

As forward biasing current increases, the impedance decreases to a low level. Therefore, the RF level of the signal applied to Q6 increases as the bias current from the power control circuit increases.

5.2.2.2 PA RF DEVICE (Q6)

Impedance matching for Q6 is provided by several capacitors, inductors, and sections of microstrip. Q6 is an N-channel enhancement mode lateral MOSFET. The bias voltage (which is required for the device to turn on) is controlled by the transmit signal. It is applied to the gate and controlled by the logic through shift register U1. Therefore, this device is turned off in the receive mode which improves isolation. Several capacitors, inductors, and resistors isolate this supply from RF. Likewise, the 13-volt RAW BAT supply applied to the drain is isolated by similar components.

From the output of the variable attenuator, the signal is fed to Q6. Q6 operates as a single-ended device. It produces an output power of up to 35 watts.

5.2.2.3 FORWARD POWER DETECTOR, ANTENNA SWITCH, LOW-PASS FILTER

The power control circuit senses Q6 output power to control the power output. A directional coupler senses the forward power signal. This signal is then rectified by CR8 and applied to the power control circuit. This signal is a DC voltage that increases in proportion to the level of forward power. Refer to Section 5.2.2.4 for more information on power control.

PIN diodes CR9, CR11, CR12, and CR15 form an antenna switch that switches the antenna to the transmitter in the transmit mode and the receiver in the receive mode. As stated in Section 5.2.2.1, PIN diodes have very high impedance when in the off mode and very low impedance when forward biased. Transistors Q7 and Q9 are on in the transmit mode and off in the receive mode.

In the transmit mode all four diodes are forward biased. The transmit signal then has a low impedance path through CR9 to the low-pass filter and is blocked from the receiver by a grounded quarter-wave line formed by C64, L15, and C66. A grounded quarter-wave line presents very high impedance at the non-grounded end. PIN diodes CR11 and CR15 and a second quarter-wave line formed by C76, C77, and L17 provide additional isolation.

In the receive mode, all four diodes are in the off mode. Therefore, the receive signal from the antenna is blocked from the power amplifier by CR9 and has a low impedance path through L15, C74, L17, and C67 to the receiver in the RF module.

From the antenna switch the RF signal is applied to a low-pass filter formed by L11-L13 and several capacitors and sections of microstrip. This filter attenuates harmonic frequencies above the transmit band that could cause adjacent channel interference. R53 dissipates static buildup in the antenna.

5.2.2.4 POWER CONTROL

Introduction

The power control circuit maintains a constant power output as changes occur in power amplifier temperature and voltage. It does this by sensing forward power and then varying the drive to Q6 to maintain a constant output power. The drive to Q6 is controlled by varying the voltage applied to the variable attenuator circuit described in Section 5.2.2.1. In addition, the current applied to final amplifier Q6 is sensed, and if it becomes excessive, power is cut back to a low level.

The power output level is set in 127 steps by a Digital-to-Analog (D/A) converter formed by shift register U1 and several resistors. This converter is controlled by the microcontroller to provide the following functions:

- It allows the RF power output level to be adjusted using the PCTune™ software.
- It allows the microcontroller to cut back power if the power amplifier temperature sensed by thermistor TR1 becomes excessive.
- It allows high and low power levels to be selected by the user or to be fixed by programming using the PCConfigure™ software.

Forward Power Sense

The forward power signal from the directional coupler is applied to pin 2 of amplifier U2-A. This is a DC signal that increases proportionally to forward power. The other input to U2-A on pin 3 is a DC reference voltage from the D/A converter. This signal sets the power output of the transmitter.

U2-A is a difference amplifier which amplifies the difference between the reference voltage on pin 3 and the forward power signal on pin 2. The turn-on time of U2-A is controlled by the time constant of C17 and R28, and negative AC feedback to prevent oscillation is also provided by C17.

This circuit operates as follows: Assume the output power attempts to increase. The DC voltage applied to U2-A, pin 2 then increases which causes the output voltage on pin 1 to decrease. Transistors Q1 and Q2 then turn off slightly which decreases the supply voltage to the variable attenuator circuit. The input power to Q6 then decreases. The Q10 output power then decreases to maintain a constant power output. R26 and R24 limit the voltage gain of Q2 and Q1 to approximately two volts.

Delayed PTT

Transistor Q3 is used to delay power output for a short time after the transmitter is keyed. This allows the synthesizer and exciter to stabilize so that the transmitter does not transmit off frequency. The signal which controls Q3 is from microcontroller on the logic board. In the receive mode this output is low, so Q3 is off. Pin 2 of U2-A is then pulled high by the 8-volt supply applied through R29 and CR1. This causes the output on pin 1 of U2-A to go low which shuts off Q2 and Q1. Then when the transmitter is keyed, after a short delay Q3 then turns on and diode CR1 is reverse-biased. Only the forward power signal is then applied to pin 2 of U2-A.

Over-Current Shutdown

Current to Q6 is monitored by sensing the voltage drop across R33. Pins 3 and 6 of U3 are connected across this resistor. As current increases, the output voltage on U3 pin 8 increases. This voltage is applied to Schmitt trigger U2-B. When the voltage on pin 6 rises above the reference on pin 5, the output on pin 7 goes low. This lowers the voltage applied to U2-A, pin 3 which

lowers the power control voltage to the variable attenuator. This results in lowering the power output to approximately 25% of full power.

SECTION 6 ALIGNMENT PROCEDURE

6.1 GENERAL

6.1.1 INTRODUCTION

The following alignment procedure should be performed if repairs are made that could affect the factory alignment or if adjustments may have changed for some other reason. To verify radio operation, the performance tests in Sections 6.5 and 6.6 can be run. To perform transceiver alignment, the following are required:

- PC-compatible computer
- Remote Programming Interface (RPI), Part No. 023-5300-000.
- PCTune software, Part No. 023-9998-499.

All adjustments are set digitally using the computer. Therefore, there is no need to disassemble the transceiver to access adjustment points. In addition, audio test signals are generated internally, so an audio generator is not required. The required test equipment is shown in Figure 6-1.

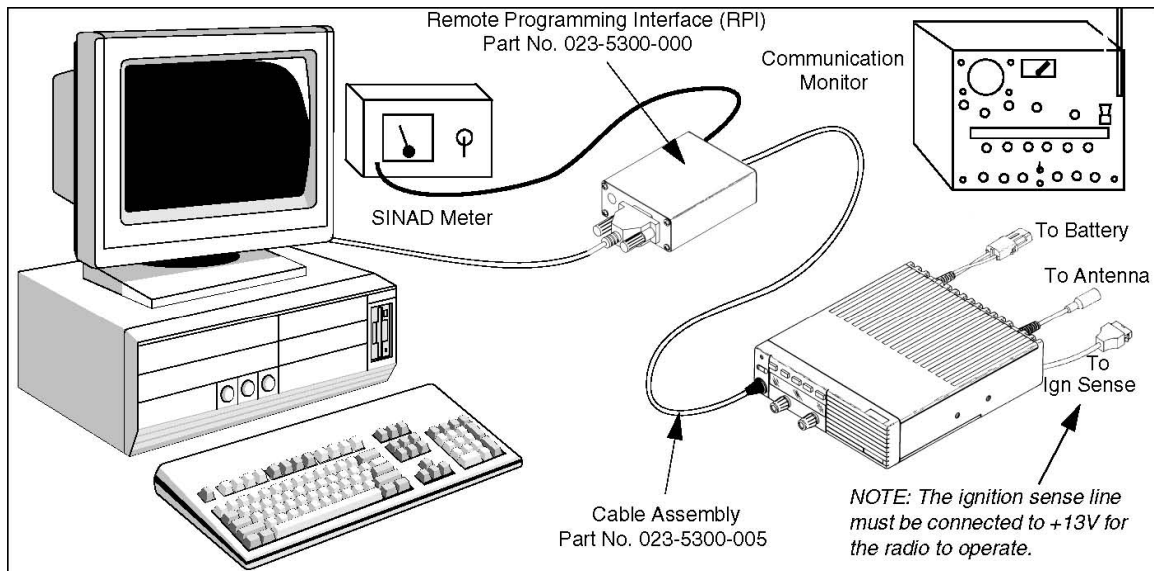


Figure 6-1 Alignment Setup

6.1.2 TUNE SOFTWARE

General

The PCTune software is a Windows® program. Minimum software and hardware requirements are as follows:

- Windows® 95/98/NT/2000 (3.1 cannot be used)
- Pentium® processor or equivalent
- 16 MB of RAM
- A hard disk drive with at least 3 MB of free space
- A CD-ROM drive
- An available serial port

Software Installation

Proceed as follows to install this software:

1. Close all applications that are currently running (other than Windows).
2. Insert the CD-ROM containing the PCTune software into the drive.
3. From the Windows taskbar, choose RUN and open SETUP.EXE on the drive being used. Alternatively, use File Explorer and double click SETUP.EXE.
4. Follow the instructions on the screen. The program is automatically loaded on the hard drive and startup shortcuts or groups are created.

Starting PCTune

Select Start in the taskbar, then Programs > PCTune > PCTune.

Exiting PCTune

Select File > Exit or click the button.

Online Help

Online help is not available.

6.1.3 PCTUNE VERSION REQUIRED

PCTune, Version 2.0.0 or later is required to tune the RF board. The version number can be displayed by selecting the Help > About menu.

6.2 MAIN SCREEN

The main PCTune screen is shown in Figure 6-2. Information on the various parts of this screen follows:

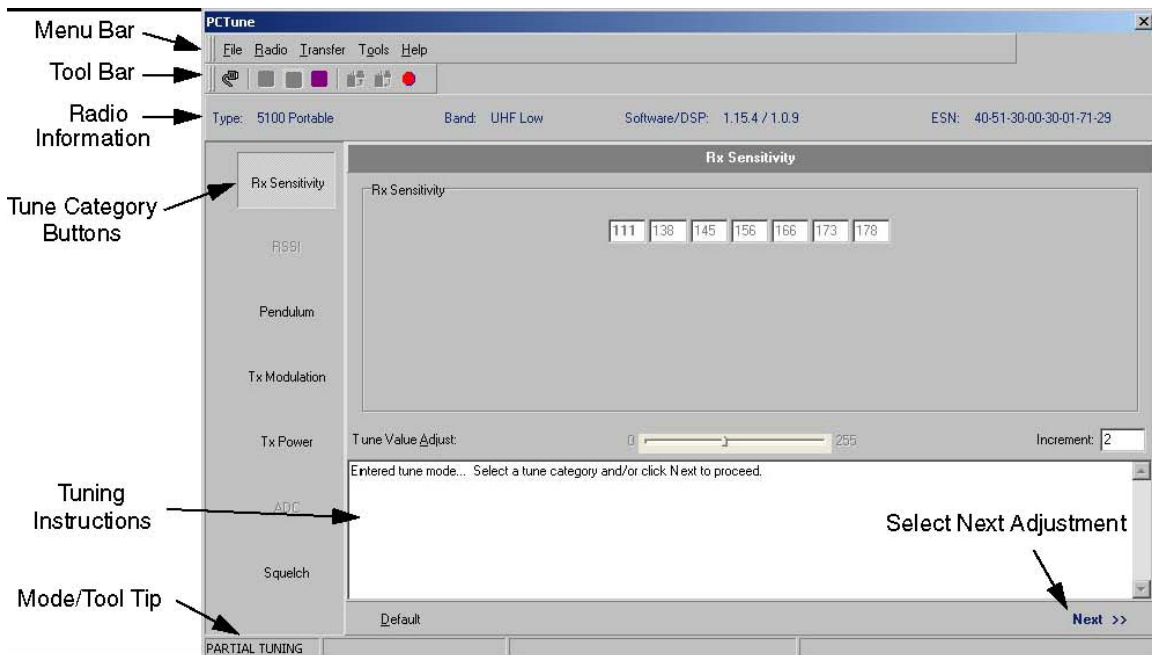


Figure 6-2 PCTune Main Screen

Menu Bar - Used to select the menus described in Sections 6.3.1-6.3.5.

Tool Bar - These buttons are used to quickly select functions as follows:



- Displays the screen used to set serial port parameters (see Section 6.3.3).



- Selects the Partial Tune mode the same as the Transfer > Tune Partial menu (see Section 6.3.3) This mode allows manual selection of the desired Tune Category and then automatically steps through the various settings for that adjustment.



- Selects the Edit Mode which allows parameters in the selected screen to be changed without stepping through each adjustment.



- Reads and displays the current parameters programmed in the radio the same as the Radio > Read Tune Parameters menu (see Section 6.3.3).




- Writes the current tune parameters to the radio the same as the Transfer > Write Tune Parameters menu (see Section 6.3.3). This occurs automatically when a Partial Tune adjustment is completed.



- Exits the current Tune Category without writing parameters to the radio.

Radio Information

When tuning parameters are read from a radio by clicking the  button or selecting the Transfer > Read Parameters menu, the following information is displayed in the top part of the screen:

Type - The Radio Series selected by the Radio menu (see Section 6.3.2). The correct series must

be selected for communication with the radio to occur.

Band - The radio frequency band of the radio displayed after information is read from radio. Do not select the band using Tools > Set Band (Section 6.3.4) because this may make the radio nonfunctional.

Software DSP - The first number is the version number of the radio firmware (Flash/operating code), and the second number is the version number of the DSP software.

ESN - The Electronic Serial Number electronically stored in the radio.

Tuning Categories

These buttons select the tuning adjustment to be performed. Different functions are displayed for the 51xx and 53xx. If the Partial tune mode is selected, these buttons select the particular adjustment that is performed.

Mode/Tool Tip

Information on the bottom line of the screen indicates the current tune mode and information on the selected button on other information.

6.3 MENU BAR DESCRIPTION

6.3.1 FILE MENU

Selecting File > Exit closes the PCTune program.

6.3.2 RADIO MENU

[Insert 4300 radio menu]

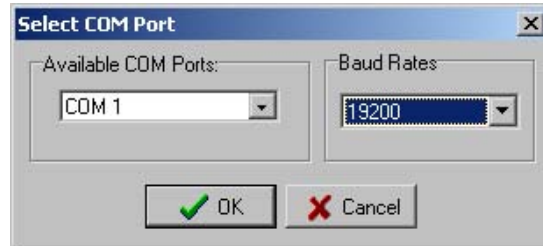
The Radio menu shown above selects the radio type. [Insert correct selections for 4300] The correct radio type must be selected for communication with the radio to occur.


6.3.3 TRANSFER MENU




COM Ports - Displays the following screen which selects the serial port (1-12) and baud rate

(9600/ 19200) used for communication with the radio. Select the computer port to which the test cable is connected (see Section 6.4.1), and 19200 baud is normally selected. These parameters default to the last selected condition the next time the program is started.




Read Tune Parameters - Selecting this function or clicking the  button reads the tune parameters currently programmed in the transceiver and displays them in the various screens.

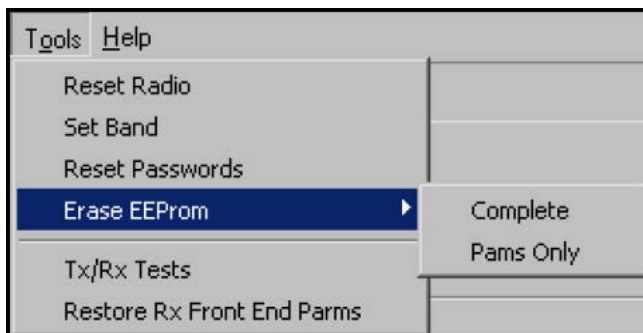
NOTE: Values in the various screens are for reference only and adjustments should be done only by using the Partial Tune function.

Write Tune Parameters - Selecting this function or clicking the  button writes the current tune parameters to the radio. This occurs automatically when a Partial Tune adjustment is completed.

Tune Complete – Not available. This function automatically steps through all the tests required to tune the radio.

Tune Partial - Selecting this function or clicking the  button selects the Partial Tune mode. This mode automatically steps through all the adjustments of the currently selected Tune Category.

6.3.4 TOOLS MENU



Reset Radio - Resets the radio control logic similar to cycling power. This can be used, for example, to change the radio series or band or exit an adjustment before it is complete.

Set Band - Selects the operating band of the radio. All tuning values are reset to the factory defaults.

CAUTION: Do not select this function because it can make the radio non-functional.

Reset Passwords - Erases all password information contained in the radio. This function can be used, for example, to allow reprogramming of passwords if they are lost. *NOTE: Radio personality information is not erased by this function.*

Erase EEPROM

CAUTION: This function erases important radio programming information as described below.

Complete -Erases all EEPROM information, including factory programmed parameters.

CAUTION: Do not select this function because the radio must be returned to the factory to make it operational again.

Parms Only - Erases all personality information.

NOTE: The radio must be reprogrammed after this function is selected.

Tx/Rx Tests - Selects a screen which is used to check digital (Project 25) receive and transmit performance. Refer to Section 6.5 for more information.

Restore Rx Front End Parameters - Programs the radio with default receive front end tune parameters. Other parameters remain unchanged.

6.3.5 HELP MENU

Displays the version number of the PCTune software and other information.

6.4 TUNING PROCEDURE

6.4.1 CONNECTING TEST SETUP

1. With transceiver power turned off, connect the RPI to an unused serial port of the computer using a suitable cable (see Section 4.1.3).
2. Connect the RPI to the microphone jack of the transceiver using programming cable, Part No. 023-5300-005 (see Figure 6-1).
3. If the receiver squelch adjustment will be made, connect a SINAD meter to the Speaker Audio Out jack on the RPI (see Figure 6-3). This is a low level fixed audio output, and a 2.6 mm (3/32") phone jack is used.

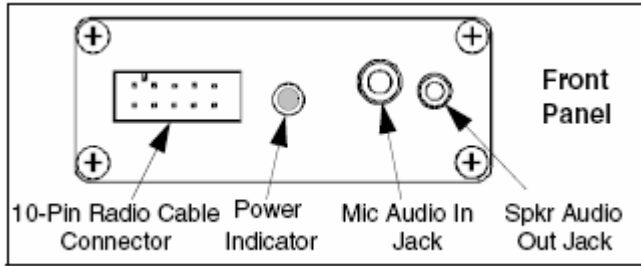


Figure 6-3 RPI Front Panel

4. Connect a wattmeter and a suitable load to the antenna jack of the transceiver for the transmitter tests. For the receiver tests, connect the signal generator to the antenna jack through a 6 dB or greater isolation pad.

