



Overview of the Radio Replacement Program

- This program is planned to be a **one-time program** to make sure that all current operable users will be able to use CoMIRS once it is modernized
 - Program would be **limited to municipal, operable agencies** on CoMIRS and those approved to use CoMIRS operably
 - This program is planned to **replace radios that will not work** on the new P25 Phase 2 system
- EOTSS is currently working with State 911 and the Office of the Comptroller on the rules for the program, which currently include
 - The program would be a “disbursement” program, so agencies would be provided sufficient funding **to cover the base cost** of an approved number of replacement radios
 - Financial awards must be **used exclusively to purchase approved radios** for use on CoMIRS
 - **Each agency can specify which radio works best for their users**, within a set of approved radios (some models will require additional funding from the agency)
 - **Agencies would take delivery of radios and be responsible for all additional costs** associated with the purchase, installation, and maintenance of the radios
 - Agencies would be responsible for **asset receipt and tracking**
 - Agencies must agree to **abide by CoMIRS use policies** and the requirements of the program
- Going forward in areas of sufficient digital coverage, **agencies can consider more inexpensive, P25-only radios** for their users
- The **rules for agency inclusion and subscriber unit eligibility** is planned to be defined and published by EOTSS in early 2020

COMIRS

COMMONWEALTH OF MASSACHUSETTS
INTEROPERABLE RADIO SYSTEM

Portable Radio Models and Options

Motorola APX4000-MA

Kenwood VP6430

Motorola APX6000



Executive Office of Technology Services and Security

Our Mission: To provide secure and quality digital information, services, and tools to constituents and service providers when and where they need them.



Portable Radio Configurations

Base Portable Radio Configuration



- Includes **700/800 MHz** Portable Radio (764-870 MHz) with Limited-Keypad
- Includes **programmable Output Power** (1-3 watts)
- Includes **1,000 mode** capacity minimum
- Includes minimum **14-character backlit** display
- Includes **zone programming capability with 16 modes per zone** (mixed trunked talkgroups and conventional channels)
- Capable of operating on **Conventional Systems** (Analog and P25 Phase 1 modulation)
- Capable of operating on **Motorola SmartZone Type II Trunking Systems** (Analog and P25 Phase 1 modulation)
- Capable of operating on **Project 25 Digital Trunking Systems** (Phase 1 and Phase 2 modulation)
- Includes **Bluetooth** capability
- Includes Project 25 Data Services for **GPS Location Services** and **Over-The-Air-Programming**
- Equipped with **Project 25 Radio Authentication**
- Includes minimum **3-year warranty** on portable radio
- Includes **radio whip antenna, dust cover and holder / belt clip**
- Includes **1 portable battery**
- Includes **1 AC charger**
- Radio, batteries, and all accessories are rated for use in an **intrinsically safe environments** (FM or UL Division I and Division II HazLoc approved)



Replacement Portable Radio Options

Base Portable Radio Configuration Costs



	Motorola APX4000-MA	Kenwood VP6430	Motorola APX6000
Description	Upgraded APX version with CoMIRS-only features, including simultaneous SmartZone and P25 capabilities and included over-the-air-programming. Meets all CoMIRS base requirements. 3-year warranty.	High-end Kenwood Viking portable radio. Comparable to Motorola APX6000. Meets all CoMIRS base requirements. 5-year warranty.	High-end Motorola APX portable radio. Enhanced radio shell compared to APX4000. Comparable to Kenwood VP6430. Meets all CoMIRS base requirements. 3-year warranty.
Total Cost Base Configuration	\$2,279.94	\$2,635.18	\$2,822.03
Cost to EOTSS	\$2,279.94	\$2,279.94	\$2,279.94
Cost to Agency	\$0.00	\$355.24	\$542.09



Portable Radio Configurations

Portable Radio Options and Optional Services

Options	Motorola APX4000-MA	Kenwood VP6430	Motorola APX6000
Include Project 25 AES 256 bit encryption with multiple keys and over-the-air-rekeying	\$498.15	\$242.25	\$194.75
Include remote shoulder microphone	\$66.52	\$94.60	\$66.52
Include an additional battery (for total of 2)	\$71.75	\$102.00	\$69.29
Include single unit DC chargers	\$38.95	\$153.00	\$45.51
Include carrying option for leather duty belt	\$27.06	\$35.70	\$17.22
Equipped for operation when used in conjunction with a Digital Vehicular Repeater System	\$76.00 (Futurecom)	\$85.00 (Pyramid)	\$76.00 (Futurecom)
Include multi-band operation : 136-174 MHz, 380-512 MHz, 764-870 MHz	N/A	n/a	\$2,855.24 (APX8000)
Substitute full 4 x 3 keypad	\$175.89	\$231.25	\$175.89
Add ruggedized housing for IP68 submersion 2m/4 hrs and Mil-Std 512.x Delta T	n/a	no offer	\$303.40
Add program portable radio (service)	\$54.00/unit	\$105.00/hr	\$54.00/unit

