





Rensselaer County Bureau of Public Safety
800 MHz Radio User Training

APX 4000 Portable Radio






APX 4000

Before You Begin...

View the Operations Training Presentation first, it covers:

- Overview of Rensselaer County's Radio System
- Operations Guidelines
- Policies and Procedures
- Interoperability
- Fleet Map
- Channel Use






APX 4000

APX 4000: Introduction

Radio Functions:

- Radio Operation
- Audio Alerts: Tones & Bonks
- Emergency Operation
- Scan, Nuisance Delete
- Side Cover & Accessories
- Battery Care
- Antenna
- Contact for System Questions



APX 4000

APX 4000: Radio Display and Soft Keys

Radio - Top

- 16-Position Channel Selector
- Antenna
- On/Off Volume Control Knob
- Top Light Bar
- LED Indicator
- Emergency Button

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On/Off Volume Control Knob


Top Light Bar

Emergency Button

LED Indicator




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On/Off Volume Control Knob


Top Light Bar

Emergency Button

LED Indicator




APX 4000: Radio Display and Soft Keys



Radio - Front

- Microphone
- Speaker
- LCD Display
- Programmable Buttons
- Home Button
- Data Feature Button
- 4-Way Navigation Buttons



Microphone

Speaker

LCD Display

Programmable Buttons

Home Button

Data Feature Button (Not Programmed)

4-Way navigation Buttons

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APX 4000: Radio Display and Soft Keys



Radio - Sides

- Scan On/Off Button
- Push-to-Talk (PTT) Button
- Back Light On/Off
- Keypad Lock/Unlock
- Accessory Connector



Scan On/Off Button

Push-to-Talk (PTT) Button

Back Light On/Off

Keypad Lock/Unlock

Accessory Connector

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- **Accessory Connector**



APX 4000

APX 4000: Radio Power Up



On /Off and Volume Control

To Power up the Radio

- Turn the Volume Knob clockwise to power the radio ON
- Your Radio will always **power up to Zone 1 and Channel 1, as well as the Scan Mode (Scan On/Off) you were tuned to when your radio was powered off**
- Display screen will read "Self Test" and radio will give a short beep upon power up



APX 4000: Navigating Zones



Navigating Through Zones and Channels


- Press the Zone button
- Use the 4-way navigation buttons to scroll through zones
- Press the Zone button again to select the zone being displayed
- Select the desired channel using the Channel Select Knob



Programmable "Zone" Button




APX 4000: Navigating Zones




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- Press the Zone button
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4-Way Navigation Buttons





APX 4000: Navigating Zones

Channel Select Knob

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APX 4000: Transmit Operation

To Transmit

- Verify the channel you want to communicate with on the LCD Display
- Listen for ongoing traffic and ensure the channel is clear before pressing the Push-To-Talk (PTT) Switch
- Press the PTT Switch, wait for the Talk Permit Tone and speak
- If you receive an out of range tone, hold the PTT Switch to continue attempting access

PTT Switch



APX 4000: Transmit Operation

Speaking into the Microphone

- Fully depress the PTT switch and wait for the Talk Permit Tone. *If you talk before you hear the Talk Permit Tone, some of what you said will be lost*
- Release the PTT switch when done speaking. For best results, keep messages brief (a few seconds)

Microphone

PTT Switch





APX 4000: Transmit Operation

For BEST Results

- Hold the microphone about 2 inches from your mouth and speak at a normal conversation tone
- Shouting distorts your voice and DOES NOT increase radio range
- Always face the microphone
- **Note:** APX 4000 is equipped with Dual Microphones, one on each side of the radio

Microphone

PTT Switch






APX 4000: Receive Operation

To Receive a Call

- Ensure that the radio is selected to the proper channel, then PTT to respond
- When in Scan, select the channel that has the highest priority
- When turning the Scan OFF, this **ONLY** allows you to monitor the channel which is in the radio display




Channel Selector



APX 4000: Audio Alerts

Audio Alerts

- Talk Permit Tone
- Unprogrammed Channel
- System Busy
- Failsafe
- Low Battery
- Out-of-Range



APX 4000: Audio Alerts



Talk Permit Tone

REMEMBER! This is a Repeater-type system

If you talk *before* you hear the Talk Permit Tone, some of what you said will be lost

If you hear a tone when pressing the PTT, one of several things may be happening:

- No Signal
- All Channels are Busy
- Your Radio is Damaged
- Your Radio Battery is Depleted



APX 4000: Audio Alerts



Unprogrammed Channel

Hear when a channel position is selected that is not programmed with a channel



APX 4000: Audio Alerts



System Busy

If you receive a System Busy

- Release the PTT Switch
- Wait for the Talk Permit Tone
- Push the PTT and transmit your message

Notes on System Busy

- Delay is often very short (a few seconds)
- Remember to release the PTT and wait for the Talk Permit Tone
- By repeatedly pushing the PTT, you are repeatedly placed "in line" for transmitting -- which makes your wait **longer!**






APX 4000: Audio Alerts

Failsoft Mode

- Failure of Trunking System
- Radio automatically goes to Failsoft
- Radio will beep every 10 seconds and display "Failsoft" on screen

Notes on Failsoft Mode

- Many channels will be put onto one frequency, so you may hear departments you normally would not hear
- **EMERGENCY TRAFFIC ONLY!** Resources are limited, so restrict transmissions






APX 4000: Audio Alerts

Low Battery Tone

Heard when the battery life is low. If this tone is heard, charge or replace your battery as soon as possible




