
KNG Firmware Releases

Release Date June 3, 2016

Release KNG-Pxxx Portables	Ver. 5.4.0b
KNG-Mxxx Mobiles	Ver. 5.4.0b
KAA0660 Remote Control Head	Ver. 5.4.0b
KAA0670 Handheld Control Head	Ver. 5.4.0b

Minimum Neovision Editor KAA0732	Ver. 2.4.0
Neovision ASK Editor KAA0735	Ver. 2.4.0

Features

General:

- Encrypt low speed data bytes with ATP
- Moved menu button on unprogrammed channel screen
- Zeroize keys with softkey combination
- Miscellaneous trunking feature additions

Mobile/Base:

- Reverse color scheme on display. Background from white to black, and characters from black to white
- ACC mic and OPT x input support hi PTT
- Zeroize Keys should not prompt user

KNG2:

- Added temperature to system test
- Bluetooth UI improvements
- Added notification when saving date and time

Conventional:

- Added triple beep clear and secure talk permit tone
- Increase Code Guard Picklist Length to 256 entries

GPS:

- Acquisition tweaks
- Peer-to-peer tweaks
- UID via P25 string

Bug Fixes

General:

- Data registration hold-off fails
- Disable BT menu when un-optioned
- DSP lockup on transmit
- Emergency Button does not appear to disable
- FIPSCOM error message missing
- For a P25 trunking system, when the site alias list contains >255 entries, radio display is blank.

Inverted picklist code guards don't work
Squelch tail on powerup tone
Zone select toggle switch stops working on unprogrammed channel

Mobile:

Accessory I/O enable bugs
Emergency accessory input can get out of sync
Master Volume control of RCH
Menu problem

KNG2:

Audio Pops
DSP crash when C-ACE is loaded with more than 64 keys
Programmable button press and hold times not implemented

Conventional:

KNG to KNG cloning broken
ANI Index of 512 is invalid
Correct NAC Busy Channel failure
Destination clone error
DPH/GPH CMD cloning picklist to KNG
Emergency polite tries failure
Failure to resume scanning after emergency canceled
Global squelch adjustment reset
GPH > KNG cloning hands on ANI/DTMF
MDC list indexing is off
Reference channel cloning
RX emergency notification with incorrect NAC
Unqualified DTMF decoder display

Trunking:

Registration issue
Dual mode scan issues
Emergency call alert tone problem
Out-of-range tone not sounding
Priority scan edit priority channel 1
Priority scan talkback
Registration/affiliation error tones
RX-only invalid menu entry
Unit call failures

DFSI:

AMBE audio issues

OTAR:

No zeroize response

User Interface:

RSSI display during data registration attempts

KNG Firmware Releases

Release Date Oct. 30, 2015

Release KNG-Pxxx Portables	Ver. 5.3.0
KNG-Mxxx Mobiles	Ver. 5.3.0
KAA0660 Remote Control Head	Ver. 5.3.0
KAA0670 Handheld Control Head	Ver. 5.3.0

Minimum Neovision Editor KAA0732	Ver. 2.3.0
Neovision ASK Editor KAA0735	Ver. 2.3.0

Features

General:

- Increased channel capacity from 2048 to 5000.
- Added "Radio Accountability Tone" - it was requested by a fire agency to use at a fire scene to account for all personnel to save time during a roll call.
- Added "Alert Tone" feature
- Modified the "minimum volume" set feature
- Improved boot time
- Improved the Zone write time when writing Only Zone Parameters to the radio.

Portable:

- Internal Button Press Test.
- Portable Battery Life Function and Improvements -
 - In the programmable menu screen "Battery Life", the following values can be read:
 - % battery capacity available until depletion
 - The full capacity the battery
 - Estimated time left before depletion

Mobile/Base:

- When in DFSI mode with the Base or Mobile, the display to indicate a remote connection and not just showing a blank screen.
- Added the press and hold feature when using an accessory button in the mobile as an emergency button.
- Added Accessory Input function to mute the Mobile audio.
- When connected to DFSI Console, don't respond to call alerts, radio checks...like a subscriber would.

