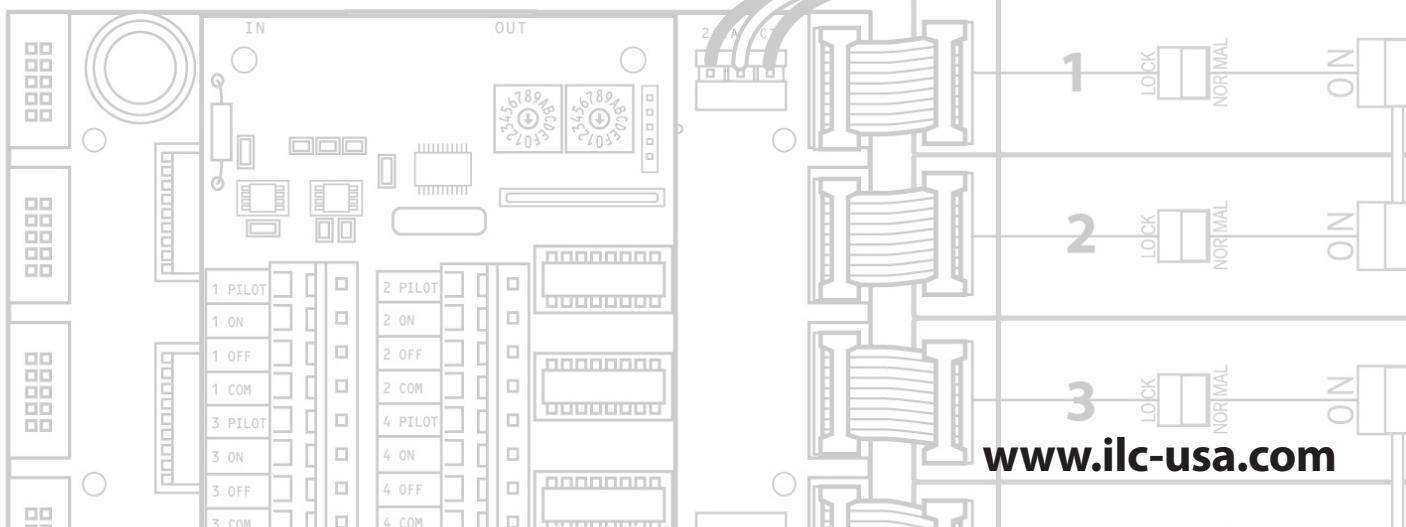


INTELLIGENT LIGHTING CONTROLS, INC.
Energy Saving Lighting Controls

LightLEEDer ProtoCessor® Mapped Gateway Software Manual

*Includes software, installation and programming
information for LightLEEDer series lighting control
panels with an installed BACnet or LonWorks Gateway.*



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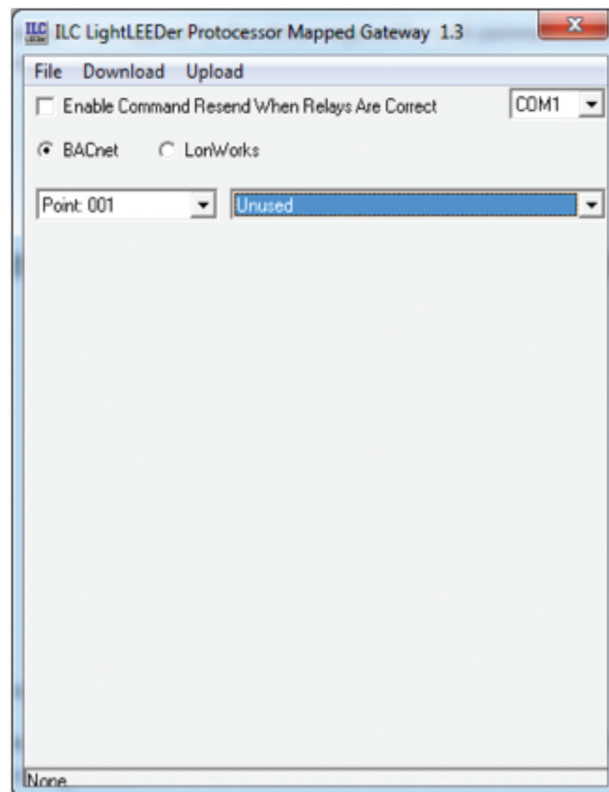
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Section 1

