Installation Instructions

TRILUTION® LC SOFTWARE V4

This document describes the installation procedures for TRILUTION® LC Software. Additional documentation is supplied on the Gilson Software USB.

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GILSON®

Prepare for Installation

Before beginning the TRILUTION LC installation, ensure that the computer name and domain are established. Changing these parameters after installation will result in errors.

An internet connection is required for installation, but after installation/registration, it is recommended to disconnect from the internet. Because the PC is your system controller, any automatic updates may interfere with your running system.

Recommended PC Configuration

Processor	Quad Core (2.7 GHz)
Memory (RAM)	8.0 GB
Hard Drive	500 GB–1 TB (200 GB available)
I/O Ports	One Serial port required for Gilson Server: Native or USB to RS-232 Adapter*
	Additional Serial ports for GEARS devices: USB to RS-232 Adapter*
	One Ethernet port
	USB ports for USB devices
Display	Resolution: 1440 x 900 (or greater)
	Colors: True Color (32-bit)
	Text Size: 100%
Operating System	Microsoft® Windows® 10 or 11 Professional (64-bit)**

* Contact your local Gilson representative for recommended vendors and models.

** Windows 10 or 11 must be a clean install. Upgrades from previous versions are not recommended.

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Install Microsoft® Windows® Updates

Before installing Gilson software, install all Windows updates. Failure to do so may result in a failed installation.

Updating Computer Drivers

It may be necessary to update the computer drivers to achieve consistent communication, especially the Ethernet or network drivers. Available updates and the update procedure will vary by computer manufacturer. For example, for a Dell computer, go to **www.dell.com/support**, enter the service tag or serial number of the computer, and check for updates. Other computer manufacturers will follow similar procedures.

Set Power & Sleep Options

1. Open **Control Panel** on the PC. Use the search function to locate it, if necessary.
2. Select **Power Options**. If necessary, change **View by:** to **Large icons** (default is **Category View**).

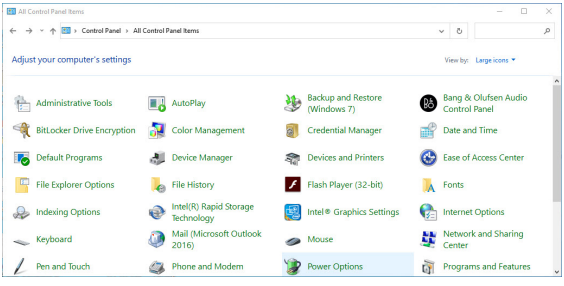

Figure 1
Control Panel - Power Options

3. Select **Change plan settings**.

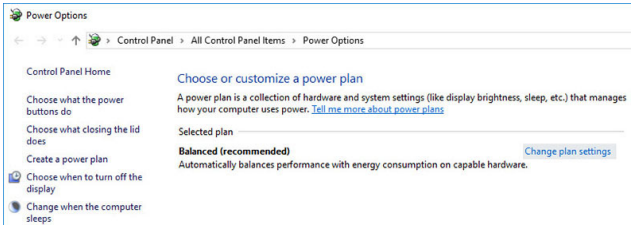

Figure 2
Power Options - Change Plan Settings

4. Set the **Sleep** options to **Never** and then select **Change advanced power settings**.

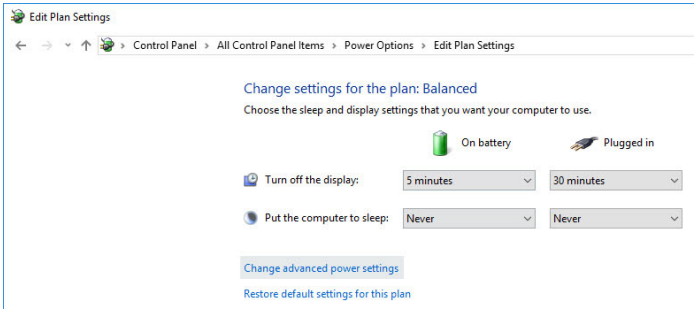

Figure 3
Set Sleep Options to Never

5. In the **Power Options - Advanced settings**:
   a. Set the **USB selective suspend** setting to **Disabled**.
   b. Set the **Turn off hard disk after setting** to **Never**.