Conventional:

- Increased MDC List capability from 255 to 65535.
- Added OTAR registered field to the radio information menu screen.
- Added additional "Busy Channel Lockout" Options
- Added the ability to "Enable/Disable User Selectable TX Tones" on a Zone by Zone bases.
- Nuisance deleted channels did not recover correctly

Bug Fixes

General:

- Portable to Mobile Cloning Failure
- Can't exit sleep on STEK display
- Channel Soft Stop bug on radios with continuous channel knob
- Rekey request error reporting

Portable:

- Backlight stuck off
- Potential lockup issues

Mobile:

- System test options are out of sync
- Mobile w/ HHCH loading large list screen inconsistency
- Initial accessory input state
- Accessory input mute

RCH:

- Won't go into configuration menu

Conventional:

- Vote scan fails on incorrect code guard
- Multiple vote scan groups didn't work
- Inconsistent results when reading CxCSS picklist

Trunking:

- Site alias display line not working
- Encrypted transmission received without proper key
- Encryption Icon delay

... and various more

KNG Firmware Releases

Release KNG-Pxxx Portables	Ver. 5.2.0a
KNG-Mxxx Mobiles	Ver. 5.2.0a

Minimum Neovision Editor KAA0732 Ver. 2.2.1
Neovision ASK Editor KAA0735 Ver. 2.2.1

Features

GENERAL

- This is a portable and mobile build based off of production release 5.2.0 that reduces the boot-time of the radio.
- The firmware for the mobile control heads has not been re-compiled for this release.
- Control heads interfacing with a mobile loaded with 5.2.0a firmware should use version 5.2.0

This release is a point release to shorten the boot time.

The BSP has changed from 5.2.0, but not the ARM or the DSP.

The portable and the mobile firmware has been compiled using the updated BSP, but the firmware for the control heads had not been re-compiled and instead uses the images from 5.2.0.

Therefore there are no images or source code for the RCH or the HCH for this release.

KNG Firmware Releases

Release KNG-Pxxx Portables Ver. 5.2.0
KNG-Mxxx Mobiles Ver. 5.2.0
KAA0660 Remote Control Head Ver. 5.2.0
KAA0670 Handheld Control Head Ver. 5.2.0

Minimum Neovision Editor KAA0732 Ver. 2.1.0
Neovision ASK Editor KAA0735 Ver. 2.1.0

Features

Conventional:

Notify user of RX-only emergency channel
Autoscan

- Channel scan list edit button rework
- DES-XL
- Disable code guard during user squelch adjust
- Encryption icon shown constantly with non-encrypted RX
- Global squelch adjust option
- Hide designated channels from menu selection
- Modify nuisance delete restoration criteria
- Modify nuisance delete so TX does not cancel deleted channels
- Option to disable scanner penalty
- Provide long-press option for send signal
- Talkback improvements
- Zone scan without channel scan message

P25 Trunking:

- RX-only monitor

Remote Control Head:

- Show head # in info menu

Handheld Control Head:

- Channel select using numeric keypad
- Master volume control of RCH volume

Portable:

- Add display timeout timer
- External emergency should use orange button programming
- Make toggle switch sense programmable
- Minimum volume level option
- P800: power select for 700MHz band

Mobile:

- Add programmable control head baud-rate
- Add separate master volume control parameter for RCH control
- Change accessory serial port to 9600 baud
- LCD brightness setting
- Mobile backlight activated by any button press
- Output lines should support 4 control heads
- Powerup whenever power is applied
- Store control head baud rate elsewhere
- User selectable I/O disable

DFSI:

- Channel base index option
- Formal standard conformance
- Relay unit ID information

FSI:

AMBE audio

Miscellaneous:

- Add engineering options parameter
- Add git commit hash to version menu
- Channel increment/decrement using up/down keys in channel add menu
- Date and time display line
- Display build date in versions menu
- Improve persistent settings
- Man down emergency
- Optimize GLTimers
- Remove anti-clone feature from parameters download
- Support alphanumeric versioning
- Unit ID "phone book" log

Bug Fixes

Conventional:

- Channel parameters not cloned - Hidden and Scan Penalization
- Auto vote scan + display selected channel only
- Backlight ignores settings when assigned to side button
- Cloning does not work
- DES-CFB key fail failure
- DES-CFB with DTMF ANI causes the radio to stick in transmit
- DES-XL doesn't display key
- Emergency alarm revert channel
- Emergency call not properly cancelled
- Enabling scan while receiving can remove you from the active channel
- GPS transmit breaks emergency alarm
- Improve zone scan UI
- Legacy cloning issues
- Live dial won't work after quick PTT presses
- MDC emergency alarm with hot mic
- MDC emergency revert channel
- Mixed mode talkback status is not cleared on channel change
- Mobile I/O emergency doesn't always cancel
- P25 emergency hot mic cannot be cancelled
- Portable inhibit/uninhibit response speed
- Portable minimum volume threshold is not audible
- Secure TX after key fail
- Surveillance mode is not saved when toggled through menu
- Unit call logs
- Unit call with analog TX mode
- Update command channel parameters
- Voice mute disregards RX code guard
- Zone scan message

P25 Trunking:

- Certain mobile I/O states don't work when in priority or dual-mode scan
- Dual mode scan lock-up
- Failsoft does not work
- GPS system test menu doesn't update
- Priority nuisance channels not cleared on channel change
- Radios don't data register if DMS active
- Scan shows wrong talkgroup
- Talkback from RX-only trunking causes lock-up
- Unit call fails on Harris systems
- Voice mute icon does not show up on control heads

Handheld Control Head:

- Can't add channel to command zone

Dual Mode Scan:

- Receiving mixed-mode digital blanks screen

Mobile:

- I/O disable should drop lines inactive

DFSI:

- IDA reporting issues with out of range trunking
- Radio will not fully connect to a console when preset to a trunking talkgroup
- Respond to voter commands
- Retransmission issues

FSI:

- Disconnect causes incorrect transmit behavior

FIPSCOM:

- App erasure

OTAR:

- Rekey KMM error
- Invalid message number prevents delayed acknowledgement
- KMM received while sending can cause a lockup
- No response on invalid DES MAC
- Rekey keyset limit is 7
- SLN 0 causes the FIPSCOM to be unresponsive

Miscellaneous:

- BSP maintenance version is not shown
- Build date not displaying correctly
- CTCSS RX qualification fails
- Display backlight
- Key entries do not default properly

Non-consecutive zones broken in dual mode and trunking priority scan
Radio does not fully power down
Should DES-XL encryption work on digital channels?
Soft power down bugs
Transmit inhibit feature

KNG Firmware Releases

Release KNG-Pxxx Portables	Ver. 5.1.0
KNG-Mxxx Mobiles	Ver. 5.1.0
KAA0660 Remote Control Head	Ver. 5.1.0
KAA0670 Handheld Control Head	Ver. 5.1.0
Minimum Neovision Editor KAA0732	Ver. 2.0.2
Neovision ASK Editor KAA0735	Ver. 2.0.0

Features

Conventional:

- DTMF live dial keypad programming
- Add priority scan period to keypad programming
- TX on last voted channel option
- Vote during repeater hang time
- PTT-ID disable timer
- Emergency alarm using non-MDC analog signaling
- Securenet DES CFB
- Provide TX power options

P25 Trunking:

- Unify crypto UI with conventional
- Attempt initial sync detection after phase wrapping for Phase 1 signaling
- Ultra Narrow Channel Filter
- Display site name when in intra-WACN roaming
- Dynamic regrouping encryption
- Priority scan beep
- Message update

Remote Control Head

- Support more than 2 remote control heads
- Monitor TX audio on non-transmitting RCHs

Miscellaneous:

- Index instead of copy for command zone channels
- Allow non-consecutive channels and zones

- Display key when TX secure selected
- Non-infinite key retention option
- Added up to 48 crypto keys
- Added Command zone channel assignment

Bug Fixes

Conventional:

- Vote scan w/o code guard fails to vote
- Improvement to Enhanced scan
- Noise burst on digital encrypted scan RX
- Issues using DES-CFB with an incompatible FIPSCOM
- Mixed mode emergency or call alert causes unresponsive state
- Mixed mode talkback won't work after receiving digital
- Incorrect busy channel lockout when scan active
- Unit call not working properly
- Call alert lockup under certain conditions
- MDC emergency call lockup
- MDC emergency alarm lockup
- MDC radio check lockup
- Lock-up when emergency alarm cancelled on RX-only channel
- UID not displayed during emergency alarm
- Emergency alarm behaves differently in Mixed and Analog modes
- Incorrectly decrypted audio not muted
- Vote scan does not fully qualify carrier
- Vote scan degrades audio
- Legacy cloning improvements
- Picklists do not clone from either a DPHCMD or a GPHCMD over to KNG
- Off-hook scan doesn't work correctly