Program Description



Section 1 Program Description

1.0 Overview

1.1 Suggested Minimum System Requirements

1.2 Installing the Program

1.3 Starting the Program

1.0 Overview

ILC LightLEEDer ProtoCessor Mapped Gateway Software is an ILC priority software package designed for the ILC LightLEEDer series lighting control panels with an installed BACnet or LonWorks Gateway. This program allows programming of the available control points in the module to the relays in the LightLEEDer lighting controllers. Be sure to read this entire manual prior to programming your Gateway to achieve a full understanding how the program works.

1.1 Suggested Minimum System Requirements

The following are the minimum system requirements required to run the LightLEEDer ProtoCessor Mapped Gateway Software. Running this software with less than the minimum hardware requirements or operating systems other than listed may provide unexpected results.

- Personal Computer or Laptop
- 1.66 Ghz single core processor
- Windows XP, Vista, or 7
- 32 or 64 bit OS
- USB 1.0, USB 2.0 preferred
- 1Gb Ram
- SVGA monitor 1024 x 768

1.2 Installing the Program

Download the latest software from our website located in the Resource Library/Software Downloads. Once the program has been downloaded, unzip the file into known location like your desktop. This file will appear like: LightLEEDer Mapped Gateway Setup Rev1_3.exe. Double click on the executable to start the installation of the program. If you receive a security message about this program making changes to your system, click "YES" to approve this action.

Note: Do not connect to the Gateway until the software has been completely installed

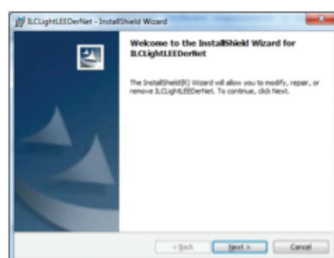


Figure 1.1 Opening installation screen

Click on "NEXT" to begin the process, then "INSTALL", then "FINISH".

The following screen will then appear as shown in figure 1.2 for the USB driver required for communications to the Gateway. Press "INSTALL" to load and finish the installation.

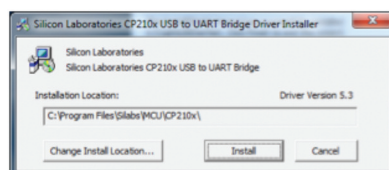


Figure 1.2 USB Driver Screen

1.3 Starting the LightLEEDer ProtoCessor Mapped Gateway Software

Locate the icon created during the installation on your desktop as shown in figure 1.3; double click to execute the program as shown in Figure 1.4



