

Interfacing i-LiNE to ELK M1 Gold



ELK M1 Gold Keypad

The ELK M1 Gold is capable of several advanced lighting control functions including time-of-day and event-driven functions. For example, it could trigger a lighting scene when an intrusion is detected. Or it could simply turn on the outside lights at sundown and turn them off at sunrise.

This application note shows how to connect the ELK M1XSP Lighting Interface to the i-LiNE lighting control system and how to program the ELK M1 Gold to control lights and lighting scenes.

Required Equipment:

1. ELK M1 Gold
2. ELK M1XSP Lighting Interface
3. M1XSP Installation Manual
4. ELK-RP Software (version 1.5 minimum) and PC
5. DB-9 Serial Cable
6. i-LiNE Serial Port Connection (i-PoRT-COM, i-PoWER-M1, i-PoWER-M4, or i-PoWER-M4tp w/ DB-9 adapter)
7. List of macro numbers for i-LiNE switches to be programmed (i-LiNE Installer software can be used to find these)

Important Note to the Installer:

To prevent damage to equipment, power down the M1 and the i-LiNE system before connecting.

Installation Instructions:

Step 1: Power down both the i-LiNE network interface module and the M1 Gold.

Step 2: Install the M1XSP in a location 10-50 feet from an i-LiNE serial port (i-PoRT-COM or i-PoWER-(x) Network Interface Module) since RS-232 communications are limited to 50 feet. The M1XSP can be 500 feet from the M1 Gold since they communicate via RS-485. Note that the M1XSP can be installed inside the M1 Gold as long as the above distance requirements are met (see M1XSP Installation Manual for mounting instructions).

Step 3: On the M1XSP, set the following jumpers (refer to Fig. 1 for locations):

- Set jumper JP3 to the “232” position for RS-232 serial communication.
- Set the MODE jumpers to “1 1 1 1” positions.
- Set the BAUD rate jumpers to “0 0 0”.
- Set the Address DIP to 1 (see Fig. 1).

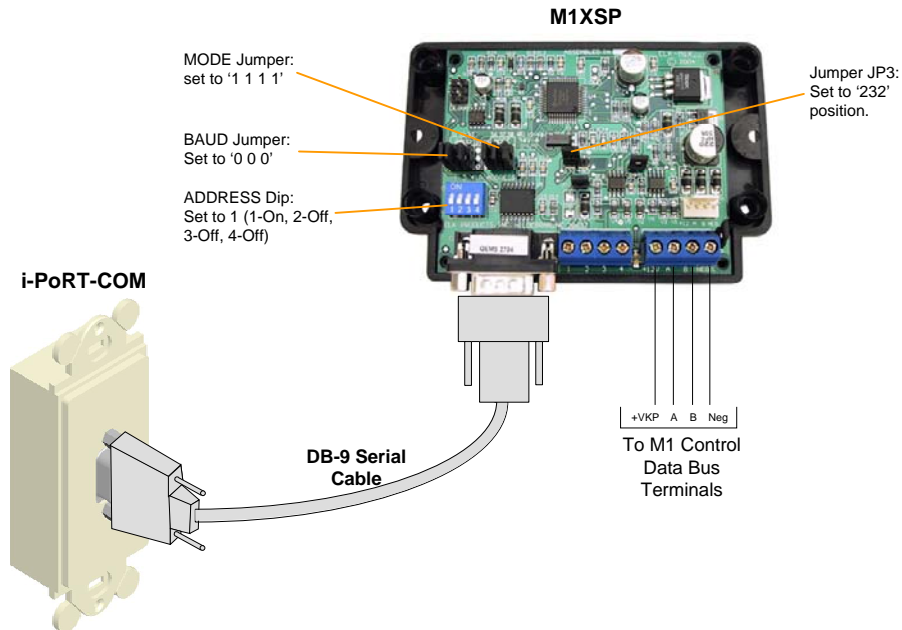


Fig. 1 – Wiring Diagram

Step 4: Connect a DB-9 serial cable from the M1XSP to the i-PoRT-COM (or other i-LiNE serial port) as shown in Fig. 1.

Step 5: Connect terminals +12V, A, B and Neg. (see Fig. 1) from the M1XSP to the M1’s Keypad Data Bus Terminals. Ideally, there should be no more than two home run data bus cables, with devices daisy chained along the cables and a terminating resistor installed on the last device of each cable. Refer to the M1 Installation and Programming Manual pages 11-13 for complete data bus wiring instructions.

