



TELEX

Radio Dispatch

Radio Dispatch Engineering Group

IP-224 Version 2.200 Engineering 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

Overview

This document contains the release notes for the IP-224's firmware version 2.200. The release notes include all of the changes and fixes since official release version 2.100. 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 2.200

Local Mode: Serial Type – Hytera MD782

- Added support for sending Radio Check from IP Consoles.
- Added support for sending Call Alert and Emergency information to IP Consoles.

Local Mode: Serial Type – Hytera MT680

- Added support for COR.

Local Mode: Serial Type – Icom

- Added support for COR.

Note: For the ICOM Radio, COR only works for digital channels. If analog channels are used DO NOT set COR Enable in the IP-224 Per Line Setup | LAM/COR Setup.

Local Mode: Serial Type – Kenwood NX-5x00

- Added support for Kenwood NX-5x00 DMR/NXDN/P25 radio series via Multicast Setup | Line Setup | Serial Type – Kenwood NX-5x00. The IP-224 needs to have the Additional Feature | DMR, NXDN, or P25 Interface Access Key enabled. The DMR, NXDN, or P25 Interface Access Key is purchased as a 2 Line option only.

Note: Kenwood NX-5x00 DMR IDs are not currently supported by the radio's serial interface.

Local Mode: Serial Type – Tait TM91xx/TM94xx

- Added support for sending Radio Check, Remote Monitor, and Status Request from IP Consoles.
- Added support for sending MDC1200 ID and Selcall information to IP Consoles.

Note: MDC1200 and Selcall Emergency, and Status Decode are not currently supported.

Local Mode: Serial Type – Tait TM93xx

- Added support for sending Radio Check and Remote Monitor from IP Consoles.
- Added support for sending DMR Group ID, MDC1200 ID, and Selcall ID information to IP Consoles.

Note: MDC1200 and Selcall Emergency Decode are not currently supported.

Webpage Configuration:

- Added the ability to monitor the connection of a serially controlled radio from the System Status | Serial Connection State.
- Added the ability to update the IP-224 firmware from the Firmware Upgrade webpage.
- Added the ability to backup and restore IP-224 configuration files (.vga) from the Back & Restore webpage. The configuration file format is the same as TSM so the files can be used interchangeably between the IP-224 Backup & Restore webpage and Telex System Manager (TSM).
- Added the ability to store 5 IP-224 configuration backups locally on the IP-224 from the Back & Restore webpage.

Miscellaneous

- Added support for Ethernet port Auto Failover so the switching between the Primary and Secondary Ethernet ports is based on pinging a network IP address instead of IP link. The feature is enabled by setting the webpage checkbox Ethernet Setup | Ethernet Port Setup | Auto Failover Enabled or by setting the front panel display checkbox Menu | Network Settings | Auto Failover. Additional settings for the ping command are available from the webpage Ethernet Setup | Ethernet Port Setup | Ping IP Address, Ping Count, Ping Timeout, and Time Between Pings or from the front panel display Menu | Network Settings | Primary/Secondary Port | Ping IP Address, Ping Count, Ping Timeout, and Time Btwn Pings.

The Ethernet port Auto Failover works as follows:

- The IP-224 selects the Primary Ethernet port at power up.
- When the feature is enabled, the IP-224 pings a network IP Address. If the ping fails, the IP-224 switches to the Secondary Ethernet port.
- The IP-224 will continue using the Secondary Ethernet port until one of the following: ping fails on the secondary network, the port selection is changed via the webpage/display, or the IP-224 is rebooted.
- The Active Ethernet port can be switched via the webpage Ethernet Setup | Ethernet Port Setup | Set Active Port radio buttons or via the front panel display Menu | Network Settings | Set Active Port. The Active Port can be changed regardless of the Auto Failover Enabled setting for debug/setup purposes.
- The Current Active Port is shown on the System Status webpage or via the front panel display line selection icon where a “*” indicates the Primary Ethernet port is active and a “#” indicates the Secondary Ethernet port is active.

