

Radio Release Notes - Subscriber 7.15.5 - September 2015

APX 7000/7000L/7000XE/6000/6000XE/6000Li/4000 (1&2 knob)/4000Li/4000 900 MHz/3000/2000/1000/1000 900MHz, 7500/6500/6500Li/4500/4500Li/2500/1500, SRX2200, TXM 2000 VHF

New Version: Devices - R14.00.04, CH - R20.00.00

Old Version: Devices - R13.05.00, CH - R19.00.02

New/Replacement Products:

Abstract: APX 8000 Portable Radio

System Platforms Affected: All

Special Configurations: N/A

Description: This firmware version supports the initial release of this radio, which includes the following new feature set and capabilities:

1. Models 3.5, 2.5, 1.5 supported
2. APX7000 feature parity up to and including SR7.14.5, R12.00.00
3. All band support: VHF, UHF R1/R2, 700/800
4. All band antenna with GPS
5. Audio enhancements with improved noise reduction
6. Wi-Fi
 - i. Protocols: 802.11 b/g/n, 2.4GHz Only
 - ii. Security types: None, WEP, WPA/WPA2 Mixed Mode Personal Only (No Enterprise Security)
 - iii. Pre-provisioned Access Point Data
 - iv. Radio Management support for Codeplug and Flashport updates (with user-delay request capability)
 - v. Optional out-of-the-box Wi-Fi programming
7. Bluetooth 2.X (Certified)
 - i. All existing legacy APX profiles
 - ii. HW Capable for 4.x Low Energy
8. GPS/GNSS Specification - GPS & GLONASS

Abstract: APX 4000 / 1000 900 MHz 2 Knob

System Platforms Affected: All

Special Configurations: N/A

Description: This firmware version adds the 900 MHz band to the 2 knob offering of the APX 4000 radio.

New Features:

Abstract: RF Modem functionality on Portable Subscriber Unit

System Platforms Affected: All

Special Configurations: External PC Application Required

Description: This firmware version allows the portable radio to act as an RF modem the same way as the currently offered mobile radio, with the added functionality of having specific channels being configured for RF modem capability.

Abstract: APX Control Head Power off Long Press

System Platforms Affected: All

Special Configurations: N/A

Description: This firmware version supports the ability to select the amount of time that the radio-user must press and hold-down the mobile radio's power button in order for the radio to power off. This helps the radio-user avoid accidentally shutting-down the radio when inadvertently bumping or pressing the power button.

Abstract: One Button Tones for APX Portables

System Platforms Affected: All

Special Configurations: N/A

Description: This firmware version supports capability for a DTMF tone to be generated by pressing a programmable button on the portable radio, a wired accessory or Bluetooth accessory (like the key fob).

Abstract: P25 paging / QCII Encoding

System Platforms Affected: P25 Trunking and P25/Analog Conventional

Special Configurations: N/A

Description: This firmware version provides the ability to encode QC II tone signaling on those subscribers that have keypad / menu access. .

Abstract: APX DVRS - non MSI system

System Platforms Affected: non-MSI trunking systems

Special Configurations: DVRS

Description: This firmware version supports Inter-WACN roaming, PC II, Extended Ack (MBT), and Harris Patch on a DVRS-enabled, mobile radio (MSU).

Abstract: OTAR and GPS support via V.24 in TXM2000

System Platforms Affected: P25 Conventional configured with TXM2000

Special Configurations: V.24 Modem required

Description: This firmware version supports the OTAR and GPS data applications over the V.24 link when the TXM2000 is acting as a proxy to the subscriber unit(s).

Abstract: MOSCAD ACE3600 Analog Trunking Support on APX

System Platforms Affected: Type II Analog Trunking

Special Configurations: N/A

Description: This firmware version supports functionality to allow the ability to input data over the audio lines for over the air transmission.

Abstract: Radio Remote Control

System Platforms Affected: All

Special Configurations: Bluetooth connectivity required

Description: This firmware version allows for collaborative support with the LEX L10.

Abstract: Secure Key Retention through Firmware Upgrade

System Platforms Affected: All

Special Configurations: 7.15.5 firmware, or later, present in radio upon initiation of firmware upgrade

Description: This firmware version allows for secure key retention through a firmware upgrade when upgrading from 7.15.5 firmware to subsequent releases.

Updates:

Abstract: APX Audio Enhancement

System Platforms Impacted: P25 Trunking and P25 Conventional

Special Configurations: N/A

User Experience: Digital audio enhanced while in poor RF signal conditions.

Abstract: TXM2000 reports invalid link delay value

System Platforms Impacted: P25 Conventional

Special Configurations: TXM2000

User Experience: Prior to this release, the TXM2000 would report an invalid link delay value when queried from the repeater via Radio Service Software.

Abstract: Improved system affiliation timing on type II trunking systems while scanning

System Platforms Impacted: Type II Trunking

Special Configurations: Multi-System scan enabled

User Experience: Prior to this release, radios may experience longer delay to affiliate to a type II system on power up or system mode change while in poor RF signal conditions.

Abstract: The radio makes a group call request without user interaction.

System Platforms Impacted: P25 Trunking

Special Configurations: Data-enabled

User Experience: Prior to this release, during high data activity, the radio may intermittently request a group voice request without any user interaction.

Abstract: APX radio is slow to obtain GPS lock after power up

System Platforms Impacted: P25 Trunking and P25 Conventional

Special Configurations: Location enabled

User Experience: Prior to this release, the initial GPS location lock may be unstable or inaccurate on power up, in the event the radio was physically moved a significant distance while powered down.