Figure 1.3 Desktop Icon

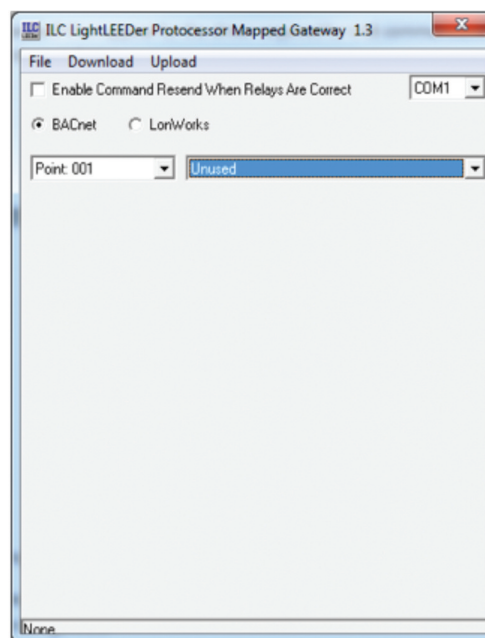
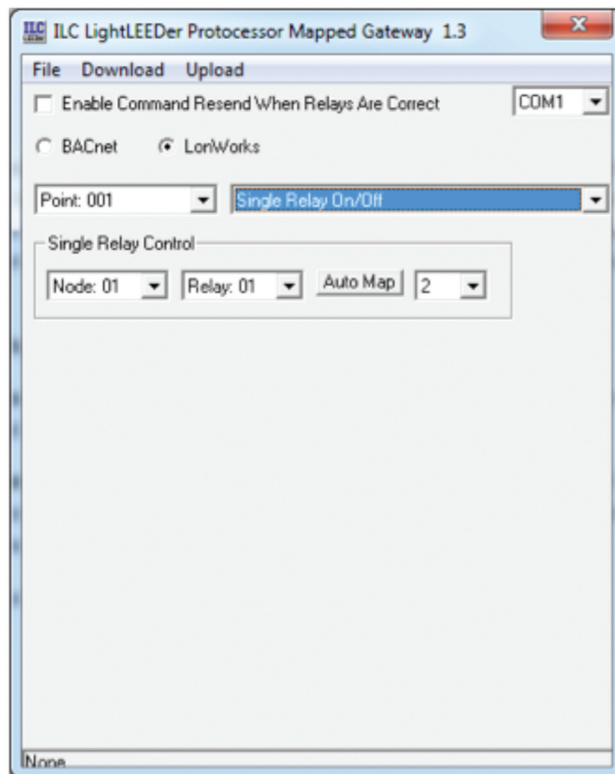


Figure 1.4 Opening Screen

Section 2

Programming



Section 2: Programming

2.0 Overview

2.1 Program settings

- Setting the Protocol
- Enabling Command Resend

2.2 Programming a Point to Control a Relay ON/OFF or ON/Timer OFF Options

2.3 Programming a Point to Control Multiple Relays ON/OFF or ON/Timer OFF Options

2.4 Programming a Point to Control LL Group ON/OFF or ON/Timer OFF Options

2.5 Programming a Point to Set a LL Preset

2.0 Overview

The BACnet Gateway module has 750 available points and the LonWorks Gateway has 350 that can be mapped with this software to control a relay, multiple relays, LightLEEDer Groups, and LightLEEDer Presets. There are also options for controlling relays OFF with a timer option like a blink alert, alarm ON/OFF, or an alarm ON/OFF pulse which is an option programmed at the system level in the panel to the relay. See table 1 and LightLEEDer Operation Manual for more information on Timer options.

2.1 Program Settings

- **Setting the Protocol:** From the opening screen click on either BACnet or LonWorks to match the hardware installed in the lighting system as shown in figure 2.1
- **Enabling Command Resend:** By selecting this option, if a command is sent from the BAS system that currently matches the present state, the module will send a redundant command to the relay(s). If it is not selected it will only send the command to the relay if the value is false. The suggested setting would be unchecked or disabled.

2.2 Programming a Point to Control a Relay ON/OFF or ON/Timer OFF Options

From the opening screen of the software, select Point 001 or the next available point from the pull down menu. Select "Single Relay On/Off" or "Single Relay On/Timer Off" option from the pull-down menu as shown in figure 2.1 and 2.2. Next, select the Node and Relay where the desired relay resides. This screen also offers an Auto Map feature which can streamline programming. From the pull down menu to the right of the Auto Map button, select the number of relays to map in succession and then press the Auto Map button.

Note: If "Relay On/Timer Off" option is selected, the relay Timer option must be programmed in the system using the LightLEEDer Pro Network software or directly using the keypad for each relay point. See table 1 and LightLEEDer Operation Manual for more information on Timer options.

