

SECTION 5 ALIGNMENT PROCEDURE

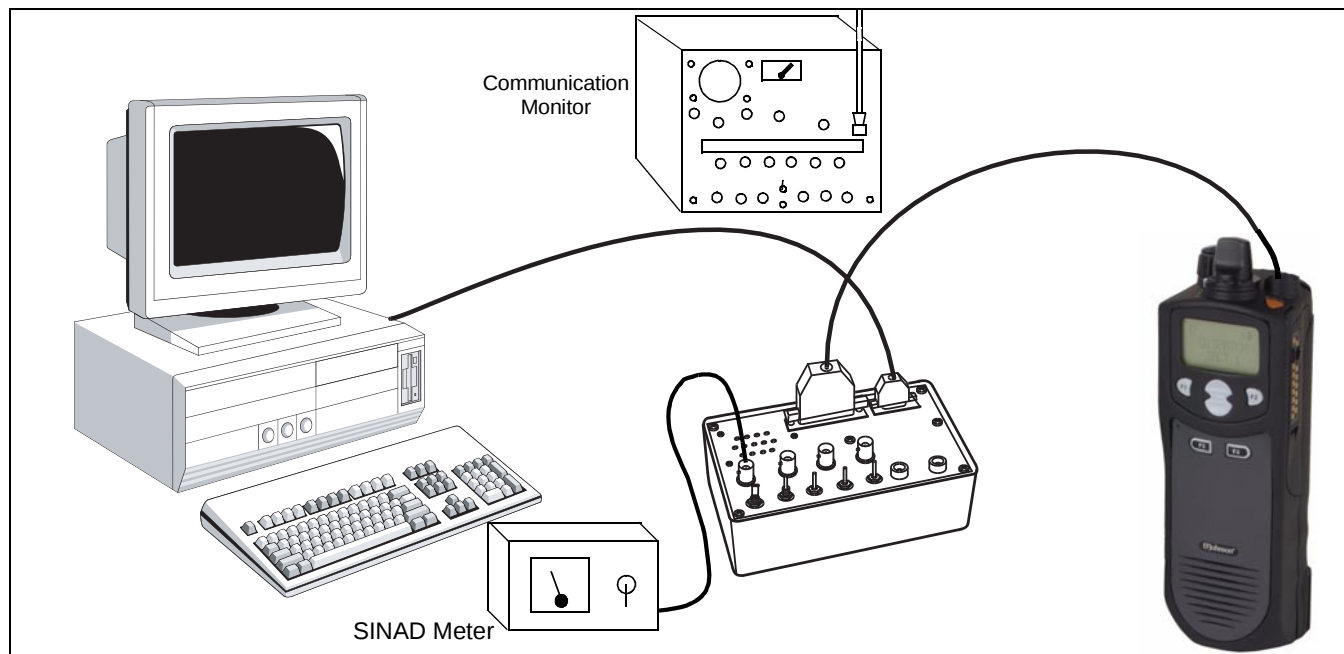


Figure 5-1 Alignment Setup

5.1 GENERAL

5.1.1 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 perform transceiver alignment, a PC-compatible computer, the programming interface cable, and PCTune software are required (see Table 1-1). In addition, to adjust the squelch level, the Radio Interface Box (RIB) and radio-to-RIB cable are required. The programming setup is shown in Figure 5-1.

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 5-1.

5.1.2 TUNE SOFTWARE

General

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

- Windows® 95, 98, or 3.1
- 386SX or faster microprocessor
- 4 megabytes of RAM
- 3 megabytes free space available on hard 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 disk containing the PCTune software in drive A: (or B:).

3. From the Windows 95 taskbar, choose RUN and open SETUP.EXE on drive A: (or B:). Alternatively, use File Explorer and double click SETUP.EXE.

From the Windows 3.1 Program Manager, choose FILE > RUN and select the SETUP.EXE file on drive A: (or B:).

4. Follow the instructions on the screen. The program is automatically loaded on the hard drive and start-up shortcuts or groups are created.

Starting PCTune

From Windows 95 - Select Start in the taskbar, then Programs > PCTune > PCTune x.x.x.

From Windows 3.1 - From the Program Manager, open the PCTune group and then double click the PCTune icon.

Exiting PCTune

Select FILE > EXIT or press ALT + F4.

On-Line Help

On-line help is not available at this time.

5.1.3 PRELIMINARY

1. With transceiver power turned off, connect the female DB9 connector of the programming interface cable to an unused serial port of the computer.
2. Connect the other end of the programming interface cable to the accessory/programming jack on the side of the transceiver.
3. Start the program as described in the preceding section. Select Options > Set Com Port and make sure that the correct serial port is selected (see screen in Figure 5-2).
4. Turn transceiver power on and select Tuning > Complete Tuning to automatically step through a complete alignment or Partial Tuning to adjust only certain settings or randomly select adjustments.
5. The computer then attempts to establish communication with the transceiver. A message is displayed to indicate success or failure. From this point, prompts are displayed for each step of the programming procedure.