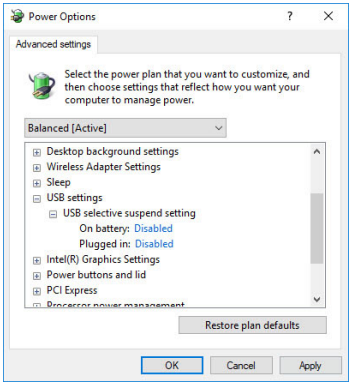

Figure 4
Set USB Selective Suspend Setting to Disabled

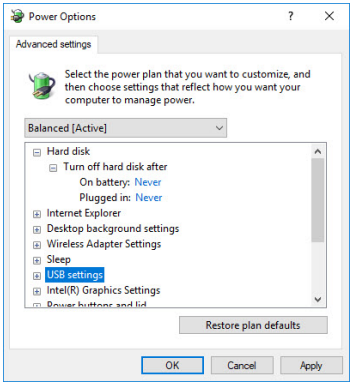

Figure 5
Set Turn off hard disk after Setting to Never

Log On as System Administrator

Installation of TRILUTION LC requires that the installer have local System Administrator privileges.

To check if you are a member of the Administrators Group:

1. Open **Computer Management** on the PC. Use the search function to locate it, if necessary.
2. On the left pane of the **Computer Management** window, double-click on **Local Users and Groups** and then select **Groups**.
3. In the right pane, double-click on **Administrators**. The Administrators Properties window lists the members of the Administrators group.
   If you are not a member of this group, contact your IT professional.

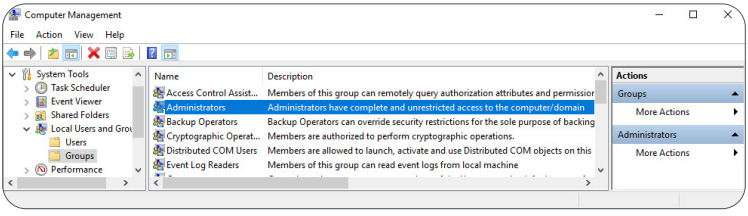

Figure 6
Computer Management

Close All Running Applications

Before installing, ensure that all running applications are closed.

Set Region and Language Options

During the installation, the **Region** setting must match the operating system language.

To set region and language options:

1. Open **Region** settings on the PC. Use the search function to locate it, if necessary.
2. In the **Region** window, verify that the settings are for the same language and country as the operating system.

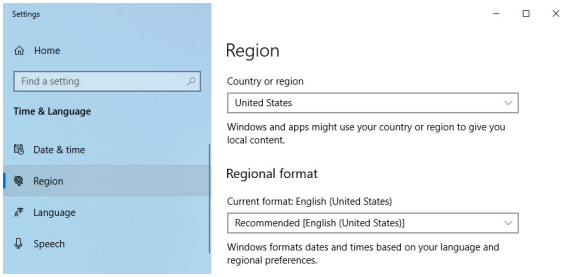

Figure 7
Region Settings

Disable Antivirus Software

It is recommended to temporarily disable the antivirus software during installation.

To temporarily disable your antivirus software, refer to the documentation included with the software.

After installation, make sure to enable the antivirus software.

Disable Firewall

It is recommended to temporarily disable firewalls during installation.

WINDOWS DEFENDER FIREWALL

To temporarily disable the Windows Defender Firewall:

1. Open **Windows Defender Firewall** on the PC. Use the search function to locate it, if necessary.
2. On the left pane of the **Windows Defender Firewall** window, select **Turn Windows Defender Firewall on or off**.
3. Select **Turn off Windows Defender Firewall (not recommended)** under each network location.
4. After installation, make sure to enable the firewall.

OTHER FIREWALL

To temporarily disable your firewall, refer to the documentation included with the software.

After installation, make sure to enable the firewall.

Installation Overview

One USB is used to install TRILUTION LC and the additional software that is required. The full installation will take approximately 20 minutes.