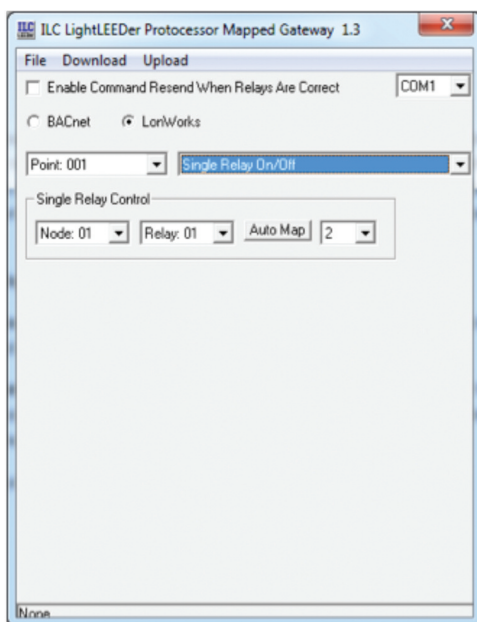


Figure 2.1 Programming a point to control a relay

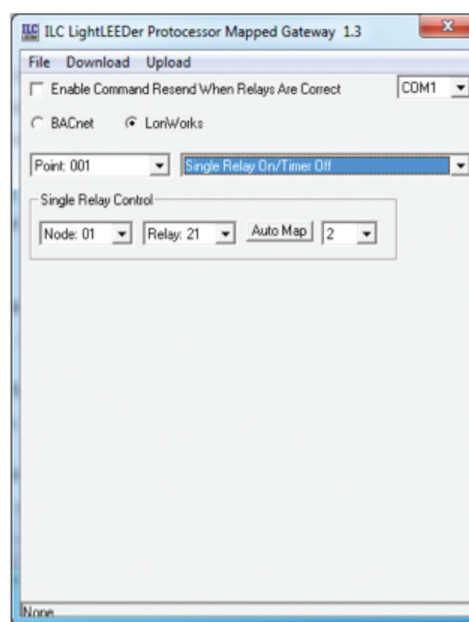


Figure 2.2 Programming a point to control a relay with Timer option

2.3 Programming a Point to Control Multiple Relays ON/OFF or ON/Timer OFF Options

From the opening screen of the software, select Point 001 or the next available point from the pull down menu. Select "Multi Relay On/Off" or "Multi Relay On/Timer Off" option from the pull-down menu as shown in figure 2.3 or 2.4. From the Multi Relay Control screen, select the node address where the relay(s) reside, then click next to the relay numbers to toggle from "No" to "Yes" to be included in this point. Clicking again will toggle it back to the previous state. Select another node address and do the same to build the group of Multi Relays throughout the system.

Note: Only points 1 - 50 can be used to create Multi Relay control

Note: If "Multi Relay On/Timer Off" option is selected, the relay Timer option must be programmed in the system using the LightLEEDer Pro Network software or directly using the keypad for each relay point. See table 1 and LightLEEDer Operation Manual for more information on Timer options.

