Viking Subscriber Software 19.1 Release: July 2019

Effective Release: 07/17/2019

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This Field Software Notice (FSN) announces the KENWOOD Viking® subscriber software version 19.1 release. This release provides new features and bug fixes for Viking radios. This release supersedes KENWOOD Viking software release 18.2.

Software Versions and Part Numbers

The following table capture the Viking Software versions and corresponding part numbers.

Item	Version
Armada ISO	1.26.13
Armada	1.26.13
VP600/900 Firmware Image	8.26.13
VP600/900 NOR Flash Factory Image	8.26.13
VM600/900 Firmware Image	8.26.13
VM600/900 NOR Flash Factory Image	8.26.13
VP5000/6000 Firmware Image	8.26.13
VP5000/6000 NOR Flash Factory Image	8.26.13
VM5000/6000 Firmware Image	8.26.13
VM5000/6000 NOR Flash Factory Image	8.26.13
OTAP Server	1.26.2
VikingTune	1.26.7
VikingTune ISO	1.26.7
VikingTune Lite	1.26.7
VikingTune Lite ISO	1.26.7
VikingOption	3.26.11
Optionator	0.24.6

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

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Features Added

Following new features are added in the 19.1 release.

Feature Description	Overview
Radio Cloning	Radio cloning allows users to copy parts of their codeplug from one radio to another radio. Cloning allows channels and lists to be transferred directly between two radios with a serial cable. This allows a user to quickly setup two radios to communicate with each other. Viking radios will support cloning a zone and the CTCSS/NAC list between radios.
Customizable Power Levels	Customizable power levels bring values for 'low' and 'high' transmit powers on VMx000 radios. High and low power levels may be set for VMx000 radios that have the custom power option set. The default behavior is to use the minimum and maximum powers. Values are set per 'split' or frequency range.
Bluetooth Programming	Bluetooth Programming is now available for VPx000 and VMx000 radios with the Bluetooth option. Allowed programming operations will follow those allowed for OTIP connected radios.
Bluetooth Headset for VM5000 Radios	Bluetooth Headset functionality is now available for VMx000 radios with the Bluetooth option.
P25 Two Tone Encode	Two Tone Encode functionality has been added to P25 Conventional and P25 Trunking Phase 1 and Phase 2. This feature is supported on all Viking series radios. The "P25 Two Tone" option must be purchased to use this feature.
C4FM / CQPSK Modulation Selection	Project 25 conventional and trunking systems can use different, but compatible, modulations. Most systems typically use either C4FM or LSM. C4FM is common in non-simulcast situations. LSM is common in simulcast situations. The subscriber can optimize the receiver for the specific modulation if the modulation type is known.
French and Spanish Character Support	French and Spanish characters (é, ô, etc.) are supported in the 19.1 release. The following characters are supported:¡, «, », ¿, À, Á, Â, Æ, Ç, È, É, Ê, Ë, Í, Î, Ï, Ñ, Ó, Ô, Ù, Ú, Û, Ü, à, á, â, æ, ç, è, é, ê, ë, í, î, ï, ñ, ó, ô, ù, ú, û, ü.
Bluetooth Low Energy	VPx000 and VMx000 radios now support Bluetooth Low Energy (BLE) devices. The "Bluetooth Low Energy" option is required. Users can program radios to take an action when remote BLE devices report specified values. Supported actions are Emergency and Text Message.
Bluetooth Receive Audio Routing	VPx000 and VMx000 radios now support routing audio to either a connected Bluetooth headset, or the radio speaker. Users can toggle the audio routing by button press, toggle switch, or menu selection.
Bluetooth Remote Volume Control	VPx000 and VMx000 radios now support AT commands for remote volume control. Users can program their radios to use AT command for remote volume control. Changing radio volume will send AT commands to a connected Bluetooth headset. This will cause compatible devices to match the volume of the radio.
Customizable Tones	The Customizable Tones feature allows Armada to configure tones for various functions for use when the Viking radio receives or transmits.
Rotary Knob – Free-Spin Mode & Soft Stop on the VPx000	VPx000 subscribers support a free spin mode and soft stop ability, both of which may be enabled.
Channel and Direction Specific Operator	The ability for the radio operator to select CTCSS/DCS tones on a per-channel and per direction (TX or RX) basis was added in the 8.26.x radio