5.2 TRANSMIT FREQUENCY TUNING

The transmit frequency is set by transmitting on the indicated frequency and then adjusting the reference oscillator frequency via the tuning software. Proceed as follows:

1. Connect a 50-ohm load to the antenna jack and monitor the transmit signal with a communication monitor.
2. Set the communication monitor to the indicated frequency and click OK to key the transmitter.
3. Adjust the frequency by clicking the + and – keys. The current setting is indicated in the “Current Value” box. When the frequency is correct, click OK again to complete the adjustment and store the setting.

5.3 TRANSMIT MODULATION TUNING

Transmit modulation is set by balancing the modulation produced by 80 Hz and 3 kHz tones and then setting modulation limiting using a 1 kHz tone. All these tones are internally generated by the transceiver, so no external audio generator is required. Proceed as follows:

1. Click OK with “TX Modulation” selected. Set the communication monitor for the displayed frequency.
2. Click OK to transmit a signal modulated with an 80 Hz tone. Enter the resulting deviation (in hertz) in the displayed box and click OK.
3. Continue following the screen instructions to adjust the 3 kHz tone deviation. The + and – buttons are clicked to set the deviation to the indicated level. The 1 kHz tone deviation is then adjusted.

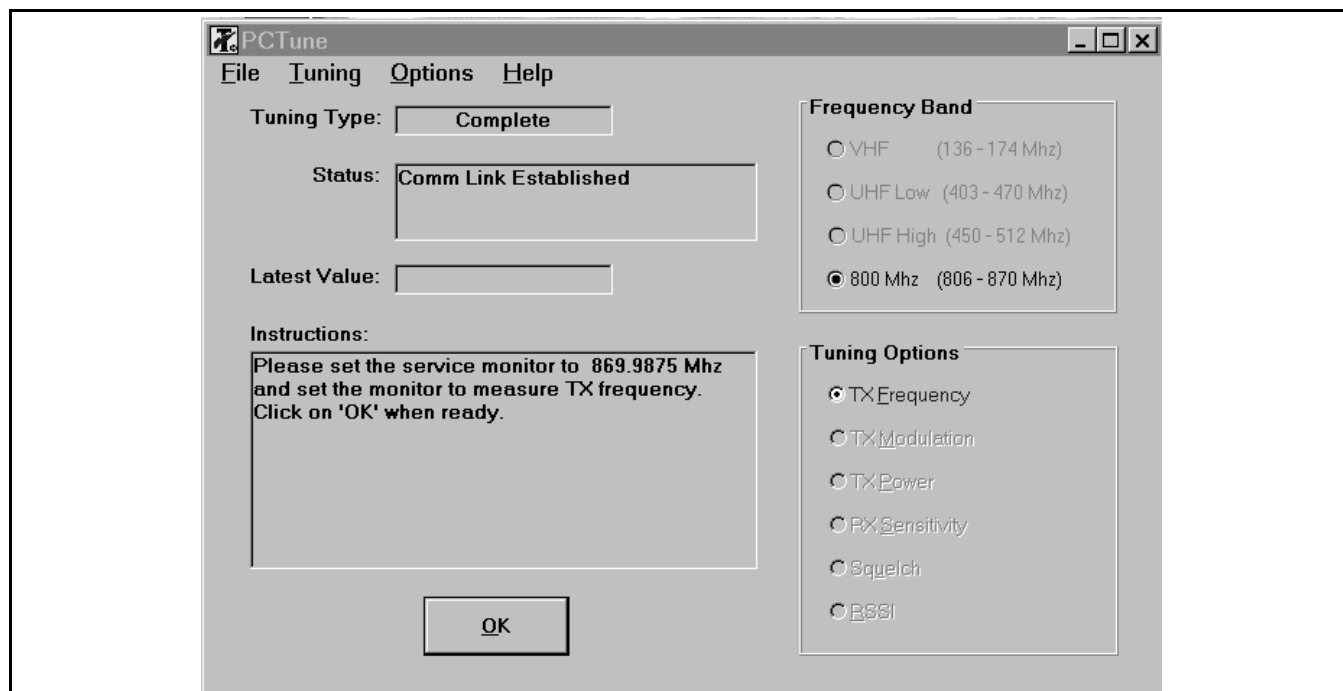


Figure 5-2 Tuning Software Screen (800 MHz Models)

4. The preceding 3 kHz and 1 kHz tone adjustments are then repeated on several other frequencies across the band. After the last adjustment is made, the transmitter unkeys and the settings are stored.
2. Inject the frequencies and signal levels indicated on the computer screen. When tuning is complete, a message is displayed and the settings are saved.

5.4 TRANSMIT POWER ADJUSTMENT

Set transmitter power output as follows:

1. Connect a wattmeter and 50-ohm load to the antenna jack. Click OK with “TX Power” selected.
2. Follow on-screen instructions to adjust for the displayed power output at various frequencies across the band.
3. When the last setting is complete, the transmitter unkeys and the settings are stored.

5.5 RECEIVE SENSITIVITY TUNING

NOTE: This adjustment is not performed with 800 MHz models.