P25 Trunking:

- Potential of missing calls
- TDMA unit calls fail when radios are on different sites
- Potential of not hearing all 3 permit tone beeps
- Reduce time taken for roaming RSSI check
- Lower RSSI measuring time for all bands
- Emergency Hot mic audio
- DMS scan causes RX analog to indicate RX secure
- Priority on Selected Icon's don't reflect inbound traffic
- Emergency operation on composite control channels
- Harris NCR system compatibility Improvements
- TGID display not updating when busy expires in selected talkback

Remote Control Head:

- Pressing PTT on one control head enables transmit for all control heads

Handheld Control Head:

Highlighted softkey moves randomly after TX

Dual Mode Scan

Potential inability to transmit when DMS is on
Dual mode scan edit list uses index as channel

Portable:

Rapid cycling of on-off knob makes radio unresponsive

Mobile:

Doesn't reset after writing parameters
TX noise due to display backlight adjustments
M800: always displays "source fault clear" on power up

Miscellaneous:

Cannot reference channel 1
UI lockup after downloading parameters
parm loading abort due to channel ID list entry
Radio displays keyfail with keys loaded
OTAR - false reports of UKEK not loaded into radio
KNG-PxxxS to KNG-xxxx cloning always fails
GPHCMD fails CMD group clone to KNG
When in Site menus, radio will not transmit

KNG Firmware Releases

Release KNG-Pxxx Portables	Ver. 5.0.0
KNG-Mxxx Mobiles	Ver. 5.0.0
KAA0660 Remote Control Head	Ver. 5.0.0
KAA0670 Handheld Control Head	Ver. 5.0.0

Minimum Neovision Editor KAA0732	Ver. 2.0.0
Neovision ASK Editor KAA0735	Ver. 2.0.0

Features

TDMA Support

TDMA: group regroup & dynamic regroup
P25 Trunking: OTAP read enhancement
P25 Trunking: Static SNDCP Data Registration
P25 Trunking: Forced System Reset
P25 Trunking: Enhanced Roaming

P25 Trunking: Roaming Notifications
P25 Trunking: Failsoft by Personality
Conventional: Add "radio name" display choice to programming/cloning
Add ability to display radio name/alias instead of UID
Make low battery warnings selectable
backlight toggle incompatibility
Make RCE crypto work with TDMA
Add trunked DTMF all-call alert to sentinel operation
Return to last active RX channel when exiting scan
Single button channel scan + priority scan
Make secure LED operation the same for trunking as it is for conventional
After Keypad select of 'Backlight off', backlight continues to operate for key presses
Automatically translate trunked call alerts for multiple unit IDs to DTMF alerts
Add AlgID + KeyID for RX of key not in alias table
Keypad programming should allow deletion of command zones
Picklist cloning should include Two-Tone, MDC and DTMF lists
Add call alert UI support on the HHCH
Change MDC encode features to allow hex input
Add MDC inhibit & uninhibit encode operation
Add HHCH speaker parameters to keypad programming
Conventional P25 call alert support for group addresses
MDC call alert & voice selective call encode
Display useful message if Warm-Start store key fails

Bug Fixes

Incorrect priority scan indicator
P25 Trunking: Lockup if improperly programmed
P25 Trunking: busy UI state not updating properly
P25 Trunking: Group Regrouping Denies in Australia
P25 Trunking: Site Search soft key assignments incorrect
P25 Trunking: dual mode scan nuisance delete bugs
P25 Trunking: site affiliation display incorrect
P25 Trunking: False PTT
OTAR: KMM responses aren't sent while scanning
Dual Mode Scan: Lockup when turning scan off/on while receiving/transmitting
Dual Mode Scan: Speed up conventional scanning
Dual Mode Scan: Errors when removing all trunking channels from list
Conventional: Scan lockup
Conventional: scanning quits
Conventional: channel busy fails when set to status symbol
Conventional: RX is interrupted by unit call selection
Conventional: priority conv scan lockup
Conventional: TX 2-tone w/ tone B = 0 causes TX lockup
Conventional: 2-tone TX menu item cut-off on portable
Conventional: priority scan failure