Selectable Tones	release. Two more functions are available for programming on conventional systems, Channel Rx OST and Channel Tx OST. These are available on analog channels and digital mixed-mode channels.
Squelch Code On Status Bar	When on a conventional channel, the radio can be configured to display the Rx and/or Tx CTCSS/DCS squelch codes on the status bar.
KMC-70/72 Microphone Support	The KMC-70 3-button and KMC-72 2-button microphones are supported for VPx000 radios.
Programmable Announcement Group Talk Back Behavior	Talk back on announcement groups can now be enabled or disabled on a per-group basis on P25 Trunking systems. Normally, when a user receives an announcement group call on their selected talkgroup, the radio will talk back on the announcement group if PTT is activated during hang time. This behavior is now programmable.
Temporary Emergency Registration	Some P25 trunking systems can now be configured to grant SU's temporary access for emergency operations (emergency alarm, emergency group call, and emergency unit-to-unit call requests) even if the SU was previously unauthorized to operate on the system.

Feature Enhancements

The following feature enhancements are available in the 19.1 release.

Feature Description	Overview
Added Functionality for the Menu/Select button for Unit Call and Call Alerts	The menu/select button can now be used to initiate calls in unit call and call alerts.
Exit Tone for Silent Emergency	This feature added a tone when exiting the silent emergency for both Conventional and P25 systems.
Setting CTCS/DCS Code to 0 Resets the Channel to Carrier Squelch	In keypad programming, settings the CTCSS/DCS code to 0 will reset the channel back to carrier squelch instead of displaying invalid. If the radio's contents are read by Armada and the radio is in carrier squelch mode, the CTCSS/DCS checkbox in the channel options will be unchecked.
Deny Tone for P25 if Another Radio on Same Talk Group is Talking	In P25 TDMA mode if two radios PTT at nearly the same time a deny response is given by the radio who does not receive the grant. Previously if a radio PTTed shortly after another radio (a quarter second or so) the second radio would simply go straight into a RX mode. To avoid confusion on the operator's part this feature was enhanced.
Dynamic Tooltips for Roaming RSSI Weights	The tooltips for the roaming RSSI weights located in Systems→Trunking System→General Options 2→RSSI Thresholds→Customize→RSSI will now update based on the values of the weights around them. This only applies to trunking systems.
Move Conventional Unit Call Key PID	The Unit Call Key PID widgets have been move from the General Options tab under P25 Conv System Option to the General Options 2 tab under "Keys". Now the encryption keys are configured on the General Options 2 page for all system types.
Support Bluetooth on the VMx000	Bluetooth support has been added to the VMx000 series radios in this release.
Expand Backlight on Receive to More Features	The backlight on receive feature found in Armada at Global→Display→Lighting→Backlight on Receive has been expanded to activate the backlight for more features.