The receiver front end is tuned as follows:

1. Connect an RF signal generator to the antenna jack. Click OK with “RX Sensitivity” selected.

5.6 SQUELCH ADJUSTMENT

NOTE: With some early models, this adjustment cannot be made using the PCTune software so an error message is displayed when it is selected.

Test Setup

This adjustment requires access to the receive audio signal so that SINAD can be measured. It is recommended that this be done using the RIB (Radio Interface Box). This box allows the receive audio signal to be monitored while the computer is connected to the accessory/programming jack.

Adjustment Procedure

1. Connect an RF signal generator to the antenna jack. Click OK with “Squelch” selected.
2. Set the signal generator for the indicated frequency and modulation. Adjust the generator output level for 12 dB SINAD and click OK.

3. When prompted, adjust the output level for 8 dB SINAD and click OK.
4. Proceed as prompted and when this adjustment is complete, a message is displayed and the settings are stored.

5.7 RSSI ADJUSTMENT

NOTE: With some early models, this adjustment cannot be made using the PCTune software so an error message is displayed when it is selected.

This adjustment calibrates the RSSI signal level. Proceed as follows:

1. Connect an RF signal to the antenna jack. Click OK with “RSSI” selected.
2. Set the generator for the indicated frequency and output level and click OK.
3. Select the other output levels as prompted. When this adjustment is complete, a message is displayed the settings are stored.

SECTION 6 PARTS LIST

Ref No.	Description	Part No.
RF BOARD (A450)		
Individual replacement parts not available. Replace entire assembly.		
DIGITAL BOARD (A100) Part No. 023-5005-100/-105		
C 001	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 002	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 003	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 004	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 005	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 006	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 007	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 008	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 009	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 010	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 011	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 012	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 013	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 014	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 015	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 016	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 017	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 018	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 019	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 020	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 021	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 022	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 023	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 024	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 025	10 pF $\pm$ 0.1 pF NPO 50V cer smd	510-3673-100
C 026	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 027	10 pF $\pm$ 0.1 pF NPO 50V cer smd	510-3673-100
C 028	6.2 pF $\pm$ 0.1 pF NPO 50V cer smd	510-3673-629
C 029	5.1 pF $\pm$ 0.1pF NPO 50V cer smd	510-3673-519
C 030	470 pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 031	470 pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 032	.22 μ F $\pm$ 10% Z5U 25V cer smd	510-3686-224
C 033	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 034	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 035	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 036	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104

Ref No.	Description	Part No.
C 037	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 038	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 039	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 040	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 041	470pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 042	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 043	.1 μ F +80/-20% Z5U 25V cer smd	510-3631-104
C 044	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 045	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 046	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 047	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 048	10pF $\pm$ 0.1 pF NPO 50V cer smd	510-3673-100
C 049	10 pF $\pm$ 0.1 pF NPO 50V cer smd	510-3673-100
C 050	33 pF $\pm$ 10% X7R 25V cer smd	510-3675-330
C 051	33 pF $\pm$ 10% X7R 25V cer smd	510-3675-330
C 052	470 pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 053	470 pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 054	470 pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 055	470 pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 056	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 057	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 058	470 pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 059	470 pF $\pm$ 5% NPO 50V cer smd	510-3674-471
C 060	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 061	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 062	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 063	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 064	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 065	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 066	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 067	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 068	.1 μ F +80/-20% Z5U 25V cer smd (-100 boards)	510-3680-104
C 069	220 pF $\pm$ 5% NPO 50V cer smd (-105 boards)	510-3674-221
	.1 μ F +80/-20% Z5U 25V cer smd (-100 boards)	510-3680-104
	220 pF $\pm$ 5% NPO 50V cer smd (-105 boards)	510-3674-221
C 070	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 071	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221
C 072	220 pF $\pm$ 5% NPO 50V cer smd	510-3674-221

DIGITAL BOARD (CONT'D)

Ref No.	Description	Part No.
C 074	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 076	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 078	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 079	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 080	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 081	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 082	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 091	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 092	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 093	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 094	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 095	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 096	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 097	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 098	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 157	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 158	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 159	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 160	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 161	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 162	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
C 163	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 164	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 165	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 166	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 167	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 168	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 169	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 170	33 pF $\pm 10\%$ X7R 25V cer smd	510-3675-330
C 171	220 pF $\pm 5\%$ NPO 50V cer smd	510-3674-221
D 001	Diode, 1.5 pF SOT-23	523-1504-029
D 002	Zener diode, 5.6V SOT-23	523-2601-569
EP 101	Contact, power	013-1724-001
EP102	Z ground strip	017-1210-056
EP 103	Contact, battery pogo pin	515-9500-104
J 001	10-pin socket, x 2	515-7113-070
J 002	18-pin flex connector	515-7010-438
J 004	31-pin connector	515-7109-130
L 001	1.8 μ H inductor, 350mA	542-9230-027
L 002- L 036	Inductor, ferrite smd (-100 boards)	542-9230-023

