Professional Radio

SLX SERIES

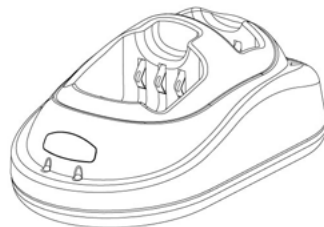# User Guide

ITEMS

Radio

1700mAh Li-Ion Battery Pack

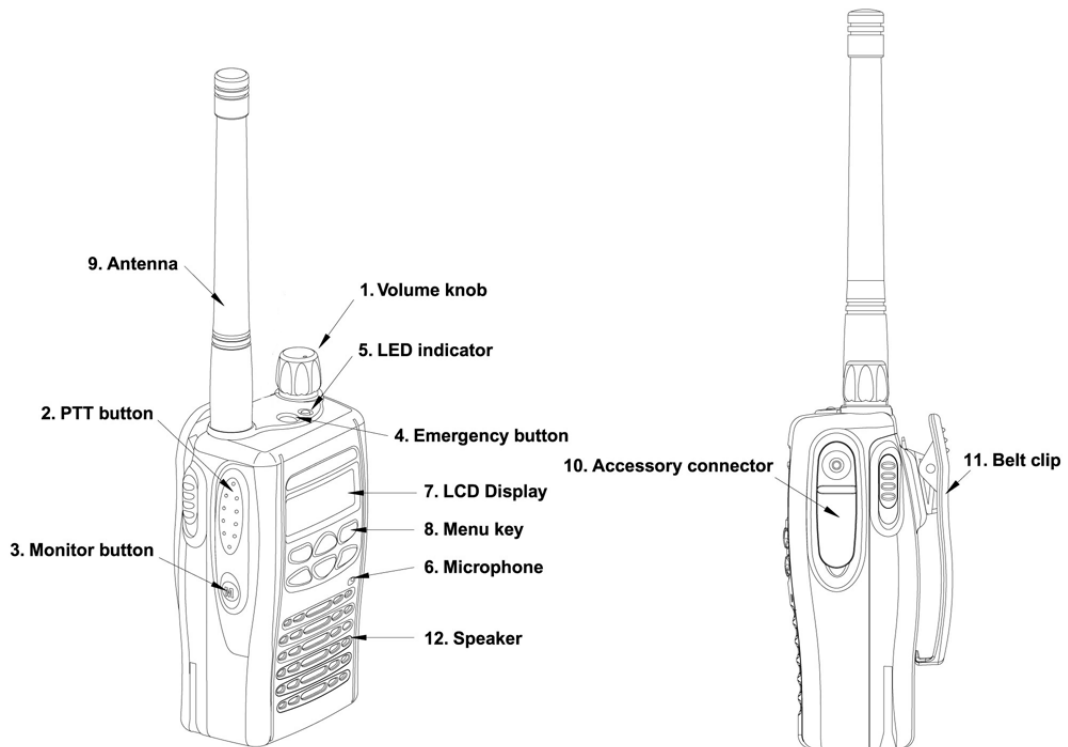Desktop Rapid Charger

Antenna

Hand Strap

User Manual

9. Antenna

1. Volume knob

5. LED indicator

2. PTT button

4. Emergency button

10. Accessory connector

11. Belt clip

7. LCD Display

8. Menu key

3. Monitor button

6. Microphone

12. Speaker

CONTENTS

RADIO OVERVIEW

Thank you for purchasing the RITRON SLX-Series transceivers. Read all instructions carefully and completely before using transceiver. This instruction manual contains important operating instructions for the transceivers.

OPERATION AND CONTROL FUNCTIONS
Radio Controls
The numbers below refer to the illustrations on the inside front cover.