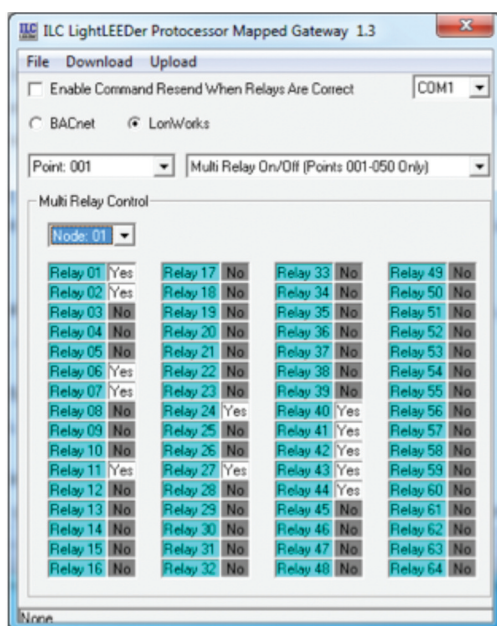


Figure 2.3 Programming a point to control multiple relays

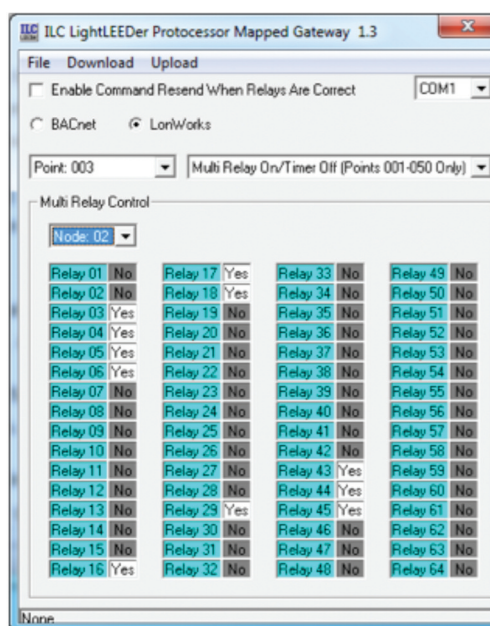


Figure 2.4 Programming a point to control multiple relays with Timer option

2.4 Programming a Point to Control LL Group ON/OFF or ON/Timer OFF Options

From the opening screen of the software, select Point 001 or the next available point from the pull down menu. Select either "LightLEEDer Group On/Off" or LightLEEDer Group On/Timer Off" option from the pull-down menu as shown in figure 2.5 or 2.6. Next, select the LightLEEDer Group controlled by this point. This screen also offers an Auto Map feature which can streamline programming. From the pull down menu to the right of the Auto Map button select the number of LightLEEDer Groups to map in succession and then press the Auto Map button.

Note: LightLEEDer Groups can comprise of any relay on the network and must be programmed in the system using the LightLEEDer Pro Network software or directly using the keypad. See LightLEEDer Operation Manual for more information on programming Groups.

Note: If "LightLEEDer Group On/Timer Off" option is selected, the relay Timer option must be programmed in the system using the LightLEEDer Pro Network software or directly using the keypad for each relay point. See table 1 and LightLEEDer Operation Manual for more information on Timer options.

