



# North Carolina Department of Public Safety

## State Highway Patrol

Roy Cooper, Governor  
Eddie M. Buffalo, Jr., Secretary

Freddy L. Johnson, Jr.  
Commander

Technical Services Unit/VIPER

1 May 2023

**\*\*Amended\*\***

### Notice of Approved Vendor Radios for use on North Carolina VIPER Statewide Radio System for the period 1 January – 31 December 2023

The following Vendors and their respective listed Radio Model Numbers are hereby approved for **NEW** radio purchases. NEW is defined as a currently manufactured radio, that includes TDMA (Phase II operation), directly from a manufacturer or authorized vendor/manufacturer's representative.

**Motorola** – APX 900/4000/6000/8000/NXT portables, APX 1500/4500/6500/8500 mobiles and APX8500 series consolettes.

**EF Johnson – Kenwood** – EFJ VP5000/VP6000/8000 portables and VM5000/6000/7000 mobiles.

**TAIT** - TP9400/TP9600 portables and TP9400 mobiles.

**BK-RELM** – KNG-M800 series mobiles.

**Harris** – Unity XL-45/95/150/185/200/400 portables, XL150/185/XL200 series mobiles.

The following Vendors and their respective listed Radio Model Numbers **are no longer approved** for use on the VIPER system regardless of where they are purchased from or how they are acquired by the end user/agency.

**Kenwood**– The Kenwood NX series radios **are no longer approved** for use on the VIPER network. **\*\* See below section regarding Encryption and Key Loading\*\***

**MAILING ADDRESS:**  
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The above list of radios is for radios currently in production and being shipped during the calendar year 2023. However, virtually all the above manufacturers, previously manufactured radios that are P25 Phase 2 capable that are no longer in production. VIPER will continue to allow end user agencies to add radios from the below list since they are P25 Phase 2 (TDMA) capable.

**Motorola** – APX 1000/7000 portables, APX 7500 mobiles and APX7500 series consolettes.

**EF Johnson /Kenwood**– EFJ VP400/600/900 portables and VM400/600/900 mobiles.

**Harris/ TAIT** – Unity XG25/75/100 portables.

**BK-RELM** – KNG- P800 series portables.

Finally, all end user agencies should be aware that **effective 1 January 2023, ALL RADIOS BEING ADDED TO VIPER must be P25 Phase 2 (TDMA) ready.** Ready is defined as the radios MUST have the TDMA option already in the radios at time of purchase. This includes the purchase of **NEW and USED** radios.

**\*\*NOTE\*\*** VIPER previously notified all users that effective 1 January 2020 that the following radios listed below **will no longer be permitted TO BE ADDED to the system. Existing radios** from the below list will continue to be allowed to operate on the system **until 1 July 2025.** We continue to see requests to add radios from the below list every single month. If you have questions regarding the below radios and their use on the system, please ASK prior to spending your agency dollars to purchase them second hand. Transferring radios from one agency to another does NOT mean that the radios will be approved to remain on the system.

Motorola – XTS/XTL radios

Kenwood – TK-5910 series mobile radio, Kenwood TK-5410 series portables.

EF Johnson – 51/53 series portable and mobile radios

For vendor specific questions, please direct inquiries to the respective vendors. For VIPER system specific questions, please email: [viper@ncdps.gov](mailto:viper@ncdps.gov).

Radio end user agencies should note that this letter is for approved radios for use on the Statewide VIPER radio system and does not constitute an approval of the above radios on locally owned and operated Project 25 (P25) radio systems. Some radios on the VIPER approved list may NOT be approved for use on local systems. Please confirm with your local radio system administrators to determine local eligibility and approval.

**Encryption** — With the overwhelming number of agencies across North Carolina that are implementing encryption along with the adoption of a statewide encryption plan that includes all of the nationally recognized encryption formats (ADP/ARC4, DES and AES), the VIPER system has created a series of Common State Keys for encryption that reflect all of the above encryption formats. The state has also adopted a set of Law Enforcement Only State Event Talk Groups that require the use of the Common State Keys and Agency Specific Keys. The Common State Keys are available to any agency that utilizes encryption and can be transferred via a Motorola KVLx000 series Key Variable Loading Device. The Motorola KVL is the de-facto standard for Key Fill Devices. If you require the Common State Keys, please email [viper@ncdps.gov](mailto:viper@ncdps.gov) and put CSK in the subject line.

With the adoption of the Common State Keys, VIPER has elected to place an additional requirement on all radios being sold for use on the VIPER system, therefore **any manufacturer that is unable to support the key loading all of the above algorithms (ADP/ARC4, DES and AES) via KVLx000 device, shall have their radios removed from the approved radio list effective 1 January 2023.** This action will not preclude any manufacturer from being added back to the approved list should they be able to meet the above requirement in the future. Additions back to the approved list will occur at such times that the Approved Radio List is normally updated. Currently this occurs every January first of the upcoming calendar year however the state reserves the right to update the list at any time that it deems to be in the best interest of the state or the end users that it supports.

**Summary** – None of the **above** actions taken by the state should be construed as forcing end users to discontinue the use of radios **currently activated** on the system. All end users should however have a clear understanding that the deadline for conversion of the VIPER system to TDMA (Phase 2 P25) operation remains at **1 JULY 2025**. This requirement means that over the next thirty (30) months, **all non P25 capable radios** shall be removed from the system.