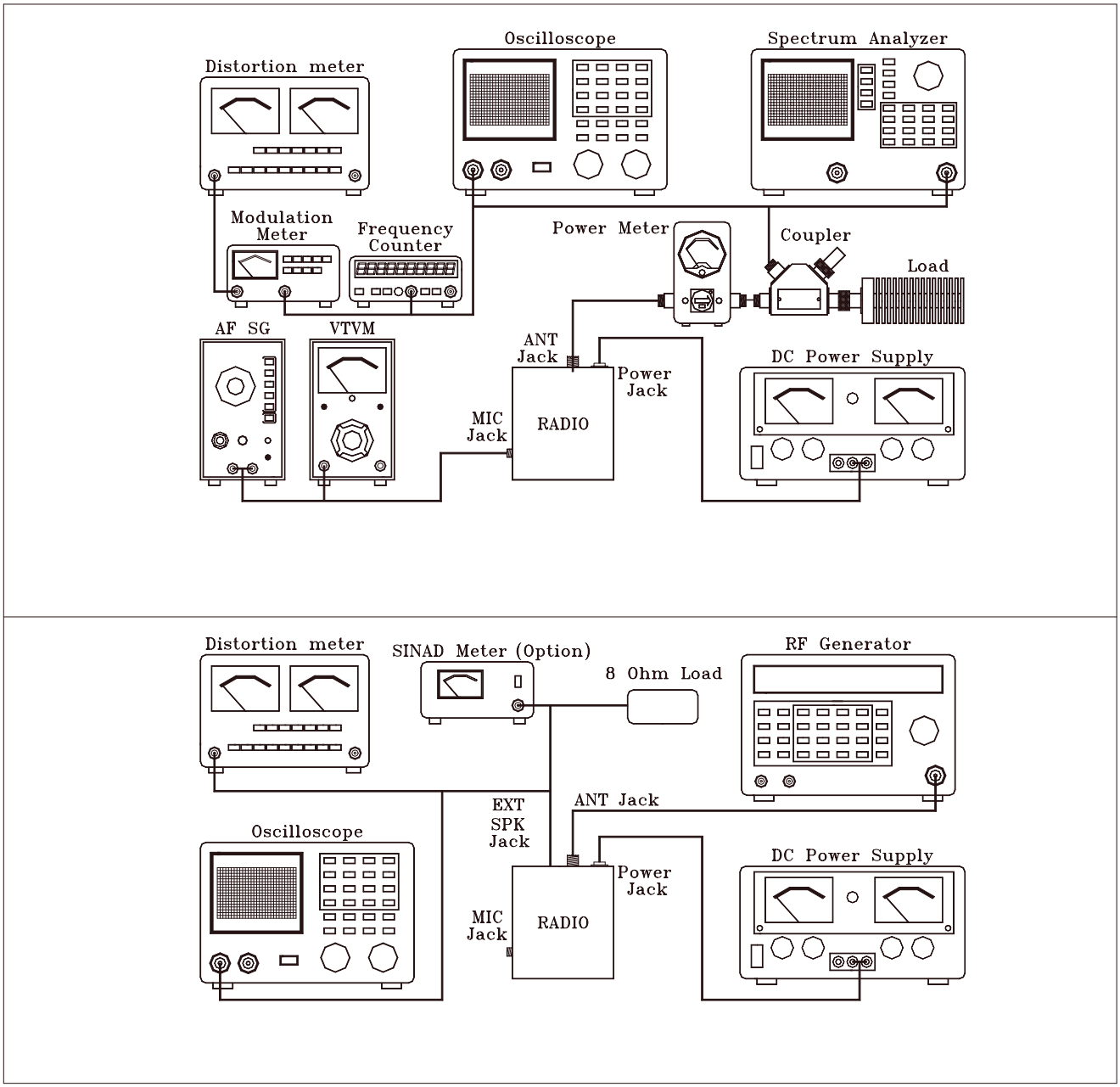


Figure 4-2 Receiver test setup

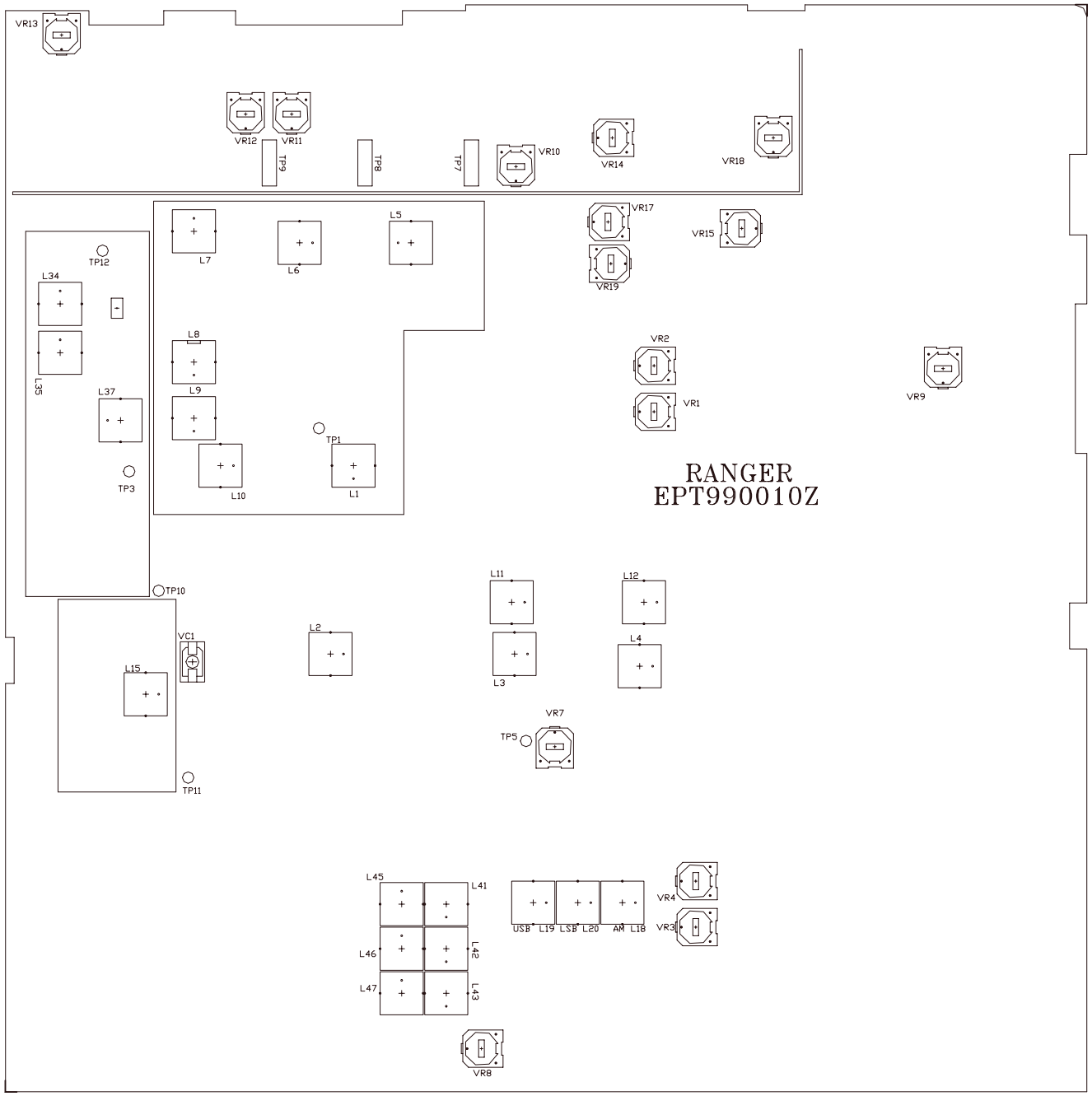


Figure 4-3 Main PCB Adjustment Location

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 fuses protect against over voltage / reverse polarity or 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 over fusing is not covered by the warranty.

6.0 GENERAL

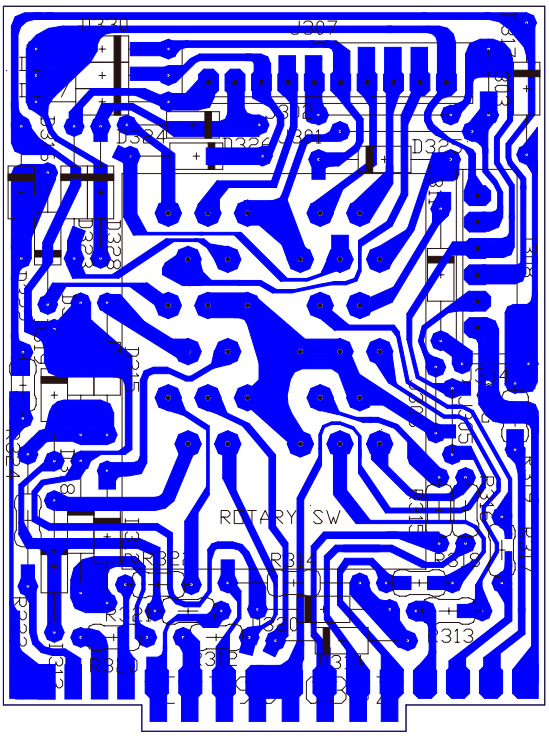
Information on most electrical and mechanical parts is included in the parts list. The reference designators are in alphanumeric order.

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

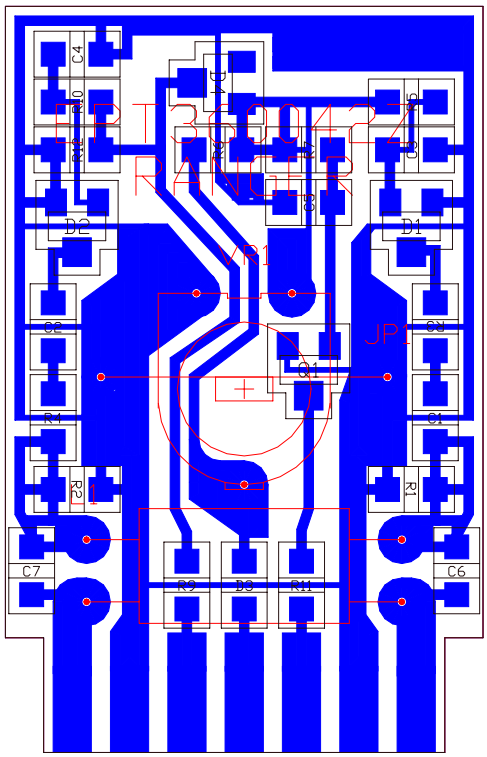


PART LIST:

RCI-6900F HP / RCI-6900F TB ROTARY SW P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT900030Z	ROTARY SW P.C.B
2	R315	RCP168214Z	820 OHM 1/16W
3	R312,R313,R314, R316-R324	RCP161524Z	1.5K OHM 1/16W
4	J303,J304,J305,J306	WX01070705	JUMPER WIRE
5	J308	WX01070708	JUMPER WIRE
6	J301,J302,D311,D312, D301,D314,D315,D316, D323,D324,D325,D326	WX01070710	JUMPER WIRE
7	J307	EX07N48209	PCB CONN/S 10PIN
8	ROTARY SW	EWRT32000S	ROTARY SW

REMARK:
COPPER SIDE (BLUE)