Ref No.	Description	Part No.
	Inductor, ferrite smd (-105 boards)	542-9230-021
MP 101	Shield, pogo	017-1210-053
PC 101	Flex circuit, power	035-1800-180
PC 100	PC board, digital trunking	035-5005-100
	PC board, digital non-trunk	035-5005-105
PC101	Power flex circuit board, pogo pin	035-5005-101
Q 001	NPN general purpose SOT-23	576-0003-658
R 001	4.7k ohm $\pm 5\%$ 1/16W smd	569-0155-472
R 002	4.7k ohm $\pm 5\%$ 1/16W smd	569-0155-472
R 003	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 004	4.7k ohm $\pm 5\%$ 1/16W smd	569-0155-472
R 005	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 006	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 007	390k ohm $\pm 5\%$ 1/16W smd	569-0155-394
R 008	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 009	4.7k ohm $\pm 5\%$ 1/16W smd	569-0155-472
R 010	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 011	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 012	33k ohm $\pm 5\%$ 1/16W smd	569-0155-333
R 013	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 014	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 015	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 016	0 ohm jumper	569-0155-001
R 017	0 ohm jumper	569-0155-001
R 018	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 019	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 020	0 ohm jumper	569-0155-001
R 021	1.0M ohm $\pm 5\%$ 1/16W smd	569-0155-105
R 022	15k ohm $\pm 5\%$ 1/16W smd	569-0155-153
R 023	6.8k ohm $\pm 5\%$ 1/16W smd	569-0155-682
R 024	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 025	0 ohm jumper	569-0155-001
R 026	0 ohm jumper	569-0155-001
R 027	0 ohm jumper (-100 board)	569-0155-001
	47k ohm $\pm 5\%$ 1/16W smd (-105 board)	569-0155-473
R 028	0 ohm jumper (-100 board)	569-0155-001

DIGITAL BOARD (CONT'D)

Ref No.	Description	Part No.
	100k ohm $\pm 5\%$ 1/16W smd (-105 board)	569-0155-104
R 029	47k ohm $\pm 5\%$ 1/16W smd	569-0155-473
R 030	1k ohm $\pm 5\%$ 1/16W smd (-100 board)	569-0155-102
	0 ohm jumper (-105 board)	569-0155-001
R 031	10 ohm $\pm 5\%$ 1/16W smd	569-0155-100
R 032	10 ohm $\pm 5\%$ 1/16W smd	569-0155-100
R 033	0 ohm jumper (-100 board)	569-0155-001
	10k ohm $\pm 5\%$ 1/16W smd (-105 board)	569-0155-103
R 034	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 035	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 036	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 037	0 ohm jumper	569-0155-001
R 038	0 ohm jumper	569-0155-001
R 039	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 040	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 041	0 ohm jumper	569-0155-001
R 042	0 ohm jumper	569-0155-001
R 043	0 ohm jumper	569-0155-001
R 044	0 ohm jumper	569-0155-001
R 045	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 046	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 047	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 048	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 049	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 050	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 051	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 052	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 053	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 054	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 055	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 056	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 057	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 058	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 059	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 060	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 061	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 062	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 063	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 064	0 ohm jumper	569-0155-001
R 065	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102

Ref No.	Description	Part No.
R 087	0 ohm jumper	569-0155-001
R 090	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 091	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 092	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 093	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 094	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 095	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 096- R 100	0 ohm jumper	569-0165-001
U 001	Programmable logic (-100 board, revision 2)	544-1015-032
	Microprocessor assembly (-100 board, revision 3)	023-1870-043
	Counter, preset 74HC161 (-105 board)	544-1010-161
U 002	Flash ROM 512k x 16 AT49 (-100 board)	544-1028-192
U 003	ADSIC, DSP supp BGA106 (all except following)	544-1010-015
	ADSIC, DSP supp QFP package (-100 board, rev 3)	544-9100-002
U 004	NAND, 2 Input TC7SHOOFU	544-1010-012
U 005	RAM 128k x 8 CY7C1009 (-100 board)	544-1011-028
	SRAM, 64k x 8, IS61C512 (-105 board)	544-1011-026
U 006	RAM 128k x 8 CY7C1009 (-100 board)	544-1011-028
	SRAM, 64k x 8, IS61C512 (-105 board)	544-1011-026
U 007	Rec/trans SCC2691	544-1012-691
U 008	EEPROM, 32k x 8 AT24C256W (-100 board)	544-1020-256
	PEROM, FLASH AT29C010A (-105 board)	544-1010-010
U 009	NAND, 2-input TC7SH00FU (-100 board)	544-1010-012
	OR, 2-input TC7SH32FU (-105 board)	544-1010-013
U 010	PEROM, FLASH AT29C010A	544-1010-010
U 011	OR, 2-input TC7SH32FU	544-1010-013
U 012	DSP TMS320C50PGEA	544-1010-018
U 021	D-flip flop TC7W74FU	544-1010-014
Y 001	Crystal, 20.0000 MHz	521-3060-037
Y 002	Crystal, 3.6864 MHz	521-3060-053