6.4.2 STARTING AND CONFIGURING PCTUNE

1. Start the program as described in Section 6.1.2 and turn transceiver power on. Select Transfer > COM Port and make sure that the correct serial port and the 19200 baud rate are selected (see Section 6.3.3).
2. Select the Radio menu and make sure the correct radio series (43xx) is selected [What is the correct menu selection?] (see Section 6.3.2).
3. Select Transfer > Partial Tune and click the button for the desired Test Category.
4. Follow the instructions displayed on the screen to complete the various adjustments required for a particular setting. Then repeat for other applicable Test Categories.

6.5 DIGITAL PERFORMANCE TESTS

6.5.1 GENERAL

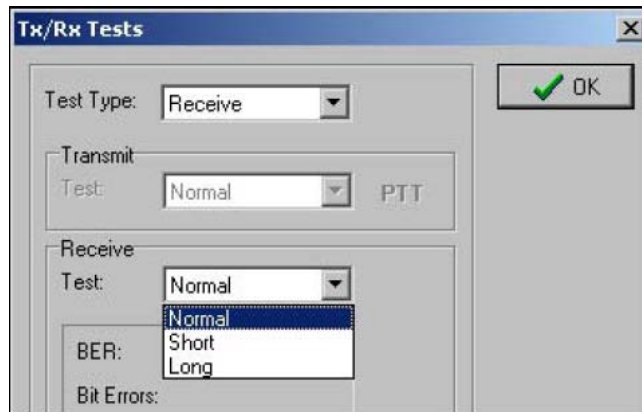
This section describes how to check the performance of the radio on digital Project 25 channels. The PCTune software includes a Tools > Tx/Rx Tests menu that displays the screen used for these tests.

- To perform these tests, a Digital Communication Analyzer such as Motorola R2670 or IFR 2975 is required.
- These tests follow the TIA-102-CAAA-A “Digital C4FM/CQPSK Transceiver Measurement Methods” specification. Refer to that document for more information.
- A P25 conventional channel preprogrammed by the PCConfigure software is used for testing. The PCTune software does not select a specific test channel. The test channel must be programmed with the following options:

NAC - 293 (hex)
TGID (Talk Group ID) -1
Frequency - Any frequency in radio operating band

6.5.2 RECEIVE TEST SETUP

1. Connect the test setup and start and configure the PCTune software as described in Section 6.4. Select the Tools > Tx/Rx Tests menu to display the Tx/Rx Tests screen. Then in the Test Type drop-down list select Receive to display the following screen.



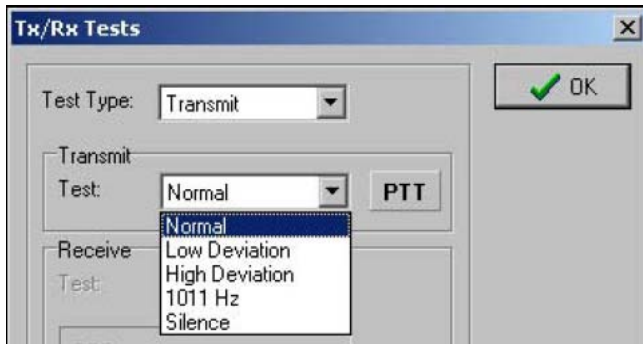
2. Connect the Digital Communication Monitor to the antenna jack using a 6 dB or greater isolation pad. Set the Monitor output for the “1011” test pattern.

6.5.3 RECEIVE SENSITIVITY TEST

1. A tone should be heard from the radio speaker if the analyzer is set properly. Select the “Short” or “Long” test in the Test drop down list and the radio should mute.
2. Set the analyzer output level for $0.35 \mu\text{V}$ (-116 dBm) at the receiver antenna jack. The Bit Error Rate (BER) should be 5% or less. (This is a ratio of the receive bit errors to the total number of bits transmitted.)
3. Increase the analyzer output level to $1000 \mu\text{V}$ (-47 dBm). The BER rate should be less than 0.01%. This is the BER Rate Floor.

6.5.4 TRANSMITTER TESTS

1. If applicable select the Tools > Tx/Rx Tests menu to display the Tx/Rx Tests screen. Then in the Test Type drop-down list select Transmit to display the following screen. Connect a dummy load to the radio antenna jack. Monitor the transmit signal with the Digital Communication Monitor.



2. Select the **Low Deviation** test and set the analyzer as required to measure transmitter deviation. This test generates continuous repetitions of bits 10100000. Deviation should be 848-1037 Hz.
3. Click the “PTT” button to transmit the tone. When finished, click that button again to turn the transmitter off.
4. Select the “**High Deviation**” test which transmits a standard transmitter test pattern. Deviation should be 2544-3111 Hz.
5. The “**1011 Hz**” test transmits a standard 1011 Hz tone similar to that used for the receiver test. This tone can be used to check the operation of other radios.
6. The “**Silence**” test transmits a standard silence test pattern which produces no receive audio output by the receiving radio. This tone can also be used to test other radios.
7. Select “**Normal**” to transmit a standard voice signal by speaking into the radio microphone.

6.6 ANALOG PERFORMANCE TESTS

6.6.1 GENERAL

The PCTune software is not used for analog channel performance testing. Simply program the desired channels using the PCConfigure software as described in Section 4. The RPI is still required to monitor the audio output signal from the radio.

Depending on the application, 12.5 kHz and 25 kHz test channels may need to be programmed. Also, test channels programmed with or without Call Guard[®] (CTCSS/DCS) squelch control may be required.

6.6.2 RECEIVER PERFORMANCE TESTS

1. Connect a signal generator to the antenna jack using a 6 dB or greater pad. Set the output for the channel frequency, modulated with 1 kHz at the following deviation:
12.5 kHz Channels - 1.5 kHz
25 kHz Channels - 3.0 kHz
2. Connect a SINAD meter to the receive audio jack of the RPI (see Figure 6-3) This is a low level fixed audio output.

SINAD Sensitivity

3. Set the signal generator output level for 1000 μV (-47 dBm) at the antenna jack.
4. Decrease the signal generator output to obtain 12 dB SINAD. The signal generator output should be 0.35 μV (-116 dBm) or less for 25 kHz channels, or 0.50 μV (-113 dBm) or less for 12.5 kHz channels.

Audio Power Output and Distortion

5. Connect a distortion meter across the speaker load. Return the generator output to 1000 μV . Distortion should be 3% or less.

Squelch Sensitivity

6. Increase the signal generator output from zero and note the SINAD when unsquelching occurs. It should be approximately 8 dB.

6.6.3 TRANSMITTER PERFORMANCE TESTS

1. Connect a wattmeter and dummy load to the antenna jack. Monitor the transmit signal with a communication monitor.

Transmit Frequency

2. Monitor the transmit frequency and at room temperature it should $\pm 100\text{ Hz}$. At other temperatures [-22° to $+140^\circ\text{ F}$ (-30° to $+60^\circ\text{ C}$)], it must be within 2.5 PPM. This also checks the receive frequency.

Transmit Power

3. Transmit power should be in the following ranges. High and low levels can be preset anywhere in this range by PCTune. The factory default for high power is the maximum shown below, and low power is half that value.
Standard Models -10-50 Watts

Transmit Modulation

4. Monitor the transmit modulation with a modulation meter. Speak into the microphone with a normal voice. Modulation should be approximately as follows with no CTCSS/DCS signaling present:
12.5 kHz Channels - 1.4 kHz
25 kHz Channels - 3.4 kHz

5. Select a channel programmed with Call Guard (CTCSS/DCS) signaling. Maximum total Call Guard and voice modulation should be approximately as follows:
12.5 kHz Channels - 2.3 kHz
25 kHz Channels - 4.7 kHz

SECTION 7 PARTS LIST

SECTION 7 PARTS LIST

Ref No.	Description	Part No.
CHASSIS, HARDWARE, AND MISCELLANEOUS		
A 200	Interface board assembly (see separate listing which follows)	023-5500-200
A 300	Receiver/exciter assembly (VHF) (see separate listing on page TBD)	023-5517-212
	Receiver/exciter assembly (UHF) (see separate listing on page TBD)	023-5567-212
A 301	Accessory pigtail cable (internal)	597-2002-230
A 302	Remote/acc pigtail cable (internal)	597-2002-249
A 303	Remote pigtail cable (internal for second control unit)	597-2002-251
A 400	Logic board assembly (see separate listing on page TBD)	023-5500-600
A 500	VHF 50W PA bd assy 50W mod. (see separate listing on page 7- Error! Reference source not found.)	023-5315-531
	UHF 40W PA bd assembly (see separate listing on page 7- Error! Reference source not found.)	023-5365-501
A 810	Front panel assembly (frt mt) (see separate listing on page 7-)	023-5300-810
CH 101	Chassis, std VHF models	015-0970-001
	Chassis, std UHF models	015-0970-002
EP 001	No. 6 terminal lug	586-0005-106
EP 002	Ferrite bead, .375 x .375	517-2002-003
EP 003	Ferrite block (for J200)	517-2002-020
EP 920	Snubber, bot shield for	018-1134-136

	encryp mod	
HW 001	Captive screw, cover	537-9007-045
HW 002	Screw, 6-32 x 5/16 Torx	575-0006-010
HW 003	Plug, option (in unused chassis hole)	032-0792-075
HW 004	Audio amp U1 clip	017-9700-001
HW 005	O-ring, 1/8 x 1/4 cover screw	574-2002-001
HW 006	Nylon washer, cover screw	596-4408-015
HW 007	Split rubber grommet 1/8ID	574-0002-015
HW 009	Flat washer, cover screw	596-9408-009
HW 010	Screw, 4-40 x 5/16 phil pan hd	575-0604-010
HW 011	Washer, No 4 split lock	596-1304-008
HW 012	Washer, No. 4 split lock	596-1304-008
HW 020	1/4 x 1.20 x 1.90 urethane pad	018-1007-250
HW 150	Screw, 4-40 x 5/16 phil pan hd	575-0604-010
HW 151	Screw, 6-32 x 3/8 phil flat hd	575-8206-012
HW 152	Screw, 8-32 x 3/8 hex socket hd	575-9076-012
HW 202	Screw, 4-40 x 1-1/8 mach pan hd	575-1604-036
J 002	RF – PA board connector	515-9006-110
J 200	Connector, 28-pin inline header	515-7181-038
MP 002	Cover, top black	015-0970-007
MP 003	Cover, bottom black	015-0970-009

MP 004	Gasket, blank front panel (remote)	032-0792-068
MP 005	Front panel, blank (remote)	032-0792-005
MP 156	Gasket, top cover	018-1136-136
MP 157	Gasket, bottom cover	018-1136-134
MP 300	Foam tape, dbl side	574-3002-013
MP 505	Grounding clip (rx/ex assy)	017-9700-003
MP 601	Shield, low-pass filter wrap around	017-9700-010
MP 602	Cover, low-pass filter cover	017-9700-011
NP 001	Label, RS 5300	559-5300-100
NP 002	Label, EFJohnson	559-9001-310
W 103	Cable assy, display - logic bd	023-5300-025
W 110	Interface pigtail, motorcycle F DB25	597-2002-280
W 501	Pwr pigtail cable assembly, std PA	597-2002-235
W 502	RF pigtail cable assembly, std PA	597-2002-240

INTERFACE BOARD
Part No. 023-5500-200

C 002	470 μ F 25V electrolytic	510-4064-471
C 003	100 μ F 25V electrolytic	510-4425-101
C 004	1.0 μ F 10V tantalum smd	510-2624-109
C 005	.1 μ F \pm 5% X7R 50V cer smd	510-3609-104
C 006	.1 μ F \pm 5% X7R 50V cer smd	510-3609-104
C 007	.1 μ F \pm 5% X7R 50V cer smd	510-3609-104
C 009	470 pF \pm 5% NPO cer smd	510-3602-471
C 010	.1 μ F \pm 10% X7R 50V cer smd	510-3606-104
C 011	.1 μ F \pm 10% X7R 50V cer smd	510-3606-104
C 012	.1 μ F \pm 10% X7R 50V cer smd	510-3606-104
C 013	4.7 μ F 10V tantalum smd	510-2624-479
C 014	4.7 μ F 10V tantalum smd	510-2624-479
C 015	.01 μ F \pm 5% X7R 50V cer smd	510-3609-103
C 028	.1 μ F \pm 5% X7R 50V cer smd	510-3609-104

C 029	470 pF \pm 10% 25V cer smd	510-3681-471
CR 001	10V zener SOT-23	523-2016-100
CR 002	Switching diode SOT-23	523-1504-002
J 201	Connector, 20-pin	515-7111-230
J 202	Connector, 30-pin	515-7106-430
L 001	270 nH smd inductor	542-9017-274
L 002	270 nH smd inductor	542-9017-274
L 003	270 nH smd inductor	542-9017-274
P 100	Header, 2-pin friction lock	515-9031-201
P 101	Header, 3-pin friction lock	515-9031-202
P 102	Header, 3-pin friction lock	515-9031-202
PC 001	PC board, interface revision 2	035-5500-200 2
Q 001	NPN general purpose	576-0003-658
Q 002	NPN general purpose	576-0003-658
Q 003	NPN general purpose	576-0003-658
Q 004	NPN general purpose	576-0003-658
R 002	2.2 ohm \pm 5% 1W smd	569-0175-229
R 003	10k ohm \pm 5% 1/8W smd	569-0105-103
R 004	47k ohm \pm 5% 1/8W smd	569-0105-473
R 005	10k ohm \pm 5% 1/8W smd	569-0105-103
R 006	7.5k ohm \pm 5% 1/8W smd	569-0105-752
R 008	1k ohm \pm 5% 1/8W smd	569-0115-102
R 009	1k ohm \pm 5% 1/8W smd	569-0115-102
R 010	1k ohm \pm 5% 1/8W smd	569-0115-102
R 011	39k ohm \pm 5% 1/8W smd	569-0155-393
R 012	12k ohm \pm 5% 1/8W smd	569-0155-123
R 013	10k ohm \pm 5% 1/8W smd	569-0115-103
R 014	10k ohm \pm 5% 1/8W smd	569-0115-103
R 015	Zero ohm jumper	569-0115-001
R 016	10k ohm \pm 5% 1/8W smd	569-0115-103
R 017	3k ohm \pm 5% 1/8W smd	569-0115-302

R 018	10k ohm ±5% 1/8W smd	569-0115-103
R 019	Zero ohm jumper	569-0115-001
R 020	10k ohm ±5% 1/8W smd	569-0115-103
R 021	10k ohm ±5% 1/8W smd	569-0115-103
R 022	10k ohm ±5% 1/8W smd	569-0105-103
R 023	12k ohm ±5% 1/8W smd	569-0115-123
R 024	12k ohm ±5% 1/8W smd	569-0155-123
R 025	20k ohm ±5% 1/8W smd	569-0155-203
R 026	13k ohm ±5% 1/8W smd	569-0155-133
R 027	10k ohm ±5% 1/8W smd	569-0115-103
R 028	100k ohm ±5% 1/8W smd	569-0115-104
R 029	100k ohm ±5% 1/8W smd	569-0115-104
R 030	100k ohm ±5% 1/8W smd	569-0115-104
R 031	10k ohm ±5% 1/8W smd	569-0115-103
R 032	10k ohm ±5% 1/8W smd	569-0115-103
R 033	10k ohm ±5% 1/8W smd	569-0115-103
R 034	10k ohm ±5% 1/8W smd	569-0115-103
R 035	10k ohm ±5% 1/8W smd	569-0115-103
R 036	10k ohm ±5% 1/8W smd	569-0115-103
R 037	39k ohm ±5% 1/8W smd	569-0155-393
R 038	470 ohm ±5% 1/8W smd	569-0155-471
R 039	10k ohm ±5% 1/8W smd	569-0155-103
R 040	470 ohm ±5% 1/8W smd	569-0155-471
R 041	10k ohm ±5% 1/8W smd	569-0155-103
U 001	Audio amp, 22W TDA1519	544-2004-003
U 002	Voltage regulator, adj REG103UA	544-2603-057
U 003	Op amp, dual LM2904	544-2019-004
U 004	Dig potentiometer, 2-ch AD8402	544-0004-213
U 006	Voltage regulator, adj REG103UA	544-2603-057
U 007	Multiplexer, triple 4053	544-1014-053
U 008	Voltage regulator, adj REG103UA	544-2603-057
U 009	CPLD prog logic device XC2C64	544-5001-420
U 010	Op amp, dual LM2904	544-2019-004

VHF RECEIVER/EXCITER ASSEMBLY Part No. 023-5517-212		
A 001	Interconnect board assembly (see separate listing which follows)	023-5500-050
A 100	RF board assembly, VHF	585-5500-100
HW 001	Screw, 2-56 x 3/16 pan hd	575-1602-006
HW 002	Screw, 4-40 x 1/4 pan hd	575-1604-008
HW 003	Lockwasher, internal	596-2102-006
HW 004	Washer, split lock #4 ZPS	596-1304-008
MP 002	Metal RF board housing	015-0970-014
MP 003	Cover for housing MP2	015-0970-015
MP 004	Grounding clip	537-5001-005
W 001	Coax assy, right angle	597-3008-001
INTERCONNECT BOARD ASSEMBLY Part No. 023-5500-050		
C 001	39 pF ±5% NPO 50V cer smd	510-3674-390
C 002	39 pF ±5% NPO 50V cer smd	510-3674-390
C 005	39 pF ±5% NPO 50V cer smd	510-3674-390
C 007	39 pF ±5% NPO 50V cer smd	510-3674-390
C 008	39 pF ±5% NPO 50V cer smd	510-3674-390
C 009	39 pF ±5% NPO 50V cer smd	510-3674-390
C 011	39 pF ±5% NPO 50V cer smd	510-3674-390
C 012	39 pF ±5% NPO 50V cer smd	510-3674-390
C 014	39 pF ±5% NPO 50V cer	510-3674-390

	smd	
C 016	39 pF ±5% NPO 50V cer smd	510-3674-390
C 017	.1 μF X7R ±10% 50V cer smd	510-3675-104
C 018	39 pF ±5% NPO 50V cer smd	510-3674-390
C 019	39 pF ±5% NPO 50V cer smd	510-3674-390
C 020	39 pF ±5% NPO 50V cer smd	510-3674-390
C 021	39 pF ±5% NPO 50V cer smd	510-3674-390
C 022	39 pF ±5% NPO 50V cer smd	510-3674-390
C 024	39 pF ±5% NPO 50V cer smd	510-3674-390
C 025	39 pF ±5% NPO 50V cer smd	510-3674-390
C 026	39 pF ±5% NPO 50V cer smd	510-3674-390
C 027	39 pF ±5% NPO 50V cer smd	510-3674-390
C 028	39 pF ±5% NPO 50V cer smd	510-3674-390
C 029	39 pF ±5% NPO 50V cer smd	510-3674-390
EP 001	Ferrite bead smd	517-2503-002
EP 002	Ferrite bead smd	517-2503-002
J 001	Connector, 26-pin ZIF (revised bd)	515-7111-526
J 002	Connector, 30-pin	515-7111-430
PC 001	PC board, interconnect	035-5500-050
R 005	0 ohm jumper	569-0165-001
R 007	0 ohm jumper	569-0165-001
R 008	0 ohm jumper	569-0165-001