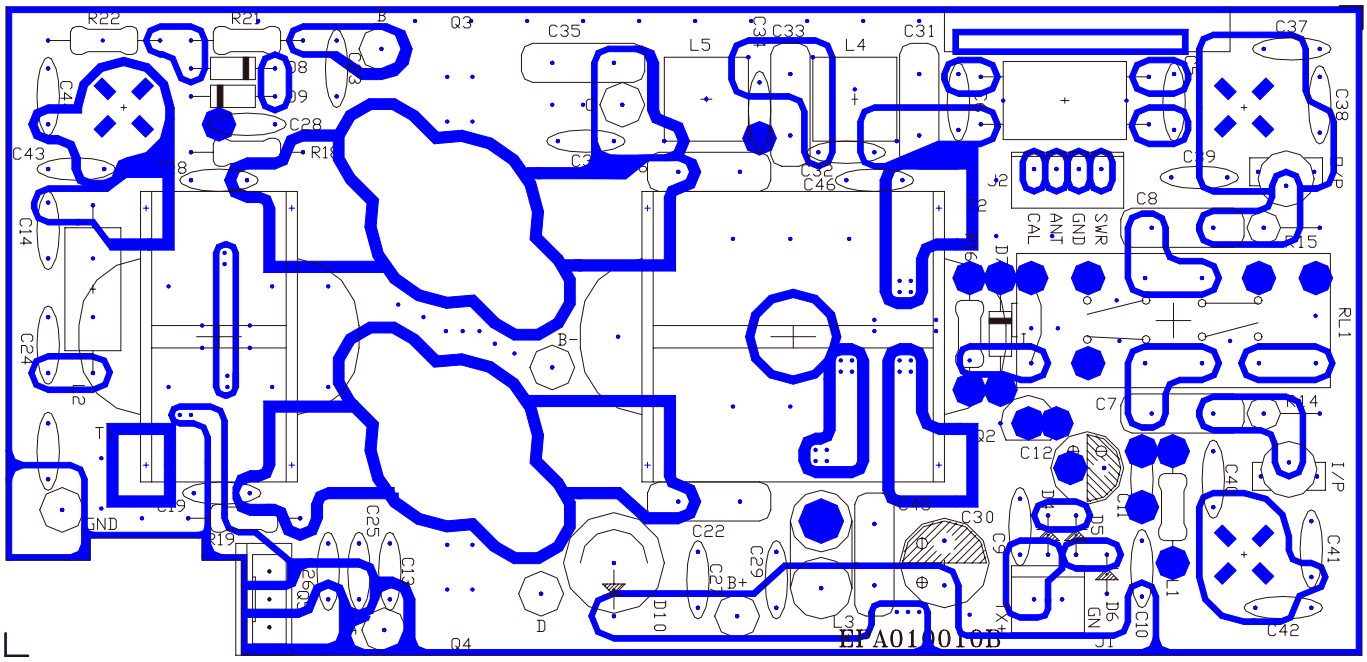


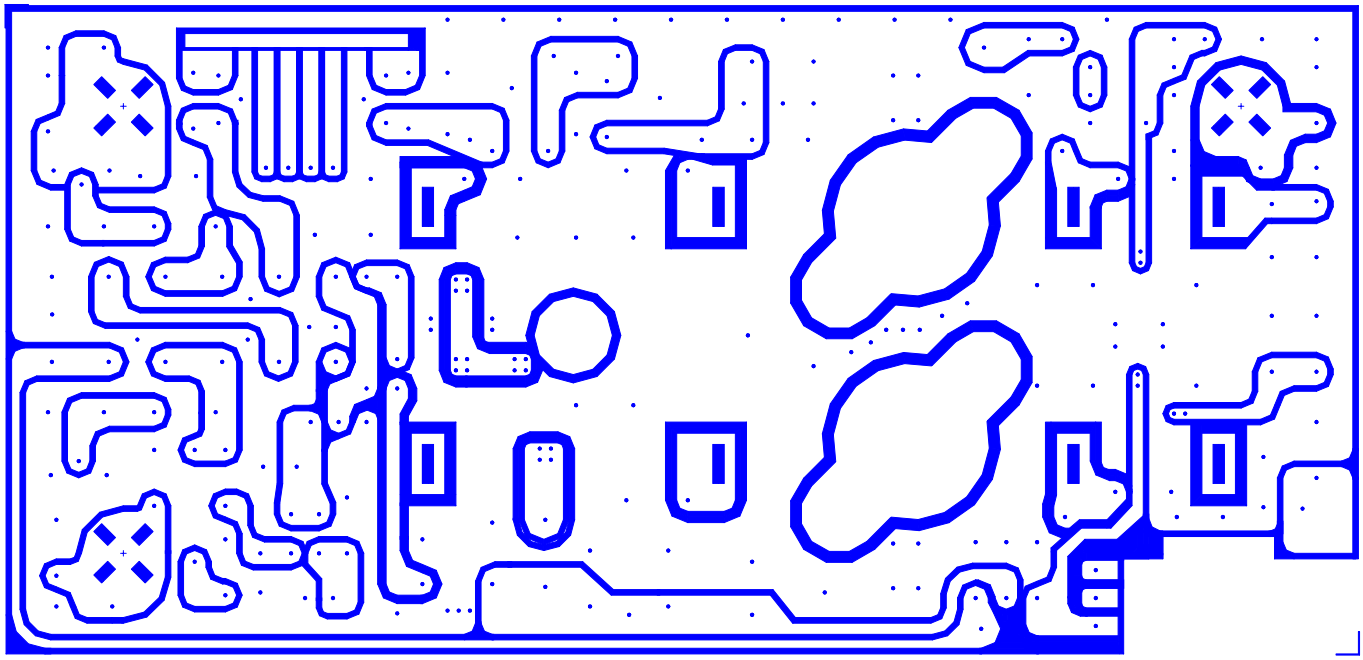
PART LIST:

RCI-6900F 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)





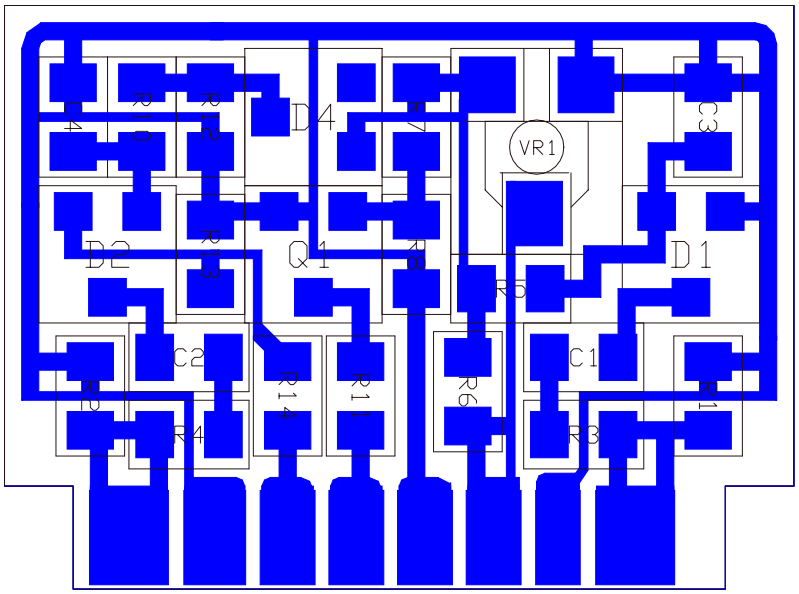
PART LIST:

RCI-6900F TB POWER P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPA010010B	POWER PCB
2	R18,R19	RCM141004A	10 Ω ¼ W
3	R16	RCM141014A	100 Ω ¼ W
4	R22	RCM144714A	470 Ω 1/4W
5	R21	RCM141024A	1K Ω 1/4W
6	R15	RCP121034Z	10K Ω 1/2W
7	R14	RFP102714Z	270 Ω 1W
8	C5,C6	CC0500201A	2PF 50WV
ITEM	REFERENCE NUMBER	RANGER PART	DESCRIPTION

		NUMBER	
9	C18,C19	CC0501515A	150PF 50WV
10	C13	CC0502215A	220PF 50WV
11	C9,C14	CC0505615G	560PF 50WV
12	C10,C23,C24,C25, C26,C27,C28,C37, C38,C39,C40,C41, C42,C43,C44,C45	CC0501047L	0.1uF 50WV
13	C7,C8	CC5001037L	.01uF 50WV
14	C34	CC5001204A	12PF 500WV
15	C32	CC5003904A	39PF 500WV
16	C31	CD5006604Z	68PF 300WV
17	C35	CD3008204Z	82PF 300WV
18	C16,C22,C33	CD3001514Z	150PF 300WV
19	C12	CE052257Z	2.2uF 50WV
20	C30	CE0254777Z	470PF 25WV
21	Q2	TDTC0114ES	TR DTC114ES
22	D4,D7,D8,D9	ED1N04148Z	DIODE 1N4148
23	D10	EDLT6A400Z	DIODE LT6A400
24	L4,L5	ECSPG18382	SPRING COIL
25	L2	ECBAD18571	BEAD COIL
26	L3	ECBAD18572	BEAD COIL
27	L1	ECCHK16142	CHOKE COIL
28	TDK BRAND CORE	ECRFZ10053	TDK BRAND CORE
29	T1	ECRFZ10184	RF COIL
30	T2	ECRFZ10185	RF COIL
31	RL1	EX05N40844	RELAY
32	J1	EX07N41226	PCB CONN/S 2PIN
33	J2	EX07N48490	PCB CONN/S 4PIN
34	B+,B-	GZZZ50011Z	AC 220V
35	I/P,O/P	GZZZ50062Z	V TYPE JACK
36	Q3,Q4	T2SC02290Z	TR 2SC2290
37	Q5	T2SD02531Z	TR 2SD2531

REMARK:
TOP: COMPONENT SIDE (WHITE)
BOTTOM: COPPER SIDE (WHITE)

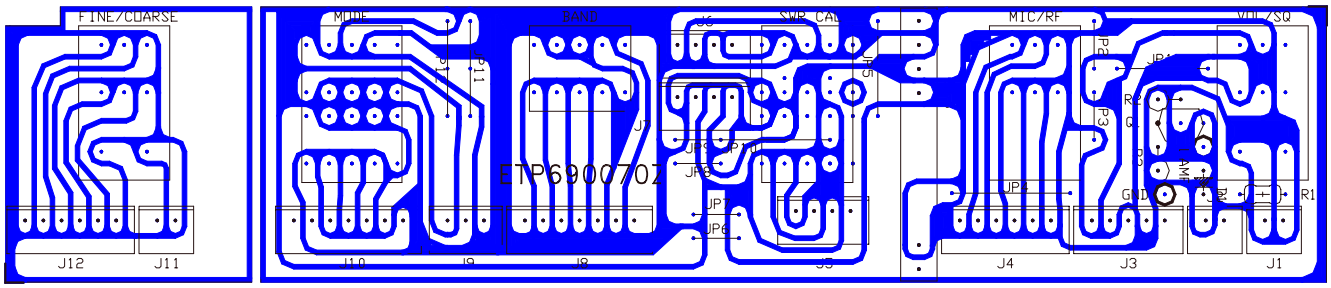


PART LIST:

RCI-6900F TB SWR P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPA010020B	SWR P.C.B
2	R13,R14	RCY010004Z	0 Ω 0.1W
3	R2	RCY011014Z	100 Ω 0.1W
4	R1,R3,R4	RCY014714Z	470 Ω 0.1W
5	R5,R11	RCY011024Z	1K Ω 0.1W
6	R12	RCY014724Z	4.7K Ω 0.1W
7	R7,R8,R10	RCY011034Z	10K Ω 0.1W
8	C1,C2	CK1102AB7L	0.001uF 50WV
9	C3,C4	CK2104AB7R	0.1uF 25WV
10	D1,D2	EDHM0198SY	DIODE HSM198S
11	D4	EDMA0028TY	DIODE MA28T
12	VR1	RE103Y0125	10KB 3L
13	Q1	TY2SC2712G	2SC2712GR-TE85L

