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KNG Firmware Releases Notes - Release 5.5.0f  
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Release Date December 15, 2017

Release KNG-Pxxx Portables	Ver. 5.5.0f
KNG2-Pxxx Portables	Ver. 5.5.0f
KNG-Mxxx Mobiles	Ver. 5.5.0f
KAA0660 Remote Control Head	Ver. 5.5.0f
KAA0670 Handheld Control Head	Ver. 5.5.0f

Minimum RES Editor KAA0733 Ver. 5.5.3

Features

General:

- Display will no longer timeout while message screen is displayed
- Add radio name to versions and radio info menus
- Allow keyset now restricts the keyset to the first available if it is disabled

All\_in\_One Lightning Light includes the firmware for HCH, Mobile, Portable, Portable-G2 and RCH. It will automatically detect the correct device once the device is put into the flashing mode. KNG2 radios with firmware version <5.5.0f will not be properly detected, follow the instructions below.

- Open the Lightning Light KNG\_5.5.0f\_All\_in\_One\_719-05214-001.exe
- Navigate to the "Options" menu at the top
- Select "Flash <5.5.0c KNG2s"
- Choose Portable-G2-5.5.0f then Start

\*This will DISABLE batch flashing for all devices until the option is deselected.

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KNG Firmware Releases Notes - Release 5.5.0e  
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Release Date December 8, 2017

Release KNG-Pxxx Portables	Ver. 5.5.0e
KNG2-Pxxx Portables	Ver. 5.5.0e
KNG-Mxxx Mobiles	Ver. 5.5.0e
KAA0660 Remote Control Head	Ver. 5.5.0e
KAA0670 Handheld Control Head	Ver. 5.5.0e

Minimum RES Editor KAA0733 Ver. 5.5.3

Features

General:

- Added squelch adjust alignment command

Added remote control commands for ext-ptt press and release, analog/digital transmit, analog/digital receive, and zone change  
Modified rx/tx alignment commands to allow both analog and digital operation

### Bug Fixes

#### General:

Fixed issue where the tier2 GPS triggers were not being set correctly  
Fixed a bug where a user could not access transmit requests when accessing GPS from the menu but could when accessing GPS from a softkey  
Now transmit requests should work correctly no matter how the GPS menu is accessed.  
Ignore touch input on mobiles that do not have a display  
For KNG-MxxxR Models: In RES, within the 'Feature Editing Software' if the 'Display' option is anything other than 'None' it is required to run the 'Mobile Display Disabler' to change the 'Display' to 'None'. 'Mobile Display Disabler' is available for download in the 'Firmware' section of [relmservice.com](http://relmservice.com)

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KNG Firmware Releases Notes - Release 5.5.0d  
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Release Date May 30, 2017

Release KNG-Pxxx Portables	Ver. 5.5.0d
KNG2-Pxxx Portables	Ver. 5.5.0d
KNG-Mxxx Mobiles	Ver. 5.5.0d
KAA0660 Remote Control Head	Ver. 5.5.0d
KAA0670 Handheld Control Head	Ver. 5.5.0d

Minimum RES Editor KAA0733 Ver. 5.5.0

### Features

#### General:

Allows users to view text messages when on a receive-only talkgroup

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KNG Firmware Releases Notes - Release 5.5.0c  
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Release Date May 30, 2017

Release KNG-Pxxx Portables	Ver. 5.5.0c
KNG2-Pxxx Portables	Ver. 5.5.0c
KNG-Mxxx Mobiles	Ver. 5.5.0c
KAA0660 Remote Control Head	Ver. 5.5.0c
KAA0670 Handheld Control Head	Ver. 5.5.0c

(NOTE: Refer to Service Bulletin BKSB-1051 for important compatibility details for this update)

Minimum RES Editor KAA0733 Ver. 5.5.0

Bug Fixes

General:

Fixed cloning of zones and picklist from 5.5.x to older/legacy firmware (Refer to Service Bulletin BKSB-1050 for further cloning information)  
Set Bluetooth discoverable to off by default  
Fixed to support AINA BT speaker-mic

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KNG Firmware Releases Notes - Release 5.5.0b

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Release Date March 22, 2017

Release KNG-Pxxx Portables Ver. 5.5.0b  
KNG2-Pxxx Portables Ver. 5.5.0b  
KNG-Mxxx Mobiles Ver. 5.5.0b  
KAA0660 Remote Control Head Ver. 5.5.0b  
KAA0670 Handheld Control Head Ver. 5.5.0b

Minimum RES Editor KAA0733 Ver. 5.5.0

Features

General:

Updated splash screens to BK Technologies

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KNG Firmware Releases Notes - Release 5.5.0a

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Release Date January 30, 2017

Release KNG-Pxxx Portables Ver. 5.5.0a  
KNG2-Pxxx Portables Ver. 5.5.0a  
KNG-Mxxx Mobiles Ver. 5.5.0a  
KAA0660 Remote Control Head Ver. 5.5.0a  
KAA0670 Handheld Control Head Ver. 5.5.0a

Minimum RES Editor KAA0733 Ver. 5.5.0

\*\*\* For major release notes, please see Release 5.5.0 below \*\*\*

Bug Fixes

HCH and RCH:

Fixed issue when mobile to control head audio would be muted when receiving a valid RX signal.

Trunking:

Fixed radio not booting when programmed with >255 trunking scan entries

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KNG Firmware Releases Notes - Release 5.5.0

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Release Date January 26, 2017

Release KNG-Pxxx Portables	Ver. 5.5.0
KNG2-Pxxx Portables	Ver. 5.5.0
KNG-Mxxx Mobiles	Ver. 5.5.0
KAA0660 Remote Control Head	Ver. 5.5.0
KAA0670 Handheld Control Head	Ver. 5.5.0

Minimum RES Editor KAA0733 Ver. 5.5.0

(Note: RES is a new radio editor that is replacing NeoVision. RES Ver. 5.5.0 will read "code plugs" that were generated with firmware version 5.0.0 or later.