NOTE **If at any time during the installation a User Account Control window appears, then click Yes.**

The installation proceeds as follows:

1. Insert the Gilson Software USB into the USB port and then follow the instructions in **Start Here.pdf** to navigate to the installation file(s) and start the installation.
2. The installation checks for the **Microsoft .NET Framework** feature on the PC.
   - If the feature is available, the installation will continue.
   - If the feature is not available, the installation will fail immediately. Proceed with the following steps:
     a. Ensure and/or establish an internet connection.
     b. Open **Windows Features** on the PC. Use the search function to locate it, if necessary.
     c. Turn on the **.NET Framework 3.5 (includes .NET 2.0 and 3.0)** feature by selecting its check box and then selecting **OK**. The check box will be filled, indicating that only part of the feature is turned on. This is expected and acceptable.

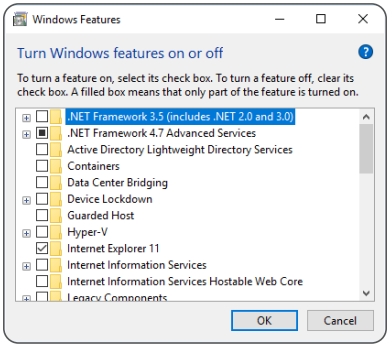

Figure 8
Windows Features

d. When prompted, select **Download Files from Windows Update**.

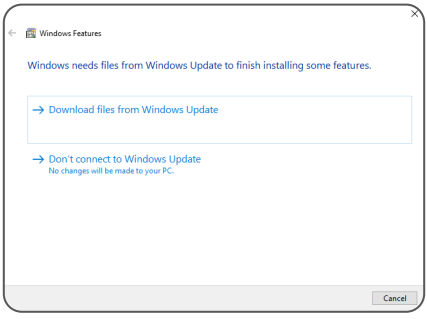

Figure 9
Windows Update

3. Follow the on-screen instructions to install the required pre-requisite items, if not already installed. The InstallShield Wizard will either prompt for action or complete the installation of the required items automatically.

NOTICE **While the installation is running, do not close any windows or boxes that appear. Take no action until you are prompted to.**

NOTE **A reboot is required after the installation of some required items. Follow the instructions in step 1 to navigate back to the installation file(s).**

4. Follow the on-screen instructions to install TRILUTION LC, which also installs the TRILUTION LC Backup Utility. Reboot the PC when prompted.

NOTE **It is recommended to install to the default location. C:\PROGRAM FILES (x86)\GILSON\TRILUTION LC 4.0.**

Start TRILUTION LC

When starting TRILUTION LC for the first time follow the instructions in this section.

Set Region and Language Options

Set the **Language** to **English (United States)**. This is the required setting for running TRILUTION LC.

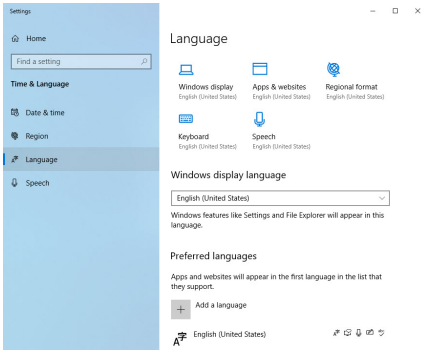

Figure 10
Language Settings

Verify the following:

- The decimal symbol used is a period and not a comma.
- The short date and long date formats are set to month/day/year.

Log On as System Administrator

The first time you start TRILUTION LC, you must have local System Administrator privileges.

Start TRILUTION LC

To start TRILUTION LC, select **Start** and then select **Gilson Applications** > **TRILUTION LC**.

Alternatively, TRILUTION LC can be started by double-clicking on the TRILUTION LC icon on the desktop. This icon is created automatically during installation.

If any **Windows Security Alerts** appear with Gilson as the Publisher, select **Allow Access**.

Notification of Temporary License and Prompt to Register

A message appears displaying the number of temporary period days remaining. Select **OK** to register TRILUTION LC later or select **Register Now...** to register TRILUTION LC immediately. (If registering immediately, refer to **Register TRILUTION LC on page 12** for more information.)