Added Keypad Lockout to the KCH-21	Keypad lockout is now available on the KCH-21. The KCH-21 will now have a keypad lockout option like the portable models. The front keypad, PTT, side and top buttons are now allowed to be locked out.
Added Option to Cycle Information When Receiving a Call	An option has been added in Armada to cycle the selected Rx messages for the duration of a call.
Shutdown Armada on Suspend if database is non-default	When a computer is suspended (put to sleep or into hibernation mode), it will attempt to reconnect to the database file on resume. This can be problematic if the database is on a remote/network directory. If the database is at a non-default location and the computer is suspended, Armada will close. All unsaved work will be preserved.
Conventional Emergency Alarm Indication	The "Emergency Alarm Rx Indication" found in P25 trunking and P16 trunking emergency lists has been added to conventional emergency lists. When the radio receives a digital conventional or analog MDC emergency alarm packet, the radio will display alerts and play tones according to this setting.
Ability to Disable Priority Scan Icons	"Show Priority Scan Icons" has been added to priority scan lists for all system types in Armada. This can be found in Systems -> Lists -> Priority Scan. When this checkbox is checked, the priority scan icons will be shown and when it is unchecked the priority scan icons will not be shown for the selected priority scan list. The default value is checked. The icons will always be shown when editing the scan list.
Status Bar Volume Indicator	A volume icon has been added to the status bar for all radio types, both portable and mobile. This volume icon is not available for the Viking Control Head, Lightning Control Head, and Standard Control Head. All slots can be configured to show the volume icon on supported radios.
Simplex/Talkaround mode indication	Display "TA" icon any time we are in not only Talkaround mode but also simplex channel. If Rx frequency is the same as Tx frequency, the radio determines the channel is simplex channel. Repeater TA Button/Menu function is disabled when selected channel is simplex channel.
Import Templates as New	A new checkbox has been added to Armada's import dialog called "Import as New". When checked while importing templates that are already in Armada, the original templates will be preserved and the templates being imported will be imported as new templates. Any radios imported that are attached to the template being imported as new will be attached to the newly imported template. Functionality when "Import as new" is not checked is unchanged
KCH-20 Single Line on Select Deck Parameter	The KCH-20 now has an option to display only a single line on the selected deck (when in Multideck Multiline display mode).
Allow Certain GMRS Frequencies to be Programmed as Wideband	Certain GMRS frequencies may be used as either wideband or narrowband. We now allow them to be programmed as such, even on radios optioned for narrowband use only.
Only Allow Bluetooth Auto-connect to Last Device	Bluetooth will try to connect to devices that it is already paired to. This Armada check only allows the radio to auto-connect to the Bluetooth device most recently connected to.
Default Button for P25 Two Tone Encoder	Conventional Two Tone Encoder (Systems->Conventional System->Signaling Options) has a default button. The P25 Two Tone Encoder (Systems->Conventional or P25 system->Lists->P25 Two Tone Encoder) settings now has a default button too.
Add Radio Failure Message to Remote KCH	"Radio Failure" will flash on the control head when the radio is in a bad state.
Add Zone and Channel to the Status Bar	The zone number and the channel number can now be added to the status bar. The status bar slots will now have the option to choose zone and channel in

	the display tab. "Zn" will be followed by the zone number and "Ch" will be followed by the channel number.
Armada Equalizer Changes	In Armada, the equalizer presets are now hardware focused. User programmed data is unchanged.
Post TX Analog Emergency Signaling	Now, if emergency call ANIs are enabled and the conventional channel is configured with post-TX ANI, then the emergency call ANI will be sent post-TX. If the conventional channel is configured with pre-TX ANI or no ANI, but emergency call ANIs are enabled, then the emergency call ANI will be sent pre-TX.
Use Settings from Added to Talkgroup Add Multiple Dialog	When using the "add multiple" dialog in systems -> any system type -> lists ->talkgroups, a talkgroup can be selected to duplicate settings from. The System ID and WACN fields have been removed from the dialog on P25 systems, making this dialog the same across all systems. A default option exists as well to create talkgroups with default settings.
Use Settings From Added to Channel Add Multiple Dialog	When using the "add multiple" dialog in zones -> channels -> add multiple, a channel can be selected to duplicate settings from. A default option exists as well to create channels with default settings.
Allow UHF T Band Frequencies to be wideband	Frequencies in the UHF T Band 470-512 MHz are now allowed to be configured as wideband channels.
Add Column Sorting to Firmware Manager	The Firmware Manager in Armada (tools->Firmware Manager) is now sortable by both firmware version number and supported hardware.
Individual Deck Volume Control Updates	The RF Deck Volume Adjustment feature has been reworked. It previously required entering a menu and doing several button presses to get any radio's volume changed. This has been replaced with 'Deck Volume Up' and 'Deck Volume Down' functions that can be assigned to buttons or soft buttons. Pressing those buttons will offset the selected radio's volume up or down by 10% from the current volume setting as set by the volume knob. The minimum offset is -100% and the maximum offset is +100%.
Edit Radio Alias in the Armada Radio ID Editor	The Radio ID editor in Armada now allows you to edit the Radio's alias.
Rename the KMC-49 Microphone to One Button Mic	The KMC-49 microphone has been renamed to One Button Mic in Armada.
Update Band Labels to Differentiate Between Hardware and Profile Bands	The band labels in Armada have been updated in a number of places to differentiate between hardware and profile bands. • The radio info bar will display "HW: " in addition to the profile band when the hardware and profile bands do not match • In the fleet pane "Band" has been renamed to "HW Band" • In the radio info menu "Band" has been renamed to "Hardware Band" • In radio printouts "Band" has been renamed to "Hardware Band"
Portable Power-up Zone/Channel "Selected" Changes	The portable power-up channel and zone may now be set to "Selected", regardless of the Rotary or Toggle controls. The "Selected" power-up behavior remains as it was if there is a valid "Selected" zone/channel source (either the rotary knob or the toggle switch); otherwise (if there is not a valid "Selected" source) the power up zone/channel follows the rules corresponding to "Last".
Default RCM Added to P25 Message List	The Default RCM can be selected from the P25 message list
Enable Received Key ID in Unit Call	The received key ID will be visible in unit call.

