

Viking Subscriber Software 19.2 Release: December 2019

Effective Release: December 12, 2019

FSN-1212-VIKING-10

This Field Software Notice (FSN) announces the KENWOOD Viking® subscriber software version 19.2 release. This release provides new features and resolutions for Viking radios. This release supersedes KENWOOD Viking software release 19.1.

Software Versions

The following table capture the Viking Software items and corresponding versions included in this release.

Item	Version
Armada	1.28.5
VP600/900 Firmware Image	8.28.5
VP600/900 NOR Flash Factory Image	8.28.5
VM600/900 Firmware Image	8.28.5
VM600/900 NOR Flash Factory Image	8.28.5
VP5000/6000 Firmware Image	8.28.5
VP5000/6000 NOR Flash Factory Image	8.28.5
VM5000/6000 Firmware Image	8.28.5
VM5000/6000 NOR Flash Factory Image	8.28.5
OTAP Server	1.28.0
VikingTune	1.28.1
VikingTune ISO	1.28.1
VikingTune Lite	1.28.1
VikingTune Lite ISO	1.28.1
VikingOption	3.28.2

For questions regarding this Field Service Bulletin, please contact the KENWOOD Viking team at 1.800.328.3911, option 3.

Features Added

Following new features are added in the 19.2 release.

Feature Description	Overview
Low-Band Mobile	Added support for the new low-band VM7630H mobile, with frequencies from 39 MHz to 50MHz at 100 watts. Only wide-band, conventional analog channels are available for this mobile radio. A new template is added for the Low Band mobile when Armada creates a fresh database.
Noise Blanker for Low-Band Mobile	The noise blanker is a hardware feature that detects large impulses (e.g. from vehicle ignition) at the IF stage and briefly suppresses the input signal when they are present. Because this will also remove the wanted signal, a user may prefer to disable the feature. It is only supported on VM7630H radios. Enabled by default in Armada and set via checkbox in the Global-> Mobile Options. The noise blanker may also be programmed to a button or menu for the radio operator to turn on/off.
Automatic Frequency Correction (AFC)	Automatic Frequency Correction (AFC) is an option to allow the radio to adjust for any internal frequency error versus the system. Accomplished by observing the frequency of a digital repeater or base station, the radio automatically corrects its own frequency by accounting for the measured offset when loading a target frequency for transmit or receive. This takes advantage of the assumption that the system is more likely to be on frequency than the subscriber. The correction will be applied to all channels in all sub-systems of the radio, including when also accessing conventional analog channels. Enabling AFC can improve performance of radios that may be slightly off frequency versus the system.
Audio Profiles for Speaker/Mic Accessories	Volume, Mic Level and Equalizer parameters may now be set as audio profiles that are selected based on the radio's external accessory type in use or internal speaker/mic, as applicable. This provides the ability to have more consistent audio response when switching between the use of various accessories and internal speaker/mic.
Trunking Affiliation Status Icon	Radios on P25 Trunking Systems can be programmed to display an icon to indicate Trunking Affiliation when accepted by the system. Configurable in Armada under Systems->General Options 2 -> Roaming with the "Reg Status Indication" drop down box.
MDC Side Tone	An MDC Side Tone can be programmed for MDC ANI as an alternative for the normal talk permit tone.
Disable Power Switch with Ignition Sense	The power switch on 1000 series mobiles can be disabled if Ignition Sense is set to "required". The radio will instead power on and off only via the ignition sense line when the power switch is configured as disabled.
Hybrid System Text Message Support	When configured, will forward text messages between the conventional and a P25 system when the Unit ID matches. All text messaging is routed through the Text Message Server (not radio-to-radio). Text messaging requires the radio to be optioned for this feature and Text Message Server on the system.
AINA PTT Voice Responder Bluetooth speaker mic support	VM/VPx000 radios optioned with Bluetooth now support the AINA PTT Voice Responder remote speaker mic. The speaker mic configuration supports PTT and 5 programmable buttons. Note: the AINA Voice Responder requires correct firmware and manufacturing date of 1735 or later for compatibility.