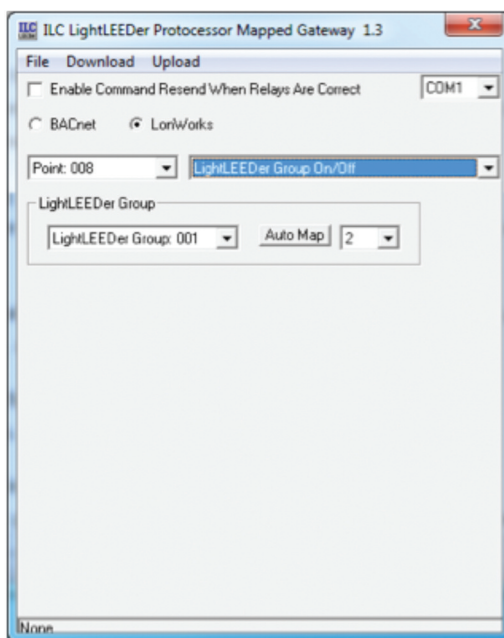


Figure 2.5 Programming a point to control a LightLEEDer Group

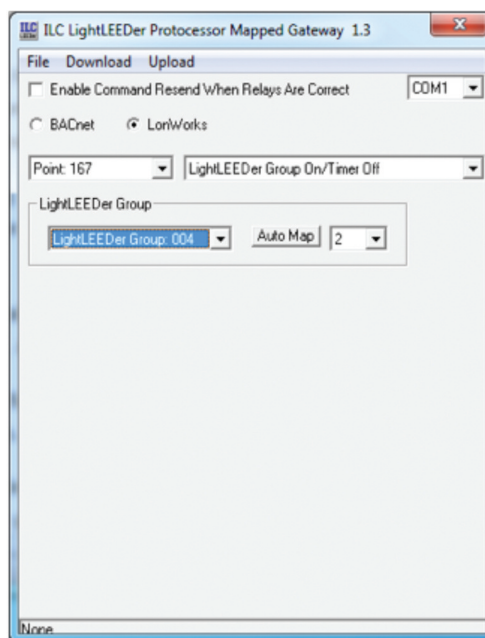


Figure 2.6 Programming a point to control a LightLEEDer Group with Timer option

2.5 Programming a Point to Control LL Preset

From the opening screen of the software, select Point 001 or the next available point from the pull down menu. Select the “LightLEEDer Preset” option from the pull-down menu as shown in figure 2.7. Next, select the Node and Relay where the desired relay resides. This screen also offers an Auto Map feature which can streamline programming. From the pull down menu to the right of the Auto Map button select the number of LightLEEDer Presets to map in succession and then press the Auto Map button.

Note: LightLEEDer Presets can be programmed from any relay ON/OFF patterns and must be programmed in the system using the LightLEEDer Pro Network software or directly using the keypad. See LightLEEDer Operation Manual for more information on programming Presets.

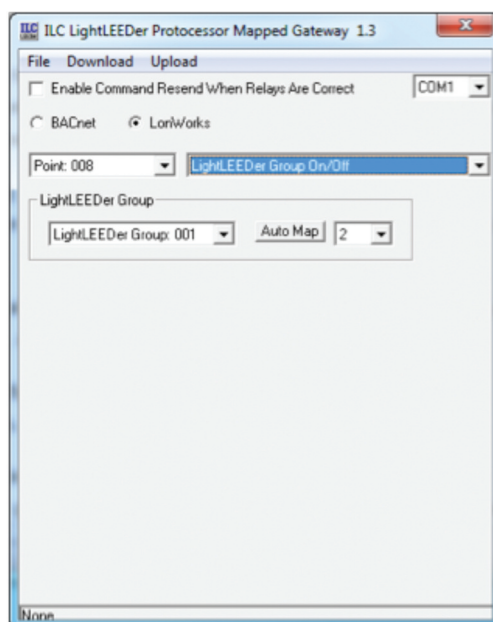
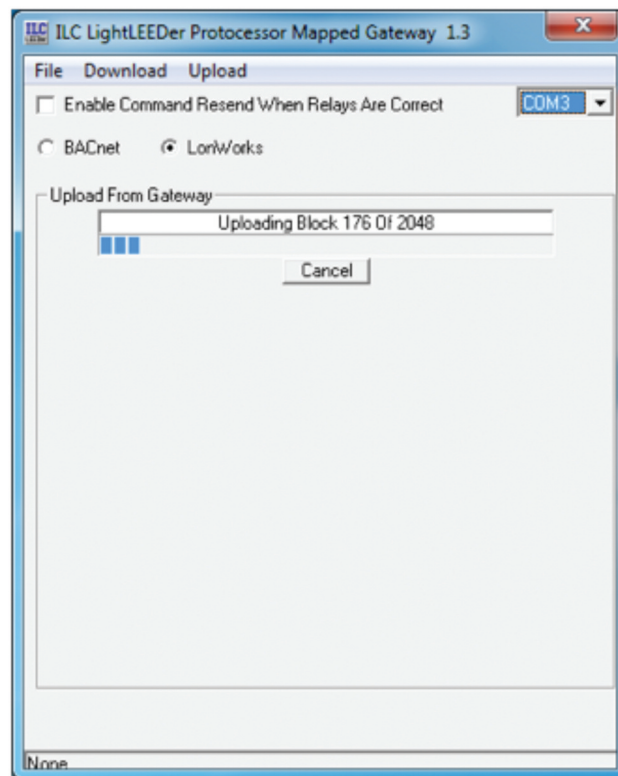


Figure 2.7 Programming a point to control a LightLEEDer Preset

Section 3

Connecting, Managing Files, Downloading and Uploading



Section 3: Connecting, Managing Files, Downloading and Uploading

3.0 Overview

3.1 Connecting to the Hardware

3.2 Setting the Communications Port

3.3 Managing Files

3.4 Downloading or Uploading to and from the Gateway

3.0 Overview of Local and Network Programming Conventions

This section will explain how to save or open the programming to and from your PC and how to download or upload the settings into the Gateway module.

