



USB Luminaire Programming Kit

Kit Components

The VARI*LITE USB Luminaire Programming Kit (28.8500.0054) includes:

- VARI*LITE USB Upload Cable (25.9600.0001)
- USB Luminaire Programming Kit CD (87.8500.0002)
- Instruction Sheet (02.8500.0100)
- VARI*LITE carry bag (07.5044.0005)

Application

With the USB Upload Cable and PC software, you can connect any USB 2.0 port on a PC to a chain of up to 32 luminaires in order to update the luminaire software.

Computer Requirements

- PC running Windows 98, 2000, XP, or Vista. Although the programming kit software is not directly compatible with Macintosh computers, it does run with some Windows emulators.
- In addition to Windows, your computer must be running IE 5.01 or later, and Microsoft .NET Framework Version 2.0 or later, which is included on the programming kit CD, or you can download the latest version at no charge from www.microsoft.com/downloads.
- An available USB 2.0 port on your PC
- Internet access to www.vari-lite.com and permission to download .bin files—the luminaire software

Programming Kit CD

The USB Luminaire Programming Kit CD contains the following files:

- *setup.exe*, which installs the USB VLDownload Program
- *USB_Dwnldr_Inst_Sht.pdf*—this file
- other essential support files

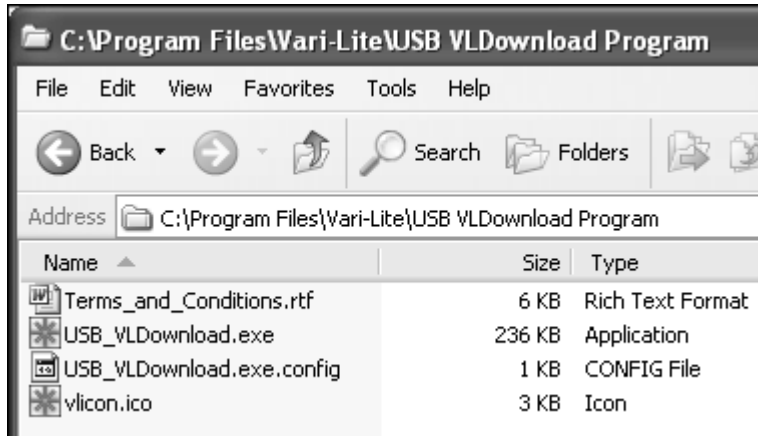
Installing USB VLDownload

The *setup.exe* install program on the CD automatically installs the USB VLDownload Program, USB drivers for the cable, .NET Framework 2.0, and the required support files.

To install the USB VLDownload Program:

1. Put the CD in the PC.
2. If the install program does not start automatically, double click *setup.exe*.

- Follow the install-program instructions to complete the installation. The install program adds a desktop icon, a menu item, and creates the following file arrangement:



Note: The USB VLDDownload Program is also available from the Product Downloads page at www.vari-lite.com.

- Insert the *USB Upload Cable* into a USB 2.0 port on the PC. See the **Note** is this step about the three-color LED on the XLR end of the cable. When the Found New Hardware Wizard window opens, click *No*, *not this time*, click *Next*, click *Install the software automatically*, then click *Next* to install the Vari-Lite driver. To finish the software installation, remove the CD.

Note: XLR connector LED colors:

- continuous **red**: do not use the cable to download software; contact VARI***LITE** customer service
- continuous **purple**: driver software is not installed
- continuous **blue** with a **purple** pulse every 5 seconds: cable is ready but data is not being transmitted
- flashing **blue** twice per second: data is being transmitted

Installing Luminaire .bin Files

All current luminaire-software .bin files are available on the Product Downloads page at www.vari-lite.com. After you run *setup.exe* and install the *USB_VLDDownload.exe* program, you can download the .bin files and transfer them from your PC to the luminaires.

To download .bin files:

- At www.vari-lite.com, click the *Support* tab, and choose *Product Downloads* from the menu.
- Click your VARI***LITE** product series and locate the .bin file for your specific product.
- Right-click on the .bin file and choose *Save Target As*. Save the files to your computer under *Program Files\Wari-Lite\VLDDownload Program*.

Note: The *setup.exe* install program creates the *VLDDownload Program* folder for you, but you can save the .bin files to any location you choose.

