

RELEASE NOTES

ELK-M1XSP SERIAL PORT EXPANDER

Running Standard Factory Default firmware 1.x.x

Effective Date: Sept 19, 2011

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Firmware and/or bootware releases contain enhancements and/or resolutions for issues found in previous releases. For the latest Updates refer to the Elk Website. <http://www.elkproducts.com>
To download from the website click on Downloads. Scroll through the available listings to locate the download for the particular product. Click the linked text to see the full details of the download. Then click Download at the bottom of the page. Once the download dialog box opens, select the RUN option which will self-extract all the needed files (suffix .BIN) into the appropriate "Updates" directory on your computer. To update the component with the latest release please refer to the page titled "Steps for Updating."

PLEASE NOTE:

Prior to performing any update, carefully consider the necessity of doing so. Unless the enhancements are desired, or the resolutions are an issue for you, it may be best to leave a device at its current version. Consider this: "If it isn't broke, don't try to fix it." Prior to updating, we strongly recommend that ElkRP be used to RECEIVE ALL and SAVE the custom programming. Following the update you will then be able to select SEND ALL to restore all custom programming. As with any update, there is always a slight possibility that a glitch or failure can occur that renders the control or component unusable. We recommended that you have a spare board on hand in the event a problem is encountered during/after the update. Although such problems are rare, having a spare is a good precaution.

FLASH MEMORY - The majority of the components in the M1 product family store their operating firmware in "Flash" memory. This state-of-the-art memory allows electronic field updates and eliminates the old fashion method of changing IC chips or shipping boards back to the factory.

NOTE: Firmware updating requires a Direct to PC (Serial) Com port connection OR a M1XEP Ethernet connection. Telephone Dial-up connections cannot be used to perform firmware updates.

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PO Box 100 • Hwy. 70W • Hildebran, NC 28637 • USA • 828-397-4200 • <http://www.elkproducts.com>

Procedures for Loading/Updating Firmware

- 1) Using ElkRP, open the account belonging to this control and establish a “Network” connection from the Connection menu.
- 2) Perform a “Receive All” from the Send/Rcv menu to insure that you have the very latest copy of all data stored in the control.
- 3) Save the account information.

Updating:

- 4) Click on the “Send/Rcv” menu/icon along the top of the PC screen.
- 5) Then click either “Update or Verify Firmware” OR “Enroll/Update Control and Devices”
- 6) On the next screen you must choose the device to be updated.
- 7) The Update screen will display the current Firmware, Hardware, and Bootware version, along with pull down selection to select the update file(s) that are available.
- 8) Choosing what to update:

8a) **Bootware Update:** * This step may be skipped unless specifically required by the firmware update. Please refer to the release notes for the current update.

Use the scroll down arrow to select the Bootware file to use for this update. Based on the hardware revision there may be more than 1 file in the drop down box. Just make sure that the file selected contains the word “BOOT” and the current (latest) version number. Check or click the Update. Once the bootware update is complete you may proceed to the Firmware Update.

8b) **Firmware Update:**

Use the scroll down arrow to select the appropriate Firmware file to use for this update. Based on the hardware revision there may be more than 1 file in the drop down box. Just make sure that the file selected contains the current (latest) version number.

IMPORTANT! The M1XSP has multiple firmware versions (load) in order to allow it to support many different partner products. Each firmware version supports at least 1 and possibly more than 1 product, but no single firmware version supports all products. Therefore it is very important to note which partner product with which you intend to interface. At that point you should select, download, and flash the M1XSP with the firmware version which supports that product(s).

- 9) After selecting the desired update click the Update button (Note: the Update button may be labeled “Continue”).

Firmware Version 1.0.50, released Sept 19, 2011

Changes effective with this firmware release:

1. Aprilaire - Found and fixed issue which prevented thermostat commands from being sent to Aprilaire Thermostats addressed 10 through 16.

Firmware Version 1.0.48, released Oct 18, 2010

Changes effective with this firmware release:

1. UPB - Added routine to automatically reset the external I/O lines on the micro in case of an accidental lockup. This was done primarily for the benefit of the M1PCSPIM.

Firmware Version 1.0.46, released May 10, 2010

1. UPB - Changed the UPB command transmission from single-packet to multi-packet. This results in the PIM sending multiple signals, primarily for the benefit of signal repeaters.
2. RCS Thermostat Mode:
Change for the RCS TR60 - removed the legacy "SP=xx" command from the control string. The TR60 doesn't support the legacy "SP" command.
3. RCS Thermostat Mode: Added the ability to send virtually any RCS thermostat command. This is done by creating a M1 text string. The string must start with character ">" followed by the RCS command protocol. Example, to lock the thermostat's display, the text string would be: >A=255,O=00,DL=1^M
Then write a M1 Rule to transmit the text string out the M1XSP's serial port.
4. W800RF32 Mode: Change to better handle received packets which may be corrupted.

Firmware Version 1.0.42 released June 2, 2008

1. UPB - Added code to make certain the UPB network ID number received by the M1XSP is validated against the network ID stored in the M1's UPB Network Address location under the Globals menu.
2. W800RF32 - Made improvements to the decoding of received data.

