

# Software Release Notes

14221-1800-8000

*Rev. AM, February 2022*

## **XLP Radio Software**

14004-0233-01 R6T

14004-0231-01 R6T

14004-0229-01 R6T

14004-0234-01 R6T

14004-0228-01 R6T

14004-0236-01 R6T

14004-0232-01 R6T

14004-0230-01 R6T

14004-0235-01 R6T



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## MANUAL REVISION HISTORY

REV.	DATE	REASON FOR CHANGE
AB	Nov/18	Updated for R6F release; new features/enhancements and TR resolution.
AC	Dec/18	Updated for R6G release; TR resolution.
AD	Jan/19	Updated for R7B release of 14004-0185-01; new features/enhancements and TR resolution.
AE	Mar/19	Updated for R7C release of 14004-0185-01.
AF	Apr/19	Updated for R7D release of 14004-0185-01; TR resolution.
AG	May/19	Updated for R6H release. Removed references to XL Radio software 14004-0185-01 (moved to SRN 14221-1800-8010).
AH	Sep/19	Updated for R6J release – TR resolution.
AJ	Mar/20	Updated for R6L release – TR resolution.
AK	Sep/20	Updated for R6M release – TR resolution.
AL	Mar/21	Updated for R6P release of 14004-0230-01, 14004-0229-01, and 14004-0228-01 – TR resolution.
AM	Feb/22	Updated for R6T release; new features/enhancements and TR resolution.

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# 1. INTRODUCTION

This document contains the Software Release Notes for the XLP radio software.

Software numbers, revisions, and related radios below:

- 14004-0228-01 R6T (XG-100P)<sup>1</sup>
- 14004-0231-01 R6T (XG-75M ICI)
- 14004-0236-01 R6T (XG-15P)
- 14004-0229-01 R6T (XG-100M)
- 14004-0232-01 R6T (XG-25P)
- 14004-0234-01 R6T (XG-75P/XG-75Pe)
- 14004-0230-01 R6T (CH-100)
- 14004-0233-01 R6T (XG-25M)
- 14004-0235-01 R6T (M7300/XG-75M)

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<sup>1</sup> No new XLP R3A or later features are supported on XG-100P.

## 2. COMPATIBILITY



CAUTION

Never downgrade BurnApp unless explicitly told to do so by TAC.



CAUTION

In OMAP radios, if loading DES KEKs and TEKs into the radio, be sure to load the DES TEKs first.



CAUTION

In **P25C-XCOV** Vehicular Repeater (VR) setup, the VR portables (operating in P25T mode) **must** have the **Emergency User Only Clr** check box enabled. The result is only the user can clear the emergency state (Tx Emer) of the VR portable that declared the emergency.



CAUTION

In **SOI** Vehicular Repeater setup, the VR portables (operating in P25T mode) **must** have the **Confirmed Tx** check box **disabled**. There is no access to an L3Harris system/dispatcher in SOI VR mode.



NOTE

Scan with Channel Guard options must be selected for Conventional Scanning.



NOTE

When using MDC Emergency, make sure the Encode Trigger for MDC options is not set to **None**. MDC Emergency is not reliable if **None** is selected.



NOTE

#### Voice Annunciation (VA) Notes:

- Voice Annunciation will not announce the System/Group changes when an EDACS®/EA Dynamic Regroup is active.
- On a P25T, EDACS, or EA system, Annunciation functionality can be indefinitely suspended if the user keys back on a received ECP1 scan call.

To resolve this, go to the menu and select the VA menu twice. The first time will disable VA, the second will enable VA. Once this action is taken, Annunciation remains enabled.



NOTE

It is recommended to **not** have multiple covert operation features configured at the same time. In other words, if the radio-wide Stealth feature is enabled (**Options → Stealth Mode Options**), **do not** configure any of the following features:

- On P25T system screen, Emergency Display.
- On P25T system screen, Emergency Audio.
- Stealth Emergency (This is an analog feature configurable in **Options → Conventional Emergency/Home Channel Options**.)



NOTE

Channel (RX CG) guard **MUST** be used with conventional scanning on the Unity radios.