1. **On-Off / Volume Knob**
   Turn the power/volume control knob clockwise to turn the radio on.
2. **Push to Talk Button (PTT)**
   Push and hold to transmit; release to receive signal.
3. **Monitor Button**
   Press the Monitor key momentarily to disable the Tone squelch.
4. **Emergency Button**
   The emergency function allows you to send an emergency signal quickly and easily to your

Base Station, etc. in case of emergency.
5. **LED Indicator**
6. **Microphone**
7. **LCD Display**
8. **Menu Keys**
9. **Antenna**
10. **Accessory Connector**
    Connects headsets, remote speaker/ microphones and other accessories. Replace attached dust cap when not in use.
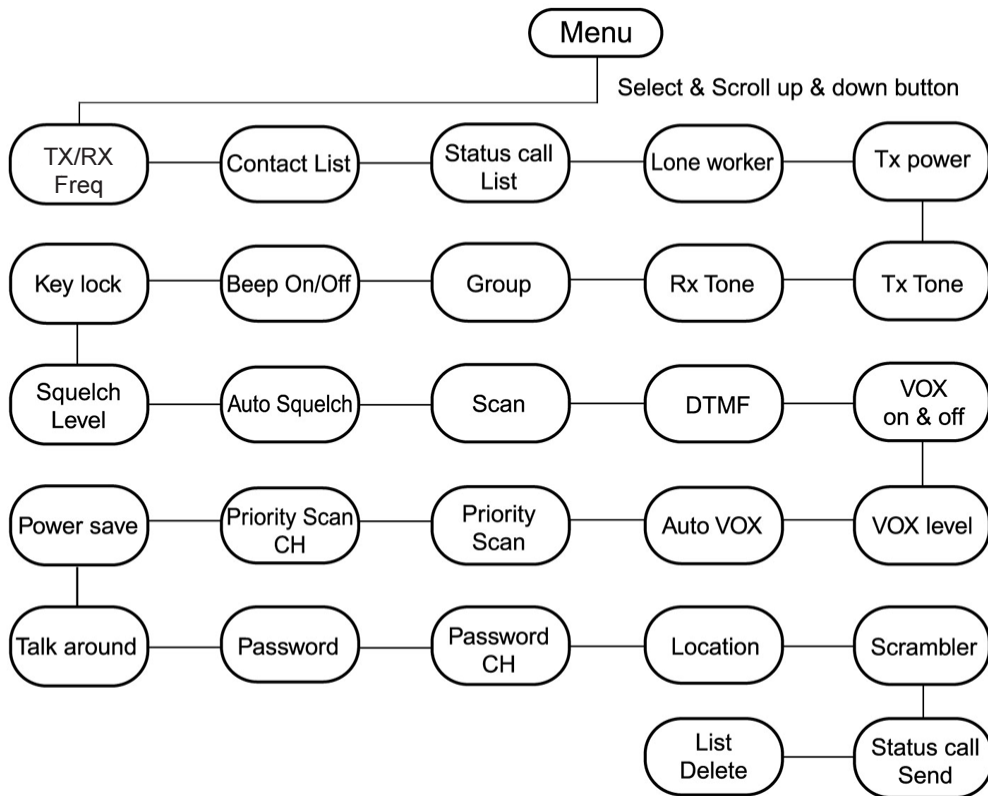11. **Belt Clip**

Programmable Buttons
All of your radio buttons can be programmed (By Programming Software) to activate the radio features.
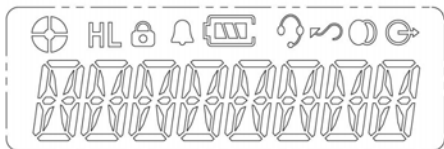
Hot Keys

The front panel buttons (Hot Keys) can be programmed for various features. The following diagram shows how the Hot Keys are programmed from the factory.

Orange button:	**Emergency**	When pressed for 2 seconds, the programmed Emergency Code is automatically transmitted.
Monitor Button:	**Monitor**	Radio programmed with sub-tone: When pressed 1 time, will disable sub-tone. When pressed 2 times, will disable sub-tone and carrier squelch.
P1 Button:	**TX Power Level**	When pressed will toggle between High Power (4W UHF/ 5W VHF) and Low Power (1W).
P2 Button:	**Contact List**	When pressed, preprogrammed names from the Contact List appear in the display. By pressing the PTT button, a programmed code associated with the Contact List name will be automatically transmitted.
P3 Button:	**Scan**	When pressed, the radio will scan those channels with the scan function enabled.
Arrow Up Button:	**Channel/Scroll Up**	When pressed, the radio channel or feature list selected will be incremented to the next one.
Arrow Down Button:	**Channel/Scroll Down**	When pressed, the radio channel or feature list selected will be incremented to the next one.
Check Button:	**Menu Enable**	When pressed, will display list of features that have been enabled on the Menu List.