Programming Procedure

When luminaires are data linked together, you can program up to 32 luminaires at the same time; refer to *Connecting Data and Power* in your luminaire User's Manual. To program more than 32 luminaires, program them in batches of 32 or less.

To program luminaire software:

1. As shown in [Figure 1-1](#), connect the *USB Upload Cable* to a USB 2.0 port on the PC and to the DMX In connector of a luminaire.

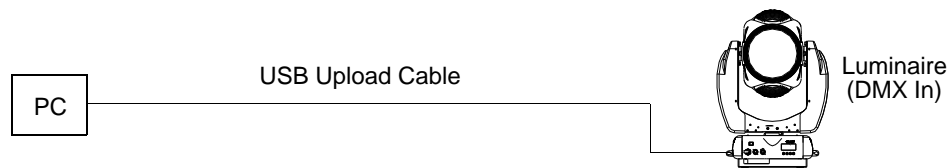


Figure 1-1: Hardware Setup

2. Apply power to the luminaire(s).
3. Start USB Downloader. As shown in [Figure 1-2](#), the USB Downloader window opens and displays Device Connected.

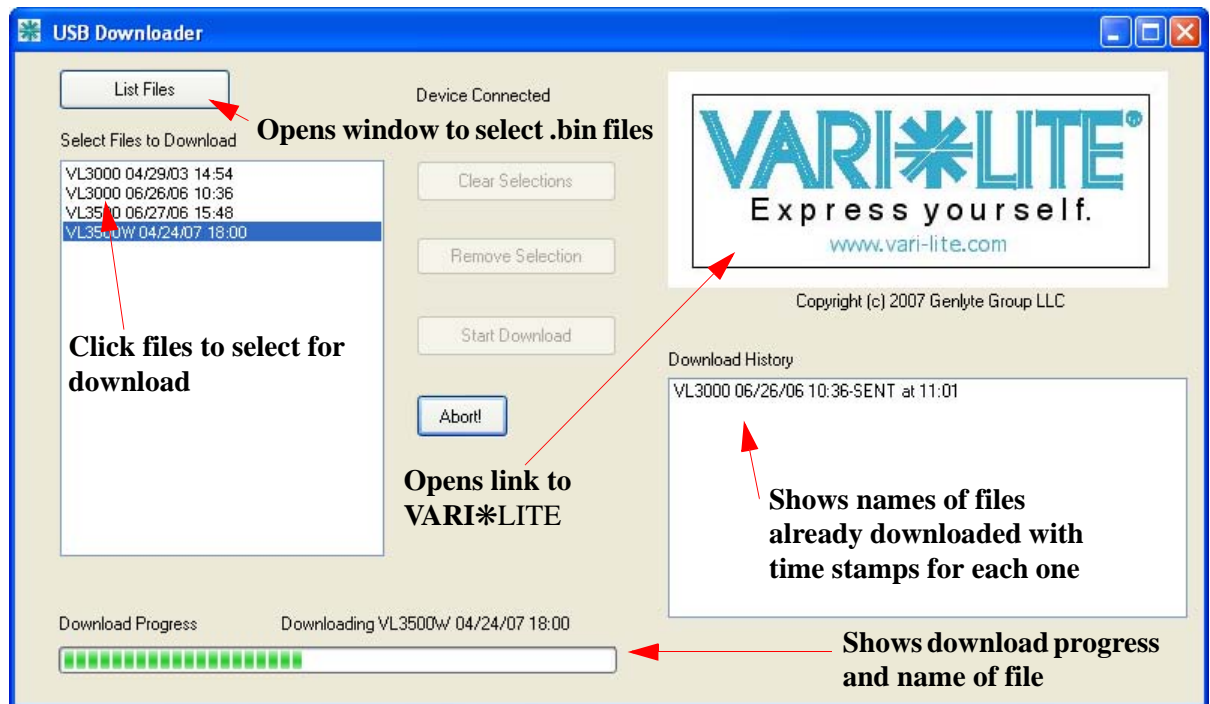
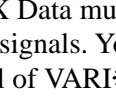


Figure 1-2: USB VLDownload Program Window

Note: Version dates shown in [Figure 1-2](#) may not correspond to the version you are downloading.

4. In the USB Downloader window, click **List Files**. The files that you downloaded from [vari-lite.com](#) appear in the **Select Files to Download** box. The software version is identified by the date and time: MM/DD/YY and HH:MM.) To remove a file, click the file and then click **Remove Selection**.