KEYPAD BOARD

Ref No.	Description	Part No.
KEYPAD BOARD (A4xx) Part No. 023-5005-4xx		
A 430	DES interface board assembly	023-5005-430
C 001	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 002	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 003	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 004	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 005	330 pF $\pm$ 10% X7R 25V cer smd	510-3675-331
C 006	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 007	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 008	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 009	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 010	22 pF $\pm$ 5% NPO 25V cer smd	510-3674-220
C 011	2.7 pF $\pm$ 10% NPO 25V cer smd	510-3674-279
C 012	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 013	22 pF $\pm$ 5% NPO 25V cer smd	510-3674-220
C 014	4700 pF $\pm$ 10% X7R 25V cer smd	510-3675-472
C 015	220 pF $\pm$ 5% NPO 25V cer smd	510-3681-221
C 016	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 017	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 018	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 019	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 020	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 021	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 022	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 023	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 024	220 pF $\pm$ 10% X7R 25V cer smd	510-3681-221
C 025	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 026	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 027	220 pF $\pm$ 10% X7R 25V cer smd	510-3681-221
C 028	.01 μ F $\pm$ 10% X7R 25V cer smd	510-3675-103
C 029	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 030	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 031	220 pF $\pm$ 10% X7R 25V cer smd	510-3681-221
C 032	220 pF $\pm$ 10% X7R 25V cer smd	510-3681-221
C 033	100 pF $\pm$ 5% NPO 25V cer smd	510-3674-101
C 034	10 pF $\pm$ 0.1 pF NP0 50V cer smd	510-3673-100
C 035	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 036	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 037	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 038	33 pF $\pm$ 5% NPO 50V cer smd	510-3601-330
C 039	100 μ F 16V smd tantalum	510-2616-101
C 040	1 μ F +80/-20% Z5U 25V cer smd	510-3631-105

Ref No.	Description	Part No.
C 041	220 pF $\pm$ 10% X7R 25V cer smd	510-3681-221
C 042	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 043	1 μ F +80/-20% Z5U 25V cer smd	510-3631-105
C 044	220 pF $\pm$ 10% X7R 25V cer smd	510-3681-221
C 045	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 046	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 047	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 048	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 049	10 pF $\pm$ 0.1 pF NP0 50V cer smd	510-3673-100
C 050	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 051	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 052	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 053	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 054	10 pF $\pm$ 0.1 pF NP0 50V cer smd	510-3673-100
C 055	100 pF $\pm$ 5% NPO 25V cer smd	510-3674-101
C 056	100 μ F 10V smd tantalum	510-2624-100
C 057	.47 μ F $\pm$ 10% Z5U 16V cer smd	510-3605-474
C 058	4.7 μ F 10V smd tantalum	510-2624-479
C 059	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 060	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 061	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 062	.47 μ F $\pm$ 10% Z5U 16V cer smd	510-3605-474
C 063	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 064	.47 μ F $\pm$ 10% Z5U 16V cer smd	510-3605-474
C 065	.47 μ F $\pm$ 10% Z5U 16V cer smd	510-3605-474
C 066	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 067	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 068	4.7 μ F 10V smd tantalum	510-2624-479
C 069	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 070	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 071	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 072	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 073	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 074	100 pF $\pm$ 5% NPO 25V cer smd	510-3674-101
C 075	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 076	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221
C 077	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 078	.1 μ F +80/-20% Z5U 25V cer smd	510-3680-104
C 079	1 μ F +80/-20% Z5U 25V cer smd	510-3631-105
C 080	100 pF $\pm$ 5% NPO 25V cer smd	510-3674-101
C 081	1 μ F +80/-20% Z5U 25V cer smd	510-3631-105
C 082	.001 μ F $\pm$ 10% X7R 25V cer smd	510-3675-102
C 083	1 μ F +80/-20% Z5U 25V cer smd	510-3631-105
C 084	220 pF $\pm$ 10% X7R 50V cer smd	510-3681-221
C 085	220 pF $\pm$ 5% NPO 25V cer smd	510-3674-221

KEYPAD BOARD (CONT'D)

Ref No.	Description	Part No.
C 086	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 087	100 pF $\pm 5\%$ NPO 25V cer smd	510-3674-101
C 088	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 089	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 090	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 091	10 pF ± 0.1 pF NPO 50V cer smd	510-3673-100
C 092	1 μ F $\pm 80/-20\%$ Z5U 25V cer smd	510-3631-105
C 093	100 pF $\pm 5\%$ NPO 25V cer smd	510-3674-101
C 094	100 pF $\pm 5\%$ NPO 25V cer smd	510-3674-101
C 095	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 096	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 097	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 098	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 099	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 100	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 101	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 102	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 103	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 104	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 105	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 106	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 107	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 108	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 109	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 110	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 111	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 112	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 113	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 114	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 115	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 116	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 117	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 118	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 119	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 120	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 121	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 122	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 123	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 124	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 125	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 126	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 127	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 128	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221
C 129	68 μ F $\pm 10\%$ 16V tantalum	510-3674-221
C 130	220 pF $\pm 5\%$ NPO 25V cer smd	510-3674-221