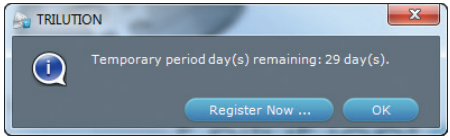

Figure 11
Temporary Period Days Remaining Message

Log In

The **TRILUTION LC Log In** window appears.

TRILUTION LC automatically creates a default user (**Administrator**) who belongs to a default group (**Admin**) during installation. To log in to TRILUTION LC for the first time, enter the following **Username** and **Password** and then select **Log In**.

Username: **Administrator**
Password: **Admin**

Figure 12
TRILUTION Log In Window

The **Username** and **Password** are case sensitive and must be entered exactly. There is a 20 character limit.

You will be prompted to enter a new password for the user. Select **OK** and then enter a new password.

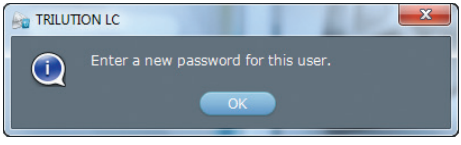

Figure 13
Prompt to Enter New Password

Register TRILUTION LC

TRILUTION LC is installed with a 30-day temporary license. Each installation of TRILUTION LC must be registered with Gilson.

To register TRILUTION LC:

1. Start TRILUTION LC and log in as **Username Administrator** with the appropriate password.
2. On the **Liquid Chromatography** menu, select **Utilities**.
3. On the **Utilities** menu, select **Registration**.

Figure 14
Liquid Chromatography Menu

Figure 15
Utilities Menu

4. The registration process is explained on the left side of the **TRILUTION LC Registration** window. Review the information.

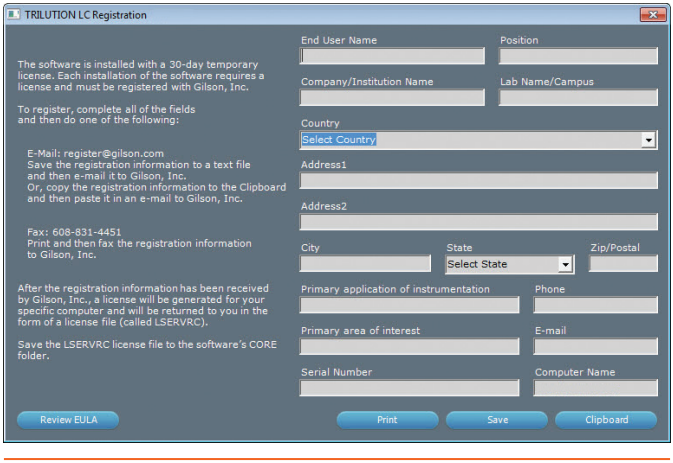

Figure 16
TRILUTION LC Registration Window

5. Complete all fields. Refer to supplied registration card or contact your local Gilson representative for the serial number.
6. Optionally, select **Review EULA** to review the **End User License Agreement**. Select **OK** to return to the **Registration** window.
7. After all fields have been completed, do one of the following:
   - **Print** Select **Print** to print the registration information. Use this option if you want to fax your registration information to Gilson.
   - **Save** Select **Save** to save the registration information to a text file. It is recommended that you use this option if you want to e-mail your registration information to Gilson. The default file name is GILSONREGINFO.TXT and can be saved anywhere you choose.
   - **Clipboard** Select **Clipboard** to copy the registration information to the clipboard. You will then need to paste the information into another file or an e-mail.
8. Send the registration information generated in step 7 to Gilson. There are two registration options available.
   - **E-mail** E-mail the registration information to Gilson. The e-mail address is **register@gilson.com**.
   - **Fax** Fax the registration information to Gilson. The fax number is (1) 608-831-4451.
9. After your registration information has been received by Gilson, a license will be generated for your specific PC and returned to you in the form of a license file (called LSERVRC or LSERVRC.TXT).
   To update from a temporary to a permanent license, save the LSERVRC file from the e-mail to the TRILUTION LC folder.
   The default path on a Windows® 10 system is: C:\PROGRAM FILES (x86)\GILSON\TRILUTION LC 4.0\CORE.

