17.1 Viking Subscriber Software General Release

Effective Release: 6/30/17

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This Field Software Notice (FSN) serves to announce KENWOOD Viking® radio software release of version 17.1. This release provides bug fixes and new features for Viking radios. This release supersedes KENWOOD Viking software release 16.1 point release 3.

*Note: **Release 17.1 does not support Windows XP or Vista.** Microsoft discontinued Windows XP in April of 2014 creating security concerns as Microsoft is no longer creating and applying security patches. For further information on the Windows XP end of support, see:*

https://www.microsoft.com/en-us/WindowsForBusiness/end-of-xp-support.

Software Versions and Part Number

The following table captures the Viking Software versions and corresponding part number.

Item	Version
VP400/600/900 Firmware	8.18.16
VM400/600/900 Firmware	8.18.16
VP5000/6000 Firmware	8.18.16
VM5000/6000 Firmware	8.18.16
Armada	1.18.18
OTAP Server	1.16.0
Data Registration Server	1.16.0
Elite Battery Management Server	1.8.0

Features Added

Following new features are added in release 17.1

Feature Description	Overview
VP6000 Radio	Support for the Viking Portable 6000 series radio
VM5000/VM6000 Radio	Support for the Viking Mobile 5000 and 6000 series radio.
Radio Setup Mode	The individual control heads handle specific tasks using radio setup mode. Once in radio setup mode, the control head will display a menu, which allows the user to edit the available radio parameters, including parameters specific to the active control head.
Audio Equalizer	The audio equalizer allows for fine control over the shape of the audio for both speaker and microphones. The equalizer controls the level of five bands. Values are stored separately for microphone and speaker as each radio type. The range of each level is ±10dB. This feature applies

Feature Description	Overview
	to all VP5000, VP6000, VM5000, VM6000 radios at 8.18.x or above.
Intra-WACN Roaming	Improvement were made to Intra-WACN roaming that allows the subscriber to automatically roam between all of the systems within the same Wide Area Communications Network (WACN) within Harris Trunking systems.
Color Event Indication and VP6000 Top Backlight	Color event indications were added to radios with color displays. Critical events are assigned a color based on the type of event (such as emergency)

Feature Enhancements

The following feature enhancements are available in release 17.1.

Feature Description	Overview
Ignore first responders OOR indicator on analog channel	The commander does not send a beacon for analog fire ground channels. The OOR indicator in Systems->General Options 2->Fire Ground Options->Out of Range Indicator will be ignored for analog channels because there is no commander beacon being received.
Added back buttons to all sub-menus	Originally, the only sub-menus that had back buttons were simple on/off options. Now every sub-menu has the option to press the back button to go back to the main menu or a previous sub-menu.
Display P25 Interconnect phone number	Originally, when a phone call is received, the radio would display Phone Call. If the radio receives an OSP with the phone number it will flash after the Phone Call message
CTCSS/DCS Disabled for CTCSS/NAC list	If CTCSS/DCS was unchecked in Systems->Lists->CTCSS/NAC the radio would display 0.00 in the squelch list select menu. Now if CTCSS/DCS is unchecked, the radio will display CSQ in the place CTCSS/DCS would normally be displayed.
Clock sync	The radio will be able to sync the internal clock with a GPS or system clock source. Armada now has a combo box for clock source on the Global > Display tab. The clock source is shared by all interfaces.
Menu changes	Any radio programmed by 1.18.x Armada, including pre 8.18.x radios, will accept this change. Portable radios will access the menu from whichever button is set to the "Menu" function. If no button or soft menu is set to "Menu", the menu is not accessible. Radio and interface type combo boxes will now use the 'series' labels, e.g. "VP6000"
Conv Unit Call and Interconnect Tx Timeout	Tx Timeout and conversation timeout now work with conventional unit call and conventional interconnect. The Tx Time Out, Penalty, and Conversation timers will be enabled when "Time Out Alert" is checked in the channels tab.
Armada Parameter Type Tagging	Parameters that only apply to a specific radio or interface type have been labeled as such. Going forward, instead of enumerating the types in the label, each label will have a symbol (glyph) that indicates it applies to a subset of radio or interface types. Hovering over that label will show a tool tip that enumerates all supported types.
Split Global -> Portable Options -> Controls Parameters	The parameters in the Global -> Portable Options -> Controls group box may now be programmed differently for each radio type. Keypad type, rotary control, navigation pad and the toggle settings may now be programmed separately for each portable radio type. Legacy Keypad