Conventional: PRI 1 takes too long to override PRI 2
Conventional: secure strapped revert emergency call keyfail lockup
Conventional: scan deactivation causes icons to stick
Conventional: busy channel lockout fails for digital
Conventional: encryption LED fails during scan
Conventional: NAC picklist shows empty entries
Conventional: simultaneous cloning causes lockups
Conventional: cloning failure causes lockup
Conventional: keypad programming prohibits TGID=0
Conventional: zone scan fails on non-sequential zones
Conventional: RX mode icon wrong if RX dequalifies
System calls causing mobile sluggishness
Flashing the radio with all 5 images causes splash screen to stick
Mobile menu can get stuck
Busy channel lockout (carrier) failure with active channel
SLN=0 causes various problems
GPS coordinates not displayed properly
TX secure behaves erratically
P800 always aligns RSSI scale to the same number
Sentinel DTMF ID of 0000 results in indefinite tx
Manual two-tone signaling causes transmit stick on the mobile
Conventional data messages do not check receive mode
Offhook scan enable should be made independent of the offhook monitor option
Disply of my own UID is not always correct
Radio goes into Monitor Mode inadvertently
If System Priority and Zone Priority point to the same channel, Priority doesn't work
MDC signal causes transmit stick
Failed P25 call alert "OK" button leaves you in a menu you cannot escape from
Digital RX causes unqualified UI indications after end of message
Voice mute icon does not always display for automatic voice mute
Backlight during scan comes on more often than it should
Enabling conventional scan and dual mode scan at same time
Priority scan fails if Pri1 is system-based
Encryption will do a "Key Fail" with tone on first PTT only

KNG Firmware Releases

Release Portable/ Mobile	4.6.2
Control Head/ HCH	4.6.2

Minimum Neovision Editor Rev. 1.5.0

Features

P25 Trunking - Dynamic Regroup
Display MDC ID's as decimal as an option
Support MDC group, fleet & wildcard addressing
Support long block MDC
Enable ID alias lookup for MDC signaling
Stop premature low battery during TX with IS pack
No keypad editing lockout for call list picklist
Rapid scroll feature needs to be added to trunking
Add Clear Tx Beep to Mixed Mode Analog Tx
Add mobile accessory output option for transmit indication
Automatic voice mute per-channel
Add alternate display line options
Talkaround optionally applies on a per-channel basis
Allow command zone channel add feature to work with trunking channels
Add a way to monitor GPS statistics through the USB
DMS: Speed up OOR scanning; implement OOR icon
Add support for Motorola wide pulse modulation
Make voice mute operation per-channel instead of per-zone
Add ability to rapidly scroll through long menu
Remember last channel of each zone during zone change
Improve AMBE noise cancellation
Add use group key for unit call and make it default to true
Beep when Priority goes active
Portable: Soft Power Down
Portable: Toggle Switch Zone Select

Bug Fixes

Correct MDC voice mute operation to account for long block packets
Green LED operation is not consistent in Voice Mute
MDC ANI can cause ID = 0 display if MDC voice mute is enabled for the ANI ID
MDC Unit ID reappears after Monitor Mode is changed from open
ID display during scan hold does not work if MDC is sent at end of TX
P25 Trnk - Priority on Selected not initialized after download
P25 Trnk - Unit Call denied by FNE
P25 Trk - Unit Call Accept button doesn't work
P25 Trk - Radio displays "Emergency" when transmitting
P25 Trk - Dual Mode Scan lockup
P25 Trk: Cassidian systems cause radio to group affiliate to 0
P25 Trk: TG busy indication doesn't work on older Harris systems
OTAR: Deleting last TEK in radio causes response KMM to fail
OTAR: Radio doesn't always deregister during scan
Incorrect KEK can cause OTAR Registration to fail when it shouldn't
Off-hook settings for Scan depends on Off-hook setting for Monitor
Priority scan on digital channel can cause infinite scan hold time
Powerup zone should be last zone not toggle switch zone
A radio with Talkback Scan enabled can transmit a TGID of 65535
RXA with code guard causes RXA Icon to stick until channel changed or power cycle