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                              ┌─────────┐
                              │  Menu   │
                              └─────────┘
                                   │
                                   │  Select & Scroll up & down button
        ┌──────────┬──────────┬────┴─────┬──────────┐
   ┌─────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
   │ TX/RX   │─│ Contact  │─│Status call│─│  Lone   │─│ Tx power │
   │  Freq   │ │  List    │ │   List   │ │ worker  │ │          │
   └─────────┘ └──────────┘ └──────────┘ └──────────┘ └──────────┘
                                                            │
   ┌─────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
   │ Key lock│─│Beep On/Off│─│  Group  │─│ Rx Tone │─│ Tx Tone  │
   └─────────┘ └──────────┘ └──────────┘ └──────────┘ └──────────┘

   ┌─────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
   │ Squelch │─│  Auto    │─│   Scan   │─│  DTMF   │─│  VOX     │
   │  Level  │ │ Squelch  │ │          │ │         │ │ on & off │
   └─────────┘ └──────────┘ └──────────┘ └──────────┘ └──────────┘
                                                            │
   ┌─────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
   │  Power  │─│ Priority │─│ Priority │─│  Auto   │─│ VOX level│
   │  save   │ │ Scan CH  │ │  Scan    │ │  VOX    │ │          │
   └─────────┘ └──────────┘ └──────────┘ └──────────┘ └──────────┘
        │
   ┌─────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
   │  Talk   │─│ Password │─│ Password │─│Location │─│ Scrambler│
   │ around  │ │          │ │   CH     │ │         │ │          │
   └─────────┘ └──────────┘ └──────────┘ └──────────┘ └──────────┘
                                                            │
                              ┌──────────┐ ┌──────────┐
                              │  List    │─│Status call│
                              │  Delete  │ │   Send   │
                              └──────────┘ └──────────┘
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LCD Display and Icons

Symbol	Name and Description
⊕	Indicates relative signal strength level.
HL	Power Level Indicator "H" is for high power. "L" is for low power.
🔒	Key Lock Indicator Appears during key lock function ON.
🔔	Alert (Beep) ON/OFF Indicator Appears when beep sound is turned ON.

Symbol	Name and Description
🔋	Battery Level Indicator Indicates remaining battery power.
🎧	VOX Indicator Appears when VOX function is turned ON.
⤳	Scan Indicator Appears when Scan function is activated.
◑	Scrambler Indicator Appears while the voice scrambler function is activated.
⤵	Talk Around Indicator

ACCESSORY INFORMATION

Attaching the Battery   **Removing the battery**
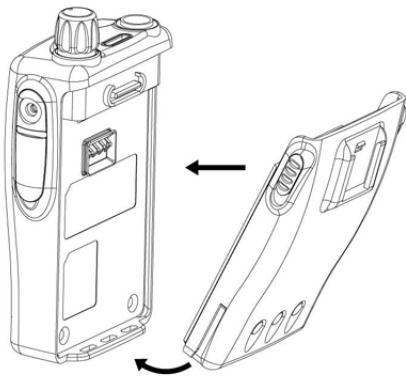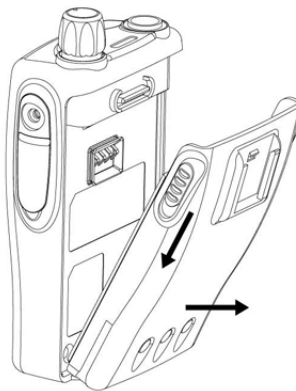

1. Fit the extensions at the bottom of the battery into the slots at the bottom of the radio's body.
2. Press the top part of the battery towards the radio until you hear a click.

1. Turn off the radio, if it is turned on.
2. Slide the battery latches, on both sides of the battery, downwards.
3. Pull the top part of the battery away from the radio's body, and remove the battery.

