Maintenance of Fiber Optics

⚠️ Failure to perform these tasks may result in damage to the fiber optic connectors or cables.

Fiber optic connectors and cables can be damaged from airborne particles, humidity and moisture, oils from the human body, and debris from the connectors they plug into. Always handle connectors and cables with care, using the following guidelines. Failure to perform these tasks may result in damage to the fiber optic connectors or cables.

- Before performing any maintenance, disconnect the fiber optic cables from the unit and turn off power.

- When disconnecting fiber optic cables, apply the included dust caps to the ends to maintain their integrity.

- Before connecting fiber optic cables, clean the connector tips and in-line connectors.

- Before attaching in-line connectors, clean them with moisture-free compressed air.

Safety Information

For complete safety information, see the *Product Information Bulletin*.

ONLY QUALIFIED PERSONNEL should install, operate, or service this equipment.

CONTACT ETS-LINDGREN PRIOR TO SERVICING. Servicing (or modifying) the unit by yourself may void your warranty if you attempt to service the unit by yourself, disconnect all electrical power before starting. There are voltages at many points in the instrument that could, if contacted, cause personal injury. Only trained service personnel should perform adjustments and/or service procedures upon this instrument. Capacitors inside this instrument may still be CHARGED even when instrument is disconnected from its power source.

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The **ETS-Lindgren HI-4413USB Fiber Optic to USB Converter** enables battery-powered probes to communicate with ProbeView II™ or ProbeView™ LT software through a USB port on a computer.
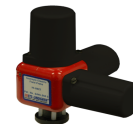
The following ETS-Lindgren probes may be used with the HI-4413USB; up to one probe at a time may be connected to the HI-4413USB.
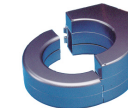
HI-6053
Electric Field Probe

HI-6006
Electric Field Probe

HI-6023
Electric Field Probe

HI-3638
ELF / VLF Electric Field Meter

HI-3702
Clamp On Induced Current Meter

Required Components

- HI-4413USB Fiber Optic to USB Converter with standard USB A-type male to USB mini-B male cable

- Fiber optic cable, part # 491106-*nn*, where *nn*=length in meters (not included)

- ProbeView II or ProbeView LT (not included)

- PC with Microsoft® Windows® operating system (See next page for list of supported operating systems) and one available USB port (not included)

- USB driver (not included)

- ETS-Lindgren battery-operated probe (not included)

➡️ **Note:** ETS-Lindgren may substitute a similar part with the same functionality for another part.

399310, Rev E

Revision/Date:	A, Initial Release - October, 2009	C, Update driver steps - October, 2011	E, Corrections - November, 2022
	B, Update driver info - March, 2011	D, Update to HI-6006 and HI-6023, February, 2018	

ets-lindgren.com

⚠️ Before connecting components or performing maintenance, read *Safety Information* on the back page of this document.

➡️ For complete information on using ProbeView, see the ProbeView user manual.
For complete information on using probes, see the probe user manual.

1. Download & Install Driver for HI-4413USB

The USB driver for the HI-4413USB automatically downloads and installs when the HI-4413USB is plugged into a computer that is connected to the Internet and that is installed with one of the following supported Microsoft® Windows® operating systems: Windows Windows 7, 8, and 10.

If you use an operating system not listed, please contact ETS-Lindgren.

If your computer is not connected to the Internet, or it is connected but the automatic installation failed or was canceled, you will need to download the drivers from **ets-lindgren.com** and manually install them on your computer.

- Go to **ets-lindgren.com**.
- On the **Resources** menu, click **Support**, then **Software/Firmware**.
- The driver will automatically download when the HI-4413USB is connected to a computer that is connected to the internet.
- Extract the files from the downloaded zip file.

2. Install ProbeView II –OR– ProbeView LT

ProbeView II	ProbeView LT
• Insert the ProbeView II CD into the CD drive on your computer. • Click Setup.exe located on the CD. ProbeView II installs in C:\Program Files\ProbeView II.	• Download ProbeView LT software from **ets-lindgren.com.** Point to **Support,** then click **Software/Firmware,** and then click **ProbeView LT**. Follow the instructions to download. • To begin the installation program click Setup.exe. ProbeView LT installs in C:\Program Files\ProbeView LT.

3. Connect Components

- Connect the fiber optic cable from the fiber optic ports on the probe to the HI-4413USB, matching white to white and yellow to yellow as indicated by the markers on the probe, modem, and cable.
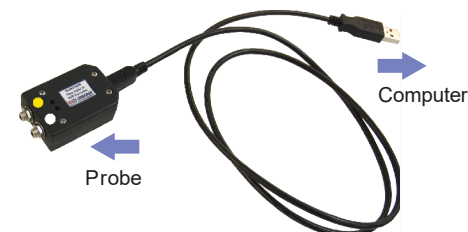
Computer

Probe

- Plug the HI-4413USB into the USB port on the computer (communication port 1, 2, 3, 4, or 5).

- Turn on the probe.

- Start ProbeView. Click **Start**, **All Programs**, **Holaday**, and **ProbeView**, and then click **ProbeView**.

- The first time ProbeView is launched an option box displays to allow selection of a communication port. Select the port number where the HI-4413USB is connected.

  To choose a different port after the initial selection, select the **Communications** menu after ProbeView starts. For more information, see the ProbeView user manual.

- ProbeView will look for a probe until one is detected, and then perform testing to determine the type of probe that is connected.

  If the HI-4413USB is connected to the selected communication port, the LEDs on the HI-4413USB will flash. Only one flashing LED indicates the communication port is working correctly but the connected probe is not responding.