Step 6: Power up the i-LiNE system, the M1 and the M1XSP.

Step 7: Enroll the M1XSP in the M1 Control as follows: From the keypad access the Installer level programming. Select Menu 01, Bus Module Enrollment. Press the right arrow key to start the enrollment. When the keypad indicates enrollment complete, press the right arrow key to view the results. Among the displayed enrolled devices there should be a type 5 (T5) device at address 01.

Step 8: Install the ELK-RP software on a PC. Choose one of the three ways to connect to the M1:

1. Directly using a COM port.
2. Dial-up using a Modem.
3. Network.

(See M1 Installation and Programming Manual for installation details).

Step 9: Program i-LiNE Devices into the ELK-RP software. Click on the Automation icon in the tree view, and then click on the Lighting icon. The screen shows a scrollable list of the available 256 devices, the maximum for the ELK M1 Gold. These correspond to macros 1 through 256 in the i-LiNE system (Note: Macro 00 cannot be controlled by the M1).

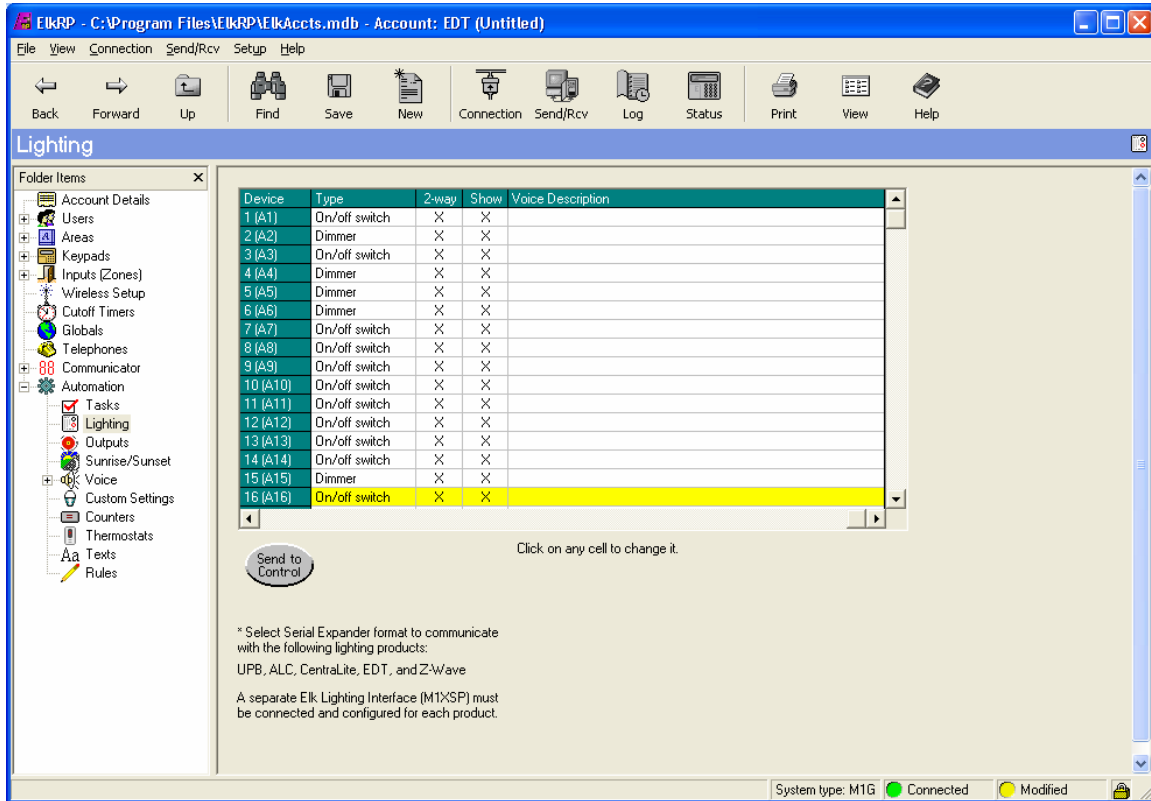


Fig. 2 – ELK-RP Software

If you want to control an i-LiNE i-ON ON/OFF Relay switch which has macro 01, you configure Device 1 in the ELK-RP list. Click on the *Name* field for Lighting Device 1 and give the device a name (1 to 16 characters). Click on the *Format* field and click **Serial Expander** from the pull-down list. Click on the *Type* field and select **On/off switch**. Click on the *2-way* field to place an **X** in the column. Click on the *Show* field to place an **X** in the column. Click on the *Voice Description* field if you wish to program a 1 to 6 word voice description for the light. Right click on the device and select *Send Lighting 1* to send this programming to the M1.