If a code plug was generated with firmware Ver. 5.0.0 or later, then the code plug will be updated to Ver. 5.5.0 format when read.)

Features

General:

KNG2: Added the ability to set local time zone by adding UTC offset to the GPS UTC time  
Added "Speaker Stress Test" capabilities located in the System Test Menu

Portable:

Provided support for 3-way toggle switch

Mobile:

Added MSAT activation/deactivation function to a function key  
Added Public Address (PA) support

HCH and RCH:

Added Public Address (PA) support in RCH KAA0660  
When querying version, proper device type is reported

Conventional:

Added talkback encryption based on the collar switch setting and not just by the talkback scan setting  
Set as default the talkback encryption based on the collar switch setting  
Re-implemented Global Squelch Adjust  
Added the ability to switch "on/off" the Vote Scan function  
Re-implemented Vote Scan as an option  
Set "Global Conv. Keypad Editing Lockout" to "on" for default

Trunking:

- Added support to handle UTC offset for Date and Time packets that don't have the local time offset
- Added support not to display duplicate messages with message updates
- Added multiple attempts to obtain and IP address for trunked data
- Added PTT priority over messages
- Added the ability of RX Voice not to be interrupted by various alert tones
- Added the ability to have encryption settings for unit calls

## Bug Fixes

### General:

- Fixed "garbled" encrypted audio at the beginning/end of RX
- Fixed no error tone or message while changing secure TX mode on a non-selectable channel
- Fixed Voice Encoding Ignored while on a Trunking Channel
- Added "Vote Scan" enable to the persistent setting length
- Fixed transmit clear when radio is set to secure transmit mode
- Fixed condition where the RX audio is not coming from the speaker when a qualified signal is received
- Fixed file system error on power-up
- Fixed the ability to toggle surveillance via the menu when surveillance mode is strapped to a channel
- Fixed "audio squawk" when using button combination when zeroizing keys
- Fixed timeout occurrence when RES write and "Configuring Radio" is being displayed
- Fixed unit call secure setting to not be selectable if strapped to "clear" or "secure" setting
- Fixed NAC code programming while in the keypad programming menu

### Portable:

- Fixed loud open mic. sound when "Battery Life" menu is programmed to a button and it is selected
- KNG2: Fixed backlight setting related to permanently off

### Mobile:

- Fixed soft lockup on RX-only trunking system when pressing PTT rapidly
- Eliminated the failure to update the control head screen after plugging remote in after power-up

### HCH and RCH:

- Fixed display freezing when alternating legends are being used

### Conventional:

- Fixed the display of "Emergency" in place of displaying RX/TX pick list
- Fixed Zone Cloning Failure with specific code plug
- Fixed talkback encryption with talkback channel and not to channel knob setting
- Fixed TX/RX key display line not correctly updating when scanning is

enabled

- Fixed to display "Emergency" message and senders ID when receiving an RX alert tone
- Fixed not to select voted channel that is not in the selected group
- Fixed blank display on Channel Scan List after Vote Scan disable
- Added notification to user when Vote Scan is disabled
- Fixed displaying wrong transmit key during Emergency revert channel
- Fixed Emergency Alarm to not work with incorrect NAC
- Fixed cloning issues when cloning to legacy units
- Fixed the microphone "offhook monitor" state when mic. is connected to RCH or Main RF deck when a HCH or RCH is attached
- Eliminated the KNG's to lockup when cloning from a KNG-PxxxS

Trunking:

- Fixed PTT bounce causing no TX
- Fixed lock-up due to quickly attempting to transmit while "System Resources" are not available
- Fixed Site Affiliation Alias Display line with correct site
- Fixed the ability to still display the GPS coordinates even though the trunking site does not support GPS
- Fixed "Failsoft" failure between firmware versions 5.4.15 and 5.4.16

DFSI:

- Fixed LED consistency while in DFSI mode

GPS:

- Save the time after a manual entry through the power cycle

Bluetooth:

- Fixed OTAR messages not passed off to the proper class when sent over Bluetooth

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KNG Firmware Releases

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Release Date June 23, 2016

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

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

Bug Fixes

General:

Modified old vs new FIPSCOM version check to prevent attempting to export DES/DES-XL/ADP keys when not supported

RCH/HCH:

- Fixed RCH/HCH regression where control heads couldn't enter the configuration menu
- Fixed HCH volume control bugs: HCH couldn't control own volume & HCH was not correctly adjusting RCH volume control
- Change HCH rocker description text color from black to white

Conventional:

"Emergency" displayed in place of RX/TX pick list

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KNG Firmware Releases

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Release Date June 3, 2016

- Release KNG-Pxxx Portables Ver. 5.4.0b
- KNG-Mxxx Mobiles Ver. 5.4.0b
- AAA0660 Remote Control Head Ver. 5.4.0b
- AAA0670 Handheld Control Head Ver. 5.4.0b

- Minimum Neovision Editor AAA0732 Ver. 2.4.0
- Neovision ASK Editor AAA0735 Ver. 2.4.0

Features

General:

- Encrypt low speed data bytes with ADP
- 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:

- AHS 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

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KNG Firmware Releases

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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

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#### KNG Firmware Releases

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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.

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## KNG Firmware Releases

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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

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KNG Firmware Releases

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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

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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

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### KNG Firmware Releases

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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

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 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

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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

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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 RCI 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

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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

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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

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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

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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.