

Fayette County 911
24 E Main ST, Uniontown, PA 15401
724-430-1277 eoc@fcema.org

**Radios that Fayette County 911 will accept on to the radio system
(And additional notes regarding each radio)**

Radios that operate on the Fayette County / ICORRS Radio system are required to have:

- Ability to operate on 700/800 MHz frequency bands
- Support operation on a Motorola ASTRO25 Phase 1- v7.17 trunking System
- Support P25 Data Services on a P25 Trunking System
- Support Over the Air Provisioning/Programming (OTAP) on a P25 Trunking System

Current supported Vendors-

- Motorola Solutions
- JVCKenwood Group (to include Kenwood and EF Johnson P25 Radios)
- RELM Wireless
- Harris

Current non-supported Vendors

Any manufacturer not listed above

A detailed list for each manufacturer follows in the remainder of this document

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Radios that Fayette County 911 will accept on to the new system (And additional notes regarding each radio)

While some of the radios listed in this document are available in a NON DISPLAY model, Fayette County will not allow a NON DISPLAY model to be programmed onto the system.

Currently Fayette County 911 has approved use of radios from Motorola, EF Johnson, and Kenwood on the radio system. The ICORRS Technical Committee (ICORRS= Inter County Regional Radio System which consists of Westmoreland, Indiana, Armstrong, Fayette, Somerset, Lawrence, and Butler Counties) currently evaluates radios from multiple vendors to provide more choices to our radio users. The ICORRS Technical Committee is in constant communication with: Harris Communications, Tait Communications, Relm Communications, JVC/Kenwood as well as Motorola to continually update evaluations as new products become available. As more information becomes available from the evaluation process, this document will be updated.

Display only models that have no 1/2 keypad or no full keypad on the radio will be accepted only for Public Works users. Due to limitations of how to control changing zones on the radio the radio is not accepted for use by Emergency Services.

Regardless of which vendors equipment your department decides to purchase, it is recommended that if a radio has an orderable option for Extreme Noise Reduction, it is recommended to purchase that option to help the radio operate better while transmitting when there is a lot of background noise (chainsaws, sirens, etc. . .)

Additionally- Fayette County has implemented a feature referred to as OTAP. This allows Fayette County 911 to make programming changes to the radio "over the air". Thus a minor change to radio programming will no longer require you to bring a radio in to the 911 center. Initial programming will still need done by the 911 Center but future changes can be done remotely. Other counties may not be implementing this as a requirement.

With regards to encryption- (Primarily for Law Enforcement units)

The 911 Center will support **AES Encryption** from portables/mobiles back to the consoles.

ADP Encryption is available in some of the radios listed below. If a department purchases ADP Encryption and chooses to use ADP Encryption, the 911 Center –WILL NOT—be able to monitor or communicate with the folks running ADP Encryption on a talk group. Radios with ADP encryption can still be operated without Encryption to talk to the 911 Center and other users.

If your department chooses to purchase encryption, please have the sales rep handling your order contact Tony Alviar or Vince Sherwood to confirm that the proper encryption is selected for you. (This may also require a phone conversation with your department to outline encryption options available)

Also-There are many options available on these radios. The presence of an option in a radio does not mean that Fayette County and the infrastructure on the trunking system can support it.

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2 Examples are GPS enabled radios, and Radio to Radio Text Messaging. While these options can be purchased on a radio, the equipment on the trunking system necessary to utilize those functions is not present on the system. If in doubt as to whether an option will function, please contact the EMA/911 Office to verify.

Following pages detail what we know and what radios have been evaluated and approved to work on the new radio system.

In the case of all mobiles listed here, there are many configurations and options available, such as dash mount, remote mount, and multiple control head set up, amplified speakers, and such. Please consult with your sales reps for each radio vendor to ensure that you are purchasing what is needed for your vehicles and your organization.

In the case of all portables listed here, there are many configurations and options available. There are a variety of speaker mics, battery options, and charger options available. Please consult with your sales reps for each radio vendor to ensure that you are purchasing what is needed for your personnel.

