
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
	KA0660 Remote Control Head	Ver. 5.1.0
	KA0670 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

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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
 Display 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

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

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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.