NOTE

**IMPORTANT NOTE regarding Vehicular Repeater SOI mode:** When using an M7300/XG-75M connected to a VR using Scene of Incident mode, it is recommended to disable Data on the P25C channel that will be used for VR operation. For P25T, no change is necessary.



NOTE

Unity Portable XG-100P radios require RPM version R14C or later for this release. OMAP and Unity XG-100M radios require RPM2 R6F or later.



**IMPORTANT NOTE regarding Noise Cancellation on XG-100M with CH-100:** Enabling NC on the XG-100M w/CH-100 is not recommended if the user will be directly facing the CH-100 while operating the radio.



Mixed encryption OTAR on P25C systems is not supported on OMAP radios which do not have mixed key encryption support. No restrictions on Unity Radios.



Analog Conventional Priority override does not work when P1/P2 scan rate is set to the value of 2000.



Selective Squelch Mode must be set to P25C channels where Unit Registration and Packet Data Registration (PDR) are enabled.

The following tables show the minimum software revision required for this version of software:

**Table 2-1: XG-75P/XG-75Pe Compatibility Matrix**

PLATFORM	SOFTWARE VERSION(S)
Radio Personality Manager 2 (RPM2)	R6F or later
DES Load Module	des_module_R02B08.dsp (SK-015085-001 V02.08)
AES Load Module	HALM_Module_R04A01.ess (SK-015086-001 V04.01)
Non FIPS AES Module	HALM_NonFIPS_R05A01.ess (SK-015086-002 V05.01)
BootApp	R12A00 (SK-011365-001)
BurnApp	Recommended: PBAPP R13D04 or later (SK-011364-001) Minimum: PBAPP R13C03
Loadapp	R12B or later
Key Manager/Key Admin	R7A or later

**Table 2-2: M7300/XG-75M Compatibility Matrix**

PLATFORM	SOFTWARE VERSIONS
Radio Personality Manager 2 (RPM2)	R6F or later
DES Load Module	des_module_R02B08.dsp (SK-015085-001 V02.08)
AES Load Module	HALM_Module_R04A01.ess (SK-015086-001 V04.01)
Non FIPS AES Module	HALM_NonFIPS_R05A01.ess (SK-015086-002 V05.01)
BootApp	R12A00 (SK-011360-001)*
BurnApp	Recommended: MBAPP R13E05 or later (SK-011358-001) Minimum: MBAPP R13C03
Loadapp	R12B or later
MCU	02.15.00 for M7200 (SK-018180-001) 06.03.00 for other radios (SK-018180-002)
CH721	R07G17 or later
RHHC	R03D06 or later
Key Manager/Key Admin	R07A03 or later

\* Verify which Radio Type this BOOT APP Image is meant for! Incorrect selection could result in disabling the radio completely, requiring service by L3Harris to resume usage. This is important because there is another radio model called the XG-75M ICI. See Table 2-7.

### **M7300 700/800 MHz Feature Encryption information**

For an M7300 700/800 MHz radio, bit 29 (Feature 30) must remain clear. This is identified as LPE\_50 in the features program.

**Table 2-3: XG-25P<sup>2</sup> Compatibility Matrix**

PLATFORM	SOFTWARE VERSION(S)
Radio Personality Manager 2 (RPM2)	R6F or later
DES Load Module	des_module_R02B08.dsp (SK-015085-001 V02.08)
AES Load Module	HALM_Module_R04A01.ess (SK-015086-001 V04.01)
Non FIPS AES Module	HALM_NonFIPS_R05A01.ess (SK-015086-002 V05.01)
BootApp	R12A00 (SK-011365-001)

<sup>2</sup> XG-25P Rev. A hardware is NOT backwards compatible with XLP versions earlier than R3A and BurnApp versions earlier than R13D. See Section 5 for more information.