Abstract: APX misses receive audio following an Inter/Intra-WACN site switch in poor coverage area

System Platforms Impacted: P25 Trunking

Special Configurations: Inter/Intra-WACN roaming and poor RF signal conditions

User Experience: Prior to this release, the APX may fail to attempt registration to the new site in a poor coverage area if the subscriber was

temporarily out of range of the system and the new site was found during frequency hunt (pre-programmed frequencies or full-spectrum scan frequencies.) Due to the failure to register, the radio may miss the audio until one of the following occurs:

1. user makes a TG or mode change
2. user presses PTT
3. a quick fade condition occurs (temporary loss/recovery of signal)
4. another site switch occurs
5. user power cycles the radio

Abstract: Radio intermittently enters control head update mode, or exhibits sluggish behavior

System Platforms Impacted: All

Special Configurations: Specific to remote mount mobiles

User Experience: Prior to this release, the radio may intermittently enter control head update mode, exhibit sluggish behavior, or miss receive audio.

Abstract: APX4000/6000 Failure to P25 Radio Authenticate to APCO Trunking System.

System Platforms Affected: APCO Trunking

Special Configurations: P25 System Authentication [GA01767 Purchased Feature] using Radio Lock

User Experience: Prior to this release some APX4000/6000 units may lose Authentication Keys resulting in a failure to authenticate with the system.

Abstract: Radio may exhibit loud background during analog voice receive operation

System Platforms Affected: Analog Securenet, both in Conventional Mode and Type II

Special Configurations: Hear Clear Noise Cancellation / Flutter Fighter enabled

User Experience: From releases R14.00.00 - R14.00.03, radio units may emit loud background noise while receiving a call on Securenet/Analog mixed channels with Hear Clear Noise Cancellation / Flutter Fighter enabled.

Updates - Repeated from R13.05.00:

Abstract: APX7000 Dual Band unit may experience a "powered down" situation on Secondary Frequency band.

System Platforms Affected: APCO Trunking Phase II Voice/Data

Special Configurations: APX7000 Dual Band at least UHF [472-510MHz] or VHF[168-174MHz] with RF AGC [enabled] operating in TDMA.

User Experience: Prior to this release, about 30% of the test sample APX7000 units may experience a "powered down" radio situation following a trunked TDMA voice channel transmission attempt. This only happens on a subset of transmit frequencies (see Special Configurations).

Workaround: Configure "Advanced RF AGC" algorithm back to the default setting

of "Disabled" via the CPS.

Abstract: APX4000/6000 Failure to P25 Radio Authenticate to APCO Trunking System.

System Platforms Affected: APCO Trunking

Special Configurations: P25 System Authentication [GA01767 Purchased Feature] using Radio Lock

User Experience: Prior to this release some APX4000/6000 units may lose Authentication Keys resulting in a failure to authenticate with the system.

Abstract: Consolelette Rx Audio Missed After Quick Key

System Platforms Affected: APCO Trunking, Motorola Type II Trunking

Special Configurations: Quick Key Bypass disabled, MCC5500/7500, Subscriber Software version R12.00.00 to R13.00.10

User Experience: The Consolelette would miss Rx audio after a completed Quick Key transmission. This would persist until the next Transmission.

Workaround: Enable Quick Key Bypass in the CPS.

CPS Release Notes

APX 7000/7000Li/7000XE/6000/6000XE/6000Li/4000 (1&2 knob)/4000Li/4000 900 MHz/3000/2000/1000/1000 900MHz, 7500/6500/6500Li/4500/4500Li/2500, SRX2200, TXM 2000 VHF

New Version: R14.00.00

Old Version: R13.01.00

CPS Updates:

Abstract: Radio Manager programs radios with stale IP address

System Platforms Affected: Astro Radio Manager

Special Configurations: OTAP with dynamic IP addresses

User Experience: Prior to this release, the Radio Manager may program radios with stale IP addresses. Radio Manager now acquires the radio's IP address when executing the job, preventing the use of a stale IP address.

Important Notes:

Abstract: **Motorola Online Access Subscription Required**

System Platforms Affected: N/A

Special Configurations: N/A

Description: Starting with version R13.01.00, CPS will be available to purchase as either a Download-Only 3-Year Subscription (HKVN4289A, \$299) or DVD/Download 3-Year Subscription (RVN5224, \$399- One Subscription Per Customer Account).

Abstract: Windows XP and Windows Vista no longer supported.

System Platforms Affected: Windows XP and Windows Vista

Special Configurations: N/A

Description: Starting with version R13.00.00, the CPS cannot be installed on Windows XP and Windows Vista operating systems.

Abstract: FCC Narrowbanding Mandate

System Platforms Affected: All

Special Configurations: N/A

Description: Per the FCC Rule Part 90 requirements on narrowbanding, VHF and UHF radios imported or manufactured after 12/31/2012 will no longer be authorized to operate on 25 kHz channel bandwidth. The exception to Rule Part 90 narrowbanding requirements are for radios operating only within 470-512 MHz frequencies (T-Band), which will continue to support 25 kHz channel bandwidth functionality. The FCC requires that a radio is authorized to operate within the specified bandwidth and that the user is required to have a FCC license to operate in that mode.

After the FCC mandate takes effect, specific frequencies in VHF and UHF are still allowed to operate at 25 kHz.

Examples of VHF and UHF services not subject to Part 90 narrowband include: Part 80 marine frequencies, Part 87 aviation frequencies, Part 95, FRS/GMRS and MURS, Part 97 amateur frequencies, and NOAA weather channels. CPS continues to support these options.

Note:

Please see the APX_CPS_Readme file and the CPS HELP for additional information.