Viking Subscriber Software 22.1 General Release

Effective Release: October 28, 2022

FSN-1022-VIKING-23

This Field Software Notice (FSN) announces the KENWOOD Viking® subscriber software version 22.1 release. This release provides new features and resolutions for Viking radios and the Armada radio programming suite, including a number of advanced features allowing greater flexibility in managing your radio updates.   Note that both the Radio firmware and the OTAP Server, if in use, will also need to be updated to allow these new features for Armada and Armada Server.   This release supersedes KENWOOD Viking software release 21.1 for VPx000 and VMx000 series radios and the Armada Software Suite.

Software Versions

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

Item	Version
Armada Client	1.36.12
Armada Server	1.36.12
Armada Proxy	1.36.9
Armada CD	1.36.12
VP5000/6000 Firmware Image	8.36.14
VM5000/6000/7000 Firmware Image	8.36.14
VikingTune Lite	1.36.7
Data Registration Server	1.32.0
Elite Battery Management Server	1.26.0
Location Gateway	1.10.2
OTAP Server	1.36.3
Text Message Server	1.20.1

NOTE: The general release for 20.1 and its subsequent maintenance updates will remain the current release for the discontinued VPx00 and VMx00 radio models (8.30.x radio firmware version levels). Most new features are not being extended to the 100 series radio platform after this release cycle, however minor changes may continue to be supported as incremental releases to 20.1 for these radios until the software support periods end on all such models. See incremental 20.1 point release notes for further details. Armada continues to support the VPx00/VMx00 radios with certain exceptions.   See the section "Armada/OTAP Server and Legacy Radio Support" on page 5 regarding new features in the 22.1 release for planning your firmware version management and Armada/OTAP versions on systems with mixed radio firmware versions and the application to legacy VPx00/VMx00 radios.

Features Added

Following new features are added in the 22.1 release.

Feature Description	Overview
Armada Server - **Radio Programming direct** **via OTIP, OTAP, or Proxy**	Previously, at least one Armada Client was required with radio connectivity to program radios in conjunction with Armada Server. Now, Armada Server supports direct radio programming via OTAP, OTIP or Armada Proxy interfaces. USB connected programming of radios still requires a connected Client.
Armada Server / Armada – **Scheduled Writes**	Writes can be scheduled for currently disconnected radios, which then will be performed when radio connects through any interface.
Armada Server / Armada – **Write Pre-Authorization**	When authorization (a soft password or a Radio Security Device) is required for radio programming, the authorization is now accepted at the time a write is scheduled, rather than being required at the specific connected Armada Client and at the time when the radio is next connected to Armada Server. During upgrade, please note that if any radios had prior writes already pending which required authorization, they will still need to be authorized at the time of next connection after upgrade.
Armada Server / Armada – **Delay-Activated Writes**	When updating a radio, you may now decide when to activate the changes on the radio. You can choose to have the update activated immediately to the radio, apply the update when the radio is restarted, or schedule a delayed "After" date and time when to activate the update.
Armada Server / Armada – **Cancel Delay-Activated Writes**	When a radio has a delayed-activation write but that has not yet been applied, it can be cancelled.
Armada Server / Armada – **Handling of Pending Updates** **at Radio Read**	Before this release, reading a radio would un-schedule a pending codeplug update. Now, reading a radio will un-schedule all pending updates that have not been transferred. This includes Options and Security Policies.
Radio Prompt for Updates	You are now able to provide a prompt to the radio user when updates are ready and a reboot is required, rather than forcing a reboot. This gives greater control to the radio user to prevent unexpected reboots during their shift due to radio updates. The radio will then prompt the radio user to apply the update again on the next reboot. This option appears as a check box selectable from Armada.
OTAP Server – **Debug Logging**	A debug log can now be enabled on the OTAP Server to assist in diagnosing issues.
Non-Adjacent Site Search	This option allows the radio to check the control channel list for a stronger site when the current site and all adjacent sites have weak signal strength.
ARC4 KVL Keyloading	Handling of ARC4/ADP keyloading and the Key Tables have been modified to allow use of a KVL-x000 keyloader to manage ARC4 keys (ARC4 Hardware Keys). The Viking VK5000 keyloader will be offered soon with an update to support this capability as well.
Bluetooth HFP Profile	Support for the Bluetooth Hands Free Profile (HFP) has been added. Note that if enabled, the Bluetooth Headset Profile will be disabled, which may cause most currently supported devices to not work correctly. (Use of HFP with any specifically supported accessories has not yet been validated.)
AFO Tone Attenuation	This feature allows user to control the output level for tones and voice announcements played from the external audio AFO output line on the Mobile radio DB25 connector.
Armada – **VP8000 support**	Armada now supports programming of VP8000 portable radios and you may begin creating templates for VP8000. Armada also includes a new provisioning wizard for initial option loading and firmware update. Further details regarding VP8000 provisioning and other potential updates for VP8000 will be available in an upcoming minor release.

Feature Enhancements

The following feature enhancements are available in the 21.1 release. These augment existing functionality in the subscribers and/or supporting applications.