NOTE **After installation/registration, it is recommended to disconnect from the internet. Because the PC is your system controller, any automatic updates may interfere with your running system.**

TRILUTION LC Backup Utility

The TRILUTION LC Backup Utility, installed with TRILUTION LC, is used to create backup copies of the database and associated results, which can be restored, if desired.

A clean TRILUTION LC database backup is installed with the software. Run the TRILUTION LC Backup Utility to create additional database backups as desired.

NOTE **The clean database backup (TRILUTION LC Clean Database.lcbackup) is located at C:\ProgramData\Gilson\TRILUTION LC 4.0\Backups.**

To start the TRILUTION LC Backup Utility click the **Start** button and then select **Gilson Applications** > **TRILUTION LC Backup Utility**.

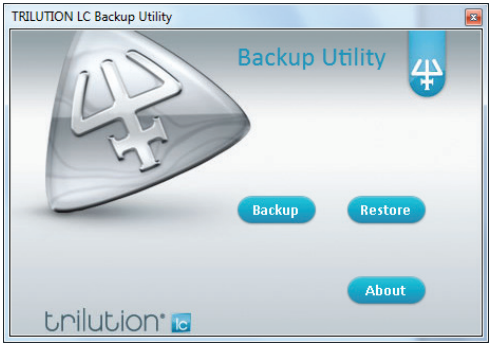

Figure 17
TRILUTION LC Backup Utility Window

Create Backup

1. Close TRILUTION LC and any other programs that may be communicating with the database (GEARS, Property Page Creator, etc.).
2. On the **TRILUTION LC Backup Utility** window, select **Backup**.
3. On the **System Backup Information** window, type a **Name** and a **Description**. Select **Save**.

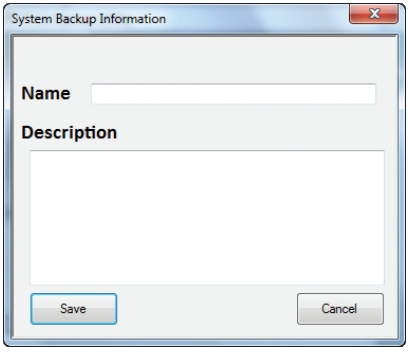

Figure 18
System Backup Information Screen

4. On the **Save Backup File** window, review the folder and then select **Save**.
   The backup file is saved in the specified folder with a .LCBACKUP extension. Associated results are zipped and saved in a folder with the database backup name in the specified folder.

Restore Backup

1. Close TRILUTION LC and any other programs that may be communicating with the database (GEARS, Property Page Creator, etc.).
2. On the **TRILUTION LC Backup Utility** window, select **Restore**.
3. Before restoring a database, an automatic database backup will be created. Select whether or not to auto back up results when backing up the database. If the automatic database backup will later be restored, auto backup of results is necessary.

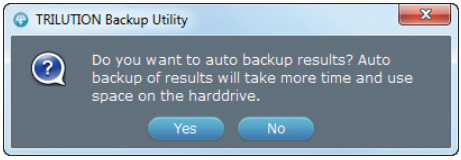

Figure 19
Prompt to Auto Back Up Results

4. On the **Restore Backup File** window, select the backup file (.LCBACKUP) to restore and then select **Open**.
   The selected database is restored, replacing the existing database.

Installation Qualification

Complete the TRILUTION LC Installation Qualification supplied on the Gilson Software USB.

Gilson Server Settings

The COM port and baud rate for GSIOC communication can be set through GSIOC Server Settings.

To change the COM port or baud rate:

1. Right-click on the **Server** icon in the task bar and then select **Settings** from the menu.

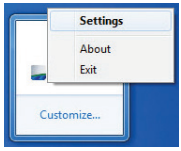

Figure 20
Server in Task Bar

> **NOTE** **Settings cannot be changed if the server is being used by a Gilson program (for example, the GSIOC Utility).**

2. From the **Port** drop-down, select the serial communications (COM) port on the PC to which the Gilson interface instrument is connected.
3. From the **Baud** drop-down, select **19200** or **9600** to set the baud. The baud is the rate of data transmission between the PC and the Gilson instrument.
4. If the check box **Ignore Port Not Found** is not selected and the system does not have a serial port (RS232 port), a message will be displayed stating that a COM port could not be found. Gilson applications are blocked while this message box is open. By default, the **Ignore Port Not Found** check box is selected.
5. Select **OK** to save the changes.