PLATFORM	SOFTWARE VERSION(S)
BurnApp	Minimum: PBAPP R13D04 or later (SK-011364-001)
Loadapp	R12B or later
Key Manager/Key Admin	R07A03 or later

**Table 2-4: XG-25M Compatibility Matrix**

PLATFORM	SOFTWARE VERSIONS
Radio Personality Manager 2 (RPM2)	R6F or later
DES Load Module	des_module_R02B08.dsp (SK-015085-001 V02.08)
AES Load Module	HALM_Module_R04A01.ess (SK-015086-001 V04.01)
Non FIPS AES Module	HALM_NonFIPS_R05A01.ess (SK-015086-002 V05.01)
BootApp	R01A00 (14004-0222-01)
BurnApp	Recommended: XBAPP R13D04 or later (14004-0146-01) Minimum: XBAPP R13C03
Loadapp	R12B or later
CH-25	R01.01.0000 (R01A01) (14004-0157-01)
Key Manager/Key Admin	R07A03 or later

**Table 2-5: Unity XG-100P Compatibility Matrix**

PLATFORM	SOFTWARE VERSIONS
Radio Personality Manager (RPM)	R14C or later
Radio Personality Manager 2 (RPM2)	Unity XG-100P NOT SUPPORTED in RPM2.
DES Load Module	des_module_R04B03.ess (SK-019046-001 V04.03)
AES Load Module	HALM_Module_R04A01.ess (SK-015086-001 V04.01)
Key Manager/Key Admin	R07A03 or later

**Table 2-6: Unity XG-100M Compatibility Matrix**

PLATFORM	SOFTWARE VERSIONS
Radio Personality Manager 2 (RPM2)	R6F or later
DES Load Module (P25T DES operation Only <sup>3</sup> )	des_module_R04B03.ess (SK-019046-001 V04.03)
DES Load Module (EDACS DES operation Only <sup>4</sup> )	des_module_R02A06.dsp (SK-015085-001 V02.06)
DES Load Module (P25T DES + EDACS DES operation <sup>5</sup> )	des_module_R02A06.dsp (SK-015085-001 V02.06)
AES Load Module	HALM_Module_R04A01.ess (SK-015086-001 V04.01)
BootTest	R13A01 or later (14004-0021-01)
BurnApp	MBAPP R13C03 or later (14004-0020-01)
Loadapp	R12B or later
CH-721	R07G17 or later
CH-100	R06J03 or later
Key Manager/Key Admin	R07A03 or later
RHHC	R03A or later



**NOTE**

DES module R02B08 should never be used (and will not work) on the Unity mobile radio.

**Table 2-7: XG-75M ICI Compatibility Matrix**

PLATFORM	SOFTWARE VERSIONS
Radio Personality Manager 2 (RPM2)	R6F or later
DES Load Module	des_module_R02B08.dsp (SK-015085-001 V02.08)

<sup>3</sup> P25 Trunking Only - ProVoice feature bit NOT enabled.

<sup>4</sup> EDACS Only - P25 Trunking feature bit NOT enabled, ProVoice enabled.

<sup>5</sup> P25 Trunking and EDACS - P25 Trunking, and ProVoice feature bits enabled.

PLATFORM	SOFTWARE VERSIONS
AES Load Module	HALM_Module_R04A01.ess (SK-015086-001 V04.01)
Non-FIPS AES Module	HALM_NonFIPS_R05A01.ess (SK-015086-002 V05.01)
BootApp	R01A00 (14004-0222-01)*
BurnApp	Recommended: MBAPP R13E05 or later (SK-011358-001) Minimum: MBAPP R13C03
Loadapp	R12B or later
MCU	700/800MHz: R01A01 (14004-0209-01) [v01.01.0001]
CH-721	R07G17 or later
RHHC	R03D06 or later
Key Manager/Key Admin	R07A03 or later

\* Verify which Radio Type this BOOT APP Image is meant for! Incorrect selection could result in disabling the radio completely, requiring service by L3Harris to resume usage.

**Table 2-8: XG-15P Compatibility Matrix**

PLATFORM	SOFTWARE VERSIONS
Radio Personality Manager 2 (RPM2)	R6F or later
DES Load Module	des_module_R02B08.dsp (SK-015085-001 V02.08)
AES Load Module <sup>6</sup>	HALM_Module_R04A01.ess (SK-015086-001 V04.01)
Non-FIPS AES Module	NOT Supported for XG-15
BootApp	R12A00 (SK-011365-001)
BurnApp	Recommended: PBAPP R13D04 or later (SK-011364-001) Minimum: PBAPP R13C03
Loadapp	R12B or later
Key Manager/Key Admin	R07A03 or later

<sup>6</sup> XG-15P supports Single-Key AES in XLP R6A and later.