Feature Description	Overview
Adjustable Low Battery Indication	The remaining battery level for the Low Battery Indicator is now adjustable between 10 to 25%. Previously, Low Battery was fixed at 10%.
Disable the TA Icon on Simplex Channels	The Talk Around (TA) Icon can now be disabled. This option is available via a checkbox in Armada.
Hot Mic with Voice Announcement	For P25 Trunking systems, Hot Mic will now start after Emergency On voice announcement and/or Emergency Ack tone are played.
Temperature Protection notification	Radio users see a transmit warning if the radio becomes too hot, however there is no longer a warning specifically displayed when the radio goes from too hot to normal.
Adjustable Font Size	Font will now shrink to fit the display instead of scrolling the text.
Accessory Keypad Lockout	If selected, the accessory buttons are also disabled when Keypad Lockout is turned on. PTT on the accessory will still work.
Two-Tone Decoder – Continuous Tone	When enabled, a continuous tone will be played after a valid two tone is decoded and carrier is missing.
Mute Message Display	The radio will do a brief display when Mute is enabled. If the "Muted Notification Enabled" option is used, a flashing MUTED message will still continue to show (no change from previous release).
Emphasis on Important Messages	Important messages will now be emphasized to display on one line for better visibility. The Font size will adjust depending on the length of the message.
Emergency Alarm on VC	Receipt of MFID90 emergency indication format on voice channels is now supported. The radio will generate the Emergency Alarm Rx indications per its programming when MFID90 emergency alarm packets are received. Applies to Motorola ASTRO® P25 Trunked Systems.
Conventional Unit Call Accept/Reject	The radio user may now choose to Accept or Reject a Unit Call being received in Conventional, making it more similar to P25 Trunking unit call behavior.
Conventional Interconnect - Data Reg status	Users will now get a flash message "Data reg in progress" as well as warning tone when attempting to place a Phone Interconnect call while Data Registration is already in progress.
Conventional Interconnect – Call End Messages	Interconnect Call end messages are now more informative, with statuses now including "Timeout" after 2 minutes inactivity, "Call Ended" if the phone user hangs up, "Denied" for unreachable numbers, or "Call Unsuccessful" if the system is unavailable.
Trunking System Parameter Editing outside of system key	Certain parameters may now be viewed and edited without a system key if the RSD is missing or locked.
Encrypt Type display in Key Select	The Encryption Type will now be displayed in the Key Select menu as (AES), (DES), or (ARC4) after the Key Alias.

Customer Issues Addressed

Following is a list of the customer impacting issues that have been resolved in the 21.1 release.

Issue	Overview
Clarification of Channel Override Talkgroup Security in Emergency	Clarification the "Override Talkgroup/Ann Group Security" behavior to ensure consistency between channel/talkgroup settings and that the secure Icon only displays when transmitting encrypted in emergency.
Radio Error during Two Tone Page in Radio Wide Scan	Previously, if the radio powered up onto a Trunking channel and a conventional two-tone page is received in RWS, the radio may crash. This issue has been corrected.
P25 Two Tone does not Unmute on consecutive tones	If the radio received an invalid two-tone sequence prior to a valid sequence in the same transmission, the valid sequence would get ignored. This issue has been corrected.
Behavior on Held PTT During Denied Response	If a user attempts to transmit on a P25 Trunked talkgroup while a call is already active, the radio will receive a deny response. If the user kept holding PTT and the voice channel then became available, the radio was not automatically requesting a channel grant. This has been corrected.
OOR Tone Not Playing During Radio Wide Scan	Previously, the Out of Range (OOR) tone was silenced when RWS was active to ensure the tone did not play over a RWS call. This has been updated so the tone is now only silenced if RWS is active and RWS call is in progress.
Volume Up/Down Tick Sound Interrupting Rx Audio	Volume tick keypress tones have been changed to give priority to Rx audio. This prevents issues for some users being unable to hear received transmissions while changing the volume.
Multi-Deck Auto-Unmute Feature Issue	Previously, the Unselected RF Deck Mute setting was preserved through power cycle. Unselected decks will now be unmuted on power up

Armada/OTAP Server and Legacy Radio Support

With the additional features now available with Armada/Armada Server and OTAP, some considerations for managing your Software and Radio Firmware Versions is required. To perform OTAP writes, Armada 1.36.x or higher requires OTAP Server version 1.36.x and radios of version 8.36.x (VP/VMx000 series) or 8.30.22 (VP/VMx00 series) or higher. To continue to OTAP radios on older firmware will require running an older version of Armada connected to the 1.36.0 OTAP server. Please note Armada Server does not allow mixed versions.

The rest of this section describes what to do in certain situations to continue using OTAP. In all cases, an Armada Client must connect to the Armada Server of the same version; when "Armada" is mentioned it indicates Armada (client) in standalone mode or Armada Server and its connected clients.

If you **do not use OTAP**, you can upgrade Armada to 1.36.x and keep your radios at an older firmware if you wish.

If you **are not upgrading Armada to 1.36.x or higher**, then none of this applies to you.

If you **use OTAP and can upgrade your fleet's firmware**, then simply upgrade your radios' firmware after you install Armada 1.36.x. You will also need to upgrade the OTAP server to 1.36.x. For VP/VMx000 series radios, you must upgrade to firmware 8.36.x. For VP/VMx00 series radios, you must upgrade to firmware 8.30.22. VP/VMx00 firmware version 8.30.22 is not included with this release, but is available from the KENWOOD Viking Technical Support team upon request. Your un-upgraded radios will not support OTAP writes until they are upgraded.

If you **use OTAP and cannot upgrade your fleet's firmware at once**, then you must run two instances of Armada until your fleet is fully upgraded. You must upgrade the OTAP server to 1.36.x; both instances of Armada may point to the same (upgraded) OTAP server. All un-upgraded radios (8.34.x and lower x000 radios and 8.30.21 and lower x00 radios) can continue to use the un-upgraded Armada (8.34.x or lower). Once a radio is upgraded (x000 radios to 8.36.x and x00 radios to 8.30.22) you must use a separate instance of Armada at 1.36.x or higher for OTAP writes. Note: If you use Armada Server, you'll have to have a different machine for both instances. You should also have different versions of the client use different machines.

Contact the KENWOOD Viking Technical Support team if you need further assistance in planning for your OTAP Server and Firmware Upgrades for your fleet.

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