Attaching the Antenna
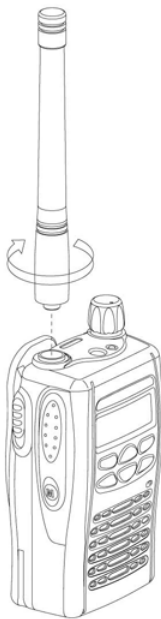
1. Align the threaded end of the antenna with the radio's antenna connector.
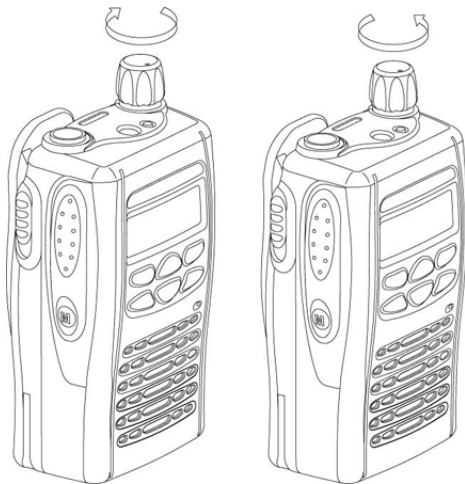2. Turn the antenna clockwise to fasten it.

Removing the Antenna

1. Turn the antenna counterclockwise until you can remove it.

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RADIO OPERATION
Turning the Radio On or Off

To turn the radio on, turn the On-Off/Volume Control knob clockwise.

To turn the radio off, turn the On-Off/Volume Control knob counterclockwise until you hear a click.

Adjusting the Radio's Volume

Turn the On-Off/Volume Control knob to adjust the sound level.

Selecting a Radio Channel

This radio offers up to 60 channels.

Select the desired channel by using the Up/Down Key. Each press increases/decreases the channel number. When held down, the channels increase continuously.

Select the desires channel by using the Down Key. Each press decreases the channel number. When held down, the channels decreases continously.

Transmission Signal

To transmit, monitor the channel, and make sure it is clear. THIS IS AN FCC REQUIREMENT!

To transmit, press and hold the PTT switch. Speak into the microphone area of the panel grill in a normal voice level. To return to the Receive mode, release the PTT switch.

User Program Mode

In order to make changes to the features of the radio via the menu list, the radio must first be placed in User Program Mode.

To put the radio into User Program Mode:
1. Make sure On/Off Volume control is in the Off position.
2. Press the Menu button while rotating the On/Off Volume control to the On position.
3. A short "beep" will be heard and the characters "CH-01" will be shown in the display.
4. Use the Up/Down arrows to select the channel to be changed.
5. Once the channel is selected, press the menu button and the characters "FREQ" will be shown in the display.
6. Use the Up/Down arrows to select the feature to be changed.
7. After all changes have been made and saved, rotate the ON/Off volume control to the Off position and then back to the On position for normal radio operation.

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TX/RX Frequency

To change the transmit and receive frequency of a certain channel:

1. After radio is placed into User Program Mode and the desired channel to be changed is selected, use the Up/Down arrows to select the menu feature "FREQ".
2. Press the menu button and the characters "00" will be displayed in the display.
3. Use the Up/Down arrows to select the 2-digit code corresponding to the desired Rx/Tx frequency as shown in Table 1– Programmable Frequency Codes.
4. When the desired code is displayed, press the menu button to save the selection.
5. To return to normal operation, turn radio Off and then back On.

Per FCC rules and regulations, a given radio must not be programmed to contain a mix of both VHF Business Band and VHFMURS frequencies.

