



APX 7000XE

Montgomery County Emergency Services 800 MHz Rebanding Training

APX 7000XE Portable Radio



Before You Begin...



APX 7000XE

View the main training video first, it covers:

- General Radio Review
- Overview of Montgomery County's Radio System
- Rebanding & Interoperability
- Channel Matrix Discussion
- Talk Group Usage, Event Channels, Local Channels



APX 7000XE: Overview



Radio Functions:

- Radio Operation
- Audio Alerts: Tones & Bonks
- Emergency Operation
- Scan
- Side Cover & Accessories
- Battery Care
- Antenna
- How to Report a Problem

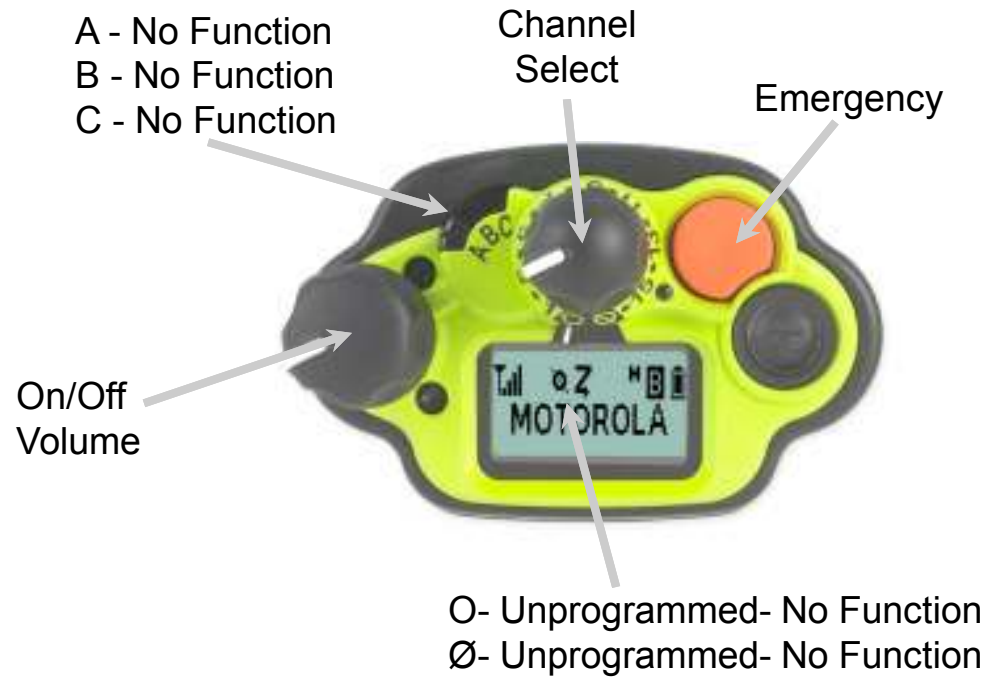
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APX 7000XE: Overview



APX 7000XE



APX 7000XE: Radio Power Up



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To Power up the Radio

- Turn the Volume Knob clockwise to power the radio ON
- Your Radio will always ***power up to the last channel and 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



On / OFF and Volume
Control

APX 7000XE: Zones



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Navigating Through Zones

- Zone Up Button is located on right side of radio
- Common Talk Groups are stored in **Zones** in your radio
- Prior to rebanding, **Banks** or **Zones** were associated with the A, B, and C Bank Switch
- Additional Zones to accommodate the previous Banks or Zones, plus Conventional Old and Conventional New Channels
- Zone Up will navigate you through your Zones in the Channel Matrix
- Channel Select Knob to tune to the desired channel
- Zone select button to return home



APX 7000XE: Transmit Operation



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To Transmit

- Select the Talk Group/Channel you want to communicate with
- Listen for ongoing traffic and ensure open air before pressing the Push-To-Talk (PTT) Switch
- Press the PTT Switch, wait for the Talk Permit Tone and speak



APX 7000XE: Transmit Operation



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Speaking into the Microphone

- Fully depress the PTT switch and wait for the beep. ***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)

PTT Switch



APX 7000XE: Transmit Operation



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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 7000XE is equipped with Dual Microphones and Speakers, one on each side of the radio unit

Microphone



APX 7000XE: Receive Operation



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To Receive a Call

- Ensure that the radio is selected to the proper Talk Group /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



APX 7000XE: Audio Alerts



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

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APX 7000XE: Audio Alerts



If you receive a Busy Signal

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

Notes on Busy Signals

- 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!**

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APX 7000XE: Audio Alerts



Fail Soft Mode

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- Failure of Trunking System
- Radio automatically goes to Fail Soft
- Radio will beep every 10 seconds and display “Fail Soft” on screen

Notes on Fail Soft Mode

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



APX 7000XE: Audio Alerts



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Audio Alerts

- Talk Permit Tone
- Unprogrammed Channel/Extended time in Program Scan Mode
- Busy Signal
- Low Battery
- Out-of-Range
- Emergency



APX 7000XE: Audio Alerts



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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
- Talk Groups and the **Emergency Button** *will not work* when you are Out-of-Range
- Your operations may need to utilize Local Channels for communication



APX 7000XE: **EMERGENCY** Operation



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The **Emergency** Button:

Used in situations that demand immediate communications.