Note: DMX Data must be disconnected before downloading software to luminaires. Do not merge .bin files with DMX signals. You can download multiple .bin files to a variety of luminaires that are data linked together. Each model of VARI*LITE luminaire recognizes its own software and only downloads the appropriate file.

- Step 5. In the **Select Files to Download** box, click each file you want to download. If you make a mistake, to clear your selections click **Clear Selections**. To download, click **Start Download**. The **Download Progress** bar charts the download progress and shows the .bin file name that is downloading. To stop a download, click **Abort!** During the file download, the LED on the XLR connector flashes blue twice per second. When the download is complete, the progress bar indicates **Download Complete** and the file name appears in the **Download History** box with a download time stamp.
- Step 6. When download is complete, all updated luminaires automatically recalibrate. When recalibration is complete, all luminaires are ready for operation with new software versions.
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Note: The **Download History** box shows the specific types of luminaire software that have been downloaded since the beginning of the session. This box resets when you close the USB VLD_{ownload} Program.

To verify the software version at a luminaire:

1. At Menu Display, press [Menu].
2. Press [Up] or [Down] arrows until **Fixture** appears. Press [Enter].
3. Press [Up] or [Down] arrows until **Version** appears. Press [Enter].

The first half of the version displays as a date (MM.DD.YY). For example, 03.18.03 (March 18, 2003).

Press [Up] or [Down] arrows to display the second half of version, which displays as a time (HH:MM). For example, 16:00

Transferring Software From Luminaire to Luminaire

You can transfer specific software versions between luminaires. As with new software versions, multiple luminaires can be programmed at the same time when they are data linked together; refer to *Connecting Data and Power* in your luminaire User's Manual. However, a maximum of only 32 luminaires can be updated at the same time.

Hardware Requirements

Data cables used in this process must have two twisted pairs and a shield. VARI***LITE** recommends that cables meet all other USITT DMX specification requirements; refer to *Data Cables* in your luminaire User's Manual.

This process requires a termination connector. For information on the construction of a termination connector, refer to *Male Termination Connector* in your luminaire User's Guide. [Figure 1-3](#) shows a typical software transfer setup, where the master luminaire contains the software version to download to the others in the chain.

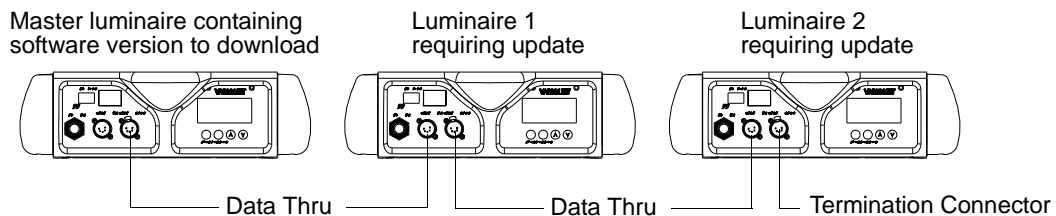


Figure 1-3: Typical Software Transfer Setup

To transfer software between luminaires

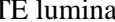
1. At the last luminaire in the chain, install a male termination connector into DATA THRU XLR connector.
2. At the master (first in chain) luminaire Menu Display, press [Menu].
3. Press [Up] or [Down] arrows until **Fixture** appears.
4. Press [Up] or [Down] arrows until **Download** appears. Press [Enter].
5. **OK?** displays. Press [Enter] to accept.
6. Download proceeds, typically for 4-5 seconds. The number of blocks displayed is less in a luminaire-to-luminaire download than in a PC-to-luminaire download for the same software version.
7. When the download is complete, all updated luminaires automatically recalibrate. When recalibration is complete, luminaires are ready for operation with new software versions.

To verify the software version at a luminaire:

1. At Menu Display, press [Menu].
2. Press [Up] or [Down] arrows until **Fixture** appears. Press [Enter].
3. Press [Up] or [Down] arrows until **Version** appears. Press [Enter].

The first half of the version displays as a date (MM.DD.YY). For example, 03.18.03 (March 18, 2003).

Press [Up] or [Down] arrows to display the second half of the version, which displays as a time (HH:MM).
For example, 16:00

- Your VARI*LITE luminaire is now ready for use. -



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