3.1 Connecting to the Hardware

Connected the provided USB cable (USB-A to USB mini-b) from a USB port on your PC to the jack provided on the Gateway module as shown in figure 3.1.

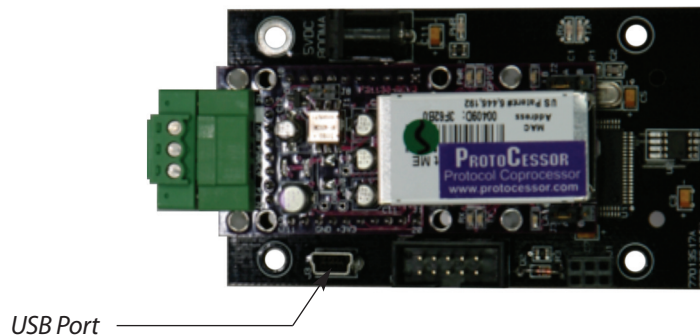


Figure 3.1 Gateway USB programming port

3.2 Setting the Communications Port

The communications are set from a pull down menu in the opening screen and accept USB Com 1-8. If you aren't sure what port is being used by the hardware, view your Device Manager on your computer under Ports and look for the Silicon Labs device as shown in figure 3.2.

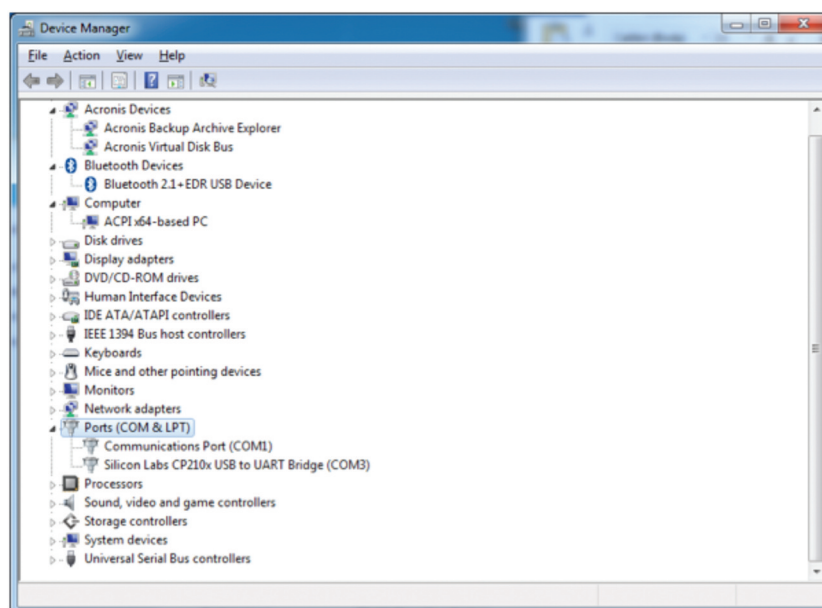


Figure 3.2 Device Manager showing USB hardware device

3.3 Managing Files

This software uses the standard procedure for opening and saving files. Always save your files prior to downloading to protect your work. Open files will show the location path in the lower part of the software window. Files will be saved with an .MGW extension in a folder located at: C:\ILC LightLEEDer Mapped Gateway.

From the title bar select File to access the following options:

- NEW:** Used to open a new program file with blank programming and default settings.
- OPEN:** This will open an existing program file.
- SAVE:** Clicking on this will save the current file you're working on.
- SAVE AS:** Use this to save your programming with a specific name or location

3.4 Downloading/Uploading to/from the Gateway

-**Download Programming:** To download to the Gateway, save your programming to your computer. Verify that you are physically connected to the hardware through a USB port; verify the communications port is set to what the device is using, and that the protocol is set correctly for the hardware installed. From the title bar select "Download" to start the file transfer. Once the download is complete it will be verified by the program.

