

## *Fayette County 911*

### ***Radios that Fayette County 911 will accept on to the new 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

JVKenwood 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 Co, Indiana Co, Armstrong Co, Fayette Co, and Somerset Co) currently evaluates radios from multiple vendors to provide more choices to our radio users. The ICORRS Technical Committee is currently in communication with: Harris Communications, Tait Communications, Relm Communications, JVC/Kenwood 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 ½ 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 is implementing 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 known 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 that will be in use on the new system. 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](mailto:vsherwood@fcema.org)      [talviar@fcema.org](mailto:talviar@fcema.org)

# *Fayette County 911*

## ***Motorola Products***

### Portable Radios

XTS1500- Permitted but only for Public Works / Non-emergency services users

XTS2500 Model 1.5- Permitted but only for Public Works / Non-emergency services users

XTS2500 Model 2 & 3-Permitted for all users

XTS5000 (all models)-Permitted for all users

Effective September 30, 2017- 4 Meg controllers on XTS1500 and XTS2500 radios will not be supported by Fayette County 911 as a NEW add to the radio system. Model #'s will end in the letters AN if the radio has a 4 meg controller.

Effect December 31, 2017- XTS Series portables will not be supported by Fayette County 911 as a NEW add to the radio system.

APX900 --Under review- as soon as a demo unit is available, Fayette will determine if this radio will be accepted onto the system

APX1000 Portable-NOT PERMITTED for any use

APX4000 Portable-Permitted for Public Works/Non-emergency services users Only (Not supported for Emergency Services)

APX6000 (any model)- Permitted for all users

APX7000 (any model)- Permitted for all users

APX8000 (any model)- Permitted for all users (added 20160301)

### Mobile Radios

XTL1500- Permitted but not recommend for Police, Fire or EMS users

XTL2500 (all models, all heads)- Permitted for all users

XTL5000 (all models, all heads)- Permitted for all users

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

### Additional Motorola Notes:

The XTS1500, XTS2500, XTS5000, XTL1500, XTL2500, and XTL5000 are no longer available as new purchase from Motorola but are showing up on the used side.

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Radios need flashed to support the following options:

700/800 MHz operation

**Operation on a Motorola P25 Astro25 7.17 Trunking system**

**Packet Data**

**Over the air Provisioning /Over the air programming (OTAP)**

**For APX Series radios- these must have option QA01648-Advanced System Key Enabled**

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

There are various mobiles available from EF Johnson/Kenwood.

-53SL ES mobile radios with either the Standard or the Lightening Control head

Standard Control head has 10 character display

Lightening Control head has 16 character display available and is easier to see in direct sunlight

Radio is approved for all users on the system although it is recommended to purchase the lightening control head to be able to have full channel name available on the radio display.

-Viking Series Mobiles with any control head are supported

-TK5910 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-5930

NX-5930

### 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

VP6000-Model II Half Keypad

VP6000-Model III Full Keypad

ES51SL-Model II Half keypad will no longer be accepted as a new radio onto the system.

ES51SL-Model III Full keypad will no longer be accepted as a new radio onto the system.

TK5410D-K2 4 button keypad

TK5410D-K3 Full Keypad Radios

NX-5400-K2 Half Keypad Radio

NX-5400-K3 Full Keypad Radio

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.

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

For VP series equipment-

700/800 MHz operation

P25 Trunking

P25 Trunking Mobile Data

P25 Trunking OTAP

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.

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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.