Feature improvements and known issues fixed in this release

Version 2.200

Local Mode: Serial Type – Kenwood 5x10

- Fixed an issue when the Kenwood 5x10 radio and the IP Console are on the same channel the Kenwood 5x10 wouldn't transmit if Per Line Setup | Options Setup | Freq Update w/ PTT was enabled.
- Fixed an issue when the Kenwood 5x10 was transmitting a P25 Private or Group Call multiple P25 IDs were being sent to IP Consoles.
- Fixed an issue when the Kenwood 5x10 radio was set to PC Interface Version 2 sending Status Messages, Radio Disable, Radio Enable, Status Request, and Radio Select Call serial commands wouldn't work.

Local Mode: Serial Type – Kenwood NEXEDGE

- Fixed an issue where Kenwood NEXEDGE Private and Group Calls wouldn't always work.
- Fixed an issue with the Kenwood NEXEDGE where sending Encryption On/Off and Talk Around On/Off serial commands wouldn't always send back an acknowledgement to IP Consoles, and this could cause the Kenwood NEXEDGE radio's and the IP Console's Encryption and Talk Around states to get out of sync.

Local Mode: Serial Type – All

- Fixed an issue for serially controlled Kenwood radios where a Group Call was being created after a failed Radio Select Call or Private PTT from IP Consoles.
- Fixed an issue for serially controlled Kenwood radios when a Private or Group Call ends the IP Console's frequency and the serially controlled radio's channel could get out of sync.
- Fixed an issue where the IP Console's frequency and the serially controlled radio's channel can get out of sync if the IP Console receives multicast traffic immediately after sending a frequency update from an IP Console
- Fixed an issue for serially controlled radios where the IP-224 wouldn't transmit after a failed serial change channel command.

Webpage Configuration:

- Changed the Hardware Setup | Serial Protocol Setup | Baud Rate so that the 38400 baud rates are supported.
- Changed the Kenwood 5x10 Serial Type Auto Configuration so that the Hardware Setup | Audio / Analog Setup | RX Audio Impedance is set to 10K Ohms.
- Changed the TETRA Serial Types Per Line Setup | Function Tone Setup | ISSI/GSSI Number range to 0-16777215 for Trunked GC, Trunked HDPC, and Direct GC.
- Fixed an issue when only 1 invalid Trap Target IP Address was entered all 3 SNMP Trap Target IP Addresses were getting cleared.
- Updated the Copyright to 2017.

Miscellaneous

- Changed the SNMP interfaces table to match the Multicast Setup | Line Setup | Serial Type drop down menu.
- Fixed an issue where transmit was being turned off before the entire TX Delay buffer was played.
- Fixed an issue where the entire Post MDC 1200 ANI packet wasn't being generated.
- Fixed an issue where duplicate audio was being played out the Analog Tape Output and the IP Recorder Output.



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- Fixed an issue when in 2-Wire Tone Mode after releasing PTT IP consoles would receive a short tone burst.
- Fixed an issue where quickly pressing and releasing PTT on IP consoles could cause the IP-224 to get stuck in transmit.
- Fixed an issue when DHCP is enabled and the IP-224 is unable to acquire an IP Address the front panel display and menu were extremely slow to respond.
- Fixed an issue where the IP-224 would reboot when scanning all of its network ports.

