



Radio Dispatch Engineering Group

IP-224 Version 2.400 Engineering Release Notes

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IP-224 Version 2.400 Release Notes

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Revision History

Revision	Date	Author	Description
01	05/07/12	Radio Dispatch Engineering	Firmware Version 1.000 Release
02	08/31/12	Radio Dispatch Engineering	Firmware Version 1.100 Release
03	02/18/13	Radio Dispatch Engineering	Firmware Version 1.200 Release
04	08/20/14	Radio Dispatch Engineering	Firmware Version 1.300 Release
05	01/09/15	Radio Dispatch Engineering	Firmware Version 1.400 Release
06	01/14/15	Radio Dispatch Engineering	Firmware Version 2.000 Release
07	04/08/16	Radio Dispatch Engineering	Firmware Version 2.100 Release
08	06/02/17	Radio Dispatch Engineering	Firmware Version 2.200 Release
09	12/01/17	Radio Dispatch Engineering	Firmware Version 2.300 Release
10	09/21/18	Radio Dispatch Engineering	Firmware Version 2.400 Release

Overview

This document contains the release notes for the IP-224's firmware version 2.400. The release notes include all of the changes and fixes since official release version 2.300. Cross application compatibilities are outlined in this document.

Important

Starting with IP-224 firmware version 2.000, some serial controlled radio types now require an Additional Features | Access Key to be enabled. See the table below.

After upgrading from a previous firmware revision to version 2.000 or newer, the unit will reboot and begin the process of updating system components. During the update process, the unit will display "Firmware Updating". This update process takes approximately 1 minute, after which the unit will self-reboot and operate normally. Ensure that the unit completes the update cycle and boots normally before removing power from the unit.

After the IP-224 firmware has been upgraded to version 1.200 or newer, the firmware cannot be reverted to any previous version (1.102 or earlier). Any attempt to downgrade the firmware version via TSM will be refused by the IP-224.

New Features

Version 2.400

Local Mode: Serial Type - Telex Generic

- Added support for Telex Generic serial protocol Radio Call Alert message.
- Added support for Telex Generic serial protocol Radio Call Status Notification message.
- Added support for Telex Generic serial protocol Radio Select Call End message.
- Added support for Sonim XP8 LTE Phone, Hardware Setup | Serial Protocol Setup | Serial Protocol Version 2 for the Telex Generic Serial Type. The Version 2 option is only available if the Advanced Interface Option (North American) or Advanced Interface Option (Export) are enabled. The Serial Protocol Version 2 will support the following features not supported in Version 1:
 - When C-Soft sends a Private PTT or Group PTT message to the IP-224, the IP-224 will send out Key-up/Key-down serial commands to the connected radio.
 - The Version 2 serial protocol messages' Source and Destination IDs support up to 255 ASCII characters.



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Miscellaneous

- Added support for Per Line Setup | LAM/COR Setup | Rx w/ PTT. This field is used to enter the
 amount of time the IP-224 generates RX packets to the network after PTT is activated. It is used to
 allow radio go-ahead tones to be sent to consoles when COR is enabled or when tone levels are too
 low to trigger LAM. Note full duplex must be enabled to support this timer.
- Added an option to the front panel display System Utilities | Remote Access | TSM Enable to enable/disable Telex System Manager access to the IP-224.
- Added an option to the front panel display System Utilities | Remote Access | Webpage Enable to enable/disable Webpage access to the IP-224.
- Added/Fixed the following to enhance IP-224 security:
 - o Added encryption for Telex System Manager (TSM) and IP-224 communication.
 - o Added a new account management webpage, login webpage, and access denied webpage.
 - Added to the Account Management webpage the ability to create User Accounts and Set User Permissions for which webpages the user can access.
 - Added an inactivity logout timeout and Logout button for logging a user out of the IP-224 webpages.
 - Increased password requirements for User Accounts so that the password length is 8-20 characters and must include a capital letter, a number, and a special character.
 - Fixed several webpage vulnerabilities.

Feature improvements and known issues fixed in this release

Version 2.400

Local Mode: Serial Type – All

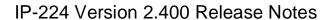
- Fixed an issue where the serial connections need to be restarted after changing the Hardware |
 Setup | Serial Protocol Setup | Serial Mode or RS485 Address settings.
- Fixed an issue where the Serial Over IP and Telex Generic Serial Types were forced to RS-232 even if TTL was selected for the Hardware Setup | Serial Protocol Setup | Serial Mode setting.
- Fixed an issue where the IP-224 was not always sending the correct scan list back to C-Soft after a
 query.

Local Mode: Serial Type - Telex Generic

• Fixed an issue where the Telex Generic serial port could lock up when invalid serial messages were received.

Miscellaneous

- Fixed an issue where the G.726 implementation was not compatible to the standard. Note there is no audible difference.
- Fixed an issue where the Per Line Setup | Signaling Setup | ANI Suffix was not being added to Telex Generic ANIs.
- Fixed an issue where the TSM configuration | Firmware Settings | Checksum was wrong.
- Fixed an issue when changing the IP Address with TSM, the IP-224 was not sending back a successful confirmation message. This would cause TSM to display "Failure: IO Exception".
- Changed Ethernet Setup | Telex System Manager Setup | Mcast Address, Incoming Port, and
 Outgoing Port fields so that they can be modified. Note when modifying these settings, TSM settings
 must also be changed to match.
- Changed the front panel display Factory Mode | Reset Password menu to Reset Accounts. This is
 used to delete/reset the User Accounts back to default.
- Updated Copyright to 2018.