Ref No.	Description	Part No.
C 131	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 132	47 pF $\pm 5\%$ NPO 25V cer smd	510-3674-470
C 133	47 pF $\pm 5\%$ NPO 25V cer smd	510-3674-470
C 134	47 pF $\pm 5\%$ NPO 25V cer smd	510-3674-470
C 135	1 μ F $\pm 80/-20\%$ Z5U 25V cer smd	510-3631-105
C 136	.1 μ F $\pm 80/-20\%$ Z5U 25V cer smd	510-3680-104
C 137	.01 μ F $\pm 10\%$ X7R 25V cer smd	510-3675-103
C 138	1 μ F $\pm 80/-20\%$ Z5U 25V cer smd	510-3631-105
C 139	68 μ F $\pm 10\%$ 16V tantalum	510-2625-680
C 140	68 μ F $\pm 10\%$ 16V tantalum	510-2625-680
C 141	100 μ F 16V smd tantalum	510-2616-101
C 142	4.7 μ F 10V smd tantalum	510-2624-479
C 143	4.7 μ F 10V smd tantalum	510-2624-479
C 144	68 μ F $\pm 10\%$ 16V tantalum	510-3674-221
C 146	220 pF $\pm 10\%$ X7R 25V cer smd	510-3674-221
C 147	3900 pF $\pm 10\%$ X7R 25V cer smd	510-3675-392
C 148	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 149	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 150	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 151	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 152	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 153	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 154	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 155	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 156	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 157	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 158	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 159	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 160	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 161	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 162	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 163	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 164	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 165	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 166	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 167	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 168	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
C 169	220 pF $\pm 10\%$ X7R 25V cer smd	510-3681-221
CR 400	Front display backlight	585-5000-001
D 001	5.6V zener SOT-23	523-2601-569
D 002	Diode MMBD301LT1	523-1504-040
D 004	5.6V zener SOT-23	523-2601-569
D 005	Schottky diode rectifier	523-0519-034

KEYPAD BOARD (CONT'D)

Ref No.	Description	Part No.
D 007	5.6V zener SOT-23	523-2601-569
D 008	10V zener SOT-23	523-2601-100
D 009	10V zener SOT-23	523-2601-100
D 010	10V zener SOT-23	523-2601-100
D 011	Diode MMBD301LT1	523-1504-040
D 013	Diode MMBD301LT1	523-1504-040
D 014	Diode MMBD301LT1	523-1504-040
D 015	5.6V zener SOT-23	523-2601-569
D 017	LED, green SMD HSMG-C670	549-4101-019
D 019	LED, green SMD HSMG-C670	549-4101-019
D 020	LED, green SMD HSMG-C670	549-4101-019
D 021	LED, green SMD HSMG-C670	549-4101-019
D 022	LED, green SMD HSMG-C670	549-4101-019
D 023	10V zener SOT-23	523-2601-100
D 024	10V zener SOT-23	523-2601-100
D 025	5.1V zener SOT-23	523-2601-519
D 035	LED, green SMD HSMG-C670	549-4101-019
D 036	LED, green SMD HSMG-C670	549-4101-019
D 037	LED, green SMD HSMG-C670	549-4101-019
D 038	LED, green SMD HSMG-C670	549-4101-019
D 039	LED, green SMD HSMG-C670	549-4101-019
D 040	LED, green SMD HSMG-C670	549-4101-019
D 041	LED, green SMD HSMG-C670	549-4101-019
D 042	LED, green SMD HSMG-C670	549-4101-019
D 043	LED, green SMD HSMG-C670	549-4101-019
D 044	LED, green SMD HSMG-C670	549-4101-019
D 045	LED, reen SMD HSMG-C670	549-4101-019
DS 400	LCD glass, radio front	549-5000-002
EP 400	Grounding contact	537-5001-009
J 002	Connector, flex 18-pin	515-7010-438
J 004	Connector, microminiature	515-7113-073
J 005	24-pin socket, ZIF	515-9500-017
J 013	24-pin socket, ZIF	515-9500-017
L 002	1.8 μ H 250 mA smd inductor	542-9230-027
L 003	33 μ H 1.2A smd inductor	542-9230-025
L 004	Ferrite bead, 600 ohm smd	542-9230-035
L 005	Ferrite bead, 600 ohm smd	542-9230-035
L 006	Ferrite bead, 600 ohm smd	542-9230-035
L 007	Ferrite bead, 600 ohm smd	542-9230-035
L 008	Ferrite bead, 600 ohm smd	542-9230-035
L 009	Ferrite bead, 600 ohm smd	542-9230-035
L 010	Ferrite bead, 600 ohm smd	542-9230-035