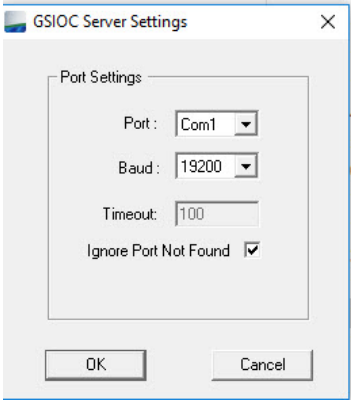

Figure 21
Port and Baud Settings

Network Settings

Changing Network Interface Profile

For communication to occur, the network interface should be set to Private (as opposed to Public). Windows 10 usually prompts selection of either Public or Private when the Ethernet cord is plugged into the computer. This setting can be verified or modified by following the steps below.

1. Select the **Network** icon on the task bar to display the **Network** menu.

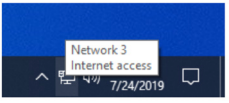

Figure 22
Network Icon

2. Select **Network & Internet Settings**.

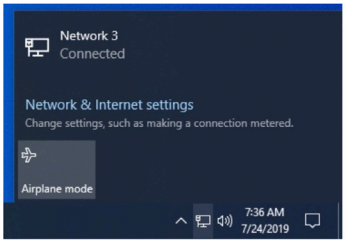

Figure 23
Network Menu

3. Select **Ethernet** from the left side panel.

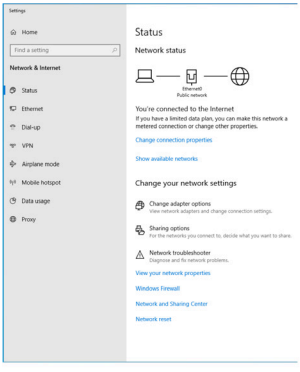

Figure 24
Network & Internet Settings

4. Select the Ethernet interface. Make sure to select the network interface that is also being used by GEARS.

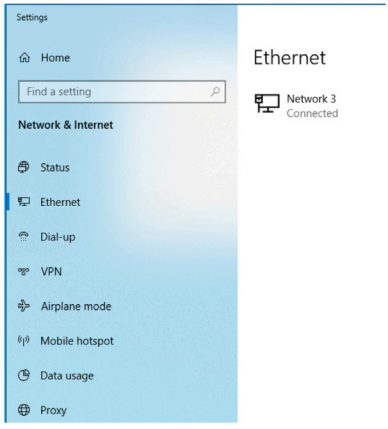

Figure 25
Network & Internet Settings – Select Interface

5. Verify the network interface profile is set to **Private**. If it is set to **Public**, select **Private** to reset the network profile.

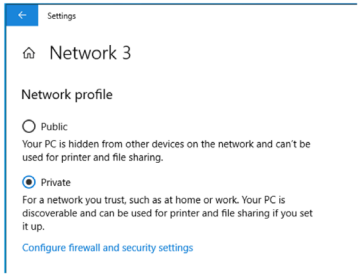

Figure 26
Network Profile Setting

Changing Network Adapter Priority

The communication between Gilson Ethernet instruments and TRILUTION LC depends on Ethernet TCP/IP communications working efficiently. The network interface priority should be set to define the primary connection. This setting can be verified or modified by following the steps below.

1. Verify the network interface used by GEARS by right-clicking on the GEARS icon in the system tray and then selecting **Set Network Interface**. The network interface in use is shown in red text.

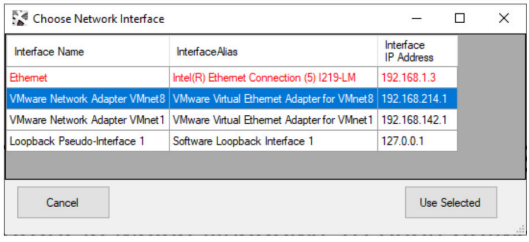

Figure 27
GEARS Network Interface

2. Unless changes are needed to the GEARS network interface, select **Cancel**.
3. Select the **Network** icon on the task bar to display the **Network** menu.