REMARK:
COPPER SIDE (BLUE)

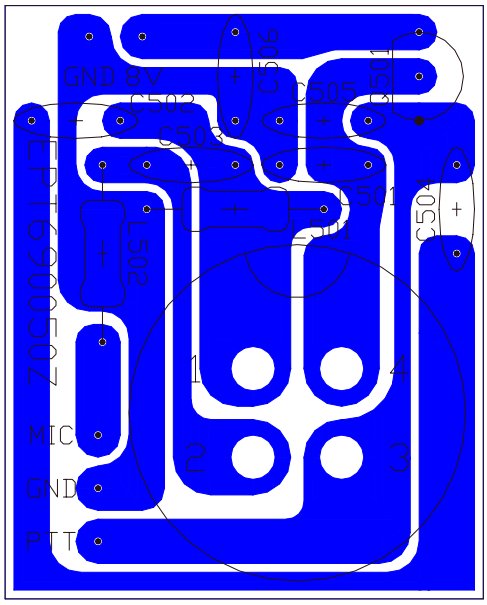


PART LIST:

RCI-6900F HP / RCI-6900F TB BAND P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION	REMARK
1		EPT690070Z	BAND P.C.B	
2	R1	RCP164704Z	47 OHM 1/16W	
3	J1,J5,J6,J7	EX07N48223	PCB CONN/S 2PIN	
4	J3	EX07W48826	PCB CONN/S 5PIN	
5	J4,J12	EX07W48827	PCB CONN/S 6PIN	RCI-6900FTB
6	J8	EX07N48224	PCB CONN/S 7PIN	
7	J10	EX07N48331	PCB CONN/S 6PIN	RCI-6900FTB
8	JP3,JP7	WX01070705	JUMPER WIRE	RCI-6900FHP
9	JP1	WX01070710	JUMPER WIRE	
10	VOL/SQ	RV50303522	VR 50KB/50KA W/SW	
11	FINE/COARSE	RV20303523	VR 20KB/1KB	
12	MIC/RF	RV10203524	VR 1KB/1KA	
13	SWR CAL	RV20303560	VR 20KB/5KB	
14	BAND	EWRT32094S	ROTARY SW 6N	
15	MODE	EWRT32083S	ROTARY SW 5N	

REMARK:
COPPER SIDE (WHITE)

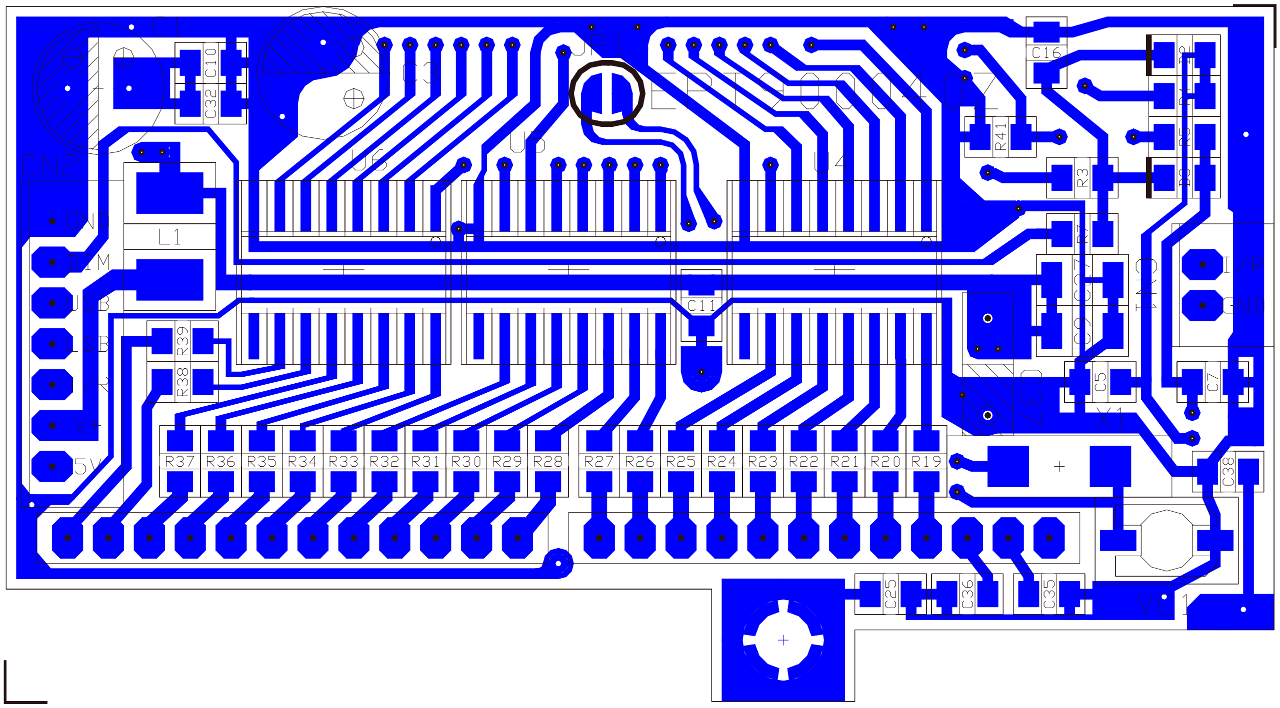


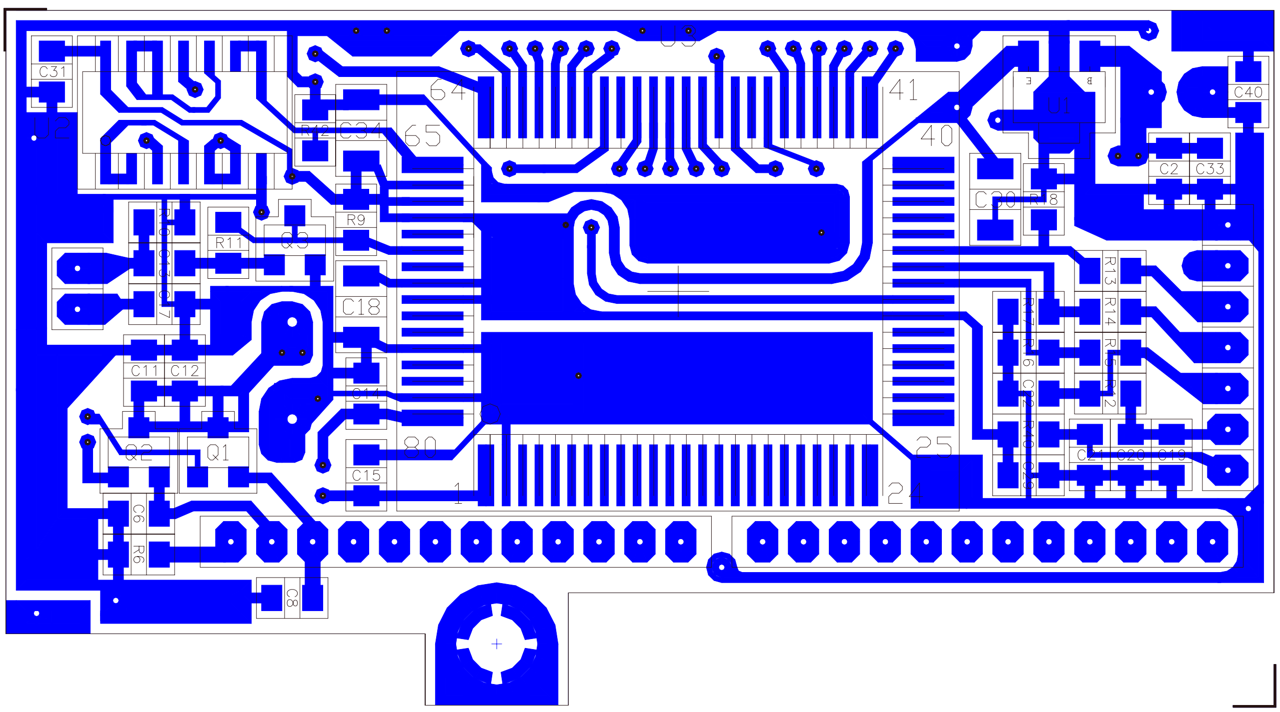
PART LIST:

RCI-6900F HP / RCI-6900F TB MIC P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT690050Z	MIC P.C.B
2	C502, C503,C504	CC0501027L	0.001uF 50WV
3	C505,C506,C501	CC0501037L	0.01uF 50WV
4	L501	ECCHK16001	CHOKE COIL
5	L502	ECBAD18526	BEAD COIL
6	1-4	EX06N41020	MIC JACK
7	MIC-50F	EX07N48903	WIRE CONN/H 3PIN

REMARK:
COPPER SIDE (BLUE)


C10
C32
L1
U6
U5
U4
C16
R41
R3
C11
R39
R38
C5
C7
C38
R37
R36
R35
R34
R33
R32
R31
R30
R29
R28
R27
R26
R25
R24
R23
R22
R21
R20
R19
C25
C36
C35

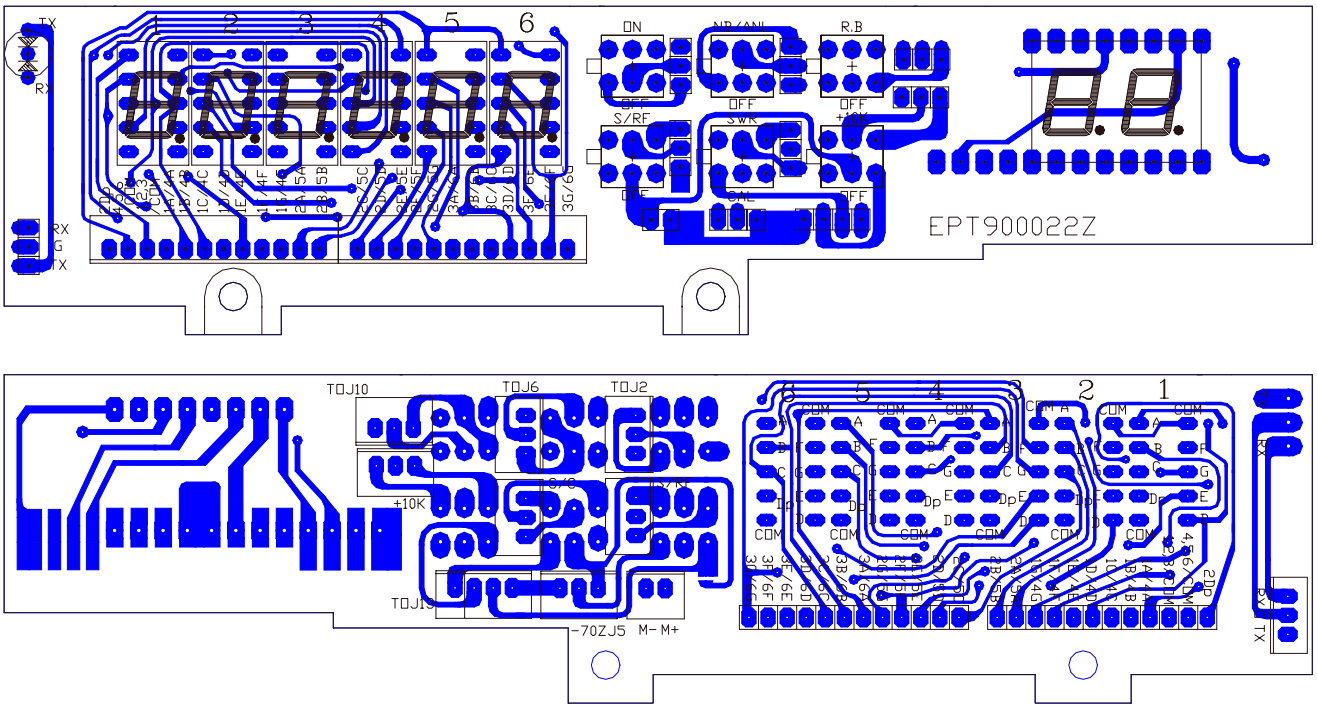

C31
C34
64
65
41
40
U1
C40
C2
C33
R9
R11
C18
R13
R14
C11
C12
Q2
Q1
C15
80
1
25
24
C6
R6
C8

PART LIST:

RCI-6900F HP / RCI-6900F 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	C5,7,16,20,22,25,38,40	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	TY2SC2712G	TR 2SC2712GR
24	D2,D3	EDSS00355Y	DIODE 1SS355
25	L1	YCCHK16259	CHOKE COIL
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 x 2pc	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)

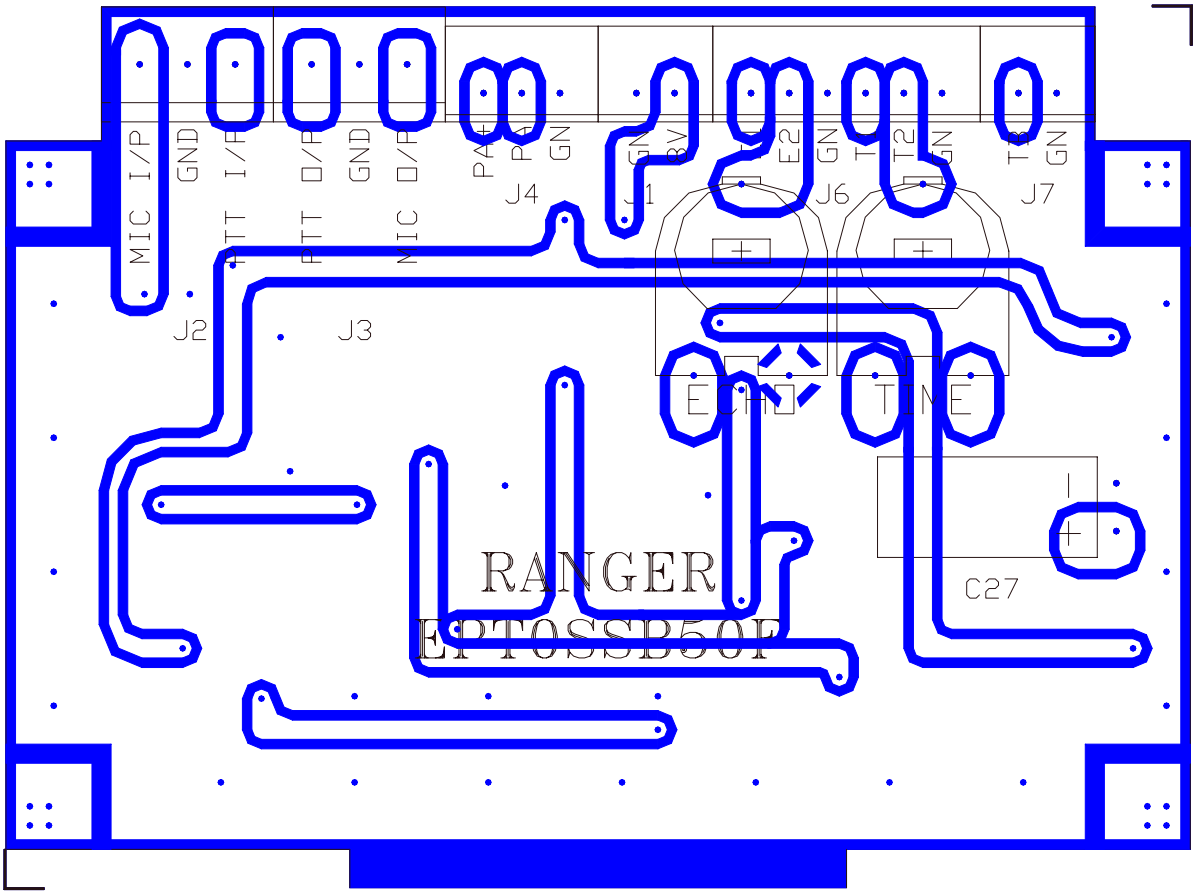


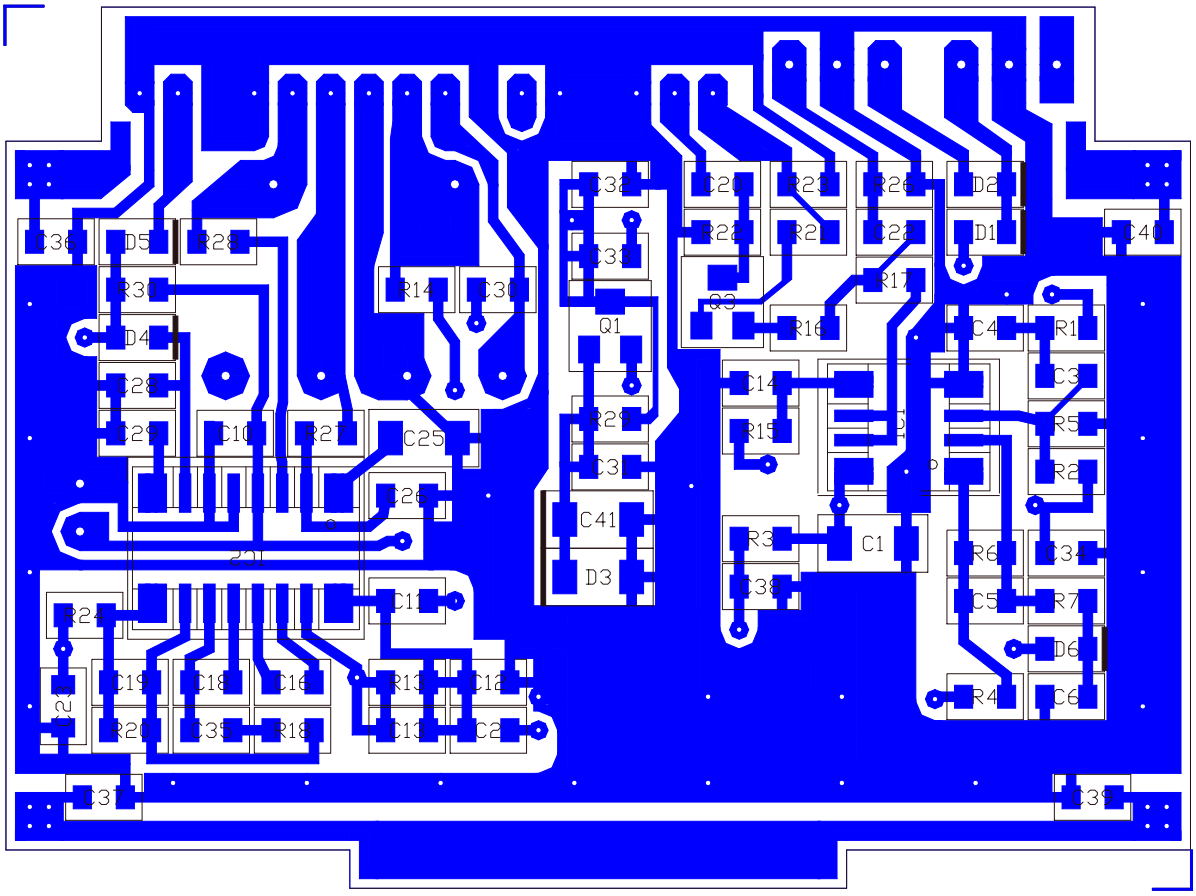
PART LIST:

RCI-6900F HP/ RCI-6900F TB LED DISPLAY P.C.B

ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT900022Z	LED DISPLAY P.C.B
2	LED DISPLAY PCB	EX03N40003	LED DISPLAY
3	1,2,3,4,5,6	EX03N40476	LED DISPLAY
4	TX/RX	EX01N40004	LED RED/GREEN
5	ON,NB/ANL,R.B,S/RF, SWR,+10K	EWPS33033X	PUSH SW
6	LED DISPLAY PCB x 2pc	EX07N48928	PCB CONN/S 12PIN
7	TOJ10,+10K,S/RF, M-M+	EX07N48223	PCB CONN/S 2PIN
8	LED DISPLAY PCB x 3pc	EX07N48350	PCB CONN/S 3PIN
9	LED DISPLAY PCB	EX07N48490	PCB CONN/S 4PIN
10	RX/G/TX	EX07N48947	PCB CONN/S 3PIN

REMARK:
TOP: COMPONENT SIDE (BLUE)
BOTTOM: COPPER SIDE (BLUE)