## **Hardware Revision Support for Voice Annunciation**

To support Voice Annunciation, radio hardware must have at least 32 MB flash available. If the necessary flash size is not present, the radio displays “VA HW ERR” message. The following table lists radios that have hardware restrictions for Voice Annunciation support. If a radio is not listed, all revisions of that radio’s hardware support voice annunciation.

<b>FAMILY</b>	<b>BAND SPLIT</b>	<b>TYPE</b>	<b>PART NUMBER</b>	<b>REVISION SUPPORTED</b>
M7300 Or XG-75M	UHF-L	N/A	RU-144750-021	Rev. C or later
	UHF-H		RU-144750-031	Rev. D or later
	VHF		RU-144750-041	Rev. D or later
	VHF (110 W)		RU-144750-051	Rev. A or later
	700/800 MHz		RU-144750-061	Rev. J or later
M5300	700/800 MHz	N/A	RU-144750-061	Rev. J or later
	900 MHz		RU-144750-181	Rev. P or later
XG-75P	All Bands	N/A	All Models	No Restrictions
XG-25P Or XG-25M	All Bands	N/A	All Models	No Restrictions
XG100P Or XG100M	All Bands	N/A	All Models	No Restrictions
XG-15P	All Bands	Sys	All Models	No Restrictions

### 3. FEATURES AND ENHANCEMENTS

The following sections list the features that are available in the software.



**NOTE**

L3Harris radios support Single Key AES **OR** Single Key DES; they do not support both simultaneously. Whichever key is loaded last is the key that works.

#### 3.1 NEW FEATURES

Added software-configurable zone/group buttons.

Increased frequency pairs per trunked frequency set to 1024.

See Section 6 for issues resolved.

#### 3.2 COMMON FEATURES

These are the features that are supported regardless of operating mode:

Siren and Lights	Mode Menu to Switch to OpenSky®
PA (Remote mount CH-721 connection only)	Deluxe Vehicular Charger (without control head support)
Hot Mic Emergency	DVSI quad-mode vocoder
External Speaker (Remote mount CH721 connection only)	Noise Cancellation (XG-75, XG-100P, & XG-100M w/CH-100 noise cancellation speaker mic.)
Dual Control Head for Mobiles	80-Bit Feature Data
Single Key DES	GPS Display
Audio Playback	Control & Status Services
Pin Entry	Display invert on XG-25P/XG-75P
Preset keys	Test Unit on M7300
Assignable control of PTT on Unity Portable	Voice Annunciation
Caller ID	Zones
GPS Dongle	eData*
In-Band GPS	Encryption Lite (ARC4)**
Automatic Gain Control (AGC)	XG-75Pe A/B/C Switch enhancements
Logging Recorder Output (XG-100M + CH-100 only; all audio is sent to the 44-pin connector on the back of the MRU)	ARC4 Feature Bit (This feature bit/capability must be enabled for ARC4 encryption to work.)
Direct Dial I-Call on CH-100	Single-Key AES Support (See note below.)***
Software configurable zone/group buttons	

- \* eData requires the FIPS compliant AES module for operational use: AES Module Version 4.01 is the current version supported. DES is NOT supported with eData system configurations.
- \*\* Encryption Lite is an ARC4 encryption feature that enables radio-to-radio encrypted calls for P25T and P25C calls. Unity XG-100P does **not** support Encryption Lite.
- \*\*\* AES keys for the Single-Key AES feature are NOT entered in RPM2. All AES keys are loaded using the L3Harris Key Loader or using a Motorola® KVL device.

### 3.3 CONVENTIONAL FEATURES

Rx and Tx Analog Voice	Priority Scan in all Voice Modes
Rx and Tx TCG including STE	800 MHz Wideband/NPSPAC
Rx and Tx DCG including STE	700 MHz Narrowband
GSTAR and GSTAR Emergencies	900 MHz Narrowband
DTMF	UHF-H/T Wideband/Narrowband
Tone Encode	UHF-L Wideband/Narrowband
Type 99	VHF Wideband/Narrowband
Squelch Adjustment	Monitor Mode
MDC1200	CG Select
Vote Scan	Custom Audio Scalars
Mixed Zone Scan	Emergency Wail Tone