VHF 15W PA BOARD ASSEMBLY Part No. nr3-4315-513		
C 001	.01 μF X7R ±10% chp	510-3605-103
C 002	.1 μF X7R ±10% chip	510-3606-104
C 003	.018 μF X7R ±10% chp	510-3605-183
C 004	330 pF NPO ±5% chp	510-3601-331
C 005	.01 μF X7R ±10% chp	510-3605-103
C 006	330 pF NPO ±5% chp	510-3601-331
C 007	330 pF NPO ±5% chp	510-3601-331
C 008	330 pF NPO ±5% chp	510-3601-331
C 009	330 pF NPO ±5% chp	510-3601-331
C 010	330 pF NPO ±5% chp	510-3601-331
C 011	330 pF NPO ±5% chp	510-3601-331
C 012	330 pF NPO ±5% chp	510-3601-331
C 013	330 pF NPO ±5% chp	510-3601-331
C 014	330 pF NPO ±5% chp	510-3601-331
C 015	Capacitor, 10 pF, 1%, high Q, 0805	510-3661-100
C 016	.01 μF X7R ±10% chp	510-3605-103
C 017	.01 μF X7R ±10% chp	510-3605-103
C 018	330 pF NPO ±5% chp	510-3601-331
C 019	330 pF NPO ±5% chp	510-3601-331
C 020	330 pF NPO ±5% chp	510-3601-331
C 021	330 pF NPO ±5% chp	510-3601-331
C 022	330 pF NPO ±5% chp	510-3601-331
C 023	470 μF 16V LOW ESR 100 KHZ	510-4056-471
C 024	330 pF NPO ±5% chp	510-3601-331
C 025	.018 μF X7R ±10% chp	510-3605-183
C 026	.018 μF X7R ±10% chp	510-3605-183
C 027	330 pF NPO ±5% chp	510-3601-331
C 028	330 pF NPO ±5% chp	510-3601-331
C 029	.0047 μF X7R ±10% chip	510-3606-472
C 030	6.8 μF 35V SMD TANT	510-2635-689
C 031	330 pF NPO ±5% chp	510-3601-331
C 032	330 pF NPO ±5% chp	510-3601-331
C 033	.018 μF X7R ±10% chp	510-3605-183

C 034	6.8 μ F 35V SMD tant	510-2635-689			Q,
C 035	.001 μ F \pm 5% chip	510-3602-102	C 067	330 pF NPO \pm 5% chp	510-3601-331
C 036	330 pF NPO \pm 5% chp	510-3601-331	C 069	330 pF NPO \pm 5% chp	510-3601-331
C 037	.018 μ F X7R \pm 10% chp	510-3605-183	C 070	100 pF NPO \pm 5% chp	510-3601-101
C 038	6.8 μ F 35V SMD tant	510-2635-689	C 071	330 pF NPO \pm 5% chp	510-3601-331
C 039	330 pF NPO \pm 5% chp	510-3601-331	C 072	.018 μ F X7R \pm 10% chp	510-3605-183
C 040	100 pF NPO \pm 5% chp	510-3601-101	C 073	330 pF NPO \pm 5% chp	510-3601-331
C 041	330 pF NPO \pm 5% chp	510-3601-331	C 074	330 pF NPO \pm 5% chp	510-3601-331
C 042	330 pF NPO \pm 5% chp	510-3601-331	C 075	Capacitor, 33 pF, 1%, high Q	510-3661-330
C 044	Capacitor, 6.8 pF, 1%, high Q	510-3661-689	C 076	Capacitor, 18 pF, 1%, high Q	510-3661-180
C 045	Capacitor, 150 pF, 1%, high Q	510-3661-151	C 077	Capacitor, 18 pF, 1%, high Q	510-3661-180
C 046	Capacitor, 43 pF, 1%, high Q	510-3661-430	C 078	Capacitor, 180 pF, 1%, high Q	510-3661-181
C 048	Capacitor, 10 pF, 1%, high Q	510-3661-100	C 079	1500 μ F 25V low ESR 100 KHZ	510-4055-152
C 049	Capacitor, 39 pF, 1%, high Q,	510-3661-390	C 082	1 μ f 16V chip cap	510-3606-105
C 050	Capacitor, 240 pF, 1%, high Q	510-3661-241	C 083	10 μ F 25V SMD TANT	510-2627-100
C 051	Capacitor, 240 pF, 1%, high Q	510-3661-241	C 084	1 μ f 16V chip cap	510-3606-105
C 054	330 pF NPO \pm 5% chp	510-3601-331	C 085	.1 μ F X7R \pm 10% chip	510-3606-104
C 055	Capacitor, 22 pF, 1%, high Q SMD	510-3666-220	C 086	470 μ F 16V low ESR 100 KHZ	510-4056-471
C 056	Capacitor, 15 pF, 1%, high Q SMD	510-3666-150	C 087	.018 μ F X7R \pm 10% chp	510-3605-183
C 057	Capacitor, 22 pF, 1%, high Q SMD	510-3666-220	C 088	330 pF NPO \pm 5% chp	510-3601-331
C 058	Capacitor, 240 pF, 1%, high Q	510-3661-241	C 089	1 μ f 16V chip cap	510-3606-105
C 059	330 pF NPO \pm 5% chp	510-3601-331	C 090	470 μ F 16V low ESR 100 KHZ	510-4056-471
C 060	Capacitor, 10 pF, 1%, high Q SMD	510-3666-100	C 091	1 μ f 16V chip cap	510-3606-105
C 061	Capacitor, 10 pF, 1%, high Q SMD	510-3666-100	C 092	330 pF NPO \pm 5% chp	510-3601-331
C 062	Capacitor, 330 pF, 1%, high Q SMD	510-3666-331	C 093	330 pF NPO \pm 5% chp	510-3601-331
C 063	Capacitor, 12 pF, 1%, high Q SMD	510-3666-120	C 095	1 μ f 16V chip cap	510-3606-105
C 064	Capacitor, 22 pF, 1%, high Q,	510-3661-220	C 096	Capacitor, 10 pF, 1%, HIGH Q, 0805	510-3661-100
C 065	330 pF NPO \pm 5% chp	510-3601-331	C 097	Capacitor, 10 pF, 1%, HIGH Q, 0805	510-3661-100
C 066	Capacitor, 18 pF, 1%, high	510-3661-180	C 098	Capacitor, 4.7 pF, 1%, HIGH Q, 0805	510-3661-479
			C 099	Capacitor, 15 pF, 1%, HIGH Q, 0805	510-3661-150
			C 100	Capacitor, 13 pF, 1%, HIGH Q SURFACE MOUNT	510-3666-130
			C 230	.1 μ F X7R \pm 10% chip	510-3606-104

C 560	1 μ f 16V chip cap	510-3606-105	L 010	330 nH 0805 SMD 10% inductor	542-9003-338
CR 001	Switching diode SOT-23	523-1504-002	L 011	2T .230" ID air die SMD inductor	016-0020-082
CR 002	Switching diode SOT-23	523-1504-002	L 012	2T .230" ID air die SMD inductor	016-0020-082
CR 003	Switching diode SOT-23	523-1504-002	L 013	2T .230" ID air die SMD inductor	016-0020-082
CR 004	Diode, HIPAX PIN	523-1504-036	L 016	9700 DC line filter, field-installed	542-5010-003
CR 005	Diode, HIPAX PIN	523-1504-036	L 018	330 nH 0805 SMD 10% inductor	542-9003-338
CR 006	Diode, HIPAX PIN	523-1504-036	L 019	220 nH 0805 SMD 10% inductor	542-9003-228
CR 007	Diode, HIPAX PIN	523-1504-036	L 020	39 nH 0805 SMD 10% inductor	542-9003-397
CR 008	HC diode SOT-23	523-1504-016	L 021	3T .080-in ID air die SMD inductor 18 AWG	542-0020-033
CR 009	Diode, HIPAX PIN	523-1504-036	L 022	3T .080-in ID air die SMD inductor 18 AWG	542-0020-033
CR 010	Diode, 1 amp SMD fast recovery	523-1600-001	L 080	330 nH 0805 SMD 10% inductor	542-9003-338
CR 011	Diode, SOT PIN SW	523-1504-001	Q 001	XSTR, switching PNP	576-0003-612
CR 012	Diode, HIPAX PIN	523-1504-036	Q 002	XSTR,3904,SI,NPN SOT-23(T&R)	576-0003-658
CR 014	Zener overvoltage transient suppressor	523-2907-016	Q 003	XSTRSI, NPN SOT-23	576-0003-658
CR 015	Diode, SOT PIN SW	523-1504-001	Q 004	XSTR, switching PNP	576-0003-612
D 001	Diode, 5 amp SMD fast recovery	523-1601-550	Q 005	XSTR, SI, NPN SOT-23	576-0003-658
J 001	Conn 20 POS bot entry SFMT	515-7111-230	Q 006	LDMOS 35-W VHF/UHF 12.5-V FET	576-0006-453
J 002	SMT Receptacle MMS	515-7111-470	Q 007	XSTR, SI, NPN SOT-23	576-0003-658
J 003	SMT Receptacle MMS	515-7111-470	Q 008	PNP power Darlington XSTR TO-220	576-0007-013
L 001	330 nH 0805 SMD 10% inductor	542-9003-338	Q 009	XSTR, SI, NPN SOT-23	576-0003-658
L 002	10 nH 0805 SMD 10% inductor	542-9003-107	Q 010	XSTR, switching PNP	576-0003-612
L 003	330 nH 0805 SMD 10% inductor	542-9003-338	R 001	20k ohm \pm 5% chip	569-0105-203
L 004	10 nH 0805 SMD 10% inductor	542-9003-107	R 002	20k ohm \pm 5% chip	569-0105-203
L 005	Ferrite bead SMD	517-2503-010	R 003	10k ohm \pm 5% chip	569-0105-103
L 006	Ferrite bead SMD	517-2503-010	R 004	20k ohm \pm 5% chip	569-0105-203
L 007	8T .120-in id air die SMD inductor	542-0020-058	R 005	10k ohm \pm 5% chip	569-0105-103
L 008	33 nH SMD 10% inductor	542-9003-337	R 006	20k ohm \pm 5% chip	569-0105-203
L 009	330 nH SMD 10% inductor	542-9003-338			

R 007	10k ohm ±5% chip	569-0105-103	R 049	100 ohm ±5% chip	569-0105-101
R 008	4.3k ohm ±5% chip	569-0105-432	R 050	100 ohm ±5% chip	569-0105-101
R 009	20k ohm ±5% chip	569-0105-203	R 051	1.0k ohm ±5% chip	569-0105-102
R 010	10k ohm ±5% chip	569-0105-103	R 052	200 ohm ±5% chip	569-0105-201
R 011	100K ohm 1% SMD resistor	569-0101-501	R 053	220k ohm ±5% chip	569-0105-224
R 012	20k ohm ±5% chip	569-0105-203	R 054	220k ohm ±5% chip	569-0105-224
R 013	10k ohm ±5% chip	569-0105-103	R 055	100k ohm ±5% chip	569-0105-104
R 015	10k ohm ±5% chip	569-0105-103	R 056	100 ohm ±5% chip	569-0105-101
R 016	20k ohm ±5% chip	569-0105-203	R 057	100 ohm ±5% 0.75-W SMD	569-0135-101
R 017	10k ohm ±5% chip	569-0105-103	R 058	220k ohm ±5% chip	569-0105-224
R 018	20k ohm ±5% chip	569-0105-203	R 059	510 ohm ±5% chip	569-0105-511
R 019	Zero ohm ±5% SMD	569-0115-001	R 060	510 ohm ±5% chip	569-0105-511
R 020	100k ohm ±5% chip	569-0105-104	R 061	220k ohm ±5% chip	569-0105-224
R 021	47k ohm ±5% chip	569-0105-473	R 062	51 ohm ±5% 1-W SMD	569-0175-510
R 022	2.2k ohm ±5% chip	569-0105-222	R 063	68k ohm ±5% chip	569-0105-683
R 024	1.8k ohm ±5% chip	569-0105-182	R 064	47k ohm ±5% chip	569-0105-473
R 025	120 ohm ±5% chip	569-0105-121	R 065	47k ohm ±5% chip	569-0105-473
R 026	1.0k ohm ±5% chip	569-0105-102	R 066	100k ohm ±5% chip	569-0105-104
R 027	7.5k ohm ±5% chip	569-0105-752	R 067	560 ohm ±5% chip	569-0105-561
R 028	10k ohm ±5% chip	569-0105-103	R 068	47k ohm ±5% chip	569-0105-473
R 029	10k ohm ±5% chip	569-0105-103	R 069	100 ohm ±5% chip	569-0105-101
R 031	1.8k ohm ±5% chip	569-0105-182	R 070	1.2k ohm ±5% smd	569-0115-122
R 032	51 ohm ±5% SMD	569-0175-510	R 071	1.2k ohm ±5% smd	569-0115-122
R 033	.015 ohm 2W 5%	569-2019-157	R 072	1.2k ohm ±5% smd	569-0115-122
R 034	47k ohm ±5% chip	569-0105-473	R 073	560 ohm ±5% chip	569-0105-561
R 035	510 ohm ±5% chip	569-0105-511	R 074	510 ohm ±5% chip	569-0105-511
R 036	47k ohm ±5% chip	569-0105-473	R 270	220k ohm ±5% chip	569-0105-224
R 037	4.3k ohm ±5% chip	569-0105-432	R 370	5.1k ohm ±5% chip	569-0105-512
R 038	51 ohm ±5% smd	569-0175-510			
R 039	620 ohm ±5% chip	569-0105-621	TR 001	Chip therm 10k ohm ±5%	569-3013-007
R 040	47k ohm ±5% chip	569-0105-473			
R 042	47k ohm ±5% chip	569-0105-473	U 001	Shift reg. 8-STG SOIC	544-3016-094
R 043	220 ohm ±5% chip	569-0105-221	U 002	Dual op amp SO-8	544-2019-004
R 044	1.2k ohm ±5% chip	569-0105-122	U 003	AMP, HI-side current sense, SO-8	544-2039-002
R 045	100 ohm ±5% chip	569-0105-101	U 004	Regulator, adjustable, 5 amp	544-2500-001
R 046	100 ohm ±5% chip	569-0105-101			
R 047	100 ohm ±5% chip	569-0105-101			
R 048	100 ohm ±5% chip	569-0105-101			

LOGIC BOARD ASSEMBLY Part No. 023-5500-600		
A 001	SEM encryption module	023-5000-980
C 001	.01 μ F \pm 10% X7R 25V cer smd	510-3675-103
C 013	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 014	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 052	33pF \pm 10% 10V cer smd	510-3681-330
C 053	33pF \pm 10% 10V cer smd	510-3681-330
C 054	33pF \pm 10% 10V cer smd	510-3681-330
C 055	33pF \pm 10% 10V cer smd	510-3681-330
C 056	33pF \pm 10% 10V cer smd	510-3681-330
C 057	33pF \pm 10% 10V cer smd	510-3681-330
C 058	0.01 μ F \pm 10% 10V cer smd	510-3681-103
C 064	0.1 μ F \pm 80-20% Z5U 25V cer smd	510-3680-104
C 065	0.01 \pm 10% 10V cer smd	510-3681-103
C 066	2.2 μ F 16V ceramic smd	510-3925-225
C 069	0.1 μ F \pm 80-20% Z5U 25V cer smd	510-3680-104
C 070	0.01 μ F \pm 10% 10V cer smd	510-3681-103
C 071	2.2 μ F 16V ceramic smd	510-3925-225
C 078	2.2 μ F 16V ceramic smd	510-3925-225
C 079	1 μ F \pm 80-20% Z5U 25V cer smd	510-3631-105
C 080	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 081	1.5F electrolytic	510-9510-057
C 125	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 126	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 127	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 128	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 129	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 130	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 131	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 183	.01 μ F \pm 10% 10V cer smd	510-3681-103

C 184	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 185	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 186	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 190	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 191	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 192	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 196	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 197	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 198	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 199	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 200	.01 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 201	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 202	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 203	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 204	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 205	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 206	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 207	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 208	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 209	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 210	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 211	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 212	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 213	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 214	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 215	.01 μ F \pm 10% 10V cer smd	510-3681-103
C 216	.01 μ F \pm 10% 10V cer smd	510-3681-103