MIC I/P
GND
ATT I/P
ATT O/P
GND
MIC O/P
PA
RX
GN
GN
RX
E2
GN
T
T2
GN
T
GN
J4
J1
J6
J7
J2
J3
RANGER
C27

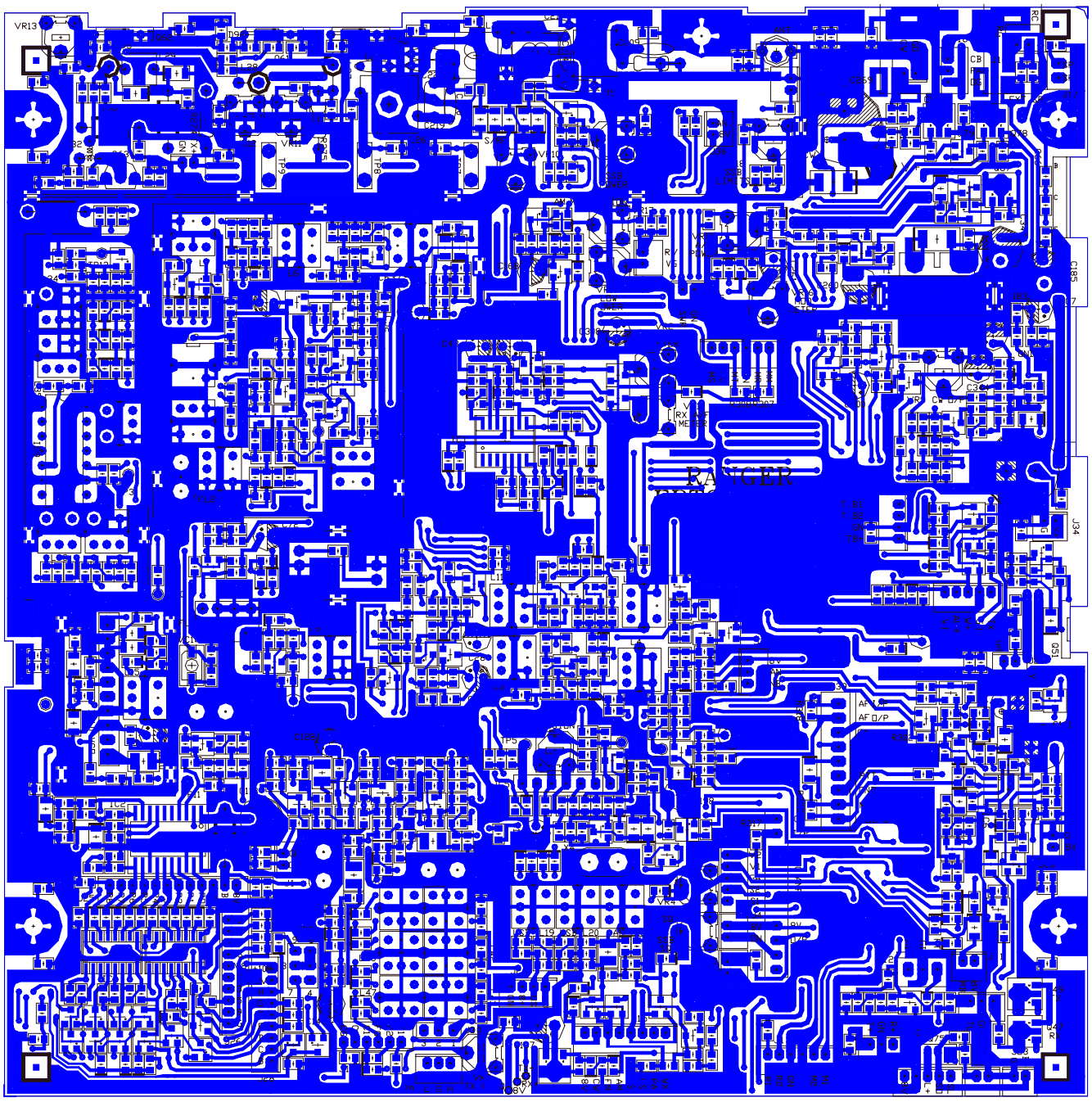

C32
C20
R23
R26
D2
C36
D5
R28
R22
R21
C22
D1
C40
C33
R30
R14
C30
R17
Q1
Q2
R16
C4
R1
D4
C14
C3
C28
C29
C10
R27
C25
R29
R15
R5
C31
R2
C26
C41
R3
C1
R6
C34
D3
C38
C5
R7
C11
R24
D6
C19
C18
C16
R13
C12
R4
C6
C21
R20
C35
R18
C13
C2
C37
C39

PART LIST:

RCI-6900F HP / RCI-6900F TB ECHO P.C.B (EB-99)

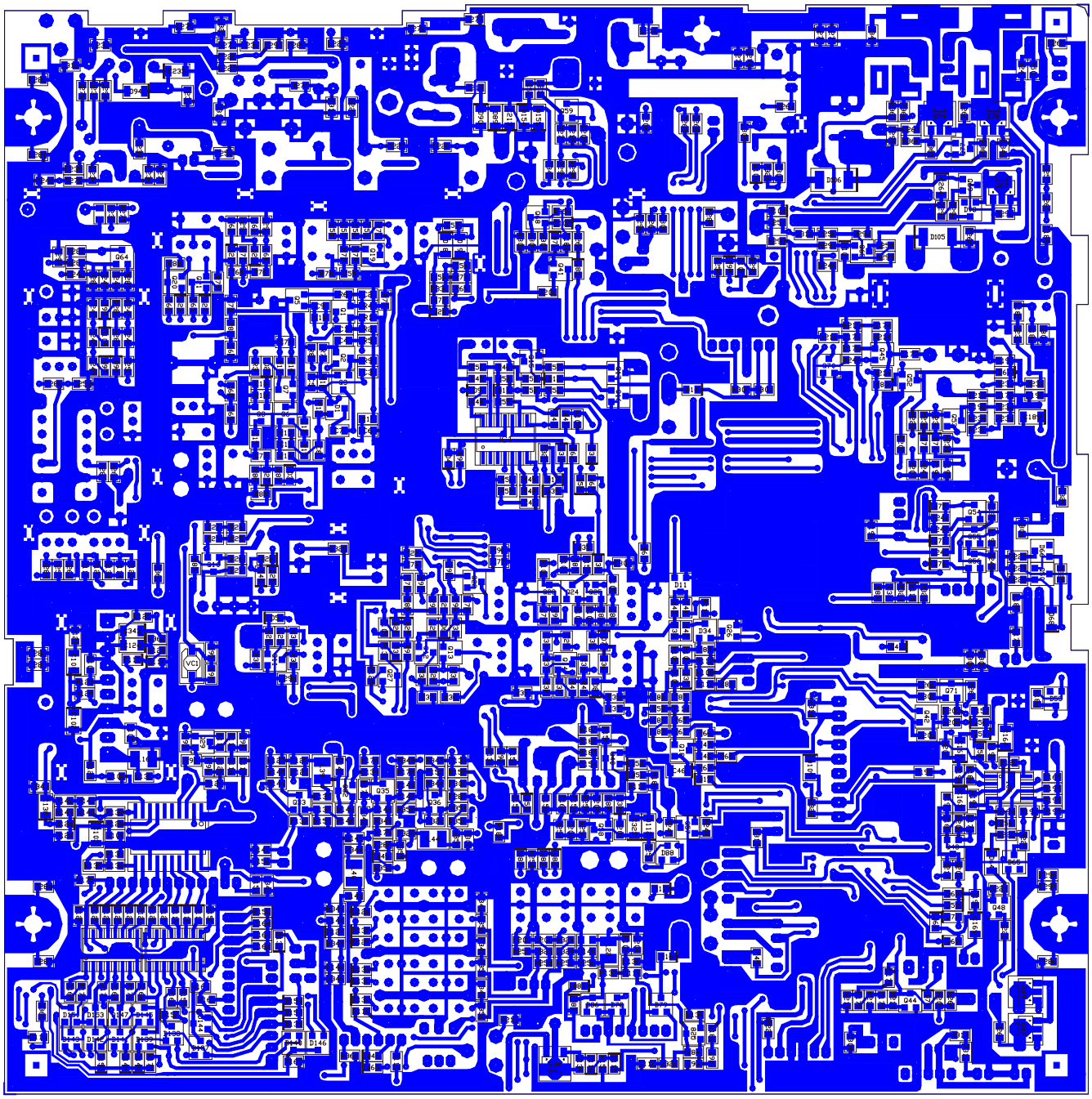
ITEM	REFERENCE NUMBER	RANGER PART NUMBER	DESCRIPTION
1		EPT0SSB50F	ECHO P.C.B
2	R3,R16	RCY011014Z	10 OHM 0.1W
3	R28	RCY014714Z	470 OHM 0.1W
4	R27	RCY011024Z	1K OHM 0.1W
5	R7	RCY012224Z	2.2K OHM 0.1W
6	R17,R29	RCY014724Z	4.7K OHM 0.1W
7	R1,R23,R24,R30,R26	RCY011034Z	10K OHM 0.1W
8	R18	RCY012234Z	22K OHM 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	CK5105AB7R	1uF 16WV
18	C13	CK1152AB7R	0.0015uF 50WV
19	C19	CK1472AB6U	0.0047uF 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	ECHO,TIME	RE50300014	S/F/R 50K OHM
29	J3	EX07N41216	PCB CONN/S 3PIN
30	J2	EX07N41227	PCB CONN/S 3PIN
31	J1,6	EX07N48223	PCB CONN/S 2PIN
32	J1-MAIN(J7)	EX07N49085	WIRE CONN/H 2PIN-2PIN
33	J3-MAIN(J12)	EX07N48902	WIRE CONN/H 3PIN-3PIN
34	J6	EX07N48917	WIRE CONN/H 2PIN-2PIN

REMARK:
TOP: COMPONENT SIDE (WHITE)
BOTTOM: COPPER SIDE (BLUE)



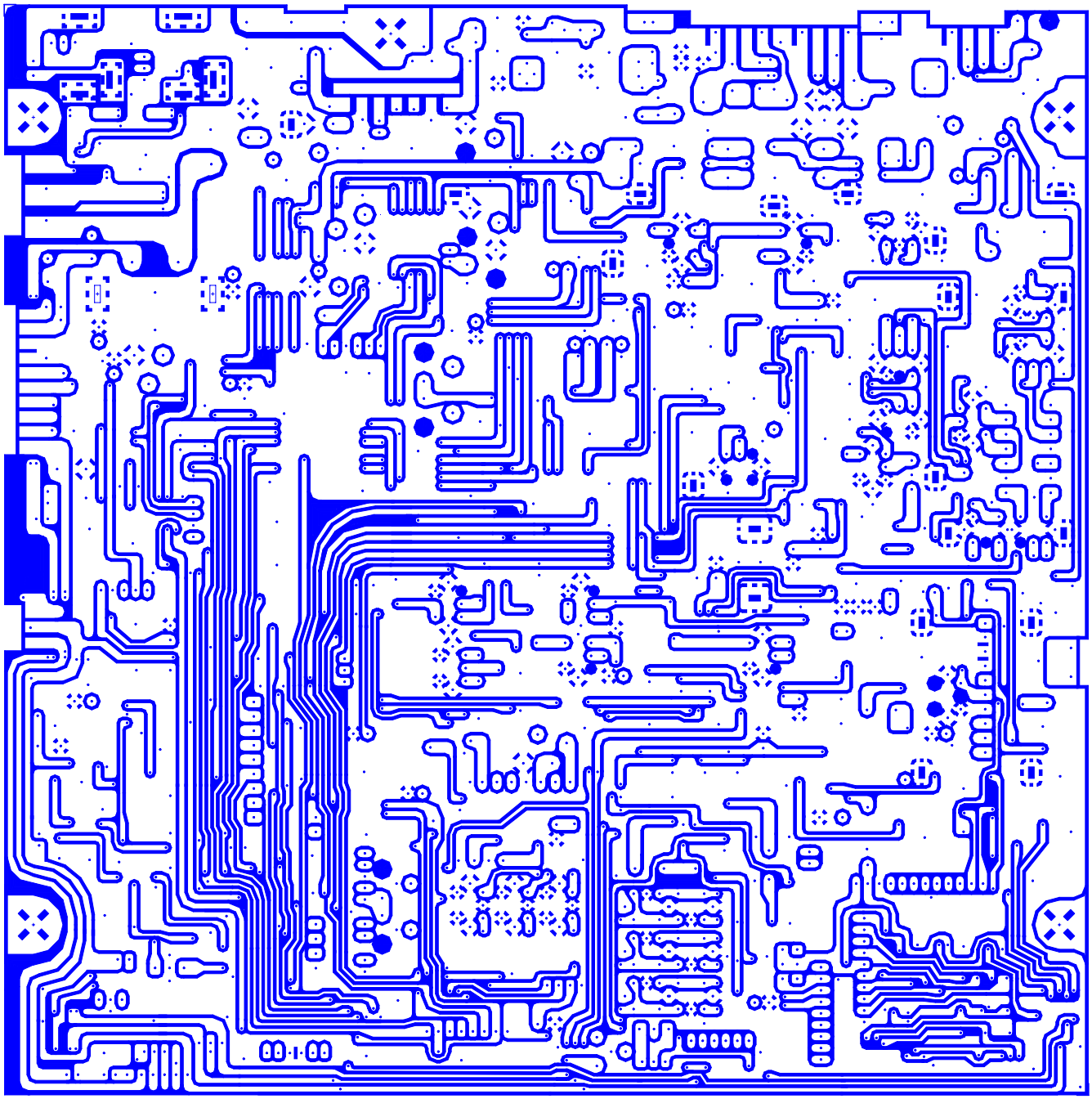
RCI-6900 HP / RCI-6900 TB MAIN PCB

REMARK:
COMPONENT SIDE (BLUE)



RCI-6900F HP / RCI-6900F TB MAIN PCB.