Think “**LIFE AND DEATH**”



APX 7000XE: **EMERGENCY** Operation



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Declaring an **Emergency**

- **Instantaneous** Transmit
- **“HOT MIC”**: When activated, your microphone will automatically open for 10 Seconds . The LCD Screen will turn **orange**, indicating an **emergency** has been activated
- Identify yourself and state your **emergency**
- You will immediately heard at the dispatch center



APX 7000XE: **EMERGENCY** Operation



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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 **turn the radio off and back on again**



APX 7000XE: Scanning



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800 MHz Radio can Scan 15 Talkgroups

- Only scan Talkgroups within the **WEST** or **EAST** at one time
- When set to a selected channel AND Scanning, any message from that selected channel will **override** the scanned Talkgroups
- When responding to another Zone / Region, switch radio to the Zone / Region where the incident exists
- Responding units will then be in direct communications with Incident Commander or Officer in Charge



APX 7000XE: Scanning



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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 7000XE: Programming a Scan List



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Press and hold the Scan On/Off Button. A flashing □ symbol will appear in the display. The radio is in programming mode.

1. Rotate the “channel” knob to a “channel” you wish to add or delete to your scan list.
2. To add or delete a “channel” from another Bank/Zone, use the **Zone UP** directly below the **Scan ON/Off** button to navigate through the Zones.
3. Press the Light/Select button to add, delete or make a “channel” priority. The **Z** symbol means the “channel” has been added to the scan list. The **Z. (dot)** Symbol means the “channel” is added with priority.
4. When finished making changes turn the radio Off and back ON.

Note:

When your radio is left in the program mode (flashing □) too long, the radio will sound a continuous tone until the Home button is pressed.



APX 7000XE: Programming a Scan List



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Interruption during Programming a Scan List

- Programming can be interrupted by turning the radio OFF/On or if the PTT is pushed to transmit
- Radio will be taken out of Program Scan to Operation Mode
- If this occurs, VERIFY that changes to your Scan List have been saved by returning to Program Scan mode



APX 7000XE: Side Cover & Accessories



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Side Cover

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



Side Cover



APX 7000XE: Side Cover & Accessories



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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 7000XE: Battery Care



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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 7000XE: Battery Care



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Removing the Battery

- To remove the battery simply depress the 2 battery release switches -- one located on each side of the battery -- and pull the battery pack downward simultaneously.
- Slide the battery pack down and away from the radio to release battery from the radio unit.



Battery Release
Switches

APX 7000XE: Battery Care



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Replacing the Battery

- To replace the battery, align the battery pack with the radio unit and push the battery pack upward
- The battery will snap into place



APX 7000XE: Antenna



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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



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Radio Repair Shop

Monday - Friday, 8:00 AM to 4:00 PM
(610) 631 - 6511

- Lost or Stolen Radios
- Radio Error (Document all Error Codes)



Reporting a Problem



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Radio Incidents

Fill out a Radio Incident Report Form

Fax to: (610) 631 - 6536

Form is available to download on-line at:

www.dps.montcopa.org

Type "Radio Incident Report" in the Search



Richard K. Lohwasser
Assistant Deputy Director
Montgomery County Emergency Dispatch Services
50 Eagleville Road
Eagleville, Pennsylvania 19403-1425
610-631-6542 Office
610-631-6536 Fax

Radio Incident Report

Department:		Officer, or Operator:		
Date:	Time:	Radio Unit ID:		
Weather Conditions:				
Location:		In Building:	Outside:	
		Talkgroup/Channel?		
Mobile (Unit #):		Portable (Unit #):		
Model/Type	MCS (old)	Astro (new)	MIS (old)	Digital (new)
	In Motion	Parked	On Hip	Head Set
Problem:				
Does radio make a no system "bark"? (a "bark" tone every 20 seconds)				
Does radio "bark" when you try to transmit?				
Receive problem: (explain)				
Transmit problem: (explain)				

Reporting a Problem



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For System Questions

Contact:

Rick Lohwasser, Assistant Director for Technical Services

(610) 631 - 6542

rlohwass@montcopa.org



Video Training



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Questions not answered within the video can be emailed directly to:

eoctech@montcopa.org



Video Training



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

Acknowledgement of Training

Please complete the following information in acknowledgement of viewing applicable training videos.

*** Required**

First Name *

Last Name *
Department or Company *
Please type full department or company name, not number.
Training Videos reviewed: *
Please check all that apply.

KTL Series
 XTR Series
 APX Series
 Astro Spectra Series
 MCS Series
 MTS Series
 Other:

I certify that I have viewed and understand the information provided in the training videos selected above. I understand that if I have any additional questions regarding the training materials, I should contact my shift supervisor. *

By checking this box, I acknowledge and accept the above statement.

Please answer the following questions as they apply to the video training course. *
Lowest - Highest (1 - 5)

	1	2	3	4	5
How well did the course content meet your needs?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How much better will you be able to operate your radio, as related to your job duties, now that you have taken the course?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>