Feature Description	Overview
KMC-67 Dual PTT Mic and PA / C channel configuration <i>Custom Application Support</i>	The dual PTT microphone is a custom microphone with a two-button rocker-switch PTT, labeled “C” and “S” and a momentary side button. These buttons are programmable, but by default are configured to transmit on the programmed Tx Frequency when pressing S, and to transmit on the programmed Rx Frequency when pressing C. The side button of the microphone is defaulted to toggle the Public Address (PA) mode. When in PA mode, the C button audio is routed to a PA speaker instead of over the air. When PA mode is activated via C button, the volume control will be disabled. PTT press on the C button when not in PA mode will emit speaker tones to notify user that they are transmitting on the C channel (Rx channel) over the air. Similarly, an input on the DB25 connector can be configured to select the C Channel when activated (intended for future use in a custom application with the EVRS and the Dual PTT Microphone.)
VM7000 Multi-deck – Unmute Receive Audio During Transmit	VM7000 Multi-deck systems can now be programmed to allow unselected decks to play their receive audio even if another deck is transmitting. Configurable on a deck-by-deck basis in Armada, and routing of the receive audio can be setup to a single speaker out or to individual deck external speakers.
Enhanced Vehicular Repeater System – Channel and Priority Display	The vehicular repeater channel number, priority, and priority lock status may be displayed on the status bar of the front display. Configurable in Armada on the Global-> Display page for Status Bar Slot 1 or Slot 2. <i>Intended for support of a custom application only.</i>
Enhanced Vehicular Repeater System – Priority Lock	When the repeater on/off function is pressed and held, the display shall show “rpt pri lock” and the priority lock request is sent to the repeater through the serial port. <i>Intended for support of a custom application only.</i>
Enhanced Vehicular Repeater System – “Repeater On” Notification	Allows customization of audible alert and/or display indication when the vehicular repeater is enabled. Can be enabled to remind user to turn off the repeater when returning to the vehicle.

Feature Enhancements

The following feature enhancements are available in the 19.2 release. These augment existing functionality in the subscribers and/or supporting applications.

Feature Description	Overview
Armada – Open files via Command Line and Double Click	Clarification of handling of opening files from outside the application. When opening from the command line, the first (optional) argument will be opened, and additional unnecessary arguments ignored. Windows Explorer double click of Armada associated file types will open them in Armada. File drag-and-drop from Windows Explorer is <i>not</i> supported at this time. Only one instance of Armada will run at a time.
Exclude Software Keys (ARC4) on Codeplug Read	A profile may now be configured with “Exclude-on-read” parameter such that software key material does not leave the Viking radio. This allows multiple users/agencies to separately write software keys to the Viking radio without automatically sharing with others via the show-keys password.
MDC Mute	Add support to mute the data signaling sound from MDC in received audio. This aligns to similar data operated squelch behavior for other manufacturer’s radios in conventional systems.