Continue programming other lights and scenes you wish to control. For i-ON-MB Multibuttons, the procedure is identical. For i-ON-D Dimmers, the only difference is the *Type* field which should be set to **Dimmer**. Remember to *Send Lighting* after programming devices.

Once programmed, lights can be turned ON and OFF from any ELK keypad or from a connected PC. To turn on a light with the M1 keypad, press the ELK key followed by the right arrow key to select "Menu 1 – View/Control Automation Fncts". Press 2 for the Lighting submenu, followed by the right arrow key. The keypad will display the first light name and number along with its ON or OFF status. To change the light from On to Off or Off to On, press the # key.



Fig. 3 – ELK M1 Keypad

To turn on a light with a PC, it must be connected to the ELK system as described in Step 8 above. The screen below shows the ELK interface through a Local Area Network. The lights are listed 8 at a time and can be turned on or off by clicking the green button.

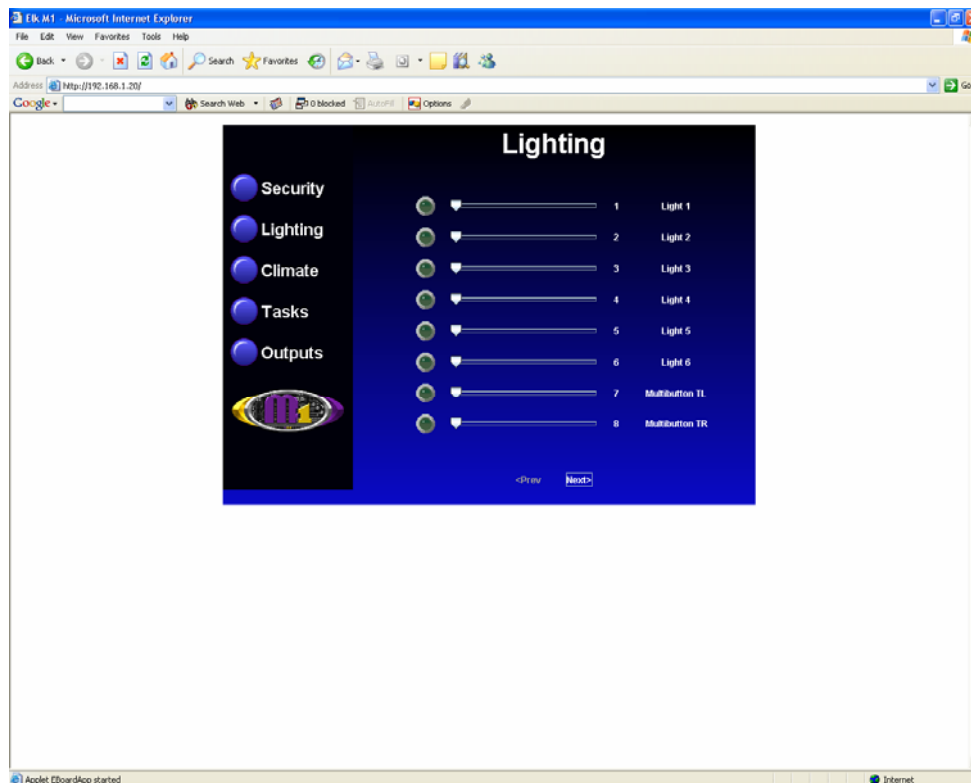


Fig. 4 - PC control of ELK M1

Advanced programming using "Rules" can be programmed with the ELK-RP software. For example, a rule for Light 1 could be:

Rule 1: WHENEVER 'Name 1' (Area 1) IS ARMED AWAY
THEN TURN 'Name' [1[A1]] OFF

Refer to the ELK manuals for instructions on setting up Rules.