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INTEROPERABLE RADIO SYSTEM

Mobile and Desktop Radio Models and Options

Kenwood VM5930

Kenwood VM7930

Motorola APX4500

Motorola APX6500



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Mobile Radio Configurations

Base Mobile Radio Configuration


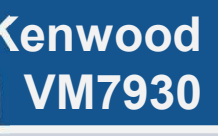




- Includes **compact control head** with integrated speaker, color display, programmable control knob, rocker switch, menu buttons and orange emergency button
- Includes **17' Control Head to Transceiver Cable**
- Includes **700/800 MHz** Mobile Radio (764-870 MHz)
- Includes **programmable output power** (10-35W)
- Includes **1,000 mode capacity** minimum
- Includes minimum **14-character display**
- Includes **zone programming capability with 16 modes per zone** (mixed trunked talkgroups and conventional channels)
- Capable of operation on **Conventional Systems** (Analog and P25 Phase 1 modulation)
- Capable of operation on **Motorola SmartZone Type II Trunking Systems** (Analog and P25 Phase 1 modulation)
- Capable of operation on **Project 25 Digital Trunking Systems** (Phase 1 & Phase 2)
- Includes **Project 25 Data Services for GPS Location Services and Over-The-Air-Programming**
- Equipped with **Project 25 Radio Authentication**
- Includes minimum **3-year warranty** on mobile radio
- Includes **3 dB mobile radio antenna** with NMO mount / cable
- Includes **basic hand microphone**
- Includes high power, **15 Watt remote speaker**
- Includes **all necessary cables and connectors** (control head, accessories, power, antenna)



Replacement Mobile Radio Options

Base Mobile Radio Configuration Costs

	 Kenwood VM5930	 Kenwood VM7930	 Motorola APX4500	 Motorola APX6500
Description	<p>Standard Kenwood Viking public safety mobile radio. Meets all CoMIRS base requirements. No control knob. 5-year warranty.</p>	<p>High-end Kenwood Viking mobile radio. Comparable to Motorola APX6500. Meets all CoMIRS base requirements. No integrated speaker. 5-year warranty.</p>	<p>Upgraded APX version with CoMIRS-only features, including simultaneous SmartZone and P25 capabilities and included over-the-air-programming. Meets all CoMIRS base requirements. 13 W remote speaker instead of 15 W. 3-year warranty.</p>	<p>High-end Motorola APX mobile radio. Comparable to Kenwood VM7930. Meets all CoMIRS base requirements. 13 W remote speaker instead of 15 W. 5-year warranty.</p>
Total Cost Base Configuration	\$2,739.26	\$3,221.11	\$2,402.81	\$2,862.42
Cost to EOTSS	\$2,739.26	\$2,739.26	\$2,402.81	\$2,402.81
Cost to Agency	\$0.00	\$481.85	\$0.00	\$459.61



Mobile Radio Configurations

Mobile Radio Options

Options	Kenwood VM5930	Kenwood VM7930	Motorola APX4500	Motorola APX6500
Include Project 25 AES 256-bit encryption with multiple keys and Over-the-air-rekeying	\$242.25	\$242.25	\$498.15	\$194.75
Include multi-band operation : 136-174 MHz, 380-512 MHz, 764-870 MHz including required antenna(s) with NMO mount/cables	n/a	\$1,991.88	N/A	\$2,577.86 (APX8500)
Substitute handheld control head with integrated microphone and PTT, color display, programmable 4 x 3 keypad, rocker switch, menu buttons, orange emergency button	(\$97.00)	\$644.76	N/A	\$186.14
Substitute dual knob control head with color display, programmable rocker switch, menu buttons, orange emergency button	\$112.00	included	(\$24.60)	(\$24.60)
Substitute 4 x 3 control head with color display and programmable 4 x 3 keypad , control knob, rocker switch, menu buttons, orange emergency button	n/a	n/a	n/a	\$57.40



Mobile Radio Configurations

Mobile Radio Options

Options	Kenwood VM5930	Kenwood VM7930	Motorola APX4500	Motorola APX6500
Control station operation: Substitute desk microphone for hand microphone, add mounting tray with integrated speaker, add AC power supply, delete mobile radio antenna, delete high power 15-watt remote speaker, delete remote mount configuration	\$185.00	\$185.00	n/a	\$1,171.23
Console configuration: Single desktop enclosure containing mobile radio, AC power supply and radio speaker with external desk microphone. Console must include standard tone remote control wireline capabilities (T8-R8) for interface to remote control devices.	n/a	n/a	n/a	\$2,365.83 (APX8500)
Interface to Digital Vehicular Repeater System	\$85.00 (Pyramid)	\$85.00 (Pyramid)	\$190.00 (Futurecom)	\$190.00 (Futurecom)



Mobile Radio Configurations

Mobile Radio Optional Services

Options	Kenwood VM5930	Kenwood VM7930	Motorola APX4500	Motorola APX6500
Install remote mount (standard sedan)	Barnstable: \$400-\$660 Franklin: \$352-\$600	Barnstable: \$400-\$660 Franklin: \$352-\$600	\$334.00	\$334.00
Install dash mount (standard sedan)	Barnstable: \$300-\$440 Franklin: \$252-\$400	Barnstable: \$300-\$440 Franklin: \$252-\$400	\$267.00	\$267.00
Install remote mount (heavy duty vehicle)	Barnstable: \$300-\$950 Franklin: \$452-\$900	Barnstable: \$300-\$950 Franklin: \$452-\$900	\$480.00	\$480.00
Install dash mount (heavy duty vehicle)	Barnstable: \$300-\$550 Franklin: \$252-\$500	Barnstable: \$300-\$550 Franklin: \$252-\$500	\$347.00	\$347.00
Install dual control head mobile in heavy duty vehicle	Barnstable: \$600-\$1200 Franklin: \$552-\$1200	Barnstable: \$600-\$1200 Franklin: \$552-\$1200	\$747.00	\$747.00
Remove mobile radio at time of installation	\$100.00	\$100.00	\$107.00	\$107.00
Program mobile radio	\$105/hr	\$105/hr	\$78.00/unit	\$78.00/unit