Feature Description	Overview
Armada Enhanced System Key Management - Per-System ESK-only	The Per-System ESK-only feature addition allows the system administrator the flexibility to manage and authenticate radios on individual P25 systems from a “partially trusted agency” and its guest administrator with improved oversight and control. A use example would be if the system administrator wishes to allow the guest administrator to program their radios onto their system, but only use certain Unit IDs and have access to only certain TGs and AGs for a limited period of time. The guest administrator is not allowed to edit or view system parameters. If the guest administrator uses a soft-key on their radio, then the ESK-only system’s authentication key will be deleted from the radio, preventing further access.
Tier 2 Location Services De-Registration	Added Tier 2 Location Services de-registration process per the Project 25 TIA specification. Checking the “Location Services Registration Enable” checkbox in Armada will enable registration/de-registration to the Location Services Host System.
KCH Update Confirmation	A prompt will appear when a KCH requiring an update is attached to a VMx000 radio. The user must press the indicated button to proceed with the firmware update. This prompt will help users to be aware of an update starting and avoid removing power during the update. This prompt will not appear during a control head update done immediately after a radio firmware update.
Priority Scan Selection Flexibility	Priority Scan has been streamlined for all protocols to include “None” and “Selected” as options for either priority. The Scan Mode menu has been removed for P25 and V16 systems, and reduced for Conventional systems. No existing functionality has been removed.
Bluetooth Volume Control Feature	For more flexible audio programming and to better coordinate with the new feature for audio profiles for accessories, the previous Bluetooth Remote Volume Control feature has been removed. Equivalent functionality is achieved by controlling the volume level of the audio sent to the headset, rather than controlling the headset volume. Note: Customers who do not currently use the Remote Volume Control feature will need to be aware that they should now be sure to set the headset volume using the radio volume controls, rather than volume buttons on the headset. Users are recommended to leave the headset volume set to max and only use the radio volume controls to adjust the headset volume levels.
Display P25 Conventional Emergency Type	Subscriber radios will now display the emergency type for received emergency alarm requests, if alarm type has been set by the sender. Any listening radio that has its conventional emergency list configured with emergency alarm Rx indication set to “Alert and Display” or “Display Only” that receives an emergency alarm request ISP will display information about how the emergency alarm was triggered. This information includes conditions such as “Man Down,” “Vehicle Impact,” and “Vest Pierced” as defined by the P25 standard.

System Interdependencies

Subscriber radios running 19.2 firmware and interfacing with the Mobile Radio Gateway (MRGW) require, at minimum, the upcoming 19.1.0 system software release for the MRGW. If planning on upgrading a subscriber radio used with an existing MRGW, please refer to relevant systems software field notifications and ensure you are using the latest MRGW software.

Customer Issues Addressed

Following is a list of the customer impacting issues that are resolved in the 19.2 release.

Issue	Overview
VM7000 High Volume Offset Overflow	In a VM7000 (multideck) setup, when using individual deck volume offsets with the main volume set at a high level, it was possible for the volume to overflow back around to zero. This release prevents the overflow.
VM7000 Test Mode for Secondary Decks	In a multideck setup the test mode feature was not working as expected. Users could not get into test mode on secondary decks. This issue has been addressed. Now, pressing the test mode entry button during radio boot will enter test mode for whichever deck was the selected deck on the previous power down.

New Hardware

The following table indicates newly supported product hardware in the 19.2 release.

Part Number	Picture	Name
VM7630HBF-x		VM7000 39-50 MHz 110W MOBILE RADIO

Accessories List

The following table contains the list of accessories newly supported in the 19.2 release.

Part Number	Picture	Name	Description
APTT1		AINA PTT Voice Responder	AINA's PTT Voice Responder is a next generation speaker-microphone which can be connected via Bluetooth to VP5000/6000 series subscribers. It features PTT plus 5 programmable buttons.
ADC1		AINA PTT VR Desktop Charger Cradle	For use with the AINA PTT Voice Responder remote speaker mic. Designed for use on desktops and counters. Connect to any standard 5V USB phone charger.
AVC1		AINA PTT VR Vehicle Charger Cradle	For use with the AINA PTT Voice Responder remote speaker mic. The Vehicle Charger Cradle is compatible with most mount manufacturers, using standard AMPs hole pattern or male 1/4"-20 threaded stud. 5V male USB connector.
KMC-67		Dual PTT Microphone MOBILE MICROPHONE, 3-BUTTON, VM-T	The KMC-67 speaker mic features a large rocker-style dual-function PTT button and 1 side button. Buttons are programmable via Armada. PTT button selections are labeled "C" and "S". Compatible with VM7000 mobile radio series. <i>Limited availability - intended for support of a custom application.</i>