Rensselaer County Bureau of Public Safety
800 MHz Radio User Training

APX 4500 Mobile Radio
APX 6500 Mobile Radio
02 Control Head
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
Radio Functions:

- Radio and Microphone Overview
- Radio Operation
- Audio Alerts: Tones & Bonks
- Emergency Operation
- Scan, Nuisance Delete
- Contact for System Questions
APX 4500: Radio and Microphone Overview

Radio – Control Head

- Power Button
- LCD Display
- Up and Down Buttons
- Speaker
- Emergency Button
- Multi-function Knob
- Dimmer Button
- Home Button
- Programmable Menu Select Buttons
- Microphone Port
- LED Indicators
APX 4500: Radio and Microphone Overview

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APX 4500: Radio and Microphone Overview

**Microphone**

PTT Button
APX 4500: Radio Power Up

To Power up the Radio

• Press and briefly hold the Power Button

• 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 “APX 4500” or “APX 6500” and radio will give a short beep upon power up
Programmable Button Functions

The following Programmable Button functions are available:

- Zone Select
- Scan On / Off
- Nuisance Delete
Navigating Through Zones and Channels

- Press the Zone button
- Use the Up and Down buttons to scroll through zones
- Press the Zone button again to select the zone being displayed
- Use the Up and Down buttons to select the desired channel

Programmable “Zone” Button
Navigating Through Zones and Channels

- Press the Zone button
- Use the Up and Down buttons to scroll through zones
- Press the Zone button again to select the zone being displayed
- Use the Up and Down buttons to select the desired channel
Navigating Through Zones and Channels

• Press the Zone button
• Use the Up and Down buttons to scroll through zones
• Press the Set button to select the zone being displayed
• Use the Up and Down buttons to select the desired channel
Navigating Through Zones and Channels

- Press the Zone button
- Use the Up and Down buttons to scroll through zones
- Press the Zone button again to select the zone being displayed
- Use the Up and Down buttons to select the desired channel
Programmable Button Functions

The following Programmable Button functions are available:

- Zone Select
- Scan On / Off
- Nuisance Delete
Entering Scan Mode

- 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 4500 mobile 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
Programmable Button Functions

The following Programmable Button functions are available:

- Zone Select
- Scan On / Off
- Nuisance Delete

Nuisance Delete
Nuisance Delete

- Temporarily removes channels from the scan list
- Press the “Nuis” button to remove a channel
- Channel returns to scan list when channel is changed or radio is powered off, then back on
APX 4500: 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
APX 4500: Transmit Operation

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**APX 4500: 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)
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
To Receive a Call

- Ensure that the radio is selected to the proper channel
- When a call is received, it will be heard through the control head speaker or external speaker
- 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
APX 4500: Audio Alerts

**Audio Alerts**

- Talk Permit Tone
- Unprogrammed Channel
- System Busy
- Failsoft
- Out-of-Range
APX 4500: 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 or Antenna is Damaged
Unprogrammed Channel

Heard when a channel position is selected that is not programmed with a channel
**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!
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
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
The **Emergency Button**: Used in situations that demand immediate communications

Think “**LIFE AND DEATH**”
APX 4500: **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 4500: **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
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
Reporting a Problem

For System Questions

Contact:
Paul Glasser, Communications Coordinator

(518) 266 - 3320

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