Option Display Order	In the radio properties dialog, the options are still grouped, but the groups have been rearranged so that the protocol and P25 groups are at the top. Within each group, options are stored alphabetically by name.

Customer Issues Addressed

Following is a list of the customer impacting issues that are resolved in the 19.1 release.

Issue	Overview
USB Support for Microsoft Surface Devices	In some cases, Microsoft Surface devices lose USB connections to Viking devices. This release updates a driver and fixes those issues
No Audio on Unselected Deck Following Power	In a Multideck setup with "Mute Selected Deck External Speaker" enabled, no audio would be heard from the unselected deck following a power cycle.

Accessories List

Following table contains the list of accessories being released in 19.1 release.

Part Number	Picture	Name	Description
BTH-900		BLUETOOTH HEADSET,BTH-900, OVER THE HEAD, VP-T Compatible with: VP5000, VP6000	BLUETOOTH HEADSET, BTH-900, OVER THE HEAD, VP-T Pryme BTH-900-EMB Bluetooth Dual Ear Muff Racing Style Headset & Microphone.
V2-G4JD221		FIRE SPEAKER MIC, OTTO, 500°F, VP-H Compatible With: VP400/600/900	FIRE SPEAKER MIC, OTTO, 500°F, VP-H Whether in the fire or behind the hose, OTTO 500 high temp fire speaker microphone exceeds the performance of any other speaker mic on the market
V2-G4KC221		FIRE SPEAKER MIC, OTTO, 500°F, VP-T Compatible With: VP5000, VP6000	FIRE SPEAKER MIC, OTTO, 500°F, VP-H Whether in the fire or behind the hose, OTTO 500 high temp fire speaker microphone exceeds the performance of any other speaker mic on the market.

BTH-300KIT1		BLUETOOTH SURVEILLANCE KIT, PTT+EARPIECE, VP-T Compatible With: VP5000, VP6000	BTH-300 series PRYMEBLU® Bluetooth (wireless) professional grade lapel microphone kit features a front mounted, easy to use, PTT button. The BTH-300 features a 3.5mm jack compatible. It comes with EH-1189sC Bud style earphone which has a 16" (retracted) Coil Cord and collar clip.
UPORT 404		USB HUB, VM7000	USB HUB, VM7000This is a USB HUB for VM7000. It can connect all four decks in single go for programming.
KSC-326AK		CHARGER, SIX UNIT RAPID RATE, VP-T (Replacement of KSC-326K) Compatible With: VP5000, VP6000	CHARGER, SIX UNIT RAPID RATE, VP-T. Width 21.9 inch Depth 8.0 inch Height 4.1 inch Input 100-240V 50/60Hz 1.5-0.8AOutput
BTR-155		BLUETOOTH SPEAKER MIC, SAVOX, VP-T Compatible With: VP5000, VP6000	BLUETOOTH SPEAKER MIC, SAVOX, K551071 VP-T
250SK5000		VK5000S SONIM KEYLOADER KIT	VK5000S SONIM KEYLOADER KIT
KMC-65M		MOBILE MIC, STANDARD, MIL-SPEC, KCH-19/20 Replacing: KMC-35	
KMC-66M		MOBILE MIC, 12 KEYPAD, MIL-SPEC, KCH-19/20 Replacing: KMC-36	

KMC-70M		SPEAKER MIC, 3PF KEYS, BLACK, VP-T Replacing: KMC-54WDM	
KMC-70GR		SPEAKER MIC, 3PF KEYS, HI-VIZ, VP-T	
KMC-72W		SPEAKER MIC, 2PF KEYS, NX Replacing: KMC-54WDM	