C 217	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 246	1 μ F \pm 20% Z5U 25V cer smd	510-3636-105
C 218	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 247	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 219	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 248	4700 pF 10% X7R 25V cer smd	510-3675-472
C 220	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 249	470 pF \pm 5% NPO 25V cer smd	510-3674-471
C 221	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 250	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 222	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 251	220 pF \pm 5% NPO 25V cer smd	510-3674-221
C 223	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 252	220 pF \pm 5% NPO 25V cer smd	510-3674-221
C 224	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 253	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 225	.01 μ F \pm 10% 10V cer smd	510-3681-103	C 254	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 226	10 μ F 10V cer smd	510-3755-106	C 255	10 μ F 10V tantalum smd	510-2624-100
C 227	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	C 257	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 228	3300 pF \pm 10% 10V cer smd	510-3681-332	C 258	10 μ F 10V tantalum smd	510-2624-100
C 229	56 pF \pm 5% 50V cer smd	510-3684-560	C 261	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 230	47 pF \pm 10% cer smd	510-3681-470	C 262	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 231	1 μ F \pm 20% Z5U 25V cer smd	510-3636-105	C 263	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 232	1 μ F \pm 20% Z5U 25V cer smd	510-3636-105	C 263	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 233	220 pF \pm 5% NPO 25V cer smd	510-3674-221	C 264	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 234	470 pF \pm 5% NPO 25V cer smd	510-3674-471	C 265	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104
C 235	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104	C 266	470 pF \pm 5% NPO 25V cer smd	510-3674-471
C 236	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104	C 267	470 pF \pm 5% NPO 25V cer smd	510-3674-471
C 237	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104	C 268	470 pF \pm 5% NPO 25V cer smd	510-3674-471
C 238	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104	C 269	470 pF \pm 5% NPO 25V cer smd	510-3674-471
C 239	1 μ F \pm 20% Z5U 25V cer smd	510-3636-105	C 270	470 pF \pm 5% NPO 25V cer smd	510-3674-471
C 240	1 μ F \pm 20% Z5U 25V cer smd	510-3636-105	C 271	470 pF \pm 5% NPO 25V cer	510-3674-471
C 241	220 pF \pm 5% NPO 25V cer smd	510-3674-221			
C 242	.1 μ F +80-20% Z5U 25V cer smd	510-3680-104			
C 243	100 pF \pm 5% NPO 25V cer smd	510-3674-101			
C 245	1 μ F \pm 20% Z5U 25V cer smd	510-3636-105			

	smd			
C 272	470 pF ±5% NPO 25V cer smd	510-3674-471	C 295	470 pF ±5% NPO 25V cer smd
C 273	470 pF ±5% NPO 25V cer smd	510-3674-471	C 296	470 pF ±5% NPO 25V cer smd
C 274	470 pF ±5% NPO 25V cer smd	510-3674-471	C 299	470 pF ±5% NPO 25V cer smd
C 275	470 pF ±5% NPO 25V cer smd	510-3674-471	C 302	470 pF ±5% NPO 25V cer smd
C 276	470 pF ±5% NPO 25V cer smd	510-3674-471	C 303	470 pF ±5% NPO 25V cer smd
C 277	470 pF ±5% NPO 25V cer smd	510-3674-471	C 304	470 pF ±5% NPO 25V cer smd
C 278	470 pF ±5% NPO 25V cer smd	510-3674-471	C 305	470 pF ±5% NPO 25V cer smd
C 279	470 pF ±5% NPO 25V cer smd	510-3674-471	C 306	470 pF ±5% NPO 25V cer smd
C 281	470 pF ±5% NPO 25V cer smd	510-3674-471	C 308	0.01 μF ±10% X7R 25V cer smd
C 282	470 pF ±5% NPO 25V cer smd	510-3674-471	C 309	470 pF ±5% NPO 25V cer smd
C 283	470 pF ±5% NPO 25V cer smd	510-3674-471	C 312	.1 μF ±10% X7R 25V cer smd
C 284	470 pF ±5% NPO 25V cer smd	510-3674-471	C 313	.1 μF ±10% X7R 25V cer smd
C 285	470 pF ±5% NPO 25V cer smd	510-3674-471	C 314	.1 μF ±10% X7R 25V cer smd
C 286	470 pF ±5% NPO 25V cer smd	510-3674-471	C 315	.1 μF ±10% X7R 25V cer smd
C 287	470 pF ±5% NPO 25V cer smd	510-3674-471	C 316	10 μF 10V cer smd
C 288	470 pF ±5% NPO 25V cer smd	510-3674-471	C 317	8.2pF +/- .1pF NPO cer smd
C 289	470 pF ±5% NPO 25V cer smd	510-3674-471	C 318	22 μF ±10% 16V X5R smd
C 290	470 pF ±5% NPO 25V cer smd	510-3674-471	C 319	.1 μF ±10% X7R 25V cer smd
C 291	470 pF ±5% NPO 25V cer smd	510-3674-471	C 320	10 μF 10V cer smd
C 292	470 pF ±5% NPO 25V cer smd	510-3674-471	C 321	10 pF ±.1 pF NPO cer smd
C 293	470 pF ±5% NPO 25V cer smd	510-3674-471	C 322	10 pF ±.1 pF NPO cer smd
C 294	470 pF ±5% NPO 25V cer smd	510-3674-471	C 323	22 μF ±10% 16V X5R smd
			C 324	.1 μF ±10% X7R 25V cer smd
			C 325	4.7 μF 20V tantalum smd
			C 326	0.01 μF ±10% X7R 25V cer smd
			C 327	0.01 μF ±10% X7R 25V cer smd

C 328	.01 μ F \pm 10% 10V cer smd	510-3681-103	CR 003	Silicon switching diode	523-1004-021
C 329	.01 μ F \pm 10% 10V cer smd	510-3681-103	CR 004	Zener diode, 5.6V	523-2016-569
C330	.01 μ F \pm 10% 10V cer smd	510-3681-103	CR 005	Zener diode, 18V	523-2601-180
C331	.01 μ F \pm 10% 10V cer smd	510-3681-103	CR 006	Zener diode, 5.1V	523-2601-519
C332	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	CR 010	Zener diode, 3.6V	523-2016-369
C333	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	CR 011	Zener diode, 3.6V	523-2016-369
C334	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	CR 012	Silicon switching diode	523-1004-021
C335	.01 μ F \pm 10% 10V cer smd	510-3681-103	CR 013	LED, green	549-4003-011
C336	.01 μ F \pm 10% 10V cer smd	510-3681-103	CR 014	LED, green	549-4003-011
C337	.01 μ F \pm 10% 10V cer smd	510-3681-103	CR 015	LED, green	549-4003-011
C338	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	D 002	Dual switching diode, com cath	523-1504-022
C339	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	D 003	Dual switching diode, com cath	523-1504-022
C 340	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	D 004	Dual switching diode, com cath	523-1504-022
C 341	100 pF \pm 10% 25V cer smd	510-3681-101	D 005	Dual switching diode, com cath	523-1504-022
C 342	100 pF \pm 10% 25V cer smd	510-3681-101	D 006	Dual switching diode, com cath	523-1504-022
C 343	.01 μ F \pm 10% 10V cer smd	510-3681-103	F 001	Fuse, 0.5A smd	534-5002-009
C 344	.01 μ F \pm 10% 10V cer smd	510-3681-103	J 001	Connector, 16-pin	515-7000-668
C 345	.01 μ F \pm 10% 10V cer smd	510-3681-103	J 002	Connector, 25-pin	515-7113-071
C 346	.01 μ F \pm 10% 10V cer smd	510-3681-103	J 005	Connector, 13-pin	515-7111-262
C 347	.01 μ F \pm 10% 10V cer smd	510-3681-103	J 006	Connector, 13-pin	515-7111-262
C 348	.01 μ F \pm 10% 10V cer smd	510-3681-103	J 007	Connector, 5-pin	515-7111-254
C 349	0.01 μ F \pm 10% X7R 25V cer smd	510-3675-103	J 008	Connector, 12-pin	515-7111-261
C 350	.01 μ F \pm 10% 10V cer smd	510-3681-103	J 009	Connector, 2 14-pin	515-9500-045
C 351	2.2 μ F 16V cer smd	510-3925-225	J 011	Connector, 5-pin	515-7111-254
C 352	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	J 012	Connector, 13-pin	515-7111-262
C 353	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	J 016	Connector, 25-pin	515-7113-071
C 354	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	J 018	Connector, 25-pin	515-7113-071
C 355	.1 μ F \pm 10% X7R 25V cer smd	510-3675-104	L 015 -	Inductor, ferrite smd	542-9230-023
CR 001	Silicon switching diode	523-1004-021	L 053		
CR 002	Silicon switching diode	523-1004-021	L 054	8.2 μ H \pm 5% smd	542-9000-829

L 055	Bead, ferrite smd	542-9230-005	R 002	51k ohm ±5% 1/16W smd	569-0165-513
L 056	Bead, ferrite smd	542-9230-005	R 003	51k ohm ±5% 1/16W smd	569-0165-513
L 057	Inductor, ferrite smd	542-9230-021	R 004	51k ohm ±5% 1/16W smd	569-0165-513
L 058	Inductor, ferrite smd	542-9230-021	R 006	4.7k ohm ±5% 1/16W smd	569-0165-472
L 059	Inductor, ferrite smd	542-9230-021	R 007	4.7k ohm ±5% 1/16W smd	569-0165-472
L 060	Inductor, ferrite smd	542-9230-021	R 008	4.7k ohm ±5% 1/16W smd	569-0165-472
L 061	Inductor, ferrite smd	542-9230-021	R 009	4.7k ohm ±5% 1/16W smd	569-0165-472
L 062	Inductor, ferrite smd	542-9230-021	R 010	4.7k ohm ±5% 1/16W smd	569-0165-472
L 063	Bead, ferrite smd	542-9230-005	R 011	4.7k ohm ±5% 1/16W smd	569-0165-472
L 064	10 µH power inductor	542-9009-100	R 012	4.7k ohm ±5% 1/16W smd	569-0165-472
L 065	10 µH power inductor	542-9009-100	R 013	4.7k ohm ±5% 1/16W smd	569-0165-472
PC 001	PC board, 5500 logic rev 1	035-5500-600 1	R 014	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 005	N-chan MOSFET 60V 1A	576-0003-725	R 015	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 006	NPN general purpose	576-0003-658	R 016	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 009	NPN general purpose	576-0003-658	R 017	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 010	NPN general purpose	576-0003-658	R 018	100k ohm ±5% 1/16W smd	569-0165-104
Q 011	NPN general purpose	576-0003-658	R 019	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 012	NPN general purpose	576-0003-658	R 020	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 013	NPN general purpose	576-0003-658	R 021	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 014	NPN general purpose	576-0003-658	R 022	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 015	NPN general purpose	576-0003-658	R 023	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 017	NPN general purpose	576-0003-658	R 024	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 018	NPN general purpose	576-0003-658	R 025	4.7k ohm ±5% 1/16W smd	569-0165-472
Q 020	NPN general purpose	576-0003-658	R 029	51k ohm ±5% 1/16W smd	569-0165-513
Q 021	NPN general purpose	576-0003-658	R 030	51k ohm ±5% 1/16W smd	569-0165-513
Q 022	NPN general purpose	576-0003-658	R 031	51k ohm ±5% 1/16W smd	569-0165-513
Q 023	NPN general purpose	576-0003-658	R 038	47k ohm ±5% 1/16W smd	569-0155-473
Q 024	NPN general purpose	576-0003-658	R 039	47k ohm ±5% 1/16W smd	569-0155-473
Q 025	NPN general purpose	576-0003-658	R 040	620 ohm ±5% smd	569-0105-621
Q 026	NPN general purpose	576-0003-658	R 041	620 ohm ±5% smd	569-0105-621
Q 027	NPN general purpose	576-0003-658	R 076	100 ohm ±5% 1/16W smd	569-0165-101
Q 028	NPN general purpose	576-0003-658	R 078	10 ohm ±5% 1/16W smd	569-0165-100
Q 029	NPN general purpose	576-0003-658	R 080	1k ohm ±5% 1/16W smd	569-0155-102
R 001	10k ohm ±5% 1/16W smd	569-0165-103	R 095	220k ohm ±5% 1/16W smd	569-0155-224
			R 098	10k ohm ±5% 1/16W smd	569-0155-103
			R 099	10k ohm ±5% 1/16W smd	569-0155-103
			R 100	10k ohm ±5% 1/16W smd	569-0155-103
			R 101	4.7k ohm ±5% 1/16W smd	569-0165-472

R 102	4.7k ohm ±5% 1/16W smd	569-0165-472	R 255	10 ohm ±5% 1/16W smd	569-0165-100
R 103	100k ohm ±5% 1/16W smd	569-0165-104	R 256	10 ohm ±5% 1/16W smd	569-0165-100
R 104	100k ohm ±5% 1/16W smd	569-0165-104	R 257	1k ohm ±5% 1/16W smd	569-0165-102
R 105	220k ohm ±5% 1/16W smd	569-0165-224	R 258	2k ohm ±5% 1/16W smd	569-0155-202
R 106	220k ohm ±5% 1/16W smd	569-0165-224	R 259	10M ohm ±5% 1/16W smd	569-0165-106
R 107	1k ohm ±5% 1/16W smd	569-0165-102	R 260	2k ohm ±5% 1/16W smd	569-0155-202
R 108	220k ohm ±5% 1/16W smd	569-0165-224	R 261	220k ohm ±5% 1/16W smd	569-0165-224
R 109	2k ohm ±5% 1/16W smd	569-0165-202	R 262	330 ohm ±5% 1/16W smd	569-0155-331
R 110	4.7k ohm ±5% 1/16W smd	569-0165-472	R 263	100k ohm ±5% 1/16W smd	569-0165-104
R 111	2k ohm ±5% 1/16W smd	569-0165-202	R 264	100k ohm ±5% 1/16W smd	569-0165-104
R 112	2k ohm ±5% 1/16W smd	569-0165-202	R 265	100k ohm ±5% 1/16W smd	569-0165-104
R 113	220k ohm ±5% 1/16W smd	569-0165-224	R 266	6.8k ohm ±5% 1/16W smd	569-0155-682
R 114	4.7k ohm ±5% 1/16W smd	569-0165-472	R 267	330 ohm ±5% 1/16W smd	569-0155-331
R 115	220k ohm ±5% 1/16W smd	569-0165-224	R 268	100k ohm ±5% 1/16W smd	569-0165-104
R 117	220k ohm ±5% 1/16W smd	569-0165-224	R 269	220k ohm ±5% 1/16W smd	569-0165-224
R 118	220k ohm ±5% 1/16W smd	569-0165-224	R 270	62k ohm ±5% 1/16W smd	569-0155-623
R 119	220k ohm ±5% 1/16W smd	569-0165-224	R 271	150k ohm ±5% 1/16W smd	569-0155-154
R 120	220k ohm ±5% 1/16W smd	569-0165-224	R 272	6.8k ohm ±5% 1/16W smd	569-0155-682
R 121	220k ohm ±5% 1/16W smd	569-0165-224	R 273	6.8k ohm ±5% 1/16W smd	569-0155-682
R 122	220k ohm ±5% 1/16W smd	569-0165-224	R 274	220k ohm ±5% 1/16W smd	569-0165-224
R 123	220k ohm ±5% 1/16W smd	569-0165-224	R 275	330 ohm ±5% 1/16W smd	569-0155-331
R 124	220k ohm ±5% 1/16W smd	569-0165-224	R 276	6.8k ohm ±5% 1/16W smd	569-0155-682
R 125	220k ohm ±5% 1/16W smd	569-0165-224	R 277	100k ohm ±5% 1/16W smd	569-0165-104
R 126	220k ohm ±5% 1/16W smd	569-0165-224	R 278	100k ohm ±5% 1/16W smd	569-0165-104
R 127	220k ohm ±5% 1/16W smd	569-0165-224	R 279	100k ohm ±5% 1/16W smd	569-0165-104
R 128	220k ohm ±5% 1/16W smd	569-0165-224	R 280	330 ohm ±5% 1/16W smd	569-0155-331
R 129	220k ohm ±5% 1/16W smd	569-0165-224	R 281	220k ohm ±5% 1/16W smd	569-0165-224
R 130	220k ohm ±5% 1/16W smd	569-0165-224	R 282	0 ohm jumper	569-0155-001
R 131	220k ohm ±5% 1/16W smd	569-0165-224	R 283	100k ohm ±5% 1/16W smd	569-0165-104
R 132	4.7k ohm ±5% 1/16W smd	569-0165-472	R 284	100k ohm ±5% 1/16W smd	569-0155-104
R 141	47k ohm ±5% 1/16W smd	569-0155-473	R 285	10k ohm ±5% 1/16W smd	569-0155-103
R 224	10k ohm ±5% 1/16W smd	569-0165-103	R 286	100k ohm ±5% 1/16W smd	569-0165-104
R 225	10k ohm ±5% 1/16W smd	569-0165-103	R 287	20k ohm ±5% 1/16W smd	569-0155-203
R 226	10k ohm ±5% 1/16W smd	569-0165-103	R 288	56k ohm ±5% 1/16W smd	569-0155-563
R 249	10k ohm ±5% 1/16W smd	569-0155-103	R 289	390k ohm ±5% 1/16W smd	569-0155-394
R 251	10k ohm ±5% 1/16W smd	569-0155-103	R 290	6.8k ohm ±5% 1/16W smd	569-0155-682
R 252	10 ohm ±5% 1/16W smd	569-0165-100	R 291	47k ohm ±5% 1/16W smd	569-0155-473
R 253	10 ohm ±5% 1/16W smd	569-0165-100	R 292	47k ohm ±5% 1/16W smd	569-0155-473