REMARK:
SMD COMPONENT SIDE (BLUE)



RCI-6900 HP / RCI-6900 TB MAIN PCB

REMARK:
COPPER SIDE (WHITE)

REFERENCE NUMBER	RANGER PART NO.	DESCRIPTION
	EPT990010Z	MAIN P.C.B
R274,275	RCP121514Z	150 Ω 1/2W
R270	RCP121034Z	10K Ω 1/2W
C214	CC0501804A	18PF 50WV
C217	CC0503304A	33PF 50WV
C222	CC0504704A	47PF 50WV
C209	CC0508204A	82PF 50WV
C215	CC0501215A	120PF 50WV
C216	CC0501815A	180PF 50WV
C221,223	CC0503915G	390PF 50WV
C220	CC1001037L	0.01UF 100WV
C219	CD3005614Z	560P 300WV
C13,24,27,28,52,63, 72,128,149,168,200, 308,344	CE0251067Z	10UF 25WV
C90,188,198	CE0252267Z	22UF 25WV
C42,43,45,110,154, 183,261	CE0254767Z	47UF 25WV
C137,166,260	CE0161077Z	100UF 16WV
C161,185	CE0163377Z	330UF 16WV
C118	CE0164777Z	470UF 16WV
C269,270	CE0251087Z	1000UF 25WV
FL1	EFCFW455HT	CFW-455HT
FL2	EFCFE107MX	SFE10.7MX
FL3	EFX8106952	C. FILTER 10M4D (10.695MHz)
X1	EYCAB10240	CRYSTAL 10.240MHz
X2	EYCAA15360	CRYSTAL 15.360MHz
X3	EYBAA12660	CRYSTAL 12.660MHz
X4	EYBAE10697	CRYSTAL 10.6975MHz
IC5	ENMA00612Z	AN-612 7PIN
IC9	ENSM06130Z	TDA6130
Q63	T2SC02538Z	TR 2SC2538
D91,92,93	ED1N04148Z	DIODE 1N4148
L2,3	ECIFT12002	7MC-7172ABW
L41-43,45-47	ECIFT12012	113CN-6514X
L20	ECIFT12013	113CN-6485Z
L18,19	ECIFT12016	113CN-6344Z
L1,11	ECIFT12252	I.F.T
L5	ECIFT12253	I.F.T
L38	ECIFT12255	I.F.T
L9,10	ECIFT12256	I.F.T
L12	ECIFT12257	I.F.T
L17,37	ECIFT12258	I.F.T
L15	ECIFT12263	I.F.T
L34	ECIFT12559	I.F.T
L35	ECIFT12560	I.F.T
L6	ECIFT12290	I.F.T
L7	ECIFT12440	I.F.T
L8	ECIFT12492	I.F.T
L4	ECIFT12526	I.F.T 7P
L503	ECCHK16000	CHOKE COIL
L27,28,31	ECCHK16070	CHOKE COIL
T1	ECCHK16004	CHOKE COIL
L23,24	ECSPG18003	SPRING COIL
L25	ECSPG18077	SPRING COIL
L29	ECSPG18090	SPRING COIL
L26	ECSPG18365	SPRING COIL
L14,33	ECBAD18526	BEAD COIL
L32	ECRFZ10048	RF COIL
VR8,9,13,17,19	RE10200041	S/F/R 1K
VR14,15	RE50200042	S/F/R 5K
VR1,2,7,16,18	RE10300031	S/F/R 10K
VR10	RE10400043	S/F/R 100K
VR3,4	RE50400087	S/F/R 500K
VR11,12	RE10100074	S/F/R 100 Ω
CW,EXT SP	EX06N41045	EAR JACK
J12	EX07N41227	P/C/S 3P
J17	EX07N41330	P/C/S 2P
J1,11,20,21,19	EX07N48223	P/C/S 2P
J7,29,31,3	EX07N48350	P/C/S 3P
J2,9	EX07N48490	P/C/S 4P
J6	EX07N48222	P/C/S 5P
J10,13,15	EX07N48331	P/C/S 6P
J28	EX07N48543	P/C/S 9P
J26	EX07N48209	P/C/S 10P
J30	EX07N48244	P/C/S 3P
J27	EX07N48884	P/C/S 6P
J27,30	EX07N48151	P/C/S SHORT PIN
TP1,2,3,5,11,12	EX07N48612	P/C/S 1 PIN
J5	EX07N49140	P/C/S 2P
TP7-9	XZZZ90006Z	PCB STOPPER
L30,36	WX01070710	JUMPER WIRE
L503	WX0012015A	TUBE
L504	WH0007005Z	LEAD WIRE
R153,308,317,318,328 ,367,307,203,C266, C267,D118,D119,D120, D121,D122,D123,D124	RCY010004Z	C/F/R 0 Ω
R277	RCY014794Z	C/F/R 4.7 Ω
R369	RCY011004Z	C/F/R 10 Ω
R293	RCY011504Z	C/F/R 15 Ω
R272,273	RCY012204Z	C/F/R 22 Ω
R246	RCY013304Z	C/F/R 33 Ω
R115,152,226,281	RCY014704Z	C/F/R 47 Ω
R125,227,231	RCY015604Z	C/F/R 56 Ω
R11,105	RCY016804Z	C/F/R 68 Ω
R3,5,8,33,36,78,81, 97,126,154,182,186, 263,286,289,360	RCY011014Z	C/F/R 100 Ω
R35,104,253,276,280	RCY011514Z	C/F/R 150 Ω
R23	RCY011814Z	C/F/R 180 Ω
R130,150,190,262,136	RCY012214Z	C/F/R 220 Ω
R32,103	RCY012714Z	C/F/R 270 Ω
R6,10,16,279,282,306	RCY013314Z	C/F/R 330 Ω
R24,176,202,250,259, 304,347,354	RCY014714Z	C/F/R 470 Ω
R292	RCY015614Z	C/F/R 560 Ω
R4,50,90,224	RCY016814Z	C/F/R 680 Ω
R74	RCY018214Z	C/F/R 820 Ω
R64,67,71,75,101,117 ,118,120,123,146,147 ,148,151,178,192,199 ,207,213,225,233,244 ,249,255,257,258,266 ,267,268,269,271,287 ,294,297,322,326,329 ,341,344,349,351,356 ,357,358,96,D126	RCY011024Z	C/F/R 1K Ω
R91,205	RCY011224Z	C/F/R 1.2K Ω
R56,79,80,89,100,127 ,220,221,237,260,278 ,283,299	RCY011524Z	C/F/R 1.5K Ω
R235,247	RCY011824Z	C/F/R 1.8K Ω
R27,30,70,73,95,116, 121,144,209,214,254, 288,302,310,311,320	RCY012224Z	C/F/R 2.2K Ω
R9,25,31	RCY012724Z	C/F/R 2.7K Ω
R18,28,66,113,124, 128,184,204,230,298, 305	RCY013324Z	C/F/R 3.3K Ω
R52,58	RCY013924Z	C/F/R 3.9K Ω
R29,38,72,86,132,206 ,211,212,215,216,256 ,261,175	RCY014724Z	C/F/R 4.7K Ω
R87,94,201,290,291	RCY015624Z	C/F/R 5.6K Ω
R14,42,43,69,85,342, 352	RCY016824Z	C/F/R 6.8K Ω
R92,300	RCY018224Z	C/F/R 8.2K Ω
R1,13,17,39,40,41,57 ,65,68,83,88,128,131 ,135,140,142,177,179 ,188,194,217,223,228 ,239-243,248,251,252 ,296,301,323,324,346 ,348,350,362	RCY011034Z	C/F/R 10K Ω
R191,137	RCY011234Z	C/F/R 12K Ω
R193	RCY011534Z	C/F/R 15K Ω

R34,93,110,133,134,138,139,141,187,222	RCY012234Z	C/F/R 22K Ω
R122	RCY012734Z	C/F/R 27K Ω
R2,264	RCY013334Z	C/F/R 33K Ω
R46	RCY013934Z	C/F/R 39K Ω
R7,62,63,99,143,155-157,160-165,166-173,149,198,200,229,234,343,345,353,355,236	RCY014734Z	C/F/R 47K Ω
R26,107,112,181	RCY016834Z	C/F/R 68K Ω
R45	RCY018234Z	C/F/R 82K Ω
R12,44,48,49,51,53,76,77,106,109,114,195,197,232,238,284,285,303,295,361	RCY011044Z	C/F/R 100K Ω
R47,59,84,119,145,210,218	RCY012244Z	C/F/R 220K Ω
R54,55,183,185,189	RCY012744Z	C/F/R 270K Ω
R15,37,111,196,219	RCY014744Z	C/F/R 470K Ω
R102	RCY018244Z	C/F/R 820K Ω
R108	RCY011054Z	C/F/R 1M Ω
R208	RCY011554Z	C/F/R 1.5M Ω
C236,248,249,218	CK1010AB1A	1PF 50WV
C294,288,61	CK1020AB1A	2PF 50WV
C211	CK1030AB1A	3PF 50WV
C68,69,86,88,120,253	CK1050AB1A	5PF 50WV
C1,57,114,155	CK1100AB2A	10PF 50WV
C247	CK1120AB4A	12PF 50WV
C97	CK1150AB4A	15PF 50WV
C51,98	CK1180AB4A	18PF 50WV
C79	CK1220AB4A	22PF 50WV
C44	CK1270AB4A	27PF 50WV
C30,89,134,140,300	CK1330AB4A	33PF 50WV
C243	CK1470AB4A	47PF 50WV
C96,60	CK1680AB4A	68PF 50WV
C8	CK1820AB4A	82PF 50WV
C4,160,129,130,212	CK1101AB5A	100PF 50WV
C62	CK1121AB5A	120PF 50WV
C242	CK1181AB5A	180PF 50WV
C35,237	CK1221AB5A	220PF 50WV
C39	CK1271AB5A	270PF 50WV
C11,14	CK1331AB5A	330PF 50WV
C83,228	CK1471AB5A	470PF 50WV
C29,227	CK1561AB5A	560PF 50WV
C206	CK1390AB4D	39PF 50WV
C205	CK1151AB5D	150PF 50WV
C144	CK1060AB2G	6PF 50WV
C289,290,291	CK1100AB2G	10PF 50WV
C143	CK1680AB4G	68PF 50WV
C287	CK1101AB5G	100PF 50WV
C142	CK1121AB5G	120PF 50WV
C202	CK1151AB5G	150PF 50WV
C321	CK1181AB5G	180PF 50WV
C95	CK1271AB5G	270PF 50WV
C203	CK1331AB5G	330PF 50WV
C99	CK1391AB5G	390PF 50WV
C48,64,91,111,112,122,123,131,136,141,146,345,152,156,179,182,210,225,229,230,231,239,245,246,257,263,271,275,278,279,280,282,285,286,295,301,302,304,307,309,310,311,312,313,320,326,224	CK2104AB7R	0.1UF 25WV
C2,3,6,9,15,21,22,25,33,34,37,59,65-67,70,71,73,76,82,87,92,105,115,116,126,127,139,148,153,158,159,175,176,177,196,197,201,207,226,232,234,235,238,240,250,251,254,255,268,281,292,297,298,303,324,325,340,341,342,346,350	CK1103AB6U	0.01UF 50WV
C7,31,36,47,55,58,93,104,133,135,145,150	CK1102AB7L	0.001UF 50WV
C5,23,26,41,56,74,77,78,80,81,94,101,106,109,119,125,157,162,170,199,258,262,272,274,277,283,284,296	CK1473AB7R	0.047UF 50WV
C10	CK2474AB7R	0.47UF 25WV
C38,49,165,174,193	CK1223AB6U	.022UF 50V
C171	CK1153AB6U	0.015UF 50WV
C12	CK1222AB7R	0.0022UF 25WV
C40,50,53,54,172,173,184,241,343	CK1472AB6U	.0047UF 25WV
C186,348	CK2224AB7R	0.22UF 16WV
C169,233,264	CK5225AA7R	2.2UF 16WV
C32,84,180,194,195,256,306,299	CK5105AB7R	1UF 16WV
C124	CTY161046Z	0.1UF 16WV
C163	CTY162246Z	0.22UF 16WV
C164,167,213,351,138	CTY161056Z	1UF 16WV
C100	CTY162256Z	2.2UF 16WV
C102	CTY164746Z	0.47UF 16WV
C46,103,189,323	CTY164756Z	4.7UF 16WV
IC1	YNJR00324M	NJM324M 14P
IC6	YNJR04558M	NJM4558M 8P
IC3,4	YNMC14008D	MC14008BDR2
IC2	YNMC45106D	MC145106DW
Q19	TY2SC3356Z	TR 2SC3356
Q34,47,49,67	TY2SB0798Z	TR 2SB798DL
Q3,5,6,8,15,18,28,40,43,44,45,48,50,53,55,57,65,68,69,71,32	TY2SC2712G	TR2 SC2712GR
Q7,41	TY2SA1298Y	TR 2SA1298Y
Q1,2,10,11,12,13,14,22,23,24,25,29,33,35,36,58,59,64	TY2SC2714Z	TR 2SC2714
Q16,17,26,27,52,54,56,70	TYZRN1403Z	TR RN1403
Q42	TYZRN2403Z	TR RN2403
Q20,21	FY2SK0302Z	F.E.T
D2-10,12-17,20,23-31,33,35-41,48,50-52,54-63,67,69-77,80-85,87,99-104,110,115,116,125,128,129,130,132,133,134,135,136,148,149,150,152	EDSS00355Y	DIODE 1SS355
D89,90,94,109	ED1N04148Y	DIODE 1N4148 2P
D78,79,86,88,137,138,139,140,141,142,143,144,145,146,147,151,153	EDSS00184Y	DIODE 1SS184
D21,49,95,108,113,114,127	ED1V00217Y	DIODE 1SV217-TP
D22,96,97,107	ED1V00231Y	DIODE 1SV231
D1,11,34	EDHM0198SY	DIODE HSM1985S
D18,19,154,155	EDRS00135Y	DIODE RLS135 TE-11
D65,98	EDMA0028TY	DIODE MA28T
D53,66	EDMA0028WY	DIODE MA28W
D105,106	EDRL04004X	DIODE RLR4004
D64	EDZD05519Z	ZENER DIODE
D68	EDZD05759Y	ZENER DIODE
D112	EDZD05569Y	ZENER DIODE
VC1	CV038200AY	TRIMMER/C
L22,39	YCCHK16240	CHOKE COIL
L16	YCCHK16258	CHOKE COIL
L40,44	YCTLI2273C	CHOKE COIL