	continues to apply only to VP5x30s.
Update on Next Connect on Import	When importing Codeplugs, it is now possible to mark each radio as needing an update. When selected, set each imported radio to have a codeplug update pending. If the preference "Mark as 'Update on Next Connect' on Save" is enabled, imported radios are always marked with a pending update.
VM5x00, VP5x00, and VP6x00 GPS Assist Data	VM5x00, VM6x00, VP5x00, and VP6x00 radios will now store GPS satellite data in order to acquire quicker TTFF (Time to First Fix) between power cycles.
Modified direct entry and invalid ID behavior	If a user enters an invalid ID in direct entry, the unit ID will be cleared. The only way to enter a new ID before was to use the left nav button to clear out the ID. All other buttons were denied.
Verify Options on Boot	The radio will now verify that all options are valid during the boot process. This is necessary because we have started introducing options that remove certain features. We have to keep people from going back to older SW that doesn't check the option.
Bad battery RSD indicator	RSDs with bad batteries are now labeled in Armada
Log user and machine name	When starting Armada or saving a profile, log the Windows user and machine name in the event log. When writing to a radio, the audit log will have the user and machine name that initiated the write recorded; entries written prior to the 1.18.x Armada release will not have the user name.
Remember view mode in .aep	Record the view mode (radio type) and interface type of templates when exporting and then restore that view on import. Do the same for radios' interface type.
Viking Third Party Options over RS-232	If optioned, Viking Mobile radios will now process Third Party Option commands over RS-232. To enable this, the radios "External Serial Connector" settings must be programmed appropriately.
Force Auto Scan	Force auto scan prevents the user from accidently turning off radio wide auto scan or priority auto scan.
Flashing Scan Icons	When the radio is scanning channels, the priority scan or radio wide scan icon will be solid. When the radio is in scan hold time, the corresponding scan icon will flash.
Talkgroup Key PID Copy/Paste Change	When copying a Talkgroup from any protocol and pasting in Excel, the Key PID will match that shown in Armada, regardless of encryption mode. Likewise, when pasting a TG in Armada, the key PID pasted in will match what was shown in Excel, regardless of encryption mode.
RSSI Assimilation	The RSSI values reported by subscribers should now be consistent across all products.
Additional Home Buttons	The radio now supports the use of 5 different home buttons.
Volume display	This effects the VP600, VP5000, VP6000, and VM5000 with a KCH-19 control head. When the volume changes through the volume knob or volume button, there will be a bar graph that represents the percentage of the max volume.
Make Scan Edit Programmable in P25 and SN/SZ	Previous releases enabled the user to set conventional scan list edit restrictions. Now, P25, SmartNet, and SmartZone system scan list edit restrictions are programmable in Armada. The ability to remove priority channels on a "Priority on Programmed" scan list was also added.

Product Tiering	The Kenwood Viking mobiles will be split into 3 tiers VM5000/VM6000/VM7000.
System assigned AGs are no longer added to codeplugs	A radio that affiliates to a P25 talkgroup and receives an announcement group from the system will no longer add that AG as if it were programmed in Armada.
Global Emergency Channel moved to System Emergency Lists	The global emergency channel is now controlled by the system emergency lists. When entering emergency mode, rather than checking to see if a global emergency channel was enabled, the selected channel's emergency list will be checked for an emergency channel. Zone edit is disabled for emergency list channels.
4096 talk groups/channels	The maximum number of talkgroups and channels that are allowed to be programmed was increased to 4096.
SCM Infinite to Finite Key Retention Behavior	Documenting behavior of the SCM module when changing key retention mode. If during the operation of the radio since the last key write, the radio loses power the SCM module will log a tamper event.
VikingTune Modulation Tuning changes	After completion of modulation tuning all bands of VM 5000 and both UHF bands for VP 5000 and VP 6000, an additional tuning step will be performed to bring the modulation levels to a level that is more compatible with P25 Phase 2 operation.
Emergency Cancel	In past releases, when the user canceled the emergency condition by pressing and holding the emergency button, the emergency cancel would only cancel the emergency setting in the Subscriber. With this feature, the Subscriber will now inform the FNE that the user has canceled the emergency.
Two Tone Unmute Type	The user can now select from two unmute types "AND" or "OR" for conventional channels programmed with a two tone decoder list.
Phone Refuse	When receiving a phone call (ringing), the user can press the 'Clear' button to refuse the call. The only Armada programming requirement is to program the 'Clear' function to a programmable button.

Removed Features

The following features were removed in release 17.1

Feature Description	Overview
All Zone Select	Any radio upgraded to 8.18.x or radio programmed by Armada 1.18.x will not have "All Zone Select" available. If All Zone Select was programmed, the toggle is now set to "Programmable".
Global Emergency Channel moved to System Emergency Lists	The system emergency lists now control the global emergency channel. This gives greater control over which emergency channel is used by each channel.
Two Tone Decoder Frequency Ranges	Due to performance issues and undefined behavior, the two tone decode and encode upper limit has been reduced from 3016 Hz to 3000 Hz. It is highly unlikely that customers are using tones is this range.

Issues Addressed

Following is a list of customer impacting issues that are resolved in release 17.1.

Issue	Overview
Issue with programming the A, B, C buttons on the Limited Keypad VP6000:	Fixed the A, B, C button programming for Limited Keypad VP6000 radios. If you were using the work around for earlier software, set your radio to Limited Keypad and check your button programming.
Add as an improvement (Radio)	Volume control will not revert to radio knob when speaker mic with volume buttons is removed: Radio will now switch volume control back to the radio if the speaker mic with volume buttons is removed or never attached.
LID 0 not allowed for ARC4 Encryption (Armada/Radio)	This change now allows users to program an LID of 0 for ARC4 encryption.
MDC decode failure (Radio)	Improved performance of MDC decoding of packets from some manufacturers.
Voice Announcements are clipped on a Standard Control Head (Radio)	Fixed clipping for tones on standard control heads.
Very long list of templates cannot all be displayed or selected (Armada)	Implemented mechanism for viewing and selecting very large numbers of templates from the template selection menu.
TDMA audio can get scratchy and stay that way until power cycle (Radio):	Fixed issue with audio update mechanism to solve this issue.