R 293	6.8k ohm ±5% 1/16W smd	569-0155-682	R334	47k ohm ±5% 1/16W smd	569-0155-473
R 294	100k ohm ±5% 1/16W smd	569-0155-104	R336	100 ohm ±5% 1/16W smd	569-0155-101
R 295	150 ohm ±5% 1/16W smd	569-0155-151	R338	10k ohm ±5% 1/16W smd	569-0155-103
R 296	6.8k ohm ±5% 1/16W smd	569-0155-682	R339	10k ohm ±5% 1/16W smd	569-0155-103
R 297	100k ohm ±5% 1/16W smd	569-0155-104	R 340	47k ohm ±5% 1/16W smd	569-0155-473
R 298	150 ohm ±5% 1/16W smd	569-0155-151	R 344	10k ohm ±5% 1/16W smd	569-0155-103
R 299	6.8k ohm ±5% 1/16W smd	569-0155-682	R 345	470 ohm ±5% 1/16W smd	569-0155-471
R 300	100k ohm ±5% 1/16W smd	569-0155-104	R 346	10k ohm ±5% 1/16W smd	569-0155-103
R 301	100k ohm ±5% 1/16W smd	569-0155-104	R 348	10k ohm ±5% 1/16W smd	569-0155-103
R 302	100k ohm ±5% 1/16W smd	569-0155-104	R 350	10k ohm ±5% 1/16W smd	569-0155-103
R 303	6.8k ohm ±5% 1/16W smd	569-0155-682	R 351	47k ohm ±5% 1/16W smd	569-0155-473
R 304	68k ohm ±5% 1/16W smd	569-0165-683	R 353	10k ohm ±5% 1/16W smd	569-0155-103
R 305	0 ohm jumper	569-0155-001	R 355	47k ohm ±5% 1/16W smd	569-0155-473
R 307	100k ohm ±5% 1/16W smd	569-0155-104	R 356	10k ohm ±5% 1/16W smd	569-0155-103
R 308	0 ohm jumper	569-0155-001	R 357	100 ohm ±5% 1/16W smd	569-0155-101
R 309	100k ohm ±5% 1/16W smd	569-0155-104	R 358	100 ohm ±5% 1/16W smd	569-0155-101
R 310	6.8k ohm ±5% 1/16W smd	569-0155-682	R 360	10 ohm ±5% 1/16W smd	569-0155-100
R 311	100k ohm ±5% 1/16W smd	569-0155-104	R 361	47k ohm ±5% 1/16W smd	569-0155-473
R 312	100k ohm ±5% 1/16W smd	569-0155-104	R 362	4.7k ohm ±5% 1/16W smd	569-0155-472
R 313	100k ohm ±5% 1/16W smd	569-0155-104	R 364	10k ohm ±5% 1/16W smd	569-0155-103
R 315	10k ohm ±5% 1/16W smd	569-0155-103	R 365	10k ohm ±5% 1/16W smd	569-0155-103
R 316	47k ohm ±5% 1/16W smd	569-0155-473	R 366	100k ohm ±5% 1/16W smd	569-0155-104
R 318	10k ohm ±5% 1/16W smd	569-0155-103	R 367	47k ohm ±5% 1/16W smd	569-0155-473
R 319	47k ohm ±5% 1/16W smd	569-0155-473	R 368	10k ohm ±5% 1/16W smd	569-0155-103
R 320	10k ohm ±5% 1/16W smd	569-0155-103	R 369	10k ohm ±5% 1/16W smd	569-0155-103
R 321	10k ohm ±5% 1/16W smd	569-0155-103	R 370	1k ohm ±5% 1/16W smd	569-0155-102
R 322	10k ohm ±5% 1/16W smd	569-0155-103	R 371	10k ohm ±5% 1/16W smd	569-0155-103
R 323	1k ohm ±5% 1/16W smd	569-0155-102	R 372	100k ohm ±5% 1/16W smd	569-0155-104
R 324	10k ohm ±5% 1/16W smd	569-0155-103	R 373	33.2k ohm ±1% 0.1W smd	569-0151-451
R 325	10k ohm ±5% 1/16W smd	569-0155-103	R 374	10k ohm ±5% 1/16W smd	569-0155-103
R 326	10k ohm ±5% 1/16W smd	569-0155-103	R 377	10k ohm ±5% 1/16W smd	569-0155-103
R 327	10k ohm ±5% 1/16W smd	569-0155-103	R 378	10k ohm ±5% 1/16W smd	569-0155-103
R 328	10k ohm ±5% 1/16W smd	569-0155-103	R 379	10k ohm ±5% 1/16W smd	569-0155-103
R 329	100 ohm ±5% 1/16W smd	569-0155-101	R 392	10k ohm ±5% 1/16W smd	569-0155-103
R330	10k ohm ±5% 1/16W smd	569-0155-103	R 393	10k ohm ±5% 1/16W smd	569-0155-103
R331	10k ohm ±5% 1/16W smd	569-0155-103	R 394	10k ohm ±5% 1/16W smd	569-0155-103
R332	470 ohm ±5% 1/16W smd	569-0155-471	R 395	10k ohm ±5% 1/16W smd	569-0155-103
R333	10k ohm ±5% 1/16W smd	569-0155-103	R 396	10k ohm ±5% 1/16W smd	569-0155-103

R 399	100k ohm ±5% 1/16W smd	569-0165-104	R 709	1k ohm ±5% 1/16W smd	569-0165-102
R 400	634k ohm ±1% 0.1W smd	569-0151-578	R 710	1k ohm ±5% 1/16W smd	569-0165-102
R 401	100k ohm ±1% 0.1W smd	569-0151-501	R 711	1k ohm ±5% 1/16W smd	569-0165-102
R 402	100k ohm ±5% 1/16W smd	569-0165-104	R 712	1k ohm ±5% 1/16W smd	569-0165-102
R 403	255k ohm ±1% 0.1W smd	569-0151-551	R 713	10k ohm ±5% 1/16W smd	569-0165-103
R 404	100k ohm ±1% 0.1W smd	569-0151-501	R 714	10k ohm ±5% 1/16W smd	569-0165-103
R 405	10k ohm ±5% 1/16W smd	569-0155-103	R 715	10k ohm ±5% 1/16W smd	569-0165-103
R 406	10k ohm ±5% 1/16W smd	569-0155-103	R 716	1k ohm ±5% 1/16W smd	569-0165-102
R 407	10k ohm ±5% 1/16W smd	569-0155-103	R 717	1k ohm ±5% 1/16W smd	569-0165-102
R 408	10k ohm ±5% 1/16W smd	569-0155-103	R 718	1k ohm ±5% 1/16W smd	569-0165-102
R 409	10k ohm ±5% 1/16W smd	569-0155-103	R 719	1k ohm ±5% 1/16W smd	569-0165-102
R 410	10k ohm ±5% 1/16W smd	569-0155-103	R 720	1k ohm ±5% 1/16W smd	569-0165-102
R 412	100k ohm ±5% 1/16W smd	569-0165-104	R 721	1k ohm ±5% 1/16W smd	569-0165-102
R 413	100k ohm ±5% 1/16W smd	569-0165-104	R 722	4.7k ohm ±5% 1/16W smd	569-0165-472
R 683	68k ohm ±5% 1/16W smd	569-0155-683	R 723	4.7k ohm ±5% 1/16W smd	569-0165-472
R 685	27k ohm ±5% 1/16W smd	569-0155-273	R 724	15k ohm ±5% 1/16W smd	569-0165-153
R 686	100k ohm ±5% 1/16W smd	569-0165-104	R 725	18k ohm ±5% 1/16W smd	569-0165-183
R 687	100k ohm ±5% 1/16W smd	569-0165-104	R 726	180 ohm ±5% 1/16W smd	569-0165-181
R 688	51k ohm ±5% 1/16W smd	569-0165-513	R 727	180 ohm ±5% 1/16W smd	569-0165-181
R 689	100k ohm ±5% 1/16W smd	569-0165-104	R 728	180 ohm ±5% 1/16W smd	569-0165-181
R 690	100k ohm ±5% 1/16W smd	569-0165-104	R 729	10k ohm ±5% 1/16W smd	569-0165-103
R 691	100k ohm ±5% 1/16W smd	569-0165-104	R 730	24 ohm ±5% 1/16W smd	569-0165-240
R 692	4.7k ohm ±5% 1/16W smd	569-0165-472	R 731	24 ohm ±5% 1/16W smd	569-0165-240
R 693	4.7k ohm ±5% 1/16W smd	569-0165-472	R 732	100k ohm ±5% 1/16W smd	569-0165-104
R 694	10k ohm ±5% 1/16W smd	569-0165-103	R 733	7.5k ohm ±1% 1/8W smd	569-0111-385
R 695	10k ohm ±5% 1/16W smd	569-0165-103	R 734	7.5k ohm ±1% 1/8W smd	569-0111-385
R 696	10k ohm ±5% 1/16W smd	569-0165-103	R 735	10k ohm ±5% 1/16W smd	569-0165-103
R 697	10k ohm ±5% 1/16W smd	569-0165-103	R 736	10k ohm ±5% 1/16W smd	569-0165-103
R 698	4.7k ohm ±5% 1/16W smd	569-0165-472	R 737	10k ohm ±5% 1/16W smd	569-0165-103
R 699	10k ohm ±5% 1/16W smd	569-0165-103	R 738	51 ohm ±5% 1/16W smd	569-0155-510
R 700	10k ohm ±5% 1/16W smd	569-0165-103	R 739	51 ohm ±5% 1/16W smd	569-0155-510
R 701	15k ohm ±5% 1/16W smd	569-0165-153	R 740	10k ohm ±5% 1/16W smd	569-0155-103
R 702	20k ohm ±5% 1/16W smd	569-0165-203	R 741	100k ohm ±5% 1/16W smd	569-0165-104
R 703	30k ohm ±5% 1/16W smd	569-0155-303	R 742	100k ohm ±5% 1/16W smd	569-0165-104
R 704	10k ohm ±5% 1/16W smd	569-0165-103	R 744	0 ohm jumper	569-0165-001
R 705	15k ohm ±5% 1/16W smd	569-0165-153	R 745	0 ohm jumper	569-0165-001
R 706	20k ohm ±5% 1/16W smd	569-0165-203	R 746	0 ohm jumper	569-0165-001
R 707	30k ohm ±5% 1/16W smd	569-0155-303	R 747	0 ohm jumper	569-0165-001

R 748	10 ohm ±5% 1/16W smd	569-0165-100	U 048	Bus xcvr, octal 74LVCC3245	544-1010-250
R 749	10 ohm ±5% 1/16W smd	569-0165-100	U 049	Op am, quad MC3303	544-2020-008
R 752	10k ohm ±5% 1/16W smd	569-0165-103	U 056	Multiplexer triple 4053	544-1014-053
R 753	10k ohm ±5% 1/16W smd	569-0165-103	U 057	Microcontroller PowerPC MPC850	544-5003-127
S 001	Switch, momentary norm open	583-9512-002	U 058	EEPROM 32k x 8 M24256	544-1019-376
T 001	Isolation transformer 10BASE-T	592-9017-003	U 059	Multiplexer triple 4053	544-1014-053
U 001	DSP TMS3205510AGGWA1	544-5003-133	U 060	Op am, quad MC3303	544-2020-008
U 002	CODEC, dual TLV320AIC211	544-3016-057	U 061	Op am, quad MC3303	544-2020-008
U 003	Schmitt trig, inv TC7S14F- TE85L	544-3123-014	U 063	Flip flop octal 74HC574	544-3764-576
U 004	Op Amp OPA340NA	544-2020-023	U 064	Flip flop octal 74HC574	544-3764-576
U 011	Regulator, 5V 400mA REG113EA-5	544-2603-055	U 065	Flip flop octal 74HC574	544-3764-576
U 013	Regulator, 5V 400mA REG113EA-5	544-2603-055	U 066	Multiplexer triple 4053	544-1014-053
U 015	Regulator, 3.8V, 50 mA LP2982	544-5001-335	U 067	Converter, A/D 8-bit ser TLC5481	544-1010-548
U 020	SRAM 256k x 16 CY62146V	544-5001-213	U 069	RS-232 bus xcvr MAX3221EAE	544-2023-036
U 021	Flash, 8M X 8 bit AM29DL640G90	544-5001-255	U 070	Analog switch, SPDT NLAS4599	544-4002-007
U 022	Buffer, quad 74LCX125	544-3776-127	U 071	SRAM 512k x 16 CY62157CV30	544-5001-215
U 023	SRAM 512k x 16 CY62157CV30	544-5001-215	U 072	SRAM 512k x 16 CY62157CV30	544-5001-215
U 024	Tri state buffer, 3.3V NC7SZ125P5	544-3914-125	U 073	Tri state buffer, 3.3V NC7SZ125P5	544-3914-125
U 025	Buffer, quad 74LCX125	544-3776-127	U 074	DC-DC converter TPS6200	544-4006-011
U 026	3-state buffer, quad 74ACT125	544-3776-117	U 075	DC-DC converter TPS6200	544-4006-011
U 027	Schmitt trig, inv TC7S14F- TE85L	544-3123-014	U 079	Tri state buffer, 3.3V NC7SZ125P5	544-3914-125
U 042	Triple supply monitor LT1727	544-5001-341	U 080	Regulator 5V LT1121IST-5	544-1011-121
U 045	RS-232 bus xcvr MAX3221EAE	544-2023-036	U 081	Buffer, quad 74LCX125	544-3776-127
U 046	RS-485 bus transceiver ADM483	544-2023-073	U 082	Programmable logic	544-5001-419
			U 083	Op amp, quad OPA4340EA	544-2020-013
			U 084	Op amp, quad OPA4340EA	544-2020-013
			U 085	Transceiver, 10BASE-T 3V	544-2023-050
			U 086	Reg, 3.3V 400 mA REG113EA-3.3	544-2603-056
			U 087	Op amp, quad OPA4340EA	544-2020-013
			Y 002	Crystal, 4.9152 MHz smd	521-3060-022

Y 003	TCXO, 12.288 MHz smd	518-7012-200	MP 103	Light pipe	032-0792-032
Y 004	Oscillator, 20.000 MHz smd	561-9004-200	MP 108	Support-keypad	017-2226-090
FRONT PANEL ASSEMBLY			MP 151	Gasket, front lens	018-1136-130
Part No. 023-5300-810			MP 152	Control knob	032-0792-010
A 151	Plastic front panel assembly	587-9650-002	MP 153	Control knob	032-0792-010
A 815	Display controller board (see separate listings)	023-5300-813	MP 154	Speaker membrane	018-1136-138
C 750	4.7 μ F 10V tantalum smd	510-2624-479	MP 155	Spacer, display board	018-1136-140
C 754	1.0 μ F 35V tantalum smd	510-2628-109	MP 158	Front panel lens	032-0792-034
C 755	4.7 μ F 10V tantalum smd	510-2624-479	MP 160	Spacer (between boards)	013-1188-053
DS 700	Dual color, red/grn LED	549-4001-215	MP 161	Keypad, standard	032-0792-031
DS 701- DS706	LED, green smd	549-4001-145	MP 162	Speaker retainer	016-2187-250
DS 707- DS726	LED, green smd	549-4003-011	MP 163	Speaker gasket, silicone	018-1136-128
DS 727	LCD assembly	549-4501-010	MP 990	Gasket, microphone jack silicone	018-1136-132
EP 101	Key cap kit (see Section 2.8)	587-5300-001	NP 001	Johnson label raised	559-9001-310
HW 010	Washer, .438 x .274 x .030	596-9410-010	NP 002	Label, RS 5300	559-5300-100
HW 011	Nut, spanner 3/8 x 7mm	013-1313-018	PC 010	Flex circuit, std push on-off	035-5300-010
HW 012	Screw, 2-56 x 1/4	575-1602-008		Flex circuit, motorcycle rot on-off	035-5300-015
HW 013	Lockwasher, internal No. 2	596-2102-006	PC 815	PC board, display	035-5300-815
J 703	Connector, 13-pin circular recept	515-1009-025	Q 710	PNP general purpose	576-0003-650
J 705	Connector, 31-pin	515-7109-129	Q 711	NPN general purpose	576-0003-658
LS 001	Speaker, 2 x 3 in 16-ohm	589-1015-006	Q 712	NPN general purpose	576-0003-658
MP 101	Display bezel	017-2226-046	R 800	180k ohm \pm 5% 1/8W smd	569-0105-184
MP 102	Display gasket	018-1136-120	R 801	100k ohm \pm 5% 1/8W smd	569-0105-104
			R 802	100k ohm \pm 5% 1/8W smd	569-0105-104
			R 803	62 ohm \pm 5% 2010 .75W smd	569-0135-620
			R 804	62 ohm \pm 5% 2010 .75W smd	569-0135-620
			R 805	62 ohm \pm 5% 2010 .75W smd	569-0135-620
			R 806	62 ohm \pm 5% 2010 .75W smd	569-0135-620
			R 807	510 ohm \pm 5% 1/8W smd	569-0105-511
			R 808	62 ohm \pm 5% 2010 .75W smd	569-0135-620
			R 809	62 ohm \pm 5% 2010 .75W smd	569-0135-620
			R 810	510 ohm \pm 5% 1/8W smd	569-0105-511
			R 811	10k ohm \pm 5% 1/8W smd	569-0105-103
			R 812	10k ohm \pm 5% 1/8W smd	569-0105-103

S 001	DIP switch, 10-position	583-5100-210	C 020	.01 μ F \pm 10% X7R cer smd	510-3675-103
S 154	On-off/Vol push on w/50k pot std	562-0018-075	C 021	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104
	On-off/Vol rot on-off , motorcycle	562-0018-077	C 022	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104
S 155	Switch rotary and push	583-2042-001	C 023	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104
U 710	LCD driver, PCF8576TD	544-2027-010	C 024	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104
U 711	LCD driver, PCF8576TD	544-2027-010	C 029	1.0 μ F 10V tantalum smd	510-2624-109
U 712	Regulator, 8V 0.5A 78M08	544-2003-081	C 030	10 μ F 25V tantalum smd	510-2627-100
W 103	Cable assy, display - logic bd	023-5300-025	C 031	4.7 μ F 25V tantalum smd	510-2627-479
DISPLAY CONTROLLER BOARD			C 032	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104
C 001	4.7 μ F 25V tantalum smd	510-2627-479	C 126	.01 μ F \pm 10% X7R cer smd	510-3675-103
C 002	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	C 127	1.0 μ F 10V tantalum smd	510-2624-109
C 003	10 μ F 25V tantalum smd	510-2627-100	C 128	1.0 μ F 10V tantalum smd	510-2624-109
C 004	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	C 129	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104
C 005	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	C 130	.047 μ F \pm 10% X7R cer smd	510-3605-473
C 006	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	CR 001	5.6V zener SOT-23	523-2016-569
C 007	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	CR 002	5.6V zener SOT-23	523-2016-569
C 009	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	CR 003	5.6V zener SOT-23	523-2016-569
C 010	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	CR 004	5.6V zener SOT-23	523-2016-569
C 011	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	CR 005	5.6V zener SOT-23	523-2016-569
C 012	4.7 μ F 25V tantalum smd	510-2627-479	CR 006	5.6V zener SOT-23	523-2016-569
C 013	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	CR 007	5.6V zener SOT-23	523-2016-569
C 016	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	CR 008	5.6V zener SOT-23	523-2016-569
C 017	4.7 μ F 25V tantalum smd	510-2627-479	CR 009	5.6V zener SOT-23	523-2016-569
C 018	.1 μ F \pm 10% X7R 50V cer smd	510-3675-104	CR 010	5.6V zener SOT-23	523-2016-569
			CR 011	5.6V zener SOT-23	523-2016-569
			CR 012	PIN switching diode	523-1504-001
			CR 013	5.6V zener SOT-23	523-2016-569
			CR 014	PIN switching diode	523-1504-001
			DS 727	LCD assembly	549-4501-010
			F 001	Fuse 2.0 A smd	534-5001-009
			J 700	Connector, 16-pin	515-7000-668