RCI-6900F HP MISC. PARTS

REFERENCE NUMBER	RANGER PART NO.	DESCRIPTION
-	ES300835SQ	SPEAKER
-	EX03N40005	SIGNAL METER
-	PT9000060I	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 CR
-	MT9000010X	FRONT CHASSIS
-	MT3600040S	CHANNEL BRACKET
-	MT3600061X	TOP HOUSING
-	MT3600071Q	BOTTOM HOUSING
-	MT3600030S	HANDLER
-	XZZZ90004Z	FOAM 14x16x20mm
-	XZZZ90005Z	FOAM 8x12x34mm
-	XZZZ90367A	SPONGE
-	GZZZ50000Z	CLAMP
-	XZZZ90098Z	SOLDER PLATE
-	XZZZ90021Z	FOAM 11x30x15t
COUNTER	XZZZ90363Z	PVC STAND OFF
COUNTER	JS013016WH	SET SCREW W3x16-1
FRONT PANEL(4)	JS033008MN	SET SCREW M3x0.5Px8
TONE(2),CH9(2), WB/ANL(2)	JS052004MN	SET SCREW M2x0.4Px4
SWR SW(2)	JS052605MN	SET SCREW M2.6x0.45x5
CH BRT(2), CHASSIS(12)	JS053006MN	SET SCREW M3x0.5Px6
SPK(4),DC SOCKET(2)	JS053008MN	SET SCREW M3x0.5Px8
MAIN PCB(5)	JS053006TN	SET SCREW T3x6-2
SPK(4)	JN263035ZS	NUT WITH WASHER M3x3.5t
-	EX06T41019	ANT SOCKET
-	EX06T40007	DC SOCKET
-	MT3600021X	SET CHASSIS
-	MT3600050X	DC SOCKET HOLDER
-	MM7878041B	HEAT SINK
Q54	XZZZ90020Z	INSULATING PLATE
Q47,Q48,Q49	XZZZ90003Z	INSULATING RING
Q47,Q48,Q49	XZZZ90358Z	INSULATING PLATE
IC8	LZZZ61008Z	IC SHIELD B
-	JS052006MN	SET SCREW M2x0.4Px6
-	JS052012MN	SET SCREW M2x0.4Px12
-	JS013006MV	SET SCREW M3x0.5Px6
-	JS013008TN	SET SCREW T3x8-2
-	JN242012ZS	NUT M2x1.2t
-	MT2950050X	SHIELD COVER A
-	MT2950060X	SHIELD COVER B
-	MT2950070X	SHIELD COVER C

PART LIST
RCI-6900F TB MAIN PCB

REFERENCE NUMBER	RANGER PART NO.	DESCRIPTION
	EPT990010Z	MAIN P.C.B
R274,275	RCP121514Z	C/F/R 150 Ω 1/2W
R270	RCP121034Z	C/F/R 10K Ω 1/2W
C214	CC0501804A	18PF 50WV
C217	CC0503304A	33PF 50WV
C222	CC0504704A	47PF 50WV
C209	CC0508204A	82PF 50WV
C215	CC0501215A	120PF 50WV
C216	CC0501815A	180PF 50WV
C221,223	CC0503915G	390PF 50WV
C220	CC1001037L	0.01UF 100WV
C219	CD3005614Z	560P 300WV
C13,24,27,28,52,63,72,128,149,168,200,308,344	CE0251067Z	10UF 25WV
C90,188,198	CEO252267Z	22UF 25WV
C42,43,45,110,154,183,261	CE0254767Z	47UF 25WV
C137,166,260	CE0161077Z	100UF 16WV
C161,185	CE0163377Z	330UF 16WV
C118	CE0164777Z	470UF 16WV
C269,270	CE0251087Z	1000UF 25WV
FL1	EFCFW455HT	C.FILTER
FL2	EFCFE107MX	C.FILTER
FL3	EFX8106952	CRYSTAL 10M4D (10.695MHz)
X1	EYCAB10240	CRYSTAL 10.240MHz
X2	EYCAA15360	CRYSTAL 15.360MHz
X3	EYBAA12660	CRYSTAL 12.660MHz
X4	EYBAE10697	CRYSTAL 10.697MHz
IC5	ENMA00612Z	I.C AN-612
IC9	ENSM06130Z	I.C 14P
Q63	T2SC02538Z	TR 2SC2538
D91,92,93	ED1N04148Z	DIODE 1N4148
L2,3	ECIFT12002	I.F.T
L41-43,45-47	ECIFT12012	I.F.T
L20	ECIFT12013	I.F.T
L18,19	ECIFT12016	I.F.T
L1,11	ECIFT12252	I.F.T
L5	ECIFT12253	I.F.T
L38	ECIFT12255	I.F.T
L9,10	ECIFT12256	I.F.T
L12	ECIFT12257	I.F.T
L17,37	ECIFT12258	I.F.T
L15	ECIFT12263	I.F.T
L34	ECIFT12559	I.F.T
L35	ECIFT12560	I.F.T
L6	ECIFT12290	I.F.T
L7	ECIFT12440	I.F.T
L8	ECIFT12492	I.F.T
L4	ECIFT12526	I.F.T
L503	ECCHK16000	CHOKE COIL
L27,28,31	ECCHK16070	CHOKE COIL
T1	ECCHK16004	CHOKE COIL
L23,24	ECSPG18003	SPRING COIL
L25	ECSPG18077	SPRING COIL
L29	ECSPG18001	SPRING COIL
L26	ECSPG18365	SPRING COIL
L14,33	ECBAD18526	BEAD COIL
L32	ECRFZ10048	RF COIL
VR8,9,13,17,19	RE10200041	S/F/R 1K
VR14,15	RE50200042	S/F/R 5K
VR1,2,7,16,18	RE10300031	S/F/R 10K
VR10	RE10400043	S/F/R 100K
VR3,4	RE50400087	S/F/R 500K
VR11,12	RE10100074	S/F/R 100 Ω
CW,EXT SP	EX06N41045	EAR JACK
J12	EX07N41227	P/C/S 3P
J17	EX07N41330	P/C/S 2P
J1,11,20,21,19,32,35	EX07N48223	P/C/S 2P
J7,29,31,3	EX07N48350	P/C/S 3P
J2,9	EX07N48490	P/C/S 4P
J6	EX07N48222	P/C/S 5P
J10,13,15	EX07N48331	P/C/S 6P
J28	EX07N48543	P/C/S 9P
J26	EX07N48209	P/C/S 10P
J30	EX07N48244	P/C/S 3P
J27	EX07N48884	P/C/S 6P
J27,30	EX07N48151	SHORT PIN
TP1,2,3,5,11,12	EX07N48612	P/C/S 1P
J5	EX07N49140	P/C/S 2P
TP7-9	XZZZ90006Z	PCB STOPPER
L30,36	WX01070710	JUMPER WIRE
L503	WX0012015A	TUBE
L504	WH0007005Z	LEAD WIRE
R153,308,317,318,328,367,307,203,C266,C267,D117,D118,D119,D120,D121,D122,D123,D124	RCY010004Z	C/F/R 0 Ω
R277	RCY014794Z	C/F/R 4.7 Ω
R369	RCY011004Z	C/F/R 10 Ω
R293	RCY011504Z	C/F/R 15 Ω
R272,273	RCY012204Z	C/F/R 22 Ω
R246	RCY013304Z	C/F/R 33 Ω
R115,152,226,281	RCY014704Z	C/F/R 47 Ω
R125,227,231	RCY015604Z	C/F/R 56 Ω
R11,105	RCY016804Z	C/F/R 68 Ω
R3,5,8,33,36,78,81,97,126,154,182,186,263,286,289,360	RCY011014Z	C/F/R 100 Ω
R35,104,253,276,280	RCY011514Z	C/F/R 150 Ω
R23	RCY011814Z	C/F/R 180 Ω
R130,150,190,262,136	RCY012214Z	C/F/R 220 Ω
R32,103	RCY012714Z	C/F/R 270 Ω
R6,10,16,279,282,306	RCY013314Z	C/F/R 330 Ω
R24,176,202,250,259,304,347,354	RCY014714Z	C/F/R 470 Ω
R292	RCY015614Z	C/F/R 560 Ω
R4,50,90,224	RCY016814Z	C/F/R 680 Ω
R74	RCY018214Z	C/F/R 820 Ω
R64,67,71,75,101,117,118,120,123,146,147,148,151,178,192,199,207,213,225,233,244,249,255,257,258,266,267,268,269,271,287,294,297,322,326,329,341,344,349,351,356,357,358,96,D126	RCY011024Z	C/F/R 1K Ω
R91,205	RCY011224Z	C/F/R 1.2K Ω
R56,79,80,89,100,127,220,221,237,260,278,283,299	RCY011524Z	C/F/R 1.5K Ω
R235,247	RCY011824Z	C/F/R 1.8K Ω
R27,30,70,73,95,116,121,144,209,214,254,288,302,310,311,320	RCY012224Z	C/F/R 2.2K Ω
R9,25,31	RCY012724Z	C/F/R 2.7K Ω
R18,28,66,113,124,128,184,204,230,298,305	RCY013324Z	C/F/R 3.3K Ω
R52,58	RCY013924Z	C/F/R 3.9K Ω
R29,38,72,86,132,206,211,212,215,216,256,261,175	RCY014724Z	C/F/R 4.7K Ω
R87,94,201,290,291	RCY015624Z	C/F/R 5.6K Ω
R14,42,43,69,85,342,352	RCY016824Z	C/F/R 6.8K Ω
R92,300	RCY018224Z	C/F/R 8.2K Ω
R1,13,17,39,40,41,57,65,68,83,88,128,131,135,140,142,177,179	RCY011034Z	C/F/R 10K Ω