### 3.4 P25 CONVENTIONAL FEATURES

Rx and Tx Digital Voice	Interoperability with Analog
Group Calls	Late Entry
Emergency Calls	700/800 MHz
All Calls	UHF-H/T
Unit to Unit Calls	UHF-L
Squelch Modes	VHF
DES Encryption*	Priority Scan in all Voice Modes
AES Encryption*	Custom Channels
Status Messaging	Radio Check
Unit Enable/Disable	Squelch Adjustment
DTMF	Status Query
Segmented NAC	RTT\ERTT
TSBK on Analog	P25C Data (SCEP)
Vote Scan	OTAR*/Radio TextLink/GPS/ProFile
Vehicular Repeater	Mixed Zone Scan*
DES CFB Encryption**	Emergency Wail Tone

\* XG-15P - AES Encryption is ONLY allowed for Single Key AES. DES Encryption is ONLY allowed for Single Key DES.

\*\* DES-CFB Encryption is ONLY supported on Unity Portable XG-100P, Unity Mobile XG-100M/CH-721, Unity Mobile XG-100M/CH-100, and XL Radios.

### 3.5 P25 TRUNKING FEATURES

System All Call	ProScan™ roaming
Group Calls	Enhanced CC/Band Scan operation
Emergency Calls	Interconnect (phone) operation
Emergency Alarm	Site Trunking Avoidance
All Calls	Logoff/Deregistration on system change and power down
Unit to Unit Calls	700/800 MHz
Late Entry	UHF-H/T
Transmission and Message Trunked	UHF-L
Group Scan	VHF
Priority Scan	ProFile™
Time of Day	ProFile Compression
DES Encryption	Data
AES Encryption	Radio TextLink
ISSI group calls	Digital Voice AGC
Vehicular Repeater Attach Tone	SCEP OTAR*
SCCB	VDOC
Vehicular Repeater (Extended coverage, Scene of Incidence)	Emergency Declare in Clear on Encrypted System
FIPS 140-2 Level 1	Conventional Scan
DTMF	Knox Tones
RTT\ERTT on VR	KVL
PPP\SLIP	GPS Services
Stealth	Multigroup
Motorola Style Patch Scanning	L3Harris Style Patch Scanning
TDMA Phase 2 (see Section 3.6)	Individual/Dynamic Regroup
Test unit operation for mobile radios	SNDCP Data Conveyance (Version 2)
CC Scan Delay	Mixed Zone Scan
ISSI Emergency Alarm Cancel***	OTAR DES*
LLA**/**	TG0 on Inhibit / No Zeroize on Inhibit
Remote Unit Monitor (not supported in XG-100P)	Priority Talk Group (not supported in XG-100P)
HVD-FDMA (P25 Trunked Autonomous Data Channel) Support	Site Alias/Site Lock for Enhanced CC Scan****
ISSI roaming (Intra-WACN roaming, inter-WACN roaming, and uncoordinated band plans are now supported.)	Multi-Region P25T I-Call entry via keypad (OMAP only; requires RPM2 R6F or later).
1024 Frequency Pairs per Trunked Frequency Set	

\* XG-15P - AES Encryption is ONLY allowed for Single Key AES. DES Encryption is ONLY allowed for Single Key DES.

\*\* LLA with L3Harris sites may need a special SC5 file for older System releases.

\*\*\* ISSI Emergency Alarm Cancel requires L3Harris Site code version R14A48.04 or later to function properly in an integrated XLP/System solution.

\*\*\*\*XG-75M and XG-100M only.

### 3.6 TDMA FEATURE SUPPORT

The following radios support P25T TDMA Phase 2 functionality:

- XG-75P/XG-75Pe (700/800 MHz)
- M7300 (except for and UHF-LL) and XG-75M
- XG-25P
- XG-25M
- XG-100P
- XG-100M
- XG-15P