Firmware Version 1.0.40 released Jan 16, 2008

1. UPB "PIM" module - Made an adjustment to the 4,800 baud rate register to accommodate the latest Pulseworks UPB "PIM" (Programming Interface Module) version 5.42 or later. An incompatibility was discovered with the Pulseworks PIM when they updated their firmware.
2. Transmitting ASCII Text Strings - Found and corrected an issue with the generic serial expander mode which caused the last transmitted text string to be repeated every 30 seconds.
3. Dynalite Lighting Mode - Found and corrected an issue in the Dynalite mode. Per Dynalite a dim level of 1% is the same as OFF. However, when M1 set a light to 1% level the Dynalite light was going to 100%.
4. Missing Thermostat Commands - Reported instances of the M1XSP missing thermostat commands sent from the M1. Made a slight modification to the received characters function to improve the reliability of these commands.
5. Thermostat Offline Reporting - The M1XSP now requires 3 consecutive missed responses to a thermostat poll command before it will report the thermostat as "off line" to the M1 control.

Firmware Version 1.0.36 released Oct 29, 2007

1. Found and corrected a problem that could result in a lockup of the M1XSP when custom text strings are received.

Firmware Version 1.0.34 released Oct 15, 2007

1. A rule can now be written to "Send Text Out Port" in order to pass "Text" strings to an RCS TR-40 or Aprilaire 8870 Thermostat. These particular Thermostats can display a text message on their LCD Display. Specify the Port number (1 - 7) according to the Data Bus Address of the M1XSP.
2. A rule can now be written to "Send Text Out Port" to a UPB powerline interface module.
3. In the event that a Thermostat cannot or does not reply to a poll request from an M1XSP a temperature value of 0 will be passed to the control in order to indicate that the thermostat is no longer communicating.
4. In order to prevent duplicate commands from being sent back and forth a new parameter was added to the lighting commands (sent by the M1) to indicate when the M1XSP has already reported a command to the M1.

Firmware Version 1.0.26 released Mar 09, 2007

- 1.) DYNALITE Mode - Fixed an issue in the Dynalite lighting mode by inverting the Light Level command. DynaLite protocol considered a 90% On command as 10% On. Dynalite lighting is found predominantly in Australia.
- 2.) RadioRa Mode - Added the sending of "Fade Time" lighting parameter to RadioRA provided the rule's lighting rate parameter is not set to zero.
- 3.) HPM Mode - Added HPM iControl Lighting mode. Switch settings: S5=0, S6=1, S7=0, S8=0. HPM is found predominantly Australia.
- 4.) APRILAIRE Mode - Corrected an issue in the Celsius mode for Aprilaire thermostats.
- 5.) OnQ ALC Mode - Added polling to get the status after receiving a scene command from an OnQ switch.
- 6.) UPB Mode - Corrected a problem resulting from a customer using links beyond the 64 numbered links supported by the XSP. The XSP will now ignore and Link greater than 64.
- 7.) CENTRALITE Mode - Added a new filtering scheme to keep the data from looping between the systems after a lighting change occurred.
8. APRILAIRE & RCS - A bug was introduced at the time of the last firmware changes for Insteon that resulted in a problem for Aprilaire and RCS thermostats. It caused the current temperature, heat, and cool setpoints to be incorrectly interpreted and reported to the Control. This has been corrected in this new 1.0.26 release.

Firmware Version 1.0.20 released June 23, 2006

- 1.) UPB Lighting mode - Added support for the UPB Deactivate Link command.
- 2.) Dynalite Lighting mode - M1XSP can now control 8 channels in 16 areas, 5 presets in 16 areas, and 48 presets in area #255. It also supports 7 fade rates.
- 3.) HAI Thermostat mode - Changed the lower end limit of the heat setpoint from 50 to 40.

Firmware Version 1.0.14 released Oct 27, 2005

- 1.) Added Celsius conversion routines for the RCS and Aprilaire thermostats. This was not needed for the HAI stat.
- 2.) Added support for receiving the load status reports of Centralite nodes.
- 3.) Added support for receiving the status of an OnQ scene switch buttons 2, 3, and 4. Also, now supports the 4 virtual scene switches.
- 4.) Added support for receiving the data from a W800RF32 wireless X-10 RS-232 interface module.
- 5.) Added support for the Lutron Radio-RA RS-232 interface.
- 6.) Added alarm reporting support for the UPLINK RS-232 radio module.
- 7.) Added support for Dynalite lighting system. Only the transmitting of Dynalite commands. The receiving of status is not supported at this time.
- 8.) Added support for UPB links (M1 lighting devices # 193 and greater) and Ramp Rate variable (not yet supported by ElkRP) in the UPB lighting mode.

Firmware Version 1.0.10 released Jul 27, 2005

- 1.) Uplink serial protocol was added in March.
- 2.) Zwave serial protocol was added in April. This requires different hardware, but the software is the same.
- 3.) A poll request to get the RCS "Hold" status was added in June.
- 4.) Lutron RadioRA serial protocol was added in July. *Untested.
- 5.) Change to allow a RCS thermostat to reply with address = 0 instead of = 00.
- 6.) Change to the timing when responding to a M1 data bus packet.