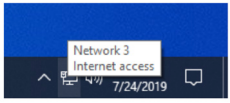

Figure 28
Network Icon

4. Select **Network & Internet Settings**.

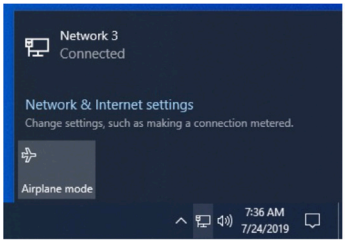

Figure 29
Network Menu

5. Select **Status** from the left side panel.

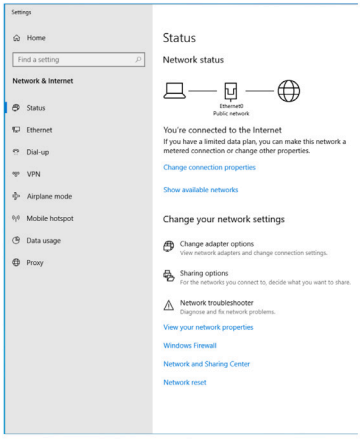

Figure 30
Network & Internet Settings

6. Select **Change adapter options**.
7. Right-click on the network adapter to prioritize (network interface selected as the GEARS network interface) and then select **Properties**.

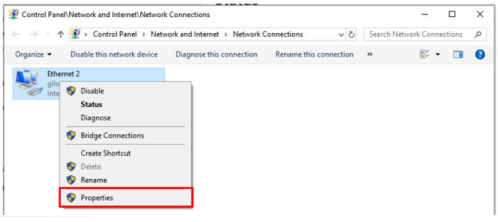

Figure 31
Network Connections

8. Select **Internet Protocol Version 4 (TCP/IPv4)** and then select **Properties**.

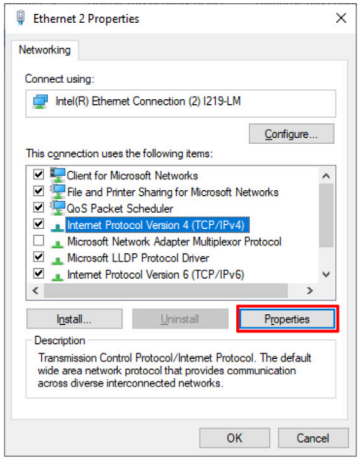

Figure 32
Ethernet Properties

9. On the **General** tab, select **Advanced...**

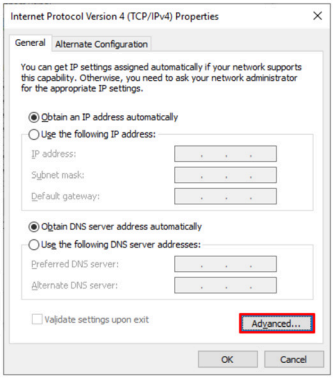

Figure 33
Internet Protocol Version 4 (TCP/IPv4) Properties

10. Uncheck the **Automatic metric** option and then assign a priority value for the adapter in the **Interface metric** field. A lower value increases the priority. Usually a value of 1 is appropriate.

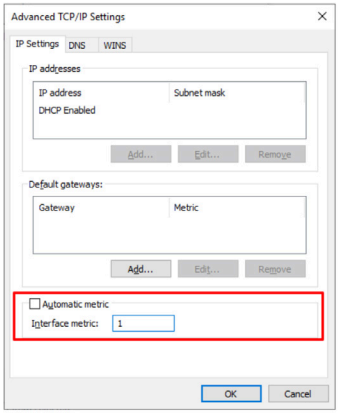

Figure 34
Advanced TCP/IP Settings

11. Select **OK** on the **Advanced TCP/IP Settings** screen, the **Internet Protocol Version 4 (TCP/IPv4) Properties** screen, and the **Ethernet Properties** screen.

Install the Loopback Adapter

When the network interface is not stable, a loopback adapter can be used to communicate with GEARS devices. The Microsoft KM-TEST Loopback Adapter is not installed by default, but can be installed by following the steps below.