J 701	Connector, micro-miniature	515-7113-073	R 028	100k ohm ±5% 1/16W smd	569-0155-104
J 702	Connector, 9-pin ZIF flex	515-7111-321	R 029	100k ohm ±5% 1/16W smd	569-0155-104
J 704	Connector, 5-pin (PA bd cable)	515-7111-254	R 030	10k ohm ±5% 1/16W smd	569-0155-103
PC 001	PC board, display controller rev. 5	035-5300-810 5	R 031	300ohm ±5% 1/16W smd	569-0155-301
Q 002	NPN general purpose	576-0003-658	R 032	47k ohm ±5% 1/16W smd	569-0155-473
Q 004	NPN digital w/resistors	576-0003-616	R 033	47k ohm ±5% 1/16W smd	569-0155-473
Q 005	NPN digital w/resistors	576-0003-616	R 035	47k ohm ±5% 1/16W smd	569-0155-473
Q 006	NPN digital w/resistors	576-0003-616	R 036	620 ohm ±5% 1/8W smd	569-0105-621
R 002	330k ohm ±5% 1/16W smd	569-0155-334	R 037	620 ohm ±5% 1/8W smd	569-0105-621
R 003	10k ohm ±5% 1/16W smd	569-0155-103	R 038	47k ohm ±5% 1/16W smd	569-0155-473
R 005	100k ohm ±5% 1/16W smd	569-0155-104	R 039	300ohm ±5% 1/16W smd	569-0155-301
R 006	10k ohm ±5% 1/16W smd	569-0155-103	R 040	10k ohm ±5% 1/16W smd	569-0155-103
R 007	10k ohm ±5% 1/16W smd	569-0155-103	R 041	3.3k ohm ±5% 1/16W smd	569-0155-332
R 008	10k ohm ±5% 1/16W smd	569-0155-103	R 042	10k ohm ±5% 1/16W smd	569-0155-103
R 009	10k ohm ±5% 1/16W smd	569-0155-103	R 043	4.7k ohm ±5% 1/16W smd	569-0155-472
R 010	10k ohm ±5% 1/16W smd	569-0155-103	R 044	10k ohm ±5% 1/16W smd	569-0155-103
R 011	47k ohm ±5% 1/16W smd	569-0155-473	R 045	10k ohm ±5% 1/16W smd	569-0155-103
R 012	47k ohm ±5% 1/16W smd	569-0155-473	R 046	47k ohm ±5% 1/16W smd	569-0155-473
R 013	47k ohm ±5% 1/16W smd	569-0155-473	R 047	10k ohm ±5% 1/16W smd	569-0155-103
R 014	47k ohm ±5% 1/16W smd	569-0155-473	R 048	47k ohm ±5% 1/16W smd	569-0155-473
R 015	200k ohm ±5% 1/16W smd	569-0155-204	R 049	47k ohm ±5% 1/16W smd	569-0155-473
R 016	200k ohm ±5% 1/16W smd	569-0155-204	R 050	47k ohm ±5% 1/16W smd	569-0155-473
R 017	47k ohm ±5% 1/16W smd	569-0155-473	R 051	47k ohm ±5% 1/16W smd	569-0155-473
R 018	47k ohm ±5% 1/16W smd	569-0155-473	R 052	47k ohm ±5% 1/16W smd	569-0155-473
R 019	300 ohm ±5% 1/8W smd	569-0105-301	R 054	10k ohm ±5% 1/16W smd	569-0155-103
R 020	47k ohm ±5% 1/16W smd	569-0155-473	R 055	4.7k ohm ±5% 1/16W smd	569-0155-472
R 021	100k ohm ±5% 1/16W smd	569-0155-104	R 056	10k ohm ±5% 1/16W smd	569-0155-103
R 022	300 ohm ±5% 1/8W smd	569-0105-301	R 057	4.7k ohm ±5% 1/16W smd	569-0155-472
R 023	10k ohm ±5% 1/16W smd	569-0155-103	R 058	10k ohm ±5% 1/16W smd	569-0155-103
R 024	10k ohm ±5% 1/16W smd	569-0155-103	R 059	47k ohm ±5% 1/16W smd	569-0155-473
R 025	10k ohm ±5% 1/16W smd	569-0155-103	R 060	47k ohm ±5% 1/16W smd	569-0155-473
R 026	10k ohm ±5% 1/16W smd	569-0155-103	R 061	47k ohm ±5% 1/16W smd	569-0155-473
R 027	51 ohm ±5% 1/8W smd	569-0105-510	R 062	10k ohm ±5% 1/16W smd	569-0155-103
			R 063	10k ohm ±5% 1/16W smd	569-0155-103
			R 064	10k ohm ±5% 1/16W smd	569-0155-103
			R 065	10k ohm ±5% 1/16W smd	569-0155-103
			R 066	3.3k ohm ±5% 1/16W smd	569-0155-332
			R 067	47k ohm ±5% 1/16W smd	569-0155-473

R 068	10k ohm ±5% 1/16W smd	569-0155-103
R 069	10k ohm ±5% 1/16W smd	569-0155-103
R 070	10k ohm ±5% 1/16W smd	569-0155-103
R 071	47k ohm ±5% 1/16W smd	569-0155-473
R 072	10k ohm ±5% 1/16W smd	569-0155-103
R 073	10k ohm ±5% 1/16W smd	569-0155-103
R 074	10k ohm ±5% 1/16W smd	569-0155-103
R 075	10k ohm ±5% 1/16W smd	569-0155-103
R 076	10k ohm ±5% 1/16W smd	569-0155-103
R 077	10k ohm ±5% 1/16W smd	569-0155-103
R 078	10k ohm ±5% 1/16W smd	569-0155-103
R 079	5.1kohm ±5% 1/16W smd	569-0155-512
R 080	300ohm ±5% 1/16W smd	569-0155-301
R 082	47k ohm ±5% 1/16W smd	569-0155-473
R 083	3.3k ohm ±5% 1/16W smd	569-0155-332
R 084	10k ohm ±5% 1/16W smd	569-0155-103
R 085	100k ohm ±5% 1/16W smd	569-0155-104
R 087	10k ohm ±5% 1/16W smd	569-0155-103
R 089	1k ohm ±5% 1/16W smd	569-0155-102
R 090	10k ohm ±5% 1/16W smd	569-0155-103
R 091	10k ohm ±5% 1/16W smd	569-0155-103
R 092	10k ohm ±5% 1/16W smd	569-0155-103
R 093	10k ohm ±5% 1/16W smd	569-0155-103
R 094	10k ohm ±5% 1/16W smd	569-0155-103
R 095	10k ohm ±5% 1/16W smd	569-0155-103
R 096	10k ohm ±5% 1/16W smd	569-0155-103
R 097	10k ohm ±5% 1/16W smd	569-0155-103
R 098	10k ohm ±5% 1/16W smd	569-0155-103
R 099	10k ohm ±5% 1/16W smd	569-0155-103
R 100	10k ohm ±5% 1/16W smd	569-0155-103
R 101	10k ohm ±5% 1/16W smd	569-0155-103
R 102	10k ohm ±5% 1/16W smd	569-0155-103
R 103	1.2M ohm ±5% 1/16W smd	569-0155-125
R 104	200k ohm ±5% 1/16W smd	569-0155-204
R 105	240k ohm ±5% 1/16W smd	569-0155-244
R 107	82k ohm ±5% 1/16W smd	569-0155-823
R 108	160k ohm ±5% 1/16W smd	569-0155-164
R 109	1k ohm ±5% 1/16W smd	569-0155-102

R 110	10k ohm ±5% 1/16W smd	569-0155-103
R 111	47k ohm ±5% 1/16W smd	569-0155-473
R 112	100k ohm ±5% 1/16W smd	569-0155-104
R 113	100k ohm ±5% 1/16W smd	569-0155-104
R 114	100k ohm ±5% 1/16W smd	569-0155-104
R 115	1k ohm ±5% 1/16W smd	569-0155-102
R 116	47k ohm ±5% 1/16W smd	569-0155-473
U 002	Op am, quad MC3303	544-2020-008
U 003	RS-485 driver SN65176	544-2023-027
U 009	Microcontroller MC68HC908	544-9100-007
U 012	5V regulator, 300 mA ADP3367	544-2032-009
U 045	3-state noninv amp TC74VHC125	544-3991-125
U 047	5V regulator, 300 mA ADP3367	544-2032-009
U 054	Schmitt trigger, hex 74HC14	544-3991-014
U 055	Flip-flop, dual 74HC74	544-3991-074
U 056	Buffer, open drain hex MM74C906	544-3716-906
Y 002	4.9152 MHz crystal	521-3060-024

**REMOTE CONTROL UNIT
UNIQUE PARTS**

A 001	Remote audio amp bd assy (rev)	023-5300-751
	Remote audio amp bd assy (unrev)	023-5300-750
	(see separate listing which follows)	
A 002	Front panel assembly (see preceding listing)	023-5300-810
A 755	Audio PA board cable	023-5300-755
HW 001	Washer, poly 0.937 diameter	596-6400-015
HW 002	Washer, SS spring 3/4 OD	596-9260-001
HW	Screw, captive pan head .75	575-9606-018

003		
MP 001	Knob, remote control unit	032-0792-015
MP 002	Mounting bracket, rem ctrl unit	017-2226-050
MP 003	Gasket	032-0792-066
MP 005	Housing, remote control unit	032-0792-130
MP 006	Rear cover, remote control unit	032-0792-135
NP 002	Johnson label	559-9001-310
W 003	Control cable, 17-ft	597-2002-262
	Control cable, 8-ft motorcycle	597-2002-259
	Control cable, 50-ft	597-2002-263
W 104	Control unit pigtail cable, std	597-2002-264
	Ctrl unit pigtail cable, motorcycle	597-2002-274
AUDIO AMP BOARD (REVISED) Part No. 023-5300-751		
C 001	15 μ F 20V tantalum smd	510-2626-150
C 002	15 μ F 20V tantalum smd	510-2626-150
C 003	0.1 μ F X7R \pm 10% 50V cer smd	510-3606-104
C 004	1 μ F 35V tantalum smd	510-2628-109
C 005	0.1 μ F X7R \pm 10% 50V cer smd	510-3606-104
J 001	Header, 2-pin right angle	515-7100-602
J 002	Connector, 5-pin	515-7111-254
PC 001	PC board, audio amp revised	035-5300-75002
Q 001	NPN general purpose smd	576-0003-616
R 001	7.5k ohm \pm 5% 1/8W smd	569-0155-752
R 003	10k ohm \pm 5% 1/8W smd	569-0155-103
U 001	Audio amp, 3W TDA7056A	544-2006-025
Std. DC Power Cable Assembly Part No. 023-9750-010		
A 001	Fused DC power cable (see separate listing)	023-9650-008
A 002	Mic clip ground wire	023-7171-911
EP 002	Ring terminal, 3/4 10-12 AWG	586-0001-036

EP 003	Ring terminal, 3/8 10-12 AWG	586-0001-019
F 101	Fuse, 15 amp 32V	534-0003-038
HW 000	Key extraction tool	017-2226-000
HW 002	Screw, 4-40 x 3/8 pan head (1)	575-0604-012
HW 003	Screw, 4-24 x 1/4 phil (3)	575-3604-008
HW 004	Screw, 4-20 x 5/8 phil (3)	575-5604-020
MP 001	Heavy-duty mic clip	023-3514-001
Fused DC Power Cable Part No. 023-9650-008		
EP 101	Female crimp pin	515-9032-540
FH 001	Fuse holder in-line includes:	
	Contact	534-1004-037
	Body	534-1004-031
	Knob	534-1004-032
	Spring	534-1004-035
HW 101	Wire seal	574-9025-035
ML 001	Negative ground warning tag	559-4014-001
ML 002	Jump start warning label	559-4057-010
P 101	2-pin female power connector	515-9032-535
W 101	Wire, 12 AWG stranded blue	597-7021-206
W 102	Wire, 12 AWG stranded red	597-7021-202
Accessory Wire Harness Kit Part No. 023-9750-011		
	Fuseholder components:	
EP 001	Contact	586-9004-001
F 001	Fuse, 1A 250V FB AGC	534-0003-020
MP001	Fuseholder body	534-1004-031
MP002	Fuseholder knob	534-1004-032
MP003	Fuseholder spring	534-1004-035
HW 001	Pin contact, crimp type	515-1501-055
P 101	8-pin receptacle housing	515-1501-050

Front Mounting Bracket Assembly Part No. 023-9750-012		
HW 001	Self-drilling screw 1/4 (4)	575-9077-565
HW 002	Self-drilling screw #10 (4)	575-9077-545
MP 101	Knob 10-32 1/2	547-0016-007
MP 201	Transceiver mounting bracket	017-2226-034
Amplified Dynamic Microphone Part No. 250-0740-310		
C 001	3.3 μ F 16V tantalum chip	510-2625-339
C 002	220 pF \pm 5% NPO 50V cer chip	510-3602-221
EP001	Contact .038" diameter	586-9008-100
EP002	Mic cord w/Hirose connector	597-2002-255
EP004	Terminal (on hanger)	022-0069-011
HW001	Screw 4-20 x 3/8	575-5604-012
HW004	Screw 2-56 x 3/8	575-1602-012
MK001	Dynamic mic cartridge	589-1011-003
MP001	Case front black	032-0426-100
MP002	Case back black	032-0427-100
MP003	Actuator black	032-0428-050
MP004	Cartridge gasket	032-0429-075
MP005	Blast filter	018-1033-002
MP006	Switch bracket	017-1885-030
MP007	Hanger button	013-1216-005
MP008	Crimp retainer	017-2222-006
MP009	Rubber bumper	018-0798-009
MP010	Backing plate	015-0876-026
MP011	Strain relief, mic cord	032-0429-086
MP012	Shim support, rubber bumper	017-2222-007
MP020	Foam support	018-0798-012
NP001	Nameplate	559-0039-026
PC001	PC board, amplifier	035-0441-020
Q 001	NPN amplifier SOT-23	576-0003-658
R 001	51k ohm \pm 5% 1/8W chip	569-0115-513
R 002	18 ohm \pm 5% 1/8W chip	569-0115-180

S 001	Leaf switch SPST	583-1004-031
15 Watt, 4.0-Ohm Speaker (Black) Part No. 250-0151-006		
HW001	Strain relief (in case back)	574-0003-008
HW002	Screw, self drilling	574-9077-543
HW003	Screw, 4-20 x 1/2 pan head	575-5604-016
HW005	Foam gasket	018-1126-001
HW006	Urethane foam, 1/16 thick	042-0361-318
HW008	Screw, 6-19 x 1/4 pan hd phillips	575-5606-008
HW009	Terminal lug	586-0005-106
LS001	Speaker, 5" 15W 4.0 ohm	589-1016-003
MP001	Case front (black)	032-0758-004
MP002	Case back (black)	032-0759-004
MP003	Mounting bracket (black)	032-0760-004
MP004	Tri knob 10-32	547-0016-004
NP001	Overlay, speaker front	559-0072-010
P 001	Crimp wire contact	515-5010-055
W 001	Speaker wire, 22 AWG (6 ft used)	597-2006-002
15W 4.0-Ohm Motorcycle Speaker Part No. 250-0151-015		
HW001	Strain relief (in case back)	574-0003-008
	Rubber switch boot	574-3500-153
HW002	Screw, self drilling	574-9077-543
HW003	Screw, 4-20 x 1/2 pan head	575-5604-016
HW005	Foam gasket	018-1126-001
HW006	Urethane foam, 1/16 thick	042-0361-318
HW008	Screw, 6-19 x 1/4 pan hd phillips	575-5606-008
HW009	Terminal lug	586-0005-106
LS001	Speaker, 5" 15W 4.0 ohm	589-1016-003
MP001	Case front (black)	032-0758-004
MP002	Case back, motorcycle (black)	032-0759-006
MP003	Mounting bracket (black)	032-0760-004

MP004	Tri knob 10-32	547-0016-004
NP001	Overlay, speaker front	559-0072-010
S 001	Switch, SPST toggle	583-0006-061
W 001	Speaker wire, motorcycle	023-0151-011

Ref No.	Description	Part No.
HANDHELD CONTROL UNIT		
Part No. 250-5300-101		
A 001	Main board assembly	023-5300-705
A 002	Keypad board assembly	023-5300-707
A 130	Junction box assembly (see separate listing)	023-5300-130
C 001	4.7 μ F 25V tantalum smd	510-2627-479
C 002	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 003	10 μ F 25V tantalum smd	510-2627-100
C 005	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 007	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 008	33 pF \pm 5% NPO 25V cer smd	510-3674-330
C 009	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 010	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 011	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 013	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 014	0.01 μ F \pm 10% X7R 25V cer smd	510-3675-103
C 015	0.01 μ F \pm 10% X7R 25V cer smd	510-3675-103
C 016	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 017	4.7 μ F 25V tantalum smd	510-2627-479
C 018	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 019	390 pF \pm 5% NPO 25V cer smd	510-3674-391
C 020	0.01 μ F \pm 10% X7R 25V cer smd	510-3675-103
C 021	0.1 μ F \pm 10% X7R 25V cer	510-3675-104

	smd	
C 022	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 023	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 025	180 pF \pm 5% NPO 25V cer smd	510-3674-181
C 029	1.0 μ F 10V tantalum smd	510-2624-109
C 030	10 μ F 25V tantalum smd	510-2627-100
C 031	4.7 μ F 20V tantalum smd	510-2626-479
C 032	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 126	0.01 μ F \pm 10% X7R 25V cer smd	510-3675-103
C 127	1.0 μ F 10V tantalum smd	510-2624-109
C 128	1.0 μ F 10V tantalum smd	510-2624-109
C 129	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 130	4.7 μ F 25V tantalum smd	510-2627-479
C 131	10 μ F 25V tantalum smd	510-2627-100
C 132	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 133	10 μ F 25V tantalum smd	510-2627-100
C 134	10 μ F 25V tantalum smd	510-2627-100
C 135	4.7 μ F tantalum smd	510-2622-479
C 136	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 137	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 138	1.0 μ F 35V tantalum smd	510-2628-109
C 139	0.22 F 5.5V electrolytic	510-9510-055
C 140	10 μ F 25V tantalum smd	510-2627-100
C 141	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 142	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 143	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104
C 144	0.047 μ F X7R \pm 10% cer smd	510-3605-473
C 145	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104