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	EFJohnson Radio 1 or 2 Lines
Hytera MD782	Hytera MD782G <i>DMR radio</i>	8.00.06.007	DMR Interface Enables 2 Lines
Hytera MT680	Hytera MT680 <i>TETRA radio</i>	V2.06.15.009	TETRA Interface Enables 2 Lines
Not Tested this Release	Not Tested this Release	Not Tested this Release	Not Tested this Release
Icom	ICOM IDAS IC-Fx061 Option Board UT-126H <i>NXDN radio</i>	Rev.5.4 - Checksum: \$BC4F Rev.3.2 – Checksum: \$F961	NXDN Interface Enables 2 Lines
iDEN	Motorola i355 Motorola i365 <i>iDEN radio</i>	NA NA	iDEN Radio 1 or 2 Lines
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 <i>P25 radio</i>	F4.41 – Checksum FBF1 F4.41 – Checksum E346 G6.10 – Checksum 0ADA G6.01 – Checksum 9780	P25 Interface Enables 2 Lines
Kenwood NEXEDGE	Kenwood NX-x00 <i>NXDN radio</i>	5.11 – Checksum 1A3E	NXDN Interface Enables 2 Lines
Kenwood NX-5x00	Kenwood NX-5x00 <i>DMR radio</i> <i>NXDN radio</i> <i>P25 radio</i>	2.10.00 – Checksum B719	DMR, NXDN, or P25 Interface Enables 2 Lines
Kenwood x150	Kenwood TK-x150 <i>Conventional Analog radio</i>	1.07 – Checksum E282	No Access Key Required
Kenwood x180	Kenwood TK-x180 <i>Conventional Analog radio</i>	1.22 – Checksum 035C	No Access Key Required
Kenwood x80	Kenwood TK-x80 Ver. 2.0 <i>Conventional Analog radio</i>	.028 – Checksum 0ADE	No Access Key Required
Kenwood x90	Kenwood TK-x90 <i>Conventional Analog radio</i>	2.30 – Checksum 77F4	No Access Key Required

Serial Type	Device	Tested Device Firmware	IP-224 Additional Features Access Key
MOTOTRBO Interface	Motorola XPR4550 Option Board Version (XPR4550) Motorola XPR5350 Motorola XPR5550 Option Board Version (XPR5550) <i>DMR radio</i>	01.12.17 01.07.44 02.06.05 02.06.05 02.06.03	DMR Interface Enables 2 Lines Serial Type MOTOTRBO Interface Available on 1 Line Only per unit
MTRBi	MTRBi Motorola XPR4550 Option Board Version (XPR4550) Motorola XPR5350 Motorola XPR5550 Option Board Version (XPR5550) <i>DMR radio</i>	MTRBi version 1.200 01.12.17 01.07.44 02.06.05 02.06.05 02.06.03	No Access Key Required
PowerTrunk Not Tested this Release	PowerTrunk MDT-400 <i>TETRA radio</i> Not Tested this Release	27.00.01 Not Tested this Release	TETRA Interface 2 Lines Not Tested this Release
Sepura Not Tested this Release	Sepura SRM2000 Sepura SRG3500 <i>TETRA radio</i> Not Tested this Release	V8.3-002 V9.0-006 Not Tested this Release	TETRA Interface 2 Lines Not Tested this Release
Serial Over IP	NA	NA	No Access Key Required
Sprint Direct Connect Not Tested this Release	AdvanceTec AdvanceBridge Qualcomm <i>Remote Cellular Modem</i> Not Tested this Release	V0004 V1.306 Not Tested this Release	Sprint Direct Connect 1 or 2 Lines Not Tested this Release
Tait TM91xx/TM94xx	Tait TM9100 Tait TM9400 <i>P25 radio</i>	8.03.03 2.07.00	P25 Interface 2 Lines
Tait TM93xx	Tait TM9300 <i>DMR radio</i>	2.12.03	DMR Interface 2 Lines
Telex Generic	BK Technologies KNG Series <i>P25 radio</i>	5.3.4	No Access Key Required

Compatibility

C-Soft Application

- 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 2.200+ - Necessary for programming parameters.
- Version 2.100+ - Necessary for firmware upgrades.

Installation and Upgrade

Please use Telex System Manager 2.100 or newer to upgrade the firmware. Please refer to the IP-224 manual for information on how to upgrade the new firmware.