Ref No.	Description	Part No.
L 011	Ferrite bead, 600 ohm smd	542-9230-035
L 012	Ferrite bead, 600 ohm smd	542-9230-035
L 013	Ferrite bead, 600 ohm smd	542-9230-035
L 014	Ferrite bead, 600 ohm smd	542-9230-035
L 015	Ferrite bead, 600 ohm smd	542-9230-035
L 016	Ferrite bead, 600 ohm smd	542-9230-035
L 017	Ferrite bead, 600 ohm smd	542-9230-035
L 018	Ferrite bead, 600 ohm smd	542-9230-035
L 019	Ferrite bead, 600 ohm smd	542-9230-035
L 020	Ferrite bead, 600 ohm smd	542-9230-035
L 021	Ferrite bead, 600 ohm smd	542-9230-035
L 022	Ferrite bead, 600 ohm smd	542-9230-035
L 023	Ferrite bead, 600 ohm smd	542-9230-035
L 024	Ferrite bead, 600 ohm smd	542-9230-035
L 025	Ferrite smd inductor	542-9230-023
L 026	Ferrite smd inductor	542-9230-023
L 027	Ferrite smd inductor	542-9230-023
L 028	Ferrite smd inductor	542-9230-023
L 029	Ferrite smd inductor	542-9230-023
L 030	Ferrite smd inductor	542-9230-023
L 031	Ferrite smd inductor	542-9230-023
L 032	Ferrite smd inductor	542-9230-023
L 033	Ferrite bead, 600 ohm smd	542-9230-035
L 034	Ferrite bead, 600 ohm smd	542-9230-035
L 035	Ferrite bead, 600 ohm smd	542-9230-035
L 036	Ferrite bead, 600 ohm smd	542-9230-035
L 037	Ferrite bead, 600 ohm smd	542-9230-035
L 038	Ferrite bead, 600 ohm smd	542-9230-035
L 039	Ferrite bead, 600 ohm smd	542-9230-035
L 040	Ferrite bead, 600 ohm smd	542-9230-035
L 041	Ferrite smd inductor	542-9230-023
L 042	Ferrite smd inductor	542-9230-023
L 043	Ferrite smd inductor	542-9230-023
L 044	Ferrite smd inductor	542-9230-023
L 045	Ferrite smd inductor	542-9230-023
L 046	Ferrite smd inductor	542-9230-023
L 047	Ferrite smd inductor	542-9230-023
L 048	Ferrite smd inductor	542-9230-023
L 049	Ferrite smd inductor	542-9230-023
L 050	Ferrite smd inductor	542-9230-023
L 053	Ferrite smd inductor	542-9230-023
L 054	Ferrite smd inductor	542-9230-023
L 055	Ferrite smd inductor	542-9230-023
L 056	Ferrite smd inductor	542-9230-023
L 057	Ferrite smd inductor	542-9230-023

KEYPAD BOARD (CONT'D)

Ref No.	Description	Part No.
L 058	Ferrite smd inductor	542-9230-023
L 059	Ferrite smd inductor	542-9230-023
L 060	Ferrite smd inductor	542-9230-023
L 061	Ferrite smd inductor	542-9230-023
L 063	Ferrite smd inductor	542-9230-023
L 064	Ferrite smd inductor	542-9230-023
MP 400	Front LCD holder, stamped	014-2229-508
P 400	Elastomeric connector	515-9900-007
P 430	Header, 8-pin	515-9500-018
PC400	PC board, keypad	035-5005-400
PC430	PC board, DES interface	035-5000-030
Q 001	NPN general purpose SOT-23	576-0003-658
Q 002	NPN general purpose SOT-23	576-0003-658
Q 004	P-chan enh mode MOSFET	576-0003-707
Q 005	NPN general purpose SOT-23	576-0003-658
O 006	NPN general purpose SOT-23	576-0003-658
Q 007	NPN general purpose SOT-23	576-0003-658
Q 008	NPN general purpose SOT-23	576-0003-658
Q 009	NPN general purpose SOT-23	576-0003-658
O 010	NPN general purpose SOT-23	576-0003-658
Q 011	P-chan enh mode MOSFET	576-0003-707
Q 012	NPN general purpose SOT-23	576-0003-658
Q 013	NPN general purpose SOT-23	576-0003-658
Q 014	NPN general purpose SOT-23	576-0003-658
Q 015	P-chan enh mode MOSFET	576-0003-707
R 001	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 002	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 003	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 004	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 005	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 006	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 007	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 008	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 009	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 010	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 011	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 012	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 013	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 014	56k ohm $\pm 5\%$ 1/16W smd	569-0155-563
R 015	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103