C 146	0.1 μ F \pm 10% X7R 25V cer smd	510-3675-104			backlighting	
CR 004- CR 11	5.6V zener	523-2016-569		MP 03a	Keypad, rubber revised	032-0792-059 2
CR 012	Pin switching diode	523-1504-001		MP 03b	Elastomeric connector	515-9900-010
CR 013	5.6V zener	523-2016-569		MP 004	Fiber sheet 12 x 21	058-0021-002
CR 020	5.6V zener	523-2016-569		MP 005	Fiber sheet 12 x 21	058-0021-002
CR 021	5.6V zener	523-2016-569		MP 006	Gasket seal assembly	587-0792-048
CR 023	5.6V zener	523-2016-569		MP 008	Front housing assembly	587-0792-058
CR 024	Dual color LED, red/grn	549-4001-215		MP 009	Water barrier, microphone	574-5300-001
CR 025- CR 29	5.6V zener	523-2016-569		MP 010	Lens, front housing	032-0792-052
CR 030	Dual diodes, com anodes	523-1504-024		MP 011	Lens gasket, front housing	574-3500-080
CR 031	Dual diodes, com anodes	523-1504-024		MP 012	Lens PSA, front housing	574-3500-082
CR 033	Dual diodes, com anodes	523-1504-024		NP 001	Label, EFJ logo front	559-5000-550
CR 034	Dual diodes, com anodes	523-1504-024		P 001	Connector, 11-pin single row	515-9036-021
DS 001	LCD, glass	549-4501-011		P 003	Connector, 12-pin single row	515-5300-003
DS 002	Fiber optics, backing	549-4501-032		PC 001	Main PC board, rev 3	035-5300-700 3
DS 024	LED, green	549-4003-011		PC 001	Keypad board, rev 0	035-5300-707
DS27-35	LED, green	549-4003-011		Q 002	NPN general purpose	576-0003-658
EP 001	Spade terminal #6	586-0003-034		Q 004	NPN digital w/resistors	576-0003-616
HW 01a	Screw, 6-32 x 5/16	575-1606-010		Q 005	NPN digital w/resistors	576-0003-616
HW 01b	Spacer, keypad board	013-1188-055		Q 006	NPN digital w/resistors	576-0003-616
HW 01c	Screw, 4-40 x 1/4	575-1604-008		Q 007	NPN general purpose	576-0003-658
HW 02a	Screw, 2-56 x 5/8 Torx black	575-8002-020		Q 008	NPN general purpose	576-0003-658
HW 02b	Washer, split lock #4	596-1304-008		Q 009	NPN general purpose	576-0003-658
HW 003	Lockwasher, internal #6	596-1106-009		Q 010	PNP general purpose	576-0003-650
J 003	Connector, 12-pin socket .100	515-5300-001		Q 012	Power MOSFET 20 volt	576-0006-243
MK 001	Microphone cartridge	589-0301-003		Q 013	Power MOSFET 20 volt	576-0006-243
MP 01a	Mic hanger button	013-1216-007		R 002	330k ohm \pm 5% 1/16W smd	569-0155-334
MP 01b	Display bezel	017-2226-048 3		R 003	10k ohm \pm 5% 1/16W smd	569-0155-103
MP 01c	Mic element isolator	032-0757-834		R 005	100k ohm \pm 5% 1/16W smd	569-0155-104
MP 02a	Back housing	032-0792-056		R 006	47k ohm \pm 5% 1/16W smd	569-0155-473
MP 02b	Backplate, fiber optic	032-0792-054				

R 007	47k ohm ±5% 1/16W smd	569-0155-473	R 065	10k ohm ±5% 1/16W smd	569-0155-103
R 008	47k ohm ±5% 1/16W smd	569-0155-473	R 066	3.3k ohm ±5% 1/16W smd	569-0155-332
R 009	47k ohm ±5% 1/16W smd	569-0155-473	R 067	2.2k ohm ±5% 1/16W smd	569-0155-222
R 010	47k ohm ±5% 1/16W smd	569-0155-473	R 068	10k ohm ±5% 1/16W smd	569-0155-103
R 011	2.2k ohm ±5% 1/16W smd	569-0155-222	R 069	10k ohm ±5% 1/16W smd	569-0155-103
R 012	2.2k ohm ±5% 1/16W smd	569-0155-222	R 070	10k ohm ±5% 1/16W smd	569-0155-103
R 013	2.2k ohm ±5% 1/16W smd	569-0155-222	R 071	2.2k ohm ±5% 1/16W smd	569-0155-222
R 015	200k ohm ±5% 1/16W smd	569-0155-204	R 072	47k ohm ±5% 1/16W smd	569-0155-473
R 016	200k ohm ±5% 1/16W smd	569-0155-204	R 073	47k ohm ±5% 1/16W smd	569-0155-473
R 017	2.2k ohm ±5% 1/16W smd	569-0155-222	R 074	47k ohm ±5% 1/16W smd	569-0155-473
R 018	2.2k ohm ±5% 1/16W smd	569-0155-222	R 075	47k ohm ±5% 1/16W smd	569-0155-473
R 019	300 ohm ±5% 1/8W smd	569-0105-301	R 076	47k ohm ±5% 1/16W smd	569-0155-473
R 021	100k ohm ±5% 1/16W smd	569-0155-104	R 077	10k ohm ±5% 1/16W smd	569-0155-103
R 022	300 ohm ±5% 1/8W smd	569-0105-301	R 078	10k ohm ±5% 1/16W smd	569-0155-103
R 028	100k ohm ±5% 1/16W smd	569-0155-104	R 079	5.1k ohm ±5% 1/16W smd	569-0155-512
R 029	100k ohm ±5% 1/16W smd	569-0155-104	R 080	300 ohm ±5% 1/16W smd	569-0155-301
R 034	2.2k ohm ±5% 1/16W smd	569-0155-222	R 082	47k ohm ±5% 1/16W smd	569-0155-473
R 040	10k ohm ±5% 1/16W smd	569-0155-103	R 083	3.3k ohm ±5% 1/16W smd	569-0155-332
R 042	10k ohm ±5% 1/16W smd	569-0155-103	R 084	10k ohm ±5% 1/16W smd	569-0155-103
R 043	4.7kohm ±5% 1/16W smd	569-0155-472	R 087	10k ohm ±5% 1/16W smd	569-0155-103
R 044	10k ohm ±5% 1/16W smd	569-0155-103	R 090	10k ohm ±5% 1/16W smd	569-0155-103
R 045	10k ohm ±5% 1/16W smd	569-0155-103	R 093	10k ohm ±5% 1/16W smd	569-0155-103
R 046	47k ohm ±5% 1/16W smd	569-0155-473	R 095	10k ohm ±5% 1/16W smd	569-0155-103
R 047	10k ohm ±5% 1/16W smd	569-0155-103	R 096	10k ohm ±5% 1/16W smd	569-0155-103
R 051	47k ohm ±5% 1/16W smd	569-0155-473	R 097	10k ohm ±5% 1/16W smd	569-0155-103
R 052	47k ohm ±5% 1/16W smd	569-0155-473	R 098	10k ohm ±5% 1/16W smd	569-0155-103
R 053	33k ohm ±5% 1/16W smd	569-0155-333	R 099	10k ohm ±5% 1/16W smd	569-0155-103
R 054	10k ohm ±5% 1/16W smd	569-0155-103	R 100	10k ohm ±5% 1/16W smd	569-0155-103
R 055	4.7k ohm ±5% 1/16W smd	569-0155-472	R 101	10k ohm ±5% 1/16W smd	569-0155-103
R 056	10k ohm ±5% 1/16W smd	569-0155-103	R 102	10k ohm ±5% 1/16W smd	569-0155-103
R 057	4.7k ohm ±5% 1/16W smd	569-0155-472	R 103	1.2M ohm ±5% 1/16W smd	569-0155-125
R 058	10k ohm ±5% 1/16W smd	569-0155-103	R 104	200k ohm ±5% 1/16W smd	569-0155-204
R 059	2.2k ohm ±5% 1/16W smd	569-0155-222	R 105	240k ohm ±5% 1/16W smd	569-0155-244
R 060	2.2k ohm ±5% 1/16W smd	569-0155-222	R 106	47k ohm ±5% 1/16W smd	569-0155-473
R 061	2.2k ohm ±5% 1/16W smd	569-0155-222	R 107	82k ohm ±5% 1/16W smd	569-0155-823
R 062	10k ohm ±5% 1/16W smd	569-0155-103	R 108	160k ohm ±5% 1/16W smd	569-0155-164
R 063	10k ohm ±5% 1/16W smd	569-0155-103	R 109	1k ohm ±5% 1/16W smd	569-0155-102
R 064	10k ohm ±5% 1/16W smd	569-0155-103			

R 110	10k ohm ±5% 1/16W smd	569-0155-103	R 153	1k ohm ±5% 1/8W smd	569-0115-102
R 111	47k ohm ±5% 1/16W smd	569-0155-473	R 154	1k ohm ±5% 1/8W smd	569-0115-102
R 112	100k ohm ±5% 1/16W smd	569-0155-104	R 155	1k ohm ±5% 1/8W smd	569-0115-102
R 113	100k ohm ±5% 1/16W smd	569-0155-104	R 156	1k ohm ±5% 1/8W smd	569-0115-102
R 114	100k ohm ±5% 1/16W smd	569-0155-104	S 001	10 Pos DIP switch	583-5100-210
R 115	1k ohm ±5% 1/16W smd	569-0155-102	S 022	Light touch switch	583-4020-015
R 116	47k ohm ±5% 1/16W smd	569-0155-473	S 027	Light touch switch	583-4020-015
R 118	10k ohm ±5% 1/16W smd	569-0155-103	S 029	Light touch switch	583-4020-015
R 119	2.2k ohm ±5% 1/16W smd	569-0155-222	S 030	KT series switch, right angle	583-9228-003
R 120	2.2k ohm ±5% 1/16W smd	569-0155-222	U 002	Op amp, quad MC3303	544-2020-008
R 121	10k ohm ±5% 1/16W smd	569-0155-103	U 003	RS-485 bus transceiver ADM483	544-2023-073
R 122	47k ohm ±5% 1/16W smd	569-0155-473	U 009	Microcontroller MC68HC908	544-9100-007
R 123	47k ohm ±5% 1/16W smd	569-0155-473	U 012	Regulator, 5V 300mA ADP3367	544-2032-009
R 124	10k ohm ±5% 1/16W smd	569-0155-103	U 045	Non-inverting buffer, quad TC74VHC125	544-3991-125
R 125	2.2k ohm ±5% 1/16W smd	569-0155-222	U 047	Regulator, 5V 300mA ADP3367	544-2032-009
R 126	510 ohm ±5% 1/8W smd	569-0115-511	U 054	Schmitt trigger, hex 74C14	544-3991-014
R 127	10k ohm ±5% 1/16W smd	569-0155-103	U 056	Open drain buffer, hex 74C906	544-3716-906
R 128	510 ohm ±5% 1/8W smd	569-0115-511	U 057	Regulator, 5V 300mA ADP3367	544-2032-009
R 129	100k ohm ±5% 1/16W smd	569-0155-104	U 058	Regulator, 8V 0.5A 78M08	544-2003-081
R 130	150 ohm ±5% 3/4W smd	569-0135-151	U 059	Univ LCD driver PCF8576	544-2027-010
R 131	150 ohm ±5% 3/4W smd	569-0135-151	U 060	Univ LCD driver PCF8576	544-2027-010
R 134	100 ohm ±5% 3/4W smd	569-0135-101	U 061	Voltage reference, 2.5V LM4120	544-2032-008
R 135	100 ohm ±5% 3/4W smd	569-0135-101	U 062	D flip-flop TC7W74FU	544-1010-014
R 136	100 ohm ±5% 3/4W smd	569-0135-101	U 063	D flip-flop TC7W74FU	544-1010-014
R 137	100 ohm ±5% 3/4W smd	569-0135-101	W 001	Coil cord assembly	597-2002-272
R 138	4.7k ohm ±5% 1/16W smd	569-0155-472	W 503	Control cable, 17 ft. junc - xcvr	597-2002-267
R 139	4.7k ohm ±5% 1/16W smd	569-0155-472	Y 002	Crystal, 4.9152 MHz smd	521-3060-024
R 140	100k ohm ±5% 1/16W smd	569-0155-104			
R 141	100k ohm ±5% 1/16W smd	569-0155-104			
R 142	100k ohm ±5% 1/16W smd	569-0155-104			
R 143	100k ohm ±5% 1/16W smd	569-0155-104			
R 144	100k ohm ±5% 1/16W smd	569-0155-104			
R 145	180k ohm ±5% 1/16W smd	569-0155-184			
R 146	100k ohm ±5% 1/16W smd	569-0155-104			
R 147	100k ohm ±5% 1/16W smd	569-0155-104			
R 150	10k ohm ±5% 1/16W smd	569-0155-103			
R 151	10k ohm ±5% 1/16W smd	569-0155-103			
R 152	10k ohm ±5% 1/16W smd	569-0155-103			

HHC Junction Box Assembly		
Part No. 023-5300-130		
C 001	2.2 uF 20V tantalum smd	510-2626-229
C 002	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 003	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 004	2.2 uF 20V tantalum smd	510-2626-229
C 005	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 006	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 008	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 009	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 010	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 011	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 012	1μF X7R ±10% 16V cer smd	510-3606-105
C 013	1μF X7R ±10% 16V cer smd	510-3606-105
C 014	1μF X7R ±10% 16V cer smd	510-3606-105
C 015	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 016	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 018	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 019	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 020	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 021	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 022	1μF X7R ±10% 16V cer smd	510-3606-105
C 023	2.2 uF 35V tantalum smd	510-2628-338
C 024	10 uF 25V tantalum smd	510-2627-100
C 025	0.1 μF ±10% X7R 25V cer smd	510-3675-104

C 026	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 027	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 028	1μF X7R ±10% 16V cer smd	510-3606-105
C 029	0.1 μF ±10% X7R 25V cer smd	510-3675-104
C 030	0.1 μF ±10% X7R 25V cer smd	510-3675-104
F 001	Fuse 2.0 A smd	534-5001-009
HW 001	Spacer, 4-40 Hex male/fem	013-1160-103
HW 002	Screw, 4-40 x .25	575-0604-008
HW 003	Screw, 8-18 hex hd sht mtl	575-3908-016
HW 004	Polarizing key box cnt	515-7109-010
J 001	Connector, 10-pin	515-7104-005
J 002	Connector, 15-pin PC mt female	515-0506-115
J 003	Connector, 15-pin	515-0506-119
J 005	3.6 mm (1/8) jack enclosed	515-2001-011
J 006	3.6 mm (1/8) jack enclosed	515-2001-011
J 007	2.5 mm (3/32) audio jack, stereo	515-2002-040
MP 002	Extrusion	014-0777-023
MP 003	Front Panel	017-5300-001
MP 004	Back Panel, revision 2	017-5300-003 2
MP 005	Mounting bracket, junction box	017-5300-005
MP 130	Fiber sheet, 12 x 21	058-0021-002
NP 001	Label, HHC junction box	559-5000-501
PC 001	PC board, junction box rev 2	035-5300-130 2
Q 001	NPN general purpose	576-0003-658
Q 002	NPN general purpose	576-0003-658
R 001	30k ohm ±5% 1/16W smd	569-0155-303
R 002	20k ohm ±5% 1/16W smd	569-0155-203
R 003	220k ohm ±5% 1/16W smd	569-0155-224

R 004	39k ohm ±5% 1/16W smd	569-0155-393
R 005	62k ohm ±5% 1/16W smd	569-0155-623
R 006	62k ohm ±5% 1/16W smd	569-0155-623
R 007	10k ohm ±5% 1/16W smd	569-0155-103
R 008	1k ohm ±5% 1/16W smd	569-0155-102
R 009	2.7k ohm ±5% 1/16W smd	569-0155-272
R 010	8.2k ohm ±5% 1/16W smd	569-0155-822
R 012	20k ohm ±5% 1/16W smd	569-0155-203
R 013	30k ohm ±5% 1/16W smd	569-0155-303
R 014	20k ohm ±5% 1/16W smd	569-0155-203
R 015	20k ohm ±5% 1/16W smd	569-0155-203
R 016	20k ohm ±5% 1/16W smd	569-0155-203
R 017	220k ohm ±5% 1/16W smd	569-0155-224
R 018	20k ohm ±5% 1/16W smd	569-0155-203
R 019	39k ohm ±5% 1/16W smd	569-0155-393
R 020	62k ohm ±5% 1/16W smd	569-0155-623
R 021	20k ohm ±5% 1/16W smd	569-0155-203
R 022	62k ohm ±5% 1/16W smd	569-0155-623
R 023	20k ohm ±5% 1/16W smd	569-0155-203
R 024	20k ohm ±5% 1/16W smd	569-0155-203
R 025	20k ohm ±5% 1/16W smd	569-0155-203
R 026	200k ohm ±5% 1/16W smd	569-0155-204
R 027	20k ohm ±5% 1/16W smd	569-0155-203
R 028	20k ohm ±5% 1/16W smd	569-0155-203
R 029	20k ohm ±5% 1/16W smd	569-0155-203
R 030	20k ohm ±5% 1/16W smd	569-0155-203
R 031	20k ohm ±5% 1/16W smd	569-0155-203
R 032	300 ohm ±5% 1/16W smd	569-0155-301
R 033	300 ohm ±5% 1/16W smd	569-0155-301
R 034	20k ohm ±5% 1/16W smd	569-0155-203
R 035	20k ohm ±5% 1/16W smd	569-0155-203
R 036	20k ohm ±5% 1/16W smd	569-0155-203
R 037	100k ohm ±5% 1/16W smd	569-0155-104
R 038	20k ohm ±5% 1/16W smd	569-0155-203
R 039	20k ohm ±5% 1/16W smd	569-0155-203

R 040	20k ohm ±5% 1/16W smd	569-0155-203
R 041	100k ohm ±5% 1/16W smd	569-0155-104
R 042	20k ohm ±5% 1/16W smd	569-0155-203
R 043	20k ohm ±5% 1/16W smd	569-0155-203
R 044	20k ohm ±5% 1/16W smd	569-0155-203
R 045	100k ohm ±5% 1/16W smd	569-0155-104
R 046	20k ohm ±5% 1/16W smd	569-0155-203
R 047	100k ohm ±5% 1/16W smd	569-0155-104
R 049	150 ohm ±5% 1/16W smd	569-0115-151
R 050	10k ohm ±5% 1/16W smd	569-0155-103
R 051	10k ohm ±5% 1/16W smd	569-0155-103
S 001	Relay, photo MOS 1.3A 100V	544-1020-035
S 002	Relay, photo MOS 1.3A 100V	544-1020-035
U 001	Op amp, quad MC3303	544-2020-008
U 003	Op amp, quad MC3303	544-2020-008
U 004	Audio amp, stereo 150 mW TPA122	544-2006-030
U 005	Switch, bilateral MC14066B	544-3016-066
U 006	Op amp, quad MC3303	544-2020-008
U 007	Comparator, dual LM2903	544-2025-009
U 009	Regulator, 5V 0.5A 78M05	544-2003-079

SIREN CONTROLLER KIT
Part No. 250-5300-101

A 001	Siren wire kit (see separate listing)	023-5300-101
A 015	Siren system, w/ctrlr, amp, cable	585-5300-015