### 3.7 EDACS TRUNKING FEATURES

Analog Voice and ProVoice™	ProScan roaming
Group Calls	Interconnect (phone) operation
Unit to Unit Calls	4800 Baud EDACS
Emergency Calls	SCAT
System All Call	800 MHz Wideband
Transmission and Message Trunked	900 MHz Narrowband
Late Entry	UHF-H/T Wideband/Narrowband
Group Scan	UHF-L Wideband/Narrowband
Priority Scan	VHF Wideband/Narrowband
Conventional Priority Scan (ECP1 Scan)	ProFile
Auto Login	ProFile Compression
Digital Voice AGC for ProVoice	DCS Data (9600 and 4800 baud)
Feature Encryption Support	DCS+ Data (9600 and 4800 baud)
Test unit operation for mobile radios	Radio TextLink
EDACS Security Key (ESK)	Time of Day
ProVoice DES encryption	Squelch Adjustment for Analog Rx
DTMF	ProVoice/AES



**NOTE**

EDACS is NOT supported in the XG-15P, XG-100P, or XG-100M with CH-100.

### 3.8 EA TRUNKING FEATURES

Analog Voice and ProVoice	ProScan roaming
Group Calls	Interconnect (phone) operation
Unit to Unit Calls	800 MHz Wideband
Emergency Calls	DCS+4 Data
System All Call	ProFile
Transmission and Message Trunked	ProFile Compression
Late Entry	Radio TextLink
Group Scan	Time of Day
Priority Scan	Test unit operation for mobile radios
Auto Login	EDACS Security Key (ESK)
Digital Voice AGC for ProVoice	ProVoice DES encryption
Feature Encryption Support	Squelch Adjustment for Analog Rx
DTMF	



NOTE

EA is NOT supported in the XG-15P, XG-100P, or XG-100M with CH-100.

### 3.9 CONTROL AND STATUS SERVICES FEATURE SUPPORT

FUNCTIONALITY
STATUS
Status/Event Report Request
System List Report Request
System List Report
EDACS/P25 Status Options Report Request
EDACS/P25 Status Options Report
EDACS/P25 Message Options Report
Group Set Report Request
Group Set Report
Conventional Frequency Report Request
Conventional Frequency Set Report
Individual Call Set Report Request
Individual Call Set Report
Phone Call Set Report Request
Phone Call Set Report
Trunked System Event Report

<b>FUNCTIONALITY</b>
Heartbeat Status Report
Volume Setting Report
Power down/shutdown support
Voice Call Event Report
ECP SW/HW Version Number
<b>CONTROL</b>
Press PTT
Release PTT
Set Volume Level
Set ECP System
Set ECP Talk Group
Set Conventional Channel
Power Down/Shut Down Support
Application Change
Trunked Group Call Transmit
Trunked Group/Conventional Channel Call Receive
Conventional Transmit
ECP Emergency (declare and cancel)
I-Call Transmit and Receive
Status Option Transmit
Message Option Transmit
Enable / Disable Channel Scan
<b>CONNECTION MANAGER</b>
Connection Request
Terminate Request
Power Down/Shut Down Support
Application Change Request
Application Query
Application Response

## 4. INSTALLATION

XLP R05x or XLP R06x OMAP and Unity Mobile radios can be upgraded by loading XLP R06H compressed code via RPM2 R6F or later. XLP R05x or XLP R06x Unity Portable radios can be upgraded using **Unity Product Management → Code Modules** in RPM R14B and later.



NOTE

RPM2 only supports one connection per radio at a time for radios that have multiple connections (e.g., serial on back of MRU, serial on back of Control Head, front-mic jack or USB on front of Control Head).



NOTE

If it is necessary to revert to a code version prior to R6, perform a zeroize before and after the pre-R6 code is loaded.

### 4.1 USING RPM2



NOTE

The XG-100P cannot be programmed using RPM2.

1. Connect the radio to the PC on which RPM2 is installed using the appropriate programming cable and power on the radio.
2. Start RPM2. Refer to RPM2's online help for detailed descriptions of the user interface and instructions on using the application.
3. In RPM2, display the **Load Code** tab (click **Radio → Load Code** or click  in the toolbar).
4. Select the radio from the list of connected radios on the Radio Tab.
5. Select **Radio Firmware** from the Radio Code drop-down.
6. Click **Add** to browse to the file.
7. Select (check) the file and click the **Load Code** button.



NOTE

Refer to RPM2's online help or the *RPM2 User's Manual*, 14221-1100-2060, for more information.