Ref No.	Description	Part No.
R 016	0 ohm jumper	569-0155-001
R 017	1.0M ohm $\pm 5\%$ 1/16W smd	569-0155-105
R 018	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 019	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 020	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 021	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 022	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 023	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 024	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 025	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 026	0 ohm jumper	569-0155-001
R 027	47k ohm $\pm 5\%$ 1/16W smd	569-0155-473
R 028	4.75k ohm $\pm 1\%$ 1/16W smd	569-0156-903
R 029	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 030	6.19k, $\pm 1\%$ 1/16W smd	569-0156-904
R 031	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 032	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 033	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 034	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 035	0 ohm jumper	569-0155-001
R 036	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 037	27k ohm $\pm 5\%$ 1/16W smd	569-0155-273
R 038	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 039	2k ohm $\pm 5\%$ 1/16W smd	569-0155-202
R 040	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 041	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 042	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 043	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 044	4.7k ohm $\pm 5\%$ 1/16W smd	569-0155-472
R 045	47k ohm $\pm 5\%$ 1/16W smd	569-0155-473
R 046	390 ohm $\pm 5\%$ 1/16W smd	569-0155-391
R 047	4.7k ohm $\pm 5\%$ 1/16W smd	569-0155-473
R 048	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 049	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 050	390 ohm $\pm 5\%$ 1/16W smd	569-0155-391
R 051	4.7k ohm $\pm 5\%$ 1/16W smd	569-0155-472
R 052	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 053	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 054	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 055	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 056	47k ohm $\pm 5\%$ 1/16W smd	569-0155-473
R 057	360k ohm $\pm 5\%$ 1/16W smd	569-0155-364
R 058	130k ohm $\pm 5\%$ 1/16W smd	569-0155-134
R 059	180k ohm $\pm 5\%$ 1/16W smd	569-0155-184
R 060	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221

KEYPAD BOARD (CONT'D)

Ref No.	Description	Part No.
R 061	150 ohm $\pm 5\%$ 1/8W smd	569-0115-151
R 062	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 063	100k ohm $\pm 5\%$ 1/16W smd	569-0156-104
R 064	27k ohm $\pm 5\%$ 1/16W smd	569-0155-273
R 065	22k ohm $\pm 5\%$ 1/16W smd	569-0155-223
R 066	10k ohm $\pm 5\%$ 1/16W smd	569-0155-103
R 067	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 068	2.2k ohm $\pm 5\%$ 1/16W smd	569-0155-222
R 069	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 070	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 071	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 072	47k ohm $\pm 5\%$ 1/16W smd	569-0155-473
R 073	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 074	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 075	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 076	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 077	220 Ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 078	0 ohm jumper	569-0155-001
R 079	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 080	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 081	200k ohm $\pm 5\%$ 1/16W smd	569-0155-204
R 082	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 083	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 084	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 085	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 086	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 087	150k ohm $\pm 5\%$ 1/16W smd	569-0155-154
R 088	2.2k ohm $\pm 5\%$ 1/16W smd	569-0155-222
R 089	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 090	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 091	10k ohm thermistor	569-3004-041
R 092	2k ohm $\pm 5\%$ 1/16W smd	569-0155-202
R 093	0 ohm jumper	569-0155-001
R 094	0 ohm jumper	569-0155-001
R 095	150 ohm $\pm 5\%$ 1/8W smd	569-0115-151
R 096	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221

Ref No.	Description	Part No.
R 097	220 ohm $\pm 5\%$ 1/16W smd	569-0155-221
R 098	510k ohm $\pm 5\%$ 1/16W smd	569-0155-514
R 099	150k ohm $\pm 5\%$ 1/16W smd	569-0155-154
R 100	27k ohm $\pm 5\%$ 1/16W smd	569-0155-273
R 101	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 102	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 103	0 ohm jumper	569-0155-001
R 104	0 ohm jumper	569-0155-001
R 108	1k ohm $\pm 5\%$ 1/16W smd	569-0155-102
R 109	220k ohm $\pm 5\%$ 1/16W smd	569-0155-224
R 110	0 ohm jumper	569-0155-001
R 111	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 112	150 ohm $\pm 5\%$ 1/16W smd	569-0115-151
R 113	150 ohm $\pm 5\%$ 1/16W smd	569-0115-151
R 114	100k ohm $\pm 5\%$ 1/16W smd	569-0155-104
R 116	Zero ohm jumper	569-0165-001
R 117	Zero ohm jumper	569-0165-001
R 118	Zero ohm jumper	569-0165-001
R 119	Zero ohm jumper	569-0115-001
U 001	Microprcsr, MC68HC708 (unrev bd)	023-1870-045
	Microprcsr, MC68HC908 (rev bd)	544-9100-003
U 002	Analog MUX TC4W53FU	544-1010-011
U 003	EEPROM, 1K 2.5V 24LC02B	544-1012-402
U 004	Voltage detector, micropower	544-1027-665
U 005	RS-232 driver LTC13381G	544-1015-706
U 006	Audio amp, 0.5W w/vol control	544-2006-026
U 007	Audio amp, 0.5W w/vol control	544-2006-026
U 008	Analog MUX TC4W53FU	544-1010-011
U 009	Op amp, SO-8 MC33182D	544-1010-030
U 010	Op amp, SO-8 MC33182D	544-1010-030
U 011	LCD driver MC14LC5003	544-1010-017
U 012	DC-DC converter 5V MAX744AE	544-1010-744
U 013	Regulator, 5V LT11211ST-5	544-1011-121
U 014	Shift register, 8-bit 4094	544-3016-094
W 101	Wire, black 30 gauge solid	592-0080-069
Y 001	Crystal, 4.9152 MHz	521-3060-023