1. Open **Control Panel** on the PC. Use the search function to locate it, if necessary.
2. Select **Hardware and Sound**.

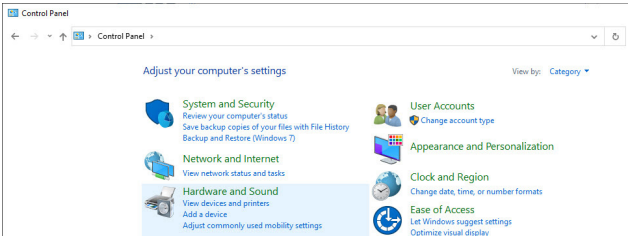

Figure 35
Control Panel | Hardware and Sound

3. From **Control Panel**, select **Device Manager**.

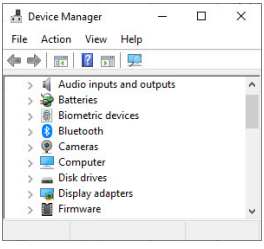

Figure 36
Device Manager

4. From **Device Manager**, select **Action** | **Add legacy hardware.**

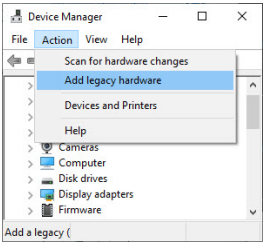

Figure 37
Add legacy hardware

5. Select **Next**.
6. Select **Install the hardware that I manually select from a list** and then select **Next.**

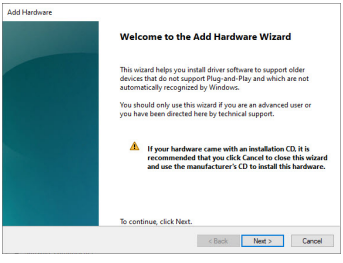

Figure 38
Add Hardware Wizard

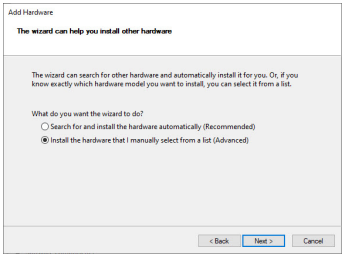

Figure 39
Add Hardware Wizard (continued)

7. Select **Network adapters** and then select **Next**.

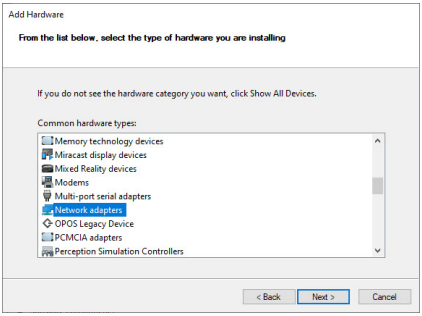

Figure 40
Add Hardware Wizard (continued)

8. Select **Microsoft** as the manufacturer, select **Microsoft KM-TEST Loopback Adapter** and then select **Next**.

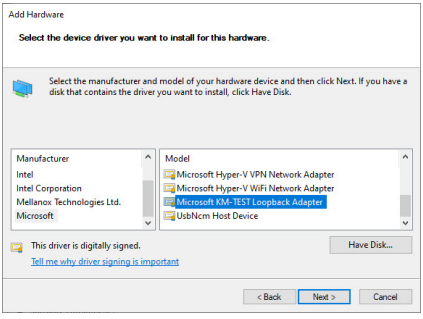

Figure 41
Add Hardware Wizard (continued)

9. Select **Next**.

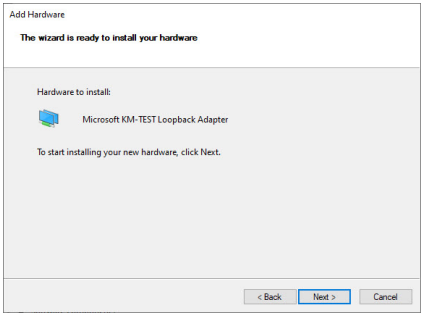

Figure 42
Add Hardware Wizard (continued)

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