Tone will be transmitted to let other users know your battery is low



APX 4000: Audio Alerts

Out of Range Tone

- If your radio is receiving the Out-of-Range Tone, your radio is NOT seen by the system
- You cannot Talk or Receive messages on trunked channels
- System Channels and the **Emergency Button will not work** when you are Out-of-Range
- Your operations may need to utilize Ground Channels for communication



APX 4000: **EMERGENCY** Operation



Emergency Button

The Emergency Button:
Used in situations that demand immediate communications

Think "LIFE AND DEATH"





APX 4000: **EMERGENCY** Operation



Declaring an Emergency – Trunked Operation

- Instantaneous Transmit
- "HOT MIC": When activated, your microphone will automatically open for 10 Seconds. LCD screen will feature **Emergency** operation indicators in orange
- **Emergency Button** must be depressed to activate an emergency
- Identify yourself and state your **emergency**
- You will be immediately heard at the Dispatch Center






APX 4000: **EMERGENCY** Operation



Declaring an Emergency – Ground Channel




- Instantaneous Transmit
- Emergency Alert will be broadcast to all radios within range, and selected on the same channel
- "HOT MIC": When activated, your microphone will automatically open for 10 Seconds. LCD screen will feature **Emergency** operation indicators in orange
- **Emergency Button** must be depressed to activate an emergency
- Identify yourself and state your **emergency**
- You will **NOT** be heard at the Dispatch Center

APX 4000: **EMERGENCY** Operation

Clearing the Emergency

- Once you have transmitted your emergency you need to clear your radio from the **Emergency Mode**
- First**, speak with dispatch to verify that Emergency can be cleared
- Then do either of the following:
 - Press and hold the Emergency button for at least 3 seconds
 - turn the radio off and back on again






APX 4000: Scanning

APX 4000 Portable can Scan Channels

FIRE/EMS DISPATCH and ALERT are in the Scan List, along with your assigned TAC channel (Battalion/EMS-specific)

2 additional channels may be added at the Agency's discretion

Ground Channels **ARE NOT** scanned






APX 4000: Scanning

Entering Scan Mode

Scan On/Off

- By pushing the Scan On/Off button, your radio will enter Scan Mode
- Look for the Scan Symbol in the radio display to ensure that Scan mode is On
- Turning the Scan Off allows you to **ONLY** monitor the Channel which is in the radio display. To resume scanning, press the Scan On/Off button

Note:
When your radio is powered OFF and then ON, it will remain in the mode that you left it (Scan On or Scan Off)






APX 4000: Scanning

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Scan Symbol






APX 4000: Menu Functions

Programmable Button Functions

The following Programmable Button functions are available:

- Zone Select
- Batt
- Nuisance Delete






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APX 4000: Side Cover & Accessories

Accessory Connector Cover




- The **Accessory Connector Cover** keeps the radio's Accessory Connector contacts clean when no accessory is connected
- The Accessory Connector Cover is removable to utilize accessories such as a shoulder mounted microphone



APX 4000: Side Cover & Accessories

Removing the Side Cover


- To remove the *side cover*, loosen the set screw and lift the cover from the base
- Accessories or the side cover can be reattached by hinging at the top and then smoothing downward with your thumb. *Accessories may have a set screw that needs tightened*



APX 4000: Battery Care

Proper Battery Care




- Proper battery care enhances the usefulness of the radio battery. The battery should be recharged as soon as practical when the Low Battery indication appears
- A fully charged battery provides approximately 8 to 12 hours of service (*depending on the battery type*) before recharging is required. *This time will be reduced if more than 5% of the time is spent transmitting, or if the battery is not fully charged or its capacity has deteriorated*
- Additional accessories will contribute to loss of battery power




APX 4000: Battery Care

Removing the Battery

- To remove the battery, turn the radio off. Lift up the latch then slide the battery down to remove the battery from the radio.
- **Note:** If your radio is preprogrammed with volatile-key retention, the encryption keys are retained for approximately 30 seconds after battery removal.
- Check with your dealer or system administrator for more information. You can view the status of your IMPRES battery.





APX 4000: Battery Care




Replacing the Battery

- To replace the battery, slide the battery into the radio frame until the bottom latch clicks into place





APX 4000: Antenna




Proper Antenna Care

- Never replace the standard, half wave, flexible 7 1/2 inch, system recommended antenna with an after-market antenna. For questions, please reference the County policy
- Do not replace the factory supplied antenna with a Stubby antenna as it will not provide optimum radio frequency propagation. Radio talk-out will be degraded
- Do not over tighten the antenna





Reporting a Problem



For System Questions

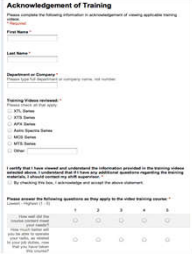

Contact:
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Video Training

Please complete the short survey at completion of your review of relevant videos



Acknowledgement of Training
Please complete the following statement and acknowledgment of viewing applicable training.
Full Name: _____
Unit Name: _____
Department or Division: _____
Training Module completed:
 A/C, B/C
 A/C, B/C, D
 A/C, B/C, D, E
 A/C, B/C, D, E, F
 A/C, B/C, D, E, F, G
 Other: _____
I hereby certify that I have viewed and understood the information presented in the training module identified above, and I have the additional knowledge and skills required for the position.
By checking this box, I acknowledge and accept the above statement.
Please answer the following questions on this page by the video training session:

APX 4000