Table 1.   Programmable Frequency Codes

VHF MURS

Code No.	MHz	Color Dot	Bandwidth(kHz)
01	154.6000	Green Dot	25
02	154.5700	Blue Dot	25
19	151.8200	MURS	12.5
20	151.8800	MURS	12.5
21	151.9400	MURS	12.5
22	154.6000	MURS/Green	12.5
23	154.5700	MURS/Blue	12.5
00	DELETE Code		

VHF Business Band

Code No.	MHz	Color Dot	Bandwidth(kHz)
03	151.6250	Red Dot	25
04	151.9550	Purple Dot	25
05	151.9250		25
06	154.5400		25
07	154.5150		25
08	154.6550		25
09	151.6850		25
10	151.7150		25
11	151.7750		25
12	151.8050		25
13	151.8350		25
14	151.8950		25
15	154.4900		25
16	151.6550		25
17	151.7450		25
18	151.8650		25
24	151.7000		12.5
25	151.7600		12.5
26	152.7000		25
00	DELETE Code		

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Tx Tone

This function is used to change Tx Tone such as CTCSS, DCS.

Method:
1. ⊽ to enter Menu Mode.
2. ⌃ ⌄ to scroll list until Tx Tone.
3. ⊽ to select.
4. ⌃ or ⌄ to select CTCSS or DCS.
5. ⊽ to select.

There are 38 CTCSS codes (1~38)
There are 83 DCS codes (101~183)
0 means no Tone.

Rx Tone

This function is used to change Rx Tone such as CTCSS, DCS.

Method:
1. ⊽ to enter Menu Mode.
2. ⌃ ⌄ to scroll list until Tx Tone.
3. ⊽ to select.
4. ⌃ or ⌄ to select CTCSS or DCS.
5. ⊽ to select.

There are 38 CTCSS codes (1~38)
There are 83 DCS codes (101~183)
0 means no Tone.

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Key Lock

Key Lock Indicator
Appears when key lock function is ON.

Method:
1. ⌦ to enter Menu Mode.
2. ⌃ ⌄ to scroll list until Key Lock.
3. ⌦ to select.
4. ⌃ or ⌄ to select lock or unlock.
5. ⌦ to select.

Scrambler

This function provides higher communication security.

Method:
1. ⌦ to enter Menu Mode.
2. ⌃ ⌄ to scroll list until Scrambler.
3. ⌦ to select.
4. ⌃ or ⌄ to select on or off.
5. ⌦ to select.

Squelch Level

This function sets the point at which the radio's receiver will open depending upon the signal strength of the transmitted signal.

```
 ⊕ H    🔔 🔋
 SQUELCH
```

Method:
1. ⌣ to enter Menu Mode.
2. ⌢ ⌣ to scroll list until Squelch.
3. ⌣ to select.
4. ⌢ or ⌣ to set level; the larger the number, the more signal is needed to open the receiver.
5. ⌣ to save and return to normal operation.

Ear PTT

This function allows for the radio's internal microphone to be enabled when an audio accessory is plugged in.

```
 ⊕ H    🔔 🔋
 EAR PLL
```

Method:
1. ⌣ to enter Menu Mode.
2. ⌢ ⌣ to scroll list until EAR PTT.
3. ⌣ to select.
4. ⌢ or ⌣ to select **ON** or **OFF**.
5. ⌣ to save and return to normal operation.

APPROVAL

1. FCC APPROVAL
FCC ID: SLX-100   AIERIT21-150
         SLX-400   AIERIT21-450

Safety Training Information
Your RITRON FM Handheld Transceiver generates RF electromagnetic energy during transmit mode.

This radio is designed for and classified as "Controlled Exposure/Occupation Environment," meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards.

This radio is not for use by the "General Population/ Uncontrolled Environment."

This radio complies with FCC RF radiation exposure limits set forth for a controlled environment.

This radio should be installed and operated with a minimum distance of 2.5 centimeters between the radio and yoru body. Therefore, to ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always follow below information.

Do not operate the radio without a proper antenna as this may damage the radio and may also cause you to exceed

FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer for use with this radio.

Do not transmit for more than 50% of total radio use time ("50% duty cycle"). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded.

Always use the supplied accessories (antenna, batteries, belt clips, speaker/mic, etc.)

Use of unauthorized accessories can cause the FCC RF exposure compliance requirements to be exceeded.

Always keep the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the belt-clips, when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not being exceeded.

2. CE APPROVAL
This transceiver meets the following essential requirement.

EN 300 086-1/2

$C\epsilon0678\textcircled{!}$

Go Beyond Normal Limits...℠

RITRON®

W I R E L E S S   S O L U T I O N S