A new channel added through keypad programming doesn't show up until a zone cycle
Keypad programming display lines can be navigated even when locked out
Mobile backlight only goes from off to on if the soft keys are pressed
Keypad programming unit call alias cuts off on the mobile and control head display
Toggling channel scan disables secure transmit
Key fail display prevents rapid channel changes
Zone scan cannot be changed while scanning
Smart-mic backlight will not turn-on
P25 Trk: Harris County/City of Houston zone overlap issue
DMS: Out of range radio won't scan to conventional channels
DMS List Edit - View option doesn't display some channels
Toggle switches can be ignored during unit call RX

Release Portable/ Mobile 4.5.0
 Control Head 4.5.0

Minimum Neovision Editor Rev. 1.4.19

Add Support for Mobile GPS option
Add Home channel button assignment
Add Channel Number + Zone Label display line selection
Add Dual Mode Scan List user selection
Add DTMF decode on digital channels (Voice Mute)
Add Mobile I/O support for COR on trunked systems
Add Mobile display dimmer
Add Trunking wide area single site support
Add Allow Vote scan list selection

Enhance Additional keypad programming functions
Enhance Show/Hide own Unit ID when Unit ID is programmed as display item
Enhance Allow squelch adjustment per channel
Enhance Legacy cloning operation
Enhance Expanded two-tone notification timing
Enhance Trunked preferred site operation
Enhance OTAR: Multiple group RSI support

Fix Changed preset squelch value to allow audio at lower signal level
Fix Allow Tx/Rx while in menu operation

Release Portable/ Mobile 4.4.0
 Control Head 4.4.0

Minimum Neovision Editor Rev. 1.4.17

Add MDC Support
Add Command Zone Operation
Add Messaging Capabilities
 Text Messaging
 User Status Messaging
Add Paging and Call Alert
 Two-Tone Paging
 DTMF Paging
 MDC1200 Paging
 Call Alert Paging
 Radio Check
Add Radio Inhibit/Uninhibit
Add Enhanced Lockout Feature Set
Add Auxiliary Input/Output Functions for mobile

Release Portable/ Mobile 4.02.16
 Control Head 4.02.11

Minimum Neovision Editor Rev. 1.4.15

Add Display 'Call Alert Successful message
Add P25 Trunk Unit Call messages
Add Conventional scan preamble for TSBK ISPs and Data
Add RCII Diagnostic Send ISP capabilities
Add Allow RX audio while in sub-menus
Fix Conventional emergency channel selection
Fix Talkback encryption key
Fix Disable battery monitor during transmit
Fix OTAR MAC calculation interference with conventional channel encryption operation

Release Portable/ Mobile 4.02.15
 Control Head 4.02.11

Required Neovision Editor 1.4.12

Fix Site trunking to wide area trunking transition

Release Portable/ Mobile 4.02.13

Control Head 4.02.11

Required Neovision Editor 1.4.12

Add Conventional OTAR capabilities

Fix Trunking OTAR: Reestablish key conditions once radio is rekeyed

Fix Minnesota Trunking: Inhibit after an emergency fix

Release 4.02.12

Required Neovision Editor 1.4.8

Add Add wait/add identifiers if not present during control channel validation

Enhance Status Update Enhancements

Fix Radio displays DSP Error 1 after NeoVision download/power cycle.

Fix Trunking Scan Lockup

Fix Harris P25 Trunking: OTAR Registration

Release 4.02.08

Required Neovision Editor 1.4.7

Add Keypad Select assigned in menu and button

Add DSP: Add eeprom protection

Add Mobile: Add backlight level menu settings

Add P25 Trunking Emergency Call Cancel

Add Trunking Unit Call without availability check (Harris)

Add Trunking OTAR Option ability

Add Mobile: Add fixed MENU softkey on right side of display

Enhance Mobile soft button indication that feature is on

Fix Autoscan UI issue

Fix Trunking Emergency Alarm use emergency group instead of current working group

Fix Trunking early receive LED not turning off in all cases

Fix P25 trunking group call audio opens slow

Fix P25 Trunking: Source ID of zero slows audio open speeds of unit call and group re-grouping calls

Fix P25 Trunking: Group call unit ID of 0 displayed

Fix Unwanted transmission after power-on with PTT held.

Fix P25 Trunking: earlier LED illumination for group calls

Fix P800 and M800 improve RX hum and noise.