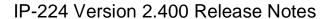
Serial Type Information

Serial Type	Device	Tested Device Firmware	IP-224 Additional Features Access Key
EFJ 5300/VMx00	EFJohnson RS-5300 EFJohnson 53SL ES EFJohnson VMx00 <i>Multi-System radio</i>	4.14.5 6.16.18 8.16.21	Advanced Interface Option (North American) or Advanced Interface Option (Export)
Hytera MD782	Hytera MD782G <i>DMR radi</i> o	8.00.06.007	Advanced Interface Option (North American) or Advanced Interface Option (Export)
Hytera MT680	Hytera MT680 TETRA radio	V2.06.15.009	Advanced Interface Option (North American) or Advanced Interface Option (Export)
Icom	ICOM IDAS IC-Fx061 Option Board UT-126H <i>NXDN radio</i>	Rev.5.4 - Checksum: \$BC4F Rev.3.2 - Checksum: \$F961	Advanced Interface Option (North American) or Advanced Interface Option (Export)
iDEN	Motorola i355 Motorola i365 <i>iDEN radi</i> o	NA NA	Advanced Interface Option (North American) or Advanced Interface Option (Export)
Not Tested this Release	Not Tested this Release	Not Tested this Release	Not Tested this Release
Kenwood 5x10	Kenwood TK-5x10 Ver. 2.0 Kenwood TK-5x10 Ver. 2.0 - DOS Kenwood TK-5x10 Ver. 3.0 Kenwood TK-5x10 Ver. 3.0 - DOS P25 radio	F4.41 – Checksum FBF1 F4.41 – Checksum E346 G6.10 – Checksum 0ADA G6.01 – Checksum 9780	Advanced Interface Option (North American) or Advanced Interface Option (Export)
Kenwood NEXEDGE	Kenwood NX-x00 <i>NXDN radi</i> o	5.11 – Checksum 1A3E	Advanced Interface Option (North American) or Advanced Interface Option (Export)
Kenwood NX-5x00	Kenwood NX-5x00 DMR radio NXDN radio P25 radio	2.31.00 – Checksum 74AE	Advanced Interface Option (North American) or Advanced Interface Option (Export)
Kenwood x150	Kenwood TK-x150 Conventional Analog radio	1.07 – Checksum E282	No Access Key Required
Kenwood x180	Kenwood TK-x180 Conventional Analog radio	1.22 – Checksum 035C	No Access Key Required
Kenwood x80	Kenwood TK-x80 Ver. 2.0 Conventional Analog radio	.028 – Checksum 0ADE	No Access Key Required
Kenwood x90	Kenwood TK-x90 Conventional Analog radio	2.30 – Checksum 77F4	No Access Key Required



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Serial Type	Device	Tested Device Firmware	IP-224 Additional Features Access Key
MOTOTRBO Interface	Motorola XPR4550	01.12.17	Advanced Interface Option
	Option Board Version (XPR4550)	01.07.44	(North American) ONLY
	Motorola XPR5350	02.06.05	,
	Motorola XPR5550	02.06.05	Serial Type MOTOTRBO
	Option Board Version (XPR5550)	02.06.03	Interface Available on 1 Line
	DMR radio		Only per unit
MTRBi	MTRBi	MTRBi version 1.200	No Access Key Required
	Motorola XPR4550	01.12.17	
	Option Board Version (XPR4550)	01.07.44	
	Motorola XPR5350	02.06.05	
	Motorola XPR5550	02.06.05	
	Option Board Version (XPR5550)	02.06.03	
	DMR radio		
PowerTrunk	PowerTrunk MDT-400	27.00.01	Advanced Interface Option
	TETRA radio		(North American) or Advanced
			Interface Option (Export)
Sepura	Sepura SRM2000	V8.3-002	Advanced Interface Option
	Sepura SRG3500	V9.0-006	(North American) or Advanced
	TETRA radio		Interface Option (Export)
0 : 10 15			
Serial Over IP	NA	NA	No Access Key Required
Sprint Direct Connect	AdvanceTec AdvanceBridge	V0004	Advanced Interface Option
	Qualcomm	V1.306	(North American) or Advanced
	Remote Cellular Modem		Interface Option (Export)
Not Tested this Release	Not Tested this Release	Not Tested this Release	Not Tested this Release
Tait TM91xx/TM94xx	Tait TM9100	8.03.03	Advanced Interface Option
	Tait TM9400	2.07.00	(North American) or Advanced
	P25 radio		Interface Option (Export)
	0		
Tait TM93xx	Tait TM9300	2.12.03	Advanced Interface Option
	DMR radio		(North American) or Advanced
	(Only Tier II is supported)		Interface Option (Export)
Telex Generic Version 1	BK Technologies KNG Series	5.5.13	No Access Key Required
RELM KNG Series	P25 radio		
Telex Generic Version 2	Sonim for Motorola WAVE 7000	8A.0.0-03-7.1.1-26.01.65	Advanced Interface Option
Sonim	Cellular PTT		(North American) or Advanced
			Interface Option (Export)





Compatibility

C-Soft Application

- Version 7.400+ Necessary for Sonim Interface for Motorola WAVE 7000.
- Version 7.200+ Necessary for Radio Check.
- Version 6.501+ Necessary for MDC Call Alert Acknowledgement feature.
- Version 6.500+ Necessary for all other features.

Telex System Manager

- Version 2.400+ Necessary for programming parameters.
- Version 2.400+ Necessary for firmware upgrades.

Installation and Upgrade

Please use Telex System Manager 2.400 or newer to upgrade the firmware. Please refer to the IP-224 manual for information on how to upgrade the new firmware.