All manufacturers listed below support AES Encryption. Motorola, EF Johnson, Relm, Harris, and Kenwood support data operations on P25 Trunking.

For more information contact the EMA Office @ 724-430-1277 and ask for Vince or Tony
vsherwood@fcema.org talviar@fcema.org

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Motorola Products

Portable Radios

Effect July 31, 2019- XTS Series portables will not be supported by Fayette County 911 as a NEW add to the radio system. Existing radios will be supported. Should an XTS portable fail, please contact this office before purchasing replacement radio.

APX900 --Permitted for all users (does not support encryption properly-PD contact 911 first)
APX1000 Portable-NOT PERMITTED for any use
APX4000 Portable-Permitted for all users (does not support encryption properly-PD contact 911 first)
APX6000 (any model)- Permitted for all users
APX7000 (any model)- Permitted for all users
APX8000 (any model)- Permitted for all users (added 20160301)
APX-Next (awaiting Demo Unit from Motorola for evaluation)

Mobile Radios

Effective September 30, 2017- XTL5000 radios with a W series control head will not be accepted as a NEW add to the radio system

Effective December 31, 2017 XTL series mobiles will not be accepted as a NEW add to the radio system.

APX4500-Permitted for all users
APX6500-Permitted for all users
APX7500-Permitted for all users
APX8500-Permitted for all users (added 20161231)

Radios need flashed to support the following options:

700/800 MHz operation

Operation on a Motorola P25 Astro25 7.17 Trunking system

Option G996-Programming over P25 (OTAP)/ and associated Data services

Must include QA01648- Advanced System Key Enabled

Fire departments must include QA09000- Digital Tone Signaling

Please be cautious of purchasing used APX Radios. Most do not include QA01648. Radio will not be allowed on the system without this option. This will require you to purchase this option directly from Motorola.

Regardless of what the seller says- XTS3000 portable radios, Astro Spectra mobile radios, Astro Spectra Plus mobile radios ARE NOT SUPPORTED ON THE SYSTEM. Fayette County will not program these radios onto the system!

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EF Johnson/Kenwood

Mobile Radios

Viking Series Mobiles with any control head are supported

TK-5930

VM5000

Portable Radios

VP400-Moel II Half Keypad

VP400-Model III Full Keypad

VP600-Model II Half keypad

VP600-Model III Full keypad

VP900-Model II Half Keypad

VP900-Model III Half Keypad

VP5000-Model II Half Keypad

VP5000-Model III Full Keypad

VP6000-Model II Half Keypad

VP6000-Model III Full Keypad

TK5410D-K2 4 button keypad

TK5410D-K3 Full Keypad Radios

v4 Hardware (v3 hardware will not be supported by Fayette County 911 as a NEW add to the radio system Effective September 30, 2017)

TK-5430-K2 Half Keypad Radio

TK-5430-K3 Full Keypad Radio

The VP900 portables may be of interest to users bordering Washington and Greene County that run mutual aid into those counties. The VP900 portable is a multiband radio and will support operation on 700/800 MHz as well as VHF (150 MHz)

There is a no keypad version of the portables available and is not supported by Fayette County for operation due to channel capacity limitation.

Options that are needed at time of purchase on the above equipment:

For Kenwood and Johnson series equipment-

700/800 MHz operation

P25 Trunking

P25 Trunking Mobile Data

P25 Trunking OTAP

P25 Two Tone

Recommended for Fire Service to have the Immersion Housing

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RELM Communications

KNG-P800 Portable operating on 700/800 MHz

Following Options need enabled-

P25 Trunking

Over the air Programming

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Harris Communications

XG25
XG75

These radios are not currently approved for use on the Fayette County system due to technical limitations of our channel map and how configuration must occur on these radios.

Unity XG100 (added 12/31/2016)
Unity XG200 (added 12/31/2016)

Are approved on the system for operation. Your vendor must contact Fayette County 911 prior to purchasing. If you purchase these radios on the used market, it will be up to you to make arrangements with Harris to obtain programming software and license for Fayette County 911 to be able to program the radio.

Currently there are no mobile radios from the Harris line that are supported by Fayette County 911 for use on the system.