,188,194,217,223,228		
,239-243,248,251,252		
,296,301,323,324,346		
,348,350,362		
R191,137	RCY011234Z	C/F/R 12K Ω
R193	RCY011534Z	C/F/R 15K Ω
R34,93,110,133,134,	RCY012234Z	C/F/R 22K Ω
138,139,141,187,222		
R122	RCY012734Z	C/F/R 27K Ω
R2,264	RCY013334Z	C/F/R 33K Ω
R46	RCY013934Z	C/F/R 39K Ω
R7,62,63,99,143,155-	RCY014734Z	C/F/R 47K Ω
157,160-165,166-173,		
149,198,200,119,134,		
343,345,353,355,236		
R26,107,112,181	RCY016834Z	C/F/R 68K Ω
R45	RCY018234Z	C/F/R 82K Ω
R12,44,48,49,51,53,	RCY011044Z	C/F/R
76,77,106,109,114,		100K Ω
195,197,232,238,284,		
285,303,295,361		
R47,59,84,119,145,	RCY012244Z	C/F/R
210,218		220K Ω
R54,55,183,185,189	RCY012744Z	C/F/R
		270K Ω
R15,37,111,196,219	RCY014744Z	C/F/R
		470K Ω
R102	RCY018244Z	C/F/R
		820K Ω
R108	RCY011054Z	C/F/R 1M Ω
R208	RCY011554Z	C/F/R
		1.5M Ω
C236,248,249	CK1010AB1A	1PF 50WV
C294,288,61,218	CK1020AB1A	2PF 50WV
C211	CK1030AB1A	3PF 50WV
C68,69,86,88,120,253	CK1050AB1A	5PF 50WV
C1,57,11,155	CK1100AB2A	10PF 50WV
C247	CK1120AB4A	12PF 50WV
C97	CK1150AB4A	15PF 50WV
C51,98,212	CK1180AB4A	18PF 50WV
C79	CK1220AB4A	22PF 50WV
C44	CK1270AB4A	27PF 50WV
C30,89,134,140,300	CK1330AB4A	33PF 50WV
C243	CK1470AB4A	47PF 50WV
C96,60	CK1680AB4A	68PF 50WV
C8	CK1820AB4A	82PF 50WV
C4,160,129,130	CK1101AB5A	100PF 50WV
C62	CK1121AB5A	120PF 50WV
C242	CK1181AB5A	180PF 50WV
C35,237	CK1221AB5A	220PF 50WV
C39	CK1271AB5A	270PF 50WV
C11,14	CK1331AB5A	330PF 50WV
C83,228	CK1471AB5A	470PF 50WV
C29	CK1561AB5A	560PF 50WV
C227	CK1681AB5A	680PF 50WV
C206	CK1390AB4D	39PF 50WV
C205	CK1151AB5D	150PF 50WV
C144	CK1060AB2G	6PF 50WV
C289,290,291	CK1100AB2G	10PF 50WV
C143	CK1680AB4G	68PF 50 WV
C287	CK1101AB5G	100PF 50WV
C142	CK1121AB5G	120PF 50WV
C202	CK1151AB5G	150PF 50WV
C321	CK1181AB5G	180PF 50WV
C95	CK1271AB5G	270PF 50WV
C203	CK1331AB5G	330PF 50WV
C99	CK1391AB5G	390PF 50WV
C48,64,91,111,112,	CK2104AB7R	0.1UF 25WV
122,123,131,136,141,		
146,345,152,156,179,		
182,210,225,229,230,		
231,239,245,246,257,		
263,271,275,278,279,		
280,282,285,286,295,		
301,302,304,307,309,		
310,311,312,313,320,		
326,224,345		
C2,3,6,9,15,21,22,25	CK1103AB6U	0.01UF 50WV
,33,34,37,59,65-67,		
70,71,73,76,82,87,92		
,105,115,116,126,127		
,139,148,153,158,159		
,175,176,177,196,197		
,201,207,226,232,234		
,235,238,240,250,251		
,254,255,268,281,292		
,297,298,303,324,325		
,340,341,342,346,350		
C7,31,36,47,55,58,93	CK1102AB7L	0.001UF
,104,133,135,145,150		50WV
,178,181,190,191,192		
,204,259,265,322,349		
,121		
C5,23,26,41,56,74,77	CK1473AB7R	0.047UF
,78,80,81,94,101,106		50WV
,109,119,125,157,162		
,170,199,258,262,272		
,274,277,283,284,296		
C10	CK2474AB7R	0.47UF 25WV
C38,49,165,174,193	CK1223AB6U	0.22UF 50V
C171	CK1153AB6U	0.015UF
		50WV
C12	CK1222AB7R	0.0022UF
		50WV
C40,50,53,54,172,173	CK1472AB6U	.0047UF
,184,241,343		50WV
C186,348	CK2224AB7R	0.22UF 25WV
C169,233,264	CK5225AA7R	2.2UF 16WV
C32,84,180,194,195,	CK5105AB7R	1UF 16WV
256,306,299		
C124	CTY161046Z	0.1UF 16WV
C163	CTY162246Z	0.22UF 16WV
C164,167,213,351,	CTY161056Z	1UF 16WV
138		
C100	CTY162256Z	2.2UF 16WV
C102	CTY164746Z	0.47UF 16WV
C46,103,189,323	CTY164755Z	4.7UF 16WV
IC1	YNJR00324M	NJM324M 14P
IC6	YNJR04558M	NJM4558M 8P
IC3,4	YNMC14008D	I.C 16P
IC2	YNMC45106D	I.C 20P
Q19	TY2SC3356Z	TR 2SC3356
Q34,47,49,67	TY2SB0798Z	TR 2SB798DL
Q3,5,6,8,15,18,28,40	TY2SC2712G	TR
,43,44,45,48,50,53,		2SC2712GR
55,57,65,68,69,71,32		
Q7,41	TY2SA1298Y	TR 2SA1298Y
Q1,2,10,11,12,13,14,	TY2SC2714Z	TR 2SC2714
22,23,24,25,29,33,35		
,36,58,59,64		
Q16,17,26,27,52,54,	TYZRN1403Z	TR RN1403
56,70		
Q42	TYZRN2403Z	TR RN1403
Q20,21	FY2SK0302Z	F.E.T
D2-10,12-17,20,23-31	EDSS00355Y	DIODE
,33,35-41,48,50-52,		1SS355
54-63,67,69-77,80-85		
,87,99-104,110,115,		
116,125,128,129,130,		
132,134,135,136,148,		
149,150,152		
D89,90,94,109	ED1N04148Y	DIODE
		1N4148
D78,79,86,88,137,138	EDSS00184Y	DIODE
,139,140,141,142,143		1SS184-
,144,145,146,147,151		TE85L
,153		
D21,49,95,108,113,	ED1V00231Y	DIODE
114,127		1SV217-TP
D22,96,97,107	ED1V00231Y	DIODE
		1SV231
D1,11,34	EDHM0198SY	DIODE
		HSM198S
D18,19,154,155	EDRS00135Y	DIODE
		RLS135
D65,98	EDMA0028TY	DIODE MA28T
D53,66	EDMA0028WY	DIODE MA28W
D105,106	EDRL04004X	DIODE
		RLR4004
D64	EDZD05519Z	ZENER DIODE
D68	EDZD05759Y	ZENER DIODE
D112	EDZD05569Y	ZENER DIODE
VC1	CV038200AY	TRIMMER/C
L22,39	YCCHK16240	CHOKE COIL
L16	YCCHK16258	CHOKE COIL
L40,44	YCTLI2273C	CHOKE COIL

RCI-6900F TB MISC. PARTS

REFERENCE NUMBER	RANGER PART NO.	DESCRIPTION
-	WA9812300C	DC CORD
-	EX03N40005	SIGNAL METER
-	EX04N40654	MIC BLACK
-	PT9000060I	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 CR
-	MT9000010X	FRONT CHASSIS
-	MT3600040S	CHANNEL BKT
-	MT3600061X	TOP HPUSING
-	MT3600071P	BOTTOM HOUSING
-	MT3600030S	HANDLER
-	XZZZ90004Z	FOAM 14x16x20mm
-	XZZZ90208Z	SPONGE 20x20x3t
METER STOPPER	XZZZ90232Z	FOAM 14x14x5
-	GZZZ50000Z	CLAMP
-	LZZZ60001Z	SHIELD CLOTH 10x88x0.3t
-	XZZZ90098Z	SOLDER PLATE
-	XZZZ90021Z	FOAM 11x30x15t
-	XZZZ90064Z	INSULATING PLATE 13x18x0.15
-	BA0112010P	MIC PLATE
COUNTER	XZZZ90363Z	PVC STAND OFF
COUNTER	JS013016WH	SET SCREW W3x16-1
FRONT PANEL(4)	JS033008MN	SET SCREW M3x0.5Px8
CH BKT(2), CHASSIS(14)	JS053006MN	SET SCREW M3x0.5Px6
SPK(4)	JS053008MN	SET SCREW M3x0.5Px8
MAIN PCB(5)	JS053006TN	SET SCREW T3x6-2
SPK(4)	JN263035ZS	NUT WITH WASHER M3x3.5t
-	EX06N41163	DC SOCKET
-	EX06N41036	TERMINAL CONNECTOR
-	EX06T41019	ANT SOCKET
-	MT3600190X	SET CHASSIS
Q54	XZZZ90020Z	INSULATING PLATE
Q47,Q49	XZZZ90003Z	INSULATING RING
Q47,Q49	XZZZ90358Z	INSULATING PLATE
IC8	LZZZ61008Z	IC SHIELD B
Q37	JS052006MN	SET SCREW M2x0.4Px6
Q47,Q49	JS052012MN	SET SCREW M2x0.4Px12
IC8	JS013006MV	SET SCREW M3x0.5Px6
-	JS052010MN	SET SCREW M2x0.4Px10
Q47,Q49	JN242012ZS	NUT M2x1.2t
-	MT2950050X	SHIELD COVER A
-	MT2950060X	SHIELD COVER B
-	MT2950070X	SHIELD COVER C