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OPERATIONS and TEST MANUAL
PN: 4952-002 Radios
Revision 1.0

Manual for 916.5 MHz and 914 MHz Radios
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Regulatory Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning

Any modifications to this device without the express written consent of the party responsible for it's compliance could void the user's authority to operate the equipment!

Power Requirements:

Input Power Requirements:	6-30 VDC
Input Current Drain:	<750 ma with Relay Energized and Backlighting ON

Mounting:

Step1. Use #6 nylon screws to rigidly attach PCB assembly to mount plate. Use Locktite 242 to all screws.
Step 2. Place the screws in the 4 mounting holes in the PCB and tighten to 5 ft-lbs.

Programming:

Step 1. Use the software provided with the board and program using MPLAB and the special programming connector.
Step 2. Verify all programming activities using MPLAB VERIFY function.

Operation:

Step 1. Connect Power to J3 Pins 1 and 2.
Step 2. Connect LCD to J1 2x5 header.
Step 3. Turn Power ON.
Step 4. Verify Data on Display is accurate and shows no Communication Errors.
Step 5. Verify Green and Red LEDS are blinking. These LEDs show the TX and RX activity for the radio module.

If Touch Screen Option is installed:

Step 1. Connect the touch screen panel to J6 Pins 1-4.
Step 2. Verify the proper software version is installed.
Step 3. Using the touch screen and a soft pencil eraser touch the corners of the touch screen panel and verify the x and y directions coordinates are valid.
Step 4. Verify the audible buzzer feedback for valid touch locations.

If Relay Option is installed:

Step 1. Connect an OHMmeter to J7 Pins 1-2.
Step 2. Verify the OHMmeter reads greater than 1.0 MegOHM.
Step 3. Verify the proper software version is installed.
Step 4. Using the touch screen activate the relay using the test mode.
Step 5. Verify the OHMmeter shows less than 1.0 ohm.

If High Power Voltage Regulator is installed:

Step 1. Connect the LCD to the system using the standard 10pin ribbon cable.
Step 2. Verify the proper software version is installed.
Step 3. With the radio powered verify the LCD backlighting is turned ON.

If the 914 Mhz radio is installed:
Step 1. Power a 914 MHz radio receiver/transmitter.
Step 2. Verify Data on Display is accurate and shows no Communication Errors.

If the 916.5 Mhz radio is installed:

Step 3. Power a 916.5 MHz radio receiver/transmitter.
Step 4. Verify Data on Display is accurate and shows no Communication Errors.

For A2B Display Configurations:

Step 1. Attach the BATTERY LOW LED
Step 2. Attach the COMM FAIL LED
Step 3. Attach the A2BALERT LED
Step 4. Verify all LEDs operate while their respective conditions are TRUE.

If the RS232 option is installed:

Step 1. Connect the RS232 TX and RX to a PC using a NULL modem.
Step 2. Using COM1: set the communications parameters to 9600,n,8,1,p using the DOS mode command
Step 3. Using a terminal emulation program verify that all data is being transferred.
Step 4. Verify all data is correct.