## 4.2 USING RPM

### 4.2.1 Serial Connection

1. Connect the radio to the PC on which RPM is installed using the appropriate programming cable.
2. Start RPM.
3. From the Radio menu, click **Standard Serial Connection → Load Compressed Code**.
4. Select ECP/XGP.
5. Browse to the Code File.
6. Click **Load**.

Refer to RPM's on-line help for more information.

### 4.2.2 USB/Bluetooth Connection (XG-100P and XG-100M/CH-100)

1. Connect the radio to the PC on which RPM is installed using the appropriate programming cable.
2. Start RPM.
3. From the Radio menu, click **USB/Bluetooth Connection → Unity Product Management**.
4. Select the **Code Modules** tab.
5. Click **Radio Firmware**.
6. Browse to the Code File.
7. Click **Program**.

## 5. NOTES ON THIS RELEASE

IMPORTANT NOTE regarding upgrade/downgrade of the newer XG-25P OBS hardware: The newer hardware XG-25P OBS cannot boot up or go into Program mode if it has been downgraded to a pre-XLP R3A firmware. If that has occurred, the radio will likely be stuck in BurnApp mode, and it cannot be upgraded using RPM2. To correct this, load XLP R3A into the radio using the older RPM R14 code, and then the radio will boot up normally. It can then be programmed as normal with RPM2.

The XG-25P OBS radios can be identified as an XG-25P with HW Rev A or later. Specifically, here is the Product, Model, and EID information to fully identify XG-25P OBS radios:

BAND & TYPE	PRODUCT NUMBER	MODEL NUMBER	S/N
7/800 Scan	14011-0020-02 Rev A (or later)	DPXG-PB78B-e1	A4014Assssss
7/800 System	14011-0020-01 Rev A (or later)	DPXG-PF78B-e1	A4014Bssssss
UHF Scan	14011-0030-02 Rev A (or later)	DPXG-PBU1B-e1	A4014Cssssss
UHF System	14011-0030-01 Rev A (or later)	DPXG-PFU1B-e1	A4014Dssssss
VHF Scan	14011-0010-02 Rev A (or later)	DPXG-PBV1B-e1	A4014Essssss
VHF System	14011-0010-01 Rev A (or later)	DPXG-PFV1B-e1	A4014Fssssss

## 6. PROBLEM RESOLUTION

The following issues were resolved with this release:

REFERENCE NUMBER	DESCRIPTION
PROD00206382	XG-series with R06M03 cannot be Uninhibited while on a TAIT P25T system. TAIT P25T system does not see Inhibit ACK and Uninhibit ACK from L3Harris XG-series radios.
PROD00196973	XG-25M Wideband Data Deviation Scalar and Wideband C4FM Data Deviation Scalar calibration data values are not adjusted correctly; out of tune from factory.
PROD00178142	When the date rolls into 2024, will the M5300 GPS IC still function correctly.
PROD00201435	XG-75M with R06M03 is falsely moving to an adjacent site by adjusting CC Frequencies due to wrong CC messaging.

## 7. TECHNICAL SUPPORT

L3Harris' Technical Assistance Center (TAC) resources are available to help you with overall system operation, maintenance, upgrades, and product support. TAC is your point of contact when you need technical questions answered.

Product specialists, with detailed knowledge of product operation, maintenance, and repair, provide technical support via a toll-free telephone number (in North America). Support is also available through mail, fax, and e-mail.

For more information about technical assistance services, contact your sales representative, or call the Technical Assistance Center directly at:

North America:	1-800-528-7711
International:	1-434-385-2400
Fax:	1-434-455-6712
E-mail:	<a href="mailto:PSPC_tac@l3harris.com">PSPC_tac@l3harris.com</a>

## **APPENDIX A OPEN SOURCE LICENSE DESCRIPTIONS**

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## A.2 ALAW/ULAW CONVERTER

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## A.4 MD5 HASHING ALGORITHM

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## A.5 SHA1 ENCRYPTION

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SHA-1 in C modifications and respective license:

MODIFIED/RELEASED BY	MODIFIED YEAR	PUBLIC DOMAIN
Steve Reid	NA	Yes
James H. Brown	7/98	Yes
Saul Kravitz	4/01	Yes
Ralph Giles	07/2002	Yes

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## **A.9 OPENSLL**

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This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

## NOTES

## **About L3Harris Technologies**

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.