-**Upload Programming:** To upload from the Gateway to the PC, set the protocol to the hardware installed, and then select "Upload" from the title bar to start the transfer. Once the upload is complete it will be verified by the program. See figures 3.3 and 3.4

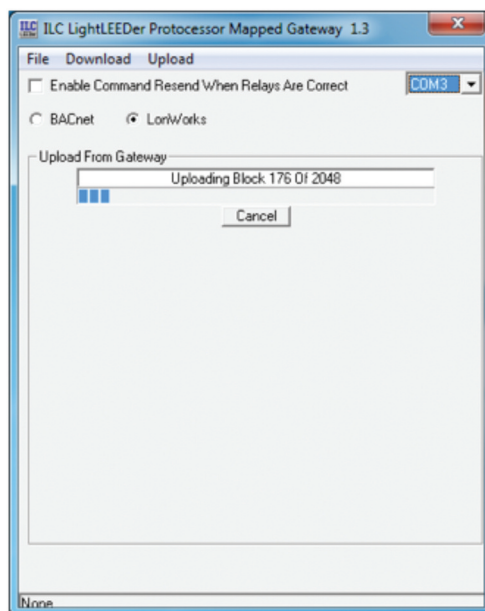


Figure 3.3 Uploading the file from the Gateway

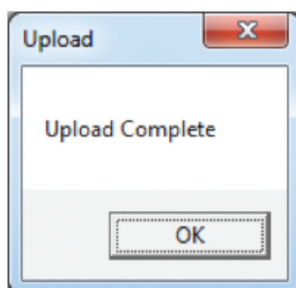


Figure 3.4 Upload confirmation

Relay Timer OFF Options
Single Blink: Each relay output controlled can be programmed to blink the load twice and then postponed 5 minutes prior to being turned OFF. If an ON command is received during the blink alert time, the relay output will be overridden ON for 120 minutes where the process starts again. See section 3.7.4 to adjust the time length from 2 to 99 minutes.
Double Blink: Each relay output controlled can be programmed to blink the load twice and then postponed 5 minutes prior to being turned OFF, and then blinked twice 1 minute before turning OFF. If an ON command is received during the blink alert time, the relay output will be overridden ON for 120 minutes where the process starts again. See section 3.7.4 to adjust the time length from 2 to 99 minutes.
Override Blink Alerts: Once a Blink Alert is activated it can be overridden to postpone the relays from being turned OFF. This is accomplished by turning the load OFF then ON with a LightSync switch device. The amount of time postponed before the sweep comes through again is adjustable from 9 to 999 minutes.
HID Delay: Each relay output controlled can be programmed to observe the blink alert without blinking the High-Intensity Discharge load, but the override waiting period is observed allowing a switch command to reset the time event in the same manner as a blink alert.
Alarm OFF: Relay performs a momentary OFF function. Relays programmed to this function will turn OFF and then return to the ON state. See section 3.7.4 to adjust the time length from 1 to 99 seconds.
Alarm ON: Relay performs a momentary ON function. Relays programmed to this function will turn ON then return to the OFF state. See section 3.7.4 to adjust the time length from 1 to 99 seconds.
Alarm OFF Pulse: During the OFF pulse period the relay is cycled OFF and ON at 1 second intervals. See section 3.7.4 to adjust the time length from 1 to 99 seconds.
Alarm ON Pulse: During the ON pulse period the relay is cycled ON and OFF at 1 second intervals. See section 3.7.4 to adjust the time length from 1 to 99 seconds.
ACS OFF: Each relay programmed will turn OFF for 5 seconds, setting the Automatic Control Switch to the OFF position
ACS Blink: Each relay programmed will turn OFF for 1 second, setting the Automatic Control Switch to initiate a 5 minute delay before shutting OFF.

Table 1 Timer OFF Options