Siren Wire Kit
Part No. 023-5300-101

F 001	Fuse, 15A 32V	534-0332-015
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FH001	Fuseholder, in-line	534-1100-003
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HW001	Ring terminal, 1/4 12-16 AWG	586-0001-150	J 004	Header, 10-pin shrouded	515-7104-005
HW002	Solder splice terminator .100-.175	586-0007-085	J 007	Jack, 2-pin sgl in-line hdr	515-7100-002
W 001	Wire, zip cord 14 AWG	597-2006-004	J 008	Jack, mini enclosed	515-2002-011
W 002	Wire, 14 AWG black stranded	597-7021-400	MP 001	Extruded metal enclosure	014-0777-021
W 003	Wire, 14 AWG red stranded	597-7021-402	MP 002	Back panel (DB9 end)	017-2206-017
REMOTE PROG. INTERFACE (RPI) Part No. 023-5300-000			MP 003	Front panel (LED end)	017-2206-016
C 003	.1 μ F \pm 10% X7R 50V smd	510-3606-104	MP 007	Spacer, 4-40 hex male/female	013-1160-103
C 004	.1 μ F \pm 10% X7R 50V smd	510-3606-104	NP 001	ID/nameplate	559-5000-500
C 005	.1 μ F \pm 10% X7R 50V smd	510-3606-104	PC 001	PC board	035-5300-030
C 010	10 μ F 25V tantalum smd	510-2627-100	Q 001	NPN general purpose SOT-23	576-0003-658
C 011	10 μ F 25V tantalum smd	510-2627-100	Q 005	NPN general purpose SOT-23	576-0003-658
C 014	4.7 μ F 10V tantalum smd	510-2624-479	R 009	1k ohm \pm 5% 1/8w SMD	569-0115-102
C 015	4.7 μ F 10V tantalum smd	510-2624-479	R 010	200 ohm \pm 5% 1/8W smd	569-0115-201
C 016	10 μ F 16V tantalum smd	510-2625-100	R 012	10k ohm \pm 5% 1/8W smd	569-0105-103
C 017	10 μ F 16V tantalum smd	510-2625-100	R 013	10k ohm \pm 5% 1/8W smd	569-0105-103
C 018	10 μ F 25V tantalum smd	510-2627-100	R 020	10k ohm \pm 5% 1/8W smd	569-0105-103
CR 001	Schottky diode, 1A/100V	523-0519-031	R 024	10k ohm \pm 5% 1/8W smd	569-0115-103
CR 002	Schottky diode, 1A/100V	523-0519-031	R 025	3k ohm \pm 5% 1/8W smd	569-0115-302
CR 003	Schottky diode, 1A/100V	523-0519-031	R 028	3k ohm \pm 5% 1/8W smd	569-0115-302
CR 004	Schottky diode, 1A/100V	523-0519-031	R 029	3k ohm \pm 5% 1/8W smd	569-0115-302
CR 006	Switching diode SOT-23	523-1504-002	R 032	10k ohm \pm 5% 1/8W smd	569-0115-103
CR 007	Switching diode SOT-23	523-1504-002	R 035	300 ohm \pm 5% 1/8W smd	569-0115-301
CR 008	5.6V zener SOT-23	523-2016-569	R 036	3k ohm \pm 5% 1/8W smd	569-0115-302
DS 001	Red/grn LED rt angle	549-4006-001	R 037	Zero ohm \pm 5% 1/8W smd	569-0115-001
HW 006	Screw, TT 4-40 x .25 pan hd	575-0604-008	R 038	10k ohm \pm 5% 1/8W smd	569-0105-103
HW 012	Polarizing key	515-7109-010	R 039	10k ohm \pm 5% 1/8W smd	569-0115-103
J 001	Jack, 3.6 mm enclosed	515-2001-011	R 040	10k ohm \pm 5% 1/8W smd	569-0115-103
J 002	Jack, 9-pos PC mt	515-0506-043	R 041	100k ohm \pm 5% 1/8W smd	569-0115-104
J 003	Jack, power PC mt	515-2007-010	S 009	DIP switch, 8-pos SPST	583-5100-108
			U 001	Regulator, 5V 0.5A 78M05	544-2003-079

U 004	RS-232 rx/tx, dual MAX232	544-2023-019
U 005	RS-485 bus xcvr SN65176	544-2023-027

U 006	Schmitt trigger 74HC14	544-3766-014
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Ref No.	Description	Part No.
VHF RF BOARD		
B11	PCA, VHF, RF, TRANSCEIVER, EFJ	
E3,E4,J3,L5,L9,L12,L16,L26,L49,L82,P1,P2,P3,R7,R18,R19, R21,R22,R28,R29,R30,R40,R82,R85,R106,R107	NOT PLACED	NP
C1,C10,C13,C21,C26,C36,C37,C45,C229,C232,C242,C318	NOT PLACED	NP
J2	PCB, FLEX, EFJ	0P795/D
	PCB, VHF, RF TRANSCEIVER, EFJ	0P811/B
CP1,CP2,CP3,CP4	CAP, 4 UP, 47 PF, ±10%, 50V, NPO, 1206	1C424-470
C2,C6,C42,C43,C44,C47,C96,C97,C99,C109,C120,C121,C141, C164,C182,C192,C195,C285,C288,C291,C304	CAP, CER, 0.1 UF, ±10%,10V, X7R, 0603	1C455-104
C3,C19,C55,C126,C135,C136,C142,C143,C181,C193,C194, C287,C292,C305	CAP, CER, 100 PF, ±5%, NPO, 0603	1C113-101
C4,C20,C29,C69,C101,C102,C106,C110,C111,C114,C127,C128, C129,C130,C131,C134,C137,C140,C145,C150,C151,C152,C153, C163,C169,C176,C189,C199,C200	CAP, CER, 0.01 UF, ±10%, X7R, 0603	1C148-103
C5	CAP, PPS FILM, .0047 UF, ±5%, 16V, LOW ESR, 0805	1C478-472
C7,C9	CAP, CER, 180 PF, NPO, 0603	1C113-181
C8,C274,C303	CAP, CER, 10 PF, ±5%, NPO, 0603	1C113-100
C11,C14,C17,C23,C24,C25,C33,C34,C46,C48,C49,C50,C61,C62, C63,C65,C67,C70,C95,C107,C113,C118,C122,C148,C149,C155, C156,C157,C159,C162,C165,C166,C167,C205,C206,C222,C223, C224,C225,C226,C240,C276,C295,C296,C297,C299,C300,C301, C307	CAP, CER 1000 PF, ±5%, NPO, 0603	1C113-102
C12	CAP, PPS FILM, 0.018 UF. ±5%, 16V, 3216	1C733-B183
C15,C298	CAP, CER, 47 PF, ±5%, NPO, 0603	1C113-470
C16	CAP, PPS FILM, .015 UF, ±5%, 16V, 3216	1C478-153
C18,C230,C234,C235,C277	CAP, CER, 39 PF, ±2%, NPO, 0603	1C731-390
C22	CAP, PPS FILM, 0.68 UF, ±10%, 16V, LOW ESR, 3216	1C478-684
C27,C272,C273,C312,C313	CAP, CER, 3.3 PF, ±0.25 PF, 0603	1C450-3R3
C28	CAP, FILM, 0.15 UF, ±20%, 16V, 3216	1C353-J154

C30,C293	CAP, PPS FILM, 0.22 UF, $\pm 10\%$, 25V, LOW ESR, 3216	1C478-224
C31,C139	CAP, CER, 200 PF, $\pm 5\%$, NPO, 0603	1C113-201
C32	CAP, TANT, 4.7 UF, $\pm 20\%$, 16V, B CASE	1C166-475
C35,C125,C132,C133,C168,C171,C174,C175,C202,C203,C286,C289,C290,C302	CAP, TANT, 4.7 UF, $\pm 20\%$, 16V, A CASE	1C573-A475
C38,C115	CAP, CER, 33 PF, $\pm 5\%$, NPO, 0603	1C113-330
C39	CAP, CER, 8.2 PF, ± 0.25 PF, 0603	1C450-8R2
C40	CAP, CER, 1.0 PF, ± 0.1 PF, NPO, 0603	1C731-1R0
C41,C90,C294	CAP, CER, 470 PF, $\pm 5\%$, NPO, 0603	1C113-471
C51,C72	CAP, CER, 22 PF, $\pm 5\%$, LOW E, NPO, 0603	1C731-220
C56	CAP, CHIP, 1.0 UF, $\pm 20\%$, 10V, X7R, 0603 PKG	73550
C60	CAP, CER, 18 PF, $\pm 5\%$, NPO, 0603	1C113-180
C64	CAP, CER, 15 PF, $\pm 2\%$, LOW ESR, HIGH-Q, 0603	1C731-150
C68,C241	CAP, CER, 12 PF, $\pm 5\%$, NPO, 0603 PKG	1C113-120
C89	CAP, CER, 5.6 PF, ± 0.25 PF, 0603	1C450-5R6
C98,C123,C154,C284	CAP, TANT, 10 UF, $\pm 20\%$, 10V, A CASE	1C117-106
C100,C108,C112,C116,C117	CAP, CER, 56 PF, $\pm 5\%$, NPO, 0603	1C113-560
C103	CAP, CER, 0.012 UF, $\pm 5\%$, 50V, X7R, 0805	1C399-123
C104,C160,C311	CAP, CER, 4700 PF, $\pm 10\%$, X7R, 0603	1C148-472
C105,C146,C147,C161,C172,C177,C196,C310	CAP, TANT, 1.0 UF, $\pm 20\%$, 16V, A CASE	1C118-105
C119,C236,C237	CAP, CER, 82 PF, $\pm 2\%$, LOW ESR, HI-Q, 0603	1C731-820
C138	CAP, CER, 0.022 UF, $\pm 10\%$, 50V, X7R, 0805	1C143-223
C144	CAP, CER, 2200 PF, $\pm 10\%$, X7R, 0603	1C148-222
C158	CAP, CER, 120 PF, $\pm 5\%$, NPO, 0603	1C113-121
C210	CAP, CER, 82000 PF, $\pm 10\%$, X7R, 0603	1C148-823
C231,C233,C238,C239	CAP, CER, 6.2 PF, ± 0.1 PF, LOW ESR, HI-Q, 0603	1C731-6R2
C270	CAP, CER, 2.7 PF, ± 0.25 PF, NPO, 0603	1C113-2R7
C271	CAP, CER, 6.8 PF, ± 0.1 PF, LOW ESR, HI-Q, 0603	1C731-6R8

C306	CAP, FILM CHIP, 1200 PF, $\pm 5\%$, 16V, 0805	73697
C308	CAP, FILM CHIP, 4700 PF, $\pm 5\%$, 16V, 0805	73699
C309	CAP, FILM CHIP, 3300 PF, $\pm 5\%$, 16V, 0805	73698
D4,D10	TRANS, MOSFET, P-CH, SOT23	1T158-SI2323
D9	DIODE, SILICON, TUNING, SOT23, MV2105	72672
D12,D13	DIODE, PIN, HIGH AVG POWER SMQ, MELF	72663
EC1	SHIELD,COVER, IF LARGE	3M797-2
EC2	SHIELD, COVER, IF SMALL	3M809-2
EC5	SHIELD, COVER, PLL	3M813-2
EC7	SHIELD, POWER AMPLIFIER	3M800
EC9	CLIP, GROUND, 3638001000	72673
EC10	CLIP, SPRINGS, 97-251-02	72674
E1	SHIELD, FENCE, IF LARGE	3M797-1
E2	SHIELD, FENCE, IF SMALL	3M809-1
E5	SHIELD, FENCE, PLL	3M813-1
FB1,FB2,FB3	INDUCTOR, FERRITE LEAD, SMT, 0121	1L137-1210S0
FB4,FB5,FB6,FB7,FB8,FB9,FB10	INDUCTOR, FERRITE BEAD, SMT, 0805	1L137-3
F1	FUSE, FAST-ACTING, 2A, SMT, 0603	1X619-2R0
J1	CONN, COAX PLUG, SMT	1J607-2
L1,L2,L7	INDUCTOR, 270 NH, $\pm 2\%$, SMT, 1008	1L498-271
L3	INDUCTOR, 68 NH, $\pm 10\%$, SMT, 1008	1L190-680
L4	INDUCTOR, 390 NH, $\pm 5\%$, SMT, 0603	1L177-391
L6,L8	INDTR, 12 NH, $\pm 2\%$, SMT, 0603	1L177-120G
L10,L33	INDTR, 120 NH, $\pm 2\%$, SMT, 0603	1L177-121G
L11,L21,L22	INDTR, CHIP, 51 NH, $\pm 2\%$, HIGH-Q, 0805	78261
L19,L32,L36	INDTR, 180 NH, $\pm 2\%$, SMT, 0603	1L177-181G
L27	INDTR, CHIP, 180 NH, $\pm 2\%$, 1008 PKG	78126
L28	INDUCTOR, 150 UH, $\pm 10\%$, 1210	1L514-154
L29,L30	INDUCTOR, WIREWOUND, 10 UH, 1206	1L575-102
L31	INDUCTOR, 220 NH, $\pm 10\%$, SMT, 1008	1L190-221

L35	INDUCTOR, 39 NH, ±5%, SMT, 0603	1L177-390
L40	INDUCTOR, 100 NH, ±5%, SMT, 0603	1L177-101
L44	INDUCTOR, 82 NH, ±5%, SMT, 0603	1L177-820
L46,L47,L48	INDTR, CHIP, 470 NH, 5%, 0603LS	1L835-471
L50,L51,L53,L54	INDTR, 150 NH, ±2%, SMT, 1008 (REFERENCE 78127)	1L498-151
L77,L78	INDTR, 72 NH, ±2%, SMT, 0603	1L177-720G
L81	INDUCTOR, 330 NH, ±5%, SMT, 0603	1L177-331
MX1	MIXER, 100-500 MHZ, 7 DB CL, 5 DBM LO	72668
P4,P5,P6,P7,P8	SPRING CONTACT,ELECTRICAL	3C799
Q1,Q2	TRANSISTOR, SMT, NPN, SS RF, SOT-2	1T153-941
Q3,Q4,Q5,Q6,Q7	TRANSISTOR, MOSFET, RDSO, SOT- 23	1T159- 7002CT
RP1	RES, ARRAY, 1K X 4, SMT	1R230-102
R1	RES, 18K, ±5%, SMT, 0603	1R105-183
R2,R6	RES, 560 OHM, ±5%, SMT, 0603	1R105-561
R3	RES, 12K OHM, ±5%, SMT, 0603	1R105-123
R4,R62,R64	RES, 120 OHM, ±5%, SMT, 0603	1R105-121
R5,R8,R109	RES, 620 OHM, ±5%, SMT, 0603	1R105-621
R9	RES, CHIP, 390K OHM, ±5%, 0603 PKG	75886
R10,R113	RES, 240 OHM, ±5%, SMT, 0603	1R105-241
R11,R15,R43,R52,R59,R98	RES, 1.0K OHM, ±5%, SMT, 0603	1R105-102
R12,R14,R32,R42,R58,R69,R76,R102,R103	RES, 10K OHM, ±5%, SMT, 0603	1R105-103
R13	RES, 30 OHM, ±5%, SMT, 0603	1R105-300
R16	RES, CHIP, 12 OHM, ±5%, 0603 PKG	75476
R17	RES, 200 OHM, ±5%, SMT, 0603	1R105-201
R20,R45,R57,R60,R79,R83,R84,R86,R87,R88,R108,R124,R125, R126,R130	RES, 0 OHM, ±5%, SMT, 0603	1R105-0R0
R23,R48,R70,R116	RES, 51 OHM, ±5%, SMT, 0603	1R105-510
R24,R33,R34,R35,R73,R74,R77,R78,R81,R111,R112,R114,R115	RES, 330 OHM, ±5%, SMT, 0603	1R105-331
R25,R27	RES, 470 OHM, ±5%, SMT, 0603	1R105-471
R26	RES, 10 OHM, ±5%, SMT, 0603	1R105-100
R31	RES, 160 OHM, ±5%, SMT, 0603	1R105-161
R36,R117	RES, 2.7K, ±5%, SMT, 0603	1R105-272
R37	RES, 22K OHM, ±5%, SMT, 0603	1R105-223

R38	RES, 6.2K, ±5%, SMT, 0603	1R105-622
R39	RES, 36K, ±5%, SMT, 0603	1R105-363
R41	RES, 15K, ±5%, SMT, 0603	1R105-153
R44	RES, 3K OHM, ±5%, SMT, 0603	1R105-302
R46,R54	RES, 220 OHM, ±5%, SMT, 0603	1R105-221
R47,R49,R71,R119	RES, 100 OHM, ±5%, SMT, 0603	1R105-101
R50	RES, 24 OHM, ±5%, SMT, 0603	1R105-240
R51	RES, 3.9K OHM, ±5%, SMT, 0603	1R105-392
R53	RES, 4K OHM, ±5%, SMT, 0603	1R105-473
R55,R61	RES, 100K OHM, ±5%, SMT, 0603	1R105-104
R56	RES, 1.0M OHM, ±5%, SMT, 0603	1R105-105
R63,R65,R66,R67	RES, 75 OHM, ±5%, SMT, 0603	1R105-750
R68	RES, 9.1 OHM, ±5%, SMT, 1206	1R103-9R1
R72	RES, 62 OHM, ±5%, SMT, 0603	1R105-620
R80	RES, 18 OHM, ±5%, SMT, 0603	1R105-180
R99,R100,R101	RES, 390 OHM, ±5%, SMT, 0603	1R105-391
R104,R105	RES, 4.7K OHM, ±5%, SMT, 0603	1R105-472
R110	RES, 270K OHM, ±5%, SMT, 0603	1R105-274
R118	RES, CHIP, 82 OHM, 5%, 0603	75449
R121,R122	RES, CHIP, 1.6K OHM, ±1%, 0603	75885
R123	RES, 2.0K OHM, ±5%, SMT, 0603	1R105-202
U1	VCO, 200-239 MHZ, UMZ-1154-D16	4V510-11
U2,U25	CRYSTAL, 64.455 MHZ, SMT	1Y496-4
U3	MODULE RF AMP, 135-175MHZ, 6.5W	1Q129-RA07M
U6	IC, RF AMP, 150-2500 MHZ, GAAS HBT	1Q129-RF2361
U7	SWITCH, PHEMT, SPDT, DC-2.5 GHZ, AS169-73	71728
U9	IC, TEMP SENSOR, -40 TO +125, SOT	1Q126-LM50B1Z
U10,U27,U34	IC, REG, LOW DROP OUT, 5.0V, SMT, SO	1Q127-7081-50
U11	IC, IF DIGITIZING SUB-SYSTEM, SM	1Q130-9864
U12,U13	IC, REG, LOW DROP OUT, 3.3V, SMT, SO	1Q127-7081-33
U14,U15	IC, CMOS, SCHMITT INVERTER, SINGLE	1Q128-74V1G14S