

## CHAPTER 3.0 INSTALLATION, ADJUSTMENT AND OPERATION

### 3.1 Radio Configuration

#### 3.1.1 Channels

A channel consists of a receive and transmit frequency band. The radio has a total of 256 selectable channels. Each channel may be programmed for different receive and transmit frequencies, squelch, modulation, encryption, and power. Each channel can have one (of a possible sixteen (16)) keys assigned on a channel-by-channel basis. Each channel is identified by an eight-character alpha-numeric label or by its channel number if no text label is programmed. Up to seven shadow channels may be added to each channel. They enable the radio to be used in several squelch/encryption modes on each physical channel.

#### 3.1.2 Zones

A zone is a group of channels. Each zone can be assigned up to 16 channels. The radio can store up to 16 zones, or groups of channels. The zones may be assigned names of up to eight alphanumeric characters and can be assigned to Banks during programming. Three zones can be selected by the toggle switch or 16 zones by the front panel keyboard. Channels can be mapped to the channel select switch positions using the Guardian PC Programmer. When a zone is active (has been selected), the channels within the zone can be selected using the 16-position channel select switch on top of the radio.

#### 3.1.3 Banks

A bank is a group of zones. Zones can be assigned to banks during programming. The radio can store up to four banks of 16 zones each. Banks may be assigned names of up to eight characters.

### 3.2 Installation and Adjustment

#### 3.2.1 Hardware

No installation or adjustments are required.

#### 3.2.2 Software

Software updates will be offered by the manufacturer when required.

### 3.3 Operating Procedures

#### 3.3.1 Connect the Battery

The battery is installed on the radio by inserting the top of the battery first at the top of the radio, then snapping into position at the bottom. A push-to-release button is used to remove the battery.

#### 3.3.2 Connect the Antenna

The antenna is connected to the radio through a Sub-Miniature series A (SMA) connector on top of the radio. Screw the antenna clockwise onto the connector.

#### 3.3.3 Radio Programming

Prior to operation for the first time, the radio must be programmed using the Guardian G25AXR010 PC Programming Kit. For help in programming a radio using the PC Programmer, refer to the Guardian G25AXK001 Programming Manual.

### **3.3.4 Radio Initialization**

Turn on the radio using the On/Off/Volume knob. The radio performs a self-test and sounds a short medium-pitched tone to indicate PASS. Use the switch to set the volume to a comfortable level. Select the desired channel using the Channel Select Switch. The radio is now ready for operation.

### **3.3.5 Choose a Channel**

The default Display Screen shows the current zone and channel. Use the Channel Select Switch to select a different channel in the zone. To change zones either program one of the side keys or the three-position toggle switch to Zone Select, or program through the display using the "Select" menu.

### **3.3.6 Transmit a Voice Message**

Press the PTT switch, hold the radio two to six inches from your mouth, and speak in a clear voice.

### **3.3.7 Receive a Voice Message**

To enable the radio to receive a voice message, release the PTT. Use the PC Programmer or the Radio "Program" menu (see Appendix A) to set/adjust the squelch level, Continuous Tone-Controlled Squelch System (CTCSS) tones, Digital Coded Squelch (DCS) variables, Network Access Codes (NACs), and/